

APPENDIX B

LABORATORY REPORTS



THE OHIO STATE UNIVERSITY

COLLEGE OF FOOD, AGRICULTURE, AND
ENVIRONMENTAL SCIENCES

SWEL – Soil Water Environmental Lab

Soil Amendment Technology Evaluation Study

Phase II: Treatment Testing

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FACILITY

The Ohio State University (OSU) Soil Water Environmental Laboratory is located at 2021 Coffey Rd., Columbus OH, 43210 in the School of Environment and Natural Resources. The facility exists to meet the needs of research grants, individuals, companies, state and federal agencies in regard to physical and chemical analysis of soil, water, plant, and other environmental samples. Professor Nick Basta, Director

SCOPE OF WORK

As part of Phase II of the Soil Amendment Technology Evaluation Study (SATES), OSU performed analysis required to characterize soils and amendments for baseline and Time Points 1-3 (T1-T3), which includes controls and treatments, according to Table 6-2 of the Phase II Work Plan (Ramboll Environ, 2019).

METHODS

Treatments were created, samples collected, and processed according to the Phase II Work Plan (Ramboll Environ, 2019).

Time Points 1-3 Sample Analysis

Samples were analyzed for pH according to Thomas (1996), electrical conductivity/salinity according to Rhoades (1996) which is consistent with APHA method 2510. Baseline samples (<2mm size fraction) and amendments were analyzed for total elemental (TAL metals except Hg) content by acid digestion using USEPA Method 3051A (USEPA, 2007a) followed by USEPA Method 6010C (USEPA, 2007b). Additionally, baseline samples and T1-T3 were analyzed for total arsenic and lead content using the <150µm size fraction by acid digestion using USEPA Method 3051A (USEPA, 2007a) followed by USEPA Method 6010C (USEPA, 2007b). Total carbon and nitrogen was conducted on baseline and T1-T3 according to Neslon and Sommers (1996), and total nitrogen according to Bremner (1996). Bioaccessible arsenic and lead was conducted on the <150µm size fraction for baseline and T1-T3 according USEPA Method 9200 (2008) at pH 1.5 as well as at pH 2.5 for followed by USEPA Method 6010C (USEPA, 2007b). Mehlich 3 extractable phosphorus and lead was conducted on the <2mm soil size fraction for baseline and T1-T3 (Mehlich, 1984) by USEPA Method 6010C (USEPA, 2007b). Potentially leachable TAL metals (except Hg) was conducted on the <2mm soil size fraction for baseline and T1-T3 according by SPLP according to USEPA Method 1312 (USEPA, 2007c) followed by USEPA Method 6010C (USEPA, 2007b). Mineralizable Nitrogen was conducted on the <2mm soil size fraction for baseline and T1-T3 according to Waring and Bremner (1964). Total Organic Carbon was conducted on the <2mm soil size fraction for baseline and T1-T3 according to Heanes 1984). Soil moisture holding capacity was determined on bulk baseline and treatments according to Cassel and Nielsen (1986). Adjustment of soil moisture was conducted on bulk treatments and controls by direct gravimetric measurement.

QUALITY CONTROL

Quality Control Measures

Control Soils: A certified reference material or laboratory reference material that goes through the same extraction/preparation procedure as the samples. The analyte composition of the laboratory control sample is known included in each sample preparation batch.

Matrix Spike: A duplicate sample is spiked with a known analyte concentration prior to extraction and run through the complete procedure in order to provide information about the effect of the sample matrix on the measurement methodology.

Reagent Blank: The Reagent Blank is a sample that contains only the reagents used in the extraction procedure. The preparation blank is processed through the same preparation procedures as the samples and therefore gives an indication of any contamination picked up during the sample preparation process.

Duplicate sample: A duplicate of one sample per batch is processed through the same preparation procedures as the samples to determine reproducibility within each batch.

Reporting Limit: Reporting limit (RL) is set at the lowest concentration in a calibration curve with an independently calculated accuracy of +/- 15%.

Method Detection Limit: Method detection limits (MDL) are calculated for specific methods and consequent conditions of that method developed for analysis on ICP. The method detection limit is determined as three times the standard deviation of the signal of 10 blanks solutions.

Quality Control Limits and Flags

Control Soils

- Recovery: +/- 20% or within prediction interval of certified value
- Flag: crm
- Frequency: 1/batch

Matrix Spike

- Recovery: +/- 25%
- Flag: spk
- Frequency: 1/batch

Reagent Blank

- Method blank <RL or <10X sample concentration
- Flag: blk
- Frequency: 1/batch

Duplicate Sample

- Duplicate relative percent difference +/- 20%
- Flag: dup
- Frequency: 1/batch

Reporting Limit

- Analyte concentration > RL
- Flag: RL
- Frequency: Every Sample

Method Detection Limit

- Analyte concentration >MDL
- Flag: MDL
- Frequency: Every Sample

Between MDL and RL

- If an analyte concentration is between >MDL and <RL, a flag will be assigned to denote this occurrence
- Flag: rl
- Frequency: Every Sample

Hold Time

- Hold times were established in Phase I Work Plan (Ramboll Environ, 2017). The only analysis under this scope of work that has USEPA Contract Laboratory Program (CLP) designated hold times is for TAL metals (USEPA, 2014). The hold times in the Phase I work plan are more conservative than the 180 days designated for metal analysis under the USEPA CLP. As a result, while hold times may be exceeded for some analysis under the current statement of work, the results are valid and in no way impact the *Soil Amendment Technology Evaluation Study* data quality objectives.
- Flag: ht

SAMPLE RESULTS

Table 1. Summary statistics for Timepoint 1 bioaccessible arsenic and lead (pH 1.5 and pH 2.5) in mg/kg for each treatment/rate/application method combination

Timepoint 1 Treatment x Rate x Application Method	Bioaccess1.5pH			Bioaccess1.5pH			Bioaccess2.5pH			Bioaccess2.5pH		
	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max
	Soil <150um			Soil <150um			Soil <150um			Soil <150um		
	As (mg/kg)			Pb (mg/kg)			As (mg/kg)			Pb (mg/kg)		
Baseline_baseline_NA	21	26	28	988	1063	1103	7	8	10	448	461	487
Biochar_high_I	21	22	23	1122	1129	1137	7	7	7	447	464	476
Biochar_high_S	16	18	19	1036	1064	1088	7	7	7	441	452	457
Biochar_low_I	31	32	32	1112	1140	1166	7	7	8	440	447	453
Biochar_low_S	18	19	19	954	975	986	7	8	9	457	490	523
Biochar and compost_high_I	19	20	21	872	965	1013	7	8	8	374	424	443
Biochar and compost_high_S	19	20	21	1016	1035	1074	5	6	7	404	440	466
Biochar and compost_low_I	20	22	23	988	1017	1079	7	8	8	430	438	446
Biochar and compost_low_S	17	19	20	957	981	1011	9	10	11	519	539	560
Biosolid_high_I	23	24	25	874	926	975	10	10	11	385	402	429
Biosolid_high_S	23	24	25	1006	1025	1051	11	12	13	498	529	546
Biosolid_low_I	31	32	34	1073	1099	1147	9	9	9	446	450	454
Biosolid_low_S	21	23	24	980	1008	1042	9	10	11	425	437	451
Biosolids and wood ash_high_I	25	25	26	964	1027	1067	9	10	10	423	441	478
Biosolids and wood ash_high_S	24	25	26	1080	1103	1131	12	13	14	485	511	527
Biosolids and wood ash_low_I	21	22	23	882	967	1012	8	9	10	481	492	497
Biosolids and wood ash_low_S	19	20	22	948	974	1001	9	11	14	477	484	501

Timepoint 1 Treatment x Rate x Application Method	Bioaccess1.5pH			Bioaccess1.5pH			Bioaccess2.5pH			Bioaccess2.5pH		
	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max
	Soil <150um			Soil <150um			Soil <150um			Soil <150um		
	As (mg/kg)			Pb (mg/kg)			As (mg/kg)			Pb (mg/kg)		
Compost_high_I	20	21	22	976	1034	1082	7	8	8	406	422	438
Compost_high_S	18	19	22	982	1032	1069	7	7	8	440	451	467
Compost_low_I	23	24	26	1001	1026	1039	8	8	8	447	461	467
Compost_low_S	19	20	20	971	979	989	9	10	10	511	519	529
control_none_I	17	18	19	1003	1084	1123	7	7	7	468	493	508
Soluble phosphate_high_I	25	26	27	1034	1061	1089	10	11	12	359	379	396
Soluble phosphate_high_S	22	24	25	993	1046	1086	11	11	12	398	417	433
Soluble phosphate_low_I	32	34	38	1087	1141	1246	9	9	10	432	444	459
Soluble phosphate_low_S	23	24	25	1034	1078	1133	9	10	11	414	432	451
Soluble phosphate and biochar_high_I	27	29	30	1101	1123	1144	11	11	11	346	357	368
Soluble phosphate and biochar_high_S	23	25	27	1019	1080	1163	10	10	11	295	346	413
Soluble phosphate and biochar_low_I	33	35	37	1089	1131	1170	9	10	10	440	453	464
Soluble phosphate and biochar_low_S	21	21	23	993	1006	1028	9	10	11	437	451	465
Soluble phosphate and biosolids_high_I	25	26	27	942	967	1008	10	11	12	312	324	338
Soluble phosphate and biosolids_high_S	25	27	29	1017	1065	1100	12	13	13	390	399	407
Soluble phosphate and biosolids_low_I	21	25	28	910	999	1045	9	9	10	412	431	447
Soluble phosphate and biosolids_low_S	21	22	23	948	963	971	10	11	12	451	468	489
Soluble phosphate and compost_high_I	27	28	30	1010	1024	1041	10	11	12	308	324	331
Soluble phosphate and compost_high_S	23	25	26	1082	1117	1159	9	10	12	354	392	408
Soluble phosphate and compost_low_I	34	36	38	1134	1147	1165	9	10	11	434	455	469
Soluble phosphate and compost_low_S	18	20	21	939	967	986	8	10	11	419	430	444

Timepoint 1	Bioaccess1.5pH			Bioaccess1.5pH			Bioaccess2.5pH			Bioaccess2.5pH		
	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max
	Soil <150um			Soil <150um			Soil <150um			Soil <150um		
Treatment x Rate x Application Method	As (mg/kg)			Pb (mg/kg)			As (mg/kg)			Pb (mg/kg)		
Wood ash_high_I	23	23	24	1035	1135	1188	8	9	9	487	516	535
Wood ash_high_S	19	20	21	999	1057	1114	7	8	9	477	514	557
Wood ash_low_I	31	32	33	1118	1129	1148	8	8	8	461	465	476
Wood ash_low_S	19	19	20	959	986	1000	8	8	9	479	500	518
Wood ash and biochar_high_I	24	25	26	1031	1083	1141	9	9	9	489	492	498
Wood ash and biochar_high_S	20	20	21	1019	1041	1077	5	6	7	427	456	479
Wood ash and biochar_low_I	21	22	24	1029	1054	1075	8	8	9	466	492	507
Wood ash and biochar_low_S	18	19	20	974	991	1017	7	8	9	465	474	485
Wood ash and compost_high_I	21	22	22	932	975	1029	9	9	10	417	443	459
Wood ash and compost_high_S	20	21	22	1078	1092	1112	5	5	6	461	464	471
Wood ash and compost_low_I	21	22	24	959	1030	1055	8	8	9	457	465	478
Wood ash and compost_low_S	18	19	19	949	980	1015	10	10	11	533	551	570

Table 2. Summary statistics for Timepoint 1 percent bioaccessible arsenic and lead (pH 1.5 and pH 2.5) for each treatment/rate/application method combination

	Bioaccess1.5pH			Bioaccess1.5pH			Bioaccess2.5pH			Bioaccess2.5pH		
	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max
Timepoint 1	Soil <150um			Soil <150um			Soil <150um			Soil <150um		
Treatment x Rate x Application Method	As (%)			Pb (%)			As (%)			Pb (%)		
Baseline_baseline_NA	19	24	26	69	75	79	7	8	9	32	33	35
Biochar_high_I	23	24	25	85	92	97	7	8	8	34	38	41
Biochar_high_S	17	18	18	69	72	74	7	7	7	30	31	31
Biochar_low_I	30	31	32	80	81	83	7	7	8	31	32	33
Biochar_low_S	17	18	19	65	65	66	6	8	9	30	33	36
Biochar and compost_high_I	20	22	24	63	66	69	8	8	10	27	29	30
Biochar and compost_high_S	18	19	21	69	70	72	5	6	7	29	30	31
Biochar and compost_low_I	21	24	28	72	76	81	7	9	10	32	33	34
Biochar and compost_low_S	16	18	20	64	65	65	9	9	11	35	36	37
Biosolid_high_I	23	24	25	54	62	66	10	10	11	24	27	29
Biosolid_high_S	23	24	25	67	68	69	11	12	13	34	35	37
Biosolid_low_I	31	32	33	76	79	84	8	9	9	31	32	33
Biosolid_low_S	21	23	24	67	68	69	9	10	12	28	29	31
Biosolids and wood ash_high_I	28	29	30	73	78	81	10	11	12	32	33	36
Biosolids and wood ash_high_S	26	27	28	70	74	76	12	13	15	31	34	35
Biosolids and wood ash_low_I	22	24	26	66	72	77	9	10	10	34	37	38
Biosolids and wood ash_low_S	18	20	23	65	66	67	9	11	14	32	33	33
Compost_high_I	18	20	21	64	66	68	6	7	8	26	27	28
Compost_high_S	18	19	21	68	70	71	7	7	8	29	30	31
Compost_low_I	23	24	25	71	73	75	8	8	8	32	33	34
Compost_low_S	18	19	19	64	65	65	9	9	10	34	34	35
control_none_I	18	19	19	70	72	75	7	7	7	32	33	34

	Bioaccess1.5pH			Bioaccess1.5pH			Bioaccess2.5pH			Bioaccess2.5pH		
	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max
Timepoint 1	Soil <150um			Soil <150um			Soil <150um			Soil <150um		
Treatment x Rate x Application Method	As (%)			Pb (%)			As (%)			Pb (%)		
Soluble phosphate_high_I	26	28	29	70	71	72	11	12	12	23	25	27
Soluble phosphate_high_S	23	24	26	65	69	72	11	11	12	27	27	28
Soluble phosphate_low_I	32	34	37	76	80	84	9	9	10	30	31	32
Soluble phosphate_low_S	22	23	24	69	71	74	8	10	10	28	28	29
Soluble phosphate and biochar_high_I	26	29	30	64	72	75	10	11	12	19	23	25
Soluble phosphate and biochar_high_S	25	26	26	70	71	72	9	10	11	20	23	26
Soluble phosphate and biochar_low_I	35	35	36	77	81	85	9	10	10	32	32	33
Soluble phosphate and biochar_low_S	19	21	23	66	68	69	9	9	11	29	30	31
Soluble phosphate and biosolids_high_I	24	28	32	66	71	77	10	12	14	22	24	26
Soluble phosphate and biosolids_high_S	27	28	29	68	71	73	13	13	13	26	27	28
Soluble phosphate and biosolids_low_I	24	27	29	72	75	79	9	10	11	30	33	35
Soluble phosphate and biosolids_low_S	20	21	22	62	65	66	10	11	12	30	31	33
Soluble phosphate and compost_high_I	28	30	33	69	73	75	11	12	13	22	23	24
Soluble phosphate and compost_high_S	25	26	27	69	73	77	9	11	12	23	26	27
Soluble phosphate and compost_low_I	37	39	41	86	88	93	10	11	11	32	35	38
Soluble phosphate and compost_low_S	19	20	21	65	66	68	9	10	11	28	29	31

	Bioaccess1.5pH			Bioaccess1.5pH			Bioaccess2.5pH			Bioaccess2.5pH		
	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max
Timepoint 1	Soil <150um			Soil <150um			Soil <150um			Soil <150um		
Treatment x Rate x Application Method	As (%)			Pb (%)			As (%)			Pb (%)		
Wood ash_high_I	23	24	24	73	79	89	8	9	10	32	36	40
Wood ash_high_S	19	20	21	68	73	76	7	8	9	32	35	39
Wood ash_low_I	30	31	33	78	80	82	8	8	8	32	33	34
Wood ash_low_S	18	19	19	65	66	66	8	8	9	33	33	34
Wood ash and biochar_high_I	24	25	26	74	76	78	9	9	9	34	35	37
Wood ash and biochar_high_S	20	21	22	69	73	75	5	6	7	30	32	34
Wood ash and biochar_low_I	22	23	23	74	75	76	8	8	9	34	35	36
Wood ash and biochar_low_S	16	18	19	64	66	68	7	8	9	31	32	32
Wood ash and compost_high_I	22	23	24	67	69	72	9	10	11	31	31	32
Wood ash and compost_high_S	19	21	21	71	73	75	5	5	6	30	31	32
Wood ash and compost_low_I	22	23	23	73	76	80	8	8	9	32	34	37
Wood ash and compost_low_S	17	18	20	65	66	68	10	10	11	36	37	38

Table 3. Summary statistics for Timepoint 2 bioaccessible arsenic and lead (pH 1.5 and pH 2.5) in mg/kg for each treatment/rate/application method combination

	Bioaccess1.5pH			Bioaccess1.5pH			Bioaccess2.5pH			Bioaccess2.5pH		
	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max
Timepoint 2	Soil <150um			Soil <150um			Soil <150um			Soil <150um		
Treatment x Rate x Application Method	As (mg/kg)			Pb (mg/kg)			As (mg/kg)			Pb (mg/kg)		
Biochar_high_I	17	18	18	1060	1073	1080	8	8	9	503	506	511
Biochar_high_S	21	22	23	911	946	982	8	9	11	424	481	542
Biochar_low_I	20	21	22	1033	1051	1063	8	8	8	479	495	509
Biochar_low_S	21	22	23	1033	1047	1057	9	9	10	438	455	471
Biochar and compost_high_I	20	21	22	996	1005	1018	9	9	10	446	459	476
Biochar and compost_high_S	24	25	26	932	948	955	9	9	10	495	506	514
Biochar and compost_low_I	19	20	21	972	992	1025	8	8	9	480	494	508
Biochar and compost_low_S	21	22	22	910	925	944	10	11	13	447	469	497
Biosolid_high_I	24	25	27	834	858	910	11	11	12	364	391	412
Biosolid_high_S	28	30	33	962	1014	1071	15	16	17	515	520	525
Biosolid_low_I	23	23	24	974	1026	1063	11	11	11	460	483	496
Biosolid_low_S	22	24	25	945	970	1013	11	12	13	462	473	486
Biosolids and wood ash_high_I	22	23	24	887	914	943	10	11	11	403	411	423
Biosolids and wood ash_high_S	31	31	32	1050	1063	1078	14	16	20	544	565	588
Biosolids and wood ash_low_I	22	23	23	950	997	1055	8	10	11	479	502	534
Biosolids and wood ash_low_S	24	27	30	940	974	994	11	12	14	463	495	527
Compost_high_I	21	21	21	872	920	971	8	9	10	475	498	516
Compost_high_S	22	23	24	975	987	1015	8	9	9	437	448	456
Compost_low_I	19	20	21	985	1013	1067	8	9	9	500	519	545
Compost_low_S	21	22	23	943	996	1088	9	9	10	435	452	467
control_none_I	21	22	24	1035	1105	1157	7	8	8	466	492	505
Soluble phosphate_high_I	27	28	28	1053	1103	1128	11	12	12	400	429	457

	Bioaccess1.5pH			Bioaccess1.5pH			Bioaccess2.5pH			Bioaccess2.5pH		
	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max
Timepoint 2	Soil <150um			Soil <150um			Soil <150um			Soil <150um		
Treatment x Rate x Application Method	As (mg/kg)			Pb (mg/kg)			As (mg/kg)			Pb (mg/kg)		
Soluble phosphate_high_S	26	27	27	947	972	1001	12	13	13	313	334	360
Soluble phosphate_low_I	24	25	26	1071	1108	1169	12	12	13	492	519	565
Soluble phosphate_low_S	20	22	23	945	973	990	9	10	11	411	436	467
Soluble phosphate and biochar_high_I	27	29	30	1125	1140	1169	11	12	12	400	404	408
Soluble phosphate and biochar_high_S	27	29	30	984	1015	1051	11	12	14	387	403	417
Soluble phosphate and biochar_low_I	21	23	23	1006	1027	1047	11	11	11	538	546	554
Soluble phosphate and biochar_low_S	23	25	26	889	957	998	9	10	11	398	430	450
Soluble phosphate and biosolids_high_I	26	26	27	805	847	903	11	13	15	321	335	354
Soluble phosphate and biosolids_high_S	29	33	35	946	980	1008	14	17	19	387	431	475
Soluble phosphate and biosolids_low_I	22	23	24	948	974	1019	11	11	12	436	455	476
Soluble phosphate and biosolids_low_S	26	28	32	954	969	988	12	14	17	435	444	453
Soluble phosphate and compost_high_I	29	30	32	1051	1097	1138	12	13	14	345	363	379
Soluble phosphate and compost_high_S	27	29	30	1024	1032	1039	11	12	13	404	425	457
Soluble phosphate and compost_low_I	23	24	25	1012	1037	1059	11	11	12	521	534	553
Soluble phosphate and compost_low_S	25	26	27	940	968	984	11	11	12	443	447	453
Wood ash_high_I	19	20	21	1076	1086	1095	9	10	11	530	545	556
Wood ash_high_S	21	22	24	938	946	965	10	10	10	501	519	545
Wood ash_low_I	20	21	22	1046	1072	1092	9	9	10	515	556	584
Wood ash_low_S	19	21	24	991	1036	1143	8	9	9	454	470	481
Wood ash and biochar_high_I	23	23	24	1069	1086	1124	10	10	10	525	542	571
Wood ash and biochar_high_S	26	27	28	1019	1037	1078	10	10	11	523	538	551

	Bioaccess1.5pH			Bioaccess1.5pH			Bioaccess2.5pH			Bioaccess2.5pH		
	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max
Timepoint 2	Soil <150um			Soil <150um			Soil <150um			Soil <150um		
Treatment x Rate x Application Method	As (mg/kg)			Pb (mg/kg)			As (mg/kg)			Pb (mg/kg)		
Wood ash and biochar_low_I	22	23	23	1022	1060	1124	8	9	9	512	541	555
Wood ash and biochar_low_S	22	23	24	933	949	960	9	9	10	437	450	458
Wood ash and compost_high_I	22	23	24	978	1005	1034	11	11	11	461	488	503
Wood ash and compost_high_S	24	25	28	947	980	1031	9	10	11	511	518	530
Wood ash and compost_low_I	20	21	22	1020	1058	1093	8	9	9	492	500	514
Wood ash and compost_low_S	23	24	25	956	969	981	9	9	10	454	461	467

Table 4. Summary statistics for Timepoint 2 percent bioaccessible arsenic and lead (pH 1.5 and pH 2.5) for each treatment/rate/application method combination

	Bioaccess1.5pH			Bioaccess1.5pH			Bioaccess2.5pH			Bioaccess2.5pH		
	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max
Timepoint 2	Soil <150um			Soil <150um			Soil <150um			Soil <150um		
Treatment x Rate x Application Method	As (%)			Pb (%)			As (%)			Pb (%)		
Biochar_high_I	19	19	20	81	88	93	8	9	10	38	41	44
Biochar_high_S	21	22	23	60	64	67	9	10	11	29	33	37
Biochar_low_I	20	21	22	73	75	77	8	8	8	35	35	36
Biochar_low_S	20	22	23	70	70	71	8	9	10	30	31	31
Biochar and compost_high_I	21	23	26	67	69	72	9	10	10	31	32	32
Biochar and compost_high_S	23	24	25	63	64	66	9	9	10	33	34	36
Biochar and compost_low_I	20	23	26	72	74	77	8	9	10	36	37	39
Biochar and compost_low_S	20	21	21	59	61	63	9	10	13	30	31	33
Biosolid_high_I	23	25	27	56	57	59	11	11	12	22	26	29
Biosolid_high_S	28	30	32	65	68	70	15	16	16	34	35	35
Biosolid_low_I	22	23	24	72	74	76	10	11	11	34	35	36
Biosolid_low_S	23	24	25	62	65	69	11	12	12	31	32	33
Biosolids and wood ash_high_I	25	27	28	67	69	72	12	12	13	30	31	32
Biosolids and wood ash_high_S	33	33	34	68	71	73	15	17	21	36	38	38
Biosolids and wood ash_low_I	24	25	26	72	74	77	9	10	12	37	37	38
Biosolids and wood ash_low_S	25	26	30	64	66	67	11	12	14	31	33	35
Compost_high_I	18	20	21	56	59	64	8	9	10	29	32	34
Compost_high_S	22	23	24	64	67	68	8	9	9	30	30	31
Compost_low_I	19	20	21	68	72	75	8	8	9	35	37	39
Compost_low_S	21	21	22	62	66	73	8	9	9	29	30	31
control_none_I	21	23	24	72	73	74	7	8	8	32	33	34
Soluble phosphate_high_I	29	29	30	69	74	78	12	13	13	26	29	30

	Bioaccess1.5pH			Bioaccess1.5pH			Bioaccess2.5pH			Bioaccess2.5pH		
	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max
Timepoint 2	Soil <150um			Soil <150um			Soil <150um			Soil <150um		
Treatment x Rate x Application Method	As (%)			Pb (%)			As (%)			Pb (%)		
Soluble phosphate_high_S	26	27	28	62	64	69	13	13	13	21	22	25
Soluble phosphate_low_I	24	25	25	74	78	83	12	12	13	34	37	42
Soluble phosphate_low_S	21	22	23	62	64	66	9	10	11	27	29	31
Soluble phosphate and biochar_high_I	25	28	31	63	73	77	10	12	12	22	26	27
Soluble phosphate and biochar_high_S	26	29	31	61	66	72	10	12	14	24	26	28
Soluble phosphate and biochar_low_I	23	23	23	71	73	76	11	11	12	38	39	39
Soluble phosphate and biochar_low_S	22	24	27	59	64	68	8	10	10	26	29	31
Soluble phosphate and biosolids_high_I	24	28	32	56	62	68	11	14	17	23	25	27
Soluble phosphate and biosolids_high_S	30	34	37	65	66	66	15	17	20	26	29	32
Soluble phosphate and biosolids_low_I	24	25	27	70	74	80	11	12	12	33	34	37
Soluble phosphate and biosolids_low_S	25	28	31	63	65	67	12	14	16	29	30	31
Soluble phosphate and compost_high_I	30	33	35	72	78	82	13	14	15	25	26	28
Soluble phosphate and compost_high_S	28	30	31	66	67	68	12	12	13	27	28	30
Soluble phosphate and compost_low_I	25	26	27	77	80	83	12	12	13	39	41	43
Soluble phosphate and compost_low_S	27	27	27	65	66	68	11	12	12	30	31	31
Wood ash_high_I	19	20	22	71	75	82	9	10	11	35	38	42
Wood ash_high_S	21	23	24	64	65	66	9	10	11	34	36	36
Wood ash_low_I	19	20	22	75	76	77	8	9	10	37	40	42
Wood ash_low_S	18	20	23	65	69	77	8	8	9	30	31	33
Wood ash and biochar_high_I	23	23	24	74	77	79	10	10	10	36	38	41
Wood ash and biochar_high_S	25	28	30	69	72	76	9	11	12	36	38	40
Wood ash and biochar_low_I	22	23	23	72	75	79	8	9	9	37	38	39
Wood ash and biochar_low_S	21	21	22	61	63	67	8	9	10	29	30	32

	Bioaccess1.5pH			Bioaccess1.5pH			Bioaccess2.5pH			Bioaccess2.5pH		
	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max
Timepoint 2	Soil <150um			Soil <150um			Soil <150um			Soil <150um		
Treatment x Rate x Application Method	As (%)			Pb (%)			As (%)			Pb (%)		
Wood ash and compost_high_I	23	25	27	69	72	73	11	12	13	34	35	36
Wood ash and compost_high_S	24	25	27	63	65	67	9	10	12	33	35	36
Wood ash and compost_low_I	21	22	23	72	78	87	8	9	9	35	37	39
Wood ash and compost_low_S	22	24	25	62	66	69	8	9	9	30	31	33

Table 5. Summary statistics for Timepoint 3 bioaccessible arsenic and lead (pH 1.5 and pH 2.5) in mg/kg for each treatment/rate/application method combination

	Bioaccess1.5pH			Bioaccess1.5pH			Bioaccess2.5pH			Bioaccess2.5pH		
	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max
Timepoint 3	Soil <150um			Soil <150um			Soil <150um			Soil <150um		
Treatment x Rate x Application Method	As (mg/kg)			Pb (mg/kg)			As (mg/kg)			Pb (mg/kg)		
Biochar_high_I	19	20	20	966	983	995	7	7	7	404	411	416
Biochar_high_S	18	20	21	998	1059	1172	8	8	9	416	431	447
Biochar_low_I	19	20	22	1025	1035	1045	7	8	9	432	442	453
Biochar_low_S	15	15	16	844	883	944	7	8	8	403	419	436
Biochar and compost_high_I	17	19	20	924	940	984	7	8	11	363	374	396
Biochar and compost_high_S	17	18	19	964	999	1020	8	8	9	441	453	466
Biochar and compost_low_I	18	18	19	948	959	978	7	7	8	397	409	423
Biochar and compost_low_S	16	16	17	953	980	999	7	8	8	450	461	475
Biosolid_high_I	20	22	24	717	732	745	10	11	13	331	337	351
Biosolid_high_S	25	27	29	1031	1064	1108	15	18	24	468	483	506
Biosolid_low_I	20	22	23	893	939	977	9	9	9	382	390	395
Biosolid_low_S	19	21	22	967	999	1023	9	10	12	430	442	465
Biosolids and wood ash_high_I	18	20	21	654	678	701	9	9	10	246	261	275
Biosolids and wood ash_high_S	24	26	28	1024	1048	1072	13	15	16	508	514	522
Biosolids and wood ash_low_I	20	21	22	890	933	973	8	9	9	374	390	404
Biosolids and wood ash_low_S	18	20	21	882	922	967	9	10	11	402	433	452
Compost_high_I	16	19	21	902	940	1005	8	8	9	386	393	399
Compost_high_S	16	18	20	974	1012	1034	7	7	8	390	418	432
Compost_low_I	21	22	22	999	1045	1073	8	8	8	450	461	471
Compost_low_S	16	18	20	897	962	1001	7	7	8	394	405	414
control_none_I	18	18	20	990	1029	1049	6	7	7	379	400	410
Soluble phosphate_high_I	23	25	27	1022	1048	1092	10	10	11	389	406	421

	Bioaccess1.5pH			Bioaccess1.5pH			Bioaccess2.5pH			Bioaccess2.5pH		
	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max
Timepoint 3	Soil <150um			Soil <150um			Soil <150um			Soil <150um		
Treatment x Rate x Application Method	As (mg/kg)			Pb (mg/kg)			As (mg/kg)			Pb (mg/kg)		
Soluble phosphate_high_S	22	24	25	986	1012	1040	10	11	12	324	340	366
Soluble phosphate_low_I	23	24	24	1008	1031	1078	9	10	10	404	427	447
Soluble phosphate_low_S	18	20	22	901	994	1033	9	9	10	386	403	416
Soluble phosphate and biochar_high_I	26	27	29	1012	1038	1085	9	11	12	298	330	356
Soluble phosphate and biochar_high_S	23	24	26	984	1015	1057	10	11	12	332	354	364
Soluble phosphate and biochar_low_I	23	24	25	1034	1077	1115	9	10	11	433	450	470
Soluble phosphate and biochar_low_S	20	21	21	961	990	1033	9	9	10	384	387	392
Soluble phosphate and biosolids_high_I	22	24	26	725	759	782	10	11	12	189	204	238
Soluble phosphate and biosolids_high_S	28	30	32	1032	1056	1075	16	17	18	423	442	458
Soluble phosphate and biosolids_low_I	23	23	24	935	969	1013	9	11	13	361	397	415
Soluble phosphate and biosolids_low_S	20	21	23	944	985	1019	10	10	11	393	415	432
Soluble phosphate and compost_high_I	25	27	28	950	966	973	10	11	11	279	290	298
Soluble phosphate and compost_high_S	23	23	24	1026	1056	1106	10	10	11	352	360	365
Soluble phosphate and compost_low_I	22	23	25	991	1038	1090	8	10	11	385	426	464
Soluble phosphate and compost_low_S	18	20	22	947	983	1021	8	9	11	380	391	408
Wood ash_high_I	22	23	24	1024	1059	1126	9	10	11	508	514	520
Wood ash_high_S	18	19	21	952	993	1029	8	8	9	410	436	457
Wood ash_low_I	21	22	23	1037	1053	1093	7	8	8	423	456	482
Wood ash_low_S	16	17	19	884	926	989	8	8	8	394	417	434
Wood ash and biochar_high_I	24	25	26	1000	1049	1084	9	10	10	452	470	488
Wood ash and biochar_high_S	17	19	20	964	983	1015	9	10	10	457	469	476

	Bioaccess1.5pH			Bioaccess1.5pH			Bioaccess2.5pH			Bioaccess2.5pH		
	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max
Timepoint 3	Soil <150um			Soil <150um			Soil <150um			Soil <150um		
Treatment x Rate x Application Method	As (mg/kg)			Pb (mg/kg)			As (mg/kg)			Pb (mg/kg)		
Wood ash and biochar_low_I	17	21	24	1017	1064	1102	7	8	8	424	452	492
Wood ash and biochar_low_S	18	19	20	948	984	1019	8	9	9	436	440	445
Wood ash and compost_high_I	24	25	26	883	939	997	10	10	10	406	411	415
Wood ash and compost_high_S	19	19	20	989	1004	1016	8	8	9	454	456	462
Wood ash and compost_low_I	18	20	22	966	1048	1112	7	8	8	392	437	462
Wood ash and compost_low_S	17	17	18	962	986	1004	8	9	9	430	454	464

Table 6. Summary statistics for Timepoint 3 percent bioaccessible arsenic and lead (pH 1.5 and pH 2.5) for each treatment/rate/application method combination

	Bioaccess1.5pH			Bioaccess1.5pH			Bioaccess2.5pH			Bioaccess2.5pH		
	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max
Timepoint 3	Soil <150um			Soil <150um			Soil <150um			Soil <150um		
Treatment x Rate x Application Method	As (%)			Pb (%)			As (%)			Pb (%)		
Biochar_high_I	21	22	23	73	80	86	8	8	8	30	34	36
Biochar_high_S	20	20	21	68	72	81	8	8	9	28	29	30
Biochar_low_I	18	20	22	73	74	75	7	8	8	31	32	32
Biochar_low_S	14	15	15	56	59	64	7	7	8	27	28	29
Biochar and compost_high_I	18	21	23	62	65	67	8	9	12	25	26	27
Biochar and compost_high_S	16	18	19	67	68	69	7	8	8	30	31	31
Biochar and compost_low_I	18	21	23	68	72	75	7	8	9	30	31	31
Biochar and compost_low_S	15	15	16	62	65	67	7	8	8	30	30	31
Biosolid_high_I	20	21	23	46	49	52	10	11	13	21	22	24
Biosolid_high_S	25	26	29	69	71	75	14	17	24	31	32	34
Biosolid_low_I	20	22	23	64	68	71	9	9	9	26	28	29
Biosolid_low_S	20	21	22	63	67	69	9	10	12	28	30	32
Biosolids and wood ash_high_I	22	23	24	50	51	53	11	11	11	19	20	21
Biosolids and wood ash_high_S	26	27	29	68	70	73	14	16	17	33	34	35
Biosolids and wood ash_low_I	22	23	24	67	70	73	9	9	10	29	29	30
Biosolids and wood ash_low_S	18	20	21	59	62	67	9	10	11	27	29	30
Compost_high_I	15	18	21	58	60	62	7	8	9	24	25	26
Compost_high_S	16	18	20	64	69	71	6	7	8	26	28	29
Compost_low_I	21	21	22	69	75	79	8	8	8	32	33	34
Compost_low_S	16	17	19	59	64	67	6	7	8	26	27	27
control_none_I	20	21	22	75	78	80	7	7	8	28	30	31
Soluble phosphate_high_I	25	27	29	65	70	73	10	11	11	25	27	29

	Bioaccess1.5pH			Bioaccess1.5pH			Bioaccess2.5pH			Bioaccess2.5pH		
	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max
Timepoint 3	Soil <150um			Soil <150um			Soil <150um			Soil <150um		
Treatment x Rate x Application Method	As (%)			Pb (%)			As (%)			Pb (%)		
Soluble phosphate_high_S	22	24	25	64	67	70	10	11	12	21	22	24
Soluble phosphate_low_I	23	24	25	68	73	79	9	10	11	28	30	33
Soluble phosphate_low_S	18	20	21	60	65	69	9	9	10	26	27	28
Soluble phosphate and biochar_high_I	26	26	26	67	67	67	12	12	12	22	22	22
Soluble phosphate and biochar_high_I	24	27	30	57	66	73	9	10	11	18	21	24
Soluble phosphate and biochar_high_S	23	25	27	61	66	71	10	11	12	21	23	25
Soluble phosphate and biochar_low_I	23	24	25	75	77	78	9	10	11	31	32	33
Soluble phosphate and biochar_low_S	20	20	21	64	67	72	9	9	9	25	26	27
Soluble phosphate and biosolids_high_I	22	26	31	50	56	61	9	12	15	13	15	16
Soluble phosphate and biosolids_high_S	29	31	32	67	71	74	17	18	18	28	30	31
Soluble phosphate and biosolids_low_I	24	25	27	70	73	80	10	12	13	27	30	32
Soluble phosphate and biosolids_low_S	20	21	23	62	66	68	9	10	11	26	28	29
Soluble phosphate and compost_high_I	28	29	30	65	69	71	11	12	13	19	21	22
Soluble phosphate and compost_high_S	24	24	25	67	69	73	10	11	11	22	24	24
Soluble phosphate and compost_low_I	24	25	27	76	80	88	9	10	12	30	33	34
Soluble phosphate and compost_low_S	19	20	23	65	67	72	8	10	12	25	27	29
Wood ash_high_I	22	24	25	67	73	79	10	10	11	33	36	39
Wood ash_high_S	18	19	21	65	68	72	8	8	9	28	30	32
Wood ash_low_I	20	22	23	73	75	78	7	8	8	30	32	34
Wood ash_low_S	15	16	19	58	62	68	8	8	8	26	28	29
Wood ash and biochar_high_I	23	24	26	72	74	76	9	10	10	32	33	34
Wood ash and biochar_high_S	16	19	21	66	69	71	9	10	11	31	33	35

	Bioaccess1.5pH			Bioaccess1.5pH			Bioaccess2.5pH			Bioaccess2.5pH		
	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max
Timepoint 3	Soil <150um			Soil <150um			Soil <150um			Soil <150um		
Treatment x Rate x Application Method	As (%)			Pb (%)			As (%)			Pb (%)		
Wood ash and biochar_low_I	17	21	23	70	75	78	6	8	9	29	32	35
Wood ash and biochar_low_S	16	18	19	63	66	68	8	8	9	28	29	30
Wood ash and compost_high_I	25	26	28	62	67	72	10	11	12	28	29	30
Wood ash and compost_high_S	18	19	20	64	67	70	8	8	9	29	30	32
Wood ash and compost_low_I	19	21	23	72	77	88	8	8	9	30	32	37
Wood ash and compost_low_S	16	17	17	65	67	71	8	9	9	29	31	33

Table 7. Summary statistics for Timepoint 1 Mehlich-3 phosphorus and lead available to plant tissue for each treatment/rate/application method combination

	Mehlich_3			Mehlich_3		
	Min	Mean	Max	Min	Mean	Max
Timepoint 1	Soil <2mm			Soil <2mm		
Treatment x Rate x Application Method	P (mg/kg)			Pb (mg/kg)		
Baseline_baseline_NA	175	179	181	199	222	237
Biochar_high_I	159	164	170	249	271	300
Biochar_high_S	154	162	169	255	266	278
Biochar_low_I	147	155	164	262	278	287
Biochar_low_S	165	169	174	254	259	267
Biochar and compost_high_I	189	196	200	268	275	292
Biochar and compost_high_S	173	178	185	234	249	263
Biochar and compost_low_I	150	166	174	258	272	290
Biochar and compost_low_S	171	174	177	251	258	266
Biosolid_high_I	459	474	510	230	249	265
Biosolid_high_S	199	202	204	248	256	267
Biosolid_low_I	236	246	253	284	296	330
Biosolid_low_S	192	196	199	242	263	273
Biosolids and wood ash_high_I	377	410	429	235	267	295
Biosolids and wood ash_high_S	185	189	194	265	271	278
Biosolids and wood ash_low_I	242	245	246	269	291	305
Biosolids and wood ash_low_S	183	187	190	261	277	283
Compost_high_I	171	193	206	240	255	274
Compost_high_S	180	183	189	243	256	269
Compost_low_I	152	165	176	253	274	292
Compost_low_S	168	174	183	240	247	252
control_none_I	154	161	173	247	268	285
Soluble phosphate_high_I	850	881	922	261	282	298
Soluble phosphate_high_S	824	878	935	262	272	282
Soluble phosphate_low_I	324	353	394	264	283	309
Soluble phosphate_low_S	371	435	465	269	275	281
Soluble phosphate and biochar_high_I	873	907	952	258	281	308
Soluble phosphate and biochar_high_S	693	767	832	269	275	282
Soluble phosphate and biochar_low_I	361	374	395	246	275	301
Soluble phosphate and biochar_low_S	319	373	398	263	272	279
Soluble phosphate and biosolids_high_I	993	1037	1093	254	267	292
Soluble phosphate and biosolids_high_S	549	564	584	273	282	296

	Mehlich_3			Mehlich_3		
	Min	Mean	Max	Min	Mean	Max
Timepoint 1	Soil <2mm			Soil <2mm		
Treatment x Rate x Application Method	P (mg/kg)			Pb (mg/kg)		
Soluble phosphate and biosolids_low_I	410	440	464	267	285	297
Soluble phosphate and biosolids_low_S	305	311	323	264	270	280
Soluble phosphate and compost_high_I	847	860	883	240	259	274
Soluble phosphate and compost_high_S	595	741	851	272	277	281
Soluble phosphate and compost_low_I	382	405	428	271	289	317
Soluble phosphate and compost_low_S	287	377	421	263	268	277
Wood ash_high_I	159	171	188	267	297	318
Wood ash_high_S	175	179	185	258	264	272
Wood ash_low_I	154	164	170	273	288	302
Wood ash_low_S	161	169	178	269	273	278
Wood ash and biochar_high_I	177	182	186	294	302	315
Wood ash and biochar_high_S	168	172	173	246	257	268
Wood ash and biochar_low_I	176	179	184	241	248	261
Wood ash and biochar_low_S	172	176	178	260	275	290
Wood ash and compost_high_I	199	212	234	254	287	319
Wood ash and compost_high_S	159	169	176	248	255	261
Wood ash and compost_low_I	171	174	180	258	274	285

Table 8. Summary statistics for Timepoint 2 Mehlich-3 phosphorus and lead available to plant tissue for each treatment/rate/application method combination

	Mehlich_3			Mehlich_3		
	Min	Mean	Max	Min	Mean	Max
Timepoint 2	Soil <2mm			Soil <2mm		
Treatment x Rate x Application Method	P (mg/kg)			Pb (mg/kg)		
Biochar_high_I	151	157	160	269	283	308
Biochar_high_S	164	168	175	278	291	301
Biochar_low_I	144	147	150	265	279	288
Biochar_low_S	170	173	179	268	279	285
Biochar and compost_high_I	183	189	197	288	309	331
Biochar and compost_high_S	183	186	191	290	301	321
Biochar and compost_low_I	157	161	165	281	293	308
Biochar and compost_low_S	177	180	183	301	302	304
Biosolid_high_I	470	491	514	209	238	282
Biosolid_high_S	220	235	255	266	289	306
Biosolid_low_I	242	251	260	281	298	309
Biosolid_low_S	200	201	203	278	289	299
Biosolids and wood ash_high_I	443	457	469	225	240	253
Biosolids and wood ash_high_S	215	221	231	270	291	323
Biosolids and wood ash_low_I	260	268	279	268	290	320
Biosolids and wood ash_low_S	202	210	221	275	302	329
Compost_high_I	190	193	199	289	296	307
Compost_high_S	183	194	208	264	276	295
Compost_low_I	146	160	170	254	296	318
Compost_low_S	181	184	186	270	272	275
control_none_I	129	142	149	273	289	330
Soluble phosphate_high_I	715	764	811	314	326	338
Soluble phosphate_high_S	936	1040	1154	290	302	312
Soluble phosphate_low_I	349	374	400	266	287	310
Soluble phosphate_low_S	378	395	428	289	302	314
Soluble phosphate and biochar_high_I	798	824	869	289	307	325
Soluble phosphate and biochar_high_S	715	778	821	299	318	326
Soluble phosphate and biochar_low_I	341	372	397	279	301	322
Soluble phosphate and biochar_low_S	347	380	411	277	289	300
Soluble phosphate and biosolids_high_I	962	992	1026	215	248	302
Soluble phosphate and biosolids_high_S	523	572	625	291	300	311
Soluble phosphate and biosolids_low_I	454	467	478	254	267	293
Soluble phosphate and biosolids_low_S	367	396	412	284	291	308
Soluble phosphate and compost_high_I	822	837	871	306	309	313

	Mehlich_3			Mehlich_3		
	Min	Mean	Max	Min	Mean	Max
Timepoint 2	Soil <2mm			Soil <2mm		
Treatment x Rate x Application Method	P (mg/kg)			Pb (mg/kg)		
Soluble phosphate and compost_high_S	626	775	848	313	321	331
Soluble phosphate and compost_low_I	330	376	400	282	315	334
Soluble phosphate and compost_low_S	399	411	426	284	292	298
Wood ash_high_I	164	172	176	329	342	352
Wood ash_high_S	176	180	184	294	299	307
Wood ash_low_I	154	158	161	288	293	299
Wood ash_low_S	173	180	185	273	279	289
Wood ash and biochar_high_I	159	164	169	346	366	383
Wood ash and biochar_high_S	170	178	184	293	306	316
Wood ash and biochar_low_I	157	163	171	295	309	322
Wood ash and biochar_low_S	182	184	186	292	299	311
Wood ash and compost_high_I	205	212	216	282	300	320
Wood ash and compost_high_S	179	183	188	281	286	288
Wood ash and compost_low_I	154	167	174	290	312	339
Wood ash and compost_low_S	186	188	192	293	300	309

Table 9. Summary statistics for Timepoint 3 Mehlich-3 phosphorus and lead available to plant tissue for each treatment/rate/application method combination

	Mehlich_3			Mehlich_3		
	Min	Mean	Max	Min	Mean	Max
Timepoint 3	Soil <2mm			Soil <2mm		
Treatment x Rate x Application Method	P (mg/kg)			Pb (mg/kg)		
Biochar_high_I	182	186	189	240	248	254
Biochar_high_S	175	179	185	243	267	292
Biochar_low_I	161	172	177	245	254	271
Biochar_low_S	19	129	167	35	222	295
Biochar and compost_high_I	207	209	211	242	255	264
Biochar and compost_high_S	191	193	195	277	285	305
Biochar and compost_low_I	176	180	185	246	256	260
Biochar and compost_low_S	174	176	178	283	286	291
Biosolid_high_I	549	563	583	185	192	200
Biosolid_high_S	242	250	262	279	293	314
Biosolid_low_I	273	287	293	242	245	253
Biosolid_low_S	204	210	217	217	250	276
Biosolids and wood ash_high_I	559	579	604	184	191	196
Biosolids and wood ash_high_S	250	260	275	241	272	299
Biosolids and wood ash_low_I	288	300	325	233	243	252
Biosolids and wood ash_low_S	218	226	237	247	262	289
Compost_high_I	217	220	225	257	263	277
Compost_high_S	200	203	207	245	268	297
Compost_low_I	165	175	190	232	253	271
Compost_low_S	106	157	180	155	249	287
control_none_I	157	166	173	232	239	250
Soluble phosphate_high_I	821	853	904	280	289	296
Soluble phosphate_high_S	921	950	978	288	294	299
Soluble phosphate_low_I	387	393	397	266	273	282
Soluble phosphate_low_S	332	385	436	278	288	305
Soluble phosphate and biochar_high_I	940	940	940	286	286	286
Soluble phosphate and biochar_high_S	899	921	948	308	310	312
Soluble phosphate and biochar_low_I	718	828	896	285	289	293
Soluble phosphate and biochar_low_S	400	409	418	244	254	261
Soluble phosphate and biosolids_high_I	389	426	461	269	282	298
Soluble phosphate and biosolids_high_S	1022	1064	1093	176	204	228
Soluble phosphate and biosolids_low_I	415	499	584	285	295	303
Soluble phosphate and biosolids_low_S	474	488	506	240	248	255
Soluble phosphate and biosolids_low_S	366	386	397	284	294	304

	Mehlich_3			Mehlich_3		
	Min	Mean	Max	Min	Mean	Max
Timepoint 3	Soil <2mm			Soil <2mm		
Treatment x Rate x Application Method	P (mg/kg)			Pb (mg/kg)		
Soluble phosphate and compost_high_I	896	919	947	281	291	295
Soluble phosphate and compost_high_S	864	904	953	288	297	302
Soluble phosphate and compost_low_I	405	408	410	254	262	267
Soluble phosphate and compost_low_S	404	437	498	254	276	291
Wood ash_high_I	202	204	210	310	315	325
Wood ash_high_S	188	194	198	254	276	295
Wood ash_low_I	178	181	183	270	274	279
Wood ash_low_S	173	175	178	252	271	297
Wood ash and biochar_high_I	198	201	203	277	292	306
Wood ash and biochar_high_S	181	185	190	269	283	302
Wood ash and biochar_low_I	176	184	195	262	274	288
Wood ash and biochar_low_S	173	182	200	254	273	281
Wood ash and compost_high_I	230	231	234	280	287	296
Wood ash and compost_high_S	186	194	199	279	286	293
Wood ash and compost_low_I	192	195	197	256	271	295
Wood ash and compost_low_S	183	188	194	252	266	274

Table 10. Summary statistics for Timepoint 1 gravimetric moisture content at the time of sampling for each treatment/rate/application method combination

	Moisture_content		
	Min	Mean	Max
Timepoint 1	Soil <2mm		
Treatment x Rate x Application Method	Gravimetric Moisture (%)		
Biochar_high_I	13	21	30
Biochar_high_S	29	36	42
Biochar_low_I	19	25	31
Biochar_low_S	28	33	39
Biochar and compost_high_I	13	20	28
Biochar and compost_high_S	30	36	42
Biochar and compost_low_I	16	23	34
Biochar and compost_low_S	30	37	46
Biosolid_high_I	24	27	32
Biosolid_high_S	38	40	45
Biosolid_low_I	17	27	34
Biosolid_low_S	30	35	40
Biosolids and wood ash_high_I	22	26	29
Biosolids and wood ash_high_S	39	40	43
Biosolids and wood ash_low_I	22	26	33
Biosolids and wood ash_low_S	29	33	38
Compost_high_I	13	18	24
Compost_high_S	25	34	44
Compost_low_I	17	26	32
Compost_low_S	27	33	39
control_none_I	10	19	31
Soluble phosphate_high_I	13	21	31
Soluble phosphate_high_S	29	34	39
Soluble phosphate_low_I	17	27	36
Soluble phosphate_low_S	27	33	42
Soluble phosphate and biochar_high_I	21	27	37
Soluble phosphate and biochar_high_S	30	37	44
Soluble phosphate and biochar_low_I	16	24	31
Soluble phosphate and biochar_low_S	30	34	40
Soluble phosphate and biosolids_high_I	24	26	29
Soluble phosphate and biosolids_high_S	36	40	44
Soluble phosphate and biosolids_low_I	21	27	34
Soluble phosphate and biosolids_low_S	30	35	39

	Moisture_content		
	Min	Mean	Max
Timepoint 1	Soil <2mm		
Treatment x Rate x Application Method	Gravimetric Moisture (%)		
Soluble phosphate and compost_high_I	14	21	32
Soluble phosphate and compost_high_S	29	37	44
Soluble phosphate and compost_low_I	21	25	31
Soluble phosphate and compost_low_S	31	35	40
Wood ash_high_I	13	22	31
Wood ash_high_S	26	33	38
Wood ash_low_I	13	24	34
Wood ash_low_S	25	31	38
Wood ash and biochar_high_I	11	18	28
Wood ash and biochar_high_S	29	37	46
Wood ash and biochar_low_I	15	24	33
Wood ash and biochar_low_S	25	34	41
Wood ash and compost_high_I	9	15	21
Wood ash and compost_high_S	21	31	41
Wood ash and compost_low_I	7	22	35
Wood ash and compost_low_S	27	35	42

Table 11. Summary statistics for Timepoint 2 gravimetric moisture content at the time of sampling for each treatment/rate/application method combination

	Moisture_content		
	Min	Mean	Max
Timepoint 2	Soil <2mm		
Treatment x Rate x Application Method	Moisture (%)		
Biochar_high_I	11	16	20
Biochar_high_S	28	34	40
Biochar_low_I	17	23	28
Biochar_low_S	26	30	32
Biochar and compost_high_I	11	17	25
Biochar and compost_high_S	30	32	34
Biochar and compost_low_I	13	18	22
Biochar and compost_low_S	29	31	35
Biosolid_high_I	21	27	29
Biosolid_high_S	36	41	43
Biosolid_low_I	15	22	28
Biosolid_low_S	30	33	35
Biosolids and wood ash_high_I	20	23	25
Biosolids and wood ash_high_S	36	40	42
Biosolids and wood ash_low_I	20	24	28
Biosolids and wood ash_low_S	26	32	37
Compost_high_I	10	15	20
Compost_high_S	23	29	32
Compost_low_I	15	21	31
Compost_low_S	24	29	33
control_none_I	9	13	18
Soluble phosphate_high_I	11	14	22
Soluble phosphate_high_S	29	33	37
Soluble phosphate_low_I	16	21	25
Soluble phosphate_low_S	24	30	34
Soluble phosphate and biochar_high_I	18	22	28
Soluble phosphate and biochar_high_S	29	33	38
Soluble phosphate and biochar_low_I	14	20	27
Soluble phosphate and biochar_low_S	28	31	33
Soluble phosphate and biosolids_high_I	22	25	28
Soluble phosphate and biosolids_high_S	36	39	41
Soluble phosphate and biosolids_low_I	19	23	27
Soluble phosphate and biosolids_low_S	28	32	35

	Moisture_content		
	Min	Mean	Max
Timepoint 2	Soil <2mm		
Treatment x Rate x Application Method	Moisture (%)		
Soluble phosphate and compost_high_I	12	17	21
Soluble phosphate and compost_high_S	27	34	38
Soluble phosphate and compost_low_I	19	24	29
Soluble phosphate and compost_low_S	28	33	35
Wood ash_high_I	14	17	21
Wood ash_high_S	24	30	33
Wood ash_low_I	11	19	25
Wood ash_low_S	24	27	32
Wood ash and biochar_high_I	8	14	18
Wood ash and biochar_high_S	27	33	37
Wood ash and biochar_low_I	13	19	23
Wood ash and biochar_low_S	23	27	31
Wood ash and compost_high_I	8	12	15
Wood ash and compost_high_S	19	25	30
Wood ash and compost_low_I	11	17	20
Wood ash and compost_low_S	25	29	35

Table 12. Summary statistics for Timepoint 3 gravimetric moisture content at the time of sampling for each treatment/rate/application method combination

	Moisture_content		
	Min	Mean	Max
Timepoint 3	Soil <2mm		
Treatment x Rate x Application Method	Moisture (%)		
Biochar_high_I	12	17	21
Biochar_high_S	25	36	44
Biochar_low_I	14	23	30
Biochar_low_S	28	32	36
Biochar and compost_high_I	14	18	28
Biochar and compost_high_S	26	31	37
Biochar and compost_low_I	16	19	24
Biochar and compost_low_S	31	34	38
Biosolid_high_I	22	28	33
Biosolid_high_S	38	41	46
Biosolid_low_I	17	22	26
Biosolid_low_S	28	33	37
Biosolids and wood ash_high_I	17	23	28
Biosolids and wood ash_high_S	36	39	45
Biosolids and wood ash_low_I	19	24	27
Biosolids and wood ash_low_S	26	31	36
Compost_high_I	13	18	21
Compost_high_S	24	30	39
Compost_low_I	15	24	34
Compost_low_S	28	32	34
control_none_I	14	18	23
Soluble phosphate_high_I	13	15	19
Soluble phosphate_high_S	28	32	37
Soluble phosphate_low_I	16	21	26
Soluble phosphate_low_S	25	32	36
Soluble phosphate and biochar_high_I	28	29	31
Soluble phosphate and biochar_high_S	21	24	28
Soluble phosphate and biochar_low_I	17	22	25
Soluble phosphate and biochar_low_S	28	32	37
Soluble phosphate and biosolids_high_I	20	25	30
Soluble phosphate and biosolids_high_S	35	39	41
Soluble phosphate and biosolids_low_I	18	22	28

	Moisture_content		
	Min	Mean	Max
Timepoint 3	Soil <2mm		
Treatment x Rate x Application Method	Moisture (%)		
Soluble phosphate and biosolids_low_S	30	34	36
Soluble phosphate and compost_high_I	13	17	23
Soluble phosphate and compost_high_S	33	36	39
Soluble phosphate and compost_low_I	19	24	27
Soluble phosphate and compost_low_S	29	33	38
Wood ash_high_I	12	18	24
Wood ash_high_S	24	31	35
Wood ash_low_I	13	18	25
Wood ash_low_S	24	28	34
Wood ash and biochar_high_I	12	15	19
Wood ash and biochar_high_S	30	34	39
Wood ash and biochar_low_I	12	19	23
Wood ash and biochar_low_S	23	27	32
Wood ash and compost_high_I	12	15	20
Wood ash and compost_high_S	18	28	35
Wood ash and compost_low_I	13	17	21
Wood ash and compost_low_S	24	30	37

Table 13. Summary statistics for Timepoint 1 total nitrogen content for each treatment/rate/application method combination

	Total nitrogen		
	Min	Mean	Max
Timepoint 1	Soil <2mm		
Treatment x Rate x Application Method	Nitrogen (%)		
Baseline_baseline_NA	0.30	0.35	0.45
Biochar_high_I	0.21	0.23	0.27
Biochar_high_S	0.19	0.25	0.28
Biochar_low_I	0.42	0.45	0.53
Biochar_low_S	0.26	0.36	0.57
Biochar and compost_high_I	0.21	0.27	0.33
Biochar and compost_high_S	0.23	0.31	0.45
Biochar and compost_low_I	0.21	0.25	0.27
Biochar and compost_low_S	0.19	0.26	0.31
Biosolid_high_I	0.66	0.89	1.02
Biosolid_high_S	0.28	0.35	0.43
Biosolid_low_I	0.36	0.54	0.70
Biosolid_low_S	0.34	0.53	0.81
Biosolids and wood ash_high_I	0.53	0.85	1.15
Biosolids and wood ash_high_S	0.34	0.44	0.52
Biosolids and wood ash_low_I	0.37	0.44	0.58
Biosolids and wood ash_low_S	0.29	0.32	0.39
Compost_high_I	0.26	0.27	0.29
Compost_high_S	0.20	0.24	0.27
Compost_low_I	0.37	0.53	0.76
Compost_low_S	0.24	0.37	0.50
control_none_I	0.17	0.21	0.25
Soluble phosphate_high_I	0.20	0.31	0.42
Soluble phosphate_high_S	0.25	0.31	0.37
Soluble phosphate_low_I	0.21	0.27	0.34
Soluble phosphate_low_S	0.35	0.45	0.56
Soluble phosphate and biochar_high_I	0.19	0.20	0.22
Soluble phosphate and biochar_high_S	0.28	0.34	0.41
Soluble phosphate and biochar_low_I	0.18	0.24	0.34
Soluble phosphate and biochar_low_S	0.27	0.35	0.39
Soluble phosphate and biosolids_high_I	0.67	0.95	1.13

	Total_nitrogen		
	Min	Mean	Max
Timepoint 1	Soil <2mm		
Treatment x Rate x Application Method	Nitrogen (%)		
Soluble phosphate and biosolids_high_S	0.35	0.41	0.51
Soluble phosphate and biosolids_low_I	0.40	0.47	0.64
Soluble phosphate and biosolids_low_S	0.30	0.38	0.45
Soluble phosphate and compost_high_I	0.25	0.31	0.40
Soluble phosphate and compost_high_S	0.41	0.50	0.57
Soluble phosphate and compost_low_I	0.18	0.27	0.36
Soluble phosphate and compost_low_S	0.28	0.29	0.32
Wood ash_high_I	0.22	0.26	0.29
Wood ash_high_S	0.22	0.33	0.50
Wood ash_low_I	0.26	0.35	0.42
Wood ash_low_S	0.25	0.30	0.33
Wood ash and biochar_high_I	0.19	0.24	0.31
Wood ash and biochar_high_S	0.19	0.31	0.53
Wood ash and biochar_low_I	0.18	0.25	0.32
Wood ash and biochar_low_S	0.21	0.29	0.36
Wood ash and compost_high_I	0.22	0.25	0.29
Wood ash and compost_high_S	0.22	0.27	0.31
Wood ash and compost_low_I	0.13	0.23	0.29
Wood ash and compost_low_S	0.18	0.30	0.36

Table 14. Summary statistics for Timepoint 2 total nitrogen content for each treatment/rate/application method combination

	Total nitrogen		
	Min	Mean	Max
Timepoint 2	Soil <2mm		
Treatment x Rate x Application Method	Nitrogen (%)		
Biochar_high_I	0.26	0.30	0.34
Biochar_high_S	0.29	0.33	0.35
Biochar_low_I	0.35	0.42	0.51
Biochar_low_S	0.29	0.37	0.47
Biochar and compost_high_I	0.28	0.37	0.46
Biochar and compost_high_S	0.36	0.37	0.39
Biochar and compost_low_I	0.28	0.36	0.41
Biochar and compost_low_S	0.32	0.34	0.38
Biosolid_high_I	0.71	0.85	1.04
Biosolid_high_S	0.41	0.50	0.54
Biosolid_low_I	0.40	0.48	0.53
Biosolid_low_S	0.35	0.40	0.48
Biosolids and wood ash_high_I	0.85	1.24	1.59
Biosolids and wood ash_high_S	0.39	0.48	0.54
Biosolids and wood ash_low_I	0.33	0.43	0.66
Biosolids and wood ash_low_S	0.32	0.37	0.41
Compost_high_I	0.32	0.37	0.46
Compost_high_S	0.27	0.36	0.43
Compost_low_I	0.30	0.38	0.54
Compost_low_S	0.17	0.25	0.31
control_none_I	0.28	0.35	0.39
Soluble phosphate_high_I	0.28	0.36	0.50
Soluble phosphate_high_S	0.23	0.29	0.36
Soluble phosphate_low_I	0.31	0.33	0.36
Soluble phosphate_low_S	0.29	0.32	0.34
Soluble phosphate and biochar_high_I	0.22	0.27	0.34
Soluble phosphate and biochar_high_S	0.18	0.32	0.42
Soluble phosphate and biochar_low_I	0.27	0.30	0.32
Soluble phosphate and biochar_low_S	0.17	0.30	0.41
Soluble phosphate and biosolids_high_I	0.77	1.07	1.28
Soluble phosphate and biosolids_high_S	0.51	0.56	0.69
Soluble phosphate and biosolids_low_I	0.05	0.35	0.49
Soluble phosphate and biosolids_low_S	0.21	0.33	0.40

	Total_nitrogen		
	Min	Mean	Max
Timepoint 2	Soil <2mm		
Treatment x Rate x Application Method	Nitrogen (%)		
Soluble phosphate and compost_high_I	0.32	0.35	0.39
Soluble phosphate and compost_high_S	0.28	0.32	0.35
Soluble phosphate and compost_low_I	0.32	0.35	0.43
Soluble phosphate and compost_low_S	0.25	0.31	0.34
Wood ash_high_I	0.31	0.35	0.43
Wood ash_high_S	0.27	0.36	0.42
Wood ash_low_I	0.31	0.35	0.39
Wood ash_low_S	0.25	0.31	0.42
Wood ash and biochar_high_I	0.26	0.31	0.36
Wood ash and biochar_high_S	0.30	0.34	0.36
Wood ash and biochar_low_I	0.27	0.29	0.30
Wood ash and biochar_low_S	0.22	0.29	0.35
Wood ash and compost_high_I	0.31	0.34	0.38
Wood ash and compost_high_S	0.29	0.38	0.47
Wood ash and compost_low_I	0.29	0.34	0.41
Wood ash and compost_low_S	0.30	0.33	0.35

Table 15. Summary statistics for Timepoint 3 total nitrogen content for each treatment/rate/application method combination

	Total_nitrogen		
	Min	Mean	Max
Timepoint 3	Soil <2mm		
Treatment x Rate x Application Method	Nitrogen (%)		
Biochar_high_I	0.34	0.37	0.44
Biochar_high_S	0.33	0.36	0.41
Biochar_low_I	0.38	0.41	0.45
Biochar_low_S	0.36	0.45	0.55
Biochar and compost_high_I	0.37	0.47	0.56
Biochar and compost_high_S	0.34	0.39	0.46
Biochar and compost_low_I	0.35	0.39	0.42
Biochar and compost_low_S	0.39	0.45	0.52
Biosolid_high_I	0.29	0.39	0.46
Biosolid_high_S	0.35	0.51	0.67
Biosolid_low_I	0.38	0.57	0.75
Biosolid_low_S	0.40	0.45	0.48
Biosolids and wood ash_high_I	0.96	1.13	1.41
Biosolids and wood ash_high_S	0.42	0.52	0.55
Biosolids and wood ash_low_I	0.44	0.57	0.73
Biosolids and wood ash_low_S	0.42	0.49	0.54
Compost_high_I	0.29	0.39	0.47
Compost_high_S	0.39	0.48	0.59
Compost_low_I	0.35	0.46	0.53
Compost_low_S	0.37	0.39	0.43
control_none_I	0.32	0.37	0.42
Soluble phosphate_high_I	0.34	0.36	0.43
Soluble phosphate_high_S	0.28	0.33	0.42
Soluble phosphate_low_I	0.29	0.35	0.43
Soluble phosphate_low_S	0.33	0.42	0.50
Soluble phosphate and biochar_high_I	0.28	0.28	0.28
Soluble phosphate and biochar_high_S	0.30	0.38	0.48
Soluble phosphate and biochar_low_I	0.31	0.33	0.34
Soluble phosphate and biochar_low_S	0.35	0.39	0.42
Soluble phosphate and biosolids_high_I	1.02	1.27	1.45
Soluble phosphate and biosolids_high_S	0.50	0.55	0.58
Soluble phosphate and biosolids_low_I	0.39	0.53	0.64

	Total_nitrogen		
	Min	Mean	Max
Timepoint 3	Soil <2mm		
Treatment x Rate x Application Method	Nitrogen (%)		
Soluble phosphate and biosolids_low_S	0.34	0.39	0.46
Soluble phosphate and compost_high_I	0.37	0.41	0.46
Soluble phosphate and compost_high_S	0.35	0.37	0.41
Soluble phosphate and compost_low_I	0.35	0.39	0.46
Soluble phosphate and compost_low_S	0.26	0.35	0.44
Wood ash_high_I	0.36	0.83	1.30
Wood ash_high_S	0.40	0.41	0.43
Wood ash_low_I	0.31	0.35	0.39
Wood ash_low_S	0.27	0.35	0.42
Wood ash and biochar_high_I	0.32	0.40	0.53
Wood ash and biochar_high_S	0.32	0.34	0.36
Wood ash and biochar_low_I	0.32	0.38	0.50
Wood ash and biochar_low_S	0.31	0.33	0.36
Wood ash and compost_high_I	0.39	0.40	0.41
Wood ash and compost_high_S	0.40	0.47	0.60
Wood ash and compost_low_I	0.32	0.38	0.45
Wood ash and compost_low_S	0.37	0.42	0.46

Table 16. Summary statistics for Timepoint 1 organic carbon content for each treatment/rate/application method combination

	Organic_carbon		
	Min	Mean	Max
Timepoint 1	Soil <2mm		
Treatment x Rate x Application Method	Carbon (%)		
Baseline_baseline_NA	5.49	6.31	6.79
Biochar_high_I	7.46	10.02	15.16
Biochar_high_S	6.24	7.94	10.55
Biochar_low_I	4.83	6.75	7.96
Biochar_low_S	5.51	7.11	10.38
Biochar and compost_high_I	6.57	8.86	10.98
Biochar and compost_high_S	6.46	7.26	8.44
Biochar and compost_low_I	7.87	8.94	9.81
Biochar and compost_low_S	6.38	7.58	8.34
Biosolid_high_I	9.13	12.17	14.25
Biosolid_high_S	6.62	7.41	8.14
Biosolid_low_I	5.19	8.43	11.36
Biosolid_low_S	7.44	8.06	9.13
Biosolids and wood ash_high_I	12.38	13.15	13.98
Biosolids and wood ash_high_S	6.65	8.04	9.68
Biosolids and wood ash_low_I	8.38	11.38	14.36
Biosolids and wood ash_low_S	6.50	8.20	10.85
Compost_high_I	7.41	8.52	9.82
Compost_high_S	5.49	6.65	7.71
Compost_low_I	6.45	7.76	8.88
Compost_low_S	5.30	7.34	10.50
control_none_I	6.38	7.46	10.26
Soluble phosphate_high_I	6.32	7.71	8.58
Soluble phosphate_high_S	6.46	6.93	7.35
Soluble phosphate_low_I	6.81	7.69	8.77
Soluble phosphate_low_S	5.49	6.30	7.23
Soluble phosphate and biochar_high_I	6.63	8.39	11.74
Soluble phosphate and biochar_high_S	7.09	7.48	8.29
Soluble phosphate and biochar_low_I	8.09	8.94	9.74
Soluble phosphate and biochar_low_S	6.90	7.96	8.84
Soluble phosphate and biosolids_high_I	10.86	11.58	12.50
Soluble phosphate and biosolids_high_S	5.57	6.11	7.15
Soluble phosphate and biosolids_low_I	7.26	8.56	9.22

Soluble phosphate and biosolids_low_S	6.62	8.06	10.72
Soluble phosphate and compost_high_I	8.20	9.28	10.98
Soluble phosphate and compost_high_S	5.33	7.25	8.15
Soluble phosphate and compost_low_I	7.09	8.15	10.64
Soluble phosphate and compost_low_S	6.10	6.39	6.98
Wood ash_high_I	6.02	7.91	10.79
Wood ash_high_S	6.48	7.03	7.71
Wood ash_low_I	4.34	5.65	6.96
Wood ash_low_S	6.40	7.00	8.29
Wood ash and biochar_high_I	7.75	10.40	11.91
Wood ash and biochar_high_S	6.57	7.60	8.67
Wood ash and biochar_low_I	6.70	8.21	10.06
Wood ash and biochar_low_S	6.58	8.19	9.58
Wood ash and compost_high_I	7.77	12.30	14.87
Wood ash and compost_high_S	6.28	6.86	7.44
Wood ash and compost_low_I	5.51	7.76	9.56
Wood ash and compost_low_S	5.92	6.95	7.95

Table 17. Summary statistics for Timepoint 2 organic carbon content for each treatment/rate/application method combination

	Organic_carbon		
	Min	Mean	Max
Timepoint 2	Soil <2mm		
Treatment x Rate x Application Method	Carbon (%)		
Biochar_high_I	4.86	7.09	9.32
Biochar_high_S	7.01	7.79	8.80
Biochar_low_I	9.31	10.42	12.26
Biochar_low_S	5.59	6.30	7.20
Biochar and compost_high_I	8.69	9.92	12.41
Biochar and compost_high_S	6.78	8.05	8.99
Biochar and compost_low_I	5.61	7.09	8.12
Biochar and compost_low_S	6.72	7.80	9.93
Biosolid_high_I	9.15	10.53	12.95
Biosolid_high_S	7.28	7.79	8.21
Biosolid_low_I	7.05	8.72	9.85
Biosolid_low_S	6.91	7.74	8.58
Biosolids and wood ash_high_I	9.70	12.39	15.21
Biosolids and wood ash_high_S	7.16	7.95	8.93
Biosolids and wood ash_low_I	6.84	7.73	9.37
Biosolids and wood ash_low_S	7.41	8.02	8.85
Compost_high_I	10.72	11.06	11.48
Compost_high_S	7.69	9.32	10.32
Compost_low_I	11.80	15.18	19.77
Compost_low_S	6.37	7.29	8.24
control_none_I	5.43	7.31	9.62
Soluble phosphate_high_I	6.65	9.94	12.17
Soluble phosphate_high_S	4.37	6.78	10.09
Soluble phosphate_low_I	5.46	7.66	9.85
Soluble phosphate_low_S	6.05	7.93	10.64
Soluble phosphate and biochar_high_I	6.78	7.82	9.75
Soluble phosphate and biochar_high_S	7.08	8.47	9.37
Soluble phosphate and biochar_low_I	8.67	12.54	14.98
Soluble phosphate and biochar_low_S	5.81	7.09	9.73
Soluble phosphate and biosolids_high_I	10.65	12.45	14.80
Soluble phosphate and biosolids_high_S	9.01	9.56	9.93
Soluble phosphate and biosolids_low_I	9.23	11.66	16.77
Soluble phosphate and biosolids_low_S	6.11	6.99	8.48

	Organic_carbon		
	Min	Mean	Max
Timepoint 2	Soil <2mm		
Treatment x Rate x Application Method	Carbon (%)		
Soluble phosphate and compost_high_I	8.21	8.97	10.13
Soluble phosphate and compost_high_S	6.99	7.46	8.02
Soluble phosphate and compost_low_I	9.16	10.34	11.10
Soluble phosphate and compost_low_S	7.37	9.29	12.81
Wood ash_high_I	8.22	9.67	10.48
Wood ash_high_S	6.65	7.58	9.73
Wood ash_low_I	9.70	11.85	15.15
Wood ash_low_S	7.36	8.23	9.74
Wood ash and biochar_high_I	6.31	7.40	8.21
Wood ash and biochar_high_S	7.22	7.87	9.15
Wood ash and biochar_low_I	7.41	8.35	9.40
Wood ash and biochar_low_S	5.15	6.72	8.49
Wood ash and compost_high_I	7.69	9.63	10.96
Wood ash and compost_high_S	7.69	8.94	10.69
Wood ash and compost_low_I	8.72	9.41	10.45
Wood ash and compost_low_S	5.88	7.99	10.03

Table 18. Summary statistics for Timepoint 3 organic carbon content for each treatment/rate/application method combination

	Organic_carbon		
	Min	Mean	Max
Timepoint 3	Soil <2mm		
Treatment x Rate x Application Method	Carbon (%)		
Biochar_high_I	7.76	8.37	9.10
Biochar_high_S	4.55	7.81	9.84
Biochar_low_I	8.66	9.55	10.23
Biochar_low_S	7.18	9.07	11.42
Biochar and compost_high_I	9.40	11.12	12.89
Biochar and compost_high_S	7.33	9.34	11.10
Biochar and compost_low_I	8.69	9.96	11.75
Biochar and compost_low_S	6.61	8.49	10.18
Biosolid_high_I	9.36	11.33	12.12
Biosolid_high_S	6.56	7.52	8.18
Biosolid_low_I	6.63	8.33	10.69
Biosolid_low_S	7.38	8.18	9.43
Biosolids and wood ash_high_I	11.82	12.68	14.14
Biosolids and wood ash_high_S	6.34	7.13	8.05
Biosolids and wood ash_low_I	7.48	8.78	10.54
Biosolids and wood ash_low_S	5.49	8.90	12.28
Compost_high_I	8.86	8.96	9.06
Compost_high_S	6.43	6.85	7.45
Compost_low_I	7.21	9.68	11.34
Compost_low_S	6.43	7.89	9.73
control_none_I	6.76	7.52	8.25
Soluble phosphate_high_I	7.62	8.32	8.96
Soluble phosphate_high_S	6.85	7.44	8.26
Soluble phosphate_low_I	6.56	7.67	9.01
Soluble phosphate_low_S	6.50	7.43	9.11
Soluble phosphate and biochar_high_I	7.72	7.72	7.72
Soluble phosphate and biochar_high_S	7.52	8.01	8.36
Soluble phosphate and biochar_low_I	5.96	6.61	7.11
Soluble phosphate and biochar_low_S	7.70	8.13	8.71
Soluble phosphate and biosolids_high_I	5.68	7.67	9.45
Soluble phosphate and biosolids_high_S	8.86	10.04	10.61
Soluble phosphate and biosolids_low_I	5.98	6.66	8.25
Soluble phosphate and biosolids_low_S	7.45	8.50	10.38

	Organic_carbon		
	Min	Mean	Max
Timepoint 3	Soil <2mm		
Treatment x Rate x Application Method	Carbon (%)		
Soluble phosphate and biosolids_low_S	7.19	7.79	8.55
Soluble phosphate and compost_high_I	8.48	9.55	10.37
Soluble phosphate and compost_high_S	5.93	6.43	6.92
Soluble phosphate and compost_low_I	6.89	8.81	9.81
Soluble phosphate and compost_low_S	8.19	9.11	9.56
Wood ash_high_I	6.84	7.93	8.81
Wood ash_high_S	5.93	7.12	8.11
Wood ash_low_I	5.90	7.53	9.21
Wood ash_low_S	5.74	7.30	9.57
Wood ash and biochar_high_I	8.31	10.44	11.78
Wood ash and biochar_high_S	6.70	7.96	9.38
Wood ash and biochar_low_I	7.51	8.21	8.79
Wood ash and biochar_low_S	5.94	7.13	8.49
Wood ash and compost_high_I	7.69	8.61	9.39
Wood ash and compost_high_S	8.86	9.33	9.77
Wood ash and compost_low_I	7.87	8.41	9.02
Wood ash and compost_low_S	6.91	7.45	8.15

Table 19. Summary statistics for Timepoint 1 total carbon content for each treatment/rate/application method combination

	Total_carbon		
	Min	Mean	Max
Timepoint 1	Soil <2mm		
Treatment x Rate x Application Method	Carbon (%)		
Baseline_baseline_NA	6.62	8.00	10.97
Biochar_high_I	4.99	5.83	6.54
Biochar_high_S	5.16	6.32	7.09
Biochar_low_I	10.05	10.72	11.95
Biochar_low_S	6.13	8.18	12.15
Biochar and compost_high_I	5.35	7.10	8.16
Biochar and compost_high_S	5.14	6.77	9.79
Biochar and compost_low_I	5.04	5.74	6.49
Biochar and compost_low_S	4.98	7.18	8.52
Biosolid_high_I	7.67	10.32	12.07
Biosolid_high_S	5.06	5.99	7.16
Biosolid_low_I	6.02	9.00	12.22
Biosolid_low_S	6.34	9.84	14.73
Biosolids and wood ash_high_I	6.64	9.90	13.06
Biosolids and wood ash_high_S	5.83	7.70	9.28
Biosolids and wood ash_low_I	5.74	7.36	9.78
Biosolids and wood ash_low_S	7.20	8.08	10.01
Compost_high_I	6.38	7.09	8.77
Compost_high_S	4.90	6.28	7.15
Compost_low_I	9.56	13.50	18.97
Compost_low_S	5.57	8.11	10.90
control_none_I	4.09	5.23	5.80
Soluble phosphate_high_I	4.50	6.64	8.87
Soluble phosphate_high_S	6.33	6.93	7.21
Soluble phosphate_low_I	4.79	6.45	8.08
Soluble phosphate_low_S	7.78	9.64	11.85
Soluble phosphate and biochar_high_I	5.09	5.59	6.52
Soluble phosphate and biochar_high_S	6.47	7.59	9.08
Soluble phosphate and biochar_low_I	4.08	6.15	9.13
Soluble phosphate and biochar_low_S	5.46	7.04	7.93
Soluble phosphate and biosolids_high_I	7.65	10.47	12.34
Soluble phosphate and biosolids_high_S	5.93	6.96	8.54
Soluble phosphate and biosolids_low_I	6.33	7.37	8.55

	Total_carbon		
	Min	Mean	Max
Timepoint 1	Soil <2mm		
Treatment x Rate x Application Method	Carbon (%)		
Soluble phosphate and biosolids_low_S	5.50	6.88	7.68
Soluble phosphate and compost_high_I	5.92	7.21	9.28
Soluble phosphate and compost_high_S	8.34	10.28	11.66
Soluble phosphate and compost_low_I	5.11	6.99	9.12
Soluble phosphate and compost_low_S	5.60	6.64	8.55
Wood ash_high_I	5.40	6.41	7.21
Wood ash_high_S	5.54	7.81	11.65
Wood ash_low_I	5.45	7.23	8.59
Wood ash_low_S	5.77	6.96	7.78
Wood ash and biochar_high_I	5.36	7.04	9.20
Wood ash and biochar_high_S	4.40	7.42	12.59
Wood ash and biochar_low_I	4.41	6.02	7.85
Wood ash and biochar_low_S	5.68	7.65	9.68
Wood ash and compost_high_I	5.38	6.28	6.83
Wood ash and compost_high_S	5.04	6.22	7.03
Wood ash and compost_low_I	3.15	5.52	6.85
Wood ash and compost_low_S	5.06	8.35	10.11

Table 20. Summary statistics for Timepoint 2 total carbon content for each treatment/rate/application method combination

	Total_carbon		
	Min	Mean	Max
Timepoint 2	Soil <2mm		
Treatment x Rate x Application Method	Carbon (%)		
Biochar_high_I	6.97	8.55	9.51
Biochar_high_S	7.35	8.22	9.07
Biochar_low_I	9.33	11.18	13.44
Biochar_low_S	6.41	8.15	10.32
Biochar and compost_high_I	8.06	10.95	14.50
Biochar and compost_high_S	8.75	9.19	9.79
Biochar and compost_low_I	7.24	9.77	11.04
Biochar and compost_low_S	7.77	8.16	8.69
Biosolid_high_I	9.04	10.77	13.02
Biosolid_high_S	7.07	8.29	9.09
Biosolid_low_I	7.65	8.37	8.97
Biosolid_low_S	6.28	7.27	8.59
Biosolids and wood ash_high_I	11.08	14.32	16.75
Biosolids and wood ash_high_S	7.64	9.05	10.31
Biosolids and wood ash_low_I	6.44	8.27	12.12
Biosolids and wood ash_low_S	6.91	7.69	8.32
Compost_high_I	8.33	10.15	12.94
Compost_high_S	7.10	8.90	11.18
Compost_low_I	7.44	10.14	15.15
Compost_low_S	4.04	5.67	7.00
control_none_I	6.39	7.94	8.97
Soluble phosphate_high_I	7.13	9.13	12.67
Soluble phosphate_high_S	5.52	7.10	8.71
Soluble phosphate_low_I	7.68	8.16	8.80
Soluble phosphate_low_S	6.54	7.29	7.93
Soluble phosphate and biochar_high_I	6.54	8.03	10.32
Soluble phosphate and biochar_high_S	4.40	7.98	10.94
Soluble phosphate and biochar_low_I	7.42	8.26	9.07
Soluble phosphate and biochar_low_S	4.37	7.17	9.80
Soluble phosphate and biosolids_high_I	9.08	12.12	14.23
Soluble phosphate and biosolids_high_S	8.76	9.60	11.33
Soluble phosphate and biosolids_low_I	0.96	6.30	9.34
Soluble phosphate and biosolids_low_S	4.05	6.24	7.23

	Total_carbon		
	Min	Mean	Max
Timepoint 2	Soil <2mm		
Treatment x Rate x Application Method	Carbon (%)		
Soluble phosphate and compost_high_I	8.12	9.14	10.08
Soluble phosphate and compost_high_S	6.45	7.64	8.39
Soluble phosphate and compost_low_I	8.48	9.32	11.19
Soluble phosphate and compost_low_S	5.79	7.21	8.13
Wood ash_high_I	7.99	9.68	12.07
Wood ash_high_S	7.34	9.18	10.42
Wood ash_low_I	8.04	9.00	10.25
Wood ash_low_S	5.72	7.11	9.82
Wood ash and biochar_high_I	8.34	9.16	10.40
Wood ash and biochar_high_S	7.91	8.60	9.40
Wood ash and biochar_low_I	7.09	7.98	8.60
Wood ash and biochar_low_S	5.21	7.05	8.51
Wood ash and compost_high_I	8.27	10.73	12.49
Wood ash and compost_high_S	7.21	9.19	11.10
Wood ash and compost_low_I	7.28	8.94	11.06
Wood ash and compost_low_S	7.12	7.60	8.21

Table 21. Summary statistics for Timepoint 3 total carbon content for each treatment/rate/application method combination

	Total_carbon		
	Min	Mean	Max
Timepoint 3	Soil <2mm		
Treatment x Rate x Application Method	Carbon (%)		
Biochar_high_I	8.45	9.46	11.81
Biochar_high_S	8.04	9.08	9.86
Biochar_low_I	9.65	10.55	11.74
Biochar_low_S	8.83	10.81	12.91
Biochar and compost_high_I	10.03	12.65	15.06
Biochar and compost_high_S	8.09	9.74	11.81
Biochar and compost_low_I	9.71	11.03	12.60
Biochar and compost_low_S	9.24	11.19	13.17
Biosolid_high_I	10.14	12.01	14.71
Biosolid_high_S	6.41	8.92	11.53
Biosolid_low_I	7.31	10.16	12.84
Biosolid_low_S	8.84	9.13	9.50
Biosolids and wood ash_high_I	10.30	11.94	14.38
Biosolids and wood ash_high_S	8.04	10.00	11.19
Biosolids and wood ash_low_I	7.73	10.01	11.96
Biosolids and wood ash_low_S	9.50	10.91	12.35
Compost_high_I	6.66	9.65	11.65
Compost_high_S	8.77	10.91	14.54
Compost_low_I	7.99	11.09	12.70
Compost_low_S	7.50	9.00	10.32
control_none_I	6.95	8.01	8.85
Soluble phosphate_high_I	7.75	8.60	9.56
Soluble phosphate_high_S	6.70	7.98	10.17
Soluble phosphate_low_I	6.93	8.65	10.85
Soluble phosphate_low_S	7.61	10.31	13.17
Soluble phosphate and biochar_high_I	7.17	7.17	7.17
Soluble phosphate and biochar_high_S	8.01	10.32	12.53
Soluble phosphate and biochar_low_I	7.88	8.23	8.64
Soluble phosphate and biochar_low_S	8.46	9.67	10.33
Soluble phosphate and biosolids_high_I	7.84	9.75	11.78
Soluble phosphate and biosolids_high_S	10.61	12.44	13.66
Soluble phosphate and biosolids_low_I	8.13	8.98	9.79
Soluble phosphate and biosolids_low_S	6.80	9.01	10.21

	Total_carbon		
	Min	Mean	Max
Timepoint 3	Soil <2mm		
Treatment x Rate x Application Method	Carbon (%)		
Soluble phosphate and biosolids_low_S	7.05	8.22	9.60
Soluble phosphate and compost_high_I	8.37	9.52	11.07
Soluble phosphate and compost_high_S	8.26	8.76	9.60
Soluble phosphate and compost_low_I	8.07	9.31	10.76
Soluble phosphate and compost_low_S	5.75	8.40	10.89
Wood ash_high_I	7.84	9.09	10.10
Wood ash_high_S	9.53	10.24	10.88
Wood ash_low_I	7.41	8.26	9.09
Wood ash_low_S	6.50	8.51	10.67
Wood ash and biochar_high_I	9.34	11.62	15.52
Wood ash and biochar_high_S	7.59	8.67	9.30
Wood ash and biochar_low_I	7.97	9.53	12.84
Wood ash and biochar_low_S	7.67	8.06	8.47
Wood ash and compost_high_I	10.05	10.63	11.61
Wood ash and compost_high_S	9.98	11.88	14.95
Wood ash and compost_low_I	7.27	9.20	10.95
Wood ash and compost_low_S	8.70	10.41	11.94

Table 22. Summary statistics for Timepoint 1 electrical conductivity for each treatment/rate/application method combination

	Electrical conductivity		
	Min	Mean	Max
Timepoint 1	Soil <2mm		
Treatment x Rate x Application Method	mS/cm		
Baseline_baseline_NA	0.18	0.26	0.32
Biochar_high_I	0.38	0.46	0.50
Biochar_high_S	0.20	0.87	1.58
Biochar_low_I	0.39	0.43	0.47
Biochar_low_S	0.17	0.20	0.24
Biochar and compost_high_I	0.41	0.78	1.55
Biochar and compost_high_S	0.40	0.49	0.59
Biochar and compost_low_I	0.29	0.49	0.70
Biochar and compost_low_S	0.20	1.09	1.58
Biosolid_high_I	2.01	3.66	5.35
Biosolid_high_S	0.73	1.09	1.89
Biosolid_low_I	0.59	1.45	1.81
Biosolid_low_S	0.73	0.89	1.02
Biosolids and wood ash_high_I	1.66	2.88	5.68
Biosolids and wood ash_high_S	2.78	3.00	3.31
Biosolids and wood ash_low_I	1.53	1.88	2.23
Biosolids and wood ash_low_S	0.89	1.00	1.15
Compost_high_I	0.68	0.84	1.04
Compost_high_S	0.35	0.47	0.64
Compost_low_I	0.24	0.60	0.83
Compost_low_S	0.24	0.33	0.40
control_none_I	0.12	0.37	0.49
Soluble phosphate_high_I	1.41	1.82	2.19
Soluble phosphate_high_S	0.26	0.79	1.34
Soluble phosphate_low_I	0.02	0.67	1.11
Soluble phosphate_low_S	0.98	1.36	2.10
Soluble phosphate and biochar_high_I	0.83	1.67	2.30
Soluble phosphate and biochar_high_S	0.76	0.85	0.99
Soluble phosphate and biochar_low_I	1.44	1.71	1.96
Soluble phosphate and biochar_low_S	0.21	0.66	0.90
Soluble phosphate and biosolids_high_I	2.53	3.96	5.42
Soluble phosphate and biosolids_high_S	2.35	3.07	3.50
Soluble phosphate and biosolids_low_I	1.52	2.39	3.18

	Electrical_conductivity		
	Min	Mean	Max
Timepoint 1	Soil <2mm		
Treatment x Rate x Application Method	mS/cm		
Soluble phosphate and biosolids_low_S	0.46	1.39	1.89
Soluble phosphate and compost_high_I	0.96	1.54	2.67
Soluble phosphate and compost_high_S	1.28	1.57	1.77
Soluble phosphate and compost_low_I	1.43	1.54	1.61
Soluble phosphate and compost_low_S	0.58	0.79	0.91
Wood ash_high_I	0.29	0.82	1.16
Wood ash_high_S	1.34	2.43	3.17
Wood ash_low_I	0.60	0.71	0.83
Wood ash_low_S	0.25	0.37	0.54
Wood ash and biochar_high_I	0.28	0.64	1.35
Wood ash and biochar_high_S	0.50	0.55	0.61
Wood ash and biochar_low_I	0.56	0.63	0.72
Wood ash and biochar_low_S	0.26	0.32	0.37
Wood ash and compost_high_I	0.52	1.41	2.54
Wood ash and compost_high_S	0.13	0.48	0.83
Wood ash and compost_low_I	0.77	0.95	1.17
Wood ash and compost_low_S	0.25	0.34	0.39

Table 23. Summary statistics for Timepoint 2 electrical conductivity for each treatment/rate/application method combination

	Electrical conductivity		
	Min	Mean	Max
Timepoint 2	Soil <2mm		
Treatment x Rate x Application Method	mS/cm		
Biochar_high_I	0.16	0.19	0.27
Biochar_high_S	0.18	0.22	0.23
Biochar_low_I	0.19	0.21	0.22
Biochar_low_S	0.18	0.29	0.44
Biochar and compost_high_I	0.19	0.26	0.33
Biochar and compost_high_S	0.17	0.25	0.34
Biochar and compost_low_I	0.19	0.25	0.33
Biochar and compost_low_S	0.17	0.23	0.27
Biosolid_high_I	0.15	0.18	0.23
Biosolid_high_S	0.15	0.17	0.20
Biosolid_low_I	0.18	0.23	0.36
Biosolid_low_S	0.15	0.26	0.38
Biosolids and wood ash_high_I	0.16	0.18	0.24
Biosolids and wood ash_high_S	0.17	0.18	0.22
Biosolids and wood ash_low_I	0.16	0.23	0.31
Biosolids and wood ash_low_S	0.16	0.30	0.67
Compost_high_I	0.14	0.20	0.27
Compost_high_S	0.14	0.15	0.16
Compost_low_I	0.16	0.21	0.26
Compost_low_S	0.17	0.20	0.25
control_none_I	0.27	0.30	0.32
Soluble phosphate_high_I	0.23	0.26	0.32
Soluble phosphate_high_S	0.17	0.24	0.28
Soluble phosphate_low_I	0.16	0.28	0.33
Soluble phosphate_low_S	0.19	0.23	0.36
Soluble phosphate and biochar_high_I	0.22	0.25	0.31
Soluble phosphate and biochar_high_S	0.17	0.18	0.20
Soluble phosphate and biochar_low_I	0.17	0.23	0.27
Soluble phosphate and biochar_low_S	0.16	0.18	0.23
Soluble phosphate and biosolids_high_I	0.16	0.18	0.22
Soluble phosphate and biosolids_high_S	0.17	0.20	0.25
Soluble phosphate and biosolids_low_I	0.16	0.18	0.23
Soluble phosphate and biosolids_low_S	0.17	0.21	0.30

	Electrical_conductivity		
	Min	Mean	Max
Timepoint 2	Soil <2mm		
Treatment x Rate x Application Method	mS/cm		
Soluble phosphate and compost_high_I	0.21	0.23	0.24
Soluble phosphate and compost_high_S	0.15	0.17	0.19
Soluble phosphate and compost_low_I	0.18	0.30	0.41
Soluble phosphate and compost_low_S	0.16	0.19	0.21
Wood ash_high_I	0.16	0.19	0.23
Wood ash_high_S	0.15	0.19	0.23
Wood ash_low_I	0.17	0.19	0.20
Wood ash_low_S	0.17	0.21	0.25
Wood ash and biochar_high_I	0.15	0.23	0.36
Wood ash and biochar_high_S	0.14	0.21	0.32
Wood ash and biochar_low_I	0.27	0.30	0.32
Wood ash and biochar_low_S	0.16	0.24	0.29
Wood ash and compost_high_I	0.17	0.19	0.21
Wood ash and compost_high_S	0.15	0.21	0.32
Wood ash and compost_low_I	0.27	0.39	0.47
Wood ash and compost_low_S	0.16	0.49	1.03

Table 24. Summary statistics for Timepoint 3 electrical conductivity for each treatment/rate/application method combination

	Electrical conductivity		
	Min	Mean	Max
Timepoint 3	Soil <2mm		
Treatment x Rate x Application Method	mS/cm		
Biochar_high_I	0.87	1.02	1.41
Biochar_high_S	0.24	0.33	0.45
Biochar_low_I	0.88	1.10	1.25
Biochar_low_S	0.39	0.42	0.47
Biochar and compost_high_I	0.84	1.33	1.61
Biochar and compost_high_S	0.61	0.75	0.95
Biochar and compost_low_I	0.57	0.64	0.76
Biochar and compost_low_S	0.42	0.45	0.51
Biosolid_high_I	5.28	6.62	8.17
Biosolid_high_S	0.24	0.61	1.05
Biosolid_low_I	1.07	1.49	1.77
Biosolid_low_S	0.54	0.76	1.05
Biosolids and wood ash_high_I	5.42	6.53	8.09
Biosolids and wood ash_high_S	1.71	1.81	1.96
Biosolids and wood ash_low_I	2.08	2.79	3.52
Biosolids and wood ash_low_S	0.41	0.51	0.63
Compost_high_I	1.48	2.10	2.61
Compost_high_S	0.48	0.64	0.79
Compost_low_I	0.91	1.21	1.55
Compost_low_S	0.46	0.55	0.64
control_none_I	0.84	0.94	1.07
Soluble phosphate_high_I	1.01	1.47	1.68
Soluble phosphate_high_S	0.24	0.60	0.89
Soluble phosphate_low_I	0.53	1.16	2.14
Soluble phosphate_low_S	0.52	0.67	0.78
Soluble phosphate and biochar_high_I	1.69	2.94	4.34
Soluble phosphate and biochar_high_S	0.56	0.68	0.78
Soluble phosphate and biochar_low_I	0.81	1.09	1.22
Soluble phosphate and biochar_low_S	0.50	0.58	0.66
Soluble phosphate and biosolids_high_I	6.18	8.09	11.00
Soluble phosphate and biosolids_high_S	0.36	1.59	2.21
Soluble phosphate and biosolids_low_I	2.14	2.69	3.51
Soluble phosphate and biosolids_low_S	0.42	0.75	0.99

	Electrical conductivity		
	Min	Mean	Max
Timepoint 3	Soil <2mm		
Treatment x Rate x Application Method	mS/cm		
Soluble phosphate and compost_high_I	1.52	1.92	2.38
Soluble phosphate and compost_high_S	1.00	1.14	1.33
Soluble phosphate and compost_low_I	1.25	1.89	2.52
Soluble phosphate and compost_low_S	0.54	0.76	1.06
Wood ash_high_I	1.15	1.38	1.63
Wood ash_high_S	0.60	0.69	0.78
Wood ash_low_I	0.74	0.91	1.09
Wood ash_low_S	0.30	0.50	0.78
Wood ash and biochar_high_I	0.99	1.23	1.56
Wood ash and biochar_high_S	0.59	0.72	0.94
Wood ash and biochar_low_I	1.10	1.40	1.80
Wood ash and biochar_low_S	0.27	0.39	0.56
Wood ash and compost_high_I	0.91	1.30	1.53
Wood ash and compost_high_S	0.46	0.93	1.13
Wood ash and compost_low_I	1.07	1.40	1.97
Wood ash and compost_low_S	0.43	1.49	4.65

Table 25. Summary statistics for Timepoint 1 pH for each treatment/rate/application method combination

	pH		
	Min	Mean	Max
Timepoint 1	Soil <2mm		
Treatment x Rate x Application Method	unitless		
Baseline_baseline_NA	4.17	4.38	4.56
Biochar_high_I	4.62	4.69	4.83
Biochar_high_S	5.34	5.41	5.46
Biochar_low_I	4.64	4.70	4.74
Biochar_low_S	4.37	4.55	4.63
Biochar and compost_high_I	4.96	4.98	5.01
Biochar and compost_high_S	4.40	4.54	4.60
Biochar and compost_low_I	4.78	4.82	4.85
Biochar and compost_low_S	4.76	4.88	5.02
Biosolid_high_I	5.77	5.81	5.85
Biosolid_high_S	4.41	4.59	4.96
Biosolid_low_I	4.90	4.98	5.01
Biosolid_low_S	4.89	4.92	5.00
Biosolids and wood ash_high_I	6.17	6.24	6.36
Biosolids and wood ash_high_S	5.13	5.27	5.37
Biosolids and wood ash_low_I	5.39	5.41	5.43
Biosolids and wood ash_low_S	4.92	5.04	5.17
Compost_high_I	4.77	4.87	4.94
Compost_high_S	4.79	4.98	5.33
Compost_low_I	4.66	4.74	4.80
Compost_low_S	4.64	4.67	4.68
control_none_I	4.54	4.62	4.68
Soluble phosphate_high_I	4.32	4.36	4.42
Soluble phosphate_high_S	4.96	4.98	4.99
Soluble phosphate_low_I	4.20	4.28	4.41
Soluble phosphate_low_S	4.11	4.27	4.39
Soluble phosphate and biochar_high_I	4.56	4.59	4.62
Soluble phosphate and biochar_high_S	4.56	4.64	4.68
Soluble phosphate and biochar_low_I	4.42	4.46	4.48
Soluble phosphate and biochar_low_S	4.59	4.65	4.68
Soluble phosphate and biosolids_high_I	5.58	5.67	5.80
Soluble phosphate and biosolids_high_S	4.96	5.05	5.18
Soluble phosphate and biosolids_low_I	4.94	4.99	5.06
Soluble phosphate and biosolids_low_S	4.73	4.79	4.88

	pH		
	Min	Mean	Max
Timepoint 1	Soil <2mm		
Treatment x Rate x Application Method	unitless		
Soluble phosphate and compost_high_I	4.56	4.64	4.73
Soluble phosphate and compost_high_S	4.59	4.60	4.62
Soluble phosphate and compost_low_I	4.55	4.58	4.60
Soluble phosphate and compost_low_S	4.67	4.74	4.79
Wood ash_high_I	5.31	5.41	5.56
Wood ash_high_S	4.49	5.00	5.27
Wood ash_low_I	4.76	4.92	5.01
Wood ash_low_S	4.71	4.79	4.86
Wood ash and biochar_high_I	5.51	5.56	5.61
Wood ash and biochar_high_S	5.20	5.36	5.52
Wood ash and biochar_low_I	5.02	5.07	5.09
Wood ash and biochar_low_S	4.94	5.07	5.17
Wood ash and compost_high_I	5.51	5.54	5.60
Wood ash and compost_high_S	4.41	4.53	4.59
Wood ash and compost_low_I	4.92	5.01	5.08
Wood ash and compost_low_S	4.92	5.03	5.08

Table 26. Summary statistics for Timepoint 2 pH for each treatment/rate/application method combination

	pH		
	Min	Mean	Max
Timepoint 2	Soil <2mm		
Treatment x Rate x Application Method	unitless		
Biochar_high_I	4.77	4.89	4.94
Biochar_high_S	4.66	4.72	4.80
Biochar_low_I	4.59	4.61	4.63
Biochar_low_S	4.83	4.92	4.96
Biochar and compost_high_I	4.78	4.94	5.04
Biochar and compost_high_S	4.88	4.91	4.95
Biochar and compost_low_I	4.65	4.67	4.70
Biochar and compost_low_S	4.63	4.70	4.77
Biosolid_high_I	5.35	5.71	6.08
Biosolid_high_S	5.56	5.63	5.71
Biosolid_low_I	4.86	5.04	5.12
Biosolid_low_S	5.08	5.18	5.26
Compost_high_I	4.73	4.86	4.93
Compost_high_S	4.60	4.70	4.84
Compost_low_I	4.55	4.63	4.80
Compost_low_S	4.77	4.82	4.88
control_none_I	4.42	4.52	4.61
Soluble phosphate_high_I	4.25	4.41	4.64
Soluble phosphate_high_S	4.28	4.33	4.37
Soluble phosphate_low_I	4.47	4.53	4.57
Soluble phosphate_low_S	4.39	4.57	4.75
Soluble phosphate and biochar_high_I	4.47	4.53	4.57
Soluble phosphate and biochar_high_S	4.36	4.50	4.63
Soluble phosphate and biochar_low_I	4.43	4.46	4.48
Soluble phosphate and biochar_low_S	4.78	4.85	4.88
Soluble phosphate and biosolids_high_I	5.51	5.63	5.82
Soluble phosphate and biosolids_high_S	5.30	5.40	5.50
Soluble phosphate and biosolids_low_I	4.90	4.98	5.13
Soluble phosphate and biosolids_low_S	5.00	5.13	5.30
Soluble phosphate and compost_high_I	4.67	4.84	5.28
Soluble phosphate and compost_high_S	4.53	4.57	4.63
Soluble phosphate and compost_low_I	4.48	4.53	4.59
Soluble phosphate and compost_low_S	4.54	4.59	4.68
Wood ash_high_I	5.47	5.56	5.60

	pH		
	Min	Mean	Max
Timepoint 2	Soil <2mm		
Treatment x Rate x Application Method	unitless		
Wood ash_high_S	5.13	5.20	5.27
Wood ash_low_I	4.87	4.94	5.02
Wood ash_low_S	4.77	5.02	5.40
Biosolidsandwood ash_low_S	4.73	4.89	4.97
Biosolidsandwood ash_high_S	5.25	5.43	5.55
Biosolidsandwood ash_low_I	4.63	4.85	5.32
Biosolidsandwood ash_high_I	5.49	5.62	5.74
Wood ash and compost_low_S	4.56	4.71	4.80
Wood ash and compost_high_S	4.78	4.87	5.02
Wood ash and compost_low_I	4.87	4.93	4.98
Wood ash and compost_high_I	5.47	5.50	5.52
Wood ash and biochar_high_S	5.11	5.30	5.44
Wood ash and biochar_low_I	4.92	4.97	5.02
Wood ash and biochar_high_I	5.50	5.57	5.66
Wood ash and biochar_low_S	4.74	4.85	4.94

Table 27. Summary statistics for Timepoint 3 pH for each treatment/rate/application method combination

	pH		
	Min	Mean	Max
Timepoint 3	Soil <2mm		
Treatment x Rate x Application Method	unitless		
Biochar_high_I	4.53	4.56	4.60
Biochar_high_S	4.72	4.76	4.78
Biochar_low_I	4.25	4.30	4.36
Biochar_low_S	4.71	4.77	4.86
Biochar and compost_high_I	4.62	4.65	4.69
Biochar and compost_high_S	4.55	4.57	4.59
Biochar and compost_low_I	4.49	4.54	4.57
Biochar and compost_low_S	4.58	4.67	4.78
Biosolid_high_I	4.61	4.92	5.29
Biosolid_high_S	5.36	5.57	5.77
Biosolid_low_I	4.48	4.53	4.63
Biosolid_low_S	4.86	5.01	5.23
Biosolids and wood ash_high_I	4.46	4.77	5.01
Biosolids and wood ash_high_S	5.25	5.50	5.68
Biosolids and wood ash_low_I	4.31	4.49	4.59
Biosolids and wood ash_low_S	4.96	4.98	4.99
Compost_high_I	4.48	4.52	4.59
Compost_high_S	4.53	4.57	4.63
Compost_low_I	4.24	4.32	4.42
Compost_low_S	4.71	4.72	4.73
control_none_I	4.27	5.04	7.29
Soluble phosphate_high_I	4.21	4.32	4.37
Soluble phosphate_high_S	4.30	4.34	4.42
Soluble phosphate_low_I	4.31	4.33	4.37
Soluble phosphate_low_S	4.37	4.49	4.67
Soluble phosphate and biochar_high_I	4.26	4.36	4.42
Soluble phosphate and biochar_high_S	4.49	4.58	4.65
Soluble phosphate and biochar_low_I	4.38	4.45	4.56
Soluble phosphate and biochar_low_S	4.53	4.60	4.64
Soluble phosphate and biosolids_high_I	4.68	4.92	5.10
Soluble phosphate and biosolids_high_S	5.63	5.71	5.76
Soluble phosphate and biosolids_low_I	4.28	4.63	4.98
Soluble phosphate and biosolids_low_S	4.78	4.86	4.95
Soluble phosphate and compost_high_I	4.45	4.54	4.69

	pH		
	Min	Mean	Max
Timepoint 3	Soil <2mm		
Treatment x Rate x Application Method	unitless		
Soluble phosphate and compost_high_S	4.55	4.61	4.70
Soluble phosphate and compost_low_I	4.29	4.37	4.44
Soluble phosphate and compost_low_S	4.63	4.68	4.71
Wood ash_high_I	5.12	5.24	5.32
Wood ash_high_S	5.18	5.21	5.26
Wood ash_low_I	4.61	4.74	4.79
Wood ash_low_S	4.87	4.95	5.07
Wood ash and biochar_high_I	5.42	5.45	5.47
Wood ash and biochar_high_S	5.05	5.11	5.15
Wood ash and biochar_low_I	4.78	4.83	4.94
Wood ash and biochar_low_S	4.95	5.05	5.11
Wood ash and compost_high_I	5.24	5.31	5.38
Wood ash and compost_high_S	4.69	4.71	4.73
Wood ash and compost_low_I	4.66	4.79	4.90
Wood ash and compost_low_S	4.75	4.81	4.87

Table 28. Summary statistics for Timepoint 1 potentially mineralizable nitrogen for each treatment/rate/application method combination

	Potentially mineralizable nitrogen		
	Min	Mean	Max
Timepoint 1	Soil <2mm		
Treatment x Rate x Application Method	Nitrogen (mg/kg)		
Nitrogen_Mineral	26	282	2313
Baseline_baseline_NA	26	34	51
Biochar_high_I	41	47	55
Biochar_high_S	40	50	59
Biochar_low_I	33	45	52
Biochar_low_S	38	48	57
Biochar and compost_high_I	96	128	146
Biochar and compost_high_S	74	86	101
Biochar and compost_low_I	54	66	78
Biochar and compost_low_S	53	59	64
Biosolid_high_I	1483	1914	2198
Biosolid_high_S	863	919	1013
Biosolid_low_I	450	471	518
Biosolid_low_S	314	368	401
Biosolids and wood ash_high_I	1793	2149	2313
Biosolids and wood ash_high_S	743	789	828
Biosolids and wood ash_low_I	539	589	674
Biosolids and wood ash_low_S	260	269	285
Compost_high_I	151	158	164
Compost_high_S	67	80	93
Compost_low_I	63	68	74
Compost_low_S	59	65	69
control_none_I	34	46	59
Soluble phosphate_high_I	69	76	80
Soluble phosphate_high_S	70	79	94
Soluble phosphate_low_I	40	52	63
Soluble phosphate_low_S	60	75	84
Soluble phosphate and biochar_high_I	93	101	111
Soluble phosphate and biochar_high_S	91	96	103
Soluble phosphate and biochar_low_I	57	71	91
Soluble phosphate and biochar_low_S	51	62	70
Soluble phosphate and biosolids_high_I	1813	1915	2053
Soluble phosphate and biosolids_high_S	828	927	1008

	Potentially_mineralizable_nitrogen		
	Min	Mean	Max
Timepoint 1	Soil <2mm		
Treatment x Rate x Application Method	Nitrogen (mg/kg)		
Soluble phosphate and biosolids_low_I	528	599	703
Soluble phosphate and biosolids_low_S	366	395	431
Soluble phosphate and compost_high_I	145	160	180
Soluble phosphate and compost_high_S	113	141	165
Soluble phosphate and compost_low_I	62	74	90
Soluble phosphate and compost_low_S	68	81	96
Wood ash_high_I	36	47	56
Wood ash_high_S	38	41	43
Wood ash_low_I	47	50	54
Wood ash_low_S	46	50	57
Wood ash and biochar_high_I	55	75	105
Wood ash and biochar_high_S	33	43	49
Wood ash and biochar_low_I	39	45	51
Wood ash and biochar_low_S	40	43	47
Wood ash and compost_high_I	138	168	182
Wood ash and compost_high_S	55	86	105
Wood ash and compost_low_I	46	61	74
Wood ash and compost_low_S	45	51	58

Table 29. Summary statistics for Timepoint 2 potentially mineralizable nitrogen for each treatment/rate/application method combination

	Potentially mineralizable nitrogen		
	Min	Mean	Max
Timepoint 2	Soil <2mm		
Treatment x Rate x Application Method	Nitrogen (mg/kg)		
Nitrogen_Mineral	21	277	3124
Biochar_high_I	52	53	56
Biochar_high_S	28	34	44
Biochar_low_I	38	43	49
Biochar_low_S	28	33	37
Biochar and compost_high_I	70	113	138
Biochar and compost_high_S	38	43	56
Biochar and compost_low_I	43	53	60
Biochar and compost_low_S	21	30	36
Biosolid_high_I	1533	2178	2838
Biosolid_high_S	841	1003	1071
Biosolid_low_I	401	619	837
Biosolid_low_S	341	366	384
Biosolids and wood ash_high_I	1028	1670	2043
Biosolids and wood ash_high_S	751	800	856
Biosolids and wood ash_low_I	173	320	593
Biosolids and wood ash_low_S	133	210	274
Compost_high_I	111	127	135
Compost_high_S	53	71	87
Compost_low_I	39	48	69
Compost_low_S	26	30	37
control_none_I	33	46	62
Soluble phosphate_low_S	68	68	68
Soluble phosphate and biochar_high_I	63	89	114
Soluble phosphate and biochar_high_S	47	54	58
Soluble phosphate and biochar_low_I	46	55	63
Soluble phosphate and biochar_low_S	30	42	52
Soluble phosphate and biosolids_high_I	1638	2233	3124
Soluble phosphate and biosolids_high_S	996	1051	1101
Soluble phosphate and biosolids_low_I	533	602	743
Soluble phosphate and biosolids_low_S	418	442	468
Soluble phosphate and compost_high_I	134	162	180
Soluble phosphate and compost_high_S	94	128	157

	Potentially_mineralizable_nitrogen		
	Min	Mean	Max
Timepoint 2	Soil <2mm		
Treatment x Rate x Application Method	Nitrogen (mg/kg)		
Soluble phosphate and compost_low_I	53	65	84
Soluble phosphate and compost_low_S	52	60	65
Soluble phosphate_high_I	56	63	70
Soluble phosphate_high_S	56	77	92
Soluble phosphate_low_I	38	49	54
Soluble phosphate_low_S	40	45	47
Wood ash_high_I	28	32	34
Wood ash_high_S	33	35	40
Wood ash_low_I	28	34	38
Wood ash_low_S	33	35	38
Wood ash and biochar_high_I	34	39	45
Wood ash and biochar_high_S	25	27	29
Wood ash and biochar_low_I	34	41	44
Wood ash and biochar_low_S	26	31	34
Wood ash and compost_high_I	45	66	80
Wood ash and compost_high_S	38	41	47
Wood ash and compost_low_I	35	38	41
Wood ash and compost_low_S	25	31	39

Table 30. Summary statistics for Timepoint 3 potentially mineralizable nitrogen for each treatment/rate/application method combination

	Potentially mineralizable nitrogen		
	Min	Mean	Max
Timepoint 3	Soil <2mm		
Treatment x Rate x Application Method	Nitrogen (mg/kg)		
Nitrogen_Mineral	23	192	1853
Biochar_high_I	44	50	56
Biochar_high_S	24	31	37
Biochar_low_I	43	56	61
Biochar_low_S	37	42	46
Biochar and compost_high_I	42	55	75
Biochar and compost_high_S	27	30	35
Biochar and compost_low_I	40	42	44
Biochar and compost_low_S	33	35	37
Biosolid_high_I	990	1423	1775
Biosolid_high_S	782	837	887
Biosolid_low_I	141	232	291
Biosolid_low_S	340	354	365
Biosolids and wood ash_high_I	512	634	770
Biosolids and wood ash_high_S	412	560	663
Biosolids and wood ash_low_I	101	122	152
Biosolids and wood ash_low_S	77	92	111
Compost_high_I	51	57	64
Compost_high_S	26	33	41
Compost_low_I	36	52	87
Compost_low_S	26	32	44
control_none_I	29	36	41
Soluble phosphate_high_I	50	55	60
Soluble phosphate_high_S	38	45	54
Soluble phosphate_low_I	27	37	46
Soluble phosphate_low_S	42	47	51
Soluble phosphate and biochar_high_I	52	64	73
Soluble phosphate and biochar_high_S	36	61	72
Soluble phosphate and biochar_low_I	45	46	48
Soluble phosphate and biochar_low_S	31	36	39
Soluble phosphate and biosolids_high_I	1354	1575	1853
Soluble phosphate and biosolids_high_S	1102	1164	1242
Soluble phosphate and biosolids_low_I	186	339	473

	Potentially_mineralizable_nitrogen		
	Min	Mean	Max
Timepoint 3	Soil <2mm		
Treatment x Rate x Application Method	Nitrogen (mg/kg)		
Soluble phosphate and biosolids_low_S	300	387	477
Soluble phosphate and compost_high_I	89	109	143
Soluble phosphate and compost_high_S	116	122	135
Soluble phosphate and compost_low_I	37	47	56
Soluble phosphate and compost_low_S	33	42	50
Wood ash_high_I	29	34	39
Wood ash_high_S	31	35	38
Wood ash_low_I	30	35	42
Wood ash_low_S	40	43	48
Wood ash and biochar_high_I	36	37	38
Wood ash and biochar_high_S	31	34	37
Wood ash and biochar_low_I	35	41	44
Wood ash and biochar_low_S	26	33	39
Wood ash and compost_high_I	42	47	52
Wood ash and compost_high_S	27	29	31
Wood ash and compost_low_I	30	34	39
Wood ash and compost_low_S	23	34	46

Table 31. Summary statistics for Timepoint 1 synthetic precipitation leaching procedure (SPLP) for each treatment/rate/application method combination

Timepoint 1 Treatment x Rate x Application Method	SPLP			
	Soil <2mm			
	Element	Min mg/L	Mean mg/L	Max mg/L
Baseline_baseline_NA	Cobalt	4.86E-04	1.51E-03	3.19E-03
Biochar_high_I	Cobalt	6.22E-04	7.08E-04	9.02E-04
Biochar_high_S	Cobalt	5.97E-04	8.09E-04	1.03E-03
Biochar_low_I	Cobalt	3.93E-04	5.96E-04	8.73E-04
Biochar_low_S	Cobalt	1.63E-03	2.18E-03	3.01E-03
Biochar and compost_high_I	Cobalt	3.93E-04	2.34E-03	7.18E-03
Biochar and compost_high_S	Cobalt	3.93E-04	7.37E-04	1.77E-03
Biochar and compost_low_I	Cobalt	8.59E-04	1.27E-03	1.95E-03
Biochar and compost_low_S	Cobalt	2.07E-03	2.50E-03	3.35E-03
Biosolid_high_I	Cobalt	9.29E-04	2.77E-03	4.06E-03
Biosolid_high_S	Cobalt	1.93E-03	2.70E-03	3.02E-03
Biosolid_low_I	Cobalt	3.93E-04	1.43E-03	2.32E-03
Biosolid_low_S	Cobalt	1.78E-03	2.11E-03	2.55E-03
Biosolids and wood ash_high_I	Cobalt	2.40E-03	3.06E-03	4.03E-03
Biosolids and wood ash_high_S	Cobalt	3.93E-04	8.74E-04	1.51E-03
Biosolids and wood ash_low_I	Cobalt	1.43E-03	4.60E-03	1.12E-02
Biosolids and wood ash_low_S	Cobalt	1.30E-03	1.79E-03	2.65E-03
Compost_high_I	Cobalt	1.07E-03	1.29E-03	1.86E-03
Compost_high_S	Cobalt	3.93E-04	1.35E-03	2.13E-03
Compost_low_I	Cobalt	5.55E-04	1.30E-03	2.26E-03
Compost_low_S	Cobalt	1.26E-03	2.15E-03	3.60E-03
control_none_I	Cobalt	3.93E-04	1.22E-03	1.63E-03
Soluble phosphate_high_I	Cobalt	2.10E-03	4.94E-03	9.29E-03
Soluble phosphate_high_S	Cobalt	2.66E-03	3.09E-03	3.35E-03
Soluble phosphate_low_I	Cobalt	1.01E-03	1.52E-03	2.13E-03
Soluble phosphate_low_S	Cobalt	1.60E-03	2.35E-03	3.42E-03
Soluble phosphate and biochar_high_I	Cobalt	6.90E-04	1.37E-03	1.90E-03
Soluble phosphate and biochar_high_S	Cobalt	3.93E-04	1.09E-03	1.84E-03
Soluble phosphate and biochar_low_I	Cobalt	1.22E-03	3.41E-03	8.87E-03
Soluble phosphate and biochar_low_S	Cobalt	8.94E-04	1.71E-03	3.03E-03
Soluble phosphate and biosolids_high_I	Cobalt	3.71E-03	6.52E-03	1.21E-02
Soluble phosphate and biosolids_high_S	Cobalt	1.34E-03	2.10E-03	3.01E-03
Soluble phosphate and biosolids_low_I	Cobalt	1.23E-03	1.87E-03	2.99E-03
Soluble phosphate and biosolids_low_S	Cobalt	1.33E-03	2.01E-03	2.37E-03

	SPLP			
	Soil <2mm			
Timepoint 1		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Soluble phosphate and compost_high_I	Cobalt	4.93E-04	2.67E-03	7.43E-03
Soluble phosphate and compost_high_S	Cobalt	3.93E-04	1.07E-03	2.03E-03
Soluble phosphate and compost_low_I	Cobalt	1.08E-03	1.67E-03	3.11E-03
Soluble phosphate and compost_low_S	Cobalt	9.67E-04	1.58E-03	1.94E-03
Wood ash_high_I	Cobalt	5.50E-04	8.28E-04	1.38E-03
Wood ash_high_S	Cobalt	1.87E-03	2.14E-03	2.68E-03
Wood ash_low_I	Cobalt	4.58E-04	9.57E-04	1.25E-03
Wood ash_low_S	Cobalt	1.50E-03	2.19E-03	2.80E-03
Wood ash and biochar_high_I	Cobalt	5.49E-04	3.22E-03	1.07E-02
Wood ash and biochar_high_S	Cobalt	4.70E-04	5.72E-04	6.46E-04
Wood ash and biochar_low_I	Cobalt	4.12E-04	7.96E-04	1.12E-03
Wood ash and biochar_low_S	Cobalt	1.69E-03	2.24E-03	2.71E-03
Wood ash and compost_high_I	Cobalt	4.62E-04	7.85E-04	1.20E-03
Wood ash and compost_high_S	Cobalt	3.93E-04	5.08E-04	8.42E-04
Wood ash and compost_low_I	Cobalt	9.16E-04	2.35E-03	6.26E-03
Wood ash and compost_low_S	Cobalt	2.08E-03	2.26E-03	2.44E-03
Baseline_baseline_NA	Copper	6.19E-03	6.87E-03	8.17E-03
Biochar_high_I	Copper	7.57E-03	8.22E-03	9.43E-03
Biochar_high_S	Copper	5.47E-03	6.60E-03	7.68E-03
Biochar_low_I	Copper	2.75E-03	3.92E-03	5.13E-03
Biochar_low_S	Copper	1.55E-03	3.49E-03	5.20E-03
Biochar and compost_high_I	Copper	1.39E-02	1.65E-02	2.23E-02
Biochar and compost_high_S	Copper	4.92E-03	6.65E-03	9.30E-03
Biochar and compost_low_I	Copper	8.89E-03	1.06E-02	1.14E-02
Biochar and compost_low_S	Copper	2.30E-03	4.16E-03	5.98E-03
Biosolid_high_I	Copper	4.52E-02	5.74E-02	6.88E-02
Biosolid_high_S	Copper	8.39E-03	9.63E-03	1.16E-02
Biosolid_low_I	Copper	1.02E-02	1.15E-02	1.22E-02
Biosolid_low_S	Copper	5.05E-03	6.17E-03	7.83E-03
Biosolids and wood ash_high_I	Copper	5.50E-02	6.23E-02	6.75E-02
Biosolids and wood ash_high_S	Copper	9.03E-03	9.75E-03	1.10E-02
Biosolids and wood ash_low_I	Copper	1.64E-02	1.98E-02	2.50E-02
Biosolids and wood ash_low_S	Copper	4.20E-03	5.81E-03	6.95E-03
Compost_high_I	Copper	1.61E-02	1.83E-02	2.19E-02
Compost_high_S	Copper	5.78E-03	6.43E-03	7.40E-03
Compost_low_I	Copper	1.05E-02	1.18E-02	1.29E-02

	SPLP			
	Soil <2mm			
Timepoint 1		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Compost_low_S	Copper	4.88E-03	5.33E-03	5.90E-03
control_none_I	Copper	7.78E-03	9.07E-03	1.06E-02
Soluble phosphate_high_I	Copper	1.04E-02	2.46E-02	5.81E-02
Soluble phosphate_high_S	Copper	5.40E-03	6.04E-03	6.91E-03
Soluble phosphate_low_I	Copper	5.40E-03	6.17E-03	6.62E-03
Soluble phosphate_low_S	Copper	2.35E-03	3.67E-03	4.54E-03
Soluble phosphate and biochar_high_I	Copper	9.56E-03	9.88E-03	1.03E-02
Soluble phosphate and biochar_high_S	Copper	6.52E-03	7.80E-03	8.34E-03
Soluble phosphate and biochar_low_I	Copper	7.46E-03	1.07E-02	1.77E-02
Soluble phosphate and biochar_low_S	Copper	1.07E-03	2.37E-03	3.30E-03
Soluble phosphate and biosolids_high_I	Copper	5.32E-02	6.94E-02	8.46E-02
Soluble phosphate and biosolids_high_S	Copper	9.25E-03	1.09E-02	1.34E-02
Soluble phosphate and biosolids_low_I	Copper	1.35E-02	1.60E-02	1.90E-02
Soluble phosphate and biosolids_low_S	Copper	6.51E-03	7.10E-03	7.62E-03
Soluble phosphate and compost_high_I	Copper	1.81E-02	2.00E-02	2.35E-02
Soluble phosphate and compost_high_S	Copper	7.04E-03	1.02E-02	1.18E-02
Soluble phosphate and compost_low_I	Copper	9.39E-03	1.06E-02	1.14E-02
Soluble phosphate and compost_low_S	Copper	3.92E-03	4.13E-03	4.53E-03
Wood ash_high_I	Copper	8.66E-03	9.54E-03	1.06E-02
Wood ash_high_S	Copper	3.30E-03	3.65E-03	3.96E-03
Wood ash_low_I	Copper	5.02E-03	6.51E-03	7.82E-03
Wood ash_low_S	Copper	3.44E-03	4.52E-03	5.01E-03
Wood ash and biochar_high_I	Copper	8.15E-03	1.16E-02	1.94E-02
Wood ash and biochar_high_S	Copper	4.89E-03	5.75E-03	6.14E-03
Wood ash and biochar_low_I	Copper	8.28E-03	8.70E-03	9.05E-03
Wood ash and biochar_low_S	Copper	2.69E-03	3.86E-03	4.82E-03
Wood ash and compost_high_I	Copper	9.05E-03	1.34E-02	1.54E-02
Wood ash and compost_high_S	Copper	6.53E-03	7.17E-03	8.60E-03
Wood ash and compost_low_I	Copper	1.11E-02	1.30E-02	1.82E-02
Wood ash and compost_low_S	Copper	2.70E-03	4.46E-03	5.91E-03
Baseline_baseline_NA	Iron	1.80E-01	2.26E-01	2.72E-01
Biochar_high_I	Iron	3.93E-01	4.06E-01	4.24E-01
Biochar_high_S	Iron	4.23E-01	4.79E-01	5.38E-01
Biochar_low_I	Iron	3.56E-01	3.68E-01	3.91E-01
Biochar_low_S	Iron	3.85E-01	4.26E-01	4.75E-01
Biochar and compost_high_I	Iron	4.86E-01	5.47E-01	6.00E-01

	SPLP			
	Soil <2mm			
Timepoint 1		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Biochar and compost_high_S	Iron	4.36E-01	4.92E-01	5.19E-01
Biochar and compost_low_I	Iron	3.32E-01	4.22E-01	4.79E-01
Biochar and compost_low_S	Iron	4.19E-01	4.68E-01	5.00E-01
Biosolid_high_I	Iron	6.97E-01	8.26E-01	1.08E+00
Biosolid_high_S	Iron	5.35E-01	6.17E-01	6.79E-01
Biosolid_low_I	Iron	4.26E-01	4.33E-01	4.46E-01
Biosolid_low_S	Iron	4.37E-01	5.06E-01	6.00E-01
Biosolids and wood ash_high_I	Iron	5.06E-01	5.76E-01	7.26E-01
Biosolids and wood ash_high_S	Iron	4.71E-01	4.93E-01	5.27E-01
Biosolids and wood ash_low_I	Iron	4.38E-01	5.53E-01	6.19E-01
Biosolids and wood ash_low_S	Iron	4.19E-01	4.64E-01	5.24E-01
Compost_high_I	Iron	3.79E-01	4.50E-01	4.86E-01
Compost_high_S	Iron	4.51E-01	4.64E-01	4.76E-01
Compost_low_I	Iron	4.36E-01	4.71E-01	5.07E-01
Compost_low_S	Iron	4.41E-01	4.54E-01	4.82E-01
control_none_I	Iron	4.21E-01	4.38E-01	4.59E-01
Soluble phosphate_high_I	Iron	2.99E-01	4.82E-01	9.47E-01
Soluble phosphate_high_S	Iron	3.47E-01	3.66E-01	3.97E-01
Soluble phosphate_low_I	Iron	2.86E-01	3.22E-01	3.82E-01
Soluble phosphate_low_S	Iron	3.13E-01	3.87E-01	4.25E-01
Soluble phosphate and biochar_high_I	Iron	2.78E-01	3.29E-01	3.71E-01
Soluble phosphate and biochar_high_S	Iron	4.52E-01	4.64E-01	4.86E-01
Soluble phosphate and biochar_low_I	Iron	2.36E-01	2.47E-01	2.60E-01
Soluble phosphate and biochar_low_S	Iron	3.24E-01	3.66E-01	4.02E-01
Soluble phosphate and biosolids_high_I	Iron	6.06E-01	7.33E-01	8.71E-01
Soluble phosphate and biosolids_high_S	Iron	4.58E-01	5.01E-01	5.52E-01
Soluble phosphate and biosolids_low_I	Iron	4.42E-01	5.37E-01	5.97E-01
Soluble phosphate and biosolids_low_S	Iron	4.16E-01	4.67E-01	4.97E-01
Soluble phosphate and compost_high_I	Iron	3.06E-01	3.47E-01	3.98E-01
Soluble phosphate and compost_high_S	Iron	3.88E-01	4.49E-01	4.83E-01
Soluble phosphate and compost_low_I	Iron	3.07E-01	3.44E-01	4.00E-01
Soluble phosphate and compost_low_S	Iron	2.97E-01	3.77E-01	4.34E-01
Wood ash_high_I	Iron	4.24E-01	4.38E-01	4.76E-01
Wood ash_high_S	Iron	4.05E-01	4.18E-01	4.39E-01
Wood ash_low_I	Iron	3.77E-01	3.96E-01	4.08E-01
Wood ash_low_S	Iron	4.37E-01	4.77E-01	5.25E-01

	SPLP			
	Soil <2mm			
Timepoint 1		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Wood ash and biochar_high_I	Iron	3.73E-01	4.31E-01	5.32E-01
Wood ash and biochar_high_S	Iron	4.70E-01	5.05E-01	5.41E-01
Wood ash and biochar_low_I	Iron	3.33E-01	3.44E-01	3.60E-01
Wood ash and biochar_low_S	Iron	4.33E-01	4.45E-01	4.64E-01
Wood ash and compost_high_I	Iron	1.38E-01	4.07E-01	5.55E-01
Wood ash and compost_high_S	Iron	4.61E-01	4.94E-01	5.12E-01
Wood ash and compost_low_I	Iron	3.22E-01	3.87E-01	5.04E-01
Wood ash and compost_low_S	Iron	4.26E-01	4.42E-01	4.54E-01
Baseline_baseline_NA	Lead	3.36E-02	3.54E-02	3.67E-02
Biochar_high_I	Lead	4.87E-02	5.17E-02	5.44E-02
Biochar_high_S	Lead	4.25E-02	6.41E-02	8.13E-02
Biochar_low_I	Lead	4.48E-02	4.99E-02	5.33E-02
Biochar_low_S	Lead	5.72E-02	6.34E-02	7.10E-02
Biochar and compost_high_I	Lead	6.94E-02	7.71E-02	8.62E-02
Biochar and compost_high_S	Lead	4.91E-02	6.67E-02	7.73E-02
Biochar and compost_low_I	Lead	5.01E-02	5.83E-02	6.40E-02
Biochar and compost_low_S	Lead	5.72E-02	6.94E-02	7.76E-02
Biosolid_high_I	Lead	7.29E-02	7.68E-02	8.25E-02
Biosolid_high_S	Lead	9.27E-02	9.93E-02	1.04E-01
Biosolid_low_I	Lead	5.81E-02	6.26E-02	6.53E-02
Biosolid_low_S	Lead	4.47E-02	6.37E-02	8.19E-02
Biosolids and wood ash_high_I	Lead	5.72E-02	6.63E-02	8.76E-02
Biosolids and wood ash_high_S	Lead	6.34E-02	6.57E-02	6.91E-02
Biosolids and wood ash_low_I	Lead	5.59E-02	7.03E-02	7.72E-02
Biosolids and wood ash_low_S	Lead	5.76E-02	6.39E-02	7.18E-02
Compost_high_I	Lead	7.26E-02	7.97E-02	9.23E-02
Compost_high_S	Lead	6.04E-02	6.68E-02	6.91E-02
Compost_low_I	Lead	6.75E-02	6.99E-02	7.43E-02
Compost_low_S	Lead	7.04E-02	7.40E-02	7.84E-02
control_none_I	Lead	5.26E-02	5.66E-02	6.44E-02
Soluble phosphate_high_I	Lead	5.14E-02	8.12E-02	1.39E-01
Soluble phosphate_high_S	Lead	5.68E-02	6.16E-02	6.84E-02
Soluble phosphate_low_I	Lead	5.55E-02	5.78E-02	6.21E-02
Soluble phosphate_low_S	Lead	4.46E-02	5.95E-02	6.55E-02
Soluble phosphate and biochar_high_I	Lead	5.10E-02	5.29E-02	5.71E-02
Soluble phosphate and biochar_high_S	Lead	5.91E-02	6.51E-02	7.45E-02

	SPLP			
	Soil <2mm			
Timepoint 1		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Soluble phosphate and biochar_low_I	Lead	3.93E-02	4.73E-02	5.47E-02
Soluble phosphate and biochar_low_S	Lead	4.17E-02	5.04E-02	5.79E-02
Soluble phosphate and biosolids_high_I	Lead	7.17E-02	8.16E-02	9.19E-02
Soluble phosphate and biosolids_high_S	Lead	6.15E-02	6.76E-02	7.42E-02
Soluble phosphate and biosolids_low_I	Lead	6.16E-02	7.03E-02	7.70E-02
Soluble phosphate and biosolids_low_S	Lead	5.46E-02	6.52E-02	7.06E-02
Soluble phosphate and compost_high_I	Lead	5.10E-02	5.45E-02	5.73E-02
Soluble phosphate and compost_high_S	Lead	4.72E-02	6.20E-02	6.93E-02
Soluble phosphate and compost_low_I	Lead	5.11E-02	5.77E-02	6.64E-02
Soluble phosphate and compost_low_S	Lead	4.70E-02	5.49E-02	6.76E-02
Wood ash_high_I	Lead	5.59E-02	6.39E-02	6.95E-02
Wood ash_high_S	Lead	6.05E-02	6.44E-02	6.79E-02
Wood ash_low_I	Lead	5.93E-02	6.08E-02	6.19E-02
Wood ash_low_S	Lead	6.66E-02	6.95E-02	7.48E-02
Wood ash and biochar_high_I	Lead	5.23E-02	6.21E-02	7.06E-02
Wood ash and biochar_high_S	Lead	5.40E-02	5.89E-02	6.32E-02
Wood ash and biochar_low_I	Lead	4.57E-02	4.80E-02	4.92E-02
Wood ash and biochar_low_S	Lead	6.44E-02	6.73E-02	6.99E-02
Wood ash and compost_high_I	Lead	2.57E-02	5.76E-02	7.47E-02
Wood ash and compost_high_S	Lead	5.95E-02	6.90E-02	7.51E-02
Wood ash and compost_low_I	Lead	5.52E-02	6.01E-02	6.45E-02
Wood ash and compost_low_S	Lead	5.68E-02	6.53E-02	6.98E-02
Baseline_baseline_NA	Magnesium	2.85E-01	4.36E-01	5.25E-01
Biochar_high_I	Magnesium	4.73E-01	5.21E-01	5.94E-01
Biochar_high_S	Magnesium	2.59E-01	2.73E-01	2.83E-01
Biochar_low_I	Magnesium	6.13E-01	6.55E-01	7.14E-01
Biochar_low_S	Magnesium	2.70E-01	3.14E-01	4.36E-01
Biochar and compost_high_I	Magnesium	7.79E-01	9.66E-01	1.30E+00
Biochar and compost_high_S	Magnesium	1.71E-01	2.25E-01	2.92E-01
Biochar and compost_low_I	Magnesium	7.22E-01	9.32E-01	1.14E+00
Biochar and compost_low_S	Magnesium	2.05E-01	2.33E-01	2.60E-01
Biosolid_high_I	Magnesium	7.66E-01	2.97E+00	5.75E+00
Biosolid_high_S	Magnesium	1.92E-01	2.68E-01	3.42E-01
Biosolid_low_I	Magnesium	8.40E-01	1.08E+00	1.68E+00
Biosolid_low_S	Magnesium	1.85E-01	2.57E-01	3.21E-01
Biosolids and wood ash_high_I	Magnesium	2.66E+00	4.01E+00	6.16E+00

	SPLP			
	Soil <2mm			
Timepoint 1		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Biosolids and wood ash_high_S	Magnesium	3.04E-01	3.87E-01	5.23E-01
Biosolids and wood ash_low_I	Magnesium	8.76E-01	9.64E-01	1.13E+00
Biosolids and wood ash_low_S	Magnesium	3.85E-01	4.85E-01	5.79E-01
Compost_high_I	Magnesium	1.18E+00	1.74E+00	2.42E+00
Compost_high_S	Magnesium	2.71E-01	3.70E-01	4.49E-01
Compost_low_I	Magnesium	1.03E+00	1.33E+00	1.68E+00
Compost_low_S	Magnesium	2.94E-01	3.39E-01	3.78E-01
control_none_I	Magnesium	5.03E-01	6.70E-01	8.02E-01
Soluble phosphate_high_I	Magnesium	3.24E+00	5.31E+00	1.14E+01
Soluble phosphate_high_S	Magnesium	1.42E+00	1.84E+00	2.20E+00
Soluble phosphate_low_I	Magnesium	1.05E+00	1.31E+00	1.60E+00
Soluble phosphate_low_S	Magnesium	6.86E-01	1.09E+00	1.71E+00
Soluble phosphate and biochar_high_I	Magnesium	1.87E+00	2.37E+00	2.90E+00
Soluble phosphate and biochar_high_S	Magnesium	8.01E-01	8.94E-01	9.71E-01
Soluble phosphate and biochar_low_I	Magnesium	1.47E+00	1.79E+00	2.04E+00
Soluble phosphate and biochar_low_S	Magnesium	4.49E-01	4.93E-01	5.56E-01
Soluble phosphate and biosolids_high_I	Magnesium	1.94E+00	4.16E+00	6.67E+00
Soluble phosphate and biosolids_high_S	Magnesium	3.37E-01	3.83E-01	4.15E-01
Soluble phosphate and biosolids_low_I	Magnesium	1.02E+00	1.31E+00	1.83E+00
Soluble phosphate and biosolids_low_S	Magnesium	3.97E-01	4.40E-01	4.69E-01
Soluble phosphate and compost_high_I	Magnesium	2.82E+00	3.46E+00	4.46E+00
Soluble phosphate and compost_high_S	Magnesium	8.48E-01	1.11E+00	1.24E+00
Soluble phosphate and compost_low_I	Magnesium	1.68E+00	1.85E+00	1.98E+00
Soluble phosphate and compost_low_S	Magnesium	3.19E-01	4.44E-01	5.76E-01
Wood ash_high_I	Magnesium	9.31E-01	1.07E+00	1.17E+00
Wood ash_high_S	Magnesium	6.51E-01	7.64E-01	8.28E-01
Wood ash_low_I	Magnesium	7.81E-01	9.03E-01	1.18E+00
Wood ash_low_S	Magnesium	4.34E-01	5.08E-01	6.01E-01
Wood ash and biochar_high_I	Magnesium	1.08E+00	1.34E+00	1.82E+00
Wood ash and biochar_high_S	Magnesium	2.64E-01	2.86E-01	3.22E-01
Wood ash and biochar_low_I	Magnesium	4.86E-01	5.72E-01	6.42E-01
Wood ash and biochar_low_S	Magnesium	2.72E-01	3.45E-01	4.46E-01
Wood ash and compost_high_I	Magnesium	1.39E+00	2.95E+00	6.93E+00
Wood ash and compost_high_S	Magnesium	3.09E-01	4.10E-01	4.90E-01
Wood ash and compost_low_I	Magnesium	7.73E-01	9.48E-01	1.13E+00
Wood ash and compost_low_S	Magnesium	3.15E-01	3.69E-01	4.21E-01

	SPLP			
	Soil <2mm			
Timepoint 1		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Baseline_baseline_NA	Manganese	1.62E-01	2.55E-01	3.02E-01
Biochar_high_I	Manganese	2.43E-01	2.70E-01	3.13E-01
Biochar_high_S	Manganese	2.32E-01	2.94E-01	3.45E-01
Biochar_low_I	Manganese	3.65E-01	3.85E-01	4.12E-01
Biochar_low_S	Manganese	3.26E-01	3.57E-01	3.77E-01
Biochar and compost_high_I	Manganese	1.89E-01	2.29E-01	3.02E-01
Biochar and compost_high_S	Manganese	1.67E-01	1.98E-01	2.22E-01
Biochar and compost_low_I	Manganese	3.07E-01	3.87E-01	4.73E-01
Biochar and compost_low_S	Manganese	2.22E-01	2.60E-01	3.09E-01
Biosolid_high_I	Manganese	1.08E-01	2.85E-01	5.24E-01
Biosolid_high_S	Manganese	1.46E-01	1.82E-01	2.26E-01
Biosolid_low_I	Manganese	2.58E-01	3.56E-01	5.32E-01
Biosolid_low_S	Manganese	1.16E-01	1.99E-01	2.49E-01
Biosolids and wood ash_high_I	Manganese	1.93E-01	2.94E-01	4.31E-01
Biosolids and wood ash_high_S	Manganese	1.62E-01	2.12E-01	2.74E-01
Biosolids and wood ash_low_I	Manganese	2.21E-01	2.43E-01	2.77E-01
Biosolids and wood ash_low_S	Manganese	2.49E-01	2.70E-01	2.93E-01
Compost_high_I	Manganese	2.91E-01	4.15E-01	6.01E-01
Compost_high_S	Manganese	2.57E-01	3.09E-01	3.42E-01
Compost_low_I	Manganese	4.69E-01	6.38E-01	7.99E-01
Compost_low_S	Manganese	3.39E-01	3.90E-01	4.41E-01
control_none_I	Manganese	3.72E-01	4.70E-01	5.69E-01
Soluble phosphate_high_I	Manganese	1.19E+00	1.29E+00	1.48E+00
Soluble phosphate_high_S	Manganese	9.25E-01	1.08E+00	1.22E+00
Soluble phosphate_low_I	Manganese	6.92E-01	9.64E-01	1.28E+00
Soluble phosphate_low_S	Manganese	6.47E-01	9.42E-01	1.33E+00
Soluble phosphate and biochar_high_I	Manganese	5.49E-01	7.14E-01	9.80E-01
Soluble phosphate and biochar_high_S	Manganese	4.20E-01	5.37E-01	6.36E-01
Soluble phosphate and biochar_low_I	Manganese	6.74E-01	8.33E-01	9.33E-01
Soluble phosphate and biochar_low_S	Manganese	3.02E-01	3.83E-01	4.86E-01
Soluble phosphate and biosolids_high_I	Manganese	1.71E-01	2.81E-01	4.19E-01
Soluble phosphate and biosolids_high_S	Manganese	1.20E-01	1.69E-01	1.95E-01
Soluble phosphate and biosolids_low_I	Manganese	2.87E-01	3.50E-01	4.62E-01
Soluble phosphate and biosolids_low_S	Manganese	2.76E-01	3.07E-01	3.46E-01
Soluble phosphate and compost_high_I	Manganese	5.58E-01	6.76E-01	8.46E-01
Soluble phosphate and compost_high_S	Manganese	3.67E-01	5.33E-01	6.36E-01

	SPLP			
	Soil <2mm			
Timepoint 1		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Soluble phosphate and compost_low_I	Manganese	6.51E-01	6.77E-01	7.06E-01
Soluble phosphate and compost_low_S	Manganese	2.78E-01	3.55E-01	4.35E-01
Wood ash_high_I	Manganese	2.09E-01	2.59E-01	3.54E-01
Wood ash_high_S	Manganese	3.23E-01	3.50E-01	3.83E-01
Wood ash_low_I	Manganese	3.35E-01	4.04E-01	4.52E-01
Wood ash_low_S	Manganese	3.97E-01	4.20E-01	4.32E-01
Wood ash and biochar_high_I	Manganese	2.24E-01	2.47E-01	3.00E-01
Wood ash and biochar_high_S	Manganese	1.85E-01	1.90E-01	1.99E-01
Wood ash and biochar_low_I	Manganese	1.59E-01	1.92E-01	2.24E-01
Wood ash and biochar_low_S	Manganese	2.62E-01	2.87E-01	3.03E-01
Wood ash and compost_high_I	Manganese	2.14E-01	3.34E-01	6.26E-01
Wood ash and compost_high_S	Manganese	2.69E-01	3.17E-01	3.80E-01
Wood ash and compost_low_I	Manganese	2.65E-01	3.15E-01	3.57E-01
Wood ash and compost_low_S	Manganese	2.88E-01	3.28E-01	3.91E-01
Baseline_baseline_NA	Nickel	7.86E-04	7.86E-04	7.86E-04
Biochar_high_I	Nickel	7.86E-04	7.86E-04	7.86E-04
Biochar_high_S	Nickel	7.86E-04	7.86E-04	7.86E-04
Biochar_low_I	Nickel	7.86E-04	7.86E-04	7.86E-04
Biochar_low_S	Nickel	7.86E-04	8.42E-04	9.71E-04
Biochar and compost_high_I	Nickel	7.86E-04	7.86E-04	7.86E-04
Biochar and compost_high_S	Nickel	7.86E-04	7.86E-04	7.86E-04
Biochar and compost_low_I	Nickel	7.86E-04	7.86E-04	7.86E-04
Biochar and compost_low_S	Nickel	7.86E-04	1.54E-03	2.05E-03
Biosolid_high_I	Nickel	1.01E-03	9.02E-03	1.63E-02
Biosolid_high_S	Nickel	6.99E-03	8.04E-03	9.77E-03
Biosolid_low_I	Nickel	7.86E-04	7.86E-04	7.86E-04
Biosolid_low_S	Nickel	1.85E-03	2.82E-03	3.99E-03
Biosolids and wood ash_high_I	Nickel	7.46E-03	8.96E-03	1.27E-02
Biosolids and wood ash_high_S	Nickel	7.86E-04	7.86E-04	7.86E-04
Biosolids and wood ash_low_I	Nickel	7.86E-04	1.74E-03	4.62E-03
Biosolids and wood ash_low_S	Nickel	7.87E-04	1.72E-03	2.58E-03
Compost_high_I	Nickel	7.86E-04	7.86E-04	7.86E-04
Compost_high_S	Nickel	7.86E-04	7.86E-04	7.86E-04
Compost_low_I	Nickel	7.86E-04	7.86E-04	7.86E-04
Compost_low_S	Nickel	7.86E-04	1.37E-03	2.27E-03
control_none_I	Nickel	7.86E-04	7.86E-04	7.86E-04

	SPLP			
	Soil <2mm			
Timepoint 1		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Soluble phosphate_high_I	Nickel	7.86E-04	5.29E-03	1.88E-02
Soluble phosphate_high_S	Nickel	2.73E-03	3.47E-03	4.13E-03
Soluble phosphate_low_I	Nickel	7.86E-04	7.86E-04	7.86E-04
Soluble phosphate_low_S	Nickel	1.52E-03	2.03E-03	2.40E-03
Soluble phosphate and biochar_high_I	Nickel	7.86E-04	7.86E-04	7.86E-04
Soluble phosphate and biochar_high_S	Nickel	7.86E-04	7.86E-04	7.86E-04
Soluble phosphate and biochar_low_I	Nickel	7.86E-04	7.86E-04	7.86E-04
Soluble phosphate and biochar_low_S	Nickel	7.86E-04	1.10E-03	1.69E-03
Soluble phosphate and biosolids_high_I	Nickel	7.92E-03	1.72E-02	2.44E-02
Soluble phosphate and biosolids_high_S	Nickel	7.86E-04	7.86E-04	7.86E-04
Soluble phosphate and biosolids_low_I	Nickel	7.86E-04	7.86E-04	7.86E-04
Soluble phosphate and biosolids_low_S	Nickel	1.36E-03	1.79E-03	2.52E-03
Soluble phosphate and compost_high_I	Nickel	7.86E-04	7.86E-04	7.86E-04
Soluble phosphate and compost_high_S	Nickel	7.86E-04	7.86E-04	7.86E-04
Soluble phosphate and compost_low_I	Nickel	7.86E-04	7.86E-04	7.86E-04
Soluble phosphate and compost_low_S	Nickel	7.86E-04	1.62E-03	2.81E-03
Wood ash_high_I	Nickel	7.86E-04	7.86E-04	7.86E-04
Wood ash_high_S	Nickel	1.08E-03	1.51E-03	1.82E-03
Wood ash_low_I	Nickel	7.86E-04	7.86E-04	7.86E-04
Wood ash_low_S	Nickel	7.86E-04	1.19E-03	1.68E-03
Wood ash and biochar_high_I	Nickel	7.86E-04	7.86E-04	7.86E-04
Wood ash and biochar_high_S	Nickel	7.86E-04	7.86E-04	7.86E-04
Wood ash and biochar_low_I	Nickel	7.86E-04	7.86E-04	7.86E-04
Wood ash and biochar_low_S	Nickel	7.86E-04	1.14E-03	1.86E-03
Wood ash and compost_high_I	Nickel	7.86E-04	7.86E-04	7.86E-04
Wood ash and compost_high_S	Nickel	7.86E-04	7.86E-04	7.86E-04
Wood ash and compost_low_I	Nickel	7.86E-04	7.86E-04	7.86E-04
Wood ash and compost_low_S	Nickel	7.86E-04	1.28E-03	1.72E-03
Baseline_baseline_NA	Phosphorus	1.86E-01	2.06E-01	2.51E-01
Biochar_high_I	Phosphorus	3.46E-01	3.64E-01	3.84E-01
Biochar_high_S	Phosphorus	4.14E-01	4.38E-01	4.60E-01
Biochar_low_I	Phosphorus	2.89E-01	3.00E-01	3.08E-01
Biochar_low_S	Phosphorus	3.48E-01	3.90E-01	4.24E-01
Biochar and compost_high_I	Phosphorus	6.37E-01	6.69E-01	7.06E-01
Biochar and compost_high_S	Phosphorus	4.47E-01	5.27E-01	5.96E-01
Biochar and compost_low_I	Phosphorus	3.08E-01	3.50E-01	3.92E-01

	SPLP			
	Soil <2mm			
Timepoint 1		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Biochar and compost_low_S	Phosphorus	4.25E-01	4.50E-01	4.86E-01
Biosolid_high_I	Phosphorus	4.12E+00	4.98E+00	5.45E+00
Biosolid_high_S	Phosphorus	8.42E-01	9.44E-01	1.10E+00
Biosolid_low_I	Phosphorus	9.40E-01	1.03E+00	1.12E+00
Biosolid_low_S	Phosphorus	6.02E-01	6.74E-01	7.87E-01
Biosolids and wood ash_high_I	Phosphorus	2.27E+00	3.28E+00	3.93E+00
Biosolids and wood ash_high_S	Phosphorus	4.91E-01	6.05E-01	6.79E-01
Biosolids and wood ash_low_I	Phosphorus	9.76E-01	1.15E+00	1.54E+00
Biosolids and wood ash_low_S	Phosphorus	4.79E-01	5.27E-01	5.79E-01
Compost_high_I	Phosphorus	4.46E-01	5.48E-01	6.62E-01
Compost_high_S	Phosphorus	4.38E-01	4.60E-01	4.71E-01
Compost_low_I	Phosphorus	3.09E-01	3.29E-01	3.40E-01
Compost_low_S	Phosphorus	3.79E-01	4.23E-01	4.71E-01
control_none_I	Phosphorus	2.47E-01	2.70E-01	3.10E-01
Soluble phosphate_high_I	Phosphorus	6.84E+00	7.83E+00	8.91E+00
Soluble phosphate_high_S	Phosphorus	7.50E+00	8.04E+00	8.48E+00
Soluble phosphate_low_I	Phosphorus	8.75E-01	1.24E+00	1.69E+00
Soluble phosphate_low_S	Phosphorus	1.14E+00	1.61E+00	1.97E+00
Soluble phosphate and biochar_high_I	Phosphorus	9.88E+00	1.07E+01	1.14E+01
Soluble phosphate and biochar_high_S	Phosphorus	6.27E+00	7.00E+00	8.04E+00
Soluble phosphate and biochar_low_I	Phosphorus	1.10E+00	1.30E+00	1.52E+00
Soluble phosphate and biochar_low_S	Phosphorus	9.92E-01	1.67E+00	2.08E+00
Soluble phosphate and biosolids_high_I	Phosphorus	1.55E+01	1.77E+01	2.05E+01
Soluble phosphate and biosolids_high_S	Phosphorus	4.54E+00	5.10E+00	5.75E+00
Soluble phosphate and biosolids_low_I	Phosphorus	2.49E+00	3.00E+00	3.50E+00
Soluble phosphate and biosolids_low_S	Phosphorus	1.37E+00	1.52E+00	1.75E+00
Soluble phosphate and compost_high_I	Phosphorus	8.25E+00	8.48E+00	8.72E+00
Soluble phosphate and compost_high_S	Phosphorus	4.67E+00	6.96E+00	9.22E+00
Soluble phosphate and compost_low_I	Phosphorus	1.54E+00	1.73E+00	1.87E+00
Soluble phosphate and compost_low_S	Phosphorus	1.53E+00	1.96E+00	2.34E+00
Wood ash_high_I	Phosphorus	3.74E-01	3.96E-01	4.18E-01
Wood ash_high_S	Phosphorus	3.82E-01	4.04E-01	4.22E-01
Wood ash_low_I	Phosphorus	3.41E-01	3.55E-01	3.75E-01
Wood ash_low_S	Phosphorus	3.90E-01	4.05E-01	4.33E-01
Wood ash and biochar_high_I	Phosphorus	3.67E-01	4.05E-01	4.64E-01
Wood ash and biochar_high_S	Phosphorus	4.88E-01	5.13E-01	5.50E-01

	SPLP			
	Soil <2mm			
Timepoint 1		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Wood ash and biochar_low_I	Phosphorus	3.37E-01	3.62E-01	3.85E-01
Wood ash and biochar_low_S	Phosphorus	4.12E-01	4.36E-01	4.64E-01
Wood ash and compost_high_I	Phosphorus	2.68E-01	4.67E-01	5.78E-01
Wood ash and compost_high_S	Phosphorus	4.28E-01	4.42E-01	4.69E-01
Wood ash and compost_low_I	Phosphorus	3.55E-01	3.89E-01	4.13E-01
Wood ash and compost_low_S	Phosphorus	4.07E-01	4.28E-01	4.63E-01
Baseline_baseline_NA	Potassium	2.95	3.24	3.52
Biochar_high_I	Potassium	7.42	7.96	8.60
Biochar_high_S	Potassium	5.96	6.29	6.70
Biochar_low_I	Potassium	4.76	4.95	5.11
Biochar_low_S	Potassium	4.13	4.36	4.86
Biochar and compost_high_I	Potassium	18.85	20.98	23.93
Biochar and compost_high_S	Potassium	7.43	8.37	9.49
Biochar and compost_low_I	Potassium	8.04	8.91	9.85
Biochar and compost_low_S	Potassium	5.29	5.72	6.21
Biosolid_high_I	Potassium	5.91	8.87	11.37
Biosolid_high_S	Potassium	3.85	4.28	4.78
Biosolid_low_I	Potassium	5.44	5.94	6.40
Biosolid_low_S	Potassium	2.97	3.24	3.51
Biosolids and wood ash_high_I	Potassium	20.77	22.98	24.70
Biosolids and wood ash_high_S	Potassium	9.92	10.66	11.25
Biosolids and wood ash_low_I	Potassium	8.50	9.18	10.17
Biosolids and wood ash_low_S	Potassium	6.42	6.82	7.32
Compost_high_I	Potassium	18.55	20.84	22.54
Compost_high_S	Potassium	7.79	8.76	9.99
Compost_low_I	Potassium	8.02	9.11	10.50
Compost_low_S	Potassium	4.81	5.23	5.80
control_none_I	Potassium	3.67	4.17	4.91
Soluble phosphate_high_I	Potassium	18.16	20.75	27.70
Soluble phosphate_high_S	Potassium	12.43	14.28	15.95
Soluble phosphate_low_I	Potassium	10.50	14.15	17.33
Soluble phosphate_low_S	Potassium	12.85	15.33	19.76
Soluble phosphate and biochar_high_I	Potassium	18.85	22.84	25.39
Soluble phosphate and biochar_high_S	Potassium	12.66	14.45	16.30
Soluble phosphate and biochar_low_I	Potassium	17.68	21.47	23.88
Soluble phosphate and biochar_low_S	Potassium	9.41	11.95	13.86

	SPLP			
	Soil <2mm			
Timepoint 1		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Soluble phosphate and biosolids_high_I	Potassium	14.35	19.31	24.00
Soluble phosphate and biosolids_high_S	Potassium	8.84	9.29	9.83
Soluble phosphate and biosolids_low_I	Potassium	13.46	15.02	16.91
Soluble phosphate and biosolids_low_S	Potassium	10.76	10.84	10.99
Soluble phosphate and compost_high_I	Potassium	28.53	30.27	34.44
Soluble phosphate and compost_high_S	Potassium	14.80	18.87	20.83
Soluble phosphate and compost_low_I	Potassium	19.99	21.40	23.04
Soluble phosphate and compost_low_S	Potassium	10.94	13.11	14.95
Wood ash_high_I	Potassium	15.44	16.48	17.24
Wood ash_high_S	Potassium	13.55	14.02	15.00
Wood ash_low_I	Potassium	7.93	8.55	9.65
Wood ash_low_S	Potassium	6.07	6.92	7.57
Wood ash and biochar_high_I	Potassium	22.23	23.15	23.68
Wood ash and biochar_high_S	Potassium	11.54	13.42	14.74
Wood ash and biochar_low_I	Potassium	7.90	8.23	8.57
Wood ash and biochar_low_S	Potassium	6.51	7.20	7.92
Wood ash and compost_high_I	Potassium	29.43	34.67	46.25
Wood ash and compost_high_S	Potassium	11.50	13.34	15.00
Wood ash and compost_low_I	Potassium	10.25	11.53	13.05
Wood ash and compost_low_S	Potassium	7.12	7.93	8.68
Baseline_baseline_NA	Selenium	9.05E-03	9.05E-03	9.05E-03
Biochar_high_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Biochar_high_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Biochar_low_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Biochar_low_S	Selenium	2.83E-02	3.10E-02	3.55E-02
Biochar and compost_high_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Biochar and compost_high_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Biochar and compost_low_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Biochar and compost_low_S	Selenium	2.27E-02	3.14E-02	3.77E-02
Biosolid_high_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Biosolid_high_S	Selenium	2.42E-02	2.87E-02	3.15E-02
Biosolid_low_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Biosolid_low_S	Selenium	2.80E-02	3.41E-02	3.71E-02
Biosolids and wood ash_high_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Biosolids and wood ash_high_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Biosolids and wood ash_low_I	Selenium	9.05E-03	9.05E-03	9.05E-03

	SPLP			
	Soil <2mm			
Timepoint 1		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Biosolids and wood ash_low_S	Selenium	2.37E-02	2.66E-02	2.89E-02
Compost_high_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Compost_high_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Compost_low_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Compost_low_S	Selenium	2.95E-02	3.13E-02	3.31E-02
control_none_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Soluble phosphate_high_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Soluble phosphate_high_S	Selenium	2.49E-02	3.14E-02	3.92E-02
Soluble phosphate_low_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Soluble phosphate_low_S	Selenium	3.15E-02	3.32E-02	3.54E-02
Soluble phosphate and biochar_high_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Soluble phosphate and biochar_high_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Soluble phosphate and biochar_low_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Soluble phosphate and biochar_low_S	Selenium	2.93E-02	3.30E-02	3.86E-02
Soluble phosphate and biosolids_high_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Soluble phosphate and biosolids_high_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Soluble phosphate and biosolids_low_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Soluble phosphate and biosolids_low_S	Selenium	2.55E-02	3.04E-02	3.42E-02
Soluble phosphate and compost_high_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Soluble phosphate and compost_high_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Soluble phosphate and compost_low_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Soluble phosphate and compost_low_S	Selenium	2.42E-02	2.86E-02	3.19E-02
Wood ash_high_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Wood ash_high_S	Selenium	2.21E-02	2.65E-02	3.11E-02
Wood ash_low_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Wood ash_low_S	Selenium	2.53E-02	3.34E-02	4.20E-02
Wood ash and biochar_high_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Wood ash and biochar_high_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Wood ash and biochar_low_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Wood ash and biochar_low_S	Selenium	2.42E-02	3.04E-02	3.53E-02
Wood ash and compost_high_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Wood ash and compost_high_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Wood ash and compost_low_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Wood ash and compost_low_S	Selenium	2.01E-02	2.96E-02	3.37E-02
Baseline_baseline_NA	Silver	1.39E-02	1.39E-02	1.39E-02
Biochar_high_I	Silver	1.39E-02	1.39E-02	1.39E-02

	SPLP			
	Soil <2mm			
Timepoint 1		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Biochar_high_S	Silver	1.39E-02	1.39E-02	1.39E-02
Biochar_low_I	Silver	1.39E-02	1.39E-02	1.39E-02
Biochar_low_S	Silver	1.39E-02	1.39E-02	1.39E-02
Biochar and compost_high_I	Silver	1.39E-02	1.39E-02	1.39E-02
Biochar and compost_high_S	Silver	1.39E-02	1.39E-02	1.39E-02
Biochar and compost_low_I	Silver	1.39E-02	1.39E-02	1.39E-02
Biochar and compost_low_S	Silver	1.39E-02	1.39E-02	1.39E-02
Biosolid_high_I	Silver	1.39E-02	1.39E-02	1.39E-02
Biosolid_high_S	Silver	1.39E-02	1.39E-02	1.39E-02
Biosolid_low_I	Silver	1.39E-02	1.39E-02	1.39E-02
Biosolid_low_S	Silver	1.39E-02	1.39E-02	1.39E-02
Biosolids and wood ash_high_I	Silver	1.39E-02	1.39E-02	1.39E-02
Biosolids and wood ash_high_S	Silver	1.39E-02	1.39E-02	1.39E-02
Biosolids and wood ash_low_I	Silver	1.39E-02	1.39E-02	1.39E-02
Biosolids and wood ash_low_S	Silver	1.39E-02	1.39E-02	1.39E-02
Compost_high_I	Silver	1.39E-02	1.39E-02	1.39E-02
Compost_high_S	Silver	1.39E-02	1.39E-02	1.39E-02
Compost_low_I	Silver	1.39E-02	1.39E-02	1.39E-02
Compost_low_S	Silver	1.39E-02	1.39E-02	1.39E-02
control_none_I	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate_high_I	Silver	1.39E-02	1.42E-02	1.50E-02
Soluble phosphate_high_S	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate_low_I	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate_low_S	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate and biochar_high_I	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate and biochar_high_S	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate and biochar_low_I	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate and biochar_low_S	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate and biosolids_high_I	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate and biosolids_high_S	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate and biosolids_low_I	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate and biosolids_low_S	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate and compost_high_I	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate and compost_high_S	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate and compost_low_I	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate and compost_low_S	Silver	1.39E-02	1.39E-02	1.39E-02

	SPLP			
	Soil <2mm			
Timepoint 1		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Wood ash_high_I	Silver	1.39E-02	1.39E-02	1.39E-02
Wood ash_high_S	Silver	1.39E-02	1.39E-02	1.39E-02
Wood ash_low_I	Silver	1.39E-02	1.39E-02	1.39E-02
Wood ash_low_S	Silver	1.39E-02	1.39E-02	1.39E-02
Wood ash and biochar_high_I	Silver	1.39E-02	1.39E-02	1.39E-02
Wood ash and biochar_high_S	Silver	1.39E-02	1.39E-02	1.39E-02
Wood ash and biochar_low_I	Silver	1.39E-02	1.39E-02	1.39E-02
Wood ash and biochar_low_S	Silver	1.39E-02	1.39E-02	1.39E-02
Wood ash and compost_high_I	Silver	1.39E-02	1.39E-02	1.39E-02
Wood ash and compost_high_S	Silver	1.39E-02	1.39E-02	1.39E-02
Wood ash and compost_low_I	Silver	1.39E-02	1.39E-02	1.39E-02
Wood ash and compost_low_S	Silver	1.39E-02	1.39E-02	1.39E-02
Baseline_baseline_NA	Sodium	3.59E-01	3.64E-01	3.69E-01
Biochar_high_I	Sodium	2.55E+00	2.82E+00	3.02E+00
Biochar_high_S	Sodium	1.37E+00	1.59E+00	1.75E+00
Biochar_low_I	Sodium	2.00E+00	2.13E+00	2.20E+00
Biochar_low_S	Sodium	1.18E+00	1.20E+00	1.22E+00
Biochar and compost_high_I	Sodium	7.24E+00	8.21E+00	9.79E+00
Biochar and compost_high_S	Sodium	2.18E+00	2.50E+00	2.94E+00
Biochar and compost_low_I	Sodium	3.13E+00	3.52E+00	3.93E+00
Biochar and compost_low_S	Sodium	1.64E+00	1.82E+00	2.01E+00
Biosolid_high_I	Sodium	1.80E+00	3.00E+00	3.91E+00
Biosolid_high_S	Sodium	9.81E-01	1.08E+00	1.20E+00
Biosolid_low_I	Sodium	2.04E+00	2.28E+00	2.70E+00
Biosolid_low_S	Sodium	8.91E-01	1.01E+00	1.08E+00
Biosolids and wood ash_high_I	Sodium	5.38E+00	6.21E+00	7.05E+00
Biosolids and wood ash_high_S	Sodium	2.16E+00	2.29E+00	2.38E+00
Biosolids and wood ash_low_I	Sodium	2.64E+00	2.89E+00	3.11E+00
Biosolids and wood ash_low_S	Sodium	1.62E+00	1.65E+00	1.66E+00
Compost_high_I	Sodium	8.53E+00	9.29E+00	1.02E+01
Compost_high_S	Sodium	2.07E+00	2.70E+00	3.42E+00
Compost_low_I	Sodium	3.47E+00	4.30E+00	4.91E+00
Compost_low_S	Sodium	1.46E+00	1.70E+00	2.01E+00
control_none_I	Sodium	1.36E+00	1.56E+00	1.90E+00
Soluble phosphate_high_I	Sodium	5.82E+00	7.20E+00	1.08E+01
Soluble phosphate_high_S	Sodium	3.27E+00	3.71E+00	4.07E+00

	SPLP			
	Soil <2mm			
Timepoint 1		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Soluble phosphate_low_I	Sodium	3.27E+00	3.56E+00	3.89E+00
Soluble phosphate_low_S	Sodium	2.34E+00	2.77E+00	3.59E+00
Soluble phosphate and biochar_high_I	Sodium	5.47E+00	7.49E+00	8.71E+00
Soluble phosphate and biochar_high_S	Sodium	2.69E+00	3.20E+00	3.44E+00
Soluble phosphate and biochar_low_I	Sodium	3.81E+00	4.77E+00	5.41E+00
Soluble phosphate and biochar_low_S	Sodium	1.57E+00	1.98E+00	2.29E+00
Soluble phosphate and biosolids_high_I	Sodium	4.88E+00	6.80E+00	8.48E+00
Soluble phosphate and biosolids_high_S	Sodium	1.98E+00	2.12E+00	2.40E+00
Soluble phosphate and biosolids_low_I	Sodium	3.02E+00	3.34E+00	3.67E+00
Soluble phosphate and biosolids_low_S	Sodium	1.72E+00	1.79E+00	1.89E+00
Soluble phosphate and compost_high_I	Sodium	1.05E+01	1.16E+01	1.41E+01
Soluble phosphate and compost_high_S	Sodium	4.34E+00	5.57E+00	6.08E+00
Soluble phosphate and compost_low_I	Sodium	5.06E+00	5.49E+00	6.09E+00
Soluble phosphate and compost_low_S	Sodium	2.11E+00	2.68E+00	3.12E+00
Wood ash_high_I	Sodium	4.08E+00	4.30E+00	4.55E+00
Wood ash_high_S	Sodium	2.96E+00	3.09E+00	3.33E+00
Wood ash_low_I	Sodium	2.81E+00	2.97E+00	3.15E+00
Wood ash_low_S	Sodium	1.52E+00	1.80E+00	2.07E+00
Wood ash and biochar_high_I	Sodium	6.03E+00	6.24E+00	6.43E+00
Wood ash and biochar_high_S	Sodium	2.77E+00	3.09E+00	3.48E+00
Wood ash and biochar_low_I	Sodium	2.48E+00	2.67E+00	2.75E+00
Wood ash and biochar_low_S	Sodium	1.63E+00	1.71E+00	1.76E+00
Wood ash and compost_high_I	Sodium	9.72E+00	1.14E+01	1.47E+01
Wood ash and compost_high_S	Sodium	2.67E+00	3.54E+00	4.08E+00
Wood ash and compost_low_I	Sodium	3.64E+00	4.07E+00	4.55E+00
Wood ash and compost_low_S	Sodium	2.13E+00	2.33E+00	2.62E+00
Baseline_baseline_NA	Thallium	4.25E-03	4.25E-03	4.25E-03
Biochar_high_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Biochar_high_S	Thallium	4.25E-03	5.32E-03	6.88E-03
Biochar_low_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Biochar_low_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Biochar and compost_high_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Biochar and compost_high_S	Thallium	4.25E-03	5.32E-03	8.53E-03
Biochar and compost_low_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Biochar and compost_low_S	Thallium	4.25E-03	4.56E-03	5.50E-03
Biosolid_high_I	Thallium	4.25E-03	4.25E-03	4.25E-03

	SPLP			
	Soil <2mm			
Timepoint 1		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Biosolid_high_S	Thallium	4.25E-03	4.38E-03	4.77E-03
Biosolid_low_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Biosolid_low_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Biosolids and wood ash_high_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Biosolids and wood ash_high_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Biosolids and wood ash_low_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Biosolids and wood ash_low_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Compost_high_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Compost_high_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Compost_low_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Compost_low_S	Thallium	4.25E-03	4.25E-03	4.25E-03
control_none_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Soluble phosphate_high_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Soluble phosphate_high_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Soluble phosphate_low_I	Thallium	4.25E-03	4.72E-03	5.42E-03
Soluble phosphate_low_S	Thallium	4.25E-03	5.08E-03	7.59E-03
Soluble phosphate and biochar_high_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Soluble phosphate and biochar_high_S	Thallium	4.25E-03	5.08E-03	7.59E-03
Soluble phosphate and biochar_low_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Soluble phosphate and biochar_low_S	Thallium	4.25E-03	4.33E-03	4.59E-03
Soluble phosphate and biosolids_high_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Soluble phosphate and biosolids_high_S	Thallium	4.25E-03	5.11E-03	7.69E-03
Soluble phosphate and biosolids_low_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Soluble phosphate and biosolids_low_S	Thallium	4.25E-03	4.61E-03	5.63E-03
Soluble phosphate and compost_high_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Soluble phosphate and compost_high_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Soluble phosphate and compost_low_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Soluble phosphate and compost_low_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Wood ash_high_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Wood ash_high_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Wood ash_low_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Wood ash_low_S	Thallium	4.25E-03	4.67E-03	5.94E-03
Wood ash and biochar_high_I	Thallium	4.25E-03	4.75E-03	6.27E-03
Wood ash and biochar_high_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Wood ash and biochar_low_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Wood ash and biochar_low_S	Thallium	4.25E-03	4.25E-03	4.25E-03

	SPLP			
	Soil <2mm			
Timepoint 1		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Wood ash and compost_high_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Wood ash and compost_high_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Wood ash and compost_low_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Wood ash and compost_low_S	Thallium	4.25E-03	4.31E-03	4.50E-03
Baseline_baseline_NA	Vanadium	5.82E-04	8.85E-04	1.80E-03
Biochar_high_I	Vanadium	5.82E-04	5.82E-04	5.82E-04
Biochar_high_S	Vanadium	2.24E-03	2.72E-03	3.46E-03
Biochar_low_I	Vanadium	5.82E-04	1.09E-03	1.66E-03
Biochar_low_S	Vanadium	1.77E-03	3.48E-03	4.62E-03
Biochar and compost_high_I	Vanadium	5.82E-04	2.11E-03	6.55E-03
Biochar and compost_high_S	Vanadium	1.43E-03	2.12E-03	3.13E-03
Biochar and compost_low_I	Vanadium	5.82E-04	5.82E-04	5.82E-04
Biochar and compost_low_S	Vanadium	3.84E-03	4.38E-03	5.29E-03
Biosolid_high_I	Vanadium	3.18E-03	3.80E-03	4.56E-03
Biosolid_high_S	Vanadium	5.28E-03	6.72E-03	9.54E-03
Biosolid_low_I	Vanadium	1.73E-03	2.33E-03	3.01E-03
Biosolid_low_S	Vanadium	3.27E-03	5.62E-03	6.95E-03
Biosolids and wood ash_high_I	Vanadium	2.62E-03	3.48E-03	4.16E-03
Biosolids and wood ash_high_S	Vanadium	2.36E-03	3.71E-03	4.53E-03
Biosolids and wood ash_low_I	Vanadium	7.90E-04	3.56E-03	1.13E-02
Biosolids and wood ash_low_S	Vanadium	2.09E-03	3.47E-03	5.37E-03
Compost_high_I	Vanadium	5.82E-04	7.51E-04	1.26E-03
Compost_high_S	Vanadium	1.47E-03	1.86E-03	2.40E-03
Compost_low_I	Vanadium	5.82E-04	5.82E-04	5.82E-04
Compost_low_S	Vanadium	4.10E-03	4.49E-03	4.86E-03
control_none_I	Vanadium	5.82E-04	7.00E-04	1.05E-03
Soluble phosphate_high_I	Vanadium	9.88E-03	1.54E-02	2.71E-02
Soluble phosphate_high_S	Vanadium	1.23E-02	1.40E-02	1.60E-02
Soluble phosphate_low_I	Vanadium	4.61E-03	6.16E-03	7.46E-03
Soluble phosphate_low_S	Vanadium	5.92E-03	8.05E-03	9.73E-03
Soluble phosphate and biochar_high_I	Vanadium	1.45E-02	1.63E-02	2.00E-02
Soluble phosphate and biochar_high_S	Vanadium	8.19E-03	9.90E-03	1.15E-02
Soluble phosphate and biochar_low_I	Vanadium	2.77E-03	5.70E-03	1.09E-02
Soluble phosphate and biochar_low_S	Vanadium	4.42E-03	5.06E-03	5.97E-03
Soluble phosphate and biosolids_high_I	Vanadium	1.80E-02	2.54E-02	3.17E-02
Soluble phosphate and biosolids_high_S	Vanadium	5.56E-03	7.28E-03	8.14E-03

	SPLP			
	Soil <2mm			
Timepoint 1		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Soluble phosphate and biosolids_low_I	Vanadium	5.76E-03	7.50E-03	1.04E-02
Soluble phosphate and biosolids_low_S	Vanadium	5.07E-03	5.92E-03	7.85E-03
Soluble phosphate and compost_high_I	Vanadium	1.08E-02	1.38E-02	1.75E-02
Soluble phosphate and compost_high_S	Vanadium	3.03E-03	5.55E-03	6.91E-03
Soluble phosphate and compost_low_I	Vanadium	2.87E-03	4.72E-03	8.40E-03
Soluble phosphate and compost_low_S	Vanadium	5.64E-03	6.48E-03	7.54E-03
Wood ash_high_I	Vanadium	5.82E-04	6.92E-04	9.40E-04
Wood ash_high_S	Vanadium	2.59E-03	3.16E-03	3.60E-03
Wood ash_low_I	Vanadium	1.26E-03	1.79E-03	2.32E-03
Wood ash_low_S	Vanadium	3.39E-03	3.79E-03	4.33E-03
Wood ash and biochar_high_I	Vanadium	6.14E-04	3.46E-03	1.14E-02
Wood ash and biochar_high_S	Vanadium	1.48E-03	3.25E-03	4.75E-03
Wood ash and biochar_low_I	Vanadium	5.82E-04	5.82E-04	5.82E-04
Wood ash and biochar_low_S	Vanadium	2.47E-03	4.03E-03	5.16E-03
Wood ash and compost_high_I	Vanadium	5.82E-04	6.73E-04	9.44E-04
Wood ash and compost_high_S	Vanadium	1.56E-03	2.11E-03	2.53E-03
Wood ash and compost_low_I	Vanadium	5.82E-04	1.95E-03	6.04E-03
Wood ash and compost_low_S	Vanadium	2.82E-03	3.96E-03	4.73E-03
Baseline_baseline_NA	Zinc	1.43E-01	2.23E-01	2.70E-01
Biochar_high_I	Zinc	1.69E-01	1.88E-01	2.13E-01
Biochar_high_S	Zinc	1.28E-01	1.50E-01	1.69E-01
Biochar_low_I	Zinc	2.40E-01	2.50E-01	2.68E-01
Biochar_low_S	Zinc	1.52E-01	1.70E-01	2.05E-01
Biochar and compost_high_I	Zinc	1.32E-01	1.50E-01	1.83E-01
Biochar and compost_high_S	Zinc	1.10E-01	1.27E-01	1.37E-01
Biochar and compost_low_I	Zinc	2.00E-01	2.40E-01	2.83E-01
Biochar and compost_low_S	Zinc	1.12E-01	1.32E-01	1.46E-01
Biosolid_high_I	Zinc	1.02E-01	1.47E-01	2.02E-01
Biosolid_high_S	Zinc	1.22E-01	1.34E-01	1.46E-01
Biosolid_low_I	Zinc	1.53E-01	1.67E-01	2.01E-01
Biosolid_low_S	Zinc	7.92E-02	1.17E-01	1.42E-01
Biosolids and wood ash_high_I	Zinc	1.03E-01	1.16E-01	1.27E-01
Biosolids and wood ash_high_S	Zinc	1.01E-01	1.07E-01	1.16E-01
Biosolids and wood ash_low_I	Zinc	1.28E-01	1.33E-01	1.37E-01
Biosolids and wood ash_low_S	Zinc	1.22E-01	1.41E-01	1.63E-01
Compost_high_I	Zinc	1.88E-01	2.24E-01	2.74E-01

	SPLP			
	Soil <2mm			
Timepoint 1		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Compost_high_S	Zinc	1.41E-01	1.58E-01	1.73E-01
Compost_low_I	Zinc	2.73E-01	3.47E-01	4.38E-01
Compost_low_S	Zinc	1.55E-01	1.72E-01	1.81E-01
control_none_I	Zinc	2.15E-01	2.77E-01	3.33E-01
Soluble phosphate_high_I	Zinc	4.78E-01	5.20E-01	5.59E-01
Soluble phosphate_high_S	Zinc	2.96E-01	3.40E-01	4.16E-01
Soluble phosphate_low_I	Zinc	2.80E-01	3.47E-01	4.02E-01
Soluble phosphate_low_S	Zinc	2.19E-01	2.96E-01	3.87E-01
Soluble phosphate and biochar_high_I	Zinc	2.48E-01	2.93E-01	3.47E-01
Soluble phosphate and biochar_high_S	Zinc	1.78E-01	1.98E-01	2.13E-01
Soluble phosphate and biochar_low_I	Zinc	3.57E-01	4.14E-01	4.61E-01
Soluble phosphate and biochar_low_S	Zinc	1.54E-01	1.65E-01	1.88E-01
Soluble phosphate and biosolids_high_I	Zinc	1.20E-01	1.48E-01	1.91E-01
Soluble phosphate and biosolids_high_S	Zinc	1.00E-01	1.13E-01	1.23E-01
Soluble phosphate and biosolids_low_I	Zinc	1.42E-01	1.58E-01	1.87E-01
Soluble phosphate and biosolids_low_S	Zinc	1.33E-01	1.54E-01	1.71E-01
Soluble phosphate and compost_high_I	Zinc	2.20E-01	2.53E-01	2.93E-01
Soluble phosphate and compost_high_S	Zinc	1.53E-01	1.91E-01	2.20E-01
Soluble phosphate and compost_low_I	Zinc	2.67E-01	2.96E-01	3.16E-01
Soluble phosphate and compost_low_S	Zinc	1.31E-01	1.53E-01	1.83E-01
Wood ash_high_I	Zinc	1.02E-01	1.13E-01	1.21E-01
Wood ash_high_S	Zinc	1.26E-01	1.35E-01	1.45E-01
Wood ash_low_I	Zinc	1.74E-01	1.96E-01	2.43E-01
Wood ash_low_S	Zinc	1.63E-01	1.72E-01	1.86E-01
Wood ash and biochar_high_I	Zinc	8.66E-02	9.62E-02	1.10E-01
Wood ash and biochar_high_S	Zinc	9.12E-02	9.73E-02	1.03E-01
Wood ash and biochar_low_I	Zinc	1.25E-01	1.32E-01	1.40E-01
Wood ash and biochar_low_S	Zinc	1.26E-01	1.44E-01	1.65E-01
Wood ash and compost_high_I	Zinc	5.14E-02	9.95E-02	1.24E-01
Wood ash and compost_high_S	Zinc	1.26E-01	1.61E-01	1.93E-01
Wood ash and compost_low_I	Zinc	1.54E-01	1.74E-01	1.98E-01
Wood ash and compost_low_S	Zinc	1.24E-01	1.40E-01	1.70E-01

Table 32. Summary statistics for Timepoint 2 synthetic precipitation leaching procedure (SPLP) for each treatment/rate/application method combination

Timepoint 2 Treatment x Rate x Application Method	SPLP			
	Soil <2mm			
	Element	Min mg/L	Mean mg/L	Max mg/L
Biochar_high_I	Cobalt	1.00E-03	1.13E-03	1.32E-03
Biochar_high_S	Cobalt	6.79E-04	1.26E-03	2.62E-03
Biochar_low_I	Cobalt	9.30E-04	1.36E-03	2.16E-03
Biochar_low_S	Cobalt	5.91E-04	1.01E-03	1.42E-03
Biochar and compost_high_I	Cobalt	1.10E-03	1.65E-03	2.56E-03
Biochar and compost_high_S	Cobalt	7.55E-04	9.89E-04	1.21E-03
Biochar and compost_low_I	Cobalt	6.99E-04	1.22E-03	1.75E-03
Biochar and compost_low_S	Cobalt	7.07E-04	9.33E-04	1.12E-03
Biosolid_high_I	Cobalt	4.35E-03	5.76E-03	7.59E-03
Biosolid_high_S	Cobalt	2.09E-03	2.25E-03	2.45E-03
Biosolid_low_I	Cobalt	1.43E-03	3.44E-03	4.73E-03
Biosolid_low_S	Cobalt	1.28E-03	1.48E-03	1.72E-03
Biosolids and wood ash_high_I	Cobalt	4.15E-03	5.79E-03	8.51E-03
Biosolids and wood ash_high_S	Cobalt	2.13E-03	2.25E-03	2.46E-03
Biosolids and wood ash_low_I	Cobalt	2.82E-03	3.11E-03	3.32E-03
Biosolids and wood ash_low_S	Cobalt	1.12E-03	1.42E-03	2.06E-03
Compost_high_I	Cobalt	1.46E-03	1.66E-03	1.88E-03
Compost_high_S	Cobalt	8.99E-04	1.40E-03	1.95E-03
Compost_low_I	Cobalt	1.14E-03	1.62E-03	2.16E-03
Compost_low_S	Cobalt	7.89E-04	9.67E-04	1.03E-03
control_none_I	Cobalt	1.96E-03	2.67E-03	3.10E-03
Soluble phosphate and biochar_high_I	Cobalt	1.43E-03	2.51E-03	3.20E-03
Soluble phosphate and biochar_high_S	Cobalt	1.06E-03	1.54E-03	1.75E-03
Soluble phosphate and biochar_low_I	Cobalt	7.83E-04	1.46E-03	2.18E-03
Soluble phosphate and biochar_low_S	Cobalt	1.05E-03	1.44E-03	1.86E-03
Soluble phosphate and biosolids_high_I	Cobalt	4.43E-03	6.21E-03	9.23E-03
Soluble phosphate and biosolids_high_S	Cobalt	1.47E-03	2.21E-03	2.73E-03
Soluble phosphate and biosolids_low_I	Cobalt	1.82E-03	3.77E-03	6.69E-03
Soluble phosphate and biosolids_low_S	Cobalt	1.31E-03	1.45E-03	1.62E-03
Soluble phosphate and compost_high_I	Cobalt	2.08E-03	3.61E-03	6.34E-03
Soluble phosphate and compost_high_S	Cobalt	9.89E-04	1.22E-03	1.62E-03
Soluble phosphate and compost_low_I	Cobalt	2.13E-03	2.46E-03	3.00E-03
Soluble phosphate and compost_low_S	Cobalt	1.05E-03	1.39E-03	1.54E-03
Soluble phosphate_high_I	Cobalt	2.46E-03	2.94E-03	3.37E-03

	SPLP			
	Soil <2mm			
Timepoint 2		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Soluble phosphate_high_S	Cobalt	1.77E-03	2.15E-03	2.60E-03
Soluble phosphate_low_I	Cobalt	2.54E-03	3.12E-03	4.17E-03
Soluble phosphate_low_S	Cobalt	1.92E-03	2.69E-03	3.09E-03
Wood ash_high_I	Cobalt	8.39E-04	1.17E-03	1.31E-03
Wood ash_high_S	Cobalt	6.14E-04	8.85E-04	1.15E-03
Wood ash_low_I	Cobalt	6.40E-04	1.13E-03	1.44E-03
Wood ash_low_S	Cobalt	7.45E-04	9.13E-04	1.05E-03
Wood ash and biochar_high_I	Cobalt	9.08E-04	1.17E-03	1.75E-03
Wood ash and biochar_high_S	Cobalt	6.23E-04	8.27E-04	1.09E-03
Wood ash and biochar_low_I	Cobalt	1.03E-03	1.59E-03	2.75E-03
Wood ash and biochar_low_S	Cobalt	6.71E-04	9.07E-04	1.33E-03
Wood ash and compost_high_I	Cobalt	9.56E-04	1.21E-03	1.36E-03
Wood ash and compost_high_S	Cobalt	5.24E-04	1.44E-03	3.11E-03
Wood ash and compost_low_I	Cobalt	8.41E-04	1.09E-03	1.26E-03
Wood ash and compost_low_S	Cobalt	7.51E-04	1.01E-03	1.50E-03
Biochar_high_I	Copper	6.55E-03	7.63E-03	9.83E-03
Biochar_high_S	Copper	5.85E-03	6.47E-03	7.17E-03
Biochar_low_I	Copper	6.00E-03	7.29E-03	8.30E-03
Biochar_low_S	Copper	5.15E-03	5.92E-03	6.33E-03
Biochar and compost_high_I	Copper	1.21E-02	1.27E-02	1.37E-02
Biochar and compost_high_S	Copper	5.97E-03	6.72E-03	7.85E-03
Biochar and compost_low_I	Copper	7.91E-03	9.04E-03	1.01E-02
Biochar and compost_low_S	Copper	5.42E-03	6.01E-03	6.27E-03
Biosolid_high_I	Copper	8.60E-02	1.22E-01	2.04E-01
Biosolid_high_S	Copper	1.85E-02	2.11E-02	2.39E-02
Biosolid_low_I	Copper	1.86E-02	2.41E-02	3.24E-02
Biosolid_low_S	Copper	1.02E-02	1.10E-02	1.18E-02
Biosolids and wood ash_high_I	Copper	6.27E-02	8.72E-02	1.38E-01
Biosolids and wood ash_high_S	Copper	1.26E-02	1.53E-02	1.69E-02
Biosolids and wood ash_low_I	Copper	1.28E-02	1.76E-02	2.67E-02
Biosolids and wood ash_low_S	Copper	6.70E-03	8.11E-03	8.70E-03
Compost_high_I	Copper	1.56E-02	1.61E-02	1.64E-02
Compost_high_S	Copper	7.83E-03	9.92E-03	1.25E-02
Compost_low_I	Copper	9.42E-03	9.91E-03	1.04E-02
Compost_low_S	Copper	5.70E-03	6.44E-03	7.14E-03
control_none_I	Copper	6.67E-03	7.15E-03	7.61E-03

	SPLP			
	Soil <2mm			
Timepoint 2		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Soluble phosphate and biochar_high_I	Copper	8.18E-03	8.89E-03	9.87E-03
Soluble phosphate and biochar_high_S	Copper	6.07E-03	7.15E-03	8.61E-03
Soluble phosphate and biochar_low_I	Copper	6.85E-03	7.16E-03	7.42E-03
Soluble phosphate and biochar_low_S	Copper	6.36E-03	7.40E-03	8.55E-03
Soluble phosphate and biosolids_high_I	Copper	8.87E-02	1.10E-01	1.48E-01
Soluble phosphate and biosolids_high_S	Copper	1.26E-02	1.49E-02	1.71E-02
Soluble phosphate and biosolids_low_I	Copper	1.92E-02	2.25E-02	2.67E-02
Soluble phosphate and biosolids_low_S	Copper	9.05E-03	1.11E-02	1.22E-02
Soluble phosphate and compost_high_I	Copper	2.11E-02	2.31E-02	2.50E-02
Soluble phosphate and compost_high_S	Copper	8.16E-03	9.14E-03	9.53E-03
Soluble phosphate and compost_low_I	Copper	9.25E-03	1.07E-02	1.26E-02
Soluble phosphate and compost_low_S	Copper	7.88E-03	8.91E-03	1.01E-02
Soluble phosphate_high_I	Copper	1.13E-02	1.24E-02	1.33E-02
Soluble phosphate_high_S	Copper	6.83E-03	7.23E-03	7.57E-03
Soluble phosphate_low_I	Copper	8.43E-03	1.01E-02	1.29E-02
Soluble phosphate_low_S	Copper	7.01E-03	8.94E-03	1.24E-02
Wood ash_high_I	Copper	8.39E-03	9.36E-03	1.04E-02
Wood ash_high_S	Copper	5.02E-03	5.83E-03	6.69E-03
Wood ash_low_I	Copper	8.18E-03	8.73E-03	9.47E-03
Wood ash_low_S	Copper	5.83E-03	6.81E-03	7.77E-03
Wood ash and biochar_high_I	Copper	7.02E-03	7.35E-03	7.71E-03
Wood ash and biochar_high_S	Copper	5.44E-03	5.62E-03	5.85E-03
Wood ash and biochar_low_I	Copper	5.66E-03	6.85E-03	8.81E-03
Wood ash and biochar_low_S	Copper	5.73E-03	6.61E-03	8.11E-03
Wood ash and compost_high_I	Copper	1.30E-02	1.52E-02	1.69E-02
Wood ash and compost_high_S	Copper	5.32E-03	6.63E-03	7.99E-03
Wood ash and compost_low_I	Copper	7.86E-03	8.85E-03	9.82E-03
Wood ash and compost_low_S	Copper	5.47E-03	6.35E-03	6.80E-03
Biochar_high_I	Iron	3.84E-01	5.33E-01	6.55E-01
Biochar_high_S	Iron	4.33E-01	4.44E-01	4.64E-01
Biochar_low_I	Iron	1.57E-01	2.33E-01	2.79E-01
Biochar_low_S	Iron	4.31E-01	4.47E-01	4.61E-01
Biochar and compost_high_I	Iron	2.23E-01	3.84E-01	5.50E-01
Biochar and compost_high_S	Iron	2.27E-01	2.56E-01	2.83E-01
Biochar and compost_low_I	Iron	2.91E-01	4.02E-01	4.93E-01
Biochar and compost_low_S	Iron	3.52E-01	3.59E-01	3.68E-01

	SPLP			
	Soil <2mm			
Timepoint 2		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Biosolid_high_I	Iron	9.03E-01	1.19E+00	1.85E+00
Biosolid_high_S	Iron	6.29E-01	7.43E-01	9.07E-01
Biosolid_low_I	Iron	2.87E-01	4.33E-01	4.99E-01
Biosolid_low_S	Iron	5.37E-01	6.01E-01	6.47E-01
Biosolids and wood ash_high_I	Iron	4.39E-01	5.33E-01	6.49E-01
Biosolids and wood ash_high_S	Iron	3.99E-01	5.06E-01	5.95E-01
Biosolids and wood ash_low_I	Iron	2.51E-01	3.66E-01	6.59E-01
Biosolids and wood ash_low_S	Iron	3.55E-01	4.21E-01	4.90E-01
Compost_high_I	Iron	3.71E-01	4.56E-01	5.37E-01
Compost_high_S	Iron	4.72E-01	5.25E-01	5.99E-01
Compost_low_I	Iron	2.16E-01	2.45E-01	2.60E-01
Compost_low_S	Iron	4.23E-01	4.47E-01	4.80E-01
control_none_I	Iron	2.71E-01	2.98E-01	3.15E-01
Soluble phosphate and biochar_high_I	Iron	2.27E-01	2.85E-01	3.35E-01
Soluble phosphate and biochar_high_S	Iron	2.44E-01	2.96E-01	4.06E-01
Soluble phosphate and biochar_low_I	Iron	2.06E-01	2.79E-01	3.54E-01
Soluble phosphate and biochar_low_S	Iron	4.14E-01	5.09E-01	6.03E-01
Soluble phosphate and biosolids_high_I	Iron	6.84E-01	8.53E-01	1.07E+00
Soluble phosphate and biosolids_high_S	Iron	3.59E-01	5.26E-01	6.79E-01
Soluble phosphate and biosolids_low_I	Iron	2.48E-01	3.07E-01	3.43E-01
Soluble phosphate and biosolids_low_S	Iron	4.84E-01	5.31E-01	6.10E-01
Soluble phosphate and compost_high_I	Iron	1.40E-01	2.46E-01	3.42E-01
Soluble phosphate and compost_high_S	Iron	2.48E-01	2.94E-01	3.44E-01
Soluble phosphate and compost_low_I	Iron	2.36E-01	2.83E-01	3.26E-01
Soluble phosphate and compost_low_S	Iron	4.73E-01	5.11E-01	5.83E-01
Soluble phosphate_high_I	Iron	3.27E-01	4.24E-01	5.30E-01
Soluble phosphate_high_S	Iron	2.95E-01	3.15E-01	3.28E-01
Soluble phosphate_low_I	Iron	2.33E-01	2.67E-01	3.08E-01
Soluble phosphate_low_S	Iron	4.40E-01	4.88E-01	5.78E-01
Wood ash_high_I	Iron	4.26E-01	4.72E-01	5.17E-01
Wood ash_high_S	Iron	2.95E-01	3.45E-01	4.02E-01
Wood ash_low_I	Iron	3.37E-01	4.57E-01	5.11E-01
Wood ash_low_S	Iron	5.09E-01	5.78E-01	6.69E-01
Wood ash and biochar_high_I	Iron	2.08E-01	2.78E-01	3.20E-01
Wood ash and biochar_high_S	Iron	2.31E-01	2.40E-01	2.50E-01
Wood ash and biochar_low_I	Iron	2.11E-01	4.40E-01	7.65E-01

	SPLP			
	Soil <2mm			
Timepoint 2		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Wood ash and biochar_low_S	Iron	3.95E-01	4.42E-01	5.14E-01
Wood ash and compost_high_I	Iron	2.62E-01	3.03E-01	3.52E-01
Wood ash and compost_high_S	Iron	2.23E-01	2.60E-01	3.19E-01
Wood ash and compost_low_I	Iron	2.80E-01	3.44E-01	4.56E-01
Wood ash and compost_low_S	Iron	3.46E-01	4.03E-01	4.42E-01
Biochar_high_I	Lead	4.07E-02	6.84E-02	1.43E-01
Biochar_high_S	Lead	3.50E-02	3.87E-02	4.24E-02
Biochar_low_I	Lead	3.43E-02	3.89E-02	4.43E-02
Biochar_low_S	Lead	3.67E-02	4.26E-02	5.33E-02
Biochar and compost_high_I	Lead	4.61E-02	5.03E-02	5.66E-02
Biochar and compost_high_S	Lead	2.88E-02	3.53E-02	4.05E-02
Biochar and compost_low_I	Lead	4.59E-02	4.83E-02	5.04E-02
Biochar and compost_low_S	Lead	3.38E-02	3.67E-02	4.06E-02
Biosolid_high_I	Lead	5.16E-02	5.85E-02	6.79E-02
Biosolid_high_S	Lead	8.47E-02	1.09E-01	1.43E-01
Biosolid_low_I	Lead	4.11E-02	5.57E-02	7.64E-02
Biosolid_low_S	Lead	6.46E-02	8.11E-02	9.71E-02
Biosolids and wood ash_high_I	Lead	3.35E-02	4.13E-02	4.77E-02
Biosolids and wood ash_high_S	Lead	6.31E-02	7.64E-02	8.49E-02
Biosolids and wood ash_low_I	Lead	2.79E-02	3.53E-02	5.16E-02
Biosolids and wood ash_low_S	Lead	4.60E-02	4.82E-02	5.01E-02
Compost_high_I	Lead	5.45E-02	6.51E-02	7.51E-02
Compost_high_S	Lead	4.86E-02	7.90E-02	1.48E-01
Compost_low_I	Lead	4.52E-02	4.85E-02	5.13E-02
Compost_low_S	Lead	3.75E-02	5.30E-02	8.05E-02
control_none_I	Lead	3.87E-02	4.36E-02	4.84E-02
Soluble phosphate and biochar_high_I	Lead	3.06E-02	3.70E-02	4.10E-02
Soluble phosphate and biochar_high_S	Lead	2.46E-02	3.80E-02	6.30E-02
Soluble phosphate and biochar_low_I	Lead	3.06E-02	3.42E-02	3.91E-02
Soluble phosphate and biochar_low_S	Lead	3.76E-02	4.64E-02	5.13E-02
Soluble phosphate and biosolids_high_I	Lead	3.78E-02	4.89E-02	6.37E-02
Soluble phosphate and biosolids_high_S	Lead	5.21E-02	7.61E-02	1.01E-01
Soluble phosphate and biosolids_low_I	Lead	3.21E-02	3.44E-02	3.80E-02
Soluble phosphate and biosolids_low_S	Lead	4.85E-02	5.64E-02	6.07E-02
Soluble phosphate and compost_high_I	Lead	3.67E-02	4.18E-02	4.76E-02
Soluble phosphate and compost_high_S	Lead	2.66E-02	3.36E-02	3.74E-02

	SPLP			
	Soil <2mm			
Timepoint 2		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Soluble phosphate and compost_low_I	Lead	3.62E-02	5.52E-02	9.77E-02
Soluble phosphate and compost_low_S	Lead	4.72E-02	6.84E-02	1.17E-01
Soluble phosphate_high_I	Lead	4.73E-02	6.71E-02	8.76E-02
Soluble phosphate_high_S	Lead	2.44E-02	2.69E-02	2.95E-02
Soluble phosphate_low_I	Lead	3.95E-02	5.08E-02	8.10E-02
Soluble phosphate_low_S	Lead	4.68E-02	7.71E-02	1.47E-01
Wood ash_high_I	Lead	4.47E-02	7.81E-02	1.63E-01
Wood ash_high_S	Lead	2.74E-02	3.32E-02	3.97E-02
Wood ash_low_I	Lead	3.70E-02	5.33E-02	7.33E-02
Wood ash_low_S	Lead	4.36E-02	5.00E-02	5.78E-02
Wood ash and biochar_high_I	Lead	2.51E-02	2.95E-02	3.28E-02
Wood ash and biochar_high_S	Lead	2.71E-02	2.82E-02	2.92E-02
Wood ash and biochar_low_I	Lead	2.47E-02	3.82E-02	5.13E-02
Wood ash and biochar_low_S	Lead	3.36E-02	5.74E-02	1.23E-01
Wood ash and compost_high_I	Lead	3.18E-02	4.45E-02	6.05E-02
Wood ash and compost_high_S	Lead	2.62E-02	2.94E-02	3.34E-02
Wood ash and compost_low_I	Lead	3.16E-02	4.03E-02	4.66E-02
Wood ash and compost_low_S	Lead	3.06E-02	3.37E-02	3.61E-02
Biochar_high_I	Magnesium	8.86E-01	1.08E+00	1.46E+00
Biochar_high_S	Magnesium	1.89E-01	2.16E-01	2.43E-01
Biochar_low_I	Magnesium	1.02E+00	1.65E+00	2.87E+00
Biochar_low_S	Magnesium	3.80E-01	4.19E-01	5.04E-01
Biochar and compost_high_I	Magnesium	1.86E+00	5.13E+00	9.68E+00
Biochar and compost_high_S	Magnesium	2.61E-01	3.14E-01	3.80E-01
Biochar and compost_low_I	Magnesium	1.40E+00	2.46E+00	4.28E+00
Biochar and compost_low_S	Magnesium	2.81E-01	3.26E-01	3.73E-01
Biosolid_high_I	Magnesium	3.03E+00	5.89E+00	8.21E+00
Biosolid_high_S	Magnesium	1.90E-01	2.28E-01	2.75E-01
Biosolid_low_I	Magnesium	8.12E-01	4.13E+00	7.04E+00
Biosolid_low_S	Magnesium	3.20E-01	3.87E-01	4.70E-01
Biosolids and wood ash_high_I	Magnesium	8.68E+00	1.62E+01	2.52E+01
Biosolids and wood ash_high_S	Magnesium	4.08E-01	6.93E-01	1.34E+00
Biosolids and wood ash_low_I	Magnesium	2.29E+00	5.41E+00	7.42E+00
Biosolids and wood ash_low_S	Magnesium	4.64E-01	9.86E-01	1.48E+00
Compost_high_I	Magnesium	2.26E+00	2.78E+00	3.20E+00
Compost_high_S	Magnesium	4.04E-01	4.98E-01	6.79E-01

	SPLP			
	Soil <2mm			
Timepoint 2		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Compost_low_I	Magnesium	1.60E+00	2.13E+00	2.41E+00
Compost_low_S	Magnesium	5.19E-01	5.84E-01	6.62E-01
control_none_I	Magnesium	1.90E+00	2.40E+00	2.68E+00
Soluble phosphate and biochar_high_I	Magnesium	3.36E+00	4.53E+00	5.91E+00
Soluble phosphate and biochar_high_S	Magnesium	6.99E-01	8.33E-01	1.11E+00
Soluble phosphate and biochar_low_I	Magnesium	1.58E+00	1.90E+00	2.63E+00
Soluble phosphate and biochar_low_S	Magnesium	6.24E-01	7.36E-01	8.09E-01
Soluble phosphate and biosolids_high_I	Magnesium	3.79E+00	1.13E+01	2.17E+01
Soluble phosphate and biosolids_high_S	Magnesium	2.94E-01	4.68E-01	8.78E-01
Soluble phosphate and biosolids_low_I	Magnesium	1.07E+00	5.07E+00	1.08E+01
Soluble phosphate and biosolids_low_S	Magnesium	3.48E-01	4.68E-01	5.73E-01
Soluble phosphate and compost_high_I	Magnesium	4.63E+00	9.80E+00	1.90E+01
Soluble phosphate and compost_high_S	Magnesium	5.73E-01	8.65E-01	1.02E+00
Soluble phosphate and compost_low_I	Magnesium	3.04E+00	3.38E+00	4.09E+00
Soluble phosphate and compost_low_S	Magnesium	5.11E-01	5.89E-01	6.85E-01
Soluble phosphate_high_I	Magnesium	3.37E+00	4.21E+00	5.04E+00
Soluble phosphate_high_S	Magnesium	1.67E+00	2.00E+00	2.22E+00
Soluble phosphate_low_I	Magnesium	1.81E+00	2.10E+00	2.32E+00
Soluble phosphate_low_S	Magnesium	1.37E+00	1.54E+00	1.78E+00
Wood ash_high_I	Magnesium	1.87E+00	2.68E+00	3.71E+00
Wood ash_high_S	Magnesium	7.21E-01	8.52E-01	1.13E+00
Wood ash_low_I	Magnesium	1.07E+00	1.55E+00	2.20E+00
Wood ash_low_S	Magnesium	6.15E-01	7.05E-01	8.14E-01
Wood ash and biochar_high_I	Magnesium	3.49E+00	4.06E+00	5.17E+00
Wood ash and biochar_high_S	Magnesium	1.91E-01	2.58E-01	3.60E-01
Wood ash and biochar_low_I	Magnesium	8.61E-01	2.10E+00	3.19E+00
Wood ash and biochar_low_S	Magnesium	3.59E-01	4.28E-01	5.18E-01
Wood ash and compost_high_I	Magnesium	4.14E+00	5.73E+00	6.80E+00
Wood ash and compost_high_S	Magnesium	5.14E-01	5.25E-01	5.34E-01
Wood ash and compost_low_I	Magnesium	2.39E+00	3.14E+00	3.68E+00
Wood ash and compost_low_S	Magnesium	5.34E-01	6.07E-01	7.35E-01
Biochar_high_I	Manganese	3.21E-01	4.10E-01	5.51E-01
Biochar_high_S	Manganese	9.83E-02	1.50E-01	2.10E-01
Biochar_low_I	Manganese	3.90E-01	7.71E-01	1.47E+00
Biochar_low_S	Manganese	2.51E-01	3.47E-01	4.35E-01
Biochar and compost_high_I	Manganese	3.58E-01	9.05E-01	1.80E+00

	SPLP			
	Soil <2mm			
Timepoint 2		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Biochar and compost_high_S	Manganese	2.15E-01	2.62E-01	3.39E-01
Biochar and compost_low_I	Manganese	4.34E-01	7.73E-01	1.31E+00
Biochar and compost_low_S	Manganese	2.22E-01	2.44E-01	2.53E-01
Biosolid_high_I	Manganese	3.25E-01	5.23E-01	7.43E-01
Biosolid_high_S	Manganese	7.86E-02	9.86E-02	1.32E-01
Biosolid_low_I	Manganese	2.94E-01	1.38E+00	2.21E+00
Biosolid_low_S	Manganese	1.70E-01	2.19E-01	2.56E-01
Biosolids and wood ash_high_I	Manganese	5.36E-01	1.22E+00	1.93E+00
Biosolids and wood ash_high_S	Manganese	1.47E-01	2.12E-01	3.74E-01
Biosolids and wood ash_low_I	Manganese	7.23E-01	1.56E+00	2.35E+00
Biosolids and wood ash_low_S	Manganese	2.48E-01	4.45E-01	6.91E-01
Compost_high_I	Manganese	4.83E-01	5.87E-01	7.30E-01
Compost_high_S	Manganese	2.62E-01	3.46E-01	4.28E-01
Compost_low_I	Manganese	6.46E-01	9.85E-01	1.27E+00
Compost_low_S	Manganese	3.25E-01	3.63E-01	4.10E-01
control_none_I	Manganese	1.11E+00	1.50E+00	1.69E+00
Soluble phosphate and biochar_high_I	Manganese	7.27E-01	1.33E+00	1.73E+00
Soluble phosphate and biochar_high_S	Manganese	3.06E-01	4.19E-01	5.65E-01
Soluble phosphate and biochar_low_I	Manganese	6.69E-01	8.94E-01	1.31E+00
Soluble phosphate and biochar_low_S	Manganese	4.75E-01	5.47E-01	6.41E-01
Soluble phosphate and biosolids_high_I	Manganese	2.94E-01	7.27E-01	1.42E+00
Soluble phosphate and biosolids_high_S	Manganese	7.15E-02	1.50E-01	2.56E-01
Soluble phosphate and biosolids_low_I	Manganese	3.75E-01	1.47E+00	3.23E+00
Soluble phosphate and biosolids_low_S	Manganese	1.60E-01	2.08E-01	2.78E-01
Soluble phosphate and compost_high_I	Manganese	8.48E-01	2.02E+00	4.15E+00
Soluble phosphate and compost_high_S	Manganese	2.84E-01	3.66E-01	4.29E-01
Soluble phosphate and compost_low_I	Manganese	1.26E+00	1.34E+00	1.51E+00
Soluble phosphate and compost_low_S	Manganese	3.30E-01	3.83E-01	4.54E-01
Soluble phosphate_high_I	Manganese	1.13E+00	1.53E+00	1.95E+00
Soluble phosphate_high_S	Manganese	9.06E-01	1.03E+00	1.15E+00
Soluble phosphate_low_I	Manganese	1.35E+00	1.51E+00	1.69E+00
Soluble phosphate_low_S	Manganese	1.08E+00	1.28E+00	1.42E+00
Wood ash_high_I	Manganese	3.09E-01	4.97E-01	6.06E-01
Wood ash_high_S	Manganese	2.05E-01	2.31E-01	2.57E-01
Wood ash_low_I	Manganese	3.72E-01	4.65E-01	5.71E-01
Wood ash_low_S	Manganese	2.41E-01	3.03E-01	3.60E-01

	SPLP			
	Soil <2mm			
Timepoint 2		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Wood ash and biochar_high_I	Manganese	5.30E-01	5.90E-01	7.06E-01
Wood ash and biochar_high_S	Manganese	1.30E-01	1.56E-01	2.04E-01
Wood ash and biochar_low_I	Manganese	1.73E-01	4.51E-01	7.27E-01
Wood ash and biochar_low_S	Manganese	2.43E-01	2.56E-01	2.89E-01
Wood ash and compost_high_I	Manganese	4.41E-01	6.40E-01	7.88E-01
Wood ash and compost_high_S	Manganese	2.90E-01	3.31E-01	3.63E-01
Wood ash and compost_low_I	Manganese	5.52E-01	7.50E-01	9.67E-01
Wood ash and compost_low_S	Manganese	2.84E-01	3.03E-01	3.12E-01
Biochar_high_I	Nickel	7.86E-04	7.86E-04	7.86E-04
Biochar_high_S	Nickel	7.86E-04	7.93E-04	8.15E-04
Biochar_low_I	Nickel	7.86E-04	7.86E-04	7.86E-04
Biochar_low_S	Nickel	7.86E-04	7.86E-04	7.86E-04
Biochar and compost_high_I	Nickel	7.86E-04	7.86E-04	7.86E-04
Biochar and compost_high_S	Nickel	7.86E-04	7.86E-04	7.86E-04
Biochar and compost_low_I	Nickel	7.86E-04	8.10E-04	8.82E-04
Biochar and compost_low_S	Nickel	7.86E-04	7.86E-04	7.86E-04
Biosolid_high_I	Nickel	1.81E-02	2.59E-02	3.12E-02
Biosolid_high_S	Nickel	5.10E-03	5.48E-03	6.35E-03
Biosolid_low_I	Nickel	2.33E-03	4.46E-03	6.20E-03
Biosolid_low_S	Nickel	1.14E-03	1.44E-03	1.82E-03
Biosolids and wood ash_high_I	Nickel	1.62E-02	2.88E-02	4.91E-02
Biosolids and wood ash_high_S	Nickel	3.98E-03	5.17E-03	6.81E-03
Biosolids and wood ash_low_I	Nickel	2.50E-03	3.96E-03	5.72E-03
Biosolids and wood ash_low_S	Nickel	7.86E-04	9.97E-04	1.63E-03
Compost_high_I	Nickel	7.86E-04	1.06E-03	1.90E-03
Compost_high_S	Nickel	7.86E-04	7.86E-04	7.86E-04
Compost_low_I	Nickel	7.86E-04	7.86E-04	7.86E-04
Compost_low_S	Nickel	7.86E-04	7.86E-04	7.86E-04
control_none_I	Nickel	7.86E-04	9.47E-04	1.43E-03
Soluble phosphate and biochar_high_I	Nickel	1.60E-03	2.11E-03	2.61E-03
Soluble phosphate and biochar_high_S	Nickel	7.86E-04	8.20E-04	8.76E-04
Soluble phosphate and biochar_low_I	Nickel	7.86E-04	7.86E-04	7.86E-04
Soluble phosphate and biochar_low_S	Nickel	7.86E-04	7.86E-04	7.86E-04
Soluble phosphate and biosolids_high_I	Nickel	2.07E-02	3.07E-02	4.98E-02
Soluble phosphate and biosolids_high_S	Nickel	5.52E-03	7.24E-03	1.00E-02
Soluble phosphate and biosolids_low_I	Nickel	3.54E-03	5.27E-03	7.36E-03

	SPLP			
	Soil <2mm			
Timepoint 2		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Soluble phosphate and biosolids_low_S	Nickel	1.01E-03	1.65E-03	2.04E-03
Soluble phosphate and compost_high_I	Nickel	1.86E-03	3.56E-03	6.55E-03
Soluble phosphate and compost_high_S	Nickel	7.86E-04	7.86E-04	7.86E-04
Soluble phosphate and compost_low_I	Nickel	7.86E-04	8.37E-04	9.91E-04
Soluble phosphate and compost_low_S	Nickel	7.86E-04	7.86E-04	7.86E-04
Soluble phosphate_high_I	Nickel	1.83E-03	2.22E-03	2.36E-03
Soluble phosphate_high_S	Nickel	8.13E-04	1.25E-03	1.88E-03
Soluble phosphate_low_I	Nickel	7.86E-04	1.20E-03	2.34E-03
Soluble phosphate_low_S	Nickel	7.86E-04	8.17E-04	9.11E-04
Wood ash_high_I	Nickel	7.86E-04	7.86E-04	7.86E-04
Wood ash_high_S	Nickel	7.86E-04	7.86E-04	7.86E-04
Wood ash_low_I	Nickel	7.86E-04	7.86E-04	7.86E-04
Wood ash_low_S	Nickel	7.86E-04	7.86E-04	7.86E-04
Wood ash and biochar_high_I	Nickel	7.86E-04	7.86E-04	7.86E-04
Wood ash and biochar_high_S	Nickel	7.86E-04	7.86E-04	7.86E-04
Wood ash and biochar_low_I	Nickel	7.86E-04	8.85E-04	1.18E-03
Wood ash and biochar_low_S	Nickel	7.86E-04	7.86E-04	7.86E-04
Wood ash and compost_high_I	Nickel	7.86E-04	7.86E-04	7.86E-04
Wood ash and compost_high_S	Nickel	7.86E-04	8.58E-04	1.08E-03
Wood ash and compost_low_I	Nickel	7.86E-04	7.86E-04	7.86E-04
Wood ash and compost_low_S	Nickel	7.86E-04	7.86E-04	7.86E-04
Biochar_high_I	Phosphorus	2.68E-01	2.90E-01	3.17E-01
Biochar_high_S	Phosphorus	3.44E-01	3.78E-01	4.40E-01
Biochar_low_I	Phosphorus	1.86E-01	2.49E-01	2.84E-01
Biochar_low_S	Phosphorus	3.01E-01	3.14E-01	3.23E-01
Biochar and compost_high_I	Phosphorus	3.36E-01	4.14E-01	5.22E-01
Biochar and compost_high_S	Phosphorus	3.59E-01	3.83E-01	4.05E-01
Biochar and compost_low_I	Phosphorus	2.40E-01	2.84E-01	3.16E-01
Biochar and compost_low_S	Phosphorus	3.36E-01	3.44E-01	3.50E-01
Biosolid_high_I	Phosphorus	4.30E+00	5.93E+00	8.42E+00
Biosolid_high_S	Phosphorus	1.07E+00	1.28E+00	1.54E+00
Biosolid_low_I	Phosphorus	8.10E-01	1.06E+00	1.40E+00
Biosolid_low_S	Phosphorus	5.08E-01	6.42E-01	7.39E-01
Biosolids and wood ash_high_I	Phosphorus	2.78E+00	3.47E+00	4.07E+00
Biosolids and wood ash_high_S	Phosphorus	6.77E-01	8.33E-01	9.31E-01
Biosolids and wood ash_low_I	Phosphorus	5.77E-01	8.62E-01	1.48E+00

	SPLP			
	Soil <2mm			
Timepoint 2		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Biosolids and wood ash_low_S	Phosphorus	3.23E-01	4.98E-01	5.75E-01
Compost_high_I	Phosphorus	4.17E-01	4.35E-01	4.51E-01
Compost_high_S	Phosphorus	4.11E-01	4.89E-01	5.98E-01
Compost_low_I	Phosphorus	2.53E-01	2.69E-01	2.75E-01
Compost_low_S	Phosphorus	2.98E-01	3.18E-01	3.49E-01
control_none_I	Phosphorus	1.81E-01	1.98E-01	2.07E-01
Soluble phosphate and biochar_high_I	Phosphorus	7.73E+00	8.65E+00	9.99E+00
Soluble phosphate and biochar_high_S	Phosphorus	5.87E+00	6.87E+00	7.28E+00
Soluble phosphate and biochar_low_I	Phosphorus	1.05E+00	1.23E+00	1.31E+00
Soluble phosphate and biochar_low_S	Phosphorus	1.25E+00	1.62E+00	1.96E+00
Soluble phosphate and biosolids_high_I	Phosphorus	1.44E+01	1.60E+01	1.97E+01
Soluble phosphate and biosolids_high_S	Phosphorus	4.67E+00	5.23E+00	5.67E+00
Soluble phosphate and biosolids_low_I	Phosphorus	2.08E+00	2.73E+00	3.23E+00
Soluble phosphate and biosolids_low_S	Phosphorus	1.98E+00	2.40E+00	2.76E+00
Soluble phosphate and compost_high_I	Phosphorus	6.00E+00	8.01E+00	9.27E+00
Soluble phosphate and compost_high_S	Phosphorus	4.95E+00	7.21E+00	8.06E+00
Soluble phosphate and compost_low_I	Phosphorus	1.14E+00	1.30E+00	1.53E+00
Soluble phosphate and compost_low_S	Phosphorus	1.85E+00	2.03E+00	2.18E+00
Soluble phosphate_high_I	Phosphorus	6.47E+00	7.29E+00	7.91E+00
Soluble phosphate_high_S	Phosphorus	7.47E+00	8.53E+00	1.06E+01
Soluble phosphate_low_I	Phosphorus	9.66E-01	1.13E+00	1.24E+00
Soluble phosphate_low_S	Phosphorus	1.23E+00	1.39E+00	1.61E+00
Wood ash_high_I	Phosphorus	3.00E-01	3.21E-01	3.42E-01
Wood ash_high_S	Phosphorus	3.44E-01	3.55E-01	3.70E-01
Wood ash_low_I	Phosphorus	2.90E-01	3.13E-01	3.53E-01
Wood ash_low_S	Phosphorus	3.53E-01	3.59E-01	3.70E-01
Wood ash and biochar_high_I	Phosphorus	2.40E-01	2.77E-01	2.94E-01
Wood ash and biochar_high_S	Phosphorus	3.75E-01	3.97E-01	4.27E-01
Wood ash and biochar_low_I	Phosphorus	1.67E-01	2.87E-01	3.81E-01
Wood ash and biochar_low_S	Phosphorus	3.35E-01	3.58E-01	3.75E-01
Wood ash and compost_high_I	Phosphorus	3.79E-01	4.11E-01	4.64E-01
Wood ash and compost_high_S	Phosphorus	3.01E-01	3.24E-01	3.82E-01
Wood ash and compost_low_I	Phosphorus	2.32E-01	2.57E-01	3.00E-01
Wood ash and compost_low_S	Phosphorus	3.18E-01	3.54E-01	3.72E-01
Biochar_high_I	Potassium	8.40	8.99	10.13
Biochar_high_S	Potassium	4.91	5.24	5.45

	SPLP			
	Soil <2mm			
Timepoint 2		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Biochar_low_I	Potassium	6.67	7.36	8.32
Biochar_low_S	Potassium	4.19	4.36	4.64
Biochar and compost_high_I	Potassium	23.65	34.22	40.98
Biochar and compost_high_S	Potassium	11.88	12.39	12.98
Biochar and compost_low_I	Potassium	9.26	11.17	14.06
Biochar and compost_low_S	Potassium	6.16	6.36	6.76
Biosolid_high_I	Potassium	9.24	11.78	13.13
Biosolid_high_S	Potassium	3.62	4.01	4.32
Biosolid_low_I	Potassium	5.61	8.24	10.48
Biosolid_low_S	Potassium	3.20	3.77	4.01
Biosolids and wood ash_high_I	Potassium	28.87	36.47	48.67
Biosolids and wood ash_high_S	Potassium	11.39	12.89	15.90
Biosolids and wood ash_low_I	Potassium	12.60	13.17	14.05
Biosolids and wood ash_low_S	Potassium	6.63	7.62	8.38
Compost_high_I	Potassium	20.22	21.34	22.43
Compost_high_S	Potassium	9.78	11.32	12.86
Compost_low_I	Potassium	8.68	9.40	9.88
Compost_low_S	Potassium	4.80	5.40	5.77
control_none_I	Potassium	5.61	6.34	7.22
Soluble phosphate and biochar_high_I	Potassium	25.43	26.70	28.08
Soluble phosphate and biochar_high_S	Potassium	10.82	12.79	14.59
Soluble phosphate and biochar_low_I	Potassium	17.19	19.54	22.45
Soluble phosphate and biochar_low_S	Potassium	12.97	13.74	15.30
Soluble phosphate and biosolids_high_I	Potassium	20.64	25.47	33.52
Soluble phosphate and biosolids_high_S	Potassium	7.60	9.76	13.25
Soluble phosphate and biosolids_low_I	Potassium	12.72	21.17	28.38
Soluble phosphate and biosolids_low_S	Potassium	9.20	10.94	11.95
Soluble phosphate and compost_high_I	Potassium	38.89	46.06	54.63
Soluble phosphate and compost_high_S	Potassium	12.74	18.21	20.77
Soluble phosphate and compost_low_I	Potassium	24.09	25.77	27.70
Soluble phosphate and compost_low_S	Potassium	13.66	14.33	14.93
Soluble phosphate_high_I	Potassium	19.08	21.17	24.07
Soluble phosphate_high_S	Potassium	12.76	13.86	14.55
Soluble phosphate_low_I	Potassium	14.34	16.68	19.24
Soluble phosphate_low_S	Potassium	14.27	15.91	17.66
Wood ash_high_I	Potassium	19.86	23.69	32.07

	SPLP			
	Soil <2mm			
Timepoint 2		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Wood ash_high_S	Potassium	12.16	13.78	15.92
Wood ash_low_I	Potassium	7.75	9.31	11.72
Wood ash_low_S	Potassium	6.03	6.61	7.79
Wood ash and biochar_high_I	Potassium	30.54	32.71	34.99
Wood ash and biochar_high_S	Potassium	12.26	12.89	14.66
Wood ash and biochar_low_I	Potassium	8.38	11.04	12.64
Wood ash and biochar_low_S	Potassium	6.46	6.72	7.04
Wood ash and compost_high_I	Potassium	41.67	46.84	51.69
Wood ash and compost_high_S	Potassium	14.01	16.25	18.17
Wood ash and compost_low_I	Potassium	14.08	14.92	15.85
Wood ash and compost_low_S	Potassium	7.36	8.49	9.11
Biochar_high_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Biochar_high_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Biochar_low_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Biochar_low_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Biochar and compost_high_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Biochar and compost_high_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Biochar and compost_low_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Biochar and compost_low_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Biosolid_high_I	Selenium	9.05E-03	1.19E-02	1.83E-02
Biosolid_high_S	Selenium	9.05E-03	1.01E-02	1.22E-02
Biosolid_low_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Biosolid_low_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Biosolids and wood ash_high_I	Selenium	9.05E-03	1.20E-02	1.36E-02
Biosolids and wood ash_high_S	Selenium	9.05E-03	9.47E-03	1.07E-02
Biosolids and wood ash_low_I	Selenium	9.05E-03	9.08E-03	9.20E-03
Biosolids and wood ash_low_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Compost_high_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Compost_high_S	Selenium	9.05E-03	9.06E-03	9.11E-03
Compost_low_I	Selenium	9.05E-03	9.86E-03	1.23E-02
Compost_low_S	Selenium	9.05E-03	9.05E-03	9.05E-03
control_none_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Soluble phosphate and biochar_high_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Soluble phosphate and biochar_high_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Soluble phosphate and biochar_low_I	Selenium	9.05E-03	9.06E-03	9.12E-03
Soluble phosphate and biochar_low_S	Selenium	9.05E-03	9.05E-03	9.05E-03

	SPLP			
	Soil <2mm			
Timepoint 2		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Soluble phosphate and biosolids_high_I	Selenium	9.05E-03	9.33E-03	1.02E-02
Soluble phosphate and biosolids_high_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Soluble phosphate and biosolids_low_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Soluble phosphate and biosolids_low_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Soluble phosphate and compost_high_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Soluble phosphate and compost_high_S	Selenium	9.05E-03	9.94E-03	1.26E-02
Soluble phosphate and compost_low_I	Selenium	9.05E-03	1.07E-02	1.47E-02
Soluble phosphate and compost_low_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Soluble phosphate_high_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Soluble phosphate_high_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Soluble phosphate_low_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Soluble phosphate_low_S	Selenium	9.05E-03	9.52E-03	1.09E-02
Wood ash_high_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Wood ash_high_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Wood ash_low_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Wood ash_low_S	Selenium	9.05E-03	1.02E-02	1.14E-02
Wood ash and biochar_high_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Wood ash and biochar_high_S	Selenium	9.05E-03	9.38E-03	1.04E-02
Wood ash and biochar_low_I	Selenium	9.05E-03	9.38E-03	9.82E-03
Wood ash and biochar_low_S	Selenium	9.05E-03	9.36E-03	1.03E-02
Wood ash and compost_high_I	Selenium	9.05E-03	9.41E-03	1.05E-02
Wood ash and compost_high_S	Selenium	9.05E-03	9.93E-03	1.21E-02
Wood ash and compost_low_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Wood ash and compost_low_S	Selenium	9.05E-03	9.26E-03	9.91E-03
Biochar_high_I	Silver	1.39E-02	1.39E-02	1.39E-02
Biochar_high_S	Silver	1.39E-02	1.39E-02	1.39E-02
Biochar_low_I	Silver	1.39E-02	1.39E-02	1.39E-02
Biochar_low_S	Silver	1.39E-02	1.39E-02	1.39E-02
Biochar and compost_high_I	Silver	1.39E-02	1.39E-02	1.39E-02
Biochar and compost_high_S	Silver	1.39E-02	1.39E-02	1.39E-02
Biochar and compost_low_I	Silver	1.39E-02	1.39E-02	1.39E-02
Biochar and compost_low_S	Silver	1.39E-02	1.39E-02	1.39E-02
Biosolid_high_I	Silver	1.39E-02	2.01E-02	3.89E-02
Biosolid_high_S	Silver	1.39E-02	1.39E-02	1.39E-02
Biosolid_low_I	Silver	1.39E-02	1.39E-02	1.39E-02
Biosolid_low_S	Silver	1.39E-02	1.39E-02	1.39E-02

	SPLP			
	Soil <2mm			
Timepoint 2		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Biosolids and wood ash_high_I	Silver	1.39E-02	1.39E-02	1.39E-02
Biosolids and wood ash_high_S	Silver	1.39E-02	1.39E-02	1.39E-02
Biosolids and wood ash_low_I	Silver	1.39E-02	1.39E-02	1.39E-02
Biosolids and wood ash_low_S	Silver	1.39E-02	1.39E-02	1.39E-02
Compost_high_I	Silver	1.39E-02	1.39E-02	1.39E-02
Compost_high_S	Silver	1.39E-02	1.39E-02	1.39E-02
Compost_low_I	Silver	1.39E-02	1.39E-02	1.39E-02
Compost_low_S	Silver	1.39E-02	1.39E-02	1.39E-02
control_none_I	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate and biochar_high_I	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate and biochar_high_S	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate and biochar_low_I	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate and biochar_low_S	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate and biosolids_high_I	Silver	1.39E-02	1.64E-02	2.40E-02
Soluble phosphate and biosolids_high_S	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate and biosolids_low_I	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate and biosolids_low_S	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate and compost_high_I	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate and compost_high_S	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate and compost_low_I	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate and compost_low_S	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate_high_I	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate_high_S	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate_low_I	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate_low_S	Silver	1.39E-02	1.39E-02	1.39E-02
Wood ash_high_I	Silver	1.39E-02	1.39E-02	1.39E-02
Wood ash_high_S	Silver	1.39E-02	1.39E-02	1.39E-02
Wood ash_low_I	Silver	1.39E-02	1.39E-02	1.39E-02
Wood ash_low_S	Silver	1.39E-02	1.39E-02	1.39E-02
Wood ash and biochar_high_I	Silver	1.39E-02	1.39E-02	1.39E-02
Wood ash and biochar_high_S	Silver	1.39E-02	1.39E-02	1.39E-02
Wood ash and biochar_low_I	Silver	1.39E-02	1.39E-02	1.39E-02
Wood ash and biochar_low_S	Silver	1.39E-02	1.39E-02	1.39E-02
Wood ash and compost_high_I	Silver	1.39E-02	1.39E-02	1.39E-02
Wood ash and compost_high_S	Silver	1.39E-02	1.39E-02	1.39E-02
Wood ash and compost_low_I	Silver	1.39E-02	1.39E-02	1.39E-02

	SPLP			
	Soil <2mm			
Timepoint 2		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Wood ash and compost_low_S	Silver	1.39E-02	1.39E-02	1.39E-02
Biochar_high_I	Sodium	3.07E+00	3.31E+00	3.87E+00
Biochar_high_S	Sodium	1.16E+00	1.37E+00	1.49E+00
Biochar_low_I	Sodium	2.61E+00	2.88E+00	3.22E+00
Biochar_low_S	Sodium	1.37E+00	1.41E+00	1.46E+00
Biochar and compost_high_I	Sodium	7.58E+00	1.22E+01	1.54E+01
Biochar and compost_high_S	Sodium	2.90E+00	3.19E+00	3.44E+00
Biochar and compost_low_I	Sodium	3.39E+00	4.17E+00	5.54E+00
Biochar and compost_low_S	Sodium	1.80E+00	1.90E+00	2.09E+00
Biosolid_high_I	Sodium	3.04E+00	3.86E+00	4.75E+00
Biosolid_high_S	Sodium	9.88E-01	1.07E+00	1.16E+00
Biosolid_low_I	Sodium	1.86E+00	3.00E+00	3.88E+00
Biosolid_low_S	Sodium	1.09E+00	1.18E+00	1.26E+00
Biosolids and wood ash_high_I	Sodium	6.37E+00	8.68E+00	1.17E+01
Biosolids and wood ash_high_S	Sodium	2.04E+00	2.38E+00	2.90E+00
Biosolids and wood ash_low_I	Sodium	3.30E+00	3.55E+00	3.78E+00
Biosolids and wood ash_low_S	Sodium	1.56E+00	1.90E+00	2.25E+00
Compost_high_I	Sodium	6.72E+00	7.38E+00	8.00E+00
Compost_high_S	Sodium	2.57E+00	3.11E+00	3.59E+00
Compost_low_I	Sodium	3.12E+00	3.59E+00	3.78E+00
Compost_low_S	Sodium	1.43E+00	1.63E+00	1.74E+00
control_none_I	Sodium	2.85E+00	3.32E+00	3.58E+00
Soluble phosphate and biochar_high_I	Sodium	7.36E+00	7.95E+00	8.47E+00
Soluble phosphate and biochar_high_S	Sodium	2.36E+00	2.95E+00	3.36E+00
Soluble phosphate and biochar_low_I	Sodium	3.20E+00	3.82E+00	4.42E+00
Soluble phosphate and biochar_low_S	Sodium	2.00E+00	2.12E+00	2.38E+00
Soluble phosphate and biosolids_high_I	Sodium	6.01E+00	7.47E+00	9.82E+00
Soluble phosphate and biosolids_high_S	Sodium	1.85E+00	2.29E+00	3.16E+00
Soluble phosphate and biosolids_low_I	Sodium	2.27E+00	3.92E+00	5.74E+00
Soluble phosphate and biosolids_low_S	Sodium	1.49E+00	1.99E+00	2.33E+00
Soluble phosphate and compost_high_I	Sodium	1.18E+01	1.54E+01	1.92E+01
Soluble phosphate and compost_high_S	Sodium	3.07E+00	4.27E+00	4.78E+00
Soluble phosphate and compost_low_I	Sodium	5.25E+00	5.65E+00	6.26E+00
Soluble phosphate and compost_low_S	Sodium	2.52E+00	2.70E+00	2.89E+00
Soluble phosphate_high_I	Sodium	6.00E+00	6.56E+00	7.46E+00
Soluble phosphate_high_S	Sodium	3.23E+00	3.40E+00	3.58E+00

	SPLP			
	Soil <2mm			
Timepoint 2		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Soluble phosphate_low_I	Sodium	3.55E+00	4.17E+00	5.06E+00
Soluble phosphate_low_S	Sodium	2.18E+00	2.48E+00	2.76E+00
Wood ash_high_I	Sodium	4.94E+00	5.91E+00	8.67E+00
Wood ash_high_S	Sodium	2.21E+00	2.55E+00	3.10E+00
Wood ash_low_I	Sodium	2.49E+00	2.96E+00	3.63E+00
Wood ash_low_S	Sodium	1.45E+00	1.59E+00	1.92E+00
Wood ash and biochar_high_I	Sodium	7.79E+00	8.14E+00	8.60E+00
Wood ash and biochar_high_S	Sodium	2.45E+00	2.58E+00	2.87E+00
Wood ash and biochar_low_I	Sodium	2.58E+00	3.26E+00	3.81E+00
Wood ash and biochar_low_S	Sodium	1.53E+00	1.59E+00	1.63E+00
Wood ash and compost_high_I	Sodium	1.11E+01	1.26E+01	1.38E+01
Wood ash and compost_high_S	Sodium	2.66E+00	3.30E+00	3.89E+00
Wood ash and compost_low_I	Sodium	4.23E+00	4.47E+00	4.80E+00
Wood ash and compost_low_S	Sodium	1.75E+00	2.19E+00	2.42E+00
Biochar_high_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Biochar_high_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Biochar_low_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Biochar_low_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Biochar and compost_high_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Biochar and compost_high_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Biochar and compost_low_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Biochar and compost_low_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Biosolid_high_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Biosolid_high_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Biosolid_low_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Biosolid_low_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Biosolids and wood ash_high_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Biosolids and wood ash_high_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Biosolids and wood ash_low_I	Thallium	4.25E-03	4.31E-03	4.51E-03
Biosolids and wood ash_low_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Compost_high_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Compost_high_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Compost_low_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Compost_low_S	Thallium	4.25E-03	4.25E-03	4.25E-03
control_none_I	Thallium	4.25E-03	4.81E-03	6.06E-03
Soluble phosphate and biochar_high_I	Thallium	4.25E-03	4.31E-03	4.51E-03

	SPLP			
	Soil <2mm			
Timepoint 2		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Soluble phosphate and biochar_high_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Soluble phosphate and biochar_low_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Soluble phosphate and biochar_low_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Soluble phosphate and biosolids_high_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Soluble phosphate and biosolids_high_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Soluble phosphate and biosolids_low_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Soluble phosphate and biosolids_low_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Soluble phosphate and compost_high_I	Thallium	4.25E-03	4.36E-03	4.70E-03
Soluble phosphate and compost_high_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Soluble phosphate and compost_low_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Soluble phosphate and compost_low_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Soluble phosphate_high_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Soluble phosphate_high_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Soluble phosphate_low_I	Thallium	4.25E-03	4.73E-03	5.23E-03
Soluble phosphate_low_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Wood ash_high_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Wood ash_high_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Wood ash_low_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Wood ash_low_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Wood ash and biochar_high_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Wood ash and biochar_high_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Wood ash and biochar_low_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Wood ash and biochar_low_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Wood ash and compost_high_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Wood ash and compost_high_S	Thallium	4.25E-03	4.48E-03	5.17E-03
Wood ash and compost_low_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Wood ash and compost_low_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Biochar_high_I	Vanadium	2.26E-03	2.43E-03	2.60E-03
Biochar_high_S	Vanadium	2.83E-03	3.62E-03	4.68E-03
Biochar_low_I	Vanadium	1.75E-03	2.12E-03	2.41E-03
Biochar_low_S	Vanadium	2.27E-03	2.78E-03	3.12E-03
Biochar and compost_high_I	Vanadium	2.26E-03	2.53E-03	2.93E-03
Biochar and compost_high_S	Vanadium	2.79E-03	3.12E-03	3.36E-03
Biochar and compost_low_I	Vanadium	1.83E-03	2.10E-03	2.34E-03
Biochar and compost_low_S	Vanadium	2.49E-03	3.24E-03	3.83E-03
Biosolid_high_I	Vanadium	6.15E-03	8.04E-03	9.99E-03

	SPLP			
	Soil <2mm			
Timepoint 2		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Biosolid_high_S	Vanadium	1.06E-02	1.17E-02	1.29E-02
Biosolid_low_I	Vanadium	2.49E-03	3.74E-03	4.75E-03
Biosolid_low_S	Vanadium	4.61E-03	5.94E-03	7.23E-03
Biosolids and wood ash_high_I	Vanadium	5.23E-03	5.97E-03	7.77E-03
Biosolids and wood ash_high_S	Vanadium	5.97E-03	7.98E-03	8.82E-03
Biosolids and wood ash_low_I	Vanadium	2.38E-03	3.74E-03	5.94E-03
Biosolids and wood ash_low_S	Vanadium	3.77E-03	4.56E-03	4.99E-03
Compost_high_I	Vanadium	2.34E-03	2.59E-03	2.83E-03
Compost_high_S	Vanadium	2.69E-03	4.01E-03	5.14E-03
Compost_low_I	Vanadium	1.95E-03	2.11E-03	2.33E-03
Compost_low_S	Vanadium	2.22E-03	2.41E-03	2.82E-03
control_none_I	Vanadium	1.46E-03	1.81E-03	2.17E-03
Soluble phosphate and biochar_high_I	Vanadium	1.43E-02	1.54E-02	1.61E-02
Soluble phosphate and biochar_high_S	Vanadium	1.08E-02	1.25E-02	1.33E-02
Soluble phosphate and biochar_low_I	Vanadium	5.15E-03	5.60E-03	6.02E-03
Soluble phosphate and biochar_low_S	Vanadium	4.69E-03	5.86E-03	6.60E-03
Soluble phosphate and biosolids_high_I	Vanadium	1.59E-02	2.41E-02	3.85E-02
Soluble phosphate and biosolids_high_S	Vanadium	1.24E-02	1.46E-02	1.67E-02
Soluble phosphate and biosolids_low_I	Vanadium	6.50E-03	8.78E-03	1.36E-02
Soluble phosphate and biosolids_low_S	Vanadium	6.32E-03	9.05E-03	1.39E-02
Soluble phosphate and compost_high_I	Vanadium	9.33E-03	1.31E-02	1.59E-02
Soluble phosphate and compost_high_S	Vanadium	5.57E-03	5.69E-03	5.73E-03
Soluble phosphate and compost_low_I	Vanadium	4.97E-03	5.54E-03	6.18E-03
Soluble phosphate and compost_low_S	Vanadium	6.04E-03	6.65E-03	7.45E-03
Soluble phosphate_high_I	Vanadium	1.38E-02	1.45E-02	1.60E-02
Soluble phosphate_high_S	Vanadium	1.02E-02	1.15E-02	1.28E-02
Soluble phosphate_low_I	Vanadium	6.48E-03	7.40E-03	8.15E-03
Soluble phosphate_low_S	Vanadium	5.61E-03	6.39E-03	7.35E-03
Wood ash_high_I	Vanadium	2.52E-03	2.74E-03	2.98E-03
Wood ash_high_S	Vanadium	2.53E-03	2.78E-03	3.01E-03
Wood ash_low_I	Vanadium	2.28E-03	2.43E-03	2.67E-03
Wood ash_low_S	Vanadium	2.55E-03	2.69E-03	2.99E-03
Wood ash and biochar_high_I	Vanadium	2.46E-03	2.64E-03	2.78E-03
Wood ash and biochar_high_S	Vanadium	3.43E-03	4.11E-03	4.45E-03
Wood ash and biochar_low_I	Vanadium	1.62E-03	2.56E-03	4.26E-03
Wood ash and biochar_low_S	Vanadium	2.61E-03	2.99E-03	3.31E-03

	SPLP			
	Soil <2mm			
Timepoint 2		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Wood ash and compost_high_I	Vanadium	2.74E-03	2.88E-03	3.09E-03
Wood ash and compost_high_S	Vanadium	1.89E-03	2.68E-03	3.75E-03
Wood ash and compost_low_I	Vanadium	2.07E-03	2.26E-03	2.62E-03
Wood ash and compost_low_S	Vanadium	2.41E-03	2.63E-03	2.78E-03
Biochar_high_I	Zinc	2.69E-01	3.33E-01	4.01E-01
Biochar_high_S	Zinc	1.05E-01	1.12E-01	1.18E-01
Biochar_low_I	Zinc	3.47E-01	5.67E-01	1.02E+00
Biochar_low_S	Zinc	1.50E-01	1.75E-01	1.99E-01
Biochar and compost_high_I	Zinc	2.06E-01	4.44E-01	8.35E-01
Biochar and compost_high_S	Zinc	1.09E-01	1.25E-01	1.55E-01
Biochar and compost_low_I	Zinc	3.08E-01	5.30E-01	8.94E-01
Biochar and compost_low_S	Zinc	1.16E-01	1.28E-01	1.40E-01
Biosolid_high_I	Zinc	2.09E-01	2.51E-01	2.97E-01
Biosolid_high_S	Zinc	1.07E-01	1.31E-01	1.85E-01
Biosolid_low_I	Zinc	2.04E-01	5.15E-01	8.78E-01
Biosolid_low_S	Zinc	1.30E-01	1.52E-01	1.69E-01
Biosolids and wood ash_high_I	Zinc	1.93E-01	2.91E-01	3.86E-01
Biosolids and wood ash_high_S	Zinc	1.15E-01	1.33E-01	1.60E-01
Biosolids and wood ash_low_I	Zinc	2.31E-01	4.76E-01	6.58E-01
Biosolids and wood ash_low_S	Zinc	1.13E-01	1.65E-01	2.22E-01
Compost_high_I	Zinc	2.62E-01	3.09E-01	3.60E-01
Compost_high_S	Zinc	1.65E-01	1.98E-01	2.79E-01
Compost_low_I	Zinc	4.07E-01	5.25E-01	6.02E-01
Compost_low_S	Zinc	1.76E-01	2.07E-01	2.36E-01
control_none_I	Zinc	5.87E-01	7.90E-01	8.93E-01
Soluble phosphate and biochar_high_I	Zinc	3.71E-01	5.37E-01	7.53E-01
Soluble phosphate and biochar_high_S	Zinc	1.61E-01	1.91E-01	2.35E-01
Soluble phosphate and biochar_low_I	Zinc	3.41E-01	4.22E-01	6.01E-01
Soluble phosphate and biochar_low_S	Zinc	2.13E-01	2.32E-01	2.59E-01
Soluble phosphate and biosolids_high_I	Zinc	1.68E-01	2.26E-01	3.42E-01
Soluble phosphate and biosolids_high_S	Zinc	8.04E-02	1.21E-01	1.51E-01
Soluble phosphate and biosolids_low_I	Zinc	1.58E-01	4.55E-01	9.15E-01
Soluble phosphate and biosolids_low_S	Zinc	1.01E-01	1.24E-01	1.49E-01
Soluble phosphate and compost_high_I	Zinc	3.29E-01	6.39E-01	1.28E+00
Soluble phosphate and compost_high_S	Zinc	1.40E-01	1.59E-01	1.75E-01
Soluble phosphate and compost_low_I	Zinc	4.48E-01	5.26E-01	6.82E-01

	SPLP			
	Soil <2mm			
Timepoint 2		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Soluble phosphate and compost_low_S	Zinc	1.68E-01	1.99E-01	2.70E-01
Soluble phosphate_high_I	Zinc	5.30E-01	6.57E-01	7.96E-01
Soluble phosphate_high_S	Zinc	2.69E-01	3.01E-01	3.46E-01
Soluble phosphate_low_I	Zinc	4.54E-01	5.12E-01	5.69E-01
Soluble phosphate_low_S	Zinc	3.86E-01	4.64E-01	5.14E-01
Wood ash_high_I	Zinc	1.94E-01	2.37E-01	3.08E-01
Wood ash_high_S	Zinc	1.07E-01	1.25E-01	1.54E-01
Wood ash_low_I	Zinc	2.13E-01	2.88E-01	3.53E-01
Wood ash_low_S	Zinc	1.76E-01	2.01E-01	2.40E-01
Wood ash and biochar_high_I	Zinc	1.77E-01	2.03E-01	2.48E-01
Wood ash and biochar_high_S	Zinc	7.13E-02	8.12E-02	9.38E-02
Wood ash and biochar_low_I	Zinc	1.67E-01	3.18E-01	5.10E-01
Wood ash and biochar_low_S	Zinc	1.21E-01	1.52E-01	2.36E-01
Wood ash and compost_high_I	Zinc	1.78E-01	2.07E-01	2.73E-01
Wood ash and compost_high_S	Zinc	1.49E-01	1.64E-01	1.73E-01
Wood ash and compost_low_I	Zinc	3.17E-01	4.18E-01	5.70E-01
Wood ash and compost_low_S	Zinc	1.27E-01	1.39E-01	1.50E-01

Table 33. Summary statistics for Timepoint 3 synthetic precipitation leaching procedure (SPLP) for each treatment/rate/application method combination

	SPLP			
	Soil <2mm			
Timepoint 3		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Biochar_high_I	Cobalt	1.25E-03	1.84E-03	2.43E-03
Biochar_high_S	Cobalt	9.43E-04	1.48E-03	2.10E-03
Biochar_low_I	Cobalt	1.54E-03	1.85E-03	2.35E-03
Biochar_low_S	Cobalt	1.26E-03	1.36E-03	1.53E-03
Biochar and compost_high_I	Cobalt	1.15E-03	1.48E-03	1.73E-03
Biochar and compost_high_S	Cobalt	1.37E-03	1.71E-03	2.16E-03
Biochar and compost_low_I	Cobalt	1.19E-03	1.80E-03	2.41E-03
Biochar and compost_low_S	Cobalt	1.16E-03	1.39E-03	1.71E-03
Biosolid_high_I	Cobalt	2.18E-03	3.93E-03	6.38E-03
Biosolid_high_S	Cobalt	1.79E-03	2.44E-03	2.79E-03
Biosolid_low_I	Cobalt	2.20E-03	2.87E-03	3.47E-03
Biosolid_low_S	Cobalt	1.07E-03	1.55E-03	1.78E-03
Biosolids and wood ash_high_I	Cobalt	2.67E-03	4.26E-03	5.74E-03
Biosolids and wood ash_high_S	Cobalt	2.38E-03	2.78E-03	3.25E-03
Biosolids and wood ash_low_I	Cobalt	1.85E-03	3.73E-03	7.23E-03
Biosolids and wood ash_low_S	Cobalt	1.35E-03	2.46E-03	3.80E-03
Compost_high_I	Cobalt	1.33E-03	1.87E-03	2.34E-03
Compost_high_S	Cobalt	1.44E-03	1.61E-03	1.80E-03
Compost_low_I	Cobalt	1.91E-03	2.47E-03	2.94E-03
Compost_low_S	Cobalt	1.33E-03	1.64E-03	2.01E-03
control_none_I	Cobalt	2.45E-03	2.77E-03	3.02E-03
Soluble phosphate_high_I	Cobalt	2.41E-03	3.15E-03	4.07E-03
Soluble phosphate_high_S	Cobalt	2.59E-03	3.00E-03	3.46E-03
Soluble phosphate_low_I	Cobalt	2.15E-03	3.07E-03	3.95E-03
Soluble phosphate_low_S	Cobalt	2.10E-03	2.42E-03	2.94E-03
Soluble phosphate and biochar_high_I	Cobalt	2.45E-03	4.70E-03	1.07E-02
Soluble phosphate and biochar_high_S	Cobalt	1.90E-03	2.15E-03	2.37E-03
Soluble phosphate and biochar_low_I	Cobalt	2.41E-03	2.80E-03	3.61E-03
Soluble phosphate and biochar_low_S	Cobalt	1.52E-03	1.90E-03	2.40E-03
Soluble phosphate and biosolids_high_I	Cobalt	2.19E-03	2.96E-03	4.40E-03
Soluble phosphate and biosolids_high_S	Cobalt	2.10E-03	2.36E-03	3.00E-03
Soluble phosphate and biosolids_low_I	Cobalt	1.78E-03	2.28E-03	2.75E-03
Soluble phosphate and biosolids_low_S	Cobalt	1.50E-03	1.93E-03	2.47E-03
Soluble phosphate and compost_high_I	Cobalt	1.93E-03	2.36E-03	2.97E-03
Soluble phosphate and compost_high_S	Cobalt	1.49E-03	2.01E-03	2.61E-03
Soluble phosphate and compost_low_I	Cobalt	2.82E-03	3.09E-03	3.37E-03
Soluble phosphate and compost_low_S	Cobalt	1.77E-03	2.09E-03	2.28E-03

	SPLP			
	Soil <2mm			
Timepoint 3		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Wood ash_high_I	Cobalt	8.20E-04	1.32E-03	1.67E-03
Wood ash_high_S	Cobalt	1.22E-03	1.43E-03	1.68E-03
Wood ash_low_I	Cobalt	9.38E-04	1.51E-03	1.89E-03
Wood ash_low_S	Cobalt	8.93E-04	1.39E-03	1.82E-03
Wood ash and biochar_high_I	Cobalt	6.66E-04	1.09E-03	1.64E-03
Wood ash and biochar_high_S	Cobalt	1.12E-03	1.50E-03	1.92E-03
Wood ash and biochar_low_I	Cobalt	8.53E-04	1.24E-03	1.57E-03
Wood ash and biochar_low_S	Cobalt	1.65E-03	1.82E-03	1.95E-03
Wood ash and compost_high_I	Cobalt	1.02E-03	1.32E-03	1.93E-03
Wood ash and compost_high_S	Cobalt	1.44E-03	1.85E-03	2.27E-03
Wood ash and compost_low_I	Cobalt	1.29E-03	1.49E-03	1.78E-03
Wood ash and compost_low_S	Cobalt	1.43E-03	1.73E-03	2.11E-03
Biochar_high_I	Copper	4.50E-03	5.39E-03	6.34E-03
Biochar_high_S	Copper	3.98E-03	5.78E-03	7.30E-03
Biochar_low_I	Copper	5.04E-03	5.95E-03	6.47E-03
Biochar_low_S	Copper	3.83E-03	5.05E-03	6.78E-03
Biochar and compost_high_I	Copper	8.80E-03	9.52E-03	1.08E-02
Biochar and compost_high_S	Copper	7.28E-03	8.38E-03	9.65E-03
Biochar and compost_low_I	Copper	7.59E-03	7.93E-03	8.14E-03
Biochar and compost_low_S	Copper	4.22E-03	5.18E-03	6.13E-03
Biosolid_high_I	Copper	2.23E-02	3.21E-02	4.82E-02
Biosolid_high_S	Copper	1.66E-02	2.10E-02	2.48E-02
Biosolid_low_I	Copper	1.08E-02	1.25E-02	1.39E-02
Biosolid_low_S	Copper	8.12E-03	9.32E-03	1.03E-02
Biosolids and wood ash_high_I	Copper	2.38E-02	3.37E-02	4.73E-02
Biosolids and wood ash_high_S	Copper	1.42E-02	1.86E-02	2.24E-02
Biosolids and wood ash_low_I	Copper	1.01E-02	1.11E-02	1.24E-02
Biosolids and wood ash_low_S	Copper	6.60E-03	8.58E-03	1.07E-02
Compost_high_I	Copper	1.11E-02	1.13E-02	1.16E-02
Compost_high_S	Copper	4.13E-03	6.72E-03	9.41E-03
Compost_low_I	Copper	6.16E-03	7.36E-03	8.58E-03
Compost_low_S	Copper	4.64E-03	6.19E-03	8.22E-03
control_none_I	Copper	5.88E-03	6.51E-03	7.09E-03
Soluble phosphate_high_I	Copper	7.50E-03	8.71E-03	1.00E-02
Soluble phosphate_high_S	Copper	8.12E-03	9.23E-03	1.12E-02
Soluble phosphate_low_I	Copper	7.82E-03	8.13E-03	8.38E-03
Soluble phosphate_low_S	Copper	7.36E-03	8.28E-03	9.22E-03
Soluble phosphate and biochar_high_I	Copper	7.26E-03	8.41E-03	9.85E-03
Soluble phosphate and biochar_high_S	Copper	6.73E-03	8.45E-03	1.05E-02

	SPLP			
	Soil <2mm			
Timepoint 3		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Soluble phosphate and biochar_low_I	Copper	5.91E-03	6.35E-03	7.65E-03
Soluble phosphate and biochar_low_S	Copper	6.19E-03	7.20E-03	7.99E-03
Soluble phosphate and biosolids_high_I	Copper	2.44E-02	3.22E-02	4.62E-02
Soluble phosphate and biosolids_high_S	Copper	1.94E-02	2.72E-02	4.09E-02
Soluble phosphate and biosolids_low_I	Copper	1.14E-02	1.44E-02	1.65E-02
Soluble phosphate and biosolids_low_S	Copper	1.01E-02	1.15E-02	1.34E-02
Soluble phosphate and compost_high_I	Copper	1.40E-02	1.49E-02	1.62E-02
Soluble phosphate and compost_high_S	Copper	9.71E-03	1.06E-02	1.22E-02
Soluble phosphate and compost_low_I	Copper	8.87E-03	9.46E-03	1.04E-02
Soluble phosphate and compost_low_S	Copper	6.68E-03	7.77E-03	9.39E-03
Wood ash_high_I	Copper	5.87E-03	7.05E-03	8.31E-03
Wood ash_high_S	Copper	4.13E-03	5.99E-03	7.17E-03
Wood ash_low_I	Copper	7.33E-03	7.92E-03	8.45E-03
Wood ash_low_S	Copper	4.33E-03	6.33E-03	7.24E-03
Wood ash and biochar_high_I	Copper	6.56E-03	7.30E-03	8.24E-03
Wood ash and biochar_high_S	Copper	5.57E-03	7.46E-03	8.81E-03
Wood ash and biochar_low_I	Copper	4.60E-03	6.53E-03	7.94E-03
Wood ash and biochar_low_S	Copper	4.48E-03	6.53E-03	7.37E-03
Wood ash and compost_high_I	Copper	1.13E-02	1.25E-02	1.32E-02
Wood ash and compost_high_S	Copper	8.35E-03	8.68E-03	9.29E-03
Wood ash and compost_low_I	Copper	5.86E-03	7.74E-03	9.03E-03
Wood ash and compost_low_S	Copper	4.57E-03	6.80E-03	8.33E-03
Biochar_high_I	Iron	2.24E-01	2.96E-01	3.45E-01
Biochar_high_S	Iron	3.69E-01	4.36E-01	5.34E-01
Biochar_low_I	Iron	3.21E-01	3.44E-01	3.94E-01
Biochar_low_S	Iron	3.56E-01	3.90E-01	4.29E-01
Biochar and compost_high_I	Iron	3.19E-01	3.96E-01	4.61E-01
Biochar and compost_high_S	Iron	5.45E-01	6.22E-01	7.05E-01
Biochar and compost_low_I	Iron	3.12E-01	3.34E-01	3.59E-01
Biochar and compost_low_S	Iron	2.99E-01	3.94E-01	4.39E-01
Biosolid_high_I	Iron	2.49E-01	2.78E-01	3.22E-01
Biosolid_high_S	Iron	8.52E-01	9.91E-01	1.13E+00
Biosolid_low_I	Iron	3.21E-01	3.58E-01	4.05E-01
Biosolid_low_S	Iron	4.36E-01	5.53E-01	6.40E-01
Biosolids and wood ash_high_I	Iron	2.09E-01	2.91E-01	4.61E-01
Biosolids and wood ash_high_S	Iron	5.57E-01	7.99E-01	9.42E-01
Biosolids and wood ash_low_I	Iron	1.91E-01	2.41E-01	2.61E-01
Biosolids and wood ash_low_S	Iron	2.77E-01	3.01E-01	3.21E-01
Compost_high_I	Iron	2.46E-01	3.34E-01	4.26E-01

	SPLP			
	Soil <2mm			
Timepoint 3		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Compost_high_S	Iron	2.57E-01	3.43E-01	4.42E-01
Compost_low_I	Iron	3.02E-01	3.20E-01	3.49E-01
Compost_low_S	Iron	2.36E-01	3.32E-01	4.28E-01
control_none_I	Iron	2.32E-01	3.16E-01	3.62E-01
Soluble phosphate_high_I	Iron	2.73E-01	3.34E-01	3.75E-01
Soluble phosphate_high_S	Iron	3.16E-01	3.81E-01	4.10E-01
Soluble phosphate_low_I	Iron	2.46E-01	3.41E-01	4.18E-01
Soluble phosphate_low_S	Iron	4.72E-01	4.88E-01	5.21E-01
Soluble phosphate and biochar_high_I	Iron	9.66E-02	2.83E-01	4.67E-01
Soluble phosphate and biochar_high_S	Iron	5.01E-01	5.39E-01	5.85E-01
Soluble phosphate and biochar_low_I	Iron	2.19E-01	2.84E-01	3.96E-01
Soluble phosphate and biochar_low_S	Iron	2.83E-01	3.33E-01	4.41E-01
Soluble phosphate and biosolids_high_I	Iron	2.37E-01	2.96E-01	3.38E-01
Soluble phosphate and biosolids_high_S	Iron	6.26E-01	7.61E-01	1.00E+00
Soluble phosphate and biosolids_low_I	Iron	3.02E-01	5.02E-01	6.40E-01
Soluble phosphate and biosolids_low_S	Iron	4.41E-01	5.17E-01	6.55E-01
Soluble phosphate and compost_high_I	Iron	3.15E-01	4.15E-01	4.96E-01
Soluble phosphate and compost_high_S	Iron	4.26E-01	5.01E-01	5.71E-01
Soluble phosphate and compost_low_I	Iron	2.31E-01	2.97E-01	3.39E-01
Soluble phosphate and compost_low_S	Iron	2.01E-01	2.83E-01	3.56E-01
Wood ash_high_I	Iron	3.62E-01	4.49E-01	5.17E-01
Wood ash_high_S	Iron	4.99E-01	5.66E-01	6.20E-01
Wood ash_low_I	Iron	3.82E-01	4.31E-01	4.77E-01
Wood ash_low_S	Iron	4.61E-01	5.24E-01	5.84E-01
Wood ash and biochar_high_I	Iron	3.06E-01	5.09E-01	6.39E-01
Wood ash and biochar_high_S	Iron	5.23E-01	6.23E-01	7.80E-01
Wood ash and biochar_low_I	Iron	3.55E-01	3.76E-01	4.29E-01
Wood ash and biochar_low_S	Iron	3.11E-01	5.06E-01	5.93E-01
Wood ash and compost_high_I	Iron	3.79E-01	4.60E-01	5.97E-01
Wood ash and compost_high_S	Iron	5.01E-01	5.65E-01	6.40E-01
Wood ash and compost_low_I	Iron	3.14E-01	3.73E-01	4.44E-01
Wood ash and compost_low_S	Iron	3.26E-01	4.69E-01	5.61E-01
Biochar_high_I	Lead	4.23E-02	4.50E-02	4.69E-02
Biochar_high_S	Lead	2.52E-02	3.90E-02	5.25E-02
Biochar_low_I	Lead	4.58E-02	4.83E-02	4.92E-02
Biochar_low_S	Lead	2.69E-02	3.95E-02	4.84E-02
Biochar and compost_high_I	Lead	6.10E-02	6.29E-02	6.69E-02
Biochar and compost_high_S	Lead	5.37E-02	6.35E-02	7.04E-02
Biochar and compost_low_I	Lead	5.38E-02	5.91E-02	6.39E-02

	SPLP			
	Soil <2mm			
Timepoint 3		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Biochar and compost_low_S	Lead	3.65E-02	4.34E-02	4.99E-02
Biosolid_high_I	Lead	1.84E-02	2.12E-02	2.36E-02
Biosolid_high_S	Lead	8.23E-02	9.63E-02	1.03E-01
Biosolid_low_I	Lead	3.98E-02	4.31E-02	4.63E-02
Biosolid_low_S	Lead	5.27E-02	6.05E-02	6.98E-02
Biosolids and wood ash_high_I	Lead	1.26E-02	1.80E-02	2.38E-02
Biosolids and wood ash_high_S	Lead	7.58E-02	9.29E-02	1.05E-01
Biosolids and wood ash_low_I	Lead	3.22E-02	3.38E-02	3.70E-02
Biosolids and wood ash_low_S	Lead	4.71E-02	5.11E-02	5.28E-02
Compost_high_I	Lead	7.74E-02	7.85E-02	7.96E-02
Compost_high_S	Lead	3.79E-02	5.14E-02	6.65E-02
Compost_low_I	Lead	4.63E-02	5.54E-02	6.65E-02
Compost_low_S	Lead	3.55E-02	4.47E-02	5.56E-02
control_none_I	Lead	4.99E-02	9.15E-02	2.05E-01
Soluble phosphate_high_I	Lead	4.54E-02	5.34E-02	6.08E-02
Soluble phosphate_high_S	Lead	3.97E-02	4.86E-02	5.87E-02
Soluble phosphate_low_I	Lead	4.76E-02	5.01E-02	5.18E-02
Soluble phosphate_low_S	Lead	5.05E-02	5.45E-02	6.12E-02
Soluble phosphate and biochar_high_I	Lead	3.87E-02	4.31E-02	5.34E-02
Soluble phosphate and biochar_high_S	Lead	4.07E-02	4.82E-02	5.83E-02
Soluble phosphate and biochar_low_I	Lead	4.38E-02	4.73E-02	5.60E-02
Soluble phosphate and biochar_low_S	Lead	3.43E-02	4.35E-02	5.44E-02
Soluble phosphate and biosolids_high_I	Lead	1.56E-02	2.22E-02	2.81E-02
Soluble phosphate and biosolids_high_S	Lead	7.38E-02	9.21E-02	1.25E-01
Soluble phosphate and biosolids_low_I	Lead	3.70E-02	5.09E-02	6.53E-02
Soluble phosphate and biosolids_low_S	Lead	5.23E-02	6.59E-02	7.35E-02
Soluble phosphate and compost_high_I	Lead	5.38E-02	5.70E-02	6.01E-02
Soluble phosphate and compost_high_S	Lead	4.57E-02	5.21E-02	5.65E-02
Soluble phosphate and compost_low_I	Lead	5.73E-02	6.26E-02	7.14E-02
Soluble phosphate and compost_low_S	Lead	3.88E-02	4.80E-02	5.82E-02
Wood ash_high_I	Lead	4.79E-02	5.35E-02	6.17E-02
Wood ash_high_S	Lead	3.91E-02	4.31E-02	4.59E-02
Wood ash_low_I	Lead	4.49E-02	4.93E-02	5.33E-02
Wood ash_low_S	Lead	3.26E-02	4.55E-02	5.11E-02
Wood ash and biochar_high_I	Lead	4.33E-02	5.42E-02	6.45E-02
Wood ash and biochar_high_S	Lead	4.22E-02	5.25E-02	6.14E-02
Wood ash and biochar_low_I	Lead	3.03E-02	4.28E-02	4.92E-02
Wood ash and biochar_low_S	Lead	3.89E-02	4.95E-02	5.46E-02
Wood ash and compost_high_I	Lead	5.14E-02	5.87E-02	6.68E-02

	SPLP			
	Soil <2mm			
Timepoint 3		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Wood ash and compost_high_S	Lead	6.33E-02	6.50E-02	6.63E-02
Wood ash and compost_low_I	Lead	3.50E-02	4.56E-02	5.17E-02
Wood ash and compost_low_S	Lead	3.28E-02	4.55E-02	5.38E-02
Biochar_high_I	Magnesium	1.45E+00	2.08E+00	2.81E+00
Biochar_high_S	Magnesium	4.04E-01	4.98E-01	6.81E-01
Biochar_low_I	Magnesium	1.85E+00	1.96E+00	2.15E+00
Biochar_low_S	Magnesium	6.37E-01	6.96E-01	7.74E-01
Biochar and compost_high_I	Magnesium	2.58E+00	3.46E+00	5.05E+00
Biochar and compost_high_S	Magnesium	6.85E-01	7.39E-01	8.01E-01
Biochar and compost_low_I	Magnesium	2.06E+00	2.54E+00	3.27E+00
Biochar and compost_low_S	Magnesium	5.86E-01	6.54E-01	7.44E-01
Biosolid_high_I	Magnesium	5.33E+00	1.39E+01	2.35E+01
Biosolid_high_S	Magnesium	2.15E-01	2.70E-01	3.45E-01
Biosolid_low_I	Magnesium	3.73E+00	5.13E+00	6.26E+00
Biosolid_low_S	Magnesium	3.06E-01	5.88E-01	7.43E-01
Biosolids and wood ash_high_I	Magnesium	2.11E+01	2.92E+01	4.20E+01
Biosolids and wood ash_high_S	Magnesium	4.86E-01	1.35E+00	3.07E+00
Biosolids and wood ash_low_I	Magnesium	6.92E+00	8.44E+00	1.19E+01
Biosolids and wood ash_low_S	Magnesium	8.43E-01	2.63E+00	4.98E+00
Compost_high_I	Magnesium	2.37E+00	4.16E+00	6.50E+00
Compost_high_S	Magnesium	1.08E+00	1.19E+00	1.36E+00
Compost_low_I	Magnesium	1.85E+00	2.66E+00	3.49E+00
Compost_low_S	Magnesium	9.78E-01	1.16E+00	1.39E+00
control_none_I	Magnesium	2.06E+00	2.35E+00	2.71E+00
Soluble phosphate_high_I	Magnesium	3.22E+00	4.32E+00	5.52E+00
Soluble phosphate_high_S	Magnesium	2.06E+00	2.55E+00	2.92E+00
Soluble phosphate_low_I	Magnesium	1.67E+00	2.08E+00	3.17E+00
Soluble phosphate_low_S	Magnesium	1.08E+00	1.13E+00	1.17E+00
Soluble phosphate and biochar_high_I	Magnesium	3.00E+00	6.77E+00	1.54E+01
Soluble phosphate and biochar_high_S	Magnesium	1.35E+00	1.62E+00	1.72E+00
Soluble phosphate and biochar_low_I	Magnesium	2.26E+00	3.15E+00	4.12E+00
Soluble phosphate and biochar_low_S	Magnesium	8.69E-01	1.02E+00	1.41E+00
Soluble phosphate and biosolids_high_I	Magnesium	7.64E+00	8.83E+00	9.83E+00
Soluble phosphate and biosolids_high_S	Magnesium	1.85E-01	2.63E-01	3.87E-01
Soluble phosphate and biosolids_low_I	Magnesium	1.15E+00	3.81E+00	7.64E+00
Soluble phosphate and biosolids_low_S	Magnesium	7.17E-01	1.12E+00	1.59E+00
Soluble phosphate and compost_high_I	Magnesium	3.63E+00	4.98E+00	7.57E+00
Soluble phosphate and compost_high_S	Magnesium	1.62E+00	1.97E+00	2.60E+00
Soluble phosphate and compost_low_I	Magnesium	3.41E+00	4.26E+00	5.59E+00

	SPLP			
	Soil <2mm			
Timepoint 3		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Soluble phosphate and compost_low_S	Magnesium	1.01E+00	1.21E+00	1.50E+00
Wood ash_high_I	Magnesium	2.11E+00	2.53E+00	3.20E+00
Wood ash_high_S	Magnesium	7.39E-01	9.53E-01	1.31E+00
Wood ash_low_I	Magnesium	1.37E+00	1.89E+00	2.73E+00
Wood ash_low_S	Magnesium	6.54E-01	7.53E-01	8.36E-01
Wood ash and biochar_high_I	Magnesium	1.65E+00	3.17E+00	6.84E+00
Wood ash and biochar_high_S	Magnesium	5.92E-01	6.92E-01	7.63E-01
Wood ash and biochar_low_I	Magnesium	1.21E+00	1.71E+00	2.08E+00
Wood ash and biochar_low_S	Magnesium	5.37E-01	7.55E-01	9.71E-01
Wood ash and compost_high_I	Magnesium	2.76E+00	4.33E+00	5.95E+00
Wood ash and compost_high_S	Magnesium	9.16E-01	1.08E+00	1.28E+00
Wood ash and compost_low_I	Magnesium	1.58E+00	2.03E+00	2.56E+00
Wood ash and compost_low_S	Magnesium	8.05E-01	8.78E-01	9.77E-01
Biochar_high_I	Manganese	5.11E-01	8.05E-01	1.06E+00
Biochar_high_S	Manganese	2.81E-01	3.58E-01	4.98E-01
Biochar_low_I	Manganese	8.09E-01	9.40E-01	1.08E+00
Biochar_low_S	Manganese	4.47E-01	4.84E-01	5.46E-01
Biochar and compost_high_I	Manganese	4.61E-01	6.56E-01	9.31E-01
Biochar and compost_high_S	Manganese	3.92E-01	4.56E-01	4.98E-01
Biochar and compost_low_I	Manganese	6.59E-01	8.80E-01	1.16E+00
Biochar and compost_low_S	Manganese	3.76E-01	4.19E-01	4.52E-01
Biosolid_high_I	Manganese	5.13E-01	1.75E+00	3.10E+00
Biosolid_high_S	Manganese	9.19E-02	1.05E-01	1.13E-01
Biosolid_low_I	Manganese	1.50E+00	2.10E+00	2.62E+00
Biosolid_low_S	Manganese	2.05E-01	2.68E-01	3.17E-01
Biosolids and wood ash_high_I	Manganese	2.26E+00	3.76E+00	5.18E+00
Biosolids and wood ash_high_S	Manganese	1.43E-01	2.78E-01	5.16E-01
Biosolids and wood ash_low_I	Manganese	2.12E+00	2.92E+00	4.89E+00
Biosolids and wood ash_low_S	Manganese	4.56E-01	9.55E-01	1.66E+00
Compost_high_I	Manganese	6.07E-01	1.02E+00	1.57E+00
Compost_high_S	Manganese	5.62E-01	6.25E-01	6.69E-01
Compost_low_I	Manganese	7.98E-01	1.27E+00	1.51E+00
Compost_low_S	Manganese	5.96E-01	6.63E-01	7.66E-01
control_none_I	Manganese	1.27E+00	1.51E+00	1.78E+00
Soluble phosphate_high_I	Manganese	1.28E+00	1.70E+00	2.27E+00
Soluble phosphate_high_S	Manganese	1.03E+00	1.25E+00	1.48E+00
Soluble phosphate_low_I	Manganese	1.22E+00	1.50E+00	2.26E+00
Soluble phosphate_low_S	Manganese	8.77E-01	9.16E-01	9.41E-01
Soluble phosphate and biochar_high_I	Manganese	9.03E-01	2.52E+00	6.59E+00

	SPLP			
	Soil <2mm			
Timepoint 3		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Soluble phosphate and biochar_high_S	Manganese	5.83E-01	6.74E-01	7.30E-01
Soluble phosphate and biochar_low_I	Manganese	1.15E+00	1.64E+00	2.41E+00
Soluble phosphate and biochar_low_S	Manganese	6.41E-01	7.05E-01	8.38E-01
Soluble phosphate and biosolids_high_I	Manganese	6.11E-01	6.61E-01	7.31E-01
Soluble phosphate and biosolids_high_S	Manganese	6.52E-02	9.16E-02	1.50E-01
Soluble phosphate and biosolids_low_I	Manganese	3.75E-01	1.20E+00	2.45E+00
Soluble phosphate and biosolids_low_S	Manganese	2.22E-01	4.31E-01	6.40E-01
Soluble phosphate and compost_high_I	Manganese	6.38E-01	9.94E-01	1.55E+00
Soluble phosphate and compost_high_S	Manganese	5.22E-01	6.52E-01	8.48E-01
Soluble phosphate and compost_low_I	Manganese	1.52E+00	1.80E+00	2.34E+00
Soluble phosphate and compost_low_S	Manganese	5.57E-01	6.88E-01	7.90E-01
Wood ash_high_I	Manganese	2.59E-01	4.03E-01	5.39E-01
Wood ash_high_S	Manganese	2.66E-01	3.33E-01	4.12E-01
Wood ash_low_I	Manganese	4.89E-01	6.46E-01	7.23E-01
Wood ash_low_S	Manganese	3.89E-01	3.95E-01	4.04E-01
Wood ash and biochar_high_I	Manganese	2.38E-01	4.09E-01	8.34E-01
Wood ash and biochar_high_S	Manganese	2.56E-01	2.86E-01	3.27E-01
Wood ash and biochar_low_I	Manganese	2.04E-01	3.48E-01	4.72E-01
Wood ash and biochar_low_S	Manganese	2.82E-01	3.83E-01	4.70E-01
Wood ash and compost_high_I	Manganese	3.35E-01	5.16E-01	6.48E-01
Wood ash and compost_high_S	Manganese	4.27E-01	5.04E-01	5.98E-01
Wood ash and compost_low_I	Manganese	3.25E-01	4.19E-01	5.51E-01
Wood ash and compost_low_S	Manganese	3.53E-01	4.16E-01	4.69E-01
Biochar_high_I	Manganese	7.86E-04	1.25E-03	2.20E-03
Biochar_high_S	Manganese	7.86E-04	8.79E-04	1.16E-03
Biochar_low_I	Manganese	7.86E-04	1.29E-03	1.59E-03
Biochar_low_S	Manganese	7.86E-04	1.00E-03	1.65E-03
Biochar and compost_high_I	Manganese	1.22E-03	1.57E-03	1.97E-03
Biochar and compost_high_S	Manganese	7.86E-04	1.05E-03	1.48E-03
Biochar and compost_low_I	Manganese	1.06E-03	1.53E-03	2.64E-03
Biochar and compost_low_S	Manganese	7.86E-04	1.00E-03	1.41E-03
Biosolid_high_I	Manganese	4.23E-03	8.69E-03	1.53E-02
Biosolid_high_S	Manganese	4.05E-03	6.14E-03	7.53E-03
Biosolid_low_I	Manganese	2.67E-03	3.24E-03	3.93E-03
Biosolid_low_S	Manganese	1.30E-03	1.65E-03	1.97E-03
Biosolids and wood ash_high_I	Manganese	6.12E-03	1.16E-02	1.78E-02
Biosolids and wood ash_high_S	Manganese	6.33E-03	7.63E-03	1.06E-02
Biosolids and wood ash_low_I	Manganese	2.13E-03	3.49E-03	4.53E-03
Biosolids and wood ash_low_S	Manganese	9.93E-04	2.56E-03	3.46E-03

	SPLP			
	Soil <2mm			
Timepoint 3		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Compost_high_I	Manganese	7.86E-04	1.59E-03	2.66E-03
Compost_high_S	Manganese	7.86E-04	9.05E-04	1.15E-03
Compost_low_I	Manganese	7.86E-04	1.05E-03	1.44E-03
Compost_low_S	Manganese	7.86E-04	1.35E-03	2.58E-03
control_none_I	Manganese	7.86E-04	1.77E-03	2.69E-03
Soluble phosphate_high_I	Manganese	1.42E-03	2.74E-03	3.38E-03
Soluble phosphate_high_S	Manganese	1.57E-03	2.39E-03	3.30E-03
Soluble phosphate_low_I	Manganese	1.63E-03	2.25E-03	2.91E-03
Soluble phosphate_low_S	Manganese	9.22E-04	1.02E-03	1.14E-03
Soluble phosphate and biochar_high_I	Manganese	1.55E-03	4.05E-03	8.27E-03
Soluble phosphate and biochar_high_S	Manganese	7.86E-04	1.50E-03	2.00E-03
Soluble phosphate and biochar_low_I	Manganese	7.86E-04	1.34E-03	2.16E-03
Soluble phosphate and biochar_low_S	Manganese	8.62E-04	1.25E-03	1.62E-03
Soluble phosphate and biosolids_high_I	Manganese	4.06E-03	6.95E-03	9.41E-03
Soluble phosphate and biosolids_high_S	Manganese	5.61E-03	8.57E-03	1.58E-02
Soluble phosphate and biosolids_low_I	Manganese	2.71E-03	3.13E-03	3.68E-03
Soluble phosphate and biosolids_low_S	Manganese	1.30E-03	2.22E-03	2.99E-03
Soluble phosphate and compost_high_I	Manganese	2.72E-03	3.01E-03	3.28E-03
Soluble phosphate and compost_high_S	Manganese	7.86E-04	1.87E-03	2.56E-03
Soluble phosphate and compost_low_I	Manganese	1.30E-03	2.05E-03	2.81E-03
Soluble phosphate and compost_low_S	Manganese	7.86E-04	1.07E-03	1.37E-03
Wood ash_high_I	Manganese	1.08E-03	1.18E-03	1.29E-03
Wood ash_high_S	Manganese	7.86E-04	1.01E-03	1.24E-03
Wood ash_low_I	Manganese	7.86E-04	9.33E-04	1.37E-03
Wood ash_low_S	Manganese	7.86E-04	1.01E-03	1.50E-03
Wood ash and biochar_high_I	Manganese	7.86E-04	1.17E-03	1.62E-03
Wood ash and biochar_high_S	Manganese	7.86E-04	1.28E-03	1.86E-03
Wood ash and biochar_low_I	Manganese	7.86E-04	9.96E-04	1.56E-03
Wood ash and biochar_low_S	Manganese	7.86E-04	7.87E-04	7.90E-04
Wood ash and compost_high_I	Manganese	9.37E-04	1.29E-03	1.84E-03
Wood ash and compost_high_S	Manganese	7.86E-04	1.29E-03	1.79E-03
Wood ash and compost_low_I	Manganese	1.12E-03	1.44E-03	1.82E-03
Wood ash and compost_low_S	Manganese	7.86E-04	1.07E-03	1.47E-03
Biochar_high_I	Phosphorus	1.74E-01	2.06E-01	2.29E-01
Biochar_high_S	Phosphorus	2.12E-01	2.78E-01	3.58E-01
Biochar_low_I	Phosphorus	1.96E-01	2.05E-01	2.15E-01
Biochar_low_S	Phosphorus	2.13E-01	2.41E-01	2.73E-01
Biochar and compost_high_I	Phosphorus	3.41E-01	3.85E-01	4.27E-01
Biochar and compost_high_S	Phosphorus	3.72E-01	4.09E-01	4.46E-01

	SPLP			
	Soil <2mm			
Timepoint 3		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Biochar and compost_low_I	Phosphorus	2.37E-01	2.49E-01	2.55E-01
Biochar and compost_low_S	Phosphorus	2.10E-01	2.65E-01	3.16E-01
Biosolid_high_I	Phosphorus	2.41E+00	2.67E+00	2.85E+00
Biosolid_high_S	Phosphorus	1.13E+00	1.26E+00	1.37E+00
Biosolid_low_I	Phosphorus	5.80E-01	6.51E-01	7.13E-01
Biosolid_low_S	Phosphorus	4.47E-01	5.29E-01	5.68E-01
Biosolids and wood ash_high_I	Phosphorus	1.82E+00	2.22E+00	2.67E+00
Biosolids and wood ash_high_S	Phosphorus	6.92E-01	1.11E+00	1.40E+00
Biosolids and wood ash_low_I	Phosphorus	4.70E-01	4.96E-01	5.27E-01
Biosolids and wood ash_low_S	Phosphorus	3.58E-01	4.57E-01	5.55E-01
Compost_high_I	Phosphorus	2.77E-01	3.50E-01	4.21E-01
Compost_high_S	Phosphorus	2.66E-01	3.03E-01	3.66E-01
Compost_low_I	Phosphorus	2.05E-01	2.16E-01	2.27E-01
Compost_low_S	Phosphorus	1.77E-01	2.32E-01	3.01E-01
control_none_I	Phosphorus	1.64E-01	1.85E-01	1.98E-01
Soluble phosphate_high_I	Phosphorus	4.75E+00	4.93E+00	5.21E+00
Soluble phosphate_high_S	Phosphorus	6.52E+00	7.18E+00	8.06E+00
Soluble phosphate_low_I	Phosphorus	8.63E-01	9.41E-01	1.01E+00
Soluble phosphate_low_S	Phosphorus	1.03E+00	1.21E+00	1.41E+00
Soluble phosphate and biochar_high_I	Phosphorus	4.74E+00	5.88E+00	6.56E+00
Soluble phosphate and biochar_high_S	Phosphorus	3.84E+00	6.92E+00	9.35E+00
Soluble phosphate and biochar_low_I	Phosphorus	7.81E-01	8.64E-01	1.00E+00
Soluble phosphate and biochar_low_S	Phosphorus	1.15E+00	1.28E+00	1.49E+00
Soluble phosphate and biosolids_high_I	Phosphorus	8.29E+00	8.83E+00	9.53E+00
Soluble phosphate and biosolids_high_S	Phosphorus	3.06E+00	4.28E+00	5.33E+00
Soluble phosphate and biosolids_low_I	Phosphorus	1.64E+00	2.30E+00	2.87E+00
Soluble phosphate and biosolids_low_S	Phosphorus	1.36E+00	1.81E+00	2.44E+00
Soluble phosphate and compost_high_I	Phosphorus	6.09E+00	6.98E+00	7.38E+00
Soluble phosphate and compost_high_S	Phosphorus	7.61E+00	8.16E+00	9.11E+00
Soluble phosphate and compost_low_I	Phosphorus	8.95E-01	1.05E+00	1.19E+00
Soluble phosphate and compost_low_S	Phosphorus	1.25E+00	1.46E+00	1.64E+00
Wood ash_high_I	Phosphorus	2.92E-01	3.17E-01	3.61E-01
Wood ash_high_S	Phosphorus	2.92E-01	3.33E-01	3.93E-01
Wood ash_low_I	Phosphorus	2.55E-01	2.69E-01	2.93E-01
Wood ash_low_S	Phosphorus	2.51E-01	3.03E-01	3.36E-01
Wood ash and biochar_high_I	Phosphorus	2.77E-01	3.49E-01	4.06E-01
Wood ash and biochar_high_S	Phosphorus	3.58E-01	4.06E-01	4.51E-01
Wood ash and biochar_low_I	Phosphorus	2.61E-01	2.75E-01	2.89E-01
Wood ash and biochar_low_S	Phosphorus	2.70E-01	3.86E-01	4.85E-01

	SPLP			
	Soil <2mm			
Timepoint 3		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Wood ash and compost_high_I	Phosphorus	4.43E-01	4.79E-01	5.48E-01
Wood ash and compost_high_S	Phosphorus	3.92E-01	3.96E-01	3.99E-01
Wood ash and compost_low_I	Phosphorus	2.50E-01	2.79E-01	3.28E-01
Wood ash and compost_low_S	Phosphorus	2.46E-01	3.31E-01	3.78E-01
Biochar_high_I	Potassium	7.47	8.73	10.08
Biochar_high_S	Potassium	4.64	4.91	5.20
Biochar_low_I	Potassium	5.83	6.07	6.47
Biochar_low_S	Potassium	4.06	4.19	4.29
Biochar and compost_high_I	Potassium	18.32	20.55	23.85
Biochar and compost_high_S	Potassium	11.72	12.37	13.02
Biochar and compost_low_I	Potassium	8.65	10.09	11.85
Biochar and compost_low_S	Potassium	5.92	6.07	6.15
Biosolid_high_I	Potassium	8.48	10.44	12.09
Biosolid_high_S	Potassium	3.13	3.40	3.80
Biosolid_low_I	Potassium	6.12	7.44	9.64
Biosolid_low_S	Potassium	2.71	3.23	3.50
Biosolids and wood ash_high_I	Potassium	26.39	28.11	31.07
Biosolids and wood ash_high_S	Potassium	10.31	11.91	13.61
Biosolids and wood ash_low_I	Potassium	11.20	12.63	14.36
Biosolids and wood ash_low_S	Potassium	5.67	7.64	9.74
Compost_high_I	Potassium	13.45	18.12	21.12
Compost_high_S	Potassium	9.93	10.78	12.06
Compost_low_I	Potassium	6.49	7.96	9.66
Compost_low_S	Potassium	5.45	5.73	5.95
control_none_I	Potassium	4.65	5.05	5.28
Soluble phosphate_high_I	Potassium	13.14	16.12	18.80
Soluble phosphate_high_S	Potassium	12.05	12.50	13.07
Soluble phosphate_low_I	Potassium	10.08	12.70	17.19
Soluble phosphate_low_S	Potassium	11.05	11.36	11.85
Soluble phosphate and biochar_high_I	Potassium	18.82	22.21	28.30
Soluble phosphate and biochar_high_S	Potassium	12.08	14.38	16.24
Soluble phosphate and biochar_low_I	Potassium	16.91	18.02	18.75
Soluble phosphate and biochar_low_S	Potassium	11.63	12.25	12.77
Soluble phosphate and biosolids_high_I	Potassium	15.74	16.82	18.40
Soluble phosphate and biosolids_high_S	Potassium	6.14	6.73	7.60
Soluble phosphate and biosolids_low_I	Potassium	10.45	14.77	19.33
Soluble phosphate and biosolids_low_S	Potassium	10.20	11.38	12.31
Soluble phosphate and compost_high_I	Potassium	25.02	27.31	29.85
Soluble phosphate and compost_high_S	Potassium	16.17	20.00	22.88

	SPLP			
	Soil <2mm			
Timepoint 3		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Soluble phosphate and compost_low_I	Potassium	22.41	24.25	25.23
Soluble phosphate and compost_low_S	Potassium	13.52	14.43	15.28
Wood ash_high_I	Potassium	16.30	17.58	19.93
Wood ash_high_S	Potassium	10.49	11.47	12.27
Wood ash_low_I	Potassium	7.00	8.38	10.90
Wood ash_low_S	Potassium	5.12	5.45	5.67
Wood ash and biochar_high_I	Potassium	19.04	23.13	33.81
Wood ash and biochar_high_S	Potassium	12.61	14.20	14.92
Wood ash and biochar_low_I	Potassium	7.87	9.43	10.27
Wood ash and biochar_low_S	Potassium	6.36	7.06	7.85
Wood ash and compost_high_I	Potassium	27.32	31.57	33.68
Wood ash and compost_high_S	Potassium	18.31	19.23	20.14
Wood ash and compost_low_I	Potassium	9.14	10.64	11.58
Wood ash and compost_low_S	Potassium	7.48	7.95	8.29
Biochar_high_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Biochar_high_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Biochar_low_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Biochar_low_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Biochar and compost_high_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Biochar and compost_high_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Biochar and compost_low_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Biochar and compost_low_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Biosolid_high_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Biosolid_high_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Biosolid_low_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Biosolid_low_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Biosolids and wood ash_high_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Biosolids and wood ash_high_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Biosolids and wood ash_low_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Biosolids and wood ash_low_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Compost_high_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Compost_high_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Compost_low_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Compost_low_S	Selenium	9.05E-03	9.05E-03	9.05E-03
control_none_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Soluble phosphate_high_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Soluble phosphate_high_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Soluble phosphate_low_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Soluble phosphate_low_S	Selenium	9.05E-03	9.05E-03	9.05E-03

	SPLP			
	Soil <2mm			
Timepoint 3		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Soluble phosphate and biochar_high_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Soluble phosphate and biochar_high_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Soluble phosphate and biochar_low_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Soluble phosphate and biochar_low_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Soluble phosphate and biosolids_high_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Soluble phosphate and biosolids_high_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Soluble phosphate and biosolids_low_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Soluble phosphate and biosolids_low_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Soluble phosphate and compost_high_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Soluble phosphate and compost_high_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Soluble phosphate and compost_low_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Soluble phosphate and compost_low_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Wood ash_high_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Wood ash_high_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Wood ash_low_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Wood ash_low_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Wood ash and biochar_high_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Wood ash and biochar_high_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Wood ash and biochar_low_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Wood ash and biochar_low_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Wood ash and compost_high_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Wood ash and compost_high_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Wood ash and compost_low_I	Selenium	9.05E-03	9.05E-03	9.05E-03
Wood ash and compost_low_S	Selenium	9.05E-03	9.05E-03	9.05E-03
Biochar_high_I	Silver	1.39E-02	1.39E-02	1.39E-02
Biochar_high_S	Silver	1.39E-02	1.39E-02	1.39E-02
Biochar_low_I	Silver	1.39E-02	1.39E-02	1.39E-02
Biochar_low_S	Silver	1.39E-02	1.39E-02	1.39E-02
Biochar and compost_high_I	Silver	1.39E-02	1.39E-02	1.39E-02
Biochar and compost_high_S	Silver	1.39E-02	1.39E-02	1.39E-02
Biochar and compost_low_I	Silver	1.39E-02	1.39E-02	1.39E-02
Biochar and compost_low_S	Silver	1.39E-02	1.39E-02	1.39E-02
Biosolid_high_I	Silver	1.39E-02	1.39E-02	1.39E-02
Biosolid_high_S	Silver	1.39E-02	1.39E-02	1.39E-02
Biosolid_low_I	Silver	1.39E-02	1.39E-02	1.39E-02
Biosolid_low_S	Silver	1.39E-02	1.39E-02	1.39E-02
Biosolids and wood ash_high_I	Silver	1.39E-02	1.39E-02	1.39E-02
Biosolids and wood ash_high_S	Silver	1.39E-02	1.39E-02	1.39E-02
Biosolids and wood ash_low_I	Silver	1.39E-02	1.39E-02	1.39E-02

	SPLP			
	Soil <2mm			
Timepoint 3		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Biosolids and wood ash_low_S	Silver	1.39E-02	1.39E-02	1.39E-02
Compost_high_I	Silver	1.39E-02	1.39E-02	1.39E-02
Compost_high_S	Silver	1.39E-02	1.39E-02	1.39E-02
Compost_low_I	Silver	1.39E-02	1.39E-02	1.39E-02
Compost_low_S	Silver	1.39E-02	1.39E-02	1.39E-02
control_none_I	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate_high_I	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate_high_S	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate_low_I	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate_low_S	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate and biochar_high_I	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate and biochar_high_S	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate and biochar_low_I	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate and biochar_low_S	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate and biosolids_high_I	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate and biosolids_high_S	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate and biosolids_low_I	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate and biosolids_low_S	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate and compost_high_I	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate and compost_high_S	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate and compost_low_I	Silver	1.39E-02	1.39E-02	1.39E-02
Soluble phosphate and compost_low_S	Silver	1.39E-02	1.39E-02	1.39E-02
Wood ash_high_I	Silver	1.39E-02	1.39E-02	1.39E-02
Wood ash_high_S	Silver	1.39E-02	1.39E-02	1.39E-02
Wood ash_low_I	Silver	1.39E-02	1.39E-02	1.39E-02
Wood ash_low_S	Silver	1.39E-02	1.39E-02	1.39E-02
Wood ash and biochar_high_I	Silver	1.39E-02	1.39E-02	1.39E-02
Wood ash and biochar_high_S	Silver	1.39E-02	1.39E-02	1.39E-02
Wood ash and biochar_low_I	Silver	1.39E-02	1.39E-02	1.39E-02
Wood ash and biochar_low_S	Silver	1.39E-02	1.39E-02	1.39E-02
Wood ash and compost_high_I	Silver	1.39E-02	1.39E-02	1.39E-02
Wood ash and compost_high_S	Silver	1.39E-02	1.39E-02	1.39E-02
Wood ash and compost_low_I	Silver	1.39E-02	1.39E-02	1.39E-02
Wood ash and compost_low_S	Silver	1.39E-02	1.39E-02	1.39E-02
Biochar_high_I	Sodium	4.89E+00	6.14E+00	7.58E+00
Biochar_high_S	Sodium	2.45E+00	2.85E+00	3.15E+00
Biochar_low_I	Sodium	4.87E+00	5.03E+00	5.25E+00
Biochar_low_S	Sodium	2.74E+00	2.83E+00	2.92E+00
Biochar and compost_high_I	Sodium	8.49E+00	1.03E+01	1.33E+01

	SPLP			
	Soil <2mm			
Timepoint 3		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Biochar and compost_high_S	Sodium	5.04E+00	5.30E+00	5.49E+00
Biochar and compost_low_I	Sodium	5.59E+00	6.87E+00	8.65E+00
Biochar and compost_low_S	Sodium	3.27E+00	3.41E+00	3.57E+00
Biosolid_high_I	Sodium	5.05E+00	6.14E+00	7.38E+00
Biosolid_high_S	Sodium	1.60E+00	1.78E+00	1.96E+00
Biosolid_low_I	Sodium	4.40E+00	5.53E+00	6.51E+00
Biosolid_low_S	Sodium	1.63E+00	2.03E+00	2.40E+00
Biosolids and wood ash_high_I	Sodium	9.42E+00	1.07E+01	1.28E+01
Biosolids and wood ash_high_S	Sodium	3.49E+00	3.93E+00	4.54E+00
Biosolids and wood ash_low_I	Sodium	6.21E+00	7.20E+00	8.15E+00
Biosolids and wood ash_low_S	Sodium	2.48E+00	3.75E+00	5.32E+00
Compost_high_I	Sodium	7.03E+00	1.04E+01	1.36E+01
Compost_high_S	Sodium	4.89E+00	5.23E+00	5.54E+00
Compost_low_I	Sodium	4.71E+00	6.16E+00	8.36E+00
Compost_low_S	Sodium	3.53E+00	3.72E+00	3.88E+00
control_none_I	Sodium	4.68E+00	5.31E+00	5.89E+00
Soluble phosphate_high_I	Sodium	7.09E+00	8.78E+00	1.07E+01
Soluble phosphate_high_S	Sodium	5.10E+00	5.53E+00	5.83E+00
Soluble phosphate_low_I	Sodium	5.09E+00	5.80E+00	7.60E+00
Soluble phosphate_low_S	Sodium	2.92E+00	3.10E+00	3.34E+00
Soluble phosphate and biochar_high_I	Sodium	8.44E+00	1.13E+01	1.73E+01
Soluble phosphate and biochar_high_S	Sodium	4.77E+00	5.62E+00	6.34E+00
Soluble phosphate and biochar_low_I	Sodium	6.19E+00	6.76E+00	7.25E+00
Soluble phosphate and biochar_low_S	Sodium	3.33E+00	3.69E+00	4.01E+00
Soluble phosphate and biosolids_high_I	Sodium	8.08E+00	8.22E+00	8.42E+00
Soluble phosphate and biosolids_high_S	Sodium	2.56E+00	2.84E+00	3.21E+00
Soluble phosphate and biosolids_low_I	Sodium	4.05E+00	5.51E+00	7.86E+00
Soluble phosphate and biosolids_low_S	Sodium	3.40E+00	3.59E+00	3.87E+00
Soluble phosphate and compost_high_I	Sodium	1.12E+01	1.27E+01	1.42E+01
Soluble phosphate and compost_high_S	Sodium	6.23E+00	7.67E+00	8.65E+00
Soluble phosphate and compost_low_I	Sodium	8.99E+00	9.85E+00	1.06E+01
Soluble phosphate and compost_low_S	Sodium	4.42E+00	4.73E+00	5.01E+00
Wood ash_high_I	Sodium	7.04E+00	7.64E+00	8.64E+00
Wood ash_high_S	Sodium	3.55E+00	4.03E+00	4.39E+00
Wood ash_low_I	Sodium	4.35E+00	5.27E+00	6.90E+00
Wood ash_low_S	Sodium	2.45E+00	2.85E+00	3.04E+00
Wood ash and biochar_high_I	Sodium	7.41E+00	1.00E+01	1.73E+01
Wood ash and biochar_high_S	Sodium	4.33E+00	4.94E+00	5.28E+00
Wood ash and biochar_low_I	Sodium	5.04E+00	5.79E+00	6.38E+00

	SPLP			
	Soil <2mm			
Timepoint 3		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Wood ash and biochar_low_S	Sodium	2.88E+00	3.25E+00	3.83E+00
Wood ash and compost_high_I	Sodium	1.07E+01	1.25E+01	1.33E+01
Wood ash and compost_high_S	Sodium	6.40E+00	7.04E+00	7.67E+00
Wood ash and compost_low_I	Sodium	5.34E+00	5.99E+00	6.43E+00
Wood ash and compost_low_S	Sodium	3.38E+00	3.69E+00	3.93E+00
Biochar_high_I	Thallium	4.25E-03	4.48E-03	5.19E-03
Biochar_high_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Biochar_low_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Biochar_low_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Biochar and compost_high_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Biochar and compost_high_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Biochar and compost_low_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Biochar and compost_low_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Biosolid_high_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Biosolid_high_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Biosolid_low_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Biosolid_low_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Biosolids and wood ash_high_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Biosolids and wood ash_high_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Biosolids and wood ash_low_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Biosolids and wood ash_low_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Compost_high_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Compost_high_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Compost_low_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Compost_low_S	Thallium	4.25E-03	4.25E-03	4.25E-03
control_none_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Soluble phosphate_high_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Soluble phosphate_high_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Soluble phosphate_low_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Soluble phosphate_low_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Soluble phosphate and biochar_high_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Soluble phosphate and biochar_high_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Soluble phosphate and biochar_low_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Soluble phosphate and biochar_low_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Soluble phosphate and biosolids_high_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Soluble phosphate and biosolids_high_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Soluble phosphate and biosolids_low_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Soluble phosphate and biosolids_low_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Soluble phosphate and compost_high_I	Thallium	4.25E-03	4.25E-03	4.25E-03

	SPLP			
	Soil <2mm			
Timepoint 3		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Soluble phosphate and compost_high_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Soluble phosphate and compost_low_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Soluble phosphate and compost_low_S	Thallium	4.25E-03	4.78E-03	6.39E-03
Wood ash_high_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Wood ash_high_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Wood ash_low_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Wood ash_low_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Wood ash and biochar_high_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Wood ash and biochar_high_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Wood ash and biochar_low_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Wood ash and biochar_low_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Wood ash and compost_high_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Wood ash and compost_high_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Wood ash and compost_low_I	Thallium	4.25E-03	4.25E-03	4.25E-03
Wood ash and compost_low_S	Thallium	4.25E-03	4.25E-03	4.25E-03
Biochar_high_I	Vanadium	5.82E-04	9.95E-04	1.17E-03
Biochar_high_S	Vanadium	1.73E-03	2.13E-03	2.87E-03
Biochar_low_I	Vanadium	1.20E-03	1.33E-03	1.52E-03
Biochar_low_S	Vanadium	1.97E-03	2.40E-03	3.38E-03
Biochar and compost_high_I	Vanadium	1.58E-03	1.90E-03	2.20E-03
Biochar and compost_high_S	Vanadium	2.51E-03	2.91E-03	3.28E-03
Biochar and compost_low_I	Vanadium	1.10E-03	1.37E-03	1.79E-03
Biochar and compost_low_S	Vanadium	1.97E-03	2.25E-03	2.65E-03
Biosolid_high_I	Vanadium	1.68E-03	3.46E-03	4.49E-03
Biosolid_high_S	Vanadium	8.81E-03	1.07E-02	1.19E-02
Biosolid_low_I	Vanadium	1.68E-03	2.47E-03	2.88E-03
Biosolid_low_S	Vanadium	3.04E-03	3.94E-03	4.30E-03
Biosolids and wood ash_high_I	Vanadium	2.78E-03	3.17E-03	3.68E-03
Biosolids and wood ash_high_S	Vanadium	5.42E-03	9.41E-03	1.12E-02
Biosolids and wood ash_low_I	Vanadium	1.81E-03	1.91E-03	2.13E-03
Biosolids and wood ash_low_S	Vanadium	2.77E-03	3.62E-03	4.33E-03
Compost_high_I	Vanadium	1.13E-03	1.78E-03	2.18E-03
Compost_high_S	Vanadium	1.43E-03	2.08E-03	3.02E-03
Compost_low_I	Vanadium	1.43E-03	1.57E-03	1.78E-03
Compost_low_S	Vanadium	1.71E-03	2.07E-03	3.04E-03
control_none_I	Vanadium	1.61E-03	1.75E-03	2.03E-03
Soluble phosphate_high_I	Vanadium	9.61E-03	1.06E-02	1.19E-02
Soluble phosphate_high_S	Vanadium	1.41E-02	1.54E-02	1.67E-02
Soluble phosphate_low_I	Vanadium	5.15E-03	5.73E-03	6.37E-03

	SPLP			
	Soil <2mm			
Timepoint 3		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Soluble phosphate_low_S	Vanadium	5.37E-03	6.28E-03	7.28E-03
Soluble phosphate and biochar_high_I	Vanadium	9.18E-03	1.09E-02	1.18E-02
Soluble phosphate and biochar_high_S	Vanadium	7.04E-03	1.00E-02	1.37E-02
Soluble phosphate and biochar_low_I	Vanadium	3.91E-03	4.51E-03	5.50E-03
Soluble phosphate and biochar_low_S	Vanadium	4.43E-03	5.85E-03	7.67E-03
Soluble phosphate and biosolids_high_I	Vanadium	1.00E-02	1.12E-02	1.26E-02
Soluble phosphate and biosolids_high_S	Vanadium	1.17E-02	1.31E-02	1.49E-02
Soluble phosphate and biosolids_low_I	Vanadium	4.06E-03	7.08E-03	1.11E-02
Soluble phosphate and biosolids_low_S	Vanadium	4.84E-03	6.46E-03	8.54E-03
Soluble phosphate and compost_high_I	Vanadium	1.06E-02	1.27E-02	1.38E-02
Soluble phosphate and compost_high_S	Vanadium	5.21E-03	5.81E-03	6.24E-03
Soluble phosphate and compost_low_I	Vanadium	4.38E-03	4.76E-03	5.33E-03
Soluble phosphate and compost_low_S	Vanadium	3.18E-03	4.24E-03	4.96E-03
Wood ash_high_I	Vanadium	1.92E-03	2.14E-03	2.27E-03
Wood ash_high_S	Vanadium	2.06E-03	2.47E-03	3.15E-03
Wood ash_low_I	Vanadium	1.67E-03	2.09E-03	2.53E-03
Wood ash_low_S	Vanadium	1.49E-03	2.43E-03	3.08E-03
Wood ash and biochar_high_I	Vanadium	1.90E-03	2.27E-03	2.77E-03
Wood ash and biochar_high_S	Vanadium	3.20E-03	3.70E-03	4.08E-03
Wood ash and biochar_low_I	Vanadium	1.37E-03	1.58E-03	1.88E-03
Wood ash and biochar_low_S	Vanadium	1.99E-03	3.67E-03	5.88E-03
Wood ash and compost_high_I	Vanadium	2.04E-03	2.59E-03	3.19E-03
Wood ash and compost_high_S	Vanadium	2.55E-03	2.75E-03	2.83E-03
Wood ash and compost_low_I	Vanadium	1.25E-03	1.60E-03	1.86E-03
Wood ash and compost_low_S	Vanadium	2.23E-03	2.68E-03	3.13E-03
Biochar_high_I	Zinc	3.82E-01	5.38E-01	7.18E-01
Biochar_high_S	Zinc	1.07E-01	1.61E-01	2.10E-01
Biochar_low_I	Zinc	5.60E-01	5.94E-01	6.37E-01
Biochar_low_S	Zinc	1.82E-01	2.12E-01	2.31E-01
Biochar and compost_high_I	Zinc	2.86E-01	3.40E-01	4.33E-01
Biochar and compost_high_S	Zinc	1.88E-01	2.15E-01	2.36E-01
Biochar and compost_low_I	Zinc	4.27E-01	5.35E-01	6.80E-01
Biochar and compost_low_S	Zinc	1.46E-01	1.79E-01	2.05E-01
Biosolid_high_I	Zinc	1.63E-01	5.78E-01	1.01E+00
Biosolid_high_S	Zinc	1.23E-01	1.35E-01	1.51E-01
Biosolid_low_I	Zinc	4.83E-01	6.51E-01	7.84E-01
Biosolid_low_S	Zinc	1.20E-01	1.49E-01	1.69E-01
Biosolids and wood ash_high_I	Zinc	4.73E-01	8.66E-01	1.20E+00
Biosolids and wood ash_high_S	Zinc	1.40E-01	1.60E-01	2.09E-01

	SPLP			
	Soil <2mm			
Timepoint 3		Min	Mean	Max
Treatment x Rate x Application Method	Element	mg/L	mg/L	mg/L
Biosolids and wood ash_low_I	Zinc	5.79E-01	8.17E-01	1.35E+00
Biosolids and wood ash_low_S	Zinc	1.71E-01	2.72E-01	4.10E-01
Compost_high_I	Zinc	3.10E-01	4.67E-01	6.50E-01
Compost_high_S	Zinc	1.95E-01	2.38E-01	2.69E-01
Compost_low_I	Zinc	4.29E-01	6.27E-01	8.10E-01
Compost_low_S	Zinc	2.65E-01	2.72E-01	2.87E-01
control_none_I	Zinc	6.33E-01	7.42E-01	8.98E-01
Soluble phosphate_high_I	Zinc	4.13E-01	6.38E-01	8.47E-01
Soluble phosphate_high_S	Zinc	3.42E-01	3.83E-01	4.29E-01
Soluble phosphate_low_I	Zinc	3.90E-01	4.90E-01	7.09E-01
Soluble phosphate_low_S	Zinc	3.05E-01	3.34E-01	3.56E-01
Soluble phosphate and biochar_high_I	Zinc	4.04E-01	8.73E-01	2.00E+00
Soluble phosphate and biochar_high_S	Zinc	2.21E-01	2.43E-01	2.67E-01
Soluble phosphate and biochar_low_I	Zinc	4.78E-01	6.54E-01	8.40E-01
Soluble phosphate and biochar_low_S	Zinc	2.47E-01	2.62E-01	2.78E-01
Soluble phosphate and biosolids_high_I	Zinc	1.90E-01	2.14E-01	2.35E-01
Soluble phosphate and biosolids_high_S	Zinc	9.65E-02	1.21E-01	1.71E-01
Soluble phosphate and biosolids_low_I	Zinc	1.63E-01	4.07E-01	7.75E-01
Soluble phosphate and biosolids_low_S	Zinc	1.37E-01	2.00E-01	2.64E-01
Soluble phosphate and compost_high_I	Zinc	2.69E-01	3.48E-01	5.24E-01
Soluble phosphate and compost_high_S	Zinc	1.99E-01	2.34E-01	2.87E-01
Soluble phosphate and compost_low_I	Zinc	4.94E-01	6.34E-01	8.28E-01
Soluble phosphate and compost_low_S	Zinc	2.19E-01	2.47E-01	2.72E-01
Wood ash_high_I	Zinc	1.60E-01	1.77E-01	1.96E-01
Wood ash_high_S	Zinc	1.14E-01	1.26E-01	1.43E-01
Wood ash_low_I	Zinc	2.31E-01	3.16E-01	4.71E-01
Wood ash_low_S	Zinc	1.58E-01	1.78E-01	1.98E-01
Wood ash and biochar_high_I	Zinc	1.32E-01	1.72E-01	2.67E-01
Wood ash and biochar_high_S	Zinc	1.03E-01	1.25E-01	1.46E-01
Wood ash and biochar_low_I	Zinc	1.56E-01	2.45E-01	2.99E-01
Wood ash and biochar_low_S	Zinc	1.59E-01	1.67E-01	1.77E-01
Wood ash and compost_high_I	Zinc	1.50E-01	1.89E-01	2.59E-01
Wood ash and compost_high_S	Zinc	2.01E-01	2.23E-01	2.55E-01
Wood ash and compost_low_I	Zinc	1.88E-01	2.59E-01	3.67E-01
Wood ash and compost_low_S	Zinc	1.35E-01	1.78E-01	2.01E-01

Table 34. Summary of total elemental content for each amendment

Element	Amendment					
	Biosolid (mg/kg)	Biochar (mg/kg)	Wood ash (mg/kg)	Potash (mg/kg)	Compost (mg/kg)	Soluble Phosphate (mg/kg)
Aluminum	714.5	11781.1	12191.6	40.6	3288.2	6467.3
Antimony	0.7	5.3	0.9	0.7	1.1	9.1
Arsenic	20.1	6.4	14.9	1.4	1.6	26.6
Barium	103.0	280.6	975.9	0.5	38.9	44.8
Beryllium	0.1	0.1	0.4	0.1	0.1	5.1
Cadmium	0.1	3.8	4.7	0.1	0.8	69.4
Calcium	6706.8	24833.6	93754.6	2058.7	10159.1	178473.0
Chromium	23.1	79.5	34.6	6.5	15.9	828.9
Cobalt	0.7	5.0	7.1	0.2	5.2	3.6
Copper	53.0	660.6	45.8	1.1	110.5	92.4
Iron	530.8	23826.8	10385.8	93.6	11101.5	8030.1
Lead	2.7	37.8	12.6	1.6	2.4	4.2
Magnesium	1343.5	6425.9	10739.7	1096.6	3882.7	10341.5
Manganese	344.6	390.0	2939.2	3.8	245.2	123.2
Nickel	1.7	26.8	13.3	0.2	7.5	92.6
Potassium	6427.7	1966.4	21829.2	493668.0	4393.7	2076.9
Selenium	4.7	8.4	7.5	8.1	5.1	8.1
Silver	1.4	5.4	1.4	1.4	1.4	1.4
Sodium	1150.3	507.6	4409.8	9181.6	2121.7	5817.1
Thallium	0.4	0.4	2.7	1.5	0.4	1.6
Vanadium	1.6	14.1	28.3	1.6	35.4	597.1
Zinc	11.2	1380.3	454.7	4.4	86.0	831.7

Table 35. Summary statistics for total elemental content for the baseline soil

Baseline Soil Elemental Content			
<2mm			
(mg/kg)			
Element	Min	Mean	Max
Aluminum	15294	15570	15879
Antimony	34	34	35
Arsenic	52	54	55
Barium	116	118	123
Beryllium	0.44	0.45	0.47
Cadmium	13	13	13
Calcium	3009	3079	3143
Chromium	27	30	32
Cobalt	7	7	7
Copper	42	44	45
Iron	22297	23865	25181
Lead	818	830	856
Magnesium	3028	3154	3412
Manganese	541	561	573
Nickel	11	12	12
Potassium	1093	1208	1337
Selenium	4.6	5.2	6.2
Silver	1.4	1.4	1.4
Sodium	199	221	232
Thallium	0.42	1.1	1.6
Vanadium	56	59	61
Zinc	465	481	501

Table 36. Summary statistics for Timepoint 1 total arsenic and lead content for each treatment/rate/application method combination

Timepoint 1 Treatment x Rate x Application Method	3051a			3051a		
	Min	Mean	Max	Min	Mean	Max
	Soil <150um			Soil <150um		
	As (mg/kg)			Pb (mg/kg)		
Baseline_baseline_NA	107	109	112	1399	1410	1429
Biochar_high_I	87	91	95	1158	1228	1334
Biochar_high_S	94	98	100	1445	1479	1524
Biochar_low_I	100	102	104	1382	1402	1413
Biochar_low_S	99	103	106	1473	1492	1513
Biochar and compost_high_I	85	92	99	1377	1453	1494
Biochar and compost_high_S	99	102	105	1417	1470	1499
Biochar and compost_low_I	81	90	101	1309	1336	1384
Biochar and compost_low_S	101	104	106	1484	1512	1545
Biosolid_high_I	97	101	102	1403	1506	1622
Biosolid_high_S	100	102	104	1473	1499	1522
Biosolid_low_I	97	100	101	1350	1389	1455
Biosolid_low_S	96	99	102	1465	1486	1533
Biosolids and wood ash_high_I	81	88	93	1303	1319	1330
Biosolids and wood ash_high_S	93	94	97	1474	1500	1554
Biosolids and wood ash_low_I	89	92	94	1292	1342	1411
Biosolids and wood ash_low_S	97	101	104	1442	1479	1505
Compost_high_I	102	106	112	1488	1558	1662
Compost_high_S	97	101	105	1446	1478	1525
Compost_low_I	100	103	105	1333	1402	1449
Compost_low_S	101	104	105	1496	1508	1521
control_none_I	96	98	100	1443	1513	1557
Soluble phosphate_high_I	93	94	96	1448	1496	1563
Soluble phosphate_high_S	95	99	102	1446	1519	1569
Soluble phosphate_low_I	98	101	102	1361	1421	1482
Soluble phosphate_low_S	98	102	106	1488	1518	1558
Soluble phosphate and biochar_high_I	97	102	113	1481	1572	1794
Soluble phosphate and biochar_high_S	94	97	105	1463	1530	1614
Soluble phosphate and biochar_low_I	93	99	102	1376	1402	1428
Soluble phosphate and biochar_low_S	99	103	106	1440	1489	1516

Timepoint 1	3051a			3051a		
	Min	Mean	Max	Min	Mean	Max
	Soil <150um			Soil <150um		
Treatment x Rate x Application Method	As (mg/kg)			Pb (mg/kg)		
Soluble phosphate and biosolids_high_I	84	95	107	1222	1368	1520
Soluble phosphate and biosolids_high_S	94	97	99	1460	1496	1548
Soluble phosphate and biosolids_low_I	89	94	96	1272	1326	1372
Soluble phosphate and biosolids_low_S	98	101	104	1461	1486	1517
Soluble phosphate and compost_high_I	87	92	98	1370	1407	1457
Soluble phosphate and compost_high_S	94	96	98	1511	1530	1568
Soluble phosphate and compost_low_I	89	92	96	1242	1299	1358
Soluble phosphate and compost_low_S	93	98	100	1421	1462	1495
Wood ash_high_I	94	98	104	1332	1450	1523
Wood ash_high_S	97	99	103	1428	1457	1496
Wood ash_low_I	101	102	104	1393	1405	1428
Wood ash_low_S	101	103	105	1453	1502	1538
Wood ash and biochar_high_I	99	101	103	1362	1419	1463
Wood ash and biochar_high_S	90	97	104	1376	1433	1471
Wood ash and biochar_low_I	96	100	103	1386	1415	1446
Wood ash and biochar_low_S	101	107	112	1433	1500	1570
Wood ash and compost_high_I	88	93	97	1340	1406	1481
Wood ash and compost_high_S	98	101	103	1459	1500	1557
Wood ash and compost_low_I	95	98	103	1261	1361	1444
Wood ash and compost_low_S	98	103	109	1399	1479	1530

Table 37. Summary statistics for Timepoint 3 total arsenic and lead content for the control soil

Timepoint 3	3051a			3051a		
	Min	Mean	Max	Min	Mean	Max
	Soil <150um			Soil <150um		
Treatment x Rate x Application Method	As (mg/kg)			Pb (mg/kg)		
control_NA_NA	87	88	89	1299	1327	1371

QUALITY CONTROL RESULTS

Table 38. Quality control checks for Timepoints 1-3

Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
As	T1	Bioaccess1.5pH	<150um	1	RPD	5		20	Pass
As	T1	Bioaccess1.5pH	<150um	1	% Rec	85	75	125	Pass
As	T1	Bioaccess1.5pH	<150um	1	<RL	0		0.05	Pass
As	T1	Bioaccess1.5pH	<150um	1	% Rec	98	85	115	Pass
As	T1	Bioaccess1.5pH	<150um	2	RPD	2		20	Pass
As	T1	Bioaccess1.5pH	<150um	2	% Rec	84	75	125	Pass
As	T1	Bioaccess1.5pH	<150um	2	<RL	0		0.05	Pass
As	T1	Bioaccess1.5pH	<150um	2	% Rec	97	85	115	Pass
As	T1	Bioaccess1.5pH	<150um	3	RPD	7		20	Pass
As	T1	Bioaccess1.5pH	<150um	3	% Rec	82	75	125	Pass
As	T1	Bioaccess1.5pH	<150um	3	<RL	0		0.05	Pass
As	T1	Bioaccess1.5pH	<150um	3	% Rec	97	85	115	Pass
As	T1	Bioaccess1.5pH	<150um	4	RPD	2		20	Pass
As	T1	Bioaccess1.5pH	<150um	4	% Rec	84	75	125	Pass
As	T1	Bioaccess1.5pH	<150um	4	<RL	0		0.05	Pass
As	T1	Bioaccess1.5pH	<150um	4	% Rec	96	85	115	Pass
As	T1	Bioaccess1.5pH	<150um	5	RPD	1		20	Pass
As	T1	Bioaccess1.5pH	<150um	5	% Rec	87	75	125	Pass
As	T1	Bioaccess1.5pH	<150um	5	<RL	0		0.05	Pass
As	T1	Bioaccess1.5pH	<150um	5	% Rec	97	85	115	Pass
As	T1	Bioaccess1.5pH	<150um	6	RPD	6		20	Pass
As	T1	Bioaccess1.5pH	<150um	6	% Rec	88	75	125	Pass
As	T1	Bioaccess1.5pH	<150um	6	<RL	0		0.05	Pass
As	T1	Bioaccess1.5pH	<150um	6	% Rec	97	85	115	Pass
As	T1	Bioaccess1.5pH	<150um	7	RPD	3		20	Pass
As	T1	Bioaccess1.5pH	<150um	7	% Rec	89	75	125	Pass
As	T1	Bioaccess1.5pH	<150um	7	<RL	0		0.05	Pass
As	T1	Bioaccess1.5pH	<150um	7	% Rec	97	85	115	Pass
As	T1	Bioaccess1.5pH	<150um	8	RPD	3		20	Pass
As	T1	Bioaccess1.5pH	<150um	8	% Rec	86	75	125	Pass
As	T1	Bioaccess1.5pH	<150um	8	<RL	0		0.05	Pass
As	T1	Bioaccess1.5pH	<150um	8	% Rec	98	85	115	Pass
As	T1	Bioaccess1.5pH	<150um	9	RPD	3		20	Pass
As	T1	Bioaccess1.5pH	<150um	9	% Rec	83	75	125	Pass
As	T1	Bioaccess1.5pH	<150um	9	<RL	0		0.05	Pass
As	T1	Bioaccess1.5pH	<150um	9	% Rec	98	85	115	Pass
As	T1	Bioaccess1.5pH	<150um	10	RPD	4		20	Pass
As	T1	Bioaccess1.5pH	<150um	10	% Rec	83	75	125	Pass
As	T1	Bioaccess1.5pH	<150um	10	<RL	0		0.05	Pass
As	T1	Bioaccess1.5pH	<150um	10	% Rec	97	85	115	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
As	T1	Bioaccess1.5pH	<150um	11	RPD	4		20	Pass
As	T1	Bioaccess1.5pH	<150um	11	% Rec	84	75	125	Pass
As	T1	Bioaccess1.5pH	<150um	11	<RL	0		0.05	Pass
As	T1	Bioaccess1.5pH	<150um	11	% Rec	97	85	115	Pass
As	T1	Bioaccess1.5pH	<150um	12	RPD	2		20	Pass
As	T1	Bioaccess1.5pH	<150um	12	% Rec	82	75	125	Pass
As	T1	Bioaccess1.5pH	<150um	12	<RL	0		0.05	Pass
As	T1	Bioaccess1.5pH	<150um	12	% Rec	97	85	115	Pass
As	T1	Bioaccess1.5pH	<150um	13	RPD	2		20	Pass
As	T1	Bioaccess1.5pH	<150um	13	% Rec	77	75	125	Pass
As	T1	Bioaccess1.5pH	<150um	13	<RL	0		0.05	Pass
As	T1	Bioaccess1.5pH	<150um	13	% Rec	94	85	115	Pass
As	T1	Bioaccess1.5pH	<150um	14	RPD	2		20	Pass
As	T1	Bioaccess1.5pH	<150um	14	% Rec	82	75	125	Pass
As	T1	Bioaccess1.5pH	<150um	14	<RL	0		0.05	Pass
As	T1	Bioaccess1.5pH	<150um	14	% Rec	94	85	115	Pass
As	T1	Bioaccess1.5pH	<150um	15	RPD	3		20	Pass
As	T1	Bioaccess1.5pH	<150um	15	% Rec	83	75	125	Pass
As	T1	Bioaccess1.5pH	<150um	15	<RL	0		0.05	Pass
As	T1	Bioaccess1.5pH	<150um	15	% Rec	94	85	115	Pass
As	T1	Bioaccess1.5pH	<150um	16	RPD	4		20	Pass
As	T1	Bioaccess1.5pH	<150um	16	% Rec	79	75	125	Pass
As	T1	Bioaccess1.5pH	<150um	16	<RL	0		0.05	Pass
As	T1	Bioaccess1.5pH	<150um	16	% Rec	95	85	115	Pass
As	T1	Bioaccess1.5pH	<150um	17	RPD	2		20	Pass
As	T1	Bioaccess1.5pH	<150um	17	% Rec	87	75	125	Pass
As	T1	Bioaccess1.5pH	<150um	17	<RL	0		0.05	Pass
As	T1	Bioaccess1.5pH	<150um	17	% Rec	92	85	115	Pass
As	T1	Bioaccess1.5pH	<150um	18	RPD	0		20	Pass
As	T1	Bioaccess1.5pH	<150um	18	% Rec	83	75	125	Pass
As	T1	Bioaccess1.5pH	<150um	18	<RL	0		0.05	Pass
As	T1	Bioaccess1.5pH	<150um	18	% Rec	103	85	115	Pass
As	T1	Bioaccess1.5pH	<150um	19	RPD	2		20	Pass
As	T1	Bioaccess1.5pH	<150um	19	% Rec	87	75	125	Pass
As	T1	Bioaccess1.5pH	<150um	19	<RL	0		0.05	Pass
As	T1	Bioaccess1.5pH	<150um	19	% Rec	103	85	115	Pass
As	T1	Bioaccess1.5pH	<150um	20	RPD	1		20	Pass
As	T1	Bioaccess1.5pH	<150um	20	% Rec	94	75	125	Pass
As	T1	Bioaccess1.5pH	<150um	20	<RL	0		0.05	Pass
As	T1	Bioaccess1.5pH	<150um	20	% Rec	103	85	115	Pass
As	T1	Bioaccess1.5pH	<150um	21	RPD	2		20	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
As	T1	Bioaccess1.5pH	<150um	21	% Rec	86	75	125	Pass
As	T1	Bioaccess1.5pH	<150um	21	<RL	0		0.05	Pass
As	T1	Bioaccess1.5pH	<150um	21	% Rec	102	85	115	Pass
As	T1	Bioaccess1.5pH	<150um	22	RPD	1		20	Pass
As	T1	Bioaccess1.5pH	<150um	22	% Rec	85	75	125	Pass
As	T1	Bioaccess1.5pH	<150um	22	<RL	0		0.05	Pass
As	T1	Bioaccess1.5pH	<150um	22	% Rec	103	85	115	Pass
As	T1	Bioaccess1.5pH	<150um	23	RPD	3		20	Pass
As	T1	Bioaccess1.5pH	<150um	23	% Rec	84	75	125	Pass
As	T1	Bioaccess1.5pH	<150um	23	<RL	0		0.05	Pass
As	T1	Bioaccess1.5pH	<150um	23	% Rec	99	85	115	Pass
Pb	T1	Bioaccess1.5pH	<150um	1	RPD	1		20	Pass
Pb	T1	Bioaccess1.5pH	<150um	1	% Rec	91	75	125	Pass
Pb	T1	Bioaccess1.5pH	<150um	1	%IVBA	87	75.2	96.2	Pass
Pb	T1	Bioaccess1.5pH	<150um	1	<RL	0		0.05	Pass
Pb	T1	Bioaccess1.5pH	<150um	1	% Rec	96	85	115	Pass
Pb	T1	Bioaccess1.5pH	<150um	2	RPD	2		20	Pass
Pb	T1	Bioaccess1.5pH	<150um	2	% Rec	86	75	125	Pass
Pb	T1	Bioaccess1.5pH	<150um	2	%IVBA	88	75.2	96.2	Pass
Pb	T1	Bioaccess1.5pH	<150um	2	<RL	0		0.05	Pass
Pb	T1	Bioaccess1.5pH	<150um	2	% Rec	95	85	115	Pass
Pb	T1	Bioaccess1.5pH	<150um	3	RPD	3		20	Pass
Pb	T1	Bioaccess1.5pH	<150um	3	% Rec	90	75	125	Pass
Pb	T1	Bioaccess1.5pH	<150um	3	%IVBA	83	75.2	96.2	Pass
Pb	T1	Bioaccess1.5pH	<150um	3	<RL	0		0.05	Pass
Pb	T1	Bioaccess1.5pH	<150um	3	% Rec	93	85	115	Pass
Pb	T1	Bioaccess1.5pH	<150um	4	RPD	0		20	Pass
Pb	T1	Bioaccess1.5pH	<150um	4	% Rec	89	75	125	Pass
Pb	T1	Bioaccess1.5pH	<150um	4	%IVBA	88	75.2	96.2	Pass
Pb	T1	Bioaccess1.5pH	<150um	4	<RL	0		0.05	Pass
Pb	T1	Bioaccess1.5pH	<150um	4	% Rec	92	85	115	Pass
Pb	T1	Bioaccess1.5pH	<150um	5	RPD	2		20	Pass
Pb	T1	Bioaccess1.5pH	<150um	5	% Rec	86	75	125	Pass
Pb	T1	Bioaccess1.5pH	<150um	5	%IVBA	81	75.2	96.2	Pass
Pb	T1	Bioaccess1.5pH	<150um	5	<RL	0		0.05	Pass
Pb	T1	Bioaccess1.5pH	<150um	5	% Rec	90	85	115	Pass
Pb	T1	Bioaccess1.5pH	<150um	6	RPD	4		20	Pass
Pb	T1	Bioaccess1.5pH	<150um	6	% Rec	86	75	125	Pass
Pb	T1	Bioaccess1.5pH	<150um	6	%IVBA	83	75.2	96.2	Pass
Pb	T1	Bioaccess1.5pH	<150um	6	<RL	0		0.05	Pass
Pb	T1	Bioaccess1.5pH	<150um	6	% Rec	92	85	115	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Pb	T1	Bioaccess1.5pH	<150um	7	RPD	1		20	Pass
Pb	T1	Bioaccess1.5pH	<150um	7	% Rec	91	75	125	Pass
Pb	T1	Bioaccess1.5pH	<150um	7	%IVBA	80	75.2	96.2	Pass
Pb	T1	Bioaccess1.5pH	<150um	7	<RL	0		0.05	Pass
Pb	T1	Bioaccess1.5pH	<150um	7	% Rec	92	85	115	Pass
Pb	T1	Bioaccess1.5pH	<150um	8	RPD	2		20	Pass
Pb	T1	Bioaccess1.5pH	<150um	8	% Rec	88	75	125	Pass
Pb	T1	Bioaccess1.5pH	<150um	8	%IVBA	82	75.2	96.2	Pass
Pb	T1	Bioaccess1.5pH	<150um	8	<RL	0		0.05	Pass
Pb	T1	Bioaccess1.5pH	<150um	8	% Rec	93	85	115	Pass
Pb	T1	Bioaccess1.5pH	<150um	9	RPD	0		20	Pass
Pb	T1	Bioaccess1.5pH	<150um	9	% Rec	89	75	125	Pass
Pb	T1	Bioaccess1.5pH	<150um	9	%IVBA	82	75.2	96.2	Pass
Pb	T1	Bioaccess1.5pH	<150um	9	<RL	0		0.05	Pass
Pb	T1	Bioaccess1.5pH	<150um	9	% Rec	94	85	115	Pass
Pb	T1	Bioaccess1.5pH	<150um	10	RPD	2		20	Pass
Pb	T1	Bioaccess1.5pH	<150um	10	% Rec	93	75	125	Pass
Pb	T1	Bioaccess1.5pH	<150um	10	%IVBA	82	75.2	96.2	Pass
Pb	T1	Bioaccess1.5pH	<150um	10	<RL	0		0.05	Pass
Pb	T1	Bioaccess1.5pH	<150um	10	% Rec	93	85	115	Pass
Pb	T1	Bioaccess1.5pH	<150um	11	RPD	2		20	Pass
Pb	T1	Bioaccess1.5pH	<150um	11	% Rec	89	75	125	Pass
Pb	T1	Bioaccess1.5pH	<150um	11	%IVBA	82	75.2	96.2	Pass
Pb	T1	Bioaccess1.5pH	<150um	11	<RL	0		0.05	Pass
Pb	T1	Bioaccess1.5pH	<150um	11	% Rec	92	85	115	Pass
Pb	T1	Bioaccess1.5pH	<150um	12	RPD	2		20	Pass
Pb	T1	Bioaccess1.5pH	<150um	12	% Rec	87	75	125	Pass
Pb	T1	Bioaccess1.5pH	<150um	12	%IVBA	79	75.2	96.2	Pass
Pb	T1	Bioaccess1.5pH	<150um	12	<RL	0		0.05	Pass
Pb	T1	Bioaccess1.5pH	<150um	12	% Rec	93	85	115	Pass
Pb	T1	Bioaccess1.5pH	<150um	13	RPD	2		20	Pass
Pb	T1	Bioaccess1.5pH	<150um	13	% Rec	80	75	125	Pass
Pb	T1	Bioaccess1.5pH	<150um	13	%IVBA	75	75.2	96.2	Fail
Pb	T1	Bioaccess1.5pH	<150um	13	<RL	0		0.05	Pass
Pb	T1	Bioaccess1.5pH	<150um	13	% Rec	89	85	115	Pass
Pb	T1	Bioaccess1.5pH	<150um	14	RPD	0		20	Pass
Pb	T1	Bioaccess1.5pH	<150um	14	% Rec	82	75	125	Pass
Pb	T1	Bioaccess1.5pH	<150um	14	%IVBA	76	75.2	96.2	Pass
Pb	T1	Bioaccess1.5pH	<150um	14	<RL	0		0.05	Pass
Pb	T1	Bioaccess1.5pH	<150um	14	% Rec	90	85	115	Pass
Pb	T1	Bioaccess1.5pH	<150um	15	RPD	2		20	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Pb	T1	Bioaccess1.5pH	<150um	15	% Rec	83	75	125	Pass
Pb	T1	Bioaccess1.5pH	<150um	15	%IVBA	76	75.2	96.2	Pass
Pb	T1	Bioaccess1.5pH	<150um	15	<RL	0		0.05	Pass
Pb	T1	Bioaccess1.5pH	<150um	15	% Rec	89	85	115	Pass
Pb	T1	Bioaccess1.5pH	<150um	16	RPD	0		20	Pass
Pb	T1	Bioaccess1.5pH	<150um	16	% Rec	80	75	125	Pass
Pb	T1	Bioaccess1.5pH	<150um	16	%IVBA	75	75.2	96.2	Pass
Pb	T1	Bioaccess1.5pH	<150um	16	<RL	0		0.05	Pass
Pb	T1	Bioaccess1.5pH	<150um	16	% Rec	90	85	115	Pass
Pb	T1	Bioaccess1.5pH	<150um	17	RPD	1		20	Pass
Pb	T1	Bioaccess1.5pH	<150um	17	% Rec	82	75	125	Pass
Pb	T1	Bioaccess1.5pH	<150um	17	%IVBA	77	75.2	96.2	Pass
Pb	T1	Bioaccess1.5pH	<150um	17	<RL	0		0.05	Pass
Pb	T1	Bioaccess1.5pH	<150um	17	% Rec	87	85	115	Pass
Pb	T1	Bioaccess1.5pH	<150um	18	RPD	2		20	Pass
Pb	T1	Bioaccess1.5pH	<150um	18	% Rec	80	75	125	Pass
Pb	T1	Bioaccess1.5pH	<150um	18	%IVBA	83	75.2	96.2	Pass
Pb	T1	Bioaccess1.5pH	<150um	18	<RL	0		0.05	Pass
Pb	T1	Bioaccess1.5pH	<150um	18	% Rec	94	85	115	Pass
Pb	T1	Bioaccess1.5pH	<150um	19	RPD	4		20	Pass
Pb	T1	Bioaccess1.5pH	<150um	19	% Rec	89	75	125	Pass
Pb	T1	Bioaccess1.5pH	<150um	19	%IVBA	81	75.2	96.2	Pass
Pb	T1	Bioaccess1.5pH	<150um	19	<RL	0		0.05	Pass
Pb	T1	Bioaccess1.5pH	<150um	19	% Rec	95	85	115	Pass
Pb	T1	Bioaccess1.5pH	<150um	20	RPD	2		20	Pass
Pb	T1	Bioaccess1.5pH	<150um	20	% Rec	86	75	125	Pass
Pb	T1	Bioaccess1.5pH	<150um	20	%IVBA	81	75.2	96.2	Pass
Pb	T1	Bioaccess1.5pH	<150um	20	<RL	0		0.05	Pass
Pb	T1	Bioaccess1.5pH	<150um	20	% Rec	94	85	115	Pass
Pb	T1	Bioaccess1.5pH	<150um	21	RPD	1		20	Pass
Pb	T1	Bioaccess1.5pH	<150um	21	% Rec	88	75	125	Pass
Pb	T1	Bioaccess1.5pH	<150um	21	%IVBA	82	75.2	96.2	Pass
Pb	T1	Bioaccess1.5pH	<150um	21	<RL	0		0.05	Pass
Pb	T1	Bioaccess1.5pH	<150um	21	% Rec	94	85	115	Pass
Pb	T1	Bioaccess1.5pH	<150um	22	RPD	0		20	Pass
Pb	T1	Bioaccess1.5pH	<150um	22	% Rec	86	75	125	Pass
Pb	T1	Bioaccess1.5pH	<150um	22	%IVBA	80	75.2	96.2	Pass
Pb	T1	Bioaccess1.5pH	<150um	22	<RL	0		0.05	Pass
Pb	T1	Bioaccess1.5pH	<150um	22	% Rec	94	85	115	Pass
Pb	T1	Bioaccess1.5pH	<150um	23	RPD	2		20	Pass
Pb	T1	Bioaccess1.5pH	<150um	23	% Rec	86	75	125	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Pb	T1	Bioaccess1.5pH	<150um	23	%IVBA	80	75.2	96.2	Pass
Pb	T1	Bioaccess1.5pH	<150um	23	<RL	0		0.05	Pass
Pb	T1	Bioaccess1.5pH	<150um	23	% Rec	88	85	115	Pass
Pb	T2	Bioaccess1.5pH	<150µm	1	% Rec	78	75.2	96.2	Pass
As	T2	Bioaccess1.5pH	<150µm	1	<RL	0			Pass
Pb	T2	Bioaccess1.5pH	<150µm	1	<RL	1			Pass
As	T2	Bioaccess1.5pH	<150µm	1	% Rec	99	85	115	Pass
Pb	T2	Bioaccess1.5pH	<150µm	1	% Rec	87	85	115	Pass
As	T2	Bioaccess1.5pH	<150µm	1	% Rec	87	75	125	Pass
Pb	T2	Bioaccess1.5pH	<150µm	1	% Rec	83	75	125	Pass
As	T2	Bioaccess1.5pH	<150µm	1	% RPD	1		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	1	% RPD	2		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	2	% Rec	77	75.2	96.2	Pass
As	T2	Bioaccess1.5pH	<150µm	2	<RL	0			Pass
Pb	T2	Bioaccess1.5pH	<150µm	2	<RL	1			Pass
As	T2	Bioaccess1.5pH	<150µm	2	% Rec	98	85	115	Pass
Pb	T2	Bioaccess1.5pH	<150µm	2	% Rec	87	85	115	Pass
As	T2	Bioaccess1.5pH	<150µm	2	% Rec	86	75	125	Pass
Pb	T2	Bioaccess1.5pH	<150µm	2	% Rec	84	75	125	Pass
As	T2	Bioaccess1.5pH	<150µm	2	% RPD	0		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	2	% RPD	0		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	3	% Rec	77	75.2	96.2	Pass
As	T2	Bioaccess1.5pH	<150µm	3	<RL	0			Pass
Pb	T2	Bioaccess1.5pH	<150µm	3	<RL	1			Pass
As	T2	Bioaccess1.5pH	<150µm	3	% Rec	98	85	115	Pass
Pb	T2	Bioaccess1.5pH	<150µm	3	% Rec	85	85	115	Fail
As	T2	Bioaccess1.5pH	<150µm	3	% Rec	86	75	125	Pass
Pb	T2	Bioaccess1.5pH	<150µm	3	% Rec	82	75	125	Pass
As	T2	Bioaccess1.5pH	<150µm	3	% RPD	5		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	3	% RPD	0		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	4	% Rec	78	75.2	96.2	Pass
As	T2	Bioaccess1.5pH	<150µm	4	<RL	0			Pass
Pb	T2	Bioaccess1.5pH	<150µm	4	<RL	1			Pass
As	T2	Bioaccess1.5pH	<150µm	4	% Rec	97	85	115	Pass
Pb	T2	Bioaccess1.5pH	<150µm	4	% Rec	85	85	115	Fail
As	T2	Bioaccess1.5pH	<150µm	4	% Rec	88	75	125	Pass
Pb	T2	Bioaccess1.5pH	<150µm	4	% Rec	84	75	125	Pass
As	T2	Bioaccess1.5pH	<150µm	4	% RPD	10		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	4	% RPD	4		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	5	% Rec	78	75.2	96.2	Pass
As	T2	Bioaccess1.5pH	<150µm	5	<RL	0			Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Pb	T2	Bioaccess1.5pH	<150µm	5	<RL	1			Pass
As	T2	Bioaccess1.5pH	<150µm	5	% Rec	97	85	115	Pass
Pb	T2	Bioaccess1.5pH	<150µm	5	% Rec	84	85	115	Fail
As	T2	Bioaccess1.5pH	<150µm	5	% Rec	84	75	125	Pass
Pb	T2	Bioaccess1.5pH	<150µm	5	% Rec	82	75	125	Pass
As	T2	Bioaccess1.5pH	<150µm	5	% RPD	0		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	5	% RPD	1		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	6	% Rec	76	75.2	96.2	Pass
As	T2	Bioaccess1.5pH	<150µm	6	<RL	0			Pass
Pb	T2	Bioaccess1.5pH	<150µm	6	<RL	1			Pass
As	T2	Bioaccess1.5pH	<150µm	6	% Rec	98	85	115	Pass
Pb	T2	Bioaccess1.5pH	<150µm	6	% Rec	84	85	115	Fail
As	T2	Bioaccess1.5pH	<150µm	6	% Rec	82	75	125	Pass
Pb	T2	Bioaccess1.5pH	<150µm	6	% Rec	82	75	125	Pass
As	T2	Bioaccess1.5pH	<150µm	6	% RPD	0		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	6	% RPD	1		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	7	% Rec	77	75.2	96.2	Pass
As	T2	Bioaccess1.5pH	<150µm	7	<RL	0			Pass
Pb	T2	Bioaccess1.5pH	<150µm	7	<RL	1			Pass
As	T2	Bioaccess1.5pH	<150µm	7	% Rec	99	85	115	Pass
Pb	T2	Bioaccess1.5pH	<150µm	7	% Rec	84	85	115	Fail
As	T2	Bioaccess1.5pH	<150µm	7	% Rec	83	75	125	Pass
Pb	T2	Bioaccess1.5pH	<150µm	7	% Rec	86	75	125	Pass
As	T2	Bioaccess1.5pH	<150µm	7	% RPD	3		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	7	% RPD	1		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	9	% Rec	83	75.2	96.2	Pass
As	T2	Bioaccess1.5pH	<150µm	9	<RL	0			Pass
Pb	T2	Bioaccess1.5pH	<150µm	9	<RL	1			Pass
As	T2	Bioaccess1.5pH	<150µm	9	% Rec	101	85	115	Pass
Pb	T2	Bioaccess1.5pH	<150µm	9	% Rec	96	85	115	Pass
As	T2	Bioaccess1.5pH	<150µm	9	% Rec	83	75	125	Pass
Pb	T2	Bioaccess1.5pH	<150µm	9	% Rec	88	75	125	Pass
As	T2	Bioaccess1.5pH	<150µm	9	% RPD	5		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	9	% RPD	1		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	10	% Rec	83	75.2	96.2	Pass
As	T2	Bioaccess1.5pH	<150µm	10	<RL	0			Pass
Pb	T2	Bioaccess1.5pH	<150µm	10	<RL	1			Pass
As	T2	Bioaccess1.5pH	<150µm	10	% Rec	100	85	115	Pass
Pb	T2	Bioaccess1.5pH	<150µm	10	% Rec	95	85	115	Pass
As	T2	Bioaccess1.5pH	<150µm	10	% Rec	85	75	125	Pass
Pb	T2	Bioaccess1.5pH	<150µm	10	% Rec	90	75	125	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
As	T2	Bioaccess1.5pH	<150µm	10	% RPD	2		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	10	% RPD	3		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	11	% Rec	82	75.2	96.2	Pass
As	T2	Bioaccess1.5pH	<150µm	11	<RL	0			Pass
Pb	T2	Bioaccess1.5pH	<150µm	11	<RL	1			Pass
As	T2	Bioaccess1.5pH	<150µm	11	% Rec	100	85	115	Pass
Pb	T2	Bioaccess1.5pH	<150µm	11	% Rec	93	85	115	Pass
As	T2	Bioaccess1.5pH	<150µm	11	% Rec	81	75	125	Pass
Pb	T2	Bioaccess1.5pH	<150µm	11	% Rec	89	75	125	Pass
As	T2	Bioaccess1.5pH	<150µm	11	% RPD	9		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	11	% RPD	3		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	12	% Rec	82	75.2	96.2	Pass
As	T2	Bioaccess1.5pH	<150µm	12	<RL	0			Pass
Pb	T2	Bioaccess1.5pH	<150µm	12	<RL	1			Pass
As	T2	Bioaccess1.5pH	<150µm	12	% Rec	99	85	115	Pass
Pb	T2	Bioaccess1.5pH	<150µm	12	% Rec	93	85	115	Pass
As	T2	Bioaccess1.5pH	<150µm	12	% Rec	82	75	125	Pass
Pb	T2	Bioaccess1.5pH	<150µm	12	% Rec	89	75	125	Pass
As	T2	Bioaccess1.5pH	<150µm	12	% RPD	5		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	12	% RPD	3		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	14	% Rec	78	75.2	96.2	Pass
As	T2	Bioaccess1.5pH	<150µm	14	<RL	0			Pass
Pb	T2	Bioaccess1.5pH	<150µm	14	<RL	1			Pass
As	T2	Bioaccess1.5pH	<150µm	14	% Rec	104	85	115	Pass
Pb	T2	Bioaccess1.5pH	<150µm	14	% Rec	89	85	115	Pass
As	T2	Bioaccess1.5pH	<150µm	14	% Rec	93	75	125	Pass
Pb	T2	Bioaccess1.5pH	<150µm	14	% Rec	87	75	125	Pass
As	T2	Bioaccess1.5pH	<150µm	14	% RPD	3		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	14	% RPD	2		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	15	% Rec	78	75.2	96.2	Pass
As	T2	Bioaccess1.5pH	<150µm	15	<RL	0			Pass
Pb	T2	Bioaccess1.5pH	<150µm	15	<RL	1			Pass
As	T2	Bioaccess1.5pH	<150µm	15	% Rec	105	85	115	Pass
Pb	T2	Bioaccess1.5pH	<150µm	15	% Rec	87	85	115	Pass
As	T2	Bioaccess1.5pH	<150µm	15	% Rec	91	75	125	Pass
Pb	T2	Bioaccess1.5pH	<150µm	15	% Rec	81	75	125	Pass
As	T2	Bioaccess1.5pH	<150µm	15	% RPD	1		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	15	% RPD	1		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	16	% Rec	79	75.2	96.2	Pass
As	T2	Bioaccess1.5pH	<150µm	16	<RL	0			Pass
Pb	T2	Bioaccess1.5pH	<150µm	16	<RL	1			Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
As	T2	Bioaccess1.5pH	<150µm	16	% Rec	105	85	115	Pass
Pb	T2	Bioaccess1.5pH	<150µm	16	% Rec	90	85	115	Pass
As	T2	Bioaccess1.5pH	<150µm	16	% Rec	90	75	125	Pass
Pb	T2	Bioaccess1.5pH	<150µm	16	% Rec	83	75	125	Pass
As	T2	Bioaccess1.5pH	<150µm	16	% RPD	5		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	16	% RPD	2		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	17	% Rec	77	75.2	96.2	Pass
As	T2	Bioaccess1.5pH	<150µm	17	<RL	0			Pass
Pb	T2	Bioaccess1.5pH	<150µm	17	<RL	1			Pass
As	T2	Bioaccess1.5pH	<150µm	17	% Rec	105	85	115	Pass
Pb	T2	Bioaccess1.5pH	<150µm	17	% Rec	88	85	115	Pass
As	T2	Bioaccess1.5pH	<150µm	17	% Rec	92	75	125	Pass
Pb	T2	Bioaccess1.5pH	<150µm	17	% Rec	85	75	125	Pass
As	T2	Bioaccess1.5pH	<150µm	17	% RPD	2		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	17	% RPD	0		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	18	% Rec	79	75.2	96.2	Pass
As	T2	Bioaccess1.5pH	<150µm	18	<RL	0			Pass
Pb	T2	Bioaccess1.5pH	<150µm	18	<RL	1			Pass
As	T2	Bioaccess1.5pH	<150µm	18	% Rec	105	85	115	Pass
Pb	T2	Bioaccess1.5pH	<150µm	18	% Rec	86	85	115	Pass
As	T2	Bioaccess1.5pH	<150µm	18	% Rec	89	75	125	Pass
Pb	T2	Bioaccess1.5pH	<150µm	18	% Rec	86	75	125	Pass
As	T2	Bioaccess1.5pH	<150µm	18	% RPD	0		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	18	% RPD	2		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	19	% Rec	79	75.2	96.2	Pass
As	T2	Bioaccess1.5pH	<150µm	19	<RL	0			Pass
Pb	T2	Bioaccess1.5pH	<150µm	19	<RL	1			Pass
As	T2	Bioaccess1.5pH	<150µm	19	% Rec	106	85	115	Pass
Pb	T2	Bioaccess1.5pH	<150µm	19	% Rec	88	85	115	Pass
As	T2	Bioaccess1.5pH	<150µm	19	% Rec	96	75	125	Pass
Pb	T2	Bioaccess1.5pH	<150µm	19	% Rec	83	75	125	Pass
As	T2	Bioaccess1.5pH	<150µm	19	% RPD	3		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	19	% RPD	0		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	20	% Rec	79	75.2	96.2	Pass
As	T2	Bioaccess1.5pH	<150µm	20	<RL	0			Pass
Pb	T2	Bioaccess1.5pH	<150µm	20	<RL	1			Pass
As	T2	Bioaccess1.5pH	<150µm	20	% Rec	106	85	115	Pass
Pb	T2	Bioaccess1.5pH	<150µm	20	% Rec	88	85	115	Pass
As	T2	Bioaccess1.5pH	<150µm	20	% Rec	97	75	125	Pass
Pb	T2	Bioaccess1.5pH	<150µm	20	% Rec	86	75	125	Pass
As	T2	Bioaccess1.5pH	<150µm	20	% RPD	1		20	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Pb	T2	Bioaccess1.5pH	<150µm	20	% RPD	1		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	21	% Rec	80	75.2	96.2	Pass
As	T2	Bioaccess1.5pH	<150µm	21	<RL	0			Pass
Pb	T2	Bioaccess1.5pH	<150µm	21	<RL	1			Pass
As	T2	Bioaccess1.5pH	<150µm	21	% Rec	101	85	115	Pass
Pb	T2	Bioaccess1.5pH	<150µm	21	% Rec	78	85	115	Fail
As	T2	Bioaccess1.5pH	<150µm	21	% Rec	83	75	125	Pass
Pb	T2	Bioaccess1.5pH	<150µm	21	% Rec	81	75	125	Pass
As	T2	Bioaccess1.5pH	<150µm	21	% RPD	3		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	21	% RPD	2		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	22	% Rec	77	75.2	96.2	Pass
As	T2	Bioaccess1.5pH	<150µm	22	<RL	0			Pass
Pb	T2	Bioaccess1.5pH	<150µm	22	<RL	1			Pass
As	T2	Bioaccess1.5pH	<150µm	22	% Rec	99	85	115	Pass
Pb	T2	Bioaccess1.5pH	<150µm	22	% Rec	0	85	115	Fail
As	T2	Bioaccess1.5pH	<150µm	22	% Rec	87	75	125	Pass
Pb	T2	Bioaccess1.5pH	<150µm	22	% Rec	-3	75	125	Fail
As	T2	Bioaccess1.5pH	<150µm	22	% RPD	7		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	22	% RPD	2		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	8	RPD if 2xRL	4		20	Pass
As	T2	Bioaccess1.5pH	<150µm	8	RPD if 2xRL	3		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	8	% Rec	84	75	125	Pass
As	T2	Bioaccess1.5pH	<150µm	8	% Rec	92	75	125	Pass
Pb	T2	Bioaccess1.5pH	<150µm	8	%IVBA	78	75.2	96.2	Pass
Pb	T2	Bioaccess1.5pH	<150µm	8	<RL	0		0.05	Pass
As	T2	Bioaccess1.5pH	<150µm	8	<RL	0		0.05	Pass
Pb	T2	Bioaccess1.5pH	<150µm	8	% Rec	100	85	115	Pass
As	T2	Bioaccess1.5pH	<150µm	8	% Rec	111	85	115	Pass
Pb	T2	Bioaccess1.5pH	<150µm	13	RPD if 2xRL	4		20	Pass
As	T2	Bioaccess1.5pH	<150µm	13	RPD if 2xRL	4		20	Pass
Pb	T2	Bioaccess1.5pH	<150µm	13	% Rec	-4	75	125	Fail
As	T2	Bioaccess1.5pH	<150µm	13	% Rec	0	75	125	Fail
Pb	T2	Bioaccess1.5pH	<150µm	13	%IVBA	77	75.2	96.2	Pass
Pb	T2	Bioaccess1.5pH	<150µm	13	<RL	0		0.05	Pass
As	T2	Bioaccess1.5pH	<150µm	13	<RL	0		0.05	Pass
Pb	T2	Bioaccess1.5pH	<150µm	13	% Rec	97	85	115	Pass
As	T2	Bioaccess1.5pH	<150µm	13	% Rec	109	85	115	Pass
Pb	T3	Bioaccess1.5pH	<150µm	1	RPD	2		20	Pass
As	T3	Bioaccess1.5pH	<150µm	1	RPD	0		20	Pass
Pb	T3	Bioaccess1.5pH	<150µm	1	% Rec	80	75	125	Pass
As	T3	Bioaccess1.5pH	<150µm	1	% Rec	88	75	125	Pass

Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Pb	T3	Bioaccess1.5pH	<150µm	1	%IVBA	78	75.2	96.2	Pass
Pb	T3	Bioaccess1.5pH	<150µm	1	<RL or <10x samples	0		0.05	Pass
As	T3	Bioaccess1.5pH	<150µm	1	<RL or <10x samples	0		0.01	Pass
Pb	T3	Bioaccess1.5pH	<150µm	1	% Rec	93	85	115	Pass
As	T3	Bioaccess1.5pH	<150µm	1	% Rec	102	85	115	Pass
Pb	T3	Bioaccess1.5pH	<150µm	2	RPD	0		20	Pass
As	T3	Bioaccess1.5pH	<150µm	2	RPD	0		20	Pass
Pb	T3	Bioaccess1.5pH	<150µm	2	% Rec	87	75	125	Pass
As	T3	Bioaccess1.5pH	<150µm	2	% Rec	92	75	125	Pass
Pb	T3	Bioaccess1.5pH	<150µm	2	%IVBA	78	75.2	96.2	Pass
Pb	T3	Bioaccess1.5pH	<150µm	2	<RL or <10x samples	0		0.05	Pass
As	T3	Bioaccess1.5pH	<150µm	2	<RL or <10x samples	0		0.01	Pass
Pb	T3	Bioaccess1.5pH	<150µm	2	% Rec	95	85	115	Pass
As	T3	Bioaccess1.5pH	<150µm	2	% Rec	109	85	115	Pass
Pb	T3	Bioaccess1.5pH	<150µm	3	RPD	4		20	Pass
As	T3	Bioaccess1.5pH	<150µm	3	RPD	0		20	Pass
Pb	T3	Bioaccess1.5pH	<150µm	3	% Rec	86	75	125	Pass
As	T3	Bioaccess1.5pH	<150µm	3	% Rec	97	75	125	Pass
Pb	T3	Bioaccess1.5pH	<150µm	3	%IVBA	79	75.2	96.2	Pass
Pb	T3	Bioaccess1.5pH	<150µm	3	<RL or <10x samples	0		0.05	Pass
As	T3	Bioaccess1.5pH	<150µm	3	<RL or <10x samples	0		0.01	Pass
Pb	T3	Bioaccess1.5pH	<150µm	3	% Rec	97	85	115	Pass
As	T3	Bioaccess1.5pH	<150µm	3	% Rec	108	85	115	Pass
Pb	T3	Bioaccess1.5pH	<150µm	4	RPD	4		20	Pass
As	T3	Bioaccess1.5pH	<150µm	4	RPD	0		20	Pass
Pb	T3	Bioaccess1.5pH	<150µm	4	% Rec	78	75	125	Pass
As	T3	Bioaccess1.5pH	<150µm	4	% Rec	94	75	125	Pass
Pb	T3	Bioaccess1.5pH	<150µm	4	%IVBA	76	75.2	96.2	Pass
Pb	T3	Bioaccess1.5pH	<150µm	4	<RL or <10x samples	0		0.05	Pass
As	T3	Bioaccess1.5pH	<150µm	4	<RL or <10x samples	0		0.01	Pass
Pb	T3	Bioaccess1.5pH	<150µm	4	% Rec	96	85	115	Pass
As	T3	Bioaccess1.5pH	<150µm	4	% Rec	108	85	115	Pass
Pb	T3	Bioaccess1.5pH	<150µm	5	RPD	3		20	Pass
As	T3	Bioaccess1.5pH	<150µm	5	RPD	0		20	Pass
Pb	T3	Bioaccess1.5pH	<150µm	5	% Rec	87	75	125	Pass
As	T3	Bioaccess1.5pH	<150µm	5	% Rec	93	75	125	Pass
Pb	T3	Bioaccess1.5pH	<150µm	5	%IVBA	78	75.2	96.2	Pass

Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Pb	T3	Bioaccess1.5pH	<150µm	5	<RL or <10x samples	0		0.05	Pass
As	T3	Bioaccess1.5pH	<150µm	5	<RL or <10x samples	0		0.01	Pass
Pb	T3	Bioaccess1.5pH	<150µm	5	% Rec	96	85	115	Pass
As	T3	Bioaccess1.5pH	<150µm	5	% Rec	106	85	115	Pass
Pb	T3	Bioaccess1.5pH	<150µm	6	RPD	4		20	Pass
As	T3	Bioaccess1.5pH	<150µm	6	RPD	0		20	Pass
Pb	T3	Bioaccess1.5pH	<150µm	6	% Rec	79	75	125	Pass
As	T3	Bioaccess1.5pH	<150µm	6	% Rec	95	75	125	Pass
Pb	T3	Bioaccess1.5pH	<150µm	6	%IVBA	78	75.2	96.2	Pass
Pb	T3	Bioaccess1.5pH	<150µm	6	<RL or <10x samples	0		0.05	Pass
As	T3	Bioaccess1.5pH	<150µm	6	<RL or <10x samples	0		0.01	Pass
Pb	T3	Bioaccess1.5pH	<150µm	6	% Rec	92	85	115	Pass
As	T3	Bioaccess1.5pH	<150µm	6	% Rec	107	85	115	Pass
Pb	T3	Bioaccess1.5pH	<150µm	7	RPD	2		20	Pass
As	T3	Bioaccess1.5pH	<150µm	7	RPD	1		20	Pass
Pb	T3	Bioaccess1.5pH	<150µm	7	% Rec	88	75	125	Pass
As	T3	Bioaccess1.5pH	<150µm	7	% Rec	92	75	125	Pass
Pb	T3	Bioaccess1.5pH	<150µm	7	%IVBA	78	75.2	96.2	Pass
Pb	T3	Bioaccess1.5pH	<150µm	7	<RL or <10x samples	0		0.05	Pass
As	T3	Bioaccess1.5pH	<150µm	7	<RL or <10x samples	0		0.01	Pass
Pb	T3	Bioaccess1.5pH	<150µm	7	% Rec	96	85	115	Pass
As	T3	Bioaccess1.5pH	<150µm	7	% Rec	106	85	115	Pass
Pb	T3	Bioaccess1.5pH	<150µm	8	RPD	1		20	Pass
As	T3	Bioaccess1.5pH	<150µm	8	RPD	0		20	Pass
Pb	T3	Bioaccess1.5pH	<150µm	8	% Rec	83	75	125	Pass
As	T3	Bioaccess1.5pH	<150µm	8	% Rec	96	75	125	Pass
Pb	T3	Bioaccess1.5pH	<150µm	8	%IVBA	78	75.2	96.2	Pass
Pb	T3	Bioaccess1.5pH	<150µm	8	<RL or <10x samples	0		0.05	Pass
As	T3	Bioaccess1.5pH	<150µm	8	<RL or <10x samples	0		0.01	Pass
Pb	T3	Bioaccess1.5pH	<150µm	8	% Rec	97	85	115	Pass
As	T3	Bioaccess1.5pH	<150µm	8	% Rec	107	85	115	Pass
Pb	T3	Bioaccess1.5pH	<150µm	9	RPD	1		20	Pass
As	T3	Bioaccess1.5pH	<150µm	9	RPD	0		20	Pass
Pb	T3	Bioaccess1.5pH	<150µm	9	% Rec	87	75	125	Pass
As	T3	Bioaccess1.5pH	<150µm	9	% Rec	95	75	125	Pass
Pb	T3	Bioaccess1.5pH	<150µm	9	%IVBA	78	75.2	96.2	Pass

Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Pb	T3	Bioaccess1.5pH	<150µm	9	<RL or <10x samples	0		0.05	Pass
As	T3	Bioaccess1.5pH	<150µm	9	<RL or <10x samples	0		0.01	Pass
Pb	T3	Bioaccess1.5pH	<150µm	9	% Rec	96	85	115	Pass
As	T3	Bioaccess1.5pH	<150µm	9	% Rec	106	85	115	Pass
Pb	T3	Bioaccess1.5pH	<150µm	10	RPD	2		20	Pass
As	T3	Bioaccess1.5pH	<150µm	10	RPD	0		20	Pass
Pb	T3	Bioaccess1.5pH	<150µm	10	% Rec	75	75	125	Pass
As	T3	Bioaccess1.5pH	<150µm	10	% Rec	89	75	125	Pass
Pb	T3	Bioaccess1.5pH	<150µm	10	%IVBA	77	75.2	96.2	Pass
Pb	T3	Bioaccess1.5pH	<150µm	10	<RL or <10x samples	0		0.05	Pass
As	T3	Bioaccess1.5pH	<150µm	10	<RL or <10x samples	0		0.01	Pass
Pb	T3	Bioaccess1.5pH	<150µm	10	% Rec	96	85	115	Pass
As	T3	Bioaccess1.5pH	<150µm	10	% Rec	106	85	115	Pass
Pb	T3	Bioaccess1.5pH	<150µm	11	RPD	6		20	Pass
As	T3	Bioaccess1.5pH	<150µm	11	RPD	0		20	Pass
Pb	T3	Bioaccess1.5pH	<150µm	11	% Rec	87	75	125	Pass
As	T3	Bioaccess1.5pH	<150µm	11	% Rec	93	75	125	Pass
Pb	T3	Bioaccess1.5pH	<150µm	11	%IVBA	77	75.2	96.2	Pass
Pb	T3	Bioaccess1.5pH	<150µm	11	<RL or <10x samples	0		0.05	Pass
As	T3	Bioaccess1.5pH	<150µm	11	<RL or <10x samples	0		0.01	Pass
Pb	T3	Bioaccess1.5pH	<150µm	11	% Rec	96	85	115	Pass
As	T3	Bioaccess1.5pH	<150µm	11	% Rec	105	85	115	Pass
Pb	T3	Bioaccess1.5pH	<150µm	12	RPD	0		20	Pass
As	T3	Bioaccess1.5pH	<150µm	12	RPD	0		20	Pass
Pb	T3	Bioaccess1.5pH	<150µm	12	% Rec	89	75	125	Pass
As	T3	Bioaccess1.5pH	<150µm	12	% Rec	88	75	125	Pass
Pb	T3	Bioaccess1.5pH	<150µm	12	%IVBA	78	75.2	96.2	Pass
Pb	T3	Bioaccess1.5pH	<150µm	12	<RL or <10x samples	0		0.05	Pass
As	T3	Bioaccess1.5pH	<150µm	12	<RL or <10x samples	0		0.01	Pass
Pb	T3	Bioaccess1.5pH	<150µm	12	% Rec	91	85	115	Pass
As	T3	Bioaccess1.5pH	<150µm	12	% Rec	104	85	115	Pass
Pb	T3	Bioaccess1.5pH	<150µm	13	RPD	5		20	Pass
As	T3	Bioaccess1.5pH	<150µm	13	RPD	0		20	Pass
Pb	T3	Bioaccess1.5pH	<150µm	13	% Rec	82	75	125	Pass
As	T3	Bioaccess1.5pH	<150µm	13	% Rec	95	75	125	Pass
Pb	T3	Bioaccess1.5pH	<150µm	13	%IVBA	77	75.2	96.2	Pass

Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Pb	T3	Bioaccess1.5pH	<150µm	13	<RL or <10x samples	0		0.05	Pass
As	T3	Bioaccess1.5pH	<150µm	13	<RL or <10x samples	0		0.01	Pass
Pb	T3	Bioaccess1.5pH	<150µm	13	% Rec	96	85	115	Pass
As	T3	Bioaccess1.5pH	<150µm	13	% Rec	106	85	115	Pass
Pb	T3	Bioaccess1.5pH	<150µm	14	RPD	7		20	Pass
As	T3	Bioaccess1.5pH	<150µm	14	RPD	0		20	Pass
Pb	T3	Bioaccess1.5pH	<150µm	14	% Rec	93	75	125	Pass
As	T3	Bioaccess1.5pH	<150µm	14	% Rec	94	75	125	Pass
Pb	T3	Bioaccess1.5pH	<150µm	14	%IVBA	77	75.2	96.2	Pass
Pb	T3	Bioaccess1.5pH	<150µm	14	<RL or <10x samples	0		0.05	Pass
As	T3	Bioaccess1.5pH	<150µm	14	<RL or <10x samples	0		0.01	Pass
Pb	T3	Bioaccess1.5pH	<150µm	14	% Rec	95	85	115	Pass
As	T3	Bioaccess1.5pH	<150µm	14	% Rec	106	85	115	Pass
Pb	T3	Bioaccess1.5pH	<150µm	15	RPD	3		20	Pass
As	T3	Bioaccess1.5pH	<150µm	15	RPD	0		20	Pass
Pb	T3	Bioaccess1.5pH	<150µm	15	% Rec	85	75	125	Pass
As	T3	Bioaccess1.5pH	<150µm	15	% Rec	89	75	125	Pass
Pb	T3	Bioaccess1.5pH	<150µm	15	%IVBA	77	75.2	96.2	Pass
Pb	T3	Bioaccess1.5pH	<150µm	15	<RL or <10x samples	0		0.05	Pass
As	T3	Bioaccess1.5pH	<150µm	15	<RL or <10x samples	0		0.01	Pass
Pb	T3	Bioaccess1.5pH	<150µm	15	% Rec	92	85	115	Pass
As	T3	Bioaccess1.5pH	<150µm	15	% Rec	105	85	115	Pass
Pb	T3	Bioaccess1.5pH	<150µm	16	RPD	2		20	Pass
As	T3	Bioaccess1.5pH	<150µm	16	RPD	0		20	Pass
Pb	T3	Bioaccess1.5pH	<150µm	16	% Rec	83	75	125	Pass
As	T3	Bioaccess1.5pH	<150µm	16	% Rec	87	75	125	Pass
Pb	T3	Bioaccess1.5pH	<150µm	16	%IVBA	76	75.2	96.2	Pass
Pb	T3	Bioaccess1.5pH	<150µm	16	<RL or <10x samples	0		0.05	Pass
As	T3	Bioaccess1.5pH	<150µm	16	<RL or <10x samples	0		0.01	Pass
Pb	T3	Bioaccess1.5pH	<150µm	16	% Rec	96	85	115	Pass
As	T3	Bioaccess1.5pH	<150µm	16	% Rec	106	85	115	Pass
Pb	T3	Bioaccess1.5pH	<150µm	17	RPD	8		20	Pass
As	T3	Bioaccess1.5pH	<150µm	17	RPD	0		20	Pass
Pb	T3	Bioaccess1.5pH	<150µm	17	% Rec	79	75	125	Pass
As	T3	Bioaccess1.5pH	<150µm	17	% Rec	87	75	125	Pass
Pb	T3	Bioaccess1.5pH	<150µm	17	%IVBA	78	75.2	96.2	Pass

Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Pb	T3	Bioaccess1.5pH	<150µm	17	<RL or <10x samples	0		0.05	Pass
As	T3	Bioaccess1.5pH	<150µm	17	<RL or <10x samples	0		0.01	Pass
Pb	T3	Bioaccess1.5pH	<150µm	17	% Rec	96	85	115	Pass
As	T3	Bioaccess1.5pH	<150µm	17	% Rec	106	85	115	Pass
Pb	T3	Bioaccess1.5pH	<150µm	18	RPD	4		20	Pass
As	T3	Bioaccess1.5pH	<150µm	18	RPD	0		20	Pass
Pb	T3	Bioaccess1.5pH	<150µm	18	% Rec	81	75	125	Pass
As	T3	Bioaccess1.5pH	<150µm	18	% Rec	90	75	125	Pass
Pb	T3	Bioaccess1.5pH	<150µm	18	%IVBA	77	75.2	96.2	Pass
Pb	T3	Bioaccess1.5pH	<150µm	18	<RL or <10x samples	0		0.05	Pass
As	T3	Bioaccess1.5pH	<150µm	18	<RL or <10x samples	0		0.01	Pass
Pb	T3	Bioaccess1.5pH	<150µm	18	% Rec	91	85	115	Pass
As	T3	Bioaccess1.5pH	<150µm	18	% Rec	108	85	115	Pass
Pb	T3	Bioaccess1.5pH	<150µm	19	RPD	3		20	Pass
As	T3	Bioaccess1.5pH	<150µm	19	RPD	0		20	Pass
Pb	T3	Bioaccess1.5pH	<150µm	19	% Rec	85	75	125	Pass
As	T3	Bioaccess1.5pH	<150µm	19	% Rec	98	75	125	Pass
Pb	T3	Bioaccess1.5pH	<150µm	19	%IVBA	77	75.2	96.2	Pass
Pb	T3	Bioaccess1.5pH	<150µm	19	<RL or <10x samples	0		0.05	Pass
As	T3	Bioaccess1.5pH	<150µm	19	<RL or <10x samples	0		0.01	Pass
Pb	T3	Bioaccess1.5pH	<150µm	19	% Rec	96	85	115	Pass
As	T3	Bioaccess1.5pH	<150µm	19	% Rec	108	85	115	Pass
Pb	T3	Bioaccess1.5pH	<150µm	20	RPD	1		20	Pass
As	T3	Bioaccess1.5pH	<150µm	20	RPD	0		20	Pass
Pb	T3	Bioaccess1.5pH	<150µm	20	% Rec	81	75	125	Pass
As	T3	Bioaccess1.5pH	<150µm	20	% Rec	95	75	125	Pass
Pb	T3	Bioaccess1.5pH	<150µm	20	%IVBA	77	75.2	96.2	Pass
Pb	T3	Bioaccess1.5pH	<150µm	20	<RL or <10x samples	0		0.05	Pass
As	T3	Bioaccess1.5pH	<150µm	20	<RL or <10x samples	0		0.01	Pass
Pb	T3	Bioaccess1.5pH	<150µm	20	% Rec	90	85	115	Pass
As	T3	Bioaccess1.5pH	<150µm	20	% Rec	105	85	115	Pass
Pb	T3	Bioaccess1.5pH	<150µm	21	RPD	7		20	Pass
As	T3	Bioaccess1.5pH	<150µm	21	RPD	0		20	Pass
Pb	T3	Bioaccess1.5pH	<150µm	21	% Rec	78	75	125	Pass
As	T3	Bioaccess1.5pH	<150µm	21	% Rec	91	75	125	Pass
Pb	T3	Bioaccess1.5pH	<150µm	21	%IVBA	77	75.2	96.2	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Pb	T3	Bioaccess1.5pH	<150µm	21	<RL or <10x samples	0		0.05	Pass
As	T3	Bioaccess1.5pH	<150µm	21	<RL or <10x samples	0		0.01	Pass
Pb	T3	Bioaccess1.5pH	<150µm	21	% Rec	93	85	115	Pass
As	T3	Bioaccess1.5pH	<150µm	21	% Rec	107	85	115	Pass
Pb	T3	Bioaccess1.5pH	<150µm	22	RPD	9		20	Pass
As	T3	Bioaccess1.5pH	<150µm	22	RPD	0		20	Pass
Pb	T3	Bioaccess1.5pH	<150µm	22	% Rec	84	75	125	Pass
As	T3	Bioaccess1.5pH	<150µm	22	% Rec	86	75	125	Pass
Pb	T3	Bioaccess1.5pH	<150µm	22	%IVBA	79	75.2	96.2	Pass
Pb	T3	Bioaccess1.5pH	<150µm	22	<RL or <10x samples	0		0.05	Pass
As	T3	Bioaccess1.5pH	<150µm	22	<RL or <10x samples	0		0.01	Pass
Pb	T3	Bioaccess1.5pH	<150µm	22	% Rec	94	85	115	Pass
As	T3	Bioaccess1.5pH	<150µm	22	% Rec	108	85	115	Pass
As	T1	Bioaccess2.5pH	<150um	1	RPD	7		20	Pass
As	T1	Bioaccess2.5pH	<150um	1	<RL	0		0.05	Pass
As	T1	Bioaccess2.5pH	<150um	1	% Rec	101	85	115	Pass
As	T1	Bioaccess2.5pH	<150um	2	RPD	4		20	Pass
As	T1	Bioaccess2.5pH	<150um	2	<RL	0		0.05	Pass
As	T1	Bioaccess2.5pH	<150um	2	% Rec	101	85	115	Pass
As	T1	Bioaccess2.5pH	<150um	3	RPD	0		20	Pass
As	T1	Bioaccess2.5pH	<150um	3	<RL	0		0.05	Pass
As	T1	Bioaccess2.5pH	<150um	3	% Rec	102	85	115	Pass
As	T1	Bioaccess2.5pH	<150um	4	RPD	16		20	Pass
As	T1	Bioaccess2.5pH	<150um	4	<RL	0		0.05	Pass
As	T1	Bioaccess2.5pH	<150um	4	% Rec	101	85	115	Pass
As	T1	Bioaccess2.5pH	<150um	5	RPD	12		20	Pass
As	T1	Bioaccess2.5pH	<150um	5	<RL	0		0.05	Pass
As	T1	Bioaccess2.5pH	<150um	5	% Rec	100	85	115	Pass
As	T1	Bioaccess2.5pH	<150um	6	RPD	7		20	Pass
As	T1	Bioaccess2.5pH	<150um	6	<RL	0		0.05	Pass
As	T1	Bioaccess2.5pH	<150um	6	% Rec	101	85	115	Pass
As	T1	Bioaccess2.5pH	<150um	7	RPD	12		20	Pass
As	T1	Bioaccess2.5pH	<150um	7	<RL	0		0.05	Pass
As	T1	Bioaccess2.5pH	<150um	7	% Rec	101	85	115	Pass
As	T1	Bioaccess2.5pH	<150um	8	RPD	3		20	Pass
As	T1	Bioaccess2.5pH	<150um	8	<RL	0		0.05	Pass
As	T1	Bioaccess2.5pH	<150um	8	% Rec	97	85	115	Pass
As	T1	Bioaccess2.5pH	<150um	9	RPD	2		20	Pass
As	T1	Bioaccess2.5pH	<150um	9	<RL	0		0.05	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
As	T1	Bioaccess2.5pH	<150um	9	% Rec	96	85	115	Pass
As	T1	Bioaccess2.5pH	<150um	10	RPD	6		20	Pass
As	T1	Bioaccess2.5pH	<150um	10	<RL	0		0.05	Pass
As	T1	Bioaccess2.5pH	<150um	10	% Rec	96	85	115	Pass
As	T1	Bioaccess2.5pH	<150um	11	RPD	2		20	Pass
As	T1	Bioaccess2.5pH	<150um	11	<RL	0		0.05	Pass
As	T1	Bioaccess2.5pH	<150um	11	% Rec	96	85	115	Pass
As	T1	Bioaccess2.5pH	<150um	12	RPD	5		20	Pass
As	T1	Bioaccess2.5pH	<150um	12	<RL	0		0.05	Pass
As	T1	Bioaccess2.5pH	<150um	12	% Rec	96	85	115	Pass
As	T1	Bioaccess2.5pH	<150um	13	RPD	5		20	Pass
As	T1	Bioaccess2.5pH	<150um	13	<RL	0		0.05	Pass
As	T1	Bioaccess2.5pH	<150um	13	% Rec	96	85	115	Pass
As	T1	Bioaccess2.5pH	<150um	14	RPD	5		20	Pass
As	T1	Bioaccess2.5pH	<150um	14	<RL	0		0.05	Pass
As	T1	Bioaccess2.5pH	<150um	14	% Rec	98	85	115	Pass
As	T1	Bioaccess2.5pH	<150um	15	RPD	6		20	Pass
As	T1	Bioaccess2.5pH	<150um	15	<RL	0		0.05	Pass
As	T1	Bioaccess2.5pH	<150um	15	% Rec	97	85	115	Pass
As	T1	Bioaccess2.5pH	<150um	16	RPD	5		20	Pass
As	T1	Bioaccess2.5pH	<150um	16	<RL	0		0.05	Pass
As	T1	Bioaccess2.5pH	<150um	16	% Rec	97	85	115	Pass
As	T1	Bioaccess2.5pH	<150um	17	RPD	4		20	Pass
As	T1	Bioaccess2.5pH	<150um	17	<RL	0		0.05	Pass
As	T1	Bioaccess2.5pH	<150um	17	% Rec	98	85	115	Pass
As	T1	Bioaccess2.5pH	<150um	18	RPD	8		20	Pass
As	T1	Bioaccess2.5pH	<150um	18	<RL	0		0.05	Pass
As	T1	Bioaccess2.5pH	<150um	18	% Rec	100	85	115	Pass
As	T1	Bioaccess2.5pH	<150um	19	RPD	0		20	Pass
As	T1	Bioaccess2.5pH	<150um	19	<RL	0		0.05	Pass
As	T1	Bioaccess2.5pH	<150um	19	% Rec	98	85	115	Pass
As	T1	Bioaccess2.5pH	<150um	20	RPD	6		20	Pass
As	T1	Bioaccess2.5pH	<150um	20	<RL	0		0.05	Pass
As	T1	Bioaccess2.5pH	<150um	20	% Rec	99	85	115	Pass
As	T1	Bioaccess2.5pH	<150um	21	RPD	18		20	Pass
As	T1	Bioaccess2.5pH	<150um	21	<RL	0		0.05	Pass
As	T1	Bioaccess2.5pH	<150um	21	% Rec	0	85	115	Fail
As	T1	Bioaccess2.5pH	<150um	22	RPD	8		20	Pass
As	T1	Bioaccess2.5pH	<150um	22	<RL	0		0.05	Pass
As	T1	Bioaccess2.5pH	<150um	22	% Rec	102	85	115	Pass
As	T1	Bioaccess2.5pH	<150um	23	RPD	5		20	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
As	T1	Bioaccess2.5pH	<150um	23	<RL	0		0.05	Pass
As	T1	Bioaccess2.5pH	<150um	23	% Rec	100	85	115	Pass
Pb	T1	Bioaccess2.5pH	<150um	1	RPD	1		20	Pass
Pb	T1	Bioaccess2.5pH	<150um	1	<RL	0		0.05	Pass
Pb	T1	Bioaccess2.5pH	<150um	1	% Rec	85	85	115	Pass
Pb	T1	Bioaccess2.5pH	<150um	2	RPD	1		20	Pass
Pb	T1	Bioaccess2.5pH	<150um	2	<RL	0		0.05	Pass
Pb	T1	Bioaccess2.5pH	<150um	2	% Rec	89	85	115	Pass
Pb	T1	Bioaccess2.5pH	<150um	3	RPD	2		20	Pass
Pb	T1	Bioaccess2.5pH	<150um	3	<RL	0		0.05	Pass
Pb	T1	Bioaccess2.5pH	<150um	3	% Rec	85	85	115	Pass
Pb	T1	Bioaccess2.5pH	<150um	4	RPD	1		20	Pass
Pb	T1	Bioaccess2.5pH	<150um	4	<RL	0		0.05	Pass
Pb	T1	Bioaccess2.5pH	<150um	4	% Rec	85	85	115	Pass
Pb	T1	Bioaccess2.5pH	<150um	5	RPD	2		20	Pass
Pb	T1	Bioaccess2.5pH	<150um	5	<RL	0		0.05	Pass
Pb	T1	Bioaccess2.5pH	<150um	5	% Rec	87	85	115	Pass
Pb	T1	Bioaccess2.5pH	<150um	6	RPD	0		20	Pass
Pb	T1	Bioaccess2.5pH	<150um	6	<RL	0		0.05	Pass
Pb	T1	Bioaccess2.5pH	<150um	6	% Rec	88	85	115	Pass
Pb	T1	Bioaccess2.5pH	<150um	7	RPD	0		20	Pass
Pb	T1	Bioaccess2.5pH	<150um	7	<RL	0		0.05	Pass
Pb	T1	Bioaccess2.5pH	<150um	7	% Rec	89	85	115	Pass
Pb	T1	Bioaccess2.5pH	<150um	8	RPD	2		20	Pass
Pb	T1	Bioaccess2.5pH	<150um	8	<RL	0		0.05	Pass
Pb	T1	Bioaccess2.5pH	<150um	8	% Rec	87	85	115	Pass
Pb	T1	Bioaccess2.5pH	<150um	9	RPD	1		20	Pass
Pb	T1	Bioaccess2.5pH	<150um	9	<RL	0		0.05	Pass
Pb	T1	Bioaccess2.5pH	<150um	9	% Rec	87	85	115	Pass
Pb	T1	Bioaccess2.5pH	<150um	10	RPD	3		20	Pass
Pb	T1	Bioaccess2.5pH	<150um	10	<RL	0		0.05	Pass
Pb	T1	Bioaccess2.5pH	<150um	10	% Rec	86	85	115	Pass
Pb	T1	Bioaccess2.5pH	<150um	11	RPD	1		20	Pass
Pb	T1	Bioaccess2.5pH	<150um	11	<RL	0		0.05	Pass
Pb	T1	Bioaccess2.5pH	<150um	11	% Rec	87	85	115	Pass
Pb	T1	Bioaccess2.5pH	<150um	12	RPD	3		20	Pass
Pb	T1	Bioaccess2.5pH	<150um	12	<RL	0		0.05	Pass
Pb	T1	Bioaccess2.5pH	<150um	12	% Rec	86	85	115	Pass
Pb	T1	Bioaccess2.5pH	<150um	13	RPD	1		20	Pass
Pb	T1	Bioaccess2.5pH	<150um	13	<RL	0		0.05	Pass
Pb	T1	Bioaccess2.5pH	<150um	13	% Rec	86	85	115	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Pb	T1	Bioaccess2.5pH	<150um	14	RPD	1		20	Pass
Pb	T1	Bioaccess2.5pH	<150um	14	<RL	0		0.05	Pass
Pb	T1	Bioaccess2.5pH	<150um	14	% Rec	85	85	115	Pass
Pb	T1	Bioaccess2.5pH	<150um	15	RPD	2		20	Pass
Pb	T1	Bioaccess2.5pH	<150um	15	<RL	0		0.05	Pass
Pb	T1	Bioaccess2.5pH	<150um	15	% Rec	86	85	115	Pass
Pb	T1	Bioaccess2.5pH	<150um	16	RPD	2		20	Pass
Pb	T1	Bioaccess2.5pH	<150um	16	<RL	0		0.05	Pass
Pb	T1	Bioaccess2.5pH	<150um	16	% Rec	86	85	115	Pass
Pb	T1	Bioaccess2.5pH	<150um	17	RPD	4		20	Pass
Pb	T1	Bioaccess2.5pH	<150um	17	<RL	0		0.05	Pass
Pb	T1	Bioaccess2.5pH	<150um	17	% Rec	88	85	115	Pass
Pb	T1	Bioaccess2.5pH	<150um	18	RPD	3		20	Pass
Pb	T1	Bioaccess2.5pH	<150um	18	<RL	0		0.05	Pass
Pb	T1	Bioaccess2.5pH	<150um	18	% Rec	92	85	115	Pass
Pb	T1	Bioaccess2.5pH	<150um	19	RPD	4		20	Pass
Pb	T1	Bioaccess2.5pH	<150um	19	<RL	0		0.05	Pass
Pb	T1	Bioaccess2.5pH	<150um	19	% Rec	89	85	115	Pass
Pb	T1	Bioaccess2.5pH	<150um	20	RPD	6		20	Pass
Pb	T1	Bioaccess2.5pH	<150um	20	<RL	0		0.05	Pass
Pb	T1	Bioaccess2.5pH	<150um	20	% Rec	90	85	115	Pass
Pb	T1	Bioaccess2.5pH	<150um	21	RPD	18		20	Pass
Pb	T1	Bioaccess2.5pH	<150um	21	<RL	0		0.05	Fail
Pb	T1	Bioaccess2.5pH	<150um	21	% Rec	0	85	115	Fail
Pb	T1	Bioaccess2.5pH	<150um	22	RPD	7		20	Pass
Pb	T1	Bioaccess2.5pH	<150um	22	<RL	0		0.05	Pass
Pb	T1	Bioaccess2.5pH	<150um	22	% Rec	94	85	115	Pass
Pb	T1	Bioaccess2.5pH	<150um	23	RPD	3		20	Pass
Pb	T1	Bioaccess2.5pH	<150um	23	<RL	0		0.05	Pass
Pb	T1	Bioaccess2.5pH	<150um	23	% Rec	91	85	115	Pass
As	T1	Bioaccess2.5pH	<150um	24	RPD	13		20	Pass
As	T1	Bioaccess2.5pH	<150um	24	<RL	0		0.05	Pass
As	T1	Bioaccess2.5pH	<150um	24	% Rec	109	85	115	Pass
Pb	T1	Bioaccess2.5pH	<150um	24	RPD	1		20	Pass
Pb	T1	Bioaccess2.5pH	<150um	24	<RL	0		0.05	Pass
Pb	T1	Bioaccess2.5pH	<150um	24	% Rec	94	85	115	Pass
As	T2	Bioaccess2.5pH	<150µm	1	<RL	0			Pass
Pb	T2	Bioaccess2.5pH	<150µm	1	<RL	1			Pass
As	T2	Bioaccess2.5pH	<150µm	1	% Rec	97	85	115	Pass
Pb	T2	Bioaccess2.5pH	<150µm	1	% Rec	86	85	115	Pass
As	T2	Bioaccess2.5pH	<150µm	1	% Rec	79	75	125	Pass

Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
As	T2	Bioaccess2.5pH	<150µm	1	% RPD	2		20	Pass
Pb	T2	Bioaccess2.5pH	<150µm	1	% RPD	4		20	Pass
As	T2	Bioaccess2.5pH	<150µm	2	<RL	0			Pass
Pb	T2	Bioaccess2.5pH	<150µm	2	<RL	1			Pass
As	T2	Bioaccess2.5pH	<150µm	2	% Rec	99	85	115	Pass
Pb	T2	Bioaccess2.5pH	<150µm	2	% Rec	92	85	115	Pass
As	T2	Bioaccess2.5pH	<150µm	2	% Rec	81	75	125	Pass
As	T2	Bioaccess2.5pH	<150µm	2	% RPD	9		20	Pass
Pb	T2	Bioaccess2.5pH	<150µm	2	% RPD	3		20	Pass
As	T2	Bioaccess2.5pH	<150µm	3	<RL	0			Pass
Pb	T2	Bioaccess2.5pH	<150µm	3	<RL	1			Pass
As	T2	Bioaccess2.5pH	<150µm	3	% Rec	98	85	115	Pass
Pb	T2	Bioaccess2.5pH	<150µm	3	% Rec	91	85	115	Pass
As	T2	Bioaccess2.5pH	<150µm	3	% Rec	81	75	125	Pass
As	T2	Bioaccess2.5pH	<150µm	3	% RPD	12		20	Pass
Pb	T2	Bioaccess2.5pH	<150µm	3	% RPD	2		20	Pass
As	T2	Bioaccess2.5pH	<150µm	4	<RL	0			Pass
Pb	T2	Bioaccess2.5pH	<150µm	4	<RL	1			Pass
As	T2	Bioaccess2.5pH	<150µm	4	% Rec	96	85	115	Pass
Pb	T2	Bioaccess2.5pH	<150µm	4	% Rec	88	85	115	Pass
As	T2	Bioaccess2.5pH	<150µm	4	% Rec	83	75	125	Pass
As	T2	Bioaccess2.5pH	<150µm	4	% RPD	6		20	Pass
Pb	T2	Bioaccess2.5pH	<150µm	4	% RPD	1		20	Pass
As	T2	Bioaccess2.5pH	<150µm	5	<RL	0			Pass
Pb	T2	Bioaccess2.5pH	<150µm	5	<RL	1			Pass
As	T2	Bioaccess2.5pH	<150µm	5	% Rec	98	85	115	Pass
Pb	T2	Bioaccess2.5pH	<150µm	5	% Rec	91	85	115	Pass
As	T2	Bioaccess2.5pH	<150µm	5	% Rec	78	75	125	Pass
As	T2	Bioaccess2.5pH	<150µm	5	% RPD	2		20	Pass
Pb	T2	Bioaccess2.5pH	<150µm	5	% RPD	4		20	Pass
As	T2	Bioaccess2.5pH	<150µm	6	<RL	0			Pass
Pb	T2	Bioaccess2.5pH	<150µm	6	<RL	1			Pass
As	T2	Bioaccess2.5pH	<150µm	6	% Rec	97	85	115	Pass
Pb	T2	Bioaccess2.5pH	<150µm	6	% Rec	90	85	115	Pass
As	T2	Bioaccess2.5pH	<150µm	6	% Rec	77	75	125	Pass
As	T2	Bioaccess2.5pH	<150µm	6	% RPD	3		20	Pass
Pb	T2	Bioaccess2.5pH	<150µm	6	% RPD	2		20	Pass
As	T2	Bioaccess2.5pH	<150µm	7	<RL	0			Pass
Pb	T2	Bioaccess2.5pH	<150µm	7	<RL	1			Pass
As	T2	Bioaccess2.5pH	<150µm	7	% Rec	100	85	115	Pass
Pb	T2	Bioaccess2.5pH	<150µm	7	% Rec	93	85	115	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
As	T2	Bioaccess2.5pH	<150µm	7	% Rec	78	75	125	Pass
As	T2	Bioaccess2.5pH	<150µm	7	% RPD	1		20	Pass
Pb	T2	Bioaccess2.5pH	<150µm	7	% RPD	1		20	Pass
As	T2	Bioaccess2.5pH	<150µm	8	<RL	0			Pass
Pb	T2	Bioaccess2.5pH	<150µm	8	<RL	1			Pass
As	T2	Bioaccess2.5pH	<150µm	8	% Rec	100	85	115	Pass
Pb	T2	Bioaccess2.5pH	<150µm	8	% Rec	94	85	115	Pass
As	T2	Bioaccess2.5pH	<150µm	8	% Rec	79	75	125	Pass
As	T2	Bioaccess2.5pH	<150µm	8	% RPD	3		20	Pass
Pb	T2	Bioaccess2.5pH	<150µm	8	% RPD	0		20	Pass
As	T2	Bioaccess2.5pH	<150µm	9	<RL	0			Pass
Pb	T2	Bioaccess2.5pH	<150µm	9	<RL	1			Pass
As	T2	Bioaccess2.5pH	<150µm	9	% Rec	96	85	115	Pass
Pb	T2	Bioaccess2.5pH	<150µm	9	% Rec	92	85	115	Pass
As	T2	Bioaccess2.5pH	<150µm	9	% RPD	6		20	Pass
Pb	T2	Bioaccess2.5pH	<150µm	9	% RPD	1		20	Pass
As	T2	Bioaccess2.5pH	<150µm	10	<RL	0			Pass
Pb	T2	Bioaccess2.5pH	<150µm	10	<RL	1			Pass
As	T2	Bioaccess2.5pH	<150µm	10	% Rec	95	85	115	Pass
Pb	T2	Bioaccess2.5pH	<150µm	10	% Rec	91	85	115	Pass
As	T2	Bioaccess2.5pH	<150µm	10	% RPD	1		20	Pass
Pb	T2	Bioaccess2.5pH	<150µm	10	% RPD	5		20	Pass
As	T2	Bioaccess2.5pH	<150µm	11	<RL	0			Pass
Pb	T2	Bioaccess2.5pH	<150µm	11	<RL	1			Pass
As	T2	Bioaccess2.5pH	<150µm	11	% Rec	94	85	115	Pass
Pb	T2	Bioaccess2.5pH	<150µm	11	% Rec	90	85	115	Pass
As	T2	Bioaccess2.5pH	<150µm	11	% RPD	2		20	Pass
Pb	T2	Bioaccess2.5pH	<150µm	11	% RPD	1		20	Pass
As	T2	Bioaccess2.5pH	<150µm	12	<RL	0			Pass
Pb	T2	Bioaccess2.5pH	<150µm	12	<RL	1			Pass
As	T2	Bioaccess2.5pH	<150µm	12	% Rec	95	85	115	Pass
Pb	T2	Bioaccess2.5pH	<150µm	12	% Rec	91	85	115	Pass
As	T2	Bioaccess2.5pH	<150µm	12	% RPD	4		20	Pass
Pb	T2	Bioaccess2.5pH	<150µm	12	% RPD	2		20	Pass
As	T2	Bioaccess2.5pH	<150µm	13	<RL	0			Pass
Pb	T2	Bioaccess2.5pH	<150µm	13	<RL	1			Pass
As	T2	Bioaccess2.5pH	<150µm	13	% Rec	95	85	115	Pass
Pb	T2	Bioaccess2.5pH	<150µm	13	% Rec	88	85	115	Pass
As	T2	Bioaccess2.5pH	<150µm	13	% RPD	1		20	Pass
Pb	T2	Bioaccess2.5pH	<150µm	13	% RPD	2		20	Pass
As	T2	Bioaccess2.5pH	<150µm	14	<RL	0			Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Pb	T2	Bioaccess2.5pH	<150µm	14	<RL	1			Pass
As	T2	Bioaccess2.5pH	<150µm	14	% Rec	95	85	115	Pass
Pb	T2	Bioaccess2.5pH	<150µm	14	% Rec	87	85	115	Pass
As	T2	Bioaccess2.5pH	<150µm	14	% RPD	8		20	Pass
Pb	T2	Bioaccess2.5pH	<150µm	14	% RPD	4		20	Pass
As	T2	Bioaccess2.5pH	<150µm	15	<RL	0			Pass
Pb	T2	Bioaccess2.5pH	<150µm	15	<RL	1			Pass
As	T2	Bioaccess2.5pH	<150µm	15	% Rec	96	85	115	Pass
Pb	T2	Bioaccess2.5pH	<150µm	15	% Rec	89	85	115	Pass
As	T2	Bioaccess2.5pH	<150µm	15	% RPD	13		20	Pass
Pb	T2	Bioaccess2.5pH	<150µm	15	% RPD	13		20	Pass
As	T2	Bioaccess2.5pH	<150µm	16	<RL	0			Pass
Pb	T2	Bioaccess2.5pH	<150µm	16	<RL	1			Pass
As	T2	Bioaccess2.5pH	<150µm	16	% Rec	98	85	115	Pass
Pb	T2	Bioaccess2.5pH	<150µm	16	% Rec	91	85	115	Pass
As	T2	Bioaccess2.5pH	<150µm	16	% RPD	4		20	Pass
Pb	T2	Bioaccess2.5pH	<150µm	16	% RPD	2		20	Pass
As	T2	Bioaccess2.5pH	<150µm	17	<RL	0			Pass
Pb	T2	Bioaccess2.5pH	<150µm	17	<RL	1			Pass
As	T2	Bioaccess2.5pH	<150µm	17	% Rec	95	85	115	Pass
Pb	T2	Bioaccess2.5pH	<150µm	17	% Rec	85	85	115	Pass
As	T2	Bioaccess2.5pH	<150µm	17	% RPD	1		20	Pass
Pb	T2	Bioaccess2.5pH	<150µm	17	% RPD	2		20	Pass
As	T2	Bioaccess2.5pH	<150µm	18	<RL	0			Pass
Pb	T2	Bioaccess2.5pH	<150µm	18	<RL	1			Pass
As	T2	Bioaccess2.5pH	<150µm	18	% Rec	98	85	115	Pass
Pb	T2	Bioaccess2.5pH	<150µm	18	% Rec	92	85	115	Pass
As	T2	Bioaccess2.5pH	<150µm	18	% RPD	4		20	Pass
Pb	T2	Bioaccess2.5pH	<150µm	18	% RPD	1		20	Pass
As	T2	Bioaccess2.5pH	<150µm	19	<RL	0			Pass
Pb	T2	Bioaccess2.5pH	<150µm	19	<RL	1			Pass
As	T2	Bioaccess2.5pH	<150µm	19	% Rec	108	85	115	Pass
Pb	T2	Bioaccess2.5pH	<150µm	19	% Rec	103	85	115	Pass
As	T2	Bioaccess2.5pH	<150µm	19	% RPD	1		20	Pass
Pb	T2	Bioaccess2.5pH	<150µm	19	% RPD	0		20	Pass
As	T2	Bioaccess2.5pH	<150µm	20	<RL	0			Pass
Pb	T2	Bioaccess2.5pH	<150µm	20	<RL	1			Pass
As	T2	Bioaccess2.5pH	<150µm	20	% Rec	106	85	115	Pass
Pb	T2	Bioaccess2.5pH	<150µm	20	% Rec	101	85	115	Pass
As	T2	Bioaccess2.5pH	<150µm	20	% RPD	10		20	Pass
Pb	T2	Bioaccess2.5pH	<150µm	20	% RPD	1		20	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
As	T2	Bioaccess2.5pH	<150µm	21	<RL	0			Pass
Pb	T2	Bioaccess2.5pH	<150µm	21	<RL	1			Pass
As	T2	Bioaccess2.5pH	<150µm	21	% Rec	108	85	115	Pass
Pb	T2	Bioaccess2.5pH	<150µm	21	% Rec	103	85	115	Pass
As	T2	Bioaccess2.5pH	<150µm	21	% RPD	14		20	Pass
Pb	T2	Bioaccess2.5pH	<150µm	21	% RPD	0		20	Pass
As	T2	Bioaccess2.5pH	<150µm	22	<RL	0			Pass
Pb	T2	Bioaccess2.5pH	<150µm	22	<RL	1			Pass
As	T2	Bioaccess2.5pH	<150µm	22	% Rec	102	85	115	Pass
Pb	T2	Bioaccess2.5pH	<150µm	22	% Rec	97	85	115	Pass
As	T2	Bioaccess2.5pH	<150µm	22	% RPD	8		20	Pass
Pb	T2	Bioaccess2.5pH	<150µm	22	% RPD	1		20	Pass
As	T3	Bioaccess2.5pH	<150µm	23	% RPD	3		20	Pass
As	T3	Bioaccess2.5pH	<150µm	23	% Rec	84	75	125	Pass
As	T3	Bioaccess2.5pH	<150µm	23	<RL or <10x samples	0		0.04	Pass
As	T3	Bioaccess2.5pH	<150µm	23	% Rec	105	85	115	Pass
As	T3	Bioaccess2.5pH	<150µm	24	% RPD	2		20	Pass
As	T3	Bioaccess2.5pH	<150µm	24	% Rec	85	75	125	Pass
As	T3	Bioaccess2.5pH	<150µm	24	<RL or <10x samples	0		0.04	Pass
As	T3	Bioaccess2.5pH	<150µm	24	% Rec	108	85	115	Pass
As	T3	Bioaccess2.5pH	<150µm	25	% RPD	3		20	Pass
As	T3	Bioaccess2.5pH	<150µm	25	% Rec	90	75	125	Pass
As	T3	Bioaccess2.5pH	<150µm	25	<RL or <10x samples	0		0.04	Pass
As	T3	Bioaccess2.5pH	<150µm	25	% Rec	106	85	115	Pass
As	T3	Bioaccess2.5pH	<150µm	26	% RPD	1		20	Pass
As	T3	Bioaccess2.5pH	<150µm	26	% Rec	89	75	125	Pass
As	T3	Bioaccess2.5pH	<150µm	26	<RL or <10x samples	0		0.04	Pass
As	T3	Bioaccess2.5pH	<150µm	26	% Rec	107	85	115	Pass
As	T3	Bioaccess2.5pH	<150µm	27	% RPD	4		20	Pass
As	T3	Bioaccess2.5pH	<150µm	27	% Rec	86	75	125	Pass
As	T3	Bioaccess2.5pH	<150µm	27	<RL or <10x samples	0		0.04	Pass
As	T3	Bioaccess2.5pH	<150µm	27	% Rec	108	85	115	Pass
As	T3	Bioaccess2.5pH	<150µm	28	% RPD	2		20	Pass
As	T3	Bioaccess2.5pH	<150µm	28	% Rec	91	75	125	Pass
As	T3	Bioaccess2.5pH	<150µm	28	<RL or <10x samples	0		0.04	Pass
As	T3	Bioaccess2.5pH	<150µm	28	% Rec	103	85	115	Pass
As	T3	Bioaccess2.5pH	<150µm	29	% RPD	2		20	Pass
As	T3	Bioaccess2.5pH	<150µm	29	% Rec	84	75	125	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
As	T3	Bioaccess2.5pH	<150µm	29	<RL or <10x samples	0		0.04	Pass
As	T3	Bioaccess2.5pH	<150µm	29	% Rec	109	85	115	Pass
As	T3	Bioaccess2.5pH	<150µm	30	% RPD	3		20	Pass
As	T3	Bioaccess2.5pH	<150µm	30	% Rec	94	75	125	Pass
As	T3	Bioaccess2.5pH	<150µm	30	<RL or <10x samples	0		0.04	Pass
As	T3	Bioaccess2.5pH	<150µm	30	% Rec	108	85	115	Pass
As	T3	Bioaccess2.5pH	<150µm	31	% RPD	4		20	Pass
As	T3	Bioaccess2.5pH	<150µm	31	% Rec	92	75	125	Pass
As	T3	Bioaccess2.5pH	<150µm	31	<RL or <10x samples	0		0.04	Pass
As	T3	Bioaccess2.5pH	<150µm	31	% Rec	111	85	115	Pass
As	T3	Bioaccess2.5pH	<150µm	32	% RPD	2		20	Pass
As	T3	Bioaccess2.5pH	<150µm	32	% Rec	87	75	125	Pass
As	T3	Bioaccess2.5pH	<150µm	32	<RL or <10x samples	0		0.04	Pass
As	T3	Bioaccess2.5pH	<150µm	32	% Rec	111	85	115	Pass
As	T3	Bioaccess2.5pH	<150µm	33	% RPD	6		20	Pass
As	T3	Bioaccess2.5pH	<150µm	33	% Rec	94	75	125	Pass
As	T3	Bioaccess2.5pH	<150µm	33	<RL or <10x samples	0		0.04	Pass
As	T3	Bioaccess2.5pH	<150µm	33	% Rec	111	85	115	Pass
As	T3	Bioaccess2.5pH	<150µm	34	% RPD	9		20	Pass
As	T3	Bioaccess2.5pH	<150µm	34	% Rec	82	75	125	Pass
As	T3	Bioaccess2.5pH	<150µm	34	<RL or <10x samples	0		0.04	Pass
As	T3	Bioaccess2.5pH	<150µm	34	% Rec	108	85	115	Pass
As	T3	Bioaccess2.5pH	<150µm	35	% RPD	6		20	Pass
As	T3	Bioaccess2.5pH	<150µm	35	% Rec	96	75	125	Pass
As	T3	Bioaccess2.5pH	<150µm	35	<RL or <10x samples	0		0.04	Pass
As	T3	Bioaccess2.5pH	<150µm	35	% Rec	109	85	115	Pass
As	T3	Bioaccess2.5pH	<150µm	36	% RPD	3		20	Pass
As	T3	Bioaccess2.5pH	<150µm	36	% Rec	93	75	125	Pass
As	T3	Bioaccess2.5pH	<150µm	36	<RL or <10x samples	0		0.04	Pass
As	T3	Bioaccess2.5pH	<150µm	36	% Rec	109	85	115	Pass
As	T3	Bioaccess2.5pH	<150µm	37	% RPD	7		20	Pass
As	T3	Bioaccess2.5pH	<150µm	37	% Rec	85	75	125	Pass
As	T3	Bioaccess2.5pH	<150µm	37	<RL or <10x samples	0		0.04	Pass
As	T3	Bioaccess2.5pH	<150µm	37	% Rec	109	85	115	Pass
As	T3	Bioaccess2.5pH	<150µm	38	% RPD	12		20	Pass
As	T3	Bioaccess2.5pH	<150µm	38	% Rec	80	75	125	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
As	T3	Bioaccess2.5pH	<150µm	38	<RL or <10x samples	0		0.04	Pass
As	T3	Bioaccess2.5pH	<150µm	38	% Rec	106	85	115	Pass
As	T3	Bioaccess2.5pH	<150µm	39	% RPD	11		20	Pass
As	T3	Bioaccess2.5pH	<150µm	39	% Rec	84	75	125	Pass
As	T3	Bioaccess2.5pH	<150µm	39	<RL or <10x samples	0		0.04	Pass
As	T3	Bioaccess2.5pH	<150µm	39	% Rec	111	85	115	Pass
As	T3	Bioaccess2.5pH	<150µm	40	% RPD	7		20	Pass
As	T3	Bioaccess2.5pH	<150µm	40	% Rec	86	75	125	Pass
As	T3	Bioaccess2.5pH	<150µm	40	<RL or <10x samples	0		0.04	Pass
As	T3	Bioaccess2.5pH	<150µm	40	% Rec	108	85	115	Pass
As	T3	Bioaccess2.5pH	<150µm	41	% RPD	1		20	Pass
As	T3	Bioaccess2.5pH	<150µm	41	% Rec	89	75	125	Pass
As	T3	Bioaccess2.5pH	<150µm	41	<RL or <10x samples	0		0.04	Pass
As	T3	Bioaccess2.5pH	<150µm	41	% Rec	106	85	115	Pass
As	T3	Bioaccess2.5pH	<150µm	42	% RPD	6		20	Pass
As	T3	Bioaccess2.5pH	<150µm	42	% Rec	93	75	125	Pass
As	T3	Bioaccess2.5pH	<150µm	42	<RL or <10x samples	0		0.04	Pass
As	T3	Bioaccess2.5pH	<150µm	42	% Rec	101	85	115	Pass
As	T3	Bioaccess2.5pH	<150µm	43	% RPD	2		20	Pass
As	T3	Bioaccess2.5pH	<150µm	43	% Rec	81	75	125	Pass
As	T3	Bioaccess2.5pH	<150µm	43	<RL or <10x samples	0		0.04	Pass
As	T3	Bioaccess2.5pH	<150µm	43	% Rec	107	85	115	Pass
As	T3	Bioaccess2.5pH	<150µm	44	% RPD	8		20	Pass
As	T3	Bioaccess2.5pH	<150µm	44	% Rec	84	75	125	Pass
As	T3	Bioaccess2.5pH	<150µm	44	<RL or <10x samples	0		0.04	Pass
As	T3	Bioaccess2.5pH	<150µm	44	% Rec	110	85	115	Pass
Pb	T3	Bioaccess2.5pH	<150µm	23	% RPD	1		20	Pass
Pb	T3	Bioaccess2.5pH	<150µm	23	<RL or <10x samples	0		0.04	Pass
Pb	T3	Bioaccess2.5pH	<150µm	23	% Rec	89	85	115	Pass
Pb	T3	Bioaccess2.5pH	<150µm	24	% RPD	1		20	Pass
Pb	T3	Bioaccess2.5pH	<150µm	24	<RL or <10x samples	0		0.04	Pass
Pb	T3	Bioaccess2.5pH	<150µm	24	% Rec	92	85	115	Pass
Pb	T3	Bioaccess2.5pH	<150µm	25	% RPD	1		20	Pass
Pb	T3	Bioaccess2.5pH	<150µm	25	<RL or <10x samples	0		0.04	Pass
Pb	T3	Bioaccess2.5pH	<150µm	25	% Rec	89	85	115	Pass
Pb	T3	Bioaccess2.5pH	<150µm	26	% RPD	2		20	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Pb	T3	Bioaccess2.5pH	<150µm	26	<RL or <10x samples	0		0.04	Pass
Pb	T3	Bioaccess2.5pH	<150µm	26	% Rec	91	85	115	Pass
Pb	T3	Bioaccess2.5pH	<150µm	27	% RPD	0		20	Pass
Pb	T3	Bioaccess2.5pH	<150µm	27	<RL or <10x samples	0		0.04	Pass
Pb	T3	Bioaccess2.5pH	<150µm	27	% Rec	90	85	115	Pass
Pb	T3	Bioaccess2.5pH	<150µm	28	% RPD	0		20	Pass
Pb	T3	Bioaccess2.5pH	<150µm	28	<RL or <10x samples	0		0.04	Pass
Pb	T3	Bioaccess2.5pH	<150µm	28	% Rec	86	85	115	Pass
Pb	T3	Bioaccess2.5pH	<150µm	29	% RPD	2		20	Pass
Pb	T3	Bioaccess2.5pH	<150µm	29	<RL or <10x samples	0		0.04	Pass
Pb	T3	Bioaccess2.5pH	<150µm	29	% Rec	92	85	115	Pass
Pb	T3	Bioaccess2.5pH	<150µm	30	% RPD	1		20	Pass
Pb	T3	Bioaccess2.5pH	<150µm	30	<RL or <10x samples	0		0.04	Pass
Pb	T3	Bioaccess2.5pH	<150µm	30	% Rec	91	85	115	Pass
Pb	T3	Bioaccess2.5pH	<150µm	31	% RPD	3		20	Pass
Pb	T3	Bioaccess2.5pH	<150µm	31	<RL or <10x samples	0		0.04	Pass
Pb	T3	Bioaccess2.5pH	<150µm	31	% Rec	92	85	115	Pass
Pb	T3	Bioaccess2.5pH	<150µm	32	% RPD	1		20	Pass
Pb	T3	Bioaccess2.5pH	<150µm	32	<RL or <10x samples	0		0.04	Pass
Pb	T3	Bioaccess2.5pH	<150µm	32	% Rec	94	85	115	Pass
Pb	T3	Bioaccess2.5pH	<150µm	33	% RPD	0		20	Pass
Pb	T3	Bioaccess2.5pH	<150µm	33	<RL or <10x samples	0		0.04	Pass
Pb	T3	Bioaccess2.5pH	<150µm	33	% Rec	94	85	115	Pass
Pb	T3	Bioaccess2.5pH	<150µm	34	% RPD	3		20	Pass
Pb	T3	Bioaccess2.5pH	<150µm	34	<RL or <10x samples	0		0.04	Pass
Pb	T3	Bioaccess2.5pH	<150µm	34	% Rec	91	85	115	Pass
Pb	T3	Bioaccess2.5pH	<150µm	35	% RPD	0		20	Pass
Pb	T3	Bioaccess2.5pH	<150µm	35	<RL or <10x samples	0		0.04	Pass
Pb	T3	Bioaccess2.5pH	<150µm	35	% Rec	92	85	115	Pass
Pb	T3	Bioaccess2.5pH	<150µm	36	% RPD	1		20	Pass
Pb	T3	Bioaccess2.5pH	<150µm	36	<RL or <10x samples	0		0.04	Pass
Pb	T3	Bioaccess2.5pH	<150µm	36	% Rec	93	85	115	Pass
Pb	T3	Bioaccess2.5pH	<150µm	37	% RPD	1		20	Pass
Pb	T3	Bioaccess2.5pH	<150µm	37	<RL or <10x samples	0		0.04	Pass
Pb	T3	Bioaccess2.5pH	<150µm	37	% Rec	92	85	115	Pass

Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Pb	T3	Bioaccess2.5pH	<150µm	38	% RPD	1		20	Pass
Pb	T3	Bioaccess2.5pH	<150µm	38	<RL or <10x samples	0		0.04	Pass
Pb	T3	Bioaccess2.5pH	<150µm	38	% Rec	89	85	115	Pass
Pb	T3	Bioaccess2.5pH	<150µm	39	% RPD	2		20	Pass
Pb	T3	Bioaccess2.5pH	<150µm	39	<RL or <10x samples	0		0.04	Pass
Pb	T3	Bioaccess2.5pH	<150µm	39	% Rec	94	85	115	Pass
Pb	T3	Bioaccess2.5pH	<150µm	40	% RPD	1		20	Pass
Pb	T3	Bioaccess2.5pH	<150µm	40	<RL or <10x samples	0		0.04	Pass
Pb	T3	Bioaccess2.5pH	<150µm	40	% Rec	91	85	115	Pass
Pb	T3	Bioaccess2.5pH	<150µm	41	% RPD	5		20	Pass
Pb	T3	Bioaccess2.5pH	<150µm	41	<RL or <10x samples	0		0.04	Pass
Pb	T3	Bioaccess2.5pH	<150µm	41	% Rec	88	85	115	Pass
Pb	T3	Bioaccess2.5pH	<150µm	42	% RPD	3		20	Pass
Pb	T3	Bioaccess2.5pH	<150µm	42	<RL or <10x samples	0		0.04	Pass
Pb	T3	Bioaccess2.5pH	<150µm	42	% Rec	85	85	115	Pass
Pb	T3	Bioaccess2.5pH	<150µm	43	% RPD	4		20	Pass
Pb	T3	Bioaccess2.5pH	<150µm	43	<RL or <10x samples	0		0.04	Pass
Pb	T3	Bioaccess2.5pH	<150µm	43	% Rec	91	85	115	Pass
Pb	T3	Bioaccess2.5pH	<150µm	44	% RPD	0		20	Pass
Pb	T3	Bioaccess2.5pH	<150µm	44	<RL or <10x samples	0		0.04	Pass
Pb	T3	Bioaccess2.5pH	<150µm	44	% Rec	93	85	115	Pass
As	T3	Bioaccess2.5pH	<150µm	45	RPD	1		20	Pass
As	T3	Bioaccess2.5pH	<150µm	45	NA	87	75	125	Pass
As	T3	Bioaccess2.5pH	<150µm	45	<RL	0			Pass
As	T3	Bioaccess2.5pH	<150µm	45	% Rec	110	85	115	Pass
As	T3	Bioaccess2.5pH	<150µm	46	RPD	4		20	Pass
As	T3	Bioaccess2.5pH	<150µm	46	NA	98	75	125	Pass
As	T3	Bioaccess2.5pH	<150µm	46	<RL	0			Pass
As	T3	Bioaccess2.5pH	<150µm	46	% Rec	111	85	115	Pass
As	T3	Bioaccess2.5pH	<150µm	47	RPD	5		20	Pass
As	T3	Bioaccess2.5pH	<150µm	47	NA	97	75	125	Pass
As	T3	Bioaccess2.5pH	<150µm	47	<RL	0			Pass
As	T3	Bioaccess2.5pH	<150µm	47	% Rec	109	85	115	Pass
As	T3	Bioaccess2.5pH	<150µm	48	RPD	2		20	Pass
As	T3	Bioaccess2.5pH	<150µm	48	NA	91	75	125	Pass
As	T3	Bioaccess2.5pH	<150µm	48	<RL	0			Pass
As	T3	Bioaccess2.5pH	<150µm	48	% Rec	107	85	115	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
As	T3	Bioaccess2.5pH	<150µm	49	RPD	2		20	Pass
As	T3	Bioaccess2.5pH	<150µm	49	NA	75	75	125	Pass
As	T3	Bioaccess2.5pH	<150µm	49	<RL	0			Pass
As	T3	Bioaccess2.5pH	<150µm	49	% Rec	98	85	115	Pass
Pb	T3	Bioaccess2.5pH	<150µm	45	RPD	4		20	Pass
Pb	T3	Bioaccess2.5pH	<150µm	45	<RL	0			Pass
Pb	T3	Bioaccess2.5pH	<150µm	45	% Rec	98	85	115	Pass
Pb	T3	Bioaccess2.5pH	<150µm	46	RPD	1		20	Pass
Pb	T3	Bioaccess2.5pH	<150µm	46	<RL	0			Pass
Pb	T3	Bioaccess2.5pH	<150µm	46	% Rec	97	85	115	Pass
Pb	T3	Bioaccess2.5pH	<150µm	47	RPD	4		20	Pass
Pb	T3	Bioaccess2.5pH	<150µm	47	<RL	0			Pass
Pb	T3	Bioaccess2.5pH	<150µm	47	% Rec	90	85	115	Pass
Pb	T3	Bioaccess2.5pH	<150µm	48	RPD	1		20	Pass
Pb	T3	Bioaccess2.5pH	<150µm	48	<RL	0			Pass
Pb	T3	Bioaccess2.5pH	<150µm	48	% Rec	85	85	115	Pass
Pb	T3	Bioaccess2.5pH	<150µm	49	RPD	2		20	Pass
Pb	T3	Bioaccess2.5pH	<150µm	49	<RL	0			Pass
Pb	T3	Bioaccess2.5pH	<150µm	49	% Rec	91	85	115	Pass
N	T1	BREMNER82	<2mm	1	RPD	12		20	Pass
N	T1	BREMNER82	<2mm	2	RPD	16		20	Pass
N	T1	BREMNER82	<2mm	3	RPD	9		20	Pass
N	T1	BREMNER82	<2mm	4	RPD	15		20	Pass
N	T1	BREMNER82	<2mm	4b	RPD	2		20	Pass
N	T2	BREMNER82	<2mm	1	RPD	9		20	Pass
N	T2	BREMNER82	<2mm	2	RPD	12		20	Pass
N	T2	BREMNER82	<2mm	3	RPD	16		20	Pass
N	T3	BREMNER82	<2mm	1	RPD	14		20	Pass
N	T3	BREMNER82	<2mm	2	RPD	12		20	Pass
N	T3	BREMNER82	<2mm	3	RPD	1		20	Pass
As	T1	EPA6010	<150um	1	RPD	0		20	Pass
As	T1	EPA6010	<150um	1	% Rec	111	75	125	Pass
As	T1	EPA6010	<150um	1	mg/kg	168	110	189	Pass
As	T1	EPA6010	<150um	1	<RL	0		0.05	Pass
As	T1	EPA6010	<150um	1	<RL or <10x sample	0		0.05	Pass
As	T1	EPA6010	<150um	1	% Rec	91	80	120	Pass
As	T1	EPA6010	<150um	2	RPD	5		20	Pass
As	T1	EPA6010	<150um	2	% Rec	108	75	125	Pass
As	T1	EPA6010	<150um	2	mg/kg	165	110	189	Pass
As	T1	EPA6010	<150um	2	<RL	0		0.05	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
As	T1	EPA6010	<150um	2	<RL or <10x sample	0		0.05	Pass
As	T1	EPA6010	<150um	2	% Rec	93	80	120	Pass
As	T1	EPA6010	<150um	3	RPD	0		20	Pass
As	T1	EPA6010	<150um	3	% Rec	110	75	125	Pass
As	T1	EPA6010	<150um	3	mg/kg	167	110	189	Pass
As	T1	EPA6010	<150um	3	<RL	0		0.05	Pass
As	T1	EPA6010	<150um	3	<RL or <10x sample	0		0.05	Pass
As	T1	EPA6010	<150um	3	% Rec	89	80	120	Pass
As	T1	EPA6010	<150um	4	RPD	2		20	Pass
As	T1	EPA6010	<150um	4	% Rec	106	75	125	Pass
As	T1	EPA6010	<150um	4	mg/kg	166	110	189	Pass
As	T1	EPA6010	<150um	4	<RL	0		0.05	Pass
As	T1	EPA6010	<150um	4	<RL or <10x sample	0		0.05	Pass
As	T1	EPA6010	<150um	4	% Rec	94	80	120	Pass
As	T1	EPA6010	<150um	5	RPD	1		20	Pass
As	T1	EPA6010	<150um	5	% Rec	125	75	125	Pass
As	T1	EPA6010	<150um	5	mg/kg	172	110	189	Pass
As	T1	EPA6010	<150um	5	<RL	0		0.05	Pass
As	T1	EPA6010	<150um	5	<RL or <10x sample	0		0.05	Pass
As	T1	EPA6010	<150um	5	% Rec	93	80	120	Pass
As	T1	EPA6010	<150um	6	RPD	2		20	Pass
As	T1	EPA6010	<150um	6	% Rec	111	75	125	Pass
As	T1	EPA6010	<150um	6	mg/kg	177	110	189	Pass
As	T1	EPA6010	<150um	6	<RL	0		0.05	Pass
As	T1	EPA6010	<150um	6	<RL or <10x sample	0		0.05	Pass
As	T1	EPA6010	<150um	6	% Rec	98	80	120	Pass
Pb	T1	EPA6010	<150um	1	RPD	1		20	Pass
Pb	T1	EPA6010	<150um	1	% Rec	123	75	125	Pass
Pb	T1	EPA6010	<150um	1	mg/kg	116	78.6	139	Pass
Pb	T1	EPA6010	<150um	1	<RL	0		0.05	Pass
Pb	T1	EPA6010	<150um	1	<RL or <10x sample	0		0.05	Pass
Pb	T1	EPA6010	<150um	1	% Rec	110	80	120	Pass
Pb	T1	EPA6010	<150um	2	RPD	6		20	Pass
Pb	T1	EPA6010	<150um	2	% Rec	49	75	125	Fail
Pb	T1	EPA6010	<150um	2	mg/kg	116	78.6	139	Pass
Pb	T1	EPA6010	<150um	2	<RL	0		0.05	Pass
Pb	T1	EPA6010	<150um	2	<RL or <10x sample	0		0.05	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Pb	T1	EPA6010	<150um	2	% Rec	103	80	120	Pass
Pb	T1	EPA6010	<150um	3	RPD	0		20	Pass
Pb	T1	EPA6010	<150um	3	% Rec	86	75	125	Pass
Pb	T1	EPA6010	<150um	3	mg/kg	120	78.6	139	Pass
Pb	T1	EPA6010	<150um	3	<RL	0		0.05	Pass
Pb	T1	EPA6010	<150um	3	<RL or <10x sample	0		0.05	Pass
Pb	T1	EPA6010	<150um	3	% Rec	114	80	120	Pass
Pb	T1	EPA6010	<150um	4	RPD	1		20	Pass
Pb	T1	EPA6010	<150um	4	% Rec	74	75	125	Fail
Pb	T1	EPA6010	<150um	4	mg/kg	110	78.6	139	Pass
Pb	T1	EPA6010	<150um	4	<RL	0		0.05	Pass
Pb	T1	EPA6010	<150um	4	<RL or <10x sample	0		0.05	Pass
Pb	T1	EPA6010	<150um	4	% Rec	121	80	120	Fail
Pb	T1	EPA6010	<150um	5	RPD	0		20	Pass
Pb	T1	EPA6010	<150um	5	% Rec	133	75	125	Fail
Pb	T1	EPA6010	<150um	5	mg/kg	116	78.6	139	Pass
Pb	T1	EPA6010	<150um	5	<RL	0		0.05	Pass
Pb	T1	EPA6010	<150um	5	<RL or <10x sample	0		0.05	Pass
Pb	T1	EPA6010	<150um	5	% Rec	116	80	120	Pass
Pb	T1	EPA6010	<150um	6	RPD	6		20	Pass
Pb	T1	EPA6010	<150um	6	% Rec	-3	75	125	Fail
Pb	T1	EPA6010	<150um	6	mg/kg	123	78.6	139	Pass
Pb	T1	EPA6010	<150um	6	<RL	0		0.05	Pass
Pb	T1	EPA6010	<150um	6	<RL or <10x sample	0		0.05	Pass
Pb	T1	EPA6010	<150um	6	% Rec	120	80	120	Pass
Ag	T1	EPA6010	<2mm	1a	<RL	0		0.05	Pass
Al	T1	EPA6010	<2mm	1a	<RL	0		1.6	Pass
As	T1	EPA6010	<2mm	1a	<RL	0		0.05	Pass
Ba	T1	EPA6010	<2mm	1a	<RL	0		0.05	Pass
Be	T1	EPA6010	<2mm	1a	<RL	0		0.0025	Pass
Ca	T1	EPA6010	<2mm	1a	<RL	0		20	Pass
Cd	T1	EPA6010	<2mm	1a	<RL	0		0.0025	Pass
Co	T1	EPA6010	<2mm	1a	<RL	0		0.005	Pass
Cr	T1	EPA6010	<2mm	1a	<RL	0		0.01	Pass
Cu	T1	EPA6010	<2mm	1a	<RL	0		0.01	Pass
K	T1	EPA6010	<2mm	1a	<RL	0		0.2	Pass
K	T1	EPA6010	<2mm	1a	<RL	0		2	Pass
Mg	T1	EPA6010	<2mm	1a	<RL	0		0.25	Pass
Mn	T1	EPA6010	<2mm	1a	<RL	0		0.0125	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Na	T1	EPA6010	<2mm	1a	<RL	0		1.5	Pass
Ni	T1	EPA6010	<2mm	1a	<RL	0		0.1	Pass
Pb	T1	EPA6010	<2mm	1a	<RL	0		0.1	Pass
Sb	T1	EPA6010	<2mm	1a	<RL	0		0.05	Pass
Se	T1	EPA6010	<2mm	1a	<RL	0		0.25	Pass
Tl	T1	EPA6010	<2mm	1a	<RL	0		0.025	Pass
V	T1	EPA6010	<2mm	1a	<RL	0		0.025	Pass
Zn	T1	EPA6010	<2mm	1a	<RL	0		0.0125	Pass
Ag	T1	EPA6010	<2mm	6	<RL	0		0.05	Pass
Al	T1	EPA6010	<2mm	6	<RL	0		1.6	Pass
As	T1	EPA6010	<2mm	6	<RL	0		0.05	Pass
Ba	T1	EPA6010	<2mm	6	<RL	0		0.05	Pass
Be	T1	EPA6010	<2mm	6	<RL	0		0.0025	Pass
Ca	T1	EPA6010	<2mm	6	<RL	1		20	Pass
Cd	T1	EPA6010	<2mm	6	<RL	0		0.0025	Pass
Co	T1	EPA6010	<2mm	6	<RL	0		0.005	Pass
Cr	T1	EPA6010	<2mm	6	<RL	0		0.01	Fail
Cu	T1	EPA6010	<2mm	6	<RL	0		0.01	Pass
Fe	T1	EPA6010	<2mm	6	<RL	0		0.2	Pass
K	T1	EPA6010	<2mm	6	<RL	0		2	Pass
Mg	T1	EPA6010	<2mm	6	<RL	0		0.25	Pass
Mn	T1	EPA6010	<2mm	6	<RL	0		0.0125	Pass
Na	T1	EPA6010	<2mm	6	<RL	0		1.5	Pass
Ni	T1	EPA6010	<2mm	6	<RL	0		0.1	Pass
Pb	T1	EPA6010	<2mm	6	<RL	0		0.1	Pass
Sb	T1	EPA6010	<2mm	6	<RL	0		0.05	Pass
Se	T1	EPA6010	<2mm	6	<RL	0		0.25	Pass
Tl	T1	EPA6010	<2mm	6	<RL	0		0.025	Pass
V	T1	EPA6010	<2mm	6	<RL	0		0.025	Pass
Zn	T1	EPA6010	<2mm	6	<RL	0		0.0125	Pass
Ag	T1	EPA6010	<2mm	1a	% Rec	109	16	141	Pass
Al	T1	EPA6010	<2mm	1a	% Rec	278 37	296 7	13393	Fail
As	T1	EPA6010	<2mm	1a	% Rec	172	110	189	Pass
Ba	T1	EPA6010	<2mm	1a	% Rec	174	114	176	Pass
Be	T1	EPA6010	<2mm	1a	% Rec	42	26.7	35	Fail
Ca	T1	EPA6010	<2mm	1a	% Rec	133 73	764 6	14934	Pass
Cd	T1	EPA6010	<2mm	1a	% Rec	70	43.3	81.9	Pass
Co	T1	EPA6010	<2mm	1a	% Rec	52	24.9	59.2	Pass
Cr	T1	EPA6010	<2mm	1a	% Rec	205	74.2	183	Fail
Cu	T1	EPA6010	<2mm	1a	% Rec	106	68.9	120	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Fe	T1	EPA6010	<2mm	1a	% Rec	23594	13881	24841	Pass
K	T1	EPA6010	<2mm	1a	% Rec	6157	2349	5023	Fail
Mg	T1	EPA6010	<2mm	1a	% Rec	2701	1076	1909	Fail
Mn	T1	EPA6010	<2mm	1a	% Rec	266	163	280	Pass
Na	T1	EPA6010	<2mm	1a	% Rec	### ##	3535	7422	Fail
Ni	T1	EPA6010	<2mm	1a	% Rec	91	39.2	112	Pass
Pb	T1	EPA6010	<2mm	1a	% Rec	121	78.6	139	Pass
Sb	T1	EPA6010	<2mm	1a	% Rec	94	0	248	Pass
Se	T1	EPA6010	<2mm	1a	% Rec	69	56.9	158	Pass
Tl	T1	EPA6010	<2mm	1a	% Rec	87	60.8	99.5	Pass
Zn	T1	EPA6010	<2mm	1a	% Rec	457	271	534	Pass
Ag	T1	EPA6010	<2mm	6	% Rec	118	16	141	Pass
Al	T1	EPA6010	<2mm	6	% Rec	26449	2967	13393	Fail
As	T1	EPA6010	<2mm	6	% Rec	183	110	189	Pass
Ba	T1	EPA6010	<2mm	6	% Rec	183	114	176	Fail
Be	T1	EPA6010	<2mm	6	% Rec	46	26.7	35	Fail
Ca	T1	EPA6010	<2mm	6	% Rec	15364	7646	14934	Fail
Cd	T1	EPA6010	<2mm	6	% Rec	79	43.3	81.9	Pass
Co	T1	EPA6010	<2mm	6	% Rec	58	24.9	59.2	Pass
Cr	T1	EPA6010	<2mm	6	% Rec	208	74.2	183	Fail
Cu	T1	EPA6010	<2mm	6	% Rec	115	68.9	120	Pass
Fe	T1	EPA6010	<2mm	6	% Rec	25847	13881	24841	Fail
K	T1	EPA6010	<2mm	6	% Rec	6099	2349	5023	Fail
Mg	T1	EPA6010	<2mm	6	% Rec	2985	1076	1909	Fail
Mn	T1	EPA6010	<2mm	6	% Rec	297	163	280	Fail
Na	T1	EPA6010	<2mm	6	% Rec	### ##	3535	7422	Fail
Ni	T1	EPA6010	<2mm	6	% Rec	99	39.2	112	Pass
Pb	T1	EPA6010	<2mm	6	% Rec	134	78.6	139	Pass
Sb	T1	EPA6010	<2mm	6	% Rec	162	0	248	Pass
Se	T1	EPA6010	<2mm	6	% Rec	73	56.9	158	Pass
Tl	T1	EPA6010	<2mm	6	% Rec	94	60.8	99.5	Pass
Zn	T1	EPA6010	<2mm	6	% Rec	493	271	534	Pass
Ag	T1	EPA6010	<2mm	1a	RPD if 2xRL			20	Pass
Al	T1	EPA6010	<2mm	1a	RPD if 2xRL	4		20	Pass
As	T1	EPA6010	<2mm	1a	RPD if 2xRL	3		20	Pass
Ba	T1	EPA6010	<2mm	1a	RPD if 2xRL	1		20	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Be	T1	EPA6010	<2mm	1a	RPD if 2xRL			20	Pass
Ca	T1	EPA6010	<2mm	1a	RPD if 2xRL			20	Pass
Cd	T1	EPA6010	<2mm	1a	RPD if 2xRL	4		20	Pass
Co	T1	EPA6010	<2mm	1a	RPD if 2xRL	5		20	Pass
Cr	T1	EPA6010	<2mm	1a	RPD if 2xRL	14		20	Pass
Cu	T1	EPA6010	<2mm	1a	RPD if 2xRL	2		20	Pass
Fe	T1	EPA6010	<2mm	1a	RPD if 2xRL	1		20	Pass
K	T1	EPA6010	<2mm	1a	RPD if 2xRL	4		20	Pass
Mg	T1	EPA6010	<2mm	1a	RPD if 2xRL	2		20	Pass
Mn	T1	EPA6010	<2mm	1a	RPD if 2xRL	3		20	Pass
Na	T1	EPA6010	<2mm	1a	RPD if 2xRL	3		20	Pass
Ni	T1	EPA6010	<2mm	1a	RPD if 2xRL			20	Pass
Pb	T1	EPA6010	<2mm	1a	RPD if 2xRL	6		20	Pass
Sb	T1	EPA6010	<2mm	1a	RPD if 2xRL	9		20	Pass
Se	T1	EPA6010	<2mm	1a	RPD if 2xRL			20	Pass
Tl	T1	EPA6010	<2mm	1a	RPD if 2xRL			20	Pass
V	T1	EPA6010	<2mm	1a	RPD if 2xRL	4		20	Pass
Zn	T1	EPA6010	<2mm	1a	RPD if 2xRL	7		20	Pass
Ag	T1	EPA6010	<2mm	1a	% Rec	111	75	125	Pass
Al	T1	EPA6010	<2mm	1a	% Rec				Pass
As	T1	EPA6010	<2mm	1a	% Rec	114	75	125	Pass
Ba	T1	EPA6010	<2mm	1a	% Rec	102	75	125	Pass
Be	T1	EPA6010	<2mm	1a	% Rec	111	75	125	Pass
Ca	T1	EPA6010	<2mm	1a	% Rec				Pass
Cd	T1	EPA6010	<2mm	1a	% Rec	107	75	125	Pass
Co	T1	EPA6010	<2mm	1a	% Rec	114	75	125	Pass
Cr	T1	EPA6010	<2mm	1a	% Rec	107	75	125	Pass
Cu	T1	EPA6010	<2mm	1a	% Rec	112	75	125	Pass
Fe	T1	EPA6010	<2mm	1a	% Rec				Pass
K	T1	EPA6010	<2mm	1a	% Rec				Pass
Mg	T1	EPA6010	<2mm	1a	% Rec				Pass
Mn	T1	EPA6010	<2mm	1a	% Rec	99	75	125	Pass
Na	T1	EPA6010	<2mm	1a	% Rec				Pass
Ni	T1	EPA6010	<2mm	1a	% Rec	110	75	125	Pass
Pb	T1	EPA6010	<2mm	1a	% Rec	85	75	125	Pass
Sb	T1	EPA6010	<2mm	1a	% Rec	103	75	125	Pass
Se	T1	EPA6010	<2mm	1a	% Rec	60	75	125	Fail
Tl	T1	EPA6010	<2mm	1a	% Rec	108	75	125	Pass
V	T1	EPA6010	<2mm	1a	% Rec	114	75	125	Pass
Zn	T1	EPA6010	<2mm	1a	% Rec	94	75	125	Pass
Ag	T1	EPA6010	<2mm	6	RPD if 2xRL			20	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Al	T1	EPA6010	<2mm	6	RPD if 2xRL	3		20	Pass
As	T1	EPA6010	<2mm	6	RPD if 2xRL	1		20	Pass
Ba	T1	EPA6010	<2mm	6	RPD if 2xRL	19		20	Pass
Be	T1	EPA6010	<2mm	6	RPD if 2xRL			20	Pass
Ca	T1	EPA6010	<2mm	6	RPD if 2xRL			20	Pass
Cd	T1	EPA6010	<2mm	6	RPD if 2xRL	4		20	Pass
Co	T1	EPA6010	<2mm	6	RPD if 2xRL	0		20	Pass
Cr	T1	EPA6010	<2mm	6	RPD if 2xRL	44		20	Pass
Cu	T1	EPA6010	<2mm	6	RPD if 2xRL	6		20	Pass
Fe	T1	EPA6010	<2mm	6	RPD if 2xRL	7		20	Pass
K	T1	EPA6010	<2mm	6	RPD if 2xRL	11		20	Pass
Mg	T1	EPA6010	<2mm	6	RPD if 2xRL	48		20	Pass
Mn	T1	EPA6010	<2mm	6	RPD if 2xRL	2		20	Pass
Na	T1	EPA6010	<2mm	6	RPD if 2xRL			20	Pass
Ni	T1	EPA6010	<2mm	6	RPD if 2xRL			20	Pass
Pb	T1	EPA6010	<2mm	6	RPD if 2xRL	6		20	Pass
Sb	T1	EPA6010	<2mm	6	RPD if 2xRL	2		20	Pass
Se	T1	EPA6010	<2mm	6	RPD if 2xRL			20	Pass
Tl	T1	EPA6010	<2mm	6	RPD if 2xRL			20	Pass
V	T1	EPA6010	<2mm	6	RPD if 2xRL	1		20	Pass
Zn	T1	EPA6010	<2mm	6	RPD if 2xRL	2		20	Pass
Ag	T1	EPA6010	<2mm	6	% Rec	116	75	125	Pass
Al	T1	EPA6010	<2mm	6	% Rec				Pass
As	T1	EPA6010	<2mm	6	% Rec	114	75	125	Pass
Ba	T1	EPA6010	<2mm	6	% Rec	110	75	125	Pass
Be	T1	EPA6010	<2mm	6	% Rec	115	75	125	Pass
Ca	T1	EPA6010	<2mm	6	% Rec				Pass
Cd	T1	EPA6010	<2mm	6	% Rec	114	75	125	Pass
Co	T1	EPA6010	<2mm	6	% Rec	121	75	125	Pass
Cr	T1	EPA6010	<2mm	6	% Rec	120	75	125	Pass
Cu	T1	EPA6010	<2mm	6	% Rec	116	75	125	Pass
Fe	T1	EPA6010	<2mm	6	% Rec				Pass
K	T1	EPA6010	<2mm	6	% Rec				Pass
Mg	T1	EPA6010	<2mm	6	% Rec				Pass
Mn	T1	EPA6010	<2mm	6	% Rec	129	75	125	Fail
Na	T1	EPA6010	<2mm	6	% Rec				Pass
Ni	T1	EPA6010	<2mm	6	% Rec	113	75	125	Pass
Pb	T1	EPA6010	<2mm	6	% Rec	77	75	125	Pass
Sb	T1	EPA6010	<2mm	6	% Rec	107	75	125	Pass
Se	T1	EPA6010	<2mm	6	% Rec	61	75	125	Fail
Tl	T1	EPA6010	<2mm	6	% Rec	114	75	125	Pass

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Analyte	Time point	method_code	_size_fract ion	Batch	QC criteria	Value	low limit	high limit	Pass/F ail
V	T1	EPA6010	<2mm	6	% Rec	129	75	125	Fail
Zn	T1	EPA6010	<2mm	6	% Rec	98	75	125	Pass
Ag	T1	EPA6010	<2mm	1a, 6	<RL	0		0.05	Pass
Al	T1	EPA6010	<2mm	1a, 6	<RL			1.6	Pass
As	T1	EPA6010	<2mm	1a, 6	<RL	0		0.05	Pass
Ba	T1	EPA6010	<2mm	1a, 6	<RL	0		0.05	Pass
Be	T1	EPA6010	<2mm	1a, 6	<RL	0		0.0025	Pass
Ca	T1	EPA6010	<2mm	1a, 6	<RL			20	Pass
Cd	T1	EPA6010	<2mm	1a, 6	<RL	0		0.0025	Fail
Co	T1	EPA6010	<2mm	1a, 6	<RL	0		0.005	Pass
Cr	T1	EPA6010	<2mm	1a, 6	<RL	0		0.01	Pass
Cu	T1	EPA6010	<2mm	1a, 6	<RL	0		0.01	Pass
Fe	T1	EPA6010	<2mm	1a, 6	<RL			0.2	Pass
K	T1	EPA6010	<2mm	1a, 6	<RL	0		2	Pass
Mg	T1	EPA6010	<2mm	1a, 6	<RL			0.25	Pass
Mn	T1	EPA6010	<2mm	1a, 6	<RL	0		0.0125	Fail
Na	T1	EPA6010	<2mm	1a, 6	<RL	0		1.5	Pass
Ni	T1	EPA6010	<2mm	1a, 6	<RL	0		0.1	Pass
Pb	T1	EPA6010	<2mm	1a, 6	<RL	0		0.1	Pass
Sb	T1	EPA6010	<2mm	1a, 6	<RL	0		0.05	Pass
Se	T1	EPA6010	<2mm	1a, 6	<RL	0		0.25	Pass
Tl	T1	EPA6010	<2mm	1a, 6	<RL	0		0.025	Pass
V	T1	EPA6010	<2mm	1a, 6	<RL	0		0.025	Pass
Zn	T1	EPA6010	<2mm	1a, 6	<RL	0		0.0125	Fail
Ag	T1	EPA6010	<2mm	1a, 6					Pass
Al	T1	EPA6010	<2mm	1a, 6					Pass
As	T1	EPA6010	<2mm	1a, 6		100	75	125	Pass

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Analyte	Time point	method_code	_size_fract ion	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Ba	T1	EPA6010	<2mm	1a, 6		103	75	125	Pass
Be	T1	EPA6010	<2mm	1a, 6		102	75	125	Pass
Ca	T1	EPA6010	<2mm	1a, 6					Pass
Cd	T1	EPA6010	<2mm	1a, 6		101	75	125	Pass
Co	T1	EPA6010	<2mm	1a, 6		83	75	125	Pass
Cr	T1	EPA6010	<2mm	1a, 6					Pass
Cu	T1	EPA6010	<2mm	1a, 6		101	75	125	Pass
Fe	T1	EPA6010	<2mm	1a, 6					Pass
K	T1	EPA6010	<2mm	1a, 6					Pass
Mg	T1	EPA6010	<2mm	1a, 6					Pass
Mn	T1	EPA6010	<2mm	1a, 6		113	75	125	Pass
Na	T1	EPA6010	<2mm	1a, 6					Pass
Ni	T1	EPA6010	<2mm	1a, 6		100	75	125	Pass
Pb	T1	EPA6010	<2mm	1a, 6		95	75	125	Pass
Sb	T1	EPA6010	<2mm	1a, 6					Pass
Se	T1	EPA6010	<2mm	1a, 6		147	75	125	Fail
Tl	T1	EPA6010	<2mm	1a, 6		94	75	125	Pass
V	T1	EPA6010	<2mm	1a, 6					Pass
Zn	T1	EPA6010	<2mm	1a, 6		99	75	125	Pass
As	T3	EPA6010	<150µm	7	RPD	3		20	Pass
As	T3	EPA6010	<150µm	7	% Rec	99	75	125	Pass
As	T3	EPA6010	<150µm	7	mg/kg	138	110	189	Pass
As	T3	EPA6010	<150µm	7	<RL	0		0.05	Pass
Pb	T3	EPA6010	<150µm	7	RPD	1		20	Pass
Pb	T3	EPA6010	<150µm	7	% Rec	29	75	125	Fail
Pb	T3	EPA6010	<150µm	7	mg/kg	109	78.6	139	Pass
Pb	T3	EPA6010	<150µm	7	<RL	0		0.05	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	2	<RL	0		0.15	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	2	<RL	0		0.01	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
P	T1	EPA6010_MEHL ICH3	<2mm	4	<RL	0		0.15	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	4	<RL	0		0.01	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	6	<RL	0		0.15	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	6	<RL	0		0.01	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	8	<RL	0		0.15	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	8	<RL	0		0.01	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	10	<RL	0		0.15	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	10	<RL	0		0.01	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	12	<RL	0		0.15	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	12	<RL	0		0.01	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	14	<RL	0		0.15	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	14	<RL	0		0.01	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	16	<RL	0		0.15	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	16	<RL	0		0.01	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	18	<RL	0		0.15	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	18	<RL	0		0.01	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	20	<RL	0		0.15	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	20	<RL	0		0.01	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	22	<RL	0		0.15	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	22	<RL	0		0.01	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	24	<RL	0		0.15	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	24	<RL	0		0.01	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	26	<RL	0		0.15	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	26	<RL	0		0.01	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	28	<RL	0		0.15	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	28	<RL	0		0.01	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
P	T1	EPA6010_MEHL ICH3	<2mm	30	<RL	0		0.15	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	30	<RL	0		0.01	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	32	<RL	0		0.15	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	32	<RL	0		0.01	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	34	<RL	0		0.15	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	34	<RL	0		0.01	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	36	<RL	0		0.15	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	36	<RL	0		0.01	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	38	<RL	0		0.15	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	38	<RL	0		0.01	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	40	<RL	0		0.15	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	40	<RL	0		0.01	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	42	<RL	0		0.15	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	42	<RL	0		0.01	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	44	<RL	0		0.15	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	44	<RL	0		0.01	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	46	<RL	0		0.15	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	46	<RL	0		0.01	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	48	<RL	0		0.15	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	48	<RL	0		0.01	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	50	<RL	0		0.15	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	50	<RL	0		0.01	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	1	RPD if > 2xRL	2		20	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	1	RPD if > 2xRL	1		20	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	3	RPD if > 2xRL	4		20	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	3	RPD if > 2xRL	4		20	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
P	T1	EPA6010_MEHL ICH3	<2mm	5	RPD if > 2xRL	0		20	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	5	RPD if > 2xRL	0		20	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	7	RPD if > 2xRL	0		20	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	7	RPD if > 2xRL	3		20	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	9	RPD if > 2xRL	2		20	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	9	RPD if > 2xRL	1		20	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	11	RPD if > 2xRL	3		20	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	11	RPD if > 2xRL	6		20	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	13	RPD if > 2xRL	3		20	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	13	RPD if > 2xRL	2		20	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	15	RPD if > 2xRL	1		20	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	15	RPD if > 2xRL	2		20	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	17	RPD if > 2xRL	0		20	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	17	RPD if > 2xRL	1		20	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	19	RPD if > 2xRL	6		20	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	19	RPD if > 2xRL	4		20	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	21	RPD if > 2xRL			20	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	21	RPD if > 2xRL			20	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	23	RPD if > 2xRL	1		20	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	23	RPD if > 2xRL	4		20	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	27	RPD if > 2xRL			20	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	27	RPD if > 2xRL			20	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	29	RPD if > 2xRL	2		20	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	29	RPD if > 2xRL	1		20	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	31	RPD if > 2xRL	1		20	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	31	RPD if > 2xRL	3		20	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
P	T1	EPA6010_MEHL ICH3	<2mm	33	RPD if > 2xRL	7		20	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	33	RPD if > 2xRL	16		20	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	35	RPD if > 2xRL	8		20	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	35	RPD if > 2xRL	11		20	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	37	RPD if > 2xRL	4		20	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	37	RPD if > 2xRL	11		20	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	39	RPD if > 2xRL	13		20	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	39	RPD if > 2xRL	8		20	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	41	RPD if > 2xRL	2		20	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	41	RPD if > 2xRL	2		20	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	43	RPD if > 2xRL	2		20	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	43	RPD if > 2xRL	8		20	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	45	RPD if > 2xRL	9		20	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	45	RPD if > 2xRL	12		20	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	47	RPD if > 2xRL	7		20	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	47	RPD if > 2xRL	11		20	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	49	RPD if > 2xRL	9		20	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	49	RPD if > 2xRL	12		20	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	51	RPD	3		20	Pass
P	T1	EPA6010_MEHL ICH3	<2mm	51	<RL	0		1.5	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	51	RPD	5		20	Pass
Pb	T1	EPA6010_MEHL ICH3	<2mm	51	<RL	0		0.5	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	1	<RL	0		7.5	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	1	<RL	0		1	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	2	<RL	0		7.5	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	2	<RL	0		1	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
P	T2	EPA6010_MEHL ICH3	<2mm	3	<RL	0		7.5	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	3	<RL	0		1	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	4	<RL	0		7.5	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	4	<RL	0		1	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	5	<RL	0		7.5	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	5	<RL	0		1	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	6	<RL	0		7.5	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	6	<RL	0		1	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	7	<RL	0		7.5	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	7	<RL	0		1	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	8	<RL	0		7.5	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	8	<RL	0		1	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	9	<RL	0		7.5	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	9	<RL	0		1	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	10	<RL	0		7.5	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	10	<RL	0		1	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	11	<RL	0		7.5	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	11	<RL	0		1	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	12	<RL	0		7.5	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	12	<RL	0		1	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	13	<RL	0		7.5	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	13	<RL	0		1	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	14	<RL	0		7.5	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	14	<RL	0		1	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	15	<RL	0		7.5	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	15	<RL	0		1	Pass

Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
P	T2	EPA6010_MEHL ICH3	<2mm	16	<RL	0		7.5	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	16	<RL	0		1	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	17	<RL	0		7.5	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	17	<RL	0		1	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	18	<RL	0		7.5	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	18	<RL	0		1	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	19	<RL	0		7.5	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	19	<RL	0		1	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	20	<RL	0		7.5	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	20	<RL	0		1	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	21	<RL	0		7.5	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	21	<RL	0		1	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	22	<RL	0		7.5	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	22	<RL	0		1	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	23	<RL	0		7.5	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	23	<RL	0		1	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	24	<RL	0		7.5	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	24	<RL	0		1	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	1	RPD if 2xRL	2		20	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	1	RPD if 2xRL	1		20	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	2	RPD if 2xRL	0		20	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	2	RPD if 2xRL	3		20	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	3	RPD if 2xRL	1		20	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	3	RPD if 2xRL	1		20	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	4	RPD if 2xRL	2		20	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	4	RPD if 2xRL	3		20	Pass

Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
P	T2	EPA6010_MEHL ICH3	<2mm	5	RPD if 2xRL	3		20	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	5	RPD if 2xRL	5		20	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	6	RPD if 2xRL	0		20	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	6	RPD if 2xRL	0		20	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	7	RPD if 2xRL	14		20	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	7	RPD if 2xRL	1		20	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	8	RPD if 2xRL	2		20	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	8	RPD if 2xRL	2		20	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	9	RPD if 2xRL	1		20	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	9	RPD if 2xRL	3		20	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	10	RPD if 2xRL	0		20	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	10	RPD if 2xRL	2		20	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	11	RPD if 2xRL	1		20	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	11	RPD if 2xRL	1		20	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	12	RPD if 2xRL	0		20	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	12	RPD if 2xRL	1		20	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	13	RPD if 2xRL	4		20	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	13	RPD if 2xRL	5		20	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	14	RPD if 2xRL	0		20	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	14	RPD if 2xRL	1		20	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	15	RPD if 2xRL	2		20	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	15	RPD if 2xRL	1		20	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	16	RPD if 2xRL	0		20	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	16	RPD if 2xRL	7		20	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	17	RPD if 2xRL	2		20	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	17	RPD if 2xRL	10		20	Pass

Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
P	T2	EPA6010_MEHL ICH3	<2mm	18	RPD if 2xRL	0		20	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	18	RPD if 2xRL	3		20	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	19	RPD if 2xRL	3		20	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	19	RPD if 2xRL	1		20	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	20	RPD if 2xRL	2		20	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	20	RPD if 2xRL	3		20	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	21	RPD if 2xRL	5		20	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	21	RPD if 2xRL	5		20	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	22	RPD if 2xRL	1		20	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	22	RPD if 2xRL	5		20	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	23	RPD if 2xRL	2		20	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	23	RPD if 2xRL	4		20	Pass
P	T2	EPA6010_MEHL ICH3	<2mm	24	RPD if 2xRL	3		20	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	24	RPD if 2xRL	21		20	Fail
P	T2	EPA6010_MEHL ICH3	<2mm	25	RPD if 2xRL	2		20	Pass
Pb	T2	EPA6010_MEHL ICH3	<2mm	25	RPD if 2xRL	3		20	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	1	RPD	3		20	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	1	RPD	1		20	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	1	<RL or <10x samples	0		0.15	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	1	<RL or <10x samples	0		0.05	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	2	RPD	1		20	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	2	RPD	0		20	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	2	<RL or <10x samples	0		0.15	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	2	<RL or <10x samples	0		0.05	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	3	RPD	1		20	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	3	RPD	6		20	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
P	T3	EPA6010_MEHL ICH3	<2mm	3	<RL or <10x samples	0		0.15	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	3	<RL or <10x samples	0		0.05	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	4	RPD	6		20	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	4	RPD	1		20	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	4	<RL or <10x samples	0		0.15	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	4	<RL or <10x samples	0		0.05	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	5	RPD	1		20	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	5	RPD	6		20	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	5	<RL or <10x samples	0		0.15	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	5	<RL or <10x samples	0		0.05	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	6	RPD	1		20	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	6	RPD	3		20	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	6	<RL or <10x samples	0		0.15	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	6	<RL or <10x samples	0		0.05	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	7	RPD	0		20	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	7	RPD	0		20	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	7	<RL or <10x samples	0		0.15	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	7	<RL or <10x samples	0		0.05	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	8	RPD	1		20	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	8	RPD	3		20	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	8	<RL or <10x samples	0		0.15	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	8	<RL or <10x samples	0		0.05	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	9	RPD	1		20	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	9	RPD	10		20	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	9	<RL or <10x samples	0		0.15	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	9	<RL or <10x samples	0		0.05	Pass

Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
P	T3	EPA6010_MEHL ICH3	<2mm	10	RPD	1		20	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	10	RPD	0		20	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	10	<RL or <10x samples	0		0.15	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	10	<RL or <10x samples	0		0.05	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	11	RPD	1		20	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	11	RPD	3		20	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	11	<RL or <10x samples	0		0.15	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	11	<RL or <10x samples	0		0.05	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	12	RPD	1		20	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	12	RPD	2		20	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	12	<RL or <10x samples	0		0.15	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	12	<RL or <10x samples	0		0.05	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	13	RPD	0		20	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	13	RPD	0		20	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	13	<RL or <10x samples	0		0.05	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	14	RPD	1		20	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	14	RPD	1		20	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	14	<RL or <10x samples	0		0.15	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	14	<RL or <10x samples	0		0.05	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	15	RPD	0		20	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	15	RPD	1		20	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	15	<RL or <10x samples	0		0.15	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	15	<RL or <10x samples	0		0.05	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	16	RPD	1		20	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	16	RPD	0		20	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	16	<RL or <10x samples	0		0.15	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Pb	T3	EPA6010_MEHL ICH3	<2mm	16	<RL or <10x samples	0		0.05	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	17	RPD	1		20	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	17	RPD	1		20	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	17	<RL or <10x samples	0		0.15	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	17	<RL or <10x samples	0		0.05	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	18	RPD	2		20	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	18	RPD	5		20	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	18	<RL or <10x samples	0		0.15	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	18	<RL or <10x samples	0		0.05	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	19	RPD	4		20	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	19	RPD	1		20	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	19	<RL or <10x samples	0		0.15	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	19	<RL or <10x samples	0		0.05	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	20	RPD	1		20	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	20	RPD	5		20	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	20	<RL or <10x samples	0		0.15	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	20	<RL or <10x samples	0		0.05	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	21	RPD	0		20	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	21	RPD	0		20	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	21	<RL or <10x samples	0		0.15	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	21	<RL or <10x samples	0		0.05	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	22	RPD	2		20	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	22	RPD	1		20	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	22	<RL or <10x samples	0		0.15	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	22	<RL or <10x samples	0		0.05	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	23	RPD	1		20	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Pb	T3	EPA6010_MEHL ICH3	<2mm	23	RPD	1		20	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	23	<RL or <10x samples	0		0.15	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	23	<RL or <10x samples	0		0.05	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	24	RPD	2		20	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	24	RPD	2		20	Pass
P	T3	EPA6010_MEHL ICH3	<2mm	24	<RL or <10x samples	0		0.15	Pass
Pb	T3	EPA6010_MEHL ICH3	<2mm	24	<RL or <10x samples	0		0.05	Pass
Ag	T1	EPA6010C-SPLP	<2mm	1	<RL	0		0.15	Pass
Al	T1	EPA6010C-SPLP	<2mm	1	<RL	0		0.08	Pass
Al	T1	EPA6010C-SPLP	<2mm	1	<RL	0		0.08	Pass
As	T1	EPA6010C-SPLP	<2mm	1	<RL	0		0.05	Pass
Ba	T1	EPA6010C-SPLP	<2mm	1	<RL	0		0.05	Pass
Be	T1	EPA6010C-SPLP	<2mm	1	<RL	0		0.0025	Pass
Ca	T1	EPA6010C-SPLP	<2mm	1	<RL	0		0.2	Pass
Cd	T1	EPA6010C-SPLP	<2mm	1	<RL	0		0.0025	Pass
Co	T1	EPA6010C-SPLP	<2mm	1	<RL	0		0.05	Pass
Cr	T1	EPA6010C-SPLP	<2mm	1	<RL	0		0.1	Pass
Cu	T1	EPA6010C-SPLP	<2mm	1	<RL	0		0.01	Pass
Fe	T1	EPA6010C-SPLP	<2mm	1	<RL	0		0.5	Pass
K	T1	EPA6010C-SPLP	<2mm	1	<RL	0		0.75	Pass
Mg	T1	EPA6010C-SPLP	<2mm	1	<RL	0		0.25	Pass
Mn	T1	EPA6010C-SPLP	<2mm	1	<RL	0		0.0125	Pass
Na	T1	EPA6010C-SPLP	<2mm	1	<RL	0		0.75	Pass
Ni	T1	EPA6010C-SPLP	<2mm	1	<RL	0		0.2	Pass
P	T1	EPA6010C-SPLP	<2mm	1	<RL	0		0.15	Pass
Pb	T1	EPA6010C-SPLP	<2mm	1	<RL	0		0.01	Pass
Sb	T1	EPA6010C-SPLP	<2mm	1	<RL	0		0.05	Pass
Se	T1	EPA6010C-SPLP	<2mm	1	<RL	0		0.5	Pass
Tl	T1	EPA6010C-SPLP	<2mm	1	<RL	0		0.025	Pass
V	T1	EPA6010C-SPLP	<2mm	1	<RL	0		0.025	Pass
Zn	T1	EPA6010C-SPLP	<2mm	1	<RL	0		0.0125	Pass
Ag	T1	EPA6010C-SPLP	<2mm	2	<RL	0		0.15	Pass
Al	T1	EPA6010C-SPLP	<2mm	2	<RL	0		0.08	Pass
Al	T1	EPA6010C-SPLP	<2mm	2	<RL	0		0.08	Pass
As	T1	EPA6010C-SPLP	<2mm	2	<RL	0		0.05	Pass
Ba	T1	EPA6010C-SPLP	<2mm	2	<RL	0		0.05	Pass
Be	T1	EPA6010C-SPLP	<2mm	2	<RL	0		0.0025	Pass

Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Ca	T1	EPA6010C-SPLP	<2mm	2	<RL	0		0.2	Pass
Cd	T1	EPA6010C-SPLP	<2mm	2	<RL	0		0.0025	Pass
Co	T1	EPA6010C-SPLP	<2mm	2	<RL	0		0.05	Pass
Cr	T1	EPA6010C-SPLP	<2mm	2	<RL	0		0.1	Pass
Cu	T1	EPA6010C-SPLP	<2mm	2	<RL	0		0.01	Pass
Fe	T1	EPA6010C-SPLP	<2mm	2	<RL	0		0.5	Pass
K	T1	EPA6010C-SPLP	<2mm	2	<RL	0		0.75	Pass
Mg	T1	EPA6010C-SPLP	<2mm	2	<RL	0		0.25	Pass
Mn	T1	EPA6010C-SPLP	<2mm	2	<RL	0		0.0125	Pass
Na	T1	EPA6010C-SPLP	<2mm	2	<RL	0		0.75	Pass
Ni	T1	EPA6010C-SPLP	<2mm	2	<RL	0		0.2	Pass
P	T1	EPA6010C-SPLP	<2mm	2	<RL	0		0.15	Pass
Pb	T1	EPA6010C-SPLP	<2mm	2	<RL	0		0.01	Pass
Sb	T1	EPA6010C-SPLP	<2mm	2	<RL	0		0.05	Pass
Se	T1	EPA6010C-SPLP	<2mm	2	<RL	0		0.5	Pass
Tl	T1	EPA6010C-SPLP	<2mm	2	<RL	0		0.025	Pass
V	T1	EPA6010C-SPLP	<2mm	2	<RL	0		0.025	Pass
Zn	T1	EPA6010C-SPLP	<2mm	2	<RL	0		0.0125	Pass
Ag	T1	EPA6010C-SPLP	<2mm	3	<RL	0		0.15	Pass
Al	T1	EPA6010C-SPLP	<2mm	3	<RL	0		0.08	Pass
Al	T1	EPA6010C-SPLP	<2mm	3	<RL	0		0.08	Pass
As	T1	EPA6010C-SPLP	<2mm	3	<RL	0		0.05	Pass
Ba	T1	EPA6010C-SPLP	<2mm	3	<RL	0		0.05	Pass
Be	T1	EPA6010C-SPLP	<2mm	3	<RL	0		0.0025	Pass
Ca	T1	EPA6010C-SPLP	<2mm	3	<RL	0		0.2	Pass
Cd	T1	EPA6010C-SPLP	<2mm	3	<RL	0		0.0025	Pass
Co	T1	EPA6010C-SPLP	<2mm	3	<RL	0		0.05	Pass
Cr	T1	EPA6010C-SPLP	<2mm	3	<RL	0		0.1	Pass
Cu	T1	EPA6010C-SPLP	<2mm	3	<RL	0		0.01	Pass
Fe	T1	EPA6010C-SPLP	<2mm	3	<RL	0		0.5	Pass
K	T1	EPA6010C-SPLP	<2mm	3	<RL	0		0.75	Pass
Mg	T1	EPA6010C-SPLP	<2mm	3	<RL	0		0.25	Pass
Mn	T1	EPA6010C-SPLP	<2mm	3	<RL	0		0.0125	Pass
Na	T1	EPA6010C-SPLP	<2mm	3	<RL	0		0.75	Pass
Ni	T1	EPA6010C-SPLP	<2mm	3	<RL	0		0.2	Pass
P	T1	EPA6010C-SPLP	<2mm	3	<RL	0		0.15	Pass
Pb	T1	EPA6010C-SPLP	<2mm	3	<RL	0		0.01	Pass
Sb	T1	EPA6010C-SPLP	<2mm	3	<RL	0		0.05	Pass
Se	T1	EPA6010C-SPLP	<2mm	3	<RL	0		0.5	Pass
Tl	T1	EPA6010C-SPLP	<2mm	3	<RL	0		0.025	Pass
V	T1	EPA6010C-SPLP	<2mm	3	<RL	0		0.025	Pass

Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Zn	T1	EPA6010C-SPLP	<2mm	3	<RL	0		0.0125	Pass
Ag	T1	EPA6010C-SPLP	<2mm	4	<RL	0		0.15	Pass
Al	T1	EPA6010C-SPLP	<2mm	4	<RL	0		0.08	Pass
Al	T1	EPA6010C-SPLP	<2mm	4	<RL	0		0.08	Pass
As	T1	EPA6010C-SPLP	<2mm	4	<RL	0		0.05	Pass
Ba	T1	EPA6010C-SPLP	<2mm	4	<RL	0		0.05	Pass
Be	T1	EPA6010C-SPLP	<2mm	4	<RL	0		0.0025	Pass
Ca	T1	EPA6010C-SPLP	<2mm	4	<RL	0		0.2	Pass
Cd	T1	EPA6010C-SPLP	<2mm	4	<RL	0		0.0025	Pass
Co	T1	EPA6010C-SPLP	<2mm	4	<RL	0		0.05	Pass
Cr	T1	EPA6010C-SPLP	<2mm	4	<RL	0		0.1	Pass
Cu	T1	EPA6010C-SPLP	<2mm	4	<RL	0		0.01	Pass
Fe	T1	EPA6010C-SPLP	<2mm	4	<RL	0		0.5	Pass
K	T1	EPA6010C-SPLP	<2mm	4	<RL	0		0.75	Pass
Mg	T1	EPA6010C-SPLP	<2mm	4	<RL	0		0.25	Pass
Mn	T1	EPA6010C-SPLP	<2mm	4	<RL	0		0.0125	Pass
Na	T1	EPA6010C-SPLP	<2mm	4	<RL	0		0.75	Pass
Ni	T1	EPA6010C-SPLP	<2mm	4	<RL	0		0.2	Pass
P	T1	EPA6010C-SPLP	<2mm	4	<RL	0		0.15	Pass
Pb	T1	EPA6010C-SPLP	<2mm	4	<RL	0		0.01	Pass
Sb	T1	EPA6010C-SPLP	<2mm	4	<RL	0		0.05	Pass
Se	T1	EPA6010C-SPLP	<2mm	4	<RL	0		0.5	Pass
Tl	T1	EPA6010C-SPLP	<2mm	4	<RL	0		0.025	Pass
V	T1	EPA6010C-SPLP	<2mm	4	<RL	0		0.025	Pass
Zn	T1	EPA6010C-SPLP	<2mm	4	<RL	0		0.0125	Pass
Ag	T1	EPA6010C-SPLP	<2mm	5	<RL	0		0.15	Pass
Al	T1	EPA6010C-SPLP	<2mm	5	<RL	0		0.08	Pass
Al	T1	EPA6010C-SPLP	<2mm	5	<RL	0		0.08	Pass
As	T1	EPA6010C-SPLP	<2mm	5	<RL	0		0.05	Pass
Ba	T1	EPA6010C-SPLP	<2mm	5	<RL	0		0.05	Pass
Be	T1	EPA6010C-SPLP	<2mm	5	<RL	0		0.0025	Pass
Ca	T1	EPA6010C-SPLP	<2mm	5	<RL	0		0.2	Pass
Cd	T1	EPA6010C-SPLP	<2mm	5	<RL	0		0.0025	Pass
Co	T1	EPA6010C-SPLP	<2mm	5	<RL	0		0.05	Pass
Cr	T1	EPA6010C-SPLP	<2mm	5	<RL	0		0.1	Pass
Cu	T1	EPA6010C-SPLP	<2mm	5	<RL	0		0.01	Pass
Fe	T1	EPA6010C-SPLP	<2mm	5	<RL	0		0.5	Pass
K	T1	EPA6010C-SPLP	<2mm	5	<RL	0		0.75	Pass
Mg	T1	EPA6010C-SPLP	<2mm	5	<RL	0		0.25	Pass
Mn	T1	EPA6010C-SPLP	<2mm	5	<RL	0		0.0125	Pass
Na	T1	EPA6010C-SPLP	<2mm	5	<RL	0		0.75	Pass

Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Ni	T1	EPA6010C-SPLP	<2mm	5	<RL	0		0.2	Pass
P	T1	EPA6010C-SPLP	<2mm	5	<RL	0		0.15	Pass
Pb	T1	EPA6010C-SPLP	<2mm	5	<RL	0		0.01	Pass
Sb	T1	EPA6010C-SPLP	<2mm	5	<RL	0		0.05	Pass
Se	T1	EPA6010C-SPLP	<2mm	5	<RL	0		0.5	Pass
Tl	T1	EPA6010C-SPLP	<2mm	5	<RL	0		0.025	Pass
V	T1	EPA6010C-SPLP	<2mm	5	<RL	0		0.025	Pass
Zn	T1	EPA6010C-SPLP	<2mm	5	<RL	0		0.0125	Pass
Ag	T1	EPA6010C-SPLP	<2mm	6	<RL	0		0.15	Pass
Al	T1	EPA6010C-SPLP	<2mm	6	<RL	0		0.08	Pass
Al	T1	EPA6010C-SPLP	<2mm	6	<RL	0		0.08	Pass
As	T1	EPA6010C-SPLP	<2mm	6	<RL	0		0.05	Pass
Ba	T1	EPA6010C-SPLP	<2mm	6	<RL	0		0.05	Pass
Be	T1	EPA6010C-SPLP	<2mm	6	<RL	0		0.0025	Pass
Ca	T1	EPA6010C-SPLP	<2mm	6	<RL	0		0.2	Pass
Cd	T1	EPA6010C-SPLP	<2mm	6	<RL	0		0.0025	Pass
Co	T1	EPA6010C-SPLP	<2mm	6	<RL	0		0.05	Pass
Cr	T1	EPA6010C-SPLP	<2mm	6	<RL	0		0.1	Pass
Cu	T1	EPA6010C-SPLP	<2mm	6	<RL	0		0.01	Pass
Fe	T1	EPA6010C-SPLP	<2mm	6	<RL	0		0.5	Pass
K	T1	EPA6010C-SPLP	<2mm	6	<RL	1		0.75	Pass
Mg	T1	EPA6010C-SPLP	<2mm	6	<RL	0		0.25	Pass
Mn	T1	EPA6010C-SPLP	<2mm	6	<RL	0		0.0125	Pass
Na	T1	EPA6010C-SPLP	<2mm	6	<RL	0		0.75	Pass
Ni	T1	EPA6010C-SPLP	<2mm	6	<RL	0		0.2	Pass
P	T1	EPA6010C-SPLP	<2mm	6	<RL	0		0.15	Fail
Pb	T1	EPA6010C-SPLP	<2mm	6	<RL	0		0.01	Pass
Sb	T1	EPA6010C-SPLP	<2mm	6	<RL	0		0.05	Pass
Se	T1	EPA6010C-SPLP	<2mm	6	<RL	0		0.5	Pass
Tl	T1	EPA6010C-SPLP	<2mm	6	<RL	0		0.025	Pass
V	T1	EPA6010C-SPLP	<2mm	6	<RL	0		0.025	Pass
Zn	T1	EPA6010C-SPLP	<2mm	6	<RL	0		0.0125	Pass
Ag	T1	EPA6010C-SPLP	<2mm	7	<RL	0		0.15	Pass
Al	T1	EPA6010C-SPLP	<2mm	7	<RL	0		0.08	Pass
Al	T1	EPA6010C-SPLP	<2mm	7	<RL	0		0.08	Pass
As	T1	EPA6010C-SPLP	<2mm	7	<RL	0		0.05	Pass
Ba	T1	EPA6010C-SPLP	<2mm	7	<RL	0		0.05	Pass
Be	T1	EPA6010C-SPLP	<2mm	7	<RL	0		0.0025	Pass
Ca	T1	EPA6010C-SPLP	<2mm	7	<RL	0		0.2	Pass
Cd	T1	EPA6010C-SPLP	<2mm	7	<RL	0		0.0025	Pass
Co	T1	EPA6010C-SPLP	<2mm	7	<RL	0		0.05	Pass

Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Cr	T1	EPA6010C-SPLP	<2mm	7	<RL	0		0.1	Pass
Cu	T1	EPA6010C-SPLP	<2mm	7	<RL	0		0.01	Pass
Fe	T1	EPA6010C-SPLP	<2mm	7	<RL	0		0.5	Pass
K	T1	EPA6010C-SPLP	<2mm	7	<RL	1		0.75	Pass
Mg	T1	EPA6010C-SPLP	<2mm	7	<RL	0		0.25	Pass
Mn	T1	EPA6010C-SPLP	<2mm	7	<RL	0		0.0125	Pass
Na	T1	EPA6010C-SPLP	<2mm	7	<RL	0		0.75	Pass
Ni	T1	EPA6010C-SPLP	<2mm	7	<RL	0		0.2	Pass
P	T1	EPA6010C-SPLP	<2mm	7	<RL	0		0.15	Fail
Pb	T1	EPA6010C-SPLP	<2mm	7	<RL	0		0.01	Pass
Sb	T1	EPA6010C-SPLP	<2mm	7	<RL	0		0.05	Pass
Se	T1	EPA6010C-SPLP	<2mm	7	<RL	0		0.5	Pass
Tl	T1	EPA6010C-SPLP	<2mm	7	<RL	0		0.025	Pass
V	T1	EPA6010C-SPLP	<2mm	7	<RL	0		0.025	Pass
Zn	T1	EPA6010C-SPLP	<2mm	7	<RL	0		0.0125	Pass
Ag	T1	EPA6010C-SPLP	<2mm	8	<RL	0		0.15	Pass
Al	T1	EPA6010C-SPLP	<2mm	8	<RL	0		0.08	Pass
Al	T1	EPA6010C-SPLP	<2mm	8	<RL	0		0.08	Pass
As	T1	EPA6010C-SPLP	<2mm	8	<RL	0		0.05	Pass
Ba	T1	EPA6010C-SPLP	<2mm	8	<RL	0		0.05	Pass
Be	T1	EPA6010C-SPLP	<2mm	8	<RL	0		0.0025	Pass
Ca	T1	EPA6010C-SPLP	<2mm	8	<RL	0		0.2	Pass
Cd	T1	EPA6010C-SPLP	<2mm	8	<RL	0		0.0025	Pass
Co	T1	EPA6010C-SPLP	<2mm	8	<RL	0		0.05	Pass
Cr	T1	EPA6010C-SPLP	<2mm	8	<RL	0		0.1	Pass
Cu	T1	EPA6010C-SPLP	<2mm	8	<RL	0		0.01	Pass
Fe	T1	EPA6010C-SPLP	<2mm	8	<RL	0		0.5	Pass
K	T1	EPA6010C-SPLP	<2mm	8	<RL	1		0.75	Pass
Mg	T1	EPA6010C-SPLP	<2mm	8	<RL	0		0.25	Pass
Mn	T1	EPA6010C-SPLP	<2mm	8	<RL	0		0.0125	Pass
Na	T1	EPA6010C-SPLP	<2mm	8	<RL	0		0.75	Pass
Ni	T1	EPA6010C-SPLP	<2mm	8	<RL	0		0.2	Pass
P	T1	EPA6010C-SPLP	<2mm	8	<RL	0		0.15	Fail
Pb	T1	EPA6010C-SPLP	<2mm	8	<RL	0		0.01	Pass
Sb	T1	EPA6010C-SPLP	<2mm	8	<RL	0		0.05	Pass
Se	T1	EPA6010C-SPLP	<2mm	8	<RL	0		0.5	Pass
Tl	T1	EPA6010C-SPLP	<2mm	8	<RL	0		0.025	Pass
V	T1	EPA6010C-SPLP	<2mm	8	<RL	0		0.025	Pass
Zn	T1	EPA6010C-SPLP	<2mm	8	<RL	0		0.0125	Pass
Ag	T1	EPA6010C-SPLP	<2mm	9	<RL	0		0.15	Pass
Al	T1	EPA6010C-SPLP	<2mm	9	<RL	0		0.08	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Al	T1	EPA6010C-SPLP	<2mm	9	<RL	0		0.08	Pass
As	T1	EPA6010C-SPLP	<2mm	9	<RL	0		0.05	Pass
Ba	T1	EPA6010C-SPLP	<2mm	9	<RL	0		0.05	Pass
Be	T1	EPA6010C-SPLP	<2mm	9	<RL	0		0.0025	Pass
Ca	T1	EPA6010C-SPLP	<2mm	9	<RL	0		0.2	Pass
Cd	T1	EPA6010C-SPLP	<2mm	9	<RL	0		0.0025	Pass
Co	T1	EPA6010C-SPLP	<2mm	9	<RL	0		0.05	Pass
Cr	T1	EPA6010C-SPLP	<2mm	9	<RL	0		0.1	Pass
Cu	T1	EPA6010C-SPLP	<2mm	9	<RL	0		0.01	Pass
Fe	T1	EPA6010C-SPLP	<2mm	9	<RL	0		0.5	Pass
K	T1	EPA6010C-SPLP	<2mm	9	<RL	1		0.75	Pass
Mg	T1	EPA6010C-SPLP	<2mm	9	<RL	0		0.25	Pass
Mn	T1	EPA6010C-SPLP	<2mm	9	<RL	0		0.0125	Pass
Na	T1	EPA6010C-SPLP	<2mm	9	<RL	0		0.75	Pass
Ni	T1	EPA6010C-SPLP	<2mm	9	<RL	0		0.2	Pass
P	T1	EPA6010C-SPLP	<2mm	9	<RL	0		0.15	Fail
Pb	T1	EPA6010C-SPLP	<2mm	9	<RL	0		0.01	Pass
Sb	T1	EPA6010C-SPLP	<2mm	9	<RL	0		0.05	Pass
Se	T1	EPA6010C-SPLP	<2mm	9	<RL	0		0.5	Pass
Tl	T1	EPA6010C-SPLP	<2mm	9	<RL	0		0.025	Pass
V	T1	EPA6010C-SPLP	<2mm	9	<RL	0		0.025	Pass
Zn	T1	EPA6010C-SPLP	<2mm	9	<RL	0		0.0125	Pass
Ag	T1	EPA6010C-SPLP	<2mm	10	<RL	0		0.08	Pass
Al	T1	EPA6010C-SPLP	<2mm	10	<RL	0		0.05	Pass
Al	T1	EPA6010C-SPLP	<2mm	10	<RL	0		0.0025	Fail
As	T1	EPA6010C-SPLP	<2mm	10	<RL	0		0.0025	Fail
Ba	T1	EPA6010C-SPLP	<2mm	10	<RL	0		0.1	Pass
Be	T1	EPA6010C-SPLP	<2mm	10	<RL	0		0.5	Pass
Ca	T1	EPA6010C-SPLP	<2mm	10	<RL	0		0.25	Pass
Cd	T1	EPA6010C-SPLP	<2mm	10	<RL	0		0.75	Pass
Co	T1	EPA6010C-SPLP	<2mm	10	<RL	0		0.15	Pass
Cr	T1	EPA6010C-SPLP	<2mm	10	<RL	0		0.05	Pass
Cu	T1	EPA6010C-SPLP	<2mm	10	<RL	0		0.025	Pass
Fe	T1	EPA6010C-SPLP	<2mm	10	<RL	0		0.0125	Pass
K	T1	EPA6010C-SPLP	<2mm	10	<RL	0		0.08	Fail
Mg	T1	EPA6010C-SPLP	<2mm	10	<RL	0		0.05	Pass
Mn	T1	EPA6010C-SPLP	<2mm	10	<RL	0		0.0025	Pass
Na	T1	EPA6010C-SPLP	<2mm	10	<RL	0		0.0025	Fail
Ni	T1	EPA6010C-SPLP	<2mm	10	<RL	0		0.1	Pass
P	T1	EPA6010C-SPLP	<2mm	10	<RL	0		0.5	Pass
Pb	T1	EPA6010C-SPLP	<2mm	10	<RL	0		0.25	Pass

Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Sb	T1	EPA6010C-SPLP	<2mm	10	<RL	0		0.75	Pass
Se	T1	EPA6010C-SPLP	<2mm	10	<RL	0		0.15	Pass
Tl	T1	EPA6010C-SPLP	<2mm	10	<RL	0		0.05	Pass
V	T1	EPA6010C-SPLP	<2mm	10	<RL	0		0.025	Pass
Zn	T1	EPA6010C-SPLP	<2mm	10	<RL	0		0.0125	Pass
Ag	T1	EPA6010C-SPLP	<2mm	11	<RL	0		0.15	Pass
Al	T1	EPA6010C-SPLP	<2mm	11	<RL	0		0.08	Pass
Al	T1	EPA6010C-SPLP	<2mm	11	<RL	0		0.08	Pass
As	T1	EPA6010C-SPLP	<2mm	11	<RL	0		0.05	Pass
Ba	T1	EPA6010C-SPLP	<2mm	11	<RL	0		0.05	Pass
Be	T1	EPA6010C-SPLP	<2mm	11	<RL	0		0.0025	Pass
Ca	T1	EPA6010C-SPLP	<2mm	11	<RL	0		0.2	Pass
Cd	T1	EPA6010C-SPLP	<2mm	11	<RL	0		0.0025	Pass
Co	T1	EPA6010C-SPLP	<2mm	11	<RL	0		0.05	Pass
Cr	T1	EPA6010C-SPLP	<2mm	11	<RL	0		0.1	Pass
Cu	T1	EPA6010C-SPLP	<2mm	11	<RL	0		0.01	Pass
Fe	T1	EPA6010C-SPLP	<2mm	11	<RL	0		0.5	Pass
K	T1	EPA6010C-SPLP	<2mm	11	<RL	0		0.75	Pass
Mg	T1	EPA6010C-SPLP	<2mm	11	<RL	0		0.25	Pass
Mn	T1	EPA6010C-SPLP	<2mm	11	<RL	0		0.0125	Pass
Na	T1	EPA6010C-SPLP	<2mm	11	<RL	0		0.75	Pass
Ni	T1	EPA6010C-SPLP	<2mm	11	<RL	0		0.2	Pass
P	T1	EPA6010C-SPLP	<2mm	11	<RL	0		0.15	Pass
Pb	T1	EPA6010C-SPLP	<2mm	11	<RL	0		0.01	Pass
Sb	T1	EPA6010C-SPLP	<2mm	11	<RL	0		0.05	Pass
Se	T1	EPA6010C-SPLP	<2mm	11	<RL	0		0.5	Pass
Tl	T1	EPA6010C-SPLP	<2mm	11	<RL	0		0.025	Pass
V	T1	EPA6010C-SPLP	<2mm	11	<RL	0		0.025	Pass
Zn	T1	EPA6010C-SPLP	<2mm	11	<RL	0		0.0125	Pass
Ag	T1	EPA6010C-SPLP	<2mm	12	<RL	0		0.15	Pass
Al	T1	EPA6010C-SPLP	<2mm	12	<RL	0		0.08	Pass
Al	T1	EPA6010C-SPLP	<2mm	12	<RL	0		0.08	Pass
As	T1	EPA6010C-SPLP	<2mm	12	<RL	0		0.05	Pass
Ba	T1	EPA6010C-SPLP	<2mm	12	<RL	0		0.05	Pass
Be	T1	EPA6010C-SPLP	<2mm	12	<RL	0		0.0025	Pass
Ca	T1	EPA6010C-SPLP	<2mm	12	<RL	0		0.2	Pass
Cd	T1	EPA6010C-SPLP	<2mm	12	<RL	0		0.0025	Pass
Co	T1	EPA6010C-SPLP	<2mm	12	<RL	0		0.05	Pass
Cr	T1	EPA6010C-SPLP	<2mm	12	<RL	0		0.1	Pass
Cu	T1	EPA6010C-SPLP	<2mm	12	<RL	0		0.01	Pass
Fe	T1	EPA6010C-SPLP	<2mm	12	<RL	0		0.5	Pass

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Analyte	Time point	method_code	_size_fract ion	Batch	QC criteria	Value	low limit	high limit	Pass/F ail
K	T1	EPA6010C-SPLP	<2mm	12	<RL	0		0.75	Pass
Mg	T1	EPA6010C-SPLP	<2mm	12	<RL	0		0.25	Pass
Mn	T1	EPA6010C-SPLP	<2mm	12	<RL	0		0.0125	Pass
Na	T1	EPA6010C-SPLP	<2mm	12	<RL	0		0.75	Pass
Ni	T1	EPA6010C-SPLP	<2mm	12	<RL	0		0.2	Pass
P	T1	EPA6010C-SPLP	<2mm	12	<RL	0		0.15	Pass
Pb	T1	EPA6010C-SPLP	<2mm	12	<RL	0		0.01	Pass
Sb	T1	EPA6010C-SPLP	<2mm	12	<RL	0		0.05	Pass
Se	T1	EPA6010C-SPLP	<2mm	12	<RL	0		0.5	Pass
Tl	T1	EPA6010C-SPLP	<2mm	12	<RL	0		0.025	Pass
V	T1	EPA6010C-SPLP	<2mm	12	<RL	0		0.025	Pass
Zn	T1	EPA6010C-SPLP	<2mm	12	<RL	0		0.0125	Pass
Ag	T1	EPA6010C-SPLP	<2mm	13	<RL	0		0.15	Pass
Al	T1	EPA6010C-SPLP	<2mm	13	<RL	0		0.08	Pass
Al	T1	EPA6010C-SPLP	<2mm	13	<RL	0		0.08	Pass
As	T1	EPA6010C-SPLP	<2mm	13	<RL	0		0.05	Pass
Ba	T1	EPA6010C-SPLP	<2mm	13	<RL	0		0.05	Pass
Be	T1	EPA6010C-SPLP	<2mm	13	<RL	0		0.0025	Pass
Ca	T1	EPA6010C-SPLP	<2mm	13	<RL	0		0.2	Pass
Cd	T1	EPA6010C-SPLP	<2mm	13	<RL	0		0.0025	Pass
Co	T1	EPA6010C-SPLP	<2mm	13	<RL	0		0.05	Pass
Cr	T1	EPA6010C-SPLP	<2mm	13	<RL	0		0.1	Pass
Cu	T1	EPA6010C-SPLP	<2mm	13	<RL	0		0.01	Pass
Fe	T1	EPA6010C-SPLP	<2mm	13	<RL	0		0.5	Pass
K	T1	EPA6010C-SPLP	<2mm	13	<RL	0		0.75	Pass
Mg	T1	EPA6010C-SPLP	<2mm	13	<RL	0		0.25	Pass
Mn	T1	EPA6010C-SPLP	<2mm	13	<RL	0		0.0125	Pass
Na	T1	EPA6010C-SPLP	<2mm	13	<RL	0		0.75	Pass
Ni	T1	EPA6010C-SPLP	<2mm	13	<RL	0		0.2	Pass
P	T1	EPA6010C-SPLP	<2mm	13	<RL	0		0.15	Pass
Pb	T1	EPA6010C-SPLP	<2mm	13	<RL	0		0.01	Pass
Sb	T1	EPA6010C-SPLP	<2mm	13	<RL	0		0.05	Pass
Se	T1	EPA6010C-SPLP	<2mm	13	<RL	0		0.5	Pass
Tl	T1	EPA6010C-SPLP	<2mm	13	<RL	0		0.025	Pass
V	T1	EPA6010C-SPLP	<2mm	13	<RL	0		0.025	Pass
Zn	T1	EPA6010C-SPLP	<2mm	13	<RL	0		0.0125	Pass
Ag	T1	EPA6010C-SPLP	<2mm	14	<RL	0		0.15	Pass
Al	T1	EPA6010C-SPLP	<2mm	14	<RL	0		0.08	Pass
Al	T1	EPA6010C-SPLP	<2mm	14	<RL	0		0.08	Pass
As	T1	EPA6010C-SPLP	<2mm	14	<RL	0		0.05	Pass
Ba	T1	EPA6010C-SPLP	<2mm	14	<RL	0		0.05	Pass

Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Be	T1	EPA6010C-SPLP	<2mm	14	<RL	0		0.0025	Pass
Ca	T1	EPA6010C-SPLP	<2mm	14	<RL	0		0.2	Pass
Cd	T1	EPA6010C-SPLP	<2mm	14	<RL	0		0.0025	Pass
Co	T1	EPA6010C-SPLP	<2mm	14	<RL	0		0.05	Pass
Cr	T1	EPA6010C-SPLP	<2mm	14	<RL	0		0.1	Pass
Cu	T1	EPA6010C-SPLP	<2mm	14	<RL	0		0.01	Pass
Fe	T1	EPA6010C-SPLP	<2mm	14	<RL	0		0.5	Pass
K	T1	EPA6010C-SPLP	<2mm	14	<RL	0		0.75	Pass
Mg	T1	EPA6010C-SPLP	<2mm	14	<RL	0		0.25	Pass
Mn	T1	EPA6010C-SPLP	<2mm	14	<RL	0		0.0125	Pass
Na	T1	EPA6010C-SPLP	<2mm	14	<RL	0		0.75	Pass
Ni	T1	EPA6010C-SPLP	<2mm	14	<RL	0		0.2	Pass
P	T1	EPA6010C-SPLP	<2mm	14	<RL	0		0.15	Pass
Pb	T1	EPA6010C-SPLP	<2mm	14	<RL	0		0.01	Pass
Sb	T1	EPA6010C-SPLP	<2mm	14	<RL	0		0.05	Pass
Se	T1	EPA6010C-SPLP	<2mm	14	<RL	0		0.5	Pass
Tl	T1	EPA6010C-SPLP	<2mm	14	<RL	0		0.025	Pass
V	T1	EPA6010C-SPLP	<2mm	14	<RL	0		0.025	Pass
Zn	T1	EPA6010C-SPLP	<2mm	14	<RL	0		0.0125	Pass
Ag	T1	EPA6010C-SPLP	<2mm	15	<RL	0		0.15	Pass
Al	T1	EPA6010C-SPLP	<2mm	15	<RL	0		0.08	Pass
Al	T1	EPA6010C-SPLP	<2mm	15	<RL	0		0.08	Pass
As	T1	EPA6010C-SPLP	<2mm	15	<RL	0		0.05	Pass
Ba	T1	EPA6010C-SPLP	<2mm	15	<RL	0		0.05	Pass
Be	T1	EPA6010C-SPLP	<2mm	15	<RL	0		0.0025	Pass
Ca	T1	EPA6010C-SPLP	<2mm	15	<RL	0		0.2	Pass
Cd	T1	EPA6010C-SPLP	<2mm	15	<RL	0		0.0025	Pass
Co	T1	EPA6010C-SPLP	<2mm	15	<RL	0		0.05	Pass
Cr	T1	EPA6010C-SPLP	<2mm	15	<RL	0		0.1	Pass
Cu	T1	EPA6010C-SPLP	<2mm	15	<RL	0		0.01	Pass
Fe	T1	EPA6010C-SPLP	<2mm	15	<RL	0		0.5	Pass
K	T1	EPA6010C-SPLP	<2mm	15	<RL	0		0.75	Pass
Mg	T1	EPA6010C-SPLP	<2mm	15	<RL	0		0.25	Pass
Mn	T1	EPA6010C-SPLP	<2mm	15	<RL	0		0.0125	Pass
Na	T1	EPA6010C-SPLP	<2mm	15	<RL	0		0.75	Pass
Ni	T1	EPA6010C-SPLP	<2mm	15	<RL	0		0.2	Pass
P	T1	EPA6010C-SPLP	<2mm	15	<RL	0		0.15	Pass
Pb	T1	EPA6010C-SPLP	<2mm	15	<RL	0		0.01	Pass
Sb	T1	EPA6010C-SPLP	<2mm	15	<RL	0		0.05	Pass
Se	T1	EPA6010C-SPLP	<2mm	15	<RL	0		0.5	Pass
Tl	T1	EPA6010C-SPLP	<2mm	15	<RL	0		0.025	Pass

Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
V	T1	EPA6010C-SPLP	<2mm	15	<RL	0		0.025	Pass
Zn	T1	EPA6010C-SPLP	<2mm	15	<RL	0		0.0125	Pass
Ag	T1	EPA6010C-SPLP	<2mm	16	<RL	0		0.15	Pass
Al	T1	EPA6010C-SPLP	<2mm	16	<RL	0		0.08	Pass
Al	T1	EPA6010C-SPLP	<2mm	16	<RL	0		0.08	Pass
As	T1	EPA6010C-SPLP	<2mm	16	<RL	0		0.05	Pass
Ba	T1	EPA6010C-SPLP	<2mm	16	<RL	0		0.05	Pass
Be	T1	EPA6010C-SPLP	<2mm	16	<RL	0		0.0025	Pass
Ca	T1	EPA6010C-SPLP	<2mm	16	<RL	0		0.2	Pass
Cd	T1	EPA6010C-SPLP	<2mm	16	<RL	0		0.0025	Pass
Co	T1	EPA6010C-SPLP	<2mm	16	<RL	0		0.05	Pass
Cr	T1	EPA6010C-SPLP	<2mm	16	<RL	0		0.1	Pass
Cu	T1	EPA6010C-SPLP	<2mm	16	<RL	0		0.01	Pass
Fe	T1	EPA6010C-SPLP	<2mm	16	<RL	0		0.5	Pass
K	T1	EPA6010C-SPLP	<2mm	16	<RL	1		0.75	Pass
Mg	T1	EPA6010C-SPLP	<2mm	16	<RL	0		0.25	Pass
Mn	T1	EPA6010C-SPLP	<2mm	16	<RL	0		0.0125	Pass
Na	T1	EPA6010C-SPLP	<2mm	16	<RL	0		0.75	Pass
Ni	T1	EPA6010C-SPLP	<2mm	16	<RL	0		0.2	Pass
P	T1	EPA6010C-SPLP	<2mm	16	<RL	0		0.15	Pass
Pb	T1	EPA6010C-SPLP	<2mm	16	<RL	0		0.01	Pass
Sb	T1	EPA6010C-SPLP	<2mm	16	<RL	0		0.05	Pass
Se	T1	EPA6010C-SPLP	<2mm	16	<RL	0		0.5	Pass
Tl	T1	EPA6010C-SPLP	<2mm	16	<RL	0		0.025	Pass
V	T1	EPA6010C-SPLP	<2mm	16	<RL	0		0.025	Pass
Zn	T1	EPA6010C-SPLP	<2mm	16	<RL	0		0.0125	Pass
Ag	T1	EPA6010C-SPLP	<2mm	17	<RL	0		0.15	Pass
Al	T1	EPA6010C-SPLP	<2mm	17	<RL	0		0.08	Pass
Al	T1	EPA6010C-SPLP	<2mm	17	<RL	0		0.08	Pass
As	T1	EPA6010C-SPLP	<2mm	17	<RL	0		0.05	Pass
Ba	T1	EPA6010C-SPLP	<2mm	17	<RL	0		0.05	Pass
Be	T1	EPA6010C-SPLP	<2mm	17	<RL	0		0.0025	Pass
Ca	T1	EPA6010C-SPLP	<2mm	17	<RL	0		0.2	Pass
Cd	T1	EPA6010C-SPLP	<2mm	17	<RL	0		0.0025	Pass
Co	T1	EPA6010C-SPLP	<2mm	17	<RL	0		0.05	Pass
Cr	T1	EPA6010C-SPLP	<2mm	17	<RL	0		0.1	Pass
Cu	T1	EPA6010C-SPLP	<2mm	17	<RL	0		0.01	Pass
Fe	T1	EPA6010C-SPLP	<2mm	17	<RL	0		0.5	Pass
K	T1	EPA6010C-SPLP	<2mm	17	<RL	0		0.75	Pass
Mg	T1	EPA6010C-SPLP	<2mm	17	<RL	0		0.25	Pass
Mn	T1	EPA6010C-SPLP	<2mm	17	<RL	0		0.0125	Pass

Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Na	T1	EPA6010C-SPLP	<2mm	17	<RL	0		0.75	Pass
Ni	T1	EPA6010C-SPLP	<2mm	17	<RL	0		0.2	Pass
P	T1	EPA6010C-SPLP	<2mm	17	<RL	0		0.15	Pass
Pb	T1	EPA6010C-SPLP	<2mm	17	<RL	0		0.01	Pass
Sb	T1	EPA6010C-SPLP	<2mm	17	<RL	0		0.05	Pass
Se	T1	EPA6010C-SPLP	<2mm	17	<RL	0		0.5	Pass
Tl	T1	EPA6010C-SPLP	<2mm	17	<RL	0		0.025	Pass
V	T1	EPA6010C-SPLP	<2mm	17	<RL	0		0.025	Pass
Zn	T1	EPA6010C-SPLP	<2mm	17	<RL	0		0.0125	Pass
Ag	T1	EPA6010C-SPLP	<2mm	1	RPD if > RL	0		20	Pass
Al	T1	EPA6010C-SPLP	<2mm	1	RPD if > RL	3		20	Pass
Al	T1	EPA6010C-SPLP	<2mm	1	RPD if > RL	3		20	Pass
As	T1	EPA6010C-SPLP	<2mm	1	RPD if > RL	6		20	Pass
Ba	T1	EPA6010C-SPLP	<2mm	1	RPD if > RL	0		20	Pass
Be	T1	EPA6010C-SPLP	<2mm	1	RPD if > RL	0		20	Pass
Ca	T1	EPA6010C-SPLP	<2mm	1	RPD if > RL	7		20	Pass
Cd	T1	EPA6010C-SPLP	<2mm	1	RPD if > RL	0		20	Pass
Co	T1	EPA6010C-SPLP	<2mm	1	RPD if > RL	0		20	Pass
Cr	T1	EPA6010C-SPLP	<2mm	1	RPD if > RL	0		20	Pass
Cu	T1	EPA6010C-SPLP	<2mm	1	RPD if > RL	0		20	Pass
Fe	T1	EPA6010C-SPLP	<2mm	1	RPD if > RL	4		20	Pass
K	T1	EPA6010C-SPLP	<2mm	1	RPD if > RL	7		20	Pass
Mg	T1	EPA6010C-SPLP	<2mm	1	RPD if > RL	8		20	Pass
Mn	T1	EPA6010C-SPLP	<2mm	1	RPD if > RL	2		20	Pass
Na	T1	EPA6010C-SPLP	<2mm	1	RPD if > RL	5		20	Pass
Ni	T1	EPA6010C-SPLP	<2mm	1	RPD if > RL	0		20	Pass
P	T1	EPA6010C-SPLP	<2mm	1	RPD if > RL	6		20	Pass
Pb	T1	EPA6010C-SPLP	<2mm	1	RPD if > RL	8		20	Pass
Sb	T1	EPA6010C-SPLP	<2mm	1	RPD if > RL	0		20	Pass
Se	T1	EPA6010C-SPLP	<2mm	1	RPD if > RL	0		20	Pass
Tl	T1	EPA6010C-SPLP	<2mm	1	RPD if > RL	0		20	Pass
V	T1	EPA6010C-SPLP	<2mm	1	RPD if > RL	0		20	Pass
Zn	T1	EPA6010C-SPLP	<2mm	1	RPD if > RL	4		20	Pass
Ag	T1	EPA6010C-SPLP	<2mm	2	RPD if > 2xRL	0		20	Pass
Al	T1	EPA6010C-SPLP	<2mm	2	RPD if > 2xRL	0		20	Pass
Al	T1	EPA6010C-SPLP	<2mm	2	RPD if > 2xRL	0		20	Pass
As	T1	EPA6010C-SPLP	<2mm	2	RPD if > 2xRL	0		20	Pass
Ba	T1	EPA6010C-SPLP	<2mm	2	RPD if > 2xRL	0		20	Pass
Be	T1	EPA6010C-SPLP	<2mm	2	RPD if > 2xRL	0		20	Pass
Ca	T1	EPA6010C-SPLP	<2mm	2	RPD if > 2xRL	9		20	Pass
Cd	T1	EPA6010C-SPLP	<2mm	2	RPD if > 2xRL	0		20	Pass

Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Co	T1	EPA6010C-SPLP	<2mm	2	RPD if > 2xRL	0		20	Pass
Cr	T1	EPA6010C-SPLP	<2mm	2	RPD if > 2xRL	0		20	Pass
Cu	T1	EPA6010C-SPLP	<2mm	2	RPD if > 2xRL	0		20	Pass
Fe	T1	EPA6010C-SPLP	<2mm	2	RPD if > 2xRL	0		20	Pass
K	T1	EPA6010C-SPLP	<2mm	2	RPD if > 2xRL	9		20	Pass
Mg	T1	EPA6010C-SPLP	<2mm	2	RPD if > 2xRL	0		20	Pass
Mn	T1	EPA6010C-SPLP	<2mm	2	RPD if > 2xRL	4		20	Pass
Na	T1	EPA6010C-SPLP	<2mm	2	RPD if > 2xRL	11		20	Pass
Ni	T1	EPA6010C-SPLP	<2mm	2	RPD if > 2xRL	0		20	Pass
P	T1	EPA6010C-SPLP	<2mm	2	RPD if > 2xRL	16		20	Pass
Pb	T1	EPA6010C-SPLP	<2mm	2	RPD if > 2xRL	6		20	Pass
Sb	T1	EPA6010C-SPLP	<2mm	2	RPD if > 2xRL	0		20	Pass
Se	T1	EPA6010C-SPLP	<2mm	2	RPD if > 2xRL	0		20	Pass
Tl	T1	EPA6010C-SPLP	<2mm	2	RPD if > 2xRL	0		20	Pass
V	T1	EPA6010C-SPLP	<2mm	2	RPD if > 2xRL	0		20	Pass
Zn	T1	EPA6010C-SPLP	<2mm	2	RPD if > 2xRL	1		20	Pass
Ag	T1	EPA6010C-SPLP	<2mm	3	RPD if > 2xRL	0		20	Pass
Al	T1	EPA6010C-SPLP	<2mm	3	RPD if > 2xRL	8		20	Pass
Al	T1	EPA6010C-SPLP	<2mm	3	RPD if > 2xRL	8		20	Pass
As	T1	EPA6010C-SPLP	<2mm	3	RPD if > 2xRL	0		20	Pass
Ba	T1	EPA6010C-SPLP	<2mm	3	RPD if > 2xRL	0		20	Pass
Be	T1	EPA6010C-SPLP	<2mm	3	RPD if > 2xRL	0		20	Pass
Ca	T1	EPA6010C-SPLP	<2mm	3	RPD if > 2xRL	2		20	Pass
Cd	T1	EPA6010C-SPLP	<2mm	3	RPD if > 2xRL	0		20	Pass
Co	T1	EPA6010C-SPLP	<2mm	3	RPD if > 2xRL	0		20	Pass
Cr	T1	EPA6010C-SPLP	<2mm	3	RPD if > 2xRL	0		20	Pass
Cu	T1	EPA6010C-SPLP	<2mm	3	RPD if > 2xRL	0		20	Pass
Fe	T1	EPA6010C-SPLP	<2mm	3	RPD if > 2xRL	0		20	Pass
K	T1	EPA6010C-SPLP	<2mm	3	RPD if > 2xRL	1		20	Pass
Mg	T1	EPA6010C-SPLP	<2mm	3	RPD if > 2xRL	0		20	Pass
Mn	T1	EPA6010C-SPLP	<2mm	3	RPD if > 2xRL	1		20	Pass
Na	T1	EPA6010C-SPLP	<2mm	3	RPD if > 2xRL	3		20	Pass
Ni	T1	EPA6010C-SPLP	<2mm	3	RPD if > 2xRL	0		20	Pass
P	T1	EPA6010C-SPLP	<2mm	3	RPD if > 2xRL	7		20	Pass
Pb	T1	EPA6010C-SPLP	<2mm	3	RPD if > 2xRL	9		20	Pass
Sb	T1	EPA6010C-SPLP	<2mm	3	RPD if > 2xRL	0		20	Pass
Se	T1	EPA6010C-SPLP	<2mm	3	RPD if > 2xRL	0		20	Pass
Tl	T1	EPA6010C-SPLP	<2mm	3	RPD if > 2xRL	0		20	Pass
V	T1	EPA6010C-SPLP	<2mm	3	RPD if > 2xRL	0		20	Pass
Zn	T1	EPA6010C-SPLP	<2mm	3	RPD if > 2xRL	2		20	Pass
Ag	T1	EPA6010C-SPLP	<2mm	4	RPD if > 2xRL	0		20	Pass

Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Al	T1	EPA6010C-SPLP	<2mm	4	RPD if > 2xRL	5		20	Pass
Al	T1	EPA6010C-SPLP	<2mm	4	RPD if > 2xRL	5		20	Pass
As	T1	EPA6010C-SPLP	<2mm	4	RPD if > 2xRL	0		20	Pass
Ba	T1	EPA6010C-SPLP	<2mm	4	RPD if > 2xRL	0		20	Pass
Be	T1	EPA6010C-SPLP	<2mm	4	RPD if > 2xRL	0		20	Pass
Ca	T1	EPA6010C-SPLP	<2mm	4	RPD if > 2xRL	1		20	Pass
Cd	T1	EPA6010C-SPLP	<2mm	4	RPD if > 2xRL	0		20	Pass
Co	T1	EPA6010C-SPLP	<2mm	4	RPD if > 2xRL	0		20	Pass
Cr	T1	EPA6010C-SPLP	<2mm	4	RPD if > 2xRL	0		20	Pass
Cu	T1	EPA6010C-SPLP	<2mm	4	RPD if > 2xRL	0		20	Pass
Fe	T1	EPA6010C-SPLP	<2mm	4	RPD if > 2xRL	0		20	Pass
K	T1	EPA6010C-SPLP	<2mm	4	RPD if > 2xRL	3		20	Pass
Mg	T1	EPA6010C-SPLP	<2mm	4	RPD if > 2xRL	0		20	Pass
Mn	T1	EPA6010C-SPLP	<2mm	4	RPD if > 2xRL	3		20	Pass
Na	T1	EPA6010C-SPLP	<2mm	4	RPD if > 2xRL	6		20	Pass
Ni	T1	EPA6010C-SPLP	<2mm	4	RPD if > 2xRL	0		20	Pass
P	T1	EPA6010C-SPLP	<2mm	4	RPD if > 2xRL	4		20	Pass
Pb	T1	EPA6010C-SPLP	<2mm	4	RPD if > 2xRL	7		20	Pass
Sb	T1	EPA6010C-SPLP	<2mm	4	RPD if > 2xRL	0		20	Pass
Se	T1	EPA6010C-SPLP	<2mm	4	RPD if > 2xRL	0		20	Pass
Tl	T1	EPA6010C-SPLP	<2mm	4	RPD if > 2xRL	0		20	Pass
V	T1	EPA6010C-SPLP	<2mm	4	RPD if > 2xRL	0		20	Pass
Zn	T1	EPA6010C-SPLP	<2mm	4	RPD if > 2xRL	3		20	Pass
Ag	T1	EPA6010C-SPLP	<2mm	5	RPD if > 2xRL	0		20	Pass
Al	T1	EPA6010C-SPLP	<2mm	5	RPD if > 2xRL	5		20	Pass
Al	T1	EPA6010C-SPLP	<2mm	5	RPD if > 2xRL	5		20	Pass
As	T1	EPA6010C-SPLP	<2mm	5	RPD if > 2xRL	0		20	Pass
Ba	T1	EPA6010C-SPLP	<2mm	5	RPD if > 2xRL	0		20	Pass
Be	T1	EPA6010C-SPLP	<2mm	5	RPD if > 2xRL	0		20	Pass
Ca	T1	EPA6010C-SPLP	<2mm	5	RPD if > 2xRL	8		20	Pass
Cd	T1	EPA6010C-SPLP	<2mm	5	RPD if > 2xRL	0		20	Pass
Co	T1	EPA6010C-SPLP	<2mm	5	RPD if > 2xRL	0		20	Pass
Cr	T1	EPA6010C-SPLP	<2mm	5	RPD if > 2xRL	0		20	Pass
Cu	T1	EPA6010C-SPLP	<2mm	5	RPD if > 2xRL	0		20	Pass
Fe	T1	EPA6010C-SPLP	<2mm	5	RPD if > 2xRL	0		20	Pass
K	T1	EPA6010C-SPLP	<2mm	5	RPD if > 2xRL	0		20	Pass
Mg	T1	EPA6010C-SPLP	<2mm	5	RPD if > 2xRL	7		20	Pass
Mn	T1	EPA6010C-SPLP	<2mm	5	RPD if > 2xRL	9		20	Pass
Na	T1	EPA6010C-SPLP	<2mm	5	RPD if > 2xRL	1		20	Pass
Ni	T1	EPA6010C-SPLP	<2mm	5	RPD if > 2xRL	0		20	Pass
P	T1	EPA6010C-SPLP	<2mm	5	RPD if > 2xRL	5		20	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Pb	T1	EPA6010C-SPLP	<2mm	5	RPD if > 2xRL	11		20	Pass
Sb	T1	EPA6010C-SPLP	<2mm	5	RPD if > 2xRL	0		20	Pass
Se	T1	EPA6010C-SPLP	<2mm	5	RPD if > 2xRL	0		20	Pass
Tl	T1	EPA6010C-SPLP	<2mm	5	RPD if > 2xRL	0		20	Pass
V	T1	EPA6010C-SPLP	<2mm	5	RPD if > 2xRL	0		20	Pass
Zn	T1	EPA6010C-SPLP	<2mm	5	RPD if > 2xRL	9		20	Pass
Ag	T1	EPA6010C-SPLP	<2mm	6	RPD if > 2xRL	0		20	Pass
Al	T1	EPA6010C-SPLP	<2mm	6	RPD if > 2xRL	0		20	Pass
Al	T1	EPA6010C-SPLP	<2mm	6	RPD if > 2xRL	0		20	Pass
As	T1	EPA6010C-SPLP	<2mm	6	RPD if > 2xRL	6		20	Pass
Ba	T1	EPA6010C-SPLP	<2mm	6	RPD if > 2xRL	0		20	Pass
Be	T1	EPA6010C-SPLP	<2mm	6	RPD if > 2xRL	0		20	Pass
Ca	T1	EPA6010C-SPLP	<2mm	6	RPD if > 2xRL	19		20	Pass
Cd	T1	EPA6010C-SPLP	<2mm	6	RPD if > 2xRL	0		20	Pass
Co	T1	EPA6010C-SPLP	<2mm	6	RPD if > 2xRL	0		20	Pass
Cr	T1	EPA6010C-SPLP	<2mm	6	RPD if > 2xRL	0		20	Pass
Cu	T1	EPA6010C-SPLP	<2mm	6	RPD if > 2xRL	0		20	Pass
Fe	T1	EPA6010C-SPLP	<2mm	6	RPD if > 2xRL	0		20	Pass
K	T1	EPA6010C-SPLP	<2mm	6	RPD if > 2xRL	9		20	Pass
Mg	T1	EPA6010C-SPLP	<2mm	6	RPD if > 2xRL	0		20	Pass
Mn	T1	EPA6010C-SPLP	<2mm	6	RPD if > 2xRL	16		20	Pass
Na	T1	EPA6010C-SPLP	<2mm	6	RPD if > 2xRL	9		20	Pass
Ni	T1	EPA6010C-SPLP	<2mm	6	RPD if > 2xRL	0		20	Pass
P	T1	EPA6010C-SPLP	<2mm	6	RPD if > 2xRL	3		20	Pass
Pb	T1	EPA6010C-SPLP	<2mm	6	RPD if > 2xRL	1		20	Pass
Sb	T1	EPA6010C-SPLP	<2mm	6	RPD if > 2xRL	0		20	Pass
Se	T1	EPA6010C-SPLP	<2mm	6	RPD if > 2xRL	0		20	Pass
Tl	T1	EPA6010C-SPLP	<2mm	6	RPD if > 2xRL	0		20	Pass
V	T1	EPA6010C-SPLP	<2mm	6	RPD if > 2xRL	0		20	Pass
Zn	T1	EPA6010C-SPLP	<2mm	6	RPD if > 2xRL	9		20	Pass
Ag	T1	EPA6010C-SPLP	<2mm	7	RPD if > 2xRL	0		20	Pass
Al	T1	EPA6010C-SPLP	<2mm	7	RPD if > 2xRL	0		20	Pass
Al	T1	EPA6010C-SPLP	<2mm	7	RPD if > 2xRL	0		20	Pass
As	T1	EPA6010C-SPLP	<2mm	7	RPD if > 2xRL	0		20	Pass
Ba	T1	EPA6010C-SPLP	<2mm	7	RPD if > 2xRL	0		20	Pass
Be	T1	EPA6010C-SPLP	<2mm	7	RPD if > 2xRL	0		20	Pass
Ca	T1	EPA6010C-SPLP	<2mm	7	RPD if > 2xRL	10		20	Pass
Cd	T1	EPA6010C-SPLP	<2mm	7	RPD if > 2xRL	0		20	Pass
Co	T1	EPA6010C-SPLP	<2mm	7	RPD if > 2xRL	0		20	Pass
Cr	T1	EPA6010C-SPLP	<2mm	7	RPD if > 2xRL	0		20	Pass
Cu	T1	EPA6010C-SPLP	<2mm	7	RPD if > 2xRL	0		20	Pass

Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Fe	T1	EPA6010C-SPLP	<2mm	7	RPD if > 2xRL	0		20	Pass
K	T1	EPA6010C-SPLP	<2mm	7	RPD if > 2xRL	9		20	Pass
Mg	T1	EPA6010C-SPLP	<2mm	7	RPD if > 2xRL	0		20	Pass
Mn	T1	EPA6010C-SPLP	<2mm	7	RPD if > 2xRL	6		20	Pass
Na	T1	EPA6010C-SPLP	<2mm	7	RPD if > 2xRL	9		20	Pass
Ni	T1	EPA6010C-SPLP	<2mm	7	RPD if > 2xRL	0		20	Pass
P	T1	EPA6010C-SPLP	<2mm	7	RPD if > 2xRL	4		20	Pass
Pb	T1	EPA6010C-SPLP	<2mm	7	RPD if > 2xRL	3		20	Pass
Sb	T1	EPA6010C-SPLP	<2mm	7	RPD if > 2xRL	0		20	Pass
Se	T1	EPA6010C-SPLP	<2mm	7	RPD if > 2xRL	0		20	Pass
Tl	T1	EPA6010C-SPLP	<2mm	7	RPD if > 2xRL	0		20	Pass
V	T1	EPA6010C-SPLP	<2mm	7	RPD if > 2xRL	0		20	Pass
Zn	T1	EPA6010C-SPLP	<2mm	7	RPD if > 2xRL	2		20	Pass
Ag	T1	EPA6010C-SPLP	<2mm	8	RPD if > 2xRL	0		20	Pass
Al	T1	EPA6010C-SPLP	<2mm	8	RPD if > 2xRL	1		20	Pass
Al	T1	EPA6010C-SPLP	<2mm	8	RPD if > 2xRL	1		20	Pass
As	T1	EPA6010C-SPLP	<2mm	8	RPD if > 2xRL	0		20	Pass
Ba	T1	EPA6010C-SPLP	<2mm	8	RPD if > 2xRL	0		20	Pass
Be	T1	EPA6010C-SPLP	<2mm	8	RPD if > 2xRL	0		20	Pass
Ca	T1	EPA6010C-SPLP	<2mm	8	RPD if > 2xRL	6		20	Pass
Cd	T1	EPA6010C-SPLP	<2mm	8	RPD if > 2xRL	0		20	Pass
Co	T1	EPA6010C-SPLP	<2mm	8	RPD if > 2xRL	0		20	Pass
Cr	T1	EPA6010C-SPLP	<2mm	8	RPD if > 2xRL	0		20	Pass
Cu	T1	EPA6010C-SPLP	<2mm	8	RPD if > 2xRL	0		20	Pass
Fe	T1	EPA6010C-SPLP	<2mm	8	RPD if > 2xRL	0		20	Pass
K	T1	EPA6010C-SPLP	<2mm	8	RPD if > 2xRL	5		20	Pass
Mg	T1	EPA6010C-SPLP	<2mm	8	RPD if > 2xRL	0		20	Pass
Mn	T1	EPA6010C-SPLP	<2mm	8	RPD if > 2xRL	2		20	Pass
Na	T1	EPA6010C-SPLP	<2mm	8	RPD if > 2xRL	8		20	Pass
Ni	T1	EPA6010C-SPLP	<2mm	8	RPD if > 2xRL	0		20	Pass
P	T1	EPA6010C-SPLP	<2mm	8	RPD if > 2xRL	2		20	Pass
Pb	T1	EPA6010C-SPLP	<2mm	8	RPD if > 2xRL	1		20	Pass
Sb	T1	EPA6010C-SPLP	<2mm	8	RPD if > 2xRL	0		20	Pass
Se	T1	EPA6010C-SPLP	<2mm	8	RPD if > 2xRL	0		20	Pass
Tl	T1	EPA6010C-SPLP	<2mm	8	RPD if > 2xRL	0		20	Pass
V	T1	EPA6010C-SPLP	<2mm	8	RPD if > 2xRL	0		20	Pass
Zn	T1	EPA6010C-SPLP	<2mm	8	RPD if > 2xRL	2		20	Pass
Ag	T1	EPA6010C-SPLP	<2mm	9	RPD if > 2xRL	0		20	Pass
Al	T1	EPA6010C-SPLP	<2mm	9	RPD if > 2xRL	3		20	Pass
Al	T1	EPA6010C-SPLP	<2mm	9	RPD if > 2xRL	3		20	Pass
As	T1	EPA6010C-SPLP	<2mm	9	RPD if > 2xRL	0		20	Pass

Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Ba	T1	EPA6010C-SPLP	<2mm	9	RPD if > 2xRL	0		20	Pass
Be	T1	EPA6010C-SPLP	<2mm	9	RPD if > 2xRL	0		20	Pass
Ca	T1	EPA6010C-SPLP	<2mm	9	RPD if > 2xRL	3		20	Pass
Cd	T1	EPA6010C-SPLP	<2mm	9	RPD if > 2xRL	0		20	Pass
Co	T1	EPA6010C-SPLP	<2mm	9	RPD if > 2xRL	0		20	Pass
Cr	T1	EPA6010C-SPLP	<2mm	9	RPD if > 2xRL	0		20	Pass
Cu	T1	EPA6010C-SPLP	<2mm	9	RPD if > 2xRL	0		20	Pass
Fe	T1	EPA6010C-SPLP	<2mm	9	RPD if > 2xRL	0		20	Pass
K	T1	EPA6010C-SPLP	<2mm	9	RPD if > 2xRL	5		20	Pass
Mg	T1	EPA6010C-SPLP	<2mm	9	RPD if > 2xRL	2		20	Pass
Mn	T1	EPA6010C-SPLP	<2mm	9	RPD if > 2xRL	1		20	Pass
Na	T1	EPA6010C-SPLP	<2mm	9	RPD if > 2xRL	7		20	Pass
Ni	T1	EPA6010C-SPLP	<2mm	9	RPD if > 2xRL	0		20	Pass
P	T1	EPA6010C-SPLP	<2mm	9	RPD if > 2xRL	6		20	Pass
Pb	T1	EPA6010C-SPLP	<2mm	9	RPD if > 2xRL	3		20	Pass
Sb	T1	EPA6010C-SPLP	<2mm	9	RPD if > 2xRL	0		20	Pass
Se	T1	EPA6010C-SPLP	<2mm	9	RPD if > 2xRL	0		20	Pass
Tl	T1	EPA6010C-SPLP	<2mm	9	RPD if > 2xRL	0		20	Pass
V	T1	EPA6010C-SPLP	<2mm	9	RPD if > 2xRL	0		20	Pass
Zn	T1	EPA6010C-SPLP	<2mm	9	RPD if > 2xRL	4		20	Pass
Ag	T1	EPA6010C-SPLP	<2mm	11	RPD if > 2xRL	0		20	Pass
Al	T1	EPA6010C-SPLP	<2mm	11	RPD if > 2xRL	16		20	Pass
Al	T1	EPA6010C-SPLP	<2mm	11	RPD if > 2xRL	16		20	Pass
As	T1	EPA6010C-SPLP	<2mm	11	RPD if > 2xRL	0		20	Pass
Ba	T1	EPA6010C-SPLP	<2mm	11	RPD if > 2xRL	0		20	Pass
Be	T1	EPA6010C-SPLP	<2mm	11	RPD if > 2xRL	0		20	Pass
Ca	T1	EPA6010C-SPLP	<2mm	11	RPD if > 2xRL	12		20	Pass
Cd	T1	EPA6010C-SPLP	<2mm	11	RPD if > 2xRL	0		20	Pass
Co	T1	EPA6010C-SPLP	<2mm	11	RPD if > 2xRL	0		20	Pass
Cr	T1	EPA6010C-SPLP	<2mm	11	RPD if > 2xRL	0		20	Pass
Cu	T1	EPA6010C-SPLP	<2mm	11	RPD if > 2xRL	0		20	Pass
Fe	T1	EPA6010C-SPLP	<2mm	11	RPD if > 2xRL	0		20	Pass
K	T1	EPA6010C-SPLP	<2mm	11	RPD if > 2xRL	12		20	Pass
Mg	T1	EPA6010C-SPLP	<2mm	11	RPD if > 2xRL	14		20	Pass
Mn	T1	EPA6010C-SPLP	<2mm	11	RPD if > 2xRL	14		20	Pass
Na	T1	EPA6010C-SPLP	<2mm	11	RPD if > 2xRL	14		20	Pass
Ni	T1	EPA6010C-SPLP	<2mm	11	RPD if > 2xRL	0		20	Pass
P	T1	EPA6010C-SPLP	<2mm	11	RPD if > 2xRL	1		20	Pass
Pb	T1	EPA6010C-SPLP	<2mm	11	RPD if > 2xRL	12		20	Pass
Sb	T1	EPA6010C-SPLP	<2mm	11	RPD if > 2xRL	0		20	Pass
Se	T1	EPA6010C-SPLP	<2mm	11	RPD if > 2xRL	0		20	Pass

Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Tl	T1	EPA6010C-SPLP	<2mm	11	RPD if > 2xRL	0		20	Pass
V	T1	EPA6010C-SPLP	<2mm	11	RPD if > 2xRL	0		20	Pass
Zn	T1	EPA6010C-SPLP	<2mm	11	RPD if > 2xRL	16		20	Pass
Ag	T1	EPA6010C-SPLP	<2mm	12	RPD if > 2xRL	0		20	Pass
Al	T1	EPA6010C-SPLP	<2mm	12	RPD if > 2xRL	12		20	Pass
Al	T1	EPA6010C-SPLP	<2mm	12	RPD if > 2xRL	12		20	Pass
As	T1	EPA6010C-SPLP	<2mm	12	RPD if > 2xRL	0		20	Pass
Ba	T1	EPA6010C-SPLP	<2mm	12	RPD if > 2xRL	0		20	Pass
Be	T1	EPA6010C-SPLP	<2mm	12	RPD if > 2xRL	0		20	Pass
Ca	T1	EPA6010C-SPLP	<2mm	12	RPD if > 2xRL	15		20	Pass
Cd	T1	EPA6010C-SPLP	<2mm	12	RPD if > 2xRL	0		20	Pass
Co	T1	EPA6010C-SPLP	<2mm	12	RPD if > 2xRL	0		20	Pass
Cr	T1	EPA6010C-SPLP	<2mm	12	RPD if > 2xRL	0		20	Pass
Cu	T1	EPA6010C-SPLP	<2mm	12	RPD if > 2xRL	0		20	Pass
Fe	T1	EPA6010C-SPLP	<2mm	12	RPD if > 2xRL	0		20	Pass
K	T1	EPA6010C-SPLP	<2mm	12	RPD if > 2xRL	7		20	Pass
Mg	T1	EPA6010C-SPLP	<2mm	12	RPD if > 2xRL	12		20	Pass
Mn	T1	EPA6010C-SPLP	<2mm	12	RPD if > 2xRL	12		20	Pass
Na	T1	EPA6010C-SPLP	<2mm	12	RPD if > 2xRL	7		20	Pass
Ni	T1	EPA6010C-SPLP	<2mm	12	RPD if > 2xRL	0		20	Pass
P	T1	EPA6010C-SPLP	<2mm	12	RPD if > 2xRL	3		20	Pass
Pb	T1	EPA6010C-SPLP	<2mm	12	RPD if > 2xRL	0		20	Pass
Sb	T1	EPA6010C-SPLP	<2mm	12	RPD if > 2xRL	0		20	Pass
Se	T1	EPA6010C-SPLP	<2mm	12	RPD if > 2xRL	0		20	Pass
Tl	T1	EPA6010C-SPLP	<2mm	12	RPD if > 2xRL	0		20	Pass
V	T1	EPA6010C-SPLP	<2mm	12	RPD if > 2xRL	0		20	Pass
Zn	T1	EPA6010C-SPLP	<2mm	12	RPD if > 2xRL	11		20	Pass
Ag	T1	EPA6010C-SPLP	<2mm	13	RPD if > 2xRL	0		20	Pass
Al	T1	EPA6010C-SPLP	<2mm	13	RPD if > 2xRL	4		20	Pass
Al	T1	EPA6010C-SPLP	<2mm	13	RPD if > 2xRL	4		20	Pass
As	T1	EPA6010C-SPLP	<2mm	13	RPD if > 2xRL	0		20	Pass
Ba	T1	EPA6010C-SPLP	<2mm	13	RPD if > 2xRL	0		20	Pass
Be	T1	EPA6010C-SPLP	<2mm	13	RPD if > 2xRL	0		20	Pass
Ca	T1	EPA6010C-SPLP	<2mm	13	RPD if > 2xRL	11		20	Pass
Cd	T1	EPA6010C-SPLP	<2mm	13	RPD if > 2xRL	0		20	Pass
Co	T1	EPA6010C-SPLP	<2mm	13	RPD if > 2xRL	0		20	Pass
Cr	T1	EPA6010C-SPLP	<2mm	13	RPD if > 2xRL	0		20	Pass
Cu	T1	EPA6010C-SPLP	<2mm	13	RPD if > 2xRL	0		20	Pass
Fe	T1	EPA6010C-SPLP	<2mm	13	RPD if > 2xRL	0		20	Pass
K	T1	EPA6010C-SPLP	<2mm	13	RPD if > 2xRL	12		20	Pass
Mg	T1	EPA6010C-SPLP	<2mm	13	RPD if > 2xRL	13		20	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Mn	T1	EPA6010C-SPLP	<2mm	13	RPD if > 2xRL	14		20	Pass
Na	T1	EPA6010C-SPLP	<2mm	13	RPD if > 2xRL	18		20	Pass
Ni	T1	EPA6010C-SPLP	<2mm	13	RPD if > 2xRL	0		20	Pass
P	T1	EPA6010C-SPLP	<2mm	13	RPD if > 2xRL	3		20	Pass
Pb	T1	EPA6010C-SPLP	<2mm	13	RPD if > 2xRL	1		20	Pass
Sb	T1	EPA6010C-SPLP	<2mm	13	RPD if > 2xRL	0		20	Pass
Se	T1	EPA6010C-SPLP	<2mm	13	RPD if > 2xRL	0		20	Pass
Tl	T1	EPA6010C-SPLP	<2mm	13	RPD if > 2xRL	0		20	Pass
V	T1	EPA6010C-SPLP	<2mm	13	RPD if > 2xRL	0		20	Pass
Zn	T1	EPA6010C-SPLP	<2mm	13	RPD if > 2xRL	14		20	Pass
Ag	T1	EPA6010C-SPLP	<2mm	14	RPD if > 2xRL	0		20	Pass
Al	T1	EPA6010C-SPLP	<2mm	14	RPD if > 2xRL	15		20	Pass
Al	T1	EPA6010C-SPLP	<2mm	14	RPD if > 2xRL	15		20	Pass
As	T1	EPA6010C-SPLP	<2mm	14	RPD if > 2xRL	2		20	Pass
Ba	T1	EPA6010C-SPLP	<2mm	14	RPD if > 2xRL	0		20	Pass
Be	T1	EPA6010C-SPLP	<2mm	14	RPD if > 2xRL	0		20	Pass
Ca	T1	EPA6010C-SPLP	<2mm	14	RPD if > 2xRL	19		20	Pass
Cd	T1	EPA6010C-SPLP	<2mm	14	RPD if > 2xRL	0		20	Pass
Co	T1	EPA6010C-SPLP	<2mm	14	RPD if > 2xRL	0		20	Pass
Cr	T1	EPA6010C-SPLP	<2mm	14	RPD if > 2xRL	0		20	Pass
Cu	T1	EPA6010C-SPLP	<2mm	14	RPD if > 2xRL	15		20	Pass
Fe	T1	EPA6010C-SPLP	<2mm	14	RPD if > 2xRL	0		20	Pass
K	T1	EPA6010C-SPLP	<2mm	14	RPD if > 2xRL	8		20	Pass
Mg	T1	EPA6010C-SPLP	<2mm	14	RPD if > 2xRL	18		20	Pass
Mn	T1	EPA6010C-SPLP	<2mm	14	RPD if > 2xRL	14		20	Pass
Na	T1	EPA6010C-SPLP	<2mm	14	RPD if > 2xRL	8		20	Pass
Ni	T1	EPA6010C-SPLP	<2mm	14	RPD if > 2xRL	0		20	Pass
P	T1	EPA6010C-SPLP	<2mm	14	RPD if > 2xRL	3		20	Pass
Pb	T1	EPA6010C-SPLP	<2mm	14	RPD if > 2xRL	3		20	Pass
Sb	T1	EPA6010C-SPLP	<2mm	14	RPD if > 2xRL	0		20	Pass
Se	T1	EPA6010C-SPLP	<2mm	14	RPD if > 2xRL	0		20	Pass
Tl	T1	EPA6010C-SPLP	<2mm	14	RPD if > 2xRL	0		20	Pass
V	T1	EPA6010C-SPLP	<2mm	14	RPD if > 2xRL	0		20	Pass
Zn	T1	EPA6010C-SPLP	<2mm	14	RPD if > 2xRL	8		20	Pass
Ag	T1	EPA6010C-SPLP	<2mm	15	RPD if > 2xRL	0		20	Pass
Al	T1	EPA6010C-SPLP	<2mm	15	RPD if > 2xRL	6		20	Pass
Al	T1	EPA6010C-SPLP	<2mm	15	RPD if > 2xRL	6		20	Pass
As	T1	EPA6010C-SPLP	<2mm	15	RPD if > 2xRL	0		20	Pass
Ba	T1	EPA6010C-SPLP	<2mm	15	RPD if > 2xRL	0		20	Pass
Be	T1	EPA6010C-SPLP	<2mm	15	RPD if > 2xRL	0		20	Pass
Ca	T1	EPA6010C-SPLP	<2mm	15	RPD if > 2xRL	40		20	Fail

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Cd	T1	EPA6010C-SPLP	<2mm	15	RPD if > 2xRL	0		20	Pass
Co	T1	EPA6010C-SPLP	<2mm	15	RPD if > 2xRL	0		20	Pass
Cr	T1	EPA6010C-SPLP	<2mm	15	RPD if > 2xRL	0		20	Pass
Cu	T1	EPA6010C-SPLP	<2mm	15	RPD if > 2xRL	32		20	Fail
Fe	T1	EPA6010C-SPLP	<2mm	15	RPD if > 2xRL	0		20	Pass
K	T1	EPA6010C-SPLP	<2mm	15	RPD if > 2xRL	14		20	Pass
Mg	T1	EPA6010C-SPLP	<2mm	15	RPD if > 2xRL	40		20	Fail
Mn	T1	EPA6010C-SPLP	<2mm	15	RPD if > 2xRL	31		20	Fail
Na	T1	EPA6010C-SPLP	<2mm	15	RPD if > 2xRL	13		20	Pass
Ni	T1	EPA6010C-SPLP	<2mm	15	RPD if > 2xRL	0		20	Pass
P	T1	EPA6010C-SPLP	<2mm	15	RPD if > 2xRL	22		20	Fail
Pb	T1	EPA6010C-SPLP	<2mm	15	RPD if > 2xRL	12		20	Pass
Sb	T1	EPA6010C-SPLP	<2mm	15	RPD if > 2xRL	0		20	Pass
Se	T1	EPA6010C-SPLP	<2mm	15	RPD if > 2xRL	0		20	Pass
Tl	T1	EPA6010C-SPLP	<2mm	15	RPD if > 2xRL	0		20	Pass
V	T1	EPA6010C-SPLP	<2mm	15	RPD if > 2xRL	0		20	Pass
Zn	T1	EPA6010C-SPLP	<2mm	15	RPD if > 2xRL	19		20	Pass
Ag	T1	EPA6010C-SPLP	<2mm	16	RPD if > 2xRL	0		20	Pass
Al	T1	EPA6010C-SPLP	<2mm	16	RPD if > 2xRL	39		20	Fail
Al	T1	EPA6010C-SPLP	<2mm	16	RPD if > 2xRL	39		20	Fail
As	T1	EPA6010C-SPLP	<2mm	16	RPD if > 2xRL	0		20	Pass
Ba	T1	EPA6010C-SPLP	<2mm	16	RPD if > 2xRL	0		20	Pass
Be	T1	EPA6010C-SPLP	<2mm	16	RPD if > 2xRL	0		20	Pass
Ca	T1	EPA6010C-SPLP	<2mm	16	RPD if > 2xRL	28		20	Fail
Cd	T1	EPA6010C-SPLP	<2mm	16	RPD if > 2xRL	0		20	Pass
Co	T1	EPA6010C-SPLP	<2mm	16	RPD if > 2xRL	0		20	Pass
Cr	T1	EPA6010C-SPLP	<2mm	16	RPD if > 2xRL	0		20	Pass
Cu	T1	EPA6010C-SPLP	<2mm	16	RPD if > 2xRL	0		20	Pass
Fe	T1	EPA6010C-SPLP	<2mm	16	RPD if > 2xRL	0		20	Pass
K	T1	EPA6010C-SPLP	<2mm	16	RPD if > 2xRL	19		20	Pass
Mg	T1	EPA6010C-SPLP	<2mm	16	RPD if > 2xRL	22		20	Fail
Mn	T1	EPA6010C-SPLP	<2mm	16	RPD if > 2xRL	13		20	Pass
Na	T1	EPA6010C-SPLP	<2mm	16	RPD if > 2xRL	20		20	Pass
Ni	T1	EPA6010C-SPLP	<2mm	16	RPD if > 2xRL	0		20	Pass
P	T1	EPA6010C-SPLP	<2mm	16	RPD if > 2xRL	3		20	Pass
Pb	T1	EPA6010C-SPLP	<2mm	16	RPD if > 2xRL	4		20	Pass
Sb	T1	EPA6010C-SPLP	<2mm	16	RPD if > 2xRL	0		20	Pass
Se	T1	EPA6010C-SPLP	<2mm	16	RPD if > 2xRL	0		20	Pass
Tl	T1	EPA6010C-SPLP	<2mm	16	RPD if > 2xRL	0		20	Pass
V	T1	EPA6010C-SPLP	<2mm	16	RPD if > 2xRL	0		20	Pass
Zn	T1	EPA6010C-SPLP	<2mm	16	RPD if > 2xRL	7		20	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Ag	T1	EPA6010C-SPLP	<2mm	17	RPD if > 2xRL	0		20	Pass
Al	T1	EPA6010C-SPLP	<2mm	17	RPD if > 2xRL	6		20	Pass
Al	T1	EPA6010C-SPLP	<2mm	17	RPD if > 2xRL	6		20	Pass
As	T1	EPA6010C-SPLP	<2mm	17	RPD if > 2xRL	0		20	Pass
Ba	T1	EPA6010C-SPLP	<2mm	17	RPD if > 2xRL	0		20	Pass
Be	T1	EPA6010C-SPLP	<2mm	17	RPD if > 2xRL	0		20	Pass
Ca	T1	EPA6010C-SPLP	<2mm	17	RPD if > 2xRL	9		20	Pass
Cd	T1	EPA6010C-SPLP	<2mm	17	RPD if > 2xRL	0		20	Pass
Co	T1	EPA6010C-SPLP	<2mm	17	RPD if > 2xRL	0		20	Pass
Cr	T1	EPA6010C-SPLP	<2mm	17	RPD if > 2xRL	0		20	Pass
Cu	T1	EPA6010C-SPLP	<2mm	17	RPD if > 2xRL	0		20	Pass
Fe	T1	EPA6010C-SPLP	<2mm	17	RPD if > 2xRL	0		20	Pass
K	T1	EPA6010C-SPLP	<2mm	17	RPD if > 2xRL	5		20	Pass
Mg	T1	EPA6010C-SPLP	<2mm	17	RPD if > 2xRL	0		20	Pass
Mn	T1	EPA6010C-SPLP	<2mm	17	RPD if > 2xRL	8		20	Pass
Na	T1	EPA6010C-SPLP	<2mm	17	RPD if > 2xRL	0		20	Pass
Ni	T1	EPA6010C-SPLP	<2mm	17	RPD if > 2xRL	0		20	Pass
P	T1	EPA6010C-SPLP	<2mm	17	RPD if > 2xRL	0		20	Pass
Pb	T1	EPA6010C-SPLP	<2mm	17	RPD if > 2xRL	3		20	Pass
Sb	T1	EPA6010C-SPLP	<2mm	17	RPD if > 2xRL	0		20	Pass
Se	T1	EPA6010C-SPLP	<2mm	17	RPD if > 2xRL	0		20	Pass
Tl	T1	EPA6010C-SPLP	<2mm	17	RPD if > 2xRL	0		20	Pass
V	T1	EPA6010C-SPLP	<2mm	17	RPD if > 2xRL	0		20	Pass
Zn	T1	EPA6010C-SPLP	<2mm	17	RPD if > 2xRL	7		20	Pass
Ag	T1	EPA6010C-SPLP	<2mm	10	RPD if > 2xRL	0		20	Pass
Al	T1	EPA6010C-SPLP	<2mm	10	RPD if > 2xRL	10		20	Pass
Al	T1	EPA6010C-SPLP	<2mm	10	RPD if > 2xRL	10		20	Pass
As	T1	EPA6010C-SPLP	<2mm	10	RPD if > 2xRL	5		20	Pass
Ba	T1	EPA6010C-SPLP	<2mm	10	RPD if > 2xRL	0		20	Pass
Be	T1	EPA6010C-SPLP	<2mm	10	RPD if > 2xRL	0		20	Pass
Ca	T1	EPA6010C-SPLP	<2mm	10	RPD if > 2xRL	11		20	Pass
Cd	T1	EPA6010C-SPLP	<2mm	10	RPD if > 2xRL	0		20	Pass
Co	T1	EPA6010C-SPLP	<2mm	10	RPD if > 2xRL	0		20	Pass
Cr	T1	EPA6010C-SPLP	<2mm	10	RPD if > 2xRL	0		20	Pass
Cu	T1	EPA6010C-SPLP	<2mm	10	RPD if > 2xRL	0		20	Pass
Fe	T1	EPA6010C-SPLP	<2mm	10	RPD if > 2xRL	0		20	Pass
K	T1	EPA6010C-SPLP	<2mm	10	RPD if > 2xRL	15		20	Pass
Mg	T1	EPA6010C-SPLP	<2mm	10	RPD if > 2xRL	18		20	Pass
Mn	T1	EPA6010C-SPLP	<2mm	10	RPD if > 2xRL	15		20	Pass
Na	T1	EPA6010C-SPLP	<2mm	10	RPD if > 2xRL	17		20	Pass
Ni	T1	EPA6010C-SPLP	<2mm	10	RPD if > 2xRL	0		20	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
P	T1	EPA6010C-SPLP	<2mm	10	RPD if > 2xRL	8		20	Pass
Pb	T1	EPA6010C-SPLP	<2mm	10	RPD if > 2xRL	11		20	Pass
Sb	T1	EPA6010C-SPLP	<2mm	10	RPD if > 2xRL	0		20	Pass
Se	T1	EPA6010C-SPLP	<2mm	10	RPD if > 2xRL	0		20	Pass
Tl	T1	EPA6010C-SPLP	<2mm	10	RPD if > 2xRL	0		20	Pass
V	T1	EPA6010C-SPLP	<2mm	10	RPD if > 2xRL	0		20	Pass
Zn	T1	EPA6010C-SPLP	<2mm	10	RPD if > 2xRL	7		20	Pass
Tl	T2	EPA6010C-SPLP	<2mm	1	<RL	0		0.025	Pass
P	T2	EPA6010C-SPLP	<2mm	1	<RL	0		0.75	Pass
Se	T2	EPA6010C-SPLP	<2mm	1	<RL	0		0.05	Pass
Sb	T2	EPA6010C-SPLP	<2mm	1	<RL	0		0.05	Pass
V	T2	EPA6010C-SPLP	<2mm	1	<RL	0		0.025	Pass
Ag	T2	EPA6010C-SPLP	<2mm	1	<RL	0		0.75	Pass
Al	T2	EPA6010C-SPLP	<2mm	1	<RL	0		0.8	Pass
As	T2	EPA6010C-SPLP	<2mm	1	<RL	0		0.05	Pass
Ba	T2	EPA6010C-SPLP	<2mm	1	<RL	0		0.05	Pass
Be	T2	EPA6010C-SPLP	<2mm	1	<RL	0		0.0025	Pass
Ca	T2	EPA6010C-SPLP	<2mm	1	<RL	0		5	Pass
Cd	T2	EPA6010C-SPLP	<2mm	1	<RL	0		0.0025	Pass
Co	T2	EPA6010C-SPLP	<2mm	1	<RL	0		0.005	Pass
Cr	T2	EPA6010C-SPLP	<2mm	1	<RL	0		0.1	Pass
Cu	T2	EPA6010C-SPLP	<2mm	1	<RL	0		0.01	Pass
Fe	T2	EPA6010C-SPLP	<2mm	1	<RL	0		0.5	Pass
K	T2	EPA6010C-SPLP	<2mm	1	<RL	0		0.75	Pass
Mg	T2	EPA6010C-SPLP	<2mm	1	<RL	0		0.25	Pass
Mn	T2	EPA6010C-SPLP	<2mm	1	<RL	0		0.0125	Pass
Na	T2	EPA6010C-SPLP	<2mm	1	<RL	0		0.5	Pass
Ni	T2	EPA6010C-SPLP	<2mm	1	<RL	0		0.1	Pass
Pb	T2	EPA6010C-SPLP	<2mm	1	<RL	0		0.25	Pass
Zn	T2	EPA6010C-SPLP	<2mm	1	<RL	0		0.0125	Pass
Tl	T2	EPA6010C-SPLP	<2mm	1	RPD if 2xRL	0		20	Pass
P	T2	EPA6010C-SPLP	<2mm	1	RPD if 2xRL	0		20	Pass
Se	T2	EPA6010C-SPLP	<2mm	1	RPD if 2xRL	0		20	Pass
Sb	T2	EPA6010C-SPLP	<2mm	1	RPD if 2xRL	0		20	Pass
V	T2	EPA6010C-SPLP	<2mm	1	RPD if 2xRL	0		20	Pass
Ag	T2	EPA6010C-SPLP	<2mm	1	RPD if 2xRL	0		20	Pass
Al	T2	EPA6010C-SPLP	<2mm	1	RPD if 2xRL	2		20	Pass
As	T2	EPA6010C-SPLP	<2mm	1	RPD if 2xRL	0		20	Pass
Ba	T2	EPA6010C-SPLP	<2mm	1	RPD if 2xRL	0		20	Pass
Be	T2	EPA6010C-SPLP	<2mm	1	RPD if 2xRL	0		20	Pass
Ca	T2	EPA6010C-SPLP	<2mm	1	RPD if 2xRL	0		20	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Cd	T2	EPA6010C-SPLP	<2mm	1	RPD if 2xRL	0		20	Pass
Co	T2	EPA6010C-SPLP	<2mm	1	RPD if 2xRL	0		20	Pass
Cr	T2	EPA6010C-SPLP	<2mm	1	RPD if 2xRL	0		20	Pass
Cu	T2	EPA6010C-SPLP	<2mm	1	RPD if 2xRL	0		20	Pass
Fe	T2	EPA6010C-SPLP	<2mm	1	RPD if 2xRL	0		20	Pass
K	T2	EPA6010C-SPLP	<2mm	1	RPD if 2xRL	15		20	Pass
Mg	T2	EPA6010C-SPLP	<2mm	1	RPD if 2xRL	23		20	Fail
Mn	T2	EPA6010C-SPLP	<2mm	1	RPD if 2xRL	26		20	Fail
Na	T2	EPA6010C-SPLP	<2mm	1	RPD if 2xRL	21		20	Fail
Ni	T2	EPA6010C-SPLP	<2mm	1	RPD if 2xRL	0		20	Pass
Pb	T2	EPA6010C-SPLP	<2mm	1	RPD if 2xRL	0		20	Pass
Zn	T2	EPA6010C-SPLP	<2mm	1	RPD if 2xRL	19		20	Pass
Tl	T2	EPA6010C-SPLP	<2mm	2	<RL	0		0.025	Pass
P	T2	EPA6010C-SPLP	<2mm	2	<RL	0		0.75	Pass
Se	T2	EPA6010C-SPLP	<2mm	2	<RL	0		0.05	Pass
Sb	T2	EPA6010C-SPLP	<2mm	2	<RL	0		0.05	Pass
V	T2	EPA6010C-SPLP	<2mm	2	<RL	0		0.025	Pass
Ag	T2	EPA6010C-SPLP	<2mm	2	<RL	0		0.75	Pass
Al	T2	EPA6010C-SPLP	<2mm	2	<RL	0		0.8	Pass
As	T2	EPA6010C-SPLP	<2mm	2	<RL	0		0.05	Pass
Ba	T2	EPA6010C-SPLP	<2mm	2	<RL	0		0.05	Pass
Be	T2	EPA6010C-SPLP	<2mm	2	<RL	0		0.0025	Pass
Ca	T2	EPA6010C-SPLP	<2mm	2	<RL	0		5	Pass
Cd	T2	EPA6010C-SPLP	<2mm	2	<RL	0		0.0025	Pass
Co	T2	EPA6010C-SPLP	<2mm	2	<RL	0		0.005	Pass
Cr	T2	EPA6010C-SPLP	<2mm	2	<RL	0		0.1	Pass
Cu	T2	EPA6010C-SPLP	<2mm	2	<RL	0		0.01	Pass
Fe	T2	EPA6010C-SPLP	<2mm	2	<RL	0		0.5	Pass
K	T2	EPA6010C-SPLP	<2mm	2	<RL	0		0.75	Pass
Mg	T2	EPA6010C-SPLP	<2mm	2	<RL	0		0.25	Pass
Mn	T2	EPA6010C-SPLP	<2mm	2	<RL	0		0.0125	Pass
Na	T2	EPA6010C-SPLP	<2mm	2	<RL	0		0.5	Pass
Ni	T2	EPA6010C-SPLP	<2mm	2	<RL	0		0.1	Pass
Pb	T2	EPA6010C-SPLP	<2mm	2	<RL	0		0.25	Pass
Zn	T2	EPA6010C-SPLP	<2mm	2	<RL	0		0.0125	Pass
Tl	T2	EPA6010C-SPLP	<2mm	2	RPD if 2xRL	0		20	Pass
P	T2	EPA6010C-SPLP	<2mm	2	RPD if 2xRL	12		20	Pass
Se	T2	EPA6010C-SPLP	<2mm	2	RPD if 2xRL	0		20	Pass
Sb	T2	EPA6010C-SPLP	<2mm	2	RPD if 2xRL	0		20	Pass
V	T2	EPA6010C-SPLP	<2mm	2	RPD if 2xRL	0		20	Pass
Ag	T2	EPA6010C-SPLP	<2mm	2	RPD if 2xRL	0		20	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Al	T2	EPA6010C-SPLP	<2mm	2	RPD if 2xRL	6		20	Pass
As	T2	EPA6010C-SPLP	<2mm	2	RPD if 2xRL	0		20	Pass
Ba	T2	EPA6010C-SPLP	<2mm	2	RPD if 2xRL	0		20	Pass
Be	T2	EPA6010C-SPLP	<2mm	2	RPD if 2xRL	0		20	Pass
Ca	T2	EPA6010C-SPLP	<2mm	2	RPD if 2xRL	0		20	Pass
Cd	T2	EPA6010C-SPLP	<2mm	2	RPD if 2xRL	0		20	Pass
Co	T2	EPA6010C-SPLP	<2mm	2	RPD if 2xRL	0		20	Pass
Cr	T2	EPA6010C-SPLP	<2mm	2	RPD if 2xRL	0		20	Pass
Cu	T2	EPA6010C-SPLP	<2mm	2	RPD if 2xRL	0		20	Pass
Fe	T2	EPA6010C-SPLP	<2mm	2	RPD if 2xRL	0		20	Pass
K	T2	EPA6010C-SPLP	<2mm	2	RPD if 2xRL	8		20	Pass
Mg	T2	EPA6010C-SPLP	<2mm	2	RPD if 2xRL	0		20	Pass
Mn	T2	EPA6010C-SPLP	<2mm	2	RPD if 2xRL	5		20	Pass
Na	T2	EPA6010C-SPLP	<2mm	2	RPD if 2xRL	11		20	Pass
Ni	T2	EPA6010C-SPLP	<2mm	2	RPD if 2xRL	0		20	Pass
Pb	T2	EPA6010C-SPLP	<2mm	2	RPD if 2xRL	0		20	Pass
Zn	T2	EPA6010C-SPLP	<2mm	2	RPD if 2xRL	3		20	Pass
Tl	T2	EPA6010C-SPLP	<2mm	3	<RL	0		0.025	Pass
P	T2	EPA6010C-SPLP	<2mm	3	<RL	0		0.75	Pass
Se	T2	EPA6010C-SPLP	<2mm	3	<RL	0		0.05	Pass
Sb	T2	EPA6010C-SPLP	<2mm	3	<RL	0		0.05	Pass
V	T2	EPA6010C-SPLP	<2mm	3	<RL	0		0.025	Pass
Ag	T2	EPA6010C-SPLP	<2mm	3	<RL	0		0.75	Pass
Al	T2	EPA6010C-SPLP	<2mm	3	<RL	0		0.8	Pass
As	T2	EPA6010C-SPLP	<2mm	3	<RL	0		0.05	Pass
Ba	T2	EPA6010C-SPLP	<2mm	3	<RL	0		0.05	Pass
Be	T2	EPA6010C-SPLP	<2mm	3	<RL	0		0.0025	Pass
Ca	T2	EPA6010C-SPLP	<2mm	3	<RL	0		5	Pass
Cd	T2	EPA6010C-SPLP	<2mm	3	<RL	0		0.0025	Pass
Co	T2	EPA6010C-SPLP	<2mm	3	<RL	0		0.005	Pass
Cr	T2	EPA6010C-SPLP	<2mm	3	<RL	0		0.1	Pass
Cu	T2	EPA6010C-SPLP	<2mm	3	<RL	0		0.01	Pass
Fe	T2	EPA6010C-SPLP	<2mm	3	<RL	0		0.5	Pass
K	T2	EPA6010C-SPLP	<2mm	3	<RL	0		0.75	Pass
Mg	T2	EPA6010C-SPLP	<2mm	3	<RL	0		0.25	Pass
Mn	T2	EPA6010C-SPLP	<2mm	3	<RL	0		0.0125	Pass
Na	T2	EPA6010C-SPLP	<2mm	3	<RL	0		0.5	Pass
Ni	T2	EPA6010C-SPLP	<2mm	3	<RL	0		0.1	Pass
Pb	T2	EPA6010C-SPLP	<2mm	3	<RL	0		0.25	Pass
Zn	T2	EPA6010C-SPLP	<2mm	3	<RL	0		0.0125	Pass
Tl	T2	EPA6010C-SPLP	<2mm	3	RPD if 2xRL	0		20	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
P	T2	EPA6010C-SPLP	<2mm	3	RPD if 2xRL	0		20	Pass
Se	T2	EPA6010C-SPLP	<2mm	3	RPD if 2xRL	0		20	Pass
Sb	T2	EPA6010C-SPLP	<2mm	3	RPD if 2xRL	0		20	Pass
V	T2	EPA6010C-SPLP	<2mm	3	RPD if 2xRL	0		20	Pass
Ag	T2	EPA6010C-SPLP	<2mm	3	RPD if 2xRL	0		20	Pass
Al	T2	EPA6010C-SPLP	<2mm	3	RPD if 2xRL	0		20	Pass
As	T2	EPA6010C-SPLP	<2mm	3	RPD if 2xRL	0		20	Pass
Ba	T2	EPA6010C-SPLP	<2mm	3	RPD if 2xRL	0		20	Pass
Be	T2	EPA6010C-SPLP	<2mm	3	RPD if 2xRL	0		20	Pass
Ca	T2	EPA6010C-SPLP	<2mm	3	RPD if 2xRL	0		20	Pass
Cd	T2	EPA6010C-SPLP	<2mm	3	RPD if 2xRL	0		20	Pass
Co	T2	EPA6010C-SPLP	<2mm	3	RPD if 2xRL	0		20	Pass
Cr	T2	EPA6010C-SPLP	<2mm	3	RPD if 2xRL	0		20	Pass
Cu	T2	EPA6010C-SPLP	<2mm	3	RPD if 2xRL	0		20	Pass
Fe	T2	EPA6010C-SPLP	<2mm	3	RPD if 2xRL	0		20	Pass
K	T2	EPA6010C-SPLP	<2mm	3	RPD if 2xRL	5		20	Pass
Mg	T2	EPA6010C-SPLP	<2mm	3	RPD if 2xRL	0		20	Pass
Mn	T2	EPA6010C-SPLP	<2mm	3	RPD if 2xRL	18		20	Pass
Na	T2	EPA6010C-SPLP	<2mm	3	RPD if 2xRL	6		20	Pass
Ni	T2	EPA6010C-SPLP	<2mm	3	RPD if 2xRL	0		20	Pass
Pb	T2	EPA6010C-SPLP	<2mm	3	RPD if 2xRL	0		20	Pass
Zn	T2	EPA6010C-SPLP	<2mm	3	RPD if 2xRL	5		20	Pass
Tl	T2	EPA6010C-SPLP	<2mm	4	<RL	0		0.025	Pass
P	T2	EPA6010C-SPLP	<2mm	4	<RL	0		0.75	Pass
Se	T2	EPA6010C-SPLP	<2mm	4	<RL	0		0.05	Pass
Sb	T2	EPA6010C-SPLP	<2mm	4	<RL	0		0.05	Pass
V	T2	EPA6010C-SPLP	<2mm	4	<RL	0		0.025	Pass
Ag	T2	EPA6010C-SPLP	<2mm	4	<RL	0		0.75	Pass
Al	T2	EPA6010C-SPLP	<2mm	4	<RL	0		0.8	Pass
As	T2	EPA6010C-SPLP	<2mm	4	<RL	0		0.05	Pass
Ba	T2	EPA6010C-SPLP	<2mm	4	<RL	0		0.05	Pass
Be	T2	EPA6010C-SPLP	<2mm	4	<RL	0		0.0025	Pass
Ca	T2	EPA6010C-SPLP	<2mm	4	<RL	0		5	Pass
Cd	T2	EPA6010C-SPLP	<2mm	4	<RL	0		0.0025	Pass
Co	T2	EPA6010C-SPLP	<2mm	4	<RL	0		0.005	Pass
Cr	T2	EPA6010C-SPLP	<2mm	4	<RL	0		0.1	Pass
Cu	T2	EPA6010C-SPLP	<2mm	4	<RL	0		0.01	Pass
Fe	T2	EPA6010C-SPLP	<2mm	4	<RL	0		0.5	Pass
K	T2	EPA6010C-SPLP	<2mm	4	<RL	0		0.75	Pass
Mg	T2	EPA6010C-SPLP	<2mm	4	<RL	0		0.25	Pass
Mn	T2	EPA6010C-SPLP	<2mm	4	<RL	0		0.0125	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Na	T2	EPA6010C-SPLP	<2mm	4	<RL	0		0.5	Pass
Ni	T2	EPA6010C-SPLP	<2mm	4	<RL	0		0.1	Pass
Pb	T2	EPA6010C-SPLP	<2mm	4	<RL	0		0.25	Pass
Zn	T2	EPA6010C-SPLP	<2mm	4	<RL	0		0.0125	Pass
Tl	T2	EPA6010C-SPLP	<2mm	4	RPD if 2xRL	0		20	Pass
P	T2	EPA6010C-SPLP	<2mm	4	RPD if 2xRL	0		20	Pass
Se	T2	EPA6010C-SPLP	<2mm	4	RPD if 2xRL	0		20	Pass
Sb	T2	EPA6010C-SPLP	<2mm	4	RPD if 2xRL	0		20	Pass
V	T2	EPA6010C-SPLP	<2mm	4	RPD if 2xRL	0		20	Pass
Ag	T2	EPA6010C-SPLP	<2mm	4	RPD if 2xRL	0		20	Pass
Al	T2	EPA6010C-SPLP	<2mm	4	RPD if 2xRL	0		20	Pass
As	T2	EPA6010C-SPLP	<2mm	4	RPD if 2xRL	0		20	Pass
Ba	T2	EPA6010C-SPLP	<2mm	4	RPD if 2xRL	0		20	Pass
Be	T2	EPA6010C-SPLP	<2mm	4	RPD if 2xRL	0		20	Pass
Ca	T2	EPA6010C-SPLP	<2mm	4	RPD if 2xRL	0		20	Pass
Cd	T2	EPA6010C-SPLP	<2mm	4	RPD if 2xRL	0		20	Pass
Co	T2	EPA6010C-SPLP	<2mm	4	RPD if 2xRL	0		20	Pass
Cr	T2	EPA6010C-SPLP	<2mm	4	RPD if 2xRL	0		20	Pass
Cu	T2	EPA6010C-SPLP	<2mm	4	RPD if 2xRL	0		20	Pass
Fe	T2	EPA6010C-SPLP	<2mm	4	RPD if 2xRL	0		20	Pass
K	T2	EPA6010C-SPLP	<2mm	4	RPD if 2xRL	1		20	Pass
Mg	T2	EPA6010C-SPLP	<2mm	4	RPD if 2xRL	0		20	Pass
Mn	T2	EPA6010C-SPLP	<2mm	4	RPD if 2xRL	2		20	Pass
Na	T2	EPA6010C-SPLP	<2mm	4	RPD if 2xRL	1		20	Pass
Ni	T2	EPA6010C-SPLP	<2mm	4	RPD if 2xRL	0		20	Pass
Pb	T2	EPA6010C-SPLP	<2mm	4	RPD if 2xRL	0		20	Pass
Zn	T2	EPA6010C-SPLP	<2mm	4	RPD if 2xRL	1		20	Pass
Tl	T2	EPA6010C-SPLP	<2mm	5	<RL	0		0.025	Pass
P	T2	EPA6010C-SPLP	<2mm	5	<RL	0		0.75	Pass
Se	T2	EPA6010C-SPLP	<2mm	5	<RL	0		0.05	Pass
Sb	T2	EPA6010C-SPLP	<2mm	5	<RL	0		0.05	Pass
V	T2	EPA6010C-SPLP	<2mm	5	<RL	0		0.025	Pass
Ag	T2	EPA6010C-SPLP	<2mm	5	<RL	0		0.75	Pass
Al	T2	EPA6010C-SPLP	<2mm	5	<RL	0		0.8	Pass
As	T2	EPA6010C-SPLP	<2mm	5	<RL	0		0.05	Pass
Ba	T2	EPA6010C-SPLP	<2mm	5	<RL	0		0.05	Pass
Be	T2	EPA6010C-SPLP	<2mm	5	<RL	0		0.0025	Pass
Ca	T2	EPA6010C-SPLP	<2mm	5	<RL	0		5	Pass
Cd	T2	EPA6010C-SPLP	<2mm	5	<RL	0		0.0025	Pass
Co	T2	EPA6010C-SPLP	<2mm	5	<RL	0		0.005	Pass
Cr	T2	EPA6010C-SPLP	<2mm	5	<RL	0		0.1	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Cu	T2	EPA6010C-SPLP	<2mm	5	<RL	0		0.01	Pass
Fe	T2	EPA6010C-SPLP	<2mm	5	<RL	0		0.5	Pass
K	T2	EPA6010C-SPLP	<2mm	5	<RL	0		0.75	Pass
Mg	T2	EPA6010C-SPLP	<2mm	5	<RL	0		0.25	Pass
Mn	T2	EPA6010C-SPLP	<2mm	5	<RL	0		0.0125	Pass
Na	T2	EPA6010C-SPLP	<2mm	5	<RL	0		0.5	Pass
Ni	T2	EPA6010C-SPLP	<2mm	5	<RL	0		0.1	Pass
Pb	T2	EPA6010C-SPLP	<2mm	5	<RL	0		0.25	Pass
Zn	T2	EPA6010C-SPLP	<2mm	5	<RL	0		0.0125	Pass
Tl	T2	EPA6010C-SPLP	<2mm	5	RPD if 2xRL	0		20	Pass
P	T2	EPA6010C-SPLP	<2mm	5	RPD if 2xRL	0		20	Pass
Se	T2	EPA6010C-SPLP	<2mm	5	RPD if 2xRL	0		20	Pass
Sb	T2	EPA6010C-SPLP	<2mm	5	RPD if 2xRL	0		20	Pass
V	T2	EPA6010C-SPLP	<2mm	5	RPD if 2xRL	0		20	Pass
Ag	T2	EPA6010C-SPLP	<2mm	5	RPD if 2xRL	0		20	Pass
Al	T2	EPA6010C-SPLP	<2mm	5	RPD if 2xRL	0		20	Pass
As	T2	EPA6010C-SPLP	<2mm	5	RPD if 2xRL	0		20	Pass
Ba	T2	EPA6010C-SPLP	<2mm	5	RPD if 2xRL	0		20	Pass
Be	T2	EPA6010C-SPLP	<2mm	5	RPD if 2xRL	0		20	Pass
Ca	T2	EPA6010C-SPLP	<2mm	5	RPD if 2xRL	0		20	Pass
Cd	T2	EPA6010C-SPLP	<2mm	5	RPD if 2xRL	0		20	Pass
Co	T2	EPA6010C-SPLP	<2mm	5	RPD if 2xRL	0		20	Pass
Cr	T2	EPA6010C-SPLP	<2mm	5	RPD if 2xRL	0		20	Pass
Cu	T2	EPA6010C-SPLP	<2mm	5	RPD if 2xRL	0		20	Pass
Fe	T2	EPA6010C-SPLP	<2mm	5	RPD if 2xRL	0		20	Pass
K	T2	EPA6010C-SPLP	<2mm	5	RPD if 2xRL	2		20	Pass
Mg	T2	EPA6010C-SPLP	<2mm	5	RPD if 2xRL	8		20	Pass
Mn	T2	EPA6010C-SPLP	<2mm	5	RPD if 2xRL	2		20	Pass
Na	T2	EPA6010C-SPLP	<2mm	5	RPD if 2xRL	1		20	Pass
Ni	T2	EPA6010C-SPLP	<2mm	5	RPD if 2xRL	0		20	Pass
Pb	T2	EPA6010C-SPLP	<2mm	5	RPD if 2xRL	0		20	Pass
Zn	T2	EPA6010C-SPLP	<2mm	5	RPD if 2xRL	6		20	Pass
Tl	T2	EPA6010C-SPLP	<2mm	6	<RL	0		0.025	Pass
P	T2	EPA6010C-SPLP	<2mm	6	<RL	0		0.75	Pass
Se	T2	EPA6010C-SPLP	<2mm	6	<RL	0		0.05	Pass
Sb	T2	EPA6010C-SPLP	<2mm	6	<RL	0		0.05	Pass
V	T2	EPA6010C-SPLP	<2mm	6	<RL	0		0.025	Pass
Ag	T2	EPA6010C-SPLP	<2mm	6	<RL	0		0.75	Pass
Al	T2	EPA6010C-SPLP	<2mm	6	<RL	0		0.8	Pass
As	T2	EPA6010C-SPLP	<2mm	6	<RL	0		0.05	Pass
Ba	T2	EPA6010C-SPLP	<2mm	6	<RL	0		0.05	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Be	T2	EPA6010C-SPLP	<2mm	6	<RL	0		0.0025	Pass
Ca	T2	EPA6010C-SPLP	<2mm	6	<RL	0		5	Pass
Cd	T2	EPA6010C-SPLP	<2mm	6	<RL	0		0.0025	Pass
Co	T2	EPA6010C-SPLP	<2mm	6	<RL	0		0.005	Pass
Cr	T2	EPA6010C-SPLP	<2mm	6	<RL	0		0.1	Pass
Cu	T2	EPA6010C-SPLP	<2mm	6	<RL	0		0.01	Pass
Fe	T2	EPA6010C-SPLP	<2mm	6	<RL	0		0.5	Pass
K	T2	EPA6010C-SPLP	<2mm	6	<RL	0		0.75	Pass
Mg	T2	EPA6010C-SPLP	<2mm	6	<RL	0		0.25	Pass
Mn	T2	EPA6010C-SPLP	<2mm	6	<RL	0		0.0125	Pass
Na	T2	EPA6010C-SPLP	<2mm	6	<RL	0		0.5	Pass
Ni	T2	EPA6010C-SPLP	<2mm	6	<RL	0		0.1	Pass
Pb	T2	EPA6010C-SPLP	<2mm	6	<RL	0		0.25	Pass
Zn	T2	EPA6010C-SPLP	<2mm	6	<RL	0		0.0125	Pass
Tl	T2	EPA6010C-SPLP	<2mm	6	RPD if 2xRL	0		20	Pass
P	T2	EPA6010C-SPLP	<2mm	6	RPD if 2xRL	4		20	Pass
Se	T2	EPA6010C-SPLP	<2mm	6	RPD if 2xRL	0		20	Pass
Sb	T2	EPA6010C-SPLP	<2mm	6	RPD if 2xRL	0		20	Pass
V	T2	EPA6010C-SPLP	<2mm	6	RPD if 2xRL	0		20	Pass
Ag	T2	EPA6010C-SPLP	<2mm	6	RPD if 2xRL	0		20	Pass
Al	T2	EPA6010C-SPLP	<2mm	6	RPD if 2xRL	0		20	Pass
As	T2	EPA6010C-SPLP	<2mm	6	RPD if 2xRL	4		20	Pass
Ba	T2	EPA6010C-SPLP	<2mm	6	RPD if 2xRL	0		20	Pass
Be	T2	EPA6010C-SPLP	<2mm	6	RPD if 2xRL	0		20	Pass
Ca	T2	EPA6010C-SPLP	<2mm	6	RPD if 2xRL	0		20	Pass
Cd	T2	EPA6010C-SPLP	<2mm	6	RPD if 2xRL	0		20	Pass
Co	T2	EPA6010C-SPLP	<2mm	6	RPD if 2xRL	0		20	Pass
Cr	T2	EPA6010C-SPLP	<2mm	6	RPD if 2xRL	0		20	Pass
Cu	T2	EPA6010C-SPLP	<2mm	6	RPD if 2xRL	0		20	Pass
Fe	T2	EPA6010C-SPLP	<2mm	6	RPD if 2xRL	0		20	Pass
K	T2	EPA6010C-SPLP	<2mm	6	RPD if 2xRL	27		20	Fail
Mg	T2	EPA6010C-SPLP	<2mm	6	RPD if 2xRL	0		20	Pass
Mn	T2	EPA6010C-SPLP	<2mm	6	RPD if 2xRL	58		20	Fail
Na	T2	EPA6010C-SPLP	<2mm	6	RPD if 2xRL	28		20	Fail
Ni	T2	EPA6010C-SPLP	<2mm	6	RPD if 2xRL	0		20	Pass
Pb	T2	EPA6010C-SPLP	<2mm	6	RPD if 2xRL	0		20	Pass
Zn	T2	EPA6010C-SPLP	<2mm	6	RPD if 2xRL	40		20	Fail
Tl	T2	EPA6010C-SPLP	<2mm	7	<RL	0		0.025	Pass
P	T2	EPA6010C-SPLP	<2mm	7	<RL	0		0.75	Pass
Se	T2	EPA6010C-SPLP	<2mm	7	<RL	0		0.05	Pass
Sb	T2	EPA6010C-SPLP	<2mm	7	<RL	0		0.05	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
V	T2	EPA6010C-SPLP	<2mm	7	<RL	0		0.025	Pass
Ag	T2	EPA6010C-SPLP	<2mm	7	<RL	0		0.75	Pass
Al	T2	EPA6010C-SPLP	<2mm	7	<RL	0		0.8	Pass
As	T2	EPA6010C-SPLP	<2mm	7	<RL	0		0.05	Pass
Ba	T2	EPA6010C-SPLP	<2mm	7	<RL	0		0.05	Pass
Be	T2	EPA6010C-SPLP	<2mm	7	<RL	0		0.0025	Pass
Ca	T2	EPA6010C-SPLP	<2mm	7	<RL	0		5	Pass
Cd	T2	EPA6010C-SPLP	<2mm	7	<RL	0		0.0025	Pass
Co	T2	EPA6010C-SPLP	<2mm	7	<RL	0		0.005	Pass
Cr	T2	EPA6010C-SPLP	<2mm	7	<RL	0		0.1	Pass
Cu	T2	EPA6010C-SPLP	<2mm	7	<RL	0		0.01	Pass
Fe	T2	EPA6010C-SPLP	<2mm	7	<RL	0		0.5	Pass
K	T2	EPA6010C-SPLP	<2mm	7	<RL	0		0.75	Pass
Mg	T2	EPA6010C-SPLP	<2mm	7	<RL	0		0.25	Pass
Mn	T2	EPA6010C-SPLP	<2mm	7	<RL	0		0.0125	Pass
Na	T2	EPA6010C-SPLP	<2mm	7	<RL	0		0.5	Pass
Ni	T2	EPA6010C-SPLP	<2mm	7	<RL	0		0.1	Pass
Pb	T2	EPA6010C-SPLP	<2mm	7	<RL	0		0.25	Pass
Zn	T2	EPA6010C-SPLP	<2mm	7	<RL	0		0.0125	Pass
Tl	T2	EPA6010C-SPLP	<2mm	7	RPD if 2xRL	0		20	Pass
P	T2	EPA6010C-SPLP	<2mm	7	RPD if 2xRL	0		20	Pass
Se	T2	EPA6010C-SPLP	<2mm	7	RPD if 2xRL	0		20	Pass
Sb	T2	EPA6010C-SPLP	<2mm	7	RPD if 2xRL	0		20	Pass
V	T2	EPA6010C-SPLP	<2mm	7	RPD if 2xRL	0		20	Pass
Ag	T2	EPA6010C-SPLP	<2mm	7	RPD if 2xRL	0		20	Pass
Al	T2	EPA6010C-SPLP	<2mm	7	RPD if 2xRL	32		20	Fail
As	T2	EPA6010C-SPLP	<2mm	7	RPD if 2xRL	8		20	Pass
Ba	T2	EPA6010C-SPLP	<2mm	7	RPD if 2xRL	0		20	Pass
Be	T2	EPA6010C-SPLP	<2mm	7	RPD if 2xRL	0		20	Pass
Ca	T2	EPA6010C-SPLP	<2mm	7	RPD if 2xRL	0		20	Pass
Cd	T2	EPA6010C-SPLP	<2mm	7	RPD if 2xRL	0		20	Pass
Co	T2	EPA6010C-SPLP	<2mm	7	RPD if 2xRL	0		20	Pass
Cr	T2	EPA6010C-SPLP	<2mm	7	RPD if 2xRL	0		20	Pass
Cu	T2	EPA6010C-SPLP	<2mm	7	RPD if 2xRL	0		20	Pass
Fe	T2	EPA6010C-SPLP	<2mm	7	RPD if 2xRL	0		20	Pass
K	T2	EPA6010C-SPLP	<2mm	7	RPD if 2xRL	0		20	Pass
Mg	T2	EPA6010C-SPLP	<2mm	7	RPD if 2xRL	0		20	Pass
Mn	T2	EPA6010C-SPLP	<2mm	7	RPD if 2xRL	10		20	Pass
Na	T2	EPA6010C-SPLP	<2mm	7	RPD if 2xRL	1		20	Pass
Ni	T2	EPA6010C-SPLP	<2mm	7	RPD if 2xRL	0		20	Pass
Pb	T2	EPA6010C-SPLP	<2mm	7	RPD if 2xRL	0		20	Pass

Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Zn	T2	EPA6010C-SPLP	<2mm	7	RPD if 2xRL	5		20	Pass
Tl	T2	EPA6010C-SPLP	<2mm	8	<RL	0		0.025	Pass
P	T2	EPA6010C-SPLP	<2mm	8	<RL	0		0.75	Pass
Se	T2	EPA6010C-SPLP	<2mm	8	<RL	0		0.05	Pass
Sb	T2	EPA6010C-SPLP	<2mm	8	<RL	0		0.05	Pass
V	T2	EPA6010C-SPLP	<2mm	8	<RL	0		0.025	Pass
Ag	T2	EPA6010C-SPLP	<2mm	8	<RL	0		0.75	Pass
Al	T2	EPA6010C-SPLP	<2mm	8	<RL	0		0.8	Pass
As	T2	EPA6010C-SPLP	<2mm	8	<RL	0		0.05	Pass
Ba	T2	EPA6010C-SPLP	<2mm	8	<RL	0		0.05	Pass
Be	T2	EPA6010C-SPLP	<2mm	8	<RL	0		0.0025	Pass
Ca	T2	EPA6010C-SPLP	<2mm	8	<RL	0		5	Pass
Cd	T2	EPA6010C-SPLP	<2mm	8	<RL	0		0.0025	Pass
Co	T2	EPA6010C-SPLP	<2mm	8	<RL	0		0.005	Pass
Cr	T2	EPA6010C-SPLP	<2mm	8	<RL	0		0.1	Pass
Cu	T2	EPA6010C-SPLP	<2mm	8	<RL	0		0.01	Pass
Fe	T2	EPA6010C-SPLP	<2mm	8	<RL	0		0.5	Pass
K	T2	EPA6010C-SPLP	<2mm	8	<RL	0		0.75	Pass
Mg	T2	EPA6010C-SPLP	<2mm	8	<RL	0		0.25	Pass
Mn	T2	EPA6010C-SPLP	<2mm	8	<RL	0		0.0125	Pass
Na	T2	EPA6010C-SPLP	<2mm	8	<RL	0		0.5	Pass
Ni	T2	EPA6010C-SPLP	<2mm	8	<RL	0		0.1	Pass
Pb	T2	EPA6010C-SPLP	<2mm	8	<RL	0		0.25	Pass
Zn	T2	EPA6010C-SPLP	<2mm	8	<RL	0		0.0125	Pass
Tl	T2	EPA6010C-SPLP	<2mm	8	RPD if 2xRL	0		20	Pass
P	T2	EPA6010C-SPLP	<2mm	8	RPD if 2xRL	0		20	Pass
Se	T2	EPA6010C-SPLP	<2mm	8	RPD if 2xRL	0		20	Pass
Sb	T2	EPA6010C-SPLP	<2mm	8	RPD if 2xRL	0		20	Pass
V	T2	EPA6010C-SPLP	<2mm	8	RPD if 2xRL	0		20	Pass
Ag	T2	EPA6010C-SPLP	<2mm	8	RPD if 2xRL	0		20	Pass
Al	T2	EPA6010C-SPLP	<2mm	8	RPD if 2xRL	0		20	Pass
As	T2	EPA6010C-SPLP	<2mm	8	RPD if 2xRL	0		20	Pass
Ba	T2	EPA6010C-SPLP	<2mm	8	RPD if 2xRL	0		20	Pass
Be	T2	EPA6010C-SPLP	<2mm	8	RPD if 2xRL	0		20	Pass
Ca	T2	EPA6010C-SPLP	<2mm	8	RPD if 2xRL	0		20	Pass
Cd	T2	EPA6010C-SPLP	<2mm	8	RPD if 2xRL	0		20	Pass
Co	T2	EPA6010C-SPLP	<2mm	8	RPD if 2xRL	0		20	Pass
Cr	T2	EPA6010C-SPLP	<2mm	8	RPD if 2xRL	0		20	Pass
Cu	T2	EPA6010C-SPLP	<2mm	8	RPD if 2xRL	0		20	Pass
Fe	T2	EPA6010C-SPLP	<2mm	8	RPD if 2xRL	0		20	Pass
K	T2	EPA6010C-SPLP	<2mm	8	RPD if 2xRL	8		20	Pass

Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Mg	T2	EPA6010C-SPLP	<2mm	8	RPD if 2xRL	0		20	Pass
Mn	T2	EPA6010C-SPLP	<2mm	8	RPD if 2xRL	13		20	Pass
Na	T2	EPA6010C-SPLP	<2mm	8	RPD if 2xRL	7		20	Pass
Ni	T2	EPA6010C-SPLP	<2mm	8	RPD if 2xRL	0		20	Pass
Pb	T2	EPA6010C-SPLP	<2mm	8	RPD if 2xRL	0		20	Pass
Zn	T2	EPA6010C-SPLP	<2mm	8	RPD if 2xRL	19		20	Pass
Tl	T2	EPA6010C-SPLP	<2mm	9	<RL	0		0.025	Pass
P	T2	EPA6010C-SPLP	<2mm	9	<RL	0		0.75	Pass
Se	T2	EPA6010C-SPLP	<2mm	9	<RL	0		0.05	Pass
Sb	T2	EPA6010C-SPLP	<2mm	9	<RL	0		0.05	Pass
V	T2	EPA6010C-SPLP	<2mm	9	<RL	0		0.025	Pass
Ag	T2	EPA6010C-SPLP	<2mm	9	<RL	0		0.75	Pass
Al	T2	EPA6010C-SPLP	<2mm	9	<RL	0		0.8	Pass
As	T2	EPA6010C-SPLP	<2mm	9	<RL	0		0.05	Pass
Ba	T2	EPA6010C-SPLP	<2mm	9	<RL	0		0.05	Pass
Be	T2	EPA6010C-SPLP	<2mm	9	<RL	0		0.0025	Pass
Ca	T2	EPA6010C-SPLP	<2mm	9	<RL	0		5	Pass
Cd	T2	EPA6010C-SPLP	<2mm	9	<RL	0		0.0025	Pass
Co	T2	EPA6010C-SPLP	<2mm	9	<RL	0		0.005	Pass
Cr	T2	EPA6010C-SPLP	<2mm	9	<RL	0		0.1	Pass
Cu	T2	EPA6010C-SPLP	<2mm	9	<RL	0		0.01	Pass
Fe	T2	EPA6010C-SPLP	<2mm	9	<RL	0		0.5	Pass
K	T2	EPA6010C-SPLP	<2mm	9	<RL	0		0.75	Pass
Mg	T2	EPA6010C-SPLP	<2mm	9	<RL	0		0.25	Pass
Mn	T2	EPA6010C-SPLP	<2mm	9	<RL	0		0.0125	Pass
Na	T2	EPA6010C-SPLP	<2mm	9	<RL	0		0.5	Pass
Ni	T2	EPA6010C-SPLP	<2mm	9	<RL	0		0.1	Pass
Pb	T2	EPA6010C-SPLP	<2mm	9	<RL	0		0.25	Pass
Zn	T2	EPA6010C-SPLP	<2mm	9	<RL	0		0.0125	Pass
Tl	T2	EPA6010C-SPLP	<2mm	9	RPD if 2xRL	0		20	Pass
P	T2	EPA6010C-SPLP	<2mm	9	RPD if 2xRL	0		20	Pass
Se	T2	EPA6010C-SPLP	<2mm	9	RPD if 2xRL	0		20	Pass
Sb	T2	EPA6010C-SPLP	<2mm	9	RPD if 2xRL	0		20	Pass
V	T2	EPA6010C-SPLP	<2mm	9	RPD if 2xRL	0		20	Pass
Ag	T2	EPA6010C-SPLP	<2mm	9	RPD if 2xRL	0		20	Pass
Al	T2	EPA6010C-SPLP	<2mm	9	RPD if 2xRL	0		20	Pass
As	T2	EPA6010C-SPLP	<2mm	9	RPD if 2xRL	0		20	Pass
Ba	T2	EPA6010C-SPLP	<2mm	9	RPD if 2xRL	0		20	Pass
Be	T2	EPA6010C-SPLP	<2mm	9	RPD if 2xRL	0		20	Pass
Ca	T2	EPA6010C-SPLP	<2mm	9	RPD if 2xRL	0		20	Pass
Cd	T2	EPA6010C-SPLP	<2mm	9	RPD if 2xRL	0		20	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Co	T2	EPA6010C-SPLP	<2mm	9	RPD if 2xRL	0		20	Pass
Cr	T2	EPA6010C-SPLP	<2mm	9	RPD if 2xRL	0		20	Pass
Cu	T2	EPA6010C-SPLP	<2mm	9	RPD if 2xRL	0		20	Pass
Fe	T2	EPA6010C-SPLP	<2mm	9	RPD if 2xRL	0		20	Pass
K	T2	EPA6010C-SPLP	<2mm	9	RPD if 2xRL	2		20	Pass
Mg	T2	EPA6010C-SPLP	<2mm	9	RPD if 2xRL	15		20	Pass
Mn	T2	EPA6010C-SPLP	<2mm	9	RPD if 2xRL	17		20	Pass
Na	T2	EPA6010C-SPLP	<2mm	9	RPD if 2xRL	0		20	Pass
Ni	T2	EPA6010C-SPLP	<2mm	9	RPD if 2xRL	0		20	Pass
Pb	T2	EPA6010C-SPLP	<2mm	9	RPD if 2xRL	0		20	Pass
Zn	T2	EPA6010C-SPLP	<2mm	9	RPD if 2xRL	10		20	Pass
Tl	T2	EPA6010C-SPLP	<2mm	10	<RL	0		0.025	Pass
P	T2	EPA6010C-SPLP	<2mm	10	<RL	0		0.75	Pass
Se	T2	EPA6010C-SPLP	<2mm	10	<RL	0		0.05	Pass
Sb	T2	EPA6010C-SPLP	<2mm	10	<RL	0		0.05	Pass
V	T2	EPA6010C-SPLP	<2mm	10	<RL	0		0.025	Pass
Ag	T2	EPA6010C-SPLP	<2mm	10	<RL	0		0.75	Pass
Al	T2	EPA6010C-SPLP	<2mm	10	<RL	0		0.8	Pass
As	T2	EPA6010C-SPLP	<2mm	10	<RL	0		0.05	Pass
Ba	T2	EPA6010C-SPLP	<2mm	10	<RL	0		0.05	Pass
Be	T2	EPA6010C-SPLP	<2mm	10	<RL	0		0.0025	Pass
Ca	T2	EPA6010C-SPLP	<2mm	10	<RL	0		5	Pass
Cd	T2	EPA6010C-SPLP	<2mm	10	<RL	0		0.0025	Pass
Co	T2	EPA6010C-SPLP	<2mm	10	<RL	0		0.005	Pass
Cr	T2	EPA6010C-SPLP	<2mm	10	<RL	0		0.1	Pass
Cu	T2	EPA6010C-SPLP	<2mm	10	<RL	0		0.01	Pass
Fe	T2	EPA6010C-SPLP	<2mm	10	<RL	0		0.5	Pass
K	T2	EPA6010C-SPLP	<2mm	10	<RL	0		0.75	Pass
Mg	T2	EPA6010C-SPLP	<2mm	10	<RL	0		0.25	Pass
Mn	T2	EPA6010C-SPLP	<2mm	10	<RL	0		0.0125	Pass
Na	T2	EPA6010C-SPLP	<2mm	10	<RL	0		0.5	Pass
Ni	T2	EPA6010C-SPLP	<2mm	10	<RL	0		0.1	Pass
Pb	T2	EPA6010C-SPLP	<2mm	10	<RL	0		0.25	Pass
Zn	T2	EPA6010C-SPLP	<2mm	10	<RL	0		0.0125	Pass
Tl	T2	EPA6010C-SPLP	<2mm	10	RPD if 2xRL	0		20	Pass
P	T2	EPA6010C-SPLP	<2mm	10	RPD if 2xRL	55		20	Fail
Se	T2	EPA6010C-SPLP	<2mm	10	RPD if 2xRL	0		20	Pass
Sb	T2	EPA6010C-SPLP	<2mm	10	RPD if 2xRL	0		20	Pass
V	T2	EPA6010C-SPLP	<2mm	10	RPD if 2xRL	0		20	Pass
Ag	T2	EPA6010C-SPLP	<2mm	10	RPD if 2xRL	0		20	Pass
Al	T2	EPA6010C-SPLP	<2mm	10	RPD if 2xRL	0		20	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
As	T2	EPA6010C-SPLP	<2mm	10	RPD if 2xRL	0		20	Pass
Ba	T2	EPA6010C-SPLP	<2mm	10	RPD if 2xRL	0		20	Pass
Be	T2	EPA6010C-SPLP	<2mm	10	RPD if 2xRL	0		20	Pass
Ca	T2	EPA6010C-SPLP	<2mm	10	RPD if 2xRL	151		20	Fail
Cd	T2	EPA6010C-SPLP	<2mm	10	RPD if 2xRL	104		20	Fail
Co	T2	EPA6010C-SPLP	<2mm	10	RPD if 2xRL	0		20	Pass
Cr	T2	EPA6010C-SPLP	<2mm	10	RPD if 2xRL	0		20	Pass
Cu	T2	EPA6010C-SPLP	<2mm	10	RPD if 2xRL	17		20	Pass
Fe	T2	EPA6010C-SPLP	<2mm	10	RPD if 2xRL	0		20	Pass
K	T2	EPA6010C-SPLP	<2mm	10	RPD if 2xRL	33		20	Fail
Mg	T2	EPA6010C-SPLP	<2mm	10	RPD if 2xRL	123		20	Fail
Mn	T2	EPA6010C-SPLP	<2mm	10	RPD if 2xRL	132		20	Fail
Na	T2	EPA6010C-SPLP	<2mm	10	RPD if 2xRL	34		20	Fail
Ni	T2	EPA6010C-SPLP	<2mm	10	RPD if 2xRL	0		20	Pass
Pb	T2	EPA6010C-SPLP	<2mm	10	RPD if 2xRL	0		20	Pass
Zn	T2	EPA6010C-SPLP	<2mm	10	RPD if 2xRL	100		20	Fail
Tl	T2	EPA6010C-SPLP	<2mm	11	<RL	0		0.025	Pass
P	T2	EPA6010C-SPLP	<2mm	11	<RL	0		0.75	Pass
Se	T2	EPA6010C-SPLP	<2mm	11	<RL	0		0.05	Pass
Sb	T2	EPA6010C-SPLP	<2mm	11	<RL	0		0.05	Pass
V	T2	EPA6010C-SPLP	<2mm	11	<RL	0		0.025	Pass
Ag	T2	EPA6010C-SPLP	<2mm	11	<RL	0		0.75	Pass
Al	T2	EPA6010C-SPLP	<2mm	11	<RL	0		0.8	Pass
As	T2	EPA6010C-SPLP	<2mm	11	<RL	0		0.05	Pass
Ba	T2	EPA6010C-SPLP	<2mm	11	<RL	0		0.05	Pass
Be	T2	EPA6010C-SPLP	<2mm	11	<RL	0		0.0025	Pass
Ca	T2	EPA6010C-SPLP	<2mm	11	<RL	0		5	Pass
Cd	T2	EPA6010C-SPLP	<2mm	11	<RL	0		0.0025	Pass
Co	T2	EPA6010C-SPLP	<2mm	11	<RL	0		0.005	Pass
Cr	T2	EPA6010C-SPLP	<2mm	11	<RL	0		0.1	Pass
Cu	T2	EPA6010C-SPLP	<2mm	11	<RL	0		0.01	Pass
Fe	T2	EPA6010C-SPLP	<2mm	11	<RL	0		0.5	Pass
K	T2	EPA6010C-SPLP	<2mm	11	<RL	0		0.75	Pass
Mg	T2	EPA6010C-SPLP	<2mm	11	<RL	0		0.25	Pass
Mn	T2	EPA6010C-SPLP	<2mm	11	<RL	0		0.0125	Fail
Na	T2	EPA6010C-SPLP	<2mm	11	<RL	0		0.5	Pass
Ni	T2	EPA6010C-SPLP	<2mm	11	<RL	0		0.1	Pass
Pb	T2	EPA6010C-SPLP	<2mm	11	<RL	0		0.25	Pass
Zn	T2	EPA6010C-SPLP	<2mm	11	<RL	0		0.0125	Pass
Tl	T2	EPA6010C-SPLP	<2mm	11	RPD if 2xRL	0		20	Pass
P	T2	EPA6010C-SPLP	<2mm	11	RPD if 2xRL	0		20	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Se	T2	EPA6010C-SPLP	<2mm	11	RPD if 2xRL	0		20	Pass
Sb	T2	EPA6010C-SPLP	<2mm	11	RPD if 2xRL	0		20	Pass
V	T2	EPA6010C-SPLP	<2mm	11	RPD if 2xRL	0		20	Pass
Ag	T2	EPA6010C-SPLP	<2mm	11	RPD if 2xRL	0		20	Pass
Al	T2	EPA6010C-SPLP	<2mm	11	RPD if 2xRL	0		20	Pass
As	T2	EPA6010C-SPLP	<2mm	11	RPD if 2xRL	0		20	Pass
Ba	T2	EPA6010C-SPLP	<2mm	11	RPD if 2xRL	0		20	Pass
Be	T2	EPA6010C-SPLP	<2mm	11	RPD if 2xRL	0		20	Pass
Ca	T2	EPA6010C-SPLP	<2mm	11	RPD if 2xRL	21		20	Fail
Cd	T2	EPA6010C-SPLP	<2mm	11	RPD if 2xRL	25		20	Fail
Co	T2	EPA6010C-SPLP	<2mm	11	RPD if 2xRL	0		20	Pass
Cr	T2	EPA6010C-SPLP	<2mm	11	RPD if 2xRL	0		20	Pass
Cu	T2	EPA6010C-SPLP	<2mm	11	RPD if 2xRL	0		20	Pass
Fe	T2	EPA6010C-SPLP	<2mm	11	RPD if 2xRL	0		20	Pass
K	T2	EPA6010C-SPLP	<2mm	11	RPD if 2xRL	10		20	Pass
Mg	T2	EPA6010C-SPLP	<2mm	11	RPD if 2xRL	31		20	Fail
Mn	T2	EPA6010C-SPLP	<2mm	11	RPD if 2xRL	22		20	Fail
Na	T2	EPA6010C-SPLP	<2mm	11	RPD if 2xRL	23		20	Fail
Ni	T2	EPA6010C-SPLP	<2mm	11	RPD if 2xRL	0		20	Pass
Pb	T2	EPA6010C-SPLP	<2mm	11	RPD if 2xRL	0		20	Pass
Zn	T2	EPA6010C-SPLP	<2mm	11	RPD if 2xRL	22		20	Fail
Tl	T2	EPA6010C-SPLP	<2mm	12	<RL	0		0.025	Pass
P	T2	EPA6010C-SPLP	<2mm	12	<RL	0		0.75	Pass
Se	T2	EPA6010C-SPLP	<2mm	12	<RL	0		0.05	Pass
Sb	T2	EPA6010C-SPLP	<2mm	12	<RL	0		0.05	Pass
V	T2	EPA6010C-SPLP	<2mm	12	<RL	0		0.025	Pass
Ag	T2	EPA6010C-SPLP	<2mm	12	<RL	0		0.75	Pass
Al	T2	EPA6010C-SPLP	<2mm	12	<RL	0		0.8	Pass
As	T2	EPA6010C-SPLP	<2mm	12	<RL	0		0.05	Pass
Ba	T2	EPA6010C-SPLP	<2mm	12	<RL	0		0.05	Pass
Be	T2	EPA6010C-SPLP	<2mm	12	<RL	0		0.0025	Pass
Ca	T2	EPA6010C-SPLP	<2mm	12	<RL	0		5	Pass
Cd	T2	EPA6010C-SPLP	<2mm	12	<RL	0		0.0025	Pass
Co	T2	EPA6010C-SPLP	<2mm	12	<RL	0		0.005	Pass
Cr	T2	EPA6010C-SPLP	<2mm	12	<RL	0		0.1	Pass
Cu	T2	EPA6010C-SPLP	<2mm	12	<RL	0		0.01	Pass
Fe	T2	EPA6010C-SPLP	<2mm	12	<RL	0		0.5	Pass
K	T2	EPA6010C-SPLP	<2mm	12	<RL	0		0.75	Pass
Mg	T2	EPA6010C-SPLP	<2mm	12	<RL	0		0.25	Pass
Mn	T2	EPA6010C-SPLP	<2mm	12	<RL	0		0.0125	Pass
Na	T2	EPA6010C-SPLP	<2mm	12	<RL	0		0.5	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Ni	T2	EPA6010C-SPLP	<2mm	12	<RL	0		0.1	Pass
Pb	T2	EPA6010C-SPLP	<2mm	12	<RL	0		0.25	Pass
Zn	T2	EPA6010C-SPLP	<2mm	12	<RL	0		0.0125	Pass
Tl	T2	EPA6010C-SPLP	<2mm	12	RPD if 2xRL	0		20	Pass
P	T2	EPA6010C-SPLP	<2mm	12	RPD if 2xRL	0		20	Pass
Se	T2	EPA6010C-SPLP	<2mm	12	RPD if 2xRL	0		20	Pass
Sb	T2	EPA6010C-SPLP	<2mm	12	RPD if 2xRL	0		20	Pass
V	T2	EPA6010C-SPLP	<2mm	12	RPD if 2xRL	0		20	Pass
Ag	T2	EPA6010C-SPLP	<2mm	12	RPD if 2xRL	0		20	Pass
Al	T2	EPA6010C-SPLP	<2mm	12	RPD if 2xRL	0		20	Pass
As	T2	EPA6010C-SPLP	<2mm	12	RPD if 2xRL	0		20	Pass
Ba	T2	EPA6010C-SPLP	<2mm	12	RPD if 2xRL	0		20	Pass
Be	T2	EPA6010C-SPLP	<2mm	12	RPD if 2xRL	0		20	Pass
Ca	T2	EPA6010C-SPLP	<2mm	12	RPD if 2xRL	0		20	Pass
Cd	T2	EPA6010C-SPLP	<2mm	12	RPD if 2xRL	2		20	Pass
Co	T2	EPA6010C-SPLP	<2mm	12	RPD if 2xRL	0		20	Pass
Cr	T2	EPA6010C-SPLP	<2mm	12	RPD if 2xRL	0		20	Pass
Cu	T2	EPA6010C-SPLP	<2mm	12	RPD if 2xRL	0		20	Pass
Fe	T2	EPA6010C-SPLP	<2mm	12	RPD if 2xRL	0		20	Pass
K	T2	EPA6010C-SPLP	<2mm	12	RPD if 2xRL	10		20	Pass
Mg	T2	EPA6010C-SPLP	<2mm	12	RPD if 2xRL	4		20	Pass
Mn	T2	EPA6010C-SPLP	<2mm	12	RPD if 2xRL	2		20	Pass
Na	T2	EPA6010C-SPLP	<2mm	12	RPD if 2xRL	14		20	Pass
Ni	T2	EPA6010C-SPLP	<2mm	12	RPD if 2xRL	0		20	Pass
Pb	T2	EPA6010C-SPLP	<2mm	12	RPD if 2xRL	0		20	Pass
Zn	T2	EPA6010C-SPLP	<2mm	12	RPD if 2xRL	2		20	Pass
Tl	T2	EPA6010C-SPLP	<2mm	13	<RL	0		0.025	Pass
P	T2	EPA6010C-SPLP	<2mm	13	<RL	0		0.75	Pass
Se	T2	EPA6010C-SPLP	<2mm	13	<RL	0		0.05	Pass
Sb	T2	EPA6010C-SPLP	<2mm	13	<RL	0		0.05	Pass
V	T2	EPA6010C-SPLP	<2mm	13	<RL	0		0.025	Pass
Ag	T2	EPA6010C-SPLP	<2mm	13	<RL	0		0.75	Pass
Al	T2	EPA6010C-SPLP	<2mm	13	<RL	0		0.8	Pass
As	T2	EPA6010C-SPLP	<2mm	13	<RL	0		0.05	Pass
Ba	T2	EPA6010C-SPLP	<2mm	13	<RL	0		0.05	Pass
Be	T2	EPA6010C-SPLP	<2mm	13	<RL	0		0.0025	Pass
Ca	T2	EPA6010C-SPLP	<2mm	13	<RL	0		5	Pass
Cd	T2	EPA6010C-SPLP	<2mm	13	<RL	0		0.0025	Pass
Co	T2	EPA6010C-SPLP	<2mm	13	<RL	0		0.005	Pass
Cr	T2	EPA6010C-SPLP	<2mm	13	<RL	0		0.1	Pass
Cu	T2	EPA6010C-SPLP	<2mm	13	<RL	0		0.01	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Fe	T2	EPA6010C-SPLP	<2mm	13	<RL	0		0.5	Pass
K	T2	EPA6010C-SPLP	<2mm	13	<RL	0		0.75	Pass
Mg	T2	EPA6010C-SPLP	<2mm	13	<RL	0		0.25	Pass
Mn	T2	EPA6010C-SPLP	<2mm	13	<RL	0		0.0125	Pass
Na	T2	EPA6010C-SPLP	<2mm	13	<RL	0		0.5	Pass
Ni	T2	EPA6010C-SPLP	<2mm	13	<RL	0		0.1	Pass
Pb	T2	EPA6010C-SPLP	<2mm	13	<RL	0		0.25	Pass
Zn	T2	EPA6010C-SPLP	<2mm	13	<RL	0		0.0125	Pass
Tl	T2	EPA6010C-SPLP	<2mm	13	RPD if 2xRL	0		20	Pass
P	T2	EPA6010C-SPLP	<2mm	13	RPD if 2xRL	0		20	Pass
Se	T2	EPA6010C-SPLP	<2mm	13	RPD if 2xRL	0		20	Pass
Sb	T2	EPA6010C-SPLP	<2mm	13	RPD if 2xRL	0		20	Pass
V	T2	EPA6010C-SPLP	<2mm	13	RPD if 2xRL	0		20	Pass
Ag	T2	EPA6010C-SPLP	<2mm	13	RPD if 2xRL	0		20	Pass
Al	T2	EPA6010C-SPLP	<2mm	13	RPD if 2xRL	0		20	Pass
As	T2	EPA6010C-SPLP	<2mm	13	RPD if 2xRL	0		20	Pass
Ba	T2	EPA6010C-SPLP	<2mm	13	RPD if 2xRL	0		20	Pass
Be	T2	EPA6010C-SPLP	<2mm	13	RPD if 2xRL	0		20	Pass
Ca	T2	EPA6010C-SPLP	<2mm	13	RPD if 2xRL	0		20	Pass
Cd	T2	EPA6010C-SPLP	<2mm	13	RPD if 2xRL	62		20	Fail
Co	T2	EPA6010C-SPLP	<2mm	13	RPD if 2xRL	0		20	Pass
Cr	T2	EPA6010C-SPLP	<2mm	13	RPD if 2xRL	0		20	Pass
Cu	T2	EPA6010C-SPLP	<2mm	13	RPD if 2xRL	0		20	Pass
Fe	T2	EPA6010C-SPLP	<2mm	13	RPD if 2xRL	0		20	Pass
K	T2	EPA6010C-SPLP	<2mm	13	RPD if 2xRL	15		20	Pass
Mg	T2	EPA6010C-SPLP	<2mm	13	RPD if 2xRL	24		20	Fail
Mn	T2	EPA6010C-SPLP	<2mm	13	RPD if 2xRL	17		20	Pass
Na	T2	EPA6010C-SPLP	<2mm	13	RPD if 2xRL	23		20	Fail
Ni	T2	EPA6010C-SPLP	<2mm	13	RPD if 2xRL	0		20	Pass
Pb	T2	EPA6010C-SPLP	<2mm	13	RPD if 2xRL	0		20	Pass
Zn	T2	EPA6010C-SPLP	<2mm	13	RPD if 2xRL	60		20	Fail
Tl	T2	EPA6010C-SPLP	<2mm	14	<RL	0		0.025	Pass
P	T2	EPA6010C-SPLP	<2mm	14	<RL	0		0.75	Pass
Se	T2	EPA6010C-SPLP	<2mm	14	<RL	0		0.05	Pass
Sb	T2	EPA6010C-SPLP	<2mm	14	<RL	0		0.05	Pass
V	T2	EPA6010C-SPLP	<2mm	14	<RL	0		0.025	Pass
Ag	T2	EPA6010C-SPLP	<2mm	14	<RL	0		0.75	Pass
Al	T2	EPA6010C-SPLP	<2mm	14	<RL	0		0.8	Pass
As	T2	EPA6010C-SPLP	<2mm	14	<RL	0		0.05	Pass
Ba	T2	EPA6010C-SPLP	<2mm	14	<RL	0		0.05	Pass
Be	T2	EPA6010C-SPLP	<2mm	14	<RL	0		0.0025	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Ca	T2	EPA6010C-SPLP	<2mm	14	<RL	0		5	Pass
Cd	T2	EPA6010C-SPLP	<2mm	14	<RL	0		0.0025	Pass
Co	T2	EPA6010C-SPLP	<2mm	14	<RL	0		0.005	Pass
Cr	T2	EPA6010C-SPLP	<2mm	14	<RL	0		0.1	Pass
Cu	T2	EPA6010C-SPLP	<2mm	14	<RL	0		0.01	Pass
Fe	T2	EPA6010C-SPLP	<2mm	14	<RL	0		0.5	Pass
K	T2	EPA6010C-SPLP	<2mm	14	<RL	0		0.75	Pass
Mg	T2	EPA6010C-SPLP	<2mm	14	<RL	0		0.25	Pass
Mn	T2	EPA6010C-SPLP	<2mm	14	<RL	0		0.0125	Pass
Na	T2	EPA6010C-SPLP	<2mm	14	<RL	0		0.5	Pass
Ni	T2	EPA6010C-SPLP	<2mm	14	<RL	0		0.1	Pass
Pb	T2	EPA6010C-SPLP	<2mm	14	<RL	0		0.25	Pass
Zn	T2	EPA6010C-SPLP	<2mm	14	<RL	0		0.0125	Pass
Tl	T2	EPA6010C-SPLP	<2mm	14	RPD if 2xRL			20	Pass
P	T2	EPA6010C-SPLP	<2mm	14	RPD if 2xRL	8		20	Pass
Se	T2	EPA6010C-SPLP	<2mm	14	RPD if 2xRL			20	Pass
Sb	T2	EPA6010C-SPLP	<2mm	14	RPD if 2xRL			20	Pass
V	T2	EPA6010C-SPLP	<2mm	14	RPD if 2xRL			20	Pass
Ag	T2	EPA6010C-SPLP	<2mm	14	RPD if 2xRL			20	Pass
Al	T2	EPA6010C-SPLP	<2mm	14	RPD if 2xRL	13		20	Pass
As	T2	EPA6010C-SPLP	<2mm	14	RPD if 2xRL	2		20	Pass
Ba	T2	EPA6010C-SPLP	<2mm	14	RPD if 2xRL			20	Pass
Be	T2	EPA6010C-SPLP	<2mm	14	RPD if 2xRL			20	Pass
Ca	T2	EPA6010C-SPLP	<2mm	14	RPD if 2xRL			20	Pass
Cd	T2	EPA6010C-SPLP	<2mm	14	RPD if 2xRL			20	Pass
Co	T2	EPA6010C-SPLP	<2mm	14	RPD if 2xRL			20	Pass
Cr	T2	EPA6010C-SPLP	<2mm	14	RPD if 2xRL			20	Pass
Cu	T2	EPA6010C-SPLP	<2mm	14	RPD if 2xRL	42		20	Pass
Fe	T2	EPA6010C-SPLP	<2mm	14	RPD if 2xRL	16		20	Pass
K	T2	EPA6010C-SPLP	<2mm	14	RPD if 2xRL	37		20	Pass
Mg	T2	EPA6010C-SPLP	<2mm	14	RPD if 2xRL	94		20	Pass
Mn	T2	EPA6010C-SPLP	<2mm	14	RPD if 2xRL	78		20	Pass
Na	T2	EPA6010C-SPLP	<2mm	14	RPD if 2xRL	46		20	Pass
Ni	T2	EPA6010C-SPLP	<2mm	14	RPD if 2xRL			20	Pass
Pb	T2	EPA6010C-SPLP	<2mm	14	RPD if 2xRL			20	Pass
Zn	T2	EPA6010C-SPLP	<2mm	14	RPD if 2xRL	32		20	Pass
Tl	T2	EPA6010C-SPLP	<2mm	15	<RL	0		0.025	Pass
P	T2	EPA6010C-SPLP	<2mm	15	<RL	0		0.75	Pass
Se	T2	EPA6010C-SPLP	<2mm	15	<RL	0		0.05	Pass
Sb	T2	EPA6010C-SPLP	<2mm	15	<RL	0		0.05	Pass
V	T2	EPA6010C-SPLP	<2mm	15	<RL	0		0.025	Pass

Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Ag	T2	EPA6010C-SPLP	<2mm	15	<RL	0		0.75	Pass
Al	T2	EPA6010C-SPLP	<2mm	15	<RL	0		0.8	Pass
As	T2	EPA6010C-SPLP	<2mm	15	<RL	0		0.05	Pass
Ba	T2	EPA6010C-SPLP	<2mm	15	<RL	0		0.05	Pass
Be	T2	EPA6010C-SPLP	<2mm	15	<RL	0		0.0025	Pass
Ca	T2	EPA6010C-SPLP	<2mm	15	<RL	0		5	Pass
Cd	T2	EPA6010C-SPLP	<2mm	15	<RL	0		0.0025	Pass
Co	T2	EPA6010C-SPLP	<2mm	15	<RL	0		0.005	Pass
Cr	T2	EPA6010C-SPLP	<2mm	15	<RL	0		0.1	Pass
Cu	T2	EPA6010C-SPLP	<2mm	15	<RL	0		0.01	Pass
Fe	T2	EPA6010C-SPLP	<2mm	15	<RL	0		0.5	Pass
K	T2	EPA6010C-SPLP	<2mm	15	<RL	0		0.75	Pass
Mg	T2	EPA6010C-SPLP	<2mm	15	<RL	0		0.25	Pass
Mn	T2	EPA6010C-SPLP	<2mm	15	<RL	0		0.0125	Pass
Na	T2	EPA6010C-SPLP	<2mm	15	<RL	0		0.5	Pass
Ni	T2	EPA6010C-SPLP	<2mm	15	<RL	0		0.1	Pass
Pb	T2	EPA6010C-SPLP	<2mm	15	<RL	0		0.25	Pass
Zn	T2	EPA6010C-SPLP	<2mm	15	<RL	0		0.0125	Pass
Tl	T2	EPA6010C-SPLP	<2mm	15	RPD if 2xRL	0		20	Pass
P	T2	EPA6010C-SPLP	<2mm	15	RPD if 2xRL	34		20	Fail
Se	T2	EPA6010C-SPLP	<2mm	15	RPD if 2xRL	0		20	Pass
Sb	T2	EPA6010C-SPLP	<2mm	15	RPD if 2xRL	0		20	Pass
V	T2	EPA6010C-SPLP	<2mm	15	RPD if 2xRL	0		20	Pass
Ag	T2	EPA6010C-SPLP	<2mm	15	RPD if 2xRL	0		20	Pass
Al	T2	EPA6010C-SPLP	<2mm	15	RPD if 2xRL	0		20	Pass
As	T2	EPA6010C-SPLP	<2mm	15	RPD if 2xRL	0		20	Pass
Ba	T2	EPA6010C-SPLP	<2mm	15	RPD if 2xRL	0		20	Pass
Be	T2	EPA6010C-SPLP	<2mm	15	RPD if 2xRL	0		20	Pass
Ca	T2	EPA6010C-SPLP	<2mm	15	RPD if 2xRL	99		20	Fail
Cd	T2	EPA6010C-SPLP	<2mm	15	RPD if 2xRL	0		20	Pass
Co	T2	EPA6010C-SPLP	<2mm	15	RPD if 2xRL	0		20	Pass
Cr	T2	EPA6010C-SPLP	<2mm	15	RPD if 2xRL	0		20	Pass
Cu	T2	EPA6010C-SPLP	<2mm	15	RPD if 2xRL	68		20	Fail
Fe	T2	EPA6010C-SPLP	<2mm	15	RPD if 2xRL	0		20	Pass
K	T2	EPA6010C-SPLP	<2mm	15	RPD if 2xRL	37		20	Fail
Mg	T2	EPA6010C-SPLP	<2mm	15	RPD if 2xRL	88		20	Fail
Mn	T2	EPA6010C-SPLP	<2mm	15	RPD if 2xRL	88		20	Fail
Na	T2	EPA6010C-SPLP	<2mm	15	RPD if 2xRL	39		20	Fail
Ni	T2	EPA6010C-SPLP	<2mm	15	RPD if 2xRL	0		20	Pass
Pb	T2	EPA6010C-SPLP	<2mm	15	RPD if 2xRL	0		20	Pass
Zn	T2	EPA6010C-SPLP	<2mm	15	RPD if 2xRL	50		20	Fail

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Tl	T2	EPA6010C-SPLP	<2mm	16	<RL	0		0.025	Pass
P	T2	EPA6010C-SPLP	<2mm	16	<RL	0		0.75	Pass
Se	T2	EPA6010C-SPLP	<2mm	16	<RL	0		0.05	Pass
Sb	T2	EPA6010C-SPLP	<2mm	16	<RL	0		0.05	Pass
V	T2	EPA6010C-SPLP	<2mm	16	<RL	0		0.025	Pass
Ag	T2	EPA6010C-SPLP	<2mm	16	<RL	0		0.75	Pass
Al	T2	EPA6010C-SPLP	<2mm	16	<RL	0		0.8	Pass
As	T2	EPA6010C-SPLP	<2mm	16	<RL	0		0.05	Pass
Ba	T2	EPA6010C-SPLP	<2mm	16	<RL	0		0.05	Pass
Be	T2	EPA6010C-SPLP	<2mm	16	<RL	0		0.0025	Pass
Ca	T2	EPA6010C-SPLP	<2mm	16	<RL	0		5	Pass
Cd	T2	EPA6010C-SPLP	<2mm	16	<RL	0		0.0025	Pass
Co	T2	EPA6010C-SPLP	<2mm	16	<RL	0		0.005	Pass
Cr	T2	EPA6010C-SPLP	<2mm	16	<RL	0		0.1	Pass
Cu	T2	EPA6010C-SPLP	<2mm	16	<RL	0		0.01	Pass
Fe	T2	EPA6010C-SPLP	<2mm	16	<RL	0		0.5	Pass
K	T2	EPA6010C-SPLP	<2mm	16	<RL	0		0.75	Pass
Mg	T2	EPA6010C-SPLP	<2mm	16	<RL	0		0.25	Pass
Mn	T2	EPA6010C-SPLP	<2mm	16	<RL	0		0.0125	Pass
Na	T2	EPA6010C-SPLP	<2mm	16	<RL	0		0.5	Pass
Ni	T2	EPA6010C-SPLP	<2mm	16	<RL	0		0.1	Pass
Pb	T2	EPA6010C-SPLP	<2mm	16	<RL	0		0.25	Pass
Zn	T2	EPA6010C-SPLP	<2mm	16	<RL	0		0.0125	Pass
Tl	T2	EPA6010C-SPLP	<2mm	16	RPD if 2xRL	0		20	Pass
P	T2	EPA6010C-SPLP	<2mm	16	RPD if 2xRL	0		20	Pass
Se	T2	EPA6010C-SPLP	<2mm	16	RPD if 2xRL	0		20	Pass
Sb	T2	EPA6010C-SPLP	<2mm	16	RPD if 2xRL	0		20	Pass
V	T2	EPA6010C-SPLP	<2mm	16	RPD if 2xRL	0		20	Pass
Ag	T2	EPA6010C-SPLP	<2mm	16	RPD if 2xRL	0		20	Pass
Al	T2	EPA6010C-SPLP	<2mm	16	RPD if 2xRL	0		20	Pass
As	T2	EPA6010C-SPLP	<2mm	16	RPD if 2xRL	0		20	Pass
Ba	T2	EPA6010C-SPLP	<2mm	16	RPD if 2xRL	0		20	Pass
Be	T2	EPA6010C-SPLP	<2mm	16	RPD if 2xRL	0		20	Pass
Ca	T2	EPA6010C-SPLP	<2mm	16	RPD if 2xRL	0		20	Pass
Cd	T2	EPA6010C-SPLP	<2mm	16	RPD if 2xRL	0		20	Pass
Co	T2	EPA6010C-SPLP	<2mm	16	RPD if 2xRL	0		20	Pass
Cr	T2	EPA6010C-SPLP	<2mm	16	RPD if 2xRL	0		20	Pass
Cu	T2	EPA6010C-SPLP	<2mm	16	RPD if 2xRL	0		20	Pass
Fe	T2	EPA6010C-SPLP	<2mm	16	RPD if 2xRL	0		20	Pass
K	T2	EPA6010C-SPLP	<2mm	16	RPD if 2xRL	19		20	Pass
Mg	T2	EPA6010C-SPLP	<2mm	16	RPD if 2xRL	34		20	Fail

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Mn	T2	EPA6010C-SPLP	<2mm	16	RPD if 2xRL	29		20	Fail
Na	T2	EPA6010C-SPLP	<2mm	16	RPD if 2xRL	19		20	Pass
Ni	T2	EPA6010C-SPLP	<2mm	16	RPD if 2xRL	0		20	Pass
Pb	T2	EPA6010C-SPLP	<2mm	16	RPD if 2xRL	0		20	Pass
Zn	T2	EPA6010C-SPLP	<2mm	16	RPD if 2xRL	21		20	Fail
Tl	T2	EPA6010C-SPLP	<2mm	17	<RL	0		0.025	Pass
P	T2	EPA6010C-SPLP	<2mm	17	<RL	0		0.75	Pass
Se	T2	EPA6010C-SPLP	<2mm	17	<RL	0		0.05	Pass
Sb	T2	EPA6010C-SPLP	<2mm	17	<RL	0		0.05	Pass
V	T2	EPA6010C-SPLP	<2mm	17	<RL	0		0.025	Pass
Ag	T2	EPA6010C-SPLP	<2mm	17	<RL	0		0.75	Pass
Al	T2	EPA6010C-SPLP	<2mm	17	<RL	0		0.8	Pass
As	T2	EPA6010C-SPLP	<2mm	17	<RL	0		0.05	Pass
Ba	T2	EPA6010C-SPLP	<2mm	17	<RL	0		0.05	Pass
Be	T2	EPA6010C-SPLP	<2mm	17	<RL	0		0.0025	Pass
Ca	T2	EPA6010C-SPLP	<2mm	17	<RL	0		5	Pass
Cd	T2	EPA6010C-SPLP	<2mm	17	<RL	0		0.0025	Pass
Co	T2	EPA6010C-SPLP	<2mm	17	<RL	0		0.005	Pass
Cr	T2	EPA6010C-SPLP	<2mm	17	<RL	0		0.1	Pass
Cu	T2	EPA6010C-SPLP	<2mm	17	<RL	0		0.01	Pass
Fe	T2	EPA6010C-SPLP	<2mm	17	<RL	0		0.5	Pass
K	T2	EPA6010C-SPLP	<2mm	17	<RL	0		0.75	Pass
Mg	T2	EPA6010C-SPLP	<2mm	17	<RL	0		0.25	Pass
Mn	T2	EPA6010C-SPLP	<2mm	17	<RL	0		0.0125	Pass
Na	T2	EPA6010C-SPLP	<2mm	17	<RL	0		0.5	Pass
Ni	T2	EPA6010C-SPLP	<2mm	17	<RL	0		0.1	Pass
Pb	T2	EPA6010C-SPLP	<2mm	17	<RL	0		0.25	Pass
Zn	T2	EPA6010C-SPLP	<2mm	17	<RL	0		0.0125	Pass
Tl	T2	EPA6010C-SPLP	<2mm	17	RPD if 2xRL	0		20	Pass
P	T2	EPA6010C-SPLP	<2mm	17	RPD if 2xRL	0		20	Pass
Se	T2	EPA6010C-SPLP	<2mm	17	RPD if 2xRL	0		20	Pass
Sb	T2	EPA6010C-SPLP	<2mm	17	RPD if 2xRL	0		20	Pass
V	T2	EPA6010C-SPLP	<2mm	17	RPD if 2xRL	0		20	Pass
Ag	T2	EPA6010C-SPLP	<2mm	17	RPD if 2xRL	0		20	Pass
Al	T2	EPA6010C-SPLP	<2mm	17	RPD if 2xRL	0		20	Pass
As	T2	EPA6010C-SPLP	<2mm	17	RPD if 2xRL	0		20	Pass
Ba	T2	EPA6010C-SPLP	<2mm	17	RPD if 2xRL	41		20	Fail
Be	T2	EPA6010C-SPLP	<2mm	17	RPD if 2xRL	0		20	Pass
Ca	T2	EPA6010C-SPLP	<2mm	17	RPD if 2xRL	45		20	Fail
Cd	T2	EPA6010C-SPLP	<2mm	17	RPD if 2xRL	40		20	Fail
Co	T2	EPA6010C-SPLP	<2mm	17	RPD if 2xRL	0		20	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Cr	T2	EPA6010C-SPLP	<2mm	17	RPD if 2xRL	0		20	Pass
Cu	T2	EPA6010C-SPLP	<2mm	17	RPD if 2xRL	0		20	Pass
Fe	T2	EPA6010C-SPLP	<2mm	17	RPD if 2xRL	0		20	Pass
K	T2	EPA6010C-SPLP	<2mm	17	RPD if 2xRL	13		20	Pass
Mg	T2	EPA6010C-SPLP	<2mm	17	RPD if 2xRL	32		20	Fail
Mn	T2	EPA6010C-SPLP	<2mm	17	RPD if 2xRL	39		20	Fail
Na	T2	EPA6010C-SPLP	<2mm	17	RPD if 2xRL	20		20	Pass
Ni	T2	EPA6010C-SPLP	<2mm	17	RPD if 2xRL	0		20	Pass
Pb	T2	EPA6010C-SPLP	<2mm	17	RPD if 2xRL	0		20	Pass
Zn	T2	EPA6010C-SPLP	<2mm	17	RPD if 2xRL	38		20	Fail
Tl	T3	EPA6010C-SPLP	<2mm	1	RPD if > 2XRL	0		20	Pass
P	T3	EPA6010C-SPLP	<2mm	1	RPD if > 2XRL	3		20	Pass
Se	T3	EPA6010C-SPLP	<2mm	1	RPD if > 2XRL	0		20	Pass
Sb	T3	EPA6010C-SPLP	<2mm	1	RPD if > 2XRL	0		20	Pass
V	T3	EPA6010C-SPLP	<2mm	1	RPD if > 2XRL	0		20	Pass
Ag	T3	EPA6010C-SPLP	<2mm	1	RPD if > 2XRL	0		20	Pass
Al	T3	EPA6010C-SPLP	<2mm	1	RPD if > 2XRL	4		20	Pass
As	T3	EPA6010C-SPLP	<2mm	1	RPD if > 2XRL	0		20	Pass
Ba	T3	EPA6010C-SPLP	<2mm	1	RPD if > 2XRL	0		20	Pass
Be	T3	EPA6010C-SPLP	<2mm	1	RPD if > 2XRL	0		20	Pass
Ca	T3	EPA6010C-SPLP	<2mm	1	RPD if > 2XRL	3		20	Pass
Cd	T3	EPA6010C-SPLP	<2mm	1	RPD if > 2XRL	0		20	Pass
Co	T3	EPA6010C-SPLP	<2mm	1	RPD if > 2XRL	0		20	Pass
Cr	T3	EPA6010C-SPLP	<2mm	1	RPD if > 2XRL	0		20	Pass
Cu	T3	EPA6010C-SPLP	<2mm	1	RPD if > 2XRL	0		20	Pass
Fe	T3	EPA6010C-SPLP	<2mm	1	RPD if > 2XRL	0		20	Pass
K	T3	EPA6010C-SPLP	<2mm	1	RPD if > 2XRL	3		20	Pass
Mg	T3	EPA6010C-SPLP	<2mm	1	RPD if > 2XRL	3		20	Pass
Mn	T3	EPA6010C-SPLP	<2mm	1	RPD if > 2XRL	2		20	Pass
Na	T3	EPA6010C-SPLP	<2mm	1	RPD if > 2XRL	3		20	Pass
Ni	T3	EPA6010C-SPLP	<2mm	1	RPD if > 2XRL	0		20	Pass
Pb	T3	EPA6010C-SPLP	<2mm	1	RPD if > 2XRL	0		20	Pass
Zn	T3	EPA6010C-SPLP	<2mm	1	RPD if > 2XRL	2		20	Pass
Tl	T3	EPA6010C-SPLP	<2mm	1	<RL or<10x samples	0		0.0125	Pass
P	T3	EPA6010C-SPLP	<2mm	1	<RL or<10x samples	0		0.0125	Pass
Se	T3	EPA6010C-SPLP	<2mm	1	<RL or<10x samples	0		0.0125	Pass
Sb	T3	EPA6010C-SPLP	<2mm	1	<RL or<10x samples	0		0.0125	Pass
V	T3	EPA6010C-SPLP	<2mm	1	<RL or<10x samples	0		0.0125	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Ag	T3	EPA6010C-SPLP	<2mm	1	<RL or<10x samples	0		0.0125	Pass
Al	T3	EPA6010C-SPLP	<2mm	1	<RL or<10x samples	0		0.0125	Pass
As	T3	EPA6010C-SPLP	<2mm	1	<RL or<10x samples	0		0.0125	Pass
Ba	T3	EPA6010C-SPLP	<2mm	1	<RL or<10x samples	0		0.0125	Pass
Be	T3	EPA6010C-SPLP	<2mm	1	<RL or<10x samples	0		0.0125	Pass
Ca	T3	EPA6010C-SPLP	<2mm	1	<RL or<10x samples	0		0.0125	Pass
Cd	T3	EPA6010C-SPLP	<2mm	1	<RL or<10x samples	0		0.0125	Pass
Co	T3	EPA6010C-SPLP	<2mm	1	<RL or<10x samples	0		0.0125	Pass
Cr	T3	EPA6010C-SPLP	<2mm	1	<RL or<10x samples	0		0.0125	Pass
Cu	T3	EPA6010C-SPLP	<2mm	1	<RL or<10x samples	0		0.0125	Pass
Fe	T3	EPA6010C-SPLP	<2mm	1	<RL or<10x samples	0		0.0125	Pass
K	T3	EPA6010C-SPLP	<2mm	1	<RL or<10x samples	0		0.0125	Pass
Mg	T3	EPA6010C-SPLP	<2mm	1	<RL or<10x samples	0		0.0125	Pass
Mn	T3	EPA6010C-SPLP	<2mm	1	<RL or<10x samples	0		0.0125	Pass
Na	T3	EPA6010C-SPLP	<2mm	1	<RL or<10x samples	0		0.0125	Pass
Ni	T3	EPA6010C-SPLP	<2mm	1	<RL or<10x samples	0		0.0125	Pass
Pb	T3	EPA6010C-SPLP	<2mm	1	<RL or<10x samples	0		0.0125	Pass
Zn	T3	EPA6010C-SPLP	<2mm	1	<RL or<10x samples	0		0.0125	Pass
Tl	T3	EPA6010C-SPLP	<2mm	2	RPD if > 2XRL	0		20	Pass
P	T3	EPA6010C-SPLP	<2mm	2	RPD if > 2XRL	3		20	Pass
Se	T3	EPA6010C-SPLP	<2mm	2	RPD if > 2XRL	0		20	Pass
Sb	T3	EPA6010C-SPLP	<2mm	2	RPD if > 2XRL	0		20	Pass
V	T3	EPA6010C-SPLP	<2mm	2	RPD if > 2XRL	0		20	Pass
Ag	T3	EPA6010C-SPLP	<2mm	2	RPD if > 2XRL	0		20	Pass
Al	T3	EPA6010C-SPLP	<2mm	2	RPD if > 2XRL	18		20	Pass
As	T3	EPA6010C-SPLP	<2mm	2	RPD if > 2XRL	0		20	Pass
Ba	T3	EPA6010C-SPLP	<2mm	2	RPD if > 2XRL	0		20	Pass
Be	T3	EPA6010C-SPLP	<2mm	2	RPD if > 2XRL	0		20	Pass
Ca	T3	EPA6010C-SPLP	<2mm	2	RPD if > 2XRL	0		20	Pass
Cd	T3	EPA6010C-SPLP	<2mm	2	RPD if > 2XRL	0		20	Pass
Co	T3	EPA6010C-SPLP	<2mm	2	RPD if > 2XRL	0		20	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Cr	T3	EPA6010C-SPLP	<2mm	2	RPD if > 2XRL	0		20	Pass
Cu	T3	EPA6010C-SPLP	<2mm	2	RPD if > 2XRL	0		20	Pass
Fe	T3	EPA6010C-SPLP	<2mm	2	RPD if > 2XRL	0		20	Pass
K	T3	EPA6010C-SPLP	<2mm	2	RPD if > 2XRL	0		20	Pass
Mg	T3	EPA6010C-SPLP	<2mm	2	RPD if > 2XRL	2		20	Pass
Mn	T3	EPA6010C-SPLP	<2mm	2	RPD if > 2XRL	2		20	Pass
Na	T3	EPA6010C-SPLP	<2mm	2	RPD if > 2XRL	1		20	Pass
Ni	T3	EPA6010C-SPLP	<2mm	2	RPD if > 2XRL	0		20	Pass
Pb	T3	EPA6010C-SPLP	<2mm	2	RPD if > 2XRL	0		20	Pass
Zn	T3	EPA6010C-SPLP	<2mm	2	RPD if > 2XRL	0		20	Pass
Tl	T3	EPA6010C-SPLP	<2mm	2	<RL or<10x samples	0		0.0125	Pass
P	T3	EPA6010C-SPLP	<2mm	2	<RL or<10x samples	0		0.0125	Pass
Se	T3	EPA6010C-SPLP	<2mm	2	<RL or<10x samples	0		0.0125	Pass
Sb	T3	EPA6010C-SPLP	<2mm	2	<RL or<10x samples	0		0.0125	Pass
V	T3	EPA6010C-SPLP	<2mm	2	<RL or<10x samples	0		0.0125	Pass
Ag	T3	EPA6010C-SPLP	<2mm	2	<RL or<10x samples	0		0.0125	Pass
Al	T3	EPA6010C-SPLP	<2mm	2	<RL or<10x samples	0		0.0125	Pass
As	T3	EPA6010C-SPLP	<2mm	2	<RL or<10x samples	0		0.0125	Pass
Ba	T3	EPA6010C-SPLP	<2mm	2	<RL or<10x samples	0		0.0125	Pass
Be	T3	EPA6010C-SPLP	<2mm	2	<RL or<10x samples	0		0.0125	Pass
Ca	T3	EPA6010C-SPLP	<2mm	2	<RL or<10x samples	0		0.0125	Pass
Cd	T3	EPA6010C-SPLP	<2mm	2	<RL or<10x samples	0		0.0125	Pass
Co	T3	EPA6010C-SPLP	<2mm	2	<RL or<10x samples	0		0.0125	Pass
Cr	T3	EPA6010C-SPLP	<2mm	2	<RL or<10x samples	0		0.0125	Pass
Cu	T3	EPA6010C-SPLP	<2mm	2	<RL or<10x samples	0		0.0125	Pass
Fe	T3	EPA6010C-SPLP	<2mm	2	<RL or<10x samples	0		0.0125	Pass
K	T3	EPA6010C-SPLP	<2mm	2	<RL or<10x samples	0		0.0125	Pass
Mg	T3	EPA6010C-SPLP	<2mm	2	<RL or<10x samples	0		0.0125	Pass
Mn	T3	EPA6010C-SPLP	<2mm	2	<RL or<10x samples	0		0.0125	Pass
Na	T3	EPA6010C-SPLP	<2mm	2	<RL or<10x samples	0		0.0125	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Ni	T3	EPA6010C-SPLP	<2mm	2	<RL or<10x samples	0		0.0125	Pass
Pb	T3	EPA6010C-SPLP	<2mm	2	<RL or<10x samples	0		0.0125	Pass
Zn	T3	EPA6010C-SPLP	<2mm	2	<RL or<10x samples	0		0.0125	Pass
Tl	T3	EPA6010C-SPLP	<2mm	3	RPD if > 2XRL	0		20	Pass
P	T3	EPA6010C-SPLP	<2mm	3	RPD if > 2XRL	27		20	Fail
Se	T3	EPA6010C-SPLP	<2mm	3	RPD if > 2XRL	0		20	Pass
Sb	T3	EPA6010C-SPLP	<2mm	3	RPD if > 2XRL	0		20	Pass
V	T3	EPA6010C-SPLP	<2mm	3	RPD if > 2XRL	0		20	Pass
Ag	T3	EPA6010C-SPLP	<2mm	3	RPD if > 2XRL	0		20	Pass
Al	T3	EPA6010C-SPLP	<2mm	3	RPD if > 2XRL	11		20	Pass
As	T3	EPA6010C-SPLP	<2mm	3	RPD if > 2XRL	0		20	Pass
Ba	T3	EPA6010C-SPLP	<2mm	3	RPD if > 2XRL	0		20	Pass
Be	T3	EPA6010C-SPLP	<2mm	3	RPD if > 2XRL	0		20	Pass
Ca	T3	EPA6010C-SPLP	<2mm	3	RPD if > 2XRL	0		20	Pass
Cd	T3	EPA6010C-SPLP	<2mm	3	RPD if > 2XRL	0		20	Pass
Co	T3	EPA6010C-SPLP	<2mm	3	RPD if > 2XRL	0		20	Pass
Cr	T3	EPA6010C-SPLP	<2mm	3	RPD if > 2XRL	0		20	Pass
Cu	T3	EPA6010C-SPLP	<2mm	3	RPD if > 2XRL	0		20	Pass
Fe	T3	EPA6010C-SPLP	<2mm	3	RPD if > 2XRL	0		20	Pass
K	T3	EPA6010C-SPLP	<2mm	3	RPD if > 2XRL	23		20	Fail
Mg	T3	EPA6010C-SPLP	<2mm	3	RPD if > 2XRL	83		20	Fail
Mn	T3	EPA6010C-SPLP	<2mm	3	RPD if > 2XRL	36		20	Fail
Na	T3	EPA6010C-SPLP	<2mm	3	RPD if > 2XRL	33		20	Fail
Ni	T3	EPA6010C-SPLP	<2mm	3	RPD if > 2XRL	0		20	Pass
Pb	T3	EPA6010C-SPLP	<2mm	3	RPD if > 2XRL	0		20	Pass
Zn	T3	EPA6010C-SPLP	<2mm	3	RPD if > 2XRL	17		20	Pass
Tl	T3	EPA6010C-SPLP	<2mm	3	<RL or<10x samples	0		0.0125	Pass
P	T3	EPA6010C-SPLP	<2mm	3	<RL or<10x samples	0		0.0125	Pass
Se	T3	EPA6010C-SPLP	<2mm	3	<RL or<10x samples	0		0.0125	Pass
Sb	T3	EPA6010C-SPLP	<2mm	3	<RL or<10x samples	0		0.0125	Pass
V	T3	EPA6010C-SPLP	<2mm	3	<RL or<10x samples	0		0.0125	Pass
Ag	T3	EPA6010C-SPLP	<2mm	3	<RL or<10x samples	0		0.0125	Pass
Al	T3	EPA6010C-SPLP	<2mm	3	<RL or<10x samples	0		0.0125	Pass
As	T3	EPA6010C-SPLP	<2mm	3	<RL or<10x samples	0		0.0125	Pass
Ba	T3	EPA6010C-SPLP	<2mm	3	<RL or<10x samples	0		0.0125	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Be	T3	EPA6010C-SPLP	<2mm	3	<RL or<10x samples	0		0.0125	Pass
Ca	T3	EPA6010C-SPLP	<2mm	3	<RL or<10x samples	0		0.0125	Pass
Cd	T3	EPA6010C-SPLP	<2mm	3	<RL or<10x samples	0		0.0125	Pass
Co	T3	EPA6010C-SPLP	<2mm	3	<RL or<10x samples	0		0.0125	Pass
Cr	T3	EPA6010C-SPLP	<2mm	3	<RL or<10x samples	0		0.0125	Pass
Cu	T3	EPA6010C-SPLP	<2mm	3	<RL or<10x samples	0		0.0125	Pass
Fe	T3	EPA6010C-SPLP	<2mm	3	<RL or<10x samples	0		0.0125	Pass
K	T3	EPA6010C-SPLP	<2mm	3	<RL or<10x samples	0		0.0125	Pass
Mg	T3	EPA6010C-SPLP	<2mm	3	<RL or<10x samples	0		0.0125	Pass
Mn	T3	EPA6010C-SPLP	<2mm	3	<RL or<10x samples	0		0.0125	Pass
Na	T3	EPA6010C-SPLP	<2mm	3	<RL or<10x samples	0		0.0125	Pass
Ni	T3	EPA6010C-SPLP	<2mm	3	<RL or<10x samples	0		0.0125	Pass
Pb	T3	EPA6010C-SPLP	<2mm	3	<RL or<10x samples	0		0.0125	Pass
Zn	T3	EPA6010C-SPLP	<2mm	3	<RL or<10x samples	0		0.0125	Pass
Tl	T3	EPA6010C-SPLP	<2mm	4	RPD if > 2XRL	0		20	Pass
P	T3	EPA6010C-SPLP	<2mm	4	RPD if > 2XRL	0		20	Pass
Se	T3	EPA6010C-SPLP	<2mm	4	RPD if > 2XRL	0		20	Pass
Sb	T3	EPA6010C-SPLP	<2mm	4	RPD if > 2XRL	0		20	Pass
V	T3	EPA6010C-SPLP	<2mm	4	RPD if > 2XRL	0		20	Pass
Ag	T3	EPA6010C-SPLP	<2mm	4	RPD if > 2XRL	0		20	Pass
Al	T3	EPA6010C-SPLP	<2mm	4	RPD if > 2XRL	6		20	Pass
As	T3	EPA6010C-SPLP	<2mm	4	RPD if > 2XRL	0		20	Pass
Ba	T3	EPA6010C-SPLP	<2mm	4	RPD if > 2XRL	0		20	Pass
Be	T3	EPA6010C-SPLP	<2mm	4	RPD if > 2XRL	0		20	Pass
Ca	T3	EPA6010C-SPLP	<2mm	4	RPD if > 2XRL	0		20	Pass
Cd	T3	EPA6010C-SPLP	<2mm	4	RPD if > 2XRL	0		20	Pass
Co	T3	EPA6010C-SPLP	<2mm	4	RPD if > 2XRL	0		20	Pass
Cr	T3	EPA6010C-SPLP	<2mm	4	RPD if > 2XRL	0		20	Pass
Cu	T3	EPA6010C-SPLP	<2mm	4	RPD if > 2XRL	0		20	Pass
Fe	T3	EPA6010C-SPLP	<2mm	4	RPD if > 2XRL	0		20	Pass
K	T3	EPA6010C-SPLP	<2mm	4	RPD if > 2XRL	3		20	Pass
Mg	T3	EPA6010C-SPLP	<2mm	4	RPD if > 2XRL	6		20	Pass
Mn	T3	EPA6010C-SPLP	<2mm	4	RPD if > 2XRL	6		20	Pass

Analyte	Time point	method_code	_size_fract ion	Batch	QC criteria	Value	low limit	high limit	Pass/F ail
Na	T3	EPA6010C-SPLP	<2mm	4	RPD if > 2XRL	3		20	Pass
Ni	T3	EPA6010C-SPLP	<2mm	4	RPD if > 2XRL	0		20	Pass
Pb	T3	EPA6010C-SPLP	<2mm	4	RPD if > 2XRL	0		20	Pass
Zn	T3	EPA6010C-SPLP	<2mm	4	RPD if > 2XRL	6		20	Pass
Tl	T3	EPA6010C-SPLP	<2mm	4	<RL or<10x samples	0		0.0125	Pass
P	T3	EPA6010C-SPLP	<2mm	4	<RL or<10x samples	0		0.0125	Pass
Se	T3	EPA6010C-SPLP	<2mm	4	<RL or<10x samples	0		0.0125	Pass
Sb	T3	EPA6010C-SPLP	<2mm	4	<RL or<10x samples	0		0.0125	Pass
V	T3	EPA6010C-SPLP	<2mm	4	<RL or<10x samples	0		0.0125	Pass
Ag	T3	EPA6010C-SPLP	<2mm	4	<RL or<10x samples	0		0.0125	Pass
Al	T3	EPA6010C-SPLP	<2mm	4	<RL or<10x samples	0		0.0125	Pass
As	T3	EPA6010C-SPLP	<2mm	4	<RL or<10x samples	0		0.0125	Pass
Ba	T3	EPA6010C-SPLP	<2mm	4	<RL or<10x samples	0		0.0125	Pass
Be	T3	EPA6010C-SPLP	<2mm	4	<RL or<10x samples	0		0.0125	Pass
Ca	T3	EPA6010C-SPLP	<2mm	4	<RL or<10x samples	0		0.0125	Pass
Cd	T3	EPA6010C-SPLP	<2mm	4	<RL or<10x samples	0		0.0125	Pass
Co	T3	EPA6010C-SPLP	<2mm	4	<RL or<10x samples	0		0.0125	Pass
Cr	T3	EPA6010C-SPLP	<2mm	4	<RL or<10x samples	0		0.0125	Pass
Cu	T3	EPA6010C-SPLP	<2mm	4	<RL or<10x samples	0		0.0125	Pass
Fe	T3	EPA6010C-SPLP	<2mm	4	<RL or<10x samples	0		0.0125	Pass
K	T3	EPA6010C-SPLP	<2mm	4	<RL or<10x samples	0		0.0125	Pass
Mg	T3	EPA6010C-SPLP	<2mm	4	<RL or<10x samples	0		0.0125	Pass
Mn	T3	EPA6010C-SPLP	<2mm	4	<RL or<10x samples	0		0.0125	Pass
Na	T3	EPA6010C-SPLP	<2mm	4	<RL or<10x samples	0		0.0125	Pass
Ni	T3	EPA6010C-SPLP	<2mm	4	<RL or<10x samples	0		0.0125	Pass
Pb	T3	EPA6010C-SPLP	<2mm	4	<RL or<10x samples	0		0.0125	Pass
Zn	T3	EPA6010C-SPLP	<2mm	4	<RL or<10x samples	0		0.0125	Pass
Tl	T3	EPA6010C-SPLP	<2mm	5	RPD if > 2XRL	0		20	Pass

Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
P	T3	EPA6010C-SPLP	<2mm	5	RPD if > 2XRL	0		20	Pass
Se	T3	EPA6010C-SPLP	<2mm	5	RPD if > 2XRL	0		20	Pass
Sb	T3	EPA6010C-SPLP	<2mm	5	RPD if > 2XRL	0		20	Pass
V	T3	EPA6010C-SPLP	<2mm	5	RPD if > 2XRL	0		20	Pass
Ag	T3	EPA6010C-SPLP	<2mm	5	RPD if > 2XRL	0		20	Pass
Al	T3	EPA6010C-SPLP	<2mm	5	RPD if > 2XRL	9		20	Pass
As	T3	EPA6010C-SPLP	<2mm	5	RPD if > 2XRL	0		20	Pass
Ba	T3	EPA6010C-SPLP	<2mm	5	RPD if > 2XRL	0		20	Pass
Be	T3	EPA6010C-SPLP	<2mm	5	RPD if > 2XRL	0		20	Pass
Ca	T3	EPA6010C-SPLP	<2mm	5	RPD if > 2XRL	2		20	Pass
Cd	T3	EPA6010C-SPLP	<2mm	5	RPD if > 2XRL	0		20	Pass
Co	T3	EPA6010C-SPLP	<2mm	5	RPD if > 2XRL	0		20	Pass
Cr	T3	EPA6010C-SPLP	<2mm	5	RPD if > 2XRL	0		20	Pass
Cu	T3	EPA6010C-SPLP	<2mm	5	RPD if > 2XRL	0		20	Pass
Fe	T3	EPA6010C-SPLP	<2mm	5	RPD if > 2XRL	0		20	Pass
K	T3	EPA6010C-SPLP	<2mm	5	RPD if > 2XRL	7		20	Pass
Mg	T3	EPA6010C-SPLP	<2mm	5	RPD if > 2XRL	1		20	Pass
Mn	T3	EPA6010C-SPLP	<2mm	5	RPD if > 2XRL	10		20	Pass
Na	T3	EPA6010C-SPLP	<2mm	5	RPD if > 2XRL	13		20	Pass
Ni	T3	EPA6010C-SPLP	<2mm	5	RPD if > 2XRL	0		20	Pass
Pb	T3	EPA6010C-SPLP	<2mm	5	RPD if > 2XRL	0		20	Pass
Zn	T3	EPA6010C-SPLP	<2mm	5	RPD if > 2XRL	10		20	Pass
Tl	T3	EPA6010C-SPLP	<2mm	5	<RL or<10x samples	0		0.0125	Pass
P	T3	EPA6010C-SPLP	<2mm	5	<RL or<10x samples	0		0.0125	Pass
Se	T3	EPA6010C-SPLP	<2mm	5	<RL or<10x samples	0		0.0125	Pass
Sb	T3	EPA6010C-SPLP	<2mm	5	<RL or<10x samples	0		0.0125	Pass
V	T3	EPA6010C-SPLP	<2mm	5	<RL or<10x samples	0		0.0125	Pass
Ag	T3	EPA6010C-SPLP	<2mm	5	<RL or<10x samples	0		0.0125	Pass
Al	T3	EPA6010C-SPLP	<2mm	5	<RL or<10x samples	0		0.0125	Pass
As	T3	EPA6010C-SPLP	<2mm	5	<RL or<10x samples	0		0.0125	Pass
Ba	T3	EPA6010C-SPLP	<2mm	5	<RL or<10x samples	0		0.0125	Pass
Be	T3	EPA6010C-SPLP	<2mm	5	<RL or<10x samples	0		0.0125	Pass
Ca	T3	EPA6010C-SPLP	<2mm	5	<RL or<10x samples	0		0.0125	Pass
Cd	T3	EPA6010C-SPLP	<2mm	5	<RL or<10x samples	0		0.0125	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Co	T3	EPA6010C-SPLP	<2mm	5	<RL or<10x samples	0		0.0125	Pass
Cr	T3	EPA6010C-SPLP	<2mm	5	<RL or<10x samples	0		0.0125	Pass
Cu	T3	EPA6010C-SPLP	<2mm	5	<RL or<10x samples	0		0.0125	Pass
Fe	T3	EPA6010C-SPLP	<2mm	5	<RL or<10x samples	0		0.0125	Pass
K	T3	EPA6010C-SPLP	<2mm	5	<RL or<10x samples	0		0.0125	Pass
Mg	T3	EPA6010C-SPLP	<2mm	5	<RL or<10x samples	0		0.0125	Pass
Mn	T3	EPA6010C-SPLP	<2mm	5	<RL or<10x samples	0		0.0125	Pass
Na	T3	EPA6010C-SPLP	<2mm	5	<RL or<10x samples	0		0.0125	Pass
Ni	T3	EPA6010C-SPLP	<2mm	5	<RL or<10x samples	0		0.0125	Pass
Pb	T3	EPA6010C-SPLP	<2mm	5	<RL or<10x samples	0		0.0125	Pass
Zn	T3	EPA6010C-SPLP	<2mm	5	<RL or<10x samples	0		0.0125	Pass
Tl	T3	EPA6010C-SPLP	<2mm	6	RPD if > 2XRL	0		20	Pass
P	T3	EPA6010C-SPLP	<2mm	6	RPD if > 2XRL	26		20	Fail
Se	T3	EPA6010C-SPLP	<2mm	6	RPD if > 2XRL	0		20	Pass
Sb	T3	EPA6010C-SPLP	<2mm	6	RPD if > 2XRL	0		20	Pass
V	T3	EPA6010C-SPLP	<2mm	6	RPD if > 2XRL	0		20	Pass
Ag	T3	EPA6010C-SPLP	<2mm	6	RPD if > 2XRL	0		20	Pass
Al	T3	EPA6010C-SPLP	<2mm	6	RPD if > 2XRL	5		20	Pass
As	T3	EPA6010C-SPLP	<2mm	6	RPD if > 2XRL	13		20	Pass
Ba	T3	EPA6010C-SPLP	<2mm	6	RPD if > 2XRL	0		20	Pass
Be	T3	EPA6010C-SPLP	<2mm	6	RPD if > 2XRL	0		20	Pass
Ca	T3	EPA6010C-SPLP	<2mm	6	RPD if > 2XRL	0		20	Pass
Cd	T3	EPA6010C-SPLP	<2mm	6	RPD if > 2XRL	0		20	Pass
Co	T3	EPA6010C-SPLP	<2mm	6	RPD if > 2XRL	0		20	Pass
Cr	T3	EPA6010C-SPLP	<2mm	6	RPD if > 2XRL	0		20	Pass
Cu	T3	EPA6010C-SPLP	<2mm	6	RPD if > 2XRL	48		20	Fail
Fe	T3	EPA6010C-SPLP	<2mm	6	RPD if > 2XRL	0		20	Pass
K	T3	EPA6010C-SPLP	<2mm	6	RPD if > 2XRL	25		20	Fail
Mg	T3	EPA6010C-SPLP	<2mm	6	RPD if > 2XRL	56		20	Fail
Mn	T3	EPA6010C-SPLP	<2mm	6	RPD if > 2XRL	48		20	Fail
Na	T3	EPA6010C-SPLP	<2mm	6	RPD if > 2XRL	25		20	Fail
Ni	T3	EPA6010C-SPLP	<2mm	6	RPD if > 2XRL	0		20	Pass
Pb	T3	EPA6010C-SPLP	<2mm	6	RPD if > 2XRL	0		20	Pass
Zn	T3	EPA6010C-SPLP	<2mm	6	RPD if > 2XRL	38		20	Fail
Tl	T3	EPA6010C-SPLP	<2mm	6	<RL or<10x samples	0		0.0125	Pass

Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
P	T3	EPA6010C-SPLP	<2mm	6	<RL or<10x samples	0		0.0125	Pass
Se	T3	EPA6010C-SPLP	<2mm	6	<RL or<10x samples	0		0.0125	Pass
Sb	T3	EPA6010C-SPLP	<2mm	6	<RL or<10x samples	0		0.0125	Pass
V	T3	EPA6010C-SPLP	<2mm	6	<RL or<10x samples	0		0.0125	Pass
Ag	T3	EPA6010C-SPLP	<2mm	6	<RL or<10x samples	0		0.0125	Pass
Al	T3	EPA6010C-SPLP	<2mm	6	<RL or<10x samples	0		0.0125	Pass
As	T3	EPA6010C-SPLP	<2mm	6	<RL or<10x samples	0		0.0125	Pass
Ba	T3	EPA6010C-SPLP	<2mm	6	<RL or<10x samples	0		0.0125	Pass
Be	T3	EPA6010C-SPLP	<2mm	6	<RL or<10x samples	0		0.0125	Pass
Ca	T3	EPA6010C-SPLP	<2mm	6	<RL or<10x samples	0		0.0125	Pass
Cd	T3	EPA6010C-SPLP	<2mm	6	<RL or<10x samples	0		0.0125	Pass
Co	T3	EPA6010C-SPLP	<2mm	6	<RL or<10x samples	0		0.0125	Pass
Cr	T3	EPA6010C-SPLP	<2mm	6	<RL or<10x samples	0		0.0125	Pass
Cu	T3	EPA6010C-SPLP	<2mm	6	<RL or<10x samples	0		0.0125	Pass
Fe	T3	EPA6010C-SPLP	<2mm	6	<RL or<10x samples	0		0.0125	Pass
K	T3	EPA6010C-SPLP	<2mm	6	<RL or<10x samples	0		0.0125	Pass
Mg	T3	EPA6010C-SPLP	<2mm	6	<RL or<10x samples	0		0.0125	Pass
Mn	T3	EPA6010C-SPLP	<2mm	6	<RL or<10x samples	0		0.0125	Pass
Na	T3	EPA6010C-SPLP	<2mm	6	<RL or<10x samples	0		0.0125	Pass
Ni	T3	EPA6010C-SPLP	<2mm	6	<RL or<10x samples	0		0.0125	Pass
Pb	T3	EPA6010C-SPLP	<2mm	6	<RL or<10x samples	0		0.0125	Pass
Zn	T3	EPA6010C-SPLP	<2mm	6	<RL or<10x samples	0		0.0125	Pass
Tl	T3	EPA6010C-SPLP	<2mm	7	RPD if > 2XRL	0		20	Pass
P	T3	EPA6010C-SPLP	<2mm	7	RPD if > 2XRL	1		20	Pass
Se	T3	EPA6010C-SPLP	<2mm	7	RPD if > 2XRL	0		20	Pass
Sb	T3	EPA6010C-SPLP	<2mm	7	RPD if > 2XRL	0		20	Pass
V	T3	EPA6010C-SPLP	<2mm	7	RPD if > 2XRL	0		20	Pass
Ag	T3	EPA6010C-SPLP	<2mm	7	RPD if > 2XRL	0		20	Pass
Al	T3	EPA6010C-SPLP	<2mm	7	RPD if > 2XRL	12		20	Pass

Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
As	T3	EPA6010C-SPLP	<2mm	7	RPD if > 2XRL	5		20	Pass
Ba	T3	EPA6010C-SPLP	<2mm	7	RPD if > 2XRL	0		20	Pass
Be	T3	EPA6010C-SPLP	<2mm	7	RPD if > 2XRL	0		20	Pass
Ca	T3	EPA6010C-SPLP	<2mm	7	RPD if > 2XRL	0		20	Pass
Cd	T3	EPA6010C-SPLP	<2mm	7	RPD if > 2XRL	0		20	Pass
Co	T3	EPA6010C-SPLP	<2mm	7	RPD if > 2XRL	0		20	Pass
Cr	T3	EPA6010C-SPLP	<2mm	7	RPD if > 2XRL	0		20	Pass
Cu	T3	EPA6010C-SPLP	<2mm	7	RPD if > 2XRL	0		20	Pass
Fe	T3	EPA6010C-SPLP	<2mm	7	RPD if > 2XRL	0		20	Pass
K	T3	EPA6010C-SPLP	<2mm	7	RPD if > 2XRL	0		20	Pass
Mg	T3	EPA6010C-SPLP	<2mm	7	RPD if > 2XRL	6		20	Pass
Mn	T3	EPA6010C-SPLP	<2mm	7	RPD if > 2XRL	1		20	Pass
Na	T3	EPA6010C-SPLP	<2mm	7	RPD if > 2XRL	1		20	Pass
Ni	T3	EPA6010C-SPLP	<2mm	7	RPD if > 2XRL	0		20	Pass
Pb	T3	EPA6010C-SPLP	<2mm	7	RPD if > 2XRL	8		20	Pass
Zn	T3	EPA6010C-SPLP	<2mm	7	RPD if > 2XRL	2		20	Pass
Tl	T3	EPA6010C-SPLP	<2mm	7	<RL or<10x samples	0		0.0125	Pass
P	T3	EPA6010C-SPLP	<2mm	7	<RL or<10x samples	0		0.0125	Pass
Se	T3	EPA6010C-SPLP	<2mm	7	<RL or<10x samples	0		0.0125	Pass
Sb	T3	EPA6010C-SPLP	<2mm	7	<RL or<10x samples	0		0.0125	Pass
V	T3	EPA6010C-SPLP	<2mm	7	<RL or<10x samples	0		0.0125	Pass
Ag	T3	EPA6010C-SPLP	<2mm	7	<RL or<10x samples	0		0.0125	Pass
Al	T3	EPA6010C-SPLP	<2mm	7	<RL or<10x samples	0		0.0125	Pass
As	T3	EPA6010C-SPLP	<2mm	7	<RL or<10x samples	0		0.0125	Pass
Ba	T3	EPA6010C-SPLP	<2mm	7	<RL or<10x samples	0		0.0125	Pass
Be	T3	EPA6010C-SPLP	<2mm	7	<RL or<10x samples	0		0.0125	Pass
Ca	T3	EPA6010C-SPLP	<2mm	7	<RL or<10x samples	0		0.0125	Pass
Cd	T3	EPA6010C-SPLP	<2mm	7	<RL or<10x samples	0		0.0125	Pass
Co	T3	EPA6010C-SPLP	<2mm	7	<RL or<10x samples	0		0.0125	Pass
Cr	T3	EPA6010C-SPLP	<2mm	7	<RL or<10x samples	0		0.0125	Pass
Cu	T3	EPA6010C-SPLP	<2mm	7	<RL or<10x samples	0		0.0125	Pass
Fe	T3	EPA6010C-SPLP	<2mm	7	<RL or<10x samples	0		0.0125	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
K	T3	EPA6010C-SPLP	<2mm	7	<RL or<10x samples	0		0.0125	Pass
Mg	T3	EPA6010C-SPLP	<2mm	7	<RL or<10x samples	0		0.0125	Pass
Mn	T3	EPA6010C-SPLP	<2mm	7	<RL or<10x samples	0		0.0125	Pass
Na	T3	EPA6010C-SPLP	<2mm	7	<RL or<10x samples	0		0.0125	Pass
Ni	T3	EPA6010C-SPLP	<2mm	7	<RL or<10x samples	0		0.0125	Pass
Pb	T3	EPA6010C-SPLP	<2mm	7	<RL or<10x samples	0		0.0125	Pass
Zn	T3	EPA6010C-SPLP	<2mm	7	<RL or<10x samples	0		0.0125	Pass
Tl	T3	EPA6010C-SPLP	<2mm	8	RPD if > 2XRL	0		20	Pass
P	T3	EPA6010C-SPLP	<2mm	8	RPD if > 2XRL	5		20	Pass
Se	T3	EPA6010C-SPLP	<2mm	8	RPD if > 2XRL	0		20	Pass
Sb	T3	EPA6010C-SPLP	<2mm	8	RPD if > 2XRL	0		20	Pass
V	T3	EPA6010C-SPLP	<2mm	8	RPD if > 2XRL	0		20	Pass
Ag	T3	EPA6010C-SPLP	<2mm	8	RPD if > 2XRL	0		20	Pass
Al	T3	EPA6010C-SPLP	<2mm	8	RPD if > 2XRL	7		20	Pass
As	T3	EPA6010C-SPLP	<2mm	8	RPD if > 2XRL	0		20	Pass
Ba	T3	EPA6010C-SPLP	<2mm	8	RPD if > 2XRL	0		20	Pass
Be	T3	EPA6010C-SPLP	<2mm	8	RPD if > 2XRL	0		20	Pass
Ca	T3	EPA6010C-SPLP	<2mm	8	RPD if > 2XRL	0		20	Pass
Cd	T3	EPA6010C-SPLP	<2mm	8	RPD if > 2XRL	0		20	Pass
Co	T3	EPA6010C-SPLP	<2mm	8	RPD if > 2XRL	0		20	Pass
Cr	T3	EPA6010C-SPLP	<2mm	8	RPD if > 2XRL	0		20	Pass
Cu	T3	EPA6010C-SPLP	<2mm	8	RPD if > 2XRL	0		20	Pass
Fe	T3	EPA6010C-SPLP	<2mm	8	RPD if > 2XRL	0		20	Pass
K	T3	EPA6010C-SPLP	<2mm	8	RPD if > 2XRL	1		20	Pass
Mg	T3	EPA6010C-SPLP	<2mm	8	RPD if > 2XRL	2		20	Pass
Mn	T3	EPA6010C-SPLP	<2mm	8	RPD if > 2XRL	0		20	Pass
Na	T3	EPA6010C-SPLP	<2mm	8	RPD if > 2XRL	3		20	Pass
Ni	T3	EPA6010C-SPLP	<2mm	8	RPD if > 2XRL	0		20	Pass
Pb	T3	EPA6010C-SPLP	<2mm	8	RPD if > 2XRL	0		20	Pass
Zn	T3	EPA6010C-SPLP	<2mm	8	RPD if > 2XRL	1		20	Pass
Tl	T3	EPA6010C-SPLP	<2mm	8	<RL or<10x samples	0		0.0125	Pass
P	T3	EPA6010C-SPLP	<2mm	8	<RL or<10x samples	0		0.0125	Pass
Se	T3	EPA6010C-SPLP	<2mm	8	<RL or<10x samples	0		0.0125	Pass
Sb	T3	EPA6010C-SPLP	<2mm	8	<RL or<10x samples	0		0.0125	Pass
V	T3	EPA6010C-SPLP	<2mm	8	<RL or<10x samples	0		0.0125	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Ag	T3	EPA6010C-SPLP	<2mm	8	<RL or<10x samples	0		0.0125	Pass
Al	T3	EPA6010C-SPLP	<2mm	8	<RL or<10x samples	0		0.0125	Pass
As	T3	EPA6010C-SPLP	<2mm	8	<RL or<10x samples	0		0.0125	Pass
Ba	T3	EPA6010C-SPLP	<2mm	8	<RL or<10x samples	0		0.0125	Pass
Be	T3	EPA6010C-SPLP	<2mm	8	<RL or<10x samples	0		0.0125	Pass
Ca	T3	EPA6010C-SPLP	<2mm	8	<RL or<10x samples	0		0.0125	Pass
Cd	T3	EPA6010C-SPLP	<2mm	8	<RL or<10x samples	0		0.0125	Pass
Co	T3	EPA6010C-SPLP	<2mm	8	<RL or<10x samples	0		0.0125	Pass
Cr	T3	EPA6010C-SPLP	<2mm	8	<RL or<10x samples	0		0.0125	Pass
Cu	T3	EPA6010C-SPLP	<2mm	8	<RL or<10x samples	0		0.0125	Pass
Fe	T3	EPA6010C-SPLP	<2mm	8	<RL or<10x samples	0		0.0125	Pass
K	T3	EPA6010C-SPLP	<2mm	8	<RL or<10x samples	0		0.0125	Pass
Mg	T3	EPA6010C-SPLP	<2mm	8	<RL or<10x samples	0		0.0125	Pass
Mn	T3	EPA6010C-SPLP	<2mm	8	<RL or<10x samples	0		0.0125	Pass
Na	T3	EPA6010C-SPLP	<2mm	8	<RL or<10x samples	0		0.0125	Pass
Ni	T3	EPA6010C-SPLP	<2mm	8	<RL or<10x samples	0		0.0125	Pass
Pb	T3	EPA6010C-SPLP	<2mm	8	<RL or<10x samples	0		0.0125	Pass
Zn	T3	EPA6010C-SPLP	<2mm	8	<RL or<10x samples	0		0.0125	Pass
Tl	T3	EPA6010C-SPLP	<2mm	9	RPD if > 2XRL	0		20	Pass
P	T3	EPA6010C-SPLP	<2mm	9	RPD if > 2XRL	0		20	Pass
Se	T3	EPA6010C-SPLP	<2mm	9	RPD if > 2XRL	0		20	Pass
Sb	T3	EPA6010C-SPLP	<2mm	9	RPD if > 2XRL	0		20	Pass
V	T3	EPA6010C-SPLP	<2mm	9	RPD if > 2XRL	0		20	Pass
Ag	T3	EPA6010C-SPLP	<2mm	9	RPD if > 2XRL	0		20	Pass
Al	T3	EPA6010C-SPLP	<2mm	9	RPD if > 2XRL	8		20	Pass
As	T3	EPA6010C-SPLP	<2mm	9	RPD if > 2XRL	0		20	Pass
Ba	T3	EPA6010C-SPLP	<2mm	9	RPD if > 2XRL	0		20	Pass
Be	T3	EPA6010C-SPLP	<2mm	9	RPD if > 2XRL	0		20	Pass
Ca	T3	EPA6010C-SPLP	<2mm	9	RPD if > 2XRL	6		20	Pass
Cd	T3	EPA6010C-SPLP	<2mm	9	RPD if > 2XRL	0		20	Pass
Co	T3	EPA6010C-SPLP	<2mm	9	RPD if > 2XRL	0		20	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Cr	T3	EPA6010C-SPLP	<2mm	9	RPD if > 2XRL	0		20	Pass
Cu	T3	EPA6010C-SPLP	<2mm	9	RPD if > 2XRL	0		20	Pass
Fe	T3	EPA6010C-SPLP	<2mm	9	RPD if > 2XRL	0		20	Pass
K	T3	EPA6010C-SPLP	<2mm	9	RPD if > 2XRL	11		20	Pass
Mg	T3	EPA6010C-SPLP	<2mm	9	RPD if > 2XRL	9		20	Pass
Mn	T3	EPA6010C-SPLP	<2mm	9	RPD if > 2XRL	9		20	Pass
Na	T3	EPA6010C-SPLP	<2mm	9	RPD if > 2XRL	16		20	Pass
Ni	T3	EPA6010C-SPLP	<2mm	9	RPD if > 2XRL	0		20	Pass
Pb	T3	EPA6010C-SPLP	<2mm	9	RPD if > 2XRL	0		20	Pass
Zn	T3	EPA6010C-SPLP	<2mm	9	RPD if > 2XRL	8		20	Pass
Tl	T3	EPA6010C-SPLP	<2mm	9	<RL or<10x samples	0		0.0125	Pass
P	T3	EPA6010C-SPLP	<2mm	9	<RL or<10x samples	0		0.0125	Pass
Se	T3	EPA6010C-SPLP	<2mm	9	<RL or<10x samples	0		0.0125	Pass
Sb	T3	EPA6010C-SPLP	<2mm	9	<RL or<10x samples	0		0.0125	Pass
V	T3	EPA6010C-SPLP	<2mm	9	<RL or<10x samples	0		0.0125	Pass
Ag	T3	EPA6010C-SPLP	<2mm	9	<RL or<10x samples	0		0.0125	Pass
Al	T3	EPA6010C-SPLP	<2mm	9	<RL or<10x samples	0		0.0125	Pass
As	T3	EPA6010C-SPLP	<2mm	9	<RL or<10x samples	0		0.0125	Pass
Ba	T3	EPA6010C-SPLP	<2mm	9	<RL or<10x samples	0		0.0125	Pass
Be	T3	EPA6010C-SPLP	<2mm	9	<RL or<10x samples	0		0.0125	Pass
Ca	T3	EPA6010C-SPLP	<2mm	9	<RL or<10x samples	0		0.0125	Pass
Cd	T3	EPA6010C-SPLP	<2mm	9	<RL or<10x samples	0		0.0125	Pass
Co	T3	EPA6010C-SPLP	<2mm	9	<RL or<10x samples	0		0.0125	Pass
Cr	T3	EPA6010C-SPLP	<2mm	9	<RL or<10x samples	0		0.0125	Pass
Cu	T3	EPA6010C-SPLP	<2mm	9	<RL or<10x samples	0		0.0125	Pass
Fe	T3	EPA6010C-SPLP	<2mm	9	<RL or<10x samples	0		0.0125	Pass
K	T3	EPA6010C-SPLP	<2mm	9	<RL or<10x samples	0		0.0125	Pass
Mg	T3	EPA6010C-SPLP	<2mm	9	<RL or<10x samples	0		0.0125	Pass
Mn	T3	EPA6010C-SPLP	<2mm	9	<RL or<10x samples	0		0.0125	Pass
Na	T3	EPA6010C-SPLP	<2mm	9	<RL or<10x samples	0		0.0125	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Ni	T3	EPA6010C-SPLP	<2mm	9	<RL or<10x samples	0		0.0125	Pass
Pb	T3	EPA6010C-SPLP	<2mm	9	<RL or<10x samples	0		0.0125	Pass
Zn	T3	EPA6010C-SPLP	<2mm	9	<RL or<10x samples	0		0.0125	Pass
Tl	T3	EPA6010C-SPLP	<2mm	10	RPD if > 2XRL	0		20	Pass
P	T3	EPA6010C-SPLP	<2mm	10	RPD if > 2XRL	3		20	Pass
Se	T3	EPA6010C-SPLP	<2mm	10	RPD if > 2XRL	0		20	Pass
Sb	T3	EPA6010C-SPLP	<2mm	10	RPD if > 2XRL	0		20	Pass
V	T3	EPA6010C-SPLP	<2mm	10	RPD if > 2XRL	0		20	Pass
Ag	T3	EPA6010C-SPLP	<2mm	10	RPD if > 2XRL	0		20	Pass
Al	T3	EPA6010C-SPLP	<2mm	10	RPD if > 2XRL	4		20	Pass
As	T3	EPA6010C-SPLP	<2mm	10	RPD if > 2XRL	0		20	Pass
Ba	T3	EPA6010C-SPLP	<2mm	10	RPD if > 2XRL	0		20	Pass
Be	T3	EPA6010C-SPLP	<2mm	10	RPD if > 2XRL	0		20	Pass
Ca	T3	EPA6010C-SPLP	<2mm	10	RPD if > 2XRL	21		20	Fail
Cd	T3	EPA6010C-SPLP	<2mm	10	RPD if > 2XRL	0		20	Pass
Co	T3	EPA6010C-SPLP	<2mm	10	RPD if > 2XRL	0		20	Pass
Cr	T3	EPA6010C-SPLP	<2mm	10	RPD if > 2XRL	0		20	Pass
Cu	T3	EPA6010C-SPLP	<2mm	10	RPD if > 2XRL	0		20	Pass
Fe	T3	EPA6010C-SPLP	<2mm	10	RPD if > 2XRL	0		20	Pass
K	T3	EPA6010C-SPLP	<2mm	10	RPD if > 2XRL	10		20	Pass
Mg	T3	EPA6010C-SPLP	<2mm	10	RPD if > 2XRL	21		20	Fail
Mn	T3	EPA6010C-SPLP	<2mm	10	RPD if > 2XRL	20		20	Pass
Na	T3	EPA6010C-SPLP	<2mm	10	RPD if > 2XRL	12		20	Pass
Ni	T3	EPA6010C-SPLP	<2mm	10	RPD if > 2XRL	0		20	Pass
Pb	T3	EPA6010C-SPLP	<2mm	10	RPD if > 2XRL	0		20	Pass
Zn	T3	EPA6010C-SPLP	<2mm	10	RPD if > 2XRL	16		20	Pass
Tl	T3	EPA6010C-SPLP	<2mm	10	<RL or<10x samples	0		0.0125	Pass
P	T3	EPA6010C-SPLP	<2mm	10	<RL or<10x samples	0		0.0125	Pass
Se	T3	EPA6010C-SPLP	<2mm	10	<RL or<10x samples	0		0.0125	Pass
Sb	T3	EPA6010C-SPLP	<2mm	10	<RL or<10x samples	0		0.0125	Pass
V	T3	EPA6010C-SPLP	<2mm	10	<RL or<10x samples	0		0.0125	Pass
Ag	T3	EPA6010C-SPLP	<2mm	10	<RL or<10x samples	0		0.0125	Pass
Al	T3	EPA6010C-SPLP	<2mm	10	<RL or<10x samples	0		0.0125	Pass
As	T3	EPA6010C-SPLP	<2mm	10	<RL or<10x samples	0		0.0125	Pass
Ba	T3	EPA6010C-SPLP	<2mm	10	<RL or<10x samples	0		0.0125	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Be	T3	EPA6010C-SPLP	<2mm	10	<RL or<10x samples	0		0.0125	Pass
Ca	T3	EPA6010C-SPLP	<2mm	10	<RL or<10x samples	0		0.0125	Pass
Cd	T3	EPA6010C-SPLP	<2mm	10	<RL or<10x samples	0		0.0125	Pass
Co	T3	EPA6010C-SPLP	<2mm	10	<RL or<10x samples	0		0.0125	Pass
Cr	T3	EPA6010C-SPLP	<2mm	10	<RL or<10x samples	0		0.0125	Pass
Cu	T3	EPA6010C-SPLP	<2mm	10	<RL or<10x samples	0		0.0125	Pass
Fe	T3	EPA6010C-SPLP	<2mm	10	<RL or<10x samples	0		0.0125	Pass
K	T3	EPA6010C-SPLP	<2mm	10	<RL or<10x samples	0		0.0125	Pass
Mg	T3	EPA6010C-SPLP	<2mm	10	<RL or<10x samples	0		0.0125	Pass
Mn	T3	EPA6010C-SPLP	<2mm	10	<RL or<10x samples	0		0.0125	Pass
Na	T3	EPA6010C-SPLP	<2mm	10	<RL or<10x samples	0		0.0125	Pass
Ni	T3	EPA6010C-SPLP	<2mm	10	<RL or<10x samples	0		0.0125	Pass
Pb	T3	EPA6010C-SPLP	<2mm	10	<RL or<10x samples	0		0.0125	Pass
Zn	T3	EPA6010C-SPLP	<2mm	10	<RL or<10x samples	0		0.0125	Pass
Tl	T3	EPA6010C-SPLP	<2mm	11	RPD if > 2XRL	0		20	Pass
P	T3	EPA6010C-SPLP	<2mm	11	RPD if > 2XRL	11		20	Pass
Se	T3	EPA6010C-SPLP	<2mm	11	RPD if > 2XRL	0		20	Pass
Sb	T3	EPA6010C-SPLP	<2mm	11	RPD if > 2XRL	0		20	Pass
V	T3	EPA6010C-SPLP	<2mm	11	RPD if > 2XRL	0		20	Pass
Ag	T3	EPA6010C-SPLP	<2mm	11	RPD if > 2XRL	0		20	Pass
Al	T3	EPA6010C-SPLP	<2mm	11	RPD if > 2XRL	3		20	Pass
As	T3	EPA6010C-SPLP	<2mm	11	RPD if > 2XRL	0		20	Pass
Ba	T3	EPA6010C-SPLP	<2mm	11	RPD if > 2XRL	0		20	Pass
Be	T3	EPA6010C-SPLP	<2mm	11	RPD if > 2XRL	0		20	Pass
Ca	T3	EPA6010C-SPLP	<2mm	11	RPD if > 2XRL	21		20	Fail
Cd	T3	EPA6010C-SPLP	<2mm	11	RPD if > 2XRL	0		20	Pass
Co	T3	EPA6010C-SPLP	<2mm	11	RPD if > 2XRL	0		20	Pass
Cr	T3	EPA6010C-SPLP	<2mm	11	RPD if > 2XRL	0		20	Pass
Cu	T3	EPA6010C-SPLP	<2mm	11	RPD if > 2XRL	0		20	Pass
Fe	T3	EPA6010C-SPLP	<2mm	11	RPD if > 2XRL	0		20	Pass
K	T3	EPA6010C-SPLP	<2mm	11	RPD if > 2XRL	8		20	Pass
Mg	T3	EPA6010C-SPLP	<2mm	11	RPD if > 2XRL	18		20	Pass
Mn	T3	EPA6010C-SPLP	<2mm	11	RPD if > 2XRL	19		20	Pass

Analyte	Time point	method_code	_size_fract ion	Batch	QC criteria	Value	low limit	high limit	Pass/F ail
Na	T3	EPA6010C-SPLP	<2mm	11	RPD if > 2XRL	10		20	Pass
Ni	T3	EPA6010C-SPLP	<2mm	11	RPD if > 2XRL	0		20	Pass
Pb	T3	EPA6010C-SPLP	<2mm	11	RPD if > 2XRL	0		20	Pass
Zn	T3	EPA6010C-SPLP	<2mm	11	RPD if > 2XRL	19		20	Pass
Tl	T3	EPA6010C-SPLP	<2mm	11	<RL or<10x samples	0		0.0125	Pass
P	T3	EPA6010C-SPLP	<2mm	11	<RL or<10x samples	0		0.0125	Pass
Se	T3	EPA6010C-SPLP	<2mm	11	<RL or<10x samples	0		0.0125	Pass
Sb	T3	EPA6010C-SPLP	<2mm	11	<RL or<10x samples	0		0.0125	Pass
V	T3	EPA6010C-SPLP	<2mm	11	<RL or<10x samples	0		0.0125	Pass
Ag	T3	EPA6010C-SPLP	<2mm	11	<RL or<10x samples	0		0.0125	Pass
Al	T3	EPA6010C-SPLP	<2mm	11	<RL or<10x samples	0		0.0125	Pass
As	T3	EPA6010C-SPLP	<2mm	11	<RL or<10x samples	0		0.0125	Pass
Ba	T3	EPA6010C-SPLP	<2mm	11	<RL or<10x samples	0		0.0125	Pass
Be	T3	EPA6010C-SPLP	<2mm	11	<RL or<10x samples	0		0.0125	Pass
Ca	T3	EPA6010C-SPLP	<2mm	11	<RL or<10x samples	0		0.0125	Pass
Cd	T3	EPA6010C-SPLP	<2mm	11	<RL or<10x samples	0		0.0125	Pass
Co	T3	EPA6010C-SPLP	<2mm	11	<RL or<10x samples	0		0.0125	Pass
Cr	T3	EPA6010C-SPLP	<2mm	11	<RL or<10x samples	0		0.0125	Pass
Cu	T3	EPA6010C-SPLP	<2mm	11	<RL or<10x samples	0		0.0125	Pass
Fe	T3	EPA6010C-SPLP	<2mm	11	<RL or<10x samples	0		0.0125	Pass
K	T3	EPA6010C-SPLP	<2mm	11	<RL or<10x samples	0		0.0125	Pass
Mg	T3	EPA6010C-SPLP	<2mm	11	<RL or<10x samples	0		0.0125	Pass
Mn	T3	EPA6010C-SPLP	<2mm	11	<RL or<10x samples	0		0.0125	Pass
Na	T3	EPA6010C-SPLP	<2mm	11	<RL or<10x samples	0		0.0125	Pass
Ni	T3	EPA6010C-SPLP	<2mm	11	<RL or<10x samples	0		0.0125	Pass
Pb	T3	EPA6010C-SPLP	<2mm	11	<RL or<10x samples	0		0.0125	Pass
Zn	T3	EPA6010C-SPLP	<2mm	11	<RL or<10x samples	0		0.0125	Pass
Tl	T3	EPA6010C-SPLP	<2mm	12	RPD if > 2XRL	0		20	Pass

Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
P	T3	EPA6010C-SPLP	<2mm	12	RPD if > 2XRL	0		20	Pass
Se	T3	EPA6010C-SPLP	<2mm	12	RPD if > 2XRL	0		20	Pass
Sb	T3	EPA6010C-SPLP	<2mm	12	RPD if > 2XRL	0		20	Pass
V	T3	EPA6010C-SPLP	<2mm	12	RPD if > 2XRL	0		20	Pass
Ag	T3	EPA6010C-SPLP	<2mm	12	RPD if > 2XRL	0		20	Pass
Al	T3	EPA6010C-SPLP	<2mm	12	RPD if > 2XRL	0		20	Pass
As	T3	EPA6010C-SPLP	<2mm	12	RPD if > 2XRL	0		20	Pass
Ba	T3	EPA6010C-SPLP	<2mm	12	RPD if > 2XRL	0		20	Pass
Be	T3	EPA6010C-SPLP	<2mm	12	RPD if > 2XRL	0		20	Pass
Ca	T3	EPA6010C-SPLP	<2mm	12	RPD if > 2XRL	12		20	Pass
Cd	T3	EPA6010C-SPLP	<2mm	12	RPD if > 2XRL	0		20	Pass
Co	T3	EPA6010C-SPLP	<2mm	12	RPD if > 2XRL	0		20	Pass
Cr	T3	EPA6010C-SPLP	<2mm	12	RPD if > 2XRL	0		20	Pass
Cu	T3	EPA6010C-SPLP	<2mm	12	RPD if > 2XRL	0		20	Pass
Fe	T3	EPA6010C-SPLP	<2mm	12	RPD if > 2XRL	0		20	Pass
K	T3	EPA6010C-SPLP	<2mm	12	RPD if > 2XRL	13		20	Pass
Mg	T3	EPA6010C-SPLP	<2mm	12	RPD if > 2XRL	16		20	Pass
Mn	T3	EPA6010C-SPLP	<2mm	12	RPD if > 2XRL	8		20	Pass
Na	T3	EPA6010C-SPLP	<2mm	12	RPD if > 2XRL	18		20	Pass
Ni	T3	EPA6010C-SPLP	<2mm	12	RPD if > 2XRL	0		20	Pass
Pb	T3	EPA6010C-SPLP	<2mm	12	RPD if > 2XRL	0		20	Pass
Zn	T3	EPA6010C-SPLP	<2mm	12	RPD if > 2XRL	13		20	Pass
Tl	T3	EPA6010C-SPLP	<2mm	12	<RL or<10x samples	0		0.0125	Pass
P	T3	EPA6010C-SPLP	<2mm	12	<RL or<10x samples	0		0.0125	Pass
Se	T3	EPA6010C-SPLP	<2mm	12	<RL or<10x samples	0		0.0125	Pass
Sb	T3	EPA6010C-SPLP	<2mm	12	<RL or<10x samples	0		0.0125	Pass
V	T3	EPA6010C-SPLP	<2mm	12	<RL or<10x samples	0		0.0125	Pass
Ag	T3	EPA6010C-SPLP	<2mm	12	<RL or<10x samples	0		0.0125	Pass
Al	T3	EPA6010C-SPLP	<2mm	12	<RL or<10x samples	0		0.0125	Pass
As	T3	EPA6010C-SPLP	<2mm	12	<RL or<10x samples	0		0.0125	Pass
Ba	T3	EPA6010C-SPLP	<2mm	12	<RL or<10x samples	0		0.0125	Pass
Be	T3	EPA6010C-SPLP	<2mm	12	<RL or<10x samples	0		0.0125	Pass
Ca	T3	EPA6010C-SPLP	<2mm	12	<RL or<10x samples	0		0.0125	Pass
Cd	T3	EPA6010C-SPLP	<2mm	12	<RL or<10x samples	0		0.0125	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Co	T3	EPA6010C-SPLP	<2mm	12	<RL or<10x samples	0		0.0125	Pass
Cr	T3	EPA6010C-SPLP	<2mm	12	<RL or<10x samples	0		0.0125	Pass
Cu	T3	EPA6010C-SPLP	<2mm	12	<RL or<10x samples	0		0.0125	Pass
Fe	T3	EPA6010C-SPLP	<2mm	12	<RL or<10x samples	0		0.0125	Pass
K	T3	EPA6010C-SPLP	<2mm	12	<RL or<10x samples	0		0.0125	Pass
Mg	T3	EPA6010C-SPLP	<2mm	12	<RL or<10x samples	0		0.0125	Pass
Mn	T3	EPA6010C-SPLP	<2mm	12	<RL or<10x samples	0		0.0125	Pass
Na	T3	EPA6010C-SPLP	<2mm	12	<RL or<10x samples	0		0.0125	Pass
Ni	T3	EPA6010C-SPLP	<2mm	12	<RL or<10x samples	0		0.0125	Pass
Pb	T3	EPA6010C-SPLP	<2mm	12	<RL or<10x samples	0		0.0125	Pass
Zn	T3	EPA6010C-SPLP	<2mm	12	<RL or<10x samples	0		0.0125	Pass
Tl	T3	EPA6010C-SPLP	<2mm	13	RPD if > 2XRL	0		20	Pass
P	T3	EPA6010C-SPLP	<2mm	13	RPD if > 2XRL	3		20	Pass
Se	T3	EPA6010C-SPLP	<2mm	13	RPD if > 2XRL	0		20	Pass
Sb	T3	EPA6010C-SPLP	<2mm	13	RPD if > 2XRL	0		20	Pass
V	T3	EPA6010C-SPLP	<2mm	13	RPD if > 2XRL	0		20	Pass
Ag	T3	EPA6010C-SPLP	<2mm	13	RPD if > 2XRL	0		20	Pass
Al	T3	EPA6010C-SPLP	<2mm	13	RPD if > 2XRL	6		20	Pass
As	T3	EPA6010C-SPLP	<2mm	13	RPD if > 2XRL	0		20	Pass
Ba	T3	EPA6010C-SPLP	<2mm	13	RPD if > 2XRL	0		20	Pass
Be	T3	EPA6010C-SPLP	<2mm	13	RPD if > 2XRL	0		20	Pass
Ca	T3	EPA6010C-SPLP	<2mm	13	RPD if > 2XRL	4		20	Pass
Cd	T3	EPA6010C-SPLP	<2mm	13	RPD if > 2XRL	0		20	Pass
Co	T3	EPA6010C-SPLP	<2mm	13	RPD if > 2XRL	0		20	Pass
Cr	T3	EPA6010C-SPLP	<2mm	13	RPD if > 2XRL	0		20	Pass
Cu	T3	EPA6010C-SPLP	<2mm	13	RPD if > 2XRL	0		20	Pass
Fe	T3	EPA6010C-SPLP	<2mm	13	RPD if > 2XRL	0		20	Pass
K	T3	EPA6010C-SPLP	<2mm	13	RPD if > 2XRL	1		20	Pass
Mg	T3	EPA6010C-SPLP	<2mm	13	RPD if > 2XRL	3		20	Pass
Mn	T3	EPA6010C-SPLP	<2mm	13	RPD if > 2XRL	10		20	Pass
Na	T3	EPA6010C-SPLP	<2mm	13	RPD if > 2XRL	2		20	Pass
Ni	T3	EPA6010C-SPLP	<2mm	13	RPD if > 2XRL	0		20	Pass
Pb	T3	EPA6010C-SPLP	<2mm	13	RPD if > 2XRL	0		20	Pass
Zn	T3	EPA6010C-SPLP	<2mm	13	RPD if > 2XRL	7		20	Pass
Tl	T3	EPA6010C-SPLP	<2mm	13	<RL or<10x samples	0		0.0125	Pass

Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
P	T3	EPA6010C-SPLP	<2mm	13	<RL or<10x samples	0		0.0125	Pass
Se	T3	EPA6010C-SPLP	<2mm	13	<RL or<10x samples	0		0.0125	Pass
Sb	T3	EPA6010C-SPLP	<2mm	13	<RL or<10x samples	0		0.0125	Pass
V	T3	EPA6010C-SPLP	<2mm	13	<RL or<10x samples	0		0.0125	Pass
Ag	T3	EPA6010C-SPLP	<2mm	13	<RL or<10x samples	0		0.0125	Pass
Al	T3	EPA6010C-SPLP	<2mm	13	<RL or<10x samples	0		0.0125	Pass
As	T3	EPA6010C-SPLP	<2mm	13	<RL or<10x samples	0		0.0125	Pass
Ba	T3	EPA6010C-SPLP	<2mm	13	<RL or<10x samples	0		0.0125	Pass
Be	T3	EPA6010C-SPLP	<2mm	13	<RL or<10x samples	0		0.0125	Pass
Ca	T3	EPA6010C-SPLP	<2mm	13	<RL or<10x samples	0		0.0125	Pass
Cd	T3	EPA6010C-SPLP	<2mm	13	<RL or<10x samples	0		0.0125	Pass
Co	T3	EPA6010C-SPLP	<2mm	13	<RL or<10x samples	0		0.0125	Pass
Cr	T3	EPA6010C-SPLP	<2mm	13	<RL or<10x samples	0		0.0125	Pass
Cu	T3	EPA6010C-SPLP	<2mm	13	<RL or<10x samples	0		0.0125	Pass
Fe	T3	EPA6010C-SPLP	<2mm	13	<RL or<10x samples	0		0.0125	Pass
K	T3	EPA6010C-SPLP	<2mm	13	<RL or<10x samples	0		0.0125	Pass
Mg	T3	EPA6010C-SPLP	<2mm	13	<RL or<10x samples	0		0.0125	Pass
Mn	T3	EPA6010C-SPLP	<2mm	13	<RL or<10x samples	0		0.0125	Pass
Na	T3	EPA6010C-SPLP	<2mm	13	<RL or<10x samples	0		0.0125	Pass
Ni	T3	EPA6010C-SPLP	<2mm	13	<RL or<10x samples	0		0.0125	Pass
Pb	T3	EPA6010C-SPLP	<2mm	13	<RL or<10x samples	0		0.0125	Pass
Zn	T3	EPA6010C-SPLP	<2mm	13	<RL or<10x samples	0		0.0125	Pass
Tl	T3	EPA6010C-SPLP	<2mm	14	RPD if > 2XRL	0		20	Pass
P	T3	EPA6010C-SPLP	<2mm	14	RPD if > 2XRL	1		20	Pass
Se	T3	EPA6010C-SPLP	<2mm	14	RPD if > 2XRL	0		20	Pass
Sb	T3	EPA6010C-SPLP	<2mm	14	RPD if > 2XRL	0		20	Pass
V	T3	EPA6010C-SPLP	<2mm	14	RPD if > 2XRL	0		20	Pass
Ag	T3	EPA6010C-SPLP	<2mm	14	RPD if > 2XRL	0		20	Pass
Al	T3	EPA6010C-SPLP	<2mm	14	RPD if > 2XRL	21		20	Fail

Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
As	T3	EPA6010C-SPLP	<2mm	14	RPD if > 2XRL	3		20	Pass
Ba	T3	EPA6010C-SPLP	<2mm	14	RPD if > 2XRL	0		20	Pass
Be	T3	EPA6010C-SPLP	<2mm	14	RPD if > 2XRL	0		20	Pass
Ca	T3	EPA6010C-SPLP	<2mm	14	RPD if > 2XRL	74		20	Fail
Cd	T3	EPA6010C-SPLP	<2mm	14	RPD if > 2XRL	0		20	Pass
Co	T3	EPA6010C-SPLP	<2mm	14	RPD if > 2XRL	0		20	Pass
Cr	T3	EPA6010C-SPLP	<2mm	14	RPD if > 2XRL	0		20	Pass
Cu	T3	EPA6010C-SPLP	<2mm	14	RPD if > 2XRL	1		20	Pass
Fe	T3	EPA6010C-SPLP	<2mm	14	RPD if > 2XRL	0		20	Pass
K	T3	EPA6010C-SPLP	<2mm	14	RPD if > 2XRL	12		20	Pass
Mg	T3	EPA6010C-SPLP	<2mm	14	RPD if > 2XRL	55		20	Fail
Mn	T3	EPA6010C-SPLP	<2mm	14	RPD if > 2XRL	59		20	Fail
Na	T3	EPA6010C-SPLP	<2mm	14	RPD if > 2XRL	12		20	Pass
Ni	T3	EPA6010C-SPLP	<2mm	14	RPD if > 2XRL	0		20	Pass
Pb	T3	EPA6010C-SPLP	<2mm	14	RPD if > 2XRL	0		20	Pass
Zn	T3	EPA6010C-SPLP	<2mm	14	RPD if > 2XRL	34		20	Fail
Tl	T3	EPA6010C-SPLP	<2mm	14	<RL or<10x samples	0		0.0125	Pass
P	T3	EPA6010C-SPLP	<2mm	14	<RL or<10x samples	0		0.0125	Pass
Se	T3	EPA6010C-SPLP	<2mm	14	<RL or<10x samples	0		0.0125	Pass
Sb	T3	EPA6010C-SPLP	<2mm	14	<RL or<10x samples	0		0.0125	Pass
V	T3	EPA6010C-SPLP	<2mm	14	<RL or<10x samples	0		0.0125	Pass
Ag	T3	EPA6010C-SPLP	<2mm	14	<RL or<10x samples	0		0.0125	Pass
Al	T3	EPA6010C-SPLP	<2mm	14	<RL or<10x samples	0		0.0125	Pass
As	T3	EPA6010C-SPLP	<2mm	14	<RL or<10x samples	0		0.0125	Pass
Ba	T3	EPA6010C-SPLP	<2mm	14	<RL or<10x samples	0		0.0125	Pass
Be	T3	EPA6010C-SPLP	<2mm	14	<RL or<10x samples	0		0.0125	Pass
Ca	T3	EPA6010C-SPLP	<2mm	14	<RL or<10x samples	0		0.0125	Pass
Cd	T3	EPA6010C-SPLP	<2mm	14	<RL or<10x samples	0		0.0125	Pass
Co	T3	EPA6010C-SPLP	<2mm	14	<RL or<10x samples	0		0.0125	Pass
Cr	T3	EPA6010C-SPLP	<2mm	14	<RL or<10x samples	0		0.0125	Pass
Cu	T3	EPA6010C-SPLP	<2mm	14	<RL or<10x samples	0		0.0125	Pass
Fe	T3	EPA6010C-SPLP	<2mm	14	<RL or<10x samples	0		0.0125	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
K	T3	EPA6010C-SPLP	<2mm	14	<RL or<10x samples	0		0.0125	Pass
Mg	T3	EPA6010C-SPLP	<2mm	14	<RL or<10x samples	0		0.0125	Pass
Mn	T3	EPA6010C-SPLP	<2mm	14	<RL or<10x samples	0		0.0125	Pass
Na	T3	EPA6010C-SPLP	<2mm	14	<RL or<10x samples	0		0.0125	Pass
Ni	T3	EPA6010C-SPLP	<2mm	14	<RL or<10x samples	0		0.0125	Pass
Pb	T3	EPA6010C-SPLP	<2mm	14	<RL or<10x samples	0		0.0125	Pass
Zn	T3	EPA6010C-SPLP	<2mm	14	<RL or<10x samples	0		0.0125	Pass
Tl	T3	EPA6010C-SPLP	<2mm	15	RPD if > 2XRL	0		20	Pass
P	T3	EPA6010C-SPLP	<2mm	15	RPD if > 2XRL	0		20	Pass
Se	T3	EPA6010C-SPLP	<2mm	15	RPD if > 2XRL	0		20	Pass
Sb	T3	EPA6010C-SPLP	<2mm	15	RPD if > 2XRL	0		20	Pass
V	T3	EPA6010C-SPLP	<2mm	15	RPD if > 2XRL	0		20	Pass
Ag	T3	EPA6010C-SPLP	<2mm	15	RPD if > 2XRL	0		20	Pass
Al	T3	EPA6010C-SPLP	<2mm	15	RPD if > 2XRL	62		20	Fail
As	T3	EPA6010C-SPLP	<2mm	15	RPD if > 2XRL	0		20	Pass
Ba	T3	EPA6010C-SPLP	<2mm	15	RPD if > 2XRL	0		20	Pass
Be	T3	EPA6010C-SPLP	<2mm	15	RPD if > 2XRL	0		20	Pass
Ca	T3	EPA6010C-SPLP	<2mm	15	RPD if > 2XRL	105		20	Fail
Cd	T3	EPA6010C-SPLP	<2mm	15	RPD if > 2XRL	0		20	Pass
Co	T3	EPA6010C-SPLP	<2mm	15	RPD if > 2XRL	0		20	Pass
Cr	T3	EPA6010C-SPLP	<2mm	15	RPD if > 2XRL	0		20	Pass
Cu	T3	EPA6010C-SPLP	<2mm	15	RPD if > 2XRL	49		20	Fail
Fe	T3	EPA6010C-SPLP	<2mm	15	RPD if > 2XRL	0		20	Pass
K	T3	EPA6010C-SPLP	<2mm	15	RPD if > 2XRL	18		20	Pass
Mg	T3	EPA6010C-SPLP	<2mm	15	RPD if > 2XRL	72		20	Fail
Mn	T3	EPA6010C-SPLP	<2mm	15	RPD if > 2XRL	80		20	Fail
Na	T3	EPA6010C-SPLP	<2mm	15	RPD if > 2XRL	28		20	Fail
Ni	T3	EPA6010C-SPLP	<2mm	15	RPD if > 2XRL	0		20	Pass
Pb	T3	EPA6010C-SPLP	<2mm	15	RPD if > 2XRL	0		20	Pass
Zn	T3	EPA6010C-SPLP	<2mm	15	RPD if > 2XRL	76		20	Fail
Tl	T3	EPA6010C-SPLP	<2mm	15	<RL or<10x samples	0		0.0125	Pass
P	T3	EPA6010C-SPLP	<2mm	15	<RL or<10x samples	0		0.0125	Pass
Se	T3	EPA6010C-SPLP	<2mm	15	<RL or<10x samples	0		0.0125	Pass
Sb	T3	EPA6010C-SPLP	<2mm	15	<RL or<10x samples	0		0.0125	Pass
V	T3	EPA6010C-SPLP	<2mm	15	<RL or<10x samples	0		0.0125	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Ag	T3	EPA6010C-SPLP	<2mm	15	<RL or<10x samples	0		0.0125	Pass
Al	T3	EPA6010C-SPLP	<2mm	15	<RL or<10x samples	0		0.0125	Pass
As	T3	EPA6010C-SPLP	<2mm	15	<RL or<10x samples	0		0.0125	Pass
Ba	T3	EPA6010C-SPLP	<2mm	15	<RL or<10x samples	0		0.0125	Pass
Be	T3	EPA6010C-SPLP	<2mm	15	<RL or<10x samples	0		0.0125	Pass
Ca	T3	EPA6010C-SPLP	<2mm	15	<RL or<10x samples	0		0.0125	Pass
Cd	T3	EPA6010C-SPLP	<2mm	15	<RL or<10x samples	0		0.0125	Pass
Co	T3	EPA6010C-SPLP	<2mm	15	<RL or<10x samples	0		0.0125	Pass
Cr	T3	EPA6010C-SPLP	<2mm	15	<RL or<10x samples	0		0.0125	Pass
Cu	T3	EPA6010C-SPLP	<2mm	15	<RL or<10x samples	0		0.0125	Pass
Fe	T3	EPA6010C-SPLP	<2mm	15	<RL or<10x samples	0		0.0125	Pass
K	T3	EPA6010C-SPLP	<2mm	15	<RL or<10x samples	0		0.0125	Pass
Mg	T3	EPA6010C-SPLP	<2mm	15	<RL or<10x samples	0		0.0125	Pass
Mn	T3	EPA6010C-SPLP	<2mm	15	<RL or<10x samples	0		0.0125	Pass
Na	T3	EPA6010C-SPLP	<2mm	15	<RL or<10x samples	0		0.0125	Pass
Ni	T3	EPA6010C-SPLP	<2mm	15	<RL or<10x samples	0		0.0125	Pass
Pb	T3	EPA6010C-SPLP	<2mm	15	<RL or<10x samples	0		0.0125	Pass
Zn	T3	EPA6010C-SPLP	<2mm	15	<RL or<10x samples	0		0.0125	Pass
Tl	T3	EPA6010C-SPLP	<2mm	16	RPD if > 2XRL	0		20	Pass
P	T3	EPA6010C-SPLP	<2mm	16	RPD if > 2XRL	11		20	Pass
Se	T3	EPA6010C-SPLP	<2mm	16	RPD if > 2XRL	0		20	Pass
Sb	T3	EPA6010C-SPLP	<2mm	16	RPD if > 2XRL	0		20	Pass
V	T3	EPA6010C-SPLP	<2mm	16	RPD if > 2XRL	0		20	Pass
Ag	T3	EPA6010C-SPLP	<2mm	16	RPD if > 2XRL	0		20	Pass
Al	T3	EPA6010C-SPLP	<2mm	16	RPD if > 2XRL	31		20	Fail
As	T3	EPA6010C-SPLP	<2mm	16	RPD if > 2XRL	0		20	Pass
Ba	T3	EPA6010C-SPLP	<2mm	16	RPD if > 2XRL	0		20	Pass
Be	T3	EPA6010C-SPLP	<2mm	16	RPD if > 2XRL	0		20	Pass
Ca	T3	EPA6010C-SPLP	<2mm	16	RPD if > 2XRL	71		20	Fail
Cd	T3	EPA6010C-SPLP	<2mm	16	RPD if > 2XRL	0		20	Pass
Co	T3	EPA6010C-SPLP	<2mm	16	RPD if > 2XRL	0		20	Pass

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Analyte	Time point	method_code	_size_fract ion	Batch	QC criteria	Value	low limit	high limit	Pass/F ail
Cr	T3	EPA6010C-SPLP	<2mm	16	RPD if > 2XRL	0		20	Pass
Cu	T3	EPA6010C-SPLP	<2mm	16	RPD if > 2XRL	0		20	Pass
Fe	T3	EPA6010C-SPLP	<2mm	16	RPD if > 2XRL	0		20	Pass
K	T3	EPA6010C-SPLP	<2mm	16	RPD if > 2XRL	29		20	Fail
Mg	T3	EPA6010C-SPLP	<2mm	16	RPD if > 2XRL	61		20	Fail
Mn	T3	EPA6010C-SPLP	<2mm	16	RPD if > 2XRL	62		20	Fail
Na	T3	EPA6010C-SPLP	<2mm	16	RPD if > 2XRL	36		20	Fail
Ni	T3	EPA6010C-SPLP	<2mm	16	RPD if > 2XRL	0		20	Pass
Pb	T3	EPA6010C-SPLP	<2mm	16	RPD if > 2XRL	0		20	Pass
Zn	T3	EPA6010C-SPLP	<2mm	16	RPD if > 2XRL	53		20	Fail
Tl	T3	EPA6010C-SPLP	<2mm	16	<RL or<10x samples	0		0.0125	Pass
P	T3	EPA6010C-SPLP	<2mm	16	<RL or<10x samples	0		0.0125	Pass
Se	T3	EPA6010C-SPLP	<2mm	16	<RL or<10x samples	0		0.0125	Pass
Sb	T3	EPA6010C-SPLP	<2mm	16	<RL or<10x samples	0		0.0125	Pass
V	T3	EPA6010C-SPLP	<2mm	16	<RL or<10x samples	0		0.0125	Pass
Ag	T3	EPA6010C-SPLP	<2mm	16	<RL or<10x samples	0		0.0125	Pass
Al	T3	EPA6010C-SPLP	<2mm	16	<RL or<10x samples	0		0.0125	Pass
As	T3	EPA6010C-SPLP	<2mm	16	<RL or<10x samples	0		0.0125	Pass
Ba	T3	EPA6010C-SPLP	<2mm	16	<RL or<10x samples	0		0.0125	Pass
Be	T3	EPA6010C-SPLP	<2mm	16	<RL or<10x samples	0		0.0125	Pass
Ca	T3	EPA6010C-SPLP	<2mm	16	<RL or<10x samples	0		0.0125	Pass
Cd	T3	EPA6010C-SPLP	<2mm	16	<RL or<10x samples	0		0.0125	Pass
Co	T3	EPA6010C-SPLP	<2mm	16	<RL or<10x samples	0		0.0125	Pass
Cr	T3	EPA6010C-SPLP	<2mm	16	<RL or<10x samples	0		0.0125	Pass
Cu	T3	EPA6010C-SPLP	<2mm	16	<RL or<10x samples	0		0.0125	Pass
Fe	T3	EPA6010C-SPLP	<2mm	16	<RL or<10x samples	0		0.0125	Pass
K	T3	EPA6010C-SPLP	<2mm	16	<RL or<10x samples	0		0.0125	Pass
Mg	T3	EPA6010C-SPLP	<2mm	16	<RL or<10x samples	0		0.0125	Pass
Mn	T3	EPA6010C-SPLP	<2mm	16	<RL or<10x samples	0		0.0125	Pass
Na	T3	EPA6010C-SPLP	<2mm	16	<RL or<10x samples	0		0.0125	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Ni	T3	EPA6010C-SPLP	<2mm	16	<RL or<10x samples	0		0.0125	Pass
Pb	T3	EPA6010C-SPLP	<2mm	16	<RL or<10x samples	0		0.0125	Pass
Zn	T3	EPA6010C-SPLP	<2mm	16	<RL or<10x samples	0		0.0125	Pass
Tl	T3	EPA6010C-SPLP	<2mm	17	RPD if > 2XRL	0		20	Pass
P	T3	EPA6010C-SPLP	<2mm	17	RPD if > 2XRL	0		20	Pass
Se	T3	EPA6010C-SPLP	<2mm	17	RPD if > 2XRL	0		20	Pass
Sb	T3	EPA6010C-SPLP	<2mm	17	RPD if > 2XRL	0		20	Pass
V	T3	EPA6010C-SPLP	<2mm	17	RPD if > 2XRL	0		20	Pass
Ag	T3	EPA6010C-SPLP	<2mm	17	RPD if > 2XRL	0		20	Pass
Al	T3	EPA6010C-SPLP	<2mm	17	RPD if > 2XRL	16		20	Pass
As	T3	EPA6010C-SPLP	<2mm	17	RPD if > 2XRL	0		20	Pass
Ba	T3	EPA6010C-SPLP	<2mm	17	RPD if > 2XRL	0		20	Pass
Be	T3	EPA6010C-SPLP	<2mm	17	RPD if > 2XRL	0		20	Pass
Ca	T3	EPA6010C-SPLP	<2mm	17	RPD if > 2XRL	2		20	Pass
Cd	T3	EPA6010C-SPLP	<2mm	17	RPD if > 2XRL	0		20	Pass
Co	T3	EPA6010C-SPLP	<2mm	17	RPD if > 2XRL	0		20	Pass
Cr	T3	EPA6010C-SPLP	<2mm	17	RPD if > 2XRL	0		20	Pass
Cu	T3	EPA6010C-SPLP	<2mm	17	RPD if > 2XRL	0		20	Pass
Fe	T3	EPA6010C-SPLP	<2mm	17	RPD if > 2XRL	0		20	Pass
K	T3	EPA6010C-SPLP	<2mm	17	RPD if > 2XRL	1		20	Pass
Mg	T3	EPA6010C-SPLP	<2mm	17	RPD if > 2XRL	0		20	Pass
Mn	T3	EPA6010C-SPLP	<2mm	17	RPD if > 2XRL	1		20	Pass
Na	T3	EPA6010C-SPLP	<2mm	17	RPD if > 2XRL	0		20	Pass
Ni	T3	EPA6010C-SPLP	<2mm	17	RPD if > 2XRL	0		20	Pass
Pb	T3	EPA6010C-SPLP	<2mm	17	RPD if > 2XRL	0		20	Pass
Zn	T3	EPA6010C-SPLP	<2mm	17	RPD if > 2XRL	0		20	Pass
Tl	T3	EPA6010C-SPLP	<2mm	17	<RL or<10x samples	0		0.0125	Pass
P	T3	EPA6010C-SPLP	<2mm	17	<RL or<10x samples	0		0.0125	Pass
Se	T3	EPA6010C-SPLP	<2mm	17	<RL or<10x samples	0		0.0125	Pass
Sb	T3	EPA6010C-SPLP	<2mm	17	<RL or<10x samples	0		0.0125	Pass
V	T3	EPA6010C-SPLP	<2mm	17	<RL or<10x samples	0		0.0125	Pass
Ag	T3	EPA6010C-SPLP	<2mm	17	<RL or<10x samples	0		0.0125	Pass
Al	T3	EPA6010C-SPLP	<2mm	17	<RL or<10x samples	0		0.0125	Pass
As	T3	EPA6010C-SPLP	<2mm	17	<RL or<10x samples	0		0.0125	Pass
Ba	T3	EPA6010C-SPLP	<2mm	17	<RL or<10x samples	0		0.0125	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Be	T3	EPA6010C-SPLP	<2mm	17	<RL or<10x samples	0		0.0125	Pass
Ca	T3	EPA6010C-SPLP	<2mm	17	<RL or<10x samples	0		0.0125	Pass
Cd	T3	EPA6010C-SPLP	<2mm	17	<RL or<10x samples	0		0.0125	Pass
Co	T3	EPA6010C-SPLP	<2mm	17	<RL or<10x samples	0		0.0125	Pass
Cr	T3	EPA6010C-SPLP	<2mm	17	<RL or<10x samples	0		0.0125	Pass
Cu	T3	EPA6010C-SPLP	<2mm	17	<RL or<10x samples	0		0.0125	Pass
Fe	T3	EPA6010C-SPLP	<2mm	17	<RL or<10x samples	0		0.0125	Pass
K	T3	EPA6010C-SPLP	<2mm	17	<RL or<10x samples	0		0.0125	Pass
Mg	T3	EPA6010C-SPLP	<2mm	17	<RL or<10x samples	0		0.0125	Pass
Mn	T3	EPA6010C-SPLP	<2mm	17	<RL or<10x samples	0		0.0125	Pass
Na	T3	EPA6010C-SPLP	<2mm	17	<RL or<10x samples	0		0.0125	Pass
Ni	T3	EPA6010C-SPLP	<2mm	17	<RL or<10x samples	0		0.0125	Pass
Pb	T3	EPA6010C-SPLP	<2mm	17	<RL or<10x samples	0		0.0125	Pass
Zn	T3	EPA6010C-SPLP	<2mm	17	<RL or<10x samples	0		0.0125	Pass
Carbon_org	T1	HEANES84	<2mm	1	RPD	6		20	Pass
Carbon_org	T1	HEANES84	<2mm	1	% Rec	101	75	125	Pass
Carbon_org	T1	HEANES84	<2mm	1	<RL	0		0.5	Pass
Carbon_org	T1	HEANES84	<2mm	2	RPD	7		20	Pass
Carbon_org	T1	HEANES84	<2mm	2	% Rec	94	75	125	Pass
Carbon_org	T1	HEANES84	<2mm	2	<RL	0		0.5	Pass
Carbon_org	T1	HEANES84	<2mm	3	RPD	12		20	Pass
Carbon_org	T1	HEANES84	<2mm	3	% Rec	87	75	125	Pass
Carbon_org	T1	HEANES84	<2mm	3	<RL	0		0.5	Pass
Carbon_org	T1	HEANES84	<2mm	4	RPD	13		20	Pass
Carbon_org	T1	HEANES84	<2mm	4	% Rec	105	75	125	Pass
Carbon_org	T1	HEANES84	<2mm	4	<RL	0		0.5	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
Carbon_org	T1	HEANES84	<2mm	5	RPD	12		20	Pass
Carbon_org	T1	HEANES84	<2mm	5	% Rec	98	75	125	Pass
Carbon_org	T1	HEANES84	<2mm	5	<RL	0		0.5	Pass
Carbon_org	T1	HEANES84	<2mm	6	RPD	5		20	Pass
Carbon_org	T1	HEANES84	<2mm	6	% Rec	100	75	125	Pass
Carbon_org	T1	HEANES84	<2mm	6	<RL	0		0.5	Pass
Carbon_org	T1	HEANES84	<2mm	7	RPD	10		20	Pass
Carbon_org	T1	HEANES84	<2mm	7	% Rec	114	75	125	Pass
Carbon_org	T1	HEANES84	<2mm	7	<RL	0		0.5	Pass
OC	T2	HEANES84	<2mm	1	RPD	11		20	Pass
OC	T2	HEANES84	<2mm	1	% Rec	109	75	125	Pass
OC	T2	HEANES84	<2mm	1	<RL	0		0.5	Pass
OC	T2	HEANES84	<2mm	2	RPD	4		20	Pass
OC	T2	HEANES84	<2mm	2	% Rec	88	75	125	Pass
OC	T2	HEANES84	<2mm	2	<RL	0		0.5	Pass
OC	T2	HEANES84	<2mm	3	RPD	3		20	Pass
OC	T2	HEANES84	<2mm	3	% Rec	98	75	125	Pass
OC	T2	HEANES84	<2mm	3	<RL	0		0.5	Pass
OC	T2	HEANES84	<2mm	4	RPD	14		20	Pass
OC	T2	HEANES84	<2mm	4	% Rec	98	75	125	Pass
OC	T2	HEANES84	<2mm	4	<RL	0		0.5	Pass
OC	T2	HEANES84	<2mm	5	RPD	34		20	Fail
OC	T2	HEANES84	<2mm	5	% Rec	94	75	125	Pass
OC	T2	HEANES84	<2mm	5	<RL	0		0.5	Pass
OC	T2	HEANES84	<2mm	6	RPD	37		20	Fail
OC	T2	HEANES84	<2mm	6	% Rec	47	75	125	Fail
OC	T2	HEANES84	<2mm	6	<RL	0		0.5	Pass
OC	T2	HEANES84	<2mm	7	RPD	4		20	Pass
OC	T2	HEANES84	<2mm	7	% Rec	92	75	125	Pass
OC	T2	HEANES84	<2mm	7	<RL	0		0.5	Pass
OC	T3	HEANES84	<2mm	1	RPD	14		20	Pass
OC	T3	HEANES84	<2mm	1	% Rec	81	75	125	Pass
OC	T3	HEANES84	<2mm	1	<RL	0		0.4	Pass
OC	T3	HEANES84	<2mm	2	RPD	1		20	Pass
OC	T3	HEANES84	<2mm	2	% Rec	96	75	125	Pass
OC	T3	HEANES84	<2mm	2	<RL	0		0.4	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
OC	T3	HEANES84	<2mm	3	RPD	7		20	Pass
OC	T3	HEANES84	<2mm	3	% Rec	79	75	125	Pass
OC	T3	HEANES84	<2mm	3	<RL	0		0.4	Pass
OC	T3	HEANES84	<2mm	4	RPD	6		20	Pass
OC	T3	HEANES84	<2mm	4	% Rec	106	75	125	Pass
OC	T3	HEANES84	<2mm	4	<RL	0		0.4	Pass
OC	T3	HEANES84	<2mm	5	RPD	2		20	Pass
OC	T3	HEANES84	<2mm	5	% Rec	104	75	125	Pass
OC	T3	HEANES84	<2mm	5	<RL	0		0.4	Pass
OC	T3	HEANES84	<2mm	6	RPD	10		20	Pass
OC	T3	HEANES84	<2mm	6	% Rec	77	75	125	Pass
OC	T3	HEANES84	<2mm	6	<RL	0		0.4	Pass
OC	T3	HEANES84	<2mm	7	RPD	3		20	Pass
OC	T3	HEANES84	<2mm	7	% Rec	86	75	125	Pass
OC	T3	HEANES84	<2mm	7	<RL	0		0.4	Pass
C	T1	NELSON82	<2mm	1	RPD	20		20	Pass
C	T1	NELSON82	<2mm	2	RPD	10		20	Pass
C	T1	NELSON82	<2mm	3	RPD	3		20	Pass
C	T1	NELSON82	<2mm	4	RPD	2		20	Pass
C	T1	NELSON82	<2mm	4b	RPD	18		20	Pass
C	T2	NELSON82	<2mm	1	RPD	2		20	Pass
C	T2	NELSON82	<2mm	2	RPD	10		20	Pass
C	T2	NELSON82	<2mm	3	RPD	17		20	Pass
C	T3	NELSON82	<2mm	1	RPD	12		20	Pass
C	T3	NELSON82	<2mm	2	RPD	13		20	Pass
C	T3	NELSON82	<2mm	3	RPD	11		20	Pass
EC	T1	SM2510B	<2mm	1	RPD	16		20	Pass
EC	T1	SM2510B	<2mm	2	RPD	1		20	Pass
EC	T1	SM2510B	<2mm	3	RPD	8		20	Pass
EC	T1	SM2510B	<2mm	4	RPD	9		20	Pass
EC	T1	SM2510B	<2mm	5	RPD	1		20	Pass
EC	T1	SM2510B	<2mm	6	RPD	15		20	Pass
EC	T1	SM2510B	<2mm	7	RPD	2		20	Pass
EC	T1	SM2510B	<2mm	8	RPD	7		20	Pass
EC	T1	SM2510B	<2mm	9	RPD	19		20	Pass
EC	T1	SM2510B	<2mm	10	RPD	7		20	Pass
EC	T2	SM2510B	<2mm	1	RPD	10		20	Pass
EC	T2	SM2510B	<2mm	2	RPD	22		20	Fail
EC	T2	SM2510B	<2mm	3	RPD	2		20	Pass
EC	T2	SM2510B	<2mm	4	RPD	17		20	Pass
EC	T2	SM2510B	<2mm	5	RPD	13		20	Pass

Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
EC	T2	SM2510B	<2mm	6	RPD	5		20	Pass
EC	T2	SM2510B	<2mm	7	RPD	9		20	Pass
EC	T2	SM2510B	<2mm	8	RPD	47		20	Fail
EC	T2	SM2510B	<2mm	9	RPD	22		20	Fail
EC	T2	SM2510B	<2mm	10	RPD	10		20	Pass
EC	T3	SM2510B	<2mm	1	RPD	0		20	Pass
EC	T3	SM2510B	<2mm	2	RPD	10		20	Pass
EC	T3	SM2510B	<2mm	3	RPD	6		20	Pass
EC	T3	SM2510B	<2mm	4	RPD	0		20	Pass
EC	T3	SM2510B	<2mm	5	RPD	18		20	Pass
EC	T3	SM2510B	<2mm	6	RPD	10		20	Pass
EC	T3	SM2510B	<2mm	7	RPD	0		20	Pass
EC	T3	SM2510B	<2mm	8	RPD	13		20	Pass
EC	T3	SM2510B	<2mm	9	RPD	1		20	Pass
EC	T3	SM2510B	<2mm	10	RPD	12		20	Pass
pH	T1	THOMAS96	<2mm	1	RPD	1		20	Pass
pH	T1	THOMAS96	<2mm	2	RPD	0		20	Pass
pH	T1	THOMAS96	<2mm	3	RPD	1		20	Pass
pH	T1	THOMAS96	<2mm	4	RPD	1		20	Pass
pH	T1	THOMAS96	<2mm	5	RPD	0		20	Pass
pH	T1	THOMAS96	<2mm	6	RPD	2		20	Pass
pH	T1	THOMAS96	<2mm	7	RPD	0		20	Pass
pH	T1	THOMAS96	<2mm	8	RPD	0		20	Pass
pH	T1	THOMAS96	<2mm	9	RPD	0		20	Pass
pH	T1	THOMAS96	<2mm	10	RPD	1		20	Pass
pH	T2	THOMAS96	<2mm	1	RPD	0		20	Pass
pH	T2	THOMAS96	<2mm	2	RPD	0		20	Pass
pH	T2	THOMAS96	<2mm	3	RPD	1		20	Pass
pH	T2	THOMAS96	<2mm	4	RPD	1		20	Pass
pH	T2	THOMAS96	<2mm	5	RPD	2		20	Pass
pH	T2	THOMAS96	<2mm	6	RPD	2		20	Pass
pH	T2	THOMAS96	<2mm	7	RPD	1		20	Pass
pH	T2	THOMAS96	<2mm	8	RPD	2		20	Pass
pH	T2	THOMAS96	<2mm	9	RPD	1		20	Pass
pH	T2	THOMAS96	<2mm	10	RPD	0		20	Pass
pH	T3	THOMAS96	<2mm	1	RPD	0		20	Pass
pH	T3	THOMAS96	<2mm	2	RPD	2		20	Pass
pH	T3	THOMAS96	<2mm	3	RPD	0		20	Pass
pH	T3	THOMAS96	<2mm	4	RPD	1		20	Pass
pH	T3	THOMAS96	<2mm	5	RPD	0		20	Pass
pH	T3	THOMAS96	<2mm	6	RPD	1		20	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
pH	T3	THOMAS96	<2mm	7	RPD	1		20	Pass
pH	T3	THOMAS96	<2mm	8	RPD	0		20	Pass
pH	T3	THOMAS96	<2mm	9	RPD	0		20	Pass
pH	T3	THOMAS96	<2mm	10	RPD	2		20	Pass
N_Min	T1	WARING64	<2mm	3	RPD	6		20	Pass
N_Min	T1	WARING64	<2mm	4	RPD	11		20	Pass
N_Min	T1	WARING64	<2mm	5	RPD	9		20	Pass
N_Min	T1	WARING64	<2mm	6	RPD	14		20	Pass
N_Min	T1	WARING64	<2mm	1	RPD	2		20	Pass
N_Min	T1	WARING64	<2mm	2	RPD	4		20	Pass
N_Min	T1	WARING64	<2mm	3	<RL or <10x samples	0		0.01	Pass
N_Min	T1	WARING64	<2mm	4	<RL or <10x samples	0		0.01	Pass
N_Min	T1	WARING64	<2mm	5	<RL or <10x samples	0		0.01	Pass
N_Min	T1	WARING64	<2mm	6	<RL or <10x samples	0		0.01	Pass
N_Min	T1	WARING64	<2mm	1	<RL or <10x samples	0		0.01	Pass
N_Min	T1	WARING64	<2mm	2	<RL or <10x samples	0		0.01	Pass
N	T2	WARING64	<2mm	2	RPD	2		20	Pass
N	T2	WARING64	<2mm	3	RPD	4		20	Pass
N	T2	WARING64	<2mm	4	RPD	8		20	Pass
N	T2	WARING64	<2mm	5	RPD	1		20	Pass
N	T2	WARING64	<2mm	2	<RL or <10x samples	0		0.01	Pass
N	T2	WARING64	<2mm	3	<RL or <10x samples	0		0.01	Pass
N	T2	WARING64	<2mm	4	<RL or <10x samples	0		0.01	Pass
N	T2	WARING64	<2mm	5	<RL or <10x samples	0		0.01	Pass
N	T2	WARING64	<2mm	1	RPD	7		20	Pass
N	T2	WARING64	<2mm	6	RPD	2		20	Pass
N	T2	WARING64	<2mm	1	<RL or <10x samples	0		0.01	Pass
N	T2	WARING64	<2mm	6	<RL or <10x samples	0		0.01	Pass
N	T3	WARING64	<2mm	1	<RL or <10x samples	0		0.01	Pass
N	T3	WARING64	<2mm	2	<RL or <10x samples	1		0.01	Pass
N	T3	WARING64	<2mm	3	<RL or <10x samples	0		0.01	Pass
N	T3	WARING64	<2mm	4	<RL or <10x samples	0		0.01	Pass

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Analyte	Time point	method_code	_size_fraction	Batch	QC criteria	Value	low limit	high limit	Pass/Fail
N	T3	WARING64	<2mm	5	<RL or <10x samples	0		0.01	Pass
N	T3	WARING64	<2mm	6	<RL or <10x samples	0		0.01	Pass
N	T3	WARING64	<2mm	1	RPD	3		20	Pass
N	T3	WARING64	<2mm	2	RPD	1		20	Pass
N	T3	WARING64	<2mm	3	RPD	7		20	Pass
N	T3	WARING64	<2mm	4	RPD	2		20	Pass
N	T3	WARING64	<2mm	5	RPD	12		20	Pass
N	T3	WARING64	<2mm	6	RPD	14		20	Pass

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APPENDIX

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Table 39. Summary of samples received by OSU

Sample ID	Sample Type	Collection Date	Collection Time	OSU Lab ID
D-401-2-A5-101818-3	Bulk	10/18/2018	1210	SA_141
D-401-2-A6-101818-3	Bulk	10/18/2018	1211	SA_142
D-401-2-B6-101818-3	Bulk	10/18/2018	1212	SA_143
D-401-2-C5-101818-3	Bulk	10/18/2018	1213	SA_144
D-401-2-D6-101818-3	Bulk	10/18/2018	1214	SA_145
D-401-2-E3-101818-3	Bulk	10/18/2018	1215	SA_146
D-401-2-E5-101818-3	Bulk	10/18/2018	1216	SA_147
D-401-2-E6-101818-3	Bulk	10/18/2018	1217	SA_148
D-401-2-E7-101818-3	Bulk	10/18/2018	1218	SA_149
D-401-2-E9-101818-3	Bulk	10/18/2018	1219	SA_150
D-401-2-E10-101818-3	Bulk	10/18/2018	1220	SA_151
D-401-2-F4-101818-3	Bulk	10/18/2018	1221	SA_152
D-401-2-F10-101818-3	Bulk	10/18/2018	1222	SA_153
D-401-2-G6-101818-3	Bulk	10/18/2018	1223	SA_154
D-401-2-H6-101818-3	Bulk	10/18/2018	1224	SA_155
D-401-2-J5-101818-3	Bulk	10/18/2018	1225	SA_156

SWEL – Soil Water Environmental Lab

Table 40. Complete results for Timepoint 1 potentially mineralizable nitrogen, pH, electrical conductivity, total carbon, organic carbon, and synthetic precipitation leaching procedure

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
004-00-baseline-D-1	Baseline_baseline_NA	WARING64	6	mg/kg	Nitrogen_Mineral	27.00	NA	T1
003-00-baseline-C-1	Baseline_baseline_NA	WARING64	5	mg/kg	Nitrogen_Mineral	25.52	NA	T1
002-00-baseline-B-1	Baseline_baseline_NA	WARING64	4	mg/kg	Nitrogen_Mineral	31.10	NA	T1
001-00-baseline-A-1	Baseline_baseline_NA	WARING64	3	mg/kg	Nitrogen_Mineral	50.82	NA	T1
001-01-S-low-A-1	Soluble phosphate_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	76.46	NA	T1
002-01-S-low-B-1	Soluble phosphate_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	84.44	NA	T1
003-01-S-low-C-1	Soluble phosphate_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	80.42	NA	T1
004-01-S-low-D-1	Soluble phosphate_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	60.41	NA	T1
005-02-S-low-A-1	Biosolid_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	387.89	NA	T1
006-02-S-low-B-1	Biosolid_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	313.89	NA	T1
007-02-S-low-C-1	Biosolid_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	368.87	NA	T1
008-02-S-low-D-1	Biosolid_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	401.41	NA	T1
009-03-S-low-A-1	Wood ash_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	49.93	NA	T1
010-03-S-low-B-1	Wood ash_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	56.90	NA	T1
011-03-S-low-C-1	Wood ash_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	45.99	NA	T1
012-03-S-low-D-1	Wood ash_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	45.53	NA	T1
013-04-S-low-A-1	Biochar_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	38.15	NA	T1
014-04-S-low-B-1	Biochar_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	50.36	NA	T1
015-04-S-low-C-1	Biochar_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	57.34	NA	T1
016-04-S-low-D-1	Biochar_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	44.30	NA	T1
017-05-S-low-A-1	Compost_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	69.36	NA	T1
018-05-S-low-B-1	Compost_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	65.32	NA	T1
019-05-S-low-C-1	Compost_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	64.84	NA	T1
020-05-S-low-D-1	Compost_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	59.34	NA	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	407.84	NA	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	365.86	NA	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	431.32	NA	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	376.83	NA	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	70.38	NA	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	65.86	NA	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	50.82	NA	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	60.34	NA	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	95.84	NA	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	84.32	NA	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	73.83	NA	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	68.32	NA	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	264.33	NA	T1
034-09-S-low-B-1	Biosolids and wood ash_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	260.32	NA	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	285.34	NA	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	266.85	NA	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	40.46	NA	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	WARING64	2	mg/kg	Nitrogen_Mineral	47.20	NA	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	WARING64	2	mg/kg	Nitrogen_Mineral	41.48	NA	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	WARING64	2	mg/kg	Nitrogen_Mineral	41.32	NA	T1
041-11-S-low-A-1	Wood ash and compost_low_S	WARING64	2	mg/kg	Nitrogen_Mineral	48.82	NA	T1
042-11-S-low-B-1	Wood ash and compost_low_S	WARING64	2	mg/kg	Nitrogen_Mineral	51.32	NA	T1
043-11-S-low-C-1	Wood ash and compost_low_S	WARING64	2	mg/kg	Nitrogen_Mineral	57.84	NA	T1
044-11-S-low-D-1	Wood ash and compost_low_S	WARING64	2	mg/kg	Nitrogen_Mineral	45.30	NA	T1
045-12-S-low-A-1	Biochar and compost_low_S	WARING64	2	mg/kg	Nitrogen_Mineral	59.84	NA	T1
046-12-S-low-B-1	Biochar and compost_low_S	WARING64	2	mg/kg	Nitrogen_Mineral	52.83	NA	T1
047-12-S-low-C-1	Biochar and compost_low_S	WARING64	2	mg/kg	Nitrogen_Mineral	64.32	NA	T1
048-12-S-low-D-1	Biochar and compost_low_S	WARING64	2	mg/kg	Nitrogen_Mineral	59.82	NA	T1
145-01-S-high-A-1	Soluble phosphate_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	79.83	NA	T1
146-01-S-high-B-1	Soluble phosphate_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	70.32	NA	T1
147-01-S-high-C-1	Soluble phosphate_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	93.82	NA	T1
148-01-S-high-D-1	Soluble phosphate_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	73.83	NA	T1
149-02-S-high-A-1	Biosolid_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	882.87	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
150-02-S-high-B-1	Biosolid_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	1012.89	NA	T1
151-02-S-high-C-1	Biosolid_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	917.84	NA	T1
152-02-S-high-D-1	Biosolid_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	862.87	NA	T1
153-03-S-high-A-1	Wood ash_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	41.02	NA	T1
154-03-S-high-B-1	Wood ash_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	38.02	NA	T1
155-03-S-high-C-1	Wood ash_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	43.32	NA	T1
156-03-S-high-D-1	Wood ash_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	42.33	NA	T1
157-04-S-high-A-1	Biochar_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	58.84	NA	T1
158-04-S-high-B-1	Biochar_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	52.82	NA	T1
159-04-S-high-C-1	Biochar_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	49.82	NA	T1
160-04-S-high-D-1	Biochar_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	39.55	NA	T1
161-05-S-high-A-1	Compost_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	75.97	NA	T1
162-05-S-high-B-1	Compost_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	67.33	NA	T1
163-05-S-high-C-1	Compost_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	82.32	NA	T1
164-05-S-high-D-1	Compost_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	92.82	NA	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	1007.88	NA	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	1002.90	NA	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	867.87	NA	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	827.90	NA	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	92.32	NA	T1
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	90.82	NA	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	103.32	NA	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	98.32	NA	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	143.82	NA	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	142.32	NA	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	164.82	NA	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	112.82	NA	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	827.82	NA	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	782.82	NA	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	802.82	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
180-09-S-high-D-1	Biosolids and wood ash_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	742.82	NA	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	48.82	NA	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	42.92	NA	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	46.67	NA	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	32.92	NA	T1
185-11-S-high-A-1	Wood ash and compost_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	54.82	NA	T1
186-11-S-high-B-1	Wood ash and compost_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	93.32	NA	T1
187-11-S-high-C-1	Wood ash and compost_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	89.32	NA	T1
188-11-S-high-D-1	Wood ash and compost_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	105.32	NA	T1
189-12-S-high-A-1	Biochar and compost_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	74.32	NA	T1
190-12-S-high-B-1	Biochar and compost_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	85.32	NA	T1
191-12-S-high-C-1	Biochar and compost_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	100.82	NA	T1
192-12-S-high-D-1	Biochar and compost_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	81.82	NA	T1
289-01-I-low-A-1	Soluble phosphate_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	40.37	NA	T1
290-01-I-low-B-1	Soluble phosphate_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	39.77	NA	T1
291-01-I-low-C-1	Soluble phosphate_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	63.32	NA	T1
292-01-I-low-D-1	Soluble phosphate_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	62.82	NA	T1
293-02-I-low-A-1	Biosolid_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	450.32	NA	T1
294-02-I-low-B-1	Biosolid_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	463.82	NA	T1
295-02-I-low-C-1	Biosolid_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	452.82	NA	T1
296-02-I-low-D-1	Biosolid_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	517.82	NA	T1
297-03-I-low-A-1	Wood ash_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	46.62	NA	T1
298-03-I-low-B-1	Wood ash_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	47.17	NA	T1
299-03-I-low-C-1	Wood ash_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	53.82	NA	T1
300-03-I-low-D-1	Wood ash_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	51.32	NA	T1
301-04-I-low-A-1	Biochar_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	49.82	NA	T1
302-04-I-low-B-1	Biochar_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	33.27	NA	T1
303-04-I-low-C-1	Biochar_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	45.22	NA	T1
304-04-I-low-D-1	Biochar_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	52.34	NA	T1
305-05-I-low-A-1	Compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	65.82	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
306-05-I-low-B-1	Compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	73.82	NA	T1
307-05-I-low-C-1	Compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	63.32	NA	T1
308-05-I-low-D-1	Compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	70.70	NA	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	592.82	NA	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	527.82	NA	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	572.82	NA	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	702.82	NA	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	90.82	NA	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	57.32	NA	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	69.82	NA	T1
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	65.32	NA	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	90.32	NA	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	65.30	NA	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	80.24	NA	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	61.81	NA	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	568.39	NA	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	573.60	NA	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	538.56	NA	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	673.61	NA	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	44.44	NA	T1
326-10-I-low-B-1	Wood ash and biochar_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	50.70	NA	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	46.14	NA	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	38.78	NA	T1
329-11-I-low-A-1	Wood ash and compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	55.71	NA	T1
330-11-I-low-B-1	Wood ash and compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	69.29	NA	T1
331-11-I-low-C-1	Wood ash and compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	74.38	NA	T1
332-11-I-low-D-1	Wood ash and compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	45.71	NA	T1
333-12-I-low-A-1	Biochar and compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	53.90	NA	T1
334-12-I-low-B-1	Biochar and compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	72.06	NA	T1
335-12-I-low-C-1	Biochar and compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	59.51	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
336-12-I-low-D-1	Biochar and compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	78.50	NA	T1
337-01-I-high-A-1	Soluble phosphate_high_I	WARING64	4	mg/kg	Nitrogen_Mineral	69.38	NA	T1
338-01-I-high-B-1	Soluble phosphate_high_I	WARING64	4	mg/kg	Nitrogen_Mineral	79.84	NA	T1
339-01-I-high-C-1	Soluble phosphate_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	78.44	NA	T1
340-01-I-high-D-1	Soluble phosphate_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	75.95	NA	T1
341-02-I-high-A-1	Biosolid_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	2198.33	NA	T1
342-02-I-high-B-1	Biosolid_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	2003.14	NA	T1
343-02-I-high-C-1	Biosolid_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	1483.23	NA	T1
344-02-I-high-D-1	Biosolid_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	1973.12	NA	T1
345-03-I-high-A-1	Wood ash_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	56.00	NA	T1
346-03-I-high-B-1	Wood ash_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	41.97	NA	T1
347-03-I-high-C-1	Wood ash_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	35.83	NA	T1
348-03-I-high-D-1	Wood ash_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	53.48	NA	T1
349-04-I-high-A-1	Biochar_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	40.98	NA	T1
350-04-I-high-B-1	Biochar_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	50.75	NA	T1
351-04-I-high-C-1	Biochar_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	43.42	NA	T1
352-04-I-high-D-1	Biochar_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	54.70	NA	T1
353-05-I-high-A-1	Compost_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	163.69	NA	T1
354-05-I-high-B-1	Compost_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	155.16	NA	T1
355-05-I-high-C-1	Compost_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	160.63	NA	T1
356-05-I-high-D-1	Compost_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	151.12	NA	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	1880.53	NA	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	2053.25	NA	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	1813.07	NA	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	1913.18	NA	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	100.25	NA	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	97.82	NA	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	92.77	NA	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	111.19	NA	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	163.97	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
366-08-I-high-B-1	Soluble phosphate and compost_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	179.86	NA	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	144.94	NA	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	149.45	NA	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	2183.08	NA	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	2313.33	NA	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	1793.08	NA	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	2308.25	NA	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	77.90	NA	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	55.48	NA	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	WARING64	6	mg/kg	Nitrogen_Mineral	105.06	NA	T1
376-10-I-high-D-1	Wood ash and biochar_high_I	WARING64	6	mg/kg	Nitrogen_Mineral	61.58	NA	T1
377-11-I-high-A-1	Wood ash and compost_high_I	WARING64	6	mg/kg	Nitrogen_Mineral	137.71	NA	T1
378-11-I-high-B-1	Wood ash and compost_high_I	WARING64	6	mg/kg	Nitrogen_Mineral	177.97	NA	T1
379-11-I-high-C-1	Wood ash and compost_high_I	WARING64	6	mg/kg	Nitrogen_Mineral	181.96	NA	T1
380-11-I-high-D-1	Wood ash and compost_high_I	WARING64	6	mg/kg	Nitrogen_Mineral	176.02	NA	T1
381-12-I-high-A-1	Biochar and compost_high_I	WARING64	6	mg/kg	Nitrogen_Mineral	95.68	NA	T1
382-12-I-high-B-1	Biochar and compost_high_I	WARING64	6	mg/kg	Nitrogen_Mineral	145.99	NA	T1
383-12-I-high-C-1	Biochar and compost_high_I	WARING64	6	mg/kg	Nitrogen_Mineral	140.69	NA	T1
384-12-I-high-D-1	Biochar and compost_high_I	WARING64	6	mg/kg	Nitrogen_Mineral	128.56	NA	T1
385-00-I-baseline-A-1	control_none_I	WARING64	6	mg/kg	Nitrogen_Mineral	41.79	NA	T1
386-00-I-baseline-B-1	control_none_I	WARING64	6	mg/kg	Nitrogen_Mineral	50.71	NA	T1
387-00-I-baseline-C-1	control_none_I	WARING64	6	mg/kg	Nitrogen_Mineral	33.50	NA	T1
388-00-I-baseline-D-1	control_none_I	WARING64	6	mg/kg	Nitrogen_Mineral	58.80	NA	T1
004-00-baseline-D-1	Baseline_baseline_NA	THOMAS96	8	SU	pH	4.17	NA	T1
003-00-baseline-C-1	Baseline_baseline_NA	THOMAS96	7	SU	pH	4.45	NA	T1
002-00-baseline-B-1	Baseline_baseline_NA	THOMAS96	6	SU	pH	4.56	NA	T1
001-00-baseline-A-1	Baseline_baseline_NA	THOMAS96	5	SU	pH	4.35	NA	T1
001-01-S-low-A-1	Soluble phosphate_low_S	THOMAS96	1	SU	pH	4.11	NA	T1
002-01-S-low-B-1	Soluble phosphate_low_S	THOMAS96	1	SU	pH	4.34	NA	T1
003-01-S-low-C-1	Soluble phosphate_low_S	THOMAS96	1	SU	pH	4.39	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
004-01-S-low-D-1	Soluble phosphate_low_S	THOMAS96	1	SU	pH	4.25	NA	T1
005-02-S-low-A-1	Biosolid_low_S	THOMAS96	1	SU	pH	4.89	NA	T1
006-02-S-low-B-1	Biosolid_low_S	THOMAS96	1	SU	pH	4.90	NA	T1
007-02-S-low-C-1	Biosolid_low_S	THOMAS96	1	SU	pH	4.90	NA	T1
008-02-S-low-D-1	Biosolid_low_S	THOMAS96	1	SU	pH	5.00	NA	T1
009-03-S-low-A-1	Wood ash_low_S	THOMAS96	1	SU	pH	4.86	NA	T1
010-03-S-low-B-1	Wood ash_low_S	THOMAS96	1	SU	pH	4.82	NA	T1
011-03-S-low-C-1	Wood ash_low_S	THOMAS96	1	SU	pH	4.71	NA	T1
012-03-S-low-D-1	Wood ash_low_S	THOMAS96	1	SU	pH	4.77	NA	T1
013-04-S-low-A-1	Biochar_low_S	THOMAS96	1	SU	pH	4.37	NA	T1
014-04-S-low-B-1	Biochar_low_S	THOMAS96	1	SU	pH	4.57	NA	T1
015-04-S-low-C-1	Biochar_low_S	THOMAS96	1	SU	pH	4.61	NA	T1
016-04-S-low-D-1	Biochar_low_S	THOMAS96	1	SU	pH	4.63	NA	T1
017-05-S-low-A-1	Compost_low_S	THOMAS96	1	SU	pH	4.68	NA	T1
018-05-S-low-B-1	Compost_low_S	THOMAS96	1	SU	pH	4.66	NA	T1
019-05-S-low-C-1	Compost_low_S	THOMAS96	1	SU	pH	4.68	NA	T1
020-05-S-low-D-1	Compost_low_S	THOMAS96	1	SU	pH	4.64	NA	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	THOMAS96	2	SU	pH	4.75	NA	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	THOMAS96	2	SU	pH	4.73	NA	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	THOMAS96	2	SU	pH	4.88	NA	T1
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	THOMAS96	2	SU	pH	4.80	NA	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	THOMAS96	2	SU	pH	4.65	NA	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	THOMAS96	2	SU	pH	4.68	NA	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	THOMAS96	2	SU	pH	4.59	NA	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	THOMAS96	2	SU	pH	4.68	NA	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	THOMAS96	2	SU	pH	4.67	NA	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	THOMAS96	2	SU	pH	4.79	NA	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	THOMAS96	2	SU	pH	4.79	NA	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	THOMAS96	2	SU	pH	4.71	NA	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	THOMAS96	2	SU	pH	4.92	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
034-09-S-low-B-1	Biosolids and wood ash_low_S	THOMAS96	2	SU	pH	5.06	NA	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	THOMAS96	2	SU	pH	5.17	NA	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	THOMAS96	2	SU	pH	5.00	NA	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	THOMAS96	2	SU	pH	4.94	NA	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	THOMAS96	2	SU	pH	5.02	NA	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	THOMAS96	2	SU	pH	5.15	NA	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	THOMAS96	2	SU	pH	5.17	NA	T1
041-11-S-low-A-1	Wood ash and compost_low_S	THOMAS96	3	SU	pH	5.05	NA	T1
042-11-S-low-B-1	Wood ash and compost_low_S	THOMAS96	3	SU	pH	5.06	NA	T1
043-11-S-low-C-1	Wood ash and compost_low_S	THOMAS96	3	SU	pH	4.92	NA	T1
044-11-S-low-D-1	Wood ash and compost_low_S	THOMAS96	3	SU	pH	5.08	NA	T1
045-12-S-low-A-1	Biochar and compost_low_S	THOMAS96	3	SU	pH	4.76	NA	T1
046-12-S-low-B-1	Biochar and compost_low_S	THOMAS96	3	SU	pH	4.95	NA	T1
047-12-S-low-C-1	Biochar and compost_low_S	THOMAS96	3	SU	pH	4.79	NA	T1
048-12-S-low-D-1	Biochar and compost_low_S	THOMAS96	3	SU	pH	5.02	NA	T1
145-01-S-high-A-1	Soluble phosphate_high_S	THOMAS96	3	SU	pH	4.99	NA	T1
146-01-S-high-B-1	Soluble phosphate_high_S	THOMAS96	3	SU	pH	4.96	NA	T1
147-01-S-high-C-1	Soluble phosphate_high_S	THOMAS96	3	SU	pH	4.99	NA	T1
148-01-S-high-D-1	Soluble phosphate_high_S	THOMAS96	3	SU	pH	4.98	NA	T1
149-02-S-high-A-1	Biosolid_high_S	THOMAS96	3	SU	pH	4.96	NA	T1
150-02-S-high-B-1	Biosolid_high_S	THOMAS96	3	SU	pH	4.42	NA	T1
151-02-S-high-C-1	Biosolid_high_S	THOMAS96	3	SU	pH	4.41	NA	T1
152-02-S-high-D-1	Biosolid_high_S	THOMAS96	3	SU	pH	4.55	NA	T1
153-03-S-high-A-1	Wood ash_high_S	THOMAS96	3	SU	pH	4.49	NA	T1
154-03-S-high-B-1	Wood ash_high_S	THOMAS96	3	SU	pH	5.07	NA	T1
155-03-S-high-C-1	Wood ash_high_S	THOMAS96	3	SU	pH	5.27	NA	T1
156-03-S-high-D-1	Wood ash_high_S	THOMAS96	3	SU	pH	5.18	NA	T1
157-04-S-high-A-1	Biochar_high_S	THOMAS96	4	SU	pH	5.34	NA	T1
158-04-S-high-B-1	Biochar_high_S	THOMAS96	4	SU	pH	5.46	NA	T1
159-04-S-high-C-1	Biochar_high_S	THOMAS96	4	SU	pH	5.45	NA	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
160-04-S-high-D-1	Biochar_high_S	THOMAS96	4	SU	pH	5.37	NA	T1
161-05-S-high-A-1	Compost_high_S	THOMAS96	4	SU	pH	5.33	NA	T1
162-05-S-high-B-1	Compost_high_S	THOMAS96	4	SU	pH	4.99	NA	T1
163-05-S-high-C-1	Compost_high_S	THOMAS96	4	SU	pH	4.79	NA	T1
164-05-S-high-D-1	Compost_high_S	THOMAS96	4	SU	pH	4.80	NA	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	THOMAS96	4	SU	pH	4.98	NA	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	THOMAS96	4	SU	pH	5.18	NA	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	THOMAS96	4	SU	pH	4.96	NA	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	THOMAS96	4	SU	pH	5.06	NA	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	THOMAS96	4	SU	pH	4.66	NA	T1
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	THOMAS96	4	SU	pH	4.65	NA	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	THOMAS96	4	SU	pH	4.56	NA	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	THOMAS96	4	SU	pH	4.68	NA	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	THOMAS96	4	SU	pH	4.62	NA	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	THOMAS96	4	SU	pH	4.59	NA	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	THOMAS96	4	SU	pH	4.59	NA	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	THOMAS96	4	SU	pH	4.61	NA	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	THOMAS96	5	SU	pH	5.37	NA	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	THOMAS96	5	SU	pH	5.13	NA	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	THOMAS96	5	SU	pH	5.31	NA	T1
180-09-S-high-D-1	Biosolids and wood ash_high_S	THOMAS96	5	SU	pH	5.27	NA	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	THOMAS96	5	SU	pH	5.40	NA	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	THOMAS96	5	SU	pH	5.52	NA	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	THOMAS96	5	SU	pH	5.20	NA	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	THOMAS96	5	SU	pH	5.30	NA	T1
185-11-S-high-A-1	Wood ash and compost_high_S	THOMAS96	5	SU	pH	4.41	NA	T1
186-11-S-high-B-1	Wood ash and compost_high_S	THOMAS96	5	SU	pH	4.55	NA	T1
187-11-S-high-C-1	Wood ash and compost_high_S	THOMAS96	5	SU	pH	4.59	NA	T1
188-11-S-high-D-1	Wood ash and compost_high_S	THOMAS96	5	SU	pH	4.58	NA	T1
189-12-S-high-A-1	Biochar and compost_high_S	THOMAS96	5	SU	pH	4.40	NA	T1



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
190-12-S-high-B-1	Biochar and compost_high_S	THOMAS96	5	SU	pH	4.60	NA	T1
191-12-S-high-C-1	Biochar and compost_high_S	THOMAS96	5	SU	pH	4.58	NA	T1
192-12-S-high-D-1	Biochar and compost_high_S	THOMAS96	5	SU	pH	4.58	NA	T1
289-01-I-low-A-1	Soluble phosphate_low_I	THOMAS96	5	SU	pH	4.29	NA	T1
290-01-I-low-B-1	Soluble phosphate_low_I	THOMAS96	5	SU	pH	4.20	NA	T1
291-01-I-low-C-1	Soluble phosphate_low_I	THOMAS96	5	SU	pH	4.23	NA	T1
292-01-I-low-D-1	Soluble phosphate_low_I	THOMAS96	6	SU	pH	4.41	NA	T1
293-02-I-low-A-1	Biosolid_low_I	THOMAS96	6	SU	pH	5.01	NA	T1
294-02-I-low-B-1	Biosolid_low_I	THOMAS96	6	SU	pH	4.90	NA	T1
295-02-I-low-C-1	Biosolid_low_I	THOMAS96	6	SU	pH	4.99	NA	T1
296-02-I-low-D-1	Biosolid_low_I	THOMAS96	6	SU	pH	5.00	NA	T1
297-03-I-low-A-1	Wood ash_low_I	THOMAS96	6	SU	pH	4.98	NA	T1
298-03-I-low-B-1	Wood ash_low_I	THOMAS96	6	SU	pH	4.93	NA	T1
299-03-I-low-C-1	Wood ash_low_I	THOMAS96	6	SU	pH	4.76	NA	T1
300-03-I-low-D-1	Wood ash_low_I	THOMAS96	6	SU	pH	5.01	NA	T1
301-04-I-low-A-1	Biochar_low_I	THOMAS96	6	SU	pH	4.64	NA	T1
302-04-I-low-B-1	Biochar_low_I	THOMAS96	6	SU	pH	4.73	NA	T1
303-04-I-low-C-1	Biochar_low_I	THOMAS96	6	SU	pH	4.74	NA	T1
304-04-I-low-D-1	Biochar_low_I	THOMAS96	6	SU	pH	4.70	NA	T1
305-05-I-low-A-1	Compost_low_I	THOMAS96	6	SU	pH	4.66	NA	T1
306-05-I-low-B-1	Compost_low_I	THOMAS96	6	SU	pH	4.77	NA	T1
307-05-I-low-C-1	Compost_low_I	THOMAS96	6	SU	pH	4.80	NA	T1
308-05-I-low-D-1	Compost_low_I	THOMAS96	6	SU	pH	4.71	NA	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	THOMAS96	6	SU	pH	4.94	NA	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	THOMAS96	6	SU	pH	5.01	NA	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	THOMAS96	7	SU	pH	4.96	NA	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	THOMAS96	7	SU	pH	5.06	NA	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	THOMAS96	7	SU	pH	4.46	NA	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	THOMAS96	7	SU	pH	4.42	NA	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	THOMAS96	7	SU	pH	4.48	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	THOMAS96	7	SU	pH	4.48	NA	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	THOMAS96	7	SU	pH	4.60	NA	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	THOMAS96	7	SU	pH	4.58	NA	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	THOMAS96	7	SU	pH	4.58	NA	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	THOMAS96	7	SU	pH	4.55	NA	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	THOMAS96	7	SU	pH	5.42	NA	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	THOMAS96	7	SU	pH	5.41	NA	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	THOMAS96	7	SU	pH	5.39	NA	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	THOMAS96	7	SU	pH	5.43	NA	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	THOMAS96	7	SU	pH	5.08	NA	T1
326-10-I-low-B-1	Wood ash and biochar_low_I	THOMAS96	7	SU	pH	5.09	NA	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	THOMAS96	7	SU	pH	5.02	NA	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	THOMAS96	7	SU	pH	5.08	NA	T1
329-11-I-low-A-1	Wood ash and compost_low_I	THOMAS96	7	SU	pH	5.08	NA	T1
330-11-I-low-B-1	Wood ash and compost_low_I	THOMAS96	8	SU	pH	5.01	NA	T1
331-11-I-low-C-1	Wood ash and compost_low_I	THOMAS96	8	SU	pH	4.92	NA	T1
332-11-I-low-D-1	Wood ash and compost_low_I	THOMAS96	8	SU	pH	5.04	NA	T1
333-12-I-low-A-1	Biochar and compost_low_I	THOMAS96	8	SU	pH	4.78	NA	T1
334-12-I-low-B-1	Biochar and compost_low_I	THOMAS96	8	SU	pH	4.79	NA	T1
335-12-I-low-C-1	Biochar and compost_low_I	THOMAS96	8	SU	pH	4.85	NA	T1
336-12-I-low-D-1	Biochar and compost_low_I	THOMAS96	8	SU	pH	4.84	NA	T1
337-01-I-high-A-1	Soluble phosphate_high_I	THOMAS96	8	SU	pH	4.42	NA	T1
338-01-I-high-B-1	Soluble phosphate_high_I	THOMAS96	8	SU	pH	4.32	NA	T1
339-01-I-high-C-1	Soluble phosphate_high_I	THOMAS96	8	SU	pH	4.34	NA	T1
340-01-I-high-D-1	Soluble phosphate_high_I	THOMAS96	8	SU	pH	4.35	NA	T1
341-02-I-high-A-1	Biosolid_high_I	THOMAS96	8	SU	pH	5.82	NA	T1
342-02-I-high-B-1	Biosolid_high_I	THOMAS96	8	SU	pH	5.77	NA	T1
343-02-I-high-C-1	Biosolid_high_I	THOMAS96	8	SU	pH	5.85	NA	T1
344-02-I-high-D-1	Biosolid_high_I	THOMAS96	8	SU	pH	5.80	NA	T1
345-03-I-high-A-1	Wood ash_high_I	THOMAS96	8	SU	pH	5.35	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
346-03-I-high-B-1	Wood ash_high_I	THOMAS96	8	SU	pH	5.56	NA	T1
347-03-I-high-C-1	Wood ash_high_I	THOMAS96	8	SU	pH	5.31	NA	T1
348-03-I-high-D-1	Wood ash_high_I	THOMAS96	8	SU	pH	5.43	NA	T1
349-04-I-high-A-1	Biochar_high_I	THOMAS96	9	SU	pH	4.64	NA	T1
350-04-I-high-B-1	Biochar_high_I	THOMAS96	9	SU	pH	4.62	NA	T1
351-04-I-high-C-1	Biochar_high_I	THOMAS96	9	SU	pH	4.68	NA	T1
352-04-I-high-D-1	Biochar_high_I	THOMAS96	9	SU	pH	4.83	NA	T1
353-05-I-high-A-1	Compost_high_I	THOMAS96	9	SU	pH	4.77	NA	T1
354-05-I-high-B-1	Compost_high_I	THOMAS96	9	SU	pH	4.94	NA	T1
355-05-I-high-C-1	Compost_high_I	THOMAS96	9	SU	pH	4.86	NA	T1
356-05-I-high-D-1	Compost_high_I	THOMAS96	9	SU	pH	4.91	NA	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	THOMAS96	9	SU	pH	5.64	NA	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	THOMAS96	9	SU	pH	5.64	NA	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	THOMAS96	9	SU	pH	5.58	NA	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	THOMAS96	9	SU	pH	5.80	NA	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	THOMAS96	9	SU	pH	4.56	NA	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	THOMAS96	9	SU	pH	4.56	NA	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	THOMAS96	9	SU	pH	4.62	NA	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	THOMAS96	9	SU	pH	4.61	NA	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	THOMAS96	9	SU	pH	4.72	NA	T1
366-08-I-high-B-1	Soluble phosphate and compost_high_I	THOMAS96	9	SU	pH	4.73	NA	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	THOMAS96	9	SU	pH	4.56	NA	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	THOMAS96	9	SU	pH	4.56	NA	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	THOMAS96	10	SU	pH	6.17	NA	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	THOMAS96	10	SU	pH	6.18	NA	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	THOMAS96	10	SU	pH	6.23	NA	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	THOMAS96	10	SU	pH	6.36	NA	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	THOMAS96	10	SU	pH	5.61	NA	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	THOMAS96	10	SU	pH	5.51	NA	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	THOMAS96	10	SU	pH	5.56	NA	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
376-10-I-high-D-1	Wood ash and biochar_high_I	THOMAS96	10	SU	pH	5.56	NA	T1
377-11-I-high-A-1	Wood ash and compost_high_I	THOMAS96	10	SU	pH	5.51	NA	T1
378-11-I-high-B-1	Wood ash and compost_high_I	THOMAS96	10	SU	pH	5.54	NA	T1
379-11-I-high-C-1	Wood ash and compost_high_I	THOMAS96	10	SU	pH	5.51	NA	T1
380-11-I-high-D-1	Wood ash and compost_high_I	THOMAS96	10	SU	pH	5.60	NA	T1
381-12-I-high-A-1	Biochar and compost_high_I	THOMAS96	10	SU	pH	4.98	NA	T1
382-12-I-high-B-1	Biochar and compost_high_I	THOMAS96	10	SU	pH	4.96	NA	T1
383-12-I-high-C-1	Biochar and compost_high_I	THOMAS96	10	SU	pH	4.98	NA	T1
384-12-I-high-D-1	Biochar and compost_high_I	THOMAS96	10	SU	pH	5.01	NA	T1
385-00-I-baseline-A-1	control_none_I	THOMAS96	10	SU	pH	4.54	NA	T1
386-00-I-baseline-B-1	control_none_I	THOMAS96	10	SU	pH	4.68	NA	T1
387-00-I-baseline-C-1	control_none_I	THOMAS96	10	SU	pH	4.67	NA	T1
388-00-I-baseline-D-1	control_none_I	THOMAS96	10	SU	pH	4.60	NA	T1
004-00-baseline-D-1	Baseline_baseline_NA	SM2510B	8	mS/cm	Conductivity	0.26	NA	T1
003-00-baseline-C-1	Baseline_baseline_NA	SM2510B	7	mS/cm	Conductivity	0.32	NA	T1
002-00-baseline-B-1	Baseline_baseline_NA	SM2510B	6	mS/cm	Conductivity	0.29	NA	T1
001-00-baseline-A-1	Baseline_baseline_NA	SM2510B	5	mS/cm	Conductivity	0.18	NA	T1
001-01-S-low-A-1	Soluble phosphate_low_S	SM2510B	1	mS/cm	Conductivity	2.10	NA	T1
002-01-S-low-B-1	Soluble phosphate_low_S	SM2510B	1	mS/cm	Conductivity	1.33	NA	T1
003-01-S-low-C-1	Soluble phosphate_low_S	SM2510B	1	mS/cm	Conductivity	1.04	NA	T1
004-01-S-low-D-1	Soluble phosphate_low_S	SM2510B	1	mS/cm	Conductivity	0.98	NA	T1
005-02-S-low-A-1	Biosolid_low_S	SM2510B	1	mS/cm	Conductivity	1.01	NA	T1
006-02-S-low-B-1	Biosolid_low_S	SM2510B	1	mS/cm	Conductivity	0.80	NA	T1
007-02-S-low-C-1	Biosolid_low_S	SM2510B	1	mS/cm	Conductivity	0.73	NA	T1
008-02-S-low-D-1	Biosolid_low_S	SM2510B	1	mS/cm	Conductivity	1.02	NA	T1
009-03-S-low-A-1	Wood ash_low_S	SM2510B	1	mS/cm	Conductivity	0.54	NA	T1
010-03-S-low-B-1	Wood ash_low_S	SM2510B	1	mS/cm	Conductivity	0.35	NA	T1
011-03-S-low-C-1	Wood ash_low_S	SM2510B	1	mS/cm	Conductivity	0.35	NA	T1
012-03-S-low-D-1	Wood ash_low_S	SM2510B	1	mS/cm	Conductivity	0.25	NA	T1
013-04-S-low-A-1	Biochar_low_S	SM2510B	1	mS/cm	Conductivity	0.24	NA	T1

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
014-04-S-low-B-1	Biochar_low_S	SM2510B	1	mS/cm	Conductivity	0.17	NA	T1
015-04-S-low-C-1	Biochar_low_S	SM2510B	1	mS/cm	Conductivity	0.20	NA	T1
016-04-S-low-D-1	Biochar_low_S	SM2510B	1	mS/cm	Conductivity	0.20	NA	T1
017-05-S-low-A-1	Compost_low_S	SM2510B	1	mS/cm	Conductivity	0.40	NA	T1
018-05-S-low-B-1	Compost_low_S	SM2510B	1	mS/cm	Conductivity	0.38	NA	T1
019-05-S-low-C-1	Compost_low_S	SM2510B	1	mS/cm	Conductivity	0.24	NA	T1
020-05-S-low-D-1	Compost_low_S	SM2510B	1	mS/cm	Conductivity	0.30	NA	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	SM2510B	2	mS/cm	Conductivity	0.46	NA	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	SM2510B	2	mS/cm	Conductivity	1.56	NA	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	SM2510B	2	mS/cm	Conductivity	1.89	NA	T1
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	SM2510B	2	mS/cm	Conductivity	1.67	NA	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	SM2510B	2	mS/cm	Conductivity	0.89	NA	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	SM2510B	2	mS/cm	Conductivity	0.66	NA	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	SM2510B	2	mS/cm	Conductivity	0.21	NA	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	SM2510B	2	mS/cm	Conductivity	0.90	NA	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	SM2510B	2	mS/cm	Conductivity	0.91	NA	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	SM2510B	2	mS/cm	Conductivity	0.84	NA	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	SM2510B	2	mS/cm	Conductivity	0.58	NA	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	SM2510B	2	mS/cm	Conductivity	0.82	NA	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	SM2510B	2	mS/cm	Conductivity	1.06	NA	T1
034-09-S-low-B-1	Biosolids and wood ash_low_S	SM2510B	2	mS/cm	Conductivity	0.90	NA	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	SM2510B	2	mS/cm	Conductivity	0.89	NA	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	SM2510B	2	mS/cm	Conductivity	1.15	NA	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	SM2510B	2	mS/cm	Conductivity	0.26	NA	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	SM2510B	2	mS/cm	Conductivity	0.37	NA	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	SM2510B	2	mS/cm	Conductivity	0.34	NA	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	SM2510B	2	mS/cm	Conductivity	0.32	NA	T1
041-11-S-low-A-1	Wood ash and compost_low_S	SM2510B	3	mS/cm	Conductivity	0.25	NA	T1
042-11-S-low-B-1	Wood ash and compost_low_S	SM2510B	3	mS/cm	Conductivity	0.35	NA	T1
043-11-S-low-C-1	Wood ash and compost_low_S	SM2510B	3	mS/cm	Conductivity	0.37	NA	T1

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
044-11-S-low-D-1	Wood ash and compost_low_S	SM2510B	3	mS/cm	Conductivity	0.39	NA	T1
045-12-S-low-A-1	Biochar and compost_low_S	SM2510B	3	mS/cm	Conductivity	0.20	NA	T1
046-12-S-low-B-1	Biochar and compost_low_S	SM2510B	3	mS/cm	Conductivity	1.58	NA	T1
047-12-S-low-C-1	Biochar and compost_low_S	SM2510B	3	mS/cm	Conductivity	1.36	NA	T1
048-12-S-low-D-1	Biochar and compost_low_S	SM2510B	3	mS/cm	Conductivity	1.23	NA	T1
145-01-S-high-A-1	Soluble phosphate_high_S	SM2510B	3	mS/cm	Conductivity	1.34	NA	T1
146-01-S-high-B-1	Soluble phosphate_high_S	SM2510B	3	mS/cm	Conductivity	0.26	NA	T1
147-01-S-high-C-1	Soluble phosphate_high_S	SM2510B	3	mS/cm	Conductivity	0.77	NA	T1
148-01-S-high-D-1	Soluble phosphate_high_S	SM2510B	3	mS/cm	Conductivity	0.77	NA	T1
149-02-S-high-A-1	Biosolid_high_S	SM2510B	3	mS/cm	Conductivity	0.81	NA	T1
150-02-S-high-B-1	Biosolid_high_S	SM2510B	3	mS/cm	Conductivity	0.73	NA	T1
151-02-S-high-C-1	Biosolid_high_S	SM2510B	3	mS/cm	Conductivity	0.94	NA	T1
152-02-S-high-D-1	Biosolid_high_S	SM2510B	3	mS/cm	Conductivity	1.89	NA	T1
153-03-S-high-A-1	Wood ash_high_S	SM2510B	3	mS/cm	Conductivity	3.17	NA	T1
154-03-S-high-B-1	Wood ash_high_S	SM2510B	3	mS/cm	Conductivity	2.66	NA	T1
155-03-S-high-C-1	Wood ash_high_S	SM2510B	3	mS/cm	Conductivity	2.56	NA	T1
156-03-S-high-D-1	Wood ash_high_S	SM2510B	3	mS/cm	Conductivity	1.34	NA	T1
157-04-S-high-A-1	Biochar_high_S	SM2510B	4	mS/cm	Conductivity	1.33	NA	T1
158-04-S-high-B-1	Biochar_high_S	SM2510B	4	mS/cm	Conductivity	1.58	NA	T1
159-04-S-high-C-1	Biochar_high_S	SM2510B	4	mS/cm	Conductivity	0.20	NA	T1
160-04-S-high-D-1	Biochar_high_S	SM2510B	4	mS/cm	Conductivity	0.39	NA	T1
161-05-S-high-A-1	Compost_high_S	SM2510B	4	mS/cm	Conductivity	0.37	NA	T1
162-05-S-high-B-1	Compost_high_S	SM2510B	4	mS/cm	Conductivity	0.35	NA	T1
163-05-S-high-C-1	Compost_high_S	SM2510B	4	mS/cm	Conductivity	0.64	NA	T1
164-05-S-high-D-1	Compost_high_S	SM2510B	4	mS/cm	Conductivity	0.52	NA	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	SM2510B	4	mS/cm	Conductivity	3.50	NA	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	SM2510B	4	mS/cm	Conductivity	3.37	NA	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	SM2510B	4	mS/cm	Conductivity	3.07	NA	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	SM2510B	4	mS/cm	Conductivity	2.35	NA	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	SM2510B	4	mS/cm	Conductivity	0.99	NA	T1



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	SM2510B	4	mS/cm	Conductivity	0.86	NA	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	SM2510B	4	mS/cm	Conductivity	0.76	NA	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	SM2510B	4	mS/cm	Conductivity	0.80	NA	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	SM2510B	4	mS/cm	Conductivity	1.50	NA	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	SM2510B	4	mS/cm	Conductivity	1.72	NA	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	SM2510B	4	mS/cm	Conductivity	1.77	NA	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	SM2510B	4	mS/cm	Conductivity	1.28	NA	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	SM2510B	5	mS/cm	Conductivity	2.97	NA	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	SM2510B	5	mS/cm	Conductivity	3.31	NA	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	SM2510B	5	mS/cm	Conductivity	2.95	NA	T1
180-09-S-high-D-1	Biosolids and wood ash_high_S	SM2510B	5	mS/cm	Conductivity	2.78	NA	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	SM2510B	5	mS/cm	Conductivity	0.61	NA	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	SM2510B	5	mS/cm	Conductivity	0.53	NA	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	SM2510B	5	mS/cm	Conductivity	0.50	NA	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	SM2510B	5	mS/cm	Conductivity	0.58	NA	T1
185-11-S-high-A-1	Wood ash and compost_high_S	SM2510B	5	mS/cm	Conductivity	0.58	NA	T1
186-11-S-high-B-1	Wood ash and compost_high_S	SM2510B	5	mS/cm	Conductivity	0.38	NA	T1
187-11-S-high-C-1	Wood ash and compost_high_S	SM2510B	5	mS/cm	Conductivity	0.13	NA	T1
188-11-S-high-D-1	Wood ash and compost_high_S	SM2510B	5	mS/cm	Conductivity	0.83	NA	T1
189-12-S-high-A-1	Biochar and compost_high_S	SM2510B	5	mS/cm	Conductivity	0.45	NA	T1
190-12-S-high-B-1	Biochar and compost_high_S	SM2510B	5	mS/cm	Conductivity	0.40	NA	T1
191-12-S-high-C-1	Biochar and compost_high_S	SM2510B	5	mS/cm	Conductivity	0.59	NA	T1
192-12-S-high-D-1	Biochar and compost_high_S	SM2510B	5	mS/cm	Conductivity	0.50	NA	T1
289-01-I-low-A-1	Soluble phosphate_low_I	SM2510B	5	mS/cm	Conductivity	0.02	NA	T1
290-01-I-low-B-1	Soluble phosphate_low_I	SM2510B	5	mS/cm	Conductivity	1.11	NA	T1
291-01-I-low-C-1	Soluble phosphate_low_I	SM2510B	5	mS/cm	Conductivity	0.44	NA	T1
292-01-I-low-D-1	Soluble phosphate_low_I	SM2510B	6	mS/cm	Conductivity	1.10	NA	T1
293-02-I-low-A-1	Biosolid_low_I	SM2510B	6	mS/cm	Conductivity	0.59	NA	T1
294-02-I-low-B-1	Biosolid_low_I	SM2510B	6	mS/cm	Conductivity	1.73	NA	T1
295-02-I-low-C-1	Biosolid_low_I	SM2510B	6	mS/cm	Conductivity	1.81	NA	T1

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
296-02-I-low-D-1	Biosolid_low_I	SM2510B	6	mS/cm	Conductivity	1.65	NA	T1
297-03-I-low-A-1	Wood ash_low_I	SM2510B	6	mS/cm	Conductivity	0.65	NA	T1
298-03-I-low-B-1	Wood ash_low_I	SM2510B	6	mS/cm	Conductivity	0.60	NA	T1
299-03-I-low-C-1	Wood ash_low_I	SM2510B	6	mS/cm	Conductivity	0.83	NA	T1
300-03-I-low-D-1	Wood ash_low_I	SM2510B	6	mS/cm	Conductivity	0.75	NA	T1
301-04-I-low-A-1	Biochar_low_I	SM2510B	6	mS/cm	Conductivity	0.42	NA	T1
302-04-I-low-B-1	Biochar_low_I	SM2510B	6	mS/cm	Conductivity	0.43	NA	T1
303-04-I-low-C-1	Biochar_low_I	SM2510B	6	mS/cm	Conductivity	0.39	NA	T1
304-04-I-low-D-1	Biochar_low_I	SM2510B	6	mS/cm	Conductivity	0.47	NA	T1
305-05-I-low-A-1	Compost_low_I	SM2510B	6	mS/cm	Conductivity	0.83	NA	T1
306-05-I-low-B-1	Compost_low_I	SM2510B	6	mS/cm	Conductivity	0.71	NA	T1
307-05-I-low-C-1	Compost_low_I	SM2510B	6	mS/cm	Conductivity	0.24	NA	T1
308-05-I-low-D-1	Compost_low_I	SM2510B	6	mS/cm	Conductivity	0.64	NA	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	SM2510B	6	mS/cm	Conductivity	3.18	NA	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	SM2510B	6	mS/cm	Conductivity	1.52	NA	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	SM2510B	7	mS/cm	Conductivity	1.98	NA	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	SM2510B	7	mS/cm	Conductivity	2.90	NA	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	SM2510B	7	mS/cm	Conductivity	1.78	NA	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	SM2510B	7	mS/cm	Conductivity	1.96	NA	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	SM2510B	7	mS/cm	Conductivity	1.65	NA	T1
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	SM2510B	7	mS/cm	Conductivity	1.44	NA	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	SM2510B	7	mS/cm	Conductivity	1.57	NA	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	SM2510B	7	mS/cm	Conductivity	1.43	NA	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	SM2510B	7	mS/cm	Conductivity	1.61	NA	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	SM2510B	7	mS/cm	Conductivity	1.58	NA	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	SM2510B	7	mS/cm	Conductivity	2.21	NA	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	SM2510B	7	mS/cm	Conductivity	1.55	NA	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	SM2510B	7	mS/cm	Conductivity	2.23	NA	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	SM2510B	7	mS/cm	Conductivity	1.53	NA	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	SM2510B	7	mS/cm	Conductivity	0.56	NA	T1



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
326-10-I-low-B-1	Wood ash and biochar_low_I	SM2510B	7	mS/cm	Conductivity	0.63	NA	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	SM2510B	7	mS/cm	Conductivity	0.72	NA	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	SM2510B	7	mS/cm	Conductivity	0.62	NA	T1
329-11-I-low-A-1	Wood ash and compost_low_I	SM2510B	7	mS/cm	Conductivity	1.17	NA	T1
330-11-I-low-B-1	Wood ash and compost_low_I	SM2510B	8	mS/cm	Conductivity	0.97	NA	T1
331-11-I-low-C-1	Wood ash and compost_low_I	SM2510B	8	mS/cm	Conductivity	0.91	NA	T1
332-11-I-low-D-1	Wood ash and compost_low_I	SM2510B	8	mS/cm	Conductivity	0.77	NA	T1
333-12-I-low-A-1	Biochar and compost_low_I	SM2510B	8	mS/cm	Conductivity	0.70	NA	T1
334-12-I-low-B-1	Biochar and compost_low_I	SM2510B	8	mS/cm	Conductivity	0.48	NA	T1
335-12-I-low-C-1	Biochar and compost_low_I	SM2510B	8	mS/cm	Conductivity	0.29	NA	T1
336-12-I-low-D-1	Biochar and compost_low_I	SM2510B	8	mS/cm	Conductivity	0.48	NA	T1
337-01-I-high-A-1	Soluble phosphate_high_I	SM2510B	8	mS/cm	Conductivity	1.41	NA	T1
338-01-I-high-B-1	Soluble phosphate_high_I	SM2510B	8	mS/cm	Conductivity	1.56	NA	T1
339-01-I-high-C-1	Soluble phosphate_high_I	SM2510B	8	mS/cm	Conductivity	2.12	NA	T1
340-01-I-high-D-1	Soluble phosphate_high_I	SM2510B	8	mS/cm	Conductivity	2.19	NA	T1
341-02-I-high-A-1	Biosolid_high_I	SM2510B	8	mS/cm	Conductivity	4.02	NA	T1
342-02-I-high-B-1	Biosolid_high_I	SM2510B	8	mS/cm	Conductivity	5.35	NA	T1
343-02-I-high-C-1	Biosolid_high_I	SM2510B	8	mS/cm	Conductivity	3.27	NA	T1
344-02-I-high-D-1	Biosolid_high_I	SM2510B	8	mS/cm	Conductivity	2.01	NA	T1
345-03-I-high-A-1	Wood ash_high_I	SM2510B	8	mS/cm	Conductivity	0.92	NA	T1
346-03-I-high-B-1	Wood ash_high_I	SM2510B	8	mS/cm	Conductivity	0.89	NA	T1
347-03-I-high-C-1	Wood ash_high_I	SM2510B	8	mS/cm	Conductivity	1.16	NA	T1
348-03-I-high-D-1	Wood ash_high_I	SM2510B	8	mS/cm	Conductivity	0.29	NA	T1
349-04-I-high-A-1	Biochar_high_I	SM2510B	9	mS/cm	Conductivity	0.50	NA	T1
350-04-I-high-B-1	Biochar_high_I	SM2510B	9	mS/cm	Conductivity	0.50	NA	T1
351-04-I-high-C-1	Biochar_high_I	SM2510B	9	mS/cm	Conductivity	0.47	NA	T1
352-04-I-high-D-1	Biochar_high_I	SM2510B	9	mS/cm	Conductivity	0.38	NA	T1
353-05-I-high-A-1	Compost_high_I	SM2510B	9	mS/cm	Conductivity	1.04	NA	T1
354-05-I-high-B-1	Compost_high_I	SM2510B	9	mS/cm	Conductivity	0.88	NA	T1
355-05-I-high-C-1	Compost_high_I	SM2510B	9	mS/cm	Conductivity	0.76	NA	T1



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
356-05-I-high-D-1	Compost_high_I	SM2510B	9	mS/cm	Conductivity	0.68	NA	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	SM2510B	9	mS/cm	Conductivity	3.88	NA	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	SM2510B	9	mS/cm	Conductivity	2.53	NA	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	SM2510B	9	mS/cm	Conductivity	4.01	NA	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	SM2510B	9	mS/cm	Conductivity	5.42	NA	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	SM2510B	9	mS/cm	Conductivity	1.46	NA	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	SM2510B	9	mS/cm	Conductivity	2.10	NA	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	SM2510B	9	mS/cm	Conductivity	0.83	NA	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	SM2510B	9	mS/cm	Conductivity	2.30	NA	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	SM2510B	9	mS/cm	Conductivity	0.96	NA	T1
366-08-I-high-B-1	Soluble phosphate and compost_high_I	SM2510B	9	mS/cm	Conductivity	1.14	NA	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	SM2510B	9	mS/cm	Conductivity	2.67	NA	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	SM2510B	9	mS/cm	Conductivity	1.42	NA	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	SM2510B	10	mS/cm	Conductivity	1.66	NA	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	SM2510B	10	mS/cm	Conductivity	2.26	NA	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	SM2510B	10	mS/cm	Conductivity	5.68	NA	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	SM2510B	10	mS/cm	Conductivity	1.93	NA	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	SM2510B	10	mS/cm	Conductivity	1.35	NA	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	SM2510B	10	mS/cm	Conductivity	0.48	NA	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	SM2510B	10	mS/cm	Conductivity	0.44	NA	T1
376-10-I-high-D-1	Wood ash and biochar_high_I	SM2510B	10	mS/cm	Conductivity	0.28	NA	T1
377-11-I-high-A-1	Wood ash and compost_high_I	SM2510B	10	mS/cm	Conductivity	0.52	NA	T1
378-11-I-high-B-1	Wood ash and compost_high_I	SM2510B	10	mS/cm	Conductivity	1.77	NA	T1
379-11-I-high-C-1	Wood ash and compost_high_I	SM2510B	10	mS/cm	Conductivity	2.54	NA	T1
380-11-I-high-D-1	Wood ash and compost_high_I	SM2510B	10	mS/cm	Conductivity	0.80	NA	T1
381-12-I-high-A-1	Biochar and compost_high_I	SM2510B	10	mS/cm	Conductivity	0.62	NA	T1
382-12-I-high-B-1	Biochar and compost_high_I	SM2510B	10	mS/cm	Conductivity	1.55	NA	T1
383-12-I-high-C-1	Biochar and compost_high_I	SM2510B	10	mS/cm	Conductivity	0.41	NA	T1
384-12-I-high-D-1	Biochar and compost_high_I	SM2510B	10	mS/cm	Conductivity	0.53	NA	T1
385-00-I-baseline-A-1	control_none_I	SM2510B	10	mS/cm	Conductivity	0.49	NA	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
386-00-I-baseline-B-1	control_none_I	SM2510B	10	mS/cm	Conductivity	0.45	NA	T1
387-00-I-baseline-C-1	control_none_I	SM2510B	10	mS/cm	Conductivity	0.12	NA	T1
388-00-I-baseline-D-1	control_none_I	SM2510B	10	mS/cm	Conductivity	0.43	NA	T1
004-00-baseline-D-1	Baseline_baseline_NA	NELSON82	4b	%	Carbon_total	10.97	NA	T1
003-00-baseline-C-1	Baseline_baseline_NA	NELSON82	4b	%	Carbon_total	6.97	NA	T1
002-00-baseline-B-1	Baseline_baseline_NA	NELSON82	4b	%	Carbon_total	7.42	NA	T1
001-00-baseline-A-1	Baseline_baseline_NA	NELSON82	4b	%	Carbon_total	6.62	NA	T1
001-01-S-low-A-1	Soluble phosphate_low_S	NELSON82	1	%	Carbon_total	8.32	NA	T1
002-01-S-low-B-1	Soluble phosphate_low_S	NELSON82	1	%	Carbon_total	10.61	NA	T1
003-01-S-low-C-1	Soluble phosphate_low_S	NELSON82	1	%	Carbon_total	11.85	NA	T1
004-01-S-low-D-1	Soluble phosphate_low_S	NELSON82	1	%	Carbon_total	7.78	NA	T1
005-02-S-low-A-1	Biosolid_low_S	NELSON82	1	%	Carbon_total	11.60	NA	T1
006-02-S-low-B-1	Biosolid_low_S	NELSON82	1	%	Carbon_total	6.34	NA	T1
007-02-S-low-C-1	Biosolid_low_S	NELSON82	1	%	Carbon_total	6.70	NA	T1
008-02-S-low-D-1	Biosolid_low_S	NELSON82	1	%	Carbon_total	14.73	NA	T1
009-03-S-low-A-1	Wood ash_low_S	NELSON82	1	%	Carbon_total	7.78	NA	T1
010-03-S-low-B-1	Wood ash_low_S	NELSON82	1	%	Carbon_total	5.77	NA	T1
011-03-S-low-C-1	Wood ash_low_S	NELSON82	1	%	Carbon_total	7.40	NA	T1
012-03-S-low-D-1	Wood ash_low_S	NELSON82	1	%	Carbon_total	6.91	NA	T1
013-04-S-low-A-1	Biochar_low_S	NELSON82	1	%	Carbon_total	12.15	NA	T1
014-04-S-low-B-1	Biochar_low_S	NELSON82	1	%	Carbon_total	7.32	NA	T1
015-04-S-low-C-1	Biochar_low_S	NELSON82	1	%	Carbon_total	6.13	NA	T1
016-04-S-low-D-1	Biochar_low_S	NELSON82	1	%	Carbon_total	7.14	NA	T1
017-05-S-low-A-1	Compost_low_S	NELSON82	1	%	Carbon_total	7.67	NA	T1
018-05-S-low-B-1	Compost_low_S	NELSON82	1	%	Carbon_total	10.90	NA	T1
019-05-S-low-C-1	Compost_low_S	NELSON82	1	%	Carbon_total	8.31	NA	T1
020-05-S-low-D-1	Compost_low_S	NELSON82	1	%	Carbon_total	5.57	NA	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	NELSON82	1	%	Carbon_total	7.33	NA	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	NELSON82	1	%	Carbon_total	7.68	NA	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	NELSON82	1	%	Carbon_total	6.99	NA	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	NELSON82	1	%	Carbon_total	5.50	NA	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	NELSON82	1	%	Carbon_total	5.46	NA	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	NELSON82	1	%	Carbon_total	7.25	NA	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	NELSON82	1	%	Carbon_total	7.54	NA	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	NELSON82	1	%	Carbon_total	7.93	NA	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	NELSON82	1	%	Carbon_total	5.63	NA	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	NELSON82	1	%	Carbon_total	5.60	NA	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	NELSON82	4	%	Carbon_total	8.55	NA	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	NELSON82	4	%	Carbon_total	6.76	NA	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	NELSON82	4	%	Carbon_total	7.20	NA	T1
034-09-S-low-B-1	Biosolids and wood ash_low_S	NELSON82	4	%	Carbon_total	10.01	NA	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	NELSON82	4	%	Carbon_total	7.36	NA	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	NELSON82	4	%	Carbon_total	7.75	NA	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	NELSON82	4	%	Carbon_total	8.38	NA	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	NELSON82	4	%	Carbon_total	9.68	NA	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	NELSON82	4	%	Carbon_total	5.68	NA	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	NELSON82	4	%	Carbon_total	6.87	NA	T1
041-11-S-low-A-1	Wood ash and compost_low_S	NELSON82	4	%	Carbon_total	8.45	NA	T1
042-11-S-low-B-1	Wood ash and compost_low_S	NELSON82	4	%	Carbon_total	10.11	NA	T1
043-11-S-low-C-1	Wood ash and compost_low_S	NELSON82	4	%	Carbon_total	9.75	NA	T1
044-11-S-low-D-1	Wood ash and compost_low_S	NELSON82	4	%	Carbon_total	5.06	NA	T1
045-12-S-low-A-1	Biochar and compost_low_S	NELSON82	4	%	Carbon_total	6.73	NA	T1
046-12-S-low-B-1	Biochar and compost_low_S	NELSON82	4	%	Carbon_total	4.98	NA	T1
047-12-S-low-C-1	Biochar and compost_low_S	NELSON82	4	%	Carbon_total	8.52	NA	T1
048-12-S-low-D-1	Biochar and compost_low_S	NELSON82	4	%	Carbon_total	8.48	NA	T1
145-01-S-high-A-1	Soluble phosphate_high_S	NELSON82	4	%	Carbon_total	7.21	NA	T1
146-01-S-high-B-1	Soluble phosphate_high_S	NELSON82	4	%	Carbon_total	6.33	NA	T1
147-01-S-high-C-1	Soluble phosphate_high_S	NELSON82	1	%	Carbon_total	7.15	NA	T1
148-01-S-high-D-1	Soluble phosphate_high_S	NELSON82	1	%	Carbon_total	7.02	NA	T1
149-02-S-high-A-1	Biosolid_high_S	NELSON82	1	%	Carbon_total	7.16	NA	T1



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
150-02-S-high-B-1	Biosolid_high_S	NELSON82	1	%	Carbon_total	5.06	NA	T1
151-02-S-high-C-1	Biosolid_high_S	NELSON82	1	%	Carbon_total	5.52	NA	T1
152-02-S-high-D-1	Biosolid_high_S	NELSON82	1	%	Carbon_total	6.21	NA	T1
153-03-S-high-A-1	Wood ash_high_S	NELSON82	1	%	Carbon_total	6.08	NA	T1
154-03-S-high-B-1	Wood ash_high_S	NELSON82	1	%	Carbon_total	5.54	NA	T1
155-03-S-high-C-1	Wood ash_high_S	NELSON82	1	%	Carbon_total	7.96	NA	T1
156-03-S-high-D-1	Wood ash_high_S	NELSON82	1	%	Carbon_total	11.65	NA	T1
157-04-S-high-A-1	Biochar_high_S	NELSON82	1	%	Carbon_total	6.70	NA	T1
158-04-S-high-B-1	Biochar_high_S	NELSON82	1	%	Carbon_total	5.16	NA	T1
159-04-S-high-C-1	Biochar_high_S	NELSON82	1	%	Carbon_total	7.09	NA	T1
160-04-S-high-D-1	Biochar_high_S	NELSON82	1	%	Carbon_total	6.34	NA	T1
161-05-S-high-A-1	Compost_high_S	NELSON82	1	%	Carbon_total	4.90	NA	T1
162-05-S-high-B-1	Compost_high_S	NELSON82	1	%	Carbon_total	6.47	NA	T1
163-05-S-high-C-1	Compost_high_S	NELSON82	1	%	Carbon_total	6.61	NA	T1
164-05-S-high-D-1	Compost_high_S	NELSON82	1	%	Carbon_total	7.15	NA	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	NELSON82	1	%	Carbon_total	7.34	NA	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	NELSON82	1	%	Carbon_total	8.54	NA	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	NELSON82	1	%	Carbon_total	6.02	NA	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	NELSON82	1	%	Carbon_total	5.93	NA	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	NELSON82	1	%	Carbon_total	6.47	NA	T1
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	NELSON82	1	%	Carbon_total	6.84	NA	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	NELSON82	1	%	Carbon_total	7.98	NA	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	NELSON82	1	%	Carbon_total	9.08	NA	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	NELSON82	1	%	Carbon_total	10.90	NA	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	NELSON82	1	%	Carbon_total	11.66	NA	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	NELSON82	1	%	Carbon_total	8.34	NA	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	NELSON82	1	%	Carbon_total	10.24	NA	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	NELSON82	1	%	Carbon_total	5.83	NA	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	NELSON82	1	%	Carbon_total	6.63	NA	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	NELSON82	1	%	Carbon_total	9.28	NA	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
180-09-S-high-D-1	Biosolids and wood ash_high_S	NELSON82	1	%	Carbon_total	9.04	NA	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	NELSON82	1	%	Carbon_total	7.34	NA	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	NELSON82	1	%	Carbon_total	5.34	NA	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	NELSON82	1	%	Carbon_total	12.59	NA	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	NELSON82	1	%	Carbon_total	4.40	NA	T1
185-11-S-high-A-1	Wood ash and compost_high_S	NELSON82	1	%	Carbon_total	7.03	NA	T1
186-11-S-high-B-1	Wood ash and compost_high_S	NELSON82	1	%	Carbon_total	5.04	NA	T1
187-11-S-high-C-1	Wood ash and compost_high_S	NELSON82	1	%	Carbon_total	6.95	NA	T1
188-11-S-high-D-1	Wood ash and compost_high_S	NELSON82	1	%	Carbon_total	5.86	NA	T1
189-12-S-high-A-1	Biochar and compost_high_S	NELSON82	1	%	Carbon_total	5.29	NA	T1
190-12-S-high-B-1	Biochar and compost_high_S	NELSON82	1	%	Carbon_total	6.87	NA	T1
191-12-S-high-C-1	Biochar and compost_high_S	NELSON82	1	%	Carbon_total	5.14	NA	T1
192-12-S-high-D-1	Biochar and compost_high_S	NELSON82	1	%	Carbon_total	9.79	NA	T1
289-01-I-low-A-1	Soluble phosphate_low_I	NELSON82	2	%	Carbon_total	4.79	NA	T1
290-01-I-low-B-1	Soluble phosphate_low_I	NELSON82	2	%	Carbon_total	8.08	NA	T1
291-01-I-low-C-1	Soluble phosphate_low_I	NELSON82	2	%	Carbon_total	5.33	NA	T1
292-01-I-low-D-1	Soluble phosphate_low_I	NELSON82	2	%	Carbon_total	7.61	NA	T1
293-02-I-low-A-1	Biosolid_low_I	NELSON82	2	%	Carbon_total	6.02	NA	T1
294-02-I-low-B-1	Biosolid_low_I	NELSON82	2	%	Carbon_total	12.22	NA	T1
295-02-I-low-C-1	Biosolid_low_I	NELSON82	2	%	Carbon_total	11.03	NA	T1
296-02-I-low-D-1	Biosolid_low_I	NELSON82	2	%	Carbon_total	6.75	NA	T1
297-03-I-low-A-1	Wood ash_low_I	NELSON82	2	%	Carbon_total	5.45	NA	T1
298-03-I-low-B-1	Wood ash_low_I	NELSON82	2	%	Carbon_total	8.16	NA	T1
299-03-I-low-C-1	Wood ash_low_I	NELSON82	2	%	Carbon_total	8.59	NA	T1
300-03-I-low-D-1	Wood ash_low_I	NELSON82	2	%	Carbon_total	6.71	NA	T1
301-04-I-low-A-1	Biochar_low_I	NELSON82	2	%	Carbon_total	11.95	NA	T1
302-04-I-low-B-1	Biochar_low_I	NELSON82	2	%	Carbon_total	10.31	NA	T1
303-04-I-low-C-1	Biochar_low_I	NELSON82	2	%	Carbon_total	10.59	NA	T1
304-04-I-low-D-1	Biochar_low_I	NELSON82	2	%	Carbon_total	10.05	NA	T1
305-05-I-low-A-1	Compost_low_I	NELSON82	2	%	Carbon_total	11.21	NA	T1



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
306-05-I-low-B-1	Compost_low_I	NELSON82	2	%	Carbon_total	14.28	NA	T1
307-05-I-low-C-1	Compost_low_I	NELSON82	2	%	Carbon_total	9.56	NA	T1
308-05-I-low-D-1	Compost_low_I	NELSON82	2	%	Carbon_total	18.97	NA	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	NELSON82	2	%	Carbon_total	8.15	NA	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	NELSON82	2	%	Carbon_total	6.33	NA	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	NELSON82	2	%	Carbon_total	8.55	NA	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	NELSON82	2	%	Carbon_total	6.44	NA	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	NELSON82	2	%	Carbon_total	5.82	NA	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	NELSON82	2	%	Carbon_total	5.58	NA	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	NELSON82	2	%	Carbon_total	4.08	NA	T1
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	NELSON82	2	%	Carbon_total	9.13	NA	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	NELSON82	2	%	Carbon_total	5.11	NA	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	NELSON82	2	%	Carbon_total	5.29	NA	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	NELSON82	2	%	Carbon_total	9.12	NA	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	NELSON82	2	%	Carbon_total	8.43	NA	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	NELSON82	2	%	Carbon_total	9.78	NA	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	NELSON82	2	%	Carbon_total	7.67	NA	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	NELSON82	2	%	Carbon_total	6.24	NA	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	NELSON82	2	%	Carbon_total	5.74	NA	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	NELSON82	2	%	Carbon_total	4.41	NA	T1
326-10-I-low-B-1	Wood ash and biochar_low_I	NELSON82	2	%	Carbon_total	7.85	NA	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	NELSON82	2	%	Carbon_total	6.13	NA	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	NELSON82	2	%	Carbon_total	5.68	NA	T1
329-11-I-low-A-1	Wood ash and compost_low_I	NELSON82	2	%	Carbon_total	5.94	NA	T1
330-11-I-low-B-1	Wood ash and compost_low_I	NELSON82	2	%	Carbon_total	6.15	NA	T1
331-11-I-low-C-1	Wood ash and compost_low_I	NELSON82	2	%	Carbon_total	3.15	NA	T1
332-11-I-low-D-1	Wood ash and compost_low_I	NELSON82	2	%	Carbon_total	6.85	NA	T1
333-12-I-low-A-1	Biochar and compost_low_I	NELSON82	2	%	Carbon_total	6.28	NA	T1
334-12-I-low-B-1	Biochar and compost_low_I	NELSON82	2	%	Carbon_total	5.04	NA	T1
335-12-I-low-C-1	Biochar and compost_low_I	NELSON82	2	%	Carbon_total	6.49	NA	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
336-12-I-low-D-1	Biochar and compost_low_I	NELSON82	2	%	Carbon_total	5.17	NA	T1
337-01-I-high-A-1	Soluble phosphate_high_I	NELSON82	2	%	Carbon_total	4.50	NA	T1
338-01-I-high-B-1	Soluble phosphate_high_I	NELSON82	2	%	Carbon_total	7.20	NA	T1
339-01-I-high-C-1	Soluble phosphate_high_I	NELSON82	2	%	Carbon_total	8.87	NA	T1
340-01-I-high-D-1	Soluble phosphate_high_I	NELSON82	2	%	Carbon_total	6.00	NA	T1
341-02-I-high-A-1	Biosolid_high_I	NELSON82	2	%	Carbon_total	7.67	NA	T1
342-02-I-high-B-1	Biosolid_high_I	NELSON82	2	%	Carbon_total	10.46	NA	T1
343-02-I-high-C-1	Biosolid_high_I	NELSON82	2	%	Carbon_total	11.08	NA	T1
344-02-I-high-D-1	Biosolid_high_I	NELSON82	2	%	Carbon_total	12.07	NA	T1
345-03-I-high-A-1	Wood ash_high_I	NELSON82	2	%	Carbon_total	7.05	NA	T1
346-03-I-high-B-1	Wood ash_high_I	NELSON82	2	%	Carbon_total	7.21	NA	T1
347-03-I-high-C-1	Wood ash_high_I	NELSON82	2	%	Carbon_total	5.40	NA	T1
348-03-I-high-D-1	Wood ash_high_I	NELSON82	2	%	Carbon_total	5.96	NA	T1
349-04-I-high-A-1	Biochar_high_I	NELSON82	2	%	Carbon_total	6.54	NA	T1
350-04-I-high-B-1	Biochar_high_I	NELSON82	2	%	Carbon_total	5.66	NA	T1
351-04-I-high-C-1	Biochar_high_I	NELSON82	2	%	Carbon_total	4.99	NA	T1
352-04-I-high-D-1	Biochar_high_I	NELSON82	2	%	Carbon_total	6.12	NA	T1
353-05-I-high-A-1	Compost_high_I	NELSON82	2	%	Carbon_total	6.38	NA	T1
354-05-I-high-B-1	Compost_high_I	NELSON82	2	%	Carbon_total	6.73	NA	T1
355-05-I-high-C-1	Compost_high_I	NELSON82	2	%	Carbon_total	8.77	NA	T1
356-05-I-high-D-1	Compost_high_I	NELSON82	2	%	Carbon_total	6.47	NA	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	NELSON82	2	%	Carbon_total	12.34	NA	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	NELSON82	2	%	Carbon_total	11.08	NA	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	NELSON82	2	%	Carbon_total	10.80	NA	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	NELSON82	2	%	Carbon_total	7.65	NA	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	NELSON82	2	%	Carbon_total	5.20	NA	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	NELSON82	2	%	Carbon_total	5.09	NA	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	NELSON82	2	%	Carbon_total	6.52	NA	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	NELSON82	2	%	Carbon_total	5.56	NA	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	NELSON82	2	%	Carbon_total	6.02	NA	T1

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
366-08-I-high-B-1	Soluble phosphate and compost_high_I	NELSON82	2	%	Carbon_total	7.61	NA	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	NELSON82	2	%	Carbon_total	5.92	NA	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	NELSON82	2	%	Carbon_total	9.28	NA	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	NELSON82	2	%	Carbon_total	6.64	NA	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	NELSON82	2	%	Carbon_total	7.49	NA	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	NELSON82	2	%	Carbon_total	13.06	NA	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	NELSON82	2	%	Carbon_total	12.39	NA	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	NELSON82	2	%	Carbon_total	5.44	NA	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	NELSON82	2	%	Carbon_total	8.16	NA	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	NELSON82	2	%	Carbon_total	9.20	NA	T1
376-10-I-high-D-1	Wood ash and biochar_high_I	NELSON82	2	%	Carbon_total	5.36	NA	T1
377-11-I-high-A-1	Wood ash and compost_high_I	NELSON82	2	%	Carbon_total	6.83	NA	T1
378-11-I-high-B-1	Wood ash and compost_high_I	NELSON82	2	%	Carbon_total	5.38	NA	T1
379-11-I-high-C-1	Wood ash and compost_high_I	NELSON82	2	%	Carbon_total	6.78	NA	T1
380-11-I-high-D-1	Wood ash and compost_high_I	NELSON82	2	%	Carbon_total	6.13	NA	T1
381-12-I-high-A-1	Biochar and compost_high_I	NELSON82	3	%	Carbon_total	7.64	NA	T1
382-12-I-high-B-1	Biochar and compost_high_I	NELSON82	3	%	Carbon_total	7.26	NA	T1
383-12-I-high-C-1	Biochar and compost_high_I	NELSON82	3	%	Carbon_total	8.16	NA	T1
384-12-I-high-D-1	Biochar and compost_high_I	NELSON82	3	%	Carbon_total	5.35	NA	T1
385-00-I-baseline-A-1	control_none_I	NELSON82	3	%	Carbon_total	4.09	NA	T1
386-00-I-baseline-B-1	control_none_I	NELSON82	3	%	Carbon_total	5.80	NA	T1
387-00-I-baseline-C-1	control_none_I	NELSON82	3	%	Carbon_total	5.58	NA	T1
388-00-I-baseline-D-1	control_none_I	NELSON82	3	%	Carbon_total	5.46	NA	T1
004-00-baseline-D-1	Baseline_baseline_NA	HEANES84	7	%	Carbon_org	6.79	NA	T1
003-00-baseline-C-1	Baseline_baseline_NA	HEANES84	6	%	Carbon_org	6.48	NA	T1
002-00-baseline-B-1	Baseline_baseline_NA	HEANES84	5	%	Carbon_org	6.49	NA	T1
001-00-baseline-A-1	Baseline_baseline_NA	HEANES84	4	%	Carbon_org	5.49	NA	T1
001-01-S-low-A-1	Soluble phosphate_low_S	HEANES84	1	%	Carbon_org	5.49	NA	T1
002-01-S-low-B-1	Soluble phosphate_low_S	HEANES84	1	%	Carbon_org	6.74	NA	T1
003-01-S-low-C-1	Soluble phosphate_low_S	HEANES84	1	%	Carbon_org	5.74	NA	T1

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
004-01-S-low-D-1	Soluble phosphate_low_S	HEANES84	1	%	Carbon_org	7.23	NA	T1
005-02-S-low-A-1	Biosolid_low_S	HEANES84	1	%	Carbon_org	7.44	NA	T1
006-02-S-low-B-1	Biosolid_low_S	HEANES84	1	%	Carbon_org	7.71	NA	T1
007-02-S-low-C-1	Biosolid_low_S	HEANES84	1	%	Carbon_org	7.97	NA	T1
008-02-S-low-D-1	Biosolid_low_S	HEANES84	1	%	Carbon_org	9.13	NA	T1
009-03-S-low-A-1	Wood ash_low_S	HEANES84	1	%	Carbon_org	6.77	NA	T1
010-03-S-low-B-1	Wood ash_low_S	HEANES84	1	%	Carbon_org	6.40	NA	T1
011-03-S-low-C-1	Wood ash_low_S	HEANES84	1	%	Carbon_org	6.56	NA	T1
012-03-S-low-D-1	Wood ash_low_S	HEANES84	1	%	Carbon_org	8.29	NA	T1
013-04-S-low-A-1	Biochar_low_S	HEANES84	1	%	Carbon_org	10.38	NA	T1
014-04-S-low-B-1	Biochar_low_S	HEANES84	1	%	Carbon_org	6.69	NA	T1
015-04-S-low-C-1	Biochar_low_S	HEANES84	1	%	Carbon_org	5.51	NA	T1
016-04-S-low-D-1	Biochar_low_S	HEANES84	1	%	Carbon_org	5.88	NA	T1
017-05-S-low-A-1	Compost_low_S	HEANES84	1	%	Carbon_org	5.30	NA	T1
018-05-S-low-B-1	Compost_low_S	HEANES84	1	%	Carbon_org	6.29	NA	T1
019-05-S-low-C-1	Compost_low_S	HEANES84	1	%	Carbon_org	7.28	NA	T1
020-05-S-low-D-1	Compost_low_S	HEANES84	1	%	Carbon_org	10.50	NA	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	HEANES84	1	%	Carbon_org	6.62	NA	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	HEANES84	1	%	Carbon_org	10.72	NA	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	HEANES84	1	%	Carbon_org	7.02	NA	T1
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	HEANES84	1	%	Carbon_org	7.86	NA	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	HEANES84	1	%	Carbon_org	8.84	NA	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	HEANES84	1	%	Carbon_org	8.04	NA	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	HEANES84	1	%	Carbon_org	8.07	NA	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	HEANES84	1	%	Carbon_org	6.90	NA	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	HEANES84	1	%	Carbon_org	6.10	NA	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	HEANES84	2	%	Carbon_org	6.98	NA	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	HEANES84	2	%	Carbon_org	6.40	NA	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	HEANES84	2	%	Carbon_org	6.10	NA	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	HEANES84	2	%	Carbon_org	6.56	NA	T1

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
034-09-S-low-B-1	Biosolids and wood ash_low_S	HEANES84	2	%	Carbon_org	6.50	NA	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	HEANES84	2	%	Carbon_org	10.85	NA	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	HEANES84	2	%	Carbon_org	8.88	NA	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	HEANES84	2	%	Carbon_org	8.29	NA	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	HEANES84	2	%	Carbon_org	9.58	NA	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	HEANES84	2	%	Carbon_org	8.31	NA	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	HEANES84	2	%	Carbon_org	6.58	NA	T1
041-11-S-low-A-1	Wood ash and compost_low_S	HEANES84	2	%	Carbon_org	7.95	NA	T1
042-11-S-low-B-1	Wood ash and compost_low_S	HEANES84	2	%	Carbon_org	6.49	NA	T1
043-11-S-low-C-1	Wood ash and compost_low_S	HEANES84	2	%	Carbon_org	7.44	NA	T1
044-11-S-low-D-1	Wood ash and compost_low_S	HEANES84	2	%	Carbon_org	5.92	NA	T1
045-12-S-low-A-1	Biochar and compost_low_S	HEANES84	2	%	Carbon_org	6.38	NA	T1
046-12-S-low-B-1	Biochar and compost_low_S	HEANES84	2	%	Carbon_org	8.34	NA	T1
047-12-S-low-C-1	Biochar and compost_low_S	HEANES84	2	%	Carbon_org	7.54	NA	T1
048-12-S-low-D-1	Biochar and compost_low_S	HEANES84	2	%	Carbon_org	8.05	NA	T1
145-01-S-high-A-1	Soluble phosphate_high_S	HEANES84	2	%	Carbon_org	6.46	NA	T1
146-01-S-high-B-1	Soluble phosphate_high_S	HEANES84	2	%	Carbon_org	7.35	NA	T1
147-01-S-high-C-1	Soluble phosphate_high_S	HEANES84	2	%	Carbon_org	6.61	NA	T1
148-01-S-high-D-1	Soluble phosphate_high_S	HEANES84	2	%	Carbon_org	7.28	NA	T1
149-02-S-high-A-1	Biosolid_high_S	HEANES84	2	%	Carbon_org	7.67	NA	T1
150-02-S-high-B-1	Biosolid_high_S	HEANES84	2	%	Carbon_org	7.22	NA	T1
151-02-S-high-C-1	Biosolid_high_S	HEANES84	2	%	Carbon_org	6.62	NA	T1
152-02-S-high-D-1	Biosolid_high_S	HEANES84	2	%	Carbon_org	8.14	NA	T1
153-03-S-high-A-1	Wood ash_high_S	HEANES84	2	%	Carbon_org	6.48	NA	T1
154-03-S-high-B-1	Wood ash_high_S	HEANES84	2	%	Carbon_org	7.28	NA	T1
155-03-S-high-C-1	Wood ash_high_S	HEANES84	2	%	Carbon_org	6.64	NA	T1
156-03-S-high-D-1	Wood ash_high_S	HEANES84	2	%	Carbon_org	7.71	NA	T1
157-04-S-high-A-1	Biochar_high_S	HEANES84	2	%	Carbon_org	6.24	NA	T1
158-04-S-high-B-1	Biochar_high_S	HEANES84	2	%	Carbon_org	8.65	NA	T1
159-04-S-high-C-1	Biochar_high_S	HEANES84	2	%	Carbon_org	10.55	NA	T1

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
160-04-S-high-D-1	Biochar_high_S	HEANES84	2	%	Carbon_org	6.33	NA	T1
161-05-S-high-A-1	Compost_high_S	HEANES84	2	%	Carbon_org	7.05	NA	T1
162-05-S-high-B-1	Compost_high_S	HEANES84	2	%	Carbon_org	5.49	NA	T1
163-05-S-high-C-1	Compost_high_S	HEANES84	3	%	Carbon_org	6.35	NA	T1
164-05-S-high-D-1	Compost_high_S	HEANES84	3	%	Carbon_org	7.71	NA	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	HEANES84	3	%	Carbon_org	5.88	NA	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	HEANES84	3	%	Carbon_org	5.82	NA	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	HEANES84	3	%	Carbon_org	5.57	NA	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	HEANES84	3	%	Carbon_org	7.15	NA	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	HEANES84	3	%	Carbon_org	7.13	NA	T1
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	HEANES84	3	%	Carbon_org	8.29	NA	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	HEANES84	3	%	Carbon_org	7.09	NA	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	HEANES84	3	%	Carbon_org	7.42	NA	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	HEANES84	3	%	Carbon_org	7.91	NA	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	HEANES84	3	%	Carbon_org	5.33	NA	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	HEANES84	3	%	Carbon_org	7.61	NA	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	HEANES84	3	%	Carbon_org	8.15	NA	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	HEANES84	3	%	Carbon_org	7.53	NA	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	HEANES84	3	%	Carbon_org	8.29	NA	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	HEANES84	3	%	Carbon_org	6.65	NA	T1
180-09-S-high-D-1	Biosolids and wood ash_high_S	HEANES84	3	%	Carbon_org	9.68	NA	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	HEANES84	3	%	Carbon_org	8.67	NA	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	HEANES84	3	%	Carbon_org	7.08	NA	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	HEANES84	3	%	Carbon_org	8.08	NA	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	HEANES84	4	%	Carbon_org	6.57	NA	T1
185-11-S-high-A-1	Wood ash and compost_high_S	HEANES84	4	%	Carbon_org	6.28	NA	T1
186-11-S-high-B-1	Wood ash and compost_high_S	HEANES84	4	%	Carbon_org	6.63	NA	T1
187-11-S-high-C-1	Wood ash and compost_high_S	HEANES84	4	%	Carbon_org	7.44	NA	T1
188-11-S-high-D-1	Wood ash and compost_high_S	HEANES84	4	%	Carbon_org	7.09	NA	T1
189-12-S-high-A-1	Biochar and compost_high_S	HEANES84	4	%	Carbon_org	7.55	NA	T1

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
190-12-S-high-B-1	Biochar and compost_high_S	HEANES84	4	%	Carbon_org	6.46	NA	T1
191-12-S-high-C-1	Biochar and compost_high_S	HEANES84	4	%	Carbon_org	6.60	NA	T1
192-12-S-high-D-1	Biochar and compost_high_S	HEANES84	4	%	Carbon_org	8.44	NA	T1
289-01-I-low-A-1	Soluble phosphate_low_I	HEANES84	4	%	Carbon_org	7.18	NA	T1
290-01-I-low-B-1	Soluble phosphate_low_I	HEANES84	4	%	Carbon_org	8.77	NA	T1
291-01-I-low-C-1	Soluble phosphate_low_I	HEANES84	4	%	Carbon_org	6.81	NA	T1
292-01-I-low-D-1	Soluble phosphate_low_I	HEANES84	4	%	Carbon_org	7.99	NA	T1
293-02-I-low-A-1	Biosolid_low_I	HEANES84	4	%	Carbon_org	8.66	NA	T1
294-02-I-low-B-1	Biosolid_low_I	HEANES84	4	%	Carbon_org	11.36	NA	T1
295-02-I-low-C-1	Biosolid_low_I	HEANES84	4	%	Carbon_org	8.51	NA	T1
296-02-I-low-D-1	Biosolid_low_I	HEANES84	4	%	Carbon_org	5.19	NA	T1
297-03-I-low-A-1	Wood ash_low_I	HEANES84	4	%	Carbon_org	4.34	NA	T1
298-03-I-low-B-1	Wood ash_low_I	HEANES84	4	%	Carbon_org	6.96	NA	T1
299-03-I-low-C-1	Wood ash_low_I	HEANES84	4	%	Carbon_org	6.32	NA	T1
300-03-I-low-D-1	Wood ash_low_I	HEANES84	4	%	Carbon_org	4.99	NA	T1
301-04-I-low-A-1	Biochar_low_I	HEANES84	4	%	Carbon_org	6.54	NA	T1
302-04-I-low-B-1	Biochar_low_I	HEANES84	4	%	Carbon_org	7.67	NA	T1
303-04-I-low-C-1	Biochar_low_I	HEANES84	4	%	Carbon_org	7.96	NA	T1
304-04-I-low-D-1	Biochar_low_I	HEANES84	4	%	Carbon_org	4.83	NA	T1
305-05-I-low-A-1	Compost_low_I	HEANES84	4	%	Carbon_org	6.45	NA	T1
306-05-I-low-B-1	Compost_low_I	HEANES84	4	%	Carbon_org	7.33	NA	T1
307-05-I-low-C-1	Compost_low_I	HEANES84	4	%	Carbon_org	8.38	NA	T1
308-05-I-low-D-1	Compost_low_I	HEANES84	5	%	Carbon_org	8.88	NA	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	HEANES84	5	%	Carbon_org	7.26	NA	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	HEANES84	5	%	Carbon_org	8.64	NA	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	HEANES84	5	%	Carbon_org	9.13	NA	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	HEANES84	5	%	Carbon_org	9.22	NA	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	HEANES84	5	%	Carbon_org	9.74	NA	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	HEANES84	4	%	Carbon_org	8.09	NA	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	HEANES84	4	%	Carbon_org	9.27	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	HEANES84	5	%	Carbon_org	8.68	NA	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	HEANES84	5	%	Carbon_org	7.09	NA	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	HEANES84	5	%	Carbon_org	7.77	NA	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	HEANES84	5	%	Carbon_org	7.10	NA	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	HEANES84	5	%	Carbon_org	10.64	NA	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	HEANES84	5	%	Carbon_org	9.48	NA	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	HEANES84	5	%	Carbon_org	13.30	NA	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	HEANES84	5	%	Carbon_org	8.38	NA	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	HEANES84	5	%	Carbon_org	14.36	NA	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	HEANES84	5	%	Carbon_org	10.06	NA	T1
326-10-I-low-B-1	Wood ash and biochar_low_I	HEANES84	5	%	Carbon_org	6.70	NA	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	HEANES84	5	%	Carbon_org	8.55	NA	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	HEANES84	5	%	Carbon_org	7.52	NA	T1
329-11-I-low-A-1	Wood ash and compost_low_I	HEANES84	5	%	Carbon_org	8.01	NA	T1
330-11-I-low-B-1	Wood ash and compost_low_I	HEANES84	5	%	Carbon_org	9.56	NA	T1
331-11-I-low-C-1	Wood ash and compost_low_I	HEANES84	5	%	Carbon_org	5.51	NA	T1
332-11-I-low-D-1	Wood ash and compost_low_I	HEANES84	5	%	Carbon_org	7.96	NA	T1
333-12-I-low-A-1	Biochar and compost_low_I	HEANES84	5	%	Carbon_org	7.87	NA	T1
334-12-I-low-B-1	Biochar and compost_low_I	HEANES84	5	%	Carbon_org	9.47	NA	T1
335-12-I-low-C-1	Biochar and compost_low_I	HEANES84	5	%	Carbon_org	8.62	NA	T1
336-12-I-low-D-1	Biochar and compost_low_I	HEANES84	6	%	Carbon_org	9.81	NA	T1
337-01-I-high-A-1	Soluble phosphate_high_I	HEANES84	6	%	Carbon_org	7.95	NA	T1
338-01-I-high-B-1	Soluble phosphate_high_I	HEANES84	6	%	Carbon_org	8.58	NA	T1
339-01-I-high-C-1	Soluble phosphate_high_I	HEANES84	6	%	Carbon_org	8.00	NA	T1
340-01-I-high-D-1	Soluble phosphate_high_I	HEANES84	6	%	Carbon_org	6.32	NA	T1
341-02-I-high-A-1	Biosolid_high_I	HEANES84	6	%	Carbon_org	9.13	NA	T1
342-02-I-high-B-1	Biosolid_high_I	HEANES84	6	%	Carbon_org	12.18	NA	T1
343-02-I-high-C-1	Biosolid_high_I	HEANES84	6	%	Carbon_org	14.25	NA	T1
344-02-I-high-D-1	Biosolid_high_I	HEANES84	6	%	Carbon_org	13.12	NA	T1
345-03-I-high-A-1	Wood ash_high_I	HEANES84	6	%	Carbon_org	10.79	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
346-03-I-high-B-1	Wood ash_high_I	HEANES84	6	%	Carbon_org	7.74	NA	T1
347-03-I-high-C-1	Wood ash_high_I	HEANES84	6	%	Carbon_org	6.02	NA	T1
348-03-I-high-D-1	Wood ash_high_I	HEANES84	6	%	Carbon_org	7.07	NA	T1
349-04-I-high-A-1	Biochar_high_I	HEANES84	6	%	Carbon_org	7.80	NA	T1
350-04-I-high-B-1	Biochar_high_I	HEANES84	6	%	Carbon_org	7.46	NA	T1
351-04-I-high-C-1	Biochar_high_I	HEANES84	6	%	Carbon_org	9.65	NA	T1
352-04-I-high-D-1	Biochar_high_I	HEANES84	6	%	Carbon_org	15.16	NA	T1
353-05-I-high-A-1	Compost_high_I	HEANES84	6	%	Carbon_org	7.41	NA	T1
354-05-I-high-B-1	Compost_high_I	HEANES84	6	%	Carbon_org	8.15	NA	T1
355-05-I-high-C-1	Compost_high_I	HEANES84	6	%	Carbon_org	9.82	NA	T1
356-05-I-high-D-1	Compost_high_I	HEANES84	6	%	Carbon_org	8.72	NA	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	HEANES84	6	%	Carbon_org	10.86	NA	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	HEANES84	6	%	Carbon_org	11.28	NA	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	HEANES84	6	%	Carbon_org	12.50	NA	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	HEANES84	6	%	Carbon_org	11.68	NA	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	HEANES84	6	%	Carbon_org	6.63	NA	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	HEANES84	6	%	Carbon_org	11.74	NA	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	HEANES84	6	%	Carbon_org	7.91	NA	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	HEANES84	7	%	Carbon_org	7.27	NA	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	HEANES84	7	%	Carbon_org	8.20	NA	T1
366-08-I-high-B-1	Soluble phosphate and compost_high_I	HEANES84	7	%	Carbon_org	10.98	NA	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	HEANES84	7	%	Carbon_org	9.50	NA	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	HEANES84	7	%	Carbon_org	8.45	NA	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	HEANES84	7	%	Carbon_org	12.38	NA	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	HEANES84	7	%	Carbon_org	13.12	NA	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	HEANES84	7	%	Carbon_org	13.98	NA	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	HEANES84	7	%	Carbon_org	13.12	NA	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	HEANES84	7	%	Carbon_org	7.75	NA	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	HEANES84	7	%	Carbon_org	11.91	NA	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	HEANES84	7	%	Carbon_org	10.10	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
376-10-I-high-D-1	Wood ash and biochar_high_I	HEANES84	7	%	Carbon_org	11.84	NA	T1
377-11-I-high-A-1	Wood ash and compost_high_I	HEANES84	7	%	Carbon_org	12.19	NA	T1
378-11-I-high-B-1	Wood ash and compost_high_I	HEANES84	7	%	Carbon_org	14.37	NA	T1
379-11-I-high-C-1	Wood ash and compost_high_I	HEANES84	7	%	Carbon_org	7.77	NA	T1
380-11-I-high-D-1	Wood ash and compost_high_I	HEANES84	7	%	Carbon_org	14.87	NA	T1
381-12-I-high-A-1	Biochar and compost_high_I	HEANES84	7	%	Carbon_org	7.88	NA	T1
382-12-I-high-B-1	Biochar and compost_high_I	HEANES84	7	%	Carbon_org	10.98	NA	T1
383-12-I-high-C-1	Biochar and compost_high_I	HEANES84	7	%	Carbon_org	9.99	NA	T1
384-12-I-high-D-1	Biochar and compost_high_I	HEANES84	7	%	Carbon_org	6.57	NA	T1
385-00-I-baseline-A-1	control_none_I	HEANES84	7	%	Carbon_org	6.38	NA	T1
386-00-I-baseline-B-1	control_none_I	HEANES84	7	%	Carbon_org	6.44	NA	T1
387-00-I-baseline-C-1	control_none_I	HEANES84	7	%	Carbon_org	6.78	NA	T1
388-00-I-baseline-D-1	control_none_I	HEANES84	7	%	Carbon_org	10.26	NA	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Aluminum	7.19E-01	NA	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Aluminum	6.56E-01	NA	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Aluminum	7.25E-01	NA	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Aluminum	8.19E-01	NA	T1
001-01-S-low-A-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Aluminum	1.11E+00	NA	T1
002-01-S-low-B-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Aluminum	1.41E+00	NA	T1
003-01-S-low-C-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Aluminum	1.38E+00	NA	T1
004-01-S-low-D-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Aluminum	1.34E+00	NA	T1
005-02-S-low-A-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Aluminum	1.37E+00	NA	T1
006-02-S-low-B-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Aluminum	1.59E+00	NA	T1
007-02-S-low-C-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Aluminum	1.43E+00	NA	T1
008-02-S-low-D-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Aluminum	1.21E+00	NA	T1
009-03-S-low-A-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Aluminum	1.36E+00	NA	T1
010-03-S-low-B-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Aluminum	1.35E+00	NA	T1
011-03-S-low-C-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Aluminum	1.45E+00	NA	T1
012-03-S-low-D-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Aluminum	1.53E+00	NA	T1
013-04-S-low-A-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Aluminum	1.12E+00	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
014-04-S-low-B-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Aluminum	1.20E+00	NA	T1
015-04-S-low-C-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Aluminum	1.36E+00	NA	T1
016-04-S-low-D-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Aluminum	1.27E+00	NA	T1
017-05-S-low-A-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Aluminum	1.35E+00	NA	T1
018-05-S-low-B-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Aluminum	1.31E+00	NA	T1
019-05-S-low-C-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Aluminum	1.41E+00	NA	T1
020-05-S-low-D-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Aluminum	1.35E+00	NA	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Aluminum	1.36E+00	NA	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Aluminum	1.17E+00	NA	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Aluminum	1.43E+00	NA	T1
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Aluminum	1.39E+00	NA	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Aluminum	1.12E+00	NA	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Aluminum	1.10E+00	NA	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Aluminum	9.59E-01	NA	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Aluminum	1.22E+00	NA	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Aluminum	1.21E+00	NA	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Aluminum	1.20E+00	NA	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Aluminum	8.94E-01	NA	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Aluminum	1.31E+00	NA	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Aluminum	1.14E+00	NA	T1
034-09-S-low-B-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Aluminum	1.19E+00	NA	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Aluminum	1.32E+00	NA	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Aluminum	1.40E+00	NA	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Aluminum	1.18E+00	NA	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Aluminum	1.24E+00	NA	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Aluminum	1.29E+00	NA	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Aluminum	1.24E+00	NA	T1
041-11-S-low-A-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Aluminum	1.27E+00	NA	T1
042-11-S-low-B-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Aluminum	1.25E+00	NA	T1
043-11-S-low-C-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Aluminum	1.30E+00	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
044-11-S-low-D-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Aluminum	1.22E+00	NA	T1
045-12-S-low-A-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Aluminum	1.37E+00	NA	T1
046-12-S-low-B-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Aluminum	1.33E+00	NA	T1
047-12-S-low-C-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Aluminum	1.33E+00	NA	T1
048-12-S-low-D-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Aluminum	1.19E+00	NA	T1
145-01-S-high-A-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Aluminum	1.19E+00	NA	T1
146-01-S-high-B-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Aluminum	1.24E+00	NA	T1
147-01-S-high-C-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Aluminum	1.28E+00	NA	T1
148-01-S-high-D-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Aluminum	1.18E+00	NA	T1
149-02-S-high-A-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Aluminum	1.50E+00	NA	T1
150-02-S-high-B-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Aluminum	1.59E+00	NA	T1
151-02-S-high-C-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Aluminum	1.37E+00	NA	T1
152-02-S-high-D-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Aluminum	1.45E+00	NA	T1
153-03-S-high-A-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Aluminum	1.23E+00	NA	T1
154-03-S-high-B-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Aluminum	1.12E+00	NA	T1
155-03-S-high-C-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Aluminum	1.11E+00	NA	T1
156-03-S-high-D-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Aluminum	1.15E+00	NA	T1
157-04-S-high-A-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Aluminum	1.25E+00	NA	T1
158-04-S-high-B-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Aluminum	1.52E+00	NA	T1
159-04-S-high-C-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Aluminum	1.35E+00	NA	T1
160-04-S-high-D-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Aluminum	1.08E+00	NA	T1
161-05-S-high-A-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Aluminum	1.26E+00	NA	T1
162-05-S-high-B-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Aluminum	1.26E+00	NA	T1
163-05-S-high-C-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Aluminum	1.31E+00	NA	T1
164-05-S-high-D-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Aluminum	1.27E+00	NA	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Aluminum	1.23E+00	NA	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Aluminum	1.24E+00	NA	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Aluminum	1.38E+00	NA	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Aluminum	1.50E+00	NA	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Aluminum	1.41E+00	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Aluminum	1.36E+00	NA	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Aluminum	1.36E+00	NA	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Aluminum	1.35E+00	NA	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Aluminum	1.44E+00	NA	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Aluminum	1.35E+00	NA	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Aluminum	1.34E+00	NA	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Aluminum	1.09E+00	NA	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Aluminum	1.34E+00	NA	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Aluminum	1.23E+00	NA	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Aluminum	1.22E+00	NA	T1
180-09-S-high-D-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Aluminum	1.30E+00	NA	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Aluminum	1.35E+00	NA	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Aluminum	1.37E+00	NA	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Aluminum	1.26E+00	NA	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Aluminum	1.41E+00	NA	T1
185-11-S-high-A-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Aluminum	1.34E+00	NA	T1
186-11-S-high-B-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Aluminum	1.40E+00	NA	T1
187-11-S-high-C-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Aluminum	1.35E+00	NA	T1
188-11-S-high-D-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Aluminum	1.26E+00	NA	T1
189-12-S-high-A-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Aluminum	1.09E+00	NA	T1
190-12-S-high-B-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Aluminum	1.30E+00	NA	T1
191-12-S-high-C-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Aluminum	1.37E+00	NA	T1
192-12-S-high-D-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Aluminum	1.34E+00	NA	T1
289-01-I-low-A-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Aluminum	1.06E+00	NA	T1
290-01-I-low-B-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Aluminum	9.90E-01	NA	T1
291-01-I-low-C-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Aluminum	9.90E-01	NA	T1
292-01-I-low-D-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Aluminum	1.17E+00	NA	T1
293-02-I-low-A-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Aluminum	1.12E+00	NA	T1
294-02-I-low-B-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Aluminum	1.12E+00	NA	T1
295-02-I-low-C-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Aluminum	1.14E+00	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
296-02-I-low-D-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Aluminum	1.12E+00	NA	T1
297-03-I-low-A-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Aluminum	1.09E+00	NA	T1
298-03-I-low-B-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Aluminum	1.04E+00	NA	T1
299-03-I-low-C-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Aluminum	1.13E+00	NA	T1
300-03-I-low-D-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Aluminum	1.08E+00	NA	T1
301-04-I-low-A-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Aluminum	1.08E+00	NA	T1
302-04-I-low-B-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Aluminum	1.13E+00	NA	T1
303-04-I-low-C-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Aluminum	1.07E+00	NA	T1
304-04-I-low-D-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Aluminum	1.03E+00	NA	T1
305-05-I-low-A-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Aluminum	1.40E+00	NA	T1
306-05-I-low-B-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Aluminum	1.52E+00	NA	T1
307-05-I-low-C-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Aluminum	1.45E+00	NA	T1
308-05-I-low-D-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Aluminum	1.37E+00	NA	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Aluminum	1.27E+00	NA	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Aluminum	1.55E+00	NA	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Aluminum	1.57E+00	NA	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Aluminum	1.73E+00	NA	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Aluminum	9.26E-01	NA	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Aluminum	8.57E-01	NA	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Aluminum	9.50E-01	NA	T1
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Aluminum	9.14E-01	NA	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Aluminum	1.10E+00	NA	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Aluminum	1.16E+00	NA	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Aluminum	9.91E-01	NA	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Aluminum	1.04E+00	NA	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Aluminum	1.12E+00	NA	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Aluminum	1.56E+00	NA	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Aluminum	1.47E+00	NA	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Aluminum	1.74E+00	NA	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Aluminum	9.49E-01	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
326-10-I-low-B-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Aluminum	9.92E-01	NA	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Aluminum	9.57E-01	NA	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Aluminum	1.01E+00	NA	T1
329-11-I-low-A-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Aluminum	1.06E+00	NA	T1
330-11-I-low-B-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Aluminum	1.46E+00	NA	T1
331-11-I-low-C-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Aluminum	1.05E+00	NA	T1
332-11-I-low-D-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Aluminum	9.56E-01	NA	T1
333-12-I-low-A-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Aluminum	1.00E+00	NA	T1
334-12-I-low-B-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Aluminum	1.33E+00	NA	T1
335-12-I-low-C-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Aluminum	1.30E+00	NA	T1
336-12-I-low-D-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Aluminum	1.31E+00	NA	T1
337-01-I-high-A-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Aluminum	1.10E+00	NA	T1
338-01-I-high-B-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Aluminum	1.12E+00	NA	T1
339-01-I-high-C-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Aluminum	1.16E+00	NA	T1
340-01-I-high-D-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Aluminum	2.45E+00	NA	T1
341-02-I-high-A-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Aluminum	1.28E+00	NA	T1
342-02-I-high-B-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Aluminum	1.40E+00	NA	T1
343-02-I-high-C-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Aluminum	1.23E+00	NA	T1
344-02-I-high-D-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Aluminum	1.71E+00	NA	T1
345-03-I-high-A-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Aluminum	1.11E+00	NA	T1
346-03-I-high-B-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Aluminum	1.10E+00	NA	T1
347-03-I-high-C-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Aluminum	1.15E+00	NA	T1
348-03-I-high-D-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Aluminum	1.25E+00	NA	T1
349-04-I-high-A-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Aluminum	1.15E+00	NA	T1
350-04-I-high-B-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Aluminum	1.15E+00	NA	T1
351-04-I-high-C-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Aluminum	1.18E+00	NA	T1
352-04-I-high-D-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Aluminum	1.21E+00	NA	T1
353-05-I-high-A-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Aluminum	1.31E+00	NA	T1
354-05-I-high-B-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Aluminum	1.24E+00	NA	T1
355-05-I-high-C-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Aluminum	1.12E+00	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
356-05-I-high-D-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Aluminum	1.26E+00	NA	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Aluminum	1.18E+00	NA	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Aluminum	1.41E+00	NA	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Aluminum	1.48E+00	NA	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Aluminum	1.92E+00	NA	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Aluminum	9.49E-01	NA	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Aluminum	1.02E+00	NA	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Aluminum	1.13E+00	NA	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Aluminum	1.17E+00	NA	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Aluminum	1.24E+00	NA	T1
366-08-I-high-B-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Aluminum	1.12E+00	NA	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Aluminum	9.79E-01	NA	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Aluminum	9.73E-01	NA	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Aluminum	9.28E-01	NA	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Aluminum	1.50E+00	NA	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Aluminum	1.01E+00	NA	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Aluminum	9.82E-01	NA	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Aluminum	1.09E+00	NA	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Aluminum	1.01E+00	NA	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Aluminum	1.36E+00	NA	T1
376-10-I-high-D-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Aluminum	9.28E-01	NA	T1
377-11-I-high-A-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Aluminum	3.48E-01	NA	T1
378-11-I-high-B-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Aluminum	1.33E+00	NA	T1
379-11-I-high-C-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Aluminum	1.06E+00	NA	T1
380-11-I-high-D-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Aluminum	1.24E+00	NA	T1
381-12-I-high-A-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Aluminum	1.33E+00	NA	T1
382-12-I-high-B-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Aluminum	1.53E+00	NA	T1
383-12-I-high-C-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Aluminum	1.47E+00	NA	T1
384-12-I-high-D-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Aluminum	1.11E+00	NA	T1
385-00-I-baseline-A-1	control_none_I	EPA6010C-SPLP	17	mg/L	Aluminum	1.24E+00	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
386-00-I-baseline-B-1	control_none_I	EPA6010C-SPLP	17	mg/L	Aluminum	1.37E+00	NA	T1
387-00-I-baseline-C-1	control_none_I	EPA6010C-SPLP	17	mg/L	Aluminum	1.26E+00	NA	T1
388-00-I-baseline-D-1	control_none_I	EPA6010C-SPLP	17	mg/L	Aluminum	1.29E+00	NA	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Antimony	2.01E-02	rl	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Antimony	9.40E-03	rl	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Antimony	1.20E-02	rl	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Antimony	1.75E-02	rl	T1
001-01-S-low-A-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Antimony	1.98E-02	rl	T1
002-01-S-low-B-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Antimony	2.72E-02	rl	T1
003-01-S-low-C-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Antimony	3.42E-02	rl	T1
004-01-S-low-D-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Antimony	3.56E-02	rl	T1
005-02-S-low-A-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Antimony	3.20E-02	rl	T1
006-02-S-low-B-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Antimony	4.27E-02	rl	T1
007-02-S-low-C-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Antimony	2.51E-02	rl	T1
008-02-S-low-D-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Antimony	1.84E-02	rl	T1
009-03-S-low-A-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Antimony	2.95E-02	rl	T1
010-03-S-low-B-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Antimony	4.17E-02	rl	T1
011-03-S-low-C-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Antimony	3.29E-02	rl	T1
012-03-S-low-D-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Antimony	3.57E-02	rl	T1
013-04-S-low-A-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Antimony	2.32E-02	rl	T1
014-04-S-low-B-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Antimony	3.78E-02	rl	T1
015-04-S-low-C-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Antimony	4.16E-02	rl	T1
016-04-S-low-D-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Antimony	3.36E-02	rl	T1
017-05-S-low-A-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Antimony	2.93E-02	rl	T1
018-05-S-low-B-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Antimony	3.16E-02	rl	T1
019-05-S-low-C-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Antimony	5.19E-02	NA	T1
020-05-S-low-D-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Antimony	4.05E-02	rl	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Antimony	2.87E-02	rl	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Antimony	3.93E-02	rl	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Antimony	2.67E-02	rl	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Antimony	3.50E-02	rl	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Antimony	1.92E-02	rl	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Antimony	3.09E-02	rl	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Antimony	1.48E-02	rl	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Antimony	3.73E-02	rl	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Antimony	2.01E-02	rl	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Antimony	2.83E-02	rl	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Antimony	1.62E-02	rl	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Antimony	2.57E-02	rl	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Antimony	3.57E-02	rl	T1
034-09-S-low-B-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Antimony	2.98E-02	rl	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Antimony	2.78E-02	rl	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Antimony	2.98E-02	rl	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Antimony	3.21E-02	rl	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Antimony	3.37E-02	rl	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Antimony	3.15E-02	rl	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Antimony	3.29E-02	rl	T1
041-11-S-low-A-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Antimony	1.89E-02	rl	T1
042-11-S-low-B-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Antimony	2.51E-02	rl	T1
043-11-S-low-C-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Antimony	2.60E-02	rl	T1
044-11-S-low-D-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Antimony	3.86E-02	rl	T1
045-12-S-low-A-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Antimony	3.82E-02	rl	T1
046-12-S-low-B-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Antimony	2.47E-02	rl	T1
047-12-S-low-C-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Antimony	4.21E-02	rl	T1
048-12-S-low-D-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Antimony	2.21E-02	rl	T1
145-01-S-high-A-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Antimony	2.42E-02	rl	T1
146-01-S-high-B-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Antimony	2.45E-02	rl	T1
147-01-S-high-C-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Antimony	2.99E-02	rl	T1
148-01-S-high-D-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Antimony	2.77E-02	rl	T1
149-02-S-high-A-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Antimony	3.61E-02	rl	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
150-02-S-high-B-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Antimony	4.78E-02	rl	T1
151-02-S-high-C-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Antimony	4.22E-02	rl	T1
152-02-S-high-D-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Antimony	3.69E-02	rl	T1
153-03-S-high-A-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Antimony	3.41E-02	rl	T1
154-03-S-high-B-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Antimony	3.33E-02	rl	T1
155-03-S-high-C-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Antimony	2.76E-02	rl	T1
156-03-S-high-D-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Antimony	2.73E-02	rl	T1
157-04-S-high-A-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Antimony	4.38E-02	rl	T1
158-04-S-high-B-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Antimony	5.27E-02	NA	T1
159-04-S-high-C-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Antimony	3.60E-02	rl	T1
160-04-S-high-D-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Antimony	2.85E-02	rl	T1
161-05-S-high-A-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Antimony	2.83E-02	rl	T1
162-05-S-high-B-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Antimony	3.37E-02	rl	T1
163-05-S-high-C-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Antimony	3.80E-02	rl	T1
164-05-S-high-D-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Antimony	3.16E-02	rl	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Antimony	2.57E-02	rl	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Antimony	3.39E-02	rl	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Antimony	2.75E-02	rl	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Antimony	3.28E-02	rl	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Antimony	3.73E-02	rl	T1
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Antimony	2.80E-02	rl	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Antimony	2.62E-02	rl	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Antimony	2.24E-02	rl	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Antimony	3.37E-02	rl	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Antimony	3.53E-02	rl	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Antimony	2.29E-02	rl	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Antimony	2.60E-02	rl	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Antimony	2.88E-02	rl	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Antimony	2.64E-02	rl	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Antimony	2.68E-02	rl	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
180-09-S-high-D-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Antimony	2.84E-02	rl	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Antimony	2.21E-02	rl	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Antimony	2.97E-02	rl	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Antimony	2.58E-02	rl	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Antimony	3.24E-02	rl	T1
185-11-S-high-A-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Antimony	3.04E-02	rl	T1
186-11-S-high-B-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Antimony	3.25E-02	rl	T1
187-11-S-high-C-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Antimony	2.98E-02	rl	T1
188-11-S-high-D-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Antimony	2.09E-02	rl	T1
189-12-S-high-A-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Antimony	2.56E-02	rl	T1
190-12-S-high-B-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Antimony	3.76E-02	rl	T1
191-12-S-high-C-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Antimony	4.03E-02	rl	T1
192-12-S-high-D-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Antimony	2.85E-02	rl	T1
289-01-I-low-A-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Antimony	4.70E-02	rl	T1
290-01-I-low-B-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Antimony	3.60E-02	rl	T1
291-01-I-low-C-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Antimony	3.12E-02	rl	T1
292-01-I-low-D-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Antimony	3.99E-02	rl	T1
293-02-I-low-A-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Antimony	3.93E-02	rl	T1
294-02-I-low-B-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Antimony	4.35E-02	rl	T1
295-02-I-low-C-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Antimony	3.58E-02	rl	T1
296-02-I-low-D-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Antimony	3.96E-02	rl	T1
297-03-I-low-A-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Antimony	4.00E-02	rl	T1
298-03-I-low-B-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Antimony	4.01E-02	rl	T1
299-03-I-low-C-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Antimony	3.82E-02	rl	T1
300-03-I-low-D-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Antimony	3.28E-02	rl	T1
301-04-I-low-A-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Antimony	3.26E-02	rl	T1
302-04-I-low-B-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Antimony	3.35E-02	rl	T1
303-04-I-low-C-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Antimony	3.12E-02	rl	T1
304-04-I-low-D-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Antimony	3.65E-02	rl	T1
305-05-I-low-A-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Antimony	2.40E-02	rl	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
306-05-I-low-B-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Antimony	3.78E-02	rl	T1
307-05-I-low-C-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Antimony	2.79E-02	rl	T1
308-05-I-low-D-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Antimony	3.48E-02	rl	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Antimony	3.10E-02	rl	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Antimony	3.50E-02	rl	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Antimony	3.14E-02	rl	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Antimony	3.37E-02	rl	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Antimony	4.42E-02	rl	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Antimony	2.71E-02	rl	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Antimony	3.11E-02	rl	T1
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Antimony	2.42E-02	rl	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Antimony	2.64E-02	rl	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Antimony	3.05E-02	rl	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Antimony	2.59E-02	rl	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Antimony	3.09E-02	rl	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Antimony	3.13E-02	rl	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Antimony	3.19E-02	rl	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Antimony	4.50E-02	rl	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Antimony	3.91E-02	rl	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Antimony	3.86E-02	rl	T1
326-10-I-low-B-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Antimony	2.92E-02	rl	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Antimony	3.26E-02	rl	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Antimony	3.11E-02	rl	T1
329-11-I-low-A-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Antimony	3.46E-02	rl	T1
330-11-I-low-B-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Antimony	2.75E-02	rl	T1
331-11-I-low-C-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Antimony	3.53E-02	rl	T1
332-11-I-low-D-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Antimony	3.14E-02	rl	T1
333-12-I-low-A-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Antimony	3.01E-02	rl	T1
334-12-I-low-B-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Antimony	3.48E-02	rl	T1
335-12-I-low-C-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Antimony	2.91E-02	rl	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
336-12-I-low-D-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Antimony	3.62E-02	rl	T1
337-01-I-high-A-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Antimony	2.34E-02	rl	T1
338-01-I-high-B-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Antimony	2.59E-02	rl	T1
339-01-I-high-C-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Antimony	2.99E-02	rl	T1
340-01-I-high-D-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Antimony	4.69E-02	rl	T1
341-02-I-high-A-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Antimony	2.90E-02	rl	T1
342-02-I-high-B-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Antimony	3.94E-02	rl	T1
343-02-I-high-C-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Antimony	2.95E-02	rl	T1
344-02-I-high-D-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Antimony	3.81E-02	rl	T1
345-03-I-high-A-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Antimony	2.26E-02	rl	T1
346-03-I-high-B-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Antimony	3.04E-02	rl	T1
347-03-I-high-C-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Antimony	2.75E-02	rl	T1
348-03-I-high-D-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Antimony	2.60E-02	rl	T1
349-04-I-high-A-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Antimony	3.85E-02	rl	T1
350-04-I-high-B-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Antimony	3.84E-02	rl	T1
351-04-I-high-C-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Antimony	3.75E-02	rl	T1
352-04-I-high-D-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Antimony	3.82E-02	rl	T1
353-05-I-high-A-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Antimony	2.63E-02	rl	T1
354-05-I-high-B-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Antimony	2.50E-02	rl	T1
355-05-I-high-C-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Antimony	2.73E-02	rl	T1
356-05-I-high-D-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Antimony	2.90E-02	rl	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Antimony	3.51E-02	rl	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Antimony	3.59E-02	rl	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Antimony	3.06E-02	rl	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Antimony	2.54E-02	rl	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Antimony	2.68E-02	rl	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Antimony	2.61E-02	rl	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Antimony	2.73E-02	rl	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Antimony	3.50E-02	rl	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Antimony	2.24E-02	rl	T1



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
366-08-I-high-B-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Antimony	1.97E-02	rl	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Antimony	2.06E-02	rl	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Antimony	1.75E-02	rl	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Antimony	2.99E-02	rl	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Antimony	3.69E-02	rl	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Antimony	3.83E-02	rl	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Antimony	3.18E-02	rl	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Antimony	2.95E-02	rl	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Antimony	2.14E-02	rl	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Antimony	2.72E-02	rl	T1
376-10-I-high-D-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Antimony	2.96E-02	rl	T1
377-11-I-high-A-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Antimony	2.30E-02	rl	T1
378-11-I-high-B-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Antimony	2.34E-02	rl	T1
379-11-I-high-C-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Antimony	2.46E-02	rl	T1
380-11-I-high-D-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Antimony	1.76E-02	rl	T1
381-12-I-high-A-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Antimony	2.98E-02	rl	T1
382-12-I-high-B-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Antimony	2.97E-02	rl	T1
383-12-I-high-C-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Antimony	4.10E-02	rl	T1
384-12-I-high-D-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Antimony	3.17E-02	rl	T1
385-00-I-baseline-A-1	control_none_I	EPA6010C-SPLP	17	mg/L	Antimony	2.71E-02	rl	T1
386-00-I-baseline-B-1	control_none_I	EPA6010C-SPLP	17	mg/L	Antimony	3.58E-02	rl	T1
387-00-I-baseline-C-1	control_none_I	EPA6010C-SPLP	17	mg/L	Antimony	2.89E-02	rl	T1
388-00-I-baseline-D-1	control_none_I	EPA6010C-SPLP	17	mg/L	Antimony	2.72E-02	rl	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Arsenic	3.60E-02	NA	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Arsenic	2.61E-02	NA	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Arsenic	2.23E-02	NA	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Arsenic	2.79E-02	NA	T1
001-01-S-low-A-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Arsenic	8.26E-02	NA	T1
002-01-S-low-B-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Arsenic	1.35E-01	NA	T1
003-01-S-low-C-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Arsenic	1.30E-01	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
004-01-S-low-D-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Arsenic	8.73E-02	NA	T1
005-02-S-low-A-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Arsenic	7.21E-02	NA	T1
006-02-S-low-B-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Arsenic	9.87E-02	NA	T1
007-02-S-low-C-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Arsenic	7.96E-02	NA	T1
008-02-S-low-D-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Arsenic	9.37E-02	NA	T1
009-03-S-low-A-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Arsenic	5.93E-02	NA	T1
010-03-S-low-B-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Arsenic	6.05E-02	NA	T1
011-03-S-low-C-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Arsenic	5.55E-02	NA	T1
012-03-S-low-D-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Arsenic	5.22E-02	NA	T1
013-04-S-low-A-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Arsenic	4.40E-02	NA	T1
014-04-S-low-B-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Arsenic	5.39E-02	NA	T1
015-04-S-low-C-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Arsenic	6.49E-02	NA	T1
016-04-S-low-D-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Arsenic	5.89E-02	NA	T1
017-05-S-low-A-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Arsenic	6.79E-02	NA	T1
018-05-S-low-B-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Arsenic	7.10E-02	NA	T1
019-05-S-low-C-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Arsenic	7.10E-02	NA	T1
020-05-S-low-D-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Arsenic	6.14E-02	NA	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Arsenic	9.78E-02	NA	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Arsenic	9.74E-02	NA	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Arsenic	1.14E-01	NA	T1
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Arsenic	1.16E-01	NA	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Arsenic	9.75E-02	NA	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Arsenic	9.51E-02	NA	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Arsenic	8.00E-02	NA	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Arsenic	1.12E-01	NA	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Arsenic	1.01E-01	NA	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Arsenic	1.10E-01	NA	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Arsenic	1.11E-01	NA	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Arsenic	1.15E-01	NA	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Arsenic	3.92E-02	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
034-09-S-low-B-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Arsenic	6.04E-02	NA	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Arsenic	5.91E-02	NA	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Arsenic	6.75E-02	NA	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Arsenic	4.97E-02	NA	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Arsenic	5.80E-02	NA	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Arsenic	6.83E-02	NA	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Arsenic	6.53E-02	NA	T1
041-11-S-low-A-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Arsenic	6.24E-02	NA	T1
042-11-S-low-B-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Arsenic	6.51E-02	NA	T1
043-11-S-low-C-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Arsenic	6.10E-02	NA	T1
044-11-S-low-D-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Arsenic	5.89E-02	NA	T1
045-12-S-low-A-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Arsenic	6.73E-02	NA	T1
046-12-S-low-B-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Arsenic	6.55E-02	NA	T1
047-12-S-low-C-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Arsenic	8.11E-02	NA	T1
048-12-S-low-D-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Arsenic	6.06E-02	NA	T1
145-01-S-high-A-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Arsenic	1.70E-01	NA	T1
146-01-S-high-B-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Arsenic	1.84E-01	NA	T1
147-01-S-high-C-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Arsenic	1.97E-01	NA	T1
148-01-S-high-D-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Arsenic	1.62E-01	NA	T1
149-02-S-high-A-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Arsenic	9.12E-02	NA	T1
150-02-S-high-B-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Arsenic	1.51E-01	NA	T1
151-02-S-high-C-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Arsenic	9.99E-02	NA	T1
152-02-S-high-D-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Arsenic	1.16E-01	NA	T1
153-03-S-high-A-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Arsenic	5.49E-02	NA	T1
154-03-S-high-B-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Arsenic	5.90E-02	NA	T1
155-03-S-high-C-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Arsenic	4.52E-02	NA	T1
156-03-S-high-D-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Arsenic	4.13E-02	NA	T1
157-04-S-high-A-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Arsenic	5.19E-02	NA	T1
158-04-S-high-B-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Arsenic	7.17E-02	NA	T1
159-04-S-high-C-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Arsenic	6.17E-02	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
160-04-S-high-D-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Arsenic	5.20E-02	NA	T1
161-05-S-high-A-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Arsenic	4.05E-02	NA	T1
162-05-S-high-B-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Arsenic	4.76E-02	NA	T1
163-05-S-high-C-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Arsenic	7.87E-02	NA	T1
164-05-S-high-D-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Arsenic	7.30E-02	NA	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Arsenic	1.47E-01	NA	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Arsenic	1.53E-01	NA	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Arsenic	1.53E-01	NA	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Arsenic	1.54E-01	NA	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Arsenic	2.03E-01	NA	T1
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Arsenic	1.86E-01	NA	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Arsenic	1.38E-01	NA	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Arsenic	1.77E-01	NA	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Arsenic	1.87E-01	NA	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Arsenic	1.84E-01	NA	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Arsenic	2.00E-01	NA	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Arsenic	1.15E-01	NA	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Arsenic	8.40E-02	NA	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Arsenic	6.06E-02	NA	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Arsenic	7.36E-02	NA	T1
180-09-S-high-D-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Arsenic	6.72E-02	NA	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Arsenic	5.41E-02	NA	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Arsenic	6.62E-02	NA	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Arsenic	4.16E-02	NA	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Arsenic	6.40E-02	NA	T1
185-11-S-high-A-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Arsenic	4.66E-02	NA	T1
186-11-S-high-B-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Arsenic	5.57E-02	NA	T1
187-11-S-high-C-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Arsenic	6.17E-02	NA	T1
188-11-S-high-D-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Arsenic	5.98E-02	NA	T1
189-12-S-high-A-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Arsenic	5.44E-02	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
190-12-S-high-B-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Arsenic	6.20E-02	NA	T1
191-12-S-high-C-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Arsenic	7.25E-02	NA	T1
192-12-S-high-D-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Arsenic	6.30E-02	NA	T1
289-01-I-low-A-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Arsenic	8.23E-02	NA	T1
290-01-I-low-B-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Arsenic	8.01E-02	NA	T1
291-01-I-low-C-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Arsenic	7.08E-02	NA	T1
292-01-I-low-D-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Arsenic	9.80E-02	NA	T1
293-02-I-low-A-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Arsenic	7.48E-02	NA	T1
294-02-I-low-B-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Arsenic	7.96E-02	NA	T1
295-02-I-low-C-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Arsenic	7.21E-02	NA	T1
296-02-I-low-D-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Arsenic	7.05E-02	NA	T1
297-03-I-low-A-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Arsenic	5.47E-02	NA	T1
298-03-I-low-B-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Arsenic	5.08E-02	NA	T1
299-03-I-low-C-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Arsenic	5.11E-02	NA	T1
300-03-I-low-D-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Arsenic	4.55E-02	NA	T1
301-04-I-low-A-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Arsenic	4.07E-02	NA	T1
302-04-I-low-B-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Arsenic	5.02E-02	NA	T1
303-04-I-low-C-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Arsenic	4.77E-02	NA	T1
304-04-I-low-D-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Arsenic	4.86E-02	NA	T1
305-05-I-low-A-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Arsenic	4.84E-02	NA	T1
306-05-I-low-B-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Arsenic	4.01E-02	NA	T1
307-05-I-low-C-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Arsenic	3.65E-02	NA	T1
308-05-I-low-D-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Arsenic	3.76E-02	NA	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Arsenic	8.82E-02	NA	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Arsenic	1.03E-01	NA	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Arsenic	1.11E-01	NA	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Arsenic	1.19E-01	NA	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Arsenic	9.29E-02	NA	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Arsenic	6.83E-02	NA	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Arsenic	7.33E-02	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Arsenic	8.34E-02	NA	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Arsenic	9.94E-02	NA	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Arsenic	9.92E-02	NA	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Arsenic	9.20E-02	NA	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Arsenic	8.83E-02	NA	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Arsenic	6.88E-02	NA	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Arsenic	7.76E-02	NA	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Arsenic	8.33E-02	NA	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Arsenic	6.27E-02	NA	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Arsenic	4.86E-02	NA	T1
326-10-I-low-B-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Arsenic	5.22E-02	NA	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Arsenic	4.72E-02	NA	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Arsenic	4.44E-02	NA	T1
329-11-I-low-A-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Arsenic	5.25E-02	NA	T1
330-11-I-low-B-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Arsenic	4.66E-02	NA	T1
331-11-I-low-C-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Arsenic	5.82E-02	NA	T1
332-11-I-low-D-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Arsenic	4.43E-02	NA	T1
333-12-I-low-A-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Arsenic	4.42E-02	NA	T1
334-12-I-low-B-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Arsenic	6.02E-02	NA	T1
335-12-I-low-C-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Arsenic	4.99E-02	NA	T1
336-12-I-low-D-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Arsenic	4.36E-02	NA	T1
337-01-I-high-A-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Arsenic	1.75E-01	NA	T1
338-01-I-high-B-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Arsenic	1.77E-01	NA	T1
339-01-I-high-C-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Arsenic	1.85E-01	NA	T1
340-01-I-high-D-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Arsenic	1.57E-01	NA	T1
341-02-I-high-A-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Arsenic	8.80E-02	NA	T1
342-02-I-high-B-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Arsenic	1.23E-01	NA	T1
343-02-I-high-C-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Arsenic	8.76E-02	NA	T1
344-02-I-high-D-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Arsenic	1.28E-01	NA	T1
345-03-I-high-A-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Arsenic	4.59E-02	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
346-03-I-high-B-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Arsenic	4.61E-02	NA	T1
347-03-I-high-C-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Arsenic	4.76E-02	NA	T1
348-03-I-high-D-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Arsenic	5.68E-02	NA	T1
349-04-I-high-A-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Arsenic	4.82E-02	NA	T1
350-04-I-high-B-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Arsenic	4.53E-02	NA	T1
351-04-I-high-C-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Arsenic	5.08E-02	NA	T1
352-04-I-high-D-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Arsenic	4.69E-02	NA	T1
353-05-I-high-A-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Arsenic	5.33E-02	NA	T1
354-05-I-high-B-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Arsenic	7.04E-02	NA	T1
355-05-I-high-C-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Arsenic	4.46E-02	NA	T1
356-05-I-high-D-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Arsenic	5.73E-02	NA	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Arsenic	1.75E-01	NA	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Arsenic	1.58E-01	NA	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Arsenic	1.39E-01	NA	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Arsenic	1.55E-01	NA	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Arsenic	1.77E-01	NA	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Arsenic	1.83E-01	NA	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Arsenic	1.83E-01	NA	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Arsenic	2.11E-01	NA	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Arsenic	1.73E-01	NA	T1
366-08-I-high-B-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Arsenic	1.59E-01	NA	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Arsenic	1.57E-01	NA	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Arsenic	1.60E-01	NA	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Arsenic	8.02E-02	NA	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Arsenic	6.51E-02	NA	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Arsenic	7.51E-02	NA	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Arsenic	8.63E-02	NA	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Arsenic	5.23E-02	NA	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Arsenic	4.50E-02	NA	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Arsenic	4.63E-02	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
376-10-I-high-D-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Arsenic	4.30E-02	NA	T1
377-11-I-high-A-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Arsenic	3.78E-02	NA	T1
378-11-I-high-B-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Arsenic	5.52E-02	NA	T1
379-11-I-high-C-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Arsenic	5.54E-02	NA	T1
380-11-I-high-D-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Arsenic	5.98E-02	NA	T1
381-12-I-high-A-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Arsenic	7.10E-02	NA	T1
382-12-I-high-B-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Arsenic	6.49E-02	NA	T1
383-12-I-high-C-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Arsenic	6.97E-02	NA	T1
384-12-I-high-D-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Arsenic	5.12E-02	NA	T1
385-00-I-baseline-A-1	control_none_I	EPA6010C-SPLP	17	mg/L	Arsenic	3.41E-02	NA	T1
386-00-I-baseline-B-1	control_none_I	EPA6010C-SPLP	17	mg/L	Arsenic	4.10E-02	NA	T1
387-00-I-baseline-C-1	control_none_I	EPA6010C-SPLP	17	mg/L	Arsenic	4.25E-02	NA	T1
388-00-I-baseline-D-1	control_none_I	EPA6010C-SPLP	17	mg/L	Arsenic	3.78E-02	NA	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Barium	3.06E-02	rl	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Barium	3.56E-02	rl	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Barium	2.71E-02	rl	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Barium	1.53E-02	rl	T1
001-01-S-low-A-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Barium	3.19E-02	rl	T1
002-01-S-low-B-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Barium	2.12E-02	rl	T1
003-01-S-low-C-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Barium	1.60E-02	rl	T1
004-01-S-low-D-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Barium	2.73E-02	rl	T1
005-02-S-low-A-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Barium	1.17E-02	rl	T1
006-02-S-low-B-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Barium	1.17E-02	rl	T1
007-02-S-low-C-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Barium	9.17E-03	rl	T1
008-02-S-low-D-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Barium	6.38E-03	rl	T1
009-03-S-low-A-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Barium	2.05E-02	rl	T1
010-03-S-low-B-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Barium	1.91E-02	rl	T1
011-03-S-low-C-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Barium	2.60E-02	rl	T1
012-03-S-low-D-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Barium	2.03E-02	rl	T1
013-04-S-low-A-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Barium	2.31E-02	rl	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
014-04-S-low-B-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Barium	1.44E-02	rl	T1
015-04-S-low-C-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Barium	1.52E-02	rl	T1
016-04-S-low-D-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Barium	1.50E-02	rl	T1
017-05-S-low-A-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Barium	1.48E-02	rl	T1
018-05-S-low-B-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Barium	1.73E-02	rl	T1
019-05-S-low-C-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Barium	1.55E-02	rl	T1
020-05-S-low-D-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Barium	1.76E-02	rl	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Barium	1.11E-02	rl	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Barium	1.26E-02	rl	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Barium	1.04E-02	rl	T1
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Barium	1.37E-02	rl	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Barium	1.26E-02	rl	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Barium	1.26E-02	rl	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Barium	1.50E-02	rl	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Barium	1.56E-02	rl	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Barium	1.47E-02	rl	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Barium	1.02E-02	rl	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Barium	9.35E-03	rl	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Barium	1.72E-02	rl	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Barium	2.30E-02	rl	T1
034-09-S-low-B-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Barium	1.72E-02	rl	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Barium	1.33E-02	rl	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Barium	1.86E-02	rl	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Barium	2.10E-02	rl	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Barium	1.75E-02	rl	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Barium	1.43E-02	rl	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Barium	1.45E-02	rl	T1
041-11-S-low-A-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Barium	1.44E-02	rl	T1
042-11-S-low-B-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Barium	1.51E-02	rl	T1
043-11-S-low-C-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Barium	2.09E-02	rl	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
044-11-S-low-D-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Barium	1.74E-02	rl	T1
045-12-S-low-A-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Barium	1.41E-02	rl	T1
046-12-S-low-B-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Barium	1.17E-02	rl	T1
047-12-S-low-C-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Barium	1.37E-02	rl	T1
048-12-S-low-D-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Barium	1.08E-02	rl	T1
145-01-S-high-A-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Barium	1.65E-02	rl	T1
146-01-S-high-B-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Barium	2.30E-02	rl	T1
147-01-S-high-C-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Barium	1.52E-02	rl	T1
148-01-S-high-D-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Barium	1.59E-02	rl	T1
149-02-S-high-A-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Barium	1.44E-02	rl	T1
150-02-S-high-B-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Barium	1.05E-02	rl	T1
151-02-S-high-C-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Barium	1.31E-02	rl	T1
152-02-S-high-D-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Barium	1.02E-02	rl	T1
153-03-S-high-A-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Barium	2.95E-02	rl	T1
154-03-S-high-B-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Barium	3.00E-02	rl	T1
155-03-S-high-C-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Barium	3.12E-02	rl	T1
156-03-S-high-D-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Barium	2.52E-02	rl	T1
157-04-S-high-A-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Barium	1.58E-02	rl	T1
158-04-S-high-B-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Barium	1.66E-02	rl	T1
159-04-S-high-C-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Barium	1.60E-02	rl	T1
160-04-S-high-D-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Barium	1.32E-02	rl	T1
161-05-S-high-A-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Barium	2.42E-02	rl	T1
162-05-S-high-B-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Barium	2.11E-02	rl	T1
163-05-S-high-C-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Barium	1.79E-02	rl	T1
164-05-S-high-D-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Barium	1.63E-02	rl	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Barium	8.66E-03	rl	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Barium	7.63E-03	rl	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Barium	8.68E-03	rl	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Barium	8.36E-03	rl	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Barium	1.30E-02	rl	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Barium	1.22E-02	rl	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Barium	1.38E-02	rl	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Barium	1.05E-02	rl	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Barium	1.58E-02	rl	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Barium	1.53E-02	rl	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Barium	1.20E-02	rl	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Barium	1.29E-02	rl	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Barium	1.16E-02	rl	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Barium	1.68E-02	rl	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Barium	1.20E-02	rl	T1
180-09-S-high-D-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Barium	1.38E-02	rl	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Barium	1.30E-02	rl	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Barium	1.32E-02	rl	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Barium	1.47E-02	rl	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Barium	1.35E-02	rl	T1
185-11-S-high-A-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Barium	2.83E-02	rl	T1
186-11-S-high-B-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Barium	2.63E-02	rl	T1
187-11-S-high-C-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Barium	2.20E-02	rl	T1
188-11-S-high-D-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Barium	1.74E-02	rl	T1
189-12-S-high-A-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Barium	1.56E-02	rl	T1
190-12-S-high-B-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Barium	1.10E-02	rl	T1
191-12-S-high-C-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Barium	1.48E-02	rl	T1
192-12-S-high-D-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Barium	1.47E-02	rl	T1
289-01-I-low-A-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Barium	3.42E-02	rl	T1
290-01-I-low-B-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Barium	4.70E-02	rl	T1
291-01-I-low-C-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Barium	5.00E-02	rl	T1
292-01-I-low-D-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Barium	3.06E-02	rl	T1
293-02-I-low-A-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Barium	2.35E-02	rl	T1
294-02-I-low-B-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Barium	1.69E-02	rl	T1
295-02-I-low-C-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Barium	1.70E-02	rl	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
296-02-I-low-D-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Barium	1.73E-02	rl	T1
297-03-I-low-A-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Barium	3.14E-02	rl	T1
298-03-I-low-B-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Barium	3.25E-02	rl	T1
299-03-I-low-C-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Barium	4.61E-02	rl	T1
300-03-I-low-D-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Barium	3.32E-02	rl	T1
301-04-I-low-A-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Barium	3.05E-02	rl	T1
302-04-I-low-B-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Barium	2.91E-02	rl	T1
303-04-I-low-C-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Barium	3.04E-02	rl	T1
304-04-I-low-D-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Barium	3.37E-02	rl	T1
305-05-I-low-A-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Barium	5.01E-02	NA	T1
306-05-I-low-B-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Barium	3.43E-02	rl	T1
307-05-I-low-C-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Barium	3.64E-02	rl	T1
308-05-I-low-D-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Barium	5.71E-02	NA	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Barium	1.60E-02	rl	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Barium	9.66E-03	rl	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Barium	1.12E-02	rl	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Barium	9.46E-03	rl	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Barium	5.86E-02	NA	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Barium	4.02E-02	rl	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Barium	4.25E-02	rl	T1
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Barium	5.04E-02	NA	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Barium	2.87E-02	rl	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Barium	3.58E-02	rl	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Barium	3.62E-02	rl	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Barium	3.30E-02	rl	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Barium	1.32E-02	rl	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Barium	1.37E-02	rl	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Barium	2.45E-02	rl	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Barium	1.35E-02	rl	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Barium	1.84E-02	rl	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
326-10-I-low-B-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Barium	1.59E-02	rl	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Barium	1.94E-02	rl	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Barium	2.00E-02	rl	T1
329-11-I-low-A-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Barium	2.58E-02	rl	T1
330-11-I-low-B-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Barium	2.25E-02	rl	T1
331-11-I-low-C-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Barium	3.48E-02	rl	T1
332-11-I-low-D-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Barium	3.04E-02	rl	T1
333-12-I-low-A-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Barium	2.77E-02	rl	T1
334-12-I-low-B-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Barium	2.44E-02	rl	T1
335-12-I-low-C-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Barium	3.58E-02	rl	T1
336-12-I-low-D-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Barium	3.94E-02	rl	T1
337-01-I-high-A-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Barium	2.60E-02	rl	T1
338-01-I-high-B-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Barium	2.86E-02	rl	T1
339-01-I-high-C-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Barium	3.66E-02	rl	T1
340-01-I-high-D-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Barium	3.52E-02	rl	T1
341-02-I-high-A-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Barium	9.81E-03	rl	T1
342-02-I-high-B-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Barium	6.37E-03	rl	T1
343-02-I-high-C-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Barium	1.43E-02	rl	T1
344-02-I-high-D-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Barium	4.34E-03	rl	T1
345-03-I-high-A-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Barium	2.52E-02	rl	T1
346-03-I-high-B-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Barium	2.97E-02	rl	T1
347-03-I-high-C-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Barium	3.31E-02	rl	T1
348-03-I-high-D-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Barium	3.21E-02	rl	T1
349-04-I-high-A-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Barium	2.01E-02	rl	T1
350-04-I-high-B-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Barium	2.62E-02	rl	T1
351-04-I-high-C-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Barium	2.29E-02	rl	T1
352-04-I-high-D-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Barium	2.02E-02	rl	T1
353-05-I-high-A-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Barium	3.82E-02	rl	T1
354-05-I-high-B-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Barium	2.39E-02	rl	T1
355-05-I-high-C-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Barium	4.77E-02	rl	T1

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
356-05-I-high-D-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Barium	2.37E-02	rl	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Barium	1.49E-02	rl	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Barium	1.21E-02	rl	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Barium	8.33E-03	rl	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Barium	1.05E-02	rl	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Barium	1.62E-02	rl	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Barium	1.47E-02	rl	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Barium	1.07E-02	rl	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Barium	1.38E-02	rl	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Barium	2.23E-02	rl	T1
366-08-I-high-B-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Barium	1.51E-02	rl	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Barium	1.82E-02	rl	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Barium	2.35E-02	rl	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Barium	1.13E-02	rl	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Barium	2.30E-02	rl	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Barium	1.55E-02	rl	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Barium	9.98E-03	rl	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Barium	4.41E-02	rl	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Barium	3.30E-02	rl	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Barium	3.01E-02	rl	T1
376-10-I-high-D-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Barium	5.11E-02	NA	T1
377-11-I-high-A-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Barium	1.34E-01	NA	T1
378-11-I-high-B-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Barium	3.17E-02	rl	T1
379-11-I-high-C-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Barium	3.03E-02	rl	T1
380-11-I-high-D-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Barium	2.67E-02	rl	T1
381-12-I-high-A-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Barium	1.64E-02	rl	T1
382-12-I-high-B-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Barium	2.07E-02	rl	T1
383-12-I-high-C-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Barium	3.26E-02	rl	T1
384-12-I-high-D-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Barium	1.79E-02	rl	T1
385-00-I-baseline-A-1	control_none_I	EPA6010C-SPLP	17	mg/L	Barium	4.08E-02	rl	T1

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
386-00-I-baseline-B-1	control_none_I	EPA6010C-SPLP	17	mg/L	Barium	3.51E-02	rl	T1
387-00-I-baseline-C-1	control_none_I	EPA6010C-SPLP	17	mg/L	Barium	3.82E-02	rl	T1
388-00-I-baseline-D-1	control_none_I	EPA6010C-SPLP	17	mg/L	Barium	2.37E-02	rl	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Beryllium	6.90E-05	rl	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Beryllium	1.99E-03	rl	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Beryllium	5.84E-05	rl	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Beryllium	5.58E-05	rl	T1
001-01-S-low-A-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Beryllium	4.50E-05	rl,mdl,U	T1
002-01-S-low-B-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Beryllium	4.50E-05	rl,mdl,U	T1
003-01-S-low-C-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Beryllium	4.50E-05	rl,mdl,U	T1
004-01-S-low-D-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Beryllium	4.50E-05	rl,mdl,U	T1
005-02-S-low-A-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Beryllium	4.50E-05	rl,mdl,U	T1
006-02-S-low-B-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Beryllium	4.50E-05	rl,mdl,U	T1
007-02-S-low-C-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Beryllium	4.50E-05	rl,mdl,U	T1
008-02-S-low-D-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Beryllium	4.50E-05	rl,mdl,U	T1
009-03-S-low-A-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Beryllium	4.50E-05	rl,mdl,U	T1
010-03-S-low-B-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Beryllium	4.50E-05	rl,mdl,U	T1
011-03-S-low-C-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Beryllium	9.43E-05	rl	T1
012-03-S-low-D-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Beryllium	4.50E-05	rl,mdl,U	T1
013-04-S-low-A-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Beryllium	4.50E-05	rl,mdl,U	T1
014-04-S-low-B-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Beryllium	4.50E-05	rl,mdl,U	T1
015-04-S-low-C-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Beryllium	4.50E-05	rl,mdl,U	T1
016-04-S-low-D-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Beryllium	4.50E-05	rl,mdl,U	T1
017-05-S-low-A-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Beryllium	4.50E-05	rl,mdl,U	T1
018-05-S-low-B-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Beryllium	4.50E-05	rl,mdl,U	T1
019-05-S-low-C-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Beryllium	9.97E-05	rl	T1
020-05-S-low-D-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Beryllium	4.50E-05	rl,mdl,U	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Beryllium	4.50E-05	rl,mdl,U	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Beryllium	4.50E-05	rl,mdl,U	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Beryllium	4.50E-05	rl,mdl,U	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Beryllium	6.94E-05	r1	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
034-09-S-low-B-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
041-11-S-low-A-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
042-11-S-low-B-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
043-11-S-low-C-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
044-11-S-low-D-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
045-12-S-low-A-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Beryllium	1.13E-04	r1	T1
046-12-S-low-B-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
047-12-S-low-C-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
048-12-S-low-D-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
145-01-S-high-A-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
146-01-S-high-B-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
147-01-S-high-C-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
148-01-S-high-D-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
149-02-S-high-A-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Beryllium	6.33E-05	r1	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
150-02-S-high-B-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
151-02-S-high-C-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
152-02-S-high-D-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
153-03-S-high-A-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
154-03-S-high-B-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
155-03-S-high-C-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
156-03-S-high-D-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
157-04-S-high-A-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Beryllium	6.49E-05	r1	T1
158-04-S-high-B-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
159-04-S-high-C-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
160-04-S-high-D-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
161-05-S-high-A-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
162-05-S-high-B-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
163-05-S-high-C-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
164-05-S-high-D-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Beryllium	4.54E-05	r1	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
180-09-S-high-D-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
185-11-S-high-A-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
186-11-S-high-B-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
187-11-S-high-C-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
188-11-S-high-D-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
189-12-S-high-A-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
190-12-S-high-B-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
191-12-S-high-C-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
192-12-S-high-D-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
289-01-I-low-A-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
290-01-I-low-B-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
291-01-I-low-C-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
292-01-I-low-D-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
293-02-I-low-A-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
294-02-I-low-B-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
295-02-I-low-C-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
296-02-I-low-D-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
297-03-I-low-A-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
298-03-I-low-B-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
299-03-I-low-C-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
300-03-I-low-D-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
301-04-I-low-A-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
302-04-I-low-B-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
303-04-I-low-C-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
304-04-I-low-D-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Beryllium	4.50E-05	r1,mdl,U	T1
305-05-I-low-A-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Beryllium	6.61E-04	r1	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
306-05-I-low-B-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Beryllium	9.14E-05	rl	T1
307-05-I-low-C-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Beryllium	7.58E-05	rl	T1
308-05-I-low-D-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Beryllium	6.60E-05	rl	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Beryllium	5.61E-05	rl	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Beryllium	4.50E-05	rl,mdl,U	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Beryllium	4.83E-05	rl	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Beryllium	5.80E-05	rl	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Beryllium	7.59E-03	NA	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Beryllium	4.24E-04	rl	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Beryllium	7.30E-05	rl	T1
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Beryllium	8.71E-05	rl	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Beryllium	5.16E-05	rl	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Beryllium	6.85E-05	rl	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Beryllium	4.50E-05	rl,mdl,U	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Beryllium	7.70E-05	rl	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Beryllium	6.15E-05	rl	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Beryllium	4.50E-05	rl,mdl,U	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Beryllium	1.03E-02	NA	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Beryllium	2.46E-04	rl	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Beryllium	7.63E-05	rl	T1
326-10-I-low-B-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Beryllium	4.50E-05	rl,mdl,U	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Beryllium	5.74E-05	rl	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Beryllium	5.62E-05	rl	T1
329-11-I-low-A-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Beryllium	7.00E-05	rl	T1
330-11-I-low-B-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Beryllium	4.50E-05	rl,mdl,U	T1
331-11-I-low-C-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Beryllium	6.59E-03	NA	T1
332-11-I-low-D-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Beryllium	1.97E-04	rl	T1
333-12-I-low-A-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Beryllium	1.53E-04	rl	T1
334-12-I-low-B-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Beryllium	5.48E-05	rl	T1
335-12-I-low-C-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Beryllium	5.62E-05	rl	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
336-12-I-low-D-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Beryllium	4.62E-05	rl	T1
337-01-I-high-A-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Beryllium	6.70E-05	rl	T1
338-01-I-high-B-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Beryllium	7.03E-05	rl	T1
339-01-I-high-C-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Beryllium	7.11E-03	NA	T1
340-01-I-high-D-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Beryllium	1.25E-04	rl	T1
341-02-I-high-A-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Beryllium	5.72E-05	rl	T1
342-02-I-high-B-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Beryllium	5.27E-05	rl	T1
343-02-I-high-C-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Beryllium	4.50E-05	rl,mdl,U	T1
344-02-I-high-D-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Beryllium	4.99E-05	rl	T1
345-03-I-high-A-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Beryllium	4.50E-05	rl,mdl,U	T1
346-03-I-high-B-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Beryllium	4.50E-05	rl,mdl,U	T1
347-03-I-high-C-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Beryllium	4.50E-05	rl,mdl,U	T1
348-03-I-high-D-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Beryllium	4.57E-05	rl	T1
349-04-I-high-A-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Beryllium	4.60E-05	rl	T1
350-04-I-high-B-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Beryllium	4.50E-05	rl,mdl,U	T1
351-04-I-high-C-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Beryllium	4.70E-05	rl	T1
352-04-I-high-D-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Beryllium	6.64E-05	rl	T1
353-05-I-high-A-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Beryllium	5.31E-05	rl	T1
354-05-I-high-B-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Beryllium	4.50E-05	rl,mdl,U	T1
355-05-I-high-C-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Beryllium	6.52E-05	rl	T1
356-05-I-high-D-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Beryllium	6.57E-05	rl	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Beryllium	7.41E-03	NA	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Beryllium	2.14E-04	rl	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Beryllium	1.50E-04	rl	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Beryllium	1.77E-04	rl	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Beryllium	1.03E-04	rl	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Beryllium	6.23E-05	rl	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Beryllium	6.23E-05	rl	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Beryllium	6.21E-05	rl	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Beryllium	5.87E-03	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
366-08-I-high-B-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Beryllium	4.63E-04	rl	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Beryllium	2.91E-04	rl	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Beryllium	2.76E-04	rl	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Beryllium	1.70E-04	rl	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Beryllium	4.94E-05	rl	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Beryllium	5.05E-05	rl	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Beryllium	6.45E-05	rl	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Beryllium	1.03E-02	NA	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Beryllium	1.38E-04	rl	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Beryllium	4.50E-05	rl,mdl,U	T1
376-10-I-high-D-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Beryllium	4.50E-05	rl,mdl,U	T1
377-11-I-high-A-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Beryllium	6.19E-05	rl	T1
378-11-I-high-B-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Beryllium	4.50E-05	rl,mdl,U	T1
379-11-I-high-C-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Beryllium	7.29E-05	rl	T1
380-11-I-high-D-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Beryllium	4.50E-05	rl,mdl,U	T1
381-12-I-high-A-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Beryllium	4.75E-05	rl	T1
382-12-I-high-B-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Beryllium	4.88E-05	rl	T1
383-12-I-high-C-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Beryllium	6.09E-03	NA	T1
384-12-I-high-D-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Beryllium	1.51E-04	rl	T1
385-00-I-baseline-A-1	control_none_I	EPA6010C-SPLP	17	mg/L	Beryllium	1.19E-04	rl	T1
386-00-I-baseline-B-1	control_none_I	EPA6010C-SPLP	17	mg/L	Beryllium	1.28E-03	rl	T1
387-00-I-baseline-C-1	control_none_I	EPA6010C-SPLP	17	mg/L	Beryllium	6.46E-05	rl	T1
388-00-I-baseline-D-1	control_none_I	EPA6010C-SPLP	17	mg/L	Beryllium	6.62E-05	rl	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Cadmium	1.15E-03	rl	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Cadmium	3.58E-03	NA	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Cadmium	7.89E-04	rl	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Cadmium	1.62E-04	rl,mdl,U	T1
001-01-S-low-A-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Cadmium	5.86E-03	NA	T1
002-01-S-low-B-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Cadmium	3.98E-03	NA	T1
003-01-S-low-C-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Cadmium	2.86E-03	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
004-01-S-low-D-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Cadmium	4.14E-03	NA	T1
005-02-S-low-A-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Cadmium	1.51E-03	rl	T1
006-02-S-low-B-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Cadmium	1.78E-03	rl	T1
007-02-S-low-C-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Cadmium	1.33E-03	rl	T1
008-02-S-low-D-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Cadmium	5.83E-04	rl	T1
009-03-S-low-A-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Cadmium	2.15E-03	rl	T1
010-03-S-low-B-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Cadmium	2.03E-03	rl	T1
011-03-S-low-C-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Cadmium	2.53E-03	NA	T1
012-03-S-low-D-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Cadmium	2.45E-03	rl	T1
013-04-S-low-A-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Cadmium	2.96E-03	NA	T1
014-04-S-low-B-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Cadmium	1.89E-03	rl	T1
015-04-S-low-C-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Cadmium	2.42E-03	rl	T1
016-04-S-low-D-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Cadmium	2.01E-03	rl	T1
017-05-S-low-A-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Cadmium	2.21E-03	rl	T1
018-05-S-low-B-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Cadmium	2.74E-03	NA	T1
019-05-S-low-C-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Cadmium	2.41E-03	rl	T1
020-05-S-low-D-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Cadmium	2.35E-03	rl	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Cadmium	1.67E-03	rl	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Cadmium	2.01E-03	rl	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Cadmium	1.73E-03	rl	T1
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Cadmium	1.65E-03	rl	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Cadmium	2.35E-03	rl	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Cadmium	1.88E-03	rl	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Cadmium	1.89E-03	rl	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Cadmium	2.41E-03	rl	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Cadmium	1.88E-03	rl	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Cadmium	1.38E-03	rl	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Cadmium	1.41E-03	rl	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Cadmium	2.45E-03	rl	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Cadmium	1.92E-03	rl	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
034-09-S-low-B-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Cadmium	1.50E-03	rl	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Cadmium	1.18E-03	rl	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Cadmium	1.66E-03	rl	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Cadmium	1.79E-03	rl	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Cadmium	1.91E-03	rl	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Cadmium	1.67E-03	rl	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Cadmium	1.75E-03	rl	T1
041-11-S-low-A-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Cadmium	1.58E-03	rl	T1
042-11-S-low-B-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Cadmium	1.64E-03	rl	T1
043-11-S-low-C-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Cadmium	2.26E-03	rl	T1
044-11-S-low-D-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Cadmium	1.48E-03	rl	T1
045-12-S-low-A-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Cadmium	2.01E-03	rl	T1
046-12-S-low-B-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Cadmium	1.47E-03	rl	T1
047-12-S-low-C-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Cadmium	1.81E-03	rl	T1
048-12-S-low-D-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Cadmium	1.36E-03	rl	T1
145-01-S-high-A-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Cadmium	5.33E-03	NA	T1
146-01-S-high-B-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Cadmium	6.21E-03	NA	T1
147-01-S-high-C-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Cadmium	4.20E-03	NA	T1
148-01-S-high-D-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Cadmium	4.44E-03	NA	T1
149-02-S-high-A-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Cadmium	1.50E-03	rl	T1
150-02-S-high-B-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Cadmium	1.34E-03	rl	T1
151-02-S-high-C-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Cadmium	1.64E-03	rl	T1
152-02-S-high-D-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Cadmium	1.29E-03	rl	T1
153-03-S-high-A-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Cadmium	2.17E-03	rl	T1
154-03-S-high-B-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Cadmium	1.63E-03	rl	T1
155-03-S-high-C-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Cadmium	2.11E-03	rl	T1
156-03-S-high-D-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Cadmium	1.96E-03	rl	T1
157-04-S-high-A-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Cadmium	2.17E-03	rl	T1
158-04-S-high-B-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Cadmium	2.72E-03	NA	T1
159-04-S-high-C-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Cadmium	2.34E-03	rl	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
160-04-S-high-D-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Cadmium	1.87E-03	rl	T1
161-05-S-high-A-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Cadmium	2.68E-03	NA	T1
162-05-S-high-B-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Cadmium	2.71E-03	NA	T1
163-05-S-high-C-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Cadmium	2.40E-03	rl	T1
164-05-S-high-D-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Cadmium	2.15E-03	rl	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Cadmium	1.58E-03	rl	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Cadmium	1.70E-03	rl	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Cadmium	1.82E-03	rl	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Cadmium	1.73E-03	rl	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Cadmium	3.40E-03	NA	T1
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Cadmium	3.44E-03	NA	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Cadmium	3.27E-03	NA	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Cadmium	2.82E-03	NA	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Cadmium	3.75E-03	NA	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Cadmium	3.21E-03	NA	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Cadmium	3.02E-03	NA	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Cadmium	2.30E-03	rl	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Cadmium	1.14E-03	rl	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Cadmium	1.80E-03	rl	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Cadmium	1.34E-03	rl	T1
180-09-S-high-D-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Cadmium	1.26E-03	rl	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Cadmium	1.65E-03	rl	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Cadmium	1.47E-03	rl	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Cadmium	1.34E-03	rl	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Cadmium	1.44E-03	rl	T1
185-11-S-high-A-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Cadmium	3.00E-03	NA	T1
186-11-S-high-B-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Cadmium	2.78E-03	NA	T1
187-11-S-high-C-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Cadmium	2.00E-03	rl	T1
188-11-S-high-D-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Cadmium	1.98E-03	rl	T1
189-12-S-high-A-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Cadmium	1.96E-03	rl	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
190-12-S-high-B-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Cadmium	1.86E-03	rl	T1
191-12-S-high-C-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Cadmium	2.11E-03	rl	T1
192-12-S-high-D-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Cadmium	1.94E-03	rl	T1
289-01-I-low-A-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Cadmium	4.59E-03	NA	T1
290-01-I-low-B-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Cadmium	6.59E-03	NA	T1
291-01-I-low-C-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Cadmium	6.54E-03	NA	T1
292-01-I-low-D-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Cadmium	4.55E-03	NA	T1
293-02-I-low-A-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Cadmium	2.62E-03	NA	T1
294-02-I-low-B-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Cadmium	2.12E-03	rl	T1
295-02-I-low-C-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Cadmium	2.29E-03	rl	T1
296-02-I-low-D-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Cadmium	1.96E-03	rl	T1
297-03-I-low-A-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Cadmium	2.61E-03	NA	T1
298-03-I-low-B-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Cadmium	3.01E-03	NA	T1
299-03-I-low-C-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Cadmium	3.59E-03	NA	T1
300-03-I-low-D-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Cadmium	2.83E-03	NA	T1
301-04-I-low-A-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Cadmium	3.57E-03	NA	T1
302-04-I-low-B-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Cadmium	3.78E-03	NA	T1
303-04-I-low-C-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Cadmium	3.63E-03	NA	T1
304-04-I-low-D-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Cadmium	3.90E-03	NA	T1
305-05-I-low-A-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Cadmium	3.89E-03	NA	T1
306-05-I-low-B-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Cadmium	1.57E-03	rl	T1
307-05-I-low-C-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Cadmium	1.99E-03	rl	T1
308-05-I-low-D-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Cadmium	4.05E-03	NA	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Cadmium	1.62E-04	rl,mdl,U	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Cadmium	1.62E-04	rl,mdl,U	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Cadmium	1.62E-04	rl,mdl,U	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Cadmium	1.62E-04	rl,mdl,U	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Cadmium	1.24E-02	NA	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Cadmium	3.51E-03	NA	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Cadmium	3.79E-03	NA	T1



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Cadmium	4.77E-03	NA	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Cadmium	1.45E-03	rl	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Cadmium	2.27E-03	rl	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Cadmium	2.42E-03	rl	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Cadmium	1.98E-03	rl	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Cadmium	1.62E-04	rl,mdl,U	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Cadmium	1.62E-04	rl,mdl,U	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Cadmium	9.61E-03	NA	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Cadmium	1.62E-04	rl,mdl,U	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Cadmium	1.62E-04	rl,mdl,U	T1
326-10-I-low-B-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Cadmium	1.62E-04	rl,mdl,U	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Cadmium	1.62E-04	rl,mdl,U	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Cadmium	1.62E-04	rl,mdl,U	T1
329-11-I-low-A-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Cadmium	2.15E-04	rl	T1
330-11-I-low-B-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Cadmium	1.62E-04	rl,mdl,U	T1
331-11-I-low-C-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Cadmium	6.81E-03	NA	T1
332-11-I-low-D-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Cadmium	1.62E-04	rl,mdl,U	T1
333-12-I-low-A-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Cadmium	9.00E-04	rl	T1
334-12-I-low-B-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Cadmium	3.45E-04	rl	T1
335-12-I-low-C-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Cadmium	1.13E-03	rl	T1
336-12-I-low-D-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Cadmium	1.67E-03	rl	T1
337-01-I-high-A-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Cadmium	5.87E-03	NA	T1
338-01-I-high-B-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Cadmium	6.39E-03	NA	T1
339-01-I-high-C-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Cadmium	1.39E-02	NA	T1
340-01-I-high-D-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Cadmium	5.51E-03	NA	T1
341-02-I-high-A-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Cadmium	1.62E-04	rl,mdl,U	T1
342-02-I-high-B-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Cadmium	1.62E-04	rl,mdl,U	T1
343-02-I-high-C-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Cadmium	4.33E-04	rl	T1
344-02-I-high-D-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Cadmium	1.62E-04	rl,mdl,U	T1
345-03-I-high-A-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Cadmium	1.62E-04	rl,mdl,U	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
346-03-I-high-B-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Cadmium	1.62E-04	rl,mdl,U	T1
347-03-I-high-C-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Cadmium	1.62E-04	rl,mdl,U	T1
348-03-I-high-D-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Cadmium	1.62E-04	rl,mdl,U	T1
349-04-I-high-A-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Cadmium	1.62E-04	rl,mdl,U	T1
350-04-I-high-B-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Cadmium	7.20E-04	rl	T1
351-04-I-high-C-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Cadmium	3.34E-04	rl	T1
352-04-I-high-D-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Cadmium	1.62E-04	rl,mdl,U	T1
353-05-I-high-A-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Cadmium	9.96E-04	rl	T1
354-05-I-high-B-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Cadmium	4.73E-04	rl	T1
355-05-I-high-C-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Cadmium	1.86E-03	rl	T1
356-05-I-high-D-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Cadmium	3.41E-04	rl	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Cadmium	6.97E-03	NA	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Cadmium	7.06E-04	rl	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Cadmium	1.62E-04	rl,mdl,U	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Cadmium	1.62E-04	rl,mdl,U	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Cadmium	3.32E-03	NA	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Cadmium	2.54E-03	NA	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Cadmium	1.29E-03	rl	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Cadmium	1.87E-03	rl	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Cadmium	7.31E-03	NA	T1
366-08-I-high-B-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Cadmium	1.37E-03	rl	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Cadmium	1.93E-03	rl	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Cadmium	2.94E-03	NA	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Cadmium	1.62E-04	rl,mdl,U	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Cadmium	1.62E-04	rl,mdl,U	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Cadmium	1.62E-04	rl,mdl,U	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Cadmium	1.62E-04	rl,mdl,U	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Cadmium	9.30E-03	NA	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Cadmium	1.62E-04	rl,mdl,U	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Cadmium	1.62E-04	rl,mdl,U	T1



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
376-10-I-high-D-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Cadmium	1.62E-04	r1,mdl,U	T1
377-11-I-high-A-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Cadmium	1.62E-04	r1,mdl,U	T1
378-11-I-high-B-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Cadmium	1.62E-04	r1,mdl,U	T1
379-11-I-high-C-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Cadmium	1.62E-04	r1,mdl,U	T1
380-11-I-high-D-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Cadmium	1.62E-04	r1,mdl,U	T1
381-12-I-high-A-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Cadmium	1.62E-04	r1,mdl,U	T1
382-12-I-high-B-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Cadmium	1.62E-04	r1,mdl,U	T1
383-12-I-high-C-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Cadmium	6.58E-03	NA	T1
384-12-I-high-D-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Cadmium	1.62E-04	r1,mdl,U	T1
385-00-I-baseline-A-1	control_none_I	EPA6010C-SPLP	17	mg/L	Cadmium	2.41E-03	r1	T1
386-00-I-baseline-B-1	control_none_I	EPA6010C-SPLP	17	mg/L	Cadmium	2.77E-03	NA	T1
387-00-I-baseline-C-1	control_none_I	EPA6010C-SPLP	17	mg/L	Cadmium	1.65E-03	r1	T1
388-00-I-baseline-D-1	control_none_I	EPA6010C-SPLP	17	mg/L	Cadmium	5.71E-04	r1	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Calcium	1.84E+00	NA	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Calcium	1.99E+00	NA	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Calcium	1.70E+00	NA	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Calcium	9.96E-01	NA	T1
001-01-S-low-A-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Calcium	5.68E+00	NA	T1
002-01-S-low-B-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Calcium	3.42E+00	NA	T1
003-01-S-low-C-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Calcium	2.44E+00	NA	T1
004-01-S-low-D-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Calcium	3.37E+00	NA	T1
005-02-S-low-A-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Calcium	8.17E-01	NA	T1
006-02-S-low-B-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Calcium	7.75E-01	NA	T1
007-02-S-low-C-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Calcium	6.80E-01	NA	T1
008-02-S-low-D-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Calcium	4.85E-01	NA	T1
009-03-S-low-A-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Calcium	2.20E+00	NA	T1
010-03-S-low-B-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Calcium	1.89E+00	NA	T1
011-03-S-low-C-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Calcium	2.38E+00	NA	T1
012-03-S-low-D-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Calcium	1.77E+00	NA	T1
013-04-S-low-A-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Calcium	1.59E+00	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
014-04-S-low-B-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Calcium	1.01E+00	NA	T1
015-04-S-low-C-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Calcium	9.97E-01	NA	T1
016-04-S-low-D-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Calcium	9.93E-01	NA	T1
017-05-S-low-A-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Calcium	1.00E+00	NA	T1
018-05-S-low-B-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Calcium	1.19E+00	NA	T1
019-05-S-low-C-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Calcium	1.01E+00	NA	T1
020-05-S-low-D-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Calcium	1.18E+00	NA	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Calcium	1.08E+00	NA	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Calcium	1.28E+00	NA	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Calcium	1.07E+00	NA	T1
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Calcium	1.21E+00	NA	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Calcium	1.63E+00	NA	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Calcium	1.55E+00	NA	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Calcium	1.51E+00	NA	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Calcium	1.90E+00	NA	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Calcium	1.71E+00	NA	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Calcium	1.18E+00	NA	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Calcium	1.05E+00	NA	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Calcium	1.66E+00	NA	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Calcium	1.74E+00	NA	T1
034-09-S-low-B-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Calcium	1.42E+00	NA	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Calcium	1.14E+00	NA	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Calcium	1.42E+00	NA	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Calcium	1.76E+00	NA	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Calcium	1.38E+00	NA	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Calcium	1.11E+00	NA	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Calcium	1.25E+00	NA	T1
041-11-S-low-A-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Calcium	1.16E+00	NA	T1
042-11-S-low-B-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Calcium	1.16E+00	NA	T1
043-11-S-low-C-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Calcium	1.53E+00	NA	T1



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
044-11-S-low-D-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Calcium	1.44E+00	NA	T1
045-12-S-low-A-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Calcium	8.68E-01	NA	T1
046-12-S-low-B-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Calcium	7.10E-01	NA	T1
047-12-S-low-C-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Calcium	8.80E-01	NA	T1
048-12-S-low-D-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Calcium	7.05E-01	NA	T1
145-01-S-high-A-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Calcium	8.08E+00	NA	T1
146-01-S-high-B-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Calcium	8.79E+00	NA	T1
147-01-S-high-C-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Calcium	5.81E+00	NA	T1
148-01-S-high-D-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Calcium	6.36E+00	NA	T1
149-02-S-high-A-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Calcium	8.48E-01	NA	T1
150-02-S-high-B-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Calcium	5.70E-01	NA	T1
151-02-S-high-C-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Calcium	7.82E-01	NA	T1
152-02-S-high-D-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Calcium	5.97E-01	NA	T1
153-03-S-high-A-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Calcium	3.42E+00	NA	T1
154-03-S-high-B-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Calcium	4.15E+00	NA	T1
155-03-S-high-C-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Calcium	3.91E+00	NA	T1
156-03-S-high-D-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Calcium	2.98E+00	NA	T1
157-04-S-high-A-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Calcium	1.01E+00	NA	T1
158-04-S-high-B-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Calcium	1.04E+00	NA	T1
159-04-S-high-C-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Calcium	1.03E+00	NA	T1
160-04-S-high-D-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Calcium	9.04E-01	NA	T1
161-05-S-high-A-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Calcium	1.31E+00	NA	T1
162-05-S-high-B-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Calcium	1.19E+00	NA	T1
163-05-S-high-C-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Calcium	1.01E+00	NA	T1
164-05-S-high-D-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Calcium	8.45E-01	NA	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Calcium	9.29E-01	NA	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Calcium	6.93E-01	NA	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Calcium	9.39E-01	NA	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Calcium	8.76E-01	NA	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Calcium	3.47E+00	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Calcium	3.48E+00	NA	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Calcium	2.91E+00	NA	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Calcium	2.85E+00	NA	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Calcium	3.83E+00	NA	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Calcium	3.22E+00	NA	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Calcium	3.34E+00	NA	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Calcium	2.38E+00	NA	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Calcium	7.89E-01	NA	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Calcium	1.26E+00	NA	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Calcium	8.79E-01	NA	T1
180-09-S-high-D-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Calcium	9.53E-01	NA	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Calcium	1.14E+00	NA	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Calcium	1.15E+00	NA	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Calcium	1.22E+00	NA	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Calcium	1.08E+00	NA	T1
185-11-S-high-A-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Calcium	1.69E+00	NA	T1
186-11-S-high-B-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Calcium	1.56E+00	NA	T1
187-11-S-high-C-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Calcium	1.30E+00	NA	T1
188-11-S-high-D-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Calcium	9.44E-01	NA	T1
189-12-S-high-A-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Calcium	8.72E-01	NA	T1
190-12-S-high-B-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Calcium	5.42E-01	NA	T1
191-12-S-high-C-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Calcium	7.28E-01	NA	T1
192-12-S-high-D-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Calcium	6.98E-01	NA	T1
289-01-I-low-A-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Calcium	3.89E+00	NA	T1
290-01-I-low-B-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Calcium	5.86E+00	NA	T1
291-01-I-low-C-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Calcium	5.06E+00	NA	T1
292-01-I-low-D-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Calcium	3.75E+00	NA	T1
293-02-I-low-A-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Calcium	3.70E+00	NA	T1
294-02-I-low-B-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Calcium	2.01E+00	NA	T1
295-02-I-low-C-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Calcium	2.12E+00	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
296-02-I-low-D-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Calcium	2.11E+00	NA	T1
297-03-I-low-A-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Calcium	3.14E+00	NA	T1
298-03-I-low-B-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Calcium	3.16E+00	NA	T1
299-03-I-low-C-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Calcium	4.72E+00	NA	T1
300-03-I-low-D-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Calcium	3.43E+00	NA	T1
301-04-I-low-A-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Calcium	2.20E+00	NA	T1
302-04-I-low-B-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Calcium	2.11E+00	NA	T1
303-04-I-low-C-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Calcium	2.25E+00	NA	T1
304-04-I-low-D-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Calcium	2.47E+00	NA	T1
305-05-I-low-A-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Calcium	4.16E+00	NA	T1
306-05-I-low-B-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Calcium	2.86E+00	NA	T1
307-05-I-low-C-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Calcium	3.14E+00	NA	T1
308-05-I-low-D-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Calcium	4.95E+00	NA	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Calcium	4.42E+00	NA	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Calcium	2.62E+00	NA	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Calcium	2.98E+00	NA	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Calcium	2.32E+00	NA	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Calcium	6.82E+00	NA	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Calcium	5.11E+00	NA	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Calcium	5.96E+00	NA	T1
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Calcium	7.15E+00	NA	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Calcium	4.64E+00	NA	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Calcium	5.42E+00	NA	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Calcium	5.48E+00	NA	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Calcium	5.01E+00	NA	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Calcium	3.39E+00	NA	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Calcium	2.47E+00	NA	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Calcium	2.73E+00	NA	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Calcium	2.55E+00	NA	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Calcium	2.34E+00	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
326-10-I-low-B-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Calcium	2.00E+00	NA	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Calcium	2.54E+00	NA	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Calcium	2.60E+00	NA	T1
329-11-I-low-A-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Calcium	3.33E+00	NA	T1
330-11-I-low-B-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Calcium	2.59E+00	NA	T1
331-11-I-low-C-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Calcium	3.09E+00	NA	T1
332-11-I-low-D-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Calcium	3.95E+00	NA	T1
333-12-I-low-A-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Calcium	2.46E+00	NA	T1
334-12-I-low-B-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Calcium	2.07E+00	NA	T1
335-12-I-low-C-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Calcium	2.99E+00	NA	T1
336-12-I-low-D-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Calcium	3.33E+00	NA	T1
337-01-I-high-A-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Calcium	1.13E+01	NA	T1
338-01-I-high-B-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Calcium	1.20E+01	NA	T1
339-01-I-high-C-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Calcium	1.26E+01	NA	T1
340-01-I-high-D-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Calcium	2.58E+01	NA	T1
341-02-I-high-A-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Calcium	7.44E+00	NA	T1
342-02-I-high-B-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Calcium	3.30E+00	NA	T1
343-02-I-high-C-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Calcium	1.16E+01	NA	T1
344-02-I-high-D-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Calcium	1.79E+00	NA	T1
345-03-I-high-A-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Calcium	4.55E+00	NA	T1
346-03-I-high-B-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Calcium	4.92E+00	NA	T1
347-03-I-high-C-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Calcium	5.68E+00	NA	T1
348-03-I-high-D-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Calcium	5.55E+00	NA	T1
349-04-I-high-A-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Calcium	1.68E+00	NA	T1
350-04-I-high-B-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Calcium	2.10E+00	NA	T1
351-04-I-high-C-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Calcium	1.87E+00	NA	T1
352-04-I-high-D-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Calcium	1.64E+00	NA	T1
353-05-I-high-A-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Calcium	4.21E+00	NA	T1
354-05-I-high-B-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Calcium	3.04E+00	NA	T1
355-05-I-high-C-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Calcium	5.55E+00	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
356-05-I-high-D-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Calcium	2.55E+00	NA	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Calcium	8.03E+00	NA	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Calcium	1.39E+01	NA	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Calcium	8.45E+00	NA	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Calcium	4.21E+00	NA	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Calcium	1.00E+01	NA	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Calcium	8.39E+00	NA	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Calcium	6.41E+00	NA	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Calcium	7.28E+00	NA	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Calcium	7.55E+00	NA	T1
366-08-I-high-B-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Calcium	6.55E+00	NA	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Calcium	8.79E+00	NA	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Calcium	1.15E+01	NA	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Calcium	7.91E+00	NA	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Calcium	1.08E+01	NA	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Calcium	1.40E+01	NA	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Calcium	6.93E+00	NA	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Calcium	6.79E+00	NA	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Calcium	6.10E+00	NA	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Calcium	5.06E+00	NA	T1
376-10-I-high-D-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Calcium	1.18E+01	NA	T1
377-11-I-high-A-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Calcium	5.62E+01	NA	T1
378-11-I-high-B-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Calcium	5.86E+00	NA	T1
379-11-I-high-C-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Calcium	5.78E+00	NA	T1
380-11-I-high-D-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Calcium	4.79E+00	NA	T1
381-12-I-high-A-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Calcium	1.80E+00	NA	T1
382-12-I-high-B-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Calcium	2.12E+00	NA	T1
383-12-I-high-C-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Calcium	3.05E+00	NA	T1
384-12-I-high-D-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Calcium	2.07E+00	NA	T1
385-00-I-baseline-A-1	control_none_I	EPA6010C-SPLP	17	mg/L	Calcium	2.87E+00	NA	T1

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
386-00-I-baseline-B-1	control_none_I	EPA6010C-SPLP	17	mg/L	Calcium	2.42E+00	NA	T1
387-00-I-baseline-C-1	control_none_I	EPA6010C-SPLP	17	mg/L	Calcium	2.63E+00	NA	T1
388-00-I-baseline-D-1	control_none_I	EPA6010C-SPLP	17	mg/L	Calcium	1.72E+00	NA	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
001-01-S-low-A-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
002-01-S-low-B-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
003-01-S-low-C-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
004-01-S-low-D-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
005-02-S-low-A-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
006-02-S-low-B-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
007-02-S-low-C-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
008-02-S-low-D-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
009-03-S-low-A-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
010-03-S-low-B-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
011-03-S-low-C-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
012-03-S-low-D-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
013-04-S-low-A-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
014-04-S-low-B-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
015-04-S-low-C-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
016-04-S-low-D-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
017-05-S-low-A-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
018-05-S-low-B-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
019-05-S-low-C-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
020-05-S-low-D-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Chromium	1.48E-03	r1,mdl,U	T1

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
034-09-S-low-B-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
041-11-S-low-A-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
042-11-S-low-B-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
043-11-S-low-C-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
044-11-S-low-D-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
045-12-S-low-A-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
046-12-S-low-B-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
047-12-S-low-C-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
048-12-S-low-D-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
145-01-S-high-A-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
146-01-S-high-B-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
147-01-S-high-C-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
148-01-S-high-D-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
149-02-S-high-A-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Chromium	1.48E-03	r1,mdl,U	T1

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
150-02-S-high-B-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
151-02-S-high-C-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
152-02-S-high-D-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
153-03-S-high-A-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
154-03-S-high-B-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
155-03-S-high-C-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
156-03-S-high-D-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
157-04-S-high-A-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
158-04-S-high-B-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
159-04-S-high-C-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
160-04-S-high-D-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
161-05-S-high-A-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
162-05-S-high-B-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
163-05-S-high-C-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
164-05-S-high-D-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Chromium	1.48E-03	r1,mdl,U	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
180-09-S-high-D-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
185-11-S-high-A-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
186-11-S-high-B-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
187-11-S-high-C-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
188-11-S-high-D-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
189-12-S-high-A-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
190-12-S-high-B-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
191-12-S-high-C-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
192-12-S-high-D-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
289-01-I-low-A-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
290-01-I-low-B-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
291-01-I-low-C-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
292-01-I-low-D-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
293-02-I-low-A-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
294-02-I-low-B-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
295-02-I-low-C-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
296-02-I-low-D-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
297-03-I-low-A-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
298-03-I-low-B-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
299-03-I-low-C-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
300-03-I-low-D-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
301-04-I-low-A-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
302-04-I-low-B-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
303-04-I-low-C-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
304-04-I-low-D-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
305-05-I-low-A-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Chromium	1.48E-03	r1,mdl,U	T1

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
306-05-I-low-B-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
307-05-I-low-C-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
308-05-I-low-D-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
326-10-I-low-B-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
329-11-I-low-A-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
330-11-I-low-B-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
331-11-I-low-C-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
332-11-I-low-D-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
333-12-I-low-A-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
334-12-I-low-B-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
335-12-I-low-C-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Chromium	1.48E-03	r1,mdl,U	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
336-12-I-low-D-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
337-01-I-high-A-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
338-01-I-high-B-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
339-01-I-high-C-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
340-01-I-high-D-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
341-02-I-high-A-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
342-02-I-high-B-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
343-02-I-high-C-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
344-02-I-high-D-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
345-03-I-high-A-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
346-03-I-high-B-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
347-03-I-high-C-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
348-03-I-high-D-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
349-04-I-high-A-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
350-04-I-high-B-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
351-04-I-high-C-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
352-04-I-high-D-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
353-05-I-high-A-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
354-05-I-high-B-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
355-05-I-high-C-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
356-05-I-high-D-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Chromium	1.48E-03	r1,mdl,U	T1

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
366-08-I-high-B-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
376-10-I-high-D-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
377-11-I-high-A-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
378-11-I-high-B-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
379-11-I-high-C-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
380-11-I-high-D-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
381-12-I-high-A-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
382-12-I-high-B-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
383-12-I-high-C-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
384-12-I-high-D-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
385-00-I-baseline-A-1	control_none_I	EPA6010C-SPLP	17	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
386-00-I-baseline-B-1	control_none_I	EPA6010C-SPLP	17	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
387-00-I-baseline-C-1	control_none_I	EPA6010C-SPLP	17	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
388-00-I-baseline-D-1	control_none_I	EPA6010C-SPLP	17	mg/L	Chromium	1.48E-03	r1,mdl,U	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Cobalt	1.27E-03	r1	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Cobalt	3.19E-03	r1	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Cobalt	4.86E-04	r1	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Cobalt	1.08E-03	r1	T1
001-01-S-low-A-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Cobalt	3.42E-03	r1	T1
002-01-S-low-B-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Cobalt	2.09E-03	r1	T1
003-01-S-low-C-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Cobalt	1.60E-03	r1	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
004-01-S-low-D-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Cobalt	2.29E-03	rl	T1
005-02-S-low-A-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Cobalt	2.24E-03	rl	T1
006-02-S-low-B-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Cobalt	1.86E-03	rl	T1
007-02-S-low-C-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Cobalt	2.55E-03	rl	T1
008-02-S-low-D-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Cobalt	1.78E-03	rl	T1
009-03-S-low-A-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Cobalt	2.80E-03	rl	T1
010-03-S-low-B-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Cobalt	2.38E-03	rl	T1
011-03-S-low-C-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Cobalt	1.50E-03	rl	T1
012-03-S-low-D-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Cobalt	2.10E-03	rl	T1
013-04-S-low-A-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Cobalt	2.36E-03	rl	T1
014-04-S-low-B-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Cobalt	3.01E-03	rl	T1
015-04-S-low-C-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Cobalt	1.71E-03	rl	T1
016-04-S-low-D-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Cobalt	1.63E-03	rl	T1
017-05-S-low-A-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Cobalt	1.99E-03	rl	T1
018-05-S-low-B-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Cobalt	1.26E-03	rl	T1
019-05-S-low-C-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Cobalt	1.74E-03	rl	T1
020-05-S-low-D-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Cobalt	3.60E-03	rl	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Cobalt	1.99E-03	rl	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Cobalt	2.37E-03	rl	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Cobalt	2.34E-03	rl	T1
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Cobalt	1.33E-03	rl	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Cobalt	1.58E-03	rl	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Cobalt	1.34E-03	rl	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Cobalt	8.94E-04	rl	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Cobalt	3.03E-03	rl	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Cobalt	1.94E-03	rl	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Cobalt	9.67E-04	rl	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Cobalt	1.49E-03	rl	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Cobalt	1.92E-03	rl	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Cobalt	1.38E-03	rl	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
034-09-S-low-B-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Cobalt	2.65E-03	rl	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Cobalt	1.30E-03	rl	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Cobalt	1.81E-03	rl	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Cobalt	1.69E-03	rl	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Cobalt	2.71E-03	rl	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Cobalt	2.22E-03	rl	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Cobalt	2.35E-03	rl	T1
041-11-S-low-A-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Cobalt	2.19E-03	rl	T1
042-11-S-low-B-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Cobalt	2.08E-03	rl	T1
043-11-S-low-C-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Cobalt	2.32E-03	rl	T1
044-11-S-low-D-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Cobalt	2.44E-03	rl	T1
045-12-S-low-A-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Cobalt	3.35E-03	rl	T1
046-12-S-low-B-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Cobalt	2.07E-03	rl	T1
047-12-S-low-C-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Cobalt	2.49E-03	rl	T1
048-12-S-low-D-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Cobalt	2.10E-03	rl	T1
145-01-S-high-A-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Cobalt	3.04E-03	rl	T1
146-01-S-high-B-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Cobalt	2.66E-03	rl	T1
147-01-S-high-C-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Cobalt	3.35E-03	rl	T1
148-01-S-high-D-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Cobalt	3.30E-03	rl	T1
149-02-S-high-A-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Cobalt	3.02E-03	rl	T1
150-02-S-high-B-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Cobalt	2.93E-03	rl	T1
151-02-S-high-C-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Cobalt	2.92E-03	rl	T1
152-02-S-high-D-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Cobalt	1.93E-03	rl	T1
153-03-S-high-A-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Cobalt	2.08E-03	rl	T1
154-03-S-high-B-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Cobalt	1.92E-03	rl	T1
155-03-S-high-C-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Cobalt	2.68E-03	rl	T1
156-03-S-high-D-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Cobalt	1.87E-03	rl	T1
157-04-S-high-A-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Cobalt	5.97E-04	rl	T1
158-04-S-high-B-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Cobalt	1.03E-03	rl	T1
159-04-S-high-C-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Cobalt	6.27E-04	rl	T1

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
160-04-S-high-D-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Cobalt	9.78E-04	rl	T1
161-05-S-high-A-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Cobalt	2.13E-03	rl	T1
162-05-S-high-B-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Cobalt	3.93E-04	rl,mdl,U	T1
163-05-S-high-C-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Cobalt	2.01E-03	rl	T1
164-05-S-high-D-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Cobalt	8.68E-04	rl	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Cobalt	3.01E-03	rl	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Cobalt	1.50E-03	rl	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Cobalt	1.34E-03	rl	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Cobalt	2.53E-03	rl	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Cobalt	1.35E-03	rl	T1
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Cobalt	1.84E-03	rl	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Cobalt	3.93E-04	rl,mdl,U	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Cobalt	7.90E-04	rl	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Cobalt	4.75E-04	rl	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Cobalt	1.37E-03	rl	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Cobalt	2.03E-03	rl	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Cobalt	3.93E-04	rl,mdl,U	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Cobalt	1.06E-03	rl	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Cobalt	5.30E-04	rl	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Cobalt	3.93E-04	rl,mdl,U	T1
180-09-S-high-D-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Cobalt	1.51E-03	rl	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Cobalt	6.33E-04	rl	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Cobalt	4.70E-04	rl	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Cobalt	6.46E-04	rl	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Cobalt	5.39E-04	rl	T1
185-11-S-high-A-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Cobalt	4.03E-04	rl	T1
186-11-S-high-B-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Cobalt	8.42E-04	rl	T1
187-11-S-high-C-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Cobalt	3.93E-04	rl,mdl,U	T1
188-11-S-high-D-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Cobalt	3.93E-04	rl,mdl,U	T1
189-12-S-high-A-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Cobalt	1.77E-03	rl	T1

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
190-12-S-high-B-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Cobalt	3.93E-04	rl,mdl,U	T1
191-12-S-high-C-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Cobalt	3.93E-04	rl,mdl,U	T1
192-12-S-high-D-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Cobalt	3.93E-04	rl,mdl,U	T1
289-01-I-low-A-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Cobalt	2.13E-03	rl	T1
290-01-I-low-B-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Cobalt	1.79E-03	rl	T1
291-01-I-low-C-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Cobalt	1.16E-03	rl	T1
292-01-I-low-D-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Cobalt	1.01E-03	rl	T1
293-02-I-low-A-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Cobalt	1.70E-03	rl	T1
294-02-I-low-B-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Cobalt	2.32E-03	rl	T1
295-02-I-low-C-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Cobalt	3.93E-04	rl,mdl,U	T1
296-02-I-low-D-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Cobalt	1.33E-03	rl	T1
297-03-I-low-A-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Cobalt	1.25E-03	rl	T1
298-03-I-low-B-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Cobalt	8.64E-04	rl	T1
299-03-I-low-C-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Cobalt	1.25E-03	rl	T1
300-03-I-low-D-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Cobalt	4.58E-04	rl	T1
301-04-I-low-A-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Cobalt	3.93E-04	rl,mdl,U	T1
302-04-I-low-B-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Cobalt	3.93E-04	rl,mdl,U	T1
303-04-I-low-C-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Cobalt	8.73E-04	rl	T1
304-04-I-low-D-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Cobalt	7.24E-04	rl	T1
305-05-I-low-A-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Cobalt	2.26E-03	rl	T1
306-05-I-low-B-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Cobalt	1.04E-03	rl	T1
307-05-I-low-C-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Cobalt	5.55E-04	rl	T1
308-05-I-low-D-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Cobalt	1.36E-03	rl	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Cobalt	2.99E-03	rl	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Cobalt	1.23E-03	rl	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Cobalt	1.26E-03	rl	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Cobalt	2.00E-03	rl	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Cobalt	8.87E-03	rl	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Cobalt	1.33E-03	rl	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Cobalt	1.22E-03	rl	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Cobalt	2.22E-03	rl	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Cobalt	1.08E-03	rl	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Cobalt	3.11E-03	rl	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Cobalt	1.25E-03	rl	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Cobalt	1.22E-03	rl	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Cobalt	1.43E-03	rl	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Cobalt	2.57E-03	rl	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Cobalt	1.12E-02	rl	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Cobalt	3.22E-03	rl	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Cobalt	4.12E-04	rl	T1
326-10-I-low-B-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Cobalt	5.96E-04	rl	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Cobalt	1.12E-03	rl	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Cobalt	1.06E-03	rl	T1
329-11-I-low-A-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Cobalt	9.16E-04	rl	T1
330-11-I-low-B-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Cobalt	1.02E-03	rl	T1
331-11-I-low-C-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Cobalt	6.26E-03	rl	T1
332-11-I-low-D-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Cobalt	1.19E-03	rl	T1
333-12-I-low-A-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Cobalt	1.05E-03	rl	T1
334-12-I-low-B-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Cobalt	8.59E-04	rl	T1
335-12-I-low-C-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Cobalt	1.21E-03	rl	T1
336-12-I-low-D-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Cobalt	1.95E-03	rl	T1
337-01-I-high-A-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Cobalt	2.65E-03	rl	T1
338-01-I-high-B-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Cobalt	2.10E-03	rl	T1
339-01-I-high-C-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Cobalt	9.29E-03	rl	T1
340-01-I-high-D-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Cobalt	5.71E-03	rl	T1
341-02-I-high-A-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Cobalt	4.06E-03	rl	T1
342-02-I-high-B-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Cobalt	2.69E-03	rl	T1
343-02-I-high-C-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Cobalt	3.40E-03	rl	T1
344-02-I-high-D-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Cobalt	9.29E-04	rl	T1
345-03-I-high-A-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Cobalt	5.50E-04	rl	T1



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
346-03-I-high-B-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Cobalt	1.38E-03	rl	T1
347-03-I-high-C-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Cobalt	7.57E-04	rl	T1
348-03-I-high-D-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Cobalt	6.24E-04	rl	T1
349-04-I-high-A-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Cobalt	6.22E-04	rl	T1
350-04-I-high-B-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Cobalt	6.28E-04	rl	T1
351-04-I-high-C-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Cobalt	6.79E-04	rl	T1
352-04-I-high-D-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Cobalt	9.02E-04	rl	T1
353-05-I-high-A-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Cobalt	1.86E-03	rl	T1
354-05-I-high-B-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Cobalt	1.13E-03	rl	T1
355-05-I-high-C-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Cobalt	1.11E-03	rl	T1
356-05-I-high-D-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Cobalt	1.07E-03	rl	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Cobalt	1.21E-02	rl	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Cobalt	5.63E-03	rl	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Cobalt	4.63E-03	rl	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Cobalt	3.71E-03	rl	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Cobalt	1.90E-03	rl	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Cobalt	1.40E-03	rl	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Cobalt	6.90E-04	rl	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Cobalt	1.50E-03	rl	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Cobalt	7.43E-03	rl	T1
366-08-I-high-B-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Cobalt	1.15E-03	rl	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Cobalt	4.93E-04	rl	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Cobalt	1.61E-03	rl	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Cobalt	2.94E-03	rl	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Cobalt	2.40E-03	rl	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Cobalt	4.03E-03	rl	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Cobalt	2.85E-03	rl	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Cobalt	1.07E-02	rl	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Cobalt	5.49E-04	rl	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Cobalt	1.00E-03	rl	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
376-10-I-high-D-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Cobalt	6.50E-04	rl	T1
377-11-I-high-A-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Cobalt	1.20E-03	rl	T1
378-11-I-high-B-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Cobalt	4.62E-04	rl	T1
379-11-I-high-C-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Cobalt	5.32E-04	rl	T1
380-11-I-high-D-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Cobalt	9.50E-04	rl	T1
381-12-I-high-A-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Cobalt	3.93E-04	rl,mdl,U	T1
382-12-I-high-B-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Cobalt	7.54E-04	rl	T1
383-12-I-high-C-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Cobalt	7.18E-03	rl	T1
384-12-I-high-D-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Cobalt	1.05E-03	rl	T1
385-00-I-baseline-A-1	control_none_I	EPA6010C-SPLP	17	mg/L	Cobalt	3.93E-04	rl,mdl,U	T1
386-00-I-baseline-B-1	control_none_I	EPA6010C-SPLP	17	mg/L	Cobalt	1.51E-03	rl	T1
387-00-I-baseline-C-1	control_none_I	EPA6010C-SPLP	17	mg/L	Cobalt	1.32E-03	rl	T1
388-00-I-baseline-D-1	control_none_I	EPA6010C-SPLP	17	mg/L	Cobalt	1.63E-03	rl	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Copper	6.54E-03	rl	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Copper	8.17E-03	rl	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Copper	6.19E-03	rl	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Copper	6.60E-03	rl	T1
001-01-S-low-A-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Copper	2.35E-03	rl	T1
002-01-S-low-B-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Copper	4.54E-03	rl	T1
003-01-S-low-C-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Copper	4.48E-03	rl	T1
004-01-S-low-D-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Copper	3.28E-03	rl	T1
005-02-S-low-A-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Copper	6.15E-03	rl	T1
006-02-S-low-B-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Copper	7.83E-03	rl	T1
007-02-S-low-C-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Copper	5.66E-03	rl	T1
008-02-S-low-D-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Copper	5.05E-03	rl	T1
009-03-S-low-A-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Copper	4.65E-03	rl	T1
010-03-S-low-B-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Copper	4.97E-03	rl	T1
011-03-S-low-C-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Copper	3.44E-03	rl	T1
012-03-S-low-D-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Copper	5.01E-03	rl	T1
013-04-S-low-A-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Copper	1.55E-03	rl	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
014-04-S-low-B-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Copper	3.78E-03	rl	T1
015-04-S-low-C-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Copper	5.20E-03	rl	T1
016-04-S-low-D-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Copper	3.41E-03	rl	T1
017-05-S-low-A-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Copper	4.88E-03	rl	T1
018-05-S-low-B-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Copper	5.90E-03	rl	T1
019-05-S-low-C-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Copper	4.96E-03	rl	T1
020-05-S-low-D-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Copper	5.59E-03	rl	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Copper	6.78E-03	rl	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Copper	6.51E-03	rl	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Copper	7.62E-03	rl	T1
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Copper	7.48E-03	rl	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Copper	3.17E-03	rl	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Copper	1.95E-03	rl	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Copper	1.07E-03	rl	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Copper	3.30E-03	rl	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Copper	3.93E-03	rl	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Copper	4.53E-03	rl	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Copper	3.92E-03	rl	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Copper	4.15E-03	rl	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Copper	5.33E-03	rl	T1
034-09-S-low-B-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Copper	4.20E-03	rl	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Copper	6.75E-03	rl	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Copper	6.95E-03	rl	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Copper	3.58E-03	rl	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Copper	2.69E-03	rl	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Copper	4.37E-03	rl	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Copper	4.82E-03	rl	T1
041-11-S-low-A-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Copper	2.70E-03	rl	T1
042-11-S-low-B-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Copper	4.18E-03	rl	T1
043-11-S-low-C-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Copper	5.91E-03	rl	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
044-11-S-low-D-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Copper	5.04E-03	rl	T1
045-12-S-low-A-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Copper	4.64E-03	rl	T1
046-12-S-low-B-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Copper	3.73E-03	rl	T1
047-12-S-low-C-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Copper	5.98E-03	rl	T1
048-12-S-low-D-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Copper	2.30E-03	rl	T1
145-01-S-high-A-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Copper	5.40E-03	rl	T1
146-01-S-high-B-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Copper	6.10E-03	rl	T1
147-01-S-high-C-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Copper	6.91E-03	rl	T1
148-01-S-high-D-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Copper	5.77E-03	rl	T1
149-02-S-high-A-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Copper	9.31E-03	rl	T1
150-02-S-high-B-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Copper	1.16E-02	NA	T1
151-02-S-high-C-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Copper	8.39E-03	rl	T1
152-02-S-high-D-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Copper	9.22E-03	rl	T1
153-03-S-high-A-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Copper	3.82E-03	rl	T1
154-03-S-high-B-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Copper	3.30E-03	rl	T1
155-03-S-high-C-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Copper	3.96E-03	rl	T1
156-03-S-high-D-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Copper	3.53E-03	rl	T1
157-04-S-high-A-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Copper	6.88E-03	rl	T1
158-04-S-high-B-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Copper	7.68E-03	rl	T1
159-04-S-high-C-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Copper	6.35E-03	rl	T1
160-04-S-high-D-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Copper	5.47E-03	rl	T1
161-05-S-high-A-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Copper	5.83E-03	rl	T1
162-05-S-high-B-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Copper	5.78E-03	rl	T1
163-05-S-high-C-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Copper	6.72E-03	rl	T1
164-05-S-high-D-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Copper	7.40E-03	rl	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Copper	9.25E-03	rl	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Copper	1.34E-02	NA	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Copper	1.09E-02	NA	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Copper	9.82E-03	rl	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Copper	8.25E-03	rl	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Copper	8.34E-03	rl	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Copper	6.52E-03	rl	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Copper	8.08E-03	rl	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Copper	1.08E-02	NA	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Copper	1.18E-02	NA	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Copper	1.10E-02	NA	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Copper	7.04E-03	rl	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Copper	1.10E-02	NA	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Copper	9.03E-03	rl	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Copper	9.78E-03	rl	T1
180-09-S-high-D-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Copper	9.23E-03	rl	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Copper	6.14E-03	rl	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Copper	5.89E-03	rl	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Copper	4.89E-03	rl	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Copper	6.09E-03	rl	T1
185-11-S-high-A-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Copper	6.63E-03	rl	T1
186-11-S-high-B-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Copper	8.60E-03	rl	T1
187-11-S-high-C-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Copper	6.91E-03	rl	T1
188-11-S-high-D-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Copper	6.53E-03	rl	T1
189-12-S-high-A-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Copper	4.92E-03	rl	T1
190-12-S-high-B-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Copper	5.60E-03	rl	T1
191-12-S-high-C-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Copper	9.30E-03	rl	T1
192-12-S-high-D-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Copper	6.77E-03	rl	T1
289-01-I-low-A-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Copper	6.62E-03	rl	T1
290-01-I-low-B-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Copper	6.19E-03	rl	T1
291-01-I-low-C-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Copper	6.48E-03	rl	T1
292-01-I-low-D-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Copper	5.40E-03	rl	T1
293-02-I-low-A-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Copper	1.22E-02	NA	T1
294-02-I-low-B-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Copper	1.20E-02	NA	T1
295-02-I-low-C-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Copper	1.02E-02	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
296-02-I-low-D-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Copper	1.15E-02	NA	T1
297-03-I-low-A-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Copper	6.66E-03	rl	T1
298-03-I-low-B-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Copper	7.82E-03	rl	T1
299-03-I-low-C-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Copper	6.52E-03	rl	T1
300-03-I-low-D-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Copper	5.02E-03	rl	T1
301-04-I-low-A-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Copper	3.76E-03	rl	T1
302-04-I-low-B-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Copper	5.13E-03	rl	T1
303-04-I-low-C-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Copper	4.06E-03	rl	T1
304-04-I-low-D-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Copper	2.75E-03	rl	T1
305-05-I-low-A-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Copper	1.24E-02	NA	T1
306-05-I-low-B-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Copper	1.05E-02	NA	T1
307-05-I-low-C-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Copper	1.12E-02	NA	T1
308-05-I-low-D-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Copper	1.29E-02	NA	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Copper	1.54E-02	NA	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Copper	1.35E-02	NA	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Copper	1.90E-02	NA	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Copper	1.60E-02	NA	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Copper	1.77E-02	NA	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Copper	8.60E-03	rl	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Copper	7.46E-03	rl	T1
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Copper	8.84E-03	rl	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Copper	1.07E-02	NA	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Copper	1.14E-02	NA	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Copper	1.09E-02	NA	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Copper	9.39E-03	rl	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Copper	2.08E-02	NA	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Copper	1.71E-02	NA	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Copper	2.50E-02	NA	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Copper	1.64E-02	NA	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Copper	8.28E-03	rl	T1



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
326-10-I-low-B-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Copper	8.84E-03	rl	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Copper	9.05E-03	rl	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Copper	8.65E-03	rl	T1
329-11-I-low-A-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Copper	1.11E-02	NA	T1
330-11-I-low-B-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Copper	1.15E-02	NA	T1
331-11-I-low-C-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Copper	1.82E-02	NA	T1
332-11-I-low-D-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Copper	1.15E-02	NA	T1
333-12-I-low-A-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Copper	8.89E-03	rl	T1
334-12-I-low-B-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Copper	1.05E-02	NA	T1
335-12-I-low-C-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Copper	1.14E-02	NA	T1
336-12-I-low-D-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Copper	1.14E-02	NA	T1
337-01-I-high-A-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Copper	1.07E-02	NA	T1
338-01-I-high-B-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Copper	1.04E-02	NA	T1
339-01-I-high-C-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Copper	1.92E-02	NA	T1
340-01-I-high-D-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Copper	5.81E-02	NA	T1
341-02-I-high-A-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Copper	6.88E-02	NA	T1
342-02-I-high-B-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Copper	5.40E-02	NA	T1
343-02-I-high-C-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Copper	6.17E-02	NA	T1
344-02-I-high-D-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Copper	4.52E-02	NA	T1
345-03-I-high-A-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Copper	1.06E-02	NA	T1
346-03-I-high-B-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Copper	9.86E-03	rl	T1
347-03-I-high-C-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Copper	9.08E-03	rl	T1
348-03-I-high-D-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Copper	8.66E-03	rl	T1
349-04-I-high-A-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Copper	8.04E-03	rl	T1
350-04-I-high-B-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Copper	9.43E-03	rl	T1
351-04-I-high-C-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Copper	7.57E-03	rl	T1
352-04-I-high-D-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Copper	7.84E-03	rl	T1
353-05-I-high-A-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Copper	1.61E-02	NA	T1
354-05-I-high-B-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Copper	2.19E-02	NA	T1
355-05-I-high-C-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Copper	1.72E-02	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
356-05-I-high-D-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Copper	1.77E-02	NA	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Copper	8.46E-02	NA	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Copper	8.40E-02	NA	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Copper	5.57E-02	NA	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Copper	5.32E-02	NA	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Copper	9.56E-03	rl	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Copper	9.90E-03	rl	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Copper	9.78E-03	rl	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Copper	1.03E-02	NA	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Copper	2.35E-02	NA	T1
366-08-I-high-B-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Copper	1.82E-02	NA	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Copper	1.81E-02	NA	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Copper	2.01E-02	NA	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Copper	6.38E-02	NA	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Copper	5.50E-02	NA	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Copper	6.28E-02	NA	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Copper	6.75E-02	NA	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Copper	1.94E-02	NA	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Copper	8.87E-03	rl	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Copper	1.01E-02	NA	T1
376-10-I-high-D-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Copper	8.15E-03	rl	T1
377-11-I-high-A-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Copper	9.05E-03	rl	T1
378-11-I-high-B-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Copper	1.43E-02	NA	T1
379-11-I-high-C-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Copper	1.47E-02	NA	T1
380-11-I-high-D-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Copper	1.54E-02	NA	T1
381-12-I-high-A-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Copper	1.42E-02	NA	T1
382-12-I-high-B-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Copper	1.39E-02	NA	T1
383-12-I-high-C-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Copper	2.23E-02	NA	T1
384-12-I-high-D-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Copper	1.56E-02	NA	T1
385-00-I-baseline-A-1	control_none_I	EPA6010C-SPLP	17	mg/L	Copper	9.51E-03	rl	T1



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
386-00-I-baseline-B-1	control_none_I	EPA6010C-SPLP	17	mg/L	Copper	1.06E-02	NA	T1
387-00-I-baseline-C-1	control_none_I	EPA6010C-SPLP	17	mg/L	Copper	8.42E-03	rl	T1
388-00-I-baseline-D-1	control_none_I	EPA6010C-SPLP	17	mg/L	Copper	7.78E-03	rl	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Iron	2.16E-01	rl	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Iron	1.80E-01	rl	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Iron	2.37E-01	rl	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Iron	2.72E-01	rl	T1
001-01-S-low-A-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Iron	3.13E-01	rl	T1
002-01-S-low-B-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Iron	3.97E-01	rl	T1
003-01-S-low-C-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Iron	4.25E-01	rl	T1
004-01-S-low-D-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Iron	4.12E-01	rl	T1
005-02-S-low-A-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Iron	5.00E-01	NA	T1
006-02-S-low-B-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Iron	6.00E-01	NA	T1
007-02-S-low-C-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Iron	4.90E-01	rl	T1
008-02-S-low-D-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Iron	4.37E-01	rl	T1
009-03-S-low-A-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Iron	4.40E-01	rl	T1
010-03-S-low-B-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Iron	4.37E-01	rl	T1
011-03-S-low-C-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Iron	5.05E-01	NA	T1
012-03-S-low-D-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Iron	5.25E-01	NA	T1
013-04-S-low-A-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Iron	3.85E-01	rl	T1
014-04-S-low-B-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Iron	4.12E-01	rl	T1
015-04-S-low-C-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Iron	4.75E-01	rl	T1
016-04-S-low-D-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Iron	4.31E-01	rl	T1
017-05-S-low-A-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Iron	4.41E-01	rl	T1
018-05-S-low-B-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Iron	4.51E-01	rl	T1
019-05-S-low-C-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Iron	4.82E-01	rl	T1
020-05-S-low-D-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Iron	4.43E-01	rl	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Iron	4.59E-01	rl	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Iron	4.16E-01	rl	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Iron	4.94E-01	rl	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Iron	4.97E-01	rl	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Iron	3.68E-01	rl	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Iron	3.72E-01	rl	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Iron	3.24E-01	rl	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Iron	4.02E-01	rl	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Iron	3.87E-01	rl	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Iron	3.91E-01	rl	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Iron	2.97E-01	rl	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Iron	4.34E-01	rl	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Iron	4.19E-01	rl	T1
034-09-S-low-B-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Iron	4.35E-01	rl	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Iron	4.79E-01	rl	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Iron	5.24E-01	NA	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Iron	4.33E-01	rl	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Iron	4.48E-01	rl	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Iron	4.64E-01	rl	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Iron	4.36E-01	rl	T1
041-11-S-low-A-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Iron	4.43E-01	rl	T1
042-11-S-low-B-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Iron	4.54E-01	rl	T1
043-11-S-low-C-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Iron	4.44E-01	rl	T1
044-11-S-low-D-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Iron	4.26E-01	rl	T1
045-12-S-low-A-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Iron	5.00E-01	NA	T1
046-12-S-low-B-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Iron	4.80E-01	rl	T1
047-12-S-low-C-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Iron	4.75E-01	rl	T1
048-12-S-low-D-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Iron	4.19E-01	rl	T1
145-01-S-high-A-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Iron	3.47E-01	rl	T1
146-01-S-high-B-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Iron	3.62E-01	rl	T1
147-01-S-high-C-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Iron	3.97E-01	rl	T1
148-01-S-high-D-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Iron	3.57E-01	rl	T1
149-02-S-high-A-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Iron	6.32E-01	NA	T1



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
150-02-S-high-B-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Iron	6.79E-01	NA	T1
151-02-S-high-C-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Iron	5.35E-01	NA	T1
152-02-S-high-D-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Iron	6.23E-01	NA	T1
153-03-S-high-A-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Iron	4.39E-01	rl	T1
154-03-S-high-B-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Iron	4.21E-01	rl	T1
155-03-S-high-C-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Iron	4.05E-01	rl	T1
156-03-S-high-D-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Iron	4.06E-01	rl	T1
157-04-S-high-A-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Iron	4.45E-01	rl	T1
158-04-S-high-B-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Iron	5.38E-01	NA	T1
159-04-S-high-C-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Iron	5.11E-01	NA	T1
160-04-S-high-D-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Iron	4.23E-01	rl	T1
161-05-S-high-A-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Iron	4.51E-01	rl	T1
162-05-S-high-B-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Iron	4.62E-01	rl	T1
163-05-S-high-C-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Iron	4.67E-01	rl	T1
164-05-S-high-D-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Iron	4.76E-01	rl	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Iron	4.58E-01	rl	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Iron	4.89E-01	rl	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Iron	5.04E-01	NA	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Iron	5.52E-01	NA	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Iron	4.52E-01	rl	T1
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Iron	4.60E-01	rl	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Iron	4.86E-01	rl	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Iron	4.59E-01	rl	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Iron	4.83E-01	rl	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Iron	4.64E-01	rl	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Iron	4.61E-01	rl	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Iron	3.88E-01	rl	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Iron	5.27E-01	NA	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Iron	4.71E-01	rl	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Iron	4.85E-01	rl	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
180-09-S-high-D-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Iron	4.91E-01	rl	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Iron	4.87E-01	rl	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Iron	5.21E-01	NA	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Iron	4.70E-01	rl	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Iron	5.41E-01	NA	T1
185-11-S-high-A-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Iron	5.09E-01	NA	T1
186-11-S-high-B-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Iron	5.12E-01	NA	T1
187-11-S-high-C-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Iron	4.94E-01	rl	T1
188-11-S-high-D-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Iron	4.61E-01	rl	T1
189-12-S-high-A-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Iron	4.36E-01	rl	T1
190-12-S-high-B-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Iron	4.98E-01	rl	T1
191-12-S-high-C-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Iron	5.19E-01	NA	T1
192-12-S-high-D-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Iron	5.15E-01	NA	T1
289-01-I-low-A-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Iron	3.19E-01	rl	T1
290-01-I-low-B-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Iron	2.86E-01	rl	T1
291-01-I-low-C-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Iron	3.01E-01	rl	T1
292-01-I-low-D-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Iron	3.82E-01	rl	T1
293-02-I-low-A-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Iron	4.29E-01	rl	T1
294-02-I-low-B-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Iron	4.46E-01	rl	T1
295-02-I-low-C-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Iron	4.30E-01	rl	T1
296-02-I-low-D-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Iron	4.26E-01	rl	T1
297-03-I-low-A-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Iron	4.00E-01	rl	T1
298-03-I-low-B-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Iron	3.77E-01	rl	T1
299-03-I-low-C-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Iron	4.08E-01	rl	T1
300-03-I-low-D-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Iron	4.00E-01	rl	T1
301-04-I-low-A-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Iron	3.63E-01	rl	T1
302-04-I-low-B-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Iron	3.91E-01	rl	T1
303-04-I-low-C-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Iron	3.63E-01	rl	T1
304-04-I-low-D-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Iron	3.56E-01	rl	T1
305-05-I-low-A-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Iron	4.36E-01	rl	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
306-05-I-low-B-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Iron	5.07E-01	NA	T1
307-05-I-low-C-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Iron	4.91E-01	rl	T1
308-05-I-low-D-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Iron	4.51E-01	rl	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Iron	4.42E-01	rl	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Iron	5.43E-01	NA	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Iron	5.66E-01	NA	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Iron	5.97E-01	NA	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Iron	2.48E-01	rl	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Iron	2.36E-01	rl	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Iron	2.60E-01	rl	T1
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Iron	2.45E-01	rl	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Iron	3.44E-01	rl	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Iron	4.00E-01	rl	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Iron	3.07E-01	rl	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Iron	3.25E-01	rl	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Iron	4.38E-01	rl	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Iron	5.72E-01	NA	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Iron	5.82E-01	NA	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Iron	6.19E-01	NA	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Iron	3.33E-01	rl	T1
326-10-I-low-B-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Iron	3.51E-01	rl	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Iron	3.35E-01	rl	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Iron	3.60E-01	rl	T1
329-11-I-low-A-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Iron	3.73E-01	rl	T1
330-11-I-low-B-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Iron	5.04E-01	NA	T1
331-11-I-low-C-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Iron	3.48E-01	rl	T1
332-11-I-low-D-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Iron	3.22E-01	rl	T1
333-12-I-low-A-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Iron	3.32E-01	rl	T1
334-12-I-low-B-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Iron	4.79E-01	rl	T1
335-12-I-low-C-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Iron	4.40E-01	rl	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
336-12-I-low-D-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Iron	4.38E-01	rl	T1
337-01-I-high-A-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Iron	2.99E-01	rl	T1
338-01-I-high-B-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Iron	3.13E-01	rl	T1
339-01-I-high-C-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Iron	3.68E-01	rl	T1
340-01-I-high-D-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Iron	9.47E-01	NA	T1
341-02-I-high-A-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Iron	7.39E-01	NA	T1
342-02-I-high-B-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Iron	6.97E-01	NA	T1
343-02-I-high-C-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Iron	1.08E+00	NA	T1
344-02-I-high-D-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Iron	7.93E-01	NA	T1
345-03-I-high-A-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Iron	4.24E-01	rl	T1
346-03-I-high-B-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Iron	4.24E-01	rl	T1
347-03-I-high-C-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Iron	4.26E-01	rl	T1
348-03-I-high-D-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Iron	4.76E-01	rl	T1
349-04-I-high-A-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Iron	3.93E-01	rl	T1
350-04-I-high-B-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Iron	3.98E-01	rl	T1
351-04-I-high-C-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Iron	4.09E-01	rl	T1
352-04-I-high-D-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Iron	4.24E-01	rl	T1
353-05-I-high-A-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Iron	4.86E-01	rl	T1
354-05-I-high-B-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Iron	4.65E-01	rl	T1
355-05-I-high-C-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Iron	3.79E-01	rl	T1
356-05-I-high-D-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Iron	4.71E-01	rl	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Iron	6.06E-01	NA	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Iron	7.81E-01	NA	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Iron	6.73E-01	NA	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Iron	8.71E-01	NA	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Iron	2.78E-01	rl	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Iron	3.11E-01	rl	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Iron	3.58E-01	rl	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Iron	3.71E-01	rl	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Iron	3.98E-01	rl	T1



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
366-08-I-high-B-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Iron	3.61E-01	rl	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Iron	3.23E-01	rl	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Iron	3.06E-01	rl	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Iron	5.11E-01	NA	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Iron	7.26E-01	NA	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Iron	5.06E-01	NA	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Iron	5.63E-01	NA	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Iron	4.29E-01	rl	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Iron	3.90E-01	rl	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Iron	5.32E-01	NA	T1
376-10-I-high-D-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Iron	3.73E-01	rl	T1
377-11-I-high-A-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Iron	1.38E-01	rl	T1
378-11-I-high-B-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Iron	5.55E-01	NA	T1
379-11-I-high-C-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Iron	4.32E-01	rl	T1
380-11-I-high-D-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Iron	5.01E-01	NA	T1
381-12-I-high-A-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Iron	5.46E-01	NA	T1
382-12-I-high-B-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Iron	6.00E-01	NA	T1
383-12-I-high-C-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Iron	5.55E-01	NA	T1
384-12-I-high-D-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Iron	4.86E-01	rl	T1
385-00-I-baseline-A-1	control_none_I	EPA6010C-SPLP	17	mg/L	Iron	4.21E-01	rl	T1
386-00-I-baseline-B-1	control_none_I	EPA6010C-SPLP	17	mg/L	Iron	4.52E-01	rl	T1
387-00-I-baseline-C-1	control_none_I	EPA6010C-SPLP	17	mg/L	Iron	4.21E-01	rl	T1
388-00-I-baseline-D-1	control_none_I	EPA6010C-SPLP	17	mg/L	Iron	4.59E-01	rl	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Lead	3.65E-02	NA	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Lead	3.48E-02	NA	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Lead	3.67E-02	NA	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Lead	3.36E-02	NA	T1
001-01-S-low-A-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Lead	4.46E-02	NA	T1
002-01-S-low-B-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Lead	6.42E-02	NA	T1
003-01-S-low-C-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Lead	6.55E-02	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
004-01-S-low-D-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Lead	6.37E-02	NA	T1
005-02-S-low-A-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Lead	7.22E-02	NA	T1
006-02-S-low-B-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Lead	8.19E-02	NA	T1
007-02-S-low-C-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Lead	5.60E-02	NA	T1
008-02-S-low-D-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Lead	4.47E-02	NA	T1
009-03-S-low-A-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Lead	6.71E-02	NA	T1
010-03-S-low-B-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Lead	6.66E-02	NA	T1
011-03-S-low-C-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Lead	6.96E-02	NA	T1
012-03-S-low-D-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Lead	7.48E-02	NA	T1
013-04-S-low-A-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Lead	5.72E-02	NA	T1
014-04-S-low-B-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Lead	6.07E-02	NA	T1
015-04-S-low-C-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Lead	7.10E-02	NA	T1
016-04-S-low-D-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Lead	6.48E-02	NA	T1
017-05-S-low-A-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Lead	7.04E-02	NA	T1
018-05-S-low-B-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Lead	7.84E-02	NA	T1
019-05-S-low-C-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Lead	7.52E-02	NA	T1
020-05-S-low-D-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Lead	7.19E-02	NA	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Lead	5.46E-02	NA	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Lead	7.03E-02	NA	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Lead	7.06E-02	NA	T1
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Lead	6.54E-02	NA	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Lead	4.96E-02	NA	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Lead	5.23E-02	NA	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Lead	4.17E-02	NA	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Lead	5.79E-02	NA	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Lead	5.16E-02	NA	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Lead	5.32E-02	NA	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Lead	4.70E-02	NA	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Lead	6.76E-02	NA	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Lead	6.27E-02	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
034-09-S-low-B-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Lead	5.76E-02	NA	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Lead	6.36E-02	NA	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Lead	7.18E-02	NA	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Lead	6.71E-02	NA	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Lead	6.80E-02	NA	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Lead	6.99E-02	NA	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Lead	6.44E-02	NA	T1
041-11-S-low-A-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Lead	5.68E-02	NA	T1
042-11-S-low-B-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Lead	6.97E-02	NA	T1
043-11-S-low-C-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Lead	6.98E-02	NA	T1
044-11-S-low-D-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Lead	6.51E-02	NA	T1
045-12-S-low-A-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Lead	7.76E-02	NA	T1
046-12-S-low-B-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Lead	7.10E-02	NA	T1
047-12-S-low-C-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Lead	7.19E-02	NA	T1
048-12-S-low-D-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Lead	5.72E-02	NA	T1
145-01-S-high-A-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Lead	5.94E-02	NA	T1
146-01-S-high-B-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Lead	6.17E-02	NA	T1
147-01-S-high-C-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Lead	6.84E-02	NA	T1
148-01-S-high-D-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Lead	5.68E-02	NA	T1
149-02-S-high-A-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Lead	9.60E-02	NA	T1
150-02-S-high-B-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Lead	1.04E-01	NA	T1
151-02-S-high-C-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Lead	1.04E-01	NA	T1
152-02-S-high-D-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Lead	9.27E-02	NA	T1
153-03-S-high-A-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Lead	6.79E-02	NA	T1
154-03-S-high-B-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Lead	6.30E-02	NA	T1
155-03-S-high-C-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Lead	6.60E-02	NA	T1
156-03-S-high-D-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Lead	6.05E-02	NA	T1
157-04-S-high-A-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Lead	6.22E-02	NA	T1
158-04-S-high-B-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Lead	8.13E-02	NA	T1
159-04-S-high-C-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Lead	7.04E-02	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
160-04-S-high-D-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Lead	4.25E-02	NA	T1
161-05-S-high-A-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Lead	6.04E-02	NA	T1
162-05-S-high-B-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Lead	6.89E-02	NA	T1
163-05-S-high-C-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Lead	6.90E-02	NA	T1
164-05-S-high-D-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Lead	6.91E-02	NA	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Lead	6.71E-02	NA	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Lead	7.42E-02	NA	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Lead	6.15E-02	NA	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Lead	6.77E-02	NA	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Lead	7.45E-02	NA	T1
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Lead	6.64E-02	NA	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Lead	6.06E-02	NA	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Lead	5.91E-02	NA	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Lead	6.93E-02	NA	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Lead	6.72E-02	NA	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Lead	6.42E-02	NA	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Lead	4.72E-02	NA	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Lead	6.34E-02	NA	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Lead	6.55E-02	NA	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Lead	6.91E-02	NA	T1
180-09-S-high-D-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Lead	6.47E-02	NA	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Lead	5.74E-02	NA	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Lead	6.12E-02	NA	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Lead	5.40E-02	NA	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Lead	6.32E-02	NA	T1
185-11-S-high-A-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Lead	7.07E-02	NA	T1
186-11-S-high-B-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Lead	7.51E-02	NA	T1
187-11-S-high-C-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Lead	7.07E-02	NA	T1
188-11-S-high-D-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Lead	5.95E-02	NA	T1
189-12-S-high-A-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Lead	4.91E-02	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
190-12-S-high-B-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Lead	6.71E-02	NA	T1
191-12-S-high-C-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Lead	7.73E-02	NA	T1
192-12-S-high-D-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Lead	7.31E-02	NA	T1
289-01-I-low-A-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Lead	5.80E-02	NA	T1
290-01-I-low-B-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Lead	5.55E-02	NA	T1
291-01-I-low-C-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Lead	5.57E-02	NA	T1
292-01-I-low-D-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Lead	6.21E-02	NA	T1
293-02-I-low-A-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Lead	6.46E-02	NA	T1
294-02-I-low-B-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Lead	6.23E-02	NA	T1
295-02-I-low-C-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Lead	6.53E-02	NA	T1
296-02-I-low-D-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Lead	5.81E-02	NA	T1
297-03-I-low-A-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Lead	6.19E-02	NA	T1
298-03-I-low-B-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Lead	6.09E-02	NA	T1
299-03-I-low-C-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Lead	6.10E-02	NA	T1
300-03-I-low-D-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Lead	5.93E-02	NA	T1
301-04-I-low-A-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Lead	4.48E-02	NA	T1
302-04-I-low-B-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Lead	5.29E-02	NA	T1
303-04-I-low-C-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Lead	5.33E-02	NA	T1
304-04-I-low-D-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Lead	4.85E-02	NA	T1
305-05-I-low-A-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Lead	6.85E-02	NA	T1
306-05-I-low-B-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Lead	6.75E-02	NA	T1
307-05-I-low-C-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Lead	6.95E-02	NA	T1
308-05-I-low-D-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Lead	7.43E-02	NA	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Lead	6.16E-02	NA	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Lead	6.70E-02	NA	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Lead	7.70E-02	NA	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Lead	7.55E-02	NA	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Lead	5.47E-02	NA	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Lead	3.93E-02	NA	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Lead	4.77E-02	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Lead	4.75E-02	NA	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Lead	6.14E-02	NA	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Lead	6.64E-02	NA	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Lead	5.17E-02	NA	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Lead	5.11E-02	NA	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Lead	5.59E-02	NA	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Lead	7.22E-02	NA	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Lead	7.72E-02	NA	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Lead	7.62E-02	NA	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Lead	4.57E-02	NA	T1
326-10-I-low-B-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Lead	4.88E-02	NA	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Lead	4.92E-02	NA	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Lead	4.84E-02	NA	T1
329-11-I-low-A-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Lead	5.64E-02	NA	T1
330-11-I-low-B-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Lead	6.45E-02	NA	T1
331-11-I-low-C-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Lead	6.44E-02	NA	T1
332-11-I-low-D-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Lead	5.52E-02	NA	T1
333-12-I-low-A-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Lead	5.01E-02	NA	T1
334-12-I-low-B-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Lead	5.76E-02	NA	T1
335-12-I-low-C-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Lead	6.16E-02	NA	T1
336-12-I-low-D-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Lead	6.40E-02	NA	T1
337-01-I-high-A-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Lead	5.14E-02	NA	T1
338-01-I-high-B-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Lead	5.54E-02	NA	T1
339-01-I-high-C-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Lead	7.93E-02	NA	T1
340-01-I-high-D-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Lead	1.39E-01	NA	T1
341-02-I-high-A-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Lead	7.29E-02	NA	T1
342-02-I-high-B-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Lead	7.65E-02	NA	T1
343-02-I-high-C-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Lead	7.55E-02	NA	T1
344-02-I-high-D-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Lead	8.25E-02	NA	T1
345-03-I-high-A-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Lead	6.26E-02	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
346-03-I-high-B-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Lead	5.59E-02	NA	T1
347-03-I-high-C-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Lead	6.77E-02	NA	T1
348-03-I-high-D-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Lead	6.95E-02	NA	T1
349-04-I-high-A-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Lead	4.87E-02	NA	T1
350-04-I-high-B-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Lead	5.00E-02	NA	T1
351-04-I-high-C-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Lead	5.37E-02	NA	T1
352-04-I-high-D-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Lead	5.44E-02	NA	T1
353-05-I-high-A-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Lead	7.28E-02	NA	T1
354-05-I-high-B-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Lead	8.11E-02	NA	T1
355-05-I-high-C-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Lead	7.26E-02	NA	T1
356-05-I-high-D-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Lead	9.23E-02	NA	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Lead	7.81E-02	NA	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Lead	8.48E-02	NA	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Lead	7.17E-02	NA	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Lead	9.19E-02	NA	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Lead	5.23E-02	NA	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Lead	5.14E-02	NA	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Lead	5.10E-02	NA	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Lead	5.71E-02	NA	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Lead	5.73E-02	NA	T1
366-08-I-high-B-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Lead	5.28E-02	NA	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Lead	5.10E-02	NA	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Lead	5.69E-02	NA	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Lead	5.94E-02	NA	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Lead	8.76E-02	NA	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Lead	5.72E-02	NA	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Lead	6.10E-02	NA	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Lead	6.66E-02	NA	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Lead	5.23E-02	NA	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Lead	7.06E-02	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
376-10-I-high-D-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Lead	5.87E-02	NA	T1
377-11-I-high-A-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Lead	2.57E-02	NA	T1
378-11-I-high-B-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Lead	7.47E-02	NA	T1
379-11-I-high-C-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Lead	6.02E-02	NA	T1
380-11-I-high-D-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Lead	6.96E-02	NA	T1
381-12-I-high-A-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Lead	7.15E-02	NA	T1
382-12-I-high-B-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Lead	8.13E-02	NA	T1
383-12-I-high-C-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Lead	8.62E-02	NA	T1
384-12-I-high-D-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Lead	6.94E-02	NA	T1
385-00-I-baseline-A-1	control_none_I	EPA6010C-SPLP	17	mg/L	Lead	5.53E-02	NA	T1
386-00-I-baseline-B-1	control_none_I	EPA6010C-SPLP	17	mg/L	Lead	6.44E-02	NA	T1
387-00-I-baseline-C-1	control_none_I	EPA6010C-SPLP	17	mg/L	Lead	5.41E-02	NA	T1
388-00-I-baseline-D-1	control_none_I	EPA6010C-SPLP	17	mg/L	Lead	5.26E-02	NA	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Magnesium	4.87E-01	NA	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Magnesium	5.25E-01	NA	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Magnesium	4.47E-01	NA	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Magnesium	2.85E-01	NA	T1
001-01-S-low-A-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Magnesium	1.71E+00	NA	T1
002-01-S-low-B-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Magnesium	1.01E+00	NA	T1
003-01-S-low-C-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Magnesium	6.86E-01	NA	T1
004-01-S-low-D-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Magnesium	9.63E-01	NA	T1
005-02-S-low-A-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Magnesium	3.21E-01	NA	T1
006-02-S-low-B-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Magnesium	2.69E-01	NA	T1
007-02-S-low-C-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Magnesium	2.52E-01	NA	T1
008-02-S-low-D-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Magnesium	1.85E-01	rl	T1
009-03-S-low-A-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Magnesium	5.34E-01	NA	T1
010-03-S-low-B-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Magnesium	4.63E-01	NA	T1
011-03-S-low-C-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Magnesium	6.01E-01	NA	T1
012-03-S-low-D-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Magnesium	4.34E-01	NA	T1
013-04-S-low-A-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Magnesium	4.36E-01	NA	T1

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
014-04-S-low-B-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Magnesium	2.77E-01	NA	T1
015-04-S-low-C-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Magnesium	2.70E-01	NA	T1
016-04-S-low-D-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Magnesium	2.73E-01	NA	T1
017-05-S-low-A-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Magnesium	3.23E-01	NA	T1
018-05-S-low-B-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Magnesium	3.78E-01	NA	T1
019-05-S-low-C-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Magnesium	2.94E-01	NA	T1
020-05-S-low-D-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Magnesium	3.62E-01	NA	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Magnesium	4.51E-01	NA	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Magnesium	4.69E-01	NA	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Magnesium	3.97E-01	NA	T1
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Magnesium	4.44E-01	NA	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Magnesium	5.03E-01	NA	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Magnesium	4.49E-01	NA	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Magnesium	4.65E-01	NA	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Magnesium	5.56E-01	NA	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Magnesium	5.76E-01	NA	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Magnesium	3.72E-01	NA	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Magnesium	3.19E-01	NA	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Magnesium	5.10E-01	NA	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Magnesium	5.79E-01	NA	T1
034-09-S-low-B-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Magnesium	4.94E-01	NA	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Magnesium	3.85E-01	NA	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Magnesium	4.80E-01	NA	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Magnesium	4.46E-01	NA	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Magnesium	3.55E-01	NA	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Magnesium	2.72E-01	NA	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Magnesium	3.07E-01	NA	T1
041-11-S-low-A-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Magnesium	3.44E-01	NA	T1
042-11-S-low-B-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Magnesium	3.15E-01	NA	T1
043-11-S-low-C-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Magnesium	4.21E-01	NA	T1



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
044-11-S-low-D-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Magnesium	3.95E-01	NA	T1
045-12-S-low-A-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Magnesium	2.46E-01	rl	T1
046-12-S-low-B-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Magnesium	2.05E-01	rl	T1
047-12-S-low-C-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Magnesium	2.60E-01	NA	T1
048-12-S-low-D-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Magnesium	2.20E-01	rl	T1
145-01-S-high-A-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Magnesium	2.20E+00	NA	T1
146-01-S-high-B-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Magnesium	2.12E+00	NA	T1
147-01-S-high-C-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Magnesium	1.42E+00	NA	T1
148-01-S-high-D-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Magnesium	1.62E+00	NA	T1
149-02-S-high-A-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Magnesium	3.42E-01	NA	T1
150-02-S-high-B-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Magnesium	1.92E-01	rl	T1
151-02-S-high-C-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Magnesium	3.25E-01	NA	T1
152-02-S-high-D-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Magnesium	2.11E-01	rl	T1
153-03-S-high-A-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Magnesium	7.57E-01	NA	T1
154-03-S-high-B-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Magnesium	8.21E-01	NA	T1
155-03-S-high-C-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Magnesium	8.28E-01	NA	T1
156-03-S-high-D-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Magnesium	6.51E-01	NA	T1
157-04-S-high-A-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Magnesium	2.76E-01	NA	T1
158-04-S-high-B-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Magnesium	2.75E-01	NA	T1
159-04-S-high-C-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Magnesium	2.83E-01	NA	T1
160-04-S-high-D-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Magnesium	2.59E-01	NA	T1
161-05-S-high-A-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Magnesium	4.49E-01	NA	T1
162-05-S-high-B-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Magnesium	3.81E-01	NA	T1
163-05-S-high-C-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Magnesium	3.78E-01	NA	T1
164-05-S-high-D-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Magnesium	2.71E-01	NA	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Magnesium	4.15E-01	NA	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Magnesium	3.37E-01	NA	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Magnesium	4.15E-01	NA	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Magnesium	3.65E-01	NA	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Magnesium	9.71E-01	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Magnesium	9.69E-01	NA	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Magnesium	8.01E-01	NA	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Magnesium	8.36E-01	NA	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Magnesium	1.24E+00	NA	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Magnesium	1.20E+00	NA	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Magnesium	1.17E+00	NA	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Magnesium	8.48E-01	NA	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Magnesium	3.04E-01	NA	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Magnesium	5.23E-01	NA	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Magnesium	3.47E-01	NA	T1
180-09-S-high-D-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Magnesium	3.75E-01	NA	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Magnesium	2.64E-01	NA	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Magnesium	2.83E-01	NA	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Magnesium	3.22E-01	NA	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Magnesium	2.74E-01	NA	T1
185-11-S-high-A-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Magnesium	4.90E-01	NA	T1
186-11-S-high-B-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Magnesium	4.55E-01	NA	T1
187-11-S-high-C-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Magnesium	3.86E-01	NA	T1
188-11-S-high-D-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Magnesium	3.09E-01	NA	T1
189-12-S-high-A-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Magnesium	2.92E-01	NA	T1
190-12-S-high-B-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Magnesium	1.71E-01	rl	T1
191-12-S-high-C-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Magnesium	2.15E-01	rl	T1
192-12-S-high-D-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Magnesium	2.20E-01	rl	T1
289-01-I-low-A-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Magnesium	1.13E+00	NA	T1
290-01-I-low-B-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Magnesium	1.60E+00	NA	T1
291-01-I-low-C-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Magnesium	1.47E+00	NA	T1
292-01-I-low-D-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Magnesium	1.05E+00	NA	T1
293-02-I-low-A-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Magnesium	1.68E+00	NA	T1
294-02-I-low-B-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Magnesium	8.40E-01	NA	T1
295-02-I-low-C-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Magnesium	8.89E-01	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
296-02-I-low-D-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Magnesium	9.11E-01	NA	T1
297-03-I-low-A-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Magnesium	7.81E-01	NA	T1
298-03-I-low-B-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Magnesium	7.93E-01	NA	T1
299-03-I-low-C-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Magnesium	1.18E+00	NA	T1
300-03-I-low-D-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Magnesium	8.53E-01	NA	T1
301-04-I-low-A-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Magnesium	6.40E-01	NA	T1
302-04-I-low-B-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Magnesium	6.13E-01	NA	T1
303-04-I-low-C-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Magnesium	6.52E-01	NA	T1
304-04-I-low-D-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Magnesium	7.14E-01	NA	T1
305-05-I-low-A-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Magnesium	1.45E+00	NA	T1
306-05-I-low-B-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Magnesium	1.03E+00	NA	T1
307-05-I-low-C-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Magnesium	1.15E+00	NA	T1
308-05-I-low-D-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Magnesium	1.68E+00	NA	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Magnesium	1.83E+00	NA	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Magnesium	1.13E+00	NA	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Magnesium	1.24E+00	NA	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Magnesium	1.02E+00	NA	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Magnesium	2.04E+00	NA	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Magnesium	1.47E+00	NA	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Magnesium	1.73E+00	NA	T1
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Magnesium	1.93E+00	NA	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Magnesium	1.68E+00	NA	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Magnesium	1.91E+00	NA	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Magnesium	1.98E+00	NA	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Magnesium	1.81E+00	NA	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Magnesium	1.13E+00	NA	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Magnesium	8.76E-01	NA	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Magnesium	9.55E-01	NA	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Magnesium	8.95E-01	NA	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Magnesium	5.51E-01	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
326-10-I-low-B-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Magnesium	4.86E-01	NA	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Magnesium	6.08E-01	NA	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Magnesium	6.42E-01	NA	T1
329-11-I-low-A-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Magnesium	9.86E-01	NA	T1
330-11-I-low-B-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Magnesium	7.73E-01	NA	T1
331-11-I-low-C-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Magnesium	9.07E-01	NA	T1
332-11-I-low-D-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Magnesium	1.13E+00	NA	T1
333-12-I-low-A-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Magnesium	8.39E-01	NA	T1
334-12-I-low-B-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Magnesium	7.22E-01	NA	T1
335-12-I-low-C-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Magnesium	1.03E+00	NA	T1
336-12-I-low-D-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Magnesium	1.14E+00	NA	T1
337-01-I-high-A-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Magnesium	3.24E+00	NA	T1
338-01-I-high-B-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Magnesium	3.35E+00	NA	T1
339-01-I-high-C-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Magnesium	3.29E+00	NA	T1
340-01-I-high-D-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Magnesium	1.14E+01	NA	T1
341-02-I-high-A-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Magnesium	3.78E+00	NA	T1
342-02-I-high-B-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Magnesium	1.60E+00	NA	T1
343-02-I-high-C-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Magnesium	5.75E+00	NA	T1
344-02-I-high-D-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Magnesium	7.66E-01	NA	T1
345-03-I-high-A-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Magnesium	9.31E-01	NA	T1
346-03-I-high-B-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Magnesium	1.04E+00	NA	T1
347-03-I-high-C-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Magnesium	1.17E+00	NA	T1
348-03-I-high-D-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Magnesium	1.13E+00	NA	T1
349-04-I-high-A-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Magnesium	4.80E-01	NA	T1
350-04-I-high-B-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Magnesium	5.94E-01	NA	T1
351-04-I-high-C-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Magnesium	5.39E-01	NA	T1
352-04-I-high-D-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Magnesium	4.73E-01	NA	T1
353-05-I-high-A-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Magnesium	1.92E+00	NA	T1
354-05-I-high-B-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Magnesium	1.43E+00	NA	T1
355-05-I-high-C-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Magnesium	2.42E+00	NA	T1

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
356-05-I-high-D-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Magnesium	1.18E+00	NA	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Magnesium	3.96E+00	NA	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Magnesium	6.67E+00	NA	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Magnesium	4.06E+00	NA	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Magnesium	1.94E+00	NA	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Magnesium	2.90E+00	NA	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Magnesium	2.48E+00	NA	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Magnesium	1.87E+00	NA	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Magnesium	2.21E+00	NA	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Magnesium	3.17E+00	NA	T1
366-08-I-high-B-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Magnesium	2.82E+00	NA	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Magnesium	3.38E+00	NA	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Magnesium	4.46E+00	NA	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Magnesium	3.29E+00	NA	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Magnesium	3.92E+00	NA	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Magnesium	6.16E+00	NA	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Magnesium	2.66E+00	NA	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Magnesium	1.20E+00	NA	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Magnesium	1.26E+00	NA	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Magnesium	1.08E+00	NA	T1
376-10-I-high-D-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Magnesium	1.82E+00	NA	T1
377-11-I-high-A-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Magnesium	6.93E+00	NA	T1
378-11-I-high-B-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Magnesium	1.76E+00	NA	T1
379-11-I-high-C-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Magnesium	1.70E+00	NA	T1
380-11-I-high-D-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Magnesium	1.39E+00	NA	T1
381-12-I-high-A-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Magnesium	7.79E-01	NA	T1
382-12-I-high-B-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Magnesium	9.12E-01	NA	T1
383-12-I-high-C-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Magnesium	1.30E+00	NA	T1
384-12-I-high-D-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Magnesium	8.79E-01	NA	T1
385-00-I-baseline-A-1	control_none_I	EPA6010C-SPLP	17	mg/L	Magnesium	8.02E-01	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
386-00-I-baseline-B-1	control_none_I	EPA6010C-SPLP	17	mg/L	Magnesium	6.84E-01	NA	T1
387-00-I-baseline-C-1	control_none_I	EPA6010C-SPLP	17	mg/L	Magnesium	6.93E-01	NA	T1
388-00-I-baseline-D-1	control_none_I	EPA6010C-SPLP	17	mg/L	Magnesium	5.03E-01	NA	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Manganese	2.90E-01	NA	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Manganese	3.02E-01	NA	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Manganese	2.67E-01	NA	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Manganese	1.62E-01	NA	T1
001-01-S-low-A-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Manganese	1.33E+00	NA	T1
002-01-S-low-B-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Manganese	9.02E-01	NA	T1
003-01-S-low-C-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Manganese	6.47E-01	NA	T1
004-01-S-low-D-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Manganese	8.86E-01	NA	T1
005-02-S-low-A-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Manganese	2.49E-01	NA	T1
006-02-S-low-B-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Manganese	2.37E-01	NA	T1
007-02-S-low-C-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Manganese	1.95E-01	NA	T1
008-02-S-low-D-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Manganese	1.16E-01	NA	T1
009-03-S-low-A-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Manganese	4.28E-01	NA	T1
010-03-S-low-B-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Manganese	4.32E-01	NA	T1
011-03-S-low-C-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Manganese	4.25E-01	NA	T1
012-03-S-low-D-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Manganese	3.97E-01	NA	T1
013-04-S-low-A-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Manganese	3.77E-01	NA	T1
014-04-S-low-B-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Manganese	3.26E-01	NA	T1
015-04-S-low-C-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Manganese	3.60E-01	NA	T1
016-04-S-low-D-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Manganese	3.64E-01	NA	T1
017-05-S-low-A-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Manganese	3.52E-01	NA	T1
018-05-S-low-B-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Manganese	4.41E-01	NA	T1
019-05-S-low-C-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Manganese	3.39E-01	NA	T1
020-05-S-low-D-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Manganese	4.26E-01	NA	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Manganese	2.76E-01	NA	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Manganese	3.46E-01	NA	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Manganese	2.82E-01	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Manganese	3.24E-01	NA	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Manganese	3.98E-01	NA	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Manganese	3.47E-01	NA	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Manganese	3.02E-01	NA	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Manganese	4.86E-01	NA	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Manganese	4.19E-01	NA	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Manganese	2.89E-01	NA	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Manganese	2.78E-01	NA	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Manganese	4.35E-01	NA	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Manganese	2.86E-01	NA	T1
034-09-S-low-B-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Manganese	2.49E-01	NA	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Manganese	2.53E-01	NA	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Manganese	2.93E-01	NA	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Manganese	2.85E-01	NA	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Manganese	2.97E-01	NA	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Manganese	2.62E-01	NA	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Manganese	3.03E-01	NA	T1
041-11-S-low-A-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Manganese	2.95E-01	NA	T1
042-11-S-low-B-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Manganese	2.88E-01	NA	T1
043-11-S-low-C-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Manganese	3.91E-01	NA	T1
044-11-S-low-D-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Manganese	3.37E-01	NA	T1
045-12-S-low-A-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Manganese	2.72E-01	NA	T1
046-12-S-low-B-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Manganese	2.36E-01	NA	T1
047-12-S-low-C-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Manganese	3.09E-01	NA	T1
048-12-S-low-D-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Manganese	2.22E-01	NA	T1
145-01-S-high-A-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Manganese	1.22E+00	NA	T1
146-01-S-high-B-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Manganese	1.22E+00	NA	T1
147-01-S-high-C-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Manganese	9.25E-01	NA	T1
148-01-S-high-D-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Manganese	9.74E-01	NA	T1
149-02-S-high-A-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Manganese	2.26E-01	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
150-02-S-high-B-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Manganese	1.46E-01	NA	T1
151-02-S-high-C-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Manganese	2.00E-01	NA	T1
152-02-S-high-D-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Manganese	1.54E-01	NA	T1
153-03-S-high-A-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Manganese	3.83E-01	NA	T1
154-03-S-high-B-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Manganese	3.23E-01	NA	T1
155-03-S-high-C-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Manganese	3.67E-01	NA	T1
156-03-S-high-D-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Manganese	3.26E-01	NA	T1
157-04-S-high-A-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Manganese	3.11E-01	NA	T1
158-04-S-high-B-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Manganese	3.45E-01	NA	T1
159-04-S-high-C-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Manganese	2.86E-01	NA	T1
160-04-S-high-D-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Manganese	2.32E-01	NA	T1
161-05-S-high-A-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Manganese	3.42E-01	NA	T1
162-05-S-high-B-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Manganese	3.02E-01	NA	T1
163-05-S-high-C-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Manganese	3.34E-01	NA	T1
164-05-S-high-D-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Manganese	2.57E-01	NA	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Manganese	1.70E-01	NA	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Manganese	1.20E-01	NA	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Manganese	1.90E-01	NA	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Manganese	1.95E-01	NA	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Manganese	6.36E-01	NA	T1
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Manganese	5.90E-01	NA	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Manganese	4.20E-01	NA	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Manganese	5.04E-01	NA	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Manganese	6.36E-01	NA	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Manganese	6.02E-01	NA	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Manganese	5.27E-01	NA	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Manganese	3.67E-01	NA	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Manganese	1.62E-01	NA	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Manganese	2.74E-01	NA	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Manganese	1.89E-01	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
180-09-S-high-D-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Manganese	2.24E-01	NA	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Manganese	1.99E-01	NA	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Manganese	1.90E-01	NA	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Manganese	1.85E-01	NA	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Manganese	1.88E-01	NA	T1
185-11-S-high-A-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Manganese	3.29E-01	NA	T1
186-11-S-high-B-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Manganese	3.80E-01	NA	T1
187-11-S-high-C-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Manganese	2.92E-01	NA	T1
188-11-S-high-D-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Manganese	2.69E-01	NA	T1
189-12-S-high-A-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Manganese	1.91E-01	NA	T1
190-12-S-high-B-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Manganese	1.67E-01	NA	T1
191-12-S-high-C-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Manganese	2.22E-01	NA	T1
192-12-S-high-D-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Manganese	2.13E-01	NA	T1
289-01-I-low-A-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Manganese	9.97E-01	NA	T1
290-01-I-low-B-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Manganese	1.28E+00	NA	T1
291-01-I-low-C-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Manganese	8.91E-01	NA	T1
292-01-I-low-D-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Manganese	6.92E-01	NA	T1
293-02-I-low-A-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Manganese	5.32E-01	NA	T1
294-02-I-low-B-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Manganese	2.58E-01	NA	T1
295-02-I-low-C-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Manganese	3.21E-01	NA	T1
296-02-I-low-D-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Manganese	3.12E-01	NA	T1
297-03-I-low-A-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Manganese	3.84E-01	NA	T1
298-03-I-low-B-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Manganese	4.52E-01	NA	T1
299-03-I-low-C-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Manganese	4.44E-01	NA	T1
300-03-I-low-D-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Manganese	3.35E-01	NA	T1
301-04-I-low-A-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Manganese	3.65E-01	NA	T1
302-04-I-low-B-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Manganese	3.65E-01	NA	T1
303-04-I-low-C-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Manganese	3.98E-01	NA	T1
304-04-I-low-D-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Manganese	4.12E-01	NA	T1
305-05-I-low-A-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Manganese	6.73E-01	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
306-05-I-low-B-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Manganese	4.69E-01	NA	T1
307-05-I-low-C-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Manganese	6.11E-01	NA	T1
308-05-I-low-D-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Manganese	7.99E-01	NA	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Manganese	4.62E-01	NA	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Manganese	3.01E-01	NA	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Manganese	3.49E-01	NA	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Manganese	2.87E-01	NA	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Manganese	8.62E-01	NA	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Manganese	6.74E-01	NA	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Manganese	8.63E-01	NA	T1
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Manganese	9.33E-01	NA	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Manganese	6.80E-01	NA	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Manganese	7.06E-01	NA	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Manganese	6.69E-01	NA	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Manganese	6.51E-01	NA	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Manganese	2.77E-01	NA	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Manganese	2.25E-01	NA	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Manganese	2.21E-01	NA	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Manganese	2.51E-01	NA	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Manganese	1.81E-01	NA	T1
326-10-I-low-B-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Manganese	1.59E-01	NA	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Manganese	2.06E-01	NA	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Manganese	2.24E-01	NA	T1
329-11-I-low-A-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Manganese	3.57E-01	NA	T1
330-11-I-low-B-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Manganese	2.65E-01	NA	T1
331-11-I-low-C-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Manganese	3.21E-01	NA	T1
332-11-I-low-D-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Manganese	3.16E-01	NA	T1
333-12-I-low-A-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Manganese	3.37E-01	NA	T1
334-12-I-low-B-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Manganese	3.07E-01	NA	T1
335-12-I-low-C-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Manganese	4.31E-01	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
336-12-I-low-D-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Manganese	4.73E-01	NA	T1
337-01-I-high-A-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Manganese	1.19E+00	NA	T1
338-01-I-high-B-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Manganese	1.29E+00	NA	T1
339-01-I-high-C-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Manganese	1.20E+00	NA	T1
340-01-I-high-D-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Manganese	1.48E+00	NA	T1
341-02-I-high-A-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Manganese	3.34E-01	NA	T1
342-02-I-high-B-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Manganese	1.77E-01	NA	T1
343-02-I-high-C-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Manganese	5.24E-01	NA	T1
344-02-I-high-D-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Manganese	1.08E-01	NA	T1
345-03-I-high-A-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Manganese	2.09E-01	NA	T1
346-03-I-high-B-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Manganese	2.33E-01	NA	T1
347-03-I-high-C-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Manganese	3.54E-01	NA	T1
348-03-I-high-D-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Manganese	2.40E-01	NA	T1
349-04-I-high-A-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Manganese	2.45E-01	NA	T1
350-04-I-high-B-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Manganese	3.13E-01	NA	T1
351-04-I-high-C-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Manganese	2.79E-01	NA	T1
352-04-I-high-D-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Manganese	2.43E-01	NA	T1
353-05-I-high-A-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Manganese	4.65E-01	NA	T1
354-05-I-high-B-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Manganese	3.03E-01	NA	T1
355-05-I-high-C-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Manganese	6.01E-01	NA	T1
356-05-I-high-D-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Manganese	2.91E-01	NA	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Manganese	2.72E-01	NA	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Manganese	4.19E-01	NA	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Manganese	2.64E-01	NA	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Manganese	1.71E-01	NA	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Manganese	9.80E-01	NA	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Manganese	7.55E-01	NA	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Manganese	5.49E-01	NA	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Manganese	5.71E-01	NA	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Manganese	6.10E-01	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
366-08-I-high-B-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Manganese	5.58E-01	NA	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Manganese	6.90E-01	NA	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Manganese	8.46E-01	NA	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Manganese	2.34E-01	NA	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Manganese	3.18E-01	NA	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Manganese	4.31E-01	NA	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Manganese	1.93E-01	NA	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Manganese	2.37E-01	NA	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Manganese	2.28E-01	NA	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Manganese	2.24E-01	NA	T1
376-10-I-high-D-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Manganese	3.00E-01	NA	T1
377-11-I-high-A-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Manganese	6.26E-01	NA	T1
378-11-I-high-B-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Manganese	2.60E-01	NA	T1
379-11-I-high-C-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Manganese	2.35E-01	NA	T1
380-11-I-high-D-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Manganese	2.14E-01	NA	T1
381-12-I-high-A-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Manganese	1.89E-01	NA	T1
382-12-I-high-B-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Manganese	2.17E-01	NA	T1
383-12-I-high-C-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Manganese	3.02E-01	NA	T1
384-12-I-high-D-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Manganese	2.08E-01	NA	T1
385-00-I-baseline-A-1	control_none_I	EPA6010C-SPLP	17	mg/L	Manganese	5.69E-01	NA	T1
386-00-I-baseline-B-1	control_none_I	EPA6010C-SPLP	17	mg/L	Manganese	4.72E-01	NA	T1
387-00-I-baseline-C-1	control_none_I	EPA6010C-SPLP	17	mg/L	Manganese	4.68E-01	NA	T1
388-00-I-baseline-D-1	control_none_I	EPA6010C-SPLP	17	mg/L	Manganese	3.72E-01	NA	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Nickel	7.86E-04	rl,mdl,U	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Nickel	7.86E-04	rl,mdl,U	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Nickel	7.86E-04	rl,mdl,U	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Nickel	7.86E-04	rl,mdl,U	T1
001-01-S-low-A-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Nickel	1.52E-03	rl	T1
002-01-S-low-B-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Nickel	1.84E-03	rl	T1
003-01-S-low-C-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Nickel	2.35E-03	rl	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
004-01-S-low-D-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Nickel	2.40E-03	rl	T1
005-02-S-low-A-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Nickel	3.25E-03	rl	T1
006-02-S-low-B-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Nickel	3.99E-03	rl	T1
007-02-S-low-C-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Nickel	2.21E-03	rl	T1
008-02-S-low-D-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Nickel	1.85E-03	rl	T1
009-03-S-low-A-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Nickel	7.86E-04	rl,mdl,U	T1
010-03-S-low-B-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Nickel	1.68E-03	rl	T1
011-03-S-low-C-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Nickel	1.51E-03	rl	T1
012-03-S-low-D-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Nickel	7.86E-04	rl,mdl,U	T1
013-04-S-low-A-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Nickel	7.86E-04	rl,mdl,U	T1
014-04-S-low-B-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Nickel	7.86E-04	rl,mdl,U	T1
015-04-S-low-C-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Nickel	9.71E-04	rl	T1
016-04-S-low-D-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Nickel	8.24E-04	rl	T1
017-05-S-low-A-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Nickel	9.25E-04	rl	T1
018-05-S-low-B-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Nickel	7.86E-04	rl,mdl,U	T1
019-05-S-low-C-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Nickel	1.50E-03	rl	T1
020-05-S-low-D-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Nickel	2.27E-03	rl	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Nickel	1.50E-03	rl	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Nickel	2.52E-03	rl	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Nickel	1.77E-03	rl	T1
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Nickel	1.36E-03	rl	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Nickel	7.86E-04	rl,mdl,U	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Nickel	7.86E-04	rl,mdl,U	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Nickel	1.15E-03	rl	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Nickel	1.69E-03	rl	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Nickel	2.09E-03	rl	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Nickel	7.86E-04	rl,mdl,U	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Nickel	7.86E-04	rl,mdl,U	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Nickel	2.81E-03	rl	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Nickel	1.59E-03	rl	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
034-09-S-low-B-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Nickel	1.92E-03	rl	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Nickel	2.58E-03	rl	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Nickel	7.87E-04	rl	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Nickel	7.86E-04	rl,mdl,U	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Nickel	1.86E-03	rl	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Nickel	1.15E-03	rl	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Nickel	7.86E-04	rl,mdl,U	T1
041-11-S-low-A-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Nickel	1.66E-03	rl	T1
042-11-S-low-B-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Nickel	1.72E-03	rl	T1
043-11-S-low-C-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Nickel	9.57E-04	rl	T1
044-11-S-low-D-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Nickel	7.86E-04	rl,mdl,U	T1
045-12-S-low-A-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Nickel	1.50E-03	rl	T1
046-12-S-low-B-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Nickel	7.86E-04	rl,mdl,U	T1
047-12-S-low-C-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Nickel	2.05E-03	rl	T1
048-12-S-low-D-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Nickel	1.81E-03	rl	T1
145-01-S-high-A-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Nickel	4.02E-03	rl	T1
146-01-S-high-B-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Nickel	2.73E-03	rl	T1
147-01-S-high-C-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Nickel	4.13E-03	rl	T1
148-01-S-high-D-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Nickel	3.01E-03	rl	T1
149-02-S-high-A-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Nickel	6.99E-03	rl	T1
150-02-S-high-B-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Nickel	9.77E-03	rl	T1
151-02-S-high-C-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Nickel	7.56E-03	rl	T1
152-02-S-high-D-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Nickel	7.83E-03	rl	T1
153-03-S-high-A-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Nickel	1.46E-03	rl	T1
154-03-S-high-B-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Nickel	1.08E-03	rl	T1
155-03-S-high-C-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Nickel	1.82E-03	rl	T1
156-03-S-high-D-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Nickel	1.67E-03	rl	T1
157-04-S-high-A-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Nickel	7.86E-04	rl,mdl,U	T1
158-04-S-high-B-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Nickel	7.86E-04	rl,mdl,U	T1
159-04-S-high-C-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Nickel	7.86E-04	rl,mdl,U	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
160-04-S-high-D-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
161-05-S-high-A-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
162-05-S-high-B-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
163-05-S-high-C-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
164-05-S-high-D-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
180-09-S-high-D-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
185-11-S-high-A-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
186-11-S-high-B-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
187-11-S-high-C-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
188-11-S-high-D-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
189-12-S-high-A-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Nickel	7.86E-04	r1,mdl,U	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
190-12-S-high-B-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
191-12-S-high-C-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
192-12-S-high-D-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
289-01-I-low-A-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
290-01-I-low-B-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
291-01-I-low-C-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
292-01-I-low-D-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
293-02-I-low-A-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
294-02-I-low-B-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
295-02-I-low-C-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
296-02-I-low-D-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
297-03-I-low-A-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
298-03-I-low-B-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
299-03-I-low-C-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
300-03-I-low-D-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
301-04-I-low-A-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
302-04-I-low-B-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
303-04-I-low-C-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
304-04-I-low-D-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
305-05-I-low-A-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
306-05-I-low-B-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
307-05-I-low-C-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
308-05-I-low-D-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Nickel	7.86E-04	r1,mdl,U	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Nickel	4.62E-03	r1	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
326-10-I-low-B-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
329-11-I-low-A-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
330-11-I-low-B-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
331-11-I-low-C-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
332-11-I-low-D-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
333-12-I-low-A-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
334-12-I-low-B-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
335-12-I-low-C-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
336-12-I-low-D-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
337-01-I-high-A-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
338-01-I-high-B-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
339-01-I-high-C-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
340-01-I-high-D-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Nickel	1.88E-02	r1	T1
341-02-I-high-A-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Nickel	1.18E-02	r1	T1
342-02-I-high-B-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Nickel	6.92E-03	r1	T1
343-02-I-high-C-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Nickel	1.63E-02	r1	T1
344-02-I-high-D-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Nickel	1.01E-03	r1	T1
345-03-I-high-A-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Nickel	7.86E-04	r1,mdl,U	T1

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
346-03-I-high-B-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
347-03-I-high-C-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
348-03-I-high-D-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
349-04-I-high-A-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
350-04-I-high-B-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
351-04-I-high-C-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
352-04-I-high-D-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
353-05-I-high-A-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
354-05-I-high-B-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
355-05-I-high-C-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
356-05-I-high-D-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Nickel	2.44E-02	rl	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Nickel	2.34E-02	rl	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Nickel	1.31E-02	rl	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Nickel	7.92E-03	rl	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
366-08-I-high-B-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Nickel	7.84E-03	rl	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Nickel	7.85E-03	rl	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Nickel	1.27E-02	rl	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Nickel	7.46E-03	rl	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Nickel	7.86E-04	r1,mdl,U	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
376-10-I-high-D-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
377-11-I-high-A-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
378-11-I-high-B-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
379-11-I-high-C-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
380-11-I-high-D-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
381-12-I-high-A-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
382-12-I-high-B-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
383-12-I-high-C-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
384-12-I-high-D-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
385-00-I-baseline-A-1	control_none_I	EPA6010C-SPLP	17	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
386-00-I-baseline-B-1	control_none_I	EPA6010C-SPLP	17	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
387-00-I-baseline-C-1	control_none_I	EPA6010C-SPLP	17	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
388-00-I-baseline-D-1	control_none_I	EPA6010C-SPLP	17	mg/L	Nickel	7.86E-04	r1,mdl,U	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Phosphorus	1.86E-01	NA	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Phosphorus	1.88E-01	NA	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Phosphorus	2.01E-01	NA	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Phosphorus	2.51E-01	NA	T1
001-01-S-low-A-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Phosphorus	1.61E+00	NA	T1
002-01-S-low-B-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Phosphorus	1.70E+00	NA	T1
003-01-S-low-C-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Phosphorus	1.97E+00	NA	T1
004-01-S-low-D-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Phosphorus	1.14E+00	NA	T1
005-02-S-low-A-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Phosphorus	6.31E-01	NA	T1
006-02-S-low-B-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Phosphorus	6.77E-01	NA	T1
007-02-S-low-C-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Phosphorus	6.02E-01	NA	T1
008-02-S-low-D-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Phosphorus	7.87E-01	NA	T1
009-03-S-low-A-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Phosphorus	3.98E-01	NA	T1
010-03-S-low-B-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Phosphorus	3.90E-01	NA	T1
011-03-S-low-C-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Phosphorus	3.97E-01	NA	T1
012-03-S-low-D-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Phosphorus	4.33E-01	NA	T1
013-04-S-low-A-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Phosphorus	3.48E-01	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
014-04-S-low-B-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Phosphorus	4.05E-01	NA	T1
015-04-S-low-C-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Phosphorus	4.24E-01	NA	T1
016-04-S-low-D-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Phosphorus	3.85E-01	NA	T1
017-05-S-low-A-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Phosphorus	4.24E-01	NA	T1
018-05-S-low-B-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Phosphorus	3.79E-01	NA	T1
019-05-S-low-C-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Phosphorus	4.71E-01	NA	T1
020-05-S-low-D-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Phosphorus	4.20E-01	NA	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Phosphorus	1.57E+00	NA	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Phosphorus	1.37E+00	NA	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Phosphorus	1.75E+00	NA	T1
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Phosphorus	1.42E+00	NA	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Phosphorus	2.08E+00	NA	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Phosphorus	2.01E+00	NA	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Phosphorus	9.92E-01	NA	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Phosphorus	1.61E+00	NA	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Phosphorus	2.01E+00	NA	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Phosphorus	2.34E+00	NA	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Phosphorus	1.97E+00	NA	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Phosphorus	1.53E+00	NA	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Phosphorus	4.99E-01	NA	T1
034-09-S-low-B-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Phosphorus	4.79E-01	NA	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Phosphorus	5.53E-01	NA	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Phosphorus	5.79E-01	NA	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Phosphorus	4.12E-01	NA	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Phosphorus	4.47E-01	NA	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Phosphorus	4.64E-01	NA	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Phosphorus	4.23E-01	NA	T1
041-11-S-low-A-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Phosphorus	4.07E-01	NA	T1
042-11-S-low-B-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Phosphorus	4.63E-01	NA	T1
043-11-S-low-C-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Phosphorus	4.17E-01	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
044-11-S-low-D-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Phosphorus	4.25E-01	NA	T1
045-12-S-low-A-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Phosphorus	4.48E-01	NA	T1
046-12-S-low-B-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Phosphorus	4.86E-01	NA	T1
047-12-S-low-C-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Phosphorus	4.41E-01	NA	T1
048-12-S-low-D-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Phosphorus	4.25E-01	NA	T1
145-01-S-high-A-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Phosphorus	8.48E+00	NA	T1
146-01-S-high-B-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Phosphorus	7.50E+00	NA	T1
147-01-S-high-C-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Phosphorus	8.35E+00	NA	T1
148-01-S-high-D-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Phosphorus	7.84E+00	NA	T1
149-02-S-high-A-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Phosphorus	8.42E-01	NA	T1
150-02-S-high-B-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Phosphorus	1.10E+00	NA	T1
151-02-S-high-C-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Phosphorus	8.78E-01	NA	T1
152-02-S-high-D-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Phosphorus	9.57E-01	NA	T1
153-03-S-high-A-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Phosphorus	4.20E-01	NA	T1
154-03-S-high-B-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Phosphorus	4.22E-01	NA	T1
155-03-S-high-C-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Phosphorus	3.82E-01	NA	T1
156-03-S-high-D-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Phosphorus	3.92E-01	NA	T1
157-04-S-high-A-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Phosphorus	4.20E-01	NA	T1
158-04-S-high-B-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Phosphorus	4.60E-01	NA	T1
159-04-S-high-C-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Phosphorus	4.57E-01	NA	T1
160-04-S-high-D-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Phosphorus	4.14E-01	NA	T1
161-05-S-high-A-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Phosphorus	4.38E-01	NA	T1
162-05-S-high-B-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Phosphorus	4.60E-01	NA	T1
163-05-S-high-C-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Phosphorus	4.69E-01	NA	T1
164-05-S-high-D-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Phosphorus	4.71E-01	NA	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Phosphorus	5.41E+00	NA	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Phosphorus	5.75E+00	NA	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Phosphorus	4.69E+00	NA	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Phosphorus	4.54E+00	NA	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Phosphorus	6.93E+00	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Phosphorus	8.04E+00	NA	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Phosphorus	6.27E+00	NA	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Phosphorus	6.77E+00	NA	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Phosphorus	7.43E+00	NA	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Phosphorus	6.50E+00	NA	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Phosphorus	9.22E+00	NA	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Phosphorus	4.67E+00	NA	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Phosphorus	6.76E-01	NA	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Phosphorus	4.91E-01	NA	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Phosphorus	6.79E-01	NA	T1
180-09-S-high-D-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Phosphorus	5.74E-01	NA	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Phosphorus	4.93E-01	NA	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Phosphorus	5.22E-01	NA	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Phosphorus	4.88E-01	NA	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Phosphorus	5.50E-01	NA	T1
185-11-S-high-A-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Phosphorus	4.33E-01	NA	T1
186-11-S-high-B-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Phosphorus	4.37E-01	NA	T1
187-11-S-high-C-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Phosphorus	4.69E-01	NA	T1
188-11-S-high-D-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Phosphorus	4.28E-01	NA	T1
189-12-S-high-A-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Phosphorus	4.47E-01	NA	T1
190-12-S-high-B-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Phosphorus	5.96E-01	NA	T1
191-12-S-high-C-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Phosphorus	5.41E-01	NA	T1
192-12-S-high-D-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Phosphorus	5.26E-01	NA	T1
289-01-I-low-A-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Phosphorus	1.09E+00	NA	T1
290-01-I-low-B-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Phosphorus	1.32E+00	NA	T1
291-01-I-low-C-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Phosphorus	8.75E-01	NA	T1
292-01-I-low-D-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Phosphorus	1.69E+00	NA	T1
293-02-I-low-A-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Phosphorus	1.01E+00	NA	T1
294-02-I-low-B-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Phosphorus	1.12E+00	NA	T1
295-02-I-low-C-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Phosphorus	1.04E+00	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
296-02-I-low-D-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Phosphorus	9.40E-01	NA	T1
297-03-I-low-A-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Phosphorus	3.75E-01	NA	T1
298-03-I-low-B-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Phosphorus	3.57E-01	NA	T1
299-03-I-low-C-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Phosphorus	3.41E-01	NA	T1
300-03-I-low-D-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Phosphorus	3.48E-01	NA	T1
301-04-I-low-A-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Phosphorus	3.04E-01	NA	T1
302-04-I-low-B-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Phosphorus	3.08E-01	NA	T1
303-04-I-low-C-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Phosphorus	2.99E-01	NA	T1
304-04-I-low-D-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Phosphorus	2.89E-01	NA	T1
305-05-I-low-A-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Phosphorus	3.09E-01	NA	T1
306-05-I-low-B-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Phosphorus	3.29E-01	NA	T1
307-05-I-low-C-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Phosphorus	3.40E-01	NA	T1
308-05-I-low-D-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Phosphorus	3.37E-01	NA	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Phosphorus	2.49E+00	NA	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Phosphorus	2.98E+00	NA	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Phosphorus	3.50E+00	NA	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Phosphorus	3.03E+00	NA	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Phosphorus	1.32E+00	NA	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Phosphorus	1.10E+00	NA	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Phosphorus	1.25E+00	NA	T1
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Phosphorus	1.52E+00	NA	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Phosphorus	1.86E+00	NA	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Phosphorus	1.87E+00	NA	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Phosphorus	1.54E+00	NA	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Phosphorus	1.67E+00	NA	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Phosphorus	1.54E+00	NA	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Phosphorus	1.08E+00	NA	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Phosphorus	9.76E-01	NA	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Phosphorus	1.00E+00	NA	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Phosphorus	3.85E-01	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
326-10-I-low-B-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Phosphorus	3.81E-01	NA	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Phosphorus	3.37E-01	NA	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Phosphorus	3.46E-01	NA	T1
329-11-I-low-A-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Phosphorus	3.79E-01	NA	T1
330-11-I-low-B-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Phosphorus	4.09E-01	NA	T1
331-11-I-low-C-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Phosphorus	4.13E-01	NA	T1
332-11-I-low-D-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Phosphorus	3.55E-01	NA	T1
333-12-I-low-A-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Phosphorus	3.08E-01	NA	T1
334-12-I-low-B-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Phosphorus	3.92E-01	NA	T1
335-12-I-low-C-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Phosphorus	3.59E-01	NA	T1
336-12-I-low-D-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Phosphorus	3.41E-01	NA	T1
337-01-I-high-A-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Phosphorus	8.04E+00	NA	T1
338-01-I-high-B-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Phosphorus	7.54E+00	NA	T1
339-01-I-high-C-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Phosphorus	8.91E+00	NA	T1
340-01-I-high-D-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Phosphorus	6.84E+00	NA	T1
341-02-I-high-A-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Phosphorus	5.17E+00	NA	T1
342-02-I-high-B-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Phosphorus	5.17E+00	NA	T1
343-02-I-high-C-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Phosphorus	4.12E+00	NA	T1
344-02-I-high-D-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Phosphorus	5.45E+00	NA	T1
345-03-I-high-A-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Phosphorus	4.18E-01	NA	T1
346-03-I-high-B-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Phosphorus	4.02E-01	NA	T1
347-03-I-high-C-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Phosphorus	3.74E-01	NA	T1
348-03-I-high-D-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Phosphorus	3.91E-01	NA	T1
349-04-I-high-A-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Phosphorus	3.70E-01	NA	T1
350-04-I-high-B-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Phosphorus	3.46E-01	NA	T1
351-04-I-high-C-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Phosphorus	3.54E-01	NA	T1
352-04-I-high-D-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Phosphorus	3.84E-01	NA	T1
353-05-I-high-A-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Phosphorus	4.92E-01	NA	T1
354-05-I-high-B-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Phosphorus	6.62E-01	NA	T1
355-05-I-high-C-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Phosphorus	4.46E-01	NA	T1

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
356-05-I-high-D-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Phosphorus	5.93E-01	NA	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Phosphorus	2.05E+01	NA	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Phosphorus	1.82E+01	NA	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Phosphorus	1.55E+01	NA	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Phosphorus	1.66E+01	NA	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Phosphorus	1.04E+01	NA	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Phosphorus	9.88E+00	NA	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Phosphorus	1.14E+01	NA	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Phosphorus	1.11E+01	NA	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Phosphorus	8.25E+00	NA	T1
366-08-I-high-B-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Phosphorus	8.67E+00	NA	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Phosphorus	8.72E+00	NA	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Phosphorus	8.29E+00	NA	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Phosphorus	3.86E+00	NA	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Phosphorus	2.27E+00	NA	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Phosphorus	3.07E+00	NA	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Phosphorus	3.93E+00	NA	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Phosphorus	4.64E-01	NA	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Phosphorus	3.67E-01	NA	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Phosphorus	4.15E-01	NA	T1
376-10-I-high-D-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Phosphorus	3.72E-01	NA	T1
377-11-I-high-A-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Phosphorus	2.68E-01	NA	T1
378-11-I-high-B-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Phosphorus	5.18E-01	NA	T1
379-11-I-high-C-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Phosphorus	5.04E-01	NA	T1
380-11-I-high-D-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Phosphorus	5.78E-01	NA	T1
381-12-I-high-A-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Phosphorus	7.06E-01	NA	T1
382-12-I-high-B-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Phosphorus	6.52E-01	NA	T1
383-12-I-high-C-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Phosphorus	6.37E-01	NA	T1
384-12-I-high-D-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Phosphorus	6.81E-01	NA	T1
385-00-I-baseline-A-1	control_none_I	EPA6010C-SPLP	17	mg/L	Phosphorus	2.61E-01	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
386-00-I-baseline-B-1	control_none_I	EPA6010C-SPLP	17	mg/L	Phosphorus	3.10E-01	NA	T1
387-00-I-baseline-C-1	control_none_I	EPA6010C-SPLP	17	mg/L	Phosphorus	2.47E-01	NA	T1
388-00-I-baseline-D-1	control_none_I	EPA6010C-SPLP	17	mg/L	Phosphorus	2.63E-01	NA	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Potassium	3.32E+00	NA	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Potassium	3.52E+00	NA	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Potassium	3.15E+00	NA	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Potassium	2.95E+00	NA	T1
001-01-S-low-A-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Potassium	1.98E+01	NA	T1
002-01-S-low-B-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Potassium	1.52E+01	NA	T1
003-01-S-low-C-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Potassium	1.35E+01	NA	T1
004-01-S-low-D-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Potassium	1.28E+01	NA	T1
005-02-S-low-A-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Potassium	3.51E+00	NA	T1
006-02-S-low-B-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Potassium	3.31E+00	NA	T1
007-02-S-low-C-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Potassium	3.16E+00	NA	T1
008-02-S-low-D-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Potassium	2.97E+00	NA	T1
009-03-S-low-A-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Potassium	7.57E+00	NA	T1
010-03-S-low-B-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Potassium	6.70E+00	NA	T1
011-03-S-low-C-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Potassium	7.34E+00	NA	T1
012-03-S-low-D-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Potassium	6.07E+00	NA	T1
013-04-S-low-A-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Potassium	4.86E+00	NA	T1
014-04-S-low-B-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Potassium	4.19E+00	NA	T1
015-04-S-low-C-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Potassium	4.28E+00	NA	T1
016-04-S-low-D-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Potassium	4.13E+00	NA	T1
017-05-S-low-A-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Potassium	5.80E+00	NA	T1
018-05-S-low-B-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Potassium	5.27E+00	NA	T1
019-05-S-low-C-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Potassium	4.81E+00	NA	T1
020-05-S-low-D-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Potassium	5.03E+00	NA	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Potassium	1.08E+01	NA	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Potassium	1.08E+01	NA	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Potassium	1.08E+01	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Potassium	1.10E+01	NA	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Potassium	1.34E+01	NA	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Potassium	1.11E+01	NA	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Potassium	9.41E+00	NA	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Potassium	1.39E+01	NA	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Potassium	1.50E+01	NA	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Potassium	1.33E+01	NA	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Potassium	1.09E+01	NA	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Potassium	1.32E+01	NA	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Potassium	7.32E+00	NA	T1
034-09-S-low-B-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Potassium	6.59E+00	NA	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Potassium	6.42E+00	NA	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Potassium	6.94E+00	NA	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Potassium	7.92E+00	NA	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Potassium	7.42E+00	NA	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Potassium	6.51E+00	NA	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Potassium	6.93E+00	NA	T1
041-11-S-low-A-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Potassium	7.12E+00	NA	T1
042-11-S-low-B-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Potassium	7.71E+00	NA	T1
043-11-S-low-C-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Potassium	8.20E+00	NA	T1
044-11-S-low-D-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Potassium	8.68E+00	NA	T1
045-12-S-low-A-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Potassium	5.62E+00	NA	T1
046-12-S-low-B-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Potassium	5.75E+00	NA	T1
047-12-S-low-C-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Potassium	6.21E+00	NA	T1
048-12-S-low-D-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Potassium	5.29E+00	NA	T1
145-01-S-high-A-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Potassium	1.56E+01	NA	T1
146-01-S-high-B-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Potassium	1.60E+01	NA	T1
147-01-S-high-C-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Potassium	1.31E+01	NA	T1
148-01-S-high-D-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Potassium	1.24E+01	NA	T1
149-02-S-high-A-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Potassium	4.41E+00	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
150-02-S-high-B-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Potassium	3.85E+00	NA	T1
151-02-S-high-C-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Potassium	4.78E+00	NA	T1
152-02-S-high-D-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Potassium	4.10E+00	NA	T1
153-03-S-high-A-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Potassium	1.50E+01	NA	T1
154-03-S-high-B-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Potassium	1.36E+01	NA	T1
155-03-S-high-C-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Potassium	1.39E+01	NA	T1
156-03-S-high-D-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Potassium	1.36E+01	NA	T1
157-04-S-high-A-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Potassium	6.13E+00	NA	T1
158-04-S-high-B-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Potassium	6.70E+00	NA	T1
159-04-S-high-C-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Potassium	6.38E+00	NA	T1
160-04-S-high-D-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Potassium	5.96E+00	NA	T1
161-05-S-high-A-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Potassium	9.09E+00	NA	T1
162-05-S-high-B-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Potassium	7.79E+00	NA	T1
163-05-S-high-C-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Potassium	9.99E+00	NA	T1
164-05-S-high-D-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Potassium	8.16E+00	NA	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Potassium	9.10E+00	NA	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Potassium	9.83E+00	NA	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Potassium	9.37E+00	NA	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Potassium	8.84E+00	NA	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Potassium	1.63E+01	NA	T1
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Potassium	1.51E+01	NA	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Potassium	1.27E+01	NA	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Potassium	1.37E+01	NA	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Potassium	2.08E+01	NA	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Potassium	1.97E+01	NA	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Potassium	2.01E+01	NA	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Potassium	1.48E+01	NA	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Potassium	9.92E+00	NA	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Potassium	1.12E+01	NA	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Potassium	1.02E+01	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
180-09-S-high-D-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Potassium	1.12E+01	NA	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Potassium	1.47E+01	NA	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Potassium	1.15E+01	NA	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Potassium	1.30E+01	NA	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Potassium	1.44E+01	NA	T1
185-11-S-high-A-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Potassium	1.15E+01	NA	T1
186-11-S-high-B-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Potassium	1.50E+01	NA	T1
187-11-S-high-C-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Potassium	1.37E+01	NA	T1
188-11-S-high-D-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Potassium	1.31E+01	NA	T1
189-12-S-high-A-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Potassium	7.85E+00	NA	T1
190-12-S-high-B-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Potassium	7.43E+00	NA	T1
191-12-S-high-C-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Potassium	9.49E+00	NA	T1
192-12-S-high-D-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Potassium	8.72E+00	NA	T1
289-01-I-low-A-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Potassium	1.18E+01	NA	T1
290-01-I-low-B-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Potassium	1.69E+01	NA	T1
291-01-I-low-C-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Potassium	1.73E+01	NA	T1
292-01-I-low-D-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Potassium	1.05E+01	NA	T1
293-02-I-low-A-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Potassium	6.40E+00	NA	T1
294-02-I-low-B-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Potassium	5.44E+00	NA	T1
295-02-I-low-C-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Potassium	6.29E+00	NA	T1
296-02-I-low-D-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Potassium	5.63E+00	NA	T1
297-03-I-low-A-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Potassium	8.58E+00	NA	T1
298-03-I-low-B-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Potassium	8.06E+00	NA	T1
299-03-I-low-C-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Potassium	9.65E+00	NA	T1
300-03-I-low-D-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Potassium	7.93E+00	NA	T1
301-04-I-low-A-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Potassium	5.11E+00	NA	T1
302-04-I-low-B-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Potassium	4.76E+00	NA	T1
303-04-I-low-C-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Potassium	4.98E+00	NA	T1
304-04-I-low-D-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Potassium	4.97E+00	NA	T1
305-05-I-low-A-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Potassium	9.06E+00	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
306-05-I-low-B-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Potassium	8.02E+00	NA	T1
307-05-I-low-C-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Potassium	8.85E+00	NA	T1
308-05-I-low-D-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Potassium	1.05E+01	NA	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Potassium	1.69E+01	NA	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Potassium	1.35E+01	NA	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Potassium	1.59E+01	NA	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Potassium	1.38E+01	NA	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Potassium	2.39E+01	NA	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Potassium	1.77E+01	NA	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Potassium	2.25E+01	NA	T1
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Potassium	2.19E+01	NA	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Potassium	2.05E+01	NA	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Potassium	2.21E+01	NA	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Potassium	2.30E+01	NA	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Potassium	2.00E+01	NA	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Potassium	1.02E+01	NA	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Potassium	8.80E+00	NA	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Potassium	8.50E+00	NA	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Potassium	9.24E+00	NA	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Potassium	8.57E+00	NA	T1
326-10-I-low-B-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Potassium	7.90E+00	NA	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Potassium	8.46E+00	NA	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Potassium	7.99E+00	NA	T1
329-11-I-low-A-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Potassium	1.30E+01	NA	T1
330-11-I-low-B-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Potassium	1.02E+01	NA	T1
331-11-I-low-C-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Potassium	1.10E+01	NA	T1
332-11-I-low-D-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Potassium	1.18E+01	NA	T1
333-12-I-low-A-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Potassium	8.25E+00	NA	T1
334-12-I-low-B-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Potassium	8.04E+00	NA	T1
335-12-I-low-C-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Potassium	9.49E+00	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
336-12-I-low-D-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Potassium	9.85E+00	NA	T1
337-01-I-high-A-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Potassium	1.82E+01	NA	T1
338-01-I-high-B-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Potassium	1.82E+01	NA	T1
339-01-I-high-C-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Potassium	1.89E+01	NA	T1
340-01-I-high-D-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Potassium	2.77E+01	NA	T1
341-02-I-high-A-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Potassium	9.93E+00	NA	T1
342-02-I-high-B-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Potassium	8.30E+00	NA	T1
343-02-I-high-C-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Potassium	1.14E+01	NA	T1
344-02-I-high-D-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Potassium	5.91E+00	NA	T1
345-03-I-high-A-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Potassium	1.54E+01	NA	T1
346-03-I-high-B-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Potassium	1.62E+01	NA	T1
347-03-I-high-C-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Potassium	1.70E+01	NA	T1
348-03-I-high-D-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Potassium	1.72E+01	NA	T1
349-04-I-high-A-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Potassium	7.42E+00	NA	T1
350-04-I-high-B-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Potassium	8.60E+00	NA	T1
351-04-I-high-C-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Potassium	8.04E+00	NA	T1
352-04-I-high-D-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Potassium	7.79E+00	NA	T1
353-05-I-high-A-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Potassium	1.99E+01	NA	T1
354-05-I-high-B-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Potassium	2.25E+01	NA	T1
355-05-I-high-C-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Potassium	2.23E+01	NA	T1
356-05-I-high-D-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Potassium	1.85E+01	NA	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Potassium	2.06E+01	NA	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Potassium	2.40E+01	NA	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Potassium	1.83E+01	NA	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Potassium	1.43E+01	NA	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Potassium	2.40E+01	NA	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Potassium	2.31E+01	NA	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Potassium	1.88E+01	NA	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Potassium	2.54E+01	NA	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Potassium	2.87E+01	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
366-08-I-high-B-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Potassium	2.94E+01	NA	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Potassium	2.85E+01	NA	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Potassium	3.44E+01	NA	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Potassium	2.35E+01	NA	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Potassium	2.29E+01	NA	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Potassium	2.47E+01	NA	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Potassium	2.08E+01	NA	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Potassium	2.32E+01	NA	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Potassium	2.22E+01	NA	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Potassium	2.34E+01	NA	T1
376-10-I-high-D-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Potassium	2.37E+01	NA	T1
377-11-I-high-A-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Potassium	4.63E+01	NA	T1
378-11-I-high-B-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Potassium	3.22E+01	NA	T1
379-11-I-high-C-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Potassium	3.08E+01	NA	T1
380-11-I-high-D-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Potassium	2.94E+01	NA	T1
381-12-I-high-A-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Potassium	1.88E+01	NA	T1
382-12-I-high-B-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Potassium	2.14E+01	NA	T1
383-12-I-high-C-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Potassium	2.39E+01	NA	T1
384-12-I-high-D-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Potassium	1.97E+01	NA	T1
385-00-I-baseline-A-1	control_none_I	EPA6010C-SPLP	17	mg/L	Potassium	4.29E+00	NA	T1
386-00-I-baseline-B-1	control_none_I	EPA6010C-SPLP	17	mg/L	Potassium	4.91E+00	NA	T1
387-00-I-baseline-C-1	control_none_I	EPA6010C-SPLP	17	mg/L	Potassium	3.82E+00	NA	T1
388-00-I-baseline-D-1	control_none_I	EPA6010C-SPLP	17	mg/L	Potassium	3.67E+00	NA	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
001-01-S-low-A-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Selenium	3.54E-02	r1	T1
002-01-S-low-B-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Selenium	3.15E-02	r1	T1
003-01-S-low-C-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Selenium	3.22E-02	r1	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
004-01-S-low-D-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Selenium	3.37E-02	rl	T1
005-02-S-low-A-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Selenium	2.80E-02	rl	T1
006-02-S-low-B-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Selenium	3.68E-02	rl	T1
007-02-S-low-C-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Selenium	3.71E-02	rl	T1
008-02-S-low-D-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Selenium	3.47E-02	rl	T1
009-03-S-low-A-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Selenium	2.53E-02	rl	T1
010-03-S-low-B-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Selenium	3.30E-02	rl	T1
011-03-S-low-C-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Selenium	3.35E-02	rl	T1
012-03-S-low-D-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Selenium	4.20E-02	rl	T1
013-04-S-low-A-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Selenium	2.97E-02	rl	T1
014-04-S-low-B-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Selenium	3.55E-02	rl	T1
015-04-S-low-C-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Selenium	3.04E-02	rl	T1
016-04-S-low-D-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Selenium	2.83E-02	rl	T1
017-05-S-low-A-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Selenium	3.31E-02	rl	T1
018-05-S-low-B-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Selenium	3.09E-02	rl	T1
019-05-S-low-C-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Selenium	2.95E-02	rl	T1
020-05-S-low-D-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Selenium	3.19E-02	rl	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Selenium	2.55E-02	rl	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Selenium	3.42E-02	rl	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Selenium	3.11E-02	rl	T1
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Selenium	3.08E-02	rl	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Selenium	3.20E-02	rl	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Selenium	2.93E-02	rl	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Selenium	3.86E-02	rl	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Selenium	3.20E-02	rl	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Selenium	3.19E-02	rl	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Selenium	2.42E-02	rl	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Selenium	2.74E-02	rl	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Selenium	3.07E-02	rl	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Selenium	2.37E-02	rl	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
034-09-S-low-B-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Selenium	2.52E-02	rl	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Selenium	2.89E-02	rl	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Selenium	2.86E-02	rl	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Selenium	3.10E-02	rl	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Selenium	3.10E-02	rl	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Selenium	2.42E-02	rl	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Selenium	3.53E-02	rl	T1
041-11-S-low-A-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Selenium	3.27E-02	rl	T1
042-11-S-low-B-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Selenium	3.37E-02	rl	T1
043-11-S-low-C-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Selenium	2.01E-02	rl	T1
044-11-S-low-D-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Selenium	3.19E-02	rl	T1
045-12-S-low-A-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Selenium	2.27E-02	rl	T1
046-12-S-low-B-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Selenium	3.24E-02	rl	T1
047-12-S-low-C-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Selenium	3.77E-02	rl	T1
048-12-S-low-D-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Selenium	3.27E-02	rl	T1
145-01-S-high-A-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Selenium	2.95E-02	rl	T1
146-01-S-high-B-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Selenium	3.20E-02	rl	T1
147-01-S-high-C-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Selenium	2.49E-02	rl	T1
148-01-S-high-D-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Selenium	3.92E-02	rl	T1
149-02-S-high-A-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Selenium	3.15E-02	rl	T1
150-02-S-high-B-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Selenium	2.80E-02	rl	T1
151-02-S-high-C-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Selenium	3.11E-02	rl	T1
152-02-S-high-D-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Selenium	2.42E-02	rl	T1
153-03-S-high-A-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Selenium	2.78E-02	rl	T1
154-03-S-high-B-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Selenium	2.21E-02	rl	T1
155-03-S-high-C-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Selenium	3.11E-02	rl	T1
156-03-S-high-D-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Selenium	2.51E-02	rl	T1
157-04-S-high-A-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Selenium	9.05E-03	rl,mdl,U	T1
158-04-S-high-B-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Selenium	9.05E-03	rl,mdl,U	T1
159-04-S-high-C-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Selenium	9.05E-03	rl,mdl,U	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
160-04-S-high-D-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
161-05-S-high-A-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
162-05-S-high-B-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
163-05-S-high-C-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
164-05-S-high-D-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
180-09-S-high-D-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
185-11-S-high-A-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
186-11-S-high-B-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
187-11-S-high-C-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
188-11-S-high-D-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
189-12-S-high-A-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Selenium	9.05E-03	r1,mdl,U	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
190-12-S-high-B-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
191-12-S-high-C-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
192-12-S-high-D-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
289-01-I-low-A-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
290-01-I-low-B-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
291-01-I-low-C-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
292-01-I-low-D-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
293-02-I-low-A-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
294-02-I-low-B-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
295-02-I-low-C-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
296-02-I-low-D-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
297-03-I-low-A-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
298-03-I-low-B-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
299-03-I-low-C-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
300-03-I-low-D-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
301-04-I-low-A-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
302-04-I-low-B-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
303-04-I-low-C-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
304-04-I-low-D-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
305-05-I-low-A-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
306-05-I-low-B-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
307-05-I-low-C-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
308-05-I-low-D-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Selenium	9.05E-03	r1,mdl,U	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
326-10-I-low-B-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
329-11-I-low-A-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
330-11-I-low-B-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
331-11-I-low-C-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
332-11-I-low-D-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
333-12-I-low-A-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
334-12-I-low-B-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
335-12-I-low-C-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
336-12-I-low-D-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
337-01-I-high-A-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
338-01-I-high-B-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
339-01-I-high-C-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
340-01-I-high-D-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
341-02-I-high-A-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
342-02-I-high-B-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
343-02-I-high-C-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
344-02-I-high-D-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
345-03-I-high-A-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Selenium	9.05E-03	r1,mdl,U	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
346-03-I-high-B-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
347-03-I-high-C-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
348-03-I-high-D-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
349-04-I-high-A-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
350-04-I-high-B-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
351-04-I-high-C-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
352-04-I-high-D-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
353-05-I-high-A-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
354-05-I-high-B-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
355-05-I-high-C-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
356-05-I-high-D-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
366-08-I-high-B-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Selenium	9.05E-03	r1,mdl,U	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
376-10-I-high-D-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
377-11-I-high-A-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
378-11-I-high-B-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
379-11-I-high-C-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
380-11-I-high-D-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
381-12-I-high-A-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
382-12-I-high-B-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
383-12-I-high-C-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
384-12-I-high-D-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
385-00-I-baseline-A-1	control_none_I	EPA6010C-SPLP	17	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
386-00-I-baseline-B-1	control_none_I	EPA6010C-SPLP	17	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
387-00-I-baseline-C-1	control_none_I	EPA6010C-SPLP	17	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
388-00-I-baseline-D-1	control_none_I	EPA6010C-SPLP	17	mg/L	Selenium	9.05E-03	r1,mdl,U	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Silver	1.39E-02	r1,mdl,U	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Silver	1.39E-02	r1,mdl,U	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Silver	1.39E-02	r1,mdl,U	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Silver	1.39E-02	r1,mdl,U	T1
001-01-S-low-A-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Silver	1.39E-02	r1,mdl,U	T1
002-01-S-low-B-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Silver	1.39E-02	r1,mdl,U	T1
003-01-S-low-C-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Silver	1.39E-02	r1,mdl,U	T1
004-01-S-low-D-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Silver	1.39E-02	r1,mdl,U	T1
005-02-S-low-A-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Silver	1.39E-02	r1,mdl,U	T1
006-02-S-low-B-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Silver	1.39E-02	r1,mdl,U	T1
007-02-S-low-C-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Silver	1.39E-02	r1,mdl,U	T1
008-02-S-low-D-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Silver	1.39E-02	r1,mdl,U	T1
009-03-S-low-A-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Silver	1.39E-02	r1,mdl,U	T1
010-03-S-low-B-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Silver	1.39E-02	r1,mdl,U	T1
011-03-S-low-C-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Silver	1.39E-02	r1,mdl,U	T1
012-03-S-low-D-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Silver	1.39E-02	r1,mdl,U	T1
013-04-S-low-A-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Silver	1.39E-02	r1,mdl,U	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
014-04-S-low-B-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Silver	1.39E-02	r1,mdl,U	T1
015-04-S-low-C-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Silver	1.39E-02	r1,mdl,U	T1
016-04-S-low-D-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Silver	1.39E-02	r1,mdl,U	T1
017-05-S-low-A-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Silver	1.39E-02	r1,mdl,U	T1
018-05-S-low-B-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Silver	1.39E-02	r1,mdl,U	T1
019-05-S-low-C-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Silver	1.39E-02	r1,mdl,U	T1
020-05-S-low-D-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Silver	1.39E-02	r1,mdl,U	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Silver	1.39E-02	r1,mdl,U	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Silver	1.39E-02	r1,mdl,U	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Silver	1.39E-02	r1,mdl,U	T1
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Silver	1.39E-02	r1,mdl,U	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Silver	1.39E-02	r1,mdl,U	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Silver	1.39E-02	r1,mdl,U	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Silver	1.39E-02	r1,mdl,U	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Silver	1.39E-02	r1,mdl,U	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Silver	1.39E-02	r1,mdl,U	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Silver	1.39E-02	r1,mdl,U	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Silver	1.39E-02	r1,mdl,U	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Silver	1.39E-02	r1,mdl,U	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Silver	1.39E-02	r1,mdl,U	T1
034-09-S-low-B-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Silver	1.39E-02	r1,mdl,U	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Silver	1.39E-02	r1,mdl,U	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Silver	1.39E-02	r1,mdl,U	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Silver	1.39E-02	r1,mdl,U	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Silver	1.39E-02	r1,mdl,U	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Silver	1.39E-02	r1,mdl,U	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Silver	1.39E-02	r1,mdl,U	T1
041-11-S-low-A-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Silver	1.39E-02	r1,mdl,U	T1
042-11-S-low-B-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Silver	1.39E-02	r1,mdl,U	T1
043-11-S-low-C-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Silver	1.39E-02	r1,mdl,U	T1



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
044-11-S-low-D-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Silver	1.39E-02	r1,mdl,U	T1
045-12-S-low-A-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Silver	1.39E-02	r1,mdl,U	T1
046-12-S-low-B-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Silver	1.39E-02	r1,mdl,U	T1
047-12-S-low-C-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Silver	1.39E-02	r1,mdl,U	T1
048-12-S-low-D-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Silver	1.39E-02	r1,mdl,U	T1
145-01-S-high-A-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Silver	1.39E-02	r1,mdl,U	T1
146-01-S-high-B-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Silver	1.39E-02	r1,mdl,U	T1
147-01-S-high-C-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Silver	1.39E-02	r1,mdl,U	T1
148-01-S-high-D-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Silver	1.39E-02	r1,mdl,U	T1
149-02-S-high-A-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Silver	1.39E-02	r1,mdl,U	T1
150-02-S-high-B-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Silver	1.39E-02	r1,mdl,U	T1
151-02-S-high-C-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Silver	1.39E-02	r1,mdl,U	T1
152-02-S-high-D-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Silver	1.39E-02	r1,mdl,U	T1
153-03-S-high-A-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Silver	1.39E-02	r1,mdl,U	T1
154-03-S-high-B-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Silver	1.39E-02	r1,mdl,U	T1
155-03-S-high-C-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Silver	1.39E-02	r1,mdl,U	T1
156-03-S-high-D-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Silver	1.39E-02	r1,mdl,U	T1
157-04-S-high-A-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Silver	1.39E-02	r1,mdl,U	T1
158-04-S-high-B-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Silver	1.39E-02	r1,mdl,U	T1
159-04-S-high-C-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Silver	1.39E-02	r1,mdl,U	T1
160-04-S-high-D-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Silver	1.39E-02	r1,mdl,U	T1
161-05-S-high-A-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Silver	1.39E-02	r1,mdl,U	T1
162-05-S-high-B-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Silver	1.39E-02	r1,mdl,U	T1
163-05-S-high-C-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Silver	1.39E-02	r1,mdl,U	T1
164-05-S-high-D-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Silver	1.39E-02	r1,mdl,U	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Silver	1.39E-02	r1,mdl,U	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Silver	1.39E-02	r1,mdl,U	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Silver	1.39E-02	r1,mdl,U	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Silver	1.39E-02	r1,mdl,U	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Silver	1.39E-02	r1,mdl,U	T1

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Silver	1.39E-02	r1,mdl,U	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Silver	1.39E-02	r1,mdl,U	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Silver	1.39E-02	r1,mdl,U	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Silver	1.39E-02	r1,mdl,U	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Silver	1.39E-02	r1,mdl,U	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Silver	1.39E-02	r1,mdl,U	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Silver	1.39E-02	r1,mdl,U	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Silver	1.39E-02	r1,mdl,U	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Silver	1.39E-02	r1,mdl,U	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Silver	1.39E-02	r1,mdl,U	T1
180-09-S-high-D-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Silver	1.39E-02	r1,mdl,U	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Silver	1.39E-02	r1,mdl,U	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Silver	1.39E-02	r1,mdl,U	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Silver	1.39E-02	r1,mdl,U	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Silver	1.39E-02	r1,mdl,U	T1
185-11-S-high-A-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Silver	1.39E-02	r1,mdl,U	T1
186-11-S-high-B-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Silver	1.39E-02	r1,mdl,U	T1
187-11-S-high-C-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Silver	1.39E-02	r1,mdl,U	T1
188-11-S-high-D-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Silver	1.39E-02	r1,mdl,U	T1
189-12-S-high-A-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Silver	1.39E-02	r1,mdl,U	T1
190-12-S-high-B-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Silver	1.39E-02	r1,mdl,U	T1
191-12-S-high-C-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Silver	1.39E-02	r1,mdl,U	T1
192-12-S-high-D-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Silver	1.39E-02	r1,mdl,U	T1
289-01-I-low-A-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Silver	1.39E-02	r1,mdl,U	T1
290-01-I-low-B-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Silver	1.39E-02	r1,mdl,U	T1
291-01-I-low-C-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Silver	1.39E-02	r1,mdl,U	T1
292-01-I-low-D-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Silver	1.39E-02	r1,mdl,U	T1
293-02-I-low-A-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Silver	1.39E-02	r1,mdl,U	T1
294-02-I-low-B-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Silver	1.39E-02	r1,mdl,U	T1
295-02-I-low-C-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Silver	1.39E-02	r1,mdl,U	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
296-02-I-low-D-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Silver	1.39E-02	r1,mdl,U	T1
297-03-I-low-A-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Silver	1.39E-02	r1,mdl,U	T1
298-03-I-low-B-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Silver	1.39E-02	r1,mdl,U	T1
299-03-I-low-C-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Silver	1.39E-02	r1,mdl,U	T1
300-03-I-low-D-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Silver	1.39E-02	r1,mdl,U	T1
301-04-I-low-A-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Silver	1.39E-02	r1,mdl,U	T1
302-04-I-low-B-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Silver	1.39E-02	r1,mdl,U	T1
303-04-I-low-C-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Silver	1.39E-02	r1,mdl,U	T1
304-04-I-low-D-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Silver	1.39E-02	r1,mdl,U	T1
305-05-I-low-A-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Silver	1.39E-02	r1,mdl,U	T1
306-05-I-low-B-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Silver	1.39E-02	r1,mdl,U	T1
307-05-I-low-C-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Silver	1.39E-02	r1,mdl,U	T1
308-05-I-low-D-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Silver	1.39E-02	r1,mdl,U	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Silver	1.39E-02	r1,mdl,U	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Silver	1.39E-02	r1,mdl,U	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Silver	1.39E-02	r1,mdl,U	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Silver	1.39E-02	r1,mdl,U	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Silver	1.39E-02	r1,mdl,U	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Silver	1.39E-02	r1,mdl,U	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Silver	1.39E-02	r1,mdl,U	T1
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Silver	1.39E-02	r1,mdl,U	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Silver	1.39E-02	r1,mdl,U	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Silver	1.39E-02	r1,mdl,U	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Silver	1.39E-02	r1,mdl,U	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Silver	1.39E-02	r1,mdl,U	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Silver	1.39E-02	r1,mdl,U	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Silver	1.39E-02	r1,mdl,U	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Silver	1.39E-02	r1,mdl,U	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Silver	1.39E-02	r1,mdl,U	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Silver	1.39E-02	r1,mdl,U	T1

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
326-10-I-low-B-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Silver	1.39E-02	r1,mdl,U	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Silver	1.39E-02	r1,mdl,U	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Silver	1.39E-02	r1,mdl,U	T1
329-11-I-low-A-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Silver	1.39E-02	r1,mdl,U	T1
330-11-I-low-B-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Silver	1.39E-02	r1,mdl,U	T1
331-11-I-low-C-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Silver	1.39E-02	r1,mdl,U	T1
332-11-I-low-D-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Silver	1.39E-02	r1,mdl,U	T1
333-12-I-low-A-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Silver	1.39E-02	r1,mdl,U	T1
334-12-I-low-B-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Silver	1.39E-02	r1,mdl,U	T1
335-12-I-low-C-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Silver	1.39E-02	r1,mdl,U	T1
336-12-I-low-D-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Silver	1.39E-02	r1,mdl,U	T1
337-01-I-high-A-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Silver	1.39E-02	r1,mdl,U	T1
338-01-I-high-B-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Silver	1.50E-02	r1	T1
339-01-I-high-C-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Silver	1.39E-02	r1,mdl,U	T1
340-01-I-high-D-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Silver	1.39E-02	r1,mdl,U	T1
341-02-I-high-A-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Silver	1.39E-02	r1,mdl,U	T1
342-02-I-high-B-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Silver	1.39E-02	r1,mdl,U	T1
343-02-I-high-C-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Silver	1.39E-02	r1,mdl,U	T1
344-02-I-high-D-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Silver	1.39E-02	r1,mdl,U	T1
345-03-I-high-A-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Silver	1.39E-02	r1,mdl,U	T1
346-03-I-high-B-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Silver	1.39E-02	r1,mdl,U	T1
347-03-I-high-C-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Silver	1.39E-02	r1,mdl,U	T1
348-03-I-high-D-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Silver	1.39E-02	r1,mdl,U	T1
349-04-I-high-A-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Silver	1.39E-02	r1,mdl,U	T1
350-04-I-high-B-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Silver	1.39E-02	r1,mdl,U	T1
351-04-I-high-C-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Silver	1.39E-02	r1,mdl,U	T1
352-04-I-high-D-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Silver	1.39E-02	r1,mdl,U	T1
353-05-I-high-A-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Silver	1.39E-02	r1,mdl,U	T1
354-05-I-high-B-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Silver	1.39E-02	r1,mdl,U	T1
355-05-I-high-C-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Silver	1.39E-02	r1,mdl,U	T1

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
356-05-I-high-D-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Silver	1.39E-02	r1,mdl,U	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Silver	1.39E-02	r1,mdl,U	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Silver	1.39E-02	r1,mdl,U	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Silver	1.39E-02	r1,mdl,U	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Silver	1.39E-02	r1,mdl,U	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Silver	1.39E-02	r1,mdl,U	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Silver	1.39E-02	r1,mdl,U	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Silver	1.39E-02	r1,mdl,U	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Silver	1.39E-02	r1,mdl,U	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Silver	1.39E-02	r1,mdl,U	T1
366-08-I-high-B-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Silver	1.39E-02	r1,mdl,U	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Silver	1.39E-02	r1,mdl,U	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Silver	1.39E-02	r1,mdl,U	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Silver	1.39E-02	r1,mdl,U	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Silver	1.39E-02	r1,mdl,U	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Silver	1.39E-02	r1,mdl,U	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Silver	1.39E-02	r1,mdl,U	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Silver	1.39E-02	r1,mdl,U	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Silver	1.39E-02	r1,mdl,U	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Silver	1.39E-02	r1,mdl,U	T1
376-10-I-high-D-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Silver	1.39E-02	r1,mdl,U	T1
377-11-I-high-A-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Silver	1.39E-02	r1,mdl,U	T1
378-11-I-high-B-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Silver	1.39E-02	r1,mdl,U	T1
379-11-I-high-C-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Silver	1.39E-02	r1,mdl,U	T1
380-11-I-high-D-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Silver	1.39E-02	r1,mdl,U	T1
381-12-I-high-A-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Silver	1.39E-02	r1,mdl,U	T1
382-12-I-high-B-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Silver	1.39E-02	r1,mdl,U	T1
383-12-I-high-C-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Silver	1.39E-02	r1,mdl,U	T1
384-12-I-high-D-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Silver	1.39E-02	r1,mdl,U	T1
385-00-I-baseline-A-1	control_none_I	EPA6010C-SPLP	17	mg/L	Silver	1.39E-02	r1,mdl,U	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
386-00-I-baseline-B-1	control_none_I	EPA6010C-SPLP	17	mg/L	Silver	1.39E-02	rl,mdl,U	T1
387-00-I-baseline-C-1	control_none_I	EPA6010C-SPLP	17	mg/L	Silver	1.39E-02	rl,mdl,U	T1
388-00-I-baseline-D-1	control_none_I	EPA6010C-SPLP	17	mg/L	Silver	1.39E-02	rl,mdl,U	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Sodium	3.60E-01	rl	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Sodium	3.69E-01	rl	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Sodium	3.67E-01	rl	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Sodium	3.59E-01	rl	T1
001-01-S-low-A-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Sodium	3.59E+00	NA	T1
002-01-S-low-B-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Sodium	2.80E+00	NA	T1
003-01-S-low-C-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Sodium	2.36E+00	NA	T1
004-01-S-low-D-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Sodium	2.34E+00	NA	T1
005-02-S-low-A-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Sodium	1.08E+00	NA	T1
006-02-S-low-B-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Sodium	1.04E+00	NA	T1
007-02-S-low-C-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Sodium	8.91E-01	NA	T1
008-02-S-low-D-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Sodium	1.04E+00	NA	T1
009-03-S-low-A-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Sodium	2.07E+00	NA	T1
010-03-S-low-B-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Sodium	1.76E+00	NA	T1
011-03-S-low-C-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Sodium	1.83E+00	NA	T1
012-03-S-low-D-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Sodium	1.52E+00	NA	T1
013-04-S-low-A-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Sodium	1.20E+00	NA	T1
014-04-S-low-B-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Sodium	1.19E+00	NA	T1
015-04-S-low-C-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Sodium	1.22E+00	NA	T1
016-04-S-low-D-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Sodium	1.18E+00	NA	T1
017-05-S-low-A-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Sodium	2.01E+00	NA	T1
018-05-S-low-B-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Sodium	1.77E+00	NA	T1
019-05-S-low-C-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Sodium	1.46E+00	NA	T1
020-05-S-low-D-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Sodium	1.58E+00	NA	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Sodium	1.89E+00	NA	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Sodium	1.76E+00	NA	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Sodium	1.79E+00	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Sodium	1.72E+00	NA	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Sodium	2.21E+00	NA	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Sodium	1.84E+00	NA	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Sodium	1.57E+00	NA	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Sodium	2.29E+00	NA	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Sodium	3.12E+00	NA	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Sodium	2.82E+00	NA	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Sodium	2.11E+00	NA	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Sodium	2.67E+00	NA	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Sodium	1.64E+00	NA	T1
034-09-S-low-B-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Sodium	1.62E+00	NA	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Sodium	1.66E+00	NA	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Sodium	1.65E+00	NA	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Sodium	1.70E+00	NA	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Sodium	1.75E+00	NA	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Sodium	1.63E+00	NA	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Sodium	1.76E+00	NA	T1
041-11-S-low-A-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Sodium	2.13E+00	NA	T1
042-11-S-low-B-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Sodium	2.26E+00	NA	T1
043-11-S-low-C-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Sodium	2.29E+00	NA	T1
044-11-S-low-D-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Sodium	2.62E+00	NA	T1
045-12-S-low-A-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Sodium	1.73E+00	NA	T1
046-12-S-low-B-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Sodium	1.90E+00	NA	T1
047-12-S-low-C-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Sodium	2.01E+00	NA	T1
048-12-S-low-D-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Sodium	1.64E+00	NA	T1
145-01-S-high-A-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Sodium	4.07E+00	NA	T1
146-01-S-high-B-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Sodium	3.92E+00	NA	T1
147-01-S-high-C-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Sodium	3.27E+00	NA	T1
148-01-S-high-D-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Sodium	3.58E+00	NA	T1
149-02-S-high-A-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Sodium	1.10E+00	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
150-02-S-high-B-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Sodium	1.05E+00	NA	T1
151-02-S-high-C-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Sodium	1.20E+00	NA	T1
152-02-S-high-D-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Sodium	9.81E-01	NA	T1
153-03-S-high-A-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Sodium	3.33E+00	NA	T1
154-03-S-high-B-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Sodium	2.99E+00	NA	T1
155-03-S-high-C-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Sodium	3.07E+00	NA	T1
156-03-S-high-D-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Sodium	2.96E+00	NA	T1
157-04-S-high-A-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Sodium	1.37E+00	NA	T1
158-04-S-high-B-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Sodium	1.75E+00	NA	T1
159-04-S-high-C-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Sodium	1.74E+00	NA	T1
160-04-S-high-D-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Sodium	1.52E+00	NA	T1
161-05-S-high-A-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Sodium	2.87E+00	NA	T1
162-05-S-high-B-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Sodium	2.07E+00	NA	T1
163-05-S-high-C-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Sodium	3.42E+00	NA	T1
164-05-S-high-D-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Sodium	2.46E+00	NA	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Sodium	2.08E+00	NA	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Sodium	2.40E+00	NA	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Sodium	2.03E+00	NA	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Sodium	1.98E+00	NA	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Sodium	3.44E+00	NA	T1
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Sodium	3.26E+00	NA	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Sodium	2.69E+00	NA	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Sodium	3.42E+00	NA	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Sodium	6.08E+00	NA	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Sodium	5.82E+00	NA	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Sodium	6.03E+00	NA	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Sodium	4.34E+00	NA	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Sodium	2.16E+00	NA	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Sodium	2.38E+00	NA	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Sodium	2.28E+00	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
180-09-S-high-D-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Sodium	2.35E+00	NA	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Sodium	3.48E+00	NA	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Sodium	2.77E+00	NA	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Sodium	2.82E+00	NA	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Sodium	3.29E+00	NA	T1
185-11-S-high-A-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Sodium	2.67E+00	NA	T1
186-11-S-high-B-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Sodium	4.08E+00	NA	T1
187-11-S-high-C-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Sodium	3.59E+00	NA	T1
188-11-S-high-D-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Sodium	3.84E+00	NA	T1
189-12-S-high-A-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Sodium	2.23E+00	NA	T1
190-12-S-high-B-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Sodium	2.18E+00	NA	T1
191-12-S-high-C-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Sodium	2.94E+00	NA	T1
192-12-S-high-D-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Sodium	2.66E+00	NA	T1
289-01-I-low-A-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Sodium	3.27E+00	NA	T1
290-01-I-low-B-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Sodium	3.89E+00	NA	T1
291-01-I-low-C-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Sodium	3.77E+00	NA	T1
292-01-I-low-D-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Sodium	3.30E+00	NA	T1
293-02-I-low-A-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Sodium	2.70E+00	NA	T1
294-02-I-low-B-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Sodium	2.04E+00	NA	T1
295-02-I-low-C-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Sodium	2.32E+00	NA	T1
296-02-I-low-D-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Sodium	2.05E+00	NA	T1
297-03-I-low-A-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Sodium	3.06E+00	NA	T1
298-03-I-low-B-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Sodium	2.84E+00	NA	T1
299-03-I-low-C-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Sodium	3.15E+00	NA	T1
300-03-I-low-D-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Sodium	2.81E+00	NA	T1
301-04-I-low-A-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Sodium	2.19E+00	NA	T1
302-04-I-low-B-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Sodium	2.00E+00	NA	T1
303-04-I-low-C-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Sodium	2.12E+00	NA	T1
304-04-I-low-D-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Sodium	2.20E+00	NA	T1
305-05-I-low-A-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Sodium	4.28E+00	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
306-05-I-low-B-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Sodium	3.47E+00	NA	T1
307-05-I-low-C-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Sodium	4.54E+00	NA	T1
308-05-I-low-D-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Sodium	4.91E+00	NA	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Sodium	3.67E+00	NA	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Sodium	3.02E+00	NA	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Sodium	3.61E+00	NA	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Sodium	3.08E+00	NA	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Sodium	5.41E+00	NA	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Sodium	3.81E+00	NA	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Sodium	4.93E+00	NA	T1
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Sodium	4.92E+00	NA	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Sodium	5.06E+00	NA	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Sodium	5.76E+00	NA	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Sodium	6.09E+00	NA	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Sodium	5.06E+00	NA	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Sodium	3.11E+00	NA	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Sodium	2.85E+00	NA	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Sodium	2.64E+00	NA	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Sodium	2.97E+00	NA	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Sodium	2.75E+00	NA	T1
326-10-I-low-B-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Sodium	2.48E+00	NA	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Sodium	2.71E+00	NA	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Sodium	2.74E+00	NA	T1
329-11-I-low-A-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Sodium	4.55E+00	NA	T1
330-11-I-low-B-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Sodium	3.64E+00	NA	T1
331-11-I-low-C-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Sodium	3.76E+00	NA	T1
332-11-I-low-D-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Sodium	4.32E+00	NA	T1
333-12-I-low-A-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Sodium	3.13E+00	NA	T1
334-12-I-low-B-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Sodium	3.27E+00	NA	T1
335-12-I-low-C-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Sodium	3.75E+00	NA	T1



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
336-12-I-low-D-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Sodium	3.93E+00	NA	T1
337-01-I-high-A-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Sodium	6.08E+00	NA	T1
338-01-I-high-B-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Sodium	6.12E+00	NA	T1
339-01-I-high-C-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Sodium	5.82E+00	NA	T1
340-01-I-high-D-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Sodium	1.08E+01	NA	T1
341-02-I-high-A-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Sodium	3.56E+00	NA	T1
342-02-I-high-B-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Sodium	2.72E+00	NA	T1
343-02-I-high-C-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Sodium	3.91E+00	NA	T1
344-02-I-high-D-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Sodium	1.80E+00	NA	T1
345-03-I-high-A-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Sodium	4.08E+00	NA	T1
346-03-I-high-B-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Sodium	4.24E+00	NA	T1
347-03-I-high-C-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Sodium	4.33E+00	NA	T1
348-03-I-high-D-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Sodium	4.55E+00	NA	T1
349-04-I-high-A-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Sodium	2.55E+00	NA	T1
350-04-I-high-B-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Sodium	3.02E+00	NA	T1
351-04-I-high-C-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Sodium	2.92E+00	NA	T1
352-04-I-high-D-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Sodium	2.81E+00	NA	T1
353-05-I-high-A-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Sodium	8.83E+00	NA	T1
354-05-I-high-B-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Sodium	1.02E+01	NA	T1
355-05-I-high-C-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Sodium	9.64E+00	NA	T1
356-05-I-high-D-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Sodium	8.53E+00	NA	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Sodium	7.49E+00	NA	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Sodium	8.48E+00	NA	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Sodium	6.35E+00	NA	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Sodium	4.88E+00	NA	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Sodium	8.71E+00	NA	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Sodium	7.72E+00	NA	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Sodium	5.47E+00	NA	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Sodium	8.05E+00	NA	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Sodium	1.11E+01	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
366-08-I-high-B-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Sodium	1.08E+01	NA	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Sodium	1.05E+01	NA	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Sodium	1.41E+01	NA	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Sodium	6.24E+00	NA	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Sodium	6.17E+00	NA	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Sodium	7.05E+00	NA	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Sodium	5.38E+00	NA	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Sodium	6.19E+00	NA	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Sodium	6.03E+00	NA	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Sodium	6.43E+00	NA	T1
376-10-I-high-D-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Sodium	6.29E+00	NA	T1
377-11-I-high-A-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Sodium	1.47E+01	NA	T1
378-11-I-high-B-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Sodium	1.09E+01	NA	T1
379-11-I-high-C-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Sodium	1.05E+01	NA	T1
380-11-I-high-D-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Sodium	9.72E+00	NA	T1
381-12-I-high-A-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Sodium	7.24E+00	NA	T1
382-12-I-high-B-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Sodium	8.51E+00	NA	T1
383-12-I-high-C-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Sodium	9.79E+00	NA	T1
384-12-I-high-D-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Sodium	7.31E+00	NA	T1
385-00-I-baseline-A-1	control_none_I	EPA6010C-SPLP	17	mg/L	Sodium	1.60E+00	NA	T1
386-00-I-baseline-B-1	control_none_I	EPA6010C-SPLP	17	mg/L	Sodium	1.90E+00	NA	T1
387-00-I-baseline-C-1	control_none_I	EPA6010C-SPLP	17	mg/L	Sodium	1.36E+00	NA	T1
388-00-I-baseline-D-1	control_none_I	EPA6010C-SPLP	17	mg/L	Sodium	1.38E+00	NA	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Thallium	4.25E-03	rl,mdl,U	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Thallium	4.25E-03	rl,mdl,U	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Thallium	4.25E-03	rl,mdl,U	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Thallium	4.25E-03	rl,mdl,U	T1
001-01-S-low-A-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Thallium	4.25E-03	rl,mdl,U	T1
002-01-S-low-B-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Thallium	7.59E-03	rl	T1
003-01-S-low-C-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Thallium	4.25E-03	rl,mdl,U	T1

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
004-01-S-low-D-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
005-02-S-low-A-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
006-02-S-low-B-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
007-02-S-low-C-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
008-02-S-low-D-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
009-03-S-low-A-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
010-03-S-low-B-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Thallium	5.94E-03	r1	T1
011-03-S-low-C-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
012-03-S-low-D-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
013-04-S-low-A-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
014-04-S-low-B-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
015-04-S-low-C-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
016-04-S-low-D-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
017-05-S-low-A-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
018-05-S-low-B-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
019-05-S-low-C-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
020-05-S-low-D-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Thallium	5.63E-03	r1	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Thallium	4.33E-03	r1	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Thallium	4.59E-03	r1	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Thallium	4.25E-03	r1,mdl,U	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
034-09-S-low-B-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
041-11-S-low-A-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
042-11-S-low-B-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
043-11-S-low-C-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
044-11-S-low-D-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Thallium	4.50E-03	r1	T1
045-12-S-low-A-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
046-12-S-low-B-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
047-12-S-low-C-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
048-12-S-low-D-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Thallium	5.50E-03	r1	T1
145-01-S-high-A-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
146-01-S-high-B-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
147-01-S-high-C-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
148-01-S-high-D-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
149-02-S-high-A-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Thallium	4.77E-03	r1	T1
150-02-S-high-B-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
151-02-S-high-C-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
152-02-S-high-D-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
153-03-S-high-A-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
154-03-S-high-B-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
155-03-S-high-C-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
156-03-S-high-D-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
157-04-S-high-A-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Thallium	5.01E-03	r1	T1
158-04-S-high-B-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
159-04-S-high-C-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Thallium	6.88E-03	r1	T1

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
160-04-S-high-D-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Thallium	5.14E-03	rl	T1
161-05-S-high-A-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Thallium	4.25E-03	rl,mdl,U	T1
162-05-S-high-B-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Thallium	4.25E-03	rl,mdl,U	T1
163-05-S-high-C-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Thallium	4.25E-03	rl,mdl,U	T1
164-05-S-high-D-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Thallium	4.25E-03	rl,mdl,U	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Thallium	4.25E-03	rl,mdl,U	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Thallium	7.69E-03	rl	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Thallium	4.25E-03	rl,mdl,U	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Thallium	4.25E-03	rl,mdl,U	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Thallium	4.25E-03	rl,mdl,U	T1
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Thallium	4.25E-03	rl,mdl,U	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Thallium	4.25E-03	rl,mdl,U	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Thallium	7.59E-03	rl	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Thallium	4.25E-03	rl,mdl,U	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Thallium	4.25E-03	rl,mdl,U	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Thallium	4.25E-03	rl,mdl,U	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Thallium	4.25E-03	rl,mdl,U	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Thallium	4.25E-03	rl,mdl,U	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Thallium	4.25E-03	rl,mdl,U	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Thallium	4.25E-03	rl,mdl,U	T1
180-09-S-high-D-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Thallium	4.25E-03	rl,mdl,U	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Thallium	4.25E-03	rl,mdl,U	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Thallium	4.25E-03	rl,mdl,U	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Thallium	4.25E-03	rl,mdl,U	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Thallium	4.25E-03	rl,mdl,U	T1
185-11-S-high-A-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Thallium	4.25E-03	rl,mdl,U	T1
186-11-S-high-B-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Thallium	4.25E-03	rl,mdl,U	T1
187-11-S-high-C-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Thallium	4.25E-03	rl,mdl,U	T1
188-11-S-high-D-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Thallium	4.25E-03	rl,mdl,U	T1
189-12-S-high-A-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Thallium	4.25E-03	rl,mdl,U	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
190-12-S-high-B-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
191-12-S-high-C-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Thallium	8.53E-03	r1	T1
192-12-S-high-D-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
289-01-I-low-A-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Thallium	4.95E-03	r1	T1
290-01-I-low-B-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
291-01-I-low-C-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
292-01-I-low-D-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Thallium	5.42E-03	r1	T1
293-02-I-low-A-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
294-02-I-low-B-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
295-02-I-low-C-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
296-02-I-low-D-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
297-03-I-low-A-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
298-03-I-low-B-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
299-03-I-low-C-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
300-03-I-low-D-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
301-04-I-low-A-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
302-04-I-low-B-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
303-04-I-low-C-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
304-04-I-low-D-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
305-05-I-low-A-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
306-05-I-low-B-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
307-05-I-low-C-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
308-05-I-low-D-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Thallium	4.25E-03	r1,mdl,U	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
326-10-I-low-B-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
329-11-I-low-A-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
330-11-I-low-B-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
331-11-I-low-C-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
332-11-I-low-D-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
333-12-I-low-A-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
334-12-I-low-B-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
335-12-I-low-C-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
336-12-I-low-D-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
337-01-I-high-A-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
338-01-I-high-B-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
339-01-I-high-C-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
340-01-I-high-D-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
341-02-I-high-A-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
342-02-I-high-B-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
343-02-I-high-C-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
344-02-I-high-D-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
345-03-I-high-A-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Thallium	4.25E-03	r1,mdl,U	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
346-03-I-high-B-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
347-03-I-high-C-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
348-03-I-high-D-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
349-04-I-high-A-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
350-04-I-high-B-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
351-04-I-high-C-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
352-04-I-high-D-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
353-05-I-high-A-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
354-05-I-high-B-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
355-05-I-high-C-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
356-05-I-high-D-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
366-08-I-high-B-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Thallium	6.27E-03	r1	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Thallium	4.25E-03	r1,mdl,U	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
376-10-I-high-D-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
377-11-I-high-A-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
378-11-I-high-B-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
379-11-I-high-C-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
380-11-I-high-D-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
381-12-I-high-A-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
382-12-I-high-B-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
383-12-I-high-C-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
384-12-I-high-D-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
385-00-I-baseline-A-1	control_none_I	EPA6010C-SPLP	17	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
386-00-I-baseline-B-1	control_none_I	EPA6010C-SPLP	17	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
387-00-I-baseline-C-1	control_none_I	EPA6010C-SPLP	17	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
388-00-I-baseline-D-1	control_none_I	EPA6010C-SPLP	17	mg/L	Thallium	4.25E-03	r1,mdl,U	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Vanadium	5.82E-04	r1,mdl,U	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Vanadium	1.80E-03	r1	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Vanadium	5.82E-04	r1,mdl,U	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Vanadium	5.82E-04	r1,mdl,U	T1
001-01-S-low-A-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Vanadium	5.92E-03	r1	T1
002-01-S-low-B-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Vanadium	9.57E-03	r1	T1
003-01-S-low-C-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Vanadium	9.73E-03	r1	T1
004-01-S-low-D-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Vanadium	6.97E-03	r1	T1
005-02-S-low-A-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Vanadium	6.21E-03	r1	T1
006-02-S-low-B-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Vanadium	6.95E-03	r1	T1
007-02-S-low-C-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Vanadium	3.27E-03	r1	T1
008-02-S-low-D-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Vanadium	6.06E-03	r1	T1
009-03-S-low-A-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Vanadium	4.33E-03	r1	T1
010-03-S-low-B-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Vanadium	4.02E-03	r1	T1
011-03-S-low-C-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Vanadium	3.39E-03	r1	T1
012-03-S-low-D-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Vanadium	3.44E-03	r1	T1
013-04-S-low-A-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Vanadium	1.77E-03	r1	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
014-04-S-low-B-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Vanadium	3.08E-03	rl	T1
015-04-S-low-C-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Vanadium	4.45E-03	rl	T1
016-04-S-low-D-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Vanadium	4.62E-03	rl	T1
017-05-S-low-A-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Vanadium	4.10E-03	rl	T1
018-05-S-low-B-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Vanadium	4.37E-03	rl	T1
019-05-S-low-C-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Vanadium	4.61E-03	rl	T1
020-05-S-low-D-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Vanadium	4.86E-03	rl	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Vanadium	5.57E-03	rl	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Vanadium	5.07E-03	rl	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Vanadium	7.85E-03	rl	T1
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Vanadium	5.18E-03	rl	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Vanadium	5.02E-03	rl	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Vanadium	4.81E-03	rl	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Vanadium	4.42E-03	rl	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Vanadium	5.97E-03	rl	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Vanadium	5.91E-03	rl	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Vanadium	7.54E-03	rl	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Vanadium	6.83E-03	rl	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Vanadium	5.64E-03	rl	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Vanadium	2.09E-03	rl	T1
034-09-S-low-B-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Vanadium	2.31E-03	rl	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Vanadium	5.37E-03	rl	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Vanadium	4.10E-03	rl	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Vanadium	2.47E-03	rl	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Vanadium	3.41E-03	rl	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Vanadium	5.06E-03	rl	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Vanadium	5.16E-03	rl	T1
041-11-S-low-A-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Vanadium	4.60E-03	rl	T1
042-11-S-low-B-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Vanadium	2.82E-03	rl	T1
043-11-S-low-C-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Vanadium	3.68E-03	rl	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
044-11-S-low-D-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Vanadium	4.73E-03	rl	T1
045-12-S-low-A-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Vanadium	4.49E-03	rl	T1
046-12-S-low-B-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Vanadium	3.88E-03	rl	T1
047-12-S-low-C-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Vanadium	5.29E-03	rl	T1
048-12-S-low-D-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Vanadium	3.84E-03	rl	T1
145-01-S-high-A-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Vanadium	1.47E-02	rl	T1
146-01-S-high-B-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Vanadium	1.23E-02	rl	T1
147-01-S-high-C-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Vanadium	1.30E-02	rl	T1
148-01-S-high-D-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Vanadium	1.60E-02	rl	T1
149-02-S-high-A-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Vanadium	5.90E-03	rl	T1
150-02-S-high-B-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Vanadium	9.54E-03	rl	T1
151-02-S-high-C-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Vanadium	5.28E-03	rl	T1
152-02-S-high-D-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Vanadium	6.17E-03	rl	T1
153-03-S-high-A-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Vanadium	3.22E-03	rl	T1
154-03-S-high-B-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Vanadium	2.59E-03	rl	T1
155-03-S-high-C-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Vanadium	3.24E-03	rl	T1
156-03-S-high-D-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Vanadium	3.60E-03	rl	T1
157-04-S-high-A-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Vanadium	2.24E-03	rl	T1
158-04-S-high-B-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Vanadium	3.46E-03	rl	T1
159-04-S-high-C-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Vanadium	2.66E-03	rl	T1
160-04-S-high-D-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Vanadium	2.50E-03	rl	T1
161-05-S-high-A-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Vanadium	1.71E-03	rl	T1
162-05-S-high-B-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Vanadium	1.47E-03	rl	T1
163-05-S-high-C-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Vanadium	2.40E-03	rl	T1
164-05-S-high-D-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Vanadium	1.85E-03	rl	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Vanadium	5.56E-03	rl	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Vanadium	8.14E-03	rl	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Vanadium	7.58E-03	rl	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Vanadium	7.85E-03	rl	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Vanadium	8.97E-03	rl	T1



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Vanadium	1.15E-02	rl	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Vanadium	8.19E-03	rl	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Vanadium	1.10E-02	rl	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Vanadium	6.91E-03	rl	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Vanadium	6.11E-03	rl	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Vanadium	6.16E-03	rl	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Vanadium	3.03E-03	rl	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Vanadium	4.53E-03	rl	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Vanadium	3.56E-03	rl	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Vanadium	4.40E-03	rl	T1
180-09-S-high-D-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Vanadium	2.36E-03	rl	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Vanadium	3.76E-03	rl	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Vanadium	3.03E-03	rl	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Vanadium	1.48E-03	rl	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Vanadium	4.75E-03	rl	T1
185-11-S-high-A-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Vanadium	1.56E-03	rl	T1
186-11-S-high-B-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Vanadium	1.90E-03	rl	T1
187-11-S-high-C-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Vanadium	2.53E-03	rl	T1
188-11-S-high-D-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Vanadium	2.45E-03	rl	T1
189-12-S-high-A-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Vanadium	1.43E-03	rl	T1
190-12-S-high-B-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Vanadium	1.46E-03	rl	T1
191-12-S-high-C-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Vanadium	3.13E-03	rl	T1
192-12-S-high-D-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Vanadium	2.47E-03	rl	T1
289-01-I-low-A-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Vanadium	6.85E-03	rl	T1
290-01-I-low-B-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Vanadium	5.73E-03	rl	T1
291-01-I-low-C-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Vanadium	4.61E-03	rl	T1
292-01-I-low-D-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Vanadium	7.46E-03	rl	T1
293-02-I-low-A-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Vanadium	2.74E-03	rl	T1
294-02-I-low-B-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Vanadium	1.85E-03	rl	T1
295-02-I-low-C-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Vanadium	3.01E-03	rl	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
296-02-I-low-D-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Vanadium	1.73E-03	rl	T1
297-03-I-low-A-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Vanadium	1.26E-03	rl	T1
298-03-I-low-B-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Vanadium	1.60E-03	rl	T1
299-03-I-low-C-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Vanadium	2.32E-03	rl	T1
300-03-I-low-D-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Vanadium	1.98E-03	rl	T1
301-04-I-low-A-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Vanadium	1.66E-03	rl	T1
302-04-I-low-B-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Vanadium	1.30E-03	rl	T1
303-04-I-low-C-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Vanadium	8.03E-04	rl	T1
304-04-I-low-D-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Vanadium	5.82E-04	rl,mdl,U	T1
305-05-I-low-A-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Vanadium	5.82E-04	rl,mdl,U	T1
306-05-I-low-B-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Vanadium	5.82E-04	rl,mdl,U	T1
307-05-I-low-C-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Vanadium	5.82E-04	rl,mdl,U	T1
308-05-I-low-D-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Vanadium	5.82E-04	rl,mdl,U	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Vanadium	5.81E-03	rl	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Vanadium	5.76E-03	rl	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Vanadium	1.04E-02	rl	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Vanadium	8.03E-03	rl	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Vanadium	1.09E-02	rl	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Vanadium	2.77E-03	rl	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Vanadium	3.14E-03	rl	T1
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Vanadium	5.99E-03	rl	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Vanadium	4.21E-03	rl	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Vanadium	8.40E-03	rl	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Vanadium	3.41E-03	rl	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Vanadium	2.87E-03	rl	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Vanadium	7.90E-04	rl	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Vanadium	1.21E-03	rl	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Vanadium	1.13E-02	rl	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Vanadium	9.16E-04	rl	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Vanadium	5.82E-04	rl,mdl,U	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
326-10-I-low-B-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Vanadium	5.82E-04	r1,mdl,U	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Vanadium	5.82E-04	r1,mdl,U	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Vanadium	5.82E-04	r1,mdl,U	T1
329-11-I-low-A-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Vanadium	5.82E-04	r1,mdl,U	T1
330-11-I-low-B-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Vanadium	5.82E-04	r1,mdl,U	T1
331-11-I-low-C-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Vanadium	6.04E-03	rl	T1
332-11-I-low-D-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Vanadium	5.82E-04	r1,mdl,U	T1
333-12-I-low-A-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Vanadium	5.82E-04	r1,mdl,U	T1
334-12-I-low-B-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Vanadium	5.82E-04	r1,mdl,U	T1
335-12-I-low-C-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Vanadium	5.82E-04	r1,mdl,U	T1
336-12-I-low-D-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Vanadium	5.82E-04	r1,mdl,U	T1
337-01-I-high-A-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Vanadium	1.23E-02	rl	T1
338-01-I-high-B-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Vanadium	1.24E-02	rl	T1
339-01-I-high-C-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Vanadium	2.71E-02	NA	T1
340-01-I-high-D-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Vanadium	9.88E-03	rl	T1
341-02-I-high-A-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Vanadium	3.95E-03	rl	T1
342-02-I-high-B-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Vanadium	4.56E-03	rl	T1
343-02-I-high-C-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Vanadium	3.18E-03	rl	T1
344-02-I-high-D-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Vanadium	3.51E-03	rl	T1
345-03-I-high-A-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Vanadium	5.82E-04	r1,mdl,U	T1
346-03-I-high-B-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Vanadium	5.82E-04	r1,mdl,U	T1
347-03-I-high-C-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Vanadium	6.63E-04	rl	T1
348-03-I-high-D-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Vanadium	9.40E-04	rl	T1
349-04-I-high-A-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Vanadium	5.82E-04	r1,mdl,U	T1
350-04-I-high-B-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Vanadium	5.82E-04	r1,mdl,U	T1
351-04-I-high-C-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Vanadium	5.82E-04	r1,mdl,U	T1
352-04-I-high-D-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Vanadium	5.82E-04	r1,mdl,U	T1
353-05-I-high-A-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Vanadium	5.82E-04	r1,mdl,U	T1
354-05-I-high-B-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Vanadium	5.82E-04	r1,mdl,U	T1
355-05-I-high-C-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Vanadium	5.82E-04	r1,mdl,U	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
356-05-I-high-D-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Vanadium	1.26E-03	rl	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Vanadium	3.17E-02	NA	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Vanadium	1.80E-02	rl	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Vanadium	2.13E-02	rl	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Vanadium	3.07E-02	NA	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Vanadium	2.00E-02	rl	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Vanadium	1.45E-02	rl	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Vanadium	1.53E-02	rl	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Vanadium	1.55E-02	rl	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Vanadium	1.75E-02	rl	T1
366-08-I-high-B-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Vanadium	1.31E-02	rl	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Vanadium	1.38E-02	rl	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Vanadium	1.08E-02	rl	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Vanadium	3.55E-03	rl	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Vanadium	4.16E-03	rl	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Vanadium	2.62E-03	rl	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Vanadium	3.59E-03	rl	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Vanadium	1.14E-02	rl	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Vanadium	6.14E-04	rl	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Vanadium	1.05E-03	rl	T1
376-10-I-high-D-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Vanadium	7.52E-04	rl	T1
377-11-I-high-A-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Vanadium	5.82E-04	rl,mdl,U	T1
378-11-I-high-B-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Vanadium	9.44E-04	rl	T1
379-11-I-high-C-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Vanadium	5.82E-04	rl,mdl,U	T1
380-11-I-high-D-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Vanadium	5.82E-04	rl,mdl,U	T1
381-12-I-high-A-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Vanadium	5.82E-04	rl,mdl,U	T1
382-12-I-high-B-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Vanadium	5.82E-04	rl,mdl,U	T1
383-12-I-high-C-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Vanadium	6.55E-03	rl	T1
384-12-I-high-D-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Vanadium	7.35E-04	rl	T1
385-00-I-baseline-A-1	control_none_I	EPA6010C-SPLP	17	mg/L	Vanadium	5.82E-04	rl,mdl,U	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
386-00-I-baseline-B-1	control_none_I	EPA6010C-SPLP	17	mg/L	Vanadium	1.05E-03	rl	T1
387-00-I-baseline-C-1	control_none_I	EPA6010C-SPLP	17	mg/L	Vanadium	5.82E-04	rl,mdl,U	T1
388-00-I-baseline-D-1	control_none_I	EPA6010C-SPLP	17	mg/L	Vanadium	5.82E-04	rl,mdl,U	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Zinc	2.50E-01	NA	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Zinc	2.70E-01	NA	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Zinc	2.31E-01	NA	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010C-SPLP	17	mg/L	Zinc	1.43E-01	NA	T1
001-01-S-low-A-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Zinc	3.87E-01	NA	T1
002-01-S-low-B-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Zinc	2.78E-01	NA	T1
003-01-S-low-C-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Zinc	2.19E-01	NA	T1
004-01-S-low-D-1	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Zinc	3.00E-01	NA	T1
005-02-S-low-A-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Zinc	1.34E-01	NA	T1
006-02-S-low-B-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Zinc	1.42E-01	NA	T1
007-02-S-low-C-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Zinc	1.11E-01	NA	T1
008-02-S-low-D-1	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Zinc	7.92E-02	NA	T1
009-03-S-low-A-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Zinc	1.63E-01	NA	T1
010-03-S-low-B-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Zinc	1.67E-01	NA	T1
011-03-S-low-C-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Zinc	1.86E-01	NA	T1
012-03-S-low-D-1	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Zinc	1.71E-01	NA	T1
013-04-S-low-A-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Zinc	2.05E-01	NA	T1
014-04-S-low-B-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Zinc	1.52E-01	NA	T1
015-04-S-low-C-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Zinc	1.65E-01	NA	T1
016-04-S-low-D-1	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Zinc	1.57E-01	NA	T1
017-05-S-low-A-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Zinc	1.55E-01	NA	T1
018-05-S-low-B-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Zinc	1.81E-01	NA	T1
019-05-S-low-C-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Zinc	1.72E-01	NA	T1
020-05-S-low-D-1	Compost_low_S	EPA6010C-SPLP	2	mg/L	Zinc	1.80E-01	NA	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Zinc	1.33E-01	NA	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Zinc	1.67E-01	NA	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Zinc	1.46E-01	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Zinc	1.71E-01	NA	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Zinc	1.58E-01	NA	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Zinc	1.54E-01	NA	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Zinc	1.59E-01	NA	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Zinc	1.88E-01	NA	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Zinc	1.66E-01	NA	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Zinc	1.31E-01	NA	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Zinc	1.31E-01	NA	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Zinc	1.83E-01	NA	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Zinc	1.63E-01	NA	T1
034-09-S-low-B-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Zinc	1.27E-01	NA	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Zinc	1.22E-01	NA	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Zinc	1.54E-01	NA	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Zinc	1.65E-01	NA	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Zinc	1.51E-01	NA	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Zinc	1.26E-01	NA	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Zinc	1.33E-01	NA	T1
041-11-S-low-A-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Zinc	1.24E-01	NA	T1
042-11-S-low-B-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Zinc	1.35E-01	NA	T1
043-11-S-low-C-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Zinc	1.70E-01	NA	T1
044-11-S-low-D-1	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Zinc	1.32E-01	NA	T1
045-12-S-low-A-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Zinc	1.44E-01	NA	T1
046-12-S-low-B-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Zinc	1.25E-01	NA	T1
047-12-S-low-C-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Zinc	1.46E-01	NA	T1
048-12-S-low-D-1	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Zinc	1.12E-01	NA	T1
145-01-S-high-A-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Zinc	3.50E-01	NA	T1
146-01-S-high-B-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Zinc	4.16E-01	NA	T1
147-01-S-high-C-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Zinc	2.97E-01	NA	T1
148-01-S-high-D-1	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Zinc	2.96E-01	NA	T1
149-02-S-high-A-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Zinc	1.46E-01	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
150-02-S-high-B-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Zinc	1.29E-01	NA	T1
151-02-S-high-C-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Zinc	1.37E-01	NA	T1
152-02-S-high-D-1	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Zinc	1.22E-01	NA	T1
153-03-S-high-A-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Zinc	1.45E-01	NA	T1
154-03-S-high-B-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Zinc	1.28E-01	NA	T1
155-03-S-high-C-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Zinc	1.40E-01	NA	T1
156-03-S-high-D-1	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Zinc	1.26E-01	NA	T1
157-04-S-high-A-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Zinc	1.49E-01	NA	T1
158-04-S-high-B-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Zinc	1.69E-01	NA	T1
159-04-S-high-C-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Zinc	1.53E-01	NA	T1
160-04-S-high-D-1	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Zinc	1.28E-01	NA	T1
161-05-S-high-A-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Zinc	1.72E-01	NA	T1
162-05-S-high-B-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Zinc	1.73E-01	NA	T1
163-05-S-high-C-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Zinc	1.47E-01	NA	T1
164-05-S-high-D-1	Compost_high_S	EPA6010C-SPLP	6	mg/L	Zinc	1.41E-01	NA	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Zinc	1.16E-01	NA	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Zinc	1.00E-01	NA	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Zinc	1.15E-01	NA	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Zinc	1.23E-01	NA	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Zinc	2.13E-01	NA	T1
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Zinc	2.00E-01	NA	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Zinc	2.01E-01	NA	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Zinc	1.78E-01	NA	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Zinc	2.20E-01	NA	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Zinc	2.07E-01	NA	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Zinc	1.83E-01	NA	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Zinc	1.53E-01	NA	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Zinc	1.01E-01	NA	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Zinc	1.16E-01	NA	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Zinc	1.03E-01	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
180-09-S-high-D-1	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Zinc	1.06E-01	NA	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Zinc	9.12E-02	NA	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Zinc	9.80E-02	NA	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Zinc	1.03E-01	NA	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Zinc	9.68E-02	NA	T1
185-11-S-high-A-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Zinc	1.93E-01	NA	T1
186-11-S-high-B-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Zinc	1.75E-01	NA	T1
187-11-S-high-C-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Zinc	1.51E-01	NA	T1
188-11-S-high-D-1	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Zinc	1.26E-01	NA	T1
189-12-S-high-A-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Zinc	1.28E-01	NA	T1
190-12-S-high-B-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Zinc	1.10E-01	NA	T1
191-12-S-high-C-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Zinc	1.37E-01	NA	T1
192-12-S-high-D-1	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Zinc	1.33E-01	NA	T1
289-01-I-low-A-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Zinc	3.12E-01	NA	T1
290-01-I-low-B-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Zinc	4.02E-01	NA	T1
291-01-I-low-C-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Zinc	3.93E-01	NA	T1
292-01-I-low-D-1	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Zinc	2.80E-01	NA	T1
293-02-I-low-A-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Zinc	2.01E-01	NA	T1
294-02-I-low-B-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Zinc	1.58E-01	NA	T1
295-02-I-low-C-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Zinc	1.53E-01	NA	T1
296-02-I-low-D-1	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Zinc	1.56E-01	NA	T1
297-03-I-low-A-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Zinc	1.74E-01	NA	T1
298-03-I-low-B-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Zinc	1.88E-01	NA	T1
299-03-I-low-C-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Zinc	2.43E-01	NA	T1
300-03-I-low-D-1	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Zinc	1.80E-01	NA	T1
301-04-I-low-A-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Zinc	2.43E-01	NA	T1
302-04-I-low-B-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Zinc	2.40E-01	NA	T1
303-04-I-low-C-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Zinc	2.47E-01	NA	T1
304-04-I-low-D-1	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Zinc	2.68E-01	NA	T1
305-05-I-low-A-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Zinc	3.81E-01	NA	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
306-05-I-low-B-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Zinc	2.73E-01	NA	T1
307-05-I-low-C-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Zinc	2.98E-01	NA	T1
308-05-I-low-D-1	Compost_low_I	EPA6010C-SPLP	10	mg/L	Zinc	4.38E-01	NA	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Zinc	1.87E-01	NA	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Zinc	1.42E-01	NA	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Zinc	1.62E-01	NA	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Zinc	1.42E-01	NA	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Zinc	4.55E-01	NA	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Zinc	3.57E-01	NA	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Zinc	3.83E-01	NA	T1
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Zinc	4.61E-01	NA	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Zinc	2.67E-01	NA	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Zinc	3.08E-01	NA	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Zinc	3.16E-01	NA	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Zinc	2.94E-01	NA	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Zinc	1.37E-01	NA	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Zinc	1.37E-01	NA	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Zinc	1.28E-01	NA	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Zinc	1.29E-01	NA	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Zinc	1.32E-01	NA	T1
326-10-I-low-B-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Zinc	1.25E-01	NA	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Zinc	1.33E-01	NA	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Zinc	1.40E-01	NA	T1
329-11-I-low-A-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Zinc	1.61E-01	NA	T1
330-11-I-low-B-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Zinc	1.54E-01	NA	T1
331-11-I-low-C-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Zinc	1.98E-01	NA	T1
332-11-I-low-D-1	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Zinc	1.83E-01	NA	T1
333-12-I-low-A-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Zinc	2.11E-01	NA	T1
334-12-I-low-B-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Zinc	2.00E-01	NA	T1
335-12-I-low-C-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Zinc	2.65E-01	NA	T1

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
336-12-I-low-D-1	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Zinc	2.83E-01	NA	T1
337-01-I-high-A-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Zinc	4.95E-01	NA	T1
338-01-I-high-B-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Zinc	5.46E-01	NA	T1
339-01-I-high-C-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Zinc	5.59E-01	NA	T1
340-01-I-high-D-1	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Zinc	4.78E-01	NA	T1
341-02-I-high-A-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Zinc	1.58E-01	NA	T1
342-02-I-high-B-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Zinc	1.26E-01	NA	T1
343-02-I-high-C-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Zinc	2.02E-01	NA	T1
344-02-I-high-D-1	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Zinc	1.02E-01	NA	T1
345-03-I-high-A-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Zinc	1.02E-01	NA	T1
346-03-I-high-B-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Zinc	1.15E-01	NA	T1
347-03-I-high-C-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Zinc	1.21E-01	NA	T1
348-03-I-high-D-1	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Zinc	1.16E-01	NA	T1
349-04-I-high-A-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Zinc	1.77E-01	NA	T1
350-04-I-high-B-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Zinc	2.13E-01	NA	T1
351-04-I-high-C-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Zinc	1.92E-01	NA	T1
352-04-I-high-D-1	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Zinc	1.69E-01	NA	T1
353-05-I-high-A-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Zinc	2.43E-01	NA	T1
354-05-I-high-B-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Zinc	1.88E-01	NA	T1
355-05-I-high-C-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Zinc	2.74E-01	NA	T1
356-05-I-high-D-1	Compost_high_I	EPA6010C-SPLP	14	mg/L	Zinc	1.92E-01	NA	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Zinc	1.52E-01	NA	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Zinc	1.91E-01	NA	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Zinc	1.30E-01	NA	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Zinc	1.20E-01	NA	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Zinc	3.47E-01	NA	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Zinc	3.10E-01	NA	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Zinc	2.48E-01	NA	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Zinc	2.67E-01	NA	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Zinc	2.42E-01	NA	T1

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
366-08-I-high-B-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Zinc	2.20E-01	NA	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Zinc	2.57E-01	NA	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Zinc	2.93E-01	NA	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Zinc	1.11E-01	NA	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Zinc	1.21E-01	NA	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Zinc	1.27E-01	NA	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Zinc	1.03E-01	NA	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Zinc	9.55E-02	NA	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Zinc	9.21E-02	NA	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Zinc	1.10E-01	NA	T1
376-10-I-high-D-1	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Zinc	8.66E-02	NA	T1
377-11-I-high-A-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Zinc	5.14E-02	NA	T1
378-11-I-high-B-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Zinc	1.24E-01	NA	T1
379-11-I-high-C-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Zinc	1.10E-01	NA	T1
380-11-I-high-D-1	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Zinc	1.12E-01	NA	T1
381-12-I-high-A-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Zinc	1.32E-01	NA	T1
382-12-I-high-B-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Zinc	1.45E-01	NA	T1
383-12-I-high-C-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Zinc	1.83E-01	NA	T1
384-12-I-high-D-1	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Zinc	1.41E-01	NA	T1
385-00-I-baseline-A-1	control_none_I	EPA6010C-SPLP	17	mg/L	Zinc	3.33E-01	NA	T1
386-00-I-baseline-B-1	control_none_I	EPA6010C-SPLP	17	mg/L	Zinc	2.73E-01	NA	T1
387-00-I-baseline-C-1	control_none_I	EPA6010C-SPLP	17	mg/L	Zinc	2.86E-01	NA	T1
388-00-I-baseline-D-1	control_none_I	EPA6010C-SPLP	17	mg/L	Zinc	2.15E-01	NA	T1

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Table 41. Complete results for Timepoint 1 Mehlich 3-extractable lead and phosphorus, total elemental content, moisture content, total nitrogen, and bioaccessible lead and arsenic at pH 1.5 and 2.5.

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010_MEHLICH3	25	mg/kg	Lead	236.85	NA	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010_MEHLICH3	25	mg/kg	Lead	199.04	NA	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010_MEHLICH3	25	mg/kg	Lead	214.72	NA	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010_MEHLICH3	25	mg/kg	Lead	236.65	NA	T1
001-01-S-low-A-1	Soluble phosphate_low_S	EPA6010_MEHLICH3	1	mg/kg	Lead	278.14	NA	T1
002-01-S-low-B-1	Soluble phosphate_low_S	EPA6010_MEHLICH3	1	mg/kg	Lead	269.25	NA	T1
003-01-S-low-C-1	Soluble phosphate_low_S	EPA6010_MEHLICH3	1	mg/kg	Lead	271.27	NA	T1
004-01-S-low-D-1	Soluble phosphate_low_S	EPA6010_MEHLICH3	1	mg/kg	Lead	280.51	NA	T1
005-02-S-low-A-1	Biosolid_low_S	EPA6010_MEHLICH3	1	mg/kg	Lead	272.99	NA	T1
006-02-S-low-B-1	Biosolid_low_S	EPA6010_MEHLICH3	1	mg/kg	Lead	241.68	NA	T1
007-02-S-low-C-1	Biosolid_low_S	EPA6010_MEHLICH3	1	mg/kg	Lead	263.27	NA	T1
008-02-S-low-D-1	Biosolid_low_S	EPA6010_MEHLICH3	1	mg/kg	Lead	273.50	NA	T1
009-03-S-low-A-1	Wood ash_low_S	EPA6010_MEHLICH3	2	mg/kg	Lead	269.18	NA	T1
010-03-S-low-B-1	Wood ash_low_S	EPA6010_MEHLICH3	2	mg/kg	Lead	272.51	NA	T1
011-03-S-low-C-1	Wood ash_low_S	EPA6010_MEHLICH3	2	mg/kg	Lead	272.63	NA	T1
012-03-S-low-D-1	Wood ash_low_S	EPA6010_MEHLICH3	2	mg/kg	Lead	277.73	NA	T1
013-04-S-low-A-1	Biochar_low_S	EPA6010_MEHLICH3	2	mg/kg	Lead	262.75	NA	T1
014-04-S-low-B-1	Biochar_low_S	EPA6010_MEHLICH3	2	mg/kg	Lead	253.62	NA	T1
015-04-S-low-C-1	Biochar_low_S	EPA6010_MEHLICH3	2	mg/kg	Lead	267.20	NA	T1
016-04-S-low-D-1	Biochar_low_S	EPA6010_MEHLICH3	2	mg/kg	Lead	254.18	NA	T1
017-05-S-low-A-1	Compost_low_S	EPA6010_MEHLICH3	3	mg/kg	Lead	252.49	NA	T1
018-05-S-low-B-1	Compost_low_S	EPA6010_MEHLICH3	3	mg/kg	Lead	245.60	NA	T1
019-05-S-low-C-1	Compost_low_S	EPA6010_MEHLICH3	3	mg/kg	Lead	240.23	NA	T1
020-05-S-low-D-1	Compost_low_S	EPA6010_MEHLICH3	3	mg/kg	Lead	249.38	NA	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	EPA6010_MEHLICH3	3	mg/kg	Lead	279.67	NA	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	EPA6010_MEHLICH3	3	mg/kg	Lead	263.51	NA	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	EPA6010_MEHLICH3	3	mg/kg	Lead	268.44	NA	T1
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	EPA6010_MEHLICH3	3	mg/kg	Lead	266.77	NA	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	EPA6010_MEHLICH3	4	mg/kg	Lead	272.43	NA	T1

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	EPA6010_MEHLICH3	4	mg/kg	Lead	278.62	NA	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	EPA6010_MEHLICH3	4	mg/kg	Lead	275.20	NA	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	EPA6010_MEHLICH3	4	mg/kg	Lead	262.87	NA	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	EPA6010_MEHLICH3	4	mg/kg	Lead	277.35	NA	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	EPA6010_MEHLICH3	4	mg/kg	Lead	267.01	NA	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	EPA6010_MEHLICH3	4	mg/kg	Lead	265.15	NA	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	EPA6010_MEHLICH3	4	mg/kg	Lead	263.16	NA	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	EPA6010_MEHLICH3	5	mg/kg	Lead	283.00	NA	T1
034-09-S-low-B-1	Biosolids and wood ash_low_S	EPA6010_MEHLICH3	5	mg/kg	Lead	282.09	NA	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	EPA6010_MEHLICH3	5	mg/kg	Lead	282.72	NA	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	EPA6010_MEHLICH3	5	mg/kg	Lead	261.17	NA	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	EPA6010_MEHLICH3	26	mg/kg	Lead	290.05	I	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	EPA6010_MEHLICH3	5	mg/kg	Lead	284.57	NA	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	EPA6010_MEHLICH3	5	mg/kg	Lead	265.66	NA	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	EPA6010_MEHLICH3	5	mg/kg	Lead	259.98	NA	T1
041-11-S-low-A-1	Wood ash and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Lead	278.85	NA	T1
042-11-S-low-B-1	Wood ash and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Lead	271.28	NA	T1
043-11-S-low-C-1	Wood ash and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Lead	264.51	NA	T1
044-11-S-low-D-1	Wood ash and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Lead	244.51	NA	T1
045-12-S-low-A-1	Biochar and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Lead	255.30	NA	T1
046-12-S-low-B-1	Biochar and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Lead	251.03	NA	T1
047-12-S-low-C-1	Biochar and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Lead	266.33	NA	T1
048-12-S-low-D-1	Biochar and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Lead	261.29	NA	T1
145-01-S-high-A-1	Soluble phosphate_high_S	EPA6010_MEHLICH3	7	mg/kg	Lead	281.54	NA	T1
146-01-S-high-B-1	Soluble phosphate_high_S	EPA6010_MEHLICH3	7	mg/kg	Lead	272.77	NA	T1
147-01-S-high-C-1	Soluble phosphate_high_S	EPA6010_MEHLICH3	7	mg/kg	Lead	273.04	NA	T1
148-01-S-high-D-1	Soluble phosphate_high_S	EPA6010_MEHLICH3	7	mg/kg	Lead	262.05	NA	T1
149-02-S-high-A-1	Biosolid_high_S	EPA6010_MEHLICH3	7	mg/kg	Lead	256.40	NA	T1
150-02-S-high-B-1	Biosolid_high_S	EPA6010_MEHLICH3	7	mg/kg	Lead	248.30	NA	T1
151-02-S-high-C-1	Biosolid_high_S	EPA6010_MEHLICH3	7	mg/kg	Lead	250.57	NA	T1
152-02-S-high-D-1	Biosolid_high_S	EPA6010_MEHLICH3	7	mg/kg	Lead	267.25	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
153-03-S-high-A-1	Wood ash_high_S	EPA6010_MEHLICH3	8	mg/kg	Lead	272.15	NA	T1
154-03-S-high-B-1	Wood ash_high_S	EPA6010_MEHLICH3	8	mg/kg	Lead	257.73	NA	T1
155-03-S-high-C-1	Wood ash_high_S	EPA6010_MEHLICH3	8	mg/kg	Lead	269.75	NA	T1
156-03-S-high-D-1	Wood ash_high_S	EPA6010_MEHLICH3	8	mg/kg	Lead	257.76	NA	T1
157-04-S-high-A-1	Biochar_high_S	EPA6010_MEHLICH3	8	mg/kg	Lead	263.46	NA	T1
158-04-S-high-B-1	Biochar_high_S	EPA6010_MEHLICH3	8	mg/kg	Lead	277.82	NA	T1
159-04-S-high-C-1	Biochar_high_S	EPA6010_MEHLICH3	8	mg/kg	Lead	254.99	NA	T1
160-04-S-high-D-1	Biochar_high_S	EPA6010_MEHLICH3	8	mg/kg	Lead	269.17	NA	T1
161-05-S-high-A-1	Compost_high_S	EPA6010_MEHLICH3	9	mg/kg	Lead	269.09	NA	T1
162-05-S-high-B-1	Compost_high_S	EPA6010_MEHLICH3	9	mg/kg	Lead	248.93	NA	T1
163-05-S-high-C-1	Compost_high_S	EPA6010_MEHLICH3	9	mg/kg	Lead	264.29	NA	T1
164-05-S-high-D-1	Compost_high_S	EPA6010_MEHLICH3	9	mg/kg	Lead	242.60	NA	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	EPA6010_MEHLICH3	9	mg/kg	Lead	296.36	NA	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	EPA6010_MEHLICH3	9	mg/kg	Lead	276.44	NA	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	EPA6010_MEHLICH3	9	mg/kg	Lead	282.34	NA	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	EPA6010_MEHLICH3	9	mg/kg	Lead	273.16	NA	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	EPA6010_MEHLICH3	10	mg/kg	Lead	269.40	NA	T1
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	EPA6010_MEHLICH3	10	mg/kg	Lead	269.25	NA	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	EPA6010_MEHLICH3	10	mg/kg	Lead	281.84	NA	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	EPA6010_MEHLICH3	10	mg/kg	Lead	279.04	NA	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	EPA6010_MEHLICH3	10	mg/kg	Lead	278.21	NA	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	EPA6010_MEHLICH3	10	mg/kg	Lead	275.47	NA	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	EPA6010_MEHLICH3	10	mg/kg	Lead	271.76	NA	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	EPA6010_MEHLICH3	10	mg/kg	Lead	280.62	NA	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	EPA6010_MEHLICH3	11	mg/kg	Lead	275.11	NA	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	EPA6010_MEHLICH3	11	mg/kg	Lead	265.09	NA	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	EPA6010_MEHLICH3	11	mg/kg	Lead	266.06	NA	T1
180-09-S-high-D-1	Biosolids and wood ash_high_S	EPA6010_MEHLICH3	11	mg/kg	Lead	278.44	NA	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	EPA6010_MEHLICH3	11	mg/kg	Lead	268.15	NA	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	EPA6010_MEHLICH3	11	mg/kg	Lead	254.44	NA	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	EPA6010_MEHLICH3	11	mg/kg	Lead	260.39	NA	T1



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
184-10-S-high-D-1	Wood ash and biochar_high_S	EPA6010_MEHLICH3	11	mg/kg	Lead	245.85	NA	T1
185-11-S-high-A-1	Wood ash and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Lead	261.21	NA	T1
186-11-S-high-B-1	Wood ash and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Lead	255.56	NA	T1
187-11-S-high-C-1	Wood ash and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Lead	253.98	NA	T1
188-11-S-high-D-1	Wood ash and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Lead	248.10	NA	T1
189-12-S-high-A-1	Biochar and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Lead	248.74	NA	T1
190-12-S-high-B-1	Biochar and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Lead	233.52	NA	T1
191-12-S-high-C-1	Biochar and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Lead	250.88	NA	T1
192-12-S-high-D-1	Biochar and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Lead	263.30	NA	T1
289-01-I-low-A-1	Soluble phosphate_low_I	EPA6010_MEHLICH3	13	mg/kg	Lead	264.41	NA	T1
290-01-I-low-B-1	Soluble phosphate_low_I	EPA6010_MEHLICH3	13	mg/kg	Lead	275.89	NA	T1
291-01-I-low-C-1	Soluble phosphate_low_I	EPA6010_MEHLICH3	13	mg/kg	Lead	282.40	NA	T1
292-01-I-low-D-1	Soluble phosphate_low_I	EPA6010_MEHLICH3	13	mg/kg	Lead	309.31	NA	T1
293-02-I-low-A-1	Biosolid_low_I	EPA6010_MEHLICH3	13	mg/kg	Lead	329.57	NA	T1
294-02-I-low-B-1	Biosolid_low_I	EPA6010_MEHLICH3	13	mg/kg	Lead	284.01	NA	T1
295-02-I-low-C-1	Biosolid_low_I	EPA6010_MEHLICH3	13	mg/kg	Lead	286.65	NA	T1
296-02-I-low-D-1	Biosolid_low_I	EPA6010_MEHLICH3	13	mg/kg	Lead	284.00	NA	T1
297-03-I-low-A-1	Wood ash_low_I	EPA6010_MEHLICH3	14	mg/kg	Lead	295.54	NA	T1
298-03-I-low-B-1	Wood ash_low_I	EPA6010_MEHLICH3	14	mg/kg	Lead	272.92	NA	T1
299-03-I-low-C-1	Wood ash_low_I	EPA6010_MEHLICH3	14	mg/kg	Lead	301.51	NA	T1
300-03-I-low-D-1	Wood ash_low_I	EPA6010_MEHLICH3	14	mg/kg	Lead	283.70	NA	T1
301-04-I-low-A-1	Biochar_low_I	EPA6010_MEHLICH3	14	mg/kg	Lead	283.94	NA	T1
302-04-I-low-B-1	Biochar_low_I	EPA6010_MEHLICH3	14	mg/kg	Lead	286.95	NA	T1
303-04-I-low-C-1	Biochar_low_I	EPA6010_MEHLICH3	14	mg/kg	Lead	278.60	NA	T1
304-04-I-low-D-1	Biochar_low_I	EPA6010_MEHLICH3	14	mg/kg	Lead	261.90	NA	T1
305-05-I-low-A-1	Compost_low_I	EPA6010_MEHLICH3	15	mg/kg	Lead	291.74	NA	T1
306-05-I-low-B-1	Compost_low_I	EPA6010_MEHLICH3	15	mg/kg	Lead	252.96	NA	T1
307-05-I-low-C-1	Compost_low_I	EPA6010_MEHLICH3	15	mg/kg	Lead	272.32	NA	T1
308-05-I-low-D-1	Compost_low_I	EPA6010_MEHLICH3	15	mg/kg	Lead	279.25	NA	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	EPA6010_MEHLICH3	15	mg/kg	Lead	296.64	NA	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	EPA6010_MEHLICH3	15	mg/kg	Lead	278.30	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	EPA6010_MEHLICH3	15	mg/kg	Lead	296.26	NA	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	EPA6010_MEHLICH3	15	mg/kg	Lead	267.41	NA	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	EPA6010_MEHLICH3	16	mg/kg	Lead	246.48	NA	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	EPA6010_MEHLICH3	16	mg/kg	Lead	273.82	NA	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	EPA6010_MEHLICH3	16	mg/kg	Lead	300.55	NA	T1
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	EPA6010_MEHLICH3	16	mg/kg	Lead	279.82	NA	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	EPA6010_MEHLICH3	16	mg/kg	Lead	316.63	NA	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	EPA6010_MEHLICH3	16	mg/kg	Lead	275.90	NA	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	EPA6010_MEHLICH3	16	mg/kg	Lead	293.14	NA	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	EPA6010_MEHLICH3	16	mg/kg	Lead	271.22	NA	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	EPA6010_MEHLICH3	17	mg/kg	Lead	304.68	NA	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	EPA6010_MEHLICH3	17	mg/kg	Lead	291.50	NA	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	EPA6010_MEHLICH3	17	mg/kg	Lead	268.83	NA	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	EPA6010_MEHLICH3	17	mg/kg	Lead	299.12	NA	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	EPA6010_MEHLICH3	17	mg/kg	Lead	246.98	NA	T1
326-10-I-low-B-1	Wood ash and biochar_low_I	EPA6010_MEHLICH3	17	mg/kg	Lead	261.25	NA	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	EPA6010_MEHLICH3	17	mg/kg	Lead	244.36	NA	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	EPA6010_MEHLICH3	17	mg/kg	Lead	241.11	NA	T1
329-11-I-low-A-1	Wood ash and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Lead	284.88	NA	T1
330-11-I-low-B-1	Wood ash and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Lead	278.16	NA	T1
331-11-I-low-C-1	Wood ash and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Lead	274.67	NA	T1
332-11-I-low-D-1	Wood ash and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Lead	258.41	NA	T1
333-12-I-low-A-1	Biochar and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Lead	290.02	NA	T1
334-12-I-low-B-1	Biochar and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Lead	257.60	NA	T1
335-12-I-low-C-1	Biochar and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Lead	272.21	NA	T1
336-12-I-low-D-1	Biochar and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Lead	266.20	NA	T1
337-01-I-high-A-1	Soluble phosphate_high_I	EPA6010_MEHLICH3	19	mg/kg	Lead	297.79	NA	T1
338-01-I-high-B-1	Soluble phosphate_high_I	EPA6010_MEHLICH3	19	mg/kg	Lead	272.57	NA	T1
339-01-I-high-C-1	Soluble phosphate_high_I	EPA6010_MEHLICH3	19	mg/kg	Lead	295.98	NA	T1
340-01-I-high-D-1	Soluble phosphate_high_I	EPA6010_MEHLICH3	19	mg/kg	Lead	261.10	NA	T1
341-02-I-high-A-1	Biosolid_high_I	EPA6010_MEHLICH3	19	mg/kg	Lead	239.96	NA	T1



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
342-02-I-high-B-1	Biosolid_high_I	EPA6010_MEHLICH3	19	mg/kg	Lead	265.36	NA	T1
343-02-I-high-C-1	Biosolid_high_I	EPA6010_MEHLICH3	19	mg/kg	Lead	262.80	NA	T1
344-02-I-high-D-1	Biosolid_high_I	EPA6010_MEHLICH3	19	mg/kg	Lead	229.52	NA	T1
345-03-I-high-A-1	Wood ash_high_I	EPA6010_MEHLICH3	20	mg/kg	Lead	318.20	NA	T1
346-03-I-high-B-1	Wood ash_high_I	EPA6010_MEHLICH3	20	mg/kg	Lead	266.98	NA	T1
347-03-I-high-C-1	Wood ash_high_I	EPA6010_MEHLICH3	20	mg/kg	Lead	293.95	NA	T1
348-03-I-high-D-1	Wood ash_high_I	EPA6010_MEHLICH3	20	mg/kg	Lead	310.80	NA	T1
349-04-I-high-A-1	Biochar_high_I	EPA6010_MEHLICH3	20	mg/kg	Lead	299.60	NA	T1
350-04-I-high-B-1	Biochar_high_I	EPA6010_MEHLICH3	20	mg/kg	Lead	264.05	NA	T1
351-04-I-high-C-1	Biochar_high_I	EPA6010_MEHLICH3	20	mg/kg	Lead	271.46	NA	T1
352-04-I-high-D-1	Biochar_high_I	EPA6010_MEHLICH3	20	mg/kg	Lead	249.31	NA	T1
353-05-I-high-A-1	Compost_high_I	EPA6010_MEHLICH3	21	mg/kg	Lead	240.02	NA	T1
354-05-I-high-B-1	Compost_high_I	EPA6010_MEHLICH3	21	mg/kg	Lead	265.62	NA	T1
355-05-I-high-C-1	Compost_high_I	EPA6010_MEHLICH3	21	mg/kg	Lead	274.17	NA	T1
356-05-I-high-D-1	Compost_high_I	EPA6010_MEHLICH3	21	mg/kg	Lead	240.82	NA	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	EPA6010_MEHLICH3	21	mg/kg	Lead	262.74	NA	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	EPA6010_MEHLICH3	21	mg/kg	Lead	259.07	NA	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	EPA6010_MEHLICH3	21	mg/kg	Lead	292.07	NA	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	EPA6010_MEHLICH3	21	mg/kg	Lead	253.63	NA	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	EPA6010_MEHLICH3	22	mg/kg	Lead	274.63	NA	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	EPA6010_MEHLICH3	22	mg/kg	Lead	285.40	NA	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	EPA6010_MEHLICH3	22	mg/kg	Lead	307.55	NA	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	EPA6010_MEHLICH3	22	mg/kg	Lead	257.92	NA	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	EPA6010_MEHLICH3	22	mg/kg	Lead	272.39	NA	T1
366-08-I-high-B-1	Soluble phosphate and compost_high_I	EPA6010_MEHLICH3	22	mg/kg	Lead	273.58	NA	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	EPA6010_MEHLICH3	22	mg/kg	Lead	249.01	NA	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	EPA6010_MEHLICH3	22	mg/kg	Lead	239.72	NA	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	EPA6010_MEHLICH3	23	mg/kg	Lead	234.67	NA	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	EPA6010_MEHLICH3	23	mg/kg	Lead	283.42	NA	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	EPA6010_MEHLICH3	23	mg/kg	Lead	255.69	NA	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	EPA6010_MEHLICH3	23	mg/kg	Lead	295.20	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
373-10-I-high-A-1	Wood ash and biochar_high_I	EPA6010_MEHLICH3	23	mg/kg	Lead	314.62	NA	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	EPA6010_MEHLICH3	23	mg/kg	Lead	295.39	NA	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	EPA6010_MEHLICH3	23	mg/kg	Lead	302.83	NA	T1
376-10-I-high-D-1	Wood ash and biochar_high_I	EPA6010_MEHLICH3	23	mg/kg	Lead	294.02	NA	T1
377-11-I-high-A-1	Wood ash and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Lead	253.82	NA	T1
378-11-I-high-B-1	Wood ash and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Lead	272.01	NA	T1
379-11-I-high-C-1	Wood ash and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Lead	303.48	NA	T1
380-11-I-high-D-1	Wood ash and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Lead	318.68	NA	T1
381-12-I-high-A-1	Biochar and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Lead	270.65	NA	T1
382-12-I-high-B-1	Biochar and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Lead	291.61	NA	T1
383-12-I-high-C-1	Biochar and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Lead	267.91	NA	T1
384-12-I-high-D-1	Biochar and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Lead	270.49	NA	T1
385-00-I-baseline-A-1	control_none_I	EPA6010_MEHLICH3	25	mg/kg	Lead	285.23	NA	T1
386-00-I-baseline-B-1	control_none_I	EPA6010_MEHLICH3	25	mg/kg	Lead	277.03	NA	T1
387-00-I-baseline-C-1	control_none_I	EPA6010_MEHLICH3	25	mg/kg	Lead	265.18	NA	T1
388-00-I-baseline-D-1	control_none_I	EPA6010_MEHLICH3	25	mg/kg	Lead	246.50	NA	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010_MEHLICH3	25	mg/kg	Phosphorus	178.61	NA	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010_MEHLICH3	25	mg/kg	Phosphorus	180.65	NA	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010_MEHLICH3	25	mg/kg	Phosphorus	181.48	NA	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010_MEHLICH3	25	mg/kg	Phosphorus	174.79	NA	T1
001-01-S-low-A-1	Soluble phosphate_low_S	EPA6010_MEHLICH3	1	mg/kg	Phosphorus	465.00	NA	T1
002-01-S-low-B-1	Soluble phosphate_low_S	EPA6010_MEHLICH3	1	mg/kg	Phosphorus	445.85	NA	T1
003-01-S-low-C-1	Soluble phosphate_low_S	EPA6010_MEHLICH3	1	mg/kg	Phosphorus	458.79	NA	T1
004-01-S-low-D-1	Soluble phosphate_low_S	EPA6010_MEHLICH3	1	mg/kg	Phosphorus	371.29	NA	T1
005-02-S-low-A-1	Biosolid_low_S	EPA6010_MEHLICH3	1	mg/kg	Phosphorus	198.56	NA	T1
006-02-S-low-B-1	Biosolid_low_S	EPA6010_MEHLICH3	1	mg/kg	Phosphorus	196.30	NA	T1
007-02-S-low-C-1	Biosolid_low_S	EPA6010_MEHLICH3	1	mg/kg	Phosphorus	191.92	NA	T1
008-02-S-low-D-1	Biosolid_low_S	EPA6010_MEHLICH3	1	mg/kg	Phosphorus	198.72	NA	T1
009-03-S-low-A-1	Wood ash_low_S	EPA6010_MEHLICH3	2	mg/kg	Phosphorus	177.90	NA	T1
010-03-S-low-B-1	Wood ash_low_S	EPA6010_MEHLICH3	2	mg/kg	Phosphorus	171.28	NA	T1
011-03-S-low-C-1	Wood ash_low_S	EPA6010_MEHLICH3	2	mg/kg	Phosphorus	166.47	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
012-03-S-low-D-1	Wood ash_low_S	EPA6010_MEHLICH3	2	mg/kg	Phosphorus	161.11	NA	T1
013-04-S-low-A-1	Biochar_low_S	EPA6010_MEHLICH3	2	mg/kg	Phosphorus	166.23	NA	T1
014-04-S-low-B-1	Biochar_low_S	EPA6010_MEHLICH3	2	mg/kg	Phosphorus	174.12	NA	T1
015-04-S-low-C-1	Biochar_low_S	EPA6010_MEHLICH3	2	mg/kg	Phosphorus	168.78	NA	T1
016-04-S-low-D-1	Biochar_low_S	EPA6010_MEHLICH3	2	mg/kg	Phosphorus	164.92	NA	T1
017-05-S-low-A-1	Compost_low_S	EPA6010_MEHLICH3	3	mg/kg	Phosphorus	167.78	NA	T1
018-05-S-low-B-1	Compost_low_S	EPA6010_MEHLICH3	3	mg/kg	Phosphorus	174.45	NA	T1
019-05-S-low-C-1	Compost_low_S	EPA6010_MEHLICH3	3	mg/kg	Phosphorus	183.21	NA	T1
020-05-S-low-D-1	Compost_low_S	EPA6010_MEHLICH3	3	mg/kg	Phosphorus	172.35	NA	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	EPA6010_MEHLICH3	3	mg/kg	Phosphorus	313.59	NA	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	EPA6010_MEHLICH3	3	mg/kg	Phosphorus	304.57	NA	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	EPA6010_MEHLICH3	3	mg/kg	Phosphorus	322.60	NA	T1
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	EPA6010_MEHLICH3	3	mg/kg	Phosphorus	305.07	NA	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	EPA6010_MEHLICH3	4	mg/kg	Phosphorus	379.37	NA	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	EPA6010_MEHLICH3	4	mg/kg	Phosphorus	396.18	NA	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	EPA6010_MEHLICH3	4	mg/kg	Phosphorus	318.59	NA	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	EPA6010_MEHLICH3	4	mg/kg	Phosphorus	398.47	NA	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	EPA6010_MEHLICH3	4	mg/kg	Phosphorus	420.50	NA	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	EPA6010_MEHLICH3	4	mg/kg	Phosphorus	404.14	NA	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	EPA6010_MEHLICH3	4	mg/kg	Phosphorus	395.58	NA	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	EPA6010_MEHLICH3	4	mg/kg	Phosphorus	287.10	NA	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	EPA6010_MEHLICH3	5	mg/kg	Phosphorus	183.29	NA	T1
034-09-S-low-B-1	Biosolids and wood ash_low_S	EPA6010_MEHLICH3	5	mg/kg	Phosphorus	186.05	NA	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	EPA6010_MEHLICH3	5	mg/kg	Phosphorus	186.90	NA	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	EPA6010_MEHLICH3	5	mg/kg	Phosphorus	190.44	NA	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	EPA6010_MEHLICH3	26	mg/kg	Phosphorus	177.49	NA	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	EPA6010_MEHLICH3	5	mg/kg	Phosphorus	172.38	NA	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	EPA6010_MEHLICH3	5	mg/kg	Phosphorus	175.10	NA	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	EPA6010_MEHLICH3	5	mg/kg	Phosphorus	178.49	NA	T1
041-11-S-low-A-1	Wood ash and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Phosphorus	179.52	NA	T1
042-11-S-low-B-1	Wood ash and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Phosphorus	182.46	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
043-11-S-low-C-1	Wood ash and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Phosphorus	173.61	NA	T1
044-11-S-low-D-1	Wood ash and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Phosphorus	181.87	NA	T1
045-12-S-low-A-1	Biochar and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Phosphorus	174.15	NA	T1
046-12-S-low-B-1	Biochar and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Phosphorus	176.91	NA	T1
047-12-S-low-C-1	Biochar and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Phosphorus	170.50	NA	T1
048-12-S-low-D-1	Biochar and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Phosphorus	175.87	NA	T1
145-01-S-high-A-1	Soluble phosphate_high_S	EPA6010_MEHLICH3	7	mg/kg	Phosphorus	887.39	NA	T1
146-01-S-high-B-1	Soluble phosphate_high_S	EPA6010_MEHLICH3	7	mg/kg	Phosphorus	824.24	NA	T1
147-01-S-high-C-1	Soluble phosphate_high_S	EPA6010_MEHLICH3	7	mg/kg	Phosphorus	864.19	NA	T1
148-01-S-high-D-1	Soluble phosphate_high_S	EPA6010_MEHLICH3	7	mg/kg	Phosphorus	935.29	NA	T1
149-02-S-high-A-1	Biosolid_high_S	EPA6010_MEHLICH3	7	mg/kg	Phosphorus	199.42	NA	T1
150-02-S-high-B-1	Biosolid_high_S	EPA6010_MEHLICH3	7	mg/kg	Phosphorus	199.13	NA	T1
151-02-S-high-C-1	Biosolid_high_S	EPA6010_MEHLICH3	7	mg/kg	Phosphorus	204.14	NA	T1
152-02-S-high-D-1	Biosolid_high_S	EPA6010_MEHLICH3	7	mg/kg	Phosphorus	204.05	NA	T1
153-03-S-high-A-1	Wood ash_high_S	EPA6010_MEHLICH3	8	mg/kg	Phosphorus	174.84	NA	T1
154-03-S-high-B-1	Wood ash_high_S	EPA6010_MEHLICH3	8	mg/kg	Phosphorus	184.92	NA	T1
155-03-S-high-C-1	Wood ash_high_S	EPA6010_MEHLICH3	8	mg/kg	Phosphorus	178.82	NA	T1
156-03-S-high-D-1	Wood ash_high_S	EPA6010_MEHLICH3	8	mg/kg	Phosphorus	178.20	NA	T1
157-04-S-high-A-1	Biochar_high_S	EPA6010_MEHLICH3	8	mg/kg	Phosphorus	161.34	NA	T1
158-04-S-high-B-1	Biochar_high_S	EPA6010_MEHLICH3	8	mg/kg	Phosphorus	153.53	NA	T1
159-04-S-high-C-1	Biochar_high_S	EPA6010_MEHLICH3	8	mg/kg	Phosphorus	168.87	NA	T1
160-04-S-high-D-1	Biochar_high_S	EPA6010_MEHLICH3	8	mg/kg	Phosphorus	162.36	NA	T1
161-05-S-high-A-1	Compost_high_S	EPA6010_MEHLICH3	9	mg/kg	Phosphorus	179.96	NA	T1
162-05-S-high-B-1	Compost_high_S	EPA6010_MEHLICH3	9	mg/kg	Phosphorus	180.12	NA	T1
163-05-S-high-C-1	Compost_high_S	EPA6010_MEHLICH3	9	mg/kg	Phosphorus	181.27	NA	T1
164-05-S-high-D-1	Compost_high_S	EPA6010_MEHLICH3	9	mg/kg	Phosphorus	188.81	NA	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	EPA6010_MEHLICH3	9	mg/kg	Phosphorus	568.83	NA	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	EPA6010_MEHLICH3	9	mg/kg	Phosphorus	584.36	NA	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	EPA6010_MEHLICH3	9	mg/kg	Phosphorus	548.54	NA	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	EPA6010_MEHLICH3	9	mg/kg	Phosphorus	555.62	NA	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	EPA6010_MEHLICH3	10	mg/kg	Phosphorus	740.35	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	EPA6010_MEHLICH3	10	mg/kg	Phosphorus	831.61	NA	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	EPA6010_MEHLICH3	10	mg/kg	Phosphorus	692.56	NA	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	EPA6010_MEHLICH3	10	mg/kg	Phosphorus	803.73	NA	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	EPA6010_MEHLICH3	10	mg/kg	Phosphorus	821.82	NA	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	EPA6010_MEHLICH3	10	mg/kg	Phosphorus	695.11	NA	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	EPA6010_MEHLICH3	10	mg/kg	Phosphorus	850.56	NA	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	EPA6010_MEHLICH3	10	mg/kg	Phosphorus	595.22	NA	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	EPA6010_MEHLICH3	11	mg/kg	Phosphorus	188.60	NA	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	EPA6010_MEHLICH3	11	mg/kg	Phosphorus	184.70	NA	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	EPA6010_MEHLICH3	11	mg/kg	Phosphorus	188.78	NA	T1
180-09-S-high-D-1	Biosolids and wood ash_high_S	EPA6010_MEHLICH3	11	mg/kg	Phosphorus	194.11	NA	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	EPA6010_MEHLICH3	11	mg/kg	Phosphorus	172.12	NA	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	EPA6010_MEHLICH3	11	mg/kg	Phosphorus	167.75	NA	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	EPA6010_MEHLICH3	11	mg/kg	Phosphorus	173.31	NA	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	EPA6010_MEHLICH3	11	mg/kg	Phosphorus	173.41	NA	T1
185-11-S-high-A-1	Wood ash and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Phosphorus	159.32	NA	T1
186-11-S-high-B-1	Wood ash and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Phosphorus	167.14	NA	T1
187-11-S-high-C-1	Wood ash and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Phosphorus	172.90	NA	T1
188-11-S-high-D-1	Wood ash and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Phosphorus	175.70	NA	T1
189-12-S-high-A-1	Biochar and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Phosphorus	184.93	NA	T1
190-12-S-high-B-1	Biochar and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Phosphorus	178.97	NA	T1
191-12-S-high-C-1	Biochar and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Phosphorus	176.51	NA	T1
192-12-S-high-D-1	Biochar and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Phosphorus	172.57	NA	T1
289-01-I-low-A-1	Soluble phosphate_low_I	EPA6010_MEHLICH3	13	mg/kg	Phosphorus	323.90	NA	T1
290-01-I-low-B-1	Soluble phosphate_low_I	EPA6010_MEHLICH3	13	mg/kg	Phosphorus	357.17	NA	T1
291-01-I-low-C-1	Soluble phosphate_low_I	EPA6010_MEHLICH3	13	mg/kg	Phosphorus	335.76	NA	T1
292-01-I-low-D-1	Soluble phosphate_low_I	EPA6010_MEHLICH3	13	mg/kg	Phosphorus	393.68	NA	T1
293-02-I-low-A-1	Biosolid_low_I	EPA6010_MEHLICH3	13	mg/kg	Phosphorus	235.95	NA	T1
294-02-I-low-B-1	Biosolid_low_I	EPA6010_MEHLICH3	13	mg/kg	Phosphorus	249.24	NA	T1
295-02-I-low-C-1	Biosolid_low_I	EPA6010_MEHLICH3	13	mg/kg	Phosphorus	252.63	NA	T1
296-02-I-low-D-1	Biosolid_low_I	EPA6010_MEHLICH3	13	mg/kg	Phosphorus	246.25	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
297-03-I-low-A-1	Wood ash_low_I	EPA6010_MEHLICH3	14	mg/kg	Phosphorus	163.85	NA	T1
298-03-I-low-B-1	Wood ash_low_I	EPA6010_MEHLICH3	14	mg/kg	Phosphorus	169.85	NA	T1
299-03-I-low-C-1	Wood ash_low_I	EPA6010_MEHLICH3	14	mg/kg	Phosphorus	153.86	NA	T1
300-03-I-low-D-1	Wood ash_low_I	EPA6010_MEHLICH3	14	mg/kg	Phosphorus	169.35	NA	T1
301-04-I-low-A-1	Biochar_low_I	EPA6010_MEHLICH3	14	mg/kg	Phosphorus	151.54	NA	T1
302-04-I-low-B-1	Biochar_low_I	EPA6010_MEHLICH3	14	mg/kg	Phosphorus	146.81	NA	T1
303-04-I-low-C-1	Biochar_low_I	EPA6010_MEHLICH3	14	mg/kg	Phosphorus	156.78	NA	T1
304-04-I-low-D-1	Biochar_low_I	EPA6010_MEHLICH3	14	mg/kg	Phosphorus	163.63	NA	T1
305-05-I-low-A-1	Compost_low_I	EPA6010_MEHLICH3	15	mg/kg	Phosphorus	151.89	NA	T1
306-05-I-low-B-1	Compost_low_I	EPA6010_MEHLICH3	15	mg/kg	Phosphorus	176.46	NA	T1
307-05-I-low-C-1	Compost_low_I	EPA6010_MEHLICH3	15	mg/kg	Phosphorus	167.11	NA	T1
308-05-I-low-D-1	Compost_low_I	EPA6010_MEHLICH3	15	mg/kg	Phosphorus	164.67	NA	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	EPA6010_MEHLICH3	15	mg/kg	Phosphorus	423.50	NA	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	EPA6010_MEHLICH3	15	mg/kg	Phosphorus	462.38	NA	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	EPA6010_MEHLICH3	15	mg/kg	Phosphorus	410.22	NA	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	EPA6010_MEHLICH3	15	mg/kg	Phosphorus	464.35	NA	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	EPA6010_MEHLICH3	16	mg/kg	Phosphorus	394.56	NA	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	EPA6010_MEHLICH3	16	mg/kg	Phosphorus	360.58	NA	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	EPA6010_MEHLICH3	16	mg/kg	Phosphorus	368.39	NA	T1
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	EPA6010_MEHLICH3	16	mg/kg	Phosphorus	371.96	NA	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	EPA6010_MEHLICH3	16	mg/kg	Phosphorus	402.72	NA	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	EPA6010_MEHLICH3	16	mg/kg	Phosphorus	405.22	NA	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	EPA6010_MEHLICH3	16	mg/kg	Phosphorus	382.46	NA	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	EPA6010_MEHLICH3	16	mg/kg	Phosphorus	428.15	NA	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	EPA6010_MEHLICH3	17	mg/kg	Phosphorus	246.43	NA	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	EPA6010_MEHLICH3	17	mg/kg	Phosphorus	246.35	NA	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	EPA6010_MEHLICH3	17	mg/kg	Phosphorus	243.68	NA	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	EPA6010_MEHLICH3	17	mg/kg	Phosphorus	241.97	NA	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	EPA6010_MEHLICH3	17	mg/kg	Phosphorus	175.52	NA	T1
326-10-I-low-B-1	Wood ash and biochar_low_I	EPA6010_MEHLICH3	17	mg/kg	Phosphorus	177.15	NA	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	EPA6010_MEHLICH3	17	mg/kg	Phosphorus	184.28	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
328-10-I-low-D-1	Wood ash and biochar_low_I	EPA6010_MEHLICH3	17	mg/kg	Phosphorus	178.44	NA	T1
329-11-I-low-A-1	Wood ash and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Phosphorus	174.25	NA	T1
330-11-I-low-B-1	Wood ash and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Phosphorus	170.69	NA	T1
331-11-I-low-C-1	Wood ash and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Phosphorus	172.76	NA	T1
332-11-I-low-D-1	Wood ash and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Phosphorus	179.98	NA	T1
333-12-I-low-A-1	Biochar and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Phosphorus	149.64	NA	T1
334-12-I-low-B-1	Biochar and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Phosphorus	174.16	NA	T1
335-12-I-low-C-1	Biochar and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Phosphorus	164.43	NA	T1
336-12-I-low-D-1	Biochar and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Phosphorus	174.06	NA	T1
337-01-I-high-A-1	Soluble phosphate_high_I	EPA6010_MEHLICH3	19	mg/kg	Phosphorus	878.21	NA	T1
338-01-I-high-B-1	Soluble phosphate_high_I	EPA6010_MEHLICH3	19	mg/kg	Phosphorus	850.06	NA	T1
339-01-I-high-C-1	Soluble phosphate_high_I	EPA6010_MEHLICH3	19	mg/kg	Phosphorus	873.37	NA	T1
340-01-I-high-D-1	Soluble phosphate_high_I	EPA6010_MEHLICH3	19	mg/kg	Phosphorus	922.02	NA	T1
341-02-I-high-A-1	Biosolid_high_I	EPA6010_MEHLICH3	19	mg/kg	Phosphorus	510.21	NA	T1
342-02-I-high-B-1	Biosolid_high_I	EPA6010_MEHLICH3	19	mg/kg	Phosphorus	459.33	NA	T1
343-02-I-high-C-1	Biosolid_high_I	EPA6010_MEHLICH3	19	mg/kg	Phosphorus	464.86	NA	T1
344-02-I-high-D-1	Biosolid_high_I	EPA6010_MEHLICH3	19	mg/kg	Phosphorus	462.09	NA	T1
345-03-I-high-A-1	Wood ash_high_I	EPA6010_MEHLICH3	20	mg/kg	Phosphorus	165.50	NA	T1
346-03-I-high-B-1	Wood ash_high_I	EPA6010_MEHLICH3	20	mg/kg	Phosphorus	187.57	NA	T1
347-03-I-high-C-1	Wood ash_high_I	EPA6010_MEHLICH3	20	mg/kg	Phosphorus	173.00	NA	T1
348-03-I-high-D-1	Wood ash_high_I	EPA6010_MEHLICH3	20	mg/kg	Phosphorus	158.71	NA	T1
349-04-I-high-A-1	Biochar_high_I	EPA6010_MEHLICH3	20	mg/kg	Phosphorus	170.18	NA	T1
350-04-I-high-B-1	Biochar_high_I	EPA6010_MEHLICH3	20	mg/kg	Phosphorus	159.06	NA	T1
351-04-I-high-C-1	Biochar_high_I	EPA6010_MEHLICH3	20	mg/kg	Phosphorus	158.63	NA	T1
352-04-I-high-D-1	Biochar_high_I	EPA6010_MEHLICH3	20	mg/kg	Phosphorus	168.15	NA	T1
353-05-I-high-A-1	Compost_high_I	EPA6010_MEHLICH3	21	mg/kg	Phosphorus	171.08	NA	T1
354-05-I-high-B-1	Compost_high_I	EPA6010_MEHLICH3	21	mg/kg	Phosphorus	196.64	NA	T1
355-05-I-high-C-1	Compost_high_I	EPA6010_MEHLICH3	21	mg/kg	Phosphorus	196.77	NA	T1
356-05-I-high-D-1	Compost_high_I	EPA6010_MEHLICH3	21	mg/kg	Phosphorus	206.11	NA	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	EPA6010_MEHLICH3	21	mg/kg	Phosphorus	1092.55	NA	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	EPA6010_MEHLICH3	21	mg/kg	Phosphorus	1031.19	NA	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	EPA6010_MEHLICH3	21	mg/kg	Phosphorus	1032.56	NA	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	EPA6010_MEHLICH3	21	mg/kg	Phosphorus	993.08	NA	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	EPA6010_MEHLICH3	22	mg/kg	Phosphorus	872.93	NA	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	EPA6010_MEHLICH3	22	mg/kg	Phosphorus	884.97	NA	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	EPA6010_MEHLICH3	22	mg/kg	Phosphorus	952.19	NA	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	EPA6010_MEHLICH3	22	mg/kg	Phosphorus	918.20	NA	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	EPA6010_MEHLICH3	22	mg/kg	Phosphorus	882.67	NA	T1
366-08-I-high-B-1	Soluble phosphate and compost_high_I	EPA6010_MEHLICH3	22	mg/kg	Phosphorus	861.31	NA	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	EPA6010_MEHLICH3	22	mg/kg	Phosphorus	849.37	NA	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	EPA6010_MEHLICH3	22	mg/kg	Phosphorus	847.14	NA	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	EPA6010_MEHLICH3	23	mg/kg	Phosphorus	414.02	NA	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	EPA6010_MEHLICH3	23	mg/kg	Phosphorus	376.57	NA	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	EPA6010_MEHLICH3	23	mg/kg	Phosphorus	421.44	NA	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	EPA6010_MEHLICH3	23	mg/kg	Phosphorus	428.55	NA	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	EPA6010_MEHLICH3	23	mg/kg	Phosphorus	177.37	NA	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	EPA6010_MEHLICH3	23	mg/kg	Phosphorus	183.76	NA	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	EPA6010_MEHLICH3	23	mg/kg	Phosphorus	180.86	NA	T1
376-10-I-high-D-1	Wood ash and biochar_high_I	EPA6010_MEHLICH3	23	mg/kg	Phosphorus	185.60	NA	T1
377-11-I-high-A-1	Wood ash and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Phosphorus	234.16	NA	T1
378-11-I-high-B-1	Wood ash and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Phosphorus	214.07	NA	T1
379-11-I-high-C-1	Wood ash and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Phosphorus	202.83	NA	T1
380-11-I-high-D-1	Wood ash and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Phosphorus	198.78	NA	T1
381-12-I-high-A-1	Biochar and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Phosphorus	199.63	NA	T1
382-12-I-high-B-1	Biochar and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Phosphorus	189.48	NA	T1
383-12-I-high-C-1	Biochar and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Phosphorus	196.05	NA	T1
384-12-I-high-D-1	Biochar and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Phosphorus	198.17	NA	T1
385-00-I-baseline-A-1	control_none_I	EPA6010_MEHLICH3	25	mg/kg	Phosphorus	154.12	NA	T1
386-00-I-baseline-B-1	control_none_I	EPA6010_MEHLICH3	25	mg/kg	Phosphorus	156.54	NA	T1
387-00-I-baseline-C-1	control_none_I	EPA6010_MEHLICH3	25	mg/kg	Phosphorus	160.75	NA	T1
388-00-I-baseline-D-1	control_none_I	EPA6010_MEHLICH3	25	mg/kg	Phosphorus	172.67	NA	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010	3	mg/kg	Arsenic	108.55	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010	3	mg/kg	Lead	1399.00	NA	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Aluminum	15419.30	crm	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Antimony	34.28	NA	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Arsenic	54.75	NA	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Barium	115.58	NA	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Beryllium	0.46	crm	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Cadmium	12.81	NA	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Calcium	3109.28	crm	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Chromium	28.44	crm, dup, blk	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Cobalt	6.69	NA	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Copper	44.03	NA	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Iron	22297.10	crm	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Lead	826.18	spk	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Magnesium	3028.44	crm, dup	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Manganese	570.49	spk	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Nickel	12.05	dup	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Potassium	1195.57	crm	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Selenium	4.63	spk, ICSB	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Silver	1.39	rl,mdl,U	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Sodium	223.74	crm	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Thallium	0.42	rl,mdl,U	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Vanadium	55.68	NA	T1
001-00-baseline-A-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Zinc	481.08	NA	T1
010-03-S-low-B-1	Wood ash_low_S	EPA6010	1	mg/kg	Arsenic	101.87	NA	T1
010-03-S-low-B-1	Wood ash_low_S	EPA6010	1	mg/kg	Lead	1489.02	NA	T1
001-01-S-low-A-1	Soluble phosphate_low_S	EPA6010	1	mg/kg	Arsenic	106.06	NA	T1
001-01-S-low-A-1	Soluble phosphate_low_S	EPA6010	1	mg/kg	Lead	1557.68	NA	T1
011-03-S-low-C-1	Wood ash_low_S	EPA6010	1	mg/kg	Arsenic	104.48	NA	T1
011-03-S-low-C-1	Wood ash_low_S	EPA6010	1	mg/kg	Lead	1537.70	NA	T1
012-03-S-low-D-1	Wood ash_low_S	EPA6010	1	mg/kg	Arsenic	104.80	NA	T1
012-03-S-low-D-1	Wood ash_low_S	EPA6010	1	mg/kg	Lead	1526.36	NA	T1



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
013-04-S-low-A-1	Biochar_low_S	EPA6010	1	mg/kg	Arsenic	105.85	NA	T1
013-04-S-low-A-1	Biochar_low_S	EPA6010	1	mg/kg	Lead	1512.88	NA	T1
014-04-S-low-B-1	Biochar_low_S	EPA6010	1	mg/kg	Arsenic	104.43	NA	T1
014-04-S-low-B-1	Biochar_low_S	EPA6010	1	mg/kg	Lead	1504.93	NA	T1
145-01-S-high-A-1	Soluble phosphate_high_S	EPA6010	2	mg/kg	Arsenic	95.47	NA	T1
145-01-S-high-A-1	Soluble phosphate_high_S	EPA6010	2	mg/kg	Lead	1535.58	NA	T1
146-01-S-high-B-1	Soluble phosphate_high_S	EPA6010	2	mg/kg	Arsenic	99.98	NA	T1
146-01-S-high-B-1	Soluble phosphate_high_S	EPA6010	2	mg/kg	Lead	1569.31	NA	T1
147-01-S-high-C-1	Soluble phosphate_high_S	EPA6010	2	mg/kg	Arsenic	101.51	NA	T1
147-01-S-high-C-1	Soluble phosphate_high_S	EPA6010	2	mg/kg	Lead	1524.05	NA	T1
148-01-S-high-D-1	Soluble phosphate_high_S	EPA6010	2	mg/kg	Arsenic	97.31	NA	T1
148-01-S-high-D-1	Soluble phosphate_high_S	EPA6010	2	mg/kg	Lead	1446.23	NA	T1
149-02-S-high-A-1	Biosolid_high_S	EPA6010	2	mg/kg	Arsenic	100.98	NA	T1
149-02-S-high-A-1	Biosolid_high_S	EPA6010	2	mg/kg	Lead	1472.90	NA	T1
150-02-S-high-B-1	Biosolid_high_S	EPA6010	2	mg/kg	Arsenic	104.36	NA	T1
150-02-S-high-B-1	Biosolid_high_S	EPA6010	2	mg/kg	Lead	1520.84	NA	T1
151-02-S-high-C-1	Biosolid_high_S	EPA6010	2	mg/kg	Arsenic	99.88	NA	T1
151-02-S-high-C-1	Biosolid_high_S	EPA6010	2	mg/kg	Lead	1482.18	NA	T1
152-02-S-high-D-1	Biosolid_high_S	EPA6010	2	mg/kg	Arsenic	102.67	NA	T1
152-02-S-high-D-1	Biosolid_high_S	EPA6010	2	mg/kg	Lead	1522.08	NA	T1
153-03-S-high-A-1	Wood ash_high_S	EPA6010	2	mg/kg	Arsenic	102.76	NA	T1
153-03-S-high-A-1	Wood ash_high_S	EPA6010	2	mg/kg	Lead	1474.78	NA	T1
015-04-S-low-C-1	Biochar_low_S	EPA6010	1	mg/kg	Arsenic	99.26	NA	T1
015-04-S-low-C-1	Biochar_low_S	EPA6010	1	mg/kg	Lead	1473.49	NA	T1
154-03-S-high-B-1	Wood ash_high_S	EPA6010	2	mg/kg	Arsenic	99.83	NA	T1
154-03-S-high-B-1	Wood ash_high_S	EPA6010	2	mg/kg	Lead	1428.41	NA	T1
155-03-S-high-C-1	Wood ash_high_S	EPA6010	2	mg/kg	Arsenic	96.56	NA	T1
155-03-S-high-C-1	Wood ash_high_S	EPA6010	2	mg/kg	Lead	1429.09	NA	T1
156-03-S-high-D-1	Wood ash_high_S	EPA6010	2	mg/kg	Arsenic	96.87	NA	T1
156-03-S-high-D-1	Wood ash_high_S	EPA6010	2	mg/kg	Lead	1496.28	NA	T1
157-04-S-high-A-1	Biochar_high_S	EPA6010	2	mg/kg	Arsenic	98.41	NA	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
157-04-S-high-A-1	Biochar_high_S	EPA6010	2	mg/kg	Lead	1468.45	NA	T1
158-04-S-high-B-1	Biochar_high_S	EPA6010	2	mg/kg	Arsenic	99.66	NA	T1
158-04-S-high-B-1	Biochar_high_S	EPA6010	2	mg/kg	Lead	1524.13	NA	T1
159-04-S-high-C-1	Biochar_high_S	EPA6010	2	mg/kg	Arsenic	94.09	NA	T1
159-04-S-high-C-1	Biochar_high_S	EPA6010	2	mg/kg	Lead	1479.38	NA	T1
160-04-S-high-D-1	Biochar_high_S	EPA6010	2	mg/kg	Arsenic	100.26	NA	T1
160-04-S-high-D-1	Biochar_high_S	EPA6010	2	mg/kg	Lead	1444.76	NA	T1
161-05-S-high-A-1	Compost_high_S	EPA6010	2	mg/kg	Arsenic	99.74	NA	T1
161-05-S-high-A-1	Compost_high_S	EPA6010	2	mg/kg	Lead	1452.16	NA	T1
162-05-S-high-B-1	Compost_high_S	EPA6010	2	mg/kg	Arsenic	96.52	NA	T1
162-05-S-high-B-1	Compost_high_S	EPA6010	2	mg/kg	Lead	1446.11	NA	T1
163-05-S-high-C-1	Compost_high_S	EPA6010	2	mg/kg	Arsenic	100.83	NA	T1
163-05-S-high-C-1	Compost_high_S	EPA6010	2	mg/kg	Lead	1489.68	NA	T1
016-04-S-low-D-1	Biochar_low_S	EPA6010	1	mg/kg	Arsenic	101.73	NA	T1
016-04-S-low-D-1	Biochar_low_S	EPA6010	1	mg/kg	Lead	1477.89	NA	T1
164-05-S-high-D-1	Compost_high_S	EPA6010	2	mg/kg	Arsenic	104.92	NA	T1
164-05-S-high-D-1	Compost_high_S	EPA6010	2	mg/kg	Lead	1525.02	NA	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	EPA6010	2	mg/kg	Arsenic	98.90	NA	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	EPA6010	2	mg/kg	Lead	1547.59	NA	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	EPA6010	2	mg/kg	Arsenic	99.12	NA	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	EPA6010	2	mg/kg	Lead	1488.48	NA	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	EPA6010	2	mg/kg	Arsenic	95.92	NA	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	EPA6010	2	mg/kg	Lead	1460.46	NA	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	EPA6010	2	mg/kg	Arsenic	93.93	NA	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	EPA6010	2	mg/kg	Lead	1487.11	NA	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	EPA6010	3	mg/kg	Arsenic	96.43	NA	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	EPA6010	3	mg/kg	Lead	1539.17	NA	T1
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	EPA6010	3	mg/kg	Arsenic	94.23	NA	T1
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	EPA6010	3	mg/kg	Lead	1504.57	NA	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	EPA6010	3	mg/kg	Arsenic	104.70	NA	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	EPA6010	3	mg/kg	Lead	1613.64	NA	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	EPA6010	3	mg/kg	Arsenic	94.59	NA	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	EPA6010	3	mg/kg	Lead	1463.09	NA	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	EPA6010	3	mg/kg	Arsenic	96.49	NA	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	EPA6010	3	mg/kg	Lead	1526.61	NA	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	EPA6010	3	mg/kg	Arsenic	96.66	NA	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	EPA6010	3	mg/kg	Lead	1515.75	NA	T1
017-05-S-low-A-1	Compost_low_S	EPA6010	1	mg/kg	Arsenic	104.19	NA	T1
017-05-S-low-A-1	Compost_low_S	EPA6010	1	mg/kg	Lead	1496.43	NA	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	EPA6010	3	mg/kg	Arsenic	97.56	NA	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	EPA6010	3	mg/kg	Lead	1567.75	NA	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	EPA6010	3	mg/kg	Arsenic	94.39	NA	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	EPA6010	3	mg/kg	Lead	1510.98	NA	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	EPA6010	3	mg/kg	Arsenic	96.55	NA	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	EPA6010	3	mg/kg	Lead	1553.79	NA	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	EPA6010	3	mg/kg	Arsenic	92.70	NA	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	EPA6010	3	mg/kg	Lead	1474.10	NA	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	EPA6010	3	mg/kg	Arsenic	94.95	NA	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	EPA6010	3	mg/kg	Lead	1474.64	NA	T1
180-09-S-high-D-1	Biosolids and wood ash_high_S	EPA6010	3	mg/kg	Arsenic	92.66	NA	T1
180-09-S-high-D-1	Biosolids and wood ash_high_S	EPA6010	3	mg/kg	Lead	1496.79	NA	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	EPA6010	3	mg/kg	Arsenic	93.26	NA	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	EPA6010	3	mg/kg	Lead	1422.08	NA	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	EPA6010	3	mg/kg	Arsenic	104.47	NA	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	EPA6010	3	mg/kg	Lead	1470.59	NA	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	EPA6010	3	mg/kg	Arsenic	98.81	NA	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	EPA6010	3	mg/kg	Lead	1376.42	NA	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	EPA6010	3	mg/kg	Arsenic	90.46	NA	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	EPA6010	3	mg/kg	Lead	1464.63	NA	T1
018-05-S-low-B-1	Compost_low_S	EPA6010	1	mg/kg	Arsenic	101.34	NA	T1
018-05-S-low-B-1	Compost_low_S	EPA6010	1	mg/kg	Lead	1512.14	NA	T1
185-11-S-high-A-1	Wood ash and compost_high_S	EPA6010	3	mg/kg	Arsenic	102.49	NA	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
185-11-S-high-A-1	Wood ash and compost_high_S	EPA6010	3	mg/kg	Lead	1557.41	NA	T1
186-11-S-high-B-1	Wood ash and compost_high_S	EPA6010	3	mg/kg	Arsenic	97.76	NA	T1
186-11-S-high-B-1	Wood ash and compost_high_S	EPA6010	3	mg/kg	Lead	1460.89	NA	T1
187-11-S-high-C-1	Wood ash and compost_high_S	EPA6010	3	mg/kg	Arsenic	100.92	NA	T1
187-11-S-high-C-1	Wood ash and compost_high_S	EPA6010	3	mg/kg	Lead	1459.37	NA	T1
188-11-S-high-D-1	Wood ash and compost_high_S	EPA6010	3	mg/kg	Arsenic	103.10	NA	T1
188-11-S-high-D-1	Wood ash and compost_high_S	EPA6010	3	mg/kg	Lead	1521.35	NA	T1
189-12-S-high-A-1	Biochar and compost_high_S	EPA6010	3	mg/kg	Arsenic	99.68	NA	T1
189-12-S-high-A-1	Biochar and compost_high_S	EPA6010	3	mg/kg	Lead	1416.67	NA	T1
190-12-S-high-B-1	Biochar and compost_high_S	EPA6010	3	mg/kg	Arsenic	103.88	NA	T1
190-12-S-high-B-1	Biochar and compost_high_S	EPA6010	3	mg/kg	Lead	1477.23	NA	T1
191-12-S-high-C-1	Biochar and compost_high_S	EPA6010	3	mg/kg	Arsenic	99.50	NA	T1
191-12-S-high-C-1	Biochar and compost_high_S	EPA6010	3	mg/kg	Lead	1499.14	NA	T1
192-12-S-high-D-1	Biochar and compost_high_S	EPA6010	3	mg/kg	Arsenic	104.98	NA	T1
192-12-S-high-D-1	Biochar and compost_high_S	EPA6010	3	mg/kg	Lead	1488.54	NA	T1
019-05-S-low-C-1	Compost_low_S	EPA6010	1	mg/kg	Arsenic	104.76	NA	T1
019-05-S-low-C-1	Compost_low_S	EPA6010	1	mg/kg	Lead	1504.11	NA	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010	4	mg/kg	Arsenic	106.85	NA	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010	4	mg/kg	Lead	1399.96	spk	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Aluminum	15686.90	crm	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Antimony	33.54	NA	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Arsenic	52.50	NA	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Barium	116.02	NA	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Beryllium	0.44	crm	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Cadmium	12.55	NA	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Calcium	3143.34	crm	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Chromium	31.63	crm, dup, blk	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Cobalt	6.85	NA	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Copper	41.91	NA	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Iron	24107.10	crm	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Lead	817.76	spk	T1

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Magnesium	3411.89	crm, dup	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Manganese	541.20	spk	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Nickel	11.71	dup	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Potassium	1208.57	crm	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Selenium	4.80	spk, ICSB	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Silver	1.39	rl,mdl,U	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Sodium	227.83	crm	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Thallium	1.08	rl	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Vanadium	60.14	NA	T1
002-00-baseline-B-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Zinc	465.50	NA	T1
020-05-S-low-D-1	Compost_low_S	EPA6010	1	mg/kg	Arsenic	104.36	NA	T1
020-05-S-low-D-1	Compost_low_S	EPA6010	1	mg/kg	Lead	1520.85	NA	T1
002-01-S-low-B-1	Soluble phosphate_low_S	EPA6010	1	mg/kg	Arsenic	103.07	NA	T1
002-01-S-low-B-1	Soluble phosphate_low_S	EPA6010	1	mg/kg	Lead	1501.92	NA	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	EPA6010	1	mg/kg	Arsenic	103.30	NA	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	EPA6010	1	mg/kg	Lead	1516.77	NA	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	EPA6010	1	mg/kg	Arsenic	100.50	NA	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	EPA6010	1	mg/kg	Lead	1465.04	NA	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	EPA6010	1	mg/kg	Arsenic	98.32	NA	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	EPA6010	1	mg/kg	Lead	1460.54	NA	T1
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	EPA6010	1	mg/kg	Arsenic	103.58	NA	T1
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	EPA6010	1	mg/kg	Lead	1502.42	NA	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	EPA6010	1	mg/kg	Arsenic	102.53	NA	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	EPA6010	1	mg/kg	Lead	1488.92	NA	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	EPA6010	1	mg/kg	Arsenic	105.40	NA	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	EPA6010	1	mg/kg	Lead	1515.92	NA	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	EPA6010	1	mg/kg	Arsenic	105.68	NA	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	EPA6010	1	mg/kg	Lead	1512.00	NA	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	EPA6010	1	mg/kg	Arsenic	99.39	NA	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	EPA6010	1	mg/kg	Lead	1439.79	NA	T1
289-01-I-low-A-1	Soluble phosphate_low_I	EPA6010	3	mg/kg	Arsenic	102.50	NA	T1

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
289-01-I-low-A-1	Soluble phosphate_low_I	EPA6010	3	mg/kg	Lead	1482.12	NA	T1
290-01-I-low-B-1	Soluble phosphate_low_I	EPA6010	3	mg/kg	Arsenic	97.91	NA	T1
290-01-I-low-B-1	Soluble phosphate_low_I	EPA6010	3	mg/kg	Lead	1361.18	NA	T1
291-01-I-low-C-1	Soluble phosphate_low_I	EPA6010	3	mg/kg	Arsenic	101.57	NA	T1
291-01-I-low-C-1	Soluble phosphate_low_I	EPA6010	3	mg/kg	Lead	1406.18	NA	T1
292-01-I-low-D-1	Soluble phosphate_low_I	EPA6010	3	mg/kg	Arsenic	100.84	NA	T1
292-01-I-low-D-1	Soluble phosphate_low_I	EPA6010	3	mg/kg	Lead	1433.47	NA	T1
293-02-I-low-A-1	Biosolid_low_I	EPA6010	3	mg/kg	Arsenic	99.98	NA	T1
293-02-I-low-A-1	Biosolid_low_I	EPA6010	3	mg/kg	Lead	1454.80	NA	T1
294-02-I-low-B-1	Biosolid_low_I	EPA6010	3	mg/kg	Arsenic	101.41	NA	T1
294-02-I-low-B-1	Biosolid_low_I	EPA6010	3	mg/kg	Lead	1382.30	NA	T1
295-02-I-low-C-1	Biosolid_low_I	EPA6010	3	mg/kg	Arsenic	96.95	NA	T1
295-02-I-low-C-1	Biosolid_low_I	EPA6010	3	mg/kg	Lead	1349.50	NA	T1
296-02-I-low-D-1	Biosolid_low_I	EPA6010	3	mg/kg	Arsenic	101.33	NA	T1
296-02-I-low-D-1	Biosolid_low_I	EPA6010	3	mg/kg	Lead	1368.22	NA	T1
297-03-I-low-A-1	Wood ash_low_I	EPA6010	3	mg/kg	Arsenic	102.01	NA	T1
297-03-I-low-A-1	Wood ash_low_I	EPA6010	3	mg/kg	Lead	1428.07	NA	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	EPA6010	1	mg/kg	Arsenic	100.04	NA	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	EPA6010	1	mg/kg	Lead	1450.25	NA	T1
298-03-I-low-B-1	Wood ash_low_I	EPA6010	3	mg/kg	Arsenic	101.01	NA	T1
298-03-I-low-B-1	Wood ash_low_I	EPA6010	3	mg/kg	Lead	1395.61	NA	T1
299-03-I-low-C-1	Wood ash_low_I	EPA6010	3	mg/kg	Arsenic	101.97	NA	T1
299-03-I-low-C-1	Wood ash_low_I	EPA6010	3	mg/kg	Lead	1402.21	NA	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010	5	mg/kg	Arsenic	108.13	NA	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010	5	mg/kg	Lead	1428.61	spk	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Aluminum	15879.40	crm	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Antimony	35.41	NA	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Arsenic	54.20	NA	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Barium	122.64	NA	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Beryllium	0.47	crm	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Cadmium	13.23	NA	T1

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Calcium	3053.85	crm	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Chromium	26.77	crm, dup, blk	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Cobalt	6.98	NA	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Copper	44.91	NA	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Iron	23873.80	crm	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Lead	856.14	spk	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Magnesium	3090.87	crm, dup	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Manganese	573.10	spk	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Nickel	11.43	dup	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Potassium	1336.53	crm	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Selenium	5.21	spk, ICSB	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Silver	1.39	rl,mdl,U	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Sodium	232.02	crm	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Thallium	1.33	rl	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Vanadium	58.91	NA	T1
003-00-baseline-C-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Zinc	500.58	NA	T1
300-03-I-low-D-1	Wood ash_low_I	EPA6010	4	mg/kg	Arsenic	104.18	NA	T1
300-03-I-low-D-1	Wood ash_low_I	EPA6010	4	mg/kg	Lead	1393.32	spk	T1
301-04-I-low-A-1	Biochar_low_I	EPA6010	4	mg/kg	Arsenic	102.19	NA	T1
301-04-I-low-A-1	Biochar_low_I	EPA6010	4	mg/kg	Lead	1405.58	spk	T1
302-04-I-low-B-1	Biochar_low_I	EPA6010	4	mg/kg	Arsenic	103.93	NA	T1
302-04-I-low-B-1	Biochar_low_I	EPA6010	4	mg/kg	Lead	1413.16	spk	T1
303-04-I-low-C-1	Biochar_low_I	EPA6010	4	mg/kg	Arsenic	100.33	NA	T1
303-04-I-low-C-1	Biochar_low_I	EPA6010	4	mg/kg	Lead	1408.21	spk	T1
304-04-I-low-D-1	Biochar_low_I	EPA6010	4	mg/kg	Arsenic	101.90	NA	T1
304-04-I-low-D-1	Biochar_low_I	EPA6010	4	mg/kg	Lead	1382.25	spk	T1
305-05-I-low-A-1	Compost_low_I	EPA6010	4	mg/kg	Arsenic	102.23	NA	T1
305-05-I-low-A-1	Compost_low_I	EPA6010	4	mg/kg	Lead	1428.92	spk	T1
306-05-I-low-B-1	Compost_low_I	EPA6010	4	mg/kg	Arsenic	104.94	NA	T1
306-05-I-low-B-1	Compost_low_I	EPA6010	4	mg/kg	Lead	1448.90	spk	T1
307-05-I-low-C-1	Compost_low_I	EPA6010	4	mg/kg	Arsenic	100.22	NA	T1

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
307-05-I-low-C-1	Compost_low_I	EPA6010	4	mg/kg	Lead	1332.62	spk	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	EPA6010	1	mg/kg	Arsenic	99.27	NA	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	EPA6010	1	mg/kg	Lead	1480.92	NA	T1
308-05-I-low-D-1	Compost_low_I	EPA6010	4	mg/kg	Arsenic	103.19	NA	T1
308-05-I-low-D-1	Compost_low_I	EPA6010	4	mg/kg	Lead	1398.08	spk	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	EPA6010	4	mg/kg	Arsenic	93.22	NA	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	EPA6010	4	mg/kg	Lead	1331.23	spk	T1
003-01-S-low-C-1	Soluble phosphate_low_S	EPA6010	1	mg/kg	Arsenic	101.46	NA	T1
003-01-S-low-C-1	Soluble phosphate_low_S	EPA6010	1	mg/kg	Lead	1488.34	NA	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	EPA6010	4	mg/kg	Arsenic	95.45	NA	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	EPA6010	4	mg/kg	Lead	1372.22	spk	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	EPA6010	4	mg/kg	Arsenic	89.20	NA	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	EPA6010	4	mg/kg	Lead	1272.11	spk	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	EPA6010	4	mg/kg	Arsenic	96.39	NA	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	EPA6010	4	mg/kg	Lead	1328.27	spk	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	EPA6010	4	mg/kg	Arsenic	101.70	NA	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	EPA6010	4	mg/kg	Lead	1383.22	spk	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	EPA6010	4	mg/kg	Arsenic	100.73	NA	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	EPA6010	4	mg/kg	Lead	1420.28	spk	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	EPA6010	4	mg/kg	Arsenic	100.72	NA	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	EPA6010	4	mg/kg	Lead	1427.70	spk	T1
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	EPA6010	4	mg/kg	Arsenic	93.31	NA	T1
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	EPA6010	4	mg/kg	Lead	1375.54	spk	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	EPA6010	4	mg/kg	Arsenic	91.91	NA	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	EPA6010	4	mg/kg	Lead	1358.49	spk	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	EPA6010	1	mg/kg	Arsenic	93.21	NA	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	EPA6010	1	mg/kg	Lead	1421.33	NA	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	EPA6010	4	mg/kg	Arsenic	96.24	NA	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	EPA6010	4	mg/kg	Lead	1308.46	spk	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	EPA6010	4	mg/kg	Arsenic	93.04	NA	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	EPA6010	4	mg/kg	Lead	1242.26	spk	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
320-08-I-low-D-1	Soluble phosphate and compost_low_I	EPA6010	4	mg/kg	Arsenic	88.52	NA	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	EPA6010	4	mg/kg	Lead	1287.58	spk	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	EPA6010	4	mg/kg	Arsenic	93.12	NA	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	EPA6010	4	mg/kg	Lead	1326.63	spk	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	EPA6010	4	mg/kg	Arsenic	94.46	NA	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	EPA6010	4	mg/kg	Lead	1410.95	spk	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	EPA6010	4	mg/kg	Arsenic	90.89	NA	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	EPA6010	4	mg/kg	Lead	1339.88	spk	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	EPA6010	4	mg/kg	Arsenic	89.10	NA	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	EPA6010	4	mg/kg	Lead	1291.99	spk	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	EPA6010	4	mg/kg	Arsenic	97.12	NA	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	EPA6010	4	mg/kg	Lead	1386.11	spk	T1
326-10-I-low-B-1	Wood ash and biochar_low_I	EPA6010	4	mg/kg	Arsenic	101.87	NA	T1
326-10-I-low-B-1	Wood ash and biochar_low_I	EPA6010	4	mg/kg	Lead	1412.01	spk	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	EPA6010	4	mg/kg	Arsenic	103.49	NA	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	EPA6010	4	mg/kg	Lead	1446.05	spk	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	EPA6010	1	mg/kg	Arsenic	98.30	NA	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	EPA6010	1	mg/kg	Lead	1495.44	NA	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	EPA6010	4	mg/kg	Arsenic	95.60	NA	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	EPA6010	4	mg/kg	Lead	1415.27	spk	T1
329-11-I-low-A-1	Wood ash and compost_low_I	EPA6010	4	mg/kg	Arsenic	103.12	NA	T1
329-11-I-low-A-1	Wood ash and compost_low_I	EPA6010	4	mg/kg	Lead	1426.18	spk	T1
330-11-I-low-B-1	Wood ash and compost_low_I	EPA6010	4	mg/kg	Arsenic	97.74	NA	T1
330-11-I-low-B-1	Wood ash and compost_low_I	EPA6010	4	mg/kg	Lead	1313.57	spk	T1
331-11-I-low-C-1	Wood ash and compost_low_I	EPA6010	4	mg/kg	Arsenic	95.07	NA	T1
331-11-I-low-C-1	Wood ash and compost_low_I	EPA6010	4	mg/kg	Lead	1260.84	spk	T1
332-11-I-low-D-1	Wood ash and compost_low_I	EPA6010	4	mg/kg	Arsenic	97.31	NA	T1
332-11-I-low-D-1	Wood ash and compost_low_I	EPA6010	4	mg/kg	Lead	1444.21	spk	T1
333-12-I-low-A-1	Biochar and compost_low_I	EPA6010	4	mg/kg	Arsenic	93.67	NA	T1
333-12-I-low-A-1	Biochar and compost_low_I	EPA6010	4	mg/kg	Lead	1320.24	spk	T1
334-12-I-low-B-1	Biochar and compost_low_I	EPA6010	4	mg/kg	Arsenic	100.53	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
334-12-I-low-B-1	Biochar and compost_low_I	EPA6010	4	mg/kg	Lead	1384.37	spk	T1
335-12-I-low-C-1	Biochar and compost_low_I	EPA6010	5	mg/kg	Arsenic	80.99	NA	T1
335-12-I-low-C-1	Biochar and compost_low_I	EPA6010	5	mg/kg	Lead	1309.32	spk	T1
336-12-I-low-D-1	Biochar and compost_low_I	EPA6010	5	mg/kg	Arsenic	83.65	NA	T1
336-12-I-low-D-1	Biochar and compost_low_I	EPA6010	5	mg/kg	Lead	1329.12	spk	T1
337-01-I-high-A-1	Soluble phosphate_high_I	EPA6010	5	mg/kg	Arsenic	92.96	NA	T1
337-01-I-high-A-1	Soluble phosphate_high_I	EPA6010	5	mg/kg	Lead	1515.72	spk	T1
338-01-I-high-B-1	Soluble phosphate_high_I	EPA6010	5	mg/kg	Arsenic	96.49	NA	T1
338-01-I-high-B-1	Soluble phosphate_high_I	EPA6010	5	mg/kg	Lead	1455.45	spk	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	EPA6010	1	mg/kg	Arsenic	101.90	NA	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	EPA6010	1	mg/kg	Lead	1474.42	NA	T1
339-01-I-high-C-1	Soluble phosphate_high_I	EPA6010	5	mg/kg	Arsenic	93.54	NA	T1
339-01-I-high-C-1	Soluble phosphate_high_I	EPA6010	5	mg/kg	Lead	1447.84	spk	T1
340-01-I-high-D-1	Soluble phosphate_high_I	EPA6010	5	mg/kg	Arsenic	94.17	NA	T1
340-01-I-high-D-1	Soluble phosphate_high_I	EPA6010	5	mg/kg	Lead	1563.11	spk	T1
341-02-I-high-A-1	Biosolid_high_I	EPA6010	5	mg/kg	Arsenic	96.75	NA	T1
341-02-I-high-A-1	Biosolid_high_I	EPA6010	5	mg/kg	Lead	1403.17	spk	T1
342-02-I-high-B-1	Biosolid_high_I	EPA6010	5	mg/kg	Arsenic	101.68	NA	T1
342-02-I-high-B-1	Biosolid_high_I	EPA6010	5	mg/kg	Lead	1490.16	spk	T1
343-02-I-high-C-1	Biosolid_high_I	EPA6010	5	mg/kg	Arsenic	102.12	NA	T1
343-02-I-high-C-1	Biosolid_high_I	EPA6010	5	mg/kg	Lead	1509.89	spk	T1
344-02-I-high-D-1	Biosolid_high_I	EPA6010	5	mg/kg	Arsenic	101.53	NA	T1
344-02-I-high-D-1	Biosolid_high_I	EPA6010	5	mg/kg	Lead	1622.12	spk	T1
345-03-I-high-A-1	Wood ash_high_I	EPA6010	5	mg/kg	Arsenic	95.72	NA	T1
345-03-I-high-A-1	Wood ash_high_I	EPA6010	5	mg/kg	Lead	1421.87	spk	T1
346-03-I-high-B-1	Wood ash_high_I	EPA6010	5	mg/kg	Arsenic	96.09	NA	T1
346-03-I-high-B-1	Wood ash_high_I	EPA6010	5	mg/kg	Lead	1521.71	spk	T1
347-03-I-high-C-1	Wood ash_high_I	EPA6010	5	mg/kg	Arsenic	104.48	NA	T1
347-03-I-high-C-1	Wood ash_high_I	EPA6010	5	mg/kg	Lead	1522.81	spk	T1
348-03-I-high-D-1	Wood ash_high_I	EPA6010	5	mg/kg	Arsenic	94.07	NA	T1
348-03-I-high-D-1	Wood ash_high_I	EPA6010	5	mg/kg	Lead	1332.17	spk	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
034-09-S-low-B-1	Biosolids and wood ash_low_S	EPA6010	1	mg/kg	Arsenic	103.61	NA	T1
034-09-S-low-B-1	Biosolids and wood ash_low_S	EPA6010	1	mg/kg	Lead	1496.47	NA	T1
349-04-I-high-A-1	Biochar_high_I	EPA6010	5	mg/kg	Arsenic	91.70	NA	T1
349-04-I-high-A-1	Biochar_high_I	EPA6010	5	mg/kg	Lead	1213.07	spk	T1
350-04-I-high-B-1	Biochar_high_I	EPA6010	5	mg/kg	Arsenic	90.44	NA	T1
350-04-I-high-B-1	Biochar_high_I	EPA6010	5	mg/kg	Lead	1207.89	spk	T1
351-04-I-high-C-1	Biochar_high_I	EPA6010	5	mg/kg	Arsenic	94.87	NA	T1
351-04-I-high-C-1	Biochar_high_I	EPA6010	5	mg/kg	Lead	1334.30	spk	T1
352-04-I-high-D-1	Biochar_high_I	EPA6010	5	mg/kg	Arsenic	87.45	NA	T1
352-04-I-high-D-1	Biochar_high_I	EPA6010	5	mg/kg	Lead	1157.53	spk	T1
353-05-I-high-A-1	Compost_high_I	EPA6010	5	mg/kg	Arsenic	104.96	NA	T1
353-05-I-high-A-1	Compost_high_I	EPA6010	5	mg/kg	Lead	1557.29	spk	T1
354-05-I-high-B-1	Compost_high_I	EPA6010	5	mg/kg	Arsenic	101.68	NA	T1
354-05-I-high-B-1	Compost_high_I	EPA6010	5	mg/kg	Lead	1488.27	spk	T1
355-05-I-high-C-1	Compost_high_I	EPA6010	5	mg/kg	Arsenic	103.60	NA	T1
355-05-I-high-C-1	Compost_high_I	EPA6010	5	mg/kg	Lead	1523.68	spk	T1
356-05-I-high-D-1	Compost_high_I	EPA6010	5	mg/kg	Arsenic	112.24	NA	T1
356-05-I-high-D-1	Compost_high_I	EPA6010	5	mg/kg	Lead	1662.21	spk	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	EPA6010	5	mg/kg	Arsenic	104.54	NA	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	EPA6010	5	mg/kg	Lead	1475.05	spk	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	EPA6010	5	mg/kg	Arsenic	107.47	NA	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	EPA6010	5	mg/kg	Lead	1520.11	spk	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	EPA6010	1	mg/kg	Arsenic	97.25	NA	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	EPA6010	1	mg/kg	Lead	1442.12	NA	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	EPA6010	5	mg/kg	Arsenic	83.66	NA	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	EPA6010	5	mg/kg	Lead	1221.97	spk	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	EPA6010	5	mg/kg	Arsenic	84.32	NA	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	EPA6010	5	mg/kg	Lead	1255.80	spk	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	EPA6010	5	mg/kg	Arsenic	96.93	NA	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	EPA6010	5	mg/kg	Lead	1480.72	spk	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	EPA6010	5	mg/kg	Arsenic	112.79	NA	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	EPA6010	5	mg/kg	Lead	1793.53	spk	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	EPA6010	5	mg/kg	Arsenic	98.47	NA	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	EPA6010	5	mg/kg	Lead	1499.11	spk	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	EPA6010	5	mg/kg	Arsenic	99.04	NA	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	EPA6010	5	mg/kg	Lead	1514.38	spk	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	EPA6010	5	mg/kg	Arsenic	93.47	NA	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	EPA6010	5	mg/kg	Lead	1376.50	spk	T1
366-08-I-high-B-1	Soluble phosphate and compost_high_I	EPA6010	5	mg/kg	Arsenic	86.71	NA	T1
366-08-I-high-B-1	Soluble phosphate and compost_high_I	EPA6010	5	mg/kg	Lead	1370.23	spk	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	EPA6010	5	mg/kg	Arsenic	97.80	NA	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	EPA6010	5	mg/kg	Lead	1457.10	spk	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	EPA6010	5	mg/kg	Arsenic	91.07	NA	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	EPA6010	5	mg/kg	Lead	1423.80	spk	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	EPA6010	1	mg/kg	Arsenic	102.76	NA	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	EPA6010	1	mg/kg	Lead	1504.85	NA	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	EPA6010	5	mg/kg	Arsenic	81.09	NA	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	EPA6010	5	mg/kg	Lead	1302.79	spk	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	EPA6010	6	mg/kg	Arsenic	85.23	NA	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	EPA6010	6	mg/kg	Lead	1316.40	spk	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	EPA6010	2	mg/kg	Arsenic	111.65	NA	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	EPA6010	2	mg/kg	Lead	1570.23	NA	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	EPA6010	6	mg/kg	Arsenic	93.49	NA	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	EPA6010	6	mg/kg	Lead	1329.51	spk	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	EPA6010	6	mg/kg	Arsenic	91.09	NA	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	EPA6010	6	mg/kg	Lead	1326.43	spk	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	EPA6010	6	mg/kg	Arsenic	99.24	NA	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	EPA6010	6	mg/kg	Lead	1462.96	spk	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	EPA6010	6	mg/kg	Arsenic	102.09	NA	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	EPA6010	6	mg/kg	Lead	1399.00	spk	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	EPA6010	6	mg/kg	Arsenic	99.44	NA	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	EPA6010	6	mg/kg	Lead	1361.69	spk	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
376-10-I-high-D-1	Wood ash and biochar_high_I	EPA6010	6	mg/kg	Arsenic	103.45	NA	T1
376-10-I-high-D-1	Wood ash and biochar_high_I	EPA6010	6	mg/kg	Lead	1453.58	spk	T1
377-11-I-high-A-1	Wood ash and compost_high_I	EPA6010	6	mg/kg	Arsenic	87.73	NA	T1
377-11-I-high-A-1	Wood ash and compost_high_I	EPA6010	6	mg/kg	Lead	1481.05	spk	T1
378-11-I-high-B-1	Wood ash and compost_high_I	EPA6010	6	mg/kg	Arsenic	96.59	NA	T1
378-11-I-high-B-1	Wood ash and compost_high_I	EPA6010	6	mg/kg	Lead	1339.52	spk	T1
379-11-I-high-C-1	Wood ash and compost_high_I	EPA6010	6	mg/kg	Arsenic	92.45	NA	T1
379-11-I-high-C-1	Wood ash and compost_high_I	EPA6010	6	mg/kg	Lead	1418.93	spk	T1
380-11-I-high-D-1	Wood ash and compost_high_I	EPA6010	6	mg/kg	Arsenic	96.31	NA	T1
380-11-I-high-D-1	Wood ash and compost_high_I	EPA6010	6	mg/kg	Lead	1384.93	spk	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	EPA6010	2	mg/kg	Arsenic	105.83	NA	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	EPA6010	2	mg/kg	Lead	1481.27	NA	T1
381-12-I-high-A-1	Biochar and compost_high_I	EPA6010	6	mg/kg	Arsenic	99.22	NA	T1
381-12-I-high-A-1	Biochar and compost_high_I	EPA6010	6	mg/kg	Lead	1376.55	spk	T1
382-12-I-high-B-1	Biochar and compost_high_I	EPA6010	6	mg/kg	Arsenic	87.96	NA	T1
382-12-I-high-B-1	Biochar and compost_high_I	EPA6010	6	mg/kg	Lead	1478.53	spk	T1
383-12-I-high-C-1	Biochar and compost_high_I	EPA6010	6	mg/kg	Arsenic	94.26	NA	T1
383-12-I-high-C-1	Biochar and compost_high_I	EPA6010	6	mg/kg	Lead	1494.49	spk	T1
384-12-I-high-D-1	Biochar and compost_high_I	EPA6010	6	mg/kg	Arsenic	85.35	NA	T1
384-12-I-high-D-1	Biochar and compost_high_I	EPA6010	6	mg/kg	Lead	1464.11	spk	T1
385-00-I-baseline-A-1	control_none_I	EPA6010	6	mg/kg	Arsenic	98.87	NA	T1
385-00-I-baseline-A-1	control_none_I	EPA6010	6	mg/kg	Lead	1503.77	spk	T1
386-00-I-baseline-B-1	control_none_I	EPA6010	6	mg/kg	Arsenic	95.64	NA	T1
386-00-I-baseline-B-1	control_none_I	EPA6010	6	mg/kg	Lead	1557.41	spk	T1
387-00-I-baseline-C-1	control_none_I	EPA6010	6	mg/kg	Arsenic	95.89	NA	T1
387-00-I-baseline-C-1	control_none_I	EPA6010	6	mg/kg	Lead	1549.45	spk	T1
388-00-I-baseline-D-1	control_none_I	EPA6010	6	mg/kg	Arsenic	100.33	NA	T1
388-00-I-baseline-D-1	control_none_I	EPA6010	6	mg/kg	Lead	1442.66	spk	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	EPA6010	2	mg/kg	Arsenic	109.59	NA	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	EPA6010	2	mg/kg	Lead	1515.74	NA	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Arsenic	112.36	NA	T1



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Lead	1412.87	spk	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Aluminum	15294.40	crm	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Antimony	34.36	NA	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Arsenic	55.35	NA	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Barium	116.06	NA	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Beryllium	0.44	crm	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Cadmium	12.65	NA	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Calcium	3008.90	crm	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Chromium	31.42	crm, dup, blk	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Cobalt	7.23	NA	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Copper	43.92	NA	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Iron	25181.40	crm	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Lead	821.23	spk	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Magnesium	3083.39	crm, dup	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Manganese	558.81	spk	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Nickel	12.44	dup	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Potassium	1092.92	crm	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Selenium	6.15	spk, ICSB	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Silver	1.39	rl,mdl,U	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Sodium	198.69	crm	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Thallium	1.59	rl	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Vanadium	61.05	NA	T1
004-00-baseline-D-1	Baseline_baseline_NA	EPA6010	6	mg/kg	Zinc	478.63	NA	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	EPA6010	2	mg/kg	Arsenic	101.06	NA	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	EPA6010	2	mg/kg	Lead	1432.88	NA	T1
004-01-S-low-D-1	Soluble phosphate_low_S	EPA6010	1	mg/kg	Arsenic	98.08	NA	T1
004-01-S-low-D-1	Soluble phosphate_low_S	EPA6010	1	mg/kg	Lead	1525.15	NA	T1
041-11-S-low-A-1	Wood ash and compost_low_S	EPA6010	2	mg/kg	Arsenic	100.42	NA	T1
041-11-S-low-A-1	Wood ash and compost_low_S	EPA6010	2	mg/kg	Lead	1506.91	NA	T1
042-11-S-low-B-1	Wood ash and compost_low_S	EPA6010	2	mg/kg	Arsenic	105.04	NA	T1
042-11-S-low-B-1	Wood ash and compost_low_S	EPA6010	2	mg/kg	Lead	1481.09	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
043-11-S-low-C-1	Wood ash and compost_low_S	EPA6010	2	mg/kg	Arsenic	108.74	NA	T1
043-11-S-low-C-1	Wood ash and compost_low_S	EPA6010	2	mg/kg	Lead	1530.36	NA	T1
044-11-S-low-D-1	Wood ash and compost_low_S	EPA6010	2	mg/kg	Arsenic	97.80	NA	T1
044-11-S-low-D-1	Wood ash and compost_low_S	EPA6010	2	mg/kg	Lead	1399.17	NA	T1
045-12-S-low-A-1	Biochar and compost_low_S	EPA6010	2	mg/kg	Arsenic	105.72	NA	T1
045-12-S-low-A-1	Biochar and compost_low_S	EPA6010	2	mg/kg	Lead	1484.37	NA	T1
046-12-S-low-B-1	Biochar and compost_low_S	EPA6010	2	mg/kg	Arsenic	105.93	NA	T1
046-12-S-low-B-1	Biochar and compost_low_S	EPA6010	2	mg/kg	Lead	1544.56	NA	T1
047-12-S-low-C-1	Biochar and compost_low_S	EPA6010	2	mg/kg	Arsenic	100.65	NA	T1
047-12-S-low-C-1	Biochar and compost_low_S	EPA6010	2	mg/kg	Lead	1487.46	NA	T1
048-12-S-low-D-1	Biochar and compost_low_S	EPA6010	2	mg/kg	Arsenic	105.56	NA	T1
048-12-S-low-D-1	Biochar and compost_low_S	EPA6010	2	mg/kg	Lead	1531.52	NA	T1
005-02-S-low-A-1	Biosolid_low_S	EPA6010	1	mg/kg	Arsenic	100.59	NA	T1
005-02-S-low-A-1	Biosolid_low_S	EPA6010	1	mg/kg	Lead	1472.39	NA	T1
006-02-S-low-B-1	Biosolid_low_S	EPA6010	1	mg/kg	Arsenic	101.85	NA	T1
006-02-S-low-B-1	Biosolid_low_S	EPA6010	1	mg/kg	Lead	1472.76	NA	T1
007-02-S-low-C-1	Biosolid_low_S	EPA6010	1	mg/kg	Arsenic	98.53	NA	T1
007-02-S-low-C-1	Biosolid_low_S	EPA6010	1	mg/kg	Lead	1532.54	NA	T1
008-02-S-low-D-1	Biosolid_low_S	EPA6010	1	mg/kg	Arsenic	96.38	NA	T1
008-02-S-low-D-1	Biosolid_low_S	EPA6010	1	mg/kg	Lead	1464.84	NA	T1
009-03-S-low-A-1	Wood ash_low_S	EPA6010	1	mg/kg	Arsenic	100.99	NA	T1
009-03-S-low-A-1	Wood ash_low_S	EPA6010	1	mg/kg	Lead	1452.95	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Aluminum	11781.10	crm	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Antimony	5.28	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Arsenic	6.35	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Barium	280.62	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Beryllium	0.13	rl	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Cadmium	3.79	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Calcium	24833.60	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Chromium	79.52	crm	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Cobalt	4.97	NA	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
NA	NA_NA_NA	EPA6010	1a	mg/kg	Copper	660.58	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Iron	23826.80	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Lead	37.80	spk	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Magnesium	6425.94	crm, dup	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Manganese	390.00	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Nickel	26.79	dup	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Potassium	1966.39	crm, dup	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Selenium	8.44	spk, ICSB	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Silver	5.39	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Sodium	507.58	dup,crm	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Thallium	0.42	rl,mdl,U	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Vanadium	14.10	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Zinc	1380.25	spk	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Aluminum	714.46	crm	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Antimony	0.73	rl,mdl,U	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Arsenic	20.13	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Barium	103.00	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Beryllium	0.13	rl	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Cadmium	0.13	rl	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Calcium	6706.78	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Chromium	23.07	crm	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Cobalt	0.66	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Copper	52.95	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Iron	530.82	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Lead	2.67	dup,rl	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Magnesium	1343.46	crm, dup	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Manganese	344.60	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Nickel	1.75	dup,rl	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Potassium	6427.66	crm, dup	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Selenium	4.74	spk, ICSB	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Silver	1.39	rl,mdl,U	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
NA	NA_NA_NA	EPA6010	1a	mg/kg	Sodium	1150.27	dup,crm	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Thallium	0.42	rl,mdl,U	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Vanadium	1.63	rl	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Zinc	11.19	spk	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Aluminum	12191.60	crm	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Antimony	0.93	rl	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Arsenic	14.86	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Barium	975.89	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Beryllium	0.39	crm	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Cadmium	4.69	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Calcium	93754.60	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Chromium	34.55	crm	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Cobalt	7.09	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Copper	45.78	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Iron	10385.80	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Lead	12.65	spk	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Magnesium	10739.70	crm, dup	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Manganese	2939.22	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Nickel	13.28	dup	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Potassium	21829.20	crm, dup	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Selenium	7.45	spk, ICSB	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Silver	1.39	rl,mdl,U	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Sodium	4409.75	dup,crm	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Thallium	2.75	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Vanadium	28.33	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Zinc	454.69	spk	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Aluminum	40.61	crm	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Antimony	0.73	rl,mdl,U	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Arsenic	1.43	rl	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Barium	0.50	rl	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Beryllium	0.13	rl	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
NA	NA_NA_NA	EPA6010	1a	mg/kg	Cadmium	0.13	rl	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Calcium	2058.70	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Chromium	6.53	crm	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Cobalt	0.20	rl	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Copper	1.11	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Iron	93.60	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Lead	1.57	dup,rl	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Magnesium	1096.59	crm, dup	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Manganese	3.82	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Nickel	0.23	dup,rl	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Potassium	493668.00	crm, dup	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Selenium	8.09	spk, ICSB	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Silver	1.39	rl,mdl,U	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Sodium	9181.56	dup,crm	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Thallium	1.55	rl	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Vanadium	1.56	rl	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Zinc	4.40	spk	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Aluminum	3288.18	crm	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Antimony	1.08	rl	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Arsenic	1.62	rl	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Barium	38.95	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Beryllium	0.13	rl	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Cadmium	0.81	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Calcium	10159.10	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Chromium	15.90	crm	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Cobalt	5.21	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Copper	110.50	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Iron	11101.50	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Lead	2.38	dup,rl	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Magnesium	3882.66	crm, dup	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Manganese	245.19	NA	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
NA	NA_NA_NA	EPA6010	1a	mg/kg	Nickel	7.47	dup,rl	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Potassium	4393.68	crm, dup	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Selenium	5.14	spk, ICSB	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Silver	1.39	rl,mdl,U	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Sodium	2121.67	dup,crm	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Thallium	0.42	rl,mdl,U	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Vanadium	35.41	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Zinc	86.01	spk	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Aluminum	6467.26	crm	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Antimony	9.10	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Arsenic	26.55	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Barium	44.85	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Beryllium	5.10	crm	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Cadmium	69.42	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Calcium	178473.00	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Chromium	828.88	crm	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Cobalt	3.60	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Copper	92.41	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Iron	8030.09	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Lead	4.16	dup,rl	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Magnesium	10341.50	crm, dup	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Manganese	123.23	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Nickel	92.62	dup	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Potassium	2076.90	crm, dup	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Selenium	8.14	spk, ICSB	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Silver	1.39	rl,mdl,U	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Sodium	5817.09	dup,crm	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Thallium	1.62	rl	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Vanadium	597.09	NA	T1
NA	NA_NA_NA	EPA6010	1a	mg/kg	Zinc	831.72	spk	T1
389-01-I-high-M-0	Soluble phosphate_high_I	D2216_MOD	1	%	Moisture	49.22	NA	T1



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
390-02-I-high-M-0	Biosolid_high_I	D2216_MOD	1	%	Moisture	47.51	NA	T1
391-03-I-high-M-0	Wood ash_high_I	D2216_MOD	1	%	Moisture	45.23	NA	T1
392-04-I-high-M-0	Biochar_high_I	D2216_MOD	1	%	Moisture	45.85	NA	T1
393-05-I-high-M-0	Compost_high_I	D2216_MOD	1	%	Moisture	46.34	NA	T1
394-06-I-high-M-0	Soluble phosphate and biosolids_high_I	D2216_MOD	1	%	Moisture	47.94	NA	T1
395-07-I-high-M-0	Soluble phosphate and biochar_high_I	D2216_MOD	1	%	Moisture	49.76	NA	T1
396-08-I-high-M-0	Soluble phosphate and compost_high_I	D2216_MOD	1	%	Moisture	47.18	NA	T1
397-09-I-high-M-0	Biosolids and wood ash_high_I	D2216_MOD	1	%	Moisture	46.13	NA	T1
398-10-I-high-M-0	Wood ash and biochar_high_I	D2216_MOD	1	%	Moisture	46.90	NA	T1
399-11-I-high-M-0	Wood ash and compost_high_I	D2216_MOD	1	%	Moisture	43.80	NA	T1
400-12-I-high-M-0	Biochar and compost_high_I	D2216_MOD	1	%	Moisture	44.19	NA	T1
401-01-I-low-M-0	Soluble phosphate_low_I	D2216_MOD	1	%	Moisture	48.37	NA	T1
402-02-I-low-M-0	Biosolid_low_I	D2216_MOD	1	%	Moisture	42.29	NA	T1
403-03-I-low-M-0	Wood ash_low_I	D2216_MOD	1	%	Moisture	39.27	NA	T1
404-04-I-low-M-0	Biochar_low_I	D2216_MOD	1	%	Moisture	42.26	NA	T1
405-05-I-low-M-0	Compost_low_I	D2216_MOD	1	%	Moisture	43.95	NA	T1
406-06-I-low-M-0	Soluble phosphate and biosolids_low_I	D2216_MOD	1	%	Moisture	46.28	NA	T1
407-07-I-low-M-0	Soluble phosphate and biochar_low_I	D2216_MOD	1	%	Moisture	47.29	NA	T1
408-08-I-low-M-0	Soluble phosphate and compost_low_I	D2216_MOD	1	%	Moisture	45.87	NA	T1
409-09-I-low-M-0	Biosolids and wood ash_low_I	D2216_MOD	1	%	Moisture	44.75	NA	T1
410-10-I-low-M-0	Wood ash and biochar_low_I	D2216_MOD	1	%	Moisture	42.26	NA	T1
411-11-I-low-M-0	Wood ash and compost_low_I	D2216_MOD	1	%	Moisture	41.87	NA	T1
412-12-I-low-M-0	Biochar and compost_low_I	D2216_MOD	1	%	Moisture	45.99	NA	T1
413-00-I-NA-M-0	control_none_I	D2216_MOD	1	%	Moisture	49.83	NA	T1
414-01-S-high-M-0	Soluble phosphate_high_S	D2216_MOD	1	%	Moisture	43.86	NA	T1
415-02-S-high-M-0	Biosolid_high_S	D2216_MOD	1	%	Moisture	49.57	NA	T1
416-03-S-high-M-0	Wood ash_high_S	D2216_MOD	1	%	Moisture	41.18	NA	T1
417-04-S-high-M-0	Biochar_high_S	D2216_MOD	1	%	Moisture	48.24	NA	T1
418-05-S-high-M-0	Compost_high_S	D2216_MOD	1	%	Moisture	47.55	NA	T1
419-06-S-high-M-0	Soluble phosphate and biosolids_high_S	D2216_MOD	1	%	Moisture	49.33	NA	T1
420-07-S-high-M-0	Soluble phosphate and biochar_high_S	D2216_MOD	1	%	Moisture	47.64	NA	T1

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
421-08-S-high-M-0	Soluble phosphate and compost_high_S	D2216_MOD	1	%	Moisture	47.24	NA	T1
422-09-S-high-M-0	Biosolids and wood ash_high_S	D2216_MOD	1	%	Moisture	49.15	NA	T1
423-10-S-high-M-0	Wood ash and biochar_high_S	D2216_MOD	1	%	Moisture	50.13	NA	T1
424-11-S-high-M-0	Wood ash and compost_high_S	D2216_MOD	1	%	Moisture	46.97	NA	T1
425-12-S-high-M-0	Biochar and compost_high_S	D2216_MOD	1	%	Moisture	50.39	NA	T1
426-01-S-low-M-0	Soluble phosphate_low_S	D2216_MOD	1	%	Moisture	44.96	NA	T1
427-02-S-low-M-0	Biosolid_low_S	D2216_MOD	1	%	Moisture	44.26	NA	T1
428-03-S-low-M-0	Wood ash_low_S	D2216_MOD	1	%	Moisture	41.23	NA	T1
429-04-S-low-M-0	Biochar_low_S	D2216_MOD	1	%	Moisture	46.01	NA	T1
430-05-S-low-M-0	Compost_low_S	D2216_MOD	1	%	Moisture	42.70	NA	T1
431-06-S-low-M-0	Soluble phosphate and biosolids_low_S	D2216_MOD	1	%	Moisture	44.61	NA	T1
432-07-S-low-M-0	Soluble phosphate and biochar_low_S	D2216_MOD	1	%	Moisture	42.69	NA	T1
433-08-S-low-M-0	Soluble phosphate and compost_low_S	D2216_MOD	1	%	Moisture	46.25	NA	T1
434-09-S-low-M-0	Biosolids and wood ash_low_S	D2216_MOD	1	%	Moisture	44.93	NA	T1
435-10-S-low-M-0	Wood ash and biochar_low_S	D2216_MOD	1	%	Moisture	46.13	NA	T1
436-11-S-low-M-0	Wood ash and compost_low_S	D2216_MOD	1	%	Moisture	44.55	NA	T1
437-12-S-low-M-0	Biochar and compost_low_S	D2216_MOD	1	%	Moisture	47.71	NA	T1
001-01-S-low-A-1	Soluble phosphate_low_S	CALC	NA	%	Moisture	26.63	NA	T1
001-01-S-low-A-1	Soluble phosphate_low_S	CALC	NA	%	Moisture	34.58	NA	T1
002-01-S-low-B-1	Soluble phosphate_low_S	CALC	NA	%	Moisture	30.86	NA	T1
002-01-S-low-B-1	Soluble phosphate_low_S	CALC	NA	%	Moisture	41.87	NA	T1
003-01-S-low-C-1	Soluble phosphate_low_S	CALC	NA	%	Moisture	28.77	NA	T1
003-01-S-low-C-1	Soluble phosphate_low_S	CALC	NA	%	Moisture	36.75	NA	T1
004-01-S-low-D-1	Soluble phosphate_low_S	CALC	NA	%	Moisture	32.33	NA	T1
004-01-S-low-D-1	Soluble phosphate_low_S	CALC	NA	%	Moisture	35.49	NA	T1
005-02-S-low-A-1	Biosolid_low_S	CALC	NA	%	Moisture	31.38	NA	T1
005-02-S-low-A-1	Biosolid_low_S	CALC	NA	%	Moisture	38.64	NA	T1
006-02-S-low-B-1	Biosolid_low_S	CALC	NA	%	Moisture	29.97	NA	T1
006-02-S-low-B-1	Biosolid_low_S	CALC	NA	%	Moisture	39.13	NA	T1
007-02-S-low-C-1	Biosolid_low_S	CALC	NA	%	Moisture	31.86	NA	T1
007-02-S-low-C-1	Biosolid_low_S	CALC	NA	%	Moisture	38.52	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
008-02-S-low-D-1	Biosolid_low_S	CALC	NA	%	Moisture	33.62	NA	T1
008-02-S-low-D-1	Biosolid_low_S	CALC	NA	%	Moisture	39.92	NA	T1
009-03-S-low-A-1	Wood ash_low_S	CALC	NA	%	Moisture	27.68	NA	T1
009-03-S-low-A-1	Wood ash_low_S	CALC	NA	%	Moisture	35.88	NA	T1
010-03-S-low-B-1	Wood ash_low_S	CALC	NA	%	Moisture	27.61	NA	T1
010-03-S-low-B-1	Wood ash_low_S	CALC	NA	%	Moisture	37.47	NA	T1
011-03-S-low-C-1	Wood ash_low_S	CALC	NA	%	Moisture	24.77	NA	T1
011-03-S-low-C-1	Wood ash_low_S	CALC	NA	%	Moisture	35.98	NA	T1
012-03-S-low-D-1	Wood ash_low_S	CALC	NA	%	Moisture	24.56	NA	T1
012-03-S-low-D-1	Wood ash_low_S	CALC	NA	%	Moisture	37.59	NA	T1
013-04-S-low-A-1	Biochar_low_S	CALC	NA	%	Moisture	28.06	NA	T1
013-04-S-low-A-1	Biochar_low_S	CALC	NA	%	Moisture	30.98	NA	T1
014-04-S-low-B-1	Biochar_low_S	CALC	NA	%	Moisture	31.89	NA	T1
014-04-S-low-B-1	Biochar_low_S	CALC	NA	%	Moisture	38.56	NA	T1
015-04-S-low-C-1	Biochar_low_S	CALC	NA	%	Moisture	28.84	NA	T1
015-04-S-low-C-1	Biochar_low_S	CALC	NA	%	Moisture	38.70	NA	T1
016-04-S-low-D-1	Biochar_low_S	CALC	NA	%	Moisture	28.96	NA	T1
016-04-S-low-D-1	Biochar_low_S	CALC	NA	%	Moisture	38.95	NA	T1
017-05-S-low-A-1	Compost_low_S	CALC	NA	%	Moisture	30.55	NA	T1
017-05-S-low-A-1	Compost_low_S	CALC	NA	%	Moisture	35.52	NA	T1
018-05-S-low-B-1	Compost_low_S	CALC	NA	%	Moisture	30.51	NA	T1
018-05-S-low-B-1	Compost_low_S	CALC	NA	%	Moisture	38.11	NA	T1
019-05-S-low-C-1	Compost_low_S	CALC	NA	%	Moisture	27.28	NA	T1
019-05-S-low-C-1	Compost_low_S	CALC	NA	%	Moisture	38.69	NA	T1
020-05-S-low-D-1	Compost_low_S	CALC	NA	%	Moisture	28.00	NA	T1
020-05-S-low-D-1	Compost_low_S	CALC	NA	%	Moisture	35.99	NA	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	29.95	NA	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	37.89	NA	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	32.02	NA	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	38.13	NA	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	33.78	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	38.59	NA	T1
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	33.27	NA	T1
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	39.23	NA	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	30.74	NA	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	39.50	NA	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	31.52	NA	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	37.03	NA	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	30.08	NA	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	35.03	NA	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	30.51	NA	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	37.78	NA	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	31.81	NA	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	37.31	NA	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	30.61	NA	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	37.12	NA	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	32.22	NA	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	37.28	NA	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	31.44	NA	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	40.27	NA	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	28.96	NA	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	29.09	NA	T1
034-09-S-low-B-1	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	31.04	NA	T1
034-09-S-low-B-1	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	33.82	NA	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	32.95	NA	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	37.80	NA	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	32.48	NA	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	35.40	NA	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	CALC	NA	%	Moisture	28.45	NA	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	CALC	NA	%	Moisture	37.97	NA	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	CALC	NA	%	Moisture	28.81	NA	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	CALC	NA	%	Moisture	37.59	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
039-10-S-low-C-1	Wood ash and biochar_low_S	CALC	NA	%	Moisture	28.35	NA	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	CALC	NA	%	Moisture	41.35	NA	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	CALC	NA	%	Moisture	25.38	NA	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	CALC	NA	%	Moisture	40.55	NA	T1
041-11-S-low-A-1	Wood ash and compost_low_S	CALC	NA	%	Moisture	31.18	NA	T1
041-11-S-low-A-1	Wood ash and compost_low_S	CALC	NA	%	Moisture	36.99	NA	T1
042-11-S-low-B-1	Wood ash and compost_low_S	CALC	NA	%	Moisture	27.42	NA	T1
042-11-S-low-B-1	Wood ash and compost_low_S	CALC	NA	%	Moisture	41.13	NA	T1
043-11-S-low-C-1	Wood ash and compost_low_S	CALC	NA	%	Moisture	31.61	NA	T1
043-11-S-low-C-1	Wood ash and compost_low_S	CALC	NA	%	Moisture	39.30	NA	T1
044-11-S-low-D-1	Wood ash and compost_low_S	CALC	NA	%	Moisture	29.59	NA	T1
044-11-S-low-D-1	Wood ash and compost_low_S	CALC	NA	%	Moisture	41.71	NA	T1
045-12-S-low-A-1	Biochar and compost_low_S	CALC	NA	%	Moisture	32.14	NA	T1
045-12-S-low-A-1	Biochar and compost_low_S	CALC	NA	%	Moisture	42.04	NA	T1
046-12-S-low-B-1	Biochar and compost_low_S	CALC	NA	%	Moisture	30.89	NA	T1
046-12-S-low-B-1	Biochar and compost_low_S	CALC	NA	%	Moisture	42.69	NA	T1
047-12-S-low-C-1	Biochar and compost_low_S	CALC	NA	%	Moisture	30.20	NA	T1
047-12-S-low-C-1	Biochar and compost_low_S	CALC	NA	%	Moisture	44.84	NA	T1
048-12-S-low-D-1	Biochar and compost_low_S	CALC	NA	%	Moisture	31.16	NA	T1
048-12-S-low-D-1	Biochar and compost_low_S	CALC	NA	%	Moisture	45.86	NA	T1
145-01-S-high-A-1	Soluble phosphate_high_S	CALC	NA	%	Moisture	29.19	NA	T1
145-01-S-high-A-1	Soluble phosphate_high_S	CALC	NA	%	Moisture	38.51	NA	T1
146-01-S-high-B-1	Soluble phosphate_high_S	CALC	NA	%	Moisture	33.17	NA	T1
146-01-S-high-B-1	Soluble phosphate_high_S	CALC	NA	%	Moisture	35.01	NA	T1
147-01-S-high-C-1	Soluble phosphate_high_S	CALC	NA	%	Moisture	31.46	NA	T1
147-01-S-high-C-1	Soluble phosphate_high_S	CALC	NA	%	Moisture	39.01	NA	T1
148-01-S-high-D-1	Soluble phosphate_high_S	CALC	NA	%	Moisture	29.49	NA	T1
148-01-S-high-D-1	Soluble phosphate_high_S	CALC	NA	%	Moisture	38.01	NA	T1
149-02-S-high-A-1	Biosolid_high_S	CALC	NA	%	Moisture	38.17	NA	T1
149-02-S-high-A-1	Biosolid_high_S	CALC	NA	%	Moisture	40.90	NA	T1
150-02-S-high-B-1	Biosolid_high_S	CALC	NA	%	Moisture	38.04	NA	T1



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
150-02-S-high-B-1	Biosolid_high_S	CALC	NA	%	Moisture	41.49	NA	T1
151-02-S-high-C-1	Biosolid_high_S	CALC	NA	%	Moisture	39.15	NA	T1
151-02-S-high-C-1	Biosolid_high_S	CALC	NA	%	Moisture	44.94	NA	T1
152-02-S-high-D-1	Biosolid_high_S	CALC	NA	%	Moisture	38.70	NA	T1
152-02-S-high-D-1	Biosolid_high_S	CALC	NA	%	Moisture	41.48	NA	T1
153-03-S-high-A-1	Wood ash_high_S	CALC	NA	%	Moisture	30.81	NA	T1
153-03-S-high-A-1	Wood ash_high_S	CALC	NA	%	Moisture	36.46	NA	T1
154-03-S-high-B-1	Wood ash_high_S	CALC	NA	%	Moisture	28.02	NA	T1
154-03-S-high-B-1	Wood ash_high_S	CALC	NA	%	Moisture	36.63	NA	T1
155-03-S-high-C-1	Wood ash_high_S	CALC	NA	%	Moisture	29.17	NA	T1
155-03-S-high-C-1	Wood ash_high_S	CALC	NA	%	Moisture	35.44	NA	T1
156-03-S-high-D-1	Wood ash_high_S	CALC	NA	%	Moisture	25.97	NA	T1
156-03-S-high-D-1	Wood ash_high_S	CALC	NA	%	Moisture	37.75	NA	T1
157-04-S-high-A-1	Biochar_high_S	CALC	NA	%	Moisture	32.26	NA	T1
157-04-S-high-A-1	Biochar_high_S	CALC	NA	%	Moisture	35.56	NA	T1
158-04-S-high-B-1	Biochar_high_S	CALC	NA	%	Moisture	37.29	NA	T1
158-04-S-high-B-1	Biochar_high_S	CALC	NA	%	Moisture	41.93	NA	T1
159-04-S-high-C-1	Biochar_high_S	CALC	NA	%	Moisture	34.04	NA	T1
159-04-S-high-C-1	Biochar_high_S	CALC	NA	%	Moisture	42.17	NA	T1
160-04-S-high-D-1	Biochar_high_S	CALC	NA	%	Moisture	29.15	NA	T1
160-04-S-high-D-1	Biochar_high_S	CALC	NA	%	Moisture	37.58	NA	T1
161-05-S-high-A-1	Compost_high_S	CALC	NA	%	Moisture	25.73	NA	T1
161-05-S-high-A-1	Compost_high_S	CALC	NA	%	Moisture	36.57	NA	T1
162-05-S-high-B-1	Compost_high_S	CALC	NA	%	Moisture	25.03	NA	T1
162-05-S-high-B-1	Compost_high_S	CALC	NA	%	Moisture	36.73	NA	T1
163-05-S-high-C-1	Compost_high_S	CALC	NA	%	Moisture	32.97	NA	T1
163-05-S-high-C-1	Compost_high_S	CALC	NA	%	Moisture	43.55	NA	T1
164-05-S-high-D-1	Compost_high_S	CALC	NA	%	Moisture	29.48	NA	T1
164-05-S-high-D-1	Compost_high_S	CALC	NA	%	Moisture	38.64	NA	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	35.86	NA	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	37.66	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	36.48	NA	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	43.83	NA	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	38.26	NA	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	41.13	NA	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	39.32	NA	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	43.99	NA	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	34.03	NA	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	42.80	NA	T1
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	30.44	NA	T1
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	44.35	NA	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	31.95	NA	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	38.50	NA	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	34.05	NA	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	43.85	NA	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	32.17	NA	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	43.94	NA	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	34.85	NA	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	41.98	NA	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	37.11	NA	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	38.36	NA	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	29.11	NA	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	36.59	NA	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	39.30	NA	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	42.91	NA	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	38.60	NA	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	40.18	NA	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	38.78	NA	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	41.17	NA	T1
180-09-S-high-D-1	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	38.63	NA	T1
180-09-S-high-D-1	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	42.04	NA	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	CALC	NA	%	Moisture	35.28	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
181-10-S-high-A-1	Wood ash and biochar_high_S	CALC	NA	%	Moisture	45.74	NA	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	CALC	NA	%	Moisture	33.57	NA	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	CALC	NA	%	Moisture	39.26	NA	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	CALC	NA	%	Moisture	29.30	NA	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	CALC	NA	%	Moisture	39.39	NA	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	CALC	NA	%	Moisture	31.50	NA	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	CALC	NA	%	Moisture	43.89	NA	T1
185-11-S-high-A-1	Wood ash and compost_high_S	CALC	NA	%	Moisture	20.92	NA	T1
185-11-S-high-A-1	Wood ash and compost_high_S	CALC	NA	%	Moisture	29.07	NA	T1
186-11-S-high-B-1	Wood ash and compost_high_S	CALC	NA	%	Moisture	25.83	NA	T1
186-11-S-high-B-1	Wood ash and compost_high_S	CALC	NA	%	Moisture	39.71	NA	T1
187-11-S-high-C-1	Wood ash and compost_high_S	CALC	NA	%	Moisture	27.83	NA	T1
187-11-S-high-C-1	Wood ash and compost_high_S	CALC	NA	%	Moisture	37.81	NA	T1
188-11-S-high-D-1	Wood ash and compost_high_S	CALC	NA	%	Moisture	27.93	NA	T1
188-11-S-high-D-1	Wood ash and compost_high_S	CALC	NA	%	Moisture	40.78	NA	T1
189-12-S-high-A-1	Biochar and compost_high_S	CALC	NA	%	Moisture	30.35	NA	T1
189-12-S-high-A-1	Biochar and compost_high_S	CALC	NA	%	Moisture	32.32	NA	T1
190-12-S-high-B-1	Biochar and compost_high_S	CALC	NA	%	Moisture	31.23	NA	T1
190-12-S-high-B-1	Biochar and compost_high_S	CALC	NA	%	Moisture	41.96	NA	T1
191-12-S-high-C-1	Biochar and compost_high_S	CALC	NA	%	Moisture	33.29	NA	T1
191-12-S-high-C-1	Biochar and compost_high_S	CALC	NA	%	Moisture	41.86	NA	T1
192-12-S-high-D-1	Biochar and compost_high_S	CALC	NA	%	Moisture	30.56	NA	T1
192-12-S-high-D-1	Biochar and compost_high_S	CALC	NA	%	Moisture	42.46	NA	T1
289-01-I-low-A-1	Soluble phosphate_low_I	CALC	NA	%	Moisture	21.18	NA	T1
289-01-I-low-A-1	Soluble phosphate_low_I	CALC	NA	%	Moisture	34.20	NA	T1
290-01-I-low-B-1	Soluble phosphate_low_I	CALC	NA	%	Moisture	16.94	NA	T1
290-01-I-low-B-1	Soluble phosphate_low_I	CALC	NA	%	Moisture	36.02	NA	T1
291-01-I-low-C-1	Soluble phosphate_low_I	CALC	NA	%	Moisture	20.39	NA	T1
291-01-I-low-C-1	Soluble phosphate_low_I	CALC	NA	%	Moisture	30.70	NA	T1
292-01-I-low-D-1	Soluble phosphate_low_I	CALC	NA	%	Moisture	20.34	NA	T1
292-01-I-low-D-1	Soluble phosphate_low_I	CALC	NA	%	Moisture	33.20	NA	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
293-02-I-low-A-1	Biosolid_low_I	CALC	NA	%	Moisture	23.26	NA	T1
293-02-I-low-A-1	Biosolid_low_I	CALC	NA	%	Moisture	33.95	NA	T1
294-02-I-low-B-1	Biosolid_low_I	CALC	NA	%	Moisture	19.95	NA	T1
294-02-I-low-B-1	Biosolid_low_I	CALC	NA	%	Moisture	32.73	NA	T1
295-02-I-low-C-1	Biosolid_low_I	CALC	NA	%	Moisture	24.93	NA	T1
295-02-I-low-C-1	Biosolid_low_I	CALC	NA	%	Moisture	32.66	NA	T1
296-02-I-low-D-1	Biosolid_low_I	CALC	NA	%	Moisture	17.15	NA	T1
296-02-I-low-D-1	Biosolid_low_I	CALC	NA	%	Moisture	32.86	NA	T1
297-03-I-low-A-1	Wood ash_low_I	CALC	NA	%	Moisture	21.57	NA	T1
297-03-I-low-A-1	Wood ash_low_I	CALC	NA	%	Moisture	33.97	NA	T1
298-03-I-low-B-1	Wood ash_low_I	CALC	NA	%	Moisture	17.06	NA	T1
298-03-I-low-B-1	Wood ash_low_I	CALC	NA	%	Moisture	33.73	NA	T1
299-03-I-low-C-1	Wood ash_low_I	CALC	NA	%	Moisture	13.35	NA	T1
299-03-I-low-C-1	Wood ash_low_I	CALC	NA	%	Moisture	26.68	NA	T1
300-03-I-low-D-1	Wood ash_low_I	CALC	NA	%	Moisture	15.75	NA	T1
300-03-I-low-D-1	Wood ash_low_I	CALC	NA	%	Moisture	27.75	NA	T1
301-04-I-low-A-1	Biochar_low_I	CALC	NA	%	Moisture	23.82	NA	T1
301-04-I-low-A-1	Biochar_low_I	CALC	NA	%	Moisture	29.71	NA	T1
302-04-I-low-B-1	Biochar_low_I	CALC	NA	%	Moisture	19.28	NA	T1
302-04-I-low-B-1	Biochar_low_I	CALC	NA	%	Moisture	27.27	NA	T1
303-04-I-low-C-1	Biochar_low_I	CALC	NA	%	Moisture	24.67	NA	T1
303-04-I-low-C-1	Biochar_low_I	CALC	NA	%	Moisture	31.18	NA	T1
304-04-I-low-D-1	Biochar_low_I	CALC	NA	%	Moisture	18.66	NA	T1
304-04-I-low-D-1	Biochar_low_I	CALC	NA	%	Moisture	25.17	NA	T1
305-05-I-low-A-1	Compost_low_I	CALC	NA	%	Moisture	24.03	NA	T1
305-05-I-low-A-1	Compost_low_I	CALC	NA	%	Moisture	30.41	NA	T1
306-05-I-low-B-1	Compost_low_I	CALC	NA	%	Moisture	17.21	NA	T1
306-05-I-low-B-1	Compost_low_I	CALC	NA	%	Moisture	28.31	NA	T1
307-05-I-low-C-1	Compost_low_I	CALC	NA	%	Moisture	27.12	NA	T1
307-05-I-low-C-1	Compost_low_I	CALC	NA	%	Moisture	29.55	NA	T1
308-05-I-low-D-1	Compost_low_I	CALC	NA	%	Moisture	17.81	NA	T1



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
308-05-I-low-D-1	Compost_low_I	CALC	NA	%	Moisture	31.73	NA	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	23.14	NA	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	33.64	NA	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	20.52	NA	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	31.88	NA	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	20.98	NA	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	27.84	NA	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	24.57	NA	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	34.05	NA	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	16.95	NA	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	27.61	NA	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	16.48	NA	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	25.22	NA	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	23.28	NA	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	29.34	NA	T1
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	19.33	NA	T1
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	30.78	NA	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	23.62	NA	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	30.77	NA	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	24.82	NA	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	26.48	NA	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	21.26	NA	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	26.64	NA	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	21.89	NA	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	27.79	NA	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	22.28	NA	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	29.41	NA	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	22.02	NA	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	25.80	NA	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	24.21	NA	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	27.43	NA	T1



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
324-09-I-low-D-1	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	23.29	NA	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	33.17	NA	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	CALC	NA	%	Moisture	18.74	NA	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	CALC	NA	%	Moisture	28.12	NA	T1
326-10-I-low-B-1	Wood ash and biochar_low_I	CALC	NA	%	Moisture	15.41	NA	T1
326-10-I-low-B-1	Wood ash and biochar_low_I	CALC	NA	%	Moisture	32.77	NA	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	CALC	NA	%	Moisture	15.58	NA	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	CALC	NA	%	Moisture	30.09	NA	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	CALC	NA	%	Moisture	20.03	NA	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	CALC	NA	%	Moisture	32.20	NA	T1
329-11-I-low-A-1	Wood ash and compost_low_I	CALC	NA	%	Moisture	6.97	NA	T1
329-11-I-low-A-1	Wood ash and compost_low_I	CALC	NA	%	Moisture	34.69	NA	T1
330-11-I-low-B-1	Wood ash and compost_low_I	CALC	NA	%	Moisture	14.77	NA	T1
330-11-I-low-B-1	Wood ash and compost_low_I	CALC	NA	%	Moisture	32.01	NA	T1
331-11-I-low-C-1	Wood ash and compost_low_I	CALC	NA	%	Moisture	13.22	NA	T1
331-11-I-low-C-1	Wood ash and compost_low_I	CALC	NA	%	Moisture	29.89	NA	T1
332-11-I-low-D-1	Wood ash and compost_low_I	CALC	NA	%	Moisture	16.70	NA	T1
332-11-I-low-D-1	Wood ash and compost_low_I	CALC	NA	%	Moisture	29.05	NA	T1
333-12-I-low-A-1	Biochar and compost_low_I	CALC	NA	%	Moisture	15.84	NA	T1
333-12-I-low-A-1	Biochar and compost_low_I	CALC	NA	%	Moisture	24.40	NA	T1
334-12-I-low-B-1	Biochar and compost_low_I	CALC	NA	%	Moisture	17.99	NA	T1
334-12-I-low-B-1	Biochar and compost_low_I	CALC	NA	%	Moisture	30.25	NA	T1
335-12-I-low-C-1	Biochar and compost_low_I	CALC	NA	%	Moisture	18.29	NA	T1
335-12-I-low-C-1	Biochar and compost_low_I	CALC	NA	%	Moisture	23.00	NA	T1
336-12-I-low-D-1	Biochar and compost_low_I	CALC	NA	%	Moisture	19.19	NA	T1
336-12-I-low-D-1	Biochar and compost_low_I	CALC	NA	%	Moisture	33.85	NA	T1
337-01-I-high-A-1	Soluble phosphate_high_I	CALC	NA	%	Moisture	19.97	NA	T1
337-01-I-high-A-1	Soluble phosphate_high_I	CALC	NA	%	Moisture	25.28	NA	T1
338-01-I-high-B-1	Soluble phosphate_high_I	CALC	NA	%	Moisture	13.49	NA	T1
338-01-I-high-B-1	Soluble phosphate_high_I	CALC	NA	%	Moisture	30.91	NA	T1
339-01-I-high-C-1	Soluble phosphate_high_I	CALC	NA	%	Moisture	13.17	NA	T1



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
339-01-I-high-C-1	Soluble phosphate_high_I	CALC	NA	%	Moisture	26.04	NA	T1
340-01-I-high-D-1	Soluble phosphate_high_I	CALC	NA	%	Moisture	14.09	NA	T1
340-01-I-high-D-1	Soluble phosphate_high_I	CALC	NA	%	Moisture	25.80	NA	T1
341-02-I-high-A-1	Biosolid_high_I	CALC	NA	%	Moisture	25.75	NA	T1
341-02-I-high-A-1	Biosolid_high_I	CALC	NA	%	Moisture	25.29	NA	T1
342-02-I-high-B-1	Biosolid_high_I	CALC	NA	%	Moisture	29.33	NA	T1
342-02-I-high-B-1	Biosolid_high_I	CALC	NA	%	Moisture	31.56	NA	T1
343-02-I-high-C-1	Biosolid_high_I	CALC	NA	%	Moisture	25.44	NA	T1
343-02-I-high-C-1	Biosolid_high_I	CALC	NA	%	Moisture	27.14	NA	T1
344-02-I-high-D-1	Biosolid_high_I	CALC	NA	%	Moisture	24.27	NA	T1
344-02-I-high-D-1	Biosolid_high_I	CALC	NA	%	Moisture	29.54	NA	T1
345-03-I-high-A-1	Wood ash_high_I	CALC	NA	%	Moisture	17.34	NA	T1
345-03-I-high-A-1	Wood ash_high_I	CALC	NA	%	Moisture	29.88	NA	T1
346-03-I-high-B-1	Wood ash_high_I	CALC	NA	%	Moisture	13.46	NA	T1
346-03-I-high-B-1	Wood ash_high_I	CALC	NA	%	Moisture	28.94	NA	T1
347-03-I-high-C-1	Wood ash_high_I	CALC	NA	%	Moisture	15.99	NA	T1
347-03-I-high-C-1	Wood ash_high_I	CALC	NA	%	Moisture	30.65	NA	T1
348-03-I-high-D-1	Wood ash_high_I	CALC	NA	%	Moisture	15.90	NA	T1
348-03-I-high-D-1	Wood ash_high_I	CALC	NA	%	Moisture	26.40	NA	T1
349-04-I-high-A-1	Biochar_high_I	CALC	NA	%	Moisture	16.17	NA	T1
349-04-I-high-A-1	Biochar_high_I	CALC	NA	%	Moisture	25.03	NA	T1
350-04-I-high-B-1	Biochar_high_I	CALC	NA	%	Moisture	16.06	NA	T1
350-04-I-high-B-1	Biochar_high_I	CALC	NA	%	Moisture	30.41	NA	T1
351-04-I-high-C-1	Biochar_high_I	CALC	NA	%	Moisture	13.66	NA	T1
351-04-I-high-C-1	Biochar_high_I	CALC	NA	%	Moisture	26.47	NA	T1
352-04-I-high-D-1	Biochar_high_I	CALC	NA	%	Moisture	12.85	NA	T1
352-04-I-high-D-1	Biochar_high_I	CALC	NA	%	Moisture	24.89	NA	T1
353-05-I-high-A-1	Compost_high_I	CALC	NA	%	Moisture	12.67	NA	T1
353-05-I-high-A-1	Compost_high_I	CALC	NA	%	Moisture	23.48	NA	T1
354-05-I-high-B-1	Compost_high_I	CALC	NA	%	Moisture	15.58	NA	T1
354-05-I-high-B-1	Compost_high_I	CALC	NA	%	Moisture	23.49	NA	T1

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
355-05-I-high-C-1	Compost_high_I	CALC	NA	%	Moisture	16.44	NA	T1
355-05-I-high-C-1	Compost_high_I	CALC	NA	%	Moisture	24.09	NA	T1
356-05-I-high-D-1	Compost_high_I	CALC	NA	%	Moisture	14.50	NA	T1
356-05-I-high-D-1	Compost_high_I	CALC	NA	%	Moisture	15.95	NA	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	24.45	NA	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	25.08	NA	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	24.91	NA	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	28.02	NA	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	23.66	NA	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	26.81	NA	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	24.76	NA	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	28.97	NA	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	20.77	NA	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	37.22	NA	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	21.27	NA	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	31.32	NA	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	20.51	NA	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	28.33	NA	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	17.89	NA	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	24.10	NA	T1
366-08-I-high-B-1	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	13.73	NA	T1
366-08-I-high-B-1	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	23.50	NA	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	15.87	NA	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	32.28	NA	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	17.70	NA	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	25.56	NA	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	23.02	NA	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	29.25	NA	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	22.84	NA	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	28.09	NA	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	22.24	NA	T1



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
371-09-I-high-C-1	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	28.37	NA	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	22.10	NA	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	29.37	NA	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	CALC	NA	%	Moisture	10.97	NA	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	CALC	NA	%	Moisture	21.59	NA	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	CALC	NA	%	Moisture	13.20	NA	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	CALC	NA	%	Moisture	21.15	NA	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	CALC	NA	%	Moisture	11.77	NA	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	CALC	NA	%	Moisture	19.23	NA	T1
376-10-I-high-D-1	Wood ash and biochar_high_I	CALC	NA	%	Moisture	16.27	NA	T1
376-10-I-high-D-1	Wood ash and biochar_high_I	CALC	NA	%	Moisture	27.55	NA	T1
377-11-I-high-A-1	Wood ash and compost_high_I	CALC	NA	%	Moisture	9.42	NA	T1
377-11-I-high-A-1	Wood ash and compost_high_I	CALC	NA	%	Moisture	20.85	NA	T1
378-11-I-high-B-1	Wood ash and compost_high_I	CALC	NA	%	Moisture	9.79	NA	T1
378-11-I-high-B-1	Wood ash and compost_high_I	CALC	NA	%	Moisture	19.82	NA	T1
379-11-I-high-C-1	Wood ash and compost_high_I	CALC	NA	%	Moisture	10.18	NA	T1
379-11-I-high-C-1	Wood ash and compost_high_I	CALC	NA	%	Moisture	20.52	NA	T1
380-11-I-high-D-1	Wood ash and compost_high_I	CALC	NA	%	Moisture	12.14	NA	T1
380-11-I-high-D-1	Wood ash and compost_high_I	CALC	NA	%	Moisture	19.42	NA	T1
381-12-I-high-A-1	Biochar and compost_high_I	CALC	NA	%	Moisture	21.52	NA	T1
381-12-I-high-A-1	Biochar and compost_high_I	CALC	NA	%	Moisture	28.02	NA	T1
382-12-I-high-B-1	Biochar and compost_high_I	CALC	NA	%	Moisture	13.29	NA	T1
382-12-I-high-B-1	Biochar and compost_high_I	CALC	NA	%	Moisture	24.66	NA	T1
383-12-I-high-C-1	Biochar and compost_high_I	CALC	NA	%	Moisture	14.33	NA	T1
383-12-I-high-C-1	Biochar and compost_high_I	CALC	NA	%	Moisture	23.31	NA	T1
384-12-I-high-D-1	Biochar and compost_high_I	CALC	NA	%	Moisture	14.06	NA	T1
384-12-I-high-D-1	Biochar and compost_high_I	CALC	NA	%	Moisture	24.78	NA	T1
385-00-I-baseline-A-1	control_none_I	CALC	NA	%	Moisture	11.05	NA	T1
385-00-I-baseline-A-1	control_none_I	CALC	NA	%	Moisture	25.77	NA	T1
386-00-I-baseline-B-1	control_none_I	CALC	NA	%	Moisture	14.71	NA	T1
386-00-I-baseline-B-1	control_none_I	CALC	NA	%	Moisture	31.32	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
387-00-I-baseline-C-1	control_none_I	CALC	NA	%	Moisture	10.11	NA	T1
387-00-I-baseline-C-1	control_none_I	CALC	NA	%	Moisture	20.76	NA	T1
388-00-I-baseline-D-1	control_none_I	CALC	NA	%	Moisture	10.87	NA	T1
388-00-I-baseline-D-1	control_none_I	CALC	NA	%	Moisture	27.46	NA	T1
004-00-baseline-D-1	Baseline_baseline_NA	BREMNER82	4b	%	Nitrogen_total	0.45	NA	T1
003-00-baseline-C-1	Baseline_baseline_NA	BREMNER82	4b	%	Nitrogen_total	0.30	NA	T1
002-00-baseline-B-1	Baseline_baseline_NA	BREMNER82	4b	%	Nitrogen_total	0.33	NA	T1
001-00-baseline-A-1	Baseline_baseline_NA	BREMNER82	4b	%	Nitrogen_total	0.31	NA	T1
001-01-S-low-A-1	Soluble phosphate_low_S	BREMNER82	1	%	Nitrogen_total	0.38	NA	T1
002-01-S-low-B-1	Soluble phosphate_low_S	BREMNER82	1	%	Nitrogen_total	0.49	NA	T1
003-01-S-low-C-1	Soluble phosphate_low_S	BREMNER82	1	%	Nitrogen_total	0.56	NA	T1
004-01-S-low-D-1	Soluble phosphate_low_S	BREMNER82	1	%	Nitrogen_total	0.35	NA	T1
005-02-S-low-A-1	Biosolid_low_S	BREMNER82	1	%	Nitrogen_total	0.65	NA	T1
006-02-S-low-B-1	Biosolid_low_S	BREMNER82	1	%	Nitrogen_total	0.34	NA	T1
007-02-S-low-C-1	Biosolid_low_S	BREMNER82	1	%	Nitrogen_total	0.34	NA	T1
008-02-S-low-D-1	Biosolid_low_S	BREMNER82	1	%	Nitrogen_total	0.81	NA	T1
009-03-S-low-A-1	Wood ash_low_S	BREMNER82	1	%	Nitrogen_total	0.31	NA	T1
010-03-S-low-B-1	Wood ash_low_S	BREMNER82	1	%	Nitrogen_total	0.25	NA	T1
011-03-S-low-C-1	Wood ash_low_S	BREMNER82	1	%	Nitrogen_total	0.33	NA	T1
012-03-S-low-D-1	Wood ash_low_S	BREMNER82	1	%	Nitrogen_total	0.31	NA	T1
013-04-S-low-A-1	Biochar_low_S	BREMNER82	1	%	Nitrogen_total	0.57	NA	T1
014-04-S-low-B-1	Biochar_low_S	BREMNER82	1	%	Nitrogen_total	0.29	NA	T1
015-04-S-low-C-1	Biochar_low_S	BREMNER82	1	%	Nitrogen_total	0.26	NA	T1
016-04-S-low-D-1	Biochar_low_S	BREMNER82	1	%	Nitrogen_total	0.33	NA	T1
017-05-S-low-A-1	Compost_low_S	BREMNER82	1	%	Nitrogen_total	0.37	NA	T1
018-05-S-low-B-1	Compost_low_S	BREMNER82	1	%	Nitrogen_total	0.50	NA	T1
019-05-S-low-C-1	Compost_low_S	BREMNER82	1	%	Nitrogen_total	0.36	NA	T1
020-05-S-low-D-1	Compost_low_S	BREMNER82	1	%	Nitrogen_total	0.24	NA	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	BREMNER82	1	%	Nitrogen_total	0.41	NA	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	BREMNER82	1	%	Nitrogen_total	0.45	NA	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	BREMNER82	1	%	Nitrogen_total	0.36	NA	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	BREMNER82	1	%	Nitrogen_total	0.30	NA	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	BREMNER82	1	%	Nitrogen_total	0.27	NA	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	BREMNER82	1	%	Nitrogen_total	0.34	NA	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	BREMNER82	1	%	Nitrogen_total	0.39	NA	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	BREMNER82	1	%	Nitrogen_total	0.37	NA	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	BREMNER82	1	%	Nitrogen_total	0.28	NA	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	BREMNER82	1	%	Nitrogen_total	0.30	NA	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	BREMNER82	4	%	Nitrogen_total	0.32	NA	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	BREMNER82	4	%	Nitrogen_total	0.29	NA	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	BREMNER82	4	%	Nitrogen_total	0.30	NA	T1
034-09-S-low-B-1	Biosolids and wood ash_low_S	BREMNER82	4	%	Nitrogen_total	0.39	NA	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	BREMNER82	4	%	Nitrogen_total	0.31	NA	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	BREMNER82	4	%	Nitrogen_total	0.29	NA	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	BREMNER82	4	%	Nitrogen_total	0.33	NA	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	BREMNER82	4	%	Nitrogen_total	0.36	NA	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	BREMNER82	4	%	Nitrogen_total	0.21	NA	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	BREMNER82	4	%	Nitrogen_total	0.25	NA	T1
041-11-S-low-A-1	Wood ash and compost_low_S	BREMNER82	4	%	Nitrogen_total	0.32	NA	T1
042-11-S-low-B-1	Wood ash and compost_low_S	BREMNER82	4	%	Nitrogen_total	0.36	NA	T1
043-11-S-low-C-1	Wood ash and compost_low_S	BREMNER82	4	%	Nitrogen_total	0.35	NA	T1
044-11-S-low-D-1	Wood ash and compost_low_S	BREMNER82	4	%	Nitrogen_total	0.18	NA	T1
045-12-S-low-A-1	Biochar and compost_low_S	BREMNER82	4	%	Nitrogen_total	0.25	NA	T1
046-12-S-low-B-1	Biochar and compost_low_S	BREMNER82	4	%	Nitrogen_total	0.19	NA	T1
047-12-S-low-C-1	Biochar and compost_low_S	BREMNER82	4	%	Nitrogen_total	0.31	NA	T1
048-12-S-low-D-1	Biochar and compost_low_S	BREMNER82	4	%	Nitrogen_total	0.31	NA	T1
145-01-S-high-A-1	Soluble phosphate_high_S	BREMNER82	4	%	Nitrogen_total	0.28	NA	T1
146-01-S-high-B-1	Soluble phosphate_high_S	BREMNER82	4	%	Nitrogen_total	0.25	NA	T1
147-01-S-high-C-1	Soluble phosphate_high_S	BREMNER82	1	%	Nitrogen_total	0.37	NA	T1
148-01-S-high-D-1	Soluble phosphate_high_S	BREMNER82	1	%	Nitrogen_total	0.33	NA	T1
149-02-S-high-A-1	Biosolid_high_S	BREMNER82	1	%	Nitrogen_total	0.43	NA	T1
150-02-S-high-B-1	Biosolid_high_S	BREMNER82	1	%	Nitrogen_total	0.28	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
151-02-S-high-C-1	Biosolid_high_S	BREMNER82	1	%	Nitrogen_total	0.34	NA	T1
152-02-S-high-D-1	Biosolid_high_S	BREMNER82	1	%	Nitrogen_total	0.36	NA	T1
153-03-S-high-A-1	Wood ash_high_S	BREMNER82	1	%	Nitrogen_total	0.25	NA	T1
154-03-S-high-B-1	Wood ash_high_S	BREMNER82	1	%	Nitrogen_total	0.22	NA	T1
155-03-S-high-C-1	Wood ash_high_S	BREMNER82	1	%	Nitrogen_total	0.33	NA	T1
156-03-S-high-D-1	Wood ash_high_S	BREMNER82	1	%	Nitrogen_total	0.50	NA	T1
157-04-S-high-A-1	Biochar_high_S	BREMNER82	1	%	Nitrogen_total	0.27	NA	T1
158-04-S-high-B-1	Biochar_high_S	BREMNER82	1	%	Nitrogen_total	0.19	NA	T1
159-04-S-high-C-1	Biochar_high_S	BREMNER82	1	%	Nitrogen_total	0.28	NA	T1
160-04-S-high-D-1	Biochar_high_S	BREMNER82	1	%	Nitrogen_total	0.25	NA	T1
161-05-S-high-A-1	Compost_high_S	BREMNER82	1	%	Nitrogen_total	0.20	NA	T1
162-05-S-high-B-1	Compost_high_S	BREMNER82	1	%	Nitrogen_total	0.26	NA	T1
163-05-S-high-C-1	Compost_high_S	BREMNER82	1	%	Nitrogen_total	0.25	NA	T1
164-05-S-high-D-1	Compost_high_S	BREMNER82	1	%	Nitrogen_total	0.27	NA	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	BREMNER82	1	%	Nitrogen_total	0.42	NA	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	BREMNER82	1	%	Nitrogen_total	0.51	NA	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	BREMNER82	1	%	Nitrogen_total	0.35	NA	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	BREMNER82	1	%	Nitrogen_total	0.36	NA	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	BREMNER82	1	%	Nitrogen_total	0.28	NA	T1
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	BREMNER82	1	%	Nitrogen_total	0.31	NA	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	BREMNER82	1	%	Nitrogen_total	0.35	NA	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	BREMNER82	1	%	Nitrogen_total	0.41	NA	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	BREMNER82	1	%	Nitrogen_total	0.53	NA	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	BREMNER82	1	%	Nitrogen_total	0.57	NA	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	BREMNER82	1	%	Nitrogen_total	0.41	NA	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	BREMNER82	1	%	Nitrogen_total	0.49	NA	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	BREMNER82	1	%	Nitrogen_total	0.34	NA	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	BREMNER82	1	%	Nitrogen_total	0.40	NA	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	BREMNER82	1	%	Nitrogen_total	0.51	NA	T1
180-09-S-high-D-1	Biosolids and wood ash_high_S	BREMNER82	1	%	Nitrogen_total	0.52	NA	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	BREMNER82	1	%	Nitrogen_total	0.30	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
182-10-S-high-B-1	Wood ash and biochar_high_S	BREMNER82	1	%	Nitrogen_total	0.23	NA	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	BREMNER82	1	%	Nitrogen_total	0.53	NA	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	BREMNER82	1	%	Nitrogen_total	0.19	NA	T1
185-11-S-high-A-1	Wood ash and compost_high_S	BREMNER82	1	%	Nitrogen_total	0.31	NA	T1
186-11-S-high-B-1	Wood ash and compost_high_S	BREMNER82	1	%	Nitrogen_total	0.22	NA	T1
187-11-S-high-C-1	Wood ash and compost_high_S	BREMNER82	1	%	Nitrogen_total	0.30	NA	T1
188-11-S-high-D-1	Wood ash and compost_high_S	BREMNER82	1	%	Nitrogen_total	0.26	NA	T1
189-12-S-high-A-1	Biochar and compost_high_S	BREMNER82	1	%	Nitrogen_total	0.24	NA	T1
190-12-S-high-B-1	Biochar and compost_high_S	BREMNER82	1	%	Nitrogen_total	0.32	NA	T1
191-12-S-high-C-1	Biochar and compost_high_S	BREMNER82	1	%	Nitrogen_total	0.23	NA	T1
192-12-S-high-D-1	Biochar and compost_high_S	BREMNER82	1	%	Nitrogen_total	0.45	NA	T1
289-01-I-low-A-1	Soluble phosphate_low_I	BREMNER82	2	%	Nitrogen_total	0.21	NA	T1
290-01-I-low-B-1	Soluble phosphate_low_I	BREMNER82	2	%	Nitrogen_total	0.34	NA	T1
291-01-I-low-C-1	Soluble phosphate_low_I	BREMNER82	2	%	Nitrogen_total	0.23	NA	T1
292-01-I-low-D-1	Soluble phosphate_low_I	BREMNER82	2	%	Nitrogen_total	0.29	NA	T1
293-02-I-low-A-1	Biosolid_low_I	BREMNER82	2	%	Nitrogen_total	0.36	NA	T1
294-02-I-low-B-1	Biosolid_low_I	BREMNER82	2	%	Nitrogen_total	0.70	NA	T1
295-02-I-low-C-1	Biosolid_low_I	BREMNER82	2	%	Nitrogen_total	0.66	NA	T1
296-02-I-low-D-1	Biosolid_low_I	BREMNER82	2	%	Nitrogen_total	0.42	NA	T1
297-03-I-low-A-1	Wood ash_low_I	BREMNER82	2	%	Nitrogen_total	0.26	NA	T1
298-03-I-low-B-1	Wood ash_low_I	BREMNER82	2	%	Nitrogen_total	0.38	NA	T1
299-03-I-low-C-1	Wood ash_low_I	BREMNER82	2	%	Nitrogen_total	0.42	NA	T1
300-03-I-low-D-1	Wood ash_low_I	BREMNER82	2	%	Nitrogen_total	0.32	NA	T1
301-04-I-low-A-1	Biochar_low_I	BREMNER82	2	%	Nitrogen_total	0.53	NA	T1
302-04-I-low-B-1	Biochar_low_I	BREMNER82	2	%	Nitrogen_total	0.42	NA	T1
303-04-I-low-C-1	Biochar_low_I	BREMNER82	2	%	Nitrogen_total	0.44	NA	T1
304-04-I-low-D-1	Biochar_low_I	BREMNER82	2	%	Nitrogen_total	0.42	NA	T1
305-05-I-low-A-1	Compost_low_I	BREMNER82	2	%	Nitrogen_total	0.44	NA	T1
306-05-I-low-B-1	Compost_low_I	BREMNER82	2	%	Nitrogen_total	0.55	NA	T1
307-05-I-low-C-1	Compost_low_I	BREMNER82	2	%	Nitrogen_total	0.37	NA	T1
308-05-I-low-D-1	Compost_low_I	BREMNER82	2	%	Nitrogen_total	0.76	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	BREMNER82	2	%	Nitrogen_total	0.43	NA	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	BREMNER82	2	%	Nitrogen_total	0.42	NA	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	BREMNER82	2	%	Nitrogen_total	0.64	NA	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	BREMNER82	2	%	Nitrogen_total	0.40	NA	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	BREMNER82	2	%	Nitrogen_total	0.23	NA	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	BREMNER82	2	%	Nitrogen_total	0.23	NA	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	BREMNER82	2	%	Nitrogen_total	0.18	NA	T1
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	BREMNER82	2	%	Nitrogen_total	0.34	NA	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	BREMNER82	2	%	Nitrogen_total	0.18	NA	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	BREMNER82	2	%	Nitrogen_total	0.22	NA	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	BREMNER82	2	%	Nitrogen_total	0.36	NA	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	BREMNER82	2	%	Nitrogen_total	0.33	NA	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	BREMNER82	2	%	Nitrogen_total	0.58	NA	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	BREMNER82	2	%	Nitrogen_total	0.43	NA	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	BREMNER82	2	%	Nitrogen_total	0.39	NA	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	BREMNER82	2	%	Nitrogen_total	0.37	NA	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	BREMNER82	2	%	Nitrogen_total	0.18	NA	T1
326-10-I-low-B-1	Wood ash and biochar_low_I	BREMNER82	2	%	Nitrogen_total	0.32	NA	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	BREMNER82	2	%	Nitrogen_total	0.26	NA	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	BREMNER82	2	%	Nitrogen_total	0.23	NA	T1
329-11-I-low-A-1	Wood ash and compost_low_I	BREMNER82	2	%	Nitrogen_total	0.24	NA	T1
330-11-I-low-B-1	Wood ash and compost_low_I	BREMNER82	2	%	Nitrogen_total	0.26	NA	T1
331-11-I-low-C-1	Wood ash and compost_low_I	BREMNER82	2	%	Nitrogen_total	0.13	NA	T1
332-11-I-low-D-1	Wood ash and compost_low_I	BREMNER82	2	%	Nitrogen_total	0.29	NA	T1
333-12-I-low-A-1	Biochar and compost_low_I	BREMNER82	2	%	Nitrogen_total	0.26	NA	T1
334-12-I-low-B-1	Biochar and compost_low_I	BREMNER82	2	%	Nitrogen_total	0.21	NA	T1
335-12-I-low-C-1	Biochar and compost_low_I	BREMNER82	2	%	Nitrogen_total	0.27	NA	T1
336-12-I-low-D-1	Biochar and compost_low_I	BREMNER82	2	%	Nitrogen_total	0.25	NA	T1
337-01-I-high-A-1	Soluble phosphate_high_I	BREMNER82	2	%	Nitrogen_total	0.20	NA	T1
338-01-I-high-B-1	Soluble phosphate_high_I	BREMNER82	2	%	Nitrogen_total	0.37	NA	T1
339-01-I-high-C-1	Soluble phosphate_high_I	BREMNER82	2	%	Nitrogen_total	0.42	NA	T1



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
340-01-I-high-D-1	Soluble phosphate_high_I	BREMNER82	2	%	Nitrogen_total	0.25	NA	T1
341-02-I-high-A-1	Biosolid_high_I	BREMNER82	2	%	Nitrogen_total	0.66	NA	T1
342-02-I-high-B-1	Biosolid_high_I	BREMNER82	2	%	Nitrogen_total	0.93	NA	T1
343-02-I-high-C-1	Biosolid_high_I	BREMNER82	2	%	Nitrogen_total	0.96	NA	T1
344-02-I-high-D-1	Biosolid_high_I	BREMNER82	2	%	Nitrogen_total	1.02	NA	T1
345-03-I-high-A-1	Wood ash_high_I	BREMNER82	2	%	Nitrogen_total	0.28	NA	T1
346-03-I-high-B-1	Wood ash_high_I	BREMNER82	2	%	Nitrogen_total	0.29	NA	T1
347-03-I-high-C-1	Wood ash_high_I	BREMNER82	2	%	Nitrogen_total	0.22	NA	T1
348-03-I-high-D-1	Wood ash_high_I	BREMNER82	2	%	Nitrogen_total	0.26	NA	T1
349-04-I-high-A-1	Biochar_high_I	BREMNER82	2	%	Nitrogen_total	0.27	NA	T1
350-04-I-high-B-1	Biochar_high_I	BREMNER82	2	%	Nitrogen_total	0.23	NA	T1
351-04-I-high-C-1	Biochar_high_I	BREMNER82	2	%	Nitrogen_total	0.21	NA	T1
352-04-I-high-D-1	Biochar_high_I	BREMNER82	2	%	Nitrogen_total	0.22	NA	T1
353-05-I-high-A-1	Compost_high_I	BREMNER82	2	%	Nitrogen_total	0.26	NA	T1
354-05-I-high-B-1	Compost_high_I	BREMNER82	2	%	Nitrogen_total	0.29	NA	T1
355-05-I-high-C-1	Compost_high_I	BREMNER82	2	%	Nitrogen_total	0.26	NA	T1
356-05-I-high-D-1	Compost_high_I	BREMNER82	2	%	Nitrogen_total	0.26	NA	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	BREMNER82	2	%	Nitrogen_total	1.13	NA	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	BREMNER82	2	%	Nitrogen_total	0.99	NA	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	BREMNER82	2	%	Nitrogen_total	0.99	NA	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	BREMNER82	2	%	Nitrogen_total	0.67	NA	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	BREMNER82	2	%	Nitrogen_total	0.19	NA	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	BREMNER82	2	%	Nitrogen_total	0.19	NA	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	BREMNER82	2	%	Nitrogen_total	0.22	NA	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	BREMNER82	2	%	Nitrogen_total	0.20	NA	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	BREMNER82	2	%	Nitrogen_total	0.25	NA	T1
366-08-I-high-B-1	Soluble phosphate and compost_high_I	BREMNER82	2	%	Nitrogen_total	0.31	NA	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	BREMNER82	2	%	Nitrogen_total	0.27	NA	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	BREMNER82	2	%	Nitrogen_total	0.40	NA	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	BREMNER82	2	%	Nitrogen_total	0.53	NA	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	BREMNER82	2	%	Nitrogen_total	0.59	NA	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
371-09-I-high-C-1	Biosolids and wood ash_high_I	BREMNER82	2	%	Nitrogen_total	1.12	NA	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	BREMNER82	2	%	Nitrogen_total	1.15	NA	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	BREMNER82	2	%	Nitrogen_total	0.21	NA	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	BREMNER82	2	%	Nitrogen_total	0.27	NA	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	BREMNER82	2	%	Nitrogen_total	0.31	NA	T1
376-10-I-high-D-1	Wood ash and biochar_high_I	BREMNER82	2	%	Nitrogen_total	0.19	NA	T1
377-11-I-high-A-1	Wood ash and compost_high_I	BREMNER82	2	%	Nitrogen_total	0.25	NA	T1
378-11-I-high-B-1	Wood ash and compost_high_I	BREMNER82	2	%	Nitrogen_total	0.24	NA	T1
379-11-I-high-C-1	Wood ash and compost_high_I	BREMNER82	2	%	Nitrogen_total	0.29	NA	T1
380-11-I-high-D-1	Wood ash and compost_high_I	BREMNER82	2	%	Nitrogen_total	0.22	NA	T1
381-12-I-high-A-1	Biochar and compost_high_I	BREMNER82	3	%	Nitrogen_total	0.33	NA	T1
382-12-I-high-B-1	Biochar and compost_high_I	BREMNER82	3	%	Nitrogen_total	0.25	NA	T1
383-12-I-high-C-1	Biochar and compost_high_I	BREMNER82	3	%	Nitrogen_total	0.28	NA	T1
384-12-I-high-D-1	Biochar and compost_high_I	BREMNER82	3	%	Nitrogen_total	0.21	NA	T1
385-00-I-baseline-A-1	control_none_I	BREMNER82	3	%	Nitrogen_total	0.17	NA	T1
386-00-I-baseline-B-1	control_none_I	BREMNER82	3	%	Nitrogen_total	0.25	NA	T1
387-00-I-baseline-C-1	control_none_I	BREMNER82	3	%	Nitrogen_total	0.21	NA	T1
388-00-I-baseline-D-1	control_none_I	BREMNER82	3	%	Nitrogen_total	0.22	NA	T1
004-00-baseline-D-1	Baseline_baseline_NA	Bioaccess2.5pH	4	%	Arsenic	8.52	NA	T1
003-00-baseline-C-1	Baseline_baseline_NA	Bioaccess2.5pH	3	%	Arsenic	7.42	NA	T1
002-00-baseline-B-1	Baseline_baseline_NA	Bioaccess2.5pH	2	%	Arsenic	7.87	NA	T1
001-00-baseline-A-1	Baseline_baseline_NA	Bioaccess2.5pH	1	%	Arsenic	6.84	NA	T1
001-01-S-low-A-1	Soluble phosphate_low_S	Bioaccess2.5pH	5	%	Arsenic	8.46	NA	T1
002-01-S-low-B-1	Soluble phosphate_low_S	Bioaccess2.5pH	6	%	Arsenic	10.43	NA	T1
003-01-S-low-C-1	Soluble phosphate_low_S	Bioaccess2.5pH	7	%	Arsenic	10.45	NA	T1
004-01-S-low-D-1	Soluble phosphate_low_S	Bioaccess2.5pH	8	%	Arsenic	8.69	NA	T1
005-02-S-low-A-1	Biosolid_low_S	Bioaccess2.5pH	9	%	Arsenic	9.43	NA	T1
006-02-S-low-B-1	Biosolid_low_S	Bioaccess2.5pH	10	%	Arsenic	9.28	NA	T1
007-02-S-low-C-1	Biosolid_low_S	Bioaccess2.5pH	11	%	Arsenic	9.29	NA	T1
008-02-S-low-D-1	Biosolid_low_S	Bioaccess2.5pH	12	%	Arsenic	11.85	NA	T1
009-03-S-low-A-1	Wood ash_low_S	Bioaccess2.5pH	13	%	Arsenic	8.64	NA	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
010-03-S-low-B-1	Wood ash_low_S	Bioaccess2.5pH	13	%	Arsenic	7.71	NA	T1
011-03-S-low-C-1	Wood ash_low_S	Bioaccess2.5pH	13	%	Arsenic	8.31	NA	T1
012-03-S-low-D-1	Wood ash_low_S	Bioaccess2.5pH	13	%	Arsenic	7.83	NA	T1
013-04-S-low-A-1	Biochar_low_S	Bioaccess2.5pH	13	%	Arsenic	6.18	NA	T1
014-04-S-low-B-1	Biochar_low_S	Bioaccess2.5pH	14	%	Arsenic	7.36	NA	T1
015-04-S-low-C-1	Biochar_low_S	Bioaccess2.5pH	14	%	Arsenic	9.32	NA	T1
016-04-S-low-D-1	Biochar_low_S	Bioaccess2.5pH	14	%	Arsenic	8.80	NA	T1
017-05-S-low-A-1	Compost_low_S	Bioaccess2.5pH	14	%	Arsenic	9.74	NA	T1
018-05-S-low-B-1	Compost_low_S	Bioaccess2.5pH	14	%	Arsenic	10.02	NA	T1
019-05-S-low-C-1	Compost_low_S	Bioaccess2.5pH	14	%	Arsenic	8.73	NA	T1
020-05-S-low-D-1	Compost_low_S	Bioaccess2.5pH	14	%	Arsenic	8.61	NA	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	14	%	Arsenic	11.81	NA	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	14	%	Arsenic	11.41	NA	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	15	%	Arsenic	11.42	NA	T1
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	15	%	Arsenic	10.08	NA	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	15	%	Arsenic	9.05	NA	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	15	%	Arsenic	9.12	NA	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	15	%	Arsenic	8.89	NA	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	15	%	Arsenic	10.65	NA	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	Bioaccess2.5pH	15	%	Arsenic	9.70	NA	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	Bioaccess2.5pH	15	%	Arsenic	11.12	NA	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	Bioaccess2.5pH	15	%	Arsenic	9.11	NA	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	Bioaccess2.5pH	16	%	Arsenic	9.33	NA	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	Bioaccess2.5pH	16	%	Arsenic	8.96	NA	T1
034-09-S-low-B-1	Biosolids and wood ash_low_S	Bioaccess2.5pH	16	%	Arsenic	9.46	NA	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	Bioaccess2.5pH	16	%	Arsenic	13.98	NA	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	Bioaccess2.5pH	16	%	Arsenic	9.92	NA	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	Bioaccess2.5pH	16	%	Arsenic	6.63	NA	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	Bioaccess2.5pH	16	%	Arsenic	7.85	NA	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	Bioaccess2.5pH	16	%	Arsenic	7.80	NA	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	Bioaccess2.5pH	16	%	Arsenic	8.93	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
041-11-S-low-A-1	Wood ash and compost_low_S	Bioaccess2.5pH	17	%	Arsenic	9.63	NA	T1
042-11-S-low-B-1	Wood ash and compost_low_S	Bioaccess2.5pH	17	%	Arsenic	9.64	NA	T1
043-11-S-low-C-1	Wood ash and compost_low_S	Bioaccess2.5pH	17	%	Arsenic	9.79	NA	T1
044-11-S-low-D-1	Wood ash and compost_low_S	Bioaccess2.5pH	17	%	Arsenic	10.70	NA	T1
045-12-S-low-A-1	Biochar and compost_low_S	Bioaccess2.5pH	17	%	Arsenic	9.01	NA	T1
046-12-S-low-B-1	Biochar and compost_low_S	Bioaccess2.5pH	17	%	Arsenic	8.52	NA	T1
047-12-S-low-C-1	Biochar and compost_low_S	Bioaccess2.5pH	17	%	Arsenic	11.12	NA	T1
048-12-S-low-D-1	Biochar and compost_low_S	Bioaccess2.5pH	17	%	Arsenic	9.24	NA	T1
145-01-S-high-A-1	Soluble phosphate_high_S	Bioaccess2.5pH	17	%	Arsenic	12.45	NA	T1
146-01-S-high-B-1	Soluble phosphate_high_S	Bioaccess2.5pH	18	%	Arsenic	10.71	NA	T1
147-01-S-high-C-1	Soluble phosphate_high_S	Bioaccess2.5pH	18	%	Arsenic	10.63	NA	T1
148-01-S-high-D-1	Soluble phosphate_high_S	Bioaccess2.5pH	18	%	Arsenic	11.28	NA	T1
149-02-S-high-A-1	Biosolid_high_S	Bioaccess2.5pH	18	%	Arsenic	12.11	NA	T1
150-02-S-high-B-1	Biosolid_high_S	Bioaccess2.5pH	18	%	Arsenic	12.53	NA	T1
151-02-S-high-C-1	Biosolid_high_S	Bioaccess2.5pH	18	%	Arsenic	10.97	NA	T1
152-02-S-high-D-1	Biosolid_high_S	Bioaccess2.5pH	18	%	Arsenic	12.21	NA	T1
153-03-S-high-A-1	Wood ash_high_S	Bioaccess2.5pH	18	%	Arsenic	9.10	NA	T1
154-03-S-high-B-1	Wood ash_high_S	Bioaccess2.5pH	18	%	Arsenic	8.02	NA	T1
155-03-S-high-C-1	Wood ash_high_S	Bioaccess2.5pH	19	%	Arsenic	7.41	NA	T1
156-03-S-high-D-1	Wood ash_high_S	Bioaccess2.5pH	19	%	Arsenic	7.43	NA	T1
157-04-S-high-A-1	Biochar_high_S	Bioaccess2.5pH	19	%	Arsenic	6.78	NA	T1
158-04-S-high-B-1	Biochar_high_S	Bioaccess2.5pH	19	%	Arsenic	6.94	NA	T1
159-04-S-high-C-1	Biochar_high_S	Bioaccess2.5pH	19	%	Arsenic	7.25	NA	T1
160-04-S-high-D-1	Biochar_high_S	Bioaccess2.5pH	19	%	Arsenic	7.12	NA	T1
161-05-S-high-A-1	Compost_high_S	Bioaccess2.5pH	19	%	Arsenic	7.45	NA	T1
162-05-S-high-B-1	Compost_high_S	Bioaccess2.5pH	19	%	Arsenic	6.89	NA	T1
163-05-S-high-C-1	Compost_high_S	Bioaccess2.5pH	19	%	Arsenic	7.66	NA	T1
164-05-S-high-D-1	Compost_high_S	Bioaccess2.5pH	20	%	Arsenic	7.70	NA	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	20	%	Arsenic	12.53	NA	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	20	%	Arsenic	13.27	NA	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	20	%	Arsenic	13.46	NA	T1



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	20	%	Arsenic	12.80	NA	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	20	%	Arsenic	10.99	NA	T1
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	20	%	Arsenic	10.79	NA	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	20	%	Arsenic	9.36	NA	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	20	%	Arsenic	10.38	NA	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	Bioaccess2.5pH	24	%	Arsenic	12.43	NA	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	Bioaccess2.5pH	24	%	Arsenic	9.79	NA	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	Bioaccess2.5pH	24	%	Arsenic	10.74	NA	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	Bioaccess2.5pH	24	%	Arsenic	9.09	NA	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	Bioaccess2.5pH	24	%	Arsenic	13.28	NA	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	Bioaccess2.5pH	24	%	Arsenic	13.27	NA	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	Bioaccess2.5pH	24	%	Arsenic	12.46	NA	T1
180-09-S-high-D-1	Biosolids and wood ash_high_S	Bioaccess2.5pH	24	%	Arsenic	14.60	NA	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	Bioaccess2.5pH	24	%	Arsenic	7.16	NA	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	Bioaccess2.5pH	22	%	Arsenic	5.65	NA	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	Bioaccess2.5pH	22	%	Arsenic	5.29	NA	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	Bioaccess2.5pH	22	%	Arsenic	5.87	NA	T1
185-11-S-high-A-1	Wood ash and compost_high_S	Bioaccess2.5pH	22	%	Arsenic	5.57	NA	T1
186-11-S-high-B-1	Wood ash and compost_high_S	Bioaccess2.5pH	22	%	Arsenic	5.69	NA	T1
187-11-S-high-C-1	Wood ash and compost_high_S	Bioaccess2.5pH	22	%	Arsenic	4.52	NA	T1
188-11-S-high-D-1	Wood ash and compost_high_S	Bioaccess2.5pH	22	%	Arsenic	5.84	NA	T1
189-12-S-high-A-1	Biochar and compost_high_S	Bioaccess2.5pH	22	%	Arsenic	4.61	NA	T1
190-12-S-high-B-1	Biochar and compost_high_S	Bioaccess2.5pH	22	%	Arsenic	5.31	NA	T1
191-12-S-high-C-1	Biochar and compost_high_S	Bioaccess2.5pH	23	%	Arsenic	7.29	NA	T1
192-12-S-high-D-1	Biochar and compost_high_S	Bioaccess2.5pH	23	%	Arsenic	6.93	NA	T1
289-01-I-low-A-1	Soluble phosphate_low_I	Bioaccess2.5pH	1	%	Arsenic	9.96	NA	T1
290-01-I-low-B-1	Soluble phosphate_low_I	Bioaccess2.5pH	1	%	Arsenic	9.82	NA	T1
291-01-I-low-C-1	Soluble phosphate_low_I	Bioaccess2.5pH	1	%	Arsenic	8.89	NA	T1
292-01-I-low-D-1	Soluble phosphate_low_I	Bioaccess2.5pH	1	%	Arsenic	8.95	NA	T1
293-02-I-low-A-1	Biosolid_low_I	Bioaccess2.5pH	1	%	Arsenic	9.12	NA	T1
294-02-I-low-B-1	Biosolid_low_I	Bioaccess2.5pH	1	%	Arsenic	8.59	NA	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
295-02-I-low-C-1	Biosolid_low_I	Bioaccess2.5pH	1	%	Arsenic	9.31	NA	T1
296-02-I-low-D-1	Biosolid_low_I	Bioaccess2.5pH	1	%	Arsenic	8.49	NA	T1
297-03-I-low-A-1	Wood ash_low_I	Bioaccess2.5pH	2	%	Arsenic	7.61	NA	T1
298-03-I-low-B-1	Wood ash_low_I	Bioaccess2.5pH	2	%	Arsenic	7.62	NA	T1
299-03-I-low-C-1	Wood ash_low_I	Bioaccess2.5pH	2	%	Arsenic	8.10	NA	T1
300-03-I-low-D-1	Wood ash_low_I	Bioaccess2.5pH	2	%	Arsenic	7.57	NA	T1
301-04-I-low-A-1	Biochar_low_I	Bioaccess2.5pH	2	%	Arsenic	6.98	NA	T1
302-04-I-low-B-1	Biochar_low_I	Bioaccess2.5pH	2	%	Arsenic	7.08	NA	T1
303-04-I-low-C-1	Biochar_low_I	Bioaccess2.5pH	2	%	Arsenic	7.16	NA	T1
304-04-I-low-D-1	Biochar_low_I	Bioaccess2.5pH	2	%	Arsenic	7.81	NA	T1
305-05-I-low-A-1	Compost_low_I	Bioaccess2.5pH	3	%	Arsenic	7.72	NA	T1
306-05-I-low-B-1	Compost_low_I	Bioaccess2.5pH	3	%	Arsenic	7.53	NA	T1
307-05-I-low-C-1	Compost_low_I	Bioaccess2.5pH	3	%	Arsenic	7.68	NA	T1
308-05-I-low-D-1	Compost_low_I	Bioaccess2.5pH	3	%	Arsenic	8.13	NA	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	3	%	Arsenic	9.48	NA	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	3	%	Arsenic	9.87	NA	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	3	%	Arsenic	10.05	NA	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	3	%	Arsenic	10.87	NA	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	4	%	Arsenic	9.59	NA	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	4	%	Arsenic	9.82	NA	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	4	%	Arsenic	9.34	NA	T1
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	4	%	Arsenic	9.98	NA	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	Bioaccess2.5pH	4	%	Arsenic	9.73	NA	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	Bioaccess2.5pH	4	%	Arsenic	10.95	NA	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	Bioaccess2.5pH	4	%	Arsenic	11.05	NA	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	Bioaccess2.5pH	4	%	Arsenic	10.64	NA	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	Bioaccess2.5pH	5	%	Arsenic	10.29	NA	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	Bioaccess2.5pH	5	%	Arsenic	9.87	NA	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	Bioaccess2.5pH	5	%	Arsenic	8.64	NA	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	Bioaccess2.5pH	5	%	Arsenic	10.08	NA	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	Bioaccess2.5pH	5	%	Arsenic	8.21	NA	T1



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
326-10-I-low-B-1	Wood ash and biochar_low_I	Bioaccess2.5pH	5	%	Arsenic	8.66	NA	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	Bioaccess2.5pH	5	%	Arsenic	8.44	NA	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	Bioaccess2.5pH	5	%	Arsenic	8.14	NA	T1
329-11-I-low-A-1	Wood ash and compost_low_I	Bioaccess2.5pH	6	%	Arsenic	8.81	NA	T1
330-11-I-low-B-1	Wood ash and compost_low_I	Bioaccess2.5pH	6	%	Arsenic	7.86	NA	T1
331-11-I-low-C-1	Wood ash and compost_low_I	Bioaccess2.5pH	6	%	Arsenic	8.89	NA	T1
332-11-I-low-D-1	Wood ash and compost_low_I	Bioaccess2.5pH	6	%	Arsenic	8.02	NA	T1
333-12-I-low-A-1	Biochar and compost_low_I	Bioaccess2.5pH	6	%	Arsenic	7.46	NA	T1
334-12-I-low-B-1	Biochar and compost_low_I	Bioaccess2.5pH	6	%	Arsenic	8.23	NA	T1
335-12-I-low-C-1	Biochar and compost_low_I	Bioaccess2.5pH	6	%	Arsenic	10.05	NA	T1
336-12-I-low-D-1	Biochar and compost_low_I	Bioaccess2.5pH	6	%	Arsenic	8.96	NA	T1
337-01-I-high-A-1	Soluble phosphate_high_I	Bioaccess2.5pH	7	%	Arsenic	12.50	NA	T1
338-01-I-high-B-1	Soluble phosphate_high_I	Bioaccess2.5pH	7	%	Arsenic	11.28	NA	T1
339-01-I-high-C-1	Soluble phosphate_high_I	Bioaccess2.5pH	7	%	Arsenic	10.88	NA	T1
340-01-I-high-D-1	Soluble phosphate_high_I	Bioaccess2.5pH	7	%	Arsenic	12.24	NA	T1
341-02-I-high-A-1	Biosolid_high_I	Bioaccess2.5pH	7	%	Arsenic	10.68	NA	T1
342-02-I-high-B-1	Biosolid_high_I	Bioaccess2.5pH	7	%	Arsenic	10.85	NA	T1
343-02-I-high-C-1	Biosolid_high_I	Bioaccess2.5pH	7	%	Arsenic	10.01	NA	T1
344-02-I-high-D-1	Biosolid_high_I	Bioaccess2.5pH	7	%	Arsenic	9.66	NA	T1
345-03-I-high-A-1	Wood ash_high_I	Bioaccess2.5pH	8	%	Arsenic	8.44	NA	T1
346-03-I-high-B-1	Wood ash_high_I	Bioaccess2.5pH	8	%	Arsenic	9.55	NA	T1
347-03-I-high-C-1	Wood ash_high_I	Bioaccess2.5pH	8	%	Arsenic	9.07	NA	T1
348-03-I-high-D-1	Wood ash_high_I	Bioaccess2.5pH	8	%	Arsenic	9.56	NA	T1
349-04-I-high-A-1	Biochar_high_I	Bioaccess2.5pH	8	%	Arsenic	7.23	NA	T1
350-04-I-high-B-1	Biochar_high_I	Bioaccess2.5pH	8	%	Arsenic	8.28	NA	T1
351-04-I-high-C-1	Biochar_high_I	Bioaccess2.5pH	8	%	Arsenic	7.30	NA	T1
352-04-I-high-D-1	Biochar_high_I	Bioaccess2.5pH	8	%	Arsenic	8.06	NA	T1
353-05-I-high-A-1	Compost_high_I	Bioaccess2.5pH	9	%	Arsenic	7.41	NA	T1
354-05-I-high-B-1	Compost_high_I	Bioaccess2.5pH	9	%	Arsenic	7.54	NA	T1
355-05-I-high-C-1	Compost_high_I	Bioaccess2.5pH	9	%	Arsenic	7.72	NA	T1
356-05-I-high-D-1	Compost_high_I	Bioaccess2.5pH	9	%	Arsenic	6.34	NA	T1



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	9	%	Arsenic	9.76	NA	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	9	%	Arsenic	9.87	NA	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	9	%	Arsenic	12.83	NA	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	9	%	Arsenic	14.08	NA	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	10	%	Arsenic	11.75	NA	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	10	%	Arsenic	9.97	NA	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	10	%	Arsenic	10.84	NA	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	10	%	Arsenic	11.22	NA	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	Bioaccess2.5pH	10	%	Arsenic	11.72	NA	T1
366-08-I-high-B-1	Soluble phosphate and compost_high_I	Bioaccess2.5pH	10	%	Arsenic	12.42	NA	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	Bioaccess2.5pH	10	%	Arsenic	10.53	NA	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	Bioaccess2.5pH	10	%	Arsenic	12.80	NA	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	Bioaccess2.5pH	11	%	Arsenic	11.36	NA	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	Bioaccess2.5pH	11	%	Arsenic	11.60	NA	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	Bioaccess2.5pH	11	%	Arsenic	10.12	NA	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	Bioaccess2.5pH	11	%	Arsenic	10.57	NA	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	Bioaccess2.5pH	11	%	Arsenic	9.04	NA	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	Bioaccess2.5pH	11	%	Arsenic	9.24	NA	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	Bioaccess2.5pH	11	%	Arsenic	9.39	NA	T1
376-10-I-high-D-1	Wood ash and biochar_high_I	Bioaccess2.5pH	11	%	Arsenic	8.50	NA	T1
377-11-I-high-A-1	Wood ash and compost_high_I	Bioaccess2.5pH	12	%	Arsenic	11.41	NA	T1
378-11-I-high-B-1	Wood ash and compost_high_I	Bioaccess2.5pH	12	%	Arsenic	8.99	NA	T1
379-11-I-high-C-1	Wood ash and compost_high_I	Bioaccess2.5pH	12	%	Arsenic	9.59	NA	T1
380-11-I-high-D-1	Wood ash and compost_high_I	Bioaccess2.5pH	12	%	Arsenic	8.83	NA	T1
381-12-I-high-A-1	Biochar and compost_high_I	Bioaccess2.5pH	12	%	Arsenic	7.73	NA	T1
382-12-I-high-B-1	Biochar and compost_high_I	Bioaccess2.5pH	12	%	Arsenic	8.58	NA	T1
383-12-I-high-C-1	Biochar and compost_high_I	Bioaccess2.5pH	12	%	Arsenic	7.78	NA	T1
384-12-I-high-D-1	Biochar and compost_high_I	Bioaccess2.5pH	12	%	Arsenic	9.81	NA	T1
385-00-I-baseline-A-1	control_none_I	Bioaccess2.5pH	13	%	Arsenic	7.21	NA	T1
386-00-I-baseline-B-1	control_none_I	Bioaccess2.5pH	13	%	Arsenic	7.44	NA	T1
387-00-I-baseline-C-1	control_none_I	Bioaccess2.5pH	13	%	Arsenic	7.37	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
388-00-I-baseline-D-1	control_none_I	Bioaccess2.5pH	13	%	Arsenic	6.99	NA	T1
004-00-baseline-D-1	Baseline_baseline_NA	Bioaccess2.5pH	4	mg/kg	Arsenic	9.57	NA	T1
003-00-baseline-C-1	Baseline_baseline_NA	Bioaccess2.5pH	3	mg/kg	Arsenic	8.03	NA	T1
002-00-baseline-B-1	Baseline_baseline_NA	Bioaccess2.5pH	2	mg/kg	Arsenic	8.40	NA	T1
001-00-baseline-A-1	Baseline_baseline_NA	Bioaccess2.5pH	1	mg/kg	Arsenic	7.43	NA	T1
001-01-S-low-A-1	Soluble phosphate_low_S	Bioaccess2.5pH	5	mg/kg	Arsenic	8.97	NA	T1
002-01-S-low-B-1	Soluble phosphate_low_S	Bioaccess2.5pH	6	mg/kg	Arsenic	10.75	NA	T1
003-01-S-low-C-1	Soluble phosphate_low_S	Bioaccess2.5pH	7	mg/kg	Arsenic	10.60	NA	T1
004-01-S-low-D-1	Soluble phosphate_low_S	Bioaccess2.5pH	8	mg/kg	Arsenic	8.52	NA	T1
005-02-S-low-A-1	Biosolid_low_S	Bioaccess2.5pH	9	mg/kg	Arsenic	9.49	NA	T1
006-02-S-low-B-1	Biosolid_low_S	Bioaccess2.5pH	10	mg/kg	Arsenic	9.45	NA	T1
007-02-S-low-C-1	Biosolid_low_S	Bioaccess2.5pH	11	mg/kg	Arsenic	9.15	NA	T1
008-02-S-low-D-1	Biosolid_low_S	Bioaccess2.5pH	12	mg/kg	Arsenic	11.42	NA	T1
009-03-S-low-A-1	Wood ash_low_S	Bioaccess2.5pH	13	mg/kg	Arsenic	8.73	NA	T1
010-03-S-low-B-1	Wood ash_low_S	Bioaccess2.5pH	13	mg/kg	Arsenic	7.86	NA	T1
011-03-S-low-C-1	Wood ash_low_S	Bioaccess2.5pH	13	mg/kg	Arsenic	8.68	NA	T1
012-03-S-low-D-1	Wood ash_low_S	Bioaccess2.5pH	13	mg/kg	Arsenic	8.21	NA	T1
013-04-S-low-A-1	Biochar_low_S	Bioaccess2.5pH	13	mg/kg	Arsenic	6.54	NA	T1
014-04-S-low-B-1	Biochar_low_S	Bioaccess2.5pH	14	mg/kg	Arsenic	7.69	NA	T1
015-04-S-low-C-1	Biochar_low_S	Bioaccess2.5pH	14	mg/kg	Arsenic	9.26	NA	T1
016-04-S-low-D-1	Biochar_low_S	Bioaccess2.5pH	14	mg/kg	Arsenic	8.95	NA	T1
017-05-S-low-A-1	Compost_low_S	Bioaccess2.5pH	14	mg/kg	Arsenic	10.15	NA	T1
018-05-S-low-B-1	Compost_low_S	Bioaccess2.5pH	14	mg/kg	Arsenic	10.15	NA	T1
019-05-S-low-C-1	Compost_low_S	Bioaccess2.5pH	14	mg/kg	Arsenic	9.14	NA	T1
020-05-S-low-D-1	Compost_low_S	Bioaccess2.5pH	14	mg/kg	Arsenic	8.98	NA	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	14	mg/kg	Arsenic	12.20	NA	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	14	mg/kg	Arsenic	11.47	NA	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	15	mg/kg	Arsenic	11.23	NA	T1
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	15	mg/kg	Arsenic	10.44	NA	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	15	mg/kg	Arsenic	9.28	NA	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	15	mg/kg	Arsenic	9.62	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	15	mg/kg	Arsenic	9.39	NA	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	15	mg/kg	Arsenic	10.59	NA	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	Bioaccess2.5pH	15	mg/kg	Arsenic	9.70	NA	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	Bioaccess2.5pH	15	mg/kg	Arsenic	11.04	NA	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	Bioaccess2.5pH	15	mg/kg	Arsenic	8.50	NA	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	Bioaccess2.5pH	16	mg/kg	Arsenic	9.17	NA	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	Bioaccess2.5pH	16	mg/kg	Arsenic	9.13	NA	T1
034-09-S-low-B-1	Biosolids and wood ash_low_S	Bioaccess2.5pH	16	mg/kg	Arsenic	9.80	NA	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	Bioaccess2.5pH	16	mg/kg	Arsenic	13.60	NA	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	Bioaccess2.5pH	16	mg/kg	Arsenic	10.20	NA	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	Bioaccess2.5pH	16	mg/kg	Arsenic	7.41	NA	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	Bioaccess2.5pH	16	mg/kg	Arsenic	8.31	NA	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	Bioaccess2.5pH	16	mg/kg	Arsenic	8.54	NA	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	Bioaccess2.5pH	16	mg/kg	Arsenic	9.03	NA	T1
041-11-S-low-A-1	Wood ash and compost_low_S	Bioaccess2.5pH	17	mg/kg	Arsenic	9.68	NA	T1
042-11-S-low-B-1	Wood ash and compost_low_S	Bioaccess2.5pH	17	mg/kg	Arsenic	10.13	NA	T1
043-11-S-low-C-1	Wood ash and compost_low_S	Bioaccess2.5pH	17	mg/kg	Arsenic	10.65	NA	T1
044-11-S-low-D-1	Wood ash and compost_low_S	Bioaccess2.5pH	17	mg/kg	Arsenic	10.47	NA	T1
045-12-S-low-A-1	Biochar and compost_low_S	Bioaccess2.5pH	17	mg/kg	Arsenic	9.53	NA	T1
046-12-S-low-B-1	Biochar and compost_low_S	Bioaccess2.5pH	17	mg/kg	Arsenic	9.02	NA	T1
047-12-S-low-C-1	Biochar and compost_low_S	Bioaccess2.5pH	17	mg/kg	Arsenic	11.19	NA	T1
048-12-S-low-D-1	Biochar and compost_low_S	Bioaccess2.5pH	17	mg/kg	Arsenic	9.75	NA	T1
145-01-S-high-A-1	Soluble phosphate_high_S	Bioaccess2.5pH	17	mg/kg	Arsenic	11.88	NA	T1
146-01-S-high-B-1	Soluble phosphate_high_S	Bioaccess2.5pH	18	mg/kg	Arsenic	10.71	NA	T1
147-01-S-high-C-1	Soluble phosphate_high_S	Bioaccess2.5pH	18	mg/kg	Arsenic	10.79	NA	T1
148-01-S-high-D-1	Soluble phosphate_high_S	Bioaccess2.5pH	18	mg/kg	Arsenic	10.98	NA	T1
149-02-S-high-A-1	Biosolid_high_S	Bioaccess2.5pH	18	mg/kg	Arsenic	12.23	NA	T1
150-02-S-high-B-1	Biosolid_high_S	Bioaccess2.5pH	18	mg/kg	Arsenic	13.08	NA	T1
151-02-S-high-C-1	Biosolid_high_S	Bioaccess2.5pH	18	mg/kg	Arsenic	10.96	NA	T1
152-02-S-high-D-1	Biosolid_high_S	Bioaccess2.5pH	18	mg/kg	Arsenic	12.54	NA	T1
153-03-S-high-A-1	Wood ash_high_S	Bioaccess2.5pH	18	mg/kg	Arsenic	9.35	NA	T1



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
154-03-S-high-B-1	Wood ash_high_S	Bioaccess2.5pH	18	mg/kg	Arsenic	8.01	NA	T1
155-03-S-high-C-1	Wood ash_high_S	Bioaccess2.5pH	19	mg/kg	Arsenic	7.16	NA	T1
156-03-S-high-D-1	Wood ash_high_S	Bioaccess2.5pH	19	mg/kg	Arsenic	7.20	NA	T1
157-04-S-high-A-1	Biochar_high_S	Bioaccess2.5pH	19	mg/kg	Arsenic	6.68	NA	T1
158-04-S-high-B-1	Biochar_high_S	Bioaccess2.5pH	19	mg/kg	Arsenic	6.92	NA	T1
159-04-S-high-C-1	Biochar_high_S	Bioaccess2.5pH	19	mg/kg	Arsenic	6.82	NA	T1
160-04-S-high-D-1	Biochar_high_S	Bioaccess2.5pH	19	mg/kg	Arsenic	7.14	NA	T1
161-05-S-high-A-1	Compost_high_S	Bioaccess2.5pH	19	mg/kg	Arsenic	7.43	NA	T1
162-05-S-high-B-1	Compost_high_S	Bioaccess2.5pH	19	mg/kg	Arsenic	6.65	NA	T1
163-05-S-high-C-1	Compost_high_S	Bioaccess2.5pH	19	mg/kg	Arsenic	7.73	NA	T1
164-05-S-high-D-1	Compost_high_S	Bioaccess2.5pH	20	mg/kg	Arsenic	8.07	NA	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	20	mg/kg	Arsenic	12.39	NA	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	20	mg/kg	Arsenic	13.15	NA	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	20	mg/kg	Arsenic	12.92	NA	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	20	mg/kg	Arsenic	12.02	NA	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	20	mg/kg	Arsenic	10.60	NA	T1
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	20	mg/kg	Arsenic	10.16	NA	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	20	mg/kg	Arsenic	9.80	NA	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	20	mg/kg	Arsenic	9.82	NA	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	Bioaccess2.5pH	24	mg/kg	Arsenic	11.99	NA	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	Bioaccess2.5pH	24	mg/kg	Arsenic	9.46	NA	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	Bioaccess2.5pH	24	mg/kg	Arsenic	10.48	NA	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	Bioaccess2.5pH	24	mg/kg	Arsenic	8.58	NA	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	Bioaccess2.5pH	24	mg/kg	Arsenic	12.82	NA	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	Bioaccess2.5pH	24	mg/kg	Arsenic	12.30	NA	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	Bioaccess2.5pH	24	mg/kg	Arsenic	11.83	NA	T1
180-09-S-high-D-1	Biosolids and wood ash_high_S	Bioaccess2.5pH	24	mg/kg	Arsenic	13.53	NA	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	Bioaccess2.5pH	24	mg/kg	Arsenic	6.68	NA	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	Bioaccess2.5pH	22	mg/kg	Arsenic	5.90	NA	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	Bioaccess2.5pH	22	mg/kg	Arsenic	5.23	NA	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	Bioaccess2.5pH	22	mg/kg	Arsenic	5.31	NA	T1



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
185-11-S-high-A-1	Wood ash and compost_high_S	Bioaccess2.5pH	22	mg/kg	Arsenic	5.71	NA	T1
186-11-S-high-B-1	Wood ash and compost_high_S	Bioaccess2.5pH	22	mg/kg	Arsenic	5.56	NA	T1
187-11-S-high-C-1	Wood ash and compost_high_S	Bioaccess2.5pH	22	mg/kg	Arsenic	4.56	NA	T1
188-11-S-high-D-1	Wood ash and compost_high_S	Bioaccess2.5pH	22	mg/kg	Arsenic	6.02	NA	T1
189-12-S-high-A-1	Biochar and compost_high_S	Bioaccess2.5pH	22	mg/kg	Arsenic	4.59	NA	T1
190-12-S-high-B-1	Biochar and compost_high_S	Bioaccess2.5pH	22	mg/kg	Arsenic	5.52	NA	T1
191-12-S-high-C-1	Biochar and compost_high_S	Bioaccess2.5pH	23	mg/kg	Arsenic	7.26	NA	T1
192-12-S-high-D-1	Biochar and compost_high_S	Bioaccess2.5pH	23	mg/kg	Arsenic	7.28	NA	T1
289-01-I-low-A-1	Soluble phosphate_low_I	Bioaccess2.5pH	1	mg/kg	Arsenic	10.21	NA	T1
290-01-I-low-B-1	Soluble phosphate_low_I	Bioaccess2.5pH	1	mg/kg	Arsenic	9.61	NA	T1
291-01-I-low-C-1	Soluble phosphate_low_I	Bioaccess2.5pH	1	mg/kg	Arsenic	9.03	NA	T1
292-01-I-low-D-1	Soluble phosphate_low_I	Bioaccess2.5pH	1	mg/kg	Arsenic	9.03	NA	T1
293-02-I-low-A-1	Biosolid_low_I	Bioaccess2.5pH	1	mg/kg	Arsenic	9.12	NA	T1
294-02-I-low-B-1	Biosolid_low_I	Bioaccess2.5pH	1	mg/kg	Arsenic	8.72	NA	T1
295-02-I-low-C-1	Biosolid_low_I	Bioaccess2.5pH	1	mg/kg	Arsenic	9.02	NA	T1
296-02-I-low-D-1	Biosolid_low_I	Bioaccess2.5pH	1	mg/kg	Arsenic	8.61	NA	T1
297-03-I-low-A-1	Wood ash_low_I	Bioaccess2.5pH	2	mg/kg	Arsenic	7.76	NA	T1
298-03-I-low-B-1	Wood ash_low_I	Bioaccess2.5pH	2	mg/kg	Arsenic	7.69	NA	T1
299-03-I-low-C-1	Wood ash_low_I	Bioaccess2.5pH	2	mg/kg	Arsenic	8.26	NA	T1
300-03-I-low-D-1	Wood ash_low_I	Bioaccess2.5pH	2	mg/kg	Arsenic	7.89	NA	T1
301-04-I-low-A-1	Biochar_low_I	Bioaccess2.5pH	2	mg/kg	Arsenic	7.14	NA	T1
302-04-I-low-B-1	Biochar_low_I	Bioaccess2.5pH	2	mg/kg	Arsenic	7.35	NA	T1
303-04-I-low-C-1	Biochar_low_I	Bioaccess2.5pH	2	mg/kg	Arsenic	7.18	NA	T1
304-04-I-low-D-1	Biochar_low_I	Bioaccess2.5pH	2	mg/kg	Arsenic	7.96	NA	T1
305-05-I-low-A-1	Compost_low_I	Bioaccess2.5pH	3	mg/kg	Arsenic	7.90	NA	T1
306-05-I-low-B-1	Compost_low_I	Bioaccess2.5pH	3	mg/kg	Arsenic	7.90	NA	T1
307-05-I-low-C-1	Compost_low_I	Bioaccess2.5pH	3	mg/kg	Arsenic	7.69	NA	T1
308-05-I-low-D-1	Compost_low_I	Bioaccess2.5pH	3	mg/kg	Arsenic	8.39	NA	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	3	mg/kg	Arsenic	8.83	NA	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	3	mg/kg	Arsenic	9.42	NA	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	3	mg/kg	Arsenic	8.97	NA	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	3	mg/kg	Arsenic	10.48	NA	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	4	mg/kg	Arsenic	9.75	NA	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	4	mg/kg	Arsenic	9.90	NA	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	4	mg/kg	Arsenic	9.41	NA	T1
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	4	mg/kg	Arsenic	9.31	NA	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	Bioaccess2.5pH	4	mg/kg	Arsenic	8.95	NA	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	Bioaccess2.5pH	4	mg/kg	Arsenic	10.54	NA	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	Bioaccess2.5pH	4	mg/kg	Arsenic	10.28	NA	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	Bioaccess2.5pH	4	mg/kg	Arsenic	9.42	NA	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	Bioaccess2.5pH	5	mg/kg	Arsenic	9.58	NA	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	Bioaccess2.5pH	5	mg/kg	Arsenic	9.32	NA	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	Bioaccess2.5pH	5	mg/kg	Arsenic	7.85	NA	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	Bioaccess2.5pH	5	mg/kg	Arsenic	8.98	NA	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	Bioaccess2.5pH	5	mg/kg	Arsenic	7.98	NA	T1
326-10-I-low-B-1	Wood ash and biochar_low_I	Bioaccess2.5pH	5	mg/kg	Arsenic	8.82	NA	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	Bioaccess2.5pH	5	mg/kg	Arsenic	8.73	NA	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	Bioaccess2.5pH	5	mg/kg	Arsenic	7.78	NA	T1
329-11-I-low-A-1	Wood ash and compost_low_I	Bioaccess2.5pH	6	mg/kg	Arsenic	9.08	NA	T1
330-11-I-low-B-1	Wood ash and compost_low_I	Bioaccess2.5pH	6	mg/kg	Arsenic	7.68	NA	T1
331-11-I-low-C-1	Wood ash and compost_low_I	Bioaccess2.5pH	6	mg/kg	Arsenic	8.45	NA	T1
332-11-I-low-D-1	Wood ash and compost_low_I	Bioaccess2.5pH	6	mg/kg	Arsenic	7.80	NA	T1
333-12-I-low-A-1	Biochar and compost_low_I	Bioaccess2.5pH	6	mg/kg	Arsenic	6.99	NA	T1
334-12-I-low-B-1	Biochar and compost_low_I	Bioaccess2.5pH	6	mg/kg	Arsenic	8.27	NA	T1
335-12-I-low-C-1	Biochar and compost_low_I	Bioaccess2.5pH	6	mg/kg	Arsenic	8.14	NA	T1
336-12-I-low-D-1	Biochar and compost_low_I	Bioaccess2.5pH	6	mg/kg	Arsenic	7.50	NA	T1
337-01-I-high-A-1	Soluble phosphate_high_I	Bioaccess2.5pH	7	mg/kg	Arsenic	11.62	NA	T1
338-01-I-high-B-1	Soluble phosphate_high_I	Bioaccess2.5pH	7	mg/kg	Arsenic	10.89	NA	T1
339-01-I-high-C-1	Soluble phosphate_high_I	Bioaccess2.5pH	7	mg/kg	Arsenic	10.18	NA	T1
340-01-I-high-D-1	Soluble phosphate_high_I	Bioaccess2.5pH	7	mg/kg	Arsenic	11.53	NA	T1
341-02-I-high-A-1	Biosolid_high_I	Bioaccess2.5pH	7	mg/kg	Arsenic	10.33	NA	T1
342-02-I-high-B-1	Biosolid_high_I	Bioaccess2.5pH	7	mg/kg	Arsenic	11.03	NA	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
343-02-I-high-C-1	Biosolid_high_I	Bioaccess2.5pH	7	mg/kg	Arsenic	10.22	NA	T1
344-02-I-high-D-1	Biosolid_high_I	Bioaccess2.5pH	7	mg/kg	Arsenic	9.81	NA	T1
345-03-I-high-A-1	Wood ash_high_I	Bioaccess2.5pH	8	mg/kg	Arsenic	8.08	NA	T1
346-03-I-high-B-1	Wood ash_high_I	Bioaccess2.5pH	8	mg/kg	Arsenic	9.18	NA	T1
347-03-I-high-C-1	Wood ash_high_I	Bioaccess2.5pH	8	mg/kg	Arsenic	9.48	NA	T1
348-03-I-high-D-1	Wood ash_high_I	Bioaccess2.5pH	8	mg/kg	Arsenic	8.99	NA	T1
349-04-I-high-A-1	Biochar_high_I	Bioaccess2.5pH	8	mg/kg	Arsenic	6.63	NA	T1
350-04-I-high-B-1	Biochar_high_I	Bioaccess2.5pH	8	mg/kg	Arsenic	7.49	NA	T1
351-04-I-high-C-1	Biochar_high_I	Bioaccess2.5pH	8	mg/kg	Arsenic	6.92	NA	T1
352-04-I-high-D-1	Biochar_high_I	Bioaccess2.5pH	8	mg/kg	Arsenic	7.05	NA	T1
353-05-I-high-A-1	Compost_high_I	Bioaccess2.5pH	9	mg/kg	Arsenic	7.78	NA	T1
354-05-I-high-B-1	Compost_high_I	Bioaccess2.5pH	9	mg/kg	Arsenic	7.67	NA	T1
355-05-I-high-C-1	Compost_high_I	Bioaccess2.5pH	9	mg/kg	Arsenic	8.00	NA	T1
356-05-I-high-D-1	Compost_high_I	Bioaccess2.5pH	9	mg/kg	Arsenic	7.11	NA	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	9	mg/kg	Arsenic	10.21	NA	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	9	mg/kg	Arsenic	10.61	NA	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	9	mg/kg	Arsenic	10.73	NA	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	9	mg/kg	Arsenic	11.87	NA	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	10	mg/kg	Arsenic	11.39	NA	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	10	mg/kg	Arsenic	11.25	NA	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	10	mg/kg	Arsenic	10.68	NA	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	10	mg/kg	Arsenic	11.11	NA	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	Bioaccess2.5pH	10	mg/kg	Arsenic	10.95	NA	T1
366-08-I-high-B-1	Soluble phosphate and compost_high_I	Bioaccess2.5pH	10	mg/kg	Arsenic	10.77	NA	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	Bioaccess2.5pH	10	mg/kg	Arsenic	10.30	NA	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	Bioaccess2.5pH	10	mg/kg	Arsenic	11.66	NA	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	Bioaccess2.5pH	11	mg/kg	Arsenic	9.22	NA	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	Bioaccess2.5pH	11	mg/kg	Arsenic	9.89	NA	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	Bioaccess2.5pH	11	mg/kg	Arsenic	9.46	NA	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	Bioaccess2.5pH	11	mg/kg	Arsenic	9.63	NA	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	Bioaccess2.5pH	11	mg/kg	Arsenic	8.97	NA	T1



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
374-10-I-high-B-1	Wood ash and biochar_high_I	Bioaccess2.5pH	11	mg/kg	Arsenic	9.43	NA	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	Bioaccess2.5pH	11	mg/kg	Arsenic	9.34	NA	T1
376-10-I-high-D-1	Wood ash and biochar_high_I	Bioaccess2.5pH	11	mg/kg	Arsenic	8.80	NA	T1
377-11-I-high-A-1	Wood ash and compost_high_I	Bioaccess2.5pH	12	mg/kg	Arsenic	10.01	NA	T1
378-11-I-high-B-1	Wood ash and compost_high_I	Bioaccess2.5pH	12	mg/kg	Arsenic	8.69	NA	T1
379-11-I-high-C-1	Wood ash and compost_high_I	Bioaccess2.5pH	12	mg/kg	Arsenic	8.86	NA	T1
380-11-I-high-D-1	Wood ash and compost_high_I	Bioaccess2.5pH	12	mg/kg	Arsenic	8.50	NA	T1
381-12-I-high-A-1	Biochar and compost_high_I	Bioaccess2.5pH	12	mg/kg	Arsenic	7.67	NA	T1
382-12-I-high-B-1	Biochar and compost_high_I	Bioaccess2.5pH	12	mg/kg	Arsenic	7.55	NA	T1
383-12-I-high-C-1	Biochar and compost_high_I	Bioaccess2.5pH	12	mg/kg	Arsenic	7.34	NA	T1
384-12-I-high-D-1	Biochar and compost_high_I	Bioaccess2.5pH	12	mg/kg	Arsenic	8.38	NA	T1
385-00-I-baseline-A-1	control_none_I	Bioaccess2.5pH	13	mg/kg	Arsenic	7.13	NA	T1
386-00-I-baseline-B-1	control_none_I	Bioaccess2.5pH	13	mg/kg	Arsenic	7.11	NA	T1
387-00-I-baseline-C-1	control_none_I	Bioaccess2.5pH	13	mg/kg	Arsenic	7.06	NA	T1
388-00-I-baseline-D-1	control_none_I	Bioaccess2.5pH	13	mg/kg	Arsenic	7.01	NA	T1
004-00-baseline-D-1	Baseline_baseline_NA	Bioaccess2.5pH	4	%	Lead	34.50	NA	T1
003-00-baseline-C-1	Baseline_baseline_NA	Bioaccess2.5pH	3	%	Lead	32.28	NA	T1
002-00-baseline-B-1	Baseline_baseline_NA	Bioaccess2.5pH	2	%	Lead	32.02	NA	T1
001-00-baseline-A-1	Baseline_baseline_NA	Bioaccess2.5pH	1	%	Lead	32.05	NA	T1
001-01-S-low-A-1	Soluble phosphate_low_S	Bioaccess2.5pH	5	%	Lead	28.96	NA	T1
002-01-S-low-B-1	Soluble phosphate_low_S	Bioaccess2.5pH	6	%	Lead	28.59	NA	T1
003-01-S-low-C-1	Soluble phosphate_low_S	Bioaccess2.5pH	7	%	Lead	27.84	NA	T1
004-01-S-low-D-1	Soluble phosphate_low_S	Bioaccess2.5pH	8	%	Lead	28.32	NA	T1
005-02-S-low-A-1	Biosolid_low_S	Bioaccess2.5pH	9	%	Lead	28.83	NA	T1
006-02-S-low-B-1	Biosolid_low_S	Bioaccess2.5pH	10	%	Lead	30.63	NA	T1
007-02-S-low-C-1	Biosolid_low_S	Bioaccess2.5pH	11	%	Lead	28.44	NA	T1
008-02-S-low-D-1	Biosolid_low_S	Bioaccess2.5pH	12	%	Lead	29.73	NA	T1
009-03-S-low-A-1	Wood ash_low_S	Bioaccess2.5pH	13	%	Lead	32.95	NA	T1
010-03-S-low-B-1	Wood ash_low_S	Bioaccess2.5pH	13	%	Lead	33.30	NA	T1
011-03-S-low-C-1	Wood ash_low_S	Bioaccess2.5pH	13	%	Lead	32.89	NA	T1
012-03-S-low-D-1	Wood ash_low_S	Bioaccess2.5pH	13	%	Lead	33.95	NA	T1

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
013-04-S-low-A-1	Biochar_low_S	Bioaccess2.5pH	13	%	Lead	30.18	NA	T1
014-04-S-low-B-1	Biochar_low_S	Bioaccess2.5pH	14	%	Lead	30.35	NA	T1
015-04-S-low-C-1	Biochar_low_S	Bioaccess2.5pH	14	%	Lead	35.52	NA	T1
016-04-S-low-D-1	Biochar_low_S	Bioaccess2.5pH	14	%	Lead	35.32	NA	T1
017-05-S-low-A-1	Compost_low_S	Bioaccess2.5pH	14	%	Lead	34.33	NA	T1
018-05-S-low-B-1	Compost_low_S	Bioaccess2.5pH	14	%	Lead	34.49	NA	T1
019-05-S-low-C-1	Compost_low_S	Bioaccess2.5pH	14	%	Lead	33.94	NA	T1
020-05-S-low-D-1	Compost_low_S	Bioaccess2.5pH	14	%	Lead	34.77	NA	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	14	%	Lead	31.28	NA	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	14	%	Lead	33.36	NA	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	15	%	Lead	31.31	NA	T1
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	15	%	Lead	30.04	NA	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	15	%	Lead	29.50	NA	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	15	%	Lead	30.52	NA	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	15	%	Lead	30.73	NA	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	15	%	Lead	30.36	NA	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	Bioaccess2.5pH	15	%	Lead	30.64	NA	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	Bioaccess2.5pH	15	%	Lead	29.16	NA	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	Bioaccess2.5pH	15	%	Lead	29.45	NA	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	Bioaccess2.5pH	16	%	Lead	28.36	NA	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	Bioaccess2.5pH	16	%	Lead	32.35	NA	T1
034-09-S-low-B-1	Biosolids and wood ash_low_S	Bioaccess2.5pH	16	%	Lead	33.46	NA	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	Bioaccess2.5pH	16	%	Lead	33.06	NA	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	Bioaccess2.5pH	16	%	Lead	32.06	NA	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	Bioaccess2.5pH	16	%	Lead	30.88	NA	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	Bioaccess2.5pH	16	%	Lead	31.44	NA	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	Bioaccess2.5pH	16	%	Lead	31.76	NA	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	Bioaccess2.5pH	16	%	Lead	32.44	NA	T1
041-11-S-low-A-1	Wood ash and compost_low_S	Bioaccess2.5pH	17	%	Lead	37.80	NA	T1
042-11-S-low-B-1	Wood ash and compost_low_S	Bioaccess2.5pH	17	%	Lead	36.30	NA	T1
043-11-S-low-C-1	Wood ash and compost_low_S	Bioaccess2.5pH	17	%	Lead	36.90	NA	T1



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
044-11-S-low-D-1	Wood ash and compost_low_S	Bioaccess2.5pH	17	%	Lead	38.11	NA	T1
045-12-S-low-A-1	Biochar and compost_low_S	Bioaccess2.5pH	17	%	Lead	34.93	NA	T1
046-12-S-low-B-1	Biochar and compost_low_S	Bioaccess2.5pH	17	%	Lead	35.06	NA	T1
047-12-S-low-C-1	Biochar and compost_low_S	Bioaccess2.5pH	17	%	Lead	35.99	NA	T1
048-12-S-low-D-1	Biochar and compost_low_S	Bioaccess2.5pH	17	%	Lead	36.54	NA	T1
145-01-S-high-A-1	Soluble phosphate_high_S	Bioaccess2.5pH	17	%	Lead	26.65	NA	T1
146-01-S-high-B-1	Soluble phosphate_high_S	Bioaccess2.5pH	18	%	Lead	27.56	NA	T1
147-01-S-high-C-1	Soluble phosphate_high_S	Bioaccess2.5pH	18	%	Lead	28.14	NA	T1
148-01-S-high-D-1	Soluble phosphate_high_S	Bioaccess2.5pH	18	%	Lead	27.53	NA	T1
149-02-S-high-A-1	Biosolid_high_S	Bioaccess2.5pH	18	%	Lead	37.06	NA	T1
150-02-S-high-B-1	Biosolid_high_S	Bioaccess2.5pH	18	%	Lead	34.60	NA	T1
151-02-S-high-C-1	Biosolid_high_S	Bioaccess2.5pH	18	%	Lead	33.62	NA	T1
152-02-S-high-D-1	Biosolid_high_S	Bioaccess2.5pH	18	%	Lead	35.85	NA	T1
153-03-S-high-A-1	Wood ash_high_S	Bioaccess2.5pH	18	%	Lead	36.94	NA	T1
154-03-S-high-B-1	Wood ash_high_S	Bioaccess2.5pH	18	%	Lead	38.97	NA	T1
155-03-S-high-C-1	Wood ash_high_S	Bioaccess2.5pH	19	%	Lead	33.46	NA	T1
156-03-S-high-D-1	Wood ash_high_S	Bioaccess2.5pH	19	%	Lead	31.88	NA	T1
157-04-S-high-A-1	Biochar_high_S	Bioaccess2.5pH	19	%	Lead	31.08	NA	T1
158-04-S-high-B-1	Biochar_high_S	Bioaccess2.5pH	19	%	Lead	29.85	NA	T1
159-04-S-high-C-1	Biochar_high_S	Bioaccess2.5pH	19	%	Lead	30.90	NA	T1
160-04-S-high-D-1	Biochar_high_S	Bioaccess2.5pH	19	%	Lead	30.51	NA	T1
161-05-S-high-A-1	Compost_high_S	Bioaccess2.5pH	19	%	Lead	31.11	NA	T1
162-05-S-high-B-1	Compost_high_S	Bioaccess2.5pH	19	%	Lead	30.43	NA	T1
163-05-S-high-C-1	Compost_high_S	Bioaccess2.5pH	19	%	Lead	31.36	NA	T1
164-05-S-high-D-1	Compost_high_S	Bioaccess2.5pH	20	%	Lead	29.05	NA	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	20	%	Lead	25.60	NA	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	20	%	Lead	27.32	NA	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	20	%	Lead	27.62	NA	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	20	%	Lead	26.21	NA	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	20	%	Lead	21.78	NA	T1
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	20	%	Lead	22.53	NA	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	20	%	Lead	25.57	NA	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	20	%	Lead	20.18	NA	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	Bioaccess2.5pH	24	%	Lead	26.69	NA	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	Bioaccess2.5pH	24	%	Lead	26.23	NA	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	Bioaccess2.5pH	24	%	Lead	22.60	NA	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	Bioaccess2.5pH	24	%	Lead	27.00	NA	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	Bioaccess2.5pH	24	%	Lead	31.21	NA	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	Bioaccess2.5pH	24	%	Lead	35.41	NA	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	Bioaccess2.5pH	24	%	Lead	34.57	NA	T1
180-09-S-high-D-1	Biosolids and wood ash_high_S	Bioaccess2.5pH	24	%	Lead	35.20	NA	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	Bioaccess2.5pH	24	%	Lead	33.57	NA	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	Bioaccess2.5pH	22	%	Lead	30.12	NA	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	Bioaccess2.5pH	22	%	Lead	30.99	NA	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	Bioaccess2.5pH	22	%	Lead	32.69	NA	T1
185-11-S-high-A-1	Wood ash and compost_high_S	Bioaccess2.5pH	22	%	Lead	29.82	NA	T1
186-11-S-high-B-1	Wood ash and compost_high_S	Bioaccess2.5pH	22	%	Lead	31.54	NA	T1
187-11-S-high-C-1	Wood ash and compost_high_S	Bioaccess2.5pH	22	%	Lead	31.59	NA	T1
188-11-S-high-D-1	Wood ash and compost_high_S	Bioaccess2.5pH	22	%	Lead	30.94	NA	T1
189-12-S-high-A-1	Biochar and compost_high_S	Bioaccess2.5pH	22	%	Lead	28.52	NA	T1
190-12-S-high-B-1	Biochar and compost_high_S	Bioaccess2.5pH	22	%	Lead	29.43	NA	T1
191-12-S-high-C-1	Biochar and compost_high_S	Bioaccess2.5pH	23	%	Lead	31.11	NA	T1
192-12-S-high-D-1	Biochar and compost_high_S	Bioaccess2.5pH	23	%	Lead	30.49	NA	T1
289-01-I-low-A-1	Soluble phosphate_low_I	Bioaccess2.5pH	1	%	Lead	30.99	NA	T1
290-01-I-low-B-1	Soluble phosphate_low_I	Bioaccess2.5pH	1	%	Lead	31.98	NA	T1
291-01-I-low-C-1	Soluble phosphate_low_I	Bioaccess2.5pH	1	%	Lead	32.12	NA	T1
292-01-I-low-D-1	Soluble phosphate_low_I	Bioaccess2.5pH	1	%	Lead	30.10	NA	T1
293-02-I-low-A-1	Biosolid_low_I	Bioaccess2.5pH	1	%	Lead	31.03	NA	T1
294-02-I-low-B-1	Biosolid_low_I	Bioaccess2.5pH	1	%	Lead	32.82	NA	T1
295-02-I-low-C-1	Biosolid_low_I	Bioaccess2.5pH	1	%	Lead	33.34	NA	T1
296-02-I-low-D-1	Biosolid_low_I	Bioaccess2.5pH	1	%	Lead	32.60	NA	T1
297-03-I-low-A-1	Wood ash_low_I	Bioaccess2.5pH	2	%	Lead	32.32	NA	T1



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
298-03-I-low-B-1	Wood ash_low_I	Bioaccess2.5pH	2	%	Lead	33.00	NA	T1
299-03-I-low-C-1	Wood ash_low_I	Bioaccess2.5pH	2	%	Lead	33.92	NA	T1
300-03-I-low-D-1	Wood ash_low_I	Bioaccess2.5pH	2	%	Lead	33.07	NA	T1
301-04-I-low-A-1	Biochar_low_I	Bioaccess2.5pH	2	%	Lead	31.94	NA	T1
302-04-I-low-B-1	Biochar_low_I	Bioaccess2.5pH	2	%	Lead	31.12	NA	T1
303-04-I-low-C-1	Biochar_low_I	Bioaccess2.5pH	2	%	Lead	31.81	NA	T1
304-04-I-low-D-1	Biochar_low_I	Bioaccess2.5pH	2	%	Lead	32.74	NA	T1
305-05-I-low-A-1	Compost_low_I	Bioaccess2.5pH	3	%	Lead	32.48	NA	T1
306-05-I-low-B-1	Compost_low_I	Bioaccess2.5pH	3	%	Lead	32.25	NA	T1
307-05-I-low-C-1	Compost_low_I	Bioaccess2.5pH	3	%	Lead	33.57	NA	T1
308-05-I-low-D-1	Compost_low_I	Bioaccess2.5pH	3	%	Lead	33.28	NA	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	3	%	Lead	30.94	NA	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	3	%	Lead	30.50	NA	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	3	%	Lead	35.07	NA	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	3	%	Lead	33.64	NA	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	4	%	Lead	32.89	NA	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	4	%	Lead	32.64	NA	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	4	%	Lead	31.89	NA	T1
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	4	%	Lead	31.99	NA	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	Bioaccess2.5pH	4	%	Lead	31.92	NA	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	Bioaccess2.5pH	4	%	Lead	34.36	NA	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	Bioaccess2.5pH	4	%	Lead	37.74	NA	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	Bioaccess2.5pH	4	%	Lead	36.33	NA	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	Bioaccess2.5pH	5	%	Lead	37.20	NA	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	Bioaccess2.5pH	5	%	Lead	34.07	NA	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	Bioaccess2.5pH	5	%	Lead	37.13	NA	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	Bioaccess2.5pH	5	%	Lead	38.36	NA	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	Bioaccess2.5pH	5	%	Lead	33.60	NA	T1
326-10-I-low-B-1	Wood ash and biochar_low_I	Bioaccess2.5pH	5	%	Lead	35.88	NA	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	Bioaccess2.5pH	5	%	Lead	35.08	NA	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	Bioaccess2.5pH	5	%	Lead	34.55	NA	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
329-11-I-low-A-1	Wood ash and compost_low_I	Bioaccess2.5pH	6	%	Lead	33.51	NA	T1
330-11-I-low-B-1	Wood ash and compost_low_I	Bioaccess2.5pH	6	%	Lead	35.05	NA	T1
331-11-I-low-C-1	Wood ash and compost_low_I	Bioaccess2.5pH	6	%	Lead	36.94	NA	T1
332-11-I-low-D-1	Wood ash and compost_low_I	Bioaccess2.5pH	6	%	Lead	31.61	NA	T1
333-12-I-low-A-1	Biochar and compost_low_I	Bioaccess2.5pH	6	%	Lead	32.58	NA	T1
334-12-I-low-B-1	Biochar and compost_low_I	Bioaccess2.5pH	6	%	Lead	31.56	NA	T1
335-12-I-low-C-1	Biochar and compost_low_I	Bioaccess2.5pH	6	%	Lead	33.54	NA	T1
336-12-I-low-D-1	Biochar and compost_low_I	Bioaccess2.5pH	6	%	Lead	33.59	NA	T1
337-01-I-high-A-1	Soluble phosphate_high_I	Bioaccess2.5pH	7	%	Lead	25.21	NA	T1
338-01-I-high-B-1	Soluble phosphate_high_I	Bioaccess2.5pH	7	%	Lead	27.21	NA	T1
339-01-I-high-C-1	Soluble phosphate_high_I	Bioaccess2.5pH	7	%	Lead	26.25	NA	T1
340-01-I-high-D-1	Soluble phosphate_high_I	Bioaccess2.5pH	7	%	Lead	22.96	NA	T1
341-02-I-high-A-1	Biosolid_high_I	Bioaccess2.5pH	7	%	Lead	28.91	NA	T1
342-02-I-high-B-1	Biosolid_high_I	Bioaccess2.5pH	7	%	Lead	28.77	NA	T1
343-02-I-high-C-1	Biosolid_high_I	Bioaccess2.5pH	7	%	Lead	25.52	NA	T1
344-02-I-high-D-1	Biosolid_high_I	Bioaccess2.5pH	7	%	Lead	24.01	NA	T1
345-03-I-high-A-1	Wood ash_high_I	Bioaccess2.5pH	8	%	Lead	35.88	NA	T1
346-03-I-high-B-1	Wood ash_high_I	Bioaccess2.5pH	8	%	Lead	32.02	NA	T1
347-03-I-high-C-1	Wood ash_high_I	Bioaccess2.5pH	8	%	Lead	35.01	NA	T1
348-03-I-high-D-1	Wood ash_high_I	Bioaccess2.5pH	8	%	Lead	40.16	NA	T1
349-04-I-high-A-1	Biochar_high_I	Bioaccess2.5pH	8	%	Lead	39.22	NA	T1
350-04-I-high-B-1	Biochar_high_I	Bioaccess2.5pH	8	%	Lead	37.95	NA	T1
351-04-I-high-C-1	Biochar_high_I	Bioaccess2.5pH	8	%	Lead	33.53	NA	T1
352-04-I-high-D-1	Biochar_high_I	Bioaccess2.5pH	8	%	Lead	41.04	NA	T1
353-05-I-high-A-1	Compost_high_I	Bioaccess2.5pH	9	%	Lead	28.10	NA	T1
354-05-I-high-B-1	Compost_high_I	Bioaccess2.5pH	9	%	Lead	27.30	NA	T1
355-05-I-high-C-1	Compost_high_I	Bioaccess2.5pH	9	%	Lead	27.41	NA	T1
356-05-I-high-D-1	Compost_high_I	Bioaccess2.5pH	9	%	Lead	25.61	NA	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	9	%	Lead	21.60	NA	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	9	%	Lead	22.23	NA	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	9	%	Lead	25.57	NA	T1



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	9	%	Lead	26.15	NA	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	10	%	Lead	23.34	NA	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	10	%	Lead	19.48	NA	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	10	%	Lead	24.56	NA	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	10	%	Lead	24.14	NA	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	Bioaccess2.5pH	10	%	Lead	24.02	NA	T1
366-08-I-high-B-1	Soluble phosphate and compost_high_I	Bioaccess2.5pH	10	%	Lead	24.08	NA	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	Bioaccess2.5pH	10	%	Lead	22.58	NA	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	Bioaccess2.5pH	10	%	Lead	21.64	NA	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	Bioaccess2.5pH	11	%	Lead	33.42	NA	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	Bioaccess2.5pH	11	%	Lead	36.33	NA	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	Bioaccess2.5pH	11	%	Lead	32.24	NA	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	Bioaccess2.5pH	11	%	Lead	31.91	NA	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	Bioaccess2.5pH	11	%	Lead	33.59	NA	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	Bioaccess2.5pH	11	%	Lead	34.98	NA	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	Bioaccess2.5pH	11	%	Lead	36.54	NA	T1
376-10-I-high-D-1	Wood ash and biochar_high_I	Bioaccess2.5pH	11	%	Lead	33.65	NA	T1
377-11-I-high-A-1	Wood ash and compost_high_I	Bioaccess2.5pH	12	%	Lead	31.02	NA	T1
378-11-I-high-B-1	Wood ash and compost_high_I	Bioaccess2.5pH	12	%	Lead	31.15	NA	T1
379-11-I-high-C-1	Wood ash and compost_high_I	Bioaccess2.5pH	12	%	Lead	31.37	NA	T1
380-11-I-high-D-1	Wood ash and compost_high_I	Bioaccess2.5pH	12	%	Lead	32.39	NA	T1
381-12-I-high-A-1	Biochar and compost_high_I	Bioaccess2.5pH	12	%	Lead	27.15	NA	T1
382-12-I-high-B-1	Biochar and compost_high_I	Bioaccess2.5pH	12	%	Lead	29.69	NA	T1
383-12-I-high-C-1	Biochar and compost_high_I	Bioaccess2.5pH	12	%	Lead	29.66	NA	T1
384-12-I-high-D-1	Biochar and compost_high_I	Bioaccess2.5pH	12	%	Lead	30.05	NA	T1
385-00-I-baseline-A-1	control_none_I	Bioaccess2.5pH	13	%	Lead	33.79	NA	T1
386-00-I-baseline-B-1	control_none_I	Bioaccess2.5pH	13	%	Lead	31.67	NA	T1
387-00-I-baseline-C-1	control_none_I	Bioaccess2.5pH	13	%	Lead	32.31	NA	T1
388-00-I-baseline-D-1	control_none_I	Bioaccess2.5pH	13	%	Lead	32.47	NA	T1
004-00-baseline-D-1	Baseline_baseline_NA	Bioaccess2.5pH	4	mg/kg	Lead	487.50	NA	T1
003-00-baseline-C-1	Baseline_baseline_NA	Bioaccess2.5pH	3	mg/kg	Lead	461.17	NA	T1

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
002-00-baseline-B-1	Baseline_baseline_NA	Bioaccess2.5pH	2	mg/kg	Lead	448.22	NA	T1
001-00-baseline-A-1	Baseline_baseline_NA	Bioaccess2.5pH	1	mg/kg	Lead	448.44	NA	T1
001-01-S-low-A-1	Soluble phosphate_low_S	Bioaccess2.5pH	5	mg/kg	Lead	451.05	NA	T1
002-01-S-low-B-1	Soluble phosphate_low_S	Bioaccess2.5pH	6	mg/kg	Lead	429.41	NA	T1
003-01-S-low-C-1	Soluble phosphate_low_S	Bioaccess2.5pH	7	mg/kg	Lead	414.39	NA	T1
004-01-S-low-D-1	Soluble phosphate_low_S	Bioaccess2.5pH	8	mg/kg	Lead	431.95	NA	T1
005-02-S-low-A-1	Biosolid_low_S	Bioaccess2.5pH	9	mg/kg	Lead	424.52	NA	T1
006-02-S-low-B-1	Biosolid_low_S	Bioaccess2.5pH	10	mg/kg	Lead	451.09	NA	T1
007-02-S-low-C-1	Biosolid_low_S	Bioaccess2.5pH	11	mg/kg	Lead	435.86	NA	T1
008-02-S-low-D-1	Biosolid_low_S	Bioaccess2.5pH	12	mg/kg	Lead	435.46	NA	T1
009-03-S-low-A-1	Wood ash_low_S	Bioaccess2.5pH	13	mg/kg	Lead	478.72	NA	T1
010-03-S-low-B-1	Wood ash_low_S	Bioaccess2.5pH	13	mg/kg	Lead	495.80	NA	T1
011-03-S-low-C-1	Wood ash_low_S	Bioaccess2.5pH	13	mg/kg	Lead	505.75	NA	T1
012-03-S-low-D-1	Wood ash_low_S	Bioaccess2.5pH	13	mg/kg	Lead	518.13	NA	T1
013-04-S-low-A-1	Biochar_low_S	Bioaccess2.5pH	13	mg/kg	Lead	456.60	NA	T1
014-04-S-low-B-1	Biochar_low_S	Bioaccess2.5pH	14	mg/kg	Lead	456.68	NA	T1
015-04-S-low-C-1	Biochar_low_S	Bioaccess2.5pH	14	mg/kg	Lead	523.34	NA	T1
016-04-S-low-D-1	Biochar_low_S	Bioaccess2.5pH	14	mg/kg	Lead	521.98	NA	T1
017-05-S-low-A-1	Compost_low_S	Bioaccess2.5pH	14	mg/kg	Lead	513.80	NA	T1
018-05-S-low-B-1	Compost_low_S	Bioaccess2.5pH	14	mg/kg	Lead	521.54	NA	T1
019-05-S-low-C-1	Compost_low_S	Bioaccess2.5pH	14	mg/kg	Lead	510.50	NA	T1
020-05-S-low-D-1	Compost_low_S	Bioaccess2.5pH	14	mg/kg	Lead	528.79	NA	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	14	mg/kg	Lead	474.43	NA	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	14	mg/kg	Lead	488.68	NA	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	15	mg/kg	Lead	457.33	NA	T1
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	15	mg/kg	Lead	451.37	NA	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	15	mg/kg	Lead	439.20	NA	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	15	mg/kg	Lead	462.62	NA	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	15	mg/kg	Lead	464.64	NA	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	15	mg/kg	Lead	437.14	NA	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	Bioaccess2.5pH	15	mg/kg	Lead	444.36	NA	T1



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
030-08-S-low-B-1	Soluble phosphate and compost_low_S	Bioaccess2.5pH	15	mg/kg	Lead	431.86	NA	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	Bioaccess2.5pH	15	mg/kg	Lead	418.62	NA	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	Bioaccess2.5pH	16	mg/kg	Lead	424.07	NA	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	Bioaccess2.5pH	16	mg/kg	Lead	476.92	NA	T1
034-09-S-low-B-1	Biosolids and wood ash_low_S	Bioaccess2.5pH	16	mg/kg	Lead	500.70	NA	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	Bioaccess2.5pH	16	mg/kg	Lead	476.79	NA	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	Bioaccess2.5pH	16	mg/kg	Lead	482.45	NA	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	Bioaccess2.5pH	16	mg/kg	Lead	484.94	NA	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	Bioaccess2.5pH	16	mg/kg	Lead	465.70	NA	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	Bioaccess2.5pH	16	mg/kg	Lead	481.34	NA	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	Bioaccess2.5pH	16	mg/kg	Lead	464.80	NA	T1
041-11-S-low-A-1	Wood ash and compost_low_S	Bioaccess2.5pH	17	mg/kg	Lead	569.67	NA	T1
042-11-S-low-B-1	Wood ash and compost_low_S	Bioaccess2.5pH	17	mg/kg	Lead	537.60	NA	T1
043-11-S-low-C-1	Wood ash and compost_low_S	Bioaccess2.5pH	17	mg/kg	Lead	564.66	NA	T1
044-11-S-low-D-1	Wood ash and compost_low_S	Bioaccess2.5pH	17	mg/kg	Lead	533.24	NA	T1
045-12-S-low-A-1	Biochar and compost_low_S	Bioaccess2.5pH	17	mg/kg	Lead	518.55	NA	T1
046-12-S-low-B-1	Biochar and compost_low_S	Bioaccess2.5pH	17	mg/kg	Lead	541.59	NA	T1
047-12-S-low-C-1	Biochar and compost_low_S	Bioaccess2.5pH	17	mg/kg	Lead	535.32	NA	T1
048-12-S-low-D-1	Biochar and compost_low_S	Bioaccess2.5pH	17	mg/kg	Lead	559.55	NA	T1
145-01-S-high-A-1	Soluble phosphate_high_S	Bioaccess2.5pH	17	mg/kg	Lead	409.22	NA	T1
146-01-S-high-B-1	Soluble phosphate_high_S	Bioaccess2.5pH	18	mg/kg	Lead	432.52	NA	T1
147-01-S-high-C-1	Soluble phosphate_high_S	Bioaccess2.5pH	18	mg/kg	Lead	428.94	NA	T1
148-01-S-high-D-1	Soluble phosphate_high_S	Bioaccess2.5pH	18	mg/kg	Lead	398.11	NA	T1
149-02-S-high-A-1	Biosolid_high_S	Bioaccess2.5pH	18	mg/kg	Lead	545.90	NA	T1
150-02-S-high-B-1	Biosolid_high_S	Bioaccess2.5pH	18	mg/kg	Lead	526.23	NA	T1
151-02-S-high-C-1	Biosolid_high_S	Bioaccess2.5pH	18	mg/kg	Lead	498.28	NA	T1
152-02-S-high-D-1	Biosolid_high_S	Bioaccess2.5pH	18	mg/kg	Lead	545.66	NA	T1
153-03-S-high-A-1	Wood ash_high_S	Bioaccess2.5pH	18	mg/kg	Lead	544.79	NA	T1
154-03-S-high-B-1	Wood ash_high_S	Bioaccess2.5pH	18	mg/kg	Lead	556.68	NA	T1
155-03-S-high-C-1	Wood ash_high_S	Bioaccess2.5pH	19	mg/kg	Lead	478.21	NA	T1
156-03-S-high-D-1	Wood ash_high_S	Bioaccess2.5pH	19	mg/kg	Lead	477.09	NA	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
157-04-S-high-A-1	Biochar_high_S	Bioaccess2.5pH	19	mg/kg	Lead	456.45	NA	T1
158-04-S-high-B-1	Biochar_high_S	Bioaccess2.5pH	19	mg/kg	Lead	455.00	NA	T1
159-04-S-high-C-1	Biochar_high_S	Bioaccess2.5pH	19	mg/kg	Lead	457.09	NA	T1
160-04-S-high-D-1	Biochar_high_S	Bioaccess2.5pH	19	mg/kg	Lead	440.85	NA	T1
161-05-S-high-A-1	Compost_high_S	Bioaccess2.5pH	19	mg/kg	Lead	451.78	NA	T1
162-05-S-high-B-1	Compost_high_S	Bioaccess2.5pH	19	mg/kg	Lead	440.09	NA	T1
163-05-S-high-C-1	Compost_high_S	Bioaccess2.5pH	19	mg/kg	Lead	467.17	NA	T1
164-05-S-high-D-1	Compost_high_S	Bioaccess2.5pH	20	mg/kg	Lead	442.96	NA	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	20	mg/kg	Lead	396.17	NA	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	20	mg/kg	Lead	406.71	NA	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	20	mg/kg	Lead	403.40	NA	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	20	mg/kg	Lead	389.79	NA	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	20	mg/kg	Lead	335.27	NA	T1
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	20	mg/kg	Lead	338.93	NA	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	20	mg/kg	Lead	412.64	NA	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	20	mg/kg	Lead	295.30	NA	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	Bioaccess2.5pH	24	mg/kg	Lead	407.45	NA	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	Bioaccess2.5pH	24	mg/kg	Lead	397.54	NA	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	Bioaccess2.5pH	24	mg/kg	Lead	354.31	NA	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	Bioaccess2.5pH	24	mg/kg	Lead	407.96	NA	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	Bioaccess2.5pH	24	mg/kg	Lead	484.98	NA	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	Bioaccess2.5pH	24	mg/kg	Lead	521.91	NA	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	Bioaccess2.5pH	24	mg/kg	Lead	509.75	NA	T1
180-09-S-high-D-1	Biosolids and wood ash_high_S	Bioaccess2.5pH	24	mg/kg	Lead	526.90	NA	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	Bioaccess2.5pH	24	mg/kg	Lead	477.44	NA	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	Bioaccess2.5pH	22	mg/kg	Lead	442.90	NA	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	Bioaccess2.5pH	22	mg/kg	Lead	426.58	NA	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	Bioaccess2.5pH	22	mg/kg	Lead	478.78	NA	T1
185-11-S-high-A-1	Wood ash and compost_high_S	Bioaccess2.5pH	22	mg/kg	Lead	464.48	NA	T1
186-11-S-high-B-1	Wood ash and compost_high_S	Bioaccess2.5pH	22	mg/kg	Lead	460.71	NA	T1
187-11-S-high-C-1	Wood ash and compost_high_S	Bioaccess2.5pH	22	mg/kg	Lead	460.98	NA	T1



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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
188-11-S-high-D-1	Wood ash and compost_high_S	Bioaccess2.5pH	22	mg/kg	Lead	470.72	NA	T1
189-12-S-high-A-1	Biochar and compost_high_S	Bioaccess2.5pH	22	mg/kg	Lead	404.01	NA	T1
190-12-S-high-B-1	Biochar and compost_high_S	Bioaccess2.5pH	22	mg/kg	Lead	434.79	NA	T1
191-12-S-high-C-1	Biochar and compost_high_S	Bioaccess2.5pH	23	mg/kg	Lead	466.35	NA	T1
192-12-S-high-D-1	Biochar and compost_high_S	Bioaccess2.5pH	23	mg/kg	Lead	453.91	NA	T1
289-01-I-low-A-1	Soluble phosphate_low_I	Bioaccess2.5pH	1	mg/kg	Lead	459.27	NA	T1
290-01-I-low-B-1	Soluble phosphate_low_I	Bioaccess2.5pH	1	mg/kg	Lead	435.36	NA	T1
291-01-I-low-C-1	Soluble phosphate_low_I	Bioaccess2.5pH	1	mg/kg	Lead	451.60	NA	T1
292-01-I-low-D-1	Soluble phosphate_low_I	Bioaccess2.5pH	1	mg/kg	Lead	431.52	NA	T1
293-02-I-low-A-1	Biosolid_low_I	Bioaccess2.5pH	1	mg/kg	Lead	451.41	NA	T1
294-02-I-low-B-1	Biosolid_low_I	Bioaccess2.5pH	1	mg/kg	Lead	453.63	NA	T1
295-02-I-low-C-1	Biosolid_low_I	Bioaccess2.5pH	1	mg/kg	Lead	449.89	NA	T1
296-02-I-low-D-1	Biosolid_low_I	Bioaccess2.5pH	1	mg/kg	Lead	446.08	NA	T1
297-03-I-low-A-1	Wood ash_low_I	Bioaccess2.5pH	2	mg/kg	Lead	461.58	NA	T1
298-03-I-low-B-1	Wood ash_low_I	Bioaccess2.5pH	2	mg/kg	Lead	460.53	NA	T1
299-03-I-low-C-1	Wood ash_low_I	Bioaccess2.5pH	2	mg/kg	Lead	475.65	NA	T1
300-03-I-low-D-1	Wood ash_low_I	Bioaccess2.5pH	2	mg/kg	Lead	460.80	NA	T1
301-04-I-low-A-1	Biochar_low_I	Bioaccess2.5pH	2	mg/kg	Lead	448.92	NA	T1
302-04-I-low-B-1	Biochar_low_I	Bioaccess2.5pH	2	mg/kg	Lead	439.84	NA	T1
303-04-I-low-C-1	Biochar_low_I	Bioaccess2.5pH	2	mg/kg	Lead	447.95	NA	T1
304-04-I-low-D-1	Biochar_low_I	Bioaccess2.5pH	2	mg/kg	Lead	452.61	NA	T1
305-05-I-low-A-1	Compost_low_I	Bioaccess2.5pH	3	mg/kg	Lead	464.08	NA	T1
306-05-I-low-B-1	Compost_low_I	Bioaccess2.5pH	3	mg/kg	Lead	467.24	NA	T1
307-05-I-low-C-1	Compost_low_I	Bioaccess2.5pH	3	mg/kg	Lead	447.32	NA	T1
308-05-I-low-D-1	Compost_low_I	Bioaccess2.5pH	3	mg/kg	Lead	465.29	NA	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	3	mg/kg	Lead	411.82	NA	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	3	mg/kg	Lead	418.48	NA	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	3	mg/kg	Lead	446.14	NA	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	3	mg/kg	Lead	446.89	NA	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	4	mg/kg	Lead	454.98	NA	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	4	mg/kg	Lead	463.53	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	4	mg/kg	Lead	455.34	NA	T1
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	4	mg/kg	Lead	440.06	NA	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	Bioaccess2.5pH	4	mg/kg	Lead	433.66	NA	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	Bioaccess2.5pH	4	mg/kg	Lead	449.64	NA	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	Bioaccess2.5pH	4	mg/kg	Lead	468.87	NA	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	Bioaccess2.5pH	4	mg/kg	Lead	467.79	NA	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	Bioaccess2.5pH	5	mg/kg	Lead	493.48	NA	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	Bioaccess2.5pH	5	mg/kg	Lead	480.65	NA	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	Bioaccess2.5pH	5	mg/kg	Lead	497.48	NA	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	Bioaccess2.5pH	5	mg/kg	Lead	495.65	NA	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	Bioaccess2.5pH	5	mg/kg	Lead	465.74	NA	T1
326-10-I-low-B-1	Wood ash and biochar_low_I	Bioaccess2.5pH	5	mg/kg	Lead	506.65	NA	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	Bioaccess2.5pH	5	mg/kg	Lead	507.25	NA	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	Bioaccess2.5pH	5	mg/kg	Lead	489.04	NA	T1
329-11-I-low-A-1	Wood ash and compost_low_I	Bioaccess2.5pH	6	mg/kg	Lead	477.96	NA	T1
330-11-I-low-B-1	Wood ash and compost_low_I	Bioaccess2.5pH	6	mg/kg	Lead	460.39	NA	T1
331-11-I-low-C-1	Wood ash and compost_low_I	Bioaccess2.5pH	6	mg/kg	Lead	465.74	NA	T1
332-11-I-low-D-1	Wood ash and compost_low_I	Bioaccess2.5pH	6	mg/kg	Lead	456.51	NA	T1
333-12-I-low-A-1	Biochar and compost_low_I	Bioaccess2.5pH	6	mg/kg	Lead	430.13	NA	T1
334-12-I-low-B-1	Biochar and compost_low_I	Bioaccess2.5pH	6	mg/kg	Lead	436.84	NA	T1
335-12-I-low-C-1	Biochar and compost_low_I	Bioaccess2.5pH	6	mg/kg	Lead	439.16	NA	T1
336-12-I-low-D-1	Biochar and compost_low_I	Bioaccess2.5pH	6	mg/kg	Lead	446.48	NA	T1
337-01-I-high-A-1	Soluble phosphate_high_I	Bioaccess2.5pH	7	mg/kg	Lead	382.07	NA	T1
338-01-I-high-B-1	Soluble phosphate_high_I	Bioaccess2.5pH	7	mg/kg	Lead	396.03	NA	T1
339-01-I-high-C-1	Soluble phosphate_high_I	Bioaccess2.5pH	7	mg/kg	Lead	380.01	NA	T1
340-01-I-high-D-1	Soluble phosphate_high_I	Bioaccess2.5pH	7	mg/kg	Lead	358.87	NA	T1
341-02-I-high-A-1	Biosolid_high_I	Bioaccess2.5pH	7	mg/kg	Lead	405.67	NA	T1
342-02-I-high-B-1	Biosolid_high_I	Bioaccess2.5pH	7	mg/kg	Lead	428.71	NA	T1
343-02-I-high-C-1	Biosolid_high_I	Bioaccess2.5pH	7	mg/kg	Lead	385.32	NA	T1
344-02-I-high-D-1	Biosolid_high_I	Bioaccess2.5pH	7	mg/kg	Lead	389.49	NA	T1
345-03-I-high-A-1	Wood ash_high_I	Bioaccess2.5pH	8	mg/kg	Lead	510.18	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
346-03-I-high-B-1	Wood ash_high_I	Bioaccess2.5pH	8	mg/kg	Lead	487.24	NA	T1
347-03-I-high-C-1	Wood ash_high_I	Bioaccess2.5pH	8	mg/kg	Lead	533.11	NA	T1
348-03-I-high-D-1	Wood ash_high_I	Bioaccess2.5pH	8	mg/kg	Lead	534.97	NA	T1
349-04-I-high-A-1	Biochar_high_I	Bioaccess2.5pH	8	mg/kg	Lead	475.74	NA	T1
350-04-I-high-B-1	Biochar_high_I	Bioaccess2.5pH	8	mg/kg	Lead	458.33	NA	T1
351-04-I-high-C-1	Biochar_high_I	Bioaccess2.5pH	8	mg/kg	Lead	447.34	NA	T1
352-04-I-high-D-1	Biochar_high_I	Bioaccess2.5pH	8	mg/kg	Lead	475.06	NA	T1
353-05-I-high-A-1	Compost_high_I	Bioaccess2.5pH	9	mg/kg	Lead	437.52	NA	T1
354-05-I-high-B-1	Compost_high_I	Bioaccess2.5pH	9	mg/kg	Lead	406.37	NA	T1
355-05-I-high-C-1	Compost_high_I	Bioaccess2.5pH	9	mg/kg	Lead	417.65	NA	T1
356-05-I-high-D-1	Compost_high_I	Bioaccess2.5pH	9	mg/kg	Lead	425.77	NA	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	9	mg/kg	Lead	318.62	NA	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	9	mg/kg	Lead	337.89	NA	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	9	mg/kg	Lead	312.49	NA	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	9	mg/kg	Lead	328.44	NA	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	10	mg/kg	Lead	345.62	NA	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	10	mg/kg	Lead	349.36	NA	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	10	mg/kg	Lead	368.13	NA	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	10	mg/kg	Lead	365.58	NA	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	Bioaccess2.5pH	10	mg/kg	Lead	330.66	NA	T1
366-08-I-high-B-1	Soluble phosphate and compost_high_I	Bioaccess2.5pH	10	mg/kg	Lead	329.98	NA	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	Bioaccess2.5pH	10	mg/kg	Lead	328.97	NA	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	Bioaccess2.5pH	10	mg/kg	Lead	308.05	NA	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	Bioaccess2.5pH	11	mg/kg	Lead	435.35	NA	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	Bioaccess2.5pH	11	mg/kg	Lead	478.31	NA	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	Bioaccess2.5pH	11	mg/kg	Lead	428.57	NA	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	Bioaccess2.5pH	11	mg/kg	Lead	423.27	NA	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	Bioaccess2.5pH	11	mg/kg	Lead	491.46	NA	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	Bioaccess2.5pH	11	mg/kg	Lead	489.34	NA	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	Bioaccess2.5pH	11	mg/kg	Lead	497.54	NA	T1
376-10-I-high-D-1	Wood ash and biochar_high_I	Bioaccess2.5pH	11	mg/kg	Lead	489.09	NA	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
377-11-I-high-A-1	Wood ash and compost_high_I	Bioaccess2.5pH	12	mg/kg	Lead	459.42	NA	T1
378-11-I-high-B-1	Wood ash and compost_high_I	Bioaccess2.5pH	12	mg/kg	Lead	417.32	NA	T1
379-11-I-high-C-1	Wood ash and compost_high_I	Bioaccess2.5pH	12	mg/kg	Lead	445.17	NA	T1
380-11-I-high-D-1	Wood ash and compost_high_I	Bioaccess2.5pH	12	mg/kg	Lead	448.57	NA	T1
381-12-I-high-A-1	Biochar and compost_high_I	Bioaccess2.5pH	12	mg/kg	Lead	373.76	NA	T1
382-12-I-high-B-1	Biochar and compost_high_I	Bioaccess2.5pH	12	mg/kg	Lead	438.92	NA	T1
383-12-I-high-C-1	Biochar and compost_high_I	Bioaccess2.5pH	12	mg/kg	Lead	443.22	NA	T1
384-12-I-high-D-1	Biochar and compost_high_I	Bioaccess2.5pH	12	mg/kg	Lead	439.99	NA	T1
385-00-I-baseline-A-1	control_none_I	Bioaccess2.5pH	13	mg/kg	Lead	508.11	NA	T1
386-00-I-baseline-B-1	control_none_I	Bioaccess2.5pH	13	mg/kg	Lead	493.27	NA	T1
387-00-I-baseline-C-1	control_none_I	Bioaccess2.5pH	13	mg/kg	Lead	500.57	NA	T1
388-00-I-baseline-D-1	control_none_I	Bioaccess2.5pH	13	mg/kg	Lead	468.48	NA	T1
004-00-baseline-D-1	Baseline_baseline_NA	Bioaccess1.5pH	4	%	Arsenic	25.12	NA	T1
003-00-baseline-C-1	Baseline_baseline_NA	Bioaccess1.5pH	3	%	Arsenic	19.23	NA	T1
002-00-baseline-B-1	Baseline_baseline_NA	Bioaccess1.5pH	2	%	Arsenic	25.67	NA	T1
001-00-baseline-A-1	Baseline_baseline_NA	Bioaccess1.5pH	1	%	Arsenic	24.83	NA	T1
001-01-S-low-A-1	Soluble phosphate_low_S	Bioaccess1.5pH	5	%	Arsenic	23.77	NA	T1
002-01-S-low-B-1	Soluble phosphate_low_S	Bioaccess1.5pH	6	%	Arsenic	23.08	NA	T1
003-01-S-low-C-1	Soluble phosphate_low_S	Bioaccess1.5pH	7	%	Arsenic	22.22	NA	T1
004-01-S-low-D-1	Soluble phosphate_low_S	Bioaccess1.5pH	8	%	Arsenic	23.37	NA	T1
005-02-S-low-A-1	Biosolid_low_S	Bioaccess1.5pH	9	%	Arsenic	20.91	NA	T1
006-02-S-low-B-1	Biosolid_low_S	Bioaccess1.5pH	10	%	Arsenic	21.92	NA	T1
007-02-S-low-C-1	Biosolid_low_S	Bioaccess1.5pH	11	%	Arsenic	24.00	NA	T1
008-02-S-low-D-1	Biosolid_low_S	Bioaccess1.5pH	12	%	Arsenic	23.87	NA	T1
009-03-S-low-A-1	Wood ash_low_S	Bioaccess1.5pH	13	%	Arsenic	18.40	NA	T1
010-03-S-low-B-1	Wood ash_low_S	Bioaccess1.5pH	13	%	Arsenic	18.99	NA	T1
011-03-S-low-C-1	Wood ash_low_S	Bioaccess1.5pH	13	%	Arsenic	19.03	NA	T1
012-03-S-low-D-1	Wood ash_low_S	Bioaccess1.5pH	13	%	Arsenic	18.97	NA	T1
013-04-S-low-A-1	Biochar_low_S	Bioaccess1.5pH	13	%	Arsenic	17.08	NA	T1
014-04-S-low-B-1	Biochar_low_S	Bioaccess1.5pH	14	%	Arsenic	17.60	NA	T1
015-04-S-low-C-1	Biochar_low_S	Bioaccess1.5pH	14	%	Arsenic	19.36	NA	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
016-04-S-low-D-1	Biochar_low_S	Bioaccess1.5pH	14	%	Arsenic	19.04	NA	T1
017-05-S-low-A-1	Compost_low_S	Bioaccess1.5pH	14	%	Arsenic	18.85	NA	T1
018-05-S-low-B-1	Compost_low_S	Bioaccess1.5pH	14	%	Arsenic	19.12	NA	T1
019-05-S-low-C-1	Compost_low_S	Bioaccess1.5pH	14	%	Arsenic	18.37	NA	T1
020-05-S-low-D-1	Compost_low_S	Bioaccess1.5pH	14	%	Arsenic	18.97	NA	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	14	%	Arsenic	22.04	NA	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	14	%	Arsenic	21.84	NA	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	15	%	Arsenic	21.72	NA	T1
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	15	%	Arsenic	20.21	NA	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	15	%	Arsenic	20.66	NA	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	15	%	Arsenic	19.94	NA	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	15	%	Arsenic	19.40	NA	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	15	%	Arsenic	22.72	NA	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	Bioaccess1.5pH	15	%	Arsenic	20.48	NA	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	Bioaccess1.5pH	15	%	Arsenic	20.89	NA	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	Bioaccess1.5pH	15	%	Arsenic	19.39	NA	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	Bioaccess1.5pH	16	%	Arsenic	19.87	NA	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	Bioaccess1.5pH	16	%	Arsenic	18.20	NA	T1
034-09-S-low-B-1	Biosolids and wood ash_low_S	Bioaccess1.5pH	16	%	Arsenic	19.04	NA	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	Bioaccess1.5pH	16	%	Arsenic	22.94	NA	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	Bioaccess1.5pH	16	%	Arsenic	19.54	NA	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	Bioaccess1.5pH	16	%	Arsenic	16.16	NA	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	Bioaccess1.5pH	16	%	Arsenic	18.01	NA	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	Bioaccess1.5pH	16	%	Arsenic	18.30	NA	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	Bioaccess1.5pH	16	%	Arsenic	18.95	NA	T1
041-11-S-low-A-1	Wood ash and compost_low_S	Bioaccess1.5pH	17	%	Arsenic	19.08	NA	T1
042-11-S-low-B-1	Wood ash and compost_low_S	Bioaccess1.5pH	17	%	Arsenic	17.47	NA	T1
043-11-S-low-C-1	Wood ash and compost_low_S	Bioaccess1.5pH	17	%	Arsenic	17.37	NA	T1
044-11-S-low-D-1	Wood ash and compost_low_S	Bioaccess1.5pH	17	%	Arsenic	19.88	NA	T1
045-12-S-low-A-1	Biochar and compost_low_S	Bioaccess1.5pH	17	%	Arsenic	16.39	NA	T1
046-12-S-low-B-1	Biochar and compost_low_S	Bioaccess1.5pH	17	%	Arsenic	17.23	NA	T1



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
047-12-S-low-C-1	Biochar and compost_low_S	Bioaccess1.5pH	17	%	Arsenic	19.59	NA	T1
048-12-S-low-D-1	Biochar and compost_low_S	Bioaccess1.5pH	17	%	Arsenic	17.77	NA	T1
145-01-S-high-A-1	Soluble phosphate_high_S	Bioaccess1.5pH	17	%	Arsenic	23.08	NA	T1
146-01-S-high-B-1	Soluble phosphate_high_S	Bioaccess1.5pH	18	%	Arsenic	25.39	NA	T1
147-01-S-high-C-1	Soluble phosphate_high_S	Bioaccess1.5pH	18	%	Arsenic	24.00	NA	T1
148-01-S-high-D-1	Soluble phosphate_high_S	Bioaccess1.5pH	18	%	Arsenic	25.51	NA	T1
149-02-S-high-A-1	Biosolid_high_S	Bioaccess1.5pH	18	%	Arsenic	23.13	NA	T1
150-02-S-high-B-1	Biosolid_high_S	Bioaccess1.5pH	18	%	Arsenic	23.39	NA	T1
151-02-S-high-C-1	Biosolid_high_S	Bioaccess1.5pH	18	%	Arsenic	23.67	NA	T1
152-02-S-high-D-1	Biosolid_high_S	Bioaccess1.5pH	18	%	Arsenic	24.71	NA	T1
153-03-S-high-A-1	Wood ash_high_S	Bioaccess1.5pH	18	%	Arsenic	20.40	NA	T1
154-03-S-high-B-1	Wood ash_high_S	Bioaccess1.5pH	18	%	Arsenic	19.78	NA	T1
155-03-S-high-C-1	Wood ash_high_S	Bioaccess1.5pH	19	%	Arsenic	20.77	NA	T1
156-03-S-high-D-1	Wood ash_high_S	Bioaccess1.5pH	19	%	Arsenic	19.49	NA	T1
157-04-S-high-A-1	Biochar_high_S	Bioaccess1.5pH	19	%	Arsenic	17.71	NA	T1
158-04-S-high-B-1	Biochar_high_S	Bioaccess1.5pH	19	%	Arsenic	18.37	NA	T1
159-04-S-high-C-1	Biochar_high_S	Bioaccess1.5pH	19	%	Arsenic	17.41	NA	T1
160-04-S-high-D-1	Biochar_high_S	Bioaccess1.5pH	19	%	Arsenic	18.49	NA	T1
161-05-S-high-A-1	Compost_high_S	Bioaccess1.5pH	19	%	Arsenic	18.56	NA	T1
162-05-S-high-B-1	Compost_high_S	Bioaccess1.5pH	19	%	Arsenic	18.40	NA	T1
163-05-S-high-C-1	Compost_high_S	Bioaccess1.5pH	19	%	Arsenic	18.71	NA	T1
164-05-S-high-D-1	Compost_high_S	Bioaccess1.5pH	20	%	Arsenic	20.57	NA	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	20	%	Arsenic	26.73	NA	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	20	%	Arsenic	29.41	NA	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	20	%	Arsenic	28.09	NA	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	20	%	Arsenic	27.12	NA	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	20	%	Arsenic	26.33	NA	T1
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	20	%	Arsenic	25.65	NA	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	20	%	Arsenic	26.13	NA	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	20	%	Arsenic	24.71	NA	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	Bioaccess1.5pH	21	%	Arsenic	26.96	NA	T1



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
174-08-S-high-B-1	Soluble phosphate and compost_high_S	Bioaccess1.5pH	21	%	Arsenic	25.72	NA	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	Bioaccess1.5pH	21	%	Arsenic	25.93	NA	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	Bioaccess1.5pH	21	%	Arsenic	24.58	NA	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	Bioaccess1.5pH	21	%	Arsenic	26.62	NA	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	Bioaccess1.5pH	21	%	Arsenic	26.77	NA	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	Bioaccess1.5pH	21	%	Arsenic	25.68	NA	T1
180-09-S-high-D-1	Biosolids and wood ash_high_S	Bioaccess1.5pH	21	%	Arsenic	28.13	NA	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	Bioaccess1.5pH	21	%	Arsenic	21.94	NA	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	Bioaccess1.5pH	22	%	Arsenic	20.07	NA	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	Bioaccess1.5pH	22	%	Arsenic	20.38	NA	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	Bioaccess1.5pH	22	%	Arsenic	22.16	NA	T1
185-11-S-high-A-1	Wood ash and compost_high_S	Bioaccess1.5pH	22	%	Arsenic	19.18	NA	T1
186-11-S-high-B-1	Wood ash and compost_high_S	Bioaccess1.5pH	22	%	Arsenic	21.12	NA	T1
187-11-S-high-C-1	Wood ash and compost_high_S	Bioaccess1.5pH	22	%	Arsenic	20.83	NA	T1
188-11-S-high-D-1	Wood ash and compost_high_S	Bioaccess1.5pH	22	%	Arsenic	20.97	NA	T1
189-12-S-high-A-1	Biochar and compost_high_S	Bioaccess1.5pH	22	%	Arsenic	19.25	NA	T1
190-12-S-high-B-1	Biochar and compost_high_S	Bioaccess1.5pH	22	%	Arsenic	18.35	NA	T1
191-12-S-high-C-1	Biochar and compost_high_S	Bioaccess1.5pH	23	%	Arsenic	20.80	NA	T1
192-12-S-high-D-1	Biochar and compost_high_S	Bioaccess1.5pH	23	%	Arsenic	18.49	NA	T1
289-01-I-low-A-1	Soluble phosphate_low_I	Bioaccess1.5pH	1	%	Arsenic	36.65	NA	T1
290-01-I-low-B-1	Soluble phosphate_low_I	Bioaccess1.5pH	1	%	Arsenic	34.84	NA	T1
291-01-I-low-C-1	Soluble phosphate_low_I	Bioaccess1.5pH	1	%	Arsenic	31.56	NA	T1
292-01-I-low-D-1	Soluble phosphate_low_I	Bioaccess1.5pH	1	%	Arsenic	32.34	NA	T1
293-02-I-low-A-1	Biosolid_low_I	Bioaccess1.5pH	1	%	Arsenic	30.83	NA	T1
294-02-I-low-B-1	Biosolid_low_I	Bioaccess1.5pH	1	%	Arsenic	31.52	NA	T1
295-02-I-low-C-1	Biosolid_low_I	Bioaccess1.5pH	1	%	Arsenic	33.45	NA	T1
296-02-I-low-D-1	Biosolid_low_I	Bioaccess1.5pH	1	%	Arsenic	33.39	NA	T1
297-03-I-low-A-1	Wood ash_low_I	Bioaccess1.5pH	2	%	Arsenic	32.35	NA	T1
298-03-I-low-B-1	Wood ash_low_I	Bioaccess1.5pH	2	%	Arsenic	32.51	NA	T1
299-03-I-low-C-1	Wood ash_low_I	Bioaccess1.5pH	2	%	Arsenic	30.16	NA	T1
300-03-I-low-D-1	Wood ash_low_I	Bioaccess1.5pH	2	%	Arsenic	30.68	NA	T1

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
301-04-I-low-A-1	Biochar_low_I	Bioaccess1.5pH	2	%	Arsenic	31.21	NA	T1
302-04-I-low-B-1	Biochar_low_I	Bioaccess1.5pH	2	%	Arsenic	30.81	NA	T1
303-04-I-low-C-1	Biochar_low_I	Bioaccess1.5pH	2	%	Arsenic	32.35	NA	T1
304-04-I-low-D-1	Biochar_low_I	Bioaccess1.5pH	2	%	Arsenic	30.28	NA	T1
305-05-I-low-A-1	Compost_low_I	Bioaccess1.5pH	3	%	Arsenic	25.07	NA	T1
306-05-I-low-B-1	Compost_low_I	Bioaccess1.5pH	3	%	Arsenic	23.59	NA	T1
307-05-I-low-C-1	Compost_low_I	Bioaccess1.5pH	3	%	Arsenic	24.21	NA	T1
308-05-I-low-D-1	Compost_low_I	Bioaccess1.5pH	3	%	Arsenic	22.53	NA	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	3	%	Arsenic	27.38	NA	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	3	%	Arsenic	27.87	NA	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	23	%	Arsenic	24.06	NA	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	3	%	Arsenic	29.31	NA	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	4	%	Arsenic	36.10	NA	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	4	%	Arsenic	34.62	NA	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	4	%	Arsenic	35.14	NA	T1
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	4	%	Arsenic	35.79	NA	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	Bioaccess1.5pH	4	%	Arsenic	37.24	NA	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	Bioaccess1.5pH	4	%	Arsenic	38.16	NA	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	Bioaccess1.5pH	4	%	Arsenic	41.15	NA	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	Bioaccess1.5pH	4	%	Arsenic	37.91	NA	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	Bioaccess1.5pH	5	%	Arsenic	22.32	NA	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	Bioaccess1.5pH	5	%	Arsenic	24.63	NA	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	Bioaccess1.5pH	5	%	Arsenic	24.50	NA	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	Bioaccess1.5pH	5	%	Arsenic	25.56	NA	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	Bioaccess1.5pH	5	%	Arsenic	21.95	NA	T1
326-10-I-low-B-1	Wood ash and biochar_low_I	Bioaccess1.5pH	5	%	Arsenic	23.13	NA	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	Bioaccess1.5pH	5	%	Arsenic	22.50	NA	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	Bioaccess1.5pH	5	%	Arsenic	22.55	NA	T1
329-11-I-low-A-1	Wood ash and compost_low_I	Bioaccess1.5pH	6	%	Arsenic	23.11	NA	T1
330-11-I-low-B-1	Wood ash and compost_low_I	Bioaccess1.5pH	6	%	Arsenic	22.94	NA	T1
331-11-I-low-C-1	Wood ash and compost_low_I	Bioaccess1.5pH	6	%	Arsenic	22.29	NA	T1



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
332-11-I-low-D-1	Wood ash and compost_low_I	Bioaccess1.5pH	6	%	Arsenic	21.88	NA	T1
333-12-I-low-A-1	Biochar and compost_low_I	Bioaccess1.5pH	6	%	Arsenic	21.04	NA	T1
334-12-I-low-B-1	Biochar and compost_low_I	Bioaccess1.5pH	6	%	Arsenic	21.30	NA	T1
335-12-I-low-C-1	Biochar and compost_low_I	Bioaccess1.5pH	6	%	Arsenic	27.48	NA	T1
336-12-I-low-D-1	Biochar and compost_low_I	Bioaccess1.5pH	6	%	Arsenic	27.57	NA	T1
337-01-I-high-A-1	Soluble phosphate_high_I	Bioaccess1.5pH	7	%	Arsenic	28.99	NA	T1
338-01-I-high-B-1	Soluble phosphate_high_I	Bioaccess1.5pH	7	%	Arsenic	26.27	NA	T1
339-01-I-high-C-1	Soluble phosphate_high_I	Bioaccess1.5pH	7	%	Arsenic	27.03	NA	T1
340-01-I-high-D-1	Soluble phosphate_high_I	Bioaccess1.5pH	7	%	Arsenic	27.78	NA	T1
341-02-I-high-A-1	Biosolid_high_I	Bioaccess1.5pH	7	%	Arsenic	24.11	NA	T1
342-02-I-high-B-1	Biosolid_high_I	Bioaccess1.5pH	7	%	Arsenic	24.83	NA	T1
343-02-I-high-C-1	Biosolid_high_I	Bioaccess1.5pH	7	%	Arsenic	23.01	NA	T1
344-02-I-high-D-1	Biosolid_high_I	Bioaccess1.5pH	7	%	Arsenic	22.83	NA	T1
345-03-I-high-A-1	Wood ash_high_I	Bioaccess1.5pH	8	%	Arsenic	23.77	NA	T1
346-03-I-high-B-1	Wood ash_high_I	Bioaccess1.5pH	8	%	Arsenic	24.47	NA	T1
347-03-I-high-C-1	Wood ash_high_I	Bioaccess1.5pH	8	%	Arsenic	23.02	NA	T1
348-03-I-high-D-1	Wood ash_high_I	Bioaccess1.5pH	8	%	Arsenic	24.24	NA	T1
349-04-I-high-A-1	Biochar_high_I	Bioaccess1.5pH	8	%	Arsenic	22.59	NA	T1
350-04-I-high-B-1	Biochar_high_I	Bioaccess1.5pH	8	%	Arsenic	25.14	NA	T1
351-04-I-high-C-1	Biochar_high_I	Bioaccess1.5pH	8	%	Arsenic	24.17	NA	T1
352-04-I-high-D-1	Biochar_high_I	Bioaccess1.5pH	8	%	Arsenic	24.55	NA	T1
353-05-I-high-A-1	Compost_high_I	Bioaccess1.5pH	9	%	Arsenic	21.21	NA	T1
354-05-I-high-B-1	Compost_high_I	Bioaccess1.5pH	23	%	Arsenic	21.44	NA	T1
355-05-I-high-C-1	Compost_high_I	Bioaccess1.5pH	9	%	Arsenic	19.43	NA	T1
356-05-I-high-D-1	Compost_high_I	Bioaccess1.5pH	9	%	Arsenic	17.88	NA	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	9	%	Arsenic	24.08	NA	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	9	%	Arsenic	23.65	NA	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	9	%	Arsenic	30.26	NA	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	9	%	Arsenic	32.40	NA	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	10	%	Arsenic	30.23	NA	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	10	%	Arsenic	26.17	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	10	%	Arsenic	27.83	NA	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	10	%	Arsenic	30.31	NA	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	Bioaccess1.5pH	10	%	Arsenic	29.30	NA	T1
366-08-I-high-B-1	Soluble phosphate and compost_high_I	Bioaccess1.5pH	10	%	Arsenic	31.04	NA	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	Bioaccess1.5pH	10	%	Arsenic	27.97	NA	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	Bioaccess1.5pH	10	%	Arsenic	33.03	NA	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	Bioaccess1.5pH	11	%	Arsenic	30.48	NA	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	Bioaccess1.5pH	11	%	Arsenic	29.23	NA	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	Bioaccess1.5pH	11	%	Arsenic	27.59	NA	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	Bioaccess1.5pH	11	%	Arsenic	27.60	NA	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	Bioaccess1.5pH	11	%	Arsenic	23.70	NA	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	Bioaccess1.5pH	11	%	Arsenic	24.20	NA	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	Bioaccess1.5pH	11	%	Arsenic	26.29	NA	T1
376-10-I-high-D-1	Wood ash and biochar_high_I	Bioaccess1.5pH	11	%	Arsenic	25.26	NA	T1
377-11-I-high-A-1	Wood ash and compost_high_I	Bioaccess1.5pH	12	%	Arsenic	23.92	NA	T1
378-11-I-high-B-1	Wood ash and compost_high_I	Bioaccess1.5pH	12	%	Arsenic	23.02	NA	T1
379-11-I-high-C-1	Wood ash and compost_high_I	Bioaccess1.5pH	12	%	Arsenic	23.63	NA	T1
380-11-I-high-D-1	Wood ash and compost_high_I	Bioaccess1.5pH	12	%	Arsenic	22.26	NA	T1
381-12-I-high-A-1	Biochar and compost_high_I	Bioaccess1.5pH	12	%	Arsenic	20.12	NA	T1
382-12-I-high-B-1	Biochar and compost_high_I	Bioaccess1.5pH	12	%	Arsenic	22.58	NA	T1
383-12-I-high-C-1	Biochar and compost_high_I	Bioaccess1.5pH	12	%	Arsenic	20.53	NA	T1
384-12-I-high-D-1	Biochar and compost_high_I	Bioaccess1.5pH	12	%	Arsenic	24.45	NA	T1
385-00-I-baseline-A-1	control_none_I	Bioaccess1.5pH	13	%	Arsenic	19.40	NA	T1
386-00-I-baseline-B-1	control_none_I	Bioaccess1.5pH	13	%	Arsenic	18.76	NA	T1
387-00-I-baseline-C-1	control_none_I	Bioaccess1.5pH	13	%	Arsenic	18.13	NA	T1
388-00-I-baseline-D-1	control_none_I	Bioaccess1.5pH	13	%	Arsenic	18.57	NA	T1
004-00-baseline-D-1	Baseline_baseline_NA	Bioaccess1.5pH	4	mg/kg	Arsenic	28.22	NA	T1
003-00-baseline-C-1	Baseline_baseline_NA	Bioaccess1.5pH	3	mg/kg	Arsenic	20.79	NA	T1
002-00-baseline-B-1	Baseline_baseline_NA	Bioaccess1.5pH	2	mg/kg	Arsenic	27.42	NA	T1
001-00-baseline-A-1	Baseline_baseline_NA	Bioaccess1.5pH	1	mg/kg	Arsenic	26.96	NA	T1
001-01-S-low-A-1	Soluble phosphate_low_S	Bioaccess1.5pH	5	mg/kg	Arsenic	25.21	NA	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
002-01-S-low-B-1	Soluble phosphate_low_S	Bioaccess1.5pH	6	mg/kg	Arsenic	23.78	NA	T1
003-01-S-low-C-1	Soluble phosphate_low_S	Bioaccess1.5pH	7	mg/kg	Arsenic	22.55	NA	T1
004-01-S-low-D-1	Soluble phosphate_low_S	Bioaccess1.5pH	8	mg/kg	Arsenic	22.92	NA	T1
005-02-S-low-A-1	Biosolid_low_S	Bioaccess1.5pH	9	mg/kg	Arsenic	21.03	NA	T1
006-02-S-low-B-1	Biosolid_low_S	Bioaccess1.5pH	10	mg/kg	Arsenic	22.32	NA	T1
007-02-S-low-C-1	Biosolid_low_S	Bioaccess1.5pH	11	mg/kg	Arsenic	23.64	NA	T1
008-02-S-low-D-1	Biosolid_low_S	Bioaccess1.5pH	12	mg/kg	Arsenic	23.01	NA	T1
009-03-S-low-A-1	Wood ash_low_S	Bioaccess1.5pH	13	mg/kg	Arsenic	18.59	NA	T1
010-03-S-low-B-1	Wood ash_low_S	Bioaccess1.5pH	13	mg/kg	Arsenic	19.34	NA	T1
011-03-S-low-C-1	Wood ash_low_S	Bioaccess1.5pH	13	mg/kg	Arsenic	19.89	NA	T1
012-03-S-low-D-1	Wood ash_low_S	Bioaccess1.5pH	13	mg/kg	Arsenic	19.88	NA	T1
013-04-S-low-A-1	Biochar_low_S	Bioaccess1.5pH	13	mg/kg	Arsenic	18.08	NA	T1
014-04-S-low-B-1	Biochar_low_S	Bioaccess1.5pH	14	mg/kg	Arsenic	18.38	NA	T1
015-04-S-low-C-1	Biochar_low_S	Bioaccess1.5pH	14	mg/kg	Arsenic	19.21	NA	T1
016-04-S-low-D-1	Biochar_low_S	Bioaccess1.5pH	14	mg/kg	Arsenic	19.37	NA	T1
017-05-S-low-A-1	Compost_low_S	Bioaccess1.5pH	14	mg/kg	Arsenic	19.64	NA	T1
018-05-S-low-B-1	Compost_low_S	Bioaccess1.5pH	14	mg/kg	Arsenic	19.38	NA	T1
019-05-S-low-C-1	Compost_low_S	Bioaccess1.5pH	14	mg/kg	Arsenic	19.25	NA	T1
020-05-S-low-D-1	Compost_low_S	Bioaccess1.5pH	14	mg/kg	Arsenic	19.80	NA	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	14	mg/kg	Arsenic	22.77	NA	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	14	mg/kg	Arsenic	21.95	NA	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	15	mg/kg	Arsenic	21.35	NA	T1
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	15	mg/kg	Arsenic	20.93	NA	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	15	mg/kg	Arsenic	21.18	NA	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	15	mg/kg	Arsenic	21.02	NA	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	15	mg/kg	Arsenic	20.51	NA	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	15	mg/kg	Arsenic	22.58	NA	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	Bioaccess1.5pH	15	mg/kg	Arsenic	20.49	NA	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	Bioaccess1.5pH	15	mg/kg	Arsenic	20.74	NA	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	Bioaccess1.5pH	15	mg/kg	Arsenic	18.07	NA	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	Bioaccess1.5pH	16	mg/kg	Arsenic	19.53	NA	T1



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
033-09-S-low-A-1	Biosolids and wood ash_low_S	Bioaccess1.5pH	16	mg/kg	Arsenic	18.55	NA	T1
034-09-S-low-B-1	Biosolids and wood ash_low_S	Bioaccess1.5pH	16	mg/kg	Arsenic	19.72	NA	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	Bioaccess1.5pH	16	mg/kg	Arsenic	22.30	NA	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	Bioaccess1.5pH	16	mg/kg	Arsenic	20.08	NA	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	Bioaccess1.5pH	16	mg/kg	Arsenic	18.04	NA	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	Bioaccess1.5pH	16	mg/kg	Arsenic	19.06	NA	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	Bioaccess1.5pH	16	mg/kg	Arsenic	20.05	NA	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	Bioaccess1.5pH	16	mg/kg	Arsenic	19.15	NA	T1
041-11-S-low-A-1	Wood ash and compost_low_S	Bioaccess1.5pH	17	mg/kg	Arsenic	19.16	NA	T1
042-11-S-low-B-1	Wood ash and compost_low_S	Bioaccess1.5pH	17	mg/kg	Arsenic	18.35	NA	T1
043-11-S-low-C-1	Wood ash and compost_low_S	Bioaccess1.5pH	17	mg/kg	Arsenic	18.89	NA	T1
044-11-S-low-D-1	Wood ash and compost_low_S	Bioaccess1.5pH	17	mg/kg	Arsenic	19.44	NA	T1
045-12-S-low-A-1	Biochar and compost_low_S	Bioaccess1.5pH	17	mg/kg	Arsenic	17.33	NA	T1
046-12-S-low-B-1	Biochar and compost_low_S	Bioaccess1.5pH	17	mg/kg	Arsenic	18.25	NA	T1
047-12-S-low-C-1	Biochar and compost_low_S	Bioaccess1.5pH	17	mg/kg	Arsenic	19.72	NA	T1
048-12-S-low-D-1	Biochar and compost_low_S	Bioaccess1.5pH	17	mg/kg	Arsenic	18.76	NA	T1
145-01-S-high-A-1	Soluble phosphate_high_S	Bioaccess1.5pH	17	mg/kg	Arsenic	22.04	NA	T1
146-01-S-high-B-1	Soluble phosphate_high_S	Bioaccess1.5pH	18	mg/kg	Arsenic	25.38	NA	T1
147-01-S-high-C-1	Soluble phosphate_high_S	Bioaccess1.5pH	18	mg/kg	Arsenic	24.36	NA	T1
148-01-S-high-D-1	Soluble phosphate_high_S	Bioaccess1.5pH	18	mg/kg	Arsenic	24.83	NA	T1
149-02-S-high-A-1	Biosolid_high_S	Bioaccess1.5pH	18	mg/kg	Arsenic	23.35	NA	T1
150-02-S-high-B-1	Biosolid_high_S	Bioaccess1.5pH	18	mg/kg	Arsenic	24.41	NA	T1
151-02-S-high-C-1	Biosolid_high_S	Bioaccess1.5pH	18	mg/kg	Arsenic	23.64	NA	T1
152-02-S-high-D-1	Biosolid_high_S	Bioaccess1.5pH	18	mg/kg	Arsenic	25.37	NA	T1
153-03-S-high-A-1	Wood ash_high_S	Bioaccess1.5pH	18	mg/kg	Arsenic	20.96	NA	T1
154-03-S-high-B-1	Wood ash_high_S	Bioaccess1.5pH	18	mg/kg	Arsenic	19.75	NA	T1
155-03-S-high-C-1	Wood ash_high_S	Bioaccess1.5pH	19	mg/kg	Arsenic	20.05	NA	T1
156-03-S-high-D-1	Wood ash_high_S	Bioaccess1.5pH	19	mg/kg	Arsenic	18.88	NA	T1
157-04-S-high-A-1	Biochar_high_S	Bioaccess1.5pH	19	mg/kg	Arsenic	17.43	NA	T1
158-04-S-high-B-1	Biochar_high_S	Bioaccess1.5pH	19	mg/kg	Arsenic	18.31	NA	T1
159-04-S-high-C-1	Biochar_high_S	Bioaccess1.5pH	19	mg/kg	Arsenic	16.38	NA	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
160-04-S-high-D-1	Biochar_high_S	Bioaccess1.5pH	19	mg/kg	Arsenic	18.54	NA	T1
161-05-S-high-A-1	Compost_high_S	Bioaccess1.5pH	19	mg/kg	Arsenic	18.51	NA	T1
162-05-S-high-B-1	Compost_high_S	Bioaccess1.5pH	19	mg/kg	Arsenic	17.76	NA	T1
163-05-S-high-C-1	Compost_high_S	Bioaccess1.5pH	19	mg/kg	Arsenic	18.86	NA	T1
164-05-S-high-D-1	Compost_high_S	Bioaccess1.5pH	20	mg/kg	Arsenic	21.58	NA	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	20	mg/kg	Arsenic	26.44	NA	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	20	mg/kg	Arsenic	29.15	NA	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	20	mg/kg	Arsenic	26.95	NA	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	20	mg/kg	Arsenic	25.47	NA	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	20	mg/kg	Arsenic	25.38	NA	T1
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	20	mg/kg	Arsenic	24.17	NA	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	20	mg/kg	Arsenic	27.36	NA	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	20	mg/kg	Arsenic	23.37	NA	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	Bioaccess1.5pH	21	mg/kg	Arsenic	26.01	NA	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	Bioaccess1.5pH	21	mg/kg	Arsenic	24.86	NA	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	Bioaccess1.5pH	21	mg/kg	Arsenic	25.30	NA	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	Bioaccess1.5pH	21	mg/kg	Arsenic	23.21	NA	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	Bioaccess1.5pH	21	mg/kg	Arsenic	25.70	NA	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	Bioaccess1.5pH	21	mg/kg	Arsenic	24.82	NA	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	Bioaccess1.5pH	21	mg/kg	Arsenic	24.38	NA	T1
180-09-S-high-D-1	Biosolids and wood ash_high_S	Bioaccess1.5pH	21	mg/kg	Arsenic	26.06	NA	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	Bioaccess1.5pH	21	mg/kg	Arsenic	20.46	NA	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	Bioaccess1.5pH	22	mg/kg	Arsenic	20.97	NA	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	Bioaccess1.5pH	22	mg/kg	Arsenic	20.13	NA	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	Bioaccess1.5pH	22	mg/kg	Arsenic	20.04	NA	T1
185-11-S-high-A-1	Wood ash and compost_high_S	Bioaccess1.5pH	22	mg/kg	Arsenic	19.65	NA	T1
186-11-S-high-B-1	Wood ash and compost_high_S	Bioaccess1.5pH	22	mg/kg	Arsenic	20.65	NA	T1
187-11-S-high-C-1	Wood ash and compost_high_S	Bioaccess1.5pH	22	mg/kg	Arsenic	21.02	NA	T1
188-11-S-high-D-1	Wood ash and compost_high_S	Bioaccess1.5pH	22	mg/kg	Arsenic	21.62	NA	T1
189-12-S-high-A-1	Biochar and compost_high_S	Bioaccess1.5pH	22	mg/kg	Arsenic	19.19	NA	T1
190-12-S-high-B-1	Biochar and compost_high_S	Bioaccess1.5pH	22	mg/kg	Arsenic	19.06	NA	T1

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
191-12-S-high-C-1	Biochar and compost_high_S	Bioaccess1.5pH	23	mg/kg	Arsenic	20.70	NA	T1
192-12-S-high-D-1	Biochar and compost_high_S	Bioaccess1.5pH	23	mg/kg	Arsenic	19.41	NA	T1
289-01-I-low-A-1	Soluble phosphate_low_I	Bioaccess1.5pH	1	mg/kg	Arsenic	37.57	NA	T1
290-01-I-low-B-1	Soluble phosphate_low_I	Bioaccess1.5pH	1	mg/kg	Arsenic	34.11	NA	T1
291-01-I-low-C-1	Soluble phosphate_low_I	Bioaccess1.5pH	1	mg/kg	Arsenic	32.05	NA	T1
292-01-I-low-D-1	Soluble phosphate_low_I	Bioaccess1.5pH	1	mg/kg	Arsenic	32.61	NA	T1
293-02-I-low-A-1	Biosolid_low_I	Bioaccess1.5pH	1	mg/kg	Arsenic	30.82	NA	T1
294-02-I-low-B-1	Biosolid_low_I	Bioaccess1.5pH	1	mg/kg	Arsenic	31.96	NA	T1
295-02-I-low-C-1	Biosolid_low_I	Bioaccess1.5pH	1	mg/kg	Arsenic	32.43	NA	T1
296-02-I-low-D-1	Biosolid_low_I	Bioaccess1.5pH	1	mg/kg	Arsenic	33.83	NA	T1
297-03-I-low-A-1	Wood ash_low_I	Bioaccess1.5pH	2	mg/kg	Arsenic	33.00	NA	T1
298-03-I-low-B-1	Wood ash_low_I	Bioaccess1.5pH	2	mg/kg	Arsenic	32.84	NA	T1
299-03-I-low-C-1	Wood ash_low_I	Bioaccess1.5pH	2	mg/kg	Arsenic	30.75	NA	T1
300-03-I-low-D-1	Wood ash_low_I	Bioaccess1.5pH	2	mg/kg	Arsenic	31.96	NA	T1
301-04-I-low-A-1	Biochar_low_I	Bioaccess1.5pH	2	mg/kg	Arsenic	31.89	NA	T1
302-04-I-low-B-1	Biochar_low_I	Bioaccess1.5pH	2	mg/kg	Arsenic	32.02	NA	T1
303-04-I-low-C-1	Biochar_low_I	Bioaccess1.5pH	2	mg/kg	Arsenic	32.46	NA	T1
304-04-I-low-D-1	Biochar_low_I	Bioaccess1.5pH	2	mg/kg	Arsenic	30.85	NA	T1
305-05-I-low-A-1	Compost_low_I	Bioaccess1.5pH	3	mg/kg	Arsenic	25.63	NA	T1
306-05-I-low-B-1	Compost_low_I	Bioaccess1.5pH	3	mg/kg	Arsenic	24.76	NA	T1
307-05-I-low-C-1	Compost_low_I	Bioaccess1.5pH	3	mg/kg	Arsenic	24.26	NA	T1
308-05-I-low-D-1	Compost_low_I	Bioaccess1.5pH	3	mg/kg	Arsenic	23.25	NA	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	3	mg/kg	Arsenic	25.52	NA	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	3	mg/kg	Arsenic	26.60	NA	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	23	mg/kg	Arsenic	21.47	NA	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	3	mg/kg	Arsenic	28.26	NA	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	4	mg/kg	Arsenic	36.71	NA	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	4	mg/kg	Arsenic	34.87	NA	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	4	mg/kg	Arsenic	35.39	NA	T1
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	4	mg/kg	Arsenic	33.39	NA	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	Bioaccess1.5pH	4	mg/kg	Arsenic	34.22	NA	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
318-08-I-low-B-1	Soluble phosphate and compost_low_I	Bioaccess1.5pH	4	mg/kg	Arsenic	36.73	NA	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	Bioaccess1.5pH	4	mg/kg	Arsenic	38.29	NA	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	Bioaccess1.5pH	4	mg/kg	Arsenic	33.56	NA	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	Bioaccess1.5pH	5	mg/kg	Arsenic	20.78	NA	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	Bioaccess1.5pH	5	mg/kg	Arsenic	23.27	NA	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	Bioaccess1.5pH	5	mg/kg	Arsenic	22.26	NA	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	Bioaccess1.5pH	5	mg/kg	Arsenic	22.77	NA	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	Bioaccess1.5pH	5	mg/kg	Arsenic	21.32	NA	T1
326-10-I-low-B-1	Wood ash and biochar_low_I	Bioaccess1.5pH	5	mg/kg	Arsenic	23.57	NA	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	Bioaccess1.5pH	5	mg/kg	Arsenic	23.29	NA	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	Bioaccess1.5pH	5	mg/kg	Arsenic	21.56	NA	T1
329-11-I-low-A-1	Wood ash and compost_low_I	Bioaccess1.5pH	6	mg/kg	Arsenic	23.83	NA	T1
330-11-I-low-B-1	Wood ash and compost_low_I	Bioaccess1.5pH	6	mg/kg	Arsenic	22.42	NA	T1
331-11-I-low-C-1	Wood ash and compost_low_I	Bioaccess1.5pH	6	mg/kg	Arsenic	21.19	NA	T1
332-11-I-low-D-1	Wood ash and compost_low_I	Bioaccess1.5pH	6	mg/kg	Arsenic	21.29	NA	T1
333-12-I-low-A-1	Biochar and compost_low_I	Bioaccess1.5pH	6	mg/kg	Arsenic	19.70	NA	T1
334-12-I-low-B-1	Biochar and compost_low_I	Bioaccess1.5pH	6	mg/kg	Arsenic	21.42	NA	T1
335-12-I-low-C-1	Biochar and compost_low_I	Bioaccess1.5pH	6	mg/kg	Arsenic	22.25	NA	T1
336-12-I-low-D-1	Biochar and compost_low_I	Bioaccess1.5pH	6	mg/kg	Arsenic	23.06	NA	T1
337-01-I-high-A-1	Soluble phosphate_high_I	Bioaccess1.5pH	7	mg/kg	Arsenic	26.95	NA	T1
338-01-I-high-B-1	Soluble phosphate_high_I	Bioaccess1.5pH	7	mg/kg	Arsenic	25.35	NA	T1
339-01-I-high-C-1	Soluble phosphate_high_I	Bioaccess1.5pH	7	mg/kg	Arsenic	25.28	NA	T1
340-01-I-high-D-1	Soluble phosphate_high_I	Bioaccess1.5pH	7	mg/kg	Arsenic	26.16	NA	T1
341-02-I-high-A-1	Biosolid_high_I	Bioaccess1.5pH	7	mg/kg	Arsenic	23.33	NA	T1
342-02-I-high-B-1	Biosolid_high_I	Bioaccess1.5pH	7	mg/kg	Arsenic	25.25	NA	T1
343-02-I-high-C-1	Biosolid_high_I	Bioaccess1.5pH	7	mg/kg	Arsenic	23.50	NA	T1
344-02-I-high-D-1	Biosolid_high_I	Bioaccess1.5pH	7	mg/kg	Arsenic	23.18	NA	T1
345-03-I-high-A-1	Wood ash_high_I	Bioaccess1.5pH	8	mg/kg	Arsenic	22.75	NA	T1
346-03-I-high-B-1	Wood ash_high_I	Bioaccess1.5pH	8	mg/kg	Arsenic	23.51	NA	T1
347-03-I-high-C-1	Wood ash_high_I	Bioaccess1.5pH	8	mg/kg	Arsenic	24.05	NA	T1
348-03-I-high-D-1	Wood ash_high_I	Bioaccess1.5pH	8	mg/kg	Arsenic	22.80	NA	T1



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
349-04-I-high-A-1	Biochar_high_I	Bioaccess1.5pH	8	mg/kg	Arsenic	20.72	NA	T1
350-04-I-high-B-1	Biochar_high_I	Bioaccess1.5pH	8	mg/kg	Arsenic	22.73	NA	T1
351-04-I-high-C-1	Biochar_high_I	Bioaccess1.5pH	8	mg/kg	Arsenic	22.93	NA	T1
352-04-I-high-D-1	Biochar_high_I	Bioaccess1.5pH	8	mg/kg	Arsenic	21.47	NA	T1
353-05-I-high-A-1	Compost_high_I	Bioaccess1.5pH	9	mg/kg	Arsenic	22.27	NA	T1
354-05-I-high-B-1	Compost_high_I	Bioaccess1.5pH	23	mg/kg	Arsenic	21.80	NA	T1
355-05-I-high-C-1	Compost_high_I	Bioaccess1.5pH	9	mg/kg	Arsenic	20.13	NA	T1
356-05-I-high-D-1	Compost_high_I	Bioaccess1.5pH	9	mg/kg	Arsenic	20.07	NA	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	9	mg/kg	Arsenic	25.18	NA	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	9	mg/kg	Arsenic	25.42	NA	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	9	mg/kg	Arsenic	25.31	NA	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	9	mg/kg	Arsenic	27.32	NA	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	10	mg/kg	Arsenic	29.31	NA	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	10	mg/kg	Arsenic	29.51	NA	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	10	mg/kg	Arsenic	27.40	NA	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	10	mg/kg	Arsenic	30.02	NA	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	Bioaccess1.5pH	10	mg/kg	Arsenic	27.39	NA	T1
366-08-I-high-B-1	Soluble phosphate and compost_high_I	Bioaccess1.5pH	10	mg/kg	Arsenic	26.92	NA	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	Bioaccess1.5pH	10	mg/kg	Arsenic	27.35	NA	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	Bioaccess1.5pH	10	mg/kg	Arsenic	30.08	NA	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	Bioaccess1.5pH	11	mg/kg	Arsenic	24.72	NA	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	Bioaccess1.5pH	11	mg/kg	Arsenic	24.91	NA	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	Bioaccess1.5pH	11	mg/kg	Arsenic	25.79	NA	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	Bioaccess1.5pH	11	mg/kg	Arsenic	25.14	NA	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	Bioaccess1.5pH	11	mg/kg	Arsenic	23.52	NA	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	Bioaccess1.5pH	11	mg/kg	Arsenic	24.71	NA	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	Bioaccess1.5pH	11	mg/kg	Arsenic	26.14	NA	T1
376-10-I-high-D-1	Wood ash and biochar_high_I	Bioaccess1.5pH	11	mg/kg	Arsenic	26.13	NA	T1
377-11-I-high-A-1	Wood ash and compost_high_I	Bioaccess1.5pH	12	mg/kg	Arsenic	20.98	NA	T1
378-11-I-high-B-1	Wood ash and compost_high_I	Bioaccess1.5pH	12	mg/kg	Arsenic	22.24	NA	T1
379-11-I-high-C-1	Wood ash and compost_high_I	Bioaccess1.5pH	12	mg/kg	Arsenic	21.85	NA	T1

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
380-11-I-high-D-1	Wood ash and compost_high_I	Bioaccess1.5pH	12	mg/kg	Arsenic	21.43	NA	T1
381-12-I-high-A-1	Biochar and compost_high_I	Bioaccess1.5pH	12	mg/kg	Arsenic	19.96	NA	T1
382-12-I-high-B-1	Biochar and compost_high_I	Bioaccess1.5pH	12	mg/kg	Arsenic	19.86	NA	T1
383-12-I-high-C-1	Biochar and compost_high_I	Bioaccess1.5pH	12	mg/kg	Arsenic	19.35	NA	T1
384-12-I-high-D-1	Biochar and compost_high_I	Bioaccess1.5pH	12	mg/kg	Arsenic	20.87	NA	T1
385-00-I-baseline-A-1	control_none_I	Bioaccess1.5pH	13	mg/kg	Arsenic	19.18	NA	T1
386-00-I-baseline-B-1	control_none_I	Bioaccess1.5pH	13	mg/kg	Arsenic	17.94	NA	T1
387-00-I-baseline-C-1	control_none_I	Bioaccess1.5pH	13	mg/kg	Arsenic	17.38	NA	T1
388-00-I-baseline-D-1	control_none_I	Bioaccess1.5pH	13	mg/kg	Arsenic	18.63	NA	T1
004-00-baseline-D-1	Baseline_baseline_NA	Bioaccess1.5pH	4	%	Lead	76.69	NA	T1
003-00-baseline-C-1	Baseline_baseline_NA	Bioaccess1.5pH	3	%	Lead	69.16	NA	T1
002-00-baseline-B-1	Baseline_baseline_NA	Bioaccess1.5pH	2	%	Lead	78.76	NA	T1
001-00-baseline-A-1	Baseline_baseline_NA	Bioaccess1.5pH	1	%	Lead	76.98	NA	T1
001-01-S-low-A-1	Soluble phosphate_low_S	Bioaccess1.5pH	5	%	Lead	70.86	NA	T1
002-01-S-low-B-1	Soluble phosphate_low_S	Bioaccess1.5pH	6	%	Lead	69.46	NA	T1
003-01-S-low-C-1	Soluble phosphate_low_S	Bioaccess1.5pH	7	%	Lead	69.45	NA	T1
004-01-S-low-D-1	Soluble phosphate_low_S	Bioaccess1.5pH	8	%	Lead	74.29	NA	T1
005-02-S-low-A-1	Biosolid_low_S	Bioaccess1.5pH	9	%	Lead	66.56	NA	T1
006-02-S-low-B-1	Biosolid_low_S	Bioaccess1.5pH	10	%	Lead	67.66	NA	T1
007-02-S-low-C-1	Biosolid_low_S	Bioaccess1.5pH	11	%	Lead	67.97	NA	T1
008-02-S-low-D-1	Biosolid_low_S	Bioaccess1.5pH	12	%	Lead	69.25	NA	T1
009-03-S-low-A-1	Wood ash_low_S	Bioaccess1.5pH	13	%	Lead	66.03	srm	T1
010-03-S-low-B-1	Wood ash_low_S	Bioaccess1.5pH	13	%	Lead	66.24	srm	T1
011-03-S-low-C-1	Wood ash_low_S	Bioaccess1.5pH	13	%	Lead	65.05	srm	T1
012-03-S-low-D-1	Wood ash_low_S	Bioaccess1.5pH	13	%	Lead	65.50	srm	T1
013-04-S-low-A-1	Biochar_low_S	Bioaccess1.5pH	13	%	Lead	64.80	srm	T1
014-04-S-low-B-1	Biochar_low_S	Bioaccess1.5pH	14	%	Lead	65.55	NA	T1
015-04-S-low-C-1	Biochar_low_S	Bioaccess1.5pH	14	%	Lead	64.75	NA	T1
016-04-S-low-D-1	Biochar_low_S	Bioaccess1.5pH	14	%	Lead	66.13	NA	T1
017-05-S-low-A-1	Compost_low_S	Bioaccess1.5pH	14	%	Lead	65.37	NA	T1
018-05-S-low-B-1	Compost_low_S	Bioaccess1.5pH	14	%	Lead	64.22	NA	T1

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
019-05-S-low-C-1	Compost_low_S	Bioaccess1.5pH	14	%	Lead	64.98	NA	T1
020-05-S-low-D-1	Compost_low_S	Bioaccess1.5pH	14	%	Lead	65.04	NA	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	14	%	Lead	62.49	NA	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	14	%	Lead	65.62	NA	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	15	%	Lead	66.49	NA	T1
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	15	%	Lead	64.56	NA	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	15	%	Lead	67.69	NA	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	15	%	Lead	67.81	NA	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	15	%	Lead	65.85	NA	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	15	%	Lead	68.94	NA	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	Bioaccess1.5pH	15	%	Lead	68.00	NA	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	Bioaccess1.5pH	15	%	Lead	65.60	NA	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	Bioaccess1.5pH	15	%	Lead	66.09	NA	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	Bioaccess1.5pH	16	%	Lead	64.96	NA	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	Bioaccess1.5pH	16	%	Lead	65.23	NA	T1
034-09-S-low-B-1	Biosolids and wood ash_low_S	Bioaccess1.5pH	16	%	Lead	66.89	NA	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	Bioaccess1.5pH	16	%	Lead	65.71	NA	T1
036-09-S-low-D-1	Biosolids and wood ash_low_S	Bioaccess1.5pH	16	%	Lead	65.43	NA	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	Bioaccess1.5pH	16	%	Lead	64.75	NA	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	Bioaccess1.5pH	16	%	Lead	67.36	NA	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	Bioaccess1.5pH	16	%	Lead	64.45	NA	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	Bioaccess1.5pH	16	%	Lead	67.95	NA	T1
041-11-S-low-A-1	Wood ash and compost_low_S	Bioaccess1.5pH	17	%	Lead	67.35	NA	T1
042-11-S-low-B-1	Wood ash and compost_low_S	Bioaccess1.5pH	17	%	Lead	64.96	NA	T1
043-11-S-low-C-1	Wood ash and compost_low_S	Bioaccess1.5pH	17	%	Lead	64.84	NA	T1
044-11-S-low-D-1	Wood ash and compost_low_S	Bioaccess1.5pH	17	%	Lead	67.85	NA	T1
045-12-S-low-A-1	Biochar and compost_low_S	Bioaccess1.5pH	17	%	Lead	64.47	NA	T1
046-12-S-low-B-1	Biochar and compost_low_S	Bioaccess1.5pH	17	%	Lead	65.45	NA	T1
047-12-S-low-C-1	Biochar and compost_low_S	Bioaccess1.5pH	17	%	Lead	65.01	NA	T1
048-12-S-low-D-1	Biochar and compost_low_S	Bioaccess1.5pH	17	%	Lead	64.65	NA	T1
145-01-S-high-A-1	Soluble phosphate_high_S	Bioaccess1.5pH	17	%	Lead	64.67	NA	T1



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
146-01-S-high-B-1	Soluble phosphate_high_S	Bioaccess1.5pH	18	%	Lead	69.20	NA	T1
147-01-S-high-C-1	Soluble phosphate_high_S	Bioaccess1.5pH	18	%	Lead	69.79	NA	T1
148-01-S-high-D-1	Soluble phosphate_high_S	Bioaccess1.5pH	18	%	Lead	72.01	NA	T1
149-02-S-high-A-1	Biosolid_high_S	Bioaccess1.5pH	18	%	Lead	68.96	NA	T1
150-02-S-high-B-1	Biosolid_high_S	Bioaccess1.5pH	18	%	Lead	67.45	NA	T1
151-02-S-high-C-1	Biosolid_high_S	Bioaccess1.5pH	18	%	Lead	67.88	NA	T1
152-02-S-high-D-1	Biosolid_high_S	Bioaccess1.5pH	18	%	Lead	69.04	NA	T1
153-03-S-high-A-1	Wood ash_high_S	Bioaccess1.5pH	18	%	Lead	67.74	NA	T1
154-03-S-high-B-1	Wood ash_high_S	Bioaccess1.5pH	18	%	Lead	71.51	NA	T1
155-03-S-high-C-1	Wood ash_high_S	Bioaccess1.5pH	19	%	Lead	76.49	NA	T1
156-03-S-high-D-1	Wood ash_high_S	Bioaccess1.5pH	19	%	Lead	74.43	NA	T1
157-04-S-high-A-1	Biochar_high_S	Bioaccess1.5pH	19	%	Lead	74.06	NA	T1
158-04-S-high-B-1	Biochar_high_S	Bioaccess1.5pH	19	%	Lead	69.38	NA	T1
159-04-S-high-C-1	Biochar_high_S	Bioaccess1.5pH	19	%	Lead	70.05	NA	T1
160-04-S-high-D-1	Biochar_high_S	Bioaccess1.5pH	19	%	Lead	74.41	NA	T1
161-05-S-high-A-1	Compost_high_S	Bioaccess1.5pH	19	%	Lead	71.37	NA	T1
162-05-S-high-B-1	Compost_high_S	Bioaccess1.5pH	19	%	Lead	67.90	NA	T1
163-05-S-high-C-1	Compost_high_S	Bioaccess1.5pH	19	%	Lead	69.80	NA	T1
164-05-S-high-D-1	Compost_high_S	Bioaccess1.5pH	20	%	Lead	70.12	NA	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	20	%	Lead	71.05	NA	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	20	%	Lead	72.48	NA	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	20	%	Lead	72.74	NA	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	20	%	Lead	68.41	NA	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	20	%	Lead	70.15	NA	T1
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	20	%	Lead	70.36	NA	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	20	%	Lead	72.04	NA	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	20	%	Lead	69.65	NA	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	Bioaccess1.5pH	21	%	Lead	73.62	NA	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	Bioaccess1.5pH	21	%	Lead	72.84	NA	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	Bioaccess1.5pH	21	%	Lead	69.01	NA	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	Bioaccess1.5pH	21	%	Lead	76.71	NA	T1



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
177-09-S-high-A-1	Biosolids and wood ash_high_S	Bioaccess1.5pH	21	%	Lead	69.51	NA	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	Bioaccess1.5pH	21	%	Lead	75.36	NA	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	Bioaccess1.5pH	21	%	Lead	73.83	NA	T1
180-09-S-high-D-1	Biosolids and wood ash_high_S	Bioaccess1.5pH	21	%	Lead	75.54	NA	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	Bioaccess1.5pH	21	%	Lead	73.02	NA	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	Bioaccess1.5pH	22	%	Lead	69.27	NA	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	Bioaccess1.5pH	22	%	Lead	74.88	NA	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	Bioaccess1.5pH	22	%	Lead	73.56	NA	T1
185-11-S-high-A-1	Wood ash and compost_high_S	Bioaccess1.5pH	22	%	Lead	71.40	NA	T1
186-11-S-high-B-1	Wood ash and compost_high_S	Bioaccess1.5pH	22	%	Lead	74.77	NA	T1
187-11-S-high-C-1	Wood ash and compost_high_S	Bioaccess1.5pH	22	%	Lead	74.50	NA	T1
188-11-S-high-D-1	Wood ash and compost_high_S	Bioaccess1.5pH	22	%	Lead	70.87	NA	T1
189-12-S-high-A-1	Biochar and compost_high_S	Bioaccess1.5pH	22	%	Lead	71.72	NA	T1
190-12-S-high-B-1	Biochar and compost_high_S	Bioaccess1.5pH	22	%	Lead	68.93	NA	T1
191-12-S-high-C-1	Biochar and compost_high_S	Bioaccess1.5pH	23	%	Lead	71.62	NA	T1
192-12-S-high-D-1	Biochar and compost_high_S	Bioaccess1.5pH	23	%	Lead	69.33	NA	T1
289-01-I-low-A-1	Soluble phosphate_low_I	Bioaccess1.5pH	1	%	Lead	84.04	NA	T1
290-01-I-low-B-1	Soluble phosphate_low_I	Bioaccess1.5pH	1	%	Lead	82.56	NA	T1
291-01-I-low-C-1	Soluble phosphate_low_I	Bioaccess1.5pH	1	%	Lead	78.84	NA	T1
292-01-I-low-D-1	Soluble phosphate_low_I	Bioaccess1.5pH	1	%	Lead	75.80	NA	T1
293-02-I-low-A-1	Biosolid_low_I	Bioaccess1.5pH	1	%	Lead	75.61	NA	T1
294-02-I-low-B-1	Biosolid_low_I	Bioaccess1.5pH	1	%	Lead	77.77	NA	T1
295-02-I-low-C-1	Biosolid_low_I	Bioaccess1.5pH	1	%	Lead	79.54	NA	T1
296-02-I-low-D-1	Biosolid_low_I	Bioaccess1.5pH	1	%	Lead	83.83	NA	T1
297-03-I-low-A-1	Wood ash_low_I	Bioaccess1.5pH	2	%	Lead	78.34	NA	T1
298-03-I-low-B-1	Wood ash_low_I	Bioaccess1.5pH	2	%	Lead	81.06	NA	T1
299-03-I-low-C-1	Wood ash_low_I	Bioaccess1.5pH	2	%	Lead	81.90	NA	T1
300-03-I-low-D-1	Wood ash_low_I	Bioaccess1.5pH	2	%	Lead	80.21	NA	T1
301-04-I-low-A-1	Biochar_low_I	Bioaccess1.5pH	2	%	Lead	80.99	NA	T1
302-04-I-low-B-1	Biochar_low_I	Bioaccess1.5pH	2	%	Lead	82.52	NA	T1
303-04-I-low-C-1	Biochar_low_I	Bioaccess1.5pH	2	%	Lead	81.07	NA	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
304-04-I-low-D-1	Biochar_low_I	Bioaccess1.5pH	2	%	Lead	80.47	NA	T1
305-05-I-low-A-1	Compost_low_I	Bioaccess1.5pH	3	%	Lead	72.70	NA	T1
306-05-I-low-B-1	Compost_low_I	Bioaccess1.5pH	3	%	Lead	71.05	NA	T1
307-05-I-low-C-1	Compost_low_I	Bioaccess1.5pH	3	%	Lead	75.10	NA	T1
308-05-I-low-D-1	Compost_low_I	Bioaccess1.5pH	3	%	Lead	74.13	NA	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	3	%	Lead	75.47	NA	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	3	%	Lead	75.47	NA	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	23	%	Lead	71.54	NA	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	3	%	Lead	78.65	NA	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	4	%	Lead	81.58	NA	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	4	%	Lead	76.67	NA	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	4	%	Lead	79.63	NA	T1
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	4	%	Lead	85.06	NA	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	Bioaccess1.5pH	4	%	Lead	85.79	NA	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	Bioaccess1.5pH	4	%	Lead	86.69	NA	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	Bioaccess1.5pH	4	%	Lead	92.55	NA	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	Bioaccess1.5pH	4	%	Lead	88.34	NA	T1
321-09-I-low-A-1	Biosolids and wood ash_low_I	Bioaccess1.5pH	5	%	Lead	66.45	NA	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	Bioaccess1.5pH	5	%	Lead	71.72	NA	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	Bioaccess1.5pH	5	%	Lead	73.55	NA	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	Bioaccess1.5pH	5	%	Lead	76.65	NA	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	Bioaccess1.5pH	5	%	Lead	74.21	NA	T1
326-10-I-low-B-1	Wood ash and biochar_low_I	Bioaccess1.5pH	5	%	Lead	74.08	NA	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	Bioaccess1.5pH	5	%	Lead	73.90	NA	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	Bioaccess1.5pH	5	%	Lead	75.93	NA	T1
329-11-I-low-A-1	Wood ash and compost_low_I	Bioaccess1.5pH	6	%	Lead	73.74	NA	T1
330-11-I-low-B-1	Wood ash and compost_low_I	Bioaccess1.5pH	6	%	Lead	80.25	NA	T1
331-11-I-low-C-1	Wood ash and compost_low_I	Bioaccess1.5pH	6	%	Lead	76.05	NA	T1
332-11-I-low-D-1	Wood ash and compost_low_I	Bioaccess1.5pH	6	%	Lead	73.02	NA	T1
333-12-I-low-A-1	Biochar and compost_low_I	Bioaccess1.5pH	6	%	Lead	75.91	NA	T1
334-12-I-low-B-1	Biochar and compost_low_I	Bioaccess1.5pH	6	%	Lead	72.00	NA	T1



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
335-12-I-low-C-1	Biochar and compost_low_I	Bioaccess1.5pH	6	%	Lead	75.48	NA	T1
336-12-I-low-D-1	Biochar and compost_low_I	Bioaccess1.5pH	6	%	Lead	81.19	NA	T1
337-01-I-high-A-1	Soluble phosphate_high_I	Bioaccess1.5pH	7	%	Lead	70.69	NA	T1
338-01-I-high-B-1	Soluble phosphate_high_I	Bioaccess1.5pH	7	%	Lead	72.11	NA	T1
339-01-I-high-C-1	Soluble phosphate_high_I	Bioaccess1.5pH	7	%	Lead	71.40	NA	T1
340-01-I-high-D-1	Soluble phosphate_high_I	Bioaccess1.5pH	7	%	Lead	69.65	NA	T1
341-02-I-high-A-1	Biosolid_high_I	Bioaccess1.5pH	7	%	Lead	65.57	NA	T1
342-02-I-high-B-1	Biosolid_high_I	Bioaccess1.5pH	7	%	Lead	65.46	NA	T1
343-02-I-high-C-1	Biosolid_high_I	Bioaccess1.5pH	7	%	Lead	61.80	NA	T1
344-02-I-high-D-1	Biosolid_high_I	Bioaccess1.5pH	7	%	Lead	53.90	NA	T1
345-03-I-high-A-1	Wood ash_high_I	Bioaccess1.5pH	8	%	Lead	72.80	NA	T1
346-03-I-high-B-1	Wood ash_high_I	Bioaccess1.5pH	8	%	Lead	74.33	NA	T1
347-03-I-high-C-1	Wood ash_high_I	Bioaccess1.5pH	8	%	Lead	77.85	NA	T1
348-03-I-high-D-1	Wood ash_high_I	Bioaccess1.5pH	8	%	Lead	89.21	NA	T1
349-04-I-high-A-1	Biochar_high_I	Bioaccess1.5pH	8	%	Lead	92.73	NA	T1
350-04-I-high-B-1	Biochar_high_I	Bioaccess1.5pH	8	%	Lead	93.82	NA	T1
351-04-I-high-C-1	Biochar_high_I	Bioaccess1.5pH	8	%	Lead	85.20	NA	T1
352-04-I-high-D-1	Biochar_high_I	Bioaccess1.5pH	8	%	Lead	96.96	NA	T1
353-05-I-high-A-1	Compost_high_I	Bioaccess1.5pH	9	%	Lead	68.38	NA	T1
354-05-I-high-B-1	Compost_high_I	Bioaccess1.5pH	23	%	Lead	68.12	NA	T1
355-05-I-high-C-1	Compost_high_I	Bioaccess1.5pH	9	%	Lead	64.09	NA	T1
356-05-I-high-D-1	Compost_high_I	Bioaccess1.5pH	9	%	Lead	65.08	NA	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	9	%	Lead	65.68	NA	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	9	%	Lead	66.29	NA	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	9	%	Lead	77.10	NA	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	9	%	Lead	75.52	NA	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	10	%	Lead	74.33	NA	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	10	%	Lead	63.81	NA	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	10	%	Lead	75.28	NA	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	10	%	Lead	73.81	NA	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	Bioaccess1.5pH	10	%	Lead	74.21	NA	T1



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
366-08-I-high-B-1	Soluble phosphate and compost_high_I	Bioaccess1.5pH	10	%	Lead	74.79	NA	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	Bioaccess1.5pH	10	%	Lead	69.31	NA	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	Bioaccess1.5pH	10	%	Lead	73.08	NA	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	Bioaccess1.5pH	11	%	Lead	78.86	NA	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	Bioaccess1.5pH	11	%	Lead	81.04	NA	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	Bioaccess1.5pH	11	%	Lead	79.00	NA	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	Bioaccess1.5pH	11	%	Lead	72.70	NA	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	Bioaccess1.5pH	11	%	Lead	74.83	NA	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	Bioaccess1.5pH	11	%	Lead	73.67	NA	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	Bioaccess1.5pH	11	%	Lead	78.25	NA	T1
376-10-I-high-D-1	Wood ash and biochar_high_I	Bioaccess1.5pH	11	%	Lead	78.46	NA	T1
377-11-I-high-A-1	Wood ash and compost_high_I	Bioaccess1.5pH	12	%	Lead	69.49	NA	T1
378-11-I-high-B-1	Wood ash and compost_high_I	Bioaccess1.5pH	12	%	Lead	72.05	NA	T1
379-11-I-high-C-1	Wood ash and compost_high_I	Bioaccess1.5pH	12	%	Lead	68.55	NA	T1
380-11-I-high-D-1	Wood ash and compost_high_I	Bioaccess1.5pH	12	%	Lead	67.29	NA	T1
381-12-I-high-A-1	Biochar and compost_high_I	Bioaccess1.5pH	12	%	Lead	63.36	NA	T1
382-12-I-high-B-1	Biochar and compost_high_I	Bioaccess1.5pH	12	%	Lead	68.54	NA	T1
383-12-I-high-C-1	Biochar and compost_high_I	Bioaccess1.5pH	12	%	Lead	65.49	NA	T1
384-12-I-high-D-1	Biochar and compost_high_I	Bioaccess1.5pH	12	%	Lead	68.01	NA	T1
385-00-I-baseline-A-1	control_none_I	Bioaccess1.5pH	13	%	Lead	74.69	srm	T1
386-00-I-baseline-B-1	control_none_I	Bioaccess1.5pH	13	%	Lead	70.67	srm	T1
387-00-I-baseline-C-1	control_none_I	Bioaccess1.5pH	13	%	Lead	71.50	srm	T1
388-00-I-baseline-D-1	control_none_I	Bioaccess1.5pH	13	%	Lead	69.51	srm	T1
004-00-baseline-D-1	Baseline_baseline_NA	Bioaccess1.5pH	4	mg/kg	Lead	1083.51	NA	T1
003-00-baseline-C-1	Baseline_baseline_NA	Bioaccess1.5pH	3	mg/kg	Lead	988.09	NA	T1
002-00-baseline-B-1	Baseline_baseline_NA	Bioaccess1.5pH	2	mg/kg	Lead	1102.58	NA	T1
001-00-baseline-A-1	Baseline_baseline_NA	Bioaccess1.5pH	1	mg/kg	Lead	1076.90	NA	T1
001-01-S-low-A-1	Soluble phosphate_low_S	Bioaccess1.5pH	5	mg/kg	Lead	1103.75	NA	T1
002-01-S-low-B-1	Soluble phosphate_low_S	Bioaccess1.5pH	6	mg/kg	Lead	1043.19	NA	T1
003-01-S-low-C-1	Soluble phosphate_low_S	Bioaccess1.5pH	7	mg/kg	Lead	1033.64	NA	T1
004-01-S-low-D-1	Soluble phosphate_low_S	Bioaccess1.5pH	8	mg/kg	Lead	1133.07	NA	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
005-02-S-low-A-1	Biosolid_low_S	Bioaccess1.5pH	9	mg/kg	Lead	980.06	NA	T1
006-02-S-low-B-1	Biosolid_low_S	Bioaccess1.5pH	10	mg/kg	Lead	996.52	NA	T1
007-02-S-low-C-1	Biosolid_low_S	Bioaccess1.5pH	11	mg/kg	Lead	1041.62	NA	T1
008-02-S-low-D-1	Biosolid_low_S	Bioaccess1.5pH	12	mg/kg	Lead	1014.38	NA	T1
009-03-S-low-A-1	Wood ash_low_S	Bioaccess1.5pH	13	mg/kg	Lead	959.44	srm	T1
010-03-S-low-B-1	Wood ash_low_S	Bioaccess1.5pH	13	mg/kg	Lead	986.35	srm	T1
011-03-S-low-C-1	Wood ash_low_S	Bioaccess1.5pH	13	mg/kg	Lead	1000.20	srm	T1
012-03-S-low-D-1	Wood ash_low_S	Bioaccess1.5pH	13	mg/kg	Lead	999.79	srm	T1
013-04-S-low-A-1	Biochar_low_S	Bioaccess1.5pH	13	mg/kg	Lead	980.33	srm	T1
014-04-S-low-B-1	Biochar_low_S	Bioaccess1.5pH	14	mg/kg	Lead	986.43	NA	T1
015-04-S-low-C-1	Biochar_low_S	Bioaccess1.5pH	14	mg/kg	Lead	954.05	NA	T1
016-04-S-low-D-1	Biochar_low_S	Bioaccess1.5pH	14	mg/kg	Lead	977.30	NA	T1
017-05-S-low-A-1	Compost_low_S	Bioaccess1.5pH	14	mg/kg	Lead	978.25	NA	T1
018-05-S-low-B-1	Compost_low_S	Bioaccess1.5pH	14	mg/kg	Lead	971.07	NA	T1
019-05-S-low-C-1	Compost_low_S	Bioaccess1.5pH	14	mg/kg	Lead	977.37	NA	T1
020-05-S-low-D-1	Compost_low_S	Bioaccess1.5pH	14	mg/kg	Lead	989.20	NA	T1
021-06-S-low-A-1	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	14	mg/kg	Lead	947.83	NA	T1
022-06-S-low-B-1	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	14	mg/kg	Lead	961.40	NA	T1
023-06-S-low-C-1	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	15	mg/kg	Lead	971.18	NA	T1
024-06-S-low-D-1	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	15	mg/kg	Lead	969.99	NA	T1
025-07-S-low-A-1	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	15	mg/kg	Lead	1007.88	NA	T1
026-07-S-low-B-1	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	15	mg/kg	Lead	1027.89	NA	T1
027-07-S-low-C-1	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	15	mg/kg	Lead	995.71	NA	T1
028-07-S-low-D-1	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	15	mg/kg	Lead	992.60	NA	T1
029-08-S-low-A-1	Soluble phosphate and compost_low_S	Bioaccess1.5pH	15	mg/kg	Lead	986.12	NA	T1
030-08-S-low-B-1	Soluble phosphate and compost_low_S	Bioaccess1.5pH	15	mg/kg	Lead	971.53	NA	T1
031-08-S-low-C-1	Soluble phosphate and compost_low_S	Bioaccess1.5pH	15	mg/kg	Lead	939.39	NA	T1
032-08-S-low-D-1	Soluble phosphate and compost_low_S	Bioaccess1.5pH	16	mg/kg	Lead	971.49	NA	T1
033-09-S-low-A-1	Biosolids and wood ash_low_S	Bioaccess1.5pH	16	mg/kg	Lead	961.75	NA	T1
034-09-S-low-B-1	Biosolids and wood ash_low_S	Bioaccess1.5pH	16	mg/kg	Lead	1000.96	NA	T1
035-09-S-low-C-1	Biosolids and wood ash_low_S	Bioaccess1.5pH	16	mg/kg	Lead	947.64	NA	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
036-09-S-low-D-1	Biosolids and wood ash_low_S	Bioaccess1.5pH	16	mg/kg	Lead	984.57	NA	T1
037-10-S-low-A-1	Wood ash and biochar_low_S	Bioaccess1.5pH	16	mg/kg	Lead	1016.65	NA	T1
038-10-S-low-B-1	Wood ash and biochar_low_S	Bioaccess1.5pH	16	mg/kg	Lead	997.85	NA	T1
039-10-S-low-C-1	Wood ash and biochar_low_S	Bioaccess1.5pH	16	mg/kg	Lead	976.92	NA	T1
040-10-S-low-D-1	Wood ash and biochar_low_S	Bioaccess1.5pH	16	mg/kg	Lead	973.61	NA	T1
041-11-S-low-A-1	Wood ash and compost_low_S	Bioaccess1.5pH	17	mg/kg	Lead	1014.91	NA	T1
042-11-S-low-B-1	Wood ash and compost_low_S	Bioaccess1.5pH	17	mg/kg	Lead	962.13	NA	T1
043-11-S-low-C-1	Wood ash and compost_low_S	Bioaccess1.5pH	17	mg/kg	Lead	992.27	NA	T1
044-11-S-low-D-1	Wood ash and compost_low_S	Bioaccess1.5pH	17	mg/kg	Lead	949.36	NA	T1
045-12-S-low-A-1	Biochar and compost_low_S	Bioaccess1.5pH	17	mg/kg	Lead	957.03	NA	T1
046-12-S-low-B-1	Biochar and compost_low_S	Bioaccess1.5pH	17	mg/kg	Lead	1010.98	NA	T1
047-12-S-low-C-1	Biochar and compost_low_S	Bioaccess1.5pH	17	mg/kg	Lead	967.03	NA	T1
048-12-S-low-D-1	Biochar and compost_low_S	Bioaccess1.5pH	17	mg/kg	Lead	990.10	NA	T1
145-01-S-high-A-1	Soluble phosphate_high_S	Bioaccess1.5pH	17	mg/kg	Lead	993.00	NA	T1
146-01-S-high-B-1	Soluble phosphate_high_S	Bioaccess1.5pH	18	mg/kg	Lead	1085.94	NA	T1
147-01-S-high-C-1	Soluble phosphate_high_S	Bioaccess1.5pH	18	mg/kg	Lead	1063.58	NA	T1
148-01-S-high-D-1	Soluble phosphate_high_S	Bioaccess1.5pH	18	mg/kg	Lead	1041.36	NA	T1
149-02-S-high-A-1	Biosolid_high_S	Bioaccess1.5pH	18	mg/kg	Lead	1015.65	NA	T1
150-02-S-high-B-1	Biosolid_high_S	Bioaccess1.5pH	18	mg/kg	Lead	1025.80	NA	T1
151-02-S-high-C-1	Biosolid_high_S	Bioaccess1.5pH	18	mg/kg	Lead	1006.05	NA	T1
152-02-S-high-D-1	Biosolid_high_S	Bioaccess1.5pH	18	mg/kg	Lead	1050.86	NA	T1
153-03-S-high-A-1	Wood ash_high_S	Bioaccess1.5pH	18	mg/kg	Lead	999.01	NA	T1
154-03-S-high-B-1	Wood ash_high_S	Bioaccess1.5pH	18	mg/kg	Lead	1021.40	NA	T1
155-03-S-high-C-1	Wood ash_high_S	Bioaccess1.5pH	19	mg/kg	Lead	1093.09	NA	T1
156-03-S-high-D-1	Wood ash_high_S	Bioaccess1.5pH	19	mg/kg	Lead	1113.62	NA	T1
157-04-S-high-A-1	Biochar_high_S	Bioaccess1.5pH	19	mg/kg	Lead	1087.56	NA	T1
158-04-S-high-B-1	Biochar_high_S	Bioaccess1.5pH	19	mg/kg	Lead	1057.40	NA	T1
159-04-S-high-C-1	Biochar_high_S	Bioaccess1.5pH	19	mg/kg	Lead	1036.24	NA	T1
160-04-S-high-D-1	Biochar_high_S	Bioaccess1.5pH	19	mg/kg	Lead	1075.09	NA	T1
161-05-S-high-A-1	Compost_high_S	Bioaccess1.5pH	19	mg/kg	Lead	1036.38	NA	T1
162-05-S-high-B-1	Compost_high_S	Bioaccess1.5pH	19	mg/kg	Lead	981.97	NA	T1



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
163-05-S-high-C-1	Compost_high_S	Bioaccess1.5pH	19	mg/kg	Lead	1039.76	NA	T1
164-05-S-high-D-1	Compost_high_S	Bioaccess1.5pH	20	mg/kg	Lead	1069.30	NA	T1
165-06-S-high-A-1	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	20	mg/kg	Lead	1099.50	NA	T1
166-06-S-high-B-1	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	20	mg/kg	Lead	1078.85	NA	T1
167-06-S-high-C-1	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	20	mg/kg	Lead	1062.35	NA	T1
168-06-S-high-D-1	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	20	mg/kg	Lead	1017.36	NA	T1
169-07-S-high-A-1	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	20	mg/kg	Lead	1079.79	NA	T1
170-07-S-high-B-1	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	20	mg/kg	Lead	1058.64	NA	T1
171-07-S-high-C-1	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	20	mg/kg	Lead	1162.53	NA	T1
172-07-S-high-D-1	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	20	mg/kg	Lead	1019.11	NA	T1
173-08-S-high-A-1	Soluble phosphate and compost_high_S	Bioaccess1.5pH	21	mg/kg	Lead	1123.85	NA	T1
174-08-S-high-B-1	Soluble phosphate and compost_high_S	Bioaccess1.5pH	21	mg/kg	Lead	1104.01	NA	T1
175-08-S-high-C-1	Soluble phosphate and compost_high_S	Bioaccess1.5pH	21	mg/kg	Lead	1081.87	NA	T1
176-08-S-high-D-1	Soluble phosphate and compost_high_S	Bioaccess1.5pH	21	mg/kg	Lead	1159.09	NA	T1
177-09-S-high-A-1	Biosolids and wood ash_high_S	Bioaccess1.5pH	21	mg/kg	Lead	1080.05	NA	T1
178-09-S-high-B-1	Biosolids and wood ash_high_S	Bioaccess1.5pH	21	mg/kg	Lead	1110.81	NA	T1
179-09-S-high-C-1	Biosolids and wood ash_high_S	Bioaccess1.5pH	21	mg/kg	Lead	1088.77	NA	T1
180-09-S-high-D-1	Biosolids and wood ash_high_S	Bioaccess1.5pH	21	mg/kg	Lead	1130.70	NA	T1
181-10-S-high-A-1	Wood ash and biochar_high_S	Bioaccess1.5pH	21	mg/kg	Lead	1038.43	NA	T1
182-10-S-high-B-1	Wood ash and biochar_high_S	Bioaccess1.5pH	22	mg/kg	Lead	1018.75	NA	T1
183-10-S-high-C-1	Wood ash and biochar_high_S	Bioaccess1.5pH	22	mg/kg	Lead	1030.64	NA	T1
184-10-S-high-D-1	Wood ash and biochar_high_S	Bioaccess1.5pH	22	mg/kg	Lead	1077.34	NA	T1
185-11-S-high-A-1	Wood ash and compost_high_S	Bioaccess1.5pH	22	mg/kg	Lead	1112.05	NA	T1
186-11-S-high-B-1	Wood ash and compost_high_S	Bioaccess1.5pH	22	mg/kg	Lead	1092.24	NA	T1
187-11-S-high-C-1	Wood ash and compost_high_S	Bioaccess1.5pH	22	mg/kg	Lead	1087.19	NA	T1
188-11-S-high-D-1	Wood ash and compost_high_S	Bioaccess1.5pH	22	mg/kg	Lead	1078.18	NA	T1
189-12-S-high-A-1	Biochar and compost_high_S	Bioaccess1.5pH	22	mg/kg	Lead	1016.01	NA	T1
190-12-S-high-B-1	Biochar and compost_high_S	Bioaccess1.5pH	22	mg/kg	Lead	1018.28	NA	T1
191-12-S-high-C-1	Biochar and compost_high_S	Bioaccess1.5pH	23	mg/kg	Lead	1073.71	NA	T1
192-12-S-high-D-1	Biochar and compost_high_S	Bioaccess1.5pH	23	mg/kg	Lead	1032.05	NA	T1
289-01-I-low-A-1	Soluble phosphate_low_I	Bioaccess1.5pH	1	mg/kg	Lead	1245.63	NA	T1



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
290-01-I-low-B-1	Soluble phosphate_low_I	Bioaccess1.5pH	1	mg/kg	Lead	1123.74	NA	T1
291-01-I-low-C-1	Soluble phosphate_low_I	Bioaccess1.5pH	1	mg/kg	Lead	1108.68	NA	T1
292-01-I-low-D-1	Soluble phosphate_low_I	Bioaccess1.5pH	1	mg/kg	Lead	1086.50	NA	T1
293-02-I-low-A-1	Biosolid_low_I	Bioaccess1.5pH	1	mg/kg	Lead	1099.94	NA	T1
294-02-I-low-B-1	Biosolid_low_I	Bioaccess1.5pH	1	mg/kg	Lead	1075.01	NA	T1
295-02-I-low-C-1	Biosolid_low_I	Bioaccess1.5pH	1	mg/kg	Lead	1073.46	NA	T1
296-02-I-low-D-1	Biosolid_low_I	Bioaccess1.5pH	1	mg/kg	Lead	1146.98	NA	T1
297-03-I-low-A-1	Wood ash_low_I	Bioaccess1.5pH	2	mg/kg	Lead	1118.79	NA	T1
298-03-I-low-B-1	Wood ash_low_I	Bioaccess1.5pH	2	mg/kg	Lead	1131.21	NA	T1
299-03-I-low-C-1	Wood ash_low_I	Bioaccess1.5pH	2	mg/kg	Lead	1148.38	NA	T1
300-03-I-low-D-1	Wood ash_low_I	Bioaccess1.5pH	2	mg/kg	Lead	1117.65	NA	T1
301-04-I-low-A-1	Biochar_low_I	Bioaccess1.5pH	2	mg/kg	Lead	1138.36	NA	T1
302-04-I-low-B-1	Biochar_low_I	Bioaccess1.5pH	2	mg/kg	Lead	1166.20	NA	T1
303-04-I-low-C-1	Biochar_low_I	Bioaccess1.5pH	2	mg/kg	Lead	1141.62	NA	T1
304-04-I-low-D-1	Biochar_low_I	Bioaccess1.5pH	2	mg/kg	Lead	1112.31	NA	T1
305-05-I-low-A-1	Compost_low_I	Bioaccess1.5pH	3	mg/kg	Lead	1038.83	NA	T1
306-05-I-low-B-1	Compost_low_I	Bioaccess1.5pH	3	mg/kg	Lead	1029.39	NA	T1
307-05-I-low-C-1	Compost_low_I	Bioaccess1.5pH	3	mg/kg	Lead	1000.75	NA	T1
308-05-I-low-D-1	Compost_low_I	Bioaccess1.5pH	3	mg/kg	Lead	1036.35	NA	T1
309-06-I-low-A-1	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	3	mg/kg	Lead	1004.65	NA	T1
310-06-I-low-B-1	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	3	mg/kg	Lead	1035.61	NA	T1
311-06-I-low-C-1	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	23	mg/kg	Lead	910.04	NA	T1
312-06-I-low-D-1	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	3	mg/kg	Lead	1044.65	NA	T1
313-07-I-low-A-1	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	4	mg/kg	Lead	1128.49	NA	T1
314-07-I-low-B-1	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	4	mg/kg	Lead	1088.91	NA	T1
315-07-I-low-C-1	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	4	mg/kg	Lead	1136.82	NA	T1
316-07-I-low-D-1	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	4	mg/kg	Lead	1170.00	NA	T1
317-08-I-low-A-1	Soluble phosphate and compost_low_I	Bioaccess1.5pH	4	mg/kg	Lead	1165.46	NA	T1
318-08-I-low-B-1	Soluble phosphate and compost_low_I	Bioaccess1.5pH	4	mg/kg	Lead	1134.37	NA	T1
319-08-I-low-C-1	Soluble phosphate and compost_low_I	Bioaccess1.5pH	4	mg/kg	Lead	1149.65	NA	T1
320-08-I-low-D-1	Soluble phosphate and compost_low_I	Bioaccess1.5pH	4	mg/kg	Lead	1137.51	NA	T1



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
321-09-I-low-A-1	Biosolids and wood ash_low_I	Bioaccess1.5pH	5	mg/kg	Lead	881.59	NA	T1
322-09-I-low-B-1	Biosolids and wood ash_low_I	Bioaccess1.5pH	5	mg/kg	Lead	1011.97	NA	T1
323-09-I-low-C-1	Biosolids and wood ash_low_I	Bioaccess1.5pH	5	mg/kg	Lead	985.48	NA	T1
324-09-I-low-D-1	Biosolids and wood ash_low_I	Bioaccess1.5pH	5	mg/kg	Lead	990.27	NA	T1
325-10-I-low-A-1	Wood ash and biochar_low_I	Bioaccess1.5pH	5	mg/kg	Lead	1028.60	NA	T1
326-10-I-low-B-1	Wood ash and biochar_low_I	Bioaccess1.5pH	5	mg/kg	Lead	1045.98	NA	T1
327-10-I-low-C-1	Wood ash and biochar_low_I	Bioaccess1.5pH	5	mg/kg	Lead	1068.69	NA	T1
328-10-I-low-D-1	Wood ash and biochar_low_I	Bioaccess1.5pH	5	mg/kg	Lead	1074.55	NA	T1
329-11-I-low-A-1	Wood ash and compost_low_I	Bioaccess1.5pH	6	mg/kg	Lead	1051.60	NA	T1
330-11-I-low-B-1	Wood ash and compost_low_I	Bioaccess1.5pH	6	mg/kg	Lead	1054.16	NA	T1
331-11-I-low-C-1	Wood ash and compost_low_I	Bioaccess1.5pH	6	mg/kg	Lead	958.92	NA	T1
332-11-I-low-D-1	Wood ash and compost_low_I	Bioaccess1.5pH	6	mg/kg	Lead	1054.58	NA	T1
333-12-I-low-A-1	Biochar and compost_low_I	Bioaccess1.5pH	6	mg/kg	Lead	1002.13	NA	T1
334-12-I-low-B-1	Biochar and compost_low_I	Bioaccess1.5pH	6	mg/kg	Lead	996.78	NA	T1
335-12-I-low-C-1	Biochar and compost_low_I	Bioaccess1.5pH	6	mg/kg	Lead	988.27	NA	T1
336-12-I-low-D-1	Biochar and compost_low_I	Bioaccess1.5pH	6	mg/kg	Lead	1079.07	NA	T1
337-01-I-high-A-1	Soluble phosphate_high_I	Bioaccess1.5pH	7	mg/kg	Lead	1071.45	NA	T1
338-01-I-high-B-1	Soluble phosphate_high_I	Bioaccess1.5pH	7	mg/kg	Lead	1049.58	NA	T1
339-01-I-high-C-1	Soluble phosphate_high_I	Bioaccess1.5pH	7	mg/kg	Lead	1033.80	NA	T1
340-01-I-high-D-1	Soluble phosphate_high_I	Bioaccess1.5pH	7	mg/kg	Lead	1088.72	NA	T1
341-02-I-high-A-1	Biosolid_high_I	Bioaccess1.5pH	7	mg/kg	Lead	920.00	NA	T1
342-02-I-high-B-1	Biosolid_high_I	Bioaccess1.5pH	7	mg/kg	Lead	975.48	NA	T1
343-02-I-high-C-1	Biosolid_high_I	Bioaccess1.5pH	7	mg/kg	Lead	933.11	NA	T1
344-02-I-high-D-1	Biosolid_high_I	Bioaccess1.5pH	7	mg/kg	Lead	874.29	NA	T1
345-03-I-high-A-1	Wood ash_high_I	Bioaccess1.5pH	8	mg/kg	Lead	1035.06	NA	T1
346-03-I-high-B-1	Wood ash_high_I	Bioaccess1.5pH	8	mg/kg	Lead	1131.04	NA	T1
347-03-I-high-C-1	Wood ash_high_I	Bioaccess1.5pH	8	mg/kg	Lead	1185.52	NA	T1
348-03-I-high-D-1	Wood ash_high_I	Bioaccess1.5pH	8	mg/kg	Lead	1188.37	NA	T1
349-04-I-high-A-1	Biochar_high_I	Bioaccess1.5pH	8	mg/kg	Lead	1124.86	NA	T1
350-04-I-high-B-1	Biochar_high_I	Bioaccess1.5pH	8	mg/kg	Lead	1133.27	NA	T1
351-04-I-high-C-1	Biochar_high_I	Bioaccess1.5pH	8	mg/kg	Lead	1136.81	NA	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
352-04-I-high-D-1	Biochar_high_I	Bioaccess1.5pH	8	mg/kg	Lead	1122.30	NA	T1
353-05-I-high-A-1	Compost_high_I	Bioaccess1.5pH	9	mg/kg	Lead	1064.84	NA	T1
354-05-I-high-B-1	Compost_high_I	Bioaccess1.5pH	23	mg/kg	Lead	1013.79	NA	T1
355-05-I-high-C-1	Compost_high_I	Bioaccess1.5pH	9	mg/kg	Lead	976.48	NA	T1
356-05-I-high-D-1	Compost_high_I	Bioaccess1.5pH	9	mg/kg	Lead	1081.80	NA	T1
357-06-I-high-A-1	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	9	mg/kg	Lead	968.86	NA	T1
358-06-I-high-B-1	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	9	mg/kg	Lead	1007.68	NA	T1
359-06-I-high-C-1	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	9	mg/kg	Lead	942.09	NA	T1
360-06-I-high-D-1	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	9	mg/kg	Lead	948.36	NA	T1
361-07-I-high-A-1	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	10	mg/kg	Lead	1100.69	NA	T1
362-07-I-high-B-1	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	10	mg/kg	Lead	1144.37	NA	T1
363-07-I-high-C-1	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	10	mg/kg	Lead	1128.51	NA	T1
364-07-I-high-D-1	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	10	mg/kg	Lead	1117.80	NA	T1
365-08-I-high-A-1	Soluble phosphate and compost_high_I	Bioaccess1.5pH	10	mg/kg	Lead	1021.44	NA	T1
366-08-I-high-B-1	Soluble phosphate and compost_high_I	Bioaccess1.5pH	10	mg/kg	Lead	1024.86	NA	T1
367-08-I-high-C-1	Soluble phosphate and compost_high_I	Bioaccess1.5pH	10	mg/kg	Lead	1009.86	NA	T1
368-08-I-high-D-1	Soluble phosphate and compost_high_I	Bioaccess1.5pH	10	mg/kg	Lead	1040.51	NA	T1
369-09-I-high-A-1	Biosolids and wood ash_high_I	Bioaccess1.5pH	11	mg/kg	Lead	1027.42	NA	T1
370-09-I-high-B-1	Biosolids and wood ash_high_I	Bioaccess1.5pH	11	mg/kg	Lead	1066.78	NA	T1
371-09-I-high-C-1	Biosolids and wood ash_high_I	Bioaccess1.5pH	11	mg/kg	Lead	1050.30	NA	T1
372-09-I-high-D-1	Biosolids and wood ash_high_I	Bioaccess1.5pH	11	mg/kg	Lead	964.32	NA	T1
373-10-I-high-A-1	Wood ash and biochar_high_I	Bioaccess1.5pH	11	mg/kg	Lead	1094.71	NA	T1
374-10-I-high-B-1	Wood ash and biochar_high_I	Bioaccess1.5pH	11	mg/kg	Lead	1030.65	NA	T1
375-10-I-high-C-1	Wood ash and biochar_high_I	Bioaccess1.5pH	11	mg/kg	Lead	1065.48	NA	T1
376-10-I-high-D-1	Wood ash and biochar_high_I	Bioaccess1.5pH	11	mg/kg	Lead	1140.54	NA	T1
377-11-I-high-A-1	Wood ash and compost_high_I	Bioaccess1.5pH	12	mg/kg	Lead	1029.15	NA	T1
378-11-I-high-B-1	Wood ash and compost_high_I	Bioaccess1.5pH	12	mg/kg	Lead	965.15	NA	T1
379-11-I-high-C-1	Wood ash and compost_high_I	Bioaccess1.5pH	12	mg/kg	Lead	972.66	NA	T1
380-11-I-high-D-1	Wood ash and compost_high_I	Bioaccess1.5pH	12	mg/kg	Lead	931.90	NA	T1
381-12-I-high-A-1	Biochar and compost_high_I	Bioaccess1.5pH	12	mg/kg	Lead	872.19	NA	T1
382-12-I-high-B-1	Biochar and compost_high_I	Bioaccess1.5pH	12	mg/kg	Lead	1013.36	NA	T1

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
383-12-I-high-C-1	Biochar and compost_high_I	Bioaccess1.5pH	12	mg/kg	Lead	978.70	NA	T1
384-12-I-high-D-1	Biochar and compost_high_I	Bioaccess1.5pH	12	mg/kg	Lead	995.71	NA	T1
385-00-I-baseline-A-1	control_none_I	Bioaccess1.5pH	13	mg/kg	Lead	1123.21	srm	T1
386-00-I-baseline-B-1	control_none_I	Bioaccess1.5pH	13	mg/kg	Lead	1100.69	srm	T1
387-00-I-baseline-C-1	control_none_I	Bioaccess1.5pH	13	mg/kg	Lead	1107.85	srm	T1
388-00-I-baseline-D-1	control_none_I	Bioaccess1.5pH	13	mg/kg	Lead	1002.80	srm	T1

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Table 42. Complete results for Timepoint 2 potentially mineralizable nitrogen, pH, electrical conductivity, total carbon, organic carbon, and synthetic precipitation leaching procedure

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
049-01-S-low-A-2	Solublephosphate_low_S	WARNING64	3	mg/kg	Nitrogen_Mineral	46.67	NA	T2
050-01-S-low-B-2	Solublephosphate_low_S	WARNING64	4	mg/kg	Nitrogen_Mineral	40.47	NA	T2
051-01-S-low-C-2	Solublephosphate_low_S	WARNING64	5	mg/kg	Nitrogen_Mineral	47.12	NA	T2
052-01-S-low-D-2	Soluble phosphate_low_S	WARNING64	6	mg/kg	Nitrogen_Mineral	68.12	NA	T2
053-02-S-low-A-2	Biosolid_low_S	WARNING64	1	mg/kg	Nitrogen_Mineral	340.68	NA	T2
054-02-S-low-B-2	Biosolid_low_S	WARNING64	1	mg/kg	Nitrogen_Mineral	384.17	NA	T2
055-02-S-low-C-2	Biosolid_low_S	WARNING64	1	mg/kg	Nitrogen_Mineral	362.68	NA	T2
056-02-S-low-D-2	Biosolid_low_S	WARNING64	1	mg/kg	Nitrogen_Mineral	374.68	NA	T2
057-03-S-low-A-2	Wood ash_low_S	WARNING64	1	mg/kg	Nitrogen_Mineral	35.70	NA	T2
058-03-S-low-B-2	Wood ash_low_S	WARNING64	1	mg/kg	Nitrogen_Mineral	33.88	NA	T2
059-03-S-low-C-2	Wood ash_low_S	WARNING64	1	mg/kg	Nitrogen_Mineral	38.39	NA	T2
060-03-S-low-D-2	Wood ash_low_S	WARNING64	1	mg/kg	Nitrogen_Mineral	32.71	NA	T2
061-04-S-low-A-2	Biochar_low_S	WARNING64	1	mg/kg	Nitrogen_Mineral	31.97	NA	T2
062-04-S-low-B-2	Biochar_low_S	WARNING64	1	mg/kg	Nitrogen_Mineral	37.06	NA	T2
063-04-S-low-C-2	Biochar_low_S	WARNING64	1	mg/kg	Nitrogen_Mineral	35.64	NA	T2
064-04-S-low-D-2	Biochar_low_S	WARNING64	1	mg/kg	Nitrogen_Mineral	27.83	NA	T2
065-05-S-low-A-2	Compost_low_S	WARNING64	1	mg/kg	Nitrogen_Mineral	27.97	NA	T2
066-05-S-low-B-2	Compost_low_S	WARNING64	1	mg/kg	Nitrogen_Mineral	30.61	NA	T2
067-05-S-low-C-2	Compost_low_S	WARNING64	1	mg/kg	Nitrogen_Mineral	25.92	NA	T2
068-05-S-low-D-2	Compost_low_S	WARNING64	1	mg/kg	Nitrogen_Mineral	36.77	NA	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	WARNING64	1	mg/kg	Nitrogen_Mineral	441.24	NA	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	WARNING64	1	mg/kg	Nitrogen_Mineral	467.71	NA	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	WARNING64	1	mg/kg	Nitrogen_Mineral	441.68	NA	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	WARNING64	1	mg/kg	Nitrogen_Mineral	418.21	NA	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	WARNING64	1	mg/kg	Nitrogen_Mineral	52.23	NA	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	WARNING64	1	mg/kg	Nitrogen_Mineral	30.13	NA	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	WARNING64	1	mg/kg	Nitrogen_Mineral	45.20	NA	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	WARNING64	1	mg/kg	Nitrogen_Mineral	39.68	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
077-08-S-low-A-2	Soluble phosphate and compost_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	61.23	NA	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	64.73	NA	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	61.70	NA	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	52.18	NA	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	159.71	NA	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	132.75	NA	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	274.16	NA	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	273.64	NA	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	25.50	NA	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	34.32	NA	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	33.09	NA	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	32.91	NA	T2
089-11-S-low-A-2	Wood ash and compost_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	28.13	NA	T2
090-11-S-low-B-2	Wood ash and compost_low_S	WARING64	2	mg/kg	Nitrogen_Mineral	24.81	NA	T2
091-11-S-low-C-2	Wood ash and compost_low_S	WARING64	2	mg/kg	Nitrogen_Mineral	32.85	NA	T2
092-11-S-low-D-2	Wood ash and compost_low_S	WARING64	2	mg/kg	Nitrogen_Mineral	39.01	NA	T2
093-12-S-low-A-2	Biochar and compost_low_S	WARING64	2	mg/kg	Nitrogen_Mineral	20.53	NA	T2
094-12-S-low-B-2	Biochar and compost_low_S	WARING64	2	mg/kg	Nitrogen_Mineral	35.92	NA	T2
095-12-S-low-C-2	Biochar and compost_low_S	WARING64	2	mg/kg	Nitrogen_Mineral	35.91	NA	T2
096-12-S-low-D-2	Biochar and compost_low_S	WARING64	2	mg/kg	Nitrogen_Mineral	28.62	NA	T2
193-01-S-high-A-2	Solublephosphate_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	88.28	NA	T2
194-01-S-high-B-2	Solublephosphate_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	55.78	NA	T2
195-01-S-high-C-2	Solublephosphate_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	71.24	NA	T2
196-01-S-high-D-2	Solublephosphate_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	91.78	NA	T2
197-02-S-high-A-2	Biosolid_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	1066.38	NA	T2
198-02-S-high-B-2	Biosolid_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	841.25	NA	T2
199-02-S-high-C-2	Biosolid_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	1031.35	NA	T2
200-02-S-high-D-2	Biosolid_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	1071.33	NA	T2
201-03-S-high-A-2	Wood ash_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	33.01	NA	T2
202-03-S-high-B-2	Wood ash_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	34.64	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
203-03-S-high-C-2	Wood ash_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	39.62	NA	T2
204-03-S-high-D-2	Wood ash_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	34.42	NA	T2
205-04-S-high-A-2	Biochar_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	28.43	NA	T2
206-04-S-high-B-2	Biochar_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	44.34	NA	T2
207-04-S-high-C-2	Biochar_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	32.27	NA	T2
208-04-S-high-D-2	Biochar_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	31.40	NA	T2
209-05-S-high-A-2	Compost_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	76.38	NA	T2
210-05-S-high-B-2	Compost_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	67.30	NA	T2
211-05-S-high-C-2	Compost_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	87.49	NA	T2
212-05-S-high-D-2	Compost_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	53.43	NA	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	996.29	NA	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	1101.39	NA	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	1086.39	NA	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	1021.14	NA	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	57.93	NA	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	53.43	NA	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	55.93	NA	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	47.45	NA	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	128.42	NA	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	93.91	NA	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	134.18	NA	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	156.59	NA	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	856.46	NA	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	821.40	NA	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	751.39	NA	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	771.36	NA	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	27.82	NA	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	28.72	NA	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	24.98	NA	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	27.70	NA	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
233-11-S-high-A-2	Wood ash and compost_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	46.64	NA	T2
234-11-S-high-B-2	Wood ash and compost_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	42.06	NA	T2
235-11-S-high-C-2	Wood ash and compost_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	38.86	NA	T2
236-11-S-high-D-2	Wood ash and compost_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	37.65	NA	T2
237-12-S-high-A-2	Biochar and compost_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	38.95	NA	T2
238-12-S-high-B-2	Biochar and compost_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	39.39	NA	T2
239-12-S-high-C-2	Biochar and compost_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	56.16	NA	T2
240-12-S-high-D-2	Biochar and compost_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	38.03	NA	T2
289-01-I-low-A-2	Solublephosphate_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	53.26	NA	T2
290-01-I-low-B-2	Solublephosphate_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	37.65	NA	T2
291-01-I-low-C-2	Solublephosphate_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	49.23	NA	T2
292-01-I-low-D-2	Solublephosphate_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	54.29	NA	T2
293-02-I-low-A-2	Biosolid_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	837.23	NA	T2
294-02-I-low-B-2	Biosolid_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	400.76	NA	T2
295-02-I-low-C-2	Biosolid_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	731.86	NA	T2
296-02-I-low-D-2	Biosolid_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	506.25	NA	T2
297-03-I-low-A-2	Wood ash_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	31.08	NA	T2
298-03-I-low-B-2	Wood ash_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	28.39	NA	T2
299-03-I-low-C-2	Wood ash_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	38.20	NA	T2
300-03-I-low-D-2	Wood ash_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	37.81	NA	T2
301-04-I-low-A-2	Biochar_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	46.27	NA	T2
302-04-I-low-B-2	Biochar_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	38.04	NA	T2
303-04-I-low-C-2	Biochar_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	39.98	NA	T2
304-04-I-low-D-2	Biochar_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	48.78	NA	T2
305-05-I-low-A-2	Compost_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	41.77	NA	T2
306-05-I-low-B-2	Compost_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	39.42	NA	T2
307-05-I-low-C-2	Compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	42.28	NA	T2
308-05-I-low-D-2	Compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	68.54	NA	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	532.56	NA	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	583.07	NA	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	548.06	NA	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	743.07	NA	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	52.55	NA	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	63.04	NA	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	60.08	NA	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	45.86	NA	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	52.56	NA	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	55.07	NA	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	69.55	NA	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	83.53	NA	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	592.81	NA	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	240.14	NA	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	272.83	NA	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	172.63	NA	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	34.37	NA	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	44.07	NA	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	40.00	NA	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	43.81	NA	T2
329-11-I-low-A-2	Wood ash and compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	41.16	NA	T2
330-11-I-low-B-2	Wood ash and compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	35.00	NA	T2
331-11-I-low-C-2	Wood ash and compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	40.11	NA	T2
332-11-I-low-D-2	Wood ash and compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	36.71	NA	T2
333-12-I-low-A-2	Biochar and compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	48.62	NA	T2
334-12-I-low-B-2	Biochar and compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	59.58	NA	T2
335-12-I-low-C-2	Biochar and compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	43.16	NA	T2
336-12-I-low-D-2	Biochar and compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	60.13	NA	T2
337-01-I-high-A-2	Solublephosphate_high_I	WARING64	4	mg/kg	Nitrogen_Mineral	69.11	NA	T2
338-01-I-high-B-2	Solublephosphate_high_I	WARING64	4	mg/kg	Nitrogen_Mineral	55.78	NA	T2
339-01-I-high-C-2	Solublephosphate_high_I	WARING64	4	mg/kg	Nitrogen_Mineral	70.33	NA	T2
340-01-I-high-D-2	Solublephosphate_high_I	WARING64	4	mg/kg	Nitrogen_Mineral	56.76	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
341-02-I-high-A-2	Biosolid_high_I	WARING64	4	mg/kg	Nitrogen_Mineral	2262.71	NA	T2
342-02-I-high-B-2	Biosolid_high_I	WARING64	4	mg/kg	Nitrogen_Mineral	1532.63	NA	T2
343-02-I-high-C-2	Biosolid_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	2838.40	NA	T2
344-02-I-high-D-2	Biosolid_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	2078.21	NA	T2
345-03-I-high-A-2	Wood ash_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	30.90	NA	T2
346-03-I-high-B-2	Wood ash_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	33.45	NA	T2
347-03-I-high-C-2	Wood ash_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	28.43	NA	T2
348-03-I-high-D-2	Wood ash_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	33.97	NA	T2
349-04-I-high-A-2	Biochar_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	51.96	NA	T2
350-04-I-high-B-2	Biochar_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	51.59	NA	T2
351-04-I-high-C-2	Biochar_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	55.83	NA	T2
352-04-I-high-D-2	Biochar_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	53.92	NA	T2
353-05-I-high-A-2	Compost_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	128.99	NA	T2
354-05-I-high-B-2	Compost_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	135.46	NA	T2
355-05-I-high-C-2	Compost_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	110.50	NA	T2
356-05-I-high-D-2	Compost_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	132.51	NA	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	1637.63	NA	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	3123.66	NA	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	1902.79	NA	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	2267.74	NA	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	63.32	NA	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	84.99	NA	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	92.87	NA	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	114.45	NA	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	133.86	NA	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	175.27	NA	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	159.86	NA	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	179.73	NA	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	1637.80	NA	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	1027.80	NA	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
371-09-I-high-C-2	Biosolids and wood ash_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	2042.92	NA	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	1972.96	NA	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	40.43	NA	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	33.82	NA	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	37.01	NA	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	44.91	NA	T2
377-11-I-high-A-2	Wood ash and compost_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	44.97	NA	T2
378-11-I-high-B-2	Wood ash and compost_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	80.48	NA	T2
379-11-I-high-C-2	Wood ash and compost_high_I	WARING64	6	mg/kg	Nitrogen_Mineral	70.61	NA	T2
380-11-I-high-D-2	Wood ash and compost_high_I	WARING64	6	mg/kg	Nitrogen_Mineral	67.16	NA	T2
381-12-I-high-A-2	Biochar and compost_high_I	WARING64	6	mg/kg	Nitrogen_Mineral	69.67	NA	T2
382-12-I-high-B-2	Biochar and compost_high_I	WARING64	6	mg/kg	Nitrogen_Mineral	110.67	NA	T2
383-12-I-high-C-2	Biochar and compost_high_I	WARING64	6	mg/kg	Nitrogen_Mineral	138.12	NA	T2
384-12-I-high-D-2	Biochar and compost_high_I	WARING64	6	mg/kg	Nitrogen_Mineral	131.61	NA	T2
385-00-I-none-A-2	control_none_I	WARING64	6	mg/kg	Nitrogen_Mineral	32.82	NA	T2
386-00-I-none-B-2	control_none_I	WARING64	6	mg/kg	Nitrogen_Mineral	61.81	NA	T2
387-00-I-none-C-2	control_none_I	WARING64	6	mg/kg	Nitrogen_Mineral	43.72	NA	T2
388-00-I-none-D-2	control_none_I	WARING64	6	mg/kg	Nitrogen_Mineral	46.76	NA	T2
049-01-S-low-A-2	Solublephosphate_low_S	THOMAS96	5	NA	pH	4.61	NA	T2
050-01-S-low-B-2	Solublephosphate_low_S	THOMAS96	6	NA	pH	4.39	NA	T2
051-01-S-low-C-2	Solublephosphate_low_S	THOMAS96	7	NA	pH	4.52	NA	T2
052-01-S-low-D-2	Solublephosphate_low_S	THOMAS96	8	NA	pH	4.75	NA	T2
053-02-S-low-A-2	Biosolid_low_S	THOMAS96	9	NA	pH	5.22	NA	T2
054-02-S-low-B-2	Biosolid_low_S	THOMAS96	10	NA	pH	5.26	NA	T2
055-02-S-low-C-2	Biosolid_low_S	THOMAS96	1	NA	pH	5.08	NA	T2
056-02-S-low-D-2	Biosolid_low_S	THOMAS96	1	NA	pH	5.15	NA	T2
057-03-S-low-A-2	Wood ash_low_S	THOMAS96	1	NA	pH	4.92	NA	T2
058-03-S-low-B-2	Wood ash_low_S	THOMAS96	1	NA	pH	5.40	NA	T2
059-03-S-low-C-2	Wood ash_low_S	THOMAS96	1	NA	pH	4.77	NA	T2
060-03-S-low-D-2	Wood ash_low_S	THOMAS96	1	NA	pH	4.99	NA	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
061-04-S-low-A-2	Biochar_low_S	THOMAS96	1	NA	pH	4.95	NA	T2
062-04-S-low-B-2	Biochar_low_S	THOMAS96	1	NA	pH	4.96	NA	T2
063-04-S-low-C-2	Biochar_low_S	THOMAS96	1	NA	pH	4.92	NA	T2
064-04-S-low-D-2	Biochar_low_S	THOMAS96	1	NA	pH	4.83	NA	T2
065-05-S-low-A-2	Compost_low_S	THOMAS96	1	NA	pH	4.88	NA	T2
066-05-S-low-B-2	Compost_low_S	THOMAS96	1	NA	pH	4.80	NA	T2
067-05-S-low-C-2	Compost_low_S	THOMAS96	1	NA	pH	4.77	NA	T2
068-05-S-low-D-2	Compost_low_S	THOMAS96	1	NA	pH	4.82	NA	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	THOMAS96	1	NA	pH	5.00	NA	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	THOMAS96	1	NA	pH	5.10	NA	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	THOMAS96	1	NA	pH	5.11	NA	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	THOMAS96	1	NA	pH	5.30	NA	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	THOMAS96	1	NA	pH	4.84	NA	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	THOMAS96	1	NA	pH	4.78	NA	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	THOMAS96	2	NA	pH	4.88	NA	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	THOMAS96	2	NA	pH	4.88	NA	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	THOMAS96	2	NA	pH	4.68	NA	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	THOMAS96	2	NA	pH	4.58	NA	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	THOMAS96	2	NA	pH	4.55	NA	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	THOMAS96	2	NA	pH	4.54	NA	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	THOMAS96	2	NA	pH	4.92	NA	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	THOMAS96	2	NA	pH	4.73	NA	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	THOMAS96	2	NA	pH	4.92	NA	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	THOMAS96	2	NA	pH	4.97	NA	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	THOMAS96	2	NA	pH	4.86	NA	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	THOMAS96	2	NA	pH	4.87	NA	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	THOMAS96	2	NA	pH	4.74	NA	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	THOMAS96	2	NA	pH	4.94	NA	T2
089-11-S-low-A-2	Wood ash and compost_low_S	THOMAS96	2	NA	pH	4.56	NA	T2
090-11-S-low-B-2	Wood ash and compost_low_S	THOMAS96	2	NA	pH	4.76	NA	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
091-11-S-low-C-2	Wood ash and compost_low_S	THOMAS96	2	NA	pH	4.73	NA	T2
092-11-S-low-D-2	Wood ash and compost_low_S	THOMAS96	2	NA	pH	4.80	NA	T2
093-12-S-low-A-2	Biochar and compost_low_S	THOMAS96	2	NA	pH	4.63	NA	T2
094-12-S-low-B-2	Biochar and compost_low_S	THOMAS96	2	NA	pH	4.75	NA	T2
095-12-S-low-C-2	Biochar and compost_low_S	THOMAS96	3	NA	pH	4.77	NA	T2
096-12-S-low-D-2	Biochar and compost_low_S	THOMAS96	3	NA	pH	4.66	NA	T2
193-01-S-high-A-2	Solublephosphate_high_S	THOMAS96	3	NA	pH	4.33	NA	T2
194-01-S-high-B-2	Solublephosphate_high_S	THOMAS96	3	NA	pH	4.37	NA	T2
195-01-S-high-C-2	Solublephosphate_high_S	THOMAS96	3	NA	pH	4.33	NA	T2
196-01-S-high-D-2	Solublephosphate_high_S	THOMAS96	3	NA	pH	4.28	NA	T2
197-02-S-high-A-2	Biosolid_high_S	THOMAS96	3	NA	pH	5.71	NA	T2
198-02-S-high-B-2	Biosolid_high_S	THOMAS96	3	NA	pH	5.60	NA	T2
199-02-S-high-C-2	Biosolid_high_S	THOMAS96	3	NA	pH	5.56	NA	T2
200-02-S-high-D-2	Biosolid_high_S	THOMAS96	3	NA	pH	5.63	NA	T2
201-03-S-high-A-2	Wood ash_high_S	THOMAS96	3	NA	pH	5.27	NA	T2
202-03-S-high-B-2	Wood ash_high_S	THOMAS96	3	NA	pH	5.23	NA	T2
203-03-S-high-C-2	Wood ash_high_S	THOMAS96	3	NA	pH	5.17	NA	T2
204-03-S-high-D-2	Wood ash_high_S	THOMAS96	3	NA	pH	5.13	NA	T2
205-04-S-high-A-2	Biochar_high_S	THOMAS96	3	NA	pH	4.75	NA	T2
206-04-S-high-B-2	Biochar_high_S	THOMAS96	3	NA	pH	4.66	NA	T2
207-04-S-high-C-2	Biochar_high_S	THOMAS96	3	NA	pH	4.67	NA	T2
208-04-S-high-D-2	Biochar_high_S	THOMAS96	3	NA	pH	4.80	NA	T2
209-05-S-high-A-2	Compost_high_S	THOMAS96	3	NA	pH	4.68	NA	T2
210-05-S-high-B-2	Compost_high_S	THOMAS96	3	NA	pH	4.68	NA	T2
211-05-S-high-C-2	Compost_high_S	THOMAS96	4	NA	pH	4.84	NA	T2
212-05-S-high-D-2	Compost_high_S	THOMAS96	4	NA	pH	4.60	NA	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	THOMAS96	4	NA	pH	5.43	NA	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	THOMAS96	4	NA	pH	5.30	NA	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	THOMAS96	4	NA	pH	5.38	NA	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	THOMAS96	4	NA	pH	5.50	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	THOMAS96	4	NA	pH	4.63	NA	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	THOMAS96	4	NA	pH	4.50	NA	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	THOMAS96	4	NA	pH	4.52	NA	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	THOMAS96	4	NA	pH	4.36	NA	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	THOMAS96	4	NA	pH	4.53	NA	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	THOMAS96	4	NA	pH	4.63	NA	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	THOMAS96	4	NA	pH	4.58	NA	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	THOMAS96	4	NA	pH	4.55	NA	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	THOMAS96	4	NA	pH	5.39	NA	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	THOMAS96	4	NA	pH	5.55	NA	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	THOMAS96	4	NA	pH	5.25	NA	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	THOMAS96	4	NA	pH	5.52	NA	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	THOMAS96	4	NA	pH	5.11	NA	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	THOMAS96	4	NA	pH	5.30	NA	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	THOMAS96	5	NA	pH	5.36	NA	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	THOMAS96	5	NA	pH	5.44	NA	T2
233-11-S-high-A-2	Wood ash and compost_high_S	THOMAS96	5	NA	pH	5.02	NA	T2
234-11-S-high-B-2	Wood ash and compost_high_S	THOMAS96	5	NA	pH	4.87	NA	T2
235-11-S-high-C-2	Wood ash and compost_high_S	THOMAS96	5	NA	pH	4.78	NA	T2
236-11-S-high-D-2	Wood ash and compost_high_S	THOMAS96	5	NA	pH	4.79	NA	T2
237-12-S-high-A-2	Biochar and compost_high_S	THOMAS96	5	NA	pH	4.89	NA	T2
238-12-S-high-B-2	Biochar and compost_high_S	THOMAS96	5	NA	pH	4.88	NA	T2
239-12-S-high-C-2	Biochar and compost_high_S	THOMAS96	5	NA	pH	4.92	NA	T2
240-12-S-high-D-2	Biochar and compost_high_S	THOMAS96	5	NA	pH	4.95	NA	T2
289-01-I-low-A-2	Solublephosphate_low_I	THOMAS96	5	NA	pH	4.57	NA	T2
290-01-I-low-B-2	Solublephosphate_low_I	THOMAS96	5	NA	pH	4.47	NA	T2
291-01-I-low-C-2	Solublephosphate_low_I	THOMAS96	5	NA	pH	4.50	NA	T2
292-01-I-low-D-2	Solublephosphate_low_I	THOMAS96	5	NA	pH	4.56	NA	T2
293-02-I-low-A-2	Biosolid_low_I	THOMAS96	5	NA	pH	5.07	NA	T2
294-02-I-low-B-2	Biosolid_low_I	THOMAS96	5	NA	pH	4.86	NA	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
295-02-I-low-C-2	Biosolid_low_I	THOMAS96	5	NA	pH	5.10	NA	T2
296-02-I-low-D-2	Biosolid_low_I	THOMAS96	5	NA	pH	5.12	NA	T2
297-03-I-low-A-2	Wood ash_low_I	THOMAS96	5	NA	pH	4.94	NA	T2
298-03-I-low-B-2	Wood ash_low_I	THOMAS96	6	NA	pH	4.92	NA	T2
299-03-I-low-C-2	Wood ash_low_I	THOMAS96	6	NA	pH	4.87	NA	T2
300-03-I-low-D-2	Wood ash_low_I	THOMAS96	6	NA	pH	5.02	NA	T2
301-04-I-low-A-2	Biochar_low_I	THOMAS96	6	NA	pH	4.59	NA	T2
302-04-I-low-B-2	Biochar_low_I	THOMAS96	6	NA	pH	4.63	NA	T2
303-04-I-low-C-2	Biochar_low_I	THOMAS96	6	NA	pH	4.59	NA	T2
304-04-I-low-D-2	Biochar_low_I	THOMAS96	6	NA	pH	4.62	NA	T2
305-05-I-low-A-2	Compost_low_I	THOMAS96	6	NA	pH	4.59	NA	T2
306-05-I-low-B-2	Compost_low_I	THOMAS96	6	NA	pH	4.58	NA	T2
307-05-I-low-C-2	Compost_low_I	THOMAS96	6	NA	pH	4.55	NA	T2
308-05-I-low-D-2	Compost_low_I	THOMAS96	6	NA	pH	4.80	NA	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	THOMAS96	6	NA	pH	4.90	NA	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	THOMAS96	6	NA	pH	5.13	NA	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	THOMAS96	6	NA	pH	4.91	NA	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	THOMAS96	6	NA	pH	4.96	NA	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	THOMAS96	6	NA	pH	4.48	NA	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	THOMAS96	6	NA	pH	4.46	NA	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	THOMAS96	6	NA	pH	4.48	NA	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	THOMAS96	6	NA	pH	4.43	NA	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	THOMAS96	7	NA	pH	4.51	NA	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	THOMAS96	7	NA	pH	4.48	NA	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	THOMAS96	7	NA	pH	4.55	NA	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	THOMAS96	7	NA	pH	4.59	NA	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	THOMAS96	7	NA	pH	5.32	NA	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	THOMAS96	7	NA	pH	4.76	NA	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	THOMAS96	7	NA	pH	4.67	NA	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	THOMAS96	7	NA	pH	4.63	NA	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
325-10-I-low-A-2	Wood ash and biochar_low_I	THOMAS96	7	NA	pH	4.92	NA	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	THOMAS96	7	NA	pH	5.00	NA	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	THOMAS96	7	NA	pH	4.95	NA	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	THOMAS96	7	NA	pH	5.02	NA	T2
329-11-I-low-A-2	Wood ash and compost_low_I	THOMAS96	7	NA	pH	4.93	NA	T2
330-11-I-low-B-2	Wood ash and compost_low_I	THOMAS96	7	NA	pH	4.95	NA	T2
331-11-I-low-C-2	Wood ash and compost_low_I	THOMAS96	7	NA	pH	4.87	NA	T2
332-11-I-low-D-2	Wood ash and compost_low_I	THOMAS96	7	NA	pH	4.98	NA	T2
333-12-I-low-A-2	Biochar and compost_low_I	THOMAS96	7	NA	pH	4.69	NA	T2
334-12-I-low-B-2	Biochar and compost_low_I	THOMAS96	7	NA	pH	4.65	NA	T2
335-12-I-low-C-2	Biochar and compost_low_I	THOMAS96	7	NA	pH	4.65	NA	T2
336-12-I-low-D-2	Biochar and compost_low_I	THOMAS96	8	NA	pH	4.70	NA	T2
337-01-I-high-A-2	Solublephosphate_high_I	THOMAS96	8	NA	pH	4.32	NA	T2
338-01-I-high-B-2	Solublephosphate_high_I	THOMAS96	8	NA	pH	4.25	NA	T2
339-01-I-high-C-2	Solublephosphate_high_I	THOMAS96	8	NA	pH	4.41	NA	T2
340-01-I-high-D-2	Solublephosphate_high_I	THOMAS96	8	NA	pH	4.64	NA	T2
341-02-I-high-A-2	Biosolid_high_I	THOMAS96	8	NA	pH	6.08	NA	T2
342-02-I-high-B-2	Biosolid_high_I	THOMAS96	8	NA	pH	5.84	NA	T2
343-02-I-high-C-2	Biosolid_high_I	THOMAS96	8	NA	pH	5.35	NA	T2
344-02-I-high-D-2	Biosolid_high_I	THOMAS96	8	NA	pH	5.56	NA	T2
345-03-I-high-A-2	Wood ash_high_I	THOMAS96	8	NA	pH	5.60	NA	T2
346-03-I-high-B-2	Wood ash_high_I	THOMAS96	8	NA	pH	5.60	NA	T2
347-03-I-high-C-2	Wood ash_high_I	THOMAS96	8	NA	pH	5.47	NA	T2
348-03-I-high-D-2	Wood ash_high_I	THOMAS96	8	NA	pH	5.58	NA	T2
349-04-I-high-A-2	Biochar_high_I	THOMAS96	8	NA	pH	4.93	NA	T2
350-04-I-high-B-2	Biochar_high_I	THOMAS96	8	NA	pH	4.92	NA	T2
351-04-I-high-C-2	Biochar_high_I	THOMAS96	8	NA	pH	4.94	NA	T2
352-04-I-high-D-2	Biochar_high_I	THOMAS96	8	NA	pH	4.77	NA	T2
353-05-I-high-A-2	Compost_high_I	THOMAS96	8	NA	pH	4.92	NA	T2
354-05-I-high-B-2	Compost_high_I	THOMAS96	8	NA	pH	4.93	NA	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
355-05-I-high-C-2	Compost_high_I	THOMAS96	9	NA	pH	4.73	NA	T2
356-05-I-high-D-2	Compost_high_I	THOMAS96	9	NA	pH	4.84	NA	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	THOMAS96	9	NA	pH	5.56	NA	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	THOMAS96	9	NA	pH	5.64	NA	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	THOMAS96	9	NA	pH	5.51	NA	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	THOMAS96	9	NA	pH	5.82	NA	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	THOMAS96	9	NA	pH	4.56	NA	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	THOMAS96	9	NA	pH	4.51	NA	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	THOMAS96	9	NA	pH	4.47	NA	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	THOMAS96	9	NA	pH	4.57	NA	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	THOMAS96	9	NA	pH	4.72	NA	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	THOMAS96	9	NA	pH	4.67	NA	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	THOMAS96	9	NA	pH	4.69	NA	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	THOMAS96	9	NA	pH	5.28	NA	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	THOMAS96	9	NA	pH	5.53	NA	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	THOMAS96	9	NA	pH	5.49	NA	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	THOMAS96	9	NA	pH	5.74	NA	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	THOMAS96	9	NA	pH	5.72	NA	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	THOMAS96	9	NA	pH	5.62	NA	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	THOMAS96	10	NA	pH	5.51	NA	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	THOMAS96	10	NA	pH	5.50	NA	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	THOMAS96	10	NA	pH	5.66	NA	T2
377-11-I-high-A-2	Wood ash and compost_high_I	THOMAS96	10	NA	pH	5.50	NA	T2
378-11-I-high-B-2	Wood ash and compost_high_I	THOMAS96	10	NA	pH	5.52	NA	T2
379-11-I-high-C-2	Wood ash and compost_high_I	THOMAS96	10	NA	pH	5.47	NA	T2
380-11-I-high-D-2	Wood ash and compost_high_I	THOMAS96	10	NA	pH	5.51	NA	T2
381-12-I-high-A-2	Biochar and compost_high_I	THOMAS96	10	NA	pH	4.78	NA	T2
382-12-I-high-B-2	Biochar and compost_high_I	THOMAS96	10	NA	pH	5.04	NA	T2
383-12-I-high-C-2	Biochar and compost_high_I	THOMAS96	10	NA	pH	4.98	NA	T2
384-12-I-high-D-2	Biochar and compost_high_I	THOMAS96	10	NA	pH	4.96	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
385-00-I-none-A-2	control_none_I	THOMAS96	10	NA	pH	4.55	NA	T2
386-00-I-none-B-2	control_none_I	THOMAS96	10	NA	pH	4.51	NA	T2
387-00-I-none-C-2	control_none_I	THOMAS96	10	NA	pH	4.61	NA	T2
388-00-I-none-D-2	control_none_I	THOMAS96	10	NA	pH	4.42	NA	T2
049-01-S-low-A-2	Soluble phosphate_low_S	SM2510B	5	mS/cm	Conductivity	0.19	NA	T2
050-01-S-low-B-2	Soluble phosphate_low_S	SM2510B	6	mS/cm	Conductivity	0.36	NA	T2
051-01-S-low-C-2	Soluble phosphate_low_S	SM2510B	7	mS/cm	Conductivity	0.19	NA	T2
052-01-S-low-D-2	Soluble phosphate_low_S	SM2510B	8	mS/cm	Conductivity	0.19	dup1	T2
053-02-S-low-A-2	Biosolid_low_S	SM2510B	9	mS/cm	Conductivity	0.31	dup1	T2
054-02-S-low-B-2	Biosolid_low_S	SM2510B	10	mS/cm	Conductivity	0.21	NA	T2
055-02-S-low-C-2	Biosolid_low_S	SM2510B	1	mS/cm	Conductivity	0.15	NA	T2
056-02-S-low-D-2	Biosolid_low_S	SM2510B	1	mS/cm	Conductivity	0.38	NA	T2
057-03-S-low-A-2	Wood ash_low_S	SM2510B	1	mS/cm	Conductivity	0.17	NA	T2
058-03-S-low-B-2	Wood ash_low_S	SM2510B	1	mS/cm	Conductivity	0.23	NA	T2
059-03-S-low-C-2	Wood ash_low_S	SM2510B	1	mS/cm	Conductivity	0.20	NA	T2
060-03-S-low-D-2	Wood ash_low_S	SM2510B	1	mS/cm	Conductivity	0.25	NA	T2
061-04-S-low-A-2	Biochar_low_S	SM2510B	1	mS/cm	Conductivity	0.18	NA	T2
062-04-S-low-B-2	Biochar_low_S	SM2510B	1	mS/cm	Conductivity	0.19	NA	T2
063-04-S-low-C-2	Biochar_low_S	SM2510B	1	mS/cm	Conductivity	0.36	NA	T2
064-04-S-low-D-2	Biochar_low_S	SM2510B	1	mS/cm	Conductivity	0.44	NA	T2
065-05-S-low-A-2	Compost_low_S	SM2510B	1	mS/cm	Conductivity	0.17	NA	T2
066-05-S-low-B-2	Compost_low_S	SM2510B	1	mS/cm	Conductivity	0.25	NA	T2
067-05-S-low-C-2	Compost_low_S	SM2510B	1	mS/cm	Conductivity	0.17	NA	T2
068-05-S-low-D-2	Compost_low_S	SM2510B	1	mS/cm	Conductivity	0.23	NA	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	SM2510B	1	mS/cm	Conductivity	0.18	NA	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	SM2510B	1	mS/cm	Conductivity	0.17	NA	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	SM2510B	1	mS/cm	Conductivity	0.19	NA	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	SM2510B	1	mS/cm	Conductivity	0.30	NA	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	SM2510B	1	mS/cm	Conductivity	0.17	NA	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	SM2510B	1	mS/cm	Conductivity	0.23	NA	T2

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	SM2510B	2	mS/cm	Conductivity	0.16	dup1	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	SM2510B	2	mS/cm	Conductivity	0.17	dup1	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	SM2510B	2	mS/cm	Conductivity	0.18	dup1	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	SM2510B	2	mS/cm	Conductivity	0.20	dup1	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	SM2510B	2	mS/cm	Conductivity	0.21	dup1	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	SM2510B	2	mS/cm	Conductivity	0.16	dup1	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	SM2510B	2	mS/cm	Conductivity	0.67	dup1	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	SM2510B	2	mS/cm	Conductivity	0.17	dup1	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	SM2510B	2	mS/cm	Conductivity	0.16	dup1	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	SM2510B	2	mS/cm	Conductivity	0.18	dup1	T2
085-10-S-low-A-2	wood ash and biochar_low_S	SM2510B	2	mS/cm	Conductivity	0.29	dup1	T2
086-10-S-low-B-2	wood ash and biochar_low_S	SM2510B	2	mS/cm	Conductivity	0.23	dup1	T2
087-10-S-low-C-2	wood ash and biochar_low_S	SM2510B	2	mS/cm	Conductivity	0.27	dup1	T2
088-10-S-low-D-2	wood ash and biochar_low_S	SM2510B	2	mS/cm	Conductivity	0.16	dup1	T2
089-11-S-low-A-2	wood ash and compost_low_S	SM2510B	2	mS/cm	Conductivity	1.03	dup1	T2
090-11-S-low-B-2	wood ash and compost_low_S	SM2510B	2	mS/cm	Conductivity	0.53	dup1	T2
091-11-S-low-C-2	wood ash and compost_low_S	SM2510B	2	mS/cm	Conductivity	0.23	dup1	T2
092-11-S-low-D-2	wood ash and compost_low_S	SM2510B	2	mS/cm	Conductivity	0.16	dup1	T2
093-12-S-low-A-2	Biochar and compost_low_S	SM2510B	2	mS/cm	Conductivity	0.21	dup1	T2
094-12-S-low-B-2	Biochar and compost_low_S	SM2510B	2	mS/cm	Conductivity	0.27	dup1	T2
095-12-S-low-C-2	Biochar and compost_low_S	SM2510B	3	mS/cm	Conductivity	0.26	NA	T2
096-12-S-low-D-2	Biochar and compost_low_S	SM2510B	3	mS/cm	Conductivity	0.17	NA	T2
193-01-S-high-A-2	Soluble phosphate_high_S	SM2510B	3	mS/cm	Conductivity	0.24	NA	T2
194-01-S-high-B-2	Soluble phosphate_high_S	SM2510B	3	mS/cm	Conductivity	0.17	NA	T2
195-01-S-high-C-2	Soluble phosphate_high_S	SM2510B	3	mS/cm	Conductivity	0.27	NA	T2
196-01-S-high-D-2	Soluble phosphate_high_S	SM2510B	3	mS/cm	Conductivity	0.28	NA	T2
197-02-S-high-A-2	Biosolid_high_S	SM2510B	3	mS/cm	Conductivity	0.16	NA	T2
198-02-S-high-B-2	Biosolid_high_S	SM2510B	3	mS/cm	Conductivity	0.18	NA	T2
199-02-S-high-C-2	Biosolid_high_S	SM2510B	3	mS/cm	Conductivity	0.20	NA	T2
200-02-S-high-D-2	Biosolid_high_S	SM2510B	3	mS/cm	Conductivity	0.15	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
201-03-S-high-A-2	Wood ash_high_S	SM2510B	3	mS/cm	Conductivity	0.17	NA	T2
202-03-S-high-B-2	Wood ash_high_S	SM2510B	3	mS/cm	Conductivity	0.23	NA	T2
203-03-S-high-C-2	Wood ash_high_S	SM2510B	3	mS/cm	Conductivity	0.15	NA	T2
204-03-S-high-D-2	Wood ash_high_S	SM2510B	3	mS/cm	Conductivity	0.21	NA	T2
205-04-S-high-A-2	Biochar_high_S	SM2510B	3	mS/cm	Conductivity	0.18	NA	T2
206-04-S-high-B-2	Biochar_high_S	SM2510B	3	mS/cm	Conductivity	0.22	NA	T2
207-04-S-high-C-2	Biochar_high_S	SM2510B	3	mS/cm	Conductivity	0.23	NA	T2
208-04-S-high-D-2	Biochar_high_S	SM2510B	3	mS/cm	Conductivity	0.22	NA	T2
209-05-S-high-A-2	Compost_high_S	SM2510B	3	mS/cm	Conductivity	0.15	NA	T2
210-05-S-high-B-2	Compost_high_S	SM2510B	3	mS/cm	Conductivity	0.16	NA	T2
211-05-S-high-C-2	Compost_high_S	SM2510B	4	mS/cm	Conductivity	0.14	NA	T2
212-05-S-high-D-2	Compost_high_S	SM2510B	4	mS/cm	Conductivity	0.14	NA	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	SM2510B	4	mS/cm	Conductivity	0.25	NA	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	SM2510B	4	mS/cm	Conductivity	0.17	NA	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	SM2510B	4	mS/cm	Conductivity	0.18	NA	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	SM2510B	4	mS/cm	Conductivity	0.19	NA	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	SM2510B	4	mS/cm	Conductivity	0.20	NA	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	SM2510B	4	mS/cm	Conductivity	0.18	NA	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	SM2510B	4	mS/cm	Conductivity	0.17	NA	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	SM2510B	4	mS/cm	Conductivity	0.17	NA	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	SM2510B	4	mS/cm	Conductivity	0.16	NA	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	SM2510B	4	mS/cm	Conductivity	0.17	NA	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	SM2510B	4	mS/cm	Conductivity	0.15	NA	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	SM2510B	4	mS/cm	Conductivity	0.19	NA	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	SM2510B	4	mS/cm	Conductivity	0.18	NA	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	SM2510B	4	mS/cm	Conductivity	0.17	NA	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	SM2510B	4	mS/cm	Conductivity	0.17	NA	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	SM2510B	4	mS/cm	Conductivity	0.22	NA	T2
229-10-S-high-A-2	wood ash and biochar_high_S	SM2510B	4	mS/cm	Conductivity	0.19	NA	T2
230-10-S-high-B-2	wood ash and biochar_high_S	SM2510B	4	mS/cm	Conductivity	0.14	NA	T2

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
231-10-S-high-C-2	wood ash and biochar_high_S	SM2510B	5	mS/cm	Conductivity	0.17	NA	T2
232-10-S-high-D-2	wood ash and biochar_high_S	SM2510B	5	mS/cm	Conductivity	0.32	NA	T2
233-11-S-high-A-2	wood ash and compost_high_S	SM2510B	5	mS/cm	Conductivity	0.17	NA	T2
234-11-S-high-B-2	wood ash and compost_high_S	SM2510B	5	mS/cm	Conductivity	0.20	NA	T2
235-11-S-high-C-2	wood ash and compost_high_S	SM2510B	5	mS/cm	Conductivity	0.32	NA	T2
236-11-S-high-D-2	wood ash and compost_high_S	SM2510B	5	mS/cm	Conductivity	0.15	NA	T2
237-12-S-high-A-2	Biochar and compost_high_S	SM2510B	5	mS/cm	Conductivity	0.33	NA	T2
238-12-S-high-B-2	Biochar and compost_high_S	SM2510B	5	mS/cm	Conductivity	0.18	NA	T2
239-12-S-high-C-2	Biochar and compost_high_S	SM2510B	5	mS/cm	Conductivity	0.17	NA	T2
240-12-S-high-D-2	Biochar and compost_high_S	SM2510B	5	mS/cm	Conductivity	0.34	NA	T2
289-01-I-low-A-2	Soluble phosphate_low_I	SM2510B	5	mS/cm	Conductivity	0.33	NA	T2
290-01-I-low-B-2	Soluble phosphate_low_I	SM2510B	5	mS/cm	Conductivity	0.33	NA	T2
291-01-I-low-C-2	Soluble phosphate_low_I	SM2510B	5	mS/cm	Conductivity	0.29	NA	T2
292-01-I-low-D-2	Soluble phosphate_low_I	SM2510B	5	mS/cm	Conductivity	0.16	NA	T2
293-02-I-low-A-2	Biosolid_low_I	SM2510B	5	mS/cm	Conductivity	0.18	NA	T2
294-02-I-low-B-2	Biosolid_low_I	SM2510B	5	mS/cm	Conductivity	0.20	NA	T2
295-02-I-low-C-2	Biosolid_low_I	SM2510B	5	mS/cm	Conductivity	0.19	NA	T2
296-02-I-low-D-2	Biosolid_low_I	SM2510B	5	mS/cm	Conductivity	0.36	NA	T2
297-03-I-low-A-2	Wood ash_low_I	SM2510B	5	mS/cm	Conductivity	0.20	NA	T2
298-03-I-low-B-2	Wood ash_low_I	SM2510B	6	mS/cm	Conductivity	0.20	NA	T2
299-03-I-low-C-2	Wood ash_low_I	SM2510B	6	mS/cm	Conductivity	0.17	NA	T2
300-03-I-low-D-2	Wood ash_low_I	SM2510B	6	mS/cm	Conductivity	0.19	NA	T2
301-04-I-low-A-2	Biochar_low_I	SM2510B	6	mS/cm	Conductivity	0.19	NA	T2
302-04-I-low-B-2	Biochar_low_I	SM2510B	6	mS/cm	Conductivity	0.22	NA	T2
303-04-I-low-C-2	Biochar_low_I	SM2510B	6	mS/cm	Conductivity	0.22	NA	T2
304-04-I-low-D-2	Biochar_low_I	SM2510B	6	mS/cm	Conductivity	0.20	NA	T2
305-05-I-low-A-2	Compost_low_I	SM2510B	6	mS/cm	Conductivity	0.22	NA	T2
306-05-I-low-B-2	Compost_low_I	SM2510B	6	mS/cm	Conductivity	0.26	NA	T2
307-05-I-low-C-2	Compost_low_I	SM2510B	6	mS/cm	Conductivity	0.16	NA	T2
308-05-I-low-D-2	Compost_low_I	SM2510B	6	mS/cm	Conductivity	0.19	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	SM2510B	6	mS/cm	Conductivity	0.23	NA	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	SM2510B	6	mS/cm	Conductivity	0.17	NA	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	SM2510B	6	mS/cm	Conductivity	0.16	NA	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	SM2510B	6	mS/cm	Conductivity	0.16	NA	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	SM2510B	6	mS/cm	Conductivity	0.22	NA	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	SM2510B	6	mS/cm	Conductivity	0.17	NA	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	SM2510B	6	mS/cm	Conductivity	0.25	NA	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	SM2510B	6	mS/cm	Conductivity	0.27	NA	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	SM2510B	7	mS/cm	Conductivity	0.37	NA	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	SM2510B	7	mS/cm	Conductivity	0.41	NA	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	SM2510B	7	mS/cm	Conductivity	0.25	NA	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	SM2510B	7	mS/cm	Conductivity	0.18	NA	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	SM2510B	7	mS/cm	Conductivity	0.16	NA	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	SM2510B	7	mS/cm	Conductivity	0.31	NA	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	SM2510B	7	mS/cm	Conductivity	0.18	NA	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	SM2510B	7	mS/cm	Conductivity	0.29	NA	T2
325-10-I-low-A-2	wood ash and biochar_low_I	SM2510B	7	mS/cm	Conductivity	0.29	NA	T2
326-10-I-low-B-2	wood ash and biochar_low_I	SM2510B	7	mS/cm	Conductivity	0.31	NA	T2
327-10-I-low-C-2	wood ash and biochar_low_I	SM2510B	7	mS/cm	Conductivity	0.32	NA	T2
328-10-I-low-D-2	wood ash and biochar_low_I	SM2510B	7	mS/cm	Conductivity	0.27	NA	T2
329-11-I-low-A-2	wood ash and compost_low_I	SM2510B	7	mS/cm	Conductivity	0.40	NA	T2
330-11-I-low-B-2	wood ash and compost_low_I	SM2510B	7	mS/cm	Conductivity	0.27	NA	T2
331-11-I-low-C-2	wood ash and compost_low_I	SM2510B	7	mS/cm	Conductivity	0.47	NA	T2
332-11-I-low-D-2	wood ash and compost_low_I	SM2510B	7	mS/cm	Conductivity	0.42	NA	T2
333-12-I-low-A-2	Biochar and compost_low_I	SM2510B	7	mS/cm	Conductivity	0.33	NA	T2
334-12-I-low-B-2	Biochar and compost_low_I	SM2510B	7	mS/cm	Conductivity	0.31	NA	T2
335-12-I-low-C-2	Biochar and compost_low_I	SM2510B	7	mS/cm	Conductivity	0.19	NA	T2
336-12-I-low-D-2	Biochar and compost_low_I	SM2510B	8	mS/cm	Conductivity	0.19	dup1	T2
337-01-I-high-A-2	Soluble phosphate_high_I	SM2510B	8	mS/cm	Conductivity	0.32	dup1	T2
338-01-I-high-B-2	Soluble phosphate_high_I	SM2510B	8	mS/cm	Conductivity	0.24	dup1	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
339-01-I-high-C-2	Soluble phosphate_high_I	SM2510B	8	mS/cm	Conductivity	0.23	dup1	T2
340-01-I-high-D-2	Soluble phosphate_high_I	SM2510B	8	mS/cm	Conductivity	0.25	dup1	T2
341-02-I-high-A-2	Biosolid_high_I	SM2510B	8	mS/cm	Conductivity	0.17	dup1	T2
342-02-I-high-B-2	Biosolid_high_I	SM2510B	8	mS/cm	Conductivity	0.23	dup1	T2
343-02-I-high-C-2	Biosolid_high_I	SM2510B	8	mS/cm	Conductivity	0.15	dup1	T2
344-02-I-high-D-2	Biosolid_high_I	SM2510B	8	mS/cm	Conductivity	0.18	dup1	T2
345-03-I-high-A-2	Wood ash_high_I	SM2510B	8	mS/cm	Conductivity	0.23	dup1	T2
346-03-I-high-B-2	Wood ash_high_I	SM2510B	8	mS/cm	Conductivity	0.18	dup1	T2
347-03-I-high-C-2	Wood ash_high_I	SM2510B	8	mS/cm	Conductivity	0.19	dup1	T2
348-03-I-high-D-2	Wood ash_high_I	SM2510B	8	mS/cm	Conductivity	0.16	dup1	T2
349-04-I-high-A-2	Biochar_high_I	SM2510B	8	mS/cm	Conductivity	0.27	dup1	T2
350-04-I-high-B-2	Biochar_high_I	SM2510B	8	mS/cm	Conductivity	0.16	dup1	T2
351-04-I-high-C-2	Biochar_high_I	SM2510B	8	mS/cm	Conductivity	0.19	dup1	T2
352-04-I-high-D-2	Biochar_high_I	SM2510B	8	mS/cm	Conductivity	0.16	dup1	T2
353-05-I-high-A-2	Compost_high_I	SM2510B	8	mS/cm	Conductivity	0.18	dup1	T2
354-05-I-high-B-2	Compost_high_I	SM2510B	8	mS/cm	Conductivity	0.27	dup1	T2
355-05-I-high-C-2	Compost_high_I	SM2510B	9	mS/cm	Conductivity	0.18	dup1	T2
356-05-I-high-D-2	Compost_high_I	SM2510B	9	mS/cm	Conductivity	0.14	dup1	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	SM2510B	9	mS/cm	Conductivity	0.16	dup1	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	SM2510B	9	mS/cm	Conductivity	0.18	dup1	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	SM2510B	9	mS/cm	Conductivity	0.22	dup1	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	SM2510B	9	mS/cm	Conductivity	0.16	dup1	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	SM2510B	9	mS/cm	Conductivity	0.25	dup1	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	SM2510B	9	mS/cm	Conductivity	0.22	dup1	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	SM2510B	9	mS/cm	Conductivity	0.23	dup1	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	SM2510B	9	mS/cm	Conductivity	0.31	dup1	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	SM2510B	9	mS/cm	Conductivity	0.23	dup1	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	SM2510B	9	mS/cm	Conductivity	0.24	dup1	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	SM2510B	9	mS/cm	Conductivity	0.21	dup1	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	SM2510B	9	mS/cm	Conductivity	0.24	dup1	T2

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
369-09-I-high-A-2	Biosolids and wood ash_high_I	SM2510B	9	mS/cm	Conductivity	0.16	dup1	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	SM2510B	9	mS/cm	Conductivity	0.17	dup1	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	SM2510B	9	mS/cm	Conductivity	0.17	dup1	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	SM2510B	9	mS/cm	Conductivity	0.24	dup1	T2
373-10-I-high-A-2	wood ash and biochar_high_I	SM2510B	9	mS/cm	Conductivity	0.36	dup1	T2
374-10-I-high-B-2	wood ash and biochar_high_I	SM2510B	10	mS/cm	Conductivity	0.18	NA	T2
375-10-I-high-C-2	wood ash and biochar_high_I	SM2510B	10	mS/cm	Conductivity	0.23	NA	T2
376-10-I-high-D-2	wood ash and biochar_high_I	SM2510B	10	mS/cm	Conductivity	0.15	NA	T2
377-11-I-high-A-2	wood ash and compost_high_I	SM2510B	10	mS/cm	Conductivity	0.17	NA	T2
378-11-I-high-B-2	wood ash and compost_high_I	SM2510B	10	mS/cm	Conductivity	0.19	NA	T2
379-11-I-high-C-2	wood ash and compost_high_I	SM2510B	10	mS/cm	Conductivity	0.20	NA	T2
380-11-I-high-D-2	wood ash and compost_high_I	SM2510B	10	mS/cm	Conductivity	0.21	NA	T2
381-12-I-high-A-2	Biochar and compost_high_I	SM2510B	10	mS/cm	Conductivity	0.33	NA	T2
382-12-I-high-B-2	Biochar and compost_high_I	SM2510B	10	mS/cm	Conductivity	0.29	NA	T2
383-12-I-high-C-2	Biochar and compost_high_I	SM2510B	10	mS/cm	Conductivity	0.24	NA	T2
384-12-I-high-D-2	Biochar and compost_high_I	SM2510B	10	mS/cm	Conductivity	0.19	NA	T2
385-00-I-none-A-2	control_none_I	SM2510B	10	mS/cm	Conductivity	0.30	NA	T2
386-00-I-none-B-2	control_none_I	SM2510B	10	mS/cm	Conductivity	0.27	NA	T2
387-00-I-none-C-2	control_none_I	SM2510B	10	mS/cm	Conductivity	0.31	NA	T2
388-00-I-none-D-2	control_none_I	SM2510B	10	mS/cm	Conductivity	0.32	NA	T2
049-01-S-low-A-2	Solublephosphate_low_S	NELSON82	1	%	Carbon_total	7.93	NA	T2
050-01-S-low-B-2	Solublephosphate_low_S	NELSON82	1	%	Carbon_total	7.92	NA	T2
051-01-S-low-C-2	Solublephosphate_low_S	NELSON82	1	%	Carbon_total	6.54	NA	T2
052-01-S-low-D-2	Solublephosphate_low_S	NELSON82	1	%	Carbon_total	6.76	NA	T2
053-02-S-low-A-2	Biosolid_low_S	NELSON82	1	%	Carbon_total	8.59	NA	T2
054-02-S-low-B-2	Biosolid_low_S	NELSON82	1	%	Carbon_total	7.47	NA	T2
055-02-S-low-C-2	Biosolid_low_S	NELSON82	1	%	Carbon_total	6.28	NA	T2
056-02-S-low-D-2	Biosolid_low_S	NELSON82	1	%	Carbon_total	6.75	NA	T2
057-03-S-low-A-2	Wood ash_low_S	NELSON82	1	%	Carbon_total	5.72	NA	T2
058-03-S-low-B-2	Wood ash_low_S	NELSON82	1	%	Carbon_total	9.82	NA	T2

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
059-03-S-low-C-2	Wood ash_low_S	NELSON82	1	%	Carbon_total	7.06	NA	T2
060-03-S-low-D-2	Wood ash_low_S	NELSON82	1	%	Carbon_total	5.86	NA	T2
061-04-S-low-A-2	Biochar_low_S	NELSON82	1	%	Carbon_total	9.37	NA	T2
062-04-S-low-B-2	Biochar_low_S	NELSON82	1	%	Carbon_total	6.49	NA	T2
063-04-S-low-C-2	Biochar_low_S	NELSON82	1	%	Carbon_total	10.32	NA	T2
064-04-S-low-D-2	Biochar_low_S	NELSON82	1	%	Carbon_total	6.41	NA	T2
065-05-S-low-A-2	Compost_low_S	NELSON82	1	%	Carbon_total	4.04	NA	T2
066-05-S-low-B-2	Compost_low_S	NELSON82	1	%	Carbon_total	5.62	NA	T2
067-05-S-low-C-2	Compost_low_S	NELSON82	1	%	Carbon_total	6.01	NA	T2
068-05-S-low-D-2	Compost_low_S	NELSON82	1	%	Carbon_total	7.00	NA	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	NELSON82	1	%	Carbon_total	6.98	NA	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	NELSON82	1	%	Carbon_total	6.70	NA	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	NELSON82	1	%	Carbon_total	7.23	NA	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	NELSON82	1	%	Carbon_total	4.05	NA	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	NELSON82	1	%	Carbon_total	6.88	NA	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	NELSON82	1	%	Carbon_total	9.80	NA	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	NELSON82	1	%	Carbon_total	7.63	NA	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	NELSON82	1	%	Carbon_total	4.37	NA	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	NELSON82	1	%	Carbon_total	5.79	NA	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	NELSON82	1	%	Carbon_total	8.13	NA	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	NELSON82	1	%	Carbon_total	7.86	NA	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	NELSON82	1	%	Carbon_total	7.06	NA	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	NELSON82	1	%	Carbon_total	6.91	NA	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	NELSON82	1	%	Carbon_total	7.81	NA	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	NELSON82	1	%	Carbon_total	8.32	NA	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	NELSON82	1	%	Carbon_total	7.71	NA	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	NELSON82	1	%	Carbon_total	6.20	NA	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	NELSON82	1	%	Carbon_total	8.51	NA	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	NELSON82	1	%	Carbon_total	8.29	NA	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	NELSON82	1	%	Carbon_total	5.21	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
089-11-S-low-A-2	Wood ash and compost_low_S	NELSON82	1	%	Carbon_total	7.12	NA	T2
090-11-S-low-B-2	Wood ash and compost_low_S	NELSON82	1	%	Carbon_total	7.88	NA	T2
091-11-S-low-C-2	Wood ash and compost_low_S	NELSON82	1	%	Carbon_total	8.21	NA	T2
092-11-S-low-D-2	Wood ash and compost_low_S	NELSON82	1	%	Carbon_total	7.19	NA	T2
093-12-S-low-A-2	Biochar and compost_low_S	NELSON82	1	%	Carbon_total	8.21	NA	T2
094-12-S-low-B-2	Biochar and compost_low_S	NELSON82	1	%	Carbon_total	8.69	NA	T2
095-12-S-low-C-2	Biochar and compost_low_S	NELSON82	1	%	Carbon_total	7.77	NA	T2
096-12-S-low-D-2	Biochar and compost_low_S	NELSON82	1	%	Carbon_total	7.96	NA	T2
193-01-S-high-A-2	Solublephosphate_high_S	NELSON82	1	%	Carbon_total	5.52	NA	T2
194-01-S-high-B-2	Solublephosphate_high_S	NELSON82	1	%	Carbon_total	7.52	NA	T2
195-01-S-high-C-2	Solublephosphate_high_S	NELSON82	1	%	Carbon_total	6.64	NA	T2
196-01-S-high-D-2	Solublephosphate_high_S	NELSON82	1	%	Carbon_total	8.71	NA	T2
197-02-S-high-A-2	Biosolid_high_S	NELSON82	1	%	Carbon_total	8.50	NA	T2
198-02-S-high-B-2	Biosolid_high_S	NELSON82	1	%	Carbon_total	7.07	NA	T2
199-02-S-high-C-2	Biosolid_high_S	NELSON82	1	%	Carbon_total	9.09	NA	T2
200-02-S-high-D-2	Biosolid_high_S	NELSON82	1	%	Carbon_total	8.49	NA	T2
201-03-S-high-A-2	Wood ash_high_S	NELSON82	1	%	Carbon_total	10.42	NA	T2
202-03-S-high-B-2	Wood ash_high_S	NELSON82	1	%	Carbon_total	10.11	NA	T2
203-03-S-high-C-2	Wood ash_high_S	NELSON82	1	%	Carbon_total	8.85	NA	T2
204-03-S-high-D-2	Wood ash_high_S	NELSON82	1	%	Carbon_total	7.34	NA	T2
205-04-S-high-A-2	Biochar_high_S	NELSON82	1	%	Carbon_total	8.30	NA	T2
206-04-S-high-B-2	Biochar_high_S	NELSON82	1	%	Carbon_total	9.07	NA	T2
207-04-S-high-C-2	Biochar_high_S	NELSON82	1	%	Carbon_total	7.35	NA	T2
208-04-S-high-D-2	Biochar_high_S	NELSON82	1	%	Carbon_total	8.15	NA	T2
209-05-S-high-A-2	Compost_high_S	NELSON82	1	%	Carbon_total	7.10	NA	T2
210-05-S-high-B-2	Compost_high_S	NELSON82	1	%	Carbon_total	10.19	NA	T2
211-05-S-high-C-2	Compost_high_S	NELSON82	1	%	Carbon_total	7.11	NA	T2
212-05-S-high-D-2	Compost_high_S	NELSON82	1	%	Carbon_total	11.18	NA	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	NELSON82	1	%	Carbon_total	8.86	NA	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	NELSON82	1	%	Carbon_total	9.45	NA	T2

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	NELSON82	1	%	Carbon_total	11.33	NA	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	NELSON82	1	%	Carbon_total	8.76	NA	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	NELSON82	1	%	Carbon_total	10.94	NA	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	NELSON82	1	%	Carbon_total	4.40	NA	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	NELSON82	1	%	Carbon_total	8.56	NA	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	NELSON82	1	%	Carbon_total	8.04	NA	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	NELSON82	1	%	Carbon_total	7.81	NA	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	NELSON82	1	%	Carbon_total	7.93	NA	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	NELSON82	1	%	Carbon_total	6.45	NA	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	NELSON82	1	%	Carbon_total	8.39	NA	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	NELSON82	1	%	Carbon_total	10.00	NA	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	NELSON82	1	%	Carbon_total	7.64	NA	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	NELSON82	1	%	Carbon_total	8.24	NA	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	NELSON82	1	%	Carbon_total	10.31	NA	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	NELSON82	1	%	Carbon_total	9.40	NA	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	NELSON82	1	%	Carbon_total	8.38	NA	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	NELSON82	1	%	Carbon_total	8.71	NA	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	NELSON82	1	%	Carbon_total	7.91	NA	T2
233-11-S-high-A-2	Wood ash and compost_high_S	NELSON82	1	%	Carbon_total	8.18	NA	T2
234-11-S-high-B-2	Wood ash and compost_high_S	NELSON82	1	%	Carbon_total	10.29	NA	T2
235-11-S-high-C-2	Wood ash and compost_high_S	NELSON82	1	%	Carbon_total	11.10	NA	T2
236-11-S-high-D-2	Wood ash and compost_high_S	NELSON82	1	%	Carbon_total	7.21	NA	T2
237-12-S-high-A-2	Biochar and compost_high_S	NELSON82	1	%	Carbon_total	9.79	NA	T2
238-12-S-high-B-2	Biochar and compost_high_S	NELSON82	1	%	Carbon_total	9.26	NA	T2
239-12-S-high-C-2	Biochar and compost_high_S	NELSON82	2	%	Carbon_total	8.96	NA	T2
240-12-S-high-D-2	Biochar and compost_high_S	NELSON82	2	%	Carbon_total	8.75	NA	T2
289-01-I-low-A-2	Solublephosphate_low_I	NELSON82	2	%	Carbon_total	8.27	NA	T2
290-01-I-low-B-2	Solublephosphate_low_I	NELSON82	2	%	Carbon_total	8.80	NA	T2
291-01-I-low-C-2	Solublephosphate_low_I	NELSON82	2	%	Carbon_total	7.68	NA	T2
292-01-I-low-D-2	Solublephosphate_low_I	NELSON82	2	%	Carbon_total	7.87	NA	T2

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
293-02-I-low-A-2	Biosolid_low_I	NELSON82	2	%	Carbon_total	7.65	NA	T2
294-02-I-low-B-2	Biosolid_low_I	NELSON82	2	%	Carbon_total	8.97	NA	T2
295-02-I-low-C-2	Biosolid_low_I	NELSON82	2	%	Carbon_total	8.97	NA	T2
296-02-I-low-D-2	Biosolid_low_I	NELSON82	2	%	Carbon_total	7.87	NA	T2
297-03-I-low-A-2	Wood ash_low_I	NELSON82	2	%	Carbon_total	8.30	NA	T2
298-03-I-low-B-2	Wood ash_low_I	NELSON82	2	%	Carbon_total	8.04	NA	T2
299-03-I-low-C-2	Wood ash_low_I	NELSON82	2	%	Carbon_total	10.25	NA	T2
300-03-I-low-D-2	Wood ash_low_I	NELSON82	2	%	Carbon_total	9.40	NA	T2
301-04-I-low-A-2	Biochar_low_I	NELSON82	2	%	Carbon_total	13.44	NA	T2
302-04-I-low-B-2	Biochar_low_I	NELSON82	2	%	Carbon_total	9.33	NA	T2
303-04-I-low-C-2	Biochar_low_I	NELSON82	2	%	Carbon_total	11.14	NA	T2
304-04-I-low-D-2	Biochar_low_I	NELSON82	2	%	Carbon_total	10.81	NA	T2
305-05-I-low-A-2	Compost_low_I	NELSON82	2	%	Carbon_total	9.44	NA	T2
306-05-I-low-B-2	Compost_low_I	NELSON82	2	%	Carbon_total	8.54	NA	T2
307-05-I-low-C-2	Compost_low_I	NELSON82	2	%	Carbon_total	7.44	NA	T2
308-05-I-low-D-2	Compost_low_I	NELSON82	2	%	Carbon_total	15.15	NA	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	NELSON82	2	%	Carbon_total	7.59	NA	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	NELSON82	2	%	Carbon_total	9.34	NA	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	NELSON82	2	%	Carbon_total	7.33	NA	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	NELSON82	2	%	Carbon_total	0.96	NA	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	NELSON82	2	%	Carbon_total	8.67	NA	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	NELSON82	2	%	Carbon_total	7.42	NA	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	NELSON82	2	%	Carbon_total	7.87	NA	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	NELSON82	2	%	Carbon_total	9.07	NA	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	NELSON82	2	%	Carbon_total	8.66	NA	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	NELSON82	2	%	Carbon_total	8.96	NA	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	NELSON82	2	%	Carbon_total	11.19	NA	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	NELSON82	2	%	Carbon_total	8.48	NA	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	NELSON82	2	%	Carbon_total	7.44	NA	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	NELSON82	2	%	Carbon_total	7.06	NA	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
323-09-I-low-C-2	Biosolids and wood ash_low_I	NELSON82	2	%	Carbon_total	6.44	NA	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	NELSON82	2	%	Carbon_total	12.12	NA	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	NELSON82	2	%	Carbon_total	8.41	NA	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	NELSON82	2	%	Carbon_total	8.60	NA	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	NELSON82	2	%	Carbon_total	7.83	NA	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	NELSON82	2	%	Carbon_total	7.09	NA	T2
329-11-I-low-A-2	Wood ash and compost_low_I	NELSON82	2	%	Carbon_total	9.37	NA	T2
330-11-I-low-B-2	Wood ash and compost_low_I	NELSON82	2	%	Carbon_total	8.04	NA	T2
331-11-I-low-C-2	Wood ash and compost_low_I	NELSON82	2	%	Carbon_total	7.28	NA	T2
332-11-I-low-D-2	Wood ash and compost_low_I	NELSON82	2	%	Carbon_total	11.06	NA	T2
333-12-I-low-A-2	Biochar and compost_low_I	NELSON82	2	%	Carbon_total	11.04	NA	T2
334-12-I-low-B-2	Biochar and compost_low_I	NELSON82	2	%	Carbon_total	10.41	NA	T2
335-12-I-low-C-2	Biochar and compost_low_I	NELSON82	2	%	Carbon_total	10.41	NA	T2
336-12-I-low-D-2	Biochar and compost_low_I	NELSON82	2	%	Carbon_total	7.24	NA	T2
337-01-I-high-A-2	Solublephosphate_high_I	NELSON82	2	%	Carbon_total	12.67	NA	T2
338-01-I-high-B-2	Solublephosphate_high_I	NELSON82	2	%	Carbon_total	7.13	NA	T2
339-01-I-high-C-2	Solublephosphate_high_I	NELSON82	2	%	Carbon_total	8.36	NA	T2
340-01-I-high-D-2	Solublephosphate_high_I	NELSON82	2	%	Carbon_total	8.37	NA	T2
341-02-I-high-A-2	Biosolid_high_I	NELSON82	2	%	Carbon_total	9.04	NA	T2
342-02-I-high-B-2	Biosolid_high_I	NELSON82	2	%	Carbon_total	13.02	NA	T2
343-02-I-high-C-2	Biosolid_high_I	NELSON82	2	%	Carbon_total	11.69	NA	T2
344-02-I-high-D-2	Biosolid_high_I	NELSON82	2	%	Carbon_total	9.34	NA	T2
345-03-I-high-A-2	Wood ash_high_I	NELSON82	2	%	Carbon_total	7.99	NA	T2
346-03-I-high-B-2	Wood ash_high_I	NELSON82	2	%	Carbon_total	8.77	NA	T2
347-03-I-high-C-2	Wood ash_high_I	NELSON82	2	%	Carbon_total	9.89	NA	T2
348-03-I-high-D-2	Wood ash_high_I	NELSON82	2	%	Carbon_total	12.07	NA	T2
349-04-I-high-A-2	Biochar_high_I	NELSON82	2	%	Carbon_total	9.36	NA	T2
350-04-I-high-B-2	Biochar_high_I	NELSON82	2	%	Carbon_total	6.97	NA	T2
351-04-I-high-C-2	Biochar_high_I	NELSON82	2	%	Carbon_total	8.36	NA	T2
352-04-I-high-D-2	Biochar_high_I	NELSON82	2	%	Carbon_total	9.51	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
353-05-I-high-A-2	Compost_high_I	NELSON82	2	%	Carbon_total	8.33	NA	T2
354-05-I-high-B-2	Compost_high_I	NELSON82	2	%	Carbon_total	8.90	NA	T2
355-05-I-high-C-2	Compost_high_I	NELSON82	2	%	Carbon_total	10.43	NA	T2
356-05-I-high-D-2	Compost_high_I	NELSON82	2	%	Carbon_total	12.94	NA	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	NELSON82	2	%	Carbon_total	13.70	NA	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	NELSON82	2	%	Carbon_total	9.08	NA	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	NELSON82	2	%	Carbon_total	11.48	NA	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	NELSON82	2	%	Carbon_total	14.23	NA	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	NELSON82	2	%	Carbon_total	10.32	NA	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	NELSON82	2	%	Carbon_total	6.54	NA	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	NELSON82	2	%	Carbon_total	8.32	NA	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	NELSON82	2	%	Carbon_total	6.94	NA	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	NELSON82	2	%	Carbon_total	8.12	NA	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	NELSON82	2	%	Carbon_total	10.08	NA	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	NELSON82	2	%	Carbon_total	10.03	NA	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	NELSON82	2	%	Carbon_total	8.32	NA	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	NELSON82	2	%	Carbon_total	16.75	NA	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	NELSON82	2	%	Carbon_total	14.04	NA	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	NELSON82	2	%	Carbon_total	15.42	NA	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	NELSON82	2	%	Carbon_total	11.08	NA	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	NELSON82	2	%	Carbon_total	10.40	NA	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	NELSON82	2	%	Carbon_total	8.92	NA	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	NELSON82	2	%	Carbon_total	8.98	NA	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	NELSON82	2	%	Carbon_total	8.34	NA	T2
377-11-I-high-A-2	Wood ash and compost_high_I	NELSON82	2	%	Carbon_total	8.27	NA	T2
378-11-I-high-B-2	Wood ash and compost_high_I	NELSON82	2	%	Carbon_total	10.59	NA	T2
379-11-I-high-C-2	Wood ash and compost_high_I	NELSON82	2	%	Carbon_total	12.49	NA	T2
380-11-I-high-D-2	Wood ash and compost_high_I	NELSON82	2	%	Carbon_total	11.57	NA	T2
381-12-I-high-A-2	Biochar and compost_high_I	NELSON82	3	%	Carbon_total	14.50	NA	T2
382-12-I-high-B-2	Biochar and compost_high_I	NELSON82	3	%	Carbon_total	10.21	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
383-12-I-high-C-2	Biochar and compost_high_I	NELSON82	3	%	Carbon_total	11.00	NA	T2
384-12-I-high-D-2	Biochar and compost_high_I	NELSON82	3	%	Carbon_total	8.06	NA	T2
385-00-I-none-A-2	control_none_I	NELSON82	3	%	Carbon_total	8.97	NA	T2
386-00-I-none-B-2	control_none_I	NELSON82	3	%	Carbon_total	8.66	NA	T2
387-00-I-none-C-2	control_none_I	NELSON82	3	%	Carbon_total	6.39	NA	T2
388-00-I-none-D-2	control_none_I	NELSON82	3	%	Carbon_total	7.75	NA	T2
049-01-S-low-A-2	Solublephosphate_low_S	HEANES84	4	%	Carbon_org	8.26	NA	T2
050-01-S-low-B-2	Solublephosphate_low_S	HEANES84	5	%	Carbon_org	10.64	dup1	T2
051-01-S-low-C-2	Solublephosphate_low_S	HEANES84	6	%	Carbon_org	6.78	dup1	T2
052-01-S-low-D-2	Solublephosphate_low_S	HEANES84	7	%	Carbon_org	6.05	NA	T2
053-02-S-low-A-2	Biosolid_low_S	HEANES84	1	%	Carbon_org	6.91	NA	T2
054-02-S-low-B-2	Biosolid_low_S	HEANES84	1	%	Carbon_org	6.91	NA	T2
055-02-S-low-C-2	Biosolid_low_S	HEANES84	1	%	Carbon_org	8.58	NA	T2
056-02-S-low-D-2	Biosolid_low_S	HEANES84	1	%	Carbon_org	8.57	NA	T2
057-03-S-low-A-2	Wood ash_low_S	HEANES84	1	%	Carbon_org	9.74	NA	T2
058-03-S-low-B-2	Wood ash_low_S	HEANES84	1	%	Carbon_org	7.36	NA	T2
059-03-S-low-C-2	Wood ash_low_S	HEANES84	1	%	Carbon_org	8.32	NA	T2
060-03-S-low-D-2	Wood ash_low_S	HEANES84	1	%	Carbon_org	7.48	NA	T2
061-04-S-low-A-2	Biochar_low_S	HEANES84	1	%	Carbon_org	7.20	NA	T2
062-04-S-low-B-2	Biochar_low_S	HEANES84	1	%	Carbon_org	6.44	NA	T2
063-04-S-low-C-2	Biochar_low_S	HEANES84	1	%	Carbon_org	5.59	NA	T2
064-04-S-low-D-2	Biochar_low_S	HEANES84	1	%	Carbon_org	5.95	NA	T2
065-05-S-low-A-2	Compost_low_S	HEANES84	1	%	Carbon_org	7.78	NA	T2
066-05-S-low-B-2	Compost_low_S	HEANES84	1	%	Carbon_org	6.79	NA	T2
067-05-S-low-C-2	Compost_low_S	HEANES84	1	%	Carbon_org	8.24	NA	T2
068-05-S-low-D-2	Compost_low_S	HEANES84	1	%	Carbon_org	6.37	NA	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	HEANES84	1	%	Carbon_org	7.08	NA	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	HEANES84	1	%	Carbon_org	8.48	NA	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	HEANES84	1	%	Carbon_org	6.27	NA	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	HEANES84	1	%	Carbon_org	6.11	NA	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	HEANES84	1	%	Carbon_org	6.94	NA	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	HEANES84	1	%	Carbon_org	9.73	NA	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	HEANES84	1	%	Carbon_org	5.87	NA	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	HEANES84	1	%	Carbon_org	5.81	NA	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	HEANES84	1	%	Carbon_org	12.81	NA	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	HEANES84	1	%	Carbon_org	7.58	NA	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	HEANES84	1	%	Carbon_org	9.39	NA	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	HEANES84	1	%	Carbon_org	7.37	NA	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	HEANES84	1	%	Carbon_org	8.41	NA	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	HEANES84	2	%	Carbon_org	7.41	NA	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	HEANES84	2	%	Carbon_org	8.85	NA	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	HEANES84	2	%	Carbon_org	7.43	NA	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	HEANES84	2	%	Carbon_org	6.71	NA	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	HEANES84	2	%	Carbon_org	5.15	NA	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	HEANES84	2	%	Carbon_org	8.49	NA	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	HEANES84	2	%	Carbon_org	6.55	NA	T2
089-11-S-low-A-2	Wood ash and compost_low_S	HEANES84	2	%	Carbon_org	8.13	NA	T2
090-11-S-low-B-2	Wood ash and compost_low_S	HEANES84	2	%	Carbon_org	7.91	NA	T2
091-11-S-low-C-2	Wood ash and compost_low_S	HEANES84	2	%	Carbon_org	10.03	NA	T2
092-11-S-low-D-2	Wood ash and compost_low_S	HEANES84	2	%	Carbon_org	5.88	NA	T2
093-12-S-low-A-2	Biochar and compost_low_S	HEANES84	2	%	Carbon_org	6.72	NA	T2
094-12-S-low-B-2	Biochar and compost_low_S	HEANES84	2	%	Carbon_org	7.48	NA	T2
095-12-S-low-C-2	Biochar and compost_low_S	HEANES84	2	%	Carbon_org	7.07	NA	T2
096-12-S-low-D-2	Biochar and compost_low_S	HEANES84	2	%	Carbon_org	9.93	NA	T2
193-01-S-high-A-2	Solublephosphate_high_S	HEANES84	2	%	Carbon_org	4.37	NA	T2
194-01-S-high-B-2	Solublephosphate_high_S	HEANES84	2	%	Carbon_org	7.31	NA	T2
195-01-S-high-C-2	Solublephosphate_high_S	HEANES84	2	%	Carbon_org	5.36	NA	T2
196-01-S-high-D-2	Solublephosphate_high_S	HEANES84	2	%	Carbon_org	10.09	NA	T2
197-02-S-high-A-2	Biosolid_high_S	HEANES84	2	%	Carbon_org	7.82	NA	T2
198-02-S-high-B-2	Biosolid_high_S	HEANES84	2	%	Carbon_org	7.28	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
199-02-S-high-C-2	Biosolid_high_S	HEANES84	2	%	Carbon_org	8.21	NA	T2
200-02-S-high-D-2	Biosolid_high_S	HEANES84	2	%	Carbon_org	7.86	NA	T2
201-03-S-high-A-2	Wood ash_high_S	HEANES84	2	%	Carbon_org	7.05	NA	T2
202-03-S-high-B-2	Wood ash_high_S	HEANES84	2	%	Carbon_org	6.65	NA	T2
203-03-S-high-C-2	Wood ash_high_S	HEANES84	2	%	Carbon_org	6.90	NA	T2
204-03-S-high-D-2	Wood ash_high_S	HEANES84	2	%	Carbon_org	9.73	NA	T2
205-04-S-high-A-2	Biochar_high_S	HEANES84	2	%	Carbon_org	7.72	NA	T2
206-04-S-high-B-2	Biochar_high_S	HEANES84	2	%	Carbon_org	8.80	NA	T2
207-04-S-high-C-2	Biochar_high_S	HEANES84	2	%	Carbon_org	7.01	NA	T2
208-04-S-high-D-2	Biochar_high_S	HEANES84	2	%	Carbon_org	7.65	NA	T2
209-05-S-high-A-2	Compost_high_S	HEANES84	2	%	Carbon_org	9.42	NA	T2
210-05-S-high-B-2	Compost_high_S	HEANES84	2	%	Carbon_org	7.69	NA	T2
211-05-S-high-C-2	Compost_high_S	HEANES84	2	%	Carbon_org	10.32	NA	T2
212-05-S-high-D-2	Compost_high_S	HEANES84	2	%	Carbon_org	9.83	NA	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	HEANES84	2	%	Carbon_org	9.93	NA	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	HEANES84	2	%	Carbon_org	9.85	NA	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	HEANES84	3	%	Carbon_org	9.01	NA	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	HEANES84	3	%	Carbon_org	9.45	NA	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	HEANES84	3	%	Carbon_org	9.34	NA	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	HEANES84	3	%	Carbon_org	8.07	NA	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	HEANES84	3	%	Carbon_org	9.37	NA	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	HEANES84	3	%	Carbon_org	7.08	NA	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	HEANES84	3	%	Carbon_org	7.49	NA	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	HEANES84	3	%	Carbon_org	7.34	NA	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	HEANES84	3	%	Carbon_org	8.02	NA	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	HEANES84	3	%	Carbon_org	6.99	NA	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	HEANES84	3	%	Carbon_org	7.16	NA	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	HEANES84	3	%	Carbon_org	8.24	NA	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	HEANES84	3	%	Carbon_org	7.48	NA	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	HEANES84	3	%	Carbon_org	8.93	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
229-10-S-high-A-2	Wood ash and biochar_high_S	HEANES84	3	%	Carbon_org	9.15	NA	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	HEANES84	3	%	Carbon_org	7.22	NA	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	HEANES84	3	%	Carbon_org	7.68	NA	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	HEANES84	3	%	Carbon_org	7.41	NA	T2
233-11-S-high-A-2	Wood ash and compost_high_S	HEANES84	3	%	Carbon_org	7.82	NA	T2
234-11-S-high-B-2	Wood ash and compost_high_S	HEANES84	3	%	Carbon_org	10.69	NA	T2
235-11-S-high-C-2	Wood ash and compost_high_S	HEANES84	3	%	Carbon_org	9.57	NA	T2
236-11-S-high-D-2	Wood ash and compost_high_S	HEANES84	4	%	Carbon_org	7.69	NA	T2
237-12-S-high-A-2	Biochar and compost_high_S	HEANES84	4	%	Carbon_org	8.34	NA	T2
238-12-S-high-B-2	Biochar and compost_high_S	HEANES84	4	%	Carbon_org	8.99	NA	T2
239-12-S-high-C-2	Biochar and compost_high_S	HEANES84	4	%	Carbon_org	6.78	NA	T2
240-12-S-high-D-2	Biochar and compost_high_S	HEANES84	4	%	Carbon_org	8.10	NA	T2
289-01-I-low-A-2	Solublephosphate_low_I	HEANES84	4	%	Carbon_org	7.77	NA	T2
290-01-I-low-B-2	Solublephosphate_low_I	HEANES84	4	%	Carbon_org	9.85	NA	T2
291-01-I-low-C-2	Solublephosphate_low_I	HEANES84	4	%	Carbon_org	7.58	NA	T2
292-01-I-low-D-2	Solublephosphate_low_I	HEANES84	4	%	Carbon_org	5.46	NA	T2
293-02-I-low-A-2	Biosolid_low_I	HEANES84	4	%	Carbon_org	9.85	NA	T2
294-02-I-low-B-2	Biosolid_low_I	HEANES84	4	%	Carbon_org	9.18	NA	T2
295-02-I-low-C-2	Biosolid_low_I	HEANES84	4	%	Carbon_org	7.05	NA	T2
296-02-I-low-D-2	Biosolid_low_I	HEANES84	4	%	Carbon_org	8.80	NA	T2
297-03-I-low-A-2	Wood ash_low_I	HEANES84	4	%	Carbon_org	9.70	NA	T2
298-03-I-low-B-2	Wood ash_low_I	HEANES84	4	%	Carbon_org	10.50	NA	T2
299-03-I-low-C-2	Wood ash_low_I	HEANES84	4	%	Carbon_org	15.15	NA	T2
300-03-I-low-D-2	Wood ash_low_I	HEANES84	4	%	Carbon_org	12.03	NA	T2
301-04-I-low-A-2	Biochar_low_I	HEANES84	4	%	Carbon_org	9.31	NA	T2
302-04-I-low-B-2	Biochar_low_I	HEANES84	4	%	Carbon_org	12.26	NA	T2
303-04-I-low-C-2	Biochar_low_I	HEANES84	4	%	Carbon_org	9.63	NA	T2
304-04-I-low-D-2	Biochar_low_I	HEANES84	4	%	Carbon_org	10.47	NA	T2
305-05-I-low-A-2	Compost_low_I	HEANES84	4	%	Carbon_org	11.80	NA	T2
306-05-I-low-B-2	Compost_low_I	HEANES84	4	%	Carbon_org	14.48	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
307-05-I-low-C-2	Compost_low_I	HEANES84	4	%	Carbon_org	14.65	NA	T2
308-05-I-low-D-2	Compost_low_I	HEANES84	4	%	Carbon_org	19.77	NA	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	HEANES84	4	%	Carbon_org	10.59	NA	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	HEANES84	4	%	Carbon_org	9.23	NA	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	HEANES84	4	%	Carbon_org	10.06	NA	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	HEANES84	5	%	Carbon_org	16.77	dup1	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	HEANES84	5	%	Carbon_org	14.63	dup1	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	HEANES84	5	%	Carbon_org	11.87	dup1	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	HEANES84	5	%	Carbon_org	8.67	dup1	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	HEANES84	5	%	Carbon_org	14.98	dup1	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	HEANES84	5	%	Carbon_org	11.10	dup1	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	HEANES84	4	%	Carbon_org	10.67	NA	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	HEANES84	4	%	Carbon_org	10.41	NA	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	HEANES84	5	%	Carbon_org	9.16	dup1	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	HEANES84	5	%	Carbon_org	6.86	dup1	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	HEANES84	5	%	Carbon_org	6.84	dup1	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	HEANES84	5	%	Carbon_org	7.85	dup1	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	HEANES84	5	%	Carbon_org	9.37	dup1	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	HEANES84	5	%	Carbon_org	7.41	dup1	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	HEANES84	5	%	Carbon_org	7.44	dup1	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	HEANES84	5	%	Carbon_org	9.16	dup1	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	HEANES84	5	%	Carbon_org	9.40	dup1	T2
329-11-I-low-A-2	Wood ash and compost_low_I	HEANES84	5	%	Carbon_org	9.08	dup1	T2
330-11-I-low-B-2	Wood ash and compost_low_I	HEANES84	5	%	Carbon_org	10.45	dup1	T2
331-11-I-low-C-2	Wood ash and compost_low_I	HEANES84	5	%	Carbon_org	8.72	dup1	T2
332-11-I-low-D-2	Wood ash and compost_low_I	HEANES84	5	%	Carbon_org	9.42	dup1	T2
333-12-I-low-A-2	Biochar and compost_low_I	HEANES84	5	%	Carbon_org	5.61	dup1	T2
334-12-I-low-B-2	Biochar and compost_low_I	HEANES84	5	%	Carbon_org	8.12	dup1	T2
335-12-I-low-C-2	Biochar and compost_low_I	HEANES84	5	%	Carbon_org	7.63	dup1	T2
336-12-I-low-D-2	Biochar and compost_low_I	HEANES84	5	%	Carbon_org	7.00	dup1	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
337-01-I-high-A-2	Solublephosphate_high_I	HEANES84	5	%	Carbon_org	9.53	dup1	T2
338-01-I-high-B-2	Solublephosphate_high_I	HEANES84	5	%	Carbon_org	11.41	dup1	T2
339-01-I-high-C-2	Solublephosphate_high_I	HEANES84	5	%	Carbon_org	12.17	dup1	T2
340-01-I-high-D-2	Solublephosphate_high_I	HEANES84	6	%	Carbon_org	6.65	dup1	T2
341-02-I-high-A-2	Biosolid_high_I	HEANES84	6	%	Carbon_org	10.01	dup1	T2
342-02-I-high-B-2	Biosolid_high_I	HEANES84	6	%	Carbon_org	12.95	dup1	T2
343-02-I-high-C-2	Biosolid_high_I	HEANES84	6	%	Carbon_org	9.15	dup1	T2
344-02-I-high-D-2	Biosolid_high_I	HEANES84	6	%	Carbon_org	10.04	dup1	T2
345-03-I-high-A-2	Wood ash_high_I	HEANES84	6	%	Carbon_org	10.48	dup1	T2
346-03-I-high-B-2	Wood ash_high_I	HEANES84	6	%	Carbon_org	10.30	dup1	T2
347-03-I-high-C-2	Wood ash_high_I	HEANES84	6	%	Carbon_org	8.22	dup1	T2
348-03-I-high-D-2	Wood ash_high_I	HEANES84	6	%	Carbon_org	9.70	dup1	T2
349-04-I-high-A-2	Biochar_high_I	HEANES84	6	%	Carbon_org	9.32	dup1	T2
350-04-I-high-B-2	Biochar_high_I	HEANES84	6	%	Carbon_org	7.70	dup1	T2
351-04-I-high-C-2	Biochar_high_I	HEANES84	6	%	Carbon_org	6.46	dup1	T2
352-04-I-high-D-2	Biochar_high_I	HEANES84	6	%	Carbon_org	4.86	dup1	T2
353-05-I-high-A-2	Compost_high_I	HEANES84	6	%	Carbon_org	11.08	dup1	T2
354-05-I-high-B-2	Compost_high_I	HEANES84	6	%	Carbon_org	10.97	dup1	T2
355-05-I-high-C-2	Compost_high_I	HEANES84	6	%	Carbon_org	10.72	dup1	T2
356-05-I-high-D-2	Compost_high_I	HEANES84	6	%	Carbon_org	11.48	dup1	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	HEANES84	6	%	Carbon_org	14.80	dup1	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	HEANES84	6	%	Carbon_org	11.81	dup1	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	HEANES84	6	%	Carbon_org	10.65	dup1	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	HEANES84	6	%	Carbon_org	12.55	dup1	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	HEANES84	6	%	Carbon_org	7.37	dup1	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	HEANES84	6	%	Carbon_org	7.39	dup1	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	HEANES84	6	%	Carbon_org	9.75	dup1	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	HEANES84	6	%	Carbon_org	6.78	dup1	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	HEANES84	6	%	Carbon_org	8.55	dup1	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	HEANES84	6	%	Carbon_org	10.13	dup1	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
367-08-I-high-C-2	Soluble phosphate and compost_high_I	HEANES84	6	%	Carbon_org	9.00	dup1	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	HEANES84	7	%	Carbon_org	8.21	NA	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	HEANES84	7	%	Carbon_org	15.21	NA	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	HEANES84	7	%	Carbon_org	13.12	NA	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	HEANES84	7	%	Carbon_org	11.54	NA	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	HEANES84	7	%	Carbon_org	9.70	NA	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	HEANES84	7	%	Carbon_org	7.69	NA	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	HEANES84	7	%	Carbon_org	8.21	NA	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	HEANES84	7	%	Carbon_org	7.38	NA	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	HEANES84	7	%	Carbon_org	6.31	NA	T2
377-11-I-high-A-2	Wood ash and compost_high_I	HEANES84	7	%	Carbon_org	9.96	NA	T2
378-11-I-high-B-2	Wood ash and compost_high_I	HEANES84	7	%	Carbon_org	7.69	NA	T2
379-11-I-high-C-2	Wood ash and compost_high_I	HEANES84	7	%	Carbon_org	9.94	NA	T2
380-11-I-high-D-2	Wood ash and compost_high_I	HEANES84	7	%	Carbon_org	10.96	NA	T2
381-12-I-high-A-2	Biochar and compost_high_I	HEANES84	7	%	Carbon_org	12.41	NA	T2
382-12-I-high-B-2	Biochar and compost_high_I	HEANES84	7	%	Carbon_org	8.69	NA	T2
383-12-I-high-C-2	Biochar and compost_high_I	HEANES84	7	%	Carbon_org	9.27	NA	T2
384-12-I-high-D-2	Biochar and compost_high_I	HEANES84	7	%	Carbon_org	9.30	NA	T2
385-00-I-none-A-2	control_none_I	HEANES84	7	%	Carbon_org	9.62	NA	T2
386-00-I-none-B-2	control_none_I	HEANES84	7	%	Carbon_org	5.43	NA	T2
387-00-I-none-C-2	control_none_I	HEANES84	7	%	Carbon_org	6.92	NA	T2
388-00-I-none-D-2	control_none_I	HEANES84	7	%	Carbon_org	7.28	NA	T2
049-01-S-low-A-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Aluminum	1.58E+00	NA	T2
050-01-S-low-B-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Aluminum	1.45E+00	NA	T2
051-01-S-low-C-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Aluminum	1.52E+00	NA	T2
052-01-S-low-D-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Aluminum	1.52E+00	NA	T2
053-02-S-low-A-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Aluminum	1.72E+00	NA	T2
054-02-S-low-B-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Aluminum	1.91E+00	NA	T2
055-02-S-low-C-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Aluminum	1.58E+00	NA	T2
056-02-S-low-D-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Aluminum	2.02E+00	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
057-03-S-low-A-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Aluminum	1.84E+00	NA	T2
058-03-S-low-B-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Aluminum	1.53E+00	NA	T2
059-03-S-low-C-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Aluminum	1.75E+00	NA	T2
060-03-S-low-D-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Aluminum	1.66E+00	NA	T2
061-04-S-low-A-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Aluminum	1.52E+00	NA	T2
062-04-S-low-B-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Aluminum	1.51E+00	NA	T2
063-04-S-low-C-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Aluminum	1.35E+00	NA	T2
064-04-S-low-D-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Aluminum	1.46E+00	NA	T2
065-05-S-low-A-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Aluminum	1.39E+00	NA	T2
066-05-S-low-B-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Aluminum	1.40E+00	NA	T2
067-05-S-low-C-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Aluminum	1.40E+00	NA	T2
068-05-S-low-D-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Aluminum	1.58E+00	NA	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Aluminum	1.72E+00	NA	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Aluminum	1.54E+00	NA	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Aluminum	1.56E+00	NA	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Aluminum	1.87E+00	NA	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Aluminum	1.89E+00	NA	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Aluminum	1.59E+00	NA	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Aluminum	1.72E+00	NA	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Aluminum	1.41E+00	NA	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Aluminum	1.87E+00	NA	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Aluminum	1.65E+00	NA	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Aluminum	1.65E+00	NA	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Aluminum	1.59E+00	NA	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Aluminum	1.31E+00	NA	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Aluminum	1.22E+00	NA	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Aluminum	1.41E+00	NA	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Aluminum	1.48E+00	NA	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Aluminum	1.28E+00	NA	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Aluminum	1.29E+00	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
087-10-S-low-C-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Aluminum	1.42E+00	NA	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Aluminum	1.41E+00	NA	T2
089-11-S-low-A-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Aluminum	1.26E+00	NA	T2
090-11-S-low-B-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Aluminum	1.12E+00	NA	T2
091-11-S-low-C-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Aluminum	1.34E+00	NA	T2
092-11-S-low-D-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Aluminum	1.27E+00	NA	T2
093-12-S-low-A-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Aluminum	1.17E+00	NA	T2
094-12-S-low-B-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Aluminum	1.14E+00	NA	T2
095-12-S-low-C-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Aluminum	1.19E+00	NA	T2
096-12-S-low-D-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Aluminum	1.13E+00	NA	T2
193-01-S-high-A-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Aluminum	1.28E+00	NA	T2
194-01-S-high-B-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Aluminum	1.22E+00	NA	T2
195-01-S-high-C-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Aluminum	1.15E+00	NA	T2
196-01-S-high-D-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Aluminum	1.12E+00	NA	T2
197-02-S-high-A-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Aluminum	2.03E+00	NA	T2
198-02-S-high-B-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Aluminum	1.78E+00	NA	T2
199-02-S-high-C-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Aluminum	1.55E+00	NA	T2
200-02-S-high-D-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Aluminum	1.51E+00	NA	T2
201-03-S-high-A-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Aluminum	1.07E+00	NA	T2
202-03-S-high-B-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Aluminum	8.31E-01	NA	T2
203-03-S-high-C-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Aluminum	1.05E+00	NA	T2
204-03-S-high-D-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Aluminum	8.20E-01	NA	T2
205-04-S-high-A-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Aluminum	1.28E+00	NA	T2
206-04-S-high-B-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Aluminum	1.29E+00	NA	T2
207-04-S-high-C-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Aluminum	1.34E+00	NA	T2
208-04-S-high-D-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Aluminum	1.42E+00	NA	T2
209-05-S-high-A-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Aluminum	1.79E+00	NA	T2
210-05-S-high-B-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Aluminum	1.60E+00	NA	T2
211-05-S-high-C-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Aluminum	1.83E+00	NA	T2
212-05-S-high-D-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Aluminum	1.53E+00	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Aluminum	1.93E+00	NA	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Aluminum	1.37E+00	NA	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Aluminum	1.83E+00	NA	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Aluminum	1.02E+00	NA	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Aluminum	9.22E-01	Dup	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Aluminum	1.29E+00	Dup	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Aluminum	1.01E+00	Dup	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Aluminum	8.88E-01	Dup	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Aluminum	9.32E-01	Dup	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Aluminum	1.00E+00	Dup	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Aluminum	1.12E+00	Dup	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Aluminum	8.58E-01	Dup	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Aluminum	1.22E+00	Dup	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Aluminum	1.36E+00	Dup	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Aluminum	1.06E+00	Dup	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Aluminum	1.61E+00	Dup	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Aluminum	6.63E-01	rl	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Aluminum	7.38E-01	rl	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Aluminum	7.23E-01	rl	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Aluminum	6.78E-01	rl	T2
233-11-S-high-A-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Aluminum	1.03E+00	NA	T2
234-11-S-high-B-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Aluminum	8.44E-01	NA	T2
235-11-S-high-C-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Aluminum	8.10E-01	NA	T2
236-11-S-high-D-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Aluminum	7.59E-01	rl	T2
237-12-S-high-A-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Aluminum	9.50E-01	NA	T2
238-12-S-high-B-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Aluminum	7.03E-01	rl	T2
239-12-S-high-C-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Aluminum	8.86E-01	NA	T2
240-12-S-high-D-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Aluminum	7.81E-01	rl	T2
289-01-I-low-A-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Aluminum	9.40E-01	NA	T2
290-01-I-low-B-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Aluminum	9.95E-01	NA	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
291-01-I-low-C-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Aluminum	9.82E-01	NA	T2
292-01-I-low-D-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Aluminum	1.01E+00	NA	T2
293-02-I-low-A-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Aluminum	1.29E+00	NA	T2
294-02-I-low-B-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Aluminum	8.96E-01	NA	T2
295-02-I-low-C-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Aluminum	1.21E+00	NA	T2
296-02-I-low-D-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Aluminum	1.45E+00	NA	T2
297-03-I-low-A-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Aluminum	1.34E+00	NA	T2
298-03-I-low-B-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Aluminum	1.07E+00	NA	T2
299-03-I-low-C-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Aluminum	1.40E+00	NA	T2
300-03-I-low-D-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Aluminum	1.49E+00	NA	T2
301-04-I-low-A-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Aluminum	9.19E-01	NA	T2
302-04-I-low-B-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Aluminum	8.97E-01	NA	T2
303-04-I-low-C-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Aluminum	1.01E+00	NA	T2
304-04-I-low-D-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Aluminum	7.54E-01	rl	T2
305-05-I-low-A-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Aluminum	9.79E-01	NA	T2
306-05-I-low-B-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Aluminum	9.27E-01	NA	T2
307-05-I-low-C-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Aluminum	9.13E-01	NA	T2
308-05-I-low-D-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Aluminum	8.74E-01	NA	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Aluminum	7.68E-01	rl	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Aluminum	9.08E-01	NA	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Aluminum	9.99E-01	NA	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Aluminum	9.49E-01	NA	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Aluminum	1.14E+00	NA	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Aluminum	1.01E+00	NA	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Aluminum	9.75E-01	NA	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Aluminum	8.16E-01	NA	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Aluminum	8.74E-01	NA	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Aluminum	8.34E-01	NA	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Aluminum	8.71E-01	NA	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Aluminum	1.04E+00	NA	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
321-09-I-low-A-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Aluminum	1.63E+00	NA	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Aluminum	9.52E-01	NA	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Aluminum	8.15E-01	NA	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Aluminum	8.24E-01	NA	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Aluminum	9.34E-01	NA	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Aluminum	1.17E+00	NA	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Aluminum	6.99E-01	rl	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Aluminum	1.93E+00	NA	T2
329-11-I-low-A-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Aluminum	8.40E-01	NA	T2
330-11-I-low-B-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Aluminum	1.24E+00	NA	T2
331-11-I-low-C-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Aluminum	9.87E-01	NA	T2
332-11-I-low-D-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Aluminum	1.01E+00	NA	T2
333-12-I-low-A-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Aluminum	1.33E+00	NA	T2
334-12-I-low-B-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Aluminum	1.10E+00	NA	T2
335-12-I-low-C-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Aluminum	1.24E+00	NA	T2
336-12-I-low-D-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Aluminum	1.41E+00	NA	T2
337-01-I-high-A-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Aluminum	1.27E+00	NA	T2
338-01-I-high-B-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Aluminum	1.24E+00	NA	T2
339-01-I-high-C-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Aluminum	1.65E+00	NA	T2
340-01-I-high-D-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Aluminum	1.45E+00	NA	T2
341-02-I-high-A-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Aluminum	3.07E+00	NA	T2
342-02-I-high-B-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Aluminum	1.88E+00	NA	T2
343-02-I-high-C-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Aluminum	1.71E+00	NA	T2
344-02-I-high-D-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Aluminum	1.85E+00	NA	T2
345-03-I-high-A-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Aluminum	1.17E+00	NA	T2
346-03-I-high-B-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Aluminum	1.05E+00	NA	T2
347-03-I-high-C-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Aluminum	1.17E+00	NA	T2
348-03-I-high-D-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Aluminum	1.26E+00	NA	T2
349-04-I-high-A-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Aluminum	1.76E+00	NA	T2
350-04-I-high-B-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Aluminum	1.25E+00	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
351-04-I-high-C-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Aluminum	1.39E+00	NA	T2
352-04-I-high-D-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Aluminum	1.35E+00	NA	T2
353-05-I-high-A-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Aluminum	1.11E+00	NA	T2
354-05-I-high-B-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Aluminum	1.32E+00	NA	T2
355-05-I-high-C-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Aluminum	1.42E+00	NA	T2
356-05-I-high-D-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Aluminum	1.17E+00	NA	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Aluminum	1.53E+00	NA	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Aluminum	2.17E+00	NA	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Aluminum	1.50E+00	NA	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Aluminum	2.03E+00	NA	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Aluminum	8.76E-01	NA	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Aluminum	1.10E+00	NA	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Aluminum	9.53E-01	NA	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Aluminum	1.10E+00	NA	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Aluminum	7.40E-01	rl	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Aluminum	1.14E+00	NA	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Aluminum	9.76E-01	NA	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Aluminum	8.42E-01	NA	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Aluminum	8.99E-01	NA	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Aluminum	1.06E+00	NA	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Aluminum	7.58E-01	rl	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Aluminum	1.34E+00	NA	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Aluminum	7.14E-01	rl	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Aluminum	8.23E-01	NA	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Aluminum	8.38E-01	NA	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Aluminum	5.77E-01	rl	T2
377-11-I-high-A-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Aluminum	7.07E-01	rl	T2
378-11-I-high-B-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Aluminum	6.90E-01	rl	T2
379-11-I-high-C-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Aluminum	9.27E-01	NA	T2
380-11-I-high-D-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Aluminum	8.63E-01	NA	T2

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
381-12-I-high-A-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Aluminum	8.23E-01	NA	T2
382-12-I-high-B-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Aluminum	1.09E+00	NA	T2
383-12-I-high-C-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Aluminum	1.14E+00	NA	T2
384-12-I-high-D-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Aluminum	1.48E+00	NA	T2
385-00-I-none-A-2	control_none_I	EPA6010C-SPLP	17	mg/L	Aluminum	1.14E+00	NA	T2
386-00-I-none-B-2	control_none_I	EPA6010C-SPLP	17	mg/L	Aluminum	1.16E+00	NA	T2
387-00-I-none-C-2	control_none_I	EPA6010C-SPLP	17	mg/L	Aluminum	1.09E+00	NA	T2
388-00-I-none-D-2	control_none_I	EPA6010C-SPLP	17	mg/L	Aluminum	9.57E-01	NA	T2
049-01-S-low-A-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Antimony	3.81E-02	rl	T2
050-01-S-low-B-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Antimony	3.12E-02	rl	T2
051-01-S-low-C-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Antimony	2.45E-02	rl	T2
052-01-S-low-D-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Antimony	3.41E-02	rl	T2
053-02-S-low-A-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Antimony	3.21E-02	rl	T2
054-02-S-low-B-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Antimony	4.14E-02	rl	T2
055-02-S-low-C-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Antimony	3.01E-02	rl	T2
056-02-S-low-D-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Antimony	3.80E-02	rl	T2
057-03-S-low-A-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Antimony	3.38E-02	rl	T2
058-03-S-low-B-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Antimony	2.59E-02	rl	T2
059-03-S-low-C-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Antimony	4.33E-02	rl	T2
060-03-S-low-D-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Antimony	2.96E-02	rl	T2
061-04-S-low-A-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Antimony	3.36E-02	rl	T2
062-04-S-low-B-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Antimony	2.87E-02	rl	T2
063-04-S-low-C-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Antimony	2.81E-02	rl	T2
064-04-S-low-D-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Antimony	3.08E-02	rl	T2
065-05-S-low-A-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Antimony	2.44E-02	rl	T2
066-05-S-low-B-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Antimony	2.56E-02	rl	T2
067-05-S-low-C-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Antimony	2.61E-02	rl	T2
068-05-S-low-D-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Antimony	3.01E-02	rl	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Antimony	3.44E-02	rl	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Antimony	3.12E-02	rl	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Antimony	2.87E-02	rl	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Antimony	3.78E-02	rl	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Antimony	3.25E-02	rl	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Antimony	2.70E-02	rl	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Antimony	3.81E-02	rl	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Antimony	2.88E-02	rl	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Antimony	3.22E-02	rl	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Antimony	2.80E-02	rl	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Antimony	2.84E-02	rl	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Antimony	2.40E-02	rl	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Antimony	3.38E-02	rl	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Antimony	2.87E-02	rl	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Antimony	2.84E-02	rl	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Antimony	2.92E-02	rl	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Antimony	2.83E-02	rl	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Antimony	2.96E-02	rl	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Antimony	3.72E-02	rl	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Antimony	3.03E-02	rl	T2
089-11-S-low-A-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Antimony	3.12E-02	rl	T2
090-11-S-low-B-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Antimony	2.69E-02	rl	T2
091-11-S-low-C-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Antimony	2.92E-02	rl	T2
092-11-S-low-D-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Antimony	2.73E-02	rl	T2
093-12-S-low-A-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Antimony	2.53E-02	rl	T2
094-12-S-low-B-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Antimony	3.06E-02	rl	T2
095-12-S-low-C-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Antimony	2.91E-02	rl	T2
096-12-S-low-D-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Antimony	2.82E-02	rl	T2
193-01-S-high-A-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Antimony	2.45E-02	rl	T2
194-01-S-high-B-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Antimony	2.18E-02	rl	T2
195-01-S-high-C-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Antimony	2.53E-02	rl	T2
196-01-S-high-D-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Antimony	2.33E-02	rl	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
197-02-S-high-A-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Antimony	4.39E-02	rl	T2
198-02-S-high-B-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Antimony	3.92E-02	rl	T2
199-02-S-high-C-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Antimony	3.98E-02	rl	T2
200-02-S-high-D-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Antimony	3.59E-02	rl	T2
201-03-S-high-A-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Antimony	3.14E-02	rl	T2
202-03-S-high-B-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Antimony	2.65E-02	rl	T2
203-03-S-high-C-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Antimony	2.98E-02	rl	T2
204-03-S-high-D-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Antimony	2.87E-02	rl	T2
205-04-S-high-A-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Antimony	3.05E-02	rl	T2
206-04-S-high-B-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Antimony	3.11E-02	rl	T2
207-04-S-high-C-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Antimony	2.94E-02	rl	T2
208-04-S-high-D-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Antimony	2.93E-02	rl	T2
209-05-S-high-A-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Antimony	4.04E-02	rl	T2
210-05-S-high-B-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Antimony	2.71E-02	rl	T2
211-05-S-high-C-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Antimony	3.72E-02	rl	T2
212-05-S-high-D-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Antimony	2.79E-02	rl	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Antimony	3.78E-02	rl	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Antimony	3.64E-02	rl	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Antimony	3.50E-02	rl	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Antimony	3.09E-02	rl	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Antimony	2.67E-02	rl	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Antimony	2.31E-02	rl	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Antimony	2.56E-02	rl	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Antimony	2.43E-02	rl	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Antimony	2.32E-02	rl	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Antimony	2.29E-02	rl	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Antimony	2.48E-02	rl	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Antimony	2.59E-02	rl	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Antimony	3.65E-02	rl	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Antimony	3.64E-02	rl	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
227-09-S-high-C-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Antimony	4.25E-02	rl	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Antimony	4.02E-02	rl	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Antimony	3.00E-02	rl	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Antimony	3.08E-02	rl	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Antimony	2.55E-02	rl	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Antimony	2.94E-02	rl	T2
233-11-S-high-A-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Antimony	2.80E-02	rl	T2
234-11-S-high-B-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Antimony	2.56E-02	rl	T2
235-11-S-high-C-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Antimony	2.33E-02	rl	T2
236-11-S-high-D-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Antimony	2.58E-02	rl	T2
237-12-S-high-A-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Antimony	3.13E-02	rl	T2
238-12-S-high-B-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Antimony	2.45E-02	rl	T2
239-12-S-high-C-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Antimony	2.61E-02	rl	T2
240-12-S-high-D-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Antimony	2.43E-02	rl	T2
289-01-I-low-A-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Antimony	5.40E-02	NA	T2
290-01-I-low-B-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Antimony	4.50E-02	rl	T2
291-01-I-low-C-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Antimony	4.66E-02	rl	T2
292-01-I-low-D-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Antimony	5.13E-02	NA	T2
293-02-I-low-A-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Antimony	6.53E-02	NA	T2
294-02-I-low-B-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Antimony	5.02E-02	NA	T2
295-02-I-low-C-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Antimony	5.61E-02	NA	T2
296-02-I-low-D-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Antimony	5.68E-02	NA	T2
297-03-I-low-A-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Antimony	5.26E-02	NA	T2
298-03-I-low-B-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Antimony	4.93E-02	rl	T2
299-03-I-low-C-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Antimony	5.78E-02	NA	T2
300-03-I-low-D-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Antimony	5.50E-02	NA	T2
301-04-I-low-A-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Antimony	5.26E-02	NA	T2
302-04-I-low-B-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Antimony	5.11E-02	NA	T2
303-04-I-low-C-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Antimony	5.35E-02	NA	T2
304-04-I-low-D-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Antimony	4.06E-02	rl	T2

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
305-05-I-low-A-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Antimony	4.77E-02	rl	T2
306-05-I-low-B-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Antimony	4.64E-02	rl	T2
307-05-I-low-C-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Antimony	4.47E-02	rl	T2
308-05-I-low-D-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Antimony	4.82E-02	rl	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Antimony	4.85E-02	rl	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Antimony	5.61E-02	NA	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Antimony	5.20E-02	NA	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Antimony	4.84E-02	rl	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Antimony	4.70E-02	rl	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Antimony	4.74E-02	rl	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Antimony	5.29E-02	NA	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Antimony	4.58E-02	rl	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Antimony	4.15E-02	rl	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Antimony	4.00E-02	rl	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Antimony	4.25E-02	rl	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Antimony	4.06E-02	rl	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Antimony	7.16E-02	NA	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Antimony	5.53E-02	NA	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Antimony	5.42E-02	NA	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Antimony	5.58E-02	NA	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Antimony	4.51E-02	rl	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Antimony	5.83E-02	NA	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Antimony	4.45E-02	rl	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Antimony	4.91E-02	rl	T2
329-11-I-low-A-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Antimony	4.43E-02	rl	T2
330-11-I-low-B-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Antimony	5.42E-02	NA	T2
331-11-I-low-C-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Antimony	4.53E-02	rl	T2
332-11-I-low-D-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Antimony	4.01E-02	rl	T2
333-12-I-low-A-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Antimony	4.59E-02	rl	T2
334-12-I-low-B-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Antimony	3.98E-02	rl	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
335-12-I-low-C-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Antimony	4.27E-02	rl	T2
336-12-I-low-D-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Antimony	4.73E-02	rl	T2
337-01-I-high-A-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Antimony	4.45E-02	rl	T2
338-01-I-high-B-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Antimony	4.31E-02	rl	T2
339-01-I-high-C-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Antimony	4.95E-02	rl	T2
340-01-I-high-D-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Antimony	5.15E-02	NA	T2
341-02-I-high-A-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Antimony	1.18E-01	NA	T2
342-02-I-high-B-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Antimony	7.32E-02	NA	T2
343-02-I-high-C-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Antimony	7.56E-02	NA	T2
344-02-I-high-D-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Antimony	7.03E-02	NA	T2
345-03-I-high-A-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Antimony	5.03E-02	NA	T2
346-03-I-high-B-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Antimony	5.44E-02	NA	T2
347-03-I-high-C-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Antimony	5.17E-02	NA	T2
348-03-I-high-D-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Antimony	4.94E-02	rl	T2
349-04-I-high-A-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Antimony	5.92E-02	NA	T2
350-04-I-high-B-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Antimony	4.94E-02	rl	T2
351-04-I-high-C-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Antimony	5.24E-02	NA	T2
352-04-I-high-D-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Antimony	5.70E-02	NA	T2
353-05-I-high-A-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Antimony	4.07E-02	rl	T2
354-05-I-high-B-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Antimony	4.46E-02	rl	T2
355-05-I-high-C-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Antimony	4.78E-02	rl	T2
356-05-I-high-D-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Antimony	4.39E-02	rl	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Antimony	5.47E-02	NA	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Antimony	7.18E-02	NA	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Antimony	5.55E-02	NA	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Antimony	7.67E-02	NA	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Antimony	4.58E-02	rl	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Antimony	4.65E-02	rl	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Antimony	4.18E-02	rl	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Antimony	4.87E-02	rl	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
365-08-I-high-A-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Antimony	3.26E-02	rl	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Antimony	3.83E-02	rl	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Antimony	4.14E-02	rl	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Antimony	3.24E-02	rl	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Antimony	6.74E-02	NA	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Antimony	8.38E-02	NA	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Antimony	7.65E-02	NA	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Antimony	8.54E-02	NA	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Antimony	4.71E-02	rl	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Antimony	5.14E-02	NA	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Antimony	4.45E-02	rl	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Antimony	5.31E-02	NA	T2
377-11-I-high-A-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Antimony	4.46E-02	rl	T2
378-11-I-high-B-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Antimony	4.89E-02	rl	T2
379-11-I-high-C-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Antimony	5.01E-02	NA	T2
380-11-I-high-D-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Antimony	4.75E-02	rl	T2
381-12-I-high-A-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Antimony	3.24E-02	rl	T2
382-12-I-high-B-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Antimony	3.85E-02	rl	T2
383-12-I-high-C-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Antimony	4.28E-02	rl	T2
384-12-I-high-D-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Antimony	4.94E-02	rl	T2
385-00-I-none-A-2	control_none_I	EPA6010C-SPLP	17	mg/L	Antimony	4.48E-02	rl	T2
386-00-I-none-B-2	control_none_I	EPA6010C-SPLP	17	mg/L	Antimony	3.93E-02	rl	T2
387-00-I-none-C-2	control_none_I	EPA6010C-SPLP	17	mg/L	Antimony	3.99E-02	rl	T2
388-00-I-none-D-2	control_none_I	EPA6010C-SPLP	17	mg/L	Antimony	4.20E-02	rl	T2
049-01-S-low-A-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Arsenic	1.10E-01	NA	T2
050-01-S-low-B-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Arsenic	7.26E-02	NA	T2
051-01-S-low-C-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Arsenic	9.00E-02	NA	T2
052-01-S-low-D-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Arsenic	1.01E-01	NA	T2
053-02-S-low-A-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Arsenic	8.71E-02	NA	T2
054-02-S-low-B-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Arsenic	9.13E-02	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
055-02-S-low-C-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Arsenic	6.29E-02	NA	T2
056-02-S-low-D-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Arsenic	8.42E-02	NA	T2
057-03-S-low-A-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Arsenic	3.78E-02	rl	T2
058-03-S-low-B-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Arsenic	4.06E-02	rl	T2
059-03-S-low-C-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Arsenic	3.90E-02	rl	T2
060-03-S-low-D-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Arsenic	3.90E-02	rl	T2
061-04-S-low-A-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Arsenic	4.24E-02	rl	T2
062-04-S-low-B-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Arsenic	4.80E-02	rl	T2
063-04-S-low-C-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Arsenic	4.13E-02	rl	T2
064-04-S-low-D-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Arsenic	4.51E-02	rl	T2
065-05-S-low-A-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Arsenic	3.40E-02	rl	T2
066-05-S-low-B-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Arsenic	3.40E-02	rl	T2
067-05-S-low-C-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Arsenic	3.24E-02	rl	T2
068-05-S-low-D-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Arsenic	4.17E-02	rl	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Arsenic	1.29E-01	NA	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Arsenic	1.05E-01	NA	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Arsenic	1.37E-01	NA	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Arsenic	1.63E-01	NA	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Arsenic	1.08E-01	NA	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Arsenic	7.34E-02	NA	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Arsenic	1.12E-01	NA	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Arsenic	8.37E-02	NA	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Arsenic	1.24E-01	NA	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Arsenic	1.10E-01	NA	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Arsenic	9.72E-02	NA	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Arsenic	9.68E-02	NA	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Arsenic	7.45E-02	NA	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Arsenic	5.31E-02	NA	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Arsenic	6.05E-02	NA	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Arsenic	6.40E-02	NA	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
085-10-S-low-A-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Arsenic	4.45E-02	rl	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Arsenic	4.61E-02	rl	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Arsenic	4.33E-02	rl	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Arsenic	4.56E-02	rl	T2
089-11-S-low-A-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Arsenic	4.08E-02	rl	T2
090-11-S-low-B-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Arsenic	4.21E-02	rl	T2
091-11-S-low-C-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Arsenic	4.20E-02	rl	T2
092-11-S-low-D-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Arsenic	4.16E-02	rl	T2
093-12-S-low-A-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Arsenic	4.10E-02	rl	T2
094-12-S-low-B-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Arsenic	5.18E-02	NA	T2
095-12-S-low-C-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Arsenic	5.61E-02	NA	T2
096-12-S-low-D-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Arsenic	5.06E-02	NA	T2
193-01-S-high-A-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Arsenic	1.37E-01	NA	T2
194-01-S-high-B-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Arsenic	1.42E-01	NA	T2
195-01-S-high-C-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Arsenic	1.48E-01	NA	T2
196-01-S-high-D-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Arsenic	1.47E-01	NA	T2
197-02-S-high-A-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Arsenic	1.56E-01	NA	T2
198-02-S-high-B-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Arsenic	1.40E-01	NA	T2
199-02-S-high-C-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Arsenic	1.24E-01	NA	T2
200-02-S-high-D-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Arsenic	1.23E-01	NA	T2
201-03-S-high-A-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Arsenic	2.95E-02	rl	T2
202-03-S-high-B-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Arsenic	2.95E-02	rl	T2
203-03-S-high-C-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Arsenic	3.36E-02	rl	T2
204-03-S-high-D-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Arsenic	3.46E-02	rl	T2
205-04-S-high-A-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Arsenic	5.27E-02	NA	T2
206-04-S-high-B-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Arsenic	5.30E-02	NA	T2
207-04-S-high-C-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Arsenic	4.17E-02	rl	T2
208-04-S-high-D-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Arsenic	5.33E-02	NA	T2
209-05-S-high-A-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Arsenic	9.15E-02	NA	T2
210-05-S-high-B-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Arsenic	5.94E-02	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
211-05-S-high-C-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Arsenic	7.21E-02	NA	T2
212-05-S-high-D-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Arsenic	4.93E-02	rl	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Arsenic	2.27E-01	NA	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Arsenic	1.98E-01	NA	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Arsenic	1.91E-01	NA	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Arsenic	1.91E-01	NA	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Arsenic	1.63E-01	NA	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Arsenic	1.20E-01	NA	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Arsenic	1.26E-01	NA	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Arsenic	1.41E-01	NA	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Arsenic	1.44E-01	NA	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Arsenic	1.13E-01	NA	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Arsenic	1.49E-01	NA	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Arsenic	1.50E-01	NA	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Arsenic	1.28E-01	NA	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Arsenic	1.09E-01	NA	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Arsenic	1.06E-01	NA	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Arsenic	1.31E-01	NA	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Arsenic	5.07E-02	NA	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Arsenic	5.22E-02	NA	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Arsenic	5.38E-02	NA	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Arsenic	6.07E-02	NA	T2
233-11-S-high-A-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Arsenic	4.47E-02	rl	T2
234-11-S-high-B-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Arsenic	3.22E-02	rl	T2
235-11-S-high-C-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Arsenic	3.33E-02	rl	T2
236-11-S-high-D-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Arsenic	3.07E-02	rl	T2
237-12-S-high-A-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Arsenic	5.10E-02	NA	T2
238-12-S-high-B-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Arsenic	4.66E-02	rl	T2
239-12-S-high-C-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Arsenic	5.47E-02	NA	T2
240-12-S-high-D-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Arsenic	5.20E-02	NA	T2

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
289-01-I-low-A-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Arsenic	7.67E-02	NA	T2
290-01-I-low-B-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Arsenic	7.95E-02	NA	T2
291-01-I-low-C-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Arsenic	7.57E-02	NA	T2
292-01-I-low-D-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Arsenic	9.01E-02	NA	T2
293-02-I-low-A-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Arsenic	8.52E-02	NA	T2
294-02-I-low-B-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Arsenic	4.56E-02	rl	T2
295-02-I-low-C-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Arsenic	8.44E-02	NA	T2
296-02-I-low-D-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Arsenic	4.63E-02	rl	T2
297-03-I-low-A-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Arsenic	3.52E-02	rl	T2
298-03-I-low-B-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Arsenic	3.73E-02	rl	T2
299-03-I-low-C-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Arsenic	3.67E-02	rl	T2
300-03-I-low-D-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Arsenic	3.60E-02	rl	T2
301-04-I-low-A-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Arsenic	3.40E-02	rl	T2
302-04-I-low-B-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Arsenic	3.08E-02	rl	T2
303-04-I-low-C-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Arsenic	3.43E-02	rl	T2
304-04-I-low-D-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Arsenic	2.53E-02	rl	T2
305-05-I-low-A-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Arsenic	3.97E-02	rl	T2
306-05-I-low-B-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Arsenic	4.07E-02	rl	T2
307-05-I-low-C-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Arsenic	3.78E-02	rl	T2
308-05-I-low-D-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Arsenic	3.40E-02	rl	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Arsenic	9.39E-02	NA	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Arsenic	1.34E-01	NA	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Arsenic	9.16E-02	NA	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Arsenic	8.37E-02	NA	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Arsenic	7.65E-02	NA	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Arsenic	8.41E-02	NA	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Arsenic	8.29E-02	NA	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Arsenic	6.50E-02	NA	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Arsenic	8.00E-02	NA	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Arsenic	6.89E-02	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
319-08-I-low-C-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Arsenic	7.44E-02	NA	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Arsenic	7.20E-02	NA	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Arsenic	9.75E-02	NA	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Arsenic	4.38E-02	rl	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Arsenic	4.21E-02	rl	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Arsenic	4.51E-02	rl	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Arsenic	2.60E-02	rl	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Arsenic	3.90E-02	rl	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Arsenic	2.41E-02	rl	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Arsenic	4.05E-02	rl	T2
329-11-I-low-A-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Arsenic	2.99E-02	rl	T2
330-11-I-low-B-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Arsenic	3.38E-02	rl	T2
331-11-I-low-C-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Arsenic	3.10E-02	rl	T2
332-11-I-low-D-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Arsenic	2.94E-02	rl	T2
333-12-I-low-A-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Arsenic	3.67E-02	rl	T2
334-12-I-low-B-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Arsenic	3.31E-02	rl	T2
335-12-I-low-C-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Arsenic	3.21E-02	rl	T2
336-12-I-low-D-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Arsenic	3.50E-02	rl	T2
337-01-I-high-A-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Arsenic	1.80E-01	NA	T2
338-01-I-high-B-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Arsenic	1.87E-01	NA	T2
339-01-I-high-C-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Arsenic	1.93E-01	NA	T2
340-01-I-high-D-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Arsenic	1.99E-01	NA	T2
341-02-I-high-A-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Arsenic	1.23E-01	NA	T2
342-02-I-high-B-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Arsenic	1.43E-01	NA	T2
343-02-I-high-C-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Arsenic	1.12E-01	NA	T2
344-02-I-high-D-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Arsenic	9.58E-02	NA	T2
345-03-I-high-A-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Arsenic	3.61E-02	rl	T2
346-03-I-high-B-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Arsenic	3.25E-02	rl	T2
347-03-I-high-C-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Arsenic	3.38E-02	rl	T2
348-03-I-high-D-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Arsenic	4.24E-02	rl	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
349-04-I-high-A-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Arsenic	3.79E-02	rl	T2
350-04-I-high-B-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Arsenic	3.33E-02	rl	T2
351-04-I-high-C-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Arsenic	3.43E-02	rl	T2
352-04-I-high-D-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Arsenic	3.78E-02	rl	T2
353-05-I-high-A-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Arsenic	4.81E-02	rl	T2
354-05-I-high-B-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Arsenic	4.88E-02	rl	T2
355-05-I-high-C-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Arsenic	4.85E-02	rl	T2
356-05-I-high-D-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Arsenic	4.47E-02	rl	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Arsenic	1.51E-01	NA	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Arsenic	1.58E-01	NA	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Arsenic	1.61E-01	NA	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Arsenic	2.43E-01	NA	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Arsenic	1.74E-01	NA	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Arsenic	1.90E-01	NA	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Arsenic	1.74E-01	NA	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Arsenic	2.10E-01	NA	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Arsenic	1.54E-01	NA	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Arsenic	1.78E-01	NA	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Arsenic	1.95E-01	NA	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Arsenic	1.87E-01	NA	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Arsenic	7.01E-02	NA	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Arsenic	6.78E-02	NA	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Arsenic	6.82E-02	NA	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Arsenic	9.11E-02	NA	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Arsenic	3.37E-02	rl	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Arsenic	4.00E-02	rl	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Arsenic	3.59E-02	rl	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Arsenic	3.26E-02	rl	T2
377-11-I-high-A-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Arsenic	4.04E-02	rl	T2
378-11-I-high-B-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Arsenic	4.07E-02	rl	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
379-11-I-high-C-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Arsenic	4.78E-02	rl	T2
380-11-I-high-D-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Arsenic	4.77E-02	rl	T2
381-12-I-high-A-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Arsenic	3.73E-02	rl	T2
382-12-I-high-B-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Arsenic	3.52E-02	rl	T2
383-12-I-high-C-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Arsenic	4.07E-02	rl	T2
384-12-I-high-D-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Arsenic	5.57E-02	NA	T2
385-00-I-none-A-2	control_none_I	EPA6010C-SPLP	17	mg/L	Arsenic	2.59E-02	rl	T2
386-00-I-none-B-2	control_none_I	EPA6010C-SPLP	17	mg/L	Arsenic	2.36E-02	rl	T2
387-00-I-none-C-2	control_none_I	EPA6010C-SPLP	17	mg/L	Arsenic	2.86E-02	rl	T2
388-00-I-none-D-2	control_none_I	EPA6010C-SPLP	17	mg/L	Arsenic	2.37E-02	rl	T2
049-01-S-low-A-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Barium	3.11E-02	rl	T2
050-01-S-low-B-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Barium	4.14E-02	rl	T2
051-01-S-low-C-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Barium	2.96E-02	rl	T2
052-01-S-low-D-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Barium	3.38E-02	rl	T2
053-02-S-low-A-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Barium	1.12E-02	rl	T2
054-02-S-low-B-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Barium	9.68E-03	rl	T2
055-02-S-low-C-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Barium	1.37E-02	rl	T2
056-02-S-low-D-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Barium	1.27E-02	rl	T2
057-03-S-low-A-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Barium	2.98E-02	rl	T2
058-03-S-low-B-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Barium	2.39E-02	rl	T2
059-03-S-low-C-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Barium	3.09E-02	rl	T2
060-03-S-low-D-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Barium	2.24E-02	rl	T2
061-04-S-low-A-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Barium	2.12E-02	rl	T2
062-04-S-low-B-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Barium	1.63E-02	rl	T2
063-04-S-low-C-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Barium	1.60E-02	rl	T2
064-04-S-low-D-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Barium	1.76E-02	rl	T2
065-05-S-low-A-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Barium	1.98E-02	rl	T2
066-05-S-low-B-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Barium	2.70E-02	rl	T2
067-05-S-low-C-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Barium	2.43E-02	rl	T2
068-05-S-low-D-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Barium	2.10E-02	rl	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Barium	1.14E-02	rl	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Barium	8.70E-03	rl	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Barium	9.27E-03	rl	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Barium	8.65E-03	rl	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Barium	1.67E-02	rl	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Barium	2.01E-02	rl	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Barium	2.15E-02	rl	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Barium	1.81E-02	rl	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Barium	1.30E-02	rl	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Barium	1.36E-02	rl	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Barium	1.41E-02	rl	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Barium	1.70E-02	rl	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Barium	2.19E-02	rl	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Barium	3.39E-02	rl	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Barium	1.81E-02	rl	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Barium	1.44E-02	rl	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Barium	1.79E-02	rl	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Barium	1.47E-02	rl	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Barium	2.05E-02	rl	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Barium	1.53E-02	rl	T2
089-11-S-low-A-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Barium	2.36E-02	rl	T2
090-11-S-low-B-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Barium	1.99E-02	rl	T2
091-11-S-low-C-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Barium	2.02E-02	rl	T2
092-11-S-low-D-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Barium	1.99E-02	rl	T2
093-12-S-low-A-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Barium	1.48E-02	rl	T2
094-12-S-low-B-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Barium	1.15E-02	rl	T2
095-12-S-low-C-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Barium	1.28E-02	rl	T2
096-12-S-low-D-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Barium	1.34E-02	rl	T2
193-01-S-high-A-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Barium	1.61E-02	rl	T2
194-01-S-high-B-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Barium	1.11E-02	rl	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
195-01-S-high-C-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Barium	8.84E-03	rl	T2
196-01-S-high-D-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Barium	1.22E-02	rl	T2
197-02-S-high-A-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Barium	1.12E-02	rl	T2
198-02-S-high-B-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Barium	9.73E-03	rl	T2
199-02-S-high-C-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Barium	9.71E-03	rl	T2
200-02-S-high-D-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Barium	9.72E-03	rl	T2
201-03-S-high-A-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Barium	3.58E-02	rl	T2
202-03-S-high-B-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Barium	2.75E-02	rl	T2
203-03-S-high-C-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Barium	2.80E-02	rl	T2
204-03-S-high-D-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Barium	2.57E-02	rl	T2
205-04-S-high-A-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Barium	1.36E-02	rl	T2
206-04-S-high-B-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Barium	1.02E-02	rl	T2
207-04-S-high-C-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Barium	1.11E-02	rl	T2
208-04-S-high-D-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Barium	1.03E-02	rl	T2
209-05-S-high-A-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Barium	2.29E-02	rl	T2
210-05-S-high-B-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Barium	1.94E-02	rl	T2
211-05-S-high-C-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Barium	1.84E-02	rl	T2
212-05-S-high-D-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Barium	2.03E-02	rl	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Barium	1.01E-02	rl	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Barium	1.12E-02	rl	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Barium	8.61E-03	rl	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Barium	5.56E-03	rl	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Barium	6.60E-03	rl	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Barium	9.59E-03	rl	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Barium	8.41E-03	rl	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Barium	8.88E-03	rl	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Barium	9.48E-03	rl	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Barium	9.15E-03	rl	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Barium	1.14E-02	rl	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Barium	8.50E-03	rl	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
225-09-S-high-A-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Barium	1.21E-02	rl	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Barium	1.23E-02	rl	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Barium	2.47E-02	rl	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Barium	1.40E-02	rl	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Barium	1.07E-02	rl	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Barium	1.42E-02	rl	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Barium	1.03E-02	rl	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Barium	8.71E-03	rl	T2
233-11-S-high-A-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Barium	2.21E-02	rl	T2
234-11-S-high-B-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Barium	2.79E-02	rl	T2
235-11-S-high-C-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Barium	2.84E-02	rl	T2
236-11-S-high-D-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Barium	3.11E-02	rl	T2
237-12-S-high-A-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Barium	1.85E-02	rl	T2
238-12-S-high-B-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Barium	1.43E-02	rl	T2
239-12-S-high-C-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Barium	1.36E-02	rl	T2
240-12-S-high-D-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Barium	1.55E-02	rl	T2
289-01-I-low-A-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Barium	5.73E-02	NA	T2
290-01-I-low-B-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Barium	4.81E-02	rl	T2
291-01-I-low-C-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Barium	6.32E-02	NA	T2
292-01-I-low-D-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Barium	5.46E-02	NA	T2
293-02-I-low-A-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Barium	3.03E-02	rl	T2
294-02-I-low-B-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Barium	7.94E-02	NA	T2
295-02-I-low-C-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Barium	1.36E-02	rl	T2
296-02-I-low-D-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Barium	6.94E-02	NA	T2
297-03-I-low-A-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Barium	5.39E-02	NA	T2
298-03-I-low-B-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Barium	3.74E-02	rl	T2
299-03-I-low-C-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Barium	7.61E-02	NA	T2
300-03-I-low-D-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Barium	5.10E-02	NA	T2
301-04-I-low-A-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Barium	5.03E-02	NA	T2
302-04-I-low-B-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Barium	6.38E-02	NA	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
303-04-I-low-C-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Barium	6.74E-02	NA	T2
304-04-I-low-D-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Barium	1.52E-01	NA	T2
305-05-I-low-A-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Barium	9.09E-02	NA	T2
306-05-I-low-B-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Barium	7.92E-02	NA	T2
307-05-I-low-C-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Barium	9.02E-02	NA	T2
308-05-I-low-D-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Barium	6.16E-02	NA	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Barium	3.55E-02	rl	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Barium	1.04E-02	rl	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Barium	3.21E-02	rl	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Barium	7.06E-02	NA	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Barium	4.02E-02	rl	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Barium	4.46E-02	rl	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Barium	4.43E-02	rl	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Barium	7.53E-02	NA	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Barium	5.30E-02	NA	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Barium	6.82E-02	NA	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Barium	8.20E-02	NA	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Barium	6.09E-02	NA	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Barium	3.16E-02	rl	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Barium	7.95E-02	NA	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Barium	7.89E-02	NA	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Barium	9.78E-02	NA	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Barium	7.62E-02	NA	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Barium	5.79E-02	NA	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Barium	9.99E-02	NA	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Barium	2.84E-02	rl	T2
329-11-I-low-A-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Barium	7.12E-02	NA	T2
330-11-I-low-B-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Barium	6.45E-02	NA	T2
331-11-I-low-C-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Barium	9.79E-02	NA	T2
332-11-I-low-D-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Barium	8.94E-02	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
333-12-I-low-A-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Barium	4.35E-02	rl	T2
334-12-I-low-B-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Barium	1.18E-01	NA	T2
335-12-I-low-C-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Barium	8.53E-02	NA	T2
336-12-I-low-D-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Barium	4.81E-02	rl	T2
337-01-I-high-A-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Barium	3.92E-02	rl	T2
338-01-I-high-B-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Barium	4.52E-02	rl	T2
339-01-I-high-C-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Barium	3.01E-02	rl	T2
340-01-I-high-D-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Barium	2.56E-02	rl	T2
341-02-I-high-A-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Barium	1.77E-02	rl	T2
342-02-I-high-B-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Barium	1.22E-02	rl	T2
343-02-I-high-C-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Barium	1.93E-02	rl	T2
344-02-I-high-D-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Barium	1.83E-02	rl	T2
345-03-I-high-A-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Barium	6.51E-02	NA	T2
346-03-I-high-B-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Barium	8.48E-02	NA	T2
347-03-I-high-C-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Barium	6.42E-02	NA	T2
348-03-I-high-D-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Barium	4.73E-02	rl	T2
349-04-I-high-A-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Barium	4.07E-02	rl	T2
350-04-I-high-B-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Barium	6.18E-02	NA	T2
351-04-I-high-C-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Barium	4.48E-02	rl	T2
352-04-I-high-D-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Barium	3.87E-02	rl	T2
353-05-I-high-A-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Barium	6.17E-02	NA	T2
354-05-I-high-B-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Barium	4.50E-02	rl	T2
355-05-I-high-C-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Barium	4.50E-02	rl	T2
356-05-I-high-D-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Barium	5.71E-02	NA	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Barium	1.06E-02	rl	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Barium	1.74E-02	rl	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Barium	1.07E-02	rl	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Barium	1.18E-02	rl	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Barium	2.67E-02	rl	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Barium	2.61E-02	rl	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Barium	3.49E-02	rl	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Barium	2.07E-02	rl	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Barium	6.47E-02	NA	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Barium	2.07E-02	rl	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Barium	2.63E-02	rl	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Barium	3.53E-02	rl	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Barium	2.75E-02	rl	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Barium	5.15E-02	NA	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Barium	4.44E-02	rl	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Barium	2.24E-02	rl	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Barium	7.96E-02	NA	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Barium	8.78E-02	NA	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Barium	7.92E-02	NA	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Barium	1.01E-01	NA	T2
377-11-I-high-A-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Barium	8.36E-02	NA	T2
378-11-I-high-B-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Barium	9.05E-02	NA	T2
379-11-I-high-C-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Barium	6.43E-02	NA	T2
380-11-I-high-D-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Barium	9.27E-02	NA	T2
381-12-I-high-A-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Barium	1.11E-01	NA	T2
382-12-I-high-B-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Barium	8.75E-02	NA	T2
383-12-I-high-C-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Barium	6.23E-02	NA	T2
384-12-I-high-D-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Barium	3.68E-02	rl	T2
385-00-I-none-A-2	control_none_I	EPA6010C-SPLP	17	mg/L	Barium	1.22E-01	Dup	T2
386-00-I-none-B-2	control_none_I	EPA6010C-SPLP	17	mg/L	Barium	1.22E-01	Dup	T2
387-00-I-none-C-2	control_none_I	EPA6010C-SPLP	17	mg/L	Barium	8.48E-02	Dup	T2
388-00-I-none-D-2	control_none_I	EPA6010C-SPLP	17	mg/L	Barium	1.32E-01	Dup	T2
049-01-S-low-A-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Beryllium	5.56E-05	rl	T2
050-01-S-low-B-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Beryllium	6.26E-05	rl	T2
051-01-S-low-C-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Beryllium	4.50E-05	rl U	T2
052-01-S-low-D-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Beryllium	6.05E-05	rl	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
053-02-S-low-A-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Beryllium	4.50E-05	rl U	T2
054-02-S-low-B-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Beryllium	4.50E-05	rl U	T2
055-02-S-low-C-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Beryllium	4.50E-05	rl U	T2
056-02-S-low-D-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Beryllium	4.50E-05	rl U	T2
057-03-S-low-A-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Beryllium	4.50E-05	rl U	T2
058-03-S-low-B-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Beryllium	4.50E-05	rl U	T2
059-03-S-low-C-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Beryllium	5.23E-05	rl	T2
060-03-S-low-D-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Beryllium	4.50E-05	rl U	T2
061-04-S-low-A-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Beryllium	4.50E-05	rl U	T2
062-04-S-low-B-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Beryllium	5.33E-05	rl	T2
063-04-S-low-C-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Beryllium	4.50E-05	rl U	T2
064-04-S-low-D-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Beryllium	4.50E-05	rl U	T2
065-05-S-low-A-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Beryllium	4.50E-05	rl U	T2
066-05-S-low-B-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Beryllium	4.50E-05	rl U	T2
067-05-S-low-C-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Beryllium	5.06E-05	rl	T2
068-05-S-low-D-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Beryllium	4.50E-05	rl U	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Beryllium	4.50E-05	rl U	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Beryllium	4.50E-05	rl U	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Beryllium	4.50E-05	rl U	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Beryllium	7.88E-05	rl	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Beryllium	6.26E-05	rl	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Beryllium	4.50E-05	rl U	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Beryllium	7.16E-05	rl	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Beryllium	4.50E-05	rl U	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Beryllium	4.50E-05	rl U	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Beryllium	4.50E-05	rl U	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Beryllium	6.02E-05	rl	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Beryllium	4.50E-05	rl U	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Beryllium	4.50E-05	rl U	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Beryllium	4.50E-05	rl U	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
083-09-S-low-C-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Beryllium	4.50E-05	rl U	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Beryllium	4.50E-05	rl U	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Beryllium	4.64E-05	rl	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Beryllium	5.82E-05	rl	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Beryllium	4.50E-05	rl U	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Beryllium	4.50E-05	rl U	T2
089-11-S-low-A-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Beryllium	4.50E-05	rl U	T2
090-11-S-low-B-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Beryllium	4.50E-05	rl U	T2
091-11-S-low-C-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Beryllium	4.50E-05	rl U	T2
092-11-S-low-D-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Beryllium	4.50E-05	rl U	T2
093-12-S-low-A-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Beryllium	4.50E-05	rl U	T2
094-12-S-low-B-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Beryllium	4.50E-05	rl U	T2
095-12-S-low-C-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Beryllium	4.50E-05	rl U	T2
096-12-S-low-D-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Beryllium	4.50E-05	rl U	T2
193-01-S-high-A-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Beryllium	5.05E-05	rl	T2
194-01-S-high-B-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Beryllium	5.18E-05	rl	T2
195-01-S-high-C-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Beryllium	4.50E-05	rl U	T2
196-01-S-high-D-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Beryllium	4.50E-05	rl U	T2
197-02-S-high-A-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Beryllium	4.50E-05	rl U	T2
198-02-S-high-B-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Beryllium	6.14E-05	rl	T2
199-02-S-high-C-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Beryllium	4.50E-05	rl U	T2
200-02-S-high-D-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Beryllium	4.50E-05	rl U	T2
201-03-S-high-A-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Beryllium	4.50E-05	rl U	T2
202-03-S-high-B-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Beryllium	4.52E-05	rl	T2
203-03-S-high-C-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Beryllium	4.50E-05	rl U	T2
204-03-S-high-D-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Beryllium	4.50E-05	rl U	T2
205-04-S-high-A-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Beryllium	1.39E-03	rl	T2
206-04-S-high-B-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Beryllium	4.50E-05	rl U	T2
207-04-S-high-C-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Beryllium	4.50E-05	rl U	T2
208-04-S-high-D-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Beryllium	4.50E-05	rl U	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
209-05-S-high-A-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Beryllium	4.50E-05	rl U	T2
210-05-S-high-B-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Beryllium	4.50E-05	rl U	T2
211-05-S-high-C-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Beryllium	4.50E-05	rl U	T2
212-05-S-high-D-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Beryllium	5.32E-05	rl	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Beryllium	4.50E-05	rl U	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Beryllium	4.50E-05	rl U	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Beryllium	4.50E-05	rl U	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Beryllium	4.50E-05	rl U	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Beryllium	4.50E-05	rl U	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Beryllium	4.50E-05	rl U	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Beryllium	4.50E-05	rl U	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Beryllium	4.50E-05	rl U	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Beryllium	4.50E-05	rl U	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Beryllium	6.35E-05	rl	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Beryllium	4.50E-05	rl U	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Beryllium	4.50E-05	rl U	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Beryllium	4.50E-05	rl U	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Beryllium	4.86E-05	rl	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Beryllium	4.50E-05	rl U	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Beryllium	4.50E-05	rl U	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Beryllium	4.50E-05	rl U	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Beryllium	4.50E-05	rl U	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Beryllium	7.87E-05	rl	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Beryllium	4.50E-05	rl U	T2
233-11-S-high-A-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Beryllium	6.34E-05	rl	T2
234-11-S-high-B-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Beryllium	4.50E-05	rl U	T2
235-11-S-high-C-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Beryllium	4.50E-05	rl U	T2
236-11-S-high-D-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Beryllium	2.21E-03	rl	T2
237-12-S-high-A-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Beryllium	4.50E-05	rl U	T2
238-12-S-high-B-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Beryllium	4.50E-05	rl U	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
239-12-S-high-C-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Beryllium	4.50E-05	rl U	T2
240-12-S-high-D-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Beryllium	4.50E-05	rl U	T2
289-01-I-low-A-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Beryllium	4.50E-05	rl U	T2
290-01-I-low-B-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Beryllium	4.50E-05	rl U	T2
291-01-I-low-C-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Beryllium	4.50E-05	rl U	T2
292-01-I-low-D-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Beryllium	1.36E-03	rl	T2
293-02-I-low-A-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Beryllium	4.86E-05	rl	T2
294-02-I-low-B-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Beryllium	4.50E-05	rl U	T2
295-02-I-low-C-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Beryllium	4.50E-05	rl U	T2
296-02-I-low-D-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Beryllium	5.56E-05	rl	T2
297-03-I-low-A-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Beryllium	7.89E-05	rl	T2
298-03-I-low-B-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Beryllium	4.50E-05	rl U	T2
299-03-I-low-C-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Beryllium	4.86E-05	rl	T2
300-03-I-low-D-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Beryllium	4.50E-05	rl U	T2
301-04-I-low-A-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Beryllium	4.50E-05	rl U	T2
302-04-I-low-B-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Beryllium	4.50E-05	rl U	T2
303-04-I-low-C-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Beryllium	4.50E-05	rl U	T2
304-04-I-low-D-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Beryllium	4.50E-05	rl U	T2
305-05-I-low-A-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Beryllium	4.68E-05	rl	T2
306-05-I-low-B-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Beryllium	4.50E-05	rl U	T2
307-05-I-low-C-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Beryllium	4.50E-05	rl U	T2
308-05-I-low-D-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Beryllium	4.50E-05	rl U	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Beryllium	4.50E-05	rl U	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Beryllium	4.50E-05	rl U	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Beryllium	4.50E-05	rl U	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Beryllium	4.61E-05	rl	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Beryllium	4.50E-05	rl U	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Beryllium	4.50E-05	rl U	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Beryllium	4.50E-05	rl U	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Beryllium	4.50E-05	rl U	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
317-08-I-low-A-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Beryllium	5.52E-05	rl	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Beryllium	4.50E-05	rl U	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Beryllium	4.50E-05	rl U	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Beryllium	4.50E-05	rl U	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Beryllium	4.50E-05	rl U	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Beryllium	8.46E-05	rl	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Beryllium	1.24E-03	rl	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Beryllium	6.31E-05	rl	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Beryllium	5.55E-05	rl	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Beryllium	1.49E-03	rl	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Beryllium	4.50E-05	rl U	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Beryllium	4.50E-05	rl U	T2
329-11-I-low-A-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Beryllium	6.19E-05	rl	T2
330-11-I-low-B-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Beryllium	4.50E-05	rl U	T2
331-11-I-low-C-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Beryllium	7.22E-05	rl	T2
332-11-I-low-D-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Beryllium	4.50E-05	rl U	T2
333-12-I-low-A-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Beryllium	4.50E-05	rl U	T2
334-12-I-low-B-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Beryllium	4.97E-05	rl	T2
335-12-I-low-C-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Beryllium	4.50E-05	rl U	T2
336-12-I-low-D-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Beryllium	5.03E-05	rl	T2
337-01-I-high-A-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Beryllium	5.55E-05	rl	T2
338-01-I-high-B-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Beryllium	4.50E-05	rl U	T2
339-01-I-high-C-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Beryllium	7.75E-05	rl	T2
340-01-I-high-D-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Beryllium	4.50E-05	rl U	T2
341-02-I-high-A-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Beryllium	4.50E-05	rl U	T2
342-02-I-high-B-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Beryllium	4.50E-05	rl U	T2
343-02-I-high-C-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Beryllium	4.50E-05	rl U	T2
344-02-I-high-D-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Beryllium	4.50E-05	rl U	T2
345-03-I-high-A-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Beryllium	4.50E-05	rl U	T2
346-03-I-high-B-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Beryllium	4.50E-05	rl U	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
347-03-I-high-C-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Beryllium	4.81E-05	rl	T2
348-03-I-high-D-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Beryllium	5.17E-05	rl	T2
349-04-I-high-A-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Beryllium	4.50E-05	rl U	T2
350-04-I-high-B-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Beryllium	4.50E-05	rl U	T2
351-04-I-high-C-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Beryllium	4.50E-05	rl U	T2
352-04-I-high-D-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Beryllium	4.50E-05	rl U	T2
353-05-I-high-A-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Beryllium	4.50E-05	rl U	T2
354-05-I-high-B-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Beryllium	4.50E-05	rl U	T2
355-05-I-high-C-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Beryllium	4.50E-05	rl U	T2
356-05-I-high-D-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Beryllium	4.50E-05	rl U	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Beryllium	4.50E-05	rl U	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Beryllium	5.82E-05	rl	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Beryllium	4.50E-05	rl U	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Beryllium	4.50E-05	rl U	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Beryllium	6.14E-05	rl	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Beryllium	7.32E-05	rl	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Beryllium	6.34E-05	rl	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Beryllium	4.50E-05	rl U	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Beryllium	7.70E-05	rl	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Beryllium	5.63E-05	rl	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Beryllium	6.51E-05	rl	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Beryllium	4.50E-05	rl U	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Beryllium	4.50E-05	rl U	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Beryllium	4.50E-05	rl U	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Beryllium	4.88E-05	rl	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Beryllium	4.50E-05	rl U	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Beryllium	4.50E-05	rl U	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Beryllium	4.50E-05	rl U	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Beryllium	7.63E-05	rl	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Beryllium	5.39E-05	rl	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
377-11-I-high-A-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Beryllium	4.50E-05	rl U	T2
378-11-I-high-B-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Beryllium	4.50E-05	rl U	T2
379-11-I-high-C-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Beryllium	4.50E-05	rl U	T2
380-11-I-high-D-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Beryllium	4.50E-05	rl U	T2
381-12-I-high-A-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Beryllium	4.50E-05	rl U	T2
382-12-I-high-B-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Beryllium	4.50E-05	rl U	T2
383-12-I-high-C-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Beryllium	8.88E-05	rl	T2
384-12-I-high-D-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Beryllium	4.50E-05	rl U	T2
385-00-I-none-A-2	control_none_I	EPA6010C-SPLP	17	mg/L	Beryllium	5.97E-05	rl	T2
386-00-I-none-B-2	control_none_I	EPA6010C-SPLP	17	mg/L	Beryllium	4.50E-05	rl U	T2
387-00-I-none-C-2	control_none_I	EPA6010C-SPLP	17	mg/L	Beryllium	4.50E-05	rl U	T2
388-00-I-none-D-2	control_none_I	EPA6010C-SPLP	17	mg/L	Beryllium	6.16E-05	rl	T2
049-01-S-low-A-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Cadmium	7.30E-03	NA	T2
050-01-S-low-B-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Cadmium	7.30E-03	NA	T2
051-01-S-low-C-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Cadmium	5.18E-03	NA	T2
052-01-S-low-D-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Cadmium	6.89E-03	NA	T2
053-02-S-low-A-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Cadmium	1.79E-03	rl	T2
054-02-S-low-B-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Cadmium	2.21E-03	rl	T2
055-02-S-low-C-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Cadmium	2.26E-03	rl	T2
056-02-S-low-D-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Cadmium	2.35E-03	rl	T2
057-03-S-low-A-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Cadmium	3.04E-03	NA	T2
058-03-S-low-B-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Cadmium	2.34E-03	rl	T2
059-03-S-low-C-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Cadmium	3.42E-03	NA	T2
060-03-S-low-D-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Cadmium	2.60E-03	NA	T2
061-04-S-low-A-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Cadmium	2.91E-03	NA	T2
062-04-S-low-B-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Cadmium	2.47E-03	rl	T2
063-04-S-low-C-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Cadmium	2.53E-03	NA	T2
064-04-S-low-D-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Cadmium	2.49E-03	rl	T2
065-05-S-low-A-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Cadmium	2.55E-03	NA	T2
066-05-S-low-B-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Cadmium	3.31E-03	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
067-05-S-low-C-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Cadmium	3.58E-03	NA	T2
068-05-S-low-D-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Cadmium	2.80E-03	NA	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Cadmium	2.26E-03	rl	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Cadmium	1.84E-03	rl	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Cadmium	2.04E-03	rl	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Cadmium	1.86E-03	rl	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Cadmium	3.10E-03	NA	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Cadmium	3.30E-03	NA	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Cadmium	4.00E-03	NA	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Cadmium	3.20E-03	NA	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Cadmium	2.90E-03	NA	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Cadmium	2.52E-03	NA	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Cadmium	2.79E-03	NA	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Cadmium	4.12E-03	NA	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Cadmium	2.21E-03	rl	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Cadmium	2.99E-03	NA	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Cadmium	2.16E-03	rl	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Cadmium	2.21E-03	rl	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Cadmium	2.45E-03	rl	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Cadmium	2.24E-03	rl	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Cadmium	3.48E-03	NA	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Cadmium	1.94E-03	rl	T2
089-11-S-low-A-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Cadmium	2.60E-03	NA	T2
090-11-S-low-B-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Cadmium	2.32E-03	rl	T2
091-11-S-low-C-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Cadmium	2.42E-03	rl	T2
092-11-S-low-D-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Cadmium	2.65E-03	NA	T2
093-12-S-low-A-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Cadmium	2.37E-03	rl	T2
094-12-S-low-B-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Cadmium	1.72E-03	rl	T2
095-12-S-low-C-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Cadmium	2.10E-03	rl	T2
096-12-S-low-D-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Cadmium	2.25E-03	rl	T2

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
193-01-S-high-A-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Cadmium	5.45E-03	NA	T2
194-01-S-high-B-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Cadmium	4.03E-03	NA	T2
195-01-S-high-C-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Cadmium	4.06E-03	NA	T2
196-01-S-high-D-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Cadmium	5.07E-03	NA	T2
197-02-S-high-A-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Cadmium	2.79E-03	NA	T2
198-02-S-high-B-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Cadmium	2.28E-03	rl	T2
199-02-S-high-C-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Cadmium	2.42E-03	rl	T2
200-02-S-high-D-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Cadmium	1.97E-03	rl	T2
201-03-S-high-A-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Cadmium	2.66E-03	NA	T2
202-03-S-high-B-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Cadmium	1.95E-03	rl	T2
203-03-S-high-C-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Cadmium	2.57E-03	NA	T2
204-03-S-high-D-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Cadmium	2.22E-03	rl	T2
205-04-S-high-A-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Cadmium	3.22E-03	NA	T2
206-04-S-high-B-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Cadmium	1.84E-03	rl	T2
207-04-S-high-C-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Cadmium	2.19E-03	rl	T2
208-04-S-high-D-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Cadmium	1.71E-03	rl	T2
209-05-S-high-A-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Cadmium	3.79E-03	NA	T2
210-05-S-high-B-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Cadmium	2.29E-03	rl	T2
211-05-S-high-C-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Cadmium	2.53E-03	NA	T2
212-05-S-high-D-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Cadmium	2.44E-03	rl	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Cadmium	1.95E-03	rl	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Cadmium	2.15E-03	rl	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Cadmium	1.50E-03	rl	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Cadmium	1.67E-03	rl	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Cadmium	3.23E-03	NA	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Cadmium	2.40E-03	rl	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Cadmium	2.55E-03	NA	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Cadmium	2.72E-03	NA	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Cadmium	2.44E-03	rl	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Cadmium	2.33E-03	rl	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
223-08-S-high-C-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Cadmium	2.63E-03	NA	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Cadmium	2.58E-03	NA	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Cadmium	1.93E-03	rl	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Cadmium	2.36E-03	rl	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Cadmium	2.14E-03	rl	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Cadmium	2.12E-03	rl	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Cadmium	1.50E-03	rl	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Cadmium	1.79E-03	rl	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Cadmium	1.39E-03	rl	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Cadmium	1.55E-03	rl	T2
233-11-S-high-A-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Cadmium	2.35E-03	rl	T2
234-11-S-high-B-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Cadmium	2.55E-03	NA	T2
235-11-S-high-C-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Cadmium	2.55E-03	NA	T2
236-11-S-high-D-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Cadmium	4.75E-03	NA	T2
237-12-S-high-A-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Cadmium	2.70E-03	NA	T2
238-12-S-high-B-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Cadmium	1.93E-03	rl	T2
239-12-S-high-C-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Cadmium	2.06E-03	rl	T2
240-12-S-high-D-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Cadmium	2.37E-03	rl	T2
289-01-I-low-A-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Cadmium	7.98E-03	NA	T2
290-01-I-low-B-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Cadmium	7.51E-03	NA	T2
291-01-I-low-C-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Cadmium	9.18E-03	NA	T2
292-01-I-low-D-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Cadmium	9.34E-03	NA	T2
293-02-I-low-A-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Cadmium	4.30E-03	NA	T2
294-02-I-low-B-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Cadmium	1.15E-02	NA	T2
295-02-I-low-C-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Cadmium	2.65E-03	NA	T2
296-02-I-low-D-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Cadmium	8.88E-03	NA	T2
297-03-I-low-A-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Cadmium	5.03E-03	NA	T2
298-03-I-low-B-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Cadmium	3.44E-03	NA	T2
299-03-I-low-C-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Cadmium	5.51E-03	NA	T2
300-03-I-low-D-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Cadmium	4.35E-03	NA	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
301-04-I-low-A-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Cadmium	5.41E-03	Dup	T2
302-04-I-low-B-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Cadmium	6.84E-03	Dup	T2
303-04-I-low-C-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Cadmium	7.24E-03	Dup	T2
304-04-I-low-D-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Cadmium	1.63E-02	Dup	T2
305-05-I-low-A-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Cadmium	9.56E-03	Dup	T2
306-05-I-low-B-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Cadmium	8.09E-03	Dup	T2
307-05-I-low-C-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Cadmium	9.32E-03	Dup	T2
308-05-I-low-D-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Cadmium	6.55E-03	Dup	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Cadmium	6.27E-03	Dup	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Cadmium	2.27E-03	rl Dup	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Cadmium	5.35E-03	Dup	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Cadmium	1.45E-02	Dup	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Cadmium	5.54E-03	Dup	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Cadmium	5.96E-03	Dup	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Cadmium	6.41E-03	Dup	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Cadmium	1.01E-02	Dup	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Cadmium	7.59E-03	Dup	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Cadmium	8.70E-03	Dup	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Cadmium	1.14E-02	Dup	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Cadmium	7.99E-03	Dup	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Cadmium	3.29E-03	Dup	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Cadmium	7.83E-03	Dup	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Cadmium	7.81E-03	Dup	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Cadmium	9.73E-03	Dup	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Cadmium	5.65E-03	NA	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Cadmium	5.14E-03	NA	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Cadmium	8.22E-03	NA	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Cadmium	2.48E-03	rl	T2
329-11-I-low-A-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Cadmium	5.75E-03	NA	T2
330-11-I-low-B-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Cadmium	5.11E-03	NA	T2

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
331-11-I-low-C-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Cadmium	8.99E-03	NA	T2
332-11-I-low-D-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Cadmium	6.81E-03	NA	T2
333-12-I-low-A-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Cadmium	4.69E-03	NA	T2
334-12-I-low-B-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Cadmium	1.37E-02	NA	T2
335-12-I-low-C-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Cadmium	8.90E-03	NA	T2
336-12-I-low-D-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Cadmium	5.07E-03	NA	T2
337-01-I-high-A-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Cadmium	1.21E-02	Dup	T2
338-01-I-high-B-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Cadmium	1.30E-02	Dup	T2
339-01-I-high-C-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Cadmium	9.36E-03	Dup	T2
340-01-I-high-D-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Cadmium	8.83E-03	Dup	T2
341-02-I-high-A-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Cadmium	3.06E-03	Dup	T2
342-02-I-high-B-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Cadmium	2.79E-03	Dup	T2
343-02-I-high-C-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Cadmium	3.58E-03	Dup	T2
344-02-I-high-D-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Cadmium	3.06E-03	Dup	T2
345-03-I-high-A-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Cadmium	3.47E-03	Dup	T2
346-03-I-high-B-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Cadmium	4.50E-03	Dup	T2
347-03-I-high-C-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Cadmium	3.41E-03	Dup	T2
348-03-I-high-D-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Cadmium	5.55E-03	Dup	T2
349-04-I-high-A-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Cadmium	4.12E-03	NA	T2
350-04-I-high-B-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Cadmium	6.14E-03	NA	T2
351-04-I-high-C-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Cadmium	4.47E-03	NA	T2
352-04-I-high-D-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Cadmium	5.42E-03	NA	T2
353-05-I-high-A-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Cadmium	5.72E-03	NA	T2
354-05-I-high-B-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Cadmium	4.29E-03	NA	T2
355-05-I-high-C-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Cadmium	4.61E-03	NA	T2
356-05-I-high-D-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Cadmium	5.27E-03	NA	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Cadmium	3.33E-03	NA	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Cadmium	5.64E-03	NA	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Cadmium	2.97E-03	NA	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Cadmium	2.41E-03	rl	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Cadmium	9.72E-03	NA	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Cadmium	8.26E-03	NA	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Cadmium	1.30E-02	NA	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Cadmium	6.39E-03	NA	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Cadmium	2.57E-02	NA	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Cadmium	5.74E-03	NA	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Cadmium	6.98E-03	NA	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Cadmium	1.08E-02	NA	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Cadmium	3.44E-03	NA	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Cadmium	6.22E-03	NA	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Cadmium	6.53E-03	NA	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Cadmium	2.84E-03	NA	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Cadmium	3.58E-03	NA	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Cadmium	4.17E-03	NA	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Cadmium	3.49E-03	NA	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Cadmium	5.00E-03	NA	T2
377-11-I-high-A-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Cadmium	3.84E-03	NA	T2
378-11-I-high-B-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Cadmium	3.86E-03	NA	T2
379-11-I-high-C-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Cadmium	3.59E-03	NA	T2
380-11-I-high-D-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Cadmium	5.29E-03	NA	T2
381-12-I-high-A-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Cadmium	1.43E-02	NA	T2
382-12-I-high-B-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Cadmium	7.29E-03	NA	T2
383-12-I-high-C-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Cadmium	5.19E-03	NA	T2
384-12-I-high-D-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Cadmium	3.38E-03	NA	T2
385-00-I-none-A-2	control_none_I	EPA6010C-SPLP	17	mg/L	Cadmium	1.35E-02	Dup	T2
386-00-I-none-B-2	control_none_I	EPA6010C-SPLP	17	mg/L	Cadmium	1.30E-02	Dup	T2
387-00-I-none-C-2	control_none_I	EPA6010C-SPLP	17	mg/L	Cadmium	9.35E-03	Dup	T2
388-00-I-none-D-2	control_none_I	EPA6010C-SPLP	17	mg/L	Cadmium	1.44E-02	Dup	T2
049-01-S-low-A-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Calcium	4.40E+00	rl	T2
050-01-S-low-B-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Calcium	5.49E+00	NA	T2

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
051-01-S-low-C-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Calcium	4.02E+00	rl	T2
052-01-S-low-D-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Calcium	5.12E+00	NA	T2
053-02-S-low-A-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Calcium	7.48E-01	rl	T2
054-02-S-low-B-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Calcium	5.78E-01	rl	T2
055-02-S-low-C-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Calcium	8.73E-01	rl	T2
056-02-S-low-D-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Calcium	7.60E-01	rl	T2
057-03-S-low-A-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Calcium	2.84E+00	rl	T2
058-03-S-low-B-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Calcium	2.11E+00	rl	T2
059-03-S-low-C-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Calcium	2.69E+00	rl	T2
060-03-S-low-D-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Calcium	2.11E+00	rl	T2
061-04-S-low-A-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Calcium	1.45E+00	rl	T2
062-04-S-low-B-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Calcium	1.05E+00	rl	T2
063-04-S-low-C-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Calcium	1.05E+00	rl	T2
064-04-S-low-D-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Calcium	1.15E+00	rl	T2
065-05-S-low-A-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Calcium	1.29E+00	rl	T2
066-05-S-low-B-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Calcium	1.67E+00	rl	T2
067-05-S-low-C-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Calcium	1.57E+00	rl	T2
068-05-S-low-D-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Calcium	1.31E+00	rl	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Calcium	1.16E+00	rl	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Calcium	7.01E-01	rl	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Calcium	9.76E-01	rl	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Calcium	9.42E-01	rl	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Calcium	1.85E+00	rl	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Calcium	2.11E+00	rl	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Calcium	2.52E+00	rl	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Calcium	2.32E+00	rl	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Calcium	1.33E+00	rl	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Calcium	1.40E+00	rl	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Calcium	1.49E+00	rl	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Calcium	1.71E+00	rl	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
081-09-S-low-A-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Calcium	2.54E+00	rl	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Calcium	3.32E+00	rl	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Calcium	1.76E+00	rl	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Calcium	1.12E+00	rl	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Calcium	1.57E+00	rl	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Calcium	1.22E+00	rl	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Calcium	1.77E+00	rl	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Calcium	1.25E+00	rl	T2
089-11-S-low-A-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Calcium	2.23E+00	rl	T2
090-11-S-low-B-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Calcium	1.81E+00	rl	T2
091-11-S-low-C-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Calcium	1.71E+00	rl	T2
092-11-S-low-D-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Calcium	1.61E+00	rl	T2
093-12-S-low-A-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Calcium	8.70E-01	rl	T2
094-12-S-low-B-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Calcium	7.10E-01	rl	T2
095-12-S-low-C-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Calcium	8.82E-01	rl	T2
096-12-S-low-D-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Calcium	8.17E-01	rl	T2
193-01-S-high-A-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Calcium	6.95E+00	NA	T2
194-01-S-high-B-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Calcium	5.63E+00	NA	T2
195-01-S-high-C-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Calcium	6.48E+00	NA	T2
196-01-S-high-D-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Calcium	7.55E+00	NA	T2
197-02-S-high-A-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Calcium	6.31E-01	rl	T2
198-02-S-high-B-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Calcium	4.39E-01	rl	T2
199-02-S-high-C-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Calcium	4.81E-01	rl	T2
200-02-S-high-D-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Calcium	5.24E-01	rl	T2
201-03-S-high-A-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Calcium	5.03E+00	NA	T2
202-03-S-high-B-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Calcium	3.53E+00	rl	T2
203-03-S-high-C-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Calcium	3.74E+00	rl	T2
204-03-S-high-D-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Calcium	3.38E+00	rl	T2
205-04-S-high-A-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Calcium	7.17E-01	rl	T2
206-04-S-high-B-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Calcium	5.80E-01	rl	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
207-04-S-high-C-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Calcium	6.38E-01	rl	T2
208-04-S-high-D-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Calcium	6.46E-01	rl	T2
209-05-S-high-A-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Calcium	1.48E+00	rl	T2
210-05-S-high-B-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Calcium	1.10E+00	rl	T2
211-05-S-high-C-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Calcium	9.95E-01	rl	T2
212-05-S-high-D-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Calcium	1.04E+00	rl	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Calcium	8.57E-01	rl	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Calcium	1.51E+00	rl	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Calcium	6.66E-01	rl	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Calcium	5.44E-01	rl	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Calcium	2.19E+00	rl	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Calcium	2.12E+00	rl	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Calcium	2.43E+00	rl	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Calcium	3.38E+00	rl	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Calcium	2.39E+00	rl	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Calcium	1.45E+00	rl	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Calcium	2.54E+00	rl	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Calcium	2.20E+00	rl	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Calcium	8.59E-01	rl	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Calcium	9.70E-01	rl	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Calcium	2.60E+00	rl	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Calcium	1.12E+00	rl	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Calcium	9.43E-01	rl	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Calcium	1.46E+00	rl	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Calcium	9.00E-01	rl	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Calcium	7.89E-01	rl	T2
233-11-S-high-A-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Calcium	1.51E+00	rl	T2
234-11-S-high-B-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Calcium	1.67E+00	rl	T2
235-11-S-high-C-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Calcium	1.74E+00	rl	T2
236-11-S-high-D-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Calcium	1.77E+00	rl	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
237-12-S-high-A-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Calcium	9.90E-01	rl	T2
238-12-S-high-B-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Calcium	7.31E-01	rl	T2
239-12-S-high-C-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Calcium	6.49E-01	rl	T2
240-12-S-high-D-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Calcium	8.32E-01	rl	T2
289-01-I-low-A-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Calcium	6.99E+00	NA	T2
290-01-I-low-B-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Calcium	6.41E+00	NA	T2
291-01-I-low-C-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Calcium	8.11E+00	NA	T2
292-01-I-low-D-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Calcium	6.19E+00	NA	T2
293-02-I-low-A-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Calcium	5.19E+00	NA	T2
294-02-I-low-B-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Calcium	2.23E+01	NA	T2
295-02-I-low-C-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Calcium	1.85E+00	rl	T2
296-02-I-low-D-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Calcium	1.79E+01	NA	T2
297-03-I-low-A-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Calcium	5.76E+00	NA	T2
298-03-I-low-B-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Calcium	3.84E+00	rl	T2
299-03-I-low-C-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Calcium	8.48E+00	NA	T2
300-03-I-low-D-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Calcium	5.04E+00	NA	T2
301-04-I-low-A-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Calcium	3.37E+00	rl Dup	T2
302-04-I-low-B-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Calcium	4.46E+00	rl Dup	T2
303-04-I-low-C-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Calcium	4.55E+00	rl Dup	T2
304-04-I-low-D-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Calcium	1.31E+01	Dup	T2
305-05-I-low-A-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Calcium	7.22E+00	Dup	T2
306-05-I-low-B-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Calcium	6.50E+00	Dup	T2
307-05-I-low-C-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Calcium	7.42E+00	Dup	T2
308-05-I-low-D-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Calcium	4.67E+00	rl Dup	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Calcium	1.28E+01	Dup	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Calcium	2.83E+00	rl Dup	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Calcium	9.86E+00	Dup	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Calcium	4.36E+01	Dup	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Calcium	4.88E+00	rl Dup	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Calcium	5.42E+00	Dup	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Calcium	5.78E+00	Dup	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Calcium	9.94E+00	Dup	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Calcium	8.54E+00	Dup	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Calcium	9.99E+00	Dup	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Calcium	1.25E+01	Dup	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Calcium	9.04E+00	Dup	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Calcium	6.56E+00	Dup	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Calcium	2.03E+01	Dup	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Calcium	1.58E+01	Dup	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Calcium	2.19E+01	Dup	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Calcium	1.01E+01	NA	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Calcium	7.49E+00	NA	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Calcium	1.57E+01	NA	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Calcium	2.98E+00	rl	T2
329-11-I-low-A-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Calcium	1.09E+01	NA	T2
330-11-I-low-B-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Calcium	8.20E+00	NA	T2
331-11-I-low-C-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Calcium	1.37E+01	NA	T2
332-11-I-low-D-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Calcium	1.35E+01	NA	T2
333-12-I-low-A-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Calcium	3.61E+00	rl	T2
334-12-I-low-B-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Calcium	1.30E+01	NA	T2
335-12-I-low-C-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Calcium	7.91E+00	NA	T2
336-12-I-low-D-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Calcium	4.00E+00	rl	T2
337-01-I-high-A-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Calcium	1.65E+01	NA	T2
338-01-I-high-B-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Calcium	1.72E+01	NA	T2
339-01-I-high-C-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Calcium	1.05E+01	NA	T2
340-01-I-high-D-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Calcium	1.00E+01	NA	T2
341-02-I-high-A-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Calcium	1.07E+01	NA	T2
342-02-I-high-B-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Calcium	5.81E+00	NA	T2
343-02-I-high-C-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Calcium	1.46E+01	NA	T2
344-02-I-high-D-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Calcium	1.23E+01	NA	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
345-03-I-high-A-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Calcium	1.15E+01	NA	T2
346-03-I-high-B-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Calcium	1.64E+01	NA	T2
347-03-I-high-C-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Calcium	1.06E+01	NA	T2
348-03-I-high-D-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Calcium	8.10E+00	NA	T2
349-04-I-high-A-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Calcium	2.86E+00	rl	T2
350-04-I-high-B-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Calcium	4.79E+00	rl	T2
351-04-I-high-C-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Calcium	3.33E+00	rl	T2
352-04-I-high-D-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Calcium	2.73E+00	rl	T2
353-05-I-high-A-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Calcium	7.18E+00	NA	T2
354-05-I-high-B-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Calcium	5.49E+00	NA	T2
355-05-I-high-C-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Calcium	4.60E+00	rl	T2
356-05-I-high-D-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Calcium	6.37E+00	NA	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Calcium	2.39E+01	NA	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Calcium	5.82E+01	NA	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Calcium	1.79E+01	NA	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Calcium	7.54E+00	NA	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Calcium	1.71E+01	Dup	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Calcium	1.28E+01	Dup	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Calcium	2.61E+01	Dup	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Calcium	1.04E+01	Dup	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Calcium	7.17E+01	Dup	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Calcium	1.02E+01	Dup	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Calcium	1.46E+01	Dup	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Calcium	2.56E+01	Dup	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Calcium	2.28E+01	Dup	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Calcium	5.50E+01	Dup	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Calcium	7.52E+01	Dup	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Calcium	1.80E+01	Dup	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Calcium	1.59E+01	NA	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Calcium	1.80E+01	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
375-10-I-high-C-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Calcium	1.59E+01	NA	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Calcium	2.64E+01	NA	T2
377-11-I-high-A-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Calcium	1.84E+01	NA	T2
378-11-I-high-B-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Calcium	2.43E+01	NA	T2
379-11-I-high-C-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Calcium	1.28E+01	NA	T2
380-11-I-high-D-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Calcium	2.29E+01	NA	T2
381-12-I-high-A-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Calcium	2.48E+01	NA	T2
382-12-I-high-B-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Calcium	1.22E+01	NA	T2
383-12-I-high-C-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Calcium	7.61E+00	NA	T2
384-12-I-high-D-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Calcium	3.89E+00	rl	T2
385-00-I-none-A-2	control_none_I	EPA6010C-SPLP	17	mg/L	Calcium	9.47E+00	Dup	T2
386-00-I-none-B-2	control_none_I	EPA6010C-SPLP	17	mg/L	Calcium	9.69E+00	Dup	T2
387-00-I-none-C-2	control_none_I	EPA6010C-SPLP	17	mg/L	Calcium	6.37E+00	Dup	T2
388-00-I-none-D-2	control_none_I	EPA6010C-SPLP	17	mg/L	Calcium	1.03E+01	Dup	T2
049-01-S-low-A-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Chromium	3.95E-03	rl	T2
050-01-S-low-B-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Chromium	1.55E-02	rl	T2
051-01-S-low-C-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Chromium	1.48E-03	rl U	T2
052-01-S-low-D-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Chromium	1.48E-03	rl U	T2
053-02-S-low-A-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Chromium	1.48E-03	rl U	T2
054-02-S-low-B-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Chromium	1.48E-03	rl U	T2
055-02-S-low-C-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Chromium	1.48E-03	rl U	T2
056-02-S-low-D-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Chromium	1.48E-03	rl U	T2
057-03-S-low-A-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Chromium	1.48E-03	rl U	T2
058-03-S-low-B-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Chromium	1.29E-02	rl	T2
059-03-S-low-C-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Chromium	1.48E-03	rl U	T2
060-03-S-low-D-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Chromium	1.65E-02	rl	T2
061-04-S-low-A-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Chromium	2.27E-03	rl	T2
062-04-S-low-B-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Chromium	1.82E-03	rl	T2
063-04-S-low-C-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Chromium	1.48E-03	rl U	T2
064-04-S-low-D-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Chromium	1.48E-03	rl U	T2

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
065-05-S-low-A-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Chromium	1.48E-03	rl U	T2
066-05-S-low-B-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Chromium	1.48E-03	rl U	T2
067-05-S-low-C-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Chromium	1.48E-03	rl U	T2
068-05-S-low-D-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Chromium	3.92E-03	rl	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Chromium	1.85E-03	rl	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Chromium	1.48E-03	rl U	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Chromium	1.48E-03	rl U	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Chromium	1.03E-02	rl	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Chromium	2.07E-03	rl	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Chromium	1.48E-03	rl U	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Chromium	1.48E-03	rl U	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Chromium	1.48E-03	rl U	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Chromium	1.48E-03	rl U	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Chromium	1.48E-03	rl U	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Chromium	1.48E-03	rl U	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Chromium	1.48E-03	rl U	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Chromium	1.48E-03	rl U	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Chromium	1.48E-03	rl U	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Chromium	1.48E-03	rl U	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Chromium	1.48E-03	rl U	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Chromium	2.83E-03	rl	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Chromium	3.19E-03	rl	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Chromium	1.48E-03	rl U	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Chromium	1.48E-03	rl U	T2
089-11-S-low-A-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Chromium	1.48E-03	rl U	T2
090-11-S-low-B-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Chromium	1.48E-03	rl U	T2
091-11-S-low-C-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Chromium	1.48E-03	rl U	T2
092-11-S-low-D-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Chromium	1.48E-03	rl U	T2
093-12-S-low-A-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Chromium	8.01E-02	rl	T2
094-12-S-low-B-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Chromium	1.48E-03	rl U	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
095-12-S-low-C-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Chromium	1.48E-03	rl U	T2
096-12-S-low-D-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Chromium	1.48E-03	rl U	T2
193-01-S-high-A-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Chromium	2.13E-03	rl	T2
194-01-S-high-B-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Chromium	1.48E-03	rl U	T2
195-01-S-high-C-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Chromium	1.48E-03	rl U	T2
196-01-S-high-D-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Chromium	1.48E-03	rl U	T2
197-02-S-high-A-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Chromium	1.48E-03	rl U	T2
198-02-S-high-B-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Chromium	1.48E-03	rl U	T2
199-02-S-high-C-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Chromium	1.48E-03	rl U	T2
200-02-S-high-D-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Chromium	1.48E-03	rl U	T2
201-03-S-high-A-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Chromium	1.48E-03	rl U	T2
202-03-S-high-B-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Chromium	1.48E-03	rl U	T2
203-03-S-high-C-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Chromium	1.48E-03	rl U	T2
204-03-S-high-D-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Chromium	1.48E-03	rl U	T2
205-04-S-high-A-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Chromium	2.99E-03	rl	T2
206-04-S-high-B-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Chromium	1.48E-03	rl U	T2
207-04-S-high-C-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Chromium	1.48E-03	rl U	T2
208-04-S-high-D-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Chromium	1.48E-03	rl U	T2
209-05-S-high-A-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Chromium	1.48E-03	rl U	T2
210-05-S-high-B-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Chromium	1.48E-03	rl U	T2
211-05-S-high-C-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Chromium	1.48E-03	rl U	T2
212-05-S-high-D-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Chromium	1.48E-03	rl U	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Chromium	1.48E-03	rl U	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Chromium	1.48E-03	rl U	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Chromium	1.48E-03	rl U	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Chromium	1.48E-03	rl U	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Chromium	1.48E-03	rl U	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Chromium	1.48E-03	rl U	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Chromium	1.48E-03	rl U	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Chromium	1.48E-03	rl U	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
221-08-S-high-A-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Chromium	1.48E-03	rl U	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Chromium	1.48E-03	rl U	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Chromium	1.48E-03	rl U	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Chromium	1.48E-03	rl U	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Chromium	1.48E-03	rl U	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Chromium	1.48E-03	rl U	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Chromium	1.48E-03	rl U	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Chromium	1.48E-03	rl U	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Chromium	2.76E-03	rl	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Chromium	1.48E-03	rl U	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Chromium	1.48E-03	rl U	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Chromium	1.48E-03	rl U	T2
233-11-S-high-A-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Chromium	1.48E-03	rl U	T2
234-11-S-high-B-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Chromium	1.48E-03	rl U	T2
235-11-S-high-C-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Chromium	1.48E-03	rl U	T2
236-11-S-high-D-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Chromium	2.15E-03	rl	T2
237-12-S-high-A-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Chromium	1.48E-03	rl U	T2
238-12-S-high-B-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Chromium	1.48E-03	rl U	T2
239-12-S-high-C-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Chromium	1.48E-03	rl U	T2
240-12-S-high-D-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Chromium	1.48E-03	rl U	T2
289-01-I-low-A-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Chromium	1.66E-03	rl	T2
290-01-I-low-B-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Chromium	1.48E-03	rl U	T2
291-01-I-low-C-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Chromium	5.43E-03	rl	T2
292-01-I-low-D-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Chromium	5.01E-03	rl	T2
293-02-I-low-A-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Chromium	1.48E-03	rl U	T2
294-02-I-low-B-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Chromium	1.48E-03	rl U	T2
295-02-I-low-C-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Chromium	1.48E-03	rl U	T2
296-02-I-low-D-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Chromium	1.48E-03	rl U	T2
297-03-I-low-A-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Chromium	1.48E-03	rl U	T2
298-03-I-low-B-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Chromium	1.48E-03	rl U	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
299-03-I-low-C-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Chromium	1.48E-03	rl U	T2
300-03-I-low-D-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Chromium	1.90E-02	rl	T2
301-04-I-low-A-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Chromium	1.48E-03	rl U	T2
302-04-I-low-B-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Chromium	1.48E-03	rl U	T2
303-04-I-low-C-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Chromium	1.48E-03	rl U	T2
304-04-I-low-D-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Chromium	1.48E-03	rl U	T2
305-05-I-low-A-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Chromium	1.48E-03	rl U	T2
306-05-I-low-B-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Chromium	3.11E-03	rl	T2
307-05-I-low-C-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Chromium	2.02E-02	rl	T2
308-05-I-low-D-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Chromium	1.48E-03	rl U	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Chromium	1.48E-03	rl U	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Chromium	1.48E-03	rl U	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Chromium	1.48E-03	rl U	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Chromium	4.02E-03	rl	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Chromium	8.97E-03	rl	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Chromium	1.48E-03	rl U	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Chromium	4.65E-01	NA	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Chromium	3.94E-03	rl	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Chromium	1.48E-03	rl U	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Chromium	1.48E-03	rl U	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Chromium	1.48E-03	rl U	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Chromium	1.48E-03	rl U	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Chromium	1.48E-03	rl U	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Chromium	1.48E-03	rl U	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Chromium	1.48E-03	rl U	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Chromium	1.48E-03	rl U	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Chromium	1.48E-03	rl U	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Chromium	1.60E-03	rl	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Chromium	1.48E-03	rl U	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Chromium	1.48E-03	rl U	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
329-11-I-low-A-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Chromium	1.48E-03	rl U	T2
330-11-I-low-B-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Chromium	1.48E-03	rl U	T2
331-11-I-low-C-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Chromium	1.48E-03	rl U	T2
332-11-I-low-D-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Chromium	1.48E-03	rl U	T2
333-12-I-low-A-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Chromium	3.04E-02	rl	T2
334-12-I-low-B-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Chromium	1.48E-03	rl U	T2
335-12-I-low-C-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Chromium	1.48E-03	rl U	T2
336-12-I-low-D-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Chromium	1.48E-03	rl U	T2
337-01-I-high-A-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Chromium	3.76E-03	rl	T2
338-01-I-high-B-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Chromium	4.16E-03	rl	T2
339-01-I-high-C-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Chromium	3.19E-03	rl	T2
340-01-I-high-D-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Chromium	3.33E-03	rl	T2
341-02-I-high-A-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Chromium	3.56E-03	rl	T2
342-02-I-high-B-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Chromium	1.48E-03	rl U	T2
343-02-I-high-C-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Chromium	1.48E-03	rl U	T2
344-02-I-high-D-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Chromium	1.48E-03	rl U	T2
345-03-I-high-A-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Chromium	1.48E-03	rl U	T2
346-03-I-high-B-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Chromium	1.48E-03	rl U	T2
347-03-I-high-C-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Chromium	1.48E-03	rl U	T2
348-03-I-high-D-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Chromium	1.48E-03	rl U	T2
349-04-I-high-A-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Chromium	1.48E-03	rl U	T2
350-04-I-high-B-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Chromium	2.78E-02	rl	T2
351-04-I-high-C-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Chromium	1.48E-03	rl U	T2
352-04-I-high-D-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Chromium	1.48E-03	rl U	T2
353-05-I-high-A-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Chromium	1.48E-03	rl U	T2
354-05-I-high-B-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Chromium	1.48E-03	rl U	T2
355-05-I-high-C-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Chromium	1.48E-03	rl U	T2
356-05-I-high-D-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Chromium	1.48E-03	rl U	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Chromium	2.77E-03	rl	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Chromium	3.81E-03	rl	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Chromium	2.13E-02	rl	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Chromium	3.59E-03	rl	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Chromium	2.61E-03	rl	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Chromium	4.55E-03	rl	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Chromium	5.84E-03	rl	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Chromium	2.75E-03	rl	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Chromium	1.48E-03	rl U	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Chromium	1.98E-03	rl	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Chromium	2.10E-03	rl	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Chromium	1.48E-03	rl U	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Chromium	1.48E-03	rl U	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Chromium	1.48E-03	rl U	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Chromium	1.48E-03	rl U	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Chromium	1.48E-03	rl U	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Chromium	1.48E-03	rl U	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Chromium	1.48E-03	rl U	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Chromium	1.48E-03	rl U	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Chromium	1.48E-03	rl U	T2
377-11-I-high-A-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Chromium	1.48E-03	rl U	T2
378-11-I-high-B-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Chromium	1.48E-03	rl U	T2
379-11-I-high-C-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Chromium	1.48E-03	rl U	T2
380-11-I-high-D-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Chromium	1.48E-03	rl U	T2
381-12-I-high-A-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Chromium	1.48E-03	rl U	T2
382-12-I-high-B-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Chromium	1.48E-03	rl U	T2
383-12-I-high-C-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Chromium	1.48E-03	rl U	T2
384-12-I-high-D-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Chromium	1.48E-03	rl U	T2
385-00-I-none-A-2	control_none_I	EPA6010C-SPLP	17	mg/L	Chromium	1.48E-03	rl U	T2
386-00-I-none-B-2	control_none_I	EPA6010C-SPLP	17	mg/L	Chromium	1.48E-03	rl U	T2
387-00-I-none-C-2	control_none_I	EPA6010C-SPLP	17	mg/L	Chromium	1.48E-03	rl U	T2
388-00-I-none-D-2	control_none_I	EPA6010C-SPLP	17	mg/L	Chromium	1.48E-03	rl U	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
049-01-S-low-A-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Cobalt	3.09E-03	rl	T2
050-01-S-low-B-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Cobalt	3.01E-03	rl	T2
051-01-S-low-C-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Cobalt	1.92E-03	rl	T2
052-01-S-low-D-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Cobalt	2.73E-03	rl	T2
053-02-S-low-A-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Cobalt	1.32E-03	rl	T2
054-02-S-low-B-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Cobalt	1.61E-03	rl	T2
055-02-S-low-C-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Cobalt	1.28E-03	rl	T2
056-02-S-low-D-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Cobalt	1.72E-03	rl	T2
057-03-S-low-A-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Cobalt	1.05E-03	rl	T2
058-03-S-low-B-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Cobalt	8.57E-04	rl	T2
059-03-S-low-C-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Cobalt	7.45E-04	rl	T2
060-03-S-low-D-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Cobalt	9.93E-04	rl	T2
061-04-S-low-A-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Cobalt	1.23E-03	rl	T2
062-04-S-low-B-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Cobalt	1.42E-03	rl	T2
063-04-S-low-C-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Cobalt	5.91E-04	rl	T2
064-04-S-low-D-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Cobalt	8.04E-04	rl	T2
065-05-S-low-A-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Cobalt	1.02E-03	rl	T2
066-05-S-low-B-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Cobalt	7.89E-04	rl	T2
067-05-S-low-C-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Cobalt	1.02E-03	rl	T2
068-05-S-low-D-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Cobalt	1.03E-03	rl	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Cobalt	1.62E-03	rl	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Cobalt	1.31E-03	rl	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Cobalt	1.51E-03	rl	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Cobalt	1.38E-03	rl	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Cobalt	1.31E-03	rl	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Cobalt	1.52E-03	rl	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Cobalt	1.86E-03	rl	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Cobalt	1.05E-03	rl	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Cobalt	1.43E-03	rl	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Cobalt	1.54E-03	rl	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
079-08-S-low-C-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Cobalt	1.05E-03	rl	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Cobalt	1.52E-03	rl	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Cobalt	1.12E-03	rl	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Cobalt	2.06E-03	rl	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Cobalt	1.24E-03	rl	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Cobalt	1.26E-03	rl	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Cobalt	1.33E-03	rl	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Cobalt	6.71E-04	rl	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Cobalt	8.22E-04	rl	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Cobalt	8.06E-04	rl	T2
089-11-S-low-A-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Cobalt	1.01E-03	rl	T2
090-11-S-low-B-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Cobalt	7.91E-04	rl	T2
091-11-S-low-C-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Cobalt	1.50E-03	rl	T2
092-11-S-low-D-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Cobalt	7.51E-04	rl	T2
093-12-S-low-A-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Cobalt	9.73E-04	rl	T2
094-12-S-low-B-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Cobalt	7.07E-04	rl	T2
095-12-S-low-C-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Cobalt	1.12E-03	rl	T2
096-12-S-low-D-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Cobalt	9.35E-04	rl	T2
193-01-S-high-A-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Cobalt	2.60E-03	rl	T2
194-01-S-high-B-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Cobalt	1.77E-03	rl	T2
195-01-S-high-C-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Cobalt	2.09E-03	rl	T2
196-01-S-high-D-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Cobalt	2.15E-03	rl	T2
197-02-S-high-A-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Cobalt	2.37E-03	rl	T2
198-02-S-high-B-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Cobalt	2.45E-03	rl	T2
199-02-S-high-C-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Cobalt	2.09E-03	rl	T2
200-02-S-high-D-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Cobalt	2.10E-03	rl	T2
201-03-S-high-A-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Cobalt	1.15E-03	rl	T2
202-03-S-high-B-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Cobalt	6.14E-04	rl	T2
203-03-S-high-C-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Cobalt	8.15E-04	rl	T2
204-03-S-high-D-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Cobalt	9.64E-04	rl	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
205-04-S-high-A-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Cobalt	2.62E-03	rl	T2
206-04-S-high-B-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Cobalt	7.93E-04	rl	T2
207-04-S-high-C-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Cobalt	6.79E-04	rl	T2
208-04-S-high-D-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Cobalt	9.41E-04	rl	T2
209-05-S-high-A-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Cobalt	1.95E-03	rl	T2
210-05-S-high-B-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Cobalt	1.48E-03	rl	T2
211-05-S-high-C-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Cobalt	8.99E-04	rl	T2
212-05-S-high-D-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Cobalt	1.28E-03	rl	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Cobalt	2.62E-03	rl	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Cobalt	2.73E-03	rl	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Cobalt	2.02E-03	rl	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Cobalt	1.47E-03	rl	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Cobalt	1.75E-03	rl	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Cobalt	1.67E-03	rl	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Cobalt	1.06E-03	rl	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Cobalt	1.66E-03	rl	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Cobalt	1.62E-03	rl	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Cobalt	9.89E-04	rl	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Cobalt	1.09E-03	rl	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Cobalt	1.16E-03	rl	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Cobalt	2.16E-03	rl	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Cobalt	2.13E-03	rl	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Cobalt	2.46E-03	rl	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Cobalt	2.23E-03	rl	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Cobalt	8.79E-04	rl	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Cobalt	1.09E-03	rl	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Cobalt	7.19E-04	rl	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Cobalt	6.23E-04	rl	T2
233-11-S-high-A-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Cobalt	9.27E-04	rl	T2
234-11-S-high-B-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Cobalt	1.18E-03	rl	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
235-11-S-high-C-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Cobalt	5.24E-04	rl	T2
236-11-S-high-D-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Cobalt	3.11E-03	rl	T2
237-12-S-high-A-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Cobalt	1.21E-03	rl	T2
238-12-S-high-B-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Cobalt	7.55E-04	rl	T2
239-12-S-high-C-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Cobalt	1.06E-03	rl	T2
240-12-S-high-D-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Cobalt	9.37E-04	rl	T2
289-01-I-low-A-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Cobalt	3.24E-03	rl	T2
290-01-I-low-B-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Cobalt	2.55E-03	rl	T2
291-01-I-low-C-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Cobalt	2.54E-03	rl	T2
292-01-I-low-D-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Cobalt	4.17E-03	rl	T2
293-02-I-low-A-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Cobalt	3.24E-03	rl	T2
294-02-I-low-B-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Cobalt	4.34E-03	rl	T2
295-02-I-low-C-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Cobalt	1.43E-03	rl	T2
296-02-I-low-D-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Cobalt	4.73E-03	rl	T2
297-03-I-low-A-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Cobalt	1.28E-03	rl	T2
298-03-I-low-B-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Cobalt	6.40E-04	rl	T2
299-03-I-low-C-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Cobalt	1.18E-03	rl	T2
300-03-I-low-D-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Cobalt	1.44E-03	rl	T2
301-04-I-low-A-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Cobalt	1.13E-03	rl	T2
302-04-I-low-B-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Cobalt	1.24E-03	rl	T2
303-04-I-low-C-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Cobalt	9.30E-04	rl	T2
304-04-I-low-D-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Cobalt	2.16E-03	rl	T2
305-05-I-low-A-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Cobalt	1.48E-03	rl	T2
306-05-I-low-B-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Cobalt	1.70E-03	rl	T2
307-05-I-low-C-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Cobalt	2.16E-03	rl	T2
308-05-I-low-D-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Cobalt	1.14E-03	rl	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Cobalt	3.57E-03	rl	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Cobalt	1.82E-03	rl	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Cobalt	3.00E-03	rl	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Cobalt	6.69E-03	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Cobalt	7.83E-04	rl	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Cobalt	1.53E-03	rl	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Cobalt	1.37E-03	rl	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Cobalt	2.18E-03	rl	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Cobalt	2.13E-03	rl	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Cobalt	2.36E-03	rl	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Cobalt	3.00E-03	rl	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Cobalt	2.34E-03	rl	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Cobalt	3.03E-03	rl	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Cobalt	2.82E-03	rl	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Cobalt	3.32E-03	rl	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Cobalt	3.27E-03	rl	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Cobalt	1.28E-03	rl	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Cobalt	2.75E-03	rl	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Cobalt	1.31E-03	rl	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Cobalt	1.03E-03	rl	T2
329-11-I-low-A-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Cobalt	1.26E-03	rl	T2
330-11-I-low-B-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Cobalt	8.41E-04	rl	T2
331-11-I-low-C-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Cobalt	1.15E-03	rl	T2
332-11-I-low-D-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Cobalt	1.11E-03	rl	T2
333-12-I-low-A-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Cobalt	1.05E-03	rl	T2
334-12-I-low-B-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Cobalt	1.75E-03	rl	T2
335-12-I-low-C-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Cobalt	1.39E-03	rl	T2
336-12-I-low-D-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Cobalt	6.99E-04	rl	T2
337-01-I-high-A-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Cobalt	2.91E-03	rl	T2
338-01-I-high-B-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Cobalt	3.37E-03	rl	T2
339-01-I-high-C-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Cobalt	3.02E-03	rl	T2
340-01-I-high-D-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Cobalt	2.46E-03	rl	T2
341-02-I-high-A-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Cobalt	7.59E-03	NA	T2
342-02-I-high-B-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Cobalt	4.35E-03	rl	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
343-02-I-high-C-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Cobalt	6.15E-03	NA	T2
344-02-I-high-D-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Cobalt	4.93E-03	rl	T2
345-03-I-high-A-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Cobalt	1.23E-03	rl	T2
346-03-I-high-B-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Cobalt	1.29E-03	rl	T2
347-03-I-high-C-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Cobalt	1.31E-03	rl	T2
348-03-I-high-D-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Cobalt	8.39E-04	rl	T2
349-04-I-high-A-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Cobalt	1.00E-03	rl	T2
350-04-I-high-B-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Cobalt	1.06E-03	rl	T2
351-04-I-high-C-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Cobalt	1.15E-03	rl	T2
352-04-I-high-D-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Cobalt	1.32E-03	rl	T2
353-05-I-high-A-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Cobalt	1.64E-03	rl	T2
354-05-I-high-B-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Cobalt	1.64E-03	rl	T2
355-05-I-high-C-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Cobalt	1.46E-03	rl	T2
356-05-I-high-D-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Cobalt	1.88E-03	rl	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Cobalt	5.95E-03	NA	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Cobalt	9.23E-03	NA	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Cobalt	5.25E-03	NA	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Cobalt	4.43E-03	rl	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Cobalt	3.20E-03	rl	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Cobalt	2.67E-03	rl	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Cobalt	2.75E-03	rl	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Cobalt	1.43E-03	rl	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Cobalt	6.34E-03	NA	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Cobalt	2.47E-03	rl	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Cobalt	2.08E-03	rl	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Cobalt	3.56E-03	rl	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Cobalt	4.46E-03	rl	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Cobalt	6.06E-03	NA	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Cobalt	8.51E-03	NA	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Cobalt	4.15E-03	rl	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
373-10-I-high-A-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Cobalt	9.08E-04	rl	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Cobalt	1.75E-03	rl	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Cobalt	9.67E-04	rl	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Cobalt	1.05E-03	rl	T2
377-11-I-high-A-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Cobalt	9.56E-04	rl	T2
378-11-I-high-B-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Cobalt	1.31E-03	rl	T2
379-11-I-high-C-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Cobalt	1.22E-03	rl	T2
380-11-I-high-D-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Cobalt	1.36E-03	rl	T2
381-12-I-high-A-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Cobalt	2.56E-03	rl	T2
382-12-I-high-B-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Cobalt	1.72E-03	rl	T2
383-12-I-high-C-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Cobalt	1.22E-03	rl	T2
384-12-I-high-D-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Cobalt	1.10E-03	rl	T2
385-00-I-none-A-2	control_none_I	EPA6010C-SPLP	17	mg/L	Cobalt	3.10E-03	rl	T2
386-00-I-none-B-2	control_none_I	EPA6010C-SPLP	17	mg/L	Cobalt	2.93E-03	rl	T2
387-00-I-none-C-2	control_none_I	EPA6010C-SPLP	17	mg/L	Cobalt	1.96E-03	rl	T2
388-00-I-none-D-2	control_none_I	EPA6010C-SPLP	17	mg/L	Cobalt	2.68E-03	rl	T2
049-01-S-low-A-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Copper	1.24E-02	NA	T2
050-01-S-low-B-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Copper	7.16E-03	rl	T2
051-01-S-low-C-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Copper	7.01E-03	rl	T2
052-01-S-low-D-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Copper	9.19E-03	rl	T2
053-02-S-low-A-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Copper	1.18E-02	NA	T2
054-02-S-low-B-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Copper	1.09E-02	NA	T2
055-02-S-low-C-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Copper	1.02E-02	NA	T2
056-02-S-low-D-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Copper	1.11E-02	NA	T2
057-03-S-low-A-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Copper	7.56E-03	rl	T2
058-03-S-low-B-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Copper	5.83E-03	rl	T2
059-03-S-low-C-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Copper	7.77E-03	rl	T2
060-03-S-low-D-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Copper	6.08E-03	rl	T2
061-04-S-low-A-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Copper	6.33E-03	rl	T2
062-04-S-low-B-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Copper	6.28E-03	rl	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
063-04-S-low-C-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Copper	5.15E-03	rl	T2
064-04-S-low-D-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Copper	5.92E-03	rl	T2
065-05-S-low-A-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Copper	5.70E-03	rl	T2
066-05-S-low-B-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Copper	5.84E-03	rl	T2
067-05-S-low-C-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Copper	7.14E-03	rl	T2
068-05-S-low-D-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Copper	7.07E-03	rl	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Copper	1.16E-02	NA	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Copper	9.05E-03	rl	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Copper	1.17E-02	NA	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Copper	1.22E-02	NA	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Copper	8.17E-03	rl	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Copper	6.55E-03	rl	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Copper	8.55E-03	rl	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Copper	6.36E-03	rl	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Copper	1.01E-02	NA	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Copper	8.21E-03	rl	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Copper	7.88E-03	rl	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Copper	9.42E-03	rl	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Copper	8.55E-03	rl	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Copper	6.70E-03	rl	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Copper	8.70E-03	rl	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Copper	8.47E-03	rl	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Copper	5.73E-03	rl	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Copper	6.17E-03	rl	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Copper	8.11E-03	rl	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Copper	6.43E-03	rl	T2
089-11-S-low-A-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Copper	6.65E-03	rl	T2
090-11-S-low-B-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Copper	5.47E-03	rl	T2
091-11-S-low-C-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Copper	6.49E-03	rl	T2
092-11-S-low-D-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Copper	6.80E-03	rl	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
093-12-S-low-A-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Copper	5.42E-03	rl	T2
094-12-S-low-B-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Copper	6.14E-03	rl	T2
095-12-S-low-C-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Copper	6.19E-03	rl	T2
096-12-S-low-D-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Copper	6.27E-03	rl	T2
193-01-S-high-A-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Copper	7.57E-03	rl	T2
194-01-S-high-B-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Copper	7.11E-03	rl	T2
195-01-S-high-C-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Copper	6.83E-03	rl	T2
196-01-S-high-D-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Copper	7.40E-03	rl	T2
197-02-S-high-A-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Copper	2.39E-02	NA	T2
198-02-S-high-B-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Copper	2.16E-02	NA	T2
199-02-S-high-C-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Copper	2.05E-02	NA	T2
200-02-S-high-D-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Copper	1.85E-02	NA	T2
201-03-S-high-A-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Copper	6.69E-03	rl	T2
202-03-S-high-B-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Copper	5.02E-03	rl	T2
203-03-S-high-C-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Copper	5.98E-03	rl	T2
204-03-S-high-D-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Copper	5.61E-03	rl	T2
205-04-S-high-A-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Copper	7.17E-03	rl	T2
206-04-S-high-B-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Copper	6.74E-03	rl	T2
207-04-S-high-C-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Copper	5.85E-03	rl	T2
208-04-S-high-D-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Copper	6.15E-03	rl	T2
209-05-S-high-A-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Copper	1.25E-02	NA	T2
210-05-S-high-B-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Copper	8.56E-03	rl	T2
211-05-S-high-C-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Copper	1.08E-02	NA	T2
212-05-S-high-D-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Copper	7.83E-03	rl	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Copper	1.53E-02	NA	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Copper	1.71E-02	NA	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Copper	1.46E-02	NA	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Copper	1.26E-02	NA	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Copper	8.61E-03	rl	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Copper	6.07E-03	rl	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Copper	7.16E-03	rl	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Copper	6.74E-03	rl	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Copper	9.53E-03	rl	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Copper	8.16E-03	rl	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Copper	9.43E-03	rl	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Copper	9.45E-03	rl	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Copper	1.55E-02	NA	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Copper	1.69E-02	NA	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Copper	1.26E-02	NA	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Copper	1.59E-02	NA	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Copper	5.67E-03	rl	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Copper	5.51E-03	rl	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Copper	5.44E-03	rl	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Copper	5.85E-03	rl	T2
233-11-S-high-A-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Copper	7.14E-03	rl	T2
234-11-S-high-B-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Copper	6.06E-03	rl	T2
235-11-S-high-C-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Copper	5.32E-03	rl	T2
236-11-S-high-D-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Copper	7.99E-03	rl	T2
237-12-S-high-A-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Copper	7.85E-03	rl	T2
238-12-S-high-B-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Copper	5.97E-03	rl	T2
239-12-S-high-C-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Copper	6.40E-03	rl	T2
240-12-S-high-D-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Copper	6.66E-03	rl	T2
289-01-I-low-A-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Copper	1.03E-02	NA	T2
290-01-I-low-B-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Copper	8.43E-03	rl	T2
291-01-I-low-C-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Copper	8.64E-03	rl	T2
292-01-I-low-D-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Copper	1.29E-02	NA	T2
293-02-I-low-A-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Copper	3.24E-02	NA	T2
294-02-I-low-B-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Copper	2.13E-02	NA	T2
295-02-I-low-C-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Copper	1.86E-02	NA	T2
296-02-I-low-D-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Copper	2.43E-02	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
297-03-I-low-A-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Copper	8.97E-03	rl	T2
298-03-I-low-B-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Copper	8.18E-03	rl	T2
299-03-I-low-C-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Copper	9.47E-03	rl	T2
300-03-I-low-D-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Copper	8.31E-03	rl	T2
301-04-I-low-A-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Copper	7.83E-03	rl	T2
302-04-I-low-B-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Copper	7.04E-03	rl	T2
303-04-I-low-C-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Copper	8.30E-03	rl	T2
304-04-I-low-D-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Copper	6.00E-03	rl	T2
305-05-I-low-A-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Copper	1.04E-02	NA	T2
306-05-I-low-B-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Copper	1.03E-02	NA	T2
307-05-I-low-C-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Copper	9.51E-03	rl	T2
308-05-I-low-D-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Copper	9.42E-03	rl	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Copper	2.21E-02	NA	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Copper	1.92E-02	NA	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Copper	2.21E-02	NA	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Copper	2.67E-02	NA	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Copper	7.42E-03	rl	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Copper	7.00E-03	rl	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Copper	7.38E-03	rl	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Copper	6.85E-03	rl	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Copper	1.01E-02	NA	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Copper	9.25E-03	rl	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Copper	1.26E-02	NA	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Copper	1.08E-02	NA	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Copper	2.67E-02	NA	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Copper	1.75E-02	NA	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Copper	1.36E-02	NA	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Copper	1.28E-02	NA	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Copper	5.85E-03	rl	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Copper	8.81E-03	rl	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
327-10-I-low-C-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Copper	5.66E-03	rl	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Copper	7.07E-03	rl	T2
329-11-I-low-A-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Copper	7.86E-03	rl	T2
330-11-I-low-B-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Copper	9.82E-03	rl	T2
331-11-I-low-C-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Copper	9.21E-03	rl	T2
332-11-I-low-D-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Copper	8.50E-03	rl	T2
333-12-I-low-A-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Copper	9.20E-03	rl	T2
334-12-I-low-B-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Copper	1.01E-02	NA	T2
335-12-I-low-C-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Copper	7.91E-03	rl	T2
336-12-I-low-D-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Copper	8.94E-03	rl	T2
337-01-I-high-A-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Copper	1.13E-02	NA	T2
338-01-I-high-B-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Copper	1.21E-02	NA	T2
339-01-I-high-C-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Copper	1.31E-02	NA	T2
340-01-I-high-D-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Copper	1.33E-02	NA	T2
341-02-I-high-A-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Copper	2.04E-01	NA	T2
342-02-I-high-B-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Copper	8.60E-02	NA	T2
343-02-I-high-C-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Copper	1.02E-01	NA	T2
344-02-I-high-D-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Copper	9.40E-02	NA	T2
345-03-I-high-A-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Copper	9.21E-03	rl	T2
346-03-I-high-B-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Copper	1.04E-02	NA	T2
347-03-I-high-C-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Copper	8.39E-03	rl	T2
348-03-I-high-D-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Copper	9.40E-03	rl	T2
349-04-I-high-A-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Copper	7.19E-03	rl	T2
350-04-I-high-B-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Copper	6.55E-03	rl	T2
351-04-I-high-C-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Copper	6.95E-03	rl	T2
352-04-I-high-D-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Copper	9.83E-03	rl	T2
353-05-I-high-A-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Copper	1.64E-02	NA	T2
354-05-I-high-B-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Copper	1.56E-02	NA	T2
355-05-I-high-C-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Copper	1.64E-02	NA	T2
356-05-I-high-D-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Copper	1.58E-02	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Copper	1.04E-01	NA	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Copper	1.48E-01	NA	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Copper	8.87E-02	NA	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Copper	9.84E-02	NA	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Copper	8.51E-03	rl Dup	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Copper	8.98E-03	rl Dup	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Copper	8.18E-03	rl Dup	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Copper	9.87E-03	rl Dup	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Copper	2.50E-02	Dup	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Copper	2.11E-02	Dup	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Copper	2.14E-02	Dup	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Copper	2.47E-02	Dup	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Copper	6.27E-02	Dup	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Copper	7.76E-02	Dup	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Copper	1.38E-01	Dup	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Copper	7.03E-02	Dup	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Copper	7.71E-03	rl	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Copper	7.19E-03	rl	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Copper	7.02E-03	rl	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Copper	7.47E-03	rl	T2
377-11-I-high-A-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Copper	1.30E-02	NA	T2
378-11-I-high-B-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Copper	1.47E-02	NA	T2
379-11-I-high-C-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Copper	1.63E-02	NA	T2
380-11-I-high-D-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Copper	1.69E-02	NA	T2
381-12-I-high-A-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Copper	1.37E-02	NA	T2
382-12-I-high-B-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Copper	1.21E-02	NA	T2
383-12-I-high-C-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Copper	1.25E-02	NA	T2
384-12-I-high-D-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Copper	1.26E-02	NA	T2
385-00-I-none-A-2	control_none_I	EPA6010C-SPLP	17	mg/L	Copper	7.52E-03	rl	T2
386-00-I-none-B-2	control_none_I	EPA6010C-SPLP	17	mg/L	Copper	7.61E-03	rl	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
387-00-I-none-C-2	control_none_I	EPA6010C-SPLP	17	mg/L	Copper	6.67E-03	rl	T2
388-00-I-none-D-2	control_none_I	EPA6010C-SPLP	17	mg/L	Copper	6.82E-03	rl	T2
049-01-S-low-A-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Iron	5.78E-01	NA	T2
050-01-S-low-B-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Iron	4.40E-01	rl	T2
051-01-S-low-C-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Iron	4.80E-01	rl	T2
052-01-S-low-D-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Iron	4.52E-01	rl	T2
053-02-S-low-A-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Iron	5.81E-01	NA	T2
054-02-S-low-B-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Iron	6.42E-01	NA	T2
055-02-S-low-C-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Iron	5.37E-01	NA	T2
056-02-S-low-D-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Iron	6.47E-01	NA	T2
057-03-S-low-A-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Iron	6.69E-01	NA	T2
058-03-S-low-B-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Iron	5.09E-01	NA	T2
059-03-S-low-C-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Iron	5.84E-01	NA	T2
060-03-S-low-D-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Iron	5.51E-01	NA	T2
061-04-S-low-A-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Iron	4.61E-01	rl	T2
062-04-S-low-B-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Iron	4.55E-01	rl	T2
063-04-S-low-C-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Iron	4.31E-01	rl	T2
064-04-S-low-D-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Iron	4.41E-01	rl	T2
065-05-S-low-A-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Iron	4.23E-01	rl	T2
066-05-S-low-B-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Iron	4.25E-01	rl	T2
067-05-S-low-C-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Iron	4.59E-01	rl	T2
068-05-S-low-D-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Iron	4.80E-01	rl	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Iron	5.39E-01	NA	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Iron	4.84E-01	rl	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Iron	4.92E-01	rl	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Iron	6.10E-01	NA	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Iron	6.03E-01	NA	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Iron	5.14E-01	NA	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Iron	5.07E-01	NA	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Iron	4.14E-01	rl	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
077-08-S-low-A-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Iron	5.83E-01	NA	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Iron	4.73E-01	rl	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Iron	4.91E-01	rl	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Iron	4.97E-01	rl	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Iron	4.12E-01	rl	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Iron	3.55E-01	rl	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Iron	4.25E-01	rl	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Iron	4.90E-01	rl	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Iron	3.95E-01	rl	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Iron	4.00E-01	rl	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Iron	5.14E-01	NA	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Iron	4.58E-01	rl	T2
089-11-S-low-A-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Iron	4.22E-01	rl	T2
090-11-S-low-B-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Iron	3.46E-01	rl	T2
091-11-S-low-C-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Iron	4.42E-01	rl	T2
092-11-S-low-D-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Iron	4.03E-01	rl	T2
093-12-S-low-A-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Iron	3.62E-01	rl	T2
094-12-S-low-B-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Iron	3.54E-01	rl	T2
095-12-S-low-C-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Iron	3.68E-01	rl	T2
096-12-S-low-D-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Iron	3.52E-01	rl	T2
193-01-S-high-A-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Iron	3.28E-01	rl	T2
194-01-S-high-B-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Iron	3.27E-01	rl	T2
195-01-S-high-C-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Iron	2.95E-01	rl	T2
196-01-S-high-D-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Iron	3.11E-01	rl	T2
197-02-S-high-A-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Iron	9.07E-01	NA	T2
198-02-S-high-B-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Iron	7.85E-01	NA	T2
199-02-S-high-C-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Iron	6.50E-01	NA	T2
200-02-S-high-D-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Iron	6.29E-01	NA	T2
201-03-S-high-A-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Iron	4.02E-01	rl	T2
202-03-S-high-B-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Iron	2.95E-01	rl	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
203-03-S-high-C-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Iron	3.79E-01	rl	T2
204-03-S-high-D-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Iron	3.04E-01	rl	T2
205-04-S-high-A-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Iron	4.33E-01	rl	T2
206-04-S-high-B-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Iron	4.39E-01	rl	T2
207-04-S-high-C-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Iron	4.38E-01	rl	T2
208-04-S-high-D-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Iron	4.64E-01	rl	T2
209-05-S-high-A-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Iron	5.99E-01	NA	T2
210-05-S-high-B-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Iron	4.75E-01	rl	T2
211-05-S-high-C-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Iron	5.56E-01	NA	T2
212-05-S-high-D-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Iron	4.72E-01	rl	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Iron	6.79E-01	NA	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Iron	4.84E-01	rl	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Iron	5.81E-01	NA	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Iron	3.59E-01	rl	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Iron	2.51E-01	rl	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Iron	4.06E-01	rl	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Iron	2.85E-01	rl	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Iron	2.44E-01	rl	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Iron	2.75E-01	rl	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Iron	3.08E-01	rl	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Iron	3.44E-01	rl	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Iron	2.48E-01	rl	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Iron	4.86E-01	rl	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Iron	5.43E-01	NA	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Iron	3.99E-01	rl	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Iron	5.95E-01	NA	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Iron	2.31E-01	rl	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Iron	2.50E-01	rl	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Iron	2.44E-01	rl	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Iron	2.36E-01	rl	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
233-11-S-high-A-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Iron	3.19E-01	rl	T2
234-11-S-high-B-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Iron	2.59E-01	rl	T2
235-11-S-high-C-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Iron	2.40E-01	rl	T2
236-11-S-high-D-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Iron	2.23E-01	rl	T2
237-12-S-high-A-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Iron	2.78E-01	rl	T2
238-12-S-high-B-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Iron	2.27E-01	rl	T2
239-12-S-high-C-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Iron	2.83E-01	rl	T2
240-12-S-high-D-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Iron	2.35E-01	rl	T2
289-01-I-low-A-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Iron	2.33E-01	rl	T2
290-01-I-low-B-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Iron	2.87E-01	rl	T2
291-01-I-low-C-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Iron	2.40E-01	rl	T2
292-01-I-low-D-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Iron	3.08E-01	rl	T2
293-02-I-low-A-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Iron	4.93E-01	rl	T2
294-02-I-low-B-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Iron	2.87E-01	rl	T2
295-02-I-low-C-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Iron	4.51E-01	rl	T2
296-02-I-low-D-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Iron	4.99E-01	rl	T2
297-03-I-low-A-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Iron	4.74E-01	rl	T2
298-03-I-low-B-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Iron	3.37E-01	rl	T2
299-03-I-low-C-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Iron	5.11E-01	NA	T2
300-03-I-low-D-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Iron	5.05E-01	NA	T2
301-04-I-low-A-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Iron	2.58E-01	rl	T2
302-04-I-low-B-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Iron	2.40E-01	rl	T2
303-04-I-low-C-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Iron	2.79E-01	rl	T2
304-04-I-low-D-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Iron	1.57E-01	rl	T2
305-05-I-low-A-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Iron	2.49E-01	rl	T2
306-05-I-low-B-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Iron	2.60E-01	rl	T2
307-05-I-low-C-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Iron	2.16E-01	rl	T2
308-05-I-low-D-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Iron	2.54E-01	rl	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Iron	2.48E-01	rl	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Iron	3.43E-01	rl	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Iron	3.18E-01	rl	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Iron	3.21E-01	rl	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Iron	3.54E-01	rl	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Iron	3.00E-01	rl	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Iron	2.55E-01	rl	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Iron	2.06E-01	rl	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Iron	2.53E-01	rl	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Iron	2.36E-01	rl	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Iron	3.26E-01	rl	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Iron	3.15E-01	rl	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Iron	6.59E-01	NA	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Iron	3.02E-01	rl	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Iron	2.51E-01	rl	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Iron	2.52E-01	rl	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Iron	3.18E-01	rl	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Iron	4.68E-01	rl	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Iron	2.11E-01	rl	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Iron	7.65E-01	NA	T2
329-11-I-low-A-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Iron	2.80E-01	rl	T2
330-11-I-low-B-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Iron	4.56E-01	rl	T2
331-11-I-low-C-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Iron	2.95E-01	rl	T2
332-11-I-low-D-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Iron	3.46E-01	rl	T2
333-12-I-low-A-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Iron	4.37E-01	rl	T2
334-12-I-low-B-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Iron	2.91E-01	rl	T2
335-12-I-low-C-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Iron	3.87E-01	rl	T2
336-12-I-low-D-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Iron	4.93E-01	rl	T2
337-01-I-high-A-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Iron	3.50E-01	rl	T2
338-01-I-high-B-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Iron	3.27E-01	rl	T2
339-01-I-high-C-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Iron	5.30E-01	NA	T2
340-01-I-high-D-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Iron	4.88E-01	rl	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
341-02-I-high-A-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Iron	1.85E+00	NA	T2
342-02-I-high-B-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Iron	1.05E+00	NA	T2
343-02-I-high-C-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Iron	9.03E-01	NA	T2
344-02-I-high-D-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Iron	9.61E-01	NA	T2
345-03-I-high-A-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Iron	4.90E-01	rl	T2
346-03-I-high-B-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Iron	4.26E-01	rl	T2
347-03-I-high-C-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Iron	4.55E-01	rl	T2
348-03-I-high-D-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Iron	5.17E-01	NA	T2
349-04-I-high-A-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Iron	6.55E-01	NA	T2
350-04-I-high-B-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Iron	3.84E-01	rl	T2
351-04-I-high-C-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Iron	4.67E-01	rl	T2
352-04-I-high-D-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Iron	6.24E-01	NA	T2
353-05-I-high-A-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Iron	3.71E-01	rl	T2
354-05-I-high-B-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Iron	4.88E-01	rl	T2
355-05-I-high-C-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Iron	5.37E-01	NA	T2
356-05-I-high-D-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Iron	4.27E-01	rl	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Iron	6.94E-01	NA	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Iron	9.68E-01	NA	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Iron	6.84E-01	NA	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Iron	1.07E+00	NA	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Iron	2.27E-01	rl	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Iron	3.31E-01	rl	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Iron	2.47E-01	rl	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Iron	3.35E-01	rl	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Iron	1.40E-01	rl	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Iron	3.42E-01	rl	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Iron	2.81E-01	rl	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Iron	2.19E-01	rl	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Iron	4.39E-01	rl	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Iron	5.10E-01	NA	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
371-09-I-high-C-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Iron	5.33E-01	NA	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Iron	6.49E-01	NA	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Iron	2.70E-01	rl	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Iron	3.16E-01	rl	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Iron	3.20E-01	rl	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Iron	2.08E-01	rl	T2
377-11-I-high-A-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Iron	2.62E-01	rl	T2
378-11-I-high-B-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Iron	2.80E-01	rl	T2
379-11-I-high-C-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Iron	3.52E-01	rl	T2
380-11-I-high-D-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Iron	3.19E-01	rl	T2
381-12-I-high-A-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Iron	2.23E-01	rl	T2
382-12-I-high-B-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Iron	3.64E-01	rl	T2
383-12-I-high-C-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Iron	3.99E-01	rl	T2
384-12-I-high-D-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Iron	5.50E-01	NA	T2
385-00-I-none-A-2	control_none_I	EPA6010C-SPLP	17	mg/L	Iron	3.06E-01	rl	T2
386-00-I-none-B-2	control_none_I	EPA6010C-SPLP	17	mg/L	Iron	3.15E-01	rl	T2
387-00-I-none-C-2	control_none_I	EPA6010C-SPLP	17	mg/L	Iron	3.02E-01	rl	T2
388-00-I-none-D-2	control_none_I	EPA6010C-SPLP	17	mg/L	Iron	2.71E-01	rl	T2
049-01-S-low-A-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Lead	1.47E-01	rl	T2
050-01-S-low-B-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Lead	5.70E-02	rl	T2
051-01-S-low-C-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Lead	4.68E-02	rl	T2
052-01-S-low-D-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Lead	5.80E-02	rl	T2
053-02-S-low-A-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Lead	6.46E-02	rl	T2
054-02-S-low-B-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Lead	8.46E-02	rl	T2
055-02-S-low-C-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Lead	9.71E-02	rl	T2
056-02-S-low-D-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Lead	7.80E-02	rl	T2
057-03-S-low-A-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Lead	4.39E-02	rl	T2
058-03-S-low-B-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Lead	4.36E-02	rl	T2
059-03-S-low-C-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Lead	5.49E-02	rl	T2
060-03-S-low-D-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Lead	5.78E-02	rl	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
061-04-S-low-A-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Lead	4.13E-02	rl	T2
062-04-S-low-B-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Lead	5.33E-02	rl	T2
063-04-S-low-C-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Lead	3.67E-02	rl	T2
064-04-S-low-D-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Lead	3.90E-02	rl	T2
065-05-S-low-A-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Lead	3.75E-02	rl	T2
066-05-S-low-B-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Lead	4.39E-02	rl	T2
067-05-S-low-C-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Lead	8.05E-02	rl	T2
068-05-S-low-D-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Lead	4.98E-02	rl	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Lead	6.07E-02	rl	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Lead	4.85E-02	rl	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Lead	5.58E-02	rl	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Lead	6.04E-02	rl	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Lead	5.13E-02	rl	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Lead	4.71E-02	rl	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Lead	4.98E-02	rl	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Lead	3.76E-02	rl	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Lead	6.07E-02	rl	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Lead	4.93E-02	rl	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Lead	4.72E-02	rl	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Lead	1.17E-01	rl	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Lead	4.90E-02	rl	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Lead	5.01E-02	rl	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Lead	4.60E-02	rl	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Lead	4.76E-02	rl	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Lead	3.36E-02	rl	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Lead	3.51E-02	rl	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Lead	1.23E-01	rl	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Lead	3.81E-02	rl	T2
089-11-S-low-A-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Lead	3.43E-02	rl	T2
090-11-S-low-B-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Lead	3.06E-02	rl	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
091-11-S-low-C-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Lead	3.39E-02	rl	T2
092-11-S-low-D-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Lead	3.61E-02	rl	T2
093-12-S-low-A-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Lead	3.43E-02	rl	T2
094-12-S-low-B-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Lead	3.38E-02	rl	T2
095-12-S-low-C-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Lead	3.82E-02	rl	T2
096-12-S-low-D-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Lead	4.06E-02	rl	T2
193-01-S-high-A-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Lead	2.95E-02	rl	T2
194-01-S-high-B-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Lead	2.75E-02	rl	T2
195-01-S-high-C-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Lead	2.44E-02	rl	T2
196-01-S-high-D-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Lead	2.61E-02	rl	T2
197-02-S-high-A-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Lead	1.43E-01	rl	T2
198-02-S-high-B-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Lead	1.15E-01	rl	T2
199-02-S-high-C-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Lead	9.45E-02	rl	T2
200-02-S-high-D-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Lead	8.47E-02	rl	T2
201-03-S-high-A-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Lead	3.97E-02	rl	T2
202-03-S-high-B-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Lead	3.18E-02	rl	T2
203-03-S-high-C-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Lead	3.40E-02	rl	T2
204-03-S-high-D-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Lead	2.74E-02	rl	T2
205-04-S-high-A-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Lead	4.14E-02	rl	T2
206-04-S-high-B-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Lead	4.24E-02	rl	T2
207-04-S-high-C-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Lead	3.50E-02	rl	T2
208-04-S-high-D-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Lead	3.61E-02	rl	T2
209-05-S-high-A-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Lead	1.48E-01	rl	T2
210-05-S-high-B-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Lead	4.86E-02	rl	T2
211-05-S-high-C-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Lead	6.45E-02	rl	T2
212-05-S-high-D-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Lead	5.46E-02	rl	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Lead	1.01E-01	rl	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Lead	7.18E-02	rl	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Lead	7.92E-02	rl	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Lead	5.21E-02	rl	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Lead	6.30E-02	rl	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Lead	3.20E-02	rl	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Lead	3.25E-02	rl	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Lead	2.46E-02	rl	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Lead	3.41E-02	rl	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Lead	3.62E-02	rl	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Lead	3.74E-02	rl	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Lead	2.66E-02	rl	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Lead	8.49E-02	rl	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Lead	7.51E-02	rl	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Lead	6.31E-02	rl	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Lead	8.23E-02	rl	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Lead	2.88E-02	rl	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Lead	2.76E-02	rl	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Lead	2.92E-02	rl	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Lead	2.71E-02	rl	T2
233-11-S-high-A-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Lead	3.34E-02	rl	T2
234-11-S-high-B-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Lead	3.08E-02	rl	T2
235-11-S-high-C-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Lead	2.62E-02	rl	T2
236-11-S-high-D-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Lead	2.71E-02	rl	T2
237-12-S-high-A-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Lead	4.05E-02	rl	T2
238-12-S-high-B-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Lead	2.88E-02	rl	T2
239-12-S-high-C-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Lead	3.65E-02	rl	T2
240-12-S-high-D-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Lead	3.55E-02	rl	T2
289-01-I-low-A-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Lead	4.07E-02	rl	T2
290-01-I-low-B-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Lead	4.21E-02	rl	T2
291-01-I-low-C-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Lead	3.95E-02	rl	T2
292-01-I-low-D-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Lead	8.10E-02	rl	T2
293-02-I-low-A-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Lead	5.74E-02	rl	T2
294-02-I-low-B-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Lead	4.11E-02	rl	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
295-02-I-low-C-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Lead	7.64E-02	rl	T2
296-02-I-low-D-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Lead	4.80E-02	rl	T2
297-03-I-low-A-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Lead	7.33E-02	rl	T2
298-03-I-low-B-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Lead	3.70E-02	rl	T2
299-03-I-low-C-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Lead	5.36E-02	rl	T2
300-03-I-low-D-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Lead	4.95E-02	rl	T2
301-04-I-low-A-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Lead	3.43E-02	rl	T2
302-04-I-low-B-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Lead	3.59E-02	rl	T2
303-04-I-low-C-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Lead	4.43E-02	rl	T2
304-04-I-low-D-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Lead	4.13E-02	rl	T2
305-05-I-low-A-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Lead	5.13E-02	rl	T2
306-05-I-low-B-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Lead	5.01E-02	rl	T2
307-05-I-low-C-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Lead	4.52E-02	rl	T2
308-05-I-low-D-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Lead	4.76E-02	rl	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Lead	3.21E-02	rl	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Lead	3.80E-02	rl	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Lead	3.45E-02	rl	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Lead	3.29E-02	rl	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Lead	3.91E-02	rl	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Lead	3.46E-02	rl	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Lead	3.24E-02	rl	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Lead	3.06E-02	rl	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Lead	4.12E-02	rl	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Lead	3.62E-02	rl	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Lead	9.77E-02	rl	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Lead	4.56E-02	rl	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Lead	5.16E-02	rl	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Lead	3.27E-02	rl	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Lead	2.90E-02	rl	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Lead	2.79E-02	rl	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
325-10-I-low-A-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Lead	3.16E-02	rl	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Lead	5.13E-02	rl	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Lead	2.47E-02	rl	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Lead	4.49E-02	rl	T2
329-11-I-low-A-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Lead	3.16E-02	rl	T2
330-11-I-low-B-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Lead	4.66E-02	rl	T2
331-11-I-low-C-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Lead	4.17E-02	rl	T2
332-11-I-low-D-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Lead	4.12E-02	rl	T2
333-12-I-low-A-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Lead	5.04E-02	rl	T2
334-12-I-low-B-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Lead	4.90E-02	rl	T2
335-12-I-low-C-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Lead	4.80E-02	rl	T2
336-12-I-low-D-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Lead	4.59E-02	rl	T2
337-01-I-high-A-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Lead	4.73E-02	rl	T2
338-01-I-high-B-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Lead	5.19E-02	rl	T2
339-01-I-high-C-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Lead	8.16E-02	rl	T2
340-01-I-high-D-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Lead	8.76E-02	rl	T2
341-02-I-high-A-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Lead	5.99E-02	rl	T2
342-02-I-high-B-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Lead	6.79E-02	rl	T2
343-02-I-high-C-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Lead	5.16E-02	rl	T2
344-02-I-high-D-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Lead	5.45E-02	rl	T2
345-03-I-high-A-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Lead	5.61E-02	rl	T2
346-03-I-high-B-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Lead	4.85E-02	rl	T2
347-03-I-high-C-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Lead	4.47E-02	rl	T2
348-03-I-high-D-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Lead	1.63E-01	rl	T2
349-04-I-high-A-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Lead	4.63E-02	rl	T2
350-04-I-high-B-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Lead	4.07E-02	rl	T2
351-04-I-high-C-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Lead	4.38E-02	rl	T2
352-04-I-high-D-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Lead	1.43E-01	rl	T2
353-05-I-high-A-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Lead	6.03E-02	rl	T2
354-05-I-high-B-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Lead	5.45E-02	rl	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
355-05-I-high-C-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Lead	7.51E-02	rl	T2
356-05-I-high-D-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Lead	7.06E-02	rl	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Lead	3.78E-02	rl	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Lead	4.80E-02	rl	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Lead	4.62E-02	rl	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Lead	6.37E-02	rl	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Lead	3.06E-02	rl	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Lead	4.10E-02	rl	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Lead	3.56E-02	rl	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Lead	4.08E-02	rl	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Lead	3.67E-02	rl	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Lead	4.76E-02	rl	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Lead	4.22E-02	rl	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Lead	4.08E-02	rl	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Lead	3.35E-02	rl	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Lead	4.65E-02	rl	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Lead	3.75E-02	rl	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Lead	4.77E-02	rl	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Lead	2.88E-02	rl	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Lead	3.28E-02	rl	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Lead	3.13E-02	rl	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Lead	2.51E-02	rl	T2
377-11-I-high-A-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Lead	3.18E-02	rl	T2
378-11-I-high-B-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Lead	3.67E-02	rl	T2
379-11-I-high-C-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Lead	4.92E-02	rl	T2
380-11-I-high-D-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Lead	6.05E-02	rl	T2
381-12-I-high-A-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Lead	4.61E-02	rl	T2
382-12-I-high-B-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Lead	4.89E-02	rl	T2
383-12-I-high-C-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Lead	4.98E-02	rl	T2
384-12-I-high-D-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Lead	5.66E-02	rl	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
385-00-I-none-A-2	control_none_I	EPA6010C-SPLP	17	mg/L	Lead	4.26E-02	rl	T2
386-00-I-none-B-2	control_none_I	EPA6010C-SPLP	17	mg/L	Lead	4.84E-02	rl	T2
387-00-I-none-C-2	control_none_I	EPA6010C-SPLP	17	mg/L	Lead	3.87E-02	rl	T2
388-00-I-none-D-2	control_none_I	EPA6010C-SPLP	17	mg/L	Lead	4.45E-02	rl	T2
049-01-S-low-A-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Magnesium	1.39E+00	Dup	T2
050-01-S-low-B-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Magnesium	1.78E+00	Dup	T2
051-01-S-low-C-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Magnesium	1.37E+00	Dup	T2
052-01-S-low-D-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Magnesium	1.63E+00	Dup	T2
053-02-S-low-A-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Magnesium	3.83E-01	Dup	T2
054-02-S-low-B-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Magnesium	3.20E-01	Dup	T2
055-02-S-low-C-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Magnesium	4.70E-01	Dup	T2
056-02-S-low-D-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Magnesium	3.75E-01	Dup	T2
057-03-S-low-A-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Magnesium	8.14E-01	Dup	T2
058-03-S-low-B-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Magnesium	6.15E-01	Dup	T2
059-03-S-low-C-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Magnesium	7.71E-01	Dup	T2
060-03-S-low-D-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Magnesium	6.21E-01	Dup	T2
061-04-S-low-A-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Magnesium	5.04E-01	NA	T2
062-04-S-low-B-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Magnesium	3.80E-01	NA	T2
063-04-S-low-C-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Magnesium	3.80E-01	NA	T2
064-04-S-low-D-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Magnesium	4.12E-01	NA	T2
065-05-S-low-A-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Magnesium	5.33E-01	NA	T2
066-05-S-low-B-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Magnesium	6.62E-01	NA	T2
067-05-S-low-C-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Magnesium	6.23E-01	NA	T2
068-05-S-low-D-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Magnesium	5.19E-01	NA	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Magnesium	5.73E-01	NA	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Magnesium	3.48E-01	NA	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Magnesium	4.81E-01	NA	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Magnesium	4.69E-01	NA	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Magnesium	6.24E-01	NA	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Magnesium	7.22E-01	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Magnesium	8.09E-01	NA	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Magnesium	7.89E-01	NA	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Magnesium	5.11E-01	NA	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Magnesium	5.76E-01	NA	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Magnesium	5.84E-01	NA	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Magnesium	6.85E-01	NA	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Magnesium	1.19E+00	NA	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Magnesium	1.48E+00	NA	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Magnesium	8.13E-01	NA	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Magnesium	4.64E-01	NA	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Magnesium	4.61E-01	NA	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Magnesium	3.59E-01	NA	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Magnesium	5.18E-01	NA	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Magnesium	3.74E-01	NA	T2
089-11-S-low-A-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Magnesium	7.35E-01	NA	T2
090-11-S-low-B-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Magnesium	6.02E-01	NA	T2
091-11-S-low-C-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Magnesium	5.56E-01	NA	T2
092-11-S-low-D-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Magnesium	5.34E-01	NA	T2
093-12-S-low-A-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Magnesium	3.37E-01	NA	T2
094-12-S-low-B-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Magnesium	2.81E-01	NA	T2
095-12-S-low-C-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Magnesium	3.73E-01	NA	T2
096-12-S-low-D-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Magnesium	3.12E-01	NA	T2
193-01-S-high-A-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Magnesium	2.13E+00	NA	T2
194-01-S-high-B-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Magnesium	1.67E+00	NA	T2
195-01-S-high-C-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Magnesium	1.96E+00	NA	T2
196-01-S-high-D-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Magnesium	2.22E+00	NA	T2
197-02-S-high-A-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Magnesium	2.75E-01	NA	T2
198-02-S-high-B-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Magnesium	1.95E-01	rl	T2
199-02-S-high-C-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Magnesium	1.90E-01	rl	T2
200-02-S-high-D-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Magnesium	2.52E-01	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
201-03-S-high-A-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Magnesium	1.13E+00	NA	T2
202-03-S-high-B-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Magnesium	7.55E-01	NA	T2
203-03-S-high-C-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Magnesium	8.03E-01	NA	T2
204-03-S-high-D-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Magnesium	7.21E-01	NA	T2
205-04-S-high-A-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Magnesium	2.43E-01	rl	T2
206-04-S-high-B-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Magnesium	1.89E-01	rl	T2
207-04-S-high-C-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Magnesium	2.09E-01	rl	T2
208-04-S-high-D-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Magnesium	2.21E-01	rl	T2
209-05-S-high-A-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Magnesium	6.79E-01	NA	T2
210-05-S-high-B-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Magnesium	5.04E-01	NA	T2
211-05-S-high-C-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Magnesium	4.04E-01	NA	T2
212-05-S-high-D-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Magnesium	4.07E-01	NA	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Magnesium	4.00E-01	NA	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Magnesium	8.78E-01	NA	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Magnesium	3.03E-01	NA	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Magnesium	2.94E-01	NA	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Magnesium	7.55E-01	NA	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Magnesium	6.99E-01	NA	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Magnesium	7.63E-01	NA	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Magnesium	1.11E+00	NA	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Magnesium	9.45E-01	NA	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Magnesium	5.73E-01	NA	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Magnesium	1.02E+00	NA	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Magnesium	9.17E-01	NA	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Magnesium	4.08E-01	NA	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Magnesium	4.44E-01	NA	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Magnesium	1.34E+00	NA	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Magnesium	5.77E-01	NA	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Magnesium	2.42E-01	rl	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Magnesium	3.60E-01	NA	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
231-10-S-high-C-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Magnesium	2.37E-01	rl	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Magnesium	1.91E-01	rl	T2
233-11-S-high-A-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Magnesium	5.17E-01	NA	T2
234-11-S-high-B-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Magnesium	5.34E-01	NA	T2
235-11-S-high-C-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Magnesium	5.14E-01	NA	T2
236-11-S-high-D-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Magnesium	5.34E-01	NA	T2
237-12-S-high-A-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Magnesium	3.80E-01	NA	T2
238-12-S-high-B-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Magnesium	2.88E-01	NA	T2
239-12-S-high-C-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Magnesium	2.61E-01	NA	T2
240-12-S-high-D-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Magnesium	3.25E-01	NA	T2
289-01-I-low-A-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Magnesium	2.31E+00	NA	T2
290-01-I-low-B-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Magnesium	1.96E+00	NA	T2
291-01-I-low-C-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Magnesium	2.32E+00	NA	T2
292-01-I-low-D-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Magnesium	1.81E+00	NA	T2
293-02-I-low-A-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Magnesium	2.17E+00	NA	T2
294-02-I-low-B-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Magnesium	7.04E+00	NA	T2
295-02-I-low-C-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Magnesium	8.12E-01	NA	T2
296-02-I-low-D-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Magnesium	6.50E+00	NA	T2
297-03-I-low-A-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Magnesium	1.52E+00	NA	T2
298-03-I-low-B-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Magnesium	1.07E+00	NA	T2
299-03-I-low-C-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Magnesium	2.20E+00	NA	T2
300-03-I-low-D-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Magnesium	1.39E+00	NA	T2
301-04-I-low-A-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Magnesium	1.02E+00	Dup	T2
302-04-I-low-B-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Magnesium	1.32E+00	Dup	T2
303-04-I-low-C-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Magnesium	1.40E+00	Dup	T2
304-04-I-low-D-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Magnesium	2.87E+00	Dup	T2
305-05-I-low-A-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Magnesium	2.41E+00	Dup	T2
306-05-I-low-B-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Magnesium	2.17E+00	Dup	T2
307-05-I-low-C-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Magnesium	2.35E+00	Dup	T2
308-05-I-low-D-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Magnesium	1.60E+00	Dup	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Magnesium	4.58E+00	Dup	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Magnesium	1.07E+00	Dup	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Magnesium	3.82E+00	Dup	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Magnesium	1.08E+01	Dup	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Magnesium	1.58E+00	Dup	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Magnesium	1.59E+00	Dup	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Magnesium	1.81E+00	Dup	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Magnesium	2.63E+00	Dup	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Magnesium	3.04E+00	Dup	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Magnesium	3.25E+00	Dup	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Magnesium	4.09E+00	Dup	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Magnesium	3.13E+00	Dup	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Magnesium	2.29E+00	Dup	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Magnesium	6.39E+00	Dup	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Magnesium	5.53E+00	Dup	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Magnesium	7.42E+00	Dup	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Magnesium	2.42E+00	NA	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Magnesium	1.93E+00	NA	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Magnesium	3.19E+00	NA	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Magnesium	8.61E-01	NA	T2
329-11-I-low-A-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Magnesium	2.95E+00	NA	T2
330-11-I-low-B-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Magnesium	2.39E+00	NA	T2
331-11-I-low-C-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Magnesium	3.53E+00	NA	T2
332-11-I-low-D-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Magnesium	3.68E+00	NA	T2
333-12-I-low-A-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Magnesium	1.40E+00	NA	T2
334-12-I-low-B-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Magnesium	4.28E+00	NA	T2
335-12-I-low-C-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Magnesium	2.64E+00	NA	T2
336-12-I-low-D-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Magnesium	1.52E+00	NA	T2
337-01-I-high-A-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Magnesium	4.94E+00	Dup	T2
338-01-I-high-B-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Magnesium	5.04E+00	Dup	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
339-01-I-high-C-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Magnesium	3.51E+00	Dup	T2
340-01-I-high-D-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Magnesium	3.37E+00	Dup	T2
341-02-I-high-A-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Magnesium	5.46E+00	Dup	T2
342-02-I-high-B-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Magnesium	3.03E+00	Dup	T2
343-02-I-high-C-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Magnesium	8.21E+00	Dup	T2
344-02-I-high-D-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Magnesium	6.88E+00	Dup	T2
345-03-I-high-A-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Magnesium	2.59E+00	Dup	T2
346-03-I-high-B-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Magnesium	3.71E+00	Dup	T2
347-03-I-high-C-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Magnesium	2.53E+00	Dup	T2
348-03-I-high-D-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Magnesium	1.87E+00	Dup	T2
349-04-I-high-A-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Magnesium	9.48E-01	NA	T2
350-04-I-high-B-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Magnesium	1.46E+00	NA	T2
351-04-I-high-C-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Magnesium	1.05E+00	NA	T2
352-04-I-high-D-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Magnesium	8.86E-01	NA	T2
353-05-I-high-A-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Magnesium	3.20E+00	NA	T2
354-05-I-high-B-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Magnesium	2.81E+00	NA	T2
355-05-I-high-C-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Magnesium	2.26E+00	NA	T2
356-05-I-high-D-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Magnesium	2.85E+00	NA	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Magnesium	1.08E+01	NA	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Magnesium	2.17E+01	NA	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Magnesium	8.83E+00	NA	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Magnesium	3.79E+00	NA	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Magnesium	4.96E+00	Dup	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Magnesium	3.90E+00	Dup	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Magnesium	5.91E+00	Dup	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Magnesium	3.36E+00	Dup	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Magnesium	1.90E+01	Dup	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Magnesium	4.63E+00	Dup	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Magnesium	5.84E+00	Dup	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Magnesium	9.71E+00	Dup	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
369-09-I-high-A-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Magnesium	9.59E+00	Dup	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Magnesium	2.14E+01	Dup	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Magnesium	2.52E+01	Dup	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Magnesium	8.68E+00	Dup	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Magnesium	3.49E+00	Dup	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Magnesium	3.91E+00	Dup	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Magnesium	3.68E+00	Dup	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Magnesium	5.17E+00	Dup	T2
377-11-I-high-A-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Magnesium	5.45E+00	Dup	T2
378-11-I-high-B-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Magnesium	6.52E+00	Dup	T2
379-11-I-high-C-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Magnesium	4.14E+00	Dup	T2
380-11-I-high-D-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Magnesium	6.80E+00	Dup	T2
381-12-I-high-A-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Magnesium	9.68E+00	Dup	T2
382-12-I-high-B-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Magnesium	5.42E+00	Dup	T2
383-12-I-high-C-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Magnesium	3.55E+00	Dup	T2
384-12-I-high-D-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Magnesium	1.86E+00	Dup	T2
385-00-I-none-A-2	control_none_I	EPA6010C-SPLP	17	mg/L	Magnesium	2.47E+00	Dup	T2
386-00-I-none-B-2	control_none_I	EPA6010C-SPLP	17	mg/L	Magnesium	2.68E+00	Dup	T2
387-00-I-none-C-2	control_none_I	EPA6010C-SPLP	17	mg/L	Magnesium	1.90E+00	Dup	T2
388-00-I-none-D-2	control_none_I	EPA6010C-SPLP	17	mg/L	Magnesium	2.54E+00	Dup	T2
049-01-S-low-A-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Manganese	1.23E+00	Dup	T2
050-01-S-low-B-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Manganese	1.40E+00	Dup	T2
051-01-S-low-C-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Manganese	1.08E+00	Dup	T2
052-01-S-low-D-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Manganese	1.42E+00	Dup	T2
053-02-S-low-A-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Manganese	2.11E-01	Dup	T2
054-02-S-low-B-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Manganese	1.70E-01	Dup	T2
055-02-S-low-C-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Manganese	2.56E-01	Dup	T2
056-02-S-low-D-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Manganese	2.39E-01	Dup	T2
057-03-S-low-A-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Manganese	3.60E-01	Dup	T2
058-03-S-low-B-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Manganese	2.41E-01	Dup	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
059-03-S-low-C-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Manganese	3.09E-01	Dup	T2
060-03-S-low-D-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Manganese	3.03E-01	Dup	T2
061-04-S-low-A-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Manganese	4.35E-01	NA	T2
062-04-S-low-B-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Manganese	3.53E-01	NA	T2
063-04-S-low-C-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Manganese	2.51E-01	NA	T2
064-04-S-low-D-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Manganese	3.51E-01	NA	T2
065-05-S-low-A-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Manganese	3.70E-01	NA	T2
066-05-S-low-B-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Manganese	4.10E-01	NA	T2
067-05-S-low-C-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Manganese	3.49E-01	NA	T2
068-05-S-low-D-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Manganese	3.25E-01	NA	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Manganese	2.78E-01	NA	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Manganese	1.60E-01	NA	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Manganese	2.02E-01	NA	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Manganese	1.93E-01	NA	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Manganese	4.75E-01	NA	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Manganese	4.88E-01	NA	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Manganese	6.41E-01	NA	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Manganese	5.83E-01	NA	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Manganese	3.30E-01	NA	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Manganese	3.65E-01	NA	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Manganese	3.82E-01	NA	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Manganese	4.54E-01	NA	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Manganese	4.94E-01	NA	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Manganese	6.91E-01	NA	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Manganese	3.48E-01	NA	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Manganese	2.48E-01	NA	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Manganese	2.89E-01	NA	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Manganese	2.43E-01	NA	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Manganese	2.46E-01	NA	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Manganese	2.47E-01	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
089-11-S-low-A-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Manganese	3.12E-01	NA	T2
090-11-S-low-B-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Manganese	3.09E-01	NA	T2
091-11-S-low-C-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Manganese	2.84E-01	NA	T2
092-11-S-low-D-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Manganese	3.10E-01	NA	T2
093-12-S-low-A-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Manganese	2.51E-01	NA	T2
094-12-S-low-B-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Manganese	2.22E-01	NA	T2
095-12-S-low-C-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Manganese	2.53E-01	NA	T2
096-12-S-low-D-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Manganese	2.51E-01	NA	T2
193-01-S-high-A-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Manganese	1.13E+00	NA	T2
194-01-S-high-B-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Manganese	9.06E-01	NA	T2
195-01-S-high-C-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Manganese	9.16E-01	NA	T2
196-01-S-high-D-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Manganese	1.15E+00	NA	T2
197-02-S-high-A-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Manganese	1.32E-01	NA	T2
198-02-S-high-B-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Manganese	7.86E-02	NA	T2
199-02-S-high-C-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Manganese	9.41E-02	NA	T2
200-02-S-high-D-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Manganese	8.95E-02	NA	T2
201-03-S-high-A-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Manganese	2.57E-01	NA	T2
202-03-S-high-B-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Manganese	2.05E-01	NA	T2
203-03-S-high-C-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Manganese	2.11E-01	NA	T2
204-03-S-high-D-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Manganese	2.53E-01	NA	T2
205-04-S-high-A-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Manganese	2.10E-01	Dup	T2
206-04-S-high-B-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Manganese	9.83E-02	Dup	T2
207-04-S-high-C-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Manganese	1.12E-01	Dup	T2
208-04-S-high-D-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Manganese	1.79E-01	Dup	T2
209-05-S-high-A-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Manganese	4.28E-01	Dup	T2
210-05-S-high-B-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Manganese	3.67E-01	Dup	T2
211-05-S-high-C-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Manganese	3.29E-01	Dup	T2
212-05-S-high-D-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Manganese	2.62E-01	Dup	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Manganese	1.57E-01	Dup	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Manganese	2.56E-01	Dup	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Manganese	1.18E-01	Dup	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Manganese	7.15E-02	Dup	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Manganese	3.98E-01	NA	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Manganese	3.06E-01	NA	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Manganese	4.10E-01	NA	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Manganese	5.65E-01	NA	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Manganese	3.86E-01	NA	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Manganese	2.84E-01	NA	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Manganese	4.29E-01	NA	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Manganese	3.65E-01	NA	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Manganese	1.47E-01	NA	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Manganese	1.52E-01	NA	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Manganese	3.74E-01	NA	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Manganese	1.77E-01	NA	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Manganese	1.39E-01	NA	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Manganese	2.04E-01	NA	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Manganese	1.51E-01	NA	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Manganese	1.30E-01	NA	T2
233-11-S-high-A-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Manganese	3.31E-01	NA	T2
234-11-S-high-B-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Manganese	3.63E-01	NA	T2
235-11-S-high-C-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Manganese	2.90E-01	NA	T2
236-11-S-high-D-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Manganese	3.39E-01	NA	T2
237-12-S-high-A-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Manganese	3.39E-01	NA	T2
238-12-S-high-B-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Manganese	2.30E-01	NA	T2
239-12-S-high-C-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Manganese	2.15E-01	NA	T2
240-12-S-high-D-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Manganese	2.64E-01	NA	T2
289-01-I-low-A-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Manganese	1.69E+00	NA	T2
290-01-I-low-B-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Manganese	1.45E+00	NA	T2
291-01-I-low-C-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Manganese	1.55E+00	NA	T2
292-01-I-low-D-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Manganese	1.35E+00	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
293-02-I-low-A-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Manganese	8.09E-01	NA	T2
294-02-I-low-B-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Manganese	2.19E+00	NA	T2
295-02-I-low-C-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Manganese	2.94E-01	NA	T2
296-02-I-low-D-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Manganese	2.21E+00	NA	T2
297-03-I-low-A-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Manganese	5.71E-01	NA	T2
298-03-I-low-B-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Manganese	3.85E-01	NA	T2
299-03-I-low-C-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Manganese	5.32E-01	NA	T2
300-03-I-low-D-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Manganese	3.72E-01	NA	T2
301-04-I-low-A-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Manganese	3.90E-01	Dup	T2
302-04-I-low-B-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Manganese	6.17E-01	Dup	T2
303-04-I-low-C-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Manganese	6.11E-01	Dup	T2
304-04-I-low-D-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Manganese	1.47E+00	Dup	T2
305-05-I-low-A-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Manganese	1.08E+00	Dup	T2
306-05-I-low-B-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Manganese	9.40E-01	Dup	T2
307-05-I-low-C-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Manganese	1.27E+00	Dup	T2
308-05-I-low-D-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Manganese	6.46E-01	Dup	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Manganese	1.20E+00	Dup	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Manganese	3.75E-01	Dup	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Manganese	1.07E+00	Dup	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Manganese	3.23E+00	Dup	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Manganese	6.69E-01	blk Dup	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Manganese	7.10E-01	blk Dup	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Manganese	8.84E-01	blk Dup	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Manganese	1.31E+00	blk Dup	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Manganese	1.26E+00	blk Dup	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Manganese	1.30E+00	blk Dup	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Manganese	1.51E+00	blk Dup	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Manganese	1.28E+00	blk Dup	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Manganese	7.23E-01	blk Dup	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Manganese	1.75E+00	blk Dup	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
323-09-I-low-C-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Manganese	1.44E+00	blk Dup	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Manganese	2.35E+00	blk Dup	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Manganese	5.05E-01	NA	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Manganese	3.99E-01	NA	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Manganese	7.27E-01	NA	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Manganese	1.73E-01	NA	T2
329-11-I-low-A-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Manganese	6.56E-01	NA	T2
330-11-I-low-B-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Manganese	5.52E-01	NA	T2
331-11-I-low-C-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Manganese	9.67E-01	NA	T2
332-11-I-low-D-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Manganese	8.24E-01	NA	T2
333-12-I-low-A-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Manganese	4.34E-01	NA	T2
334-12-I-low-B-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Manganese	1.31E+00	NA	T2
335-12-I-low-C-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Manganese	8.67E-01	NA	T2
336-12-I-low-D-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Manganese	4.75E-01	NA	T2
337-01-I-high-A-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Manganese	1.83E+00	NA	T2
338-01-I-high-B-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Manganese	1.95E+00	NA	T2
339-01-I-high-C-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Manganese	1.21E+00	NA	T2
340-01-I-high-D-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Manganese	1.13E+00	NA	T2
341-02-I-high-A-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Manganese	4.74E-01	NA	T2
342-02-I-high-B-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Manganese	3.25E-01	NA	T2
343-02-I-high-C-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Manganese	7.43E-01	NA	T2
344-02-I-high-D-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Manganese	5.50E-01	NA	T2
345-03-I-high-A-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Manganese	4.98E-01	NA	T2
346-03-I-high-B-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Manganese	6.06E-01	NA	T2
347-03-I-high-C-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Manganese	5.75E-01	NA	T2
348-03-I-high-D-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Manganese	3.09E-01	NA	T2
349-04-I-high-A-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Manganese	3.46E-01	NA	T2
350-04-I-high-B-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Manganese	5.51E-01	NA	T2
351-04-I-high-C-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Manganese	4.20E-01	NA	T2
352-04-I-high-D-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Manganese	3.21E-01	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
353-05-I-high-A-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Manganese	7.30E-01	NA	T2
354-05-I-high-B-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Manganese	4.84E-01	NA	T2
355-05-I-high-C-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Manganese	4.83E-01	NA	T2
356-05-I-high-D-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Manganese	6.53E-01	NA	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Manganese	6.55E-01	NA	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Manganese	1.42E+00	NA	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Manganese	5.38E-01	NA	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Manganese	2.94E-01	NA	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Manganese	1.69E+00	Dup	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Manganese	1.18E+00	Dup	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Manganese	1.73E+00	Dup	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Manganese	7.27E-01	Dup	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Manganese	4.15E+00	Dup	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Manganese	8.48E-01	Dup	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Manganese	1.10E+00	Dup	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Manganese	1.99E+00	Dup	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Manganese	6.85E-01	Dup	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Manganese	1.74E+00	Dup	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Manganese	1.93E+00	Dup	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Manganese	5.36E-01	Dup	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Manganese	5.30E-01	Dup	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Manganese	5.87E-01	Dup	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Manganese	5.36E-01	Dup	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Manganese	7.06E-01	Dup	T2
377-11-I-high-A-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Manganese	6.15E-01	Dup	T2
378-11-I-high-B-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Manganese	7.15E-01	Dup	T2
379-11-I-high-C-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Manganese	4.41E-01	Dup	T2
380-11-I-high-D-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Manganese	7.88E-01	Dup	T2
381-12-I-high-A-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Manganese	1.80E+00	Dup	T2
382-12-I-high-B-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Manganese	9.51E-01	Dup	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
383-12-I-high-C-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Manganese	5.10E-01	Dup	T2
384-12-I-high-D-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Manganese	3.58E-01	Dup	T2
385-00-I-none-A-2	control_none_I	EPA6010C-SPLP	17	mg/L	Manganese	1.57E+00	Dup	T2
386-00-I-none-B-2	control_none_I	EPA6010C-SPLP	17	mg/L	Manganese	1.63E+00	Dup	T2
387-00-I-none-C-2	control_none_I	EPA6010C-SPLP	17	mg/L	Manganese	1.11E+00	Dup	T2
388-00-I-none-D-2	control_none_I	EPA6010C-SPLP	17	mg/L	Manganese	1.69E+00	Dup	T2
049-01-S-low-A-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Nickel	7.86E-04	rl U	T2
050-01-S-low-B-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Nickel	7.86E-04	rl U	T2
051-01-S-low-C-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Nickel	7.86E-04	rl U	T2
052-01-S-low-D-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Nickel	9.11E-04	rl	T2
053-02-S-low-A-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Nickel	1.28E-03	rl	T2
054-02-S-low-B-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Nickel	1.14E-03	rl	T2
055-02-S-low-C-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Nickel	1.82E-03	rl	T2
056-02-S-low-D-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Nickel	1.54E-03	rl	T2
057-03-S-low-A-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Nickel	7.86E-04	rl U	T2
058-03-S-low-B-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Nickel	7.86E-04	rl U	T2
059-03-S-low-C-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Nickel	7.86E-04	rl U	T2
060-03-S-low-D-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Nickel	7.86E-04	rl U	T2
061-04-S-low-A-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Nickel	7.86E-04	rl U	T2
062-04-S-low-B-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Nickel	7.86E-04	rl U	T2
063-04-S-low-C-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Nickel	7.86E-04	rl U	T2
064-04-S-low-D-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Nickel	7.86E-04	rl U	T2
065-05-S-low-A-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Nickel	7.86E-04	rl U	T2
066-05-S-low-B-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Nickel	7.86E-04	rl U	T2
067-05-S-low-C-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Nickel	7.86E-04	rl U	T2
068-05-S-low-D-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Nickel	7.86E-04	rl U	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Nickel	2.04E-03	rl	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Nickel	1.01E-03	rl	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Nickel	1.74E-03	rl	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Nickel	1.82E-03	rl	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Nickel	7.86E-04	rl U	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Nickel	7.86E-04	rl U	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Nickel	7.86E-04	rl U	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Nickel	7.86E-04	rl U	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Nickel	7.86E-04	rl U	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Nickel	7.86E-04	rl U	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Nickel	7.86E-04	rl U	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Nickel	7.86E-04	rl U	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Nickel	7.86E-04	rl U	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Nickel	7.86E-04	rl U	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Nickel	1.63E-03	rl	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Nickel	7.86E-04	rl U	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Nickel	7.86E-04	rl U	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Nickel	7.86E-04	rl U	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Nickel	7.86E-04	rl U	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Nickel	7.86E-04	rl U	T2
089-11-S-low-A-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Nickel	7.86E-04	rl U	T2
090-11-S-low-B-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Nickel	7.86E-04	rl U	T2
091-11-S-low-C-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Nickel	7.86E-04	rl U	T2
092-11-S-low-D-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Nickel	7.86E-04	rl U	T2
093-12-S-low-A-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Nickel	7.86E-04	rl U	T2
094-12-S-low-B-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Nickel	7.86E-04	rl U	T2
095-12-S-low-C-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Nickel	7.86E-04	rl U	T2
096-12-S-low-D-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Nickel	7.86E-04	rl U	T2
193-01-S-high-A-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Nickel	1.04E-03	rl	T2
194-01-S-high-B-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Nickel	8.13E-04	rl	T2
195-01-S-high-C-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Nickel	1.88E-03	rl	T2
196-01-S-high-D-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Nickel	1.29E-03	rl	T2
197-02-S-high-A-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Nickel	6.35E-03	rl	T2
198-02-S-high-B-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Nickel	5.36E-03	rl	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
199-02-S-high-C-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Nickel	5.11E-03	rl	T2
200-02-S-high-D-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Nickel	5.10E-03	rl	T2
201-03-S-high-A-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Nickel	7.86E-04	rl U	T2
202-03-S-high-B-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Nickel	7.86E-04	rl U	T2
203-03-S-high-C-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Nickel	7.86E-04	rl U	T2
204-03-S-high-D-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Nickel	7.86E-04	rl U	T2
205-04-S-high-A-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Nickel	8.15E-04	rl	T2
206-04-S-high-B-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Nickel	7.86E-04	rl U	T2
207-04-S-high-C-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Nickel	7.86E-04	rl U	T2
208-04-S-high-D-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Nickel	7.86E-04	rl U	T2
209-05-S-high-A-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Nickel	7.86E-04	rl U	T2
210-05-S-high-B-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Nickel	7.86E-04	rl U	T2
211-05-S-high-C-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Nickel	7.86E-04	rl U	T2
212-05-S-high-D-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Nickel	7.86E-04	rl U	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Nickel	7.83E-03	rl	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Nickel	1.00E-02	rl	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Nickel	5.52E-03	rl	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Nickel	5.60E-03	rl	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Nickel	8.31E-04	rl	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Nickel	7.86E-04	rl U	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Nickel	7.86E-04	rl U	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Nickel	8.76E-04	rl	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Nickel	7.86E-04	rl U	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Nickel	7.86E-04	rl U	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Nickel	7.86E-04	rl U	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Nickel	7.86E-04	rl U	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Nickel	3.98E-03	rl	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Nickel	6.81E-03	rl	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Nickel	5.05E-03	rl	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Nickel	4.85E-03	rl	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
229-10-S-high-A-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Nickel	7.86E-04	rl U	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Nickel	7.86E-04	rl U	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Nickel	7.86E-04	rl U	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Nickel	7.86E-04	rl U	T2
233-11-S-high-A-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Nickel	7.86E-04	rl U	T2
234-11-S-high-B-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Nickel	7.86E-04	rl U	T2
235-11-S-high-C-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Nickel	7.86E-04	rl U	T2
236-11-S-high-D-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Nickel	1.08E-03	rl	T2
237-12-S-high-A-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Nickel	7.86E-04	rl U	T2
238-12-S-high-B-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Nickel	7.86E-04	rl U	T2
239-12-S-high-C-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Nickel	7.86E-04	rl U	T2
240-12-S-high-D-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Nickel	7.86E-04	rl U	T2
289-01-I-low-A-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Nickel	7.86E-04	rl U	T2
290-01-I-low-B-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Nickel	8.79E-04	rl	T2
291-01-I-low-C-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Nickel	7.86E-04	rl U	T2
292-01-I-low-D-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Nickel	2.34E-03	rl	T2
293-02-I-low-A-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Nickel	6.20E-03	rl	T2
294-02-I-low-B-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Nickel	4.69E-03	rl	T2
295-02-I-low-C-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Nickel	2.33E-03	rl	T2
296-02-I-low-D-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Nickel	4.63E-03	rl	T2
297-03-I-low-A-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Nickel	7.86E-04	rl U	T2
298-03-I-low-B-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Nickel	7.86E-04	rl U	T2
299-03-I-low-C-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Nickel	7.86E-04	rl U	T2
300-03-I-low-D-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Nickel	7.86E-04	rl U	T2
301-04-I-low-A-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Nickel	7.86E-04	rl U	T2
302-04-I-low-B-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Nickel	7.86E-04	rl U	T2
303-04-I-low-C-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Nickel	7.86E-04	rl U	T2
304-04-I-low-D-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Nickel	7.86E-04	rl U	T2
305-05-I-low-A-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Nickel	7.86E-04	rl U	T2
306-05-I-low-B-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Nickel	7.86E-04	rl U	T2

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
307-05-I-low-C-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Nickel	7.86E-04	rl U	T2
308-05-I-low-D-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Nickel	7.86E-04	rl U	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Nickel	5.34E-03	rl	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Nickel	3.54E-03	rl	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Nickel	4.86E-03	rl	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Nickel	7.36E-03	rl	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Nickel	7.86E-04	rl U	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Nickel	7.86E-04	rl U	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Nickel	7.86E-04	rl U	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Nickel	7.86E-04	rl U	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Nickel	7.86E-04	rl U	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Nickel	7.86E-04	rl U	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Nickel	7.86E-04	rl U	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Nickel	9.91E-04	rl	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Nickel	5.72E-03	rl	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Nickel	3.60E-03	rl	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Nickel	4.03E-03	rl	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Nickel	2.50E-03	rl	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Nickel	7.86E-04	rl U	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Nickel	1.18E-03	rl	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Nickel	7.86E-04	rl U	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Nickel	7.86E-04	rl U	T2
329-11-I-low-A-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Nickel	7.86E-04	rl U	T2
330-11-I-low-B-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Nickel	7.86E-04	rl U	T2
331-11-I-low-C-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Nickel	7.86E-04	rl U	T2
332-11-I-low-D-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Nickel	7.86E-04	rl U	T2
333-12-I-low-A-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Nickel	7.86E-04	rl U	T2
334-12-I-low-B-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Nickel	8.82E-04	rl	T2
335-12-I-low-C-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Nickel	7.86E-04	rl U	T2
336-12-I-low-D-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Nickel	7.86E-04	rl U	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
337-01-I-high-A-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Nickel	2.35E-03	rl	T2
338-01-I-high-B-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Nickel	2.33E-03	rl	T2
339-01-I-high-C-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Nickel	2.36E-03	rl	T2
340-01-I-high-D-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Nickel	1.83E-03	rl	T2
341-02-I-high-A-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Nickel	3.12E-02	rl	T2
342-02-I-high-B-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Nickel	1.81E-02	rl	T2
343-02-I-high-C-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Nickel	2.99E-02	rl	T2
344-02-I-high-D-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Nickel	2.43E-02	rl	T2
345-03-I-high-A-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Nickel	7.86E-04	rl U	T2
346-03-I-high-B-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Nickel	7.86E-04	rl U	T2
347-03-I-high-C-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Nickel	7.86E-04	rl U	T2
348-03-I-high-D-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Nickel	7.86E-04	rl U	T2
349-04-I-high-A-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Nickel	7.86E-04	rl U	T2
350-04-I-high-B-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Nickel	7.86E-04	rl U	T2
351-04-I-high-C-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Nickel	7.86E-04	rl U	T2
352-04-I-high-D-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Nickel	7.86E-04	rl U	T2
353-05-I-high-A-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Nickel	7.86E-04	rl U	T2
354-05-I-high-B-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Nickel	7.86E-04	rl U	T2
355-05-I-high-C-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Nickel	7.86E-04	rl U	T2
356-05-I-high-D-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Nickel	1.90E-03	rl	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Nickel	2.61E-02	rl	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Nickel	4.98E-02	rl	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Nickel	2.63E-02	rl	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Nickel	2.07E-02	rl	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Nickel	1.97E-03	rl	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Nickel	2.25E-03	rl	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Nickel	2.61E-03	rl	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Nickel	1.60E-03	rl	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Nickel	6.55E-03	rl	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Nickel	1.86E-03	rl	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
367-08-I-high-C-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Nickel	2.65E-03	rl	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Nickel	3.20E-03	rl	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Nickel	1.62E-02	rl	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Nickel	3.14E-02	rl	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Nickel	4.91E-02	rl	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Nickel	1.85E-02	rl	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Nickel	7.86E-04	rl U	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Nickel	7.86E-04	rl U	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Nickel	7.86E-04	rl U	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Nickel	7.86E-04	rl U	T2
377-11-I-high-A-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Nickel	7.86E-04	rl U	T2
378-11-I-high-B-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Nickel	7.86E-04	rl U	T2
379-11-I-high-C-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Nickel	7.86E-04	rl U	T2
380-11-I-high-D-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Nickel	7.86E-04	rl U	T2
381-12-I-high-A-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Nickel	7.86E-04	rl U	T2
382-12-I-high-B-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Nickel	7.86E-04	rl U	T2
383-12-I-high-C-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Nickel	7.86E-04	rl U	T2
384-12-I-high-D-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Nickel	7.86E-04	rl U	T2
385-00-I-none-A-2	control_none_I	EPA6010C-SPLP	17	mg/L	Nickel	1.43E-03	rl	T2
386-00-I-none-B-2	control_none_I	EPA6010C-SPLP	17	mg/L	Nickel	7.86E-04	rl U	T2
387-00-I-none-C-2	control_none_I	EPA6010C-SPLP	17	mg/L	Nickel	7.86E-04	rl U	T2
388-00-I-none-D-2	control_none_I	EPA6010C-SPLP	17	mg/L	Nickel	7.86E-04	rl U	T2
049-01-S-low-A-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Phosphorus	1.46E+00	NA	T2
050-01-S-low-B-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Phosphorus	1.23E+00	NA	T2
051-01-S-low-C-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Phosphorus	1.26E+00	NA	T2
052-01-S-low-D-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Phosphorus	1.61E+00	NA	T2
053-02-S-low-A-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Phosphorus	7.39E-01	rl	T2
054-02-S-low-B-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Phosphorus	6.57E-01	rl	T2
055-02-S-low-C-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Phosphorus	5.08E-01	rl	T2
056-02-S-low-D-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Phosphorus	6.63E-01	rl	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
057-03-S-low-A-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Phosphorus	3.57E-01	rl	T2
058-03-S-low-B-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Phosphorus	3.53E-01	rl	T2
059-03-S-low-C-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Phosphorus	3.57E-01	rl	T2
060-03-S-low-D-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Phosphorus	3.70E-01	rl	T2
061-04-S-low-A-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Phosphorus	3.23E-01	rl	T2
062-04-S-low-B-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Phosphorus	3.16E-01	rl	T2
063-04-S-low-C-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Phosphorus	3.17E-01	rl	T2
064-04-S-low-D-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Phosphorus	3.01E-01	rl	T2
065-05-S-low-A-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Phosphorus	3.09E-01	rl	T2
066-05-S-low-B-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Phosphorus	2.98E-01	rl	T2
067-05-S-low-C-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Phosphorus	3.16E-01	rl	T2
068-05-S-low-D-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Phosphorus	3.49E-01	rl	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Phosphorus	2.20E+00	NA	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Phosphorus	1.98E+00	NA	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Phosphorus	2.65E+00	NA	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Phosphorus	2.76E+00	NA	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Phosphorus	1.79E+00	NA	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Phosphorus	1.25E+00	NA	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Phosphorus	1.96E+00	NA	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Phosphorus	1.50E+00	NA	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Phosphorus	2.18E+00	NA	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Phosphorus	2.05E+00	NA	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Phosphorus	2.04E+00	NA	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Phosphorus	1.85E+00	NA	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Phosphorus	5.20E-01	rl	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Phosphorus	3.23E-01	rl	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Phosphorus	5.75E-01	rl	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Phosphorus	5.75E-01	rl	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Phosphorus	3.35E-01	rl	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Phosphorus	3.59E-01	rl	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
087-10-S-low-C-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Phosphorus	3.62E-01	rl	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Phosphorus	3.75E-01	rl	T2
089-11-S-low-A-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Phosphorus	3.60E-01	rl	T2
090-11-S-low-B-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Phosphorus	3.18E-01	rl	T2
091-11-S-low-C-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Phosphorus	3.72E-01	rl	T2
092-11-S-low-D-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Phosphorus	3.66E-01	rl	T2
093-12-S-low-A-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Phosphorus	3.44E-01	rl	T2
094-12-S-low-B-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Phosphorus	3.36E-01	rl	T2
095-12-S-low-C-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Phosphorus	3.45E-01	rl	T2
096-12-S-low-D-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Phosphorus	3.50E-01	rl	T2
193-01-S-high-A-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Phosphorus	7.47E+00	NA	T2
194-01-S-high-B-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Phosphorus	7.58E+00	NA	T2
195-01-S-high-C-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Phosphorus	1.06E+01	NA	T2
196-01-S-high-D-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Phosphorus	8.51E+00	NA	T2
197-02-S-high-A-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Phosphorus	1.54E+00	NA	T2
198-02-S-high-B-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Phosphorus	1.20E+00	NA	T2
199-02-S-high-C-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Phosphorus	1.07E+00	NA	T2
200-02-S-high-D-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Phosphorus	1.29E+00	NA	T2
201-03-S-high-A-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Phosphorus	3.70E-01	rl	T2
202-03-S-high-B-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Phosphorus	3.44E-01	rl	T2
203-03-S-high-C-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Phosphorus	3.60E-01	rl	T2
204-03-S-high-D-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Phosphorus	3.44E-01	rl	T2
205-04-S-high-A-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Phosphorus	3.44E-01	rl	T2
206-04-S-high-B-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Phosphorus	4.40E-01	rl	T2
207-04-S-high-C-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Phosphorus	3.68E-01	rl	T2
208-04-S-high-D-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Phosphorus	3.60E-01	rl	T2
209-05-S-high-A-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Phosphorus	5.98E-01	rl	T2
210-05-S-high-B-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Phosphorus	4.11E-01	rl	T2
211-05-S-high-C-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Phosphorus	4.89E-01	rl	T2
212-05-S-high-D-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Phosphorus	4.60E-01	rl	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Phosphorus	5.02E+00	NA	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Phosphorus	4.67E+00	NA	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Phosphorus	5.58E+00	NA	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Phosphorus	5.67E+00	NA	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Phosphorus	7.11E+00	NA	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Phosphorus	5.87E+00	NA	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Phosphorus	7.28E+00	NA	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Phosphorus	7.23E+00	NA	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Phosphorus	8.06E+00	NA	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Phosphorus	4.95E+00	NA	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Phosphorus	7.84E+00	NA	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Phosphorus	7.99E+00	NA	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Phosphorus	8.04E-01	NA	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Phosphorus	9.31E-01	NA	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Phosphorus	6.77E-01	rl	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Phosphorus	9.19E-01	NA	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Phosphorus	4.07E-01	rl	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Phosphorus	3.75E-01	rl	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Phosphorus	3.81E-01	rl	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Phosphorus	4.27E-01	rl	T2
233-11-S-high-A-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Phosphorus	3.82E-01	rl	T2
234-11-S-high-B-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Phosphorus	3.07E-01	rl	T2
235-11-S-high-C-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Phosphorus	3.05E-01	rl	T2
236-11-S-high-D-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Phosphorus	3.01E-01	rl	T2
237-12-S-high-A-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Phosphorus	3.90E-01	rl	T2
238-12-S-high-B-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Phosphorus	3.59E-01	rl	T2
239-12-S-high-C-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Phosphorus	4.05E-01	rl	T2
240-12-S-high-D-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Phosphorus	3.80E-01	rl	T2
289-01-I-low-A-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Phosphorus	9.66E-01	NA	T2
290-01-I-low-B-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Phosphorus	1.16E+00	NA	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
291-01-I-low-C-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Phosphorus	1.13E+00	NA	T2
292-01-I-low-D-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Phosphorus	1.24E+00	NA	T2
293-02-I-low-A-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Phosphorus	1.40E+00	NA	T2
294-02-I-low-B-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Phosphorus	8.10E-01	NA	T2
295-02-I-low-C-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Phosphorus	1.20E+00	NA	T2
296-02-I-low-D-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Phosphorus	8.19E-01	NA	T2
297-03-I-low-A-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Phosphorus	2.91E-01	rl	T2
298-03-I-low-B-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Phosphorus	2.90E-01	rl	T2
299-03-I-low-C-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Phosphorus	3.53E-01	rl	T2
300-03-I-low-D-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Phosphorus	3.17E-01	rl	T2
301-04-I-low-A-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Phosphorus	2.84E-01	rl Dup	T2
302-04-I-low-B-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Phosphorus	2.52E-01	rl Dup	T2
303-04-I-low-C-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Phosphorus	2.73E-01	rl Dup	T2
304-04-I-low-D-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Phosphorus	1.86E-01	rl Dup	T2
305-05-I-low-A-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Phosphorus	2.74E-01	rl Dup	T2
306-05-I-low-B-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Phosphorus	2.75E-01	rl Dup	T2
307-05-I-low-C-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Phosphorus	2.53E-01	rl Dup	T2
308-05-I-low-D-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Phosphorus	2.75E-01	rl Dup	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Phosphorus	3.01E+00	Dup	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Phosphorus	3.23E+00	Dup	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Phosphorus	2.62E+00	Dup	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Phosphorus	2.08E+00	Dup	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Phosphorus	1.26E+00	NA	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Phosphorus	1.31E+00	NA	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Phosphorus	1.31E+00	NA	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Phosphorus	1.05E+00	NA	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Phosphorus	1.53E+00	NA	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Phosphorus	1.14E+00	NA	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Phosphorus	1.22E+00	NA	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Phosphorus	1.29E+00	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
321-09-I-low-A-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Phosphorus	1.48E+00	NA	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Phosphorus	7.50E-01	rl	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Phosphorus	6.39E-01	rl	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Phosphorus	5.77E-01	rl	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Phosphorus	2.23E-01	rl	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Phosphorus	3.81E-01	rl	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Phosphorus	1.67E-01	rl	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Phosphorus	3.76E-01	rl	T2
329-11-I-low-A-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Phosphorus	2.32E-01	rl	T2
330-11-I-low-B-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Phosphorus	3.00E-01	rl	T2
331-11-I-low-C-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Phosphorus	2.32E-01	rl	T2
332-11-I-low-D-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Phosphorus	2.65E-01	rl	T2
333-12-I-low-A-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Phosphorus	3.16E-01	rl	T2
334-12-I-low-B-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Phosphorus	2.40E-01	rl	T2
335-12-I-low-C-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Phosphorus	2.75E-01	rl	T2
336-12-I-low-D-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Phosphorus	3.05E-01	rl	T2
337-01-I-high-A-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Phosphorus	7.22E+00	NA	T2
338-01-I-high-B-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Phosphorus	6.47E+00	NA	T2
339-01-I-high-C-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Phosphorus	7.56E+00	NA	T2
340-01-I-high-D-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Phosphorus	7.91E+00	NA	T2
341-02-I-high-A-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Phosphorus	8.42E+00	NA	T2
342-02-I-high-B-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Phosphorus	6.02E+00	NA	T2
343-02-I-high-C-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Phosphorus	4.99E+00	NA	T2
344-02-I-high-D-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Phosphorus	4.30E+00	NA	T2
345-03-I-high-A-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Phosphorus	3.34E-01	rl	T2
346-03-I-high-B-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Phosphorus	3.06E-01	rl	T2
347-03-I-high-C-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Phosphorus	3.00E-01	rl	T2
348-03-I-high-D-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Phosphorus	3.42E-01	rl	T2
349-04-I-high-A-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Phosphorus	3.17E-01	rl	T2
350-04-I-high-B-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Phosphorus	2.68E-01	rl	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
351-04-I-high-C-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Phosphorus	2.84E-01	rl	T2
352-04-I-high-D-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Phosphorus	2.93E-01	rl	T2
353-05-I-high-A-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Phosphorus	4.17E-01	rl	T2
354-05-I-high-B-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Phosphorus	4.45E-01	rl	T2
355-05-I-high-C-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Phosphorus	4.51E-01	rl	T2
356-05-I-high-D-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Phosphorus	4.27E-01	rl	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Phosphorus	1.50E+01	NA	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Phosphorus	1.44E+01	NA	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Phosphorus	1.49E+01	NA	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Phosphorus	1.97E+01	NA	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Phosphorus	7.73E+00	Dup	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Phosphorus	8.80E+00	Dup	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Phosphorus	8.09E+00	Dup	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Phosphorus	9.99E+00	Dup	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Phosphorus	6.00E+00	Dup	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Phosphorus	9.27E+00	Dup	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Phosphorus	8.48E+00	Dup	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Phosphorus	8.31E+00	Dup	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Phosphorus	3.15E+00	Dup	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Phosphorus	2.78E+00	Dup	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Phosphorus	4.07E+00	Dup	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Phosphorus	3.87E+00	Dup	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Phosphorus	2.81E-01	rl	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Phosphorus	2.93E-01	rl	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Phosphorus	2.94E-01	rl	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Phosphorus	2.40E-01	rl	T2
377-11-I-high-A-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Phosphorus	3.79E-01	rl	T2
378-11-I-high-B-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Phosphorus	3.83E-01	rl	T2
379-11-I-high-C-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Phosphorus	4.64E-01	rl	T2
380-11-I-high-D-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Phosphorus	4.19E-01	rl	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
381-12-I-high-A-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Phosphorus	3.36E-01	rl	T2
382-12-I-high-B-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Phosphorus	3.71E-01	rl	T2
383-12-I-high-C-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Phosphorus	4.27E-01	rl	T2
384-12-I-high-D-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Phosphorus	5.22E-01	rl	T2
385-00-I-none-A-2	control_none_I	EPA6010C-SPLP	17	mg/L	Phosphorus	2.02E-01	rl	T2
386-00-I-none-B-2	control_none_I	EPA6010C-SPLP	17	mg/L	Phosphorus	2.07E-01	rl	T2
387-00-I-none-C-2	control_none_I	EPA6010C-SPLP	17	mg/L	Phosphorus	2.04E-01	rl	T2
388-00-I-none-D-2	control_none_I	EPA6010C-SPLP	17	mg/L	Phosphorus	1.81E-01	rl	T2
049-01-S-low-A-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Potassium	1.67E+01	NA	T2
050-01-S-low-B-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Potassium	1.50E+01	NA	T2
051-01-S-low-C-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Potassium	1.43E+01	NA	T2
052-01-S-low-D-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Potassium	1.77E+01	NA	T2
053-02-S-low-A-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Potassium	4.01E+00	NA	T2
054-02-S-low-B-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Potassium	3.20E+00	NA	T2
055-02-S-low-C-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Potassium	3.94E+00	NA	T2
056-02-S-low-D-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Potassium	3.95E+00	NA	T2
057-03-S-low-A-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Potassium	7.79E+00	NA	T2
058-03-S-low-B-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Potassium	6.03E+00	NA	T2
059-03-S-low-C-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Potassium	6.23E+00	NA	T2
060-03-S-low-D-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Potassium	6.37E+00	NA	T2
061-04-S-low-A-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Potassium	4.64E+00	NA	T2
062-04-S-low-B-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Potassium	4.19E+00	NA	T2
063-04-S-low-C-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Potassium	4.42E+00	NA	T2
064-04-S-low-D-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Potassium	4.20E+00	NA	T2
065-05-S-low-A-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Potassium	4.80E+00	NA	T2
066-05-S-low-B-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Potassium	5.77E+00	NA	T2
067-05-S-low-C-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Potassium	5.43E+00	NA	T2
068-05-S-low-D-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Potassium	5.60E+00	NA	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Potassium	1.19E+01	NA	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Potassium	9.20E+00	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Potassium	1.16E+01	NA	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Potassium	1.10E+01	NA	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Potassium	1.33E+01	NA	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Potassium	1.33E+01	NA	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Potassium	1.53E+01	NA	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Potassium	1.30E+01	NA	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Potassium	1.37E+01	NA	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Potassium	1.47E+01	NA	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Potassium	1.40E+01	NA	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Potassium	1.49E+01	NA	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Potassium	8.38E+00	NA	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Potassium	7.90E+00	NA	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Potassium	7.58E+00	NA	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Potassium	6.63E+00	NA	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Potassium	6.68E+00	NA	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Potassium	6.46E+00	NA	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Potassium	7.04E+00	NA	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Potassium	6.69E+00	NA	T2
089-11-S-low-A-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Potassium	9.11E+00	NA	T2
090-11-S-low-B-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Potassium	8.72E+00	NA	T2
091-11-S-low-C-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Potassium	7.36E+00	NA	T2
092-11-S-low-D-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Potassium	8.77E+00	NA	T2
093-12-S-low-A-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Potassium	6.27E+00	NA	T2
094-12-S-low-B-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Potassium	6.16E+00	NA	T2
095-12-S-low-C-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Potassium	6.76E+00	NA	T2
096-12-S-low-D-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Potassium	6.24E+00	NA	T2
193-01-S-high-A-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Potassium	1.42E+01	NA	T2
194-01-S-high-B-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Potassium	1.28E+01	NA	T2
195-01-S-high-C-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Potassium	1.39E+01	NA	T2
196-01-S-high-D-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Potassium	1.46E+01	NA	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
197-02-S-high-A-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Potassium	4.32E+00	NA	T2
198-02-S-high-B-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Potassium	3.62E+00	NA	T2
199-02-S-high-C-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Potassium	3.85E+00	NA	T2
200-02-S-high-D-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Potassium	4.26E+00	NA	T2
201-03-S-high-A-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Potassium	1.59E+01	NA	T2
202-03-S-high-B-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Potassium	1.31E+01	NA	T2
203-03-S-high-C-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Potassium	1.22E+01	NA	T2
204-03-S-high-D-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Potassium	1.39E+01	NA	T2
205-04-S-high-A-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Potassium	5.37E+00	Dup	T2
206-04-S-high-B-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Potassium	5.45E+00	Dup	T2
207-04-S-high-C-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Potassium	4.91E+00	Dup	T2
208-04-S-high-D-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Potassium	5.23E+00	Dup	T2
209-05-S-high-A-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Potassium	1.29E+01	Dup	T2
210-05-S-high-B-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Potassium	1.11E+01	Dup	T2
211-05-S-high-C-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Potassium	1.15E+01	Dup	T2
212-05-S-high-D-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Potassium	9.78E+00	Dup	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Potassium	9.72E+00	Dup	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Potassium	1.33E+01	Dup	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Potassium	8.46E+00	Dup	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Potassium	7.60E+00	Dup	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Potassium	1.33E+01	NA	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Potassium	1.08E+01	NA	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Potassium	1.25E+01	NA	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Potassium	1.46E+01	NA	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Potassium	2.08E+01	NA	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Potassium	1.27E+01	NA	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Potassium	2.00E+01	NA	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Potassium	1.93E+01	NA	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Potassium	1.14E+01	NA	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Potassium	1.17E+01	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
227-09-S-high-C-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Potassium	1.59E+01	NA	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Potassium	1.25E+01	NA	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Potassium	1.23E+01	NA	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Potassium	1.47E+01	NA	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Potassium	1.23E+01	NA	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Potassium	1.23E+01	NA	T2
233-11-S-high-A-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Potassium	1.82E+01	NA	T2
234-11-S-high-B-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Potassium	1.78E+01	NA	T2
235-11-S-high-C-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Potassium	1.40E+01	NA	T2
236-11-S-high-D-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Potassium	1.51E+01	NA	T2
237-12-S-high-A-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Potassium	1.20E+01	NA	T2
238-12-S-high-B-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Potassium	1.19E+01	NA	T2
239-12-S-high-C-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Potassium	1.27E+01	NA	T2
240-12-S-high-D-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Potassium	1.30E+01	NA	T2
289-01-I-low-A-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Potassium	1.71E+01	NA	T2
290-01-I-low-B-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Potassium	1.60E+01	NA	T2
291-01-I-low-C-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Potassium	1.92E+01	NA	T2
292-01-I-low-D-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Potassium	1.43E+01	NA	T2
293-02-I-low-A-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Potassium	8.55E+00	NA	T2
294-02-I-low-B-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Potassium	1.05E+01	NA	T2
295-02-I-low-C-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Potassium	5.61E+00	NA	T2
296-02-I-low-D-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Potassium	8.32E+00	NA	T2
297-03-I-low-A-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Potassium	9.12E+00	NA	T2
298-03-I-low-B-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Potassium	7.75E+00	NA	T2
299-03-I-low-C-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Potassium	1.17E+01	NA	T2
300-03-I-low-D-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Potassium	8.67E+00	NA	T2
301-04-I-low-A-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Potassium	6.67E+00	Dup	T2
302-04-I-low-B-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Potassium	6.78E+00	Dup	T2
303-04-I-low-C-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Potassium	7.68E+00	Dup	T2
304-04-I-low-D-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Potassium	8.32E+00	Dup	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
305-05-I-low-A-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Potassium	9.80E+00	Dup	T2
306-05-I-low-B-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Potassium	9.25E+00	Dup	T2
307-05-I-low-C-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Potassium	9.88E+00	Dup	T2
308-05-I-low-D-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Potassium	8.68E+00	Dup	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Potassium	2.22E+01	Dup	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Potassium	1.27E+01	Dup	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Potassium	2.13E+01	Dup	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Potassium	2.84E+01	Dup	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Potassium	1.72E+01	NA	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Potassium	1.82E+01	NA	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Potassium	2.03E+01	NA	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Potassium	2.24E+01	NA	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Potassium	2.41E+01	NA	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Potassium	2.50E+01	NA	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Potassium	2.77E+01	NA	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Potassium	2.63E+01	NA	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Potassium	1.30E+01	NA	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Potassium	1.41E+01	NA	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Potassium	1.30E+01	NA	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Potassium	1.26E+01	NA	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Potassium	1.10E+01	NA	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Potassium	1.26E+01	NA	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Potassium	1.22E+01	NA	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Potassium	8.38E+00	NA	T2
329-11-I-low-A-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Potassium	1.42E+01	NA	T2
330-11-I-low-B-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Potassium	1.41E+01	NA	T2
331-11-I-low-C-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Potassium	1.55E+01	NA	T2
332-11-I-low-D-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Potassium	1.58E+01	NA	T2
333-12-I-low-A-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Potassium	9.26E+00	NA	T2
334-12-I-low-B-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Potassium	1.41E+01	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
335-12-I-low-C-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Potassium	1.16E+01	NA	T2
336-12-I-low-D-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Potassium	9.72E+00	NA	T2
337-01-I-high-A-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Potassium	2.18E+01	NA	T2
338-01-I-high-B-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Potassium	2.41E+01	NA	T2
339-01-I-high-C-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Potassium	1.97E+01	NA	T2
340-01-I-high-D-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Potassium	1.91E+01	NA	T2
341-02-I-high-A-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Potassium	1.29E+01	NA	T2
342-02-I-high-B-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Potassium	9.24E+00	NA	T2
343-02-I-high-C-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Potassium	1.31E+01	NA	T2
344-02-I-high-D-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Potassium	1.19E+01	NA	T2
345-03-I-high-A-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Potassium	2.12E+01	NA	T2
346-03-I-high-B-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Potassium	3.21E+01	NA	T2
347-03-I-high-C-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Potassium	2.16E+01	NA	T2
348-03-I-high-D-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Potassium	1.99E+01	NA	T2
349-04-I-high-A-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Potassium	8.61E+00	NA	T2
350-04-I-high-B-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Potassium	1.01E+01	NA	T2
351-04-I-high-C-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Potassium	8.82E+00	NA	T2
352-04-I-high-D-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Potassium	8.40E+00	NA	T2
353-05-I-high-A-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Potassium	2.22E+01	NA	T2
354-05-I-high-B-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Potassium	2.24E+01	NA	T2
355-05-I-high-C-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Potassium	2.05E+01	NA	T2
356-05-I-high-D-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Potassium	2.02E+01	NA	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Potassium	2.58E+01	NA	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Potassium	3.35E+01	NA	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Potassium	2.20E+01	NA	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Potassium	2.06E+01	NA	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Potassium	2.57E+01	Dup	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Potassium	2.54E+01	Dup	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Potassium	2.76E+01	Dup	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Potassium	2.81E+01	Dup	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
365-08-I-high-A-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Potassium	5.17E+01	Dup	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Potassium	3.90E+01	Dup	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Potassium	3.89E+01	Dup	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Potassium	5.46E+01	Dup	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Potassium	2.89E+01	Dup	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Potassium	3.83E+01	Dup	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Potassium	4.87E+01	Dup	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Potassium	3.00E+01	Dup	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Potassium	3.19E+01	NA	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Potassium	3.34E+01	NA	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Potassium	3.05E+01	NA	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Potassium	3.50E+01	NA	T2
377-11-I-high-A-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Potassium	4.17E+01	NA	T2
378-11-I-high-B-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Potassium	5.17E+01	NA	T2
379-11-I-high-C-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Potassium	4.39E+01	NA	T2
380-11-I-high-D-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Potassium	5.01E+01	NA	T2
381-12-I-high-A-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Potassium	4.10E+01	NA	T2
382-12-I-high-B-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Potassium	3.93E+01	NA	T2
383-12-I-high-C-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Potassium	3.30E+01	NA	T2
384-12-I-high-D-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Potassium	2.37E+01	NA	T2
385-00-I-none-A-2	control_none_I	EPA6010C-SPLP	17	mg/L	Potassium	6.35E+00	NA	T2
386-00-I-none-B-2	control_none_I	EPA6010C-SPLP	17	mg/L	Potassium	7.22E+00	NA	T2
387-00-I-none-C-2	control_none_I	EPA6010C-SPLP	17	mg/L	Potassium	5.61E+00	NA	T2
388-00-I-none-D-2	control_none_I	EPA6010C-SPLP	17	mg/L	Potassium	6.19E+00	NA	T2
049-01-S-low-A-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Selenium	9.05E-03	rl U	T2
050-01-S-low-B-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Selenium	9.05E-03	rl U	T2
051-01-S-low-C-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Selenium	1.09E-02	rl	T2
052-01-S-low-D-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Selenium	9.07E-03	rl	T2
053-02-S-low-A-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Selenium	9.05E-03	rl U	T2
054-02-S-low-B-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Selenium	9.05E-03	rl U	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
055-02-S-low-C-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Selenium	9.05E-03	rl U	T2
056-02-S-low-D-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Selenium	9.05E-03	rl U	T2
057-03-S-low-A-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Selenium	1.10E-02	rl	T2
058-03-S-low-B-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Selenium	1.14E-02	rl	T2
059-03-S-low-C-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Selenium	9.05E-03	rl U	T2
060-03-S-low-D-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Selenium	9.28E-03	rl	T2
061-04-S-low-A-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Selenium	9.05E-03	rl U	T2
062-04-S-low-B-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Selenium	9.05E-03	rl U	T2
063-04-S-low-C-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Selenium	9.05E-03	rl U	T2
064-04-S-low-D-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Selenium	9.05E-03	rl U	T2
065-05-S-low-A-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Selenium	9.05E-03	rl U	T2
066-05-S-low-B-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Selenium	9.05E-03	rl U	T2
067-05-S-low-C-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Selenium	9.05E-03	rl U	T2
068-05-S-low-D-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Selenium	9.05E-03	rl	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Selenium	9.05E-03	rl U	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Selenium	9.05E-03	rl U	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Selenium	9.05E-03	rl U	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Selenium	9.05E-03	rl U	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Selenium	9.05E-03	rl U	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Selenium	9.05E-03	rl U	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Selenium	9.05E-03	rl U	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Selenium	9.05E-03	rl U	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Selenium	9.05E-03	rl U	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Selenium	9.05E-03	rl U	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Selenium	9.05E-03	rl U	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Selenium	9.05E-03	rl U	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Selenium	9.05E-03	rl U	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Selenium	9.05E-03	rl U	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Selenium	9.05E-03	rl U	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Selenium	9.05E-03	rl U	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
085-10-S-low-A-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Selenium	9.05E-03	rl U	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Selenium	1.03E-02	rl	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Selenium	9.05E-03	rl U	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Selenium	9.05E-03	rl U	T2
089-11-S-low-A-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Selenium	9.91E-03	rl	T2
090-11-S-low-B-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Selenium	9.05E-03	rl U	T2
091-11-S-low-C-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Selenium	9.05E-03	rl U	T2
092-11-S-low-D-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Selenium	9.05E-03	rl U	T2
093-12-S-low-A-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Selenium	9.05E-03	rl U	T2
094-12-S-low-B-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Selenium	9.05E-03	rl U	T2
095-12-S-low-C-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Selenium	9.05E-03	rl U	T2
096-12-S-low-D-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Selenium	9.05E-03	rl U	T2
193-01-S-high-A-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Selenium	9.05E-03	rl U	T2
194-01-S-high-B-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Selenium	9.05E-03	rl U	T2
195-01-S-high-C-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Selenium	9.05E-03	rl U	T2
196-01-S-high-D-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Selenium	9.05E-03	rl U	T2
197-02-S-high-A-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Selenium	9.38E-03	rl	T2
198-02-S-high-B-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Selenium	9.05E-03	rl U	T2
199-02-S-high-C-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Selenium	9.78E-03	rl	T2
200-02-S-high-D-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Selenium	1.22E-02	rl	T2
201-03-S-high-A-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Selenium	9.05E-03	rl U	T2
202-03-S-high-B-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Selenium	9.05E-03	rl U	T2
203-03-S-high-C-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Selenium	9.05E-03	rl U	T2
204-03-S-high-D-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Selenium	9.05E-03	rl U	T2
205-04-S-high-A-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Selenium	9.05E-03	rl U	T2
206-04-S-high-B-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Selenium	9.05E-03	rl U	T2
207-04-S-high-C-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Selenium	9.05E-03	rl U	T2
208-04-S-high-D-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Selenium	9.05E-03	rl U	T2
209-05-S-high-A-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Selenium	9.05E-03	rl U	T2
210-05-S-high-B-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Selenium	9.05E-03	rl U	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
211-05-S-high-C-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Selenium	9.11E-03	rl	T2
212-05-S-high-D-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Selenium	9.05E-03	rl U	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Selenium	9.05E-03	rl U	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Selenium	9.05E-03	rl U	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Selenium	9.05E-03	rl U	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Selenium	9.05E-03	rl U	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Selenium	9.05E-03	rl U	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Selenium	9.05E-03	rl U	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Selenium	9.05E-03	rl U	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Selenium	9.05E-03	rl U	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Selenium	9.05E-03	rl U	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Selenium	9.05E-03	rl U	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Selenium	1.26E-02	rl	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Selenium	9.05E-03	rl U	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Selenium	1.07E-02	rl	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Selenium	9.05E-03	rl U	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Selenium	9.05E-03	rl U	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Selenium	9.05E-03	rl U	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Selenium	9.05E-03	rl U	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Selenium	9.05E-03	rl U	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Selenium	9.05E-03	rl U	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Selenium	1.04E-02	rl	T2
233-11-S-high-A-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Selenium	9.05E-03	rl U	T2
234-11-S-high-B-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Selenium	1.21E-02	rl	T2
235-11-S-high-C-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Selenium	9.05E-03	rl U	T2
236-11-S-high-D-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Selenium	9.57E-03	rl	T2
237-12-S-high-A-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Selenium	9.05E-03	rl U	T2
238-12-S-high-B-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Selenium	9.05E-03	rl U	T2
239-12-S-high-C-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Selenium	9.05E-03	rl U	T2
240-12-S-high-D-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Selenium	9.05E-03	rl U	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
289-01-I-low-A-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Selenium	9.05E-03	rl U	T2
290-01-I-low-B-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Selenium	9.05E-03	rl U	T2
291-01-I-low-C-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Selenium	9.05E-03	rl U	T2
292-01-I-low-D-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Selenium	9.05E-03	rl U	T2
293-02-I-low-A-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Selenium	9.05E-03	rl U	T2
294-02-I-low-B-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Selenium	9.05E-03	rl U	T2
295-02-I-low-C-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Selenium	9.05E-03	rl U	T2
296-02-I-low-D-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Selenium	9.05E-03	rl U	T2
297-03-I-low-A-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Selenium	9.05E-03	rl U	T2
298-03-I-low-B-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Selenium	9.05E-03	rl U	T2
299-03-I-low-C-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Selenium	9.05E-03	rl U	T2
300-03-I-low-D-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Selenium	9.05E-03	rl U	T2
301-04-I-low-A-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Selenium	9.05E-03	rl U	T2
302-04-I-low-B-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Selenium	9.05E-03	rl U	T2
303-04-I-low-C-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Selenium	9.05E-03	rl U	T2
304-04-I-low-D-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Selenium	9.05E-03	rl U	T2
305-05-I-low-A-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Selenium	1.23E-02	rl	T2
306-05-I-low-B-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Selenium	9.05E-03	rl U	T2
307-05-I-low-C-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Selenium	9.05E-03	rl U	T2
308-05-I-low-D-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Selenium	9.05E-03	rl U	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Selenium	9.05E-03	rl U	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Selenium	9.05E-03	rl U	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Selenium	9.05E-03	rl U	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Selenium	9.05E-03	rl U	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Selenium	9.05E-03	rl U	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Selenium	9.05E-03	rl U	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Selenium	9.05E-03	rl U	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Selenium	9.12E-03	rl	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Selenium	1.47E-02	rl	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Selenium	9.05E-03	rl U	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
319-08-I-low-C-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Selenium	9.80E-03	rl	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Selenium	9.05E-03	rl U	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Selenium	9.05E-03	rl U	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Selenium	9.05E-03	rl U	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Selenium	9.05E-03	rl U	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Selenium	9.20E-03	rl	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Selenium	9.82E-03	rl	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Selenium	9.05E-03	rl U	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Selenium	9.05E-03	rl U	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Selenium	9.61E-03	rl	T2
329-11-I-low-A-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Selenium	9.05E-03	rl U	T2
330-11-I-low-B-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Selenium	9.05E-03	rl U	T2
331-11-I-low-C-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Selenium	9.05E-03	rl U	T2
332-11-I-low-D-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Selenium	9.05E-03	rl U	T2
333-12-I-low-A-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Selenium	9.05E-03	rl U	T2
334-12-I-low-B-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Selenium	9.05E-03	rl U	T2
335-12-I-low-C-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Selenium	9.05E-03	rl U	T2
336-12-I-low-D-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Selenium	9.05E-03	rl U	T2
337-01-I-high-A-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Selenium	9.05E-03	rl U	T2
338-01-I-high-B-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Selenium	9.05E-03	rl U	T2
339-01-I-high-C-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Selenium	9.05E-03	rl U	T2
340-01-I-high-D-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Selenium	9.05E-03	rl U	T2
341-02-I-high-A-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Selenium	1.83E-02	rl	T2
342-02-I-high-B-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Selenium	1.09E-02	rl	T2
343-02-I-high-C-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Selenium	9.10E-03	rl	T2
344-02-I-high-D-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Selenium	9.05E-03	rl U	T2
345-03-I-high-A-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Selenium	9.05E-03	rl U	T2
346-03-I-high-B-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Selenium	9.05E-03	rl U	T2
347-03-I-high-C-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Selenium	9.05E-03	rl U	T2
348-03-I-high-D-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Selenium	9.05E-03	rl U	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
349-04-I-high-A-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Selenium	9.05E-03	rl U	T2
350-04-I-high-B-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Selenium	9.05E-03	rl U	T2
351-04-I-high-C-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Selenium	9.05E-03	rl U	T2
352-04-I-high-D-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Selenium	9.05E-03	rl U	T2
353-05-I-high-A-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Selenium	9.05E-03	rl U	T2
354-05-I-high-B-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Selenium	9.05E-03	rl U	T2
355-05-I-high-C-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Selenium	9.05E-03	rl U	T2
356-05-I-high-D-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Selenium	9.05E-03	rl U	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Selenium	9.05E-03	rl U	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Selenium	1.02E-02	rl	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Selenium	9.05E-03	rl U	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Selenium	9.05E-03	rl U	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Selenium	9.05E-03	rl U	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Selenium	9.05E-03	rl U	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Selenium	9.05E-03	rl U	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Selenium	9.05E-03	rl U	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Selenium	9.05E-03	rl U	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Selenium	9.05E-03	rl U	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Selenium	9.05E-03	rl U	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Selenium	9.05E-03	rl U	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Selenium	1.35E-02	rl	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Selenium	1.19E-02	rl	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Selenium	1.36E-02	rl	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Selenium	9.05E-03	rl U	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Selenium	9.05E-03	rl U	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Selenium	9.05E-03	rl U	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Selenium	9.05E-03	rl U	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Selenium	9.05E-03	rl U	T2
377-11-I-high-A-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Selenium	9.05E-03	rl U	T2
378-11-I-high-B-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Selenium	1.05E-02	rl	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
379-11-I-high-C-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Selenium	9.05E-03	rl U	T2
380-11-I-high-D-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Selenium	9.05E-03	rl U	T2
381-12-I-high-A-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Selenium	9.05E-03	rl U	T2
382-12-I-high-B-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Selenium	9.05E-03	rl U	T2
383-12-I-high-C-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Selenium	9.05E-03	rl U	T2
384-12-I-high-D-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Selenium	9.05E-03	rl U	T2
385-00-I-none-A-2	control_none_I	EPA6010C-SPLP	17	mg/L	Selenium	9.05E-03	rl U	T2
386-00-I-none-B-2	control_none_I	EPA6010C-SPLP	17	mg/L	Selenium	9.05E-03	rl U	T2
387-00-I-none-C-2	control_none_I	EPA6010C-SPLP	17	mg/L	Selenium	9.05E-03	rl U	T2
388-00-I-none-D-2	control_none_I	EPA6010C-SPLP	17	mg/L	Selenium	9.05E-03	rl U	T2
049-01-S-low-A-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Silver	1.39E-02	rl U	T2
050-01-S-low-B-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Silver	1.39E-02	rl U	T2
051-01-S-low-C-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Silver	1.39E-02	rl U	T2
052-01-S-low-D-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Silver	1.39E-02	rl U	T2
053-02-S-low-A-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Silver	1.39E-02	rl U	T2
054-02-S-low-B-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Silver	1.39E-02	rl U	T2
055-02-S-low-C-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Silver	1.39E-02	rl U	T2
056-02-S-low-D-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Silver	1.39E-02	rl U	T2
057-03-S-low-A-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Silver	1.39E-02	rl U	T2
058-03-S-low-B-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Silver	1.39E-02	rl U	T2
059-03-S-low-C-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Silver	1.39E-02	rl U	T2
060-03-S-low-D-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Silver	1.39E-02	rl U	T2
061-04-S-low-A-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Silver	1.39E-02	rl U	T2
062-04-S-low-B-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Silver	1.39E-02	rl U	T2
063-04-S-low-C-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Silver	1.39E-02	rl U	T2
064-04-S-low-D-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Silver	1.39E-02	rl U	T2
065-05-S-low-A-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Silver	1.39E-02	rl U	T2
066-05-S-low-B-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Silver	1.39E-02	rl U	T2
067-05-S-low-C-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Silver	1.39E-02	rl U	T2
068-05-S-low-D-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Silver	1.39E-02	rl U	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Silver	1.39E-02	rl U	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Silver	1.39E-02	rl U	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Silver	1.39E-02	rl U	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Silver	1.39E-02	rl U	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Silver	1.39E-02	rl U	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Silver	1.39E-02	rl U	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Silver	1.39E-02	rl U	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Silver	1.39E-02	rl U	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Silver	1.39E-02	rl U	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Silver	1.39E-02	rl U	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Silver	1.39E-02	rl U	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Silver	1.39E-02	rl U	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Silver	1.39E-02	rl U	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Silver	1.39E-02	rl U	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Silver	1.39E-02	rl U	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Silver	1.39E-02	rl U	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Silver	1.39E-02	rl U	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Silver	1.39E-02	rl U	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Silver	1.39E-02	rl U	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Silver	1.39E-02	rl U	T2
089-11-S-low-A-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Silver	1.39E-02	rl U	T2
090-11-S-low-B-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Silver	1.39E-02	rl U	T2
091-11-S-low-C-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Silver	1.39E-02	rl U	T2
092-11-S-low-D-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Silver	1.39E-02	rl U	T2
093-12-S-low-A-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Silver	1.39E-02	rl U	T2
094-12-S-low-B-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Silver	1.39E-02	rl U	T2
095-12-S-low-C-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Silver	1.39E-02	rl U	T2
096-12-S-low-D-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Silver	1.39E-02	rl U	T2
193-01-S-high-A-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Silver	1.39E-02	rl U	T2
194-01-S-high-B-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Silver	1.39E-02	rl U	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
195-01-S-high-C-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Silver	1.39E-02	rl U	T2
196-01-S-high-D-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Silver	1.39E-02	rl U	T2
197-02-S-high-A-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Silver	1.39E-02	rl U	T2
198-02-S-high-B-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Silver	1.39E-02	rl U	T2
199-02-S-high-C-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Silver	1.39E-02	rl U	T2
200-02-S-high-D-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Silver	1.39E-02	rl U	T2
201-03-S-high-A-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Silver	1.39E-02	rl U	T2
202-03-S-high-B-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Silver	1.39E-02	rl U	T2
203-03-S-high-C-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Silver	1.39E-02	rl U	T2
204-03-S-high-D-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Silver	1.39E-02	rl U	T2
205-04-S-high-A-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Silver	1.39E-02	rl U	T2
206-04-S-high-B-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Silver	1.39E-02	rl U	T2
207-04-S-high-C-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Silver	1.39E-02	rl U	T2
208-04-S-high-D-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Silver	1.39E-02	rl U	T2
209-05-S-high-A-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Silver	1.39E-02	rl U	T2
210-05-S-high-B-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Silver	1.39E-02	rl U	T2
211-05-S-high-C-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Silver	1.39E-02	rl U	T2
212-05-S-high-D-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Silver	1.39E-02	rl U	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Silver	1.39E-02	rl U	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Silver	1.39E-02	rl U	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Silver	1.39E-02	rl U	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Silver	1.39E-02	rl U	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Silver	1.39E-02	rl U	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Silver	1.39E-02	rl U	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Silver	1.39E-02	rl U	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Silver	1.39E-02	rl U	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Silver	1.39E-02	rl U	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Silver	1.39E-02	rl U	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Silver	1.39E-02	rl U	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Silver	1.39E-02	rl U	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
225-09-S-high-A-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Silver	1.39E-02	rl U	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Silver	1.39E-02	rl U	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Silver	1.39E-02	rl U	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Silver	1.39E-02	rl U	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Silver	1.39E-02	rl U	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Silver	1.39E-02	rl U	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Silver	1.39E-02	rl U	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Silver	1.39E-02	rl U	T2
233-11-S-high-A-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Silver	1.39E-02	rl U	T2
234-11-S-high-B-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Silver	1.39E-02	rl U	T2
235-11-S-high-C-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Silver	1.39E-02	rl U	T2
236-11-S-high-D-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Silver	1.39E-02	rl U	T2
237-12-S-high-A-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Silver	1.39E-02	rl U	T2
238-12-S-high-B-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Silver	1.39E-02	rl U	T2
239-12-S-high-C-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Silver	1.39E-02	rl U	T2
240-12-S-high-D-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Silver	1.39E-02	rl U	T2
289-01-I-low-A-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Silver	1.39E-02	rl U	T2
290-01-I-low-B-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Silver	1.39E-02	rl U	T2
291-01-I-low-C-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Silver	1.39E-02	rl U	T2
292-01-I-low-D-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Silver	1.39E-02	rl U	T2
293-02-I-low-A-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Silver	1.39E-02	rl U	T2
294-02-I-low-B-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Silver	1.39E-02	rl U	T2
295-02-I-low-C-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Silver	1.39E-02	rl U	T2
296-02-I-low-D-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Silver	1.39E-02	rl U	T2
297-03-I-low-A-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Silver	1.39E-02	rl U	T2
298-03-I-low-B-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Silver	1.39E-02	rl U	T2
299-03-I-low-C-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Silver	1.39E-02	rl U	T2
300-03-I-low-D-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Silver	1.39E-02	rl U	T2
301-04-I-low-A-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Silver	1.39E-02	rl U	T2
302-04-I-low-B-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Silver	1.39E-02	rl U	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
303-04-I-low-C-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Silver	1.39E-02	rl U	T2
304-04-I-low-D-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Silver	1.39E-02	rl U	T2
305-05-I-low-A-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Silver	1.39E-02	rl U	T2
306-05-I-low-B-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Silver	1.39E-02	rl U	T2
307-05-I-low-C-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Silver	1.39E-02	rl U	T2
308-05-I-low-D-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Silver	1.39E-02	rl U	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Silver	1.39E-02	rl U	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Silver	1.39E-02	rl U	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Silver	1.39E-02	rl U	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Silver	1.39E-02	rl U	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Silver	1.39E-02	rl U	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Silver	1.39E-02	rl U	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Silver	1.39E-02	rl U	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Silver	1.39E-02	rl U	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Silver	1.39E-02	rl U	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Silver	1.39E-02	rl U	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Silver	1.39E-02	rl U	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Silver	1.39E-02	rl U	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Silver	1.39E-02	rl U	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Silver	1.39E-02	rl U	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Silver	1.39E-02	rl U	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Silver	1.39E-02	rl U	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Silver	1.39E-02	rl U	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Silver	1.39E-02	rl U	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Silver	1.39E-02	rl U	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Silver	1.39E-02	rl U	T2
329-11-I-low-A-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Silver	1.39E-02	rl U	T2
330-11-I-low-B-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Silver	1.39E-02	rl U	T2
331-11-I-low-C-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Silver	1.39E-02	rl U	T2
332-11-I-low-D-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Silver	1.39E-02	rl U	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
333-12-I-low-A-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Silver	1.39E-02	rl U	T2
334-12-I-low-B-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Silver	1.39E-02	rl U	T2
335-12-I-low-C-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Silver	1.39E-02	rl U	T2
336-12-I-low-D-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Silver	1.39E-02	rl U	T2
337-01-I-high-A-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Silver	1.39E-02	rl U	T2
338-01-I-high-B-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Silver	1.39E-02	rl U	T2
339-01-I-high-C-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Silver	1.39E-02	rl U	T2
340-01-I-high-D-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Silver	1.39E-02	rl U	T2
341-02-I-high-A-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Silver	3.89E-02	rl	T2
342-02-I-high-B-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Silver	1.39E-02	rl U	T2
343-02-I-high-C-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Silver	1.39E-02	rl U	T2
344-02-I-high-D-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Silver	1.39E-02	rl U	T2
345-03-I-high-A-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Silver	1.39E-02	rl U	T2
346-03-I-high-B-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Silver	1.39E-02	rl U	T2
347-03-I-high-C-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Silver	1.39E-02	rl U	T2
348-03-I-high-D-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Silver	1.39E-02	rl U	T2
349-04-I-high-A-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Silver	1.39E-02	rl U	T2
350-04-I-high-B-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Silver	1.39E-02	rl U	T2
351-04-I-high-C-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Silver	1.39E-02	rl U	T2
352-04-I-high-D-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Silver	1.39E-02	rl U	T2
353-05-I-high-A-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Silver	1.39E-02	rl U	T2
354-05-I-high-B-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Silver	1.39E-02	rl U	T2
355-05-I-high-C-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Silver	1.39E-02	rl U	T2
356-05-I-high-D-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Silver	1.39E-02	rl U	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Silver	1.39E-02	rl U	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Silver	2.40E-02	rl	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Silver	1.39E-02	rl U	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Silver	1.39E-02	rl U	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Silver	1.39E-02	rl U	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Silver	1.39E-02	rl U	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Silver	1.39E-02	rl U	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Silver	1.39E-02	rl U	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Silver	1.39E-02	rl U	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Silver	1.39E-02	rl U	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Silver	1.39E-02	rl U	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Silver	1.39E-02	rl U	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Silver	1.39E-02	rl U	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Silver	1.39E-02	rl U	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Silver	1.39E-02	rl U	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Silver	1.39E-02	rl U	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Silver	1.39E-02	rl U	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Silver	1.39E-02	rl U	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Silver	1.39E-02	rl U	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Silver	1.39E-02	rl U	T2
377-11-I-high-A-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Silver	1.39E-02	rl U	T2
378-11-I-high-B-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Silver	1.39E-02	rl U	T2
379-11-I-high-C-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Silver	1.39E-02	rl U	T2
380-11-I-high-D-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Silver	1.39E-02	rl U	T2
381-12-I-high-A-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Silver	1.39E-02	rl U	T2
382-12-I-high-B-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Silver	1.39E-02	rl U	T2
383-12-I-high-C-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Silver	1.39E-02	rl U	T2
384-12-I-high-D-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Silver	1.39E-02	rl U	T2
385-00-I-none-A-2	control_none_I	EPA6010C-SPLP	17	mg/L	Silver	1.39E-02	rl U	T2
386-00-I-none-B-2	control_none_I	EPA6010C-SPLP	17	mg/L	Silver	1.39E-02	rl U	T2
387-00-I-none-C-2	control_none_I	EPA6010C-SPLP	17	mg/L	Silver	1.39E-02	rl U	T2
388-00-I-none-D-2	control_none_I	EPA6010C-SPLP	17	mg/L	Silver	1.39E-02	rl U	T2
049-01-S-low-A-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Sodium	2.52E+00	Dup	T2
050-01-S-low-B-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Sodium	2.46E+00	Dup	T2
051-01-S-low-C-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Sodium	2.18E+00	Dup	T2
052-01-S-low-D-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Sodium	2.76E+00	Dup	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
053-02-S-low-A-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Sodium	1.19E+00	Dup	T2
054-02-S-low-B-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Sodium	1.09E+00	Dup	T2
055-02-S-low-C-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Sodium	1.26E+00	Dup	T2
056-02-S-low-D-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Sodium	1.20E+00	Dup	T2
057-03-S-low-A-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Sodium	1.92E+00	Dup	T2
058-03-S-low-B-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Sodium	1.49E+00	Dup	T2
059-03-S-low-C-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Sodium	1.45E+00	Dup	T2
060-03-S-low-D-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Sodium	1.51E+00	Dup	T2
061-04-S-low-A-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Sodium	1.46E+00	NA	T2
062-04-S-low-B-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Sodium	1.40E+00	NA	T2
063-04-S-low-C-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Sodium	1.37E+00	NA	T2
064-04-S-low-D-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Sodium	1.42E+00	NA	T2
065-05-S-low-A-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Sodium	1.43E+00	NA	T2
066-05-S-low-B-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Sodium	1.73E+00	NA	T2
067-05-S-low-C-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Sodium	1.64E+00	NA	T2
068-05-S-low-D-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Sodium	1.74E+00	NA	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Sodium	2.11E+00	NA	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Sodium	1.49E+00	NA	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Sodium	2.02E+00	NA	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Sodium	2.33E+00	NA	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Sodium	2.00E+00	NA	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Sodium	2.01E+00	NA	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Sodium	2.38E+00	NA	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Sodium	2.11E+00	NA	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Sodium	2.52E+00	NA	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Sodium	2.77E+00	NA	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Sodium	2.59E+00	NA	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Sodium	2.89E+00	NA	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Sodium	2.25E+00	NA	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Sodium	1.91E+00	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
083-09-S-low-C-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Sodium	1.89E+00	NA	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Sodium	1.56E+00	NA	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Sodium	1.58E+00	NA	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Sodium	1.53E+00	NA	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Sodium	1.63E+00	NA	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Sodium	1.62E+00	NA	T2
089-11-S-low-A-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Sodium	2.42E+00	NA	T2
090-11-S-low-B-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Sodium	2.37E+00	NA	T2
091-11-S-low-C-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Sodium	1.75E+00	NA	T2
092-11-S-low-D-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Sodium	2.24E+00	NA	T2
093-12-S-low-A-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Sodium	1.86E+00	NA	T2
094-12-S-low-B-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Sodium	1.87E+00	NA	T2
095-12-S-low-C-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Sodium	2.09E+00	NA	T2
096-12-S-low-D-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Sodium	1.80E+00	NA	T2
193-01-S-high-A-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Sodium	3.58E+00	NA	T2
194-01-S-high-B-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Sodium	3.23E+00	NA	T2
195-01-S-high-C-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Sodium	3.43E+00	NA	T2
196-01-S-high-D-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Sodium	3.36E+00	NA	T2
197-02-S-high-A-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Sodium	1.16E+00	NA	T2
198-02-S-high-B-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Sodium	9.88E-01	NA	T2
199-02-S-high-C-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Sodium	1.03E+00	NA	T2
200-02-S-high-D-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Sodium	1.10E+00	NA	T2
201-03-S-high-A-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Sodium	3.10E+00	NA	T2
202-03-S-high-B-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Sodium	2.49E+00	NA	T2
203-03-S-high-C-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Sodium	2.21E+00	NA	T2
204-03-S-high-D-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Sodium	2.40E+00	NA	T2
205-04-S-high-A-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Sodium	1.46E+00	Dup	T2
206-04-S-high-B-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Sodium	1.38E+00	Dup	T2
207-04-S-high-C-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Sodium	1.16E+00	Dup	T2
208-04-S-high-D-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Sodium	1.49E+00	Dup	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
209-05-S-high-A-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Sodium	3.59E+00	Dup	T2
210-05-S-high-B-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Sodium	3.17E+00	Dup	T2
211-05-S-high-C-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Sodium	3.12E+00	Dup	T2
212-05-S-high-D-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Sodium	2.57E+00	Dup	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Sodium	2.29E+00	Dup	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Sodium	3.16E+00	Dup	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Sodium	1.85E+00	Dup	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Sodium	1.86E+00	Dup	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Sodium	3.16E+00	NA	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Sodium	2.36E+00	NA	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Sodium	2.91E+00	NA	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Sodium	3.36E+00	NA	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Sodium	4.78E+00	NA	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Sodium	3.07E+00	NA	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Sodium	4.62E+00	NA	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Sodium	4.59E+00	NA	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Sodium	2.04E+00	NA	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Sodium	2.18E+00	NA	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Sodium	2.90E+00	NA	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Sodium	2.39E+00	NA	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Sodium	2.49E+00	NA	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Sodium	2.87E+00	NA	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Sodium	2.45E+00	NA	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Sodium	2.52E+00	NA	T2
233-11-S-high-A-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Sodium	3.89E+00	NA	T2
234-11-S-high-B-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Sodium	3.69E+00	NA	T2
235-11-S-high-C-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Sodium	2.66E+00	NA	T2
236-11-S-high-D-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Sodium	2.95E+00	NA	T2
237-12-S-high-A-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Sodium	2.90E+00	NA	T2
238-12-S-high-B-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Sodium	3.12E+00	NA	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
239-12-S-high-C-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Sodium	3.31E+00	NA	T2
240-12-S-high-D-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Sodium	3.44E+00	NA	T2
289-01-I-low-A-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Sodium	5.06E+00	NA	T2
290-01-I-low-B-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Sodium	3.55E+00	NA	T2
291-01-I-low-C-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Sodium	4.12E+00	NA	T2
292-01-I-low-D-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Sodium	3.94E+00	NA	T2
293-02-I-low-A-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Sodium	3.11E+00	NA	T2
294-02-I-low-B-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Sodium	3.88E+00	NA	T2
295-02-I-low-C-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Sodium	1.86E+00	NA	T2
296-02-I-low-D-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Sodium	3.17E+00	NA	T2
297-03-I-low-A-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Sodium	2.90E+00	NA	T2
298-03-I-low-B-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Sodium	2.49E+00	NA	T2
299-03-I-low-C-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Sodium	3.63E+00	NA	T2
300-03-I-low-D-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Sodium	2.82E+00	NA	T2
301-04-I-low-A-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Sodium	2.61E+00	Dup	T2
302-04-I-low-B-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Sodium	2.76E+00	Dup	T2
303-04-I-low-C-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Sodium	2.95E+00	Dup	T2
304-04-I-low-D-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Sodium	3.22E+00	Dup	T2
305-05-I-low-A-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Sodium	3.73E+00	Dup	T2
306-05-I-low-B-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Sodium	3.72E+00	Dup	T2
307-05-I-low-C-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Sodium	3.78E+00	Dup	T2
308-05-I-low-D-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Sodium	3.12E+00	Dup	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Sodium	3.91E+00	Dup	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Sodium	2.27E+00	Dup	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Sodium	3.77E+00	Dup	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Sodium	5.74E+00	Dup	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Sodium	3.32E+00	Dup	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Sodium	3.20E+00	Dup	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Sodium	4.42E+00	Dup	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Sodium	4.32E+00	Dup	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
317-08-I-low-A-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Sodium	5.25E+00	Dup	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Sodium	5.26E+00	Dup	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Sodium	6.26E+00	Dup	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Sodium	5.83E+00	Dup	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Sodium	3.46E+00	Dup	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Sodium	3.78E+00	Dup	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Sodium	3.30E+00	Dup	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Sodium	3.63E+00	Dup	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Sodium	3.17E+00	NA	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Sodium	3.81E+00	NA	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Sodium	3.47E+00	NA	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Sodium	2.58E+00	NA	T2
329-11-I-low-A-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Sodium	4.38E+00	NA	T2
330-11-I-low-B-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Sodium	4.23E+00	NA	T2
331-11-I-low-C-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Sodium	4.45E+00	NA	T2
332-11-I-low-D-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Sodium	4.80E+00	NA	T2
333-12-I-low-A-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Sodium	3.80E+00	NA	T2
334-12-I-low-B-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Sodium	5.54E+00	NA	T2
335-12-I-low-C-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Sodium	3.94E+00	NA	T2
336-12-I-low-D-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Sodium	3.39E+00	NA	T2
337-01-I-high-A-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Sodium	6.73E+00	Dup	T2
338-01-I-high-B-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Sodium	7.46E+00	Dup	T2
339-01-I-high-C-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Sodium	6.00E+00	Dup	T2
340-01-I-high-D-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Sodium	6.06E+00	Dup	T2
341-02-I-high-A-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Sodium	3.87E+00	Dup	T2
342-02-I-high-B-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Sodium	3.04E+00	Dup	T2
343-02-I-high-C-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Sodium	4.75E+00	Dup	T2
344-02-I-high-D-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Sodium	3.80E+00	Dup	T2
345-03-I-high-A-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Sodium	5.07E+00	Dup	T2
346-03-I-high-B-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Sodium	8.67E+00	Dup	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
347-03-I-high-C-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Sodium	4.97E+00	Dup	T2
348-03-I-high-D-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Sodium	4.94E+00	Dup	T2
349-04-I-high-A-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Sodium	3.07E+00	NA	T2
350-04-I-high-B-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Sodium	3.87E+00	NA	T2
351-04-I-high-C-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Sodium	3.15E+00	NA	T2
352-04-I-high-D-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Sodium	3.16E+00	NA	T2
353-05-I-high-A-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Sodium	7.84E+00	NA	T2
354-05-I-high-B-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Sodium	8.00E+00	NA	T2
355-05-I-high-C-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Sodium	6.95E+00	NA	T2
356-05-I-high-D-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Sodium	6.72E+00	NA	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Sodium	7.58E+00	NA	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Sodium	9.82E+00	NA	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Sodium	6.47E+00	NA	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Sodium	6.01E+00	NA	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Sodium	8.01E+00	Dup	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Sodium	7.36E+00	Dup	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Sodium	7.98E+00	Dup	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Sodium	8.47E+00	Dup	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Sodium	1.82E+01	Dup	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Sodium	1.25E+01	Dup	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Sodium	1.18E+01	Dup	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Sodium	1.92E+01	Dup	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Sodium	6.37E+00	Dup	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Sodium	9.32E+00	Dup	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Sodium	1.17E+01	Dup	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Sodium	7.36E+00	Dup	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Sodium	7.98E+00	NA	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Sodium	8.20E+00	NA	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Sodium	7.79E+00	NA	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Sodium	8.60E+00	NA	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
377-11-I-high-A-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Sodium	1.11E+01	NA	T2
378-11-I-high-B-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Sodium	1.34E+01	NA	T2
379-11-I-high-C-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Sodium	1.19E+01	NA	T2
380-11-I-high-D-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Sodium	1.38E+01	NA	T2
381-12-I-high-A-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Sodium	1.54E+01	NA	T2
382-12-I-high-B-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Sodium	1.43E+01	NA	T2
383-12-I-high-C-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Sodium	1.15E+01	NA	T2
384-12-I-high-D-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Sodium	7.58E+00	NA	T2
385-00-I-none-A-2	control_none_I	EPA6010C-SPLP	17	mg/L	Sodium	3.55E+00	NA	T2
386-00-I-none-B-2	control_none_I	EPA6010C-SPLP	17	mg/L	Sodium	3.58E+00	NA	T2
387-00-I-none-C-2	control_none_I	EPA6010C-SPLP	17	mg/L	Sodium	2.85E+00	NA	T2
388-00-I-none-D-2	control_none_I	EPA6010C-SPLP	17	mg/L	Sodium	3.30E+00	NA	T2
049-01-S-low-A-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Thallium	4.25E-03	rl U	T2
050-01-S-low-B-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Thallium	4.25E-03	rl U	T2
051-01-S-low-C-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Thallium	4.25E-03	rl U	T2
052-01-S-low-D-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Thallium	4.25E-03	rl U	T2
053-02-S-low-A-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Thallium	4.25E-03	rl U	T2
054-02-S-low-B-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Thallium	4.25E-03	rl U	T2
055-02-S-low-C-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Thallium	4.25E-03	rl U	T2
056-02-S-low-D-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Thallium	4.25E-03	rl U	T2
057-03-S-low-A-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Thallium	4.25E-03	rl U	T2
058-03-S-low-B-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Thallium	4.25E-03	rl U	T2
059-03-S-low-C-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Thallium	4.25E-03	rl U	T2
060-03-S-low-D-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Thallium	4.25E-03	rl U	T2
061-04-S-low-A-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Thallium	4.25E-03	rl U	T2
062-04-S-low-B-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Thallium	4.25E-03	rl U	T2
063-04-S-low-C-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Thallium	4.25E-03	rl U	T2
064-04-S-low-D-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Thallium	4.25E-03	rl U	T2
065-05-S-low-A-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Thallium	4.25E-03	rl U	T2
066-05-S-low-B-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Thallium	4.25E-03	rl U	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
067-05-S-low-C-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Thallium	4.25E-03	rl U	T2
068-05-S-low-D-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Thallium	4.25E-03	rl U	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Thallium	4.25E-03	rl U	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Thallium	4.25E-03	rl U	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Thallium	4.25E-03	rl U	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Thallium	4.25E-03	rl U	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Thallium	4.25E-03	rl U	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Thallium	4.25E-03	rl U	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Thallium	4.25E-03	rl U	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Thallium	4.25E-03	rl U	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Thallium	4.25E-03	rl U	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Thallium	4.25E-03	rl U	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Thallium	4.25E-03	rl U	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Thallium	4.25E-03	rl U	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Thallium	4.25E-03	rl U	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Thallium	4.25E-03	rl U	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Thallium	4.25E-03	rl U	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Thallium	4.25E-03	rl U	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Thallium	4.25E-03	rl U	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Thallium	4.25E-03	rl U	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Thallium	4.25E-03	rl U	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Thallium	4.25E-03	rl U	T2
089-11-S-low-A-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Thallium	4.25E-03	rl U	T2
090-11-S-low-B-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Thallium	4.25E-03	rl U	T2
091-11-S-low-C-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Thallium	4.25E-03	rl U	T2
092-11-S-low-D-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Thallium	4.25E-03	rl U	T2
093-12-S-low-A-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Thallium	4.25E-03	rl U	T2
094-12-S-low-B-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Thallium	4.25E-03	rl U	T2
095-12-S-low-C-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Thallium	4.25E-03	rl U	T2
096-12-S-low-D-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Thallium	4.25E-03	rl U	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
193-01-S-high-A-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Thallium	4.25E-03	rl U	T2
194-01-S-high-B-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Thallium	4.25E-03	rl U	T2
195-01-S-high-C-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Thallium	4.25E-03	rl U	T2
196-01-S-high-D-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Thallium	4.25E-03	rl U	T2
197-02-S-high-A-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Thallium	4.25E-03	rl U	T2
198-02-S-high-B-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Thallium	4.25E-03	rl U	T2
199-02-S-high-C-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Thallium	4.25E-03	rl U	T2
200-02-S-high-D-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Thallium	4.25E-03	rl U	T2
201-03-S-high-A-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Thallium	4.25E-03	rl U	T2
202-03-S-high-B-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Thallium	4.25E-03	rl U	T2
203-03-S-high-C-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Thallium	4.25E-03	rl U	T2
204-03-S-high-D-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Thallium	4.25E-03	rl U	T2
205-04-S-high-A-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Thallium	4.25E-03	rl U	T2
206-04-S-high-B-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Thallium	4.25E-03	rl U	T2
207-04-S-high-C-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Thallium	4.25E-03	rl U	T2
208-04-S-high-D-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Thallium	4.25E-03	rl U	T2
209-05-S-high-A-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Thallium	4.25E-03	rl U	T2
210-05-S-high-B-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Thallium	4.25E-03	rl U	T2
211-05-S-high-C-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Thallium	4.25E-03	rl U	T2
212-05-S-high-D-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Thallium	4.25E-03	rl U	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Thallium	4.25E-03	rl U	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Thallium	4.25E-03	rl U	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Thallium	4.25E-03	rl U	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Thallium	4.25E-03	rl U	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Thallium	4.25E-03	rl U	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Thallium	4.25E-03	rl U	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Thallium	4.25E-03	rl U	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Thallium	4.25E-03	rl U	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Thallium	4.25E-03	rl U	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Thallium	4.25E-03	rl U	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
223-08-S-high-C-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Thallium	4.25E-03	rl U	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Thallium	4.25E-03	rl U	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Thallium	4.25E-03	rl U	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Thallium	4.25E-03	rl U	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Thallium	4.25E-03	rl U	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Thallium	4.25E-03	rl U	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Thallium	4.25E-03	rl U	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Thallium	4.25E-03	rl U	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Thallium	4.25E-03	rl U	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Thallium	4.25E-03	rl U	T2
233-11-S-high-A-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Thallium	4.25E-03	rl U	T2
234-11-S-high-B-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Thallium	4.25E-03	rl U	T2
235-11-S-high-C-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Thallium	4.25E-03	rl U	T2
236-11-S-high-D-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Thallium	5.17E-03	rl	T2
237-12-S-high-A-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Thallium	4.25E-03	rl U	T2
238-12-S-high-B-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Thallium	4.25E-03	rl U	T2
239-12-S-high-C-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Thallium	4.25E-03	rl U	T2
240-12-S-high-D-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Thallium	4.25E-03	rl U	T2
289-01-I-low-A-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Thallium	5.23E-03	rl	T2
290-01-I-low-B-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Thallium	4.25E-03	rl U	T2
291-01-I-low-C-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Thallium	4.25E-03	rl U	T2
292-01-I-low-D-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Thallium	5.21E-03	rl	T2
293-02-I-low-A-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Thallium	4.25E-03	rl U	T2
294-02-I-low-B-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Thallium	4.25E-03	rl U	T2
295-02-I-low-C-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Thallium	4.25E-03	rl U	T2
296-02-I-low-D-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Thallium	4.25E-03	rl U	T2
297-03-I-low-A-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Thallium	4.25E-03	rl U	T2
298-03-I-low-B-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Thallium	4.25E-03	rl U	T2
299-03-I-low-C-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Thallium	4.25E-03	rl U	T2
300-03-I-low-D-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Thallium	4.25E-03	rl U	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
301-04-I-low-A-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Thallium	4.25E-03	rl U	T2
302-04-I-low-B-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Thallium	4.25E-03	rl U	T2
303-04-I-low-C-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Thallium	4.25E-03	rl U	T2
304-04-I-low-D-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Thallium	4.25E-03	rl U	T2
305-05-I-low-A-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Thallium	4.25E-03	rl U	T2
306-05-I-low-B-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Thallium	4.25E-03	rl U	T2
307-05-I-low-C-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Thallium	4.25E-03	rl U	T2
308-05-I-low-D-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Thallium	4.25E-03	rl U	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Thallium	4.25E-03	rl U	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Thallium	4.25E-03	rl U	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Thallium	4.25E-03	rl U	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Thallium	4.25E-03	rl U	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Thallium	4.25E-03	rl U	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Thallium	4.25E-03	rl U	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Thallium	4.25E-03	rl U	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Thallium	4.25E-03	rl U	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Thallium	4.25E-03	rl U	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Thallium	4.25E-03	rl U	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Thallium	4.25E-03	rl U	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Thallium	4.25E-03	rl U	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Thallium	4.25E-03	rl U	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Thallium	4.51E-03	rl	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Thallium	4.25E-03	rl U	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Thallium	4.25E-03	rl U	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Thallium	4.25E-03	rl U	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Thallium	4.25E-03	rl U	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Thallium	4.25E-03	rl U	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Thallium	4.25E-03	rl U	T2
329-11-I-low-A-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Thallium	4.25E-03	rl U	T2
330-11-I-low-B-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Thallium	4.25E-03	rl U	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
331-11-I-low-C-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Thallium	4.25E-03	rl U	T2
332-11-I-low-D-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Thallium	4.25E-03	rl U	T2
333-12-I-low-A-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Thallium	4.25E-03	rl U	T2
334-12-I-low-B-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Thallium	4.25E-03	rl U	T2
335-12-I-low-C-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Thallium	4.25E-03	rl U	T2
336-12-I-low-D-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Thallium	4.25E-03	rl U	T2
337-01-I-high-A-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Thallium	4.25E-03	rl U	T2
338-01-I-high-B-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Thallium	4.25E-03	rl U	T2
339-01-I-high-C-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Thallium	4.25E-03	rl U	T2
340-01-I-high-D-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Thallium	4.25E-03	rl U	T2
341-02-I-high-A-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Thallium	4.25E-03	rl U	T2
342-02-I-high-B-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Thallium	4.25E-03	rl U	T2
343-02-I-high-C-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Thallium	4.25E-03	rl U	T2
344-02-I-high-D-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Thallium	4.25E-03	rl U	T2
345-03-I-high-A-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Thallium	4.25E-03	rl U	T2
346-03-I-high-B-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Thallium	4.25E-03	rl U	T2
347-03-I-high-C-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Thallium	4.25E-03	rl U	T2
348-03-I-high-D-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Thallium	4.25E-03	rl U	T2
349-04-I-high-A-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Thallium	4.25E-03	rl U	T2
350-04-I-high-B-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Thallium	4.25E-03	rl U	T2
351-04-I-high-C-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Thallium	4.25E-03	rl U	T2
352-04-I-high-D-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Thallium	4.25E-03	rl U	T2
353-05-I-high-A-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Thallium	4.25E-03	rl U	T2
354-05-I-high-B-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Thallium	4.25E-03	rl U	T2
355-05-I-high-C-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Thallium	4.25E-03	rl U	T2
356-05-I-high-D-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Thallium	4.25E-03	rl U	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Thallium	4.25E-03	rl U	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Thallium	4.25E-03	rl U	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Thallium	4.25E-03	rl U	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Thallium	4.25E-03	rl U	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Thallium	4.51E-03	rl	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Thallium	4.25E-03	rl U	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Thallium	4.25E-03	rl U	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Thallium	4.25E-03	rl U	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Thallium	4.70E-03	rl	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Thallium	4.25E-03	rl U	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Thallium	4.25E-03	rl U	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Thallium	4.25E-03	rl U	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Thallium	4.25E-03	rl U	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Thallium	4.25E-03	rl U	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Thallium	4.25E-03	rl U	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Thallium	4.25E-03	rl U	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Thallium	4.25E-03	rl U	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Thallium	4.25E-03	rl U	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Thallium	4.25E-03	rl U	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Thallium	4.25E-03	rl U	T2
377-11-I-high-A-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Thallium	4.25E-03	rl U	T2
378-11-I-high-B-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Thallium	4.25E-03	rl U	T2
379-11-I-high-C-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Thallium	4.25E-03	rl U	T2
380-11-I-high-D-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Thallium	4.25E-03	rl U	T2
381-12-I-high-A-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Thallium	4.25E-03	rl U	T2
382-12-I-high-B-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Thallium	4.25E-03	rl U	T2
383-12-I-high-C-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Thallium	4.25E-03	rl U	T2
384-12-I-high-D-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Thallium	4.25E-03	rl U	T2
385-00-I-none-A-2	control_none_I	EPA6010C-SPLP	17	mg/L	Thallium	6.06E-03	rl	T2
386-00-I-none-B-2	control_none_I	EPA6010C-SPLP	17	mg/L	Thallium	4.69E-03	rl	T2
387-00-I-none-C-2	control_none_I	EPA6010C-SPLP	17	mg/L	Thallium	4.25E-03	rl U	T2
388-00-I-none-D-2	control_none_I	EPA6010C-SPLP	17	mg/L	Thallium	4.25E-03	rl U	T2
049-01-S-low-A-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Vanadium	6.97E-03	rl	T2
050-01-S-low-B-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Vanadium	5.61E-03	rl	T2

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
051-01-S-low-C-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Vanadium	5.65E-03	rl	T2
052-01-S-low-D-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Vanadium	7.35E-03	rl	T2
053-02-S-low-A-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Vanadium	5.65E-03	rl	T2
054-02-S-low-B-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Vanadium	7.23E-03	rl	T2
055-02-S-low-C-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Vanadium	4.61E-03	rl	T2
056-02-S-low-D-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Vanadium	6.26E-03	rl	T2
057-03-S-low-A-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Vanadium	2.64E-03	rl	T2
058-03-S-low-B-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Vanadium	2.55E-03	rl	T2
059-03-S-low-C-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Vanadium	2.57E-03	rl	T2
060-03-S-low-D-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Vanadium	2.99E-03	rl	T2
061-04-S-low-A-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Vanadium	3.12E-03	rl	T2
062-04-S-low-B-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Vanadium	2.89E-03	rl	T2
063-04-S-low-C-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Vanadium	2.27E-03	rl	T2
064-04-S-low-D-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Vanadium	2.85E-03	rl	T2
065-05-S-low-A-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Vanadium	2.33E-03	rl	T2
066-05-S-low-B-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Vanadium	2.26E-03	rl	T2
067-05-S-low-C-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Vanadium	2.22E-03	rl	T2
068-05-S-low-D-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Vanadium	2.82E-03	rl	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Vanadium	7.19E-03	rl	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Vanadium	6.32E-03	rl	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Vanadium	8.74E-03	rl	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Vanadium	1.39E-02	rl	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Vanadium	6.55E-03	rl	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Vanadium	4.69E-03	rl	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Vanadium	6.60E-03	rl	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Vanadium	5.61E-03	rl	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Vanadium	7.04E-03	rl	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Vanadium	6.04E-03	rl	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Vanadium	7.45E-03	rl	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Vanadium	6.08E-03	rl	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
081-09-S-low-A-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Vanadium	4.84E-03	rl	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Vanadium	3.77E-03	rl	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Vanadium	4.63E-03	rl	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Vanadium	4.99E-03	rl	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Vanadium	2.76E-03	rl	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Vanadium	3.26E-03	rl	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Vanadium	2.61E-03	rl	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Vanadium	3.31E-03	rl	T2
089-11-S-low-A-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Vanadium	2.60E-03	rl	T2
090-11-S-low-B-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Vanadium	2.72E-03	rl	T2
091-11-S-low-C-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Vanadium	2.41E-03	rl	T2
092-11-S-low-D-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Vanadium	2.78E-03	rl	T2
093-12-S-low-A-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Vanadium	2.49E-03	rl	T2
094-12-S-low-B-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Vanadium	3.48E-03	rl	T2
095-12-S-low-C-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Vanadium	3.83E-03	rl	T2
096-12-S-low-D-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Vanadium	3.17E-03	rl	T2
193-01-S-high-A-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Vanadium	1.28E-02	rl	T2
194-01-S-high-B-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Vanadium	1.03E-02	rl	T2
195-01-S-high-C-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Vanadium	1.26E-02	rl	T2
196-01-S-high-D-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Vanadium	1.02E-02	rl	T2
197-02-S-high-A-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Vanadium	1.29E-02	rl	T2
198-02-S-high-B-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Vanadium	1.22E-02	rl	T2
199-02-S-high-C-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Vanadium	1.10E-02	rl	T2
200-02-S-high-D-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Vanadium	1.06E-02	rl	T2
201-03-S-high-A-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Vanadium	2.81E-03	rl	T2
202-03-S-high-B-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Vanadium	2.53E-03	rl	T2
203-03-S-high-C-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Vanadium	2.77E-03	rl	T2
204-03-S-high-D-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Vanadium	3.01E-03	rl	T2
205-04-S-high-A-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Vanadium	4.68E-03	rl	T2
206-04-S-high-B-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Vanadium	3.17E-03	rl	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
207-04-S-high-C-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Vanadium	2.83E-03	rl	T2
208-04-S-high-D-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Vanadium	3.82E-03	rl	T2
209-05-S-high-A-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Vanadium	5.14E-03	rl	T2
210-05-S-high-B-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Vanadium	3.53E-03	rl	T2
211-05-S-high-C-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Vanadium	4.67E-03	rl	T2
212-05-S-high-D-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Vanadium	2.69E-03	rl	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Vanadium	1.67E-02	rl	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Vanadium	1.24E-02	rl	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Vanadium	1.48E-02	rl	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Vanadium	1.43E-02	rl	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Vanadium	1.33E-02	rl	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Vanadium	1.08E-02	rl	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Vanadium	1.33E-02	rl	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Vanadium	1.26E-02	rl	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Vanadium	5.73E-03	rl	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Vanadium	5.73E-03	rl	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Vanadium	5.57E-03	rl	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Vanadium	5.72E-03	rl	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Vanadium	8.43E-03	rl	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Vanadium	8.68E-03	rl	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Vanadium	5.97E-03	rl	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Vanadium	8.82E-03	rl	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Vanadium	3.43E-03	rl	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Vanadium	4.16E-03	rl	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Vanadium	4.41E-03	rl	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Vanadium	4.45E-03	rl	T2
233-11-S-high-A-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Vanadium	3.00E-03	rl	T2
234-11-S-high-B-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Vanadium	1.89E-03	rl	T2
235-11-S-high-C-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Vanadium	2.07E-03	rl	T2
236-11-S-high-D-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Vanadium	3.75E-03	rl	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
237-12-S-high-A-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Vanadium	3.15E-03	rl	T2
238-12-S-high-B-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Vanadium	2.79E-03	rl	T2
239-12-S-high-C-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Vanadium	3.15E-03	rl	T2
240-12-S-high-D-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Vanadium	3.36E-03	rl	T2
289-01-I-low-A-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Vanadium	7.86E-03	rl	T2
290-01-I-low-B-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Vanadium	7.10E-03	rl	T2
291-01-I-low-C-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Vanadium	6.48E-03	rl	T2
292-01-I-low-D-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Vanadium	8.15E-03	rl	T2
293-02-I-low-A-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Vanadium	4.75E-03	rl	T2
294-02-I-low-B-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Vanadium	2.49E-03	rl	T2
295-02-I-low-C-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Vanadium	4.37E-03	rl	T2
296-02-I-low-D-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Vanadium	3.34E-03	rl	T2
297-03-I-low-A-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Vanadium	2.28E-03	rl	T2
298-03-I-low-B-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Vanadium	2.29E-03	rl	T2
299-03-I-low-C-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Vanadium	2.47E-03	rl	T2
300-03-I-low-D-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Vanadium	2.67E-03	rl	T2
301-04-I-low-A-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Vanadium	2.17E-03	rl	T2
302-04-I-low-B-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Vanadium	2.13E-03	rl	T2
303-04-I-low-C-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Vanadium	2.41E-03	rl	T2
304-04-I-low-D-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Vanadium	1.75E-03	rl	T2
305-05-I-low-A-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Vanadium	2.33E-03	rl	T2
306-05-I-low-B-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Vanadium	2.15E-03	rl	T2
307-05-I-low-C-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Vanadium	1.95E-03	rl	T2
308-05-I-low-D-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Vanadium	2.02E-03	rl	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Vanadium	7.40E-03	rl	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Vanadium	1.36E-02	rl	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Vanadium	7.68E-03	rl	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Vanadium	6.50E-03	rl	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Vanadium	5.50E-03	rl	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Vanadium	5.73E-03	rl	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Vanadium	6.02E-03	rl	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Vanadium	5.15E-03	rl	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Vanadium	5.92E-03	rl	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Vanadium	4.97E-03	rl	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Vanadium	5.07E-03	rl	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Vanadium	6.18E-03	rl	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Vanadium	5.94E-03	rl	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Vanadium	2.79E-03	rl	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Vanadium	3.86E-03	rl	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Vanadium	2.38E-03	rl	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Vanadium	1.78E-03	rl	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Vanadium	4.26E-03	rl	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Vanadium	1.62E-03	rl	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Vanadium	2.60E-03	rl	T2
329-11-I-low-A-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Vanadium	2.07E-03	rl	T2
330-11-I-low-B-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Vanadium	2.62E-03	rl	T2
331-11-I-low-C-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Vanadium	2.20E-03	rl	T2
332-11-I-low-D-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Vanadium	2.15E-03	rl	T2
333-12-I-low-A-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Vanadium	2.34E-03	rl	T2
334-12-I-low-B-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Vanadium	1.83E-03	rl	T2
335-12-I-low-C-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Vanadium	2.18E-03	rl	T2
336-12-I-low-D-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Vanadium	2.07E-03	rl	T2
337-01-I-high-A-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Vanadium	1.40E-02	rl	T2
338-01-I-high-B-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Vanadium	1.38E-02	rl	T2
339-01-I-high-C-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Vanadium	1.42E-02	rl	T2
340-01-I-high-D-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Vanadium	1.60E-02	rl	T2
341-02-I-high-A-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Vanadium	9.23E-03	rl	T2
342-02-I-high-B-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Vanadium	9.99E-03	rl	T2
343-02-I-high-C-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Vanadium	6.79E-03	rl	T2
344-02-I-high-D-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Vanadium	6.15E-03	rl	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
345-03-I-high-A-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Vanadium	2.52E-03	rl	T2
346-03-I-high-B-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Vanadium	2.98E-03	rl	T2
347-03-I-high-C-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Vanadium	2.69E-03	rl	T2
348-03-I-high-D-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Vanadium	2.75E-03	rl	T2
349-04-I-high-A-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Vanadium	2.60E-03	rl	T2
350-04-I-high-B-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Vanadium	2.37E-03	rl	T2
351-04-I-high-C-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Vanadium	2.26E-03	rl	T2
352-04-I-high-D-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Vanadium	2.48E-03	rl	T2
353-05-I-high-A-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Vanadium	2.65E-03	rl	T2
354-05-I-high-B-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Vanadium	2.53E-03	rl	T2
355-05-I-high-C-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Vanadium	2.83E-03	rl	T2
356-05-I-high-D-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Vanadium	2.34E-03	rl	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Vanadium	1.95E-02	rl	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Vanadium	1.59E-02	rl	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Vanadium	2.24E-02	rl	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Vanadium	3.85E-02	NA	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Vanadium	1.43E-02	rl	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Vanadium	1.59E-02	rl	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Vanadium	1.61E-02	rl	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Vanadium	1.51E-02	rl	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Vanadium	9.33E-03	rl	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Vanadium	1.59E-02	rl	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Vanadium	1.37E-02	rl	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Vanadium	1.34E-02	rl	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Vanadium	5.38E-03	rl	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Vanadium	5.23E-03	rl	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Vanadium	5.48E-03	rl	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Vanadium	7.77E-03	rl	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Vanadium	2.62E-03	rl	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Vanadium	2.78E-03	rl	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
375-10-I-high-C-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Vanadium	2.70E-03	rl	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Vanadium	2.46E-03	rl	T2
377-11-I-high-A-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Vanadium	2.74E-03	rl	T2
378-11-I-high-B-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Vanadium	3.09E-03	rl	T2
379-11-I-high-C-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Vanadium	2.82E-03	rl	T2
380-11-I-high-D-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Vanadium	2.87E-03	rl	T2
381-12-I-high-A-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Vanadium	2.26E-03	rl	T2
382-12-I-high-B-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Vanadium	2.27E-03	rl	T2
383-12-I-high-C-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Vanadium	2.64E-03	rl	T2
384-12-I-high-D-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Vanadium	2.93E-03	rl	T2
385-00-I-none-A-2	control_none_I	EPA6010C-SPLP	17	mg/L	Vanadium	2.17E-03	rl	T2
386-00-I-none-B-2	control_none_I	EPA6010C-SPLP	17	mg/L	Vanadium	1.76E-03	rl	T2
387-00-I-none-C-2	control_none_I	EPA6010C-SPLP	17	mg/L	Vanadium	1.87E-03	rl	T2
388-00-I-none-D-2	control_none_I	EPA6010C-SPLP	17	mg/L	Vanadium	1.46E-03	rl	T2
049-01-S-low-A-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Zinc	5.14E-01	NA	T2
050-01-S-low-B-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Zinc	5.02E-01	NA	T2
051-01-S-low-C-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Zinc	3.86E-01	NA	T2
052-01-S-low-D-2	Solublephosphate_low_S	EPA6010C-SPLP	1	mg/L	Zinc	4.54E-01	NA	T2
053-02-S-low-A-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Zinc	1.30E-01	NA	T2
054-02-S-low-B-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Zinc	1.48E-01	NA	T2
055-02-S-low-C-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Zinc	1.69E-01	NA	T2
056-02-S-low-D-2	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Zinc	1.60E-01	NA	T2
057-03-S-low-A-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Zinc	2.03E-01	NA	T2
058-03-S-low-B-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Zinc	1.76E-01	NA	T2
059-03-S-low-C-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Zinc	2.40E-01	NA	T2
060-03-S-low-D-2	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Zinc	1.84E-01	NA	T2
061-04-S-low-A-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Zinc	1.99E-01	NA	T2
062-04-S-low-B-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Zinc	1.76E-01	NA	T2
063-04-S-low-C-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Zinc	1.50E-01	NA	T2
064-04-S-low-D-2	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Zinc	1.74E-01	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
065-05-S-low-A-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Zinc	1.76E-01	NA	T2
066-05-S-low-B-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Zinc	2.24E-01	NA	T2
067-05-S-low-C-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Zinc	2.36E-01	NA	T2
068-05-S-low-D-2	Compost_low_S	EPA6010C-SPLP	2	mg/L	Zinc	1.91E-01	NA	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Zinc	1.49E-01	NA	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Zinc	1.01E-01	NA	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Zinc	1.26E-01	NA	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Zinc	1.20E-01	NA	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Zinc	2.13E-01	NA	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Zinc	2.34E-01	NA	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Zinc	2.59E-01	NA	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Zinc	2.24E-01	NA	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Zinc	1.82E-01	NA	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Zinc	1.75E-01	NA	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Zinc	1.68E-01	NA	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Zinc	2.70E-01	NA	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Zinc	1.79E-01	NA	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Zinc	2.22E-01	NA	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Zinc	1.47E-01	NA	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Zinc	1.13E-01	NA	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Zinc	1.29E-01	NA	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Zinc	1.23E-01	NA	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Zinc	2.36E-01	NA	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Zinc	1.21E-01	NA	T2
089-11-S-low-A-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Zinc	1.42E-01	NA	T2
090-11-S-low-B-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Zinc	1.27E-01	NA	T2
091-11-S-low-C-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Zinc	1.50E-01	NA	T2
092-11-S-low-D-2	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Zinc	1.38E-01	NA	T2
093-12-S-low-A-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Zinc	1.40E-01	NA	T2
094-12-S-low-B-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Zinc	1.16E-01	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
095-12-S-low-C-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Zinc	1.21E-01	NA	T2
096-12-S-low-D-2	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Zinc	1.35E-01	NA	T2
193-01-S-high-A-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Zinc	3.46E-01	NA	T2
194-01-S-high-B-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Zinc	2.69E-01	NA	T2
195-01-S-high-C-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Zinc	2.70E-01	NA	T2
196-01-S-high-D-2	Solublephosphate_high_S	EPA6010C-SPLP	5	mg/L	Zinc	3.19E-01	NA	T2
197-02-S-high-A-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Zinc	1.85E-01	NA	T2
198-02-S-high-B-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Zinc	1.16E-01	NA	T2
199-02-S-high-C-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Zinc	1.16E-01	NA	T2
200-02-S-high-D-2	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Zinc	1.07E-01	NA	T2
201-03-S-high-A-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Zinc	1.54E-01	NA	T2
202-03-S-high-B-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Zinc	1.10E-01	NA	T2
203-03-S-high-C-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Zinc	1.31E-01	NA	T2
204-03-S-high-D-2	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Zinc	1.07E-01	NA	T2
205-04-S-high-A-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Zinc	1.12E-01	Dup	T2
206-04-S-high-B-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Zinc	1.13E-01	Dup	T2
207-04-S-high-C-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Zinc	1.18E-01	Dup	T2
208-04-S-high-D-2	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Zinc	1.05E-01	Dup	T2
209-05-S-high-A-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Zinc	2.79E-01	Dup	T2
210-05-S-high-B-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Zinc	1.65E-01	Dup	T2
211-05-S-high-C-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Zinc	1.75E-01	Dup	T2
212-05-S-high-D-2	Compost_high_S	EPA6010C-SPLP	6	mg/L	Zinc	1.71E-01	Dup	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Zinc	1.51E-01	Dup	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Zinc	1.44E-01	Dup	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Zinc	1.10E-01	Dup	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Zinc	8.04E-02	Dup	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Zinc	2.35E-01	NA	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Zinc	1.61E-01	NA	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Zinc	1.73E-01	NA	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Zinc	1.93E-01	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
221-08-S-high-A-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Zinc	1.66E-01	NA	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Zinc	1.40E-01	NA	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Zinc	1.75E-01	NA	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Zinc	1.54E-01	NA	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Zinc	1.28E-01	NA	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Zinc	1.15E-01	NA	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Zinc	1.60E-01	NA	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Zinc	1.28E-01	NA	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Zinc	8.22E-02	NA	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Zinc	9.38E-02	NA	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Zinc	7.73E-02	NA	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Zinc	7.13E-02	NA	T2
233-11-S-high-A-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Zinc	1.49E-01	NA	T2
234-11-S-high-B-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Zinc	1.69E-01	NA	T2
235-11-S-high-C-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Zinc	1.64E-01	NA	T2
236-11-S-high-D-2	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Zinc	1.73E-01	NA	T2
237-12-S-high-A-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Zinc	1.55E-01	NA	T2
238-12-S-high-B-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Zinc	1.09E-01	NA	T2
239-12-S-high-C-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Zinc	1.10E-01	NA	T2
240-12-S-high-D-2	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Zinc	1.25E-01	NA	T2
289-01-I-low-A-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Zinc	5.02E-01	NA	T2
290-01-I-low-B-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Zinc	4.54E-01	NA	T2
291-01-I-low-C-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Zinc	5.69E-01	NA	T2
292-01-I-low-D-2	Solublephosphate_low_I	EPA6010C-SPLP	9	mg/L	Zinc	5.23E-01	NA	T2
293-02-I-low-A-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Zinc	3.25E-01	NA	T2
294-02-I-low-B-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Zinc	8.78E-01	NA	T2
295-02-I-low-C-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Zinc	2.04E-01	NA	T2
296-02-I-low-D-2	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Zinc	6.52E-01	NA	T2
297-03-I-low-A-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Zinc	3.17E-01	NA	T2
298-03-I-low-B-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Zinc	2.13E-01	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
299-03-I-low-C-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Zinc	3.53E-01	NA	T2
300-03-I-low-D-2	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Zinc	2.71E-01	NA	T2
301-04-I-low-A-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Zinc	3.47E-01	Dup	T2
302-04-I-low-B-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Zinc	4.42E-01	Dup	T2
303-04-I-low-C-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Zinc	4.61E-01	Dup	T2
304-04-I-low-D-2	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Zinc	1.02E+00	Dup	T2
305-05-I-low-A-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Zinc	6.02E-01	Dup	T2
306-05-I-low-B-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Zinc	5.06E-01	Dup	T2
307-05-I-low-C-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Zinc	5.87E-01	Dup	T2
308-05-I-low-D-2	Compost_low_I	EPA6010C-SPLP	10	mg/L	Zinc	4.07E-01	Dup	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Zinc	4.10E-01	Dup	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Zinc	1.58E-01	Dup	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Zinc	3.39E-01	Dup	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Zinc	9.15E-01	Dup	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Zinc	3.41E-01	Dup	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Zinc	3.62E-01	Dup	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Zinc	3.82E-01	Dup	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Zinc	6.01E-01	Dup	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Zinc	4.48E-01	Dup	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Zinc	5.07E-01	Dup	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Zinc	6.82E-01	Dup	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Zinc	4.68E-01	Dup	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Zinc	2.31E-01	Dup	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Zinc	5.58E-01	Dup	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Zinc	4.56E-01	Dup	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Zinc	6.58E-01	Dup	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Zinc	3.64E-01	NA	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Zinc	2.31E-01	NA	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Zinc	5.10E-01	NA	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Zinc	1.67E-01	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
329-11-I-low-A-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Zinc	3.52E-01	NA	T2
330-11-I-low-B-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Zinc	3.17E-01	NA	T2
331-11-I-low-C-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Zinc	5.70E-01	NA	T2
332-11-I-low-D-2	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Zinc	4.32E-01	NA	T2
333-12-I-low-A-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Zinc	3.08E-01	NA	T2
334-12-I-low-B-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Zinc	8.94E-01	NA	T2
335-12-I-low-C-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Zinc	5.84E-01	NA	T2
336-12-I-low-D-2	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Zinc	3.33E-01	NA	T2
337-01-I-high-A-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Zinc	7.22E-01	Dup	T2
338-01-I-high-B-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Zinc	7.96E-01	Dup	T2
339-01-I-high-C-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Zinc	5.81E-01	Dup	T2
340-01-I-high-D-2	Solublephosphate_high_I	EPA6010C-SPLP	13	mg/L	Zinc	5.30E-01	Dup	T2
341-02-I-high-A-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Zinc	2.58E-01	Dup	T2
342-02-I-high-B-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Zinc	2.09E-01	Dup	T2
343-02-I-high-C-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Zinc	2.97E-01	Dup	T2
344-02-I-high-D-2	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Zinc	2.41E-01	Dup	T2
345-03-I-high-A-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Zinc	1.95E-01	Dup	T2
346-03-I-high-B-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Zinc	2.49E-01	Dup	T2
347-03-I-high-C-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Zinc	1.94E-01	Dup	T2
348-03-I-high-D-2	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Zinc	3.08E-01	Dup	T2
349-04-I-high-A-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Zinc	2.69E-01	NA	T2
350-04-I-high-B-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Zinc	4.01E-01	NA	T2
351-04-I-high-C-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Zinc	2.94E-01	NA	T2
352-04-I-high-D-2	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Zinc	3.67E-01	NA	T2
353-05-I-high-A-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Zinc	3.60E-01	NA	T2
354-05-I-high-B-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Zinc	2.62E-01	NA	T2
355-05-I-high-C-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Zinc	2.88E-01	NA	T2
356-05-I-high-D-2	Compost_high_I	EPA6010C-SPLP	14	mg/L	Zinc	3.24E-01	NA	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Zinc	2.09E-01	NA	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Zinc	3.42E-01	NA	T2

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Zinc	1.87E-01	NA	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Zinc	1.68E-01	NA	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Zinc	5.48E-01	Dup	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Zinc	4.74E-01	Dup	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Zinc	7.53E-01	Dup	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Zinc	3.71E-01	Dup	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Zinc	1.28E+00	Dup	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Zinc	3.29E-01	Dup	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Zinc	3.93E-01	Dup	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Zinc	5.59E-01	Dup	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Zinc	2.07E-01	Dup	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Zinc	3.86E-01	Dup	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Zinc	3.78E-01	Dup	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Zinc	1.93E-01	Dup	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Zinc	1.79E-01	Dup	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Zinc	2.08E-01	Dup	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Zinc	1.77E-01	Dup	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Zinc	2.48E-01	Dup	T2
377-11-I-high-A-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Zinc	1.96E-01	Dup	T2
378-11-I-high-B-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Zinc	1.83E-01	Dup	T2
379-11-I-high-C-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Zinc	1.78E-01	Dup	T2
380-11-I-high-D-2	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Zinc	2.73E-01	Dup	T2
381-12-I-high-A-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Zinc	8.35E-01	Dup	T2
382-12-I-high-B-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Zinc	4.27E-01	Dup	T2
383-12-I-high-C-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Zinc	3.07E-01	Dup	T2
384-12-I-high-D-2	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Zinc	2.06E-01	Dup	T2
385-00-I-none-A-2	control_none_I	EPA6010C-SPLP	17	mg/L	Zinc	8.57E-01	Dup	T2
386-00-I-none-B-2	control_none_I	EPA6010C-SPLP	17	mg/L	Zinc	8.23E-01	Dup	T2
387-00-I-none-C-2	control_none_I	EPA6010C-SPLP	17	mg/L	Zinc	5.87E-01	Dup	T2
388-00-I-none-D-2	control_none_I	EPA6010C-SPLP	17	mg/L	Zinc	8.93E-01	Dup	T2

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Table 43. Complete results for Timepoint 2 Mehlich 3-extractable lead and phosphorus, total elemental content, moisture content, total nitrogen, and bioaccessible lead and arsenic at pH 1.5 and 2.5.

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
049-01-S-low-A-2	Solublephosphate_low_S	EPA6010_MEHLICH3	1	mg/kg	Lead	313.93	NA	T2
050-01-S-low-B-2	Solublephosphate_low_S	EPA6010_MEHLICH3	1	mg/kg	Lead	294.51	NA	T2
051-01-S-low-C-2	Solublephosphate_low_S	EPA6010_MEHLICH3	1	mg/kg	Lead	310.21	NA	T2
052-01-S-low-D-2	Solublephosphate_low_S	EPA6010_MEHLICH3	1	mg/kg	Lead	288.86	NA	T2
053-02-S-low-A-2	Biosolid_low_S	EPA6010_MEHLICH3	1	mg/kg	Lead	299.41	NA	T2
054-02-S-low-B-2	Biosolid_low_S	EPA6010_MEHLICH3	1	mg/kg	Lead	291.11	NA	T2
055-02-S-low-C-2	Biosolid_low_S	EPA6010_MEHLICH3	1	mg/kg	Lead	278.48	NA	T2
056-02-S-low-D-2	Biosolid_low_S	EPA6010_MEHLICH3	1	mg/kg	Lead	288.10	NA	T2
057-03-S-low-A-2	Wood ash_low_S	EPA6010_MEHLICH3	2	mg/kg	Lead	276.04	NA	T2
058-03-S-low-B-2	Wood ash_low_S	EPA6010_MEHLICH3	2	mg/kg	Lead	273.09	NA	T2
059-03-S-low-C-2	Wood ash_low_S	EPA6010_MEHLICH3	2	mg/kg	Lead	279.68	NA	T2
060-03-S-low-D-2	Wood ash_low_S	EPA6010_MEHLICH3	2	mg/kg	Lead	289.05	NA	T2
061-04-S-low-A-2	Biochar_low_S	EPA6010_MEHLICH3	2	mg/kg	Lead	280.89	NA	T2
062-04-S-low-B-2	Biochar_low_S	EPA6010_MEHLICH3	2	mg/kg	Lead	283.30	NA	T2
063-04-S-low-C-2	Biochar_low_S	EPA6010_MEHLICH3	2	mg/kg	Lead	284.76	NA	T2
064-04-S-low-D-2	Biochar_low_S	EPA6010_MEHLICH3	2	mg/kg	Lead	267.87	NA	T2
065-05-S-low-A-2	Compost_low_S	EPA6010_MEHLICH3	3	mg/kg	Lead	271.54	NA	T2
066-05-S-low-B-2	Compost_low_S	EPA6010_MEHLICH3	3	mg/kg	Lead	269.67	NA	T2
067-05-S-low-C-2	Compost_low_S	EPA6010_MEHLICH3	3	mg/kg	Lead	274.69	NA	T2
068-05-S-low-D-2	Compost_low_S	EPA6010_MEHLICH3	3	mg/kg	Lead	270.77	NA	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	EPA6010_MEHLICH3	3	mg/kg	Lead	308.19	NA	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	EPA6010_MEHLICH3	3	mg/kg	Lead	285.79	NA	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	EPA6010_MEHLICH3	3	mg/kg	Lead	286.69	NA	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	EPA6010_MEHLICH3	3	mg/kg	Lead	283.66	NA	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	EPA6010_MEHLICH3	4	mg/kg	Lead	285.64	NA	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	EPA6010_MEHLICH3	4	mg/kg	Lead	276.77	NA	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	EPA6010_MEHLICH3	4	mg/kg	Lead	300.09	NA	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	EPA6010_MEHLICH3	4	mg/kg	Lead	295.15	NA	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	EPA6010_MEHLICH3	4	mg/kg	Lead	289.98	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
078-08-S-low-B-2	Soluble phosphate and compost_low_S	EPA6010_MEHLICH3	4	mg/kg	Lead	295.59	NA	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	EPA6010_MEHLICH3	4	mg/kg	Lead	297.66	NA	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	EPA6010_MEHLICH3	4	mg/kg	Lead	283.56	NA	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	EPA6010_MEHLICH3	5	mg/kg	Lead	275.24	NA	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	EPA6010_MEHLICH3	5	mg/kg	Lead	290.13	NA	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	EPA6010_MEHLICH3	5	mg/kg	Lead	329.19	NA	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	EPA6010_MEHLICH3	5	mg/kg	Lead	312.19	NA	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	EPA6010_MEHLICH3	5	mg/kg	Lead	310.74	NA	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	EPA6010_MEHLICH3	5	mg/kg	Lead	294.88	NA	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	EPA6010_MEHLICH3	5	mg/kg	Lead	292.05	NA	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	EPA6010_MEHLICH3	5	mg/kg	Lead	300.18	NA	T2
089-11-S-low-A-2	Wood ash and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Lead	309.42	NA	T2
090-11-S-low-B-2	Wood ash and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Lead	293.14	NA	T2
091-11-S-low-C-2	Wood ash and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Lead	294.89	NA	T2
092-11-S-low-D-2	Wood ash and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Lead	301.49	NA	T2
093-12-S-low-A-2	Biochar and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Lead	303.16	NA	T2
094-12-S-low-B-2	Biochar and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Lead	300.78	NA	T2
095-12-S-low-C-2	Biochar and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Lead	301.10	NA	T2
096-12-S-low-D-2	Biochar and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Lead	304.42	NA	T2
193-01-S-high-A-2	Solublephosphate_high_S	EPA6010_MEHLICH3	7	mg/kg	Lead	306.68	NA	T2
194-01-S-high-B-2	Solublephosphate_high_S	EPA6010_MEHLICH3	7	mg/kg	Lead	311.89	NA	T2
195-01-S-high-C-2	Solublephosphate_high_S	EPA6010_MEHLICH3	7	mg/kg	Lead	289.69	NA	T2
196-01-S-high-D-2	Solublephosphate_high_S	EPA6010_MEHLICH3	7	mg/kg	Lead	301.04	NA	T2
197-02-S-high-A-2	Biosolid_high_S	EPA6010_MEHLICH3	7	mg/kg	Lead	297.59	NA	T2
198-02-S-high-B-2	Biosolid_high_S	EPA6010_MEHLICH3	7	mg/kg	Lead	265.69	NA	T2
199-02-S-high-C-2	Biosolid_high_S	EPA6010_MEHLICH3	7	mg/kg	Lead	306.34	NA	T2
200-02-S-high-D-2	Biosolid_high_S	EPA6010_MEHLICH3	7	mg/kg	Lead	286.84	NA	T2
201-03-S-high-A-2	Wood ash_high_S	EPA6010_MEHLICH3	8	mg/kg	Lead	298.94	NA	T2
202-03-S-high-B-2	Wood ash_high_S	EPA6010_MEHLICH3	8	mg/kg	Lead	294.08	NA	T2
203-03-S-high-C-2	Wood ash_high_S	EPA6010_MEHLICH3	8	mg/kg	Lead	295.77	NA	T2
204-03-S-high-D-2	Wood ash_high_S	EPA6010_MEHLICH3	8	mg/kg	Lead	306.82	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
205-04-S-high-A-2	Biochar_high_S	EPA6010_MEHLICH3	8	mg/kg	Lead	293.26	NA	T2
206-04-S-high-B-2	Biochar_high_S	EPA6010_MEHLICH3	8	mg/kg	Lead	300.99	NA	T2
207-04-S-high-C-2	Biochar_high_S	EPA6010_MEHLICH3	8	mg/kg	Lead	278.47	NA	T2
208-04-S-high-D-2	Biochar_high_S	EPA6010_MEHLICH3	8	mg/kg	Lead	291.60	NA	T2
209-05-S-high-A-2	Compost_high_S	EPA6010_MEHLICH3	9	mg/kg	Lead	267.94	NA	T2
210-05-S-high-B-2	Compost_high_S	EPA6010_MEHLICH3	9	mg/kg	Lead	277.36	NA	T2
211-05-S-high-C-2	Compost_high_S	EPA6010_MEHLICH3	9	mg/kg	Lead	264.45	NA	T2
212-05-S-high-D-2	Compost_high_S	EPA6010_MEHLICH3	9	mg/kg	Lead	295.08	NA	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	EPA6010_MEHLICH3	9	mg/kg	Lead	310.91	NA	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	EPA6010_MEHLICH3	9	mg/kg	Lead	290.71	NA	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	EPA6010_MEHLICH3	9	mg/kg	Lead	302.18	NA	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	EPA6010_MEHLICH3	9	mg/kg	Lead	295.20	NA	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	EPA6010_MEHLICH3	10	mg/kg	Lead	298.68	NA	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	EPA6010_MEHLICH3	10	mg/kg	Lead	323.14	NA	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	EPA6010_MEHLICH3	10	mg/kg	Lead	324.47	NA	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	EPA6010_MEHLICH3	10	mg/kg	Lead	326.44	NA	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	EPA6010_MEHLICH3	10	mg/kg	Lead	330.74	NA	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	EPA6010_MEHLICH3	10	mg/kg	Lead	323.99	NA	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	EPA6010_MEHLICH3	10	mg/kg	Lead	317.24	NA	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	EPA6010_MEHLICH3	10	mg/kg	Lead	312.67	NA	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	EPA6010_MEHLICH3	11	mg/kg	Lead	270.49	NA	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	EPA6010_MEHLICH3	11	mg/kg	Lead	281.28	NA	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	EPA6010_MEHLICH3	11	mg/kg	Lead	323.45	NA	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	EPA6010_MEHLICH3	11	mg/kg	Lead	289.62	NA	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	EPA6010_MEHLICH3	11	mg/kg	Lead	305.56	NA	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	EPA6010_MEHLICH3	11	mg/kg	Lead	310.83	NA	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	EPA6010_MEHLICH3	11	mg/kg	Lead	293.22	NA	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	EPA6010_MEHLICH3	11	mg/kg	Lead	316.39	NA	T2
233-11-S-high-A-2	Wood ash and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Lead	284.92	NA	T2
234-11-S-high-B-2	Wood ash and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Lead	288.17	NA	T2
235-11-S-high-C-2	Wood ash and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Lead	287.86	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
236-11-S-high-D-2	Wood ash and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Lead	281.32	NA	T2
237-12-S-high-A-2	Biochar and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Lead	289.91	NA	T2
238-12-S-high-B-2	Biochar and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Lead	303.43	NA	T2
239-12-S-high-C-2	Biochar and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Lead	320.53	NA	T2
240-12-S-high-D-2	Biochar and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Lead	290.98	NA	T2
289-01-I-low-A-2	Solublephosphate_low_I	EPA6010_MEHLICH3	13	mg/kg	Lead	266.48	NA	T2
290-01-I-low-B-2	Solublephosphate_low_I	EPA6010_MEHLICH3	13	mg/kg	Lead	282.10	NA	T2
291-01-I-low-C-2	Solublephosphate_low_I	EPA6010_MEHLICH3	13	mg/kg	Lead	290.61	NA	T2
292-01-I-low-D-2	Solublephosphate_low_I	EPA6010_MEHLICH3	13	mg/kg	Lead	310.05	NA	T2
293-02-I-low-A-2	Biosolid_low_I	EPA6010_MEHLICH3	13	mg/kg	Lead	295.19	NA	T2
294-02-I-low-B-2	Biosolid_low_I	EPA6010_MEHLICH3	13	mg/kg	Lead	309.18	NA	T2
295-02-I-low-C-2	Biosolid_low_I	EPA6010_MEHLICH3	13	mg/kg	Lead	306.18	NA	T2
296-02-I-low-D-2	Biosolid_low_I	EPA6010_MEHLICH3	13	mg/kg	Lead	280.85	NA	T2
297-03-I-low-A-2	Wood ash_low_I	EPA6010_MEHLICH3	14	mg/kg	Lead	293.55	NA	T2
298-03-I-low-B-2	Wood ash_low_I	EPA6010_MEHLICH3	14	mg/kg	Lead	291.68	NA	T2
299-03-I-low-C-2	Wood ash_low_I	EPA6010_MEHLICH3	14	mg/kg	Lead	298.89	NA	T2
300-03-I-low-D-2	Wood ash_low_I	EPA6010_MEHLICH3	14	mg/kg	Lead	287.76	NA	T2
301-04-I-low-A-2	Biochar_low_I	EPA6010_MEHLICH3	14	mg/kg	Lead	264.79	NA	T2
302-04-I-low-B-2	Biochar_low_I	EPA6010_MEHLICH3	14	mg/kg	Lead	288.48	NA	T2
303-04-I-low-C-2	Biochar_low_I	EPA6010_MEHLICH3	14	mg/kg	Lead	284.33	NA	T2
304-04-I-low-D-2	Biochar_low_I	EPA6010_MEHLICH3	14	mg/kg	Lead	277.19	NA	T2
305-05-I-low-A-2	Compost_low_I	EPA6010_MEHLICH3	15	mg/kg	Lead	307.14	NA	T2
306-05-I-low-B-2	Compost_low_I	EPA6010_MEHLICH3	15	mg/kg	Lead	253.97	NA	T2
307-05-I-low-C-2	Compost_low_I	EPA6010_MEHLICH3	15	mg/kg	Lead	317.57	NA	T2
308-05-I-low-D-2	Compost_low_I	EPA6010_MEHLICH3	15	mg/kg	Lead	303.99	NA	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	EPA6010_MEHLICH3	15	mg/kg	Lead	253.61	NA	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	EPA6010_MEHLICH3	15	mg/kg	Lead	258.49	NA	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	EPA6010_MEHLICH3	15	mg/kg	Lead	262.60	NA	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	EPA6010_MEHLICH3	15	mg/kg	Lead	293.45	NA	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	EPA6010_MEHLICH3	16	mg/kg	Lead	321.64	NA	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	EPA6010_MEHLICH3	16	mg/kg	Lead	285.08	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	EPA6010_MEHLICH3	16	mg/kg	Lead	318.67	NA	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	EPA6010_MEHLICH3	16	mg/kg	Lead	278.81	NA	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	EPA6010_MEHLICH3	16	mg/kg	Lead	334.32	NA	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	EPA6010_MEHLICH3	16	mg/kg	Lead	311.02	NA	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	EPA6010_MEHLICH3	16	mg/kg	Lead	331.22	NA	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	EPA6010_MEHLICH3	16	mg/kg	Lead	282.12	NA	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	EPA6010_MEHLICH3	17	mg/kg	Lead	319.97	NA	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	EPA6010_MEHLICH3	17	mg/kg	Lead	276.58	NA	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	EPA6010_MEHLICH3	17	mg/kg	Lead	296.01	NA	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	EPA6010_MEHLICH3	17	mg/kg	Lead	267.90	NA	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	EPA6010_MEHLICH3	17	mg/kg	Lead	312.11	NA	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	EPA6010_MEHLICH3	17	mg/kg	Lead	305.67	NA	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	EPA6010_MEHLICH3	17	mg/kg	Lead	295.35	NA	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	EPA6010_MEHLICH3	17	mg/kg	Lead	321.55	NA	T2
329-11-I-low-A-2	Wood ash and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Lead	315.18	NA	T2
330-11-I-low-B-2	Wood ash and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Lead	305.37	NA	T2
331-11-I-low-C-2	Wood ash and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Lead	338.79	NA	T2
332-11-I-low-D-2	Wood ash and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Lead	290.40	NA	T2
333-12-I-low-A-2	Biochar and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Lead	308.35	NA	T2
334-12-I-low-B-2	Biochar and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Lead	294.77	NA	T2
335-12-I-low-C-2	Biochar and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Lead	286.39	NA	T2
336-12-I-low-D-2	Biochar and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Lead	280.94	NA	T2
337-01-I-high-A-2	Solublephosphate_high_I	EPA6010_MEHLICH3	19	mg/kg	Lead	329.29	NA	T2
338-01-I-high-B-2	Solublephosphate_high_I	EPA6010_MEHLICH3	19	mg/kg	Lead	321.66	NA	T2
339-01-I-high-C-2	Solublephosphate_high_I	EPA6010_MEHLICH3	19	mg/kg	Lead	338.02	NA	T2
340-01-I-high-D-2	Solublephosphate_high_I	EPA6010_MEHLICH3	19	mg/kg	Lead	314.22	NA	T2
341-02-I-high-A-2	Biosolid_high_I	EPA6010_MEHLICH3	19	mg/kg	Lead	209.31	NA	T2
342-02-I-high-B-2	Biosolid_high_I	EPA6010_MEHLICH3	19	mg/kg	Lead	235.23	NA	T2
343-02-I-high-C-2	Biosolid_high_I	EPA6010_MEHLICH3	19	mg/kg	Lead	281.83	NA	T2
344-02-I-high-D-2	Biosolid_high_I	EPA6010_MEHLICH3	19	mg/kg	Lead	227.19	NA	T2
345-03-I-high-A-2	Wood ash_high_I	EPA6010_MEHLICH3	20	mg/kg	Lead	351.99	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
346-03-I-high-B-2	Wood ash_high_I	EPA6010_MEHLICH3	20	mg/kg	Lead	338.22	NA	T2
347-03-I-high-C-2	Wood ash_high_I	EPA6010_MEHLICH3	20	mg/kg	Lead	328.66	NA	T2
348-03-I-high-D-2	Wood ash_high_I	EPA6010_MEHLICH3	20	mg/kg	Lead	347.15	NA	T2
349-04-I-high-A-2	Biochar_high_I	EPA6010_MEHLICH3	20	mg/kg	Lead	268.68	NA	T2
350-04-I-high-B-2	Biochar_high_I	EPA6010_MEHLICH3	20	mg/kg	Lead	307.84	NA	T2
351-04-I-high-C-2	Biochar_high_I	EPA6010_MEHLICH3	20	mg/kg	Lead	284.37	NA	T2
352-04-I-high-D-2	Biochar_high_I	EPA6010_MEHLICH3	20	mg/kg	Lead	269.74	NA	T2
353-05-I-high-A-2	Compost_high_I	EPA6010_MEHLICH3	21	mg/kg	Lead	306.78	NA	T2
354-05-I-high-B-2	Compost_high_I	EPA6010_MEHLICH3	21	mg/kg	Lead	289.32	NA	T2
355-05-I-high-C-2	Compost_high_I	EPA6010_MEHLICH3	21	mg/kg	Lead	293.33	NA	T2
356-05-I-high-D-2	Compost_high_I	EPA6010_MEHLICH3	21	mg/kg	Lead	296.19	NA	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	EPA6010_MEHLICH3	21	mg/kg	Lead	250.86	NA	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	EPA6010_MEHLICH3	21	mg/kg	Lead	222.64	NA	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	EPA6010_MEHLICH3	21	mg/kg	Lead	301.70	NA	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	EPA6010_MEHLICH3	21	mg/kg	Lead	215.00	NA	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	EPA6010_MEHLICH3	22	mg/kg	Lead	295.28	NA	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	EPA6010_MEHLICH3	22	mg/kg	Lead	288.92	NA	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	EPA6010_MEHLICH3	22	mg/kg	Lead	324.63	NA	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	EPA6010_MEHLICH3	22	mg/kg	Lead	319.51	NA	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	EPA6010_MEHLICH3	22	mg/kg	Lead	306.36	NA	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	EPA6010_MEHLICH3	22	mg/kg	Lead	313.46	NA	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	EPA6010_MEHLICH3	22	mg/kg	Lead	307.00	NA	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	EPA6010_MEHLICH3	22	mg/kg	Lead	308.18	NA	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	EPA6010_MEHLICH3	23	mg/kg	Lead	251.85	NA	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	EPA6010_MEHLICH3	23	mg/kg	Lead	253.35	NA	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	EPA6010_MEHLICH3	23	mg/kg	Lead	229.85	NA	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	EPA6010_MEHLICH3	23	mg/kg	Lead	225.26	NA	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	EPA6010_MEHLICH3	23	mg/kg	Lead	378.78	NA	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	EPA6010_MEHLICH3	23	mg/kg	Lead	345.77	NA	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	EPA6010_MEHLICH3	23	mg/kg	Lead	383.05	NA	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	EPA6010_MEHLICH3	23	mg/kg	Lead	357.59	NA	T2

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
377-11-I-high-A-2	Wood ash and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Lead	294.03	Dup	T2
378-11-I-high-B-2	Wood ash and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Lead	303.89	Dup	T2
379-11-I-high-C-2	Wood ash and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Lead	319.84	Dup	T2
380-11-I-high-D-2	Wood ash and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Lead	281.55	Dup	T2
381-12-I-high-A-2	Biochar and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Lead	302.13	Dup	T2
382-12-I-high-B-2	Biochar and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Lead	330.74	Dup	T2
383-12-I-high-C-2	Biochar and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Lead	315.30	Dup	T2
384-12-I-high-D-2	Biochar and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Lead	287.80	Dup	T2
385-00-I-none-A-2	control_none_I	EPA6010_MEHLICH3	25	mg/kg	Lead	272.81	NA	T2
386-00-I-none-B-2	control_none_I	EPA6010_MEHLICH3	25	mg/kg	Lead	274.16	NA	T2
387-00-I-none-C-2	control_none_I	EPA6010_MEHLICH3	25	mg/kg	Lead	330.40	NA	T2
388-00-I-none-D-2	control_none_I	EPA6010_MEHLICH3	25	mg/kg	Lead	279.62	NA	T2
049-01-S-low-A-2	Solublephosphate_low_S	EPA6010_MEHLICH3	1	mg/kg	Posphorus	391.35	NA	T2
050-01-S-low-B-2	Solublephosphate_low_S	EPA6010_MEHLICH3	1	mg/kg	Posphorus	377.97	NA	T2
051-01-S-low-C-2	Solublephosphate_low_S	EPA6010_MEHLICH3	1	mg/kg	Posphorus	381.07	NA	T2
052-01-S-low-D-2	Solublephosphate_low_S	EPA6010_MEHLICH3	1	mg/kg	Posphorus	428.15	NA	T2
053-02-S-low-A-2	Biosolid_low_S	EPA6010_MEHLICH3	1	mg/kg	Posphorus	200.96	NA	T2
054-02-S-low-B-2	Biosolid_low_S	EPA6010_MEHLICH3	1	mg/kg	Posphorus	203.13	NA	T2
055-02-S-low-C-2	Biosolid_low_S	EPA6010_MEHLICH3	1	mg/kg	Posphorus	199.54	NA	T2
056-02-S-low-D-2	Biosolid_low_S	EPA6010_MEHLICH3	1	mg/kg	Posphorus	200.27	NA	T2
057-03-S-low-A-2	Wood ash_low_S	EPA6010_MEHLICH3	2	mg/kg	Posphorus	179.44	NA	T2
058-03-S-low-B-2	Wood ash_low_S	EPA6010_MEHLICH3	2	mg/kg	Posphorus	184.75	NA	T2
059-03-S-low-C-2	Wood ash_low_S	EPA6010_MEHLICH3	2	mg/kg	Posphorus	172.64	NA	T2
060-03-S-low-D-2	Wood ash_low_S	EPA6010_MEHLICH3	2	mg/kg	Posphorus	181.18	NA	T2
061-04-S-low-A-2	Biochar_low_S	EPA6010_MEHLICH3	2	mg/kg	Posphorus	172.32	NA	T2
062-04-S-low-B-2	Biochar_low_S	EPA6010_MEHLICH3	2	mg/kg	Posphorus	172.05	NA	T2
063-04-S-low-C-2	Biochar_low_S	EPA6010_MEHLICH3	2	mg/kg	Posphorus	170.37	NA	T2
064-04-S-low-D-2	Biochar_low_S	EPA6010_MEHLICH3	2	mg/kg	Posphorus	178.96	NA	T2
065-05-S-low-A-2	Compost_low_S	EPA6010_MEHLICH3	3	mg/kg	Posphorus	184.81	NA	T2
066-05-S-low-B-2	Compost_low_S	EPA6010_MEHLICH3	3	mg/kg	Posphorus	181.37	NA	T2
067-05-S-low-C-2	Compost_low_S	EPA6010_MEHLICH3	3	mg/kg	Posphorus	186.11	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
068-05-S-low-D-2	Compost_low_S	EPA6010_MEHLICH3	3	mg/kg	Posphorus	181.82	NA	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	EPA6010_MEHLICH3	3	mg/kg	Posphorus	404.52	NA	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	EPA6010_MEHLICH3	3	mg/kg	Posphorus	367.32	NA	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	EPA6010_MEHLICH3	3	mg/kg	Posphorus	411.59	NA	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	EPA6010_MEHLICH3	3	mg/kg	Posphorus	401.96	NA	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	EPA6010_MEHLICH3	4	mg/kg	Posphorus	382.45	NA	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	EPA6010_MEHLICH3	4	mg/kg	Posphorus	346.60	NA	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	EPA6010_MEHLICH3	4	mg/kg	Posphorus	411.46	NA	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	EPA6010_MEHLICH3	4	mg/kg	Posphorus	378.28	NA	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	EPA6010_MEHLICH3	4	mg/kg	Posphorus	411.42	NA	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	EPA6010_MEHLICH3	4	mg/kg	Posphorus	398.64	NA	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	EPA6010_MEHLICH3	4	mg/kg	Posphorus	426.33	NA	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	EPA6010_MEHLICH3	4	mg/kg	Posphorus	406.18	NA	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	EPA6010_MEHLICH3	5	mg/kg	Posphorus	211.30	NA	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	EPA6010_MEHLICH3	5	mg/kg	Posphorus	202.26	NA	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	EPA6010_MEHLICH3	5	mg/kg	Posphorus	221.04	NA	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	EPA6010_MEHLICH3	5	mg/kg	Posphorus	205.32	NA	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	EPA6010_MEHLICH3	5	mg/kg	Posphorus	185.18	NA	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	EPA6010_MEHLICH3	5	mg/kg	Posphorus	186.44	NA	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	EPA6010_MEHLICH3	5	mg/kg	Posphorus	182.24	NA	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	EPA6010_MEHLICH3	5	mg/kg	Posphorus	183.83	NA	T2
089-11-S-low-A-2	Wood ash and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Posphorus	186.08	NA	T2
090-11-S-low-B-2	Wood ash and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Posphorus	192.44	NA	T2
091-11-S-low-C-2	Wood ash and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Posphorus	186.27	NA	T2
092-11-S-low-D-2	Wood ash and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Posphorus	187.60	NA	T2
093-12-S-low-A-2	Biochar and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Posphorus	178.03	NA	T2
094-12-S-low-B-2	Biochar and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Posphorus	180.23	NA	T2
095-12-S-low-C-2	Biochar and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Posphorus	183.16	NA	T2
096-12-S-low-D-2	Biochar and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Posphorus	176.79	NA	T2
193-01-S-high-A-2	Solublephosphate_high_S	EPA6010_MEHLICH3	7	mg/kg	Posphorus	936.22	NA	T2
194-01-S-high-B-2	Solublephosphate_high_S	EPA6010_MEHLICH3	7	mg/kg	Posphorus	938.49	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
195-01-S-high-C-2	Solublephosphate_high_S	EPA6010_MEHLICH3	7	mg/kg	Posphorus	1131.10	NA	T2
196-01-S-high-D-2	Solublephosphate_high_S	EPA6010_MEHLICH3	7	mg/kg	Posphorus	1154.01	NA	T2
197-02-S-high-A-2	Biosolid_high_S	EPA6010_MEHLICH3	7	mg/kg	Posphorus	254.66	NA	T2
198-02-S-high-B-2	Biosolid_high_S	EPA6010_MEHLICH3	7	mg/kg	Posphorus	227.04	NA	T2
199-02-S-high-C-2	Biosolid_high_S	EPA6010_MEHLICH3	7	mg/kg	Posphorus	219.96	NA	T2
200-02-S-high-D-2	Biosolid_high_S	EPA6010_MEHLICH3	7	mg/kg	Posphorus	236.68	NA	T2
201-03-S-high-A-2	Wood ash_high_S	EPA6010_MEHLICH3	8	mg/kg	Posphorus	175.98	NA	T2
202-03-S-high-B-2	Wood ash_high_S	EPA6010_MEHLICH3	8	mg/kg	Posphorus	183.82	NA	T2
203-03-S-high-C-2	Wood ash_high_S	EPA6010_MEHLICH3	8	mg/kg	Posphorus	177.66	NA	T2
204-03-S-high-D-2	Wood ash_high_S	EPA6010_MEHLICH3	8	mg/kg	Posphorus	182.98	NA	T2
205-04-S-high-A-2	Biochar_high_S	EPA6010_MEHLICH3	8	mg/kg	Posphorus	174.70	NA	T2
206-04-S-high-B-2	Biochar_high_S	EPA6010_MEHLICH3	8	mg/kg	Posphorus	165.97	NA	T2
207-04-S-high-C-2	Biochar_high_S	EPA6010_MEHLICH3	8	mg/kg	Posphorus	164.26	NA	T2
208-04-S-high-D-2	Biochar_high_S	EPA6010_MEHLICH3	8	mg/kg	Posphorus	166.87	NA	T2
209-05-S-high-A-2	Compost_high_S	EPA6010_MEHLICH3	9	mg/kg	Posphorus	207.91	NA	T2
210-05-S-high-B-2	Compost_high_S	EPA6010_MEHLICH3	9	mg/kg	Posphorus	198.84	NA	T2
211-05-S-high-C-2	Compost_high_S	EPA6010_MEHLICH3	9	mg/kg	Posphorus	185.91	NA	T2
212-05-S-high-D-2	Compost_high_S	EPA6010_MEHLICH3	9	mg/kg	Posphorus	183.32	NA	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	EPA6010_MEHLICH3	9	mg/kg	Posphorus	523.13	NA	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	EPA6010_MEHLICH3	9	mg/kg	Posphorus	538.26	NA	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	EPA6010_MEHLICH3	9	mg/kg	Posphorus	600.11	NA	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	EPA6010_MEHLICH3	9	mg/kg	Posphorus	625.43	NA	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	EPA6010_MEHLICH3	10	mg/kg	Posphorus	820.66	NA	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	EPA6010_MEHLICH3	10	mg/kg	Posphorus	714.95	NA	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	EPA6010_MEHLICH3	10	mg/kg	Posphorus	779.23	NA	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	EPA6010_MEHLICH3	10	mg/kg	Posphorus	797.32	NA	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	EPA6010_MEHLICH3	10	mg/kg	Posphorus	816.97	NA	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	EPA6010_MEHLICH3	10	mg/kg	Posphorus	626.17	NA	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	EPA6010_MEHLICH3	10	mg/kg	Posphorus	810.67	NA	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	EPA6010_MEHLICH3	10	mg/kg	Posphorus	847.90	NA	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	EPA6010_MEHLICH3	11	mg/kg	Posphorus	215.97	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
226-09-S-high-B-2	Biosolids and wood ash_high_S	EPA6010_MEHLICH3	11	mg/kg	Posphorus	231.38	NA	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	EPA6010_MEHLICH3	11	mg/kg	Posphorus	215.31	NA	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	EPA6010_MEHLICH3	11	mg/kg	Posphorus	220.20	NA	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	EPA6010_MEHLICH3	11	mg/kg	Posphorus	182.13	NA	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	EPA6010_MEHLICH3	11	mg/kg	Posphorus	177.73	NA	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	EPA6010_MEHLICH3	11	mg/kg	Posphorus	184.03	NA	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	EPA6010_MEHLICH3	11	mg/kg	Posphorus	169.56	NA	T2
233-11-S-high-A-2	Wood ash and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Posphorus	188.41	NA	T2
234-11-S-high-B-2	Wood ash and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Posphorus	184.05	NA	T2
235-11-S-high-C-2	Wood ash and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Posphorus	178.54	NA	T2
236-11-S-high-D-2	Wood ash and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Posphorus	182.11	NA	T2
237-12-S-high-A-2	Biochar and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Posphorus	183.11	NA	T2
238-12-S-high-B-2	Biochar and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Posphorus	185.10	NA	T2
239-12-S-high-C-2	Biochar and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Posphorus	184.05	NA	T2
240-12-S-high-D-2	Biochar and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Posphorus	191.34	NA	T2
289-01-I-low-A-2	Solublephosphate_low_I	EPA6010_MEHLICH3	13	mg/kg	Posphorus	366.36	NA	T2
290-01-I-low-B-2	Solublephosphate_low_I	EPA6010_MEHLICH3	13	mg/kg	Posphorus	399.84	NA	T2
291-01-I-low-C-2	Solublephosphate_low_I	EPA6010_MEHLICH3	13	mg/kg	Posphorus	380.90	NA	T2
292-01-I-low-D-2	Solublephosphate_low_I	EPA6010_MEHLICH3	13	mg/kg	Posphorus	349.32	NA	T2
293-02-I-low-A-2	Biosolid_low_I	EPA6010_MEHLICH3	13	mg/kg	Posphorus	249.58	NA	T2
294-02-I-low-B-2	Biosolid_low_I	EPA6010_MEHLICH3	13	mg/kg	Posphorus	242.06	NA	T2
295-02-I-low-C-2	Biosolid_low_I	EPA6010_MEHLICH3	13	mg/kg	Posphorus	251.55	NA	T2
296-02-I-low-D-2	Biosolid_low_I	EPA6010_MEHLICH3	13	mg/kg	Posphorus	259.80	NA	T2
297-03-I-low-A-2	Wood ash_low_I	EPA6010_MEHLICH3	14	mg/kg	Posphorus	160.55	NA	T2
298-03-I-low-B-2	Wood ash_low_I	EPA6010_MEHLICH3	14	mg/kg	Posphorus	157.94	NA	T2
299-03-I-low-C-2	Wood ash_low_I	EPA6010_MEHLICH3	14	mg/kg	Posphorus	153.99	NA	T2
300-03-I-low-D-2	Wood ash_low_I	EPA6010_MEHLICH3	14	mg/kg	Posphorus	160.66	NA	T2
301-04-I-low-A-2	Biochar_low_I	EPA6010_MEHLICH3	14	mg/kg	Posphorus	149.98	NA	T2
302-04-I-low-B-2	Biochar_low_I	EPA6010_MEHLICH3	14	mg/kg	Posphorus	146.99	NA	T2
303-04-I-low-C-2	Biochar_low_I	EPA6010_MEHLICH3	14	mg/kg	Posphorus	146.53	NA	T2
304-04-I-low-D-2	Biochar_low_I	EPA6010_MEHLICH3	14	mg/kg	Posphorus	143.78	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
305-05-I-low-A-2	Compost_low_I	EPA6010_MEHLICH3	15	mg/kg	Posphorus	145.76	NA	T2
306-05-I-low-B-2	Compost_low_I	EPA6010_MEHLICH3	15	mg/kg	Posphorus	170.34	NA	T2
307-05-I-low-C-2	Compost_low_I	EPA6010_MEHLICH3	15	mg/kg	Posphorus	162.51	NA	T2
308-05-I-low-D-2	Compost_low_I	EPA6010_MEHLICH3	15	mg/kg	Posphorus	162.09	NA	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	EPA6010_MEHLICH3	15	mg/kg	Posphorus	461.22	NA	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	EPA6010_MEHLICH3	15	mg/kg	Posphorus	475.56	NA	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	EPA6010_MEHLICH3	15	mg/kg	Posphorus	453.57	NA	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	EPA6010_MEHLICH3	15	mg/kg	Posphorus	478.30	NA	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	EPA6010_MEHLICH3	16	mg/kg	Posphorus	367.81	NA	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	EPA6010_MEHLICH3	16	mg/kg	Posphorus	397.41	NA	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	EPA6010_MEHLICH3	16	mg/kg	Posphorus	382.72	NA	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	EPA6010_MEHLICH3	16	mg/kg	Posphorus	341.46	NA	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	EPA6010_MEHLICH3	16	mg/kg	Posphorus	400.29	NA	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	EPA6010_MEHLICH3	16	mg/kg	Posphorus	388.04	NA	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	EPA6010_MEHLICH3	16	mg/kg	Posphorus	329.98	NA	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	EPA6010_MEHLICH3	16	mg/kg	Posphorus	386.66	NA	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	EPA6010_MEHLICH3	17	mg/kg	Posphorus	278.58	NA	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	EPA6010_MEHLICH3	17	mg/kg	Posphorus	263.24	NA	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	EPA6010_MEHLICH3	17	mg/kg	Posphorus	260.26	NA	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	EPA6010_MEHLICH3	17	mg/kg	Posphorus	269.43	NA	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	EPA6010_MEHLICH3	17	mg/kg	Posphorus	156.51	NA	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	EPA6010_MEHLICH3	17	mg/kg	Posphorus	167.78	NA	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	EPA6010_MEHLICH3	17	mg/kg	Posphorus	170.53	NA	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	EPA6010_MEHLICH3	17	mg/kg	Posphorus	157.23	NA	T2
329-11-I-low-A-2	Wood ash and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Posphorus	167.82	NA	T2
330-11-I-low-B-2	Wood ash and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Posphorus	174.35	NA	T2
331-11-I-low-C-2	Wood ash and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Posphorus	153.83	NA	T2
332-11-I-low-D-2	Wood ash and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Posphorus	171.38	NA	T2
333-12-I-low-A-2	Biochar and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Posphorus	156.84	NA	T2
334-12-I-low-B-2	Biochar and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Posphorus	159.91	NA	T2
335-12-I-low-C-2	Biochar and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Posphorus	162.06	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
336-12-I-low-D-2	Biochar and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Posphorus	164.69	NA	T2
337-01-I-high-A-2	Solublephosphate_high_I	EPA6010_MEHLICH3	19	mg/kg	Posphorus	810.93	NA	T2
338-01-I-high-B-2	Solublephosphate_high_I	EPA6010_MEHLICH3	19	mg/kg	Posphorus	714.76	NA	T2
339-01-I-high-C-2	Solublephosphate_high_I	EPA6010_MEHLICH3	19	mg/kg	Posphorus	724.36	NA	T2
340-01-I-high-D-2	Solublephosphate_high_I	EPA6010_MEHLICH3	19	mg/kg	Posphorus	807.28	NA	T2
341-02-I-high-A-2	Biosolid_high_I	EPA6010_MEHLICH3	19	mg/kg	Posphorus	499.82	NA	T2
342-02-I-high-B-2	Biosolid_high_I	EPA6010_MEHLICH3	19	mg/kg	Posphorus	514.11	NA	T2
343-02-I-high-C-2	Biosolid_high_I	EPA6010_MEHLICH3	19	mg/kg	Posphorus	470.43	NA	T2
344-02-I-high-D-2	Biosolid_high_I	EPA6010_MEHLICH3	19	mg/kg	Posphorus	479.97	NA	T2
345-03-I-high-A-2	Wood ash_high_I	EPA6010_MEHLICH3	20	mg/kg	Posphorus	163.98	NA	T2
346-03-I-high-B-2	Wood ash_high_I	EPA6010_MEHLICH3	20	mg/kg	Posphorus	174.02	NA	T2
347-03-I-high-C-2	Wood ash_high_I	EPA6010_MEHLICH3	20	mg/kg	Posphorus	175.97	NA	T2
348-03-I-high-D-2	Wood ash_high_I	EPA6010_MEHLICH3	20	mg/kg	Posphorus	172.75	NA	T2
349-04-I-high-A-2	Biochar_high_I	EPA6010_MEHLICH3	20	mg/kg	Posphorus	159.76	NA	T2
350-04-I-high-B-2	Biochar_high_I	EPA6010_MEHLICH3	20	mg/kg	Posphorus	151.41	NA	T2
351-04-I-high-C-2	Biochar_high_I	EPA6010_MEHLICH3	20	mg/kg	Posphorus	158.21	NA	T2
352-04-I-high-D-2	Biochar_high_I	EPA6010_MEHLICH3	20	mg/kg	Posphorus	158.55	NA	T2
353-05-I-high-A-2	Compost_high_I	EPA6010_MEHLICH3	21	mg/kg	Posphorus	190.31	NA	T2
354-05-I-high-B-2	Compost_high_I	EPA6010_MEHLICH3	21	mg/kg	Posphorus	198.86	NA	T2
355-05-I-high-C-2	Compost_high_I	EPA6010_MEHLICH3	21	mg/kg	Posphorus	191.39	NA	T2
356-05-I-high-D-2	Compost_high_I	EPA6010_MEHLICH3	21	mg/kg	Posphorus	190.50	NA	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	EPA6010_MEHLICH3	21	mg/kg	Posphorus	1009.11	NA	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	EPA6010_MEHLICH3	21	mg/kg	Posphorus	970.75	NA	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	EPA6010_MEHLICH3	21	mg/kg	Posphorus	1026.26	NA	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	EPA6010_MEHLICH3	21	mg/kg	Posphorus	962.05	NA	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	EPA6010_MEHLICH3	22	mg/kg	Posphorus	814.85	NA	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	EPA6010_MEHLICH3	22	mg/kg	Posphorus	814.90	NA	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	EPA6010_MEHLICH3	22	mg/kg	Posphorus	798.24	NA	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	EPA6010_MEHLICH3	22	mg/kg	Posphorus	869.37	NA	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	EPA6010_MEHLICH3	22	mg/kg	Posphorus	821.61	NA	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	EPA6010_MEHLICH3	22	mg/kg	Posphorus	823.95	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
367-08-I-high-C-2	Soluble phosphate and compost_high_I	EPA6010_MEHLICH3	22	mg/kg	Posphorus	831.36	NA	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	EPA6010_MEHLICH3	22	mg/kg	Posphorus	870.58	NA	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	EPA6010_MEHLICH3	23	mg/kg	Posphorus	466.01	NA	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	EPA6010_MEHLICH3	23	mg/kg	Posphorus	443.04	NA	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	EPA6010_MEHLICH3	23	mg/kg	Posphorus	450.50	NA	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	EPA6010_MEHLICH3	23	mg/kg	Posphorus	469.40	NA	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	EPA6010_MEHLICH3	23	mg/kg	Posphorus	162.06	NA	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	EPA6010_MEHLICH3	23	mg/kg	Posphorus	168.51	NA	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	EPA6010_MEHLICH3	23	mg/kg	Posphorus	159.43	NA	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	EPA6010_MEHLICH3	23	mg/kg	Posphorus	165.41	NA	T2
377-11-I-high-A-2	Wood ash and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Posphorus	210.12	NA	T2
378-11-I-high-B-2	Wood ash and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Posphorus	215.41	NA	T2
379-11-I-high-C-2	Wood ash and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Posphorus	204.85	NA	T2
380-11-I-high-D-2	Wood ash and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Posphorus	215.95	NA	T2
381-12-I-high-A-2	Biochar and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Posphorus	190.47	NA	T2
382-12-I-high-B-2	Biochar and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Posphorus	182.81	NA	T2
383-12-I-high-C-2	Biochar and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Posphorus	184.40	NA	T2
384-12-I-high-D-2	Biochar and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Posphorus	197.13	NA	T2
385-00-I-none-A-2	control_none_I	EPA6010_MEHLICH3	25	mg/kg	Posphorus	145.27	NA	T2
386-00-I-none-B-2	control_none_I	EPA6010_MEHLICH3	25	mg/kg	Posphorus	145.45	NA	T2
387-00-I-none-C-2	control_none_I	EPA6010_MEHLICH3	25	mg/kg	Posphorus	128.99	NA	T2
388-00-I-none-D-2	control_none_I	EPA6010_MEHLICH3	25	mg/kg	Posphorus	148.67	NA	T2
049-01-S-low-A-2	Solublephosphate_low_S	CALC	NA	%	Moisture	24.13	NA	T2
049-01-S-low-A-2	Solublephosphate_low_S	CALC	NA	%	Moisture	24.13	NA	T2
049-01-S-low-A-2	Solublephosphate_low_S	CALC	NA	%	Moisture	24.13	NA	T2
049-01-S-low-A-2	Solublephosphate_low_S	CALC	NA	%	Moisture	24.13	NA	T2
049-01-S-low-A-2	Solublephosphate_low_S	CALC	NA	%	Moisture	29.03	NA	T2
049-01-S-low-A-2	Solublephosphate_low_S	CALC	NA	%	Moisture	28.93	NA	T2
050-01-S-low-B-2	Solublephosphate_low_S	CALC	NA	%	Moisture	30.16	NA	T2
050-01-S-low-B-2	Solublephosphate_low_S	CALC	NA	%	Moisture	30.16	NA	T2
050-01-S-low-B-2	Solublephosphate_low_S	CALC	NA	%	Moisture	30.16	NA	T2

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
050-01-S-low-B-2	Solublephosphate_low_S	CALC	NA	%	Moisture	30.16	NA	T2
050-01-S-low-B-2	Solublephosphate_low_S	CALC	NA	%	Moisture	32.26	NA	T2
050-01-S-low-B-2	Solublephosphate_low_S	CALC	NA	%	Moisture	31.76	NA	T2
051-01-S-low-C-2	Solublephosphate_low_S	CALC	NA	%	Moisture	28.27	NA	T2
051-01-S-low-C-2	Solublephosphate_low_S	CALC	NA	%	Moisture	28.27	NA	T2
051-01-S-low-C-2	Solublephosphate_low_S	CALC	NA	%	Moisture	28.27	NA	T2
051-01-S-low-C-2	Solublephosphate_low_S	CALC	NA	%	Moisture	28.27	NA	T2
051-01-S-low-C-2	Solublephosphate_low_S	CALC	NA	%	Moisture	28.87	NA	T2
051-01-S-low-C-2	Solublephosphate_low_S	CALC	NA	%	Moisture	32.07	NA	T2
052-01-S-low-D-2	Solublephosphate_low_S	CALC	NA	%	Moisture	34.23	NA	T2
052-01-S-low-D-2	Solublephosphate_low_S	CALC	NA	%	Moisture	34.23	NA	T2
052-01-S-low-D-2	Solublephosphate_low_S	CALC	NA	%	Moisture	34.23	NA	T2
052-01-S-low-D-2	Solublephosphate_low_S	CALC	NA	%	Moisture	34.13	NA	T2
052-01-S-low-D-2	Solublephosphate_low_S	CALC	NA	%	Moisture	33.33	NA	T2
053-02-S-low-A-2	Biosolid_low_S	CALC	NA	%	Moisture	33.78	NA	T2
053-02-S-low-A-2	Biosolid_low_S	CALC	NA	%	Moisture	33.78	NA	T2
053-02-S-low-A-2	Biosolid_low_S	CALC	NA	%	Moisture	33.78	NA	T2
053-02-S-low-A-2	Biosolid_low_S	CALC	NA	%	Moisture	33.78	NA	T2
053-02-S-low-A-2	Biosolid_low_S	CALC	NA	%	Moisture	30.98	NA	T2
053-02-S-low-A-2	Biosolid_low_S	CALC	NA	%	Moisture	30.28	NA	T2
054-02-S-low-B-2	Biosolid_low_S	CALC	NA	%	Moisture	32.47	NA	T2
054-02-S-low-B-2	Biosolid_low_S	CALC	NA	%	Moisture	32.47	NA	T2
054-02-S-low-B-2	Biosolid_low_S	CALC	NA	%	Moisture	32.47	NA	T2
054-02-S-low-B-2	Biosolid_low_S	CALC	NA	%	Moisture	32.47	NA	T2
054-02-S-low-B-2	Biosolid_low_S	CALC	NA	%	Moisture	29.77	NA	T2
054-02-S-low-B-2	Biosolid_low_S	CALC	NA	%	Moisture	31.17	NA	T2
055-02-S-low-C-2	Biosolid_low_S	CALC	NA	%	Moisture	34.56	NA	T2
055-02-S-low-C-2	Biosolid_low_S	CALC	NA	%	Moisture	34.56	NA	T2
055-02-S-low-C-2	Biosolid_low_S	CALC	NA	%	Moisture	34.56	NA	T2
055-02-S-low-C-2	Biosolid_low_S	CALC	NA	%	Moisture	34.56	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
055-02-S-low-C-2	Biosolid_low_S	CALC	NA	%	Moisture	35.46	NA	T2
055-02-S-low-C-2	Biosolid_low_S	CALC	NA	%	Moisture	31.96	NA	T2
056-02-S-low-D-2	Biosolid_low_S	CALC	NA	%	Moisture	32.22	NA	T2
056-02-S-low-D-2	Biosolid_low_S	CALC	NA	%	Moisture	32.22	NA	T2
056-02-S-low-D-2	Biosolid_low_S	CALC	NA	%	Moisture	32.22	NA	T2
056-02-S-low-D-2	Biosolid_low_S	CALC	NA	%	Moisture	32.22	NA	T2
056-02-S-low-D-2	Biosolid_low_S	CALC	NA	%	Moisture	35.42	NA	T2
056-02-S-low-D-2	Biosolid_low_S	CALC	NA	%	Moisture	32.72	NA	T2
057-03-S-low-A-2	Wood ash_low_S	CALC	NA	%	Moisture	24.78	NA	T2
057-03-S-low-A-2	Wood ash_low_S	CALC	NA	%	Moisture	24.78	NA	T2
057-03-S-low-A-2	Wood ash_low_S	CALC	NA	%	Moisture	24.78	NA	T2
057-03-S-low-A-2	Wood ash_low_S	CALC	NA	%	Moisture	24.78	NA	T2
057-03-S-low-A-2	Wood ash_low_S	CALC	NA	%	Moisture	26.18	NA	T2
057-03-S-low-A-2	Wood ash_low_S	CALC	NA	%	Moisture	27.98	NA	T2
058-03-S-low-B-2	Wood ash_low_S	CALC	NA	%	Moisture	31.51	NA	T2
058-03-S-low-B-2	Wood ash_low_S	CALC	NA	%	Moisture	31.51	NA	T2
058-03-S-low-B-2	Wood ash_low_S	CALC	NA	%	Moisture	31.51	NA	T2
058-03-S-low-B-2	Wood ash_low_S	CALC	NA	%	Moisture	27.01	NA	T2
058-03-S-low-B-2	Wood ash_low_S	CALC	NA	%	Moisture	26.01	NA	T2
059-03-S-low-C-2	Wood ash_low_S	CALC	NA	%	Moisture	26.37	NA	T2
059-03-S-low-C-2	Wood ash_low_S	CALC	NA	%	Moisture	26.37	NA	T2
059-03-S-low-C-2	Wood ash_low_S	CALC	NA	%	Moisture	26.37	NA	T2
059-03-S-low-C-2	Wood ash_low_S	CALC	NA	%	Moisture	26.37	NA	T2
059-03-S-low-C-2	Wood ash_low_S	CALC	NA	%	Moisture	24.27	NA	T2
059-03-S-low-C-2	Wood ash_low_S	CALC	NA	%	Moisture	27.37	NA	T2
060-03-S-low-D-2	Wood ash_low_S	CALC	NA	%	Moisture	26.26	NA	T2
060-03-S-low-D-2	Wood ash_low_S	CALC	NA	%	Moisture	26.26	NA	T2
060-03-S-low-D-2	Wood ash_low_S	CALC	NA	%	Moisture	26.26	NA	T2
060-03-S-low-D-2	Wood ash_low_S	CALC	NA	%	Moisture	26.26	NA	T2
060-03-S-low-D-2	Wood ash_low_S	CALC	NA	%	Moisture	27.96	NA	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
060-03-S-low-D-2	Wood ash_low_S	CALC	NA	%	Moisture	23.76	NA	T2
061-04-S-low-A-2	Biochar_low_S	CALC	NA	%	Moisture	26.16	NA	T2
061-04-S-low-A-2	Biochar_low_S	CALC	NA	%	Moisture	26.16	NA	T2
061-04-S-low-A-2	Biochar_low_S	CALC	NA	%	Moisture	26.16	NA	T2
061-04-S-low-A-2	Biochar_low_S	CALC	NA	%	Moisture	26.16	NA	T2
061-04-S-low-A-2	Biochar_low_S	CALC	NA	%	Moisture	31.66	NA	T2
061-04-S-low-A-2	Biochar_low_S	CALC	NA	%	Moisture	30.26	NA	T2
062-04-S-low-B-2	Biochar_low_S	CALC	NA	%	Moisture	31.09	NA	T2
062-04-S-low-B-2	Biochar_low_S	CALC	NA	%	Moisture	31.09	NA	T2
062-04-S-low-B-2	Biochar_low_S	CALC	NA	%	Moisture	31.09	NA	T2
062-04-S-low-B-2	Biochar_low_S	CALC	NA	%	Moisture	31.09	NA	T2
062-04-S-low-B-2	Biochar_low_S	CALC	NA	%	Moisture	29.69	NA	T2
062-04-S-low-B-2	Biochar_low_S	CALC	NA	%	Moisture	30.79	NA	T2
063-04-S-low-C-2	Biochar_low_S	CALC	NA	%	Moisture	30.74	NA	T2
063-04-S-low-C-2	Biochar_low_S	CALC	NA	%	Moisture	30.74	NA	T2
063-04-S-low-C-2	Biochar_low_S	CALC	NA	%	Moisture	30.74	NA	T2
063-04-S-low-C-2	Biochar_low_S	CALC	NA	%	Moisture	30.74	NA	T2
063-04-S-low-C-2	Biochar_low_S	CALC	NA	%	Moisture	30.04	NA	T2
063-04-S-low-C-2	Biochar_low_S	CALC	NA	%	Moisture	26.54	NA	T2
064-04-S-low-D-2	Biochar_low_S	CALC	NA	%	Moisture	32.26	NA	T2
064-04-S-low-D-2	Biochar_low_S	CALC	NA	%	Moisture	32.26	NA	T2
064-04-S-low-D-2	Biochar_low_S	CALC	NA	%	Moisture	32.26	NA	T2
064-04-S-low-D-2	Biochar_low_S	CALC	NA	%	Moisture	32.26	NA	T2
064-04-S-low-D-2	Biochar_low_S	CALC	NA	%	Moisture	28.96	NA	T2
064-04-S-low-D-2	Biochar_low_S	CALC	NA	%	Moisture	27.16	NA	T2
065-05-S-low-A-2	Compost_low_S	CALC	NA	%	Moisture	33.35	NA	T2
065-05-S-low-A-2	Compost_low_S	CALC	NA	%	Moisture	33.35	NA	T2
065-05-S-low-A-2	Compost_low_S	CALC	NA	%	Moisture	33.35	NA	T2
065-05-S-low-A-2	Compost_low_S	CALC	NA	%	Moisture	33.35	NA	T2
065-05-S-low-A-2	Compost_low_S	CALC	NA	%	Moisture	28.75	NA	T2
065-05-S-low-A-2	Compost_low_S	CALC	NA	%	Moisture	28.75	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
066-05-S-low-B-2	Compost_low_S	CALC	NA	%	Moisture	28.21	NA	T2
066-05-S-low-B-2	Compost_low_S	CALC	NA	%	Moisture	28.21	NA	T2
066-05-S-low-B-2	Compost_low_S	CALC	NA	%	Moisture	28.21	NA	T2
066-05-S-low-B-2	Compost_low_S	CALC	NA	%	Moisture	28.21	NA	T2
066-05-S-low-B-2	Compost_low_S	CALC	NA	%	Moisture	32.41	NA	T2
066-05-S-low-B-2	Compost_low_S	CALC	NA	%	Moisture	30.41	NA	T2
067-05-S-low-C-2	Compost_low_S	CALC	NA	%	Moisture	24.38	NA	T2
067-05-S-low-C-2	Compost_low_S	CALC	NA	%	Moisture	24.38	NA	T2
067-05-S-low-C-2	Compost_low_S	CALC	NA	%	Moisture	24.38	NA	T2
067-05-S-low-C-2	Compost_low_S	CALC	NA	%	Moisture	24.38	NA	T2
067-05-S-low-C-2	Compost_low_S	CALC	NA	%	Moisture	29.28	NA	T2
067-05-S-low-C-2	Compost_low_S	CALC	NA	%	Moisture	30.38	NA	T2
068-05-S-low-D-2	Compost_low_S	CALC	NA	%	Moisture	30.70	NA	T2
068-05-S-low-D-2	Compost_low_S	CALC	NA	%	Moisture	30.70	NA	T2
068-05-S-low-D-2	Compost_low_S	CALC	NA	%	Moisture	30.70	NA	T2
068-05-S-low-D-2	Compost_low_S	CALC	NA	%	Moisture	30.70	NA	T2
068-05-S-low-D-2	Compost_low_S	CALC	NA	%	Moisture	30.20	NA	T2
068-05-S-low-D-2	Compost_low_S	CALC	NA	%	Moisture	28.40	NA	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	29.25	NA	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	29.25	NA	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	29.25	NA	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	29.25	NA	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	29.35	NA	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	27.55	NA	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	34.02	NA	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	34.02	NA	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	34.02	NA	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	34.02	NA	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	34.82	NA	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	29.52	NA	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	32.68	NA	T2

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	32.68	NA	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	32.68	NA	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	32.68	NA	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	32.78	NA	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	34.98	NA	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	34.77	NA	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	34.77	NA	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	34.77	NA	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	34.77	NA	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	31.17	NA	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	34.57	NA	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	31.04	NA	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	31.04	NA	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	31.04	NA	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	31.04	NA	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	29.24	NA	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	30.14	NA	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	30.92	NA	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	30.92	NA	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	30.92	NA	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	30.92	NA	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	32.12	NA	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	30.72	NA	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	32.28	NA	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	32.28	NA	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	32.28	NA	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	32.28	NA	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	33.38	NA	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	30.38	NA	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	30.71	NA	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	30.71	NA	T2

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	30.71	NA	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	30.71	NA	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	27.81	NA	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	29.91	NA	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	33.31	NA	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	33.31	NA	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	33.31	NA	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	33.31	NA	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	32.71	NA	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	34.71	NA	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	34.31	NA	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	34.31	NA	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	34.31	NA	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	34.31	NA	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	28.21	NA	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	32.71	NA	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	33.02	NA	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	33.02	NA	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	33.02	NA	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	35.22	NA	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	32.62	NA	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	34.34	NA	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	34.34	NA	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	34.34	NA	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	34.34	NA	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	32.84	NA	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	34.44	NA	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	26.26	NA	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	26.26	NA	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	26.26	NA	T2

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
081-09-S-low-A-2	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	26.26	NA	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	28.16	NA	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	28.96	NA	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	29.44	NA	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	29.44	NA	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	29.44	NA	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	29.44	NA	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	31.94	NA	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	32.94	NA	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	36.95	NA	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	36.95	NA	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	36.95	NA	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	36.95	NA	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	32.05	NA	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	35.45	NA	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	35.88	NA	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	35.88	NA	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	35.88	NA	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	35.88	NA	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	34.38	NA	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	35.58	NA	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	CALC	NA	%	Moisture	30.65	NA	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	CALC	NA	%	Moisture	30.65	NA	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	CALC	NA	%	Moisture	30.65	NA	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	CALC	NA	%	Moisture	30.65	NA	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	CALC	NA	%	Moisture	26.95	NA	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	CALC	NA	%	Moisture	26.35	NA	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	CALC	NA	%	Moisture	26.41	NA	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	CALC	NA	%	Moisture	26.41	NA	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	CALC	NA	%	Moisture	26.41	NA	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	CALC	NA	%	Moisture	26.41	NA	T2

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
086-10-S-low-B-2	Wood ash and biochar_low_S	CALC	NA	%	Moisture	30.81	NA	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	CALC	NA	%	Moisture	27.01	NA	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	CALC	NA	%	Moisture	26.45	NA	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	CALC	NA	%	Moisture	26.45	NA	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	CALC	NA	%	Moisture	26.45	NA	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	CALC	NA	%	Moisture	26.45	NA	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	CALC	NA	%	Moisture	25.75	NA	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	CALC	NA	%	Moisture	25.85	NA	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	CALC	NA	%	Moisture	22.78	NA	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	CALC	NA	%	Moisture	22.78	NA	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	CALC	NA	%	Moisture	22.78	NA	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	CALC	NA	%	Moisture	22.78	NA	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	CALC	NA	%	Moisture	22.78	NA	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	CALC	NA	%	Moisture	29.18	NA	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	CALC	NA	%	Moisture	28.58	NA	T2
089-11-S-low-A-2	Wood ash and compost_low_S	CALC	NA	%	Moisture	32.48	NA	T2
089-11-S-low-A-2	Wood ash and compost_low_S	CALC	NA	%	Moisture	32.48	NA	T2
089-11-S-low-A-2	Wood ash and compost_low_S	CALC	NA	%	Moisture	32.48	NA	T2
089-11-S-low-A-2	Wood ash and compost_low_S	CALC	NA	%	Moisture	32.48	NA	T2
089-11-S-low-A-2	Wood ash and compost_low_S	CALC	NA	%	Moisture	33.88	NA	T2
089-11-S-low-A-2	Wood ash and compost_low_S	CALC	NA	%	Moisture	29.28	NA	T2
090-11-S-low-B-2	Wood ash and compost_low_S	CALC	NA	%	Moisture	25.42	NA	T2
090-11-S-low-B-2	Wood ash and compost_low_S	CALC	NA	%	Moisture	25.42	NA	T2
090-11-S-low-B-2	Wood ash and compost_low_S	CALC	NA	%	Moisture	25.42	NA	T2
090-11-S-low-B-2	Wood ash and compost_low_S	CALC	NA	%	Moisture	25.42	NA	T2
090-11-S-low-B-2	Wood ash and compost_low_S	CALC	NA	%	Moisture	29.62	NA	T2
090-11-S-low-B-2	Wood ash and compost_low_S	CALC	NA	%	Moisture	24.82	NA	T2
091-11-S-low-C-2	Wood ash and compost_low_S	CALC	NA	%	Moisture	30.31	NA	T2
091-11-S-low-C-2	Wood ash and compost_low_S	CALC	NA	%	Moisture	30.31	NA	T2
091-11-S-low-C-2	Wood ash and compost_low_S	CALC	NA	%	Moisture	30.31	NA	T2
091-11-S-low-C-2	Wood ash and compost_low_S	CALC	NA	%	Moisture	30.31	NA	T2
091-11-S-low-C-2	Wood ash and compost_low_S	CALC	NA	%	Moisture	35.31	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
091-11-S-low-C-2	Wood ash and compost_low_S	CALC	NA	%	Moisture	33.81	NA	T2
092-11-S-low-D-2	Wood ash and compost_low_S	CALC	NA	%	Moisture	27.09	NA	T2
092-11-S-low-D-2	Wood ash and compost_low_S	CALC	NA	%	Moisture	27.09	NA	T2
092-11-S-low-D-2	Wood ash and compost_low_S	CALC	NA	%	Moisture	27.09	NA	T2
092-11-S-low-D-2	Wood ash and compost_low_S	CALC	NA	%	Moisture	27.09	NA	T2
092-11-S-low-D-2	Wood ash and compost_low_S	CALC	NA	%	Moisture	26.69	NA	T2
092-11-S-low-D-2	Wood ash and compost_low_S	CALC	NA	%	Moisture	32.39	NA	T2
093-12-S-low-A-2	Biochar and compost_low_S	CALC	NA	%	Moisture	34.54	NA	T2
093-12-S-low-A-2	Biochar and compost_low_S	CALC	NA	%	Moisture	34.54	NA	T2
093-12-S-low-A-2	Biochar and compost_low_S	CALC	NA	%	Moisture	34.54	NA	T2
093-12-S-low-A-2	Biochar and compost_low_S	CALC	NA	%	Moisture	34.54	NA	T2
093-12-S-low-A-2	Biochar and compost_low_S	CALC	NA	%	Moisture	29.74	NA	T2
093-12-S-low-A-2	Biochar and compost_low_S	CALC	NA	%	Moisture	30.74	NA	T2
094-12-S-low-B-2	Biochar and compost_low_S	CALC	NA	%	Moisture	29.49	NA	T2
094-12-S-low-B-2	Biochar and compost_low_S	CALC	NA	%	Moisture	29.49	NA	T2
094-12-S-low-B-2	Biochar and compost_low_S	CALC	NA	%	Moisture	29.49	NA	T2
094-12-S-low-B-2	Biochar and compost_low_S	CALC	NA	%	Moisture	29.49	NA	T2
094-12-S-low-B-2	Biochar and compost_low_S	CALC	NA	%	Moisture	31.59	NA	T2
094-12-S-low-B-2	Biochar and compost_low_S	CALC	NA	%	Moisture	33.49	NA	T2
095-12-S-low-C-2	Biochar and compost_low_S	CALC	NA	%	Moisture	30.50	NA	T2
095-12-S-low-C-2	Biochar and compost_low_S	CALC	NA	%	Moisture	30.50	NA	T2
095-12-S-low-C-2	Biochar and compost_low_S	CALC	NA	%	Moisture	30.50	NA	T2
095-12-S-low-C-2	Biochar and compost_low_S	CALC	NA	%	Moisture	30.50	NA	T2
095-12-S-low-C-2	Biochar and compost_low_S	CALC	NA	%	Moisture	29.90	NA	T2
095-12-S-low-C-2	Biochar and compost_low_S	CALC	NA	%	Moisture	29.90	NA	T2
096-12-S-low-D-2	Biochar and compost_low_S	CALC	NA	%	Moisture	29.56	NA	T2
096-12-S-low-D-2	Biochar and compost_low_S	CALC	NA	%	Moisture	29.56	NA	T2
096-12-S-low-D-2	Biochar and compost_low_S	CALC	NA	%	Moisture	29.56	NA	T2
096-12-S-low-D-2	Biochar and compost_low_S	CALC	NA	%	Moisture	29.56	NA	T2
096-12-S-low-D-2	Biochar and compost_low_S	CALC	NA	%	Moisture	34.16	NA	T2
096-12-S-low-D-2	Biochar and compost_low_S	CALC	NA	%	Moisture	29.46	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
193-01-S-high-A-2	Solublephosphate_high_S	CALC	NA	%	Moisture	32.29	NA	T2
193-01-S-high-A-2	Solublephosphate_high_S	CALC	NA	%	Moisture	32.29	NA	T2
193-01-S-high-A-2	Solublephosphate_high_S	CALC	NA	%	Moisture	32.29	NA	T2
193-01-S-high-A-2	Solublephosphate_high_S	CALC	NA	%	Moisture	32.29	NA	T2
193-01-S-high-A-2	Solublephosphate_high_S	CALC	NA	%	Moisture	31.59	NA	T2
193-01-S-high-A-2	Solublephosphate_high_S	CALC	NA	%	Moisture	30.19	NA	T2
194-01-S-high-B-2	Solublephosphate_high_S	CALC	NA	%	Moisture	36.77	NA	T2
194-01-S-high-B-2	Solublephosphate_high_S	CALC	NA	%	Moisture	36.77	NA	T2
194-01-S-high-B-2	Solublephosphate_high_S	CALC	NA	%	Moisture	36.77	NA	T2
194-01-S-high-B-2	Solublephosphate_high_S	CALC	NA	%	Moisture	36.77	NA	T2
194-01-S-high-B-2	Solublephosphate_high_S	CALC	NA	%	Moisture	31.87	NA	T2
194-01-S-high-B-2	Solublephosphate_high_S	CALC	NA	%	Moisture	31.87	NA	T2
195-01-S-high-C-2	Solublephosphate_high_S	CALC	NA	%	Moisture	34.16	NA	T2
195-01-S-high-C-2	Solublephosphate_high_S	CALC	NA	%	Moisture	34.16	NA	T2
195-01-S-high-C-2	Solublephosphate_high_S	CALC	NA	%	Moisture	34.16	NA	T2
195-01-S-high-C-2	Solublephosphate_high_S	CALC	NA	%	Moisture	34.16	NA	T2
195-01-S-high-C-2	Solublephosphate_high_S	CALC	NA	%	Moisture	29.86	NA	T2
195-01-S-high-C-2	Solublephosphate_high_S	CALC	NA	%	Moisture	28.86	NA	T2
196-01-S-high-D-2	Solublephosphate_high_S	CALC	NA	%	Moisture	32.99	NA	T2
196-01-S-high-D-2	Solublephosphate_high_S	CALC	NA	%	Moisture	32.99	NA	T2
196-01-S-high-D-2	Solublephosphate_high_S	CALC	NA	%	Moisture	32.99	NA	T2
196-01-S-high-D-2	Solublephosphate_high_S	CALC	NA	%	Moisture	30.39	NA	T2
196-01-S-high-D-2	Solublephosphate_high_S	CALC	NA	%	Moisture	30.69	NA	T2
197-02-S-high-A-2	Biosolid_high_S	CALC	NA	%	Moisture	42.07	NA	T2
197-02-S-high-A-2	Biosolid_high_S	CALC	NA	%	Moisture	42.07	NA	T2
197-02-S-high-A-2	Biosolid_high_S	CALC	NA	%	Moisture	42.07	NA	T2
197-02-S-high-A-2	Biosolid_high_S	CALC	NA	%	Moisture	42.07	NA	T2
197-02-S-high-A-2	Biosolid_high_S	CALC	NA	%	Moisture	35.67	NA	T2
197-02-S-high-A-2	Biosolid_high_S	CALC	NA	%	Moisture	42.07	NA	T2
198-02-S-high-B-2	Biosolid_high_S	CALC	NA	%	Moisture	40.74	NA	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
198-02-S-high-B-2	Biosolid_high_S	CALC	NA	%	Moisture	40.74	NA	T2
198-02-S-high-B-2	Biosolid_high_S	CALC	NA	%	Moisture	40.74	NA	T2
198-02-S-high-B-2	Biosolid_high_S	CALC	NA	%	Moisture	40.74	NA	T2
198-02-S-high-B-2	Biosolid_high_S	CALC	NA	%	Moisture	40.04	NA	T2
198-02-S-high-B-2	Biosolid_high_S	CALC	NA	%	Moisture	37.04	NA	T2
199-02-S-high-C-2	Biosolid_high_S	CALC	NA	%	Moisture	42.85	NA	T2
199-02-S-high-C-2	Biosolid_high_S	CALC	NA	%	Moisture	42.85	NA	T2
199-02-S-high-C-2	Biosolid_high_S	CALC	NA	%	Moisture	42.85	NA	T2
199-02-S-high-C-2	Biosolid_high_S	CALC	NA	%	Moisture	42.85	NA	T2
199-02-S-high-C-2	Biosolid_high_S	CALC	NA	%	Moisture	41.85	NA	T2
199-02-S-high-C-2	Biosolid_high_S	CALC	NA	%	Moisture	42.35	NA	T2
200-02-S-high-D-2	Biosolid_high_S	CALC	NA	%	Moisture	39.40	NA	T2
200-02-S-high-D-2	Biosolid_high_S	CALC	NA	%	Moisture	39.40	NA	T2
200-02-S-high-D-2	Biosolid_high_S	CALC	NA	%	Moisture	39.40	NA	T2
200-02-S-high-D-2	Biosolid_high_S	CALC	NA	%	Moisture	39.40	NA	T2
200-02-S-high-D-2	Biosolid_high_S	CALC	NA	%	Moisture	37.60	NA	T2
200-02-S-high-D-2	Biosolid_high_S	CALC	NA	%	Moisture	38.30	NA	T2
201-03-S-high-A-2	Wood ash_high_S	CALC	NA	%	Moisture	32.61	NA	T2
201-03-S-high-A-2	Wood ash_high_S	CALC	NA	%	Moisture	32.61	NA	T2
201-03-S-high-A-2	Wood ash_high_S	CALC	NA	%	Moisture	32.61	NA	T2
201-03-S-high-A-2	Wood ash_high_S	CALC	NA	%	Moisture	32.61	NA	T2
201-03-S-high-A-2	Wood ash_high_S	CALC	NA	%	Moisture	32.21	NA	T2
201-03-S-high-A-2	Wood ash_high_S	CALC	NA	%	Moisture	32.61	NA	T2
202-03-S-high-B-2	Wood ash_high_S	CALC	NA	%	Moisture	28.02	NA	T2
202-03-S-high-B-2	Wood ash_high_S	CALC	NA	%	Moisture	28.02	NA	T2
202-03-S-high-B-2	Wood ash_high_S	CALC	NA	%	Moisture	28.02	NA	T2
202-03-S-high-B-2	Wood ash_high_S	CALC	NA	%	Moisture	28.02	NA	T2
202-03-S-high-B-2	Wood ash_high_S	CALC	NA	%	Moisture	28.12	NA	T2
202-03-S-high-B-2	Wood ash_high_S	CALC	NA	%	Moisture	27.42	NA	T2
203-03-S-high-C-2	Wood ash_high_S	CALC	NA	%	Moisture	32.07	NA	T2
203-03-S-high-C-2	Wood ash_high_S	CALC	NA	%	Moisture	32.07	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
203-03-S-high-C-2	Wood ash_high_S	CALC	NA	%	Moisture	32.07	NA	T2
203-03-S-high-C-2	Wood ash_high_S	CALC	NA	%	Moisture	32.07	NA	T2
203-03-S-high-C-2	Wood ash_high_S	CALC	NA	%	Moisture	26.47	NA	T2
203-03-S-high-C-2	Wood ash_high_S	CALC	NA	%	Moisture	28.17	NA	T2
204-03-S-high-D-2	Wood ash_high_S	CALC	NA	%	Moisture	29.17	NA	T2
204-03-S-high-D-2	Wood ash_high_S	CALC	NA	%	Moisture	29.17	NA	T2
204-03-S-high-D-2	Wood ash_high_S	CALC	NA	%	Moisture	29.17	NA	T2
204-03-S-high-D-2	Wood ash_high_S	CALC	NA	%	Moisture	29.17	NA	T2
204-03-S-high-D-2	Wood ash_high_S	CALC	NA	%	Moisture	23.87	NA	T2
204-03-S-high-D-2	Wood ash_high_S	CALC	NA	%	Moisture	25.27	NA	T2
205-04-S-high-A-2	Biochar_high_S	CALC	NA	%	Moisture	34.36	NA	T2
205-04-S-high-A-2	Biochar_high_S	CALC	NA	%	Moisture	34.36	NA	T2
205-04-S-high-A-2	Biochar_high_S	CALC	NA	%	Moisture	34.36	NA	T2
205-04-S-high-A-2	Biochar_high_S	CALC	NA	%	Moisture	34.36	NA	T2
205-04-S-high-A-2	Biochar_high_S	CALC	NA	%	Moisture	29.46	NA	T2
205-04-S-high-A-2	Biochar_high_S	CALC	NA	%	Moisture	35.86	NA	T2
206-04-S-high-B-2	Biochar_high_S	CALC	NA	%	Moisture	37.99	NA	T2
206-04-S-high-B-2	Biochar_high_S	CALC	NA	%	Moisture	37.99	NA	T2
206-04-S-high-B-2	Biochar_high_S	CALC	NA	%	Moisture	37.99	NA	T2
206-04-S-high-B-2	Biochar_high_S	CALC	NA	%	Moisture	37.99	NA	T2
206-04-S-high-B-2	Biochar_high_S	CALC	NA	%	Moisture	39.99	NA	T2
206-04-S-high-B-2	Biochar_high_S	CALC	NA	%	Moisture	36.99	NA	T2
207-04-S-high-C-2	Biochar_high_S	CALC	NA	%	Moisture	32.24	NA	T2
207-04-S-high-C-2	Biochar_high_S	CALC	NA	%	Moisture	32.24	NA	T2
207-04-S-high-C-2	Biochar_high_S	CALC	NA	%	Moisture	32.24	NA	T2
207-04-S-high-C-2	Biochar_high_S	CALC	NA	%	Moisture	32.24	NA	T2
207-04-S-high-C-2	Biochar_high_S	CALC	NA	%	Moisture	31.44	NA	T2
207-04-S-high-C-2	Biochar_high_S	CALC	NA	%	Moisture	31.64	NA	T2
208-04-S-high-D-2	Biochar_high_S	CALC	NA	%	Moisture	31.95	NA	T2
208-04-S-high-D-2	Biochar_high_S	CALC	NA	%	Moisture	31.95	NA	T2
208-04-S-high-D-2	Biochar_high_S	CALC	NA	%	Moisture	31.95	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
208-04-S-high-D-2	Biochar_high_S	CALC	NA	%	Moisture	31.95	NA	T2
208-04-S-high-D-2	Biochar_high_S	CALC	NA	%	Moisture	27.95	NA	T2
208-04-S-high-D-2	Biochar_high_S	CALC	NA	%	Moisture	30.45	NA	T2
209-05-S-high-A-2	Compost_high_S	CALC	NA	%	Moisture	28.53	NA	T2
209-05-S-high-A-2	Compost_high_S	CALC	NA	%	Moisture	28.53	NA	T2
209-05-S-high-A-2	Compost_high_S	CALC	NA	%	Moisture	28.53	NA	T2
209-05-S-high-A-2	Compost_high_S	CALC	NA	%	Moisture	28.53	NA	T2
209-05-S-high-A-2	Compost_high_S	CALC	NA	%	Moisture	25.13	NA	T2
209-05-S-high-A-2	Compost_high_S	CALC	NA	%	Moisture	22.93	NA	T2
210-05-S-high-B-2	Compost_high_S	CALC	NA	%	Moisture	26.93	NA	T2
210-05-S-high-B-2	Compost_high_S	CALC	NA	%	Moisture	26.93	NA	T2
210-05-S-high-B-2	Compost_high_S	CALC	NA	%	Moisture	26.93	NA	T2
210-05-S-high-B-2	Compost_high_S	CALC	NA	%	Moisture	26.93	NA	T2
210-05-S-high-B-2	Compost_high_S	CALC	NA	%	Moisture	26.23	NA	T2
210-05-S-high-B-2	Compost_high_S	CALC	NA	%	Moisture	27.23	NA	T2
211-05-S-high-C-2	Compost_high_S	CALC	NA	%	Moisture	31.07	NA	T2
211-05-S-high-C-2	Compost_high_S	CALC	NA	%	Moisture	31.07	NA	T2
211-05-S-high-C-2	Compost_high_S	CALC	NA	%	Moisture	31.07	NA	T2
211-05-S-high-C-2	Compost_high_S	CALC	NA	%	Moisture	31.07	NA	T2
211-05-S-high-C-2	Compost_high_S	CALC	NA	%	Moisture	30.47	NA	T2
211-05-S-high-C-2	Compost_high_S	CALC	NA	%	Moisture	30.97	NA	T2
212-05-S-high-D-2	Compost_high_S	CALC	NA	%	Moisture	32.48	NA	T2
212-05-S-high-D-2	Compost_high_S	CALC	NA	%	Moisture	32.48	NA	T2
212-05-S-high-D-2	Compost_high_S	CALC	NA	%	Moisture	32.48	NA	T2
212-05-S-high-D-2	Compost_high_S	CALC	NA	%	Moisture	32.48	NA	T2
212-05-S-high-D-2	Compost_high_S	CALC	NA	%	Moisture	29.68	NA	T2
212-05-S-high-D-2	Compost_high_S	CALC	NA	%	Moisture	30.38	NA	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	37.86	NA	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	37.86	NA	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	37.86	NA	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	37.86	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	36.46	NA	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	36.86	NA	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	40.08	NA	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	40.08	NA	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	40.08	NA	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	40.08	NA	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	40.08	NA	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	40.08	NA	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	39.98	NA	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	40.66	NA	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	40.66	NA	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	40.66	NA	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	40.66	NA	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	40.66	NA	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	40.46	NA	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	38.96	NA	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	39.92	NA	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	39.92	NA	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	39.92	NA	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	39.22	NA	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	40.32	NA	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	31.73	NA	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	31.73	NA	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	31.73	NA	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	31.73	NA	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	37.73	NA	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	33.43	NA	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	32.54	NA	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	32.54	NA	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	32.54	NA	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	32.54	NA	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	29.94	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	30.14	NA	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	30.65	NA	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	30.65	NA	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	30.65	NA	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	30.65	NA	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	29.35	NA	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	32.65	NA	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	37.45	NA	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	37.45	NA	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	37.45	NA	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	37.45	NA	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	32.65	NA	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	36.15	NA	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	34.67	NA	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	34.67	NA	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	34.67	NA	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	34.67	NA	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	30.77	NA	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	31.97	NA	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	34.45	NA	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	34.45	NA	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	34.45	NA	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	34.45	NA	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	37.25	NA	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	36.65	NA	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	34.91	NA	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	34.91	NA	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	34.91	NA	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	34.91	NA	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	38.41	NA	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	35.51	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
224-08-S-high-D-2	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	32.71	NA	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	32.71	NA	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	32.71	NA	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	32.71	NA	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	26.61	NA	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	33.11	NA	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	39.60	NA	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	39.60	NA	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	39.60	NA	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	39.60	NA	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	42.10	NA	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	41.90	NA	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	36.30	NA	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	36.30	NA	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	36.30	NA	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	36.30	NA	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	41.50	NA	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	39.20	NA	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	42.38	NA	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	42.38	NA	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	42.38	NA	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	42.38	NA	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	37.88	NA	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	35.98	NA	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	41.43	NA	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	41.43	NA	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	41.43	NA	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	41.43	NA	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	37.73	NA	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	39.13	NA	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	CALC	NA	%	Moisture	37.28	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
229-10-S-high-A-2	Wood ash and biochar_high_S	CALC	NA	%	Moisture	37.28	NA	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	CALC	NA	%	Moisture	37.28	NA	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	CALC	NA	%	Moisture	37.28	NA	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	CALC	NA	%	Moisture	36.98	NA	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	CALC	NA	%	Moisture	36.18	NA	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	CALC	NA	%	Moisture	37.47	NA	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	CALC	NA	%	Moisture	37.47	NA	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	CALC	NA	%	Moisture	37.47	NA	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	CALC	NA	%	Moisture	37.47	NA	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	CALC	NA	%	Moisture	31.17	NA	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	CALC	NA	%	Moisture	31.47	NA	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	CALC	NA	%	Moisture	26.80	NA	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	CALC	NA	%	Moisture	26.80	NA	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	CALC	NA	%	Moisture	26.80	NA	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	CALC	NA	%	Moisture	26.80	NA	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	CALC	NA	%	Moisture	27.60	NA	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	CALC	NA	%	Moisture	32.50	NA	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	CALC	NA	%	Moisture	32.40	NA	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	CALC	NA	%	Moisture	32.40	NA	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	CALC	NA	%	Moisture	32.40	NA	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	CALC	NA	%	Moisture	32.40	NA	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	CALC	NA	%	Moisture	32.40	NA	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	CALC	NA	%	Moisture	32.40	NA	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	CALC	NA	%	Moisture	28.70	NA	T2
233-11-S-high-A-2	Wood ash and compost_high_S	CALC	NA	%	Moisture	19.62	NA	T2
233-11-S-high-A-2	Wood ash and compost_high_S	CALC	NA	%	Moisture	19.62	NA	T2
233-11-S-high-A-2	Wood ash and compost_high_S	CALC	NA	%	Moisture	19.62	NA	T2
233-11-S-high-A-2	Wood ash and compost_high_S	CALC	NA	%	Moisture	19.62	NA	T2
233-11-S-high-A-2	Wood ash and compost_high_S	CALC	NA	%	Moisture	19.32	NA	T2
233-11-S-high-A-2	Wood ash and compost_high_S	CALC	NA	%	Moisture	24.12	NA	T2
234-11-S-high-B-2	Wood ash and compost_high_S	CALC	NA	%	Moisture	23.53	NA	T2
234-11-S-high-B-2	Wood ash and compost_high_S	CALC	NA	%	Moisture	23.53	NA	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
234-11-S-high-B-2	Wood ash and compost_high_S	CALC	NA	%	Moisture	23.53	NA	T2
234-11-S-high-B-2	Wood ash and compost_high_S	CALC	NA	%	Moisture	23.53	NA	T2
234-11-S-high-B-2	Wood ash and compost_high_S	CALC	NA	%	Moisture	29.13	NA	T2
234-11-S-high-B-2	Wood ash and compost_high_S	CALC	NA	%	Moisture	27.33	NA	T2
235-11-S-high-C-2	Wood ash and compost_high_S	CALC	NA	%	Moisture	24.93	NA	T2
235-11-S-high-C-2	Wood ash and compost_high_S	CALC	NA	%	Moisture	24.93	NA	T2
235-11-S-high-C-2	Wood ash and compost_high_S	CALC	NA	%	Moisture	24.93	NA	T2
235-11-S-high-C-2	Wood ash and compost_high_S	CALC	NA	%	Moisture	24.93	NA	T2
235-11-S-high-C-2	Wood ash and compost_high_S	CALC	NA	%	Moisture	30.43	NA	T2
235-11-S-high-C-2	Wood ash and compost_high_S	CALC	NA	%	Moisture	29.73	NA	T2
236-11-S-high-D-2	Wood ash and compost_high_S	CALC	NA	%	Moisture	29.93	NA	T2
236-11-S-high-D-2	Wood ash and compost_high_S	CALC	NA	%	Moisture	29.93	NA	T2
236-11-S-high-D-2	Wood ash and compost_high_S	CALC	NA	%	Moisture	29.93	NA	T2
236-11-S-high-D-2	Wood ash and compost_high_S	CALC	NA	%	Moisture	29.93	NA	T2
236-11-S-high-D-2	Wood ash and compost_high_S	CALC	NA	%	Moisture	25.03	NA	T2
236-11-S-high-D-2	Wood ash and compost_high_S	CALC	NA	%	Moisture	26.83	NA	T2
237-12-S-high-A-2	Biochar and compost_high_S	CALC	NA	%	Moisture	31.45	NA	T2
237-12-S-high-A-2	Biochar and compost_high_S	CALC	NA	%	Moisture	31.45	NA	T2
237-12-S-high-A-2	Biochar and compost_high_S	CALC	NA	%	Moisture	31.45	NA	T2
237-12-S-high-A-2	Biochar and compost_high_S	CALC	NA	%	Moisture	31.45	NA	T2
237-12-S-high-A-2	Biochar and compost_high_S	CALC	NA	%	Moisture	31.55	NA	T2
237-12-S-high-A-2	Biochar and compost_high_S	CALC	NA	%	Moisture	29.55	NA	T2
238-12-S-high-B-2	Biochar and compost_high_S	CALC	NA	%	Moisture	32.83	NA	T2
238-12-S-high-B-2	Biochar and compost_high_S	CALC	NA	%	Moisture	32.83	NA	T2
238-12-S-high-B-2	Biochar and compost_high_S	CALC	NA	%	Moisture	32.83	NA	T2
238-12-S-high-B-2	Biochar and compost_high_S	CALC	NA	%	Moisture	32.83	NA	T2
238-12-S-high-B-2	Biochar and compost_high_S	CALC	NA	%	Moisture	31.33	NA	T2
238-12-S-high-B-2	Biochar and compost_high_S	CALC	NA	%	Moisture	33.63	NA	T2
239-12-S-high-C-2	Biochar and compost_high_S	CALC	NA	%	Moisture	33.89	NA	T2
239-12-S-high-C-2	Biochar and compost_high_S	CALC	NA	%	Moisture	33.89	NA	T2
239-12-S-high-C-2	Biochar and compost_high_S	CALC	NA	%	Moisture	33.89	NA	T2

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
239-12-S-high-C-2	Biochar and compost_high_S	CALC	NA	%	Moisture	33.89	NA	T2
239-12-S-high-C-2	Biochar and compost_high_S	CALC	NA	%	Moisture	33.99	NA	T2
239-12-S-high-C-2	Biochar and compost_high_S	CALC	NA	%	Moisture	32.59	NA	T2
240-12-S-high-D-2	Biochar and compost_high_S	CALC	NA	%	Moisture	30.96	NA	T2
240-12-S-high-D-2	Biochar and compost_high_S	CALC	NA	%	Moisture	30.96	NA	T2
240-12-S-high-D-2	Biochar and compost_high_S	CALC	NA	%	Moisture	30.96	NA	T2
240-12-S-high-D-2	Biochar and compost_high_S	CALC	NA	%	Moisture	30.96	NA	T2
240-12-S-high-D-2	Biochar and compost_high_S	CALC	NA	%	Moisture	30.16	NA	T2
240-12-S-high-D-2	Biochar and compost_high_S	CALC	NA	%	Moisture	30.86	NA	T2
289-01-I-low-A-2	Solublephosphate_low_I	CALC	NA	%	Moisture	22.68	NA	T2
289-01-I-low-A-2	Solublephosphate_low_I	CALC	NA	%	Moisture	22.68	NA	T2
289-01-I-low-A-2	Solublephosphate_low_I	CALC	NA	%	Moisture	22.68	NA	T2
289-01-I-low-A-2	Solublephosphate_low_I	CALC	NA	%	Moisture	22.68	NA	T2
289-01-I-low-A-2	Solublephosphate_low_I	CALC	NA	%	Moisture	24.88	NA	T2
289-01-I-low-A-2	Solublephosphate_low_I	CALC	NA	%	Moisture	24.68	NA	T2
290-01-I-low-B-2	Solublephosphate_low_I	CALC	NA	%	Moisture	15.64	NA	T2
290-01-I-low-B-2	Solublephosphate_low_I	CALC	NA	%	Moisture	15.64	NA	T2
290-01-I-low-B-2	Solublephosphate_low_I	CALC	NA	%	Moisture	15.64	NA	T2
290-01-I-low-B-2	Solublephosphate_low_I	CALC	NA	%	Moisture	15.64	NA	T2
290-01-I-low-B-2	Solublephosphate_low_I	CALC	NA	%	Moisture	16.34	NA	T2
290-01-I-low-B-2	Solublephosphate_low_I	CALC	NA	%	Moisture	18.74	NA	T2
291-01-I-low-C-2	Solublephosphate_low_I	CALC	NA	%	Moisture	21.59	NA	T2
291-01-I-low-C-2	Solublephosphate_low_I	CALC	NA	%	Moisture	21.59	NA	T2
291-01-I-low-C-2	Solublephosphate_low_I	CALC	NA	%	Moisture	21.59	NA	T2
291-01-I-low-C-2	Solublephosphate_low_I	CALC	NA	%	Moisture	21.59	NA	T2
291-01-I-low-C-2	Solublephosphate_low_I	CALC	NA	%	Moisture	18.89	NA	T2
291-01-I-low-C-2	Solublephosphate_low_I	CALC	NA	%	Moisture	21.49	NA	T2
292-01-I-low-D-2	Solublephosphate_low_I	CALC	NA	%	Moisture	21.94	NA	T2
292-01-I-low-D-2	Solublephosphate_low_I	CALC	NA	%	Moisture	21.94	NA	T2
292-01-I-low-D-2	Solublephosphate_low_I	CALC	NA	%	Moisture	21.94	NA	T2
292-01-I-low-D-2	Solublephosphate_low_I	CALC	NA	%	Moisture	21.94	NA	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
292-01-I-low-D-2	Solublephosphate_low_I	CALC	NA	%	Moisture	24.04	NA	T2
292-01-I-low-D-2	Solublephosphate_low_I	CALC	NA	%	Moisture	21.84	NA	T2
293-02-I-low-A-2	Biosolid_low_I	CALC	NA	%	Moisture	20.46	NA	T2
293-02-I-low-A-2	Biosolid_low_I	CALC	NA	%	Moisture	20.46	NA	T2
293-02-I-low-A-2	Biosolid_low_I	CALC	NA	%	Moisture	20.46	NA	T2
293-02-I-low-A-2	Biosolid_low_I	CALC	NA	%	Moisture	20.46	NA	T2
293-02-I-low-A-2	Biosolid_low_I	CALC	NA	%	Moisture	21.36	NA	T2
293-02-I-low-A-2	Biosolid_low_I	CALC	NA	%	Moisture	26.36	NA	T2
294-02-I-low-B-2	Biosolid_low_I	CALC	NA	%	Moisture	18.65	NA	T2
294-02-I-low-B-2	Biosolid_low_I	CALC	NA	%	Moisture	18.65	NA	T2
294-02-I-low-B-2	Biosolid_low_I	CALC	NA	%	Moisture	18.65	NA	T2
294-02-I-low-B-2	Biosolid_low_I	CALC	NA	%	Moisture	18.65	NA	T2
294-02-I-low-B-2	Biosolid_low_I	CALC	NA	%	Moisture	20.75	NA	T2
294-02-I-low-B-2	Biosolid_low_I	CALC	NA	%	Moisture	23.45	NA	T2
295-02-I-low-C-2	Biosolid_low_I	CALC	NA	%	Moisture	26.33	NA	T2
295-02-I-low-C-2	Biosolid_low_I	CALC	NA	%	Moisture	26.33	NA	T2
295-02-I-low-C-2	Biosolid_low_I	CALC	NA	%	Moisture	26.33	NA	T2
295-02-I-low-C-2	Biosolid_low_I	CALC	NA	%	Moisture	25.33	NA	T2
295-02-I-low-C-2	Biosolid_low_I	CALC	NA	%	Moisture	27.73	NA	T2
296-02-I-low-D-2	Biosolid_low_I	CALC	NA	%	Moisture	19.45	NA	T2
296-02-I-low-D-2	Biosolid_low_I	CALC	NA	%	Moisture	19.45	NA	T2
296-02-I-low-D-2	Biosolid_low_I	CALC	NA	%	Moisture	19.45	NA	T2
296-02-I-low-D-2	Biosolid_low_I	CALC	NA	%	Moisture	19.45	NA	T2
296-02-I-low-D-2	Biosolid_low_I	CALC	NA	%	Moisture	15.25	NA	T2
296-02-I-low-D-2	Biosolid_low_I	CALC	NA	%	Moisture	16.95	NA	T2
297-03-I-low-A-2	Wood ash_low_I	CALC	NA	%	Moisture	24.77	NA	T2
297-03-I-low-A-2	Wood ash_low_I	CALC	NA	%	Moisture	24.77	NA	T2
297-03-I-low-A-2	Wood ash_low_I	CALC	NA	%	Moisture	24.77	NA	T2
297-03-I-low-A-2	Wood ash_low_I	CALC	NA	%	Moisture	24.77	NA	T2
297-03-I-low-A-2	Wood ash_low_I	CALC	NA	%	Moisture	22.57	NA	T2

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
297-03-I-low-A-2	Wood ash_low_I	CALC	NA	%	Moisture	22.57	NA	T2
298-03-I-low-B-2	Wood ash_low_I	CALC	NA	%	Moisture	20.66	NA	T2
298-03-I-low-B-2	Wood ash_low_I	CALC	NA	%	Moisture	20.66	NA	T2
298-03-I-low-B-2	Wood ash_low_I	CALC	NA	%	Moisture	20.66	NA	T2
298-03-I-low-B-2	Wood ash_low_I	CALC	NA	%	Moisture	20.66	NA	T2
298-03-I-low-B-2	Wood ash_low_I	CALC	NA	%	Moisture	19.56	NA	T2
298-03-I-low-B-2	Wood ash_low_I	CALC	NA	%	Moisture	17.56	NA	T2
299-03-I-low-C-2	Wood ash_low_I	CALC	NA	%	Moisture	16.05	NA	T2
299-03-I-low-C-2	Wood ash_low_I	CALC	NA	%	Moisture	16.05	NA	T2
299-03-I-low-C-2	Wood ash_low_I	CALC	NA	%	Moisture	16.05	NA	T2
299-03-I-low-C-2	Wood ash_low_I	CALC	NA	%	Moisture	16.05	NA	T2
299-03-I-low-C-2	Wood ash_low_I	CALC	NA	%	Moisture	10.75	NA	T2
299-03-I-low-C-2	Wood ash_low_I	CALC	NA	%	Moisture	13.45	NA	T2
300-03-I-low-D-2	Wood ash_low_I	CALC	NA	%	Moisture	15.05	NA	T2
300-03-I-low-D-2	Wood ash_low_I	CALC	NA	%	Moisture	15.05	NA	T2
300-03-I-low-D-2	Wood ash_low_I	CALC	NA	%	Moisture	15.05	NA	T2
300-03-I-low-D-2	Wood ash_low_I	CALC	NA	%	Moisture	15.05	NA	T2
300-03-I-low-D-2	Wood ash_low_I	CALC	NA	%	Moisture	15.55	NA	T2
300-03-I-low-D-2	Wood ash_low_I	CALC	NA	%	Moisture	19.45	NA	T2
301-04-I-low-A-2	Biochar_low_I	CALC	NA	%	Moisture	23.52	NA	T2
301-04-I-low-A-2	Biochar_low_I	CALC	NA	%	Moisture	23.52	NA	T2
301-04-I-low-A-2	Biochar_low_I	CALC	NA	%	Moisture	23.52	NA	T2
301-04-I-low-A-2	Biochar_low_I	CALC	NA	%	Moisture	23.52	NA	T2
301-04-I-low-A-2	Biochar_low_I	CALC	NA	%	Moisture	22.92	NA	T2
301-04-I-low-A-2	Biochar_low_I	CALC	NA	%	Moisture	22.92	NA	T2
302-04-I-low-B-2	Biochar_low_I	CALC	NA	%	Moisture	21.48	NA	T2
302-04-I-low-B-2	Biochar_low_I	CALC	NA	%	Moisture	21.48	NA	T2
302-04-I-low-B-2	Biochar_low_I	CALC	NA	%	Moisture	21.48	NA	T2
302-04-I-low-B-2	Biochar_low_I	CALC	NA	%	Moisture	21.48	NA	T2
302-04-I-low-B-2	Biochar_low_I	CALC	NA	%	Moisture	17.68	NA	T2
302-04-I-low-B-2	Biochar_low_I	CALC	NA	%	Moisture	17.48	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
303-04-I-low-C-2	Biochar_low_I	CALC	NA	%	Moisture	27.37	NA	T2
303-04-I-low-C-2	Biochar_low_I	CALC	NA	%	Moisture	27.37	NA	T2
303-04-I-low-C-2	Biochar_low_I	CALC	NA	%	Moisture	27.37	NA	T2
303-04-I-low-C-2	Biochar_low_I	CALC	NA	%	Moisture	27.37	NA	T2
303-04-I-low-C-2	Biochar_low_I	CALC	NA	%	Moisture	27.57	NA	T2
303-04-I-low-C-2	Biochar_low_I	CALC	NA	%	Moisture	25.97	NA	T2
304-04-I-low-D-2	Biochar_low_I	CALC	NA	%	Moisture	20.46	NA	T2
304-04-I-low-D-2	Biochar_low_I	CALC	NA	%	Moisture	20.46	NA	T2
304-04-I-low-D-2	Biochar_low_I	CALC	NA	%	Moisture	20.46	NA	T2
304-04-I-low-D-2	Biochar_low_I	CALC	NA	%	Moisture	20.46	NA	T2
304-04-I-low-D-2	Biochar_low_I	CALC	NA	%	Moisture	19.16	NA	T2
304-04-I-low-D-2	Biochar_low_I	CALC	NA	%	Moisture	21.76	NA	T2
305-05-I-low-A-2	Compost_low_I	CALC	NA	%	Moisture	21.23	NA	T2
305-05-I-low-A-2	Compost_low_I	CALC	NA	%	Moisture	21.23	NA	T2
305-05-I-low-A-2	Compost_low_I	CALC	NA	%	Moisture	21.23	NA	T2
305-05-I-low-A-2	Compost_low_I	CALC	NA	%	Moisture	21.23	NA	T2
305-05-I-low-A-2	Compost_low_I	CALC	NA	%	Moisture	27.53	NA	T2
305-05-I-low-A-2	Compost_low_I	CALC	NA	%	Moisture	23.03	NA	T2
306-05-I-low-B-2	Compost_low_I	CALC	NA	%	Moisture	16.31	NA	T2
306-05-I-low-B-2	Compost_low_I	CALC	NA	%	Moisture	16.31	NA	T2
306-05-I-low-B-2	Compost_low_I	CALC	NA	%	Moisture	16.31	NA	T2
306-05-I-low-B-2	Compost_low_I	CALC	NA	%	Moisture	16.31	NA	T2
306-05-I-low-B-2	Compost_low_I	CALC	NA	%	Moisture	15.61	NA	T2
306-05-I-low-B-2	Compost_low_I	CALC	NA	%	Moisture	14.91	NA	T2
307-05-I-low-C-2	Compost_low_I	CALC	NA	%	Moisture	29.52	NA	T2
307-05-I-low-C-2	Compost_low_I	CALC	NA	%	Moisture	29.52	NA	T2
307-05-I-low-C-2	Compost_low_I	CALC	NA	%	Moisture	29.52	NA	T2
307-05-I-low-C-2	Compost_low_I	CALC	NA	%	Moisture	29.52	NA	T2
307-05-I-low-C-2	Compost_low_I	CALC	NA	%	Moisture	27.22	NA	T2
307-05-I-low-C-2	Compost_low_I	CALC	NA	%	Moisture	31.02	NA	T2
308-05-I-low-D-2	Compost_low_I	CALC	NA	%	Moisture	17.61	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
308-05-I-low-D-2	Compost_low_I	CALC	NA	%	Moisture	17.61	NA	T2
308-05-I-low-D-2	Compost_low_I	CALC	NA	%	Moisture	17.61	NA	T2
308-05-I-low-D-2	Compost_low_I	CALC	NA	%	Moisture	17.61	NA	T2
308-05-I-low-D-2	Compost_low_I	CALC	NA	%	Moisture	18.91	NA	T2
308-05-I-low-D-2	Compost_low_I	CALC	NA	%	Moisture	18.91	NA	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	26.54	NA	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	26.54	NA	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	26.54	NA	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	26.54	NA	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	20.44	NA	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	23.04	NA	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	19.22	NA	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	19.22	NA	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	19.22	NA	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	19.22	NA	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	21.42	NA	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	18.52	NA	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	24.98	NA	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	24.98	NA	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	24.98	NA	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	24.98	NA	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	21.88	NA	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	21.98	NA	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	26.47	NA	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	26.47	NA	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	26.47	NA	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	26.47	NA	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	23.87	NA	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	22.17	NA	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	20.15	NA	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	20.15	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	20.15	NA	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	20.15	NA	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	14.65	NA	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	20.95	NA	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	13.98	NA	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	13.98	NA	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	13.98	NA	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	13.98	NA	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	16.78	NA	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	18.88	NA	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	23.28	NA	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	23.28	NA	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	23.28	NA	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	26.08	NA	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	26.58	NA	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	23.03	NA	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	23.03	NA	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	23.03	NA	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	18.33	NA	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	22.83	NA	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	26.32	NA	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	26.32	NA	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	26.32	NA	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	26.32	NA	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	24.42	NA	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	26.52	NA	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	23.82	NA	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	23.82	NA	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	23.82	NA	T2

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
318-08-I-low-B-2	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	23.82	NA	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	28.72	NA	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	25.92	NA	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	23.96	NA	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	23.96	NA	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	23.96	NA	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	23.96	NA	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	19.06	NA	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	23.56	NA	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	21.69	NA	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	21.69	NA	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	21.69	NA	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	21.69	NA	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	25.49	NA	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	23.69	NA	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	22.18	NA	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	22.18	NA	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	22.18	NA	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	22.18	NA	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	24.68	NA	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	21.78	NA	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	22.72	NA	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	22.72	NA	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	22.72	NA	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	22.72	NA	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	20.22	NA	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	25.92	NA	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	27.71	NA	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	27.71	NA	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	27.71	NA	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	27.71	NA	T2

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
323-09-I-low-C-2	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	24.11	NA	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	26.51	NA	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	23.49	NA	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	23.49	NA	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	23.49	NA	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	23.49	NA	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	22.99	NA	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	24.49	NA	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	CALC	NA	%	Moisture	20.04	NA	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	CALC	NA	%	Moisture	20.04	NA	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	CALC	NA	%	Moisture	20.04	NA	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	CALC	NA	%	Moisture	20.04	NA	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	CALC	NA	%	Moisture	22.54	NA	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	CALC	NA	%	Moisture	21.64	NA	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	CALC	NA	%	Moisture	16.01	NA	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	CALC	NA	%	Moisture	16.01	NA	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	CALC	NA	%	Moisture	16.01	NA	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	CALC	NA	%	Moisture	13.31	NA	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	CALC	NA	%	Moisture	18.81	NA	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	CALC	NA	%	Moisture	15.28	NA	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	CALC	NA	%	Moisture	15.28	NA	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	CALC	NA	%	Moisture	15.28	NA	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	CALC	NA	%	Moisture	15.28	NA	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	CALC	NA	%	Moisture	17.08	NA	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	CALC	NA	%	Moisture	15.08	NA	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	CALC	NA	%	Moisture	22.93	NA	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	CALC	NA	%	Moisture	22.93	NA	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	CALC	NA	%	Moisture	22.93	NA	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	CALC	NA	%	Moisture	22.93	NA	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	CALC	NA	%	Moisture	20.33	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
328-10-I-low-D-2	Wood ash and biochar_low_I	CALC	NA	%	Moisture	23.13	NA	T2
329-11-I-low-A-2	Wood ash and compost_low_I	CALC	NA	%	Moisture	19.86	NA	T2
329-11-I-low-A-2	Wood ash and compost_low_I	CALC	NA	%	Moisture	19.86	NA	T2
329-11-I-low-A-2	Wood ash and compost_low_I	CALC	NA	%	Moisture	19.86	NA	T2
329-11-I-low-A-2	Wood ash and compost_low_I	CALC	NA	%	Moisture	19.86	NA	T2
329-11-I-low-A-2	Wood ash and compost_low_I	CALC	NA	%	Moisture	19.86	NA	T2
329-11-I-low-A-2	Wood ash and compost_low_I	CALC	NA	%	Moisture	17.86	NA	T2
330-11-I-low-B-2	Wood ash and compost_low_I	CALC	NA	%	Moisture	16.27	NA	T2
330-11-I-low-B-2	Wood ash and compost_low_I	CALC	NA	%	Moisture	16.27	NA	T2
330-11-I-low-B-2	Wood ash and compost_low_I	CALC	NA	%	Moisture	16.27	NA	T2
330-11-I-low-B-2	Wood ash and compost_low_I	CALC	NA	%	Moisture	16.27	NA	T2
330-11-I-low-B-2	Wood ash and compost_low_I	CALC	NA	%	Moisture	15.47	NA	T2
330-11-I-low-B-2	Wood ash and compost_low_I	CALC	NA	%	Moisture	18.37	NA	T2
331-11-I-low-C-2	Wood ash and compost_low_I	CALC	NA	%	Moisture	10.52	NA	T2
331-11-I-low-C-2	Wood ash and compost_low_I	CALC	NA	%	Moisture	10.52	NA	T2
331-11-I-low-C-2	Wood ash and compost_low_I	CALC	NA	%	Moisture	10.52	NA	T2
331-11-I-low-C-2	Wood ash and compost_low_I	CALC	NA	%	Moisture	10.52	NA	T2
331-11-I-low-C-2	Wood ash and compost_low_I	CALC	NA	%	Moisture	15.42	NA	T2
331-11-I-low-C-2	Wood ash and compost_low_I	CALC	NA	%	Moisture	11.62	NA	T2
332-11-I-low-D-2	Wood ash and compost_low_I	CALC	NA	%	Moisture	20.50	NA	T2
332-11-I-low-D-2	Wood ash and compost_low_I	CALC	NA	%	Moisture	20.50	NA	T2
332-11-I-low-D-2	Wood ash and compost_low_I	CALC	NA	%	Moisture	20.50	NA	T2
332-11-I-low-D-2	Wood ash and compost_low_I	CALC	NA	%	Moisture	20.50	NA	T2
332-11-I-low-D-2	Wood ash and compost_low_I	CALC	NA	%	Moisture	19.60	NA	T2
332-11-I-low-D-2	Wood ash and compost_low_I	CALC	NA	%	Moisture	15.20	NA	T2
333-12-I-low-A-2	Biochar and compost_low_I	CALC	NA	%	Moisture	13.14	NA	T2
333-12-I-low-A-2	Biochar and compost_low_I	CALC	NA	%	Moisture	13.14	NA	T2
333-12-I-low-A-2	Biochar and compost_low_I	CALC	NA	%	Moisture	13.14	NA	T2
333-12-I-low-A-2	Biochar and compost_low_I	CALC	NA	%	Moisture	13.14	NA	T2
333-12-I-low-A-2	Biochar and compost_low_I	CALC	NA	%	Moisture	13.24	NA	T2
333-12-I-low-A-2	Biochar and compost_low_I	CALC	NA	%	Moisture	15.94	NA	T2

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
334-12-I-low-B-2	Biochar and compost_low_I	CALC	NA	%	Moisture	19.69	NA	T2
334-12-I-low-B-2	Biochar and compost_low_I	CALC	NA	%	Moisture	19.69	NA	T2
334-12-I-low-B-2	Biochar and compost_low_I	CALC	NA	%	Moisture	19.69	NA	T2
334-12-I-low-B-2	Biochar and compost_low_I	CALC	NA	%	Moisture	19.69	NA	T2
334-12-I-low-B-2	Biochar and compost_low_I	CALC	NA	%	Moisture	19.99	NA	T2
334-12-I-low-B-2	Biochar and compost_low_I	CALC	NA	%	Moisture	17.69	NA	T2
335-12-I-low-C-2	Biochar and compost_low_I	CALC	NA	%	Moisture	21.59	NA	T2
335-12-I-low-C-2	Biochar and compost_low_I	CALC	NA	%	Moisture	21.59	NA	T2
335-12-I-low-C-2	Biochar and compost_low_I	CALC	NA	%	Moisture	21.59	NA	T2
335-12-I-low-C-2	Biochar and compost_low_I	CALC	NA	%	Moisture	21.59	NA	T2
335-12-I-low-C-2	Biochar and compost_low_I	CALC	NA	%	Moisture	16.89	NA	T2
335-12-I-low-C-2	Biochar and compost_low_I	CALC	NA	%	Moisture	19.19	NA	T2
336-12-I-low-D-2	Biochar and compost_low_I	CALC	NA	%	Moisture	19.09	NA	T2
336-12-I-low-D-2	Biochar and compost_low_I	CALC	NA	%	Moisture	19.09	NA	T2
336-12-I-low-D-2	Biochar and compost_low_I	CALC	NA	%	Moisture	19.09	NA	T2
336-12-I-low-D-2	Biochar and compost_low_I	CALC	NA	%	Moisture	19.09	NA	T2
336-12-I-low-D-2	Biochar and compost_low_I	CALC	NA	%	Moisture	20.09	NA	T2
336-12-I-low-D-2	Biochar and compost_low_I	CALC	NA	%	Moisture	19.49	NA	T2
337-01-I-high-A-2	Solublephosphate_high_I	CALC	NA	%	Moisture	17.17	NA	T2
337-01-I-high-A-2	Solublephosphate_high_I	CALC	NA	%	Moisture	17.17	NA	T2
337-01-I-high-A-2	Solublephosphate_high_I	CALC	NA	%	Moisture	17.17	NA	T2
337-01-I-high-A-2	Solublephosphate_high_I	CALC	NA	%	Moisture	17.17	NA	T2
337-01-I-high-A-2	Solublephosphate_high_I	CALC	NA	%	Moisture	22.37	NA	T2
337-01-I-high-A-2	Solublephosphate_high_I	CALC	NA	%	Moisture	19.37	NA	T2
338-01-I-high-B-2	Solublephosphate_high_I	CALC	NA	%	Moisture	11.89	NA	T2
338-01-I-high-B-2	Solublephosphate_high_I	CALC	NA	%	Moisture	11.89	NA	T2
338-01-I-high-B-2	Solublephosphate_high_I	CALC	NA	%	Moisture	11.89	NA	T2
338-01-I-high-B-2	Solublephosphate_high_I	CALC	NA	%	Moisture	11.89	NA	T2
338-01-I-high-B-2	Solublephosphate_high_I	CALC	NA	%	Moisture	13.49	NA	T2
338-01-I-high-B-2	Solublephosphate_high_I	CALC	NA	%	Moisture	10.99	NA	T2
339-01-I-high-C-2	Solublephosphate_high_I	CALC	NA	%	Moisture	12.67	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
339-01-I-high-C-2	Solublephosphate_high_I	CALC	NA	%	Moisture	12.67	NA	T2
339-01-I-high-C-2	Solublephosphate_high_I	CALC	NA	%	Moisture	12.67	NA	T2
339-01-I-high-C-2	Solublephosphate_high_I	CALC	NA	%	Moisture	12.67	NA	T2
339-01-I-high-C-2	Solublephosphate_high_I	CALC	NA	%	Moisture	14.07	NA	T2
339-01-I-high-C-2	Solublephosphate_high_I	CALC	NA	%	Moisture	13.67	NA	T2
340-01-I-high-D-2	Solublephosphate_high_I	CALC	NA	%	Moisture	11.29	NA	T2
340-01-I-high-D-2	Solublephosphate_high_I	CALC	NA	%	Moisture	11.29	NA	T2
340-01-I-high-D-2	Solublephosphate_high_I	CALC	NA	%	Moisture	11.29	NA	T2
340-01-I-high-D-2	Solublephosphate_high_I	CALC	NA	%	Moisture	11.29	NA	T2
340-01-I-high-D-2	Solublephosphate_high_I	CALC	NA	%	Moisture	15.19	NA	T2
340-01-I-high-D-2	Solublephosphate_high_I	CALC	NA	%	Moisture	11.99	NA	T2
341-02-I-high-A-2	Biosolid_high_I	CALC	NA	%	Moisture	28.25	NA	T2
341-02-I-high-A-2	Biosolid_high_I	CALC	NA	%	Moisture	28.25	NA	T2
341-02-I-high-A-2	Biosolid_high_I	CALC	NA	%	Moisture	28.25	NA	T2
341-02-I-high-A-2	Biosolid_high_I	CALC	NA	%	Moisture	28.25	NA	T2
341-02-I-high-A-2	Biosolid_high_I	CALC	NA	%	Moisture	22.95	NA	T2
341-02-I-high-A-2	Biosolid_high_I	CALC	NA	%	Moisture	26.95	NA	T2
342-02-I-high-B-2	Biosolid_high_I	CALC	NA	%	Moisture	29.03	NA	T2
342-02-I-high-B-2	Biosolid_high_I	CALC	NA	%	Moisture	29.03	NA	T2
342-02-I-high-B-2	Biosolid_high_I	CALC	NA	%	Moisture	29.03	NA	T2
342-02-I-high-B-2	Biosolid_high_I	CALC	NA	%	Moisture	29.03	NA	T2
342-02-I-high-B-2	Biosolid_high_I	CALC	NA	%	Moisture	29.23	NA	T2
342-02-I-high-B-2	Biosolid_high_I	CALC	NA	%	Moisture	28.73	NA	T2
343-02-I-high-C-2	Biosolid_high_I	CALC	NA	%	Moisture	24.94	NA	T2
343-02-I-high-C-2	Biosolid_high_I	CALC	NA	%	Moisture	24.94	NA	T2
343-02-I-high-C-2	Biosolid_high_I	CALC	NA	%	Moisture	24.94	NA	T2
343-02-I-high-C-2	Biosolid_high_I	CALC	NA	%	Moisture	24.94	NA	T2
343-02-I-high-C-2	Biosolid_high_I	CALC	NA	%	Moisture	22.94	NA	T2
343-02-I-high-C-2	Biosolid_high_I	CALC	NA	%	Moisture	28.44	NA	T2
344-02-I-high-D-2	Biosolid_high_I	CALC	NA	%	Moisture	27.67	NA	T2
344-02-I-high-D-2	Biosolid_high_I	CALC	NA	%	Moisture	27.67	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
344-02-I-high-D-2	Biosolid_high_I	CALC	NA	%	Moisture	27.67	NA	T2
344-02-I-high-D-2	Biosolid_high_I	CALC	NA	%	Moisture	27.67	NA	T2
344-02-I-high-D-2	Biosolid_high_I	CALC	NA	%	Moisture	21.37	NA	T2
344-02-I-high-D-2	Biosolid_high_I	CALC	NA	%	Moisture	27.97	NA	T2
345-03-I-high-A-2	Wood ash_high_I	CALC	NA	%	Moisture	16.54	NA	T2
345-03-I-high-A-2	Wood ash_high_I	CALC	NA	%	Moisture	16.54	NA	T2
345-03-I-high-A-2	Wood ash_high_I	CALC	NA	%	Moisture	16.54	NA	T2
345-03-I-high-A-2	Wood ash_high_I	CALC	NA	%	Moisture	16.54	NA	T2
345-03-I-high-A-2	Wood ash_high_I	CALC	NA	%	Moisture	14.44	NA	T2
345-03-I-high-A-2	Wood ash_high_I	CALC	NA	%	Moisture	20.74	NA	T2
346-03-I-high-B-2	Wood ash_high_I	CALC	NA	%	Moisture	16.36	NA	T2
346-03-I-high-B-2	Wood ash_high_I	CALC	NA	%	Moisture	16.36	NA	T2
346-03-I-high-B-2	Wood ash_high_I	CALC	NA	%	Moisture	16.36	NA	T2
346-03-I-high-B-2	Wood ash_high_I	CALC	NA	%	Moisture	16.36	NA	T2
346-03-I-high-B-2	Wood ash_high_I	CALC	NA	%	Moisture	14.76	NA	T2
346-03-I-high-B-2	Wood ash_high_I	CALC	NA	%	Moisture	16.76	NA	T2
347-03-I-high-C-2	Wood ash_high_I	CALC	NA	%	Moisture	19.39	NA	T2
347-03-I-high-C-2	Wood ash_high_I	CALC	NA	%	Moisture	19.39	NA	T2
347-03-I-high-C-2	Wood ash_high_I	CALC	NA	%	Moisture	19.39	NA	T2
347-03-I-high-C-2	Wood ash_high_I	CALC	NA	%	Moisture	19.39	NA	T2
347-03-I-high-C-2	Wood ash_high_I	CALC	NA	%	Moisture	16.59	NA	T2
347-03-I-high-C-2	Wood ash_high_I	CALC	NA	%	Moisture	15.09	NA	T2
348-03-I-high-D-2	Wood ash_high_I	CALC	NA	%	Moisture	17.50	NA	T2
348-03-I-high-D-2	Wood ash_high_I	CALC	NA	%	Moisture	17.50	NA	T2
348-03-I-high-D-2	Wood ash_high_I	CALC	NA	%	Moisture	17.50	NA	T2
348-03-I-high-D-2	Wood ash_high_I	CALC	NA	%	Moisture	17.50	NA	T2
348-03-I-high-D-2	Wood ash_high_I	CALC	NA	%	Moisture	14.70	NA	T2
348-03-I-high-D-2	Wood ash_high_I	CALC	NA	%	Moisture	18.70	NA	T2
349-04-I-high-A-2	Biochar_high_I	CALC	NA	%	Moisture	18.77	NA	T2
349-04-I-high-A-2	Biochar_high_I	CALC	NA	%	Moisture	18.77	NA	T2
349-04-I-high-A-2	Biochar_high_I	CALC	NA	%	Moisture	18.77	NA	T2

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
349-04-I-high-A-2	Biochar_high_I	CALC	NA	%	Moisture	18.77	NA	T2
349-04-I-high-A-2	Biochar_high_I	CALC	NA	%	Moisture	19.57	NA	T2
349-04-I-high-A-2	Biochar_high_I	CALC	NA	%	Moisture	19.17	NA	T2
350-04-I-high-B-2	Biochar_high_I	CALC	NA	%	Moisture	17.26	NA	T2
350-04-I-high-B-2	Biochar_high_I	CALC	NA	%	Moisture	17.26	NA	T2
350-04-I-high-B-2	Biochar_high_I	CALC	NA	%	Moisture	17.26	NA	T2
350-04-I-high-B-2	Biochar_high_I	CALC	NA	%	Moisture	17.26	NA	T2
350-04-I-high-B-2	Biochar_high_I	CALC	NA	%	Moisture	18.96	NA	T2
350-04-I-high-B-2	Biochar_high_I	CALC	NA	%	Moisture	15.36	NA	T2
351-04-I-high-C-2	Biochar_high_I	CALC	NA	%	Moisture	10.96	NA	T2
351-04-I-high-C-2	Biochar_high_I	CALC	NA	%	Moisture	10.96	NA	T2
351-04-I-high-C-2	Biochar_high_I	CALC	NA	%	Moisture	10.96	NA	T2
351-04-I-high-C-2	Biochar_high_I	CALC	NA	%	Moisture	10.96	NA	T2
351-04-I-high-C-2	Biochar_high_I	CALC	NA	%	Moisture	14.76	NA	T2
351-04-I-high-C-2	Biochar_high_I	CALC	NA	%	Moisture	10.96	NA	T2
352-04-I-high-D-2	Biochar_high_I	CALC	NA	%	Moisture	15.45	NA	T2
352-04-I-high-D-2	Biochar_high_I	CALC	NA	%	Moisture	15.45	NA	T2
352-04-I-high-D-2	Biochar_high_I	CALC	NA	%	Moisture	15.45	NA	T2
352-04-I-high-D-2	Biochar_high_I	CALC	NA	%	Moisture	15.45	NA	T2
352-04-I-high-D-2	Biochar_high_I	CALC	NA	%	Moisture	13.35	NA	T2
352-04-I-high-D-2	Biochar_high_I	CALC	NA	%	Moisture	15.45	NA	T2
353-05-I-high-A-2	Compost_high_I	CALC	NA	%	Moisture	10.47	NA	T2
353-05-I-high-A-2	Compost_high_I	CALC	NA	%	Moisture	10.47	NA	T2
353-05-I-high-A-2	Compost_high_I	CALC	NA	%	Moisture	10.47	NA	T2
353-05-I-high-A-2	Compost_high_I	CALC	NA	%	Moisture	10.47	NA	T2
353-05-I-high-A-2	Compost_high_I	CALC	NA	%	Moisture	14.17	NA	T2
353-05-I-high-A-2	Compost_high_I	CALC	NA	%	Moisture	13.17	NA	T2
354-05-I-high-B-2	Compost_high_I	CALC	NA	%	Moisture	17.18	NA	T2
354-05-I-high-B-2	Compost_high_I	CALC	NA	%	Moisture	17.18	NA	T2
354-05-I-high-B-2	Compost_high_I	CALC	NA	%	Moisture	17.18	NA	T2
354-05-I-high-B-2	Compost_high_I	CALC	NA	%	Moisture	17.18	NA	T2

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
354-05-I-high-B-2	Compost_high_I	CALC	NA	%	Moisture	17.48	NA	T2
354-05-I-high-B-2	Compost_high_I	CALC	NA	%	Moisture	15.08	NA	T2
355-05-I-high-C-2	Compost_high_I	CALC	NA	%	Moisture	15.64	NA	T2
355-05-I-high-C-2	Compost_high_I	CALC	NA	%	Moisture	15.64	NA	T2
355-05-I-high-C-2	Compost_high_I	CALC	NA	%	Moisture	15.64	NA	T2
355-05-I-high-C-2	Compost_high_I	CALC	NA	%	Moisture	15.64	NA	T2
355-05-I-high-C-2	Compost_high_I	CALC	NA	%	Moisture	15.84	NA	T2
355-05-I-high-C-2	Compost_high_I	CALC	NA	%	Moisture	20.14	NA	T2
356-05-I-high-D-2	Compost_high_I	CALC	NA	%	Moisture	13.90	NA	T2
356-05-I-high-D-2	Compost_high_I	CALC	NA	%	Moisture	13.90	NA	T2
356-05-I-high-D-2	Compost_high_I	CALC	NA	%	Moisture	13.90	NA	T2
356-05-I-high-D-2	Compost_high_I	CALC	NA	%	Moisture	13.90	NA	T2
356-05-I-high-D-2	Compost_high_I	CALC	NA	%	Moisture	15.40	NA	T2
356-05-I-high-D-2	Compost_high_I	CALC	NA	%	Moisture	15.10	NA	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	27.85	NA	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	27.85	NA	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	27.85	NA	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	27.85	NA	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	27.45	NA	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	25.85	NA	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	24.91	NA	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	24.91	NA	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	24.91	NA	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	24.91	NA	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	22.21	NA	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	26.41	NA	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	22.66	NA	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	22.66	NA	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	22.66	NA	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	22.66	NA	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	24.06	NA	T2

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	22.56	NA	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	27.66	NA	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	27.66	NA	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	27.66	NA	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	27.66	NA	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	23.06	NA	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	25.16	NA	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	19.87	NA	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	19.87	NA	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	19.87	NA	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	19.87	NA	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	22.77	NA	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	20.97	NA	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	18.57	NA	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	18.57	NA	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	18.57	NA	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	18.57	NA	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	22.07	NA	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	22.77	NA	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	18.01	NA	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	18.01	NA	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	18.01	NA	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	18.01	NA	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	18.91	NA	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	23.81	NA	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	28.10	NA	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	28.10	NA	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	28.10	NA	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	28.10	NA	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	27.30	NA	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	26.80	NA	T2

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
365-08-I-high-A-2	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	20.99	NA	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	20.99	NA	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	20.99	NA	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	20.99	NA	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	16.59	NA	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	16.09	NA	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	13.53	NA	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	13.53	NA	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	13.53	NA	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	13.53	NA	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	17.53	NA	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	12.23	NA	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	14.57	NA	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	14.57	NA	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	14.57	NA	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	14.57	NA	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	14.37	NA	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	17.87	NA	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	18.20	NA	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	18.20	NA	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	18.20	NA	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	18.20	NA	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	15.90	NA	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	17.10	NA	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	20.72	NA	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	20.72	NA	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	20.72	NA	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	20.72	NA	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	21.12	NA	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	24.92	NA	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	20.84	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
370-09-I-high-B-2	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	20.84	NA	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	20.84	NA	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	20.84	NA	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	25.04	NA	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	23.64	NA	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	23.54	NA	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	23.54	NA	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	23.54	NA	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	23.54	NA	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	24.04	NA	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	25.24	NA	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	25.20	NA	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	25.20	NA	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	25.20	NA	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	25.20	NA	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	19.90	NA	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	22.90	NA	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	CALC	NA	%	Moisture	8.37	NA	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	CALC	NA	%	Moisture	8.37	NA	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	CALC	NA	%	Moisture	8.37	NA	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	CALC	NA	%	Moisture	8.37	NA	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	CALC	NA	%	Moisture	13.47	NA	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	CALC	NA	%	Moisture	12.27	NA	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	CALC	NA	%	Moisture	12.20	NA	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	CALC	NA	%	Moisture	12.20	NA	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	CALC	NA	%	Moisture	12.20	NA	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	CALC	NA	%	Moisture	12.20	NA	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	CALC	NA	%	Moisture	15.10	NA	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	CALC	NA	%	Moisture	16.40	NA	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	CALC	NA	%	Moisture	15.07	NA	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	CALC	NA	%	Moisture	15.07	NA	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
375-10-I-high-C-2	Wood ash and biochar_high_I	CALC	NA	%	Moisture	15.07	NA	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	CALC	NA	%	Moisture	15.07	NA	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	CALC	NA	%	Moisture	12.77	NA	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	CALC	NA	%	Moisture	15.27	NA	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	CALC	NA	%	Moisture	16.57	NA	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	CALC	NA	%	Moisture	16.57	NA	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	CALC	NA	%	Moisture	16.57	NA	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	CALC	NA	%	Moisture	16.57	NA	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	CALC	NA	%	Moisture	17.87	NA	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	CALC	NA	%	Moisture	14.57	NA	T2
377-11-I-high-A-2	Wood ash and compost_high_I	CALC	NA	%	Moisture	7.82	NA	T2
377-11-I-high-A-2	Wood ash and compost_high_I	CALC	NA	%	Moisture	7.82	NA	T2
377-11-I-high-A-2	Wood ash and compost_high_I	CALC	NA	%	Moisture	7.82	NA	T2
377-11-I-high-A-2	Wood ash and compost_high_I	CALC	NA	%	Moisture	7.82	NA	T2
377-11-I-high-A-2	Wood ash and compost_high_I	CALC	NA	%	Moisture	12.02	NA	T2
377-11-I-high-A-2	Wood ash and compost_high_I	CALC	NA	%	Moisture	8.92	NA	T2
378-11-I-high-B-2	Wood ash and compost_high_I	CALC	NA	%	Moisture	13.09	NA	T2
378-11-I-high-B-2	Wood ash and compost_high_I	CALC	NA	%	Moisture	13.09	NA	T2
378-11-I-high-B-2	Wood ash and compost_high_I	CALC	NA	%	Moisture	13.09	NA	T2
378-11-I-high-B-2	Wood ash and compost_high_I	CALC	NA	%	Moisture	13.09	NA	T2
378-11-I-high-B-2	Wood ash and compost_high_I	CALC	NA	%	Moisture	12.09	NA	T2
378-11-I-high-B-2	Wood ash and compost_high_I	CALC	NA	%	Moisture	11.49	NA	T2
379-11-I-high-C-2	Wood ash and compost_high_I	CALC	NA	%	Moisture	12.28	NA	T2
379-11-I-high-C-2	Wood ash and compost_high_I	CALC	NA	%	Moisture	12.28	NA	T2
379-11-I-high-C-2	Wood ash and compost_high_I	CALC	NA	%	Moisture	12.28	NA	T2
379-11-I-high-C-2	Wood ash and compost_high_I	CALC	NA	%	Moisture	12.28	NA	T2
379-11-I-high-C-2	Wood ash and compost_high_I	CALC	NA	%	Moisture	9.38	NA	T2
379-11-I-high-C-2	Wood ash and compost_high_I	CALC	NA	%	Moisture	10.18	NA	T2
380-11-I-high-D-2	Wood ash and compost_high_I	CALC	NA	%	Moisture	14.74	NA	T2
380-11-I-high-D-2	Wood ash and compost_high_I	CALC	NA	%	Moisture	14.74	NA	T2
380-11-I-high-D-2	Wood ash and compost_high_I	CALC	NA	%	Moisture	14.74	NA	T2

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
380-11-I-high-D-2	Wood ash and compost_high_I	CALC	NA	%	Moisture	14.74	NA	T2
380-11-I-high-D-2	Wood ash and compost_high_I	CALC	NA	%	Moisture	9.34	NA	T2
380-11-I-high-D-2	Wood ash and compost_high_I	CALC	NA	%	Moisture	13.04	NA	T2
381-12-I-high-A-2	Biochar and compost_high_I	CALC	NA	%	Moisture	24.52	NA	T2
381-12-I-high-A-2	Biochar and compost_high_I	CALC	NA	%	Moisture	24.52	NA	T2
381-12-I-high-A-2	Biochar and compost_high_I	CALC	NA	%	Moisture	24.52	NA	T2
381-12-I-high-A-2	Biochar and compost_high_I	CALC	NA	%	Moisture	24.52	NA	T2
381-12-I-high-A-2	Biochar and compost_high_I	CALC	NA	%	Moisture	25.12	NA	T2
381-12-I-high-A-2	Biochar and compost_high_I	CALC	NA	%	Moisture	25.32	NA	T2
382-12-I-high-B-2	Biochar and compost_high_I	CALC	NA	%	Moisture	13.99	NA	T2
382-12-I-high-B-2	Biochar and compost_high_I	CALC	NA	%	Moisture	13.99	NA	T2
382-12-I-high-B-2	Biochar and compost_high_I	CALC	NA	%	Moisture	13.99	NA	T2
382-12-I-high-B-2	Biochar and compost_high_I	CALC	NA	%	Moisture	13.99	NA	T2
382-12-I-high-B-2	Biochar and compost_high_I	CALC	NA	%	Moisture	11.39	NA	T2
382-12-I-high-B-2	Biochar and compost_high_I	CALC	NA	%	Moisture	15.79	NA	T2
383-12-I-high-C-2	Biochar and compost_high_I	CALC	NA	%	Moisture	15.53	NA	T2
383-12-I-high-C-2	Biochar and compost_high_I	CALC	NA	%	Moisture	15.53	NA	T2
383-12-I-high-C-2	Biochar and compost_high_I	CALC	NA	%	Moisture	15.53	NA	T2
383-12-I-high-C-2	Biochar and compost_high_I	CALC	NA	%	Moisture	15.53	NA	T2
383-12-I-high-C-2	Biochar and compost_high_I	CALC	NA	%	Moisture	12.53	NA	T2
383-12-I-high-C-2	Biochar and compost_high_I	CALC	NA	%	Moisture	15.33	NA	T2
384-12-I-high-D-2	Biochar and compost_high_I	CALC	NA	%	Moisture	17.36	NA	T2
384-12-I-high-D-2	Biochar and compost_high_I	CALC	NA	%	Moisture	17.36	NA	T2
384-12-I-high-D-2	Biochar and compost_high_I	CALC	NA	%	Moisture	17.36	NA	T2
384-12-I-high-D-2	Biochar and compost_high_I	CALC	NA	%	Moisture	17.36	NA	T2
384-12-I-high-D-2	Biochar and compost_high_I	CALC	NA	%	Moisture	13.76	NA	T2
384-12-I-high-D-2	Biochar and compost_high_I	CALC	NA	%	Moisture	12.86	NA	T2
385-00-I-none-A-2	control_none_I	CALC	NA	%	Moisture	14.95	NA	T2
385-00-I-none-A-2	control_none_I	CALC	NA	%	Moisture	14.95	NA	T2
385-00-I-none-A-2	control_none_I	CALC	NA	%	Moisture	14.95	NA	T2
385-00-I-none-A-2	control_none_I	CALC	NA	%	Moisture	14.95	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
385-00-I-none-A-2	control_none_I	CALC	NA	%	Moisture	9.25	NA	T2
385-00-I-none-A-2	control_none_I	CALC	NA	%	Moisture	10.25	NA	T2
386-00-I-none-B-2	control_none_I	CALC	NA	%	Moisture	16.01	NA	T2
386-00-I-none-B-2	control_none_I	CALC	NA	%	Moisture	16.01	NA	T2
386-00-I-none-B-2	control_none_I	CALC	NA	%	Moisture	16.01	NA	T2
386-00-I-none-B-2	control_none_I	CALC	NA	%	Moisture	16.01	NA	T2
386-00-I-none-B-2	control_none_I	CALC	NA	%	Moisture	16.11	NA	T2
386-00-I-none-B-2	control_none_I	CALC	NA	%	Moisture	17.71	NA	T2
387-00-I-none-C-2	control_none_I	CALC	NA	%	Moisture	10.61	NA	T2
387-00-I-none-C-2	control_none_I	CALC	NA	%	Moisture	10.61	NA	T2
387-00-I-none-C-2	control_none_I	CALC	NA	%	Moisture	10.61	NA	T2
387-00-I-none-C-2	control_none_I	CALC	NA	%	Moisture	10.61	NA	T2
387-00-I-none-C-2	control_none_I	CALC	NA	%	Moisture	8.91	NA	T2
387-00-I-none-C-2	control_none_I	CALC	NA	%	Moisture	11.31	NA	T2
388-00-I-none-D-2	control_none_I	CALC	NA	%	Moisture	14.17	NA	T2
388-00-I-none-D-2	control_none_I	CALC	NA	%	Moisture	14.17	NA	T2
388-00-I-none-D-2	control_none_I	CALC	NA	%	Moisture	14.17	NA	T2
388-00-I-none-D-2	control_none_I	CALC	NA	%	Moisture	9.37	NA	T2
388-00-I-none-D-2	control_none_I	CALC	NA	%	Moisture	10.17	NA	T2
049-01-S-low-A-2	Solublephosphate_low_S	BREMNER82	1	%	Nitrogen_total	0.34	NA	T2
050-01-S-low-B-2	Solublephosphate_low_S	BREMNER82	1	%	Nitrogen_total	0.33	NA	T2
051-01-S-low-C-2	Solublephosphate_low_S	BREMNER82	1	%	Nitrogen_total	0.29	NA	T2
052-01-S-low-D-2	Solublephosphate_low_S	BREMNER82	1	%	Nitrogen_total	0.32	NA	T2
053-02-S-low-A-2	Biosolid_low_S	BREMNER82	1	%	Nitrogen_total	0.48	NA	T2
054-02-S-low-B-2	Biosolid_low_S	BREMNER82	1	%	Nitrogen_total	0.42	NA	T2
055-02-S-low-C-2	Biosolid_low_S	BREMNER82	1	%	Nitrogen_total	0.35	NA	T2
056-02-S-low-D-2	Biosolid_low_S	BREMNER82	1	%	Nitrogen_total	0.35	NA	T2
057-03-S-low-A-2	Wood ash_low_S	BREMNER82	1	%	Nitrogen_total	0.25	NA	T2
058-03-S-low-B-2	Wood ash_low_S	BREMNER82	1	%	Nitrogen_total	0.42	NA	T2
059-03-S-low-C-2	Wood ash_low_S	BREMNER82	1	%	Nitrogen_total	0.31	NA	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
060-03-S-low-D-2	Wood ash_low_S	BREMNER82	1	%	Nitrogen_total	0.25	NA	T2
061-04-S-low-A-2	Biochar_low_S	BREMNER82	1	%	Nitrogen_total	0.45	NA	T2
062-04-S-low-B-2	Biochar_low_S	BREMNER82	1	%	Nitrogen_total	0.29	NA	T2
063-04-S-low-C-2	Biochar_low_S	BREMNER82	1	%	Nitrogen_total	0.47	NA	T2
064-04-S-low-D-2	Biochar_low_S	BREMNER82	1	%	Nitrogen_total	0.29	NA	T2
065-05-S-low-A-2	Compost_low_S	BREMNER82	1	%	Nitrogen_total	0.17	NA	T2
066-05-S-low-B-2	Compost_low_S	BREMNER82	1	%	Nitrogen_total	0.24	NA	T2
067-05-S-low-C-2	Compost_low_S	BREMNER82	1	%	Nitrogen_total	0.26	NA	T2
068-05-S-low-D-2	Compost_low_S	BREMNER82	1	%	Nitrogen_total	0.31	NA	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	BREMNER82	1	%	Nitrogen_total	0.36	NA	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	BREMNER82	1	%	Nitrogen_total	0.34	NA	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	BREMNER82	1	%	Nitrogen_total	0.40	NA	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	BREMNER82	1	%	Nitrogen_total	0.21	NA	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	BREMNER82	1	%	Nitrogen_total	0.30	NA	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	BREMNER82	1	%	Nitrogen_total	0.41	NA	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	BREMNER82	1	%	Nitrogen_total	0.32	NA	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	BREMNER82	1	%	Nitrogen_total	0.17	NA	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	BREMNER82	1	%	Nitrogen_total	0.25	NA	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	BREMNER82	1	%	Nitrogen_total	0.34	NA	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	BREMNER82	1	%	Nitrogen_total	0.33	NA	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	BREMNER82	1	%	Nitrogen_total	0.30	NA	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	BREMNER82	1	%	Nitrogen_total	0.32	NA	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	BREMNER82	1	%	Nitrogen_total	0.36	NA	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	BREMNER82	1	%	Nitrogen_total	0.41	NA	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	BREMNER82	1	%	Nitrogen_total	0.38	NA	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	BREMNER82	1	%	Nitrogen_total	0.25	NA	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	BREMNER82	1	%	Nitrogen_total	0.34	NA	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	BREMNER82	1	%	Nitrogen_total	0.35	NA	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	BREMNER82	1	%	Nitrogen_total	0.22	NA	T2
089-11-S-low-A-2	Wood ash and compost_low_S	BREMNER82	1	%	Nitrogen_total	0.31	NA	T2
090-11-S-low-B-2	Wood ash and compost_low_S	BREMNER82	1	%	Nitrogen_total	0.34	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
091-11-S-low-C-2	Wood ash and compost_low_S	BREMNER82	1	%	Nitrogen_total	0.35	NA	T2
092-11-S-low-D-2	Wood ash and compost_low_S	BREMNER82	1	%	Nitrogen_total	0.30	NA	T2
093-12-S-low-A-2	Biochar and compost_low_S	BREMNER82	1	%	Nitrogen_total	0.33	NA	T2
094-12-S-low-B-2	Biochar and compost_low_S	BREMNER82	1	%	Nitrogen_total	0.38	NA	T2
095-12-S-low-C-2	Biochar and compost_low_S	BREMNER82	1	%	Nitrogen_total	0.32	NA	T2
096-12-S-low-D-2	Biochar and compost_low_S	BREMNER82	1	%	Nitrogen_total	0.33	NA	T2
193-01-S-high-A-2	Solublephosphate_high_S	BREMNER82	1	%	Nitrogen_total	0.23	NA	T2
194-01-S-high-B-2	Solublephosphate_high_S	BREMNER82	1	%	Nitrogen_total	0.30	NA	T2
195-01-S-high-C-2	Solublephosphate_high_S	BREMNER82	1	%	Nitrogen_total	0.27	NA	T2
196-01-S-high-D-2	Solublephosphate_high_S	BREMNER82	1	%	Nitrogen_total	0.36	NA	T2
197-02-S-high-A-2	Biosolid_high_S	BREMNER82	1	%	Nitrogen_total	0.54	NA	T2
198-02-S-high-B-2	Biosolid_high_S	BREMNER82	1	%	Nitrogen_total	0.41	NA	T2
199-02-S-high-C-2	Biosolid_high_S	BREMNER82	1	%	Nitrogen_total	0.52	NA	T2
200-02-S-high-D-2	Biosolid_high_S	BREMNER82	1	%	Nitrogen_total	0.52	NA	T2
201-03-S-high-A-2	Wood ash_high_S	BREMNER82	1	%	Nitrogen_total	0.42	NA	T2
202-03-S-high-B-2	Wood ash_high_S	BREMNER82	1	%	Nitrogen_total	0.40	NA	T2
203-03-S-high-C-2	Wood ash_high_S	BREMNER82	1	%	Nitrogen_total	0.35	NA	T2
204-03-S-high-D-2	Wood ash_high_S	BREMNER82	1	%	Nitrogen_total	0.27	NA	T2
205-04-S-high-A-2	Biochar_high_S	BREMNER82	1	%	Nitrogen_total	0.34	NA	T2
206-04-S-high-B-2	Biochar_high_S	BREMNER82	1	%	Nitrogen_total	0.35	NA	T2
207-04-S-high-C-2	Biochar_high_S	BREMNER82	1	%	Nitrogen_total	0.29	NA	T2
208-04-S-high-D-2	Biochar_high_S	BREMNER82	1	%	Nitrogen_total	0.32	NA	T2
209-05-S-high-A-2	Compost_high_S	BREMNER82	1	%	Nitrogen_total	0.27	NA	T2
210-05-S-high-B-2	Compost_high_S	BREMNER82	1	%	Nitrogen_total	0.41	NA	T2
211-05-S-high-C-2	Compost_high_S	BREMNER82	1	%	Nitrogen_total	0.32	NA	T2
212-05-S-high-D-2	Compost_high_S	BREMNER82	1	%	Nitrogen_total	0.43	NA	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	BREMNER82	1	%	Nitrogen_total	0.51	NA	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	BREMNER82	1	%	Nitrogen_total	0.54	NA	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	BREMNER82	1	%	Nitrogen_total	0.69	NA	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	BREMNER82	1	%	Nitrogen_total	0.51	NA	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	BREMNER82	1	%	Nitrogen_total	0.42	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	BREMNER82	1	%	Nitrogen_total	0.18	NA	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	BREMNER82	1	%	Nitrogen_total	0.36	NA	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	BREMNER82	1	%	Nitrogen_total	0.32	NA	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	BREMNER82	1	%	Nitrogen_total	0.32	NA	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	BREMNER82	1	%	Nitrogen_total	0.31	NA	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	BREMNER82	1	%	Nitrogen_total	0.28	NA	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	BREMNER82	1	%	Nitrogen_total	0.35	NA	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	BREMNER82	1	%	Nitrogen_total	0.53	NA	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	BREMNER82	1	%	Nitrogen_total	0.39	NA	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	BREMNER82	1	%	Nitrogen_total	0.46	NA	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	BREMNER82	1	%	Nitrogen_total	0.54	NA	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	BREMNER82	1	%	Nitrogen_total	0.35	NA	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	BREMNER82	1	%	Nitrogen_total	0.34	NA	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	BREMNER82	1	%	Nitrogen_total	0.36	NA	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	BREMNER82	1	%	Nitrogen_total	0.30	NA	T2
233-11-S-high-A-2	Wood ash and compost_high_S	BREMNER82	1	%	Nitrogen_total	0.33	NA	T2
234-11-S-high-B-2	Wood ash and compost_high_S	BREMNER82	1	%	Nitrogen_total	0.41	NA	T2
235-11-S-high-C-2	Wood ash and compost_high_S	BREMNER82	1	%	Nitrogen_total	0.47	NA	T2
236-11-S-high-D-2	Wood ash and compost_high_S	BREMNER82	1	%	Nitrogen_total	0.29	NA	T2
237-12-S-high-A-2	Biochar and compost_high_S	BREMNER82	1	%	Nitrogen_total	0.39	NA	T2
238-12-S-high-B-2	Biochar and compost_high_S	BREMNER82	1	%	Nitrogen_total	0.38	NA	T2
239-12-S-high-C-2	Biochar and compost_high_S	BREMNER82	2	%	Nitrogen_total	0.36	NA	T2
240-12-S-high-D-2	Biochar and compost_high_S	BREMNER82	2	%	Nitrogen_total	0.36	NA	T2
289-01-I-low-A-2	Solublephosphate_low_I	BREMNER82	2	%	Nitrogen_total	0.33	NA	T2
290-01-I-low-B-2	Solublephosphate_low_I	BREMNER82	2	%	Nitrogen_total	0.36	NA	T2
291-01-I-low-C-2	Solublephosphate_low_I	BREMNER82	2	%	Nitrogen_total	0.31	NA	T2
292-01-I-low-D-2	Solublephosphate_low_I	BREMNER82	2	%	Nitrogen_total	0.32	NA	T2
293-02-I-low-A-2	Biosolid_low_I	BREMNER82	2	%	Nitrogen_total	0.40	NA	T2
294-02-I-low-B-2	Biosolid_low_I	BREMNER82	2	%	Nitrogen_total	0.53	NA	T2
295-02-I-low-C-2	Biosolid_low_I	BREMNER82	2	%	Nitrogen_total	0.51	NA	T2
296-02-I-low-D-2	Biosolid_low_I	BREMNER82	2	%	Nitrogen_total	0.48	NA	T2

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
297-03-I-low-A-2	Wood ash_low_I	BREMNER82	2	%	Nitrogen_total	0.32	NA	T2
298-03-I-low-B-2	Wood ash_low_I	BREMNER82	2	%	Nitrogen_total	0.31	NA	T2
299-03-I-low-C-2	Wood ash_low_I	BREMNER82	2	%	Nitrogen_total	0.39	NA	T2
300-03-I-low-D-2	Wood ash_low_I	BREMNER82	2	%	Nitrogen_total	0.37	NA	T2
301-04-I-low-A-2	Biochar_low_I	BREMNER82	2	%	Nitrogen_total	0.51	NA	T2
302-04-I-low-B-2	Biochar_low_I	BREMNER82	2	%	Nitrogen_total	0.35	NA	T2
303-04-I-low-C-2	Biochar_low_I	BREMNER82	2	%	Nitrogen_total	0.40	NA	T2
304-04-I-low-D-2	Biochar_low_I	BREMNER82	2	%	Nitrogen_total	0.41	NA	T2
305-05-I-low-A-2	Compost_low_I	BREMNER82	2	%	Nitrogen_total	0.38	NA	T2
306-05-I-low-B-2	Compost_low_I	BREMNER82	2	%	Nitrogen_total	0.32	NA	T2
307-05-I-low-C-2	Compost_low_I	BREMNER82	2	%	Nitrogen_total	0.30	NA	T2
308-05-I-low-D-2	Compost_low_I	BREMNER82	2	%	Nitrogen_total	0.54	NA	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	BREMNER82	2	%	Nitrogen_total	0.44	NA	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	BREMNER82	2	%	Nitrogen_total	0.49	NA	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	BREMNER82	2	%	Nitrogen_total	0.40	NA	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	BREMNER82	2	%	Nitrogen_total	0.05	NA	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	BREMNER82	2	%	Nitrogen_total	0.32	NA	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	BREMNER82	2	%	Nitrogen_total	0.27	NA	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	BREMNER82	2	%	Nitrogen_total	0.30	NA	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	BREMNER82	2	%	Nitrogen_total	0.32	NA	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	BREMNER82	2	%	Nitrogen_total	0.32	NA	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	BREMNER82	2	%	Nitrogen_total	0.34	NA	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	BREMNER82	2	%	Nitrogen_total	0.43	NA	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	BREMNER82	2	%	Nitrogen_total	0.33	NA	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	BREMNER82	2	%	Nitrogen_total	0.37	NA	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	BREMNER82	2	%	Nitrogen_total	0.37	NA	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	BREMNER82	2	%	Nitrogen_total	0.33	NA	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	BREMNER82	2	%	Nitrogen_total	0.66	NA	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	BREMNER82	2	%	Nitrogen_total	0.30	NA	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	BREMNER82	2	%	Nitrogen_total	0.29	NA	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	BREMNER82	2	%	Nitrogen_total	0.28	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
328-10-I-low-D-2	Wood ash and biochar_low_I	BREMNER82	2	%	Nitrogen_total	0.27	NA	T2
329-11-I-low-A-2	Wood ash and compost_low_I	BREMNER82	2	%	Nitrogen_total	0.36	NA	T2
330-11-I-low-B-2	Wood ash and compost_low_I	BREMNER82	2	%	Nitrogen_total	0.32	NA	T2
331-11-I-low-C-2	Wood ash and compost_low_I	BREMNER82	2	%	Nitrogen_total	0.29	NA	T2
332-11-I-low-D-2	Wood ash and compost_low_I	BREMNER82	2	%	Nitrogen_total	0.41	NA	T2
333-12-I-low-A-2	Biochar and compost_low_I	BREMNER82	2	%	Nitrogen_total	0.41	NA	T2
334-12-I-low-B-2	Biochar and compost_low_I	BREMNER82	2	%	Nitrogen_total	0.38	NA	T2
335-12-I-low-C-2	Biochar and compost_low_I	BREMNER82	2	%	Nitrogen_total	0.39	NA	T2
336-12-I-low-D-2	Biochar and compost_low_I	BREMNER82	2	%	Nitrogen_total	0.28	NA	T2
337-01-I-high-A-2	Solublephosphate_high_I	BREMNER82	2	%	Nitrogen_total	0.50	NA	T2
338-01-I-high-B-2	Solublephosphate_high_I	BREMNER82	2	%	Nitrogen_total	0.28	NA	T2
339-01-I-high-C-2	Solublephosphate_high_I	BREMNER82	2	%	Nitrogen_total	0.34	NA	T2
340-01-I-high-D-2	Solublephosphate_high_I	BREMNER82	2	%	Nitrogen_total	0.31	NA	T2
341-02-I-high-A-2	Biosolid_high_I	BREMNER82	2	%	Nitrogen_total	0.72	NA	T2
342-02-I-high-B-2	Biosolid_high_I	BREMNER82	2	%	Nitrogen_total	1.04	NA	T2
343-02-I-high-C-2	Biosolid_high_I	BREMNER82	2	%	Nitrogen_total	0.94	NA	T2
344-02-I-high-D-2	Biosolid_high_I	BREMNER82	2	%	Nitrogen_total	0.71	NA	T2
345-03-I-high-A-2	Wood ash_high_I	BREMNER82	2	%	Nitrogen_total	0.31	NA	T2
346-03-I-high-B-2	Wood ash_high_I	BREMNER82	2	%	Nitrogen_total	0.33	NA	T2
347-03-I-high-C-2	Wood ash_high_I	BREMNER82	2	%	Nitrogen_total	0.33	NA	T2
348-03-I-high-D-2	Wood ash_high_I	BREMNER82	2	%	Nitrogen_total	0.43	NA	T2
349-04-I-high-A-2	Biochar_high_I	BREMNER82	2	%	Nitrogen_total	0.32	NA	T2
350-04-I-high-B-2	Biochar_high_I	BREMNER82	2	%	Nitrogen_total	0.26	NA	T2
351-04-I-high-C-2	Biochar_high_I	BREMNER82	2	%	Nitrogen_total	0.29	NA	T2
352-04-I-high-D-2	Biochar_high_I	BREMNER82	2	%	Nitrogen_total	0.34	NA	T2
353-05-I-high-A-2	Compost_high_I	BREMNER82	2	%	Nitrogen_total	0.32	NA	T2
354-05-I-high-B-2	Compost_high_I	BREMNER82	2	%	Nitrogen_total	0.35	NA	T2
355-05-I-high-C-2	Compost_high_I	BREMNER82	2	%	Nitrogen_total	0.36	NA	T2
356-05-I-high-D-2	Compost_high_I	BREMNER82	2	%	Nitrogen_total	0.46	NA	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	BREMNER82	2	%	Nitrogen_total	1.27	NA	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	BREMNER82	2	%	Nitrogen_total	0.77	NA	T2

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359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	BREMNER82	2	%	Nitrogen_total	0.96	NA	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	BREMNER82	2	%	Nitrogen_total	1.28	NA	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	BREMNER82	2	%	Nitrogen_total	0.34	NA	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	BREMNER82	2	%	Nitrogen_total	0.22	NA	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	BREMNER82	2	%	Nitrogen_total	0.29	NA	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	BREMNER82	2	%	Nitrogen_total	0.24	NA	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	BREMNER82	2	%	Nitrogen_total	0.32	NA	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	BREMNER82	2	%	Nitrogen_total	0.39	NA	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	BREMNER82	2	%	Nitrogen_total	0.37	NA	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	BREMNER82	2	%	Nitrogen_total	0.32	NA	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	BREMNER82	2	%	Nitrogen_total	1.59	NA	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	BREMNER82	2	%	Nitrogen_total	1.19	NA	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	BREMNER82	2	%	Nitrogen_total	1.33	NA	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	BREMNER82	2	%	Nitrogen_total	0.85	NA	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	BREMNER82	2	%	Nitrogen_total	0.36	NA	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	BREMNER82	2	%	Nitrogen_total	0.31	NA	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	BREMNER82	2	%	Nitrogen_total	0.31	NA	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	BREMNER82	2	%	Nitrogen_total	0.26	NA	T2
377-11-I-high-A-2	Wood ash and compost_high_I	BREMNER82	2	%	Nitrogen_total	0.31	NA	T2
378-11-I-high-B-2	Wood ash and compost_high_I	BREMNER82	2	%	Nitrogen_total	0.36	NA	T2
379-11-I-high-C-2	Wood ash and compost_high_I	BREMNER82	2	%	Nitrogen_total	0.38	NA	T2
380-11-I-high-D-2	Wood ash and compost_high_I	BREMNER82	2	%	Nitrogen_total	0.33	NA	T2
381-12-I-high-A-2	Biochar and compost_high_I	BREMNER82	3	%	Nitrogen_total	0.46	NA	T2
382-12-I-high-B-2	Biochar and compost_high_I	BREMNER82	3	%	Nitrogen_total	0.32	NA	T2
383-12-I-high-C-2	Biochar and compost_high_I	BREMNER82	3	%	Nitrogen_total	0.41	NA	T2
384-12-I-high-D-2	Biochar and compost_high_I	BREMNER82	3	%	Nitrogen_total	0.28	NA	T2
385-00-I-none-A-2	control_none_I	BREMNER82	3	%	Nitrogen_total	0.37	NA	T2
386-00-I-none-B-2	control_none_I	BREMNER82	3	%	Nitrogen_total	0.39	NA	T2
387-00-I-none-C-2	control_none_I	BREMNER82	3	%	Nitrogen_total	0.28	NA	T2
388-00-I-none-D-2	control_none_I	BREMNER82	3	%	Nitrogen_total	0.35	NA	T2
049-01-S-low-A-2	Solublephosphate_low_S	Bioaccess2.5pH	1	%	Arsenic	10.63	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
050-01-S-low-B-2	Solublephosphate_low_S	Bioaccess2.5pH	2	%	Arsenic	8.68	NA	T2
051-01-S-low-C-2	Solublephosphate_low_S	Bioaccess2.5pH	3	%	Arsenic	10.27	NA	T2
052-01-S-low-D-2	Solublephosphate_low_S	Bioaccess2.5pH	4	%	Arsenic	10.16	NA	T2
053-02-S-low-A-2	Biosolid_low_S	Bioaccess2.5pH	5	%	Arsenic	11.57	NA	T2
054-02-S-low-B-2	Biosolid_low_S	Bioaccess2.5pH	6	%	Arsenic	12.48	NA	T2
055-02-S-low-C-2	Biosolid_low_S	Bioaccess2.5pH	7	%	Arsenic	11.73	NA	T2
056-02-S-low-D-2	Biosolid_low_S	Bioaccess2.5pH	8	%	Arsenic	11.03	NA	T2
057-03-S-low-A-2	Wood ash_low_S	Bioaccess2.5pH	9	%	Arsenic	8.25	NA	T2
058-03-S-low-B-2	Wood ash_low_S	Bioaccess2.5pH	10	%	Arsenic	8.71	NA	T2
059-03-S-low-C-2	Wood ash_low_S	Bioaccess2.5pH	11	%	Arsenic	7.92	NA	T2
060-03-S-low-D-2	Wood ash_low_S	Bioaccess2.5pH	12	%	Arsenic	8.51	NA	T2
061-04-S-low-A-2	Biochar_low_S	Bioaccess2.5pH	13	%	Arsenic	8.32	NA	T2
062-04-S-low-B-2	Biochar_low_S	Bioaccess2.5pH	13	%	Arsenic	9.12	NA	T2
063-04-S-low-C-2	Biochar_low_S	Bioaccess2.5pH	13	%	Arsenic	9.22	NA	T2
064-04-S-low-D-2	Biochar_low_S	Bioaccess2.5pH	13	%	Arsenic	9.57	NA	T2
065-05-S-low-A-2	Compost_low_S	Bioaccess2.5pH	13	%	Arsenic	8.34	NA	T2
066-05-S-low-B-2	Compost_low_S	Bioaccess2.5pH	14	%	Arsenic	9.45	NA	T2
067-05-S-low-C-2	Compost_low_S	Bioaccess2.5pH	14	%	Arsenic	8.57	NA	T2
068-05-S-low-D-2	Compost_low_S	Bioaccess2.5pH	14	%	Arsenic	8.59	NA	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	14	%	Arsenic	11.78	NA	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	14	%	Arsenic	12.34	NA	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	14	%	Arsenic	14.23	NA	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	14	%	Arsenic	15.94	NA	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	14	%	Arsenic	10.04	NA	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	14	%	Arsenic	8.49	NA	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	15	%	Arsenic	10.40	NA	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	15	%	Arsenic	10.29	NA	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	Bioaccess2.5pH	15	%	Arsenic	11.24	NA	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	Bioaccess2.5pH	15	%	Arsenic	11.79	NA	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	Bioaccess2.5pH	15	%	Arsenic	11.27	NA	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	Bioaccess2.5pH	15	%	Arsenic	12.04	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
081-09-S-low-A-2	Biosolids and wood ash_low_S	Bioaccess2.5pH	15	%	Arsenic	14.15	NA	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	Bioaccess2.5pH	15	%	Arsenic	11.19	NA	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	Bioaccess2.5pH	15	%	Arsenic	11.37	NA	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	Bioaccess2.5pH	16	%	Arsenic	11.08	NA	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	Bioaccess2.5pH	16	%	Arsenic	9.10	NA	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	Bioaccess2.5pH	16	%	Arsenic	8.29	NA	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	Bioaccess2.5pH	16	%	Arsenic	8.26	NA	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	Bioaccess2.5pH	16	%	Arsenic	9.51	NA	T2
089-11-S-low-A-2	Wood ash and compost_low_S	Bioaccess2.5pH	16	%	Arsenic	9.12	NA	T2
090-11-S-low-B-2	Wood ash and compost_low_S	Bioaccess2.5pH	16	%	Arsenic	9.24	NA	T2
091-11-S-low-C-2	Wood ash and compost_low_S	Bioaccess2.5pH	16	%	Arsenic	8.02	NA	T2
092-11-S-low-D-2	Wood ash and compost_low_S	Bioaccess2.5pH	16	%	Arsenic	9.43	NA	T2
093-12-S-low-A-2	Biochar and compost_low_S	Bioaccess2.5pH	17	%	Arsenic	9.05	NA	T2
094-12-S-low-B-2	Biochar and compost_low_S	Bioaccess2.5pH	17	%	Arsenic	9.92	NA	T2
095-12-S-low-C-2	Biochar and compost_low_S	Bioaccess2.5pH	17	%	Arsenic	12.97	NA	T2
096-12-S-low-D-2	Biochar and compost_low_S	Bioaccess2.5pH	17	%	Arsenic	9.27	NA	T2
193-01-S-high-A-2	Solublephosphate_high_S	Bioaccess2.5pH	17	%	Arsenic	12.68	NA	T2
194-01-S-high-B-2	Solublephosphate_high_S	Bioaccess2.5pH	17	%	Arsenic	12.93	NA	T2
195-01-S-high-C-2	Solublephosphate_high_S	Bioaccess2.5pH	17	%	Arsenic	12.56	NA	T2
196-01-S-high-D-2	Solublephosphate_high_S	Bioaccess2.5pH	17	%	Arsenic	12.72	NA	T2
197-02-S-high-A-2	Biosolid_high_S	Bioaccess2.5pH	17	%	Arsenic	16.33	NA	T2
198-02-S-high-B-2	Biosolid_high_S	Bioaccess2.5pH	18	%	Arsenic	15.03	NA	T2
199-02-S-high-C-2	Biosolid_high_S	Bioaccess2.5pH	18	%	Arsenic	15.31	NA	T2
200-02-S-high-D-2	Biosolid_high_S	Bioaccess2.5pH	18	%	Arsenic	16.38	NA	T2
201-03-S-high-A-2	Wood ash_high_S	Bioaccess2.5pH	18	%	Arsenic	9.28	NA	T2
202-03-S-high-B-2	Wood ash_high_S	Bioaccess2.5pH	18	%	Arsenic	9.58	NA	T2
203-03-S-high-C-2	Wood ash_high_S	Bioaccess2.5pH	18	%	Arsenic	10.43	NA	T2
204-03-S-high-D-2	Wood ash_high_S	Bioaccess2.5pH	18	%	Arsenic	10.80	NA	T2
205-04-S-high-A-2	Biochar_high_S	Bioaccess2.5pH	18	%	Arsenic	10.79	NA	T2
206-04-S-high-B-2	Biochar_high_S	Bioaccess2.5pH	18	%	Arsenic	9.80	NA	T2
207-04-S-high-C-2	Biochar_high_S	Bioaccess2.5pH	19	%	Arsenic	8.60	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
208-04-S-high-D-2	Biochar_high_S	Bioaccess2.5pH	19	%	Arsenic	8.84	NA	T2
209-05-S-high-A-2	Compost_high_S	Bioaccess2.5pH	19	%	Arsenic	9.37	NA	T2
210-05-S-high-B-2	Compost_high_S	Bioaccess2.5pH	19	%	Arsenic	9.04	NA	T2
211-05-S-high-C-2	Compost_high_S	Bioaccess2.5pH	19	%	Arsenic	8.51	NA	T2
212-05-S-high-D-2	Compost_high_S	Bioaccess2.5pH	19	%	Arsenic	7.98	NA	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	19	%	Arsenic	17.02	NA	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	19	%	Arsenic	17.17	NA	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	19	%	Arsenic	14.74	NA	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	20	%	Arsenic	20.04	NA	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	20	%	Arsenic	14.08	NA	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	20	%	Arsenic	11.97	NA	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	20	%	Arsenic	10.27	NA	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	20	%	Arsenic	13.53	NA	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	Bioaccess2.5pH	20	%	Arsenic	12.42	NA	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	Bioaccess2.5pH	20	%	Arsenic	11.80	NA	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	Bioaccess2.5pH	20	%	Arsenic	12.92	NA	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	Bioaccess2.5pH	20	%	Arsenic	12.09	NA	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	Bioaccess2.5pH	21	%	Arsenic	20.86	NA	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	Bioaccess2.5pH	21	%	Arsenic	15.89	NA	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	Bioaccess2.5pH	21	%	Arsenic	14.92	NA	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	Bioaccess2.5pH	21	%	Arsenic	16.21	NA	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	Bioaccess2.5pH	21	%	Arsenic	11.22	NA	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	Bioaccess2.5pH	21	%	Arsenic	9.37	NA	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	Bioaccess2.5pH	21	%	Arsenic	11.07	NA	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	Bioaccess2.5pH	21	%	Arsenic	11.89	NA	T2
233-11-S-high-A-2	Wood ash and compost_high_S	Bioaccess2.5pH	21	%	Arsenic	9.74	NA	T2
234-11-S-high-B-2	Wood ash and compost_high_S	Bioaccess2.5pH	22	%	Arsenic	11.64	NA	T2
235-11-S-high-C-2	Wood ash and compost_high_S	Bioaccess2.5pH	22	%	Arsenic	9.24	NA	T2
236-11-S-high-D-2	Wood ash and compost_high_S	Bioaccess2.5pH	22	%	Arsenic	8.53	NA	T2
237-12-S-high-A-2	Biochar and compost_high_S	Bioaccess2.5pH	22	%	Arsenic	8.97	NA	T2
238-12-S-high-B-2	Biochar and compost_high_S	Bioaccess2.5pH	22	%	Arsenic	9.21	NA	T2

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
239-12-S-high-C-2	Biochar and compost_high_S	Bioaccess2.5pH	22	%	Arsenic	9.69	NA	T2
240-12-S-high-D-2	Biochar and compost_high_S	Bioaccess2.5pH	22	%	Arsenic	8.97	NA	T2
289-01-I-low-A-2	Solublephosphate_low_I	Bioaccess2.5pH	1	%	Arsenic	11.92	NA	T2
290-01-I-low-B-2	Solublephosphate_low_I	Bioaccess2.5pH	1	%	Arsenic	12.80	NA	T2
291-01-I-low-C-2	Solublephosphate_low_I	Bioaccess2.5pH	1	%	Arsenic	11.76	NA	T2
292-01-I-low-D-2	Solublephosphate_low_I	Bioaccess2.5pH	1	%	Arsenic	12.10	NA	T2
293-02-I-low-A-2	Biosolid_low_I	Bioaccess2.5pH	1	%	Arsenic	11.49	NA	T2
294-02-I-low-B-2	Biosolid_low_I	Bioaccess2.5pH	1	%	Arsenic	10.40	NA	T2
295-02-I-low-C-2	Biosolid_low_I	Bioaccess2.5pH	1	%	Arsenic	11.28	NA	T2
296-02-I-low-D-2	Biosolid_low_I	Bioaccess2.5pH	1	%	Arsenic	10.81	NA	T2
297-03-I-low-A-2	Wood ash_low_I	Bioaccess2.5pH	2	%	Arsenic	9.61	NA	T2
298-03-I-low-B-2	Wood ash_low_I	Bioaccess2.5pH	2	%	Arsenic	9.46	NA	T2
299-03-I-low-C-2	Wood ash_low_I	Bioaccess2.5pH	2	%	Arsenic	9.04	NA	T2
300-03-I-low-D-2	Wood ash_low_I	Bioaccess2.5pH	2	%	Arsenic	8.35	NA	T2
301-04-I-low-A-2	Biochar_low_I	Bioaccess2.5pH	2	%	Arsenic	8.04	NA	T2
302-04-I-low-B-2	Biochar_low_I	Bioaccess2.5pH	2	%	Arsenic	7.53	NA	T2
303-04-I-low-C-2	Biochar_low_I	Bioaccess2.5pH	2	%	Arsenic	7.93	NA	T2
304-04-I-low-D-2	Biochar_low_I	Bioaccess2.5pH	2	%	Arsenic	8.12	NA	T2
305-05-I-low-A-2	Compost_low_I	Bioaccess2.5pH	3	%	Arsenic	8.17	NA	T2
306-05-I-low-B-2	Compost_low_I	Bioaccess2.5pH	3	%	Arsenic	8.61	NA	T2
307-05-I-low-C-2	Compost_low_I	Bioaccess2.5pH	3	%	Arsenic	8.51	NA	T2
308-05-I-low-D-2	Compost_low_I	Bioaccess2.5pH	3	%	Arsenic	8.42	NA	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	3	%	Arsenic	11.39	NA	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	3	%	Arsenic	12.36	NA	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	3	%	Arsenic	12.10	NA	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	3	%	Arsenic	11.28	NA	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	4	%	Arsenic	10.93	NA	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	4	%	Arsenic	10.57	NA	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	4	%	Arsenic	11.31	NA	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	4	%	Arsenic	11.75	NA	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	Bioaccess2.5pH	4	%	Arsenic	12.48	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
318-08-I-low-B-2	Soluble phosphate and compost_low_I	Bioaccess2.5pH	4	%	Arsenic	12.26	NA	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	Bioaccess2.5pH	4	%	Arsenic	11.94	NA	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	Bioaccess2.5pH	4	%	Arsenic	12.78	NA	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	Bioaccess2.5pH	5	%	Arsenic	12.01	NA	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	Bioaccess2.5pH	5	%	Arsenic	10.34	NA	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	Bioaccess2.5pH	5	%	Arsenic	9.27	NA	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	Bioaccess2.5pH	5	%	Arsenic	9.69	NA	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	Bioaccess2.5pH	5	%	Arsenic	8.69	NA	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	Bioaccess2.5pH	5	%	Arsenic	8.49	NA	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	Bioaccess2.5pH	5	%	Arsenic	8.26	NA	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	Bioaccess2.5pH	5	%	Arsenic	9.18	NA	T2
329-11-I-low-A-2	Wood ash and compost_low_I	Bioaccess2.5pH	6	%	Arsenic	8.89	NA	T2
330-11-I-low-B-2	Wood ash and compost_low_I	Bioaccess2.5pH	6	%	Arsenic	8.71	NA	T2
331-11-I-low-C-2	Wood ash and compost_low_I	Bioaccess2.5pH	6	%	Arsenic	8.71	NA	T2
332-11-I-low-D-2	Wood ash and compost_low_I	Bioaccess2.5pH	6	%	Arsenic	8.37	NA	T2
333-12-I-low-A-2	Biochar and compost_low_I	Bioaccess2.5pH	6	%	Arsenic	8.77	NA	T2
334-12-I-low-B-2	Biochar and compost_low_I	Bioaccess2.5pH	6	%	Arsenic	8.02	NA	T2
335-12-I-low-C-2	Biochar and compost_low_I	Bioaccess2.5pH	6	%	Arsenic	10.38	NA	T2
336-12-I-low-D-2	Biochar and compost_low_I	Bioaccess2.5pH	6	%	Arsenic	10.17	NA	T2
337-01-I-high-A-2	Solublephosphate_high_I	Bioaccess2.5pH	7	%	Arsenic	12.76	NA	T2
338-01-I-high-B-2	Solublephosphate_high_I	Bioaccess2.5pH	7	%	Arsenic	12.80	NA	T2
339-01-I-high-C-2	Solublephosphate_high_I	Bioaccess2.5pH	7	%	Arsenic	12.98	NA	T2
340-01-I-high-D-2	Solublephosphate_high_I	Bioaccess2.5pH	7	%	Arsenic	11.95	NA	T2
341-02-I-high-A-2	Biosolid_high_I	Bioaccess2.5pH	7	%	Arsenic	11.65	NA	T2
342-02-I-high-B-2	Biosolid_high_I	Bioaccess2.5pH	7	%	Arsenic	11.13	NA	T2
343-02-I-high-C-2	Biosolid_high_I	Bioaccess2.5pH	7	%	Arsenic	11.38	NA	T2
344-02-I-high-D-2	Biosolid_high_I	Bioaccess2.5pH	7	%	Arsenic	10.83	NA	T2
345-03-I-high-A-2	Wood ash_high_I	Bioaccess2.5pH	8	%	Arsenic	9.55	NA	T2
346-03-I-high-B-2	Wood ash_high_I	Bioaccess2.5pH	8	%	Arsenic	10.37	NA	T2
347-03-I-high-C-2	Wood ash_high_I	Bioaccess2.5pH	8	%	Arsenic	8.61	NA	T2
348-03-I-high-D-2	Wood ash_high_I	Bioaccess2.5pH	8	%	Arsenic	11.23	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
349-04-I-high-A-2	Biochar_high_I	Bioaccess2.5pH	8	%	Arsenic	8.32	NA	T2
350-04-I-high-B-2	Biochar_high_I	Bioaccess2.5pH	8	%	Arsenic	9.52	NA	T2
351-04-I-high-C-2	Biochar_high_I	Bioaccess2.5pH	8	%	Arsenic	8.33	NA	T2
352-04-I-high-D-2	Biochar_high_I	Bioaccess2.5pH	8	%	Arsenic	9.03	NA	T2
353-05-I-high-A-2	Compost_high_I	Bioaccess2.5pH	9	%	Arsenic	8.86	NA	T2
354-05-I-high-B-2	Compost_high_I	Bioaccess2.5pH	9	%	Arsenic	9.53	NA	T2
355-05-I-high-C-2	Compost_high_I	Bioaccess2.5pH	9	%	Arsenic	9.07	NA	T2
356-05-I-high-D-2	Compost_high_I	Bioaccess2.5pH	9	%	Arsenic	7.55	NA	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	9	%	Arsenic	10.87	NA	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	9	%	Arsenic	11.93	NA	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	9	%	Arsenic	14.62	NA	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	9	%	Arsenic	17.31	NA	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	10	%	Arsenic	12.22	NA	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	10	%	Arsenic	10.32	NA	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	10	%	Arsenic	11.66	NA	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	10	%	Arsenic	12.33	NA	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	Bioaccess2.5pH	10	%	Arsenic	12.97	NA	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	Bioaccess2.5pH	10	%	Arsenic	13.88	NA	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	Bioaccess2.5pH	10	%	Arsenic	14.21	NA	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	Bioaccess2.5pH	10	%	Arsenic	14.74	NA	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	Bioaccess2.5pH	11	%	Arsenic	12.64	NA	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	Bioaccess2.5pH	11	%	Arsenic	11.94	NA	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	Bioaccess2.5pH	11	%	Arsenic	11.77	NA	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	Bioaccess2.5pH	11	%	Arsenic	12.17	NA	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	Bioaccess2.5pH	11	%	Arsenic	9.62	NA	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	Bioaccess2.5pH	11	%	Arsenic	10.27	NA	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	Bioaccess2.5pH	11	%	Arsenic	10.27	NA	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	Bioaccess2.5pH	11	%	Arsenic	9.56	NA	T2
377-11-I-high-A-2	Wood ash and compost_high_I	Bioaccess2.5pH	12	%	Arsenic	12.88	NA	T2
378-11-I-high-B-2	Wood ash and compost_high_I	Bioaccess2.5pH	12	%	Arsenic	11.12	NA	T2
379-11-I-high-C-2	Wood ash and compost_high_I	Bioaccess2.5pH	12	%	Arsenic	11.51	NA	T2

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
380-11-I-high-D-2	Wood ash and compost_high_I	Bioaccess2.5pH	12	%	Arsenic	11.68	NA	T2
381-12-I-high-A-2	Biochar and compost_high_I	Bioaccess2.5pH	12	%	Arsenic	9.76	NA	T2
382-12-I-high-B-2	Biochar and compost_high_I	Bioaccess2.5pH	12	%	Arsenic	10.14	NA	T2
383-12-I-high-C-2	Biochar and compost_high_I	Bioaccess2.5pH	12	%	Arsenic	9.40	NA	T2
384-12-I-high-D-2	Biochar and compost_high_I	Bioaccess2.5pH	12	%	Arsenic	10.25	NA	T2
385-00-I-none-A-2	control_none_I	Bioaccess2.5pH	13	%	Arsenic	8.32	NA	T2
386-00-I-none-B-2	control_none_I	Bioaccess2.5pH	13	%	Arsenic	7.21	NA	T2
387-00-I-none-C-2	control_none_I	Bioaccess2.5pH	13	%	Arsenic	8.00	NA	T2
388-00-I-none-D-2	control_none_I	Bioaccess2.5pH	13	%	Arsenic	7.36	NA	T2
049-01-S-low-A-2	Solublephosphate_low_S	Bioaccess2.5pH	1	mg/kg	Arsenic	11.28	NA	T2
050-01-S-low-B-2	Solublephosphate_low_S	Bioaccess2.5pH	2	mg/kg	Arsenic	8.94	NA	T2
051-01-S-low-C-2	Solublephosphate_low_S	Bioaccess2.5pH	3	mg/kg	Arsenic	10.42	NA	T2
052-01-S-low-D-2	Solublephosphate_low_S	Bioaccess2.5pH	4	mg/kg	Arsenic	9.97	NA	T2
053-02-S-low-A-2	Biosolid_low_S	Bioaccess2.5pH	5	mg/kg	Arsenic	11.64	NA	T2
054-02-S-low-B-2	Biosolid_low_S	Bioaccess2.5pH	6	mg/kg	Arsenic	12.71	NA	T2
055-02-S-low-C-2	Biosolid_low_S	Bioaccess2.5pH	7	mg/kg	Arsenic	11.56	NA	T2
056-02-S-low-D-2	Biosolid_low_S	Bioaccess2.5pH	8	mg/kg	Arsenic	10.63	NA	T2
057-03-S-low-A-2	Wood ash_low_S	Bioaccess2.5pH	9	mg/kg	Arsenic	8.33	NA	T2
058-03-S-low-B-2	Wood ash_low_S	Bioaccess2.5pH	10	mg/kg	Arsenic	8.87	NA	T2
059-03-S-low-C-2	Wood ash_low_S	Bioaccess2.5pH	11	mg/kg	Arsenic	8.27	NA	T2
060-03-S-low-D-2	Wood ash_low_S	Bioaccess2.5pH	12	mg/kg	Arsenic	8.92	NA	T2
061-04-S-low-A-2	Biochar_low_S	Bioaccess2.5pH	13	mg/kg	Arsenic	8.81	NA	T2
062-04-S-low-B-2	Biochar_low_S	Bioaccess2.5pH	13	mg/kg	Arsenic	9.53	NA	T2
063-04-S-low-C-2	Biochar_low_S	Bioaccess2.5pH	13	mg/kg	Arsenic	9.15	NA	T2
064-04-S-low-D-2	Biochar_low_S	Bioaccess2.5pH	13	mg/kg	Arsenic	9.73	NA	T2
065-05-S-low-A-2	Compost_low_S	Bioaccess2.5pH	13	mg/kg	Arsenic	8.69	NA	T2
066-05-S-low-B-2	Compost_low_S	Bioaccess2.5pH	14	mg/kg	Arsenic	9.58	NA	T2
067-05-S-low-C-2	Compost_low_S	Bioaccess2.5pH	14	mg/kg	Arsenic	8.98	NA	T2
068-05-S-low-D-2	Compost_low_S	Bioaccess2.5pH	14	mg/kg	Arsenic	8.97	NA	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	14	mg/kg	Arsenic	12.17	NA	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	14	mg/kg	Arsenic	12.40	NA	T2

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	14	mg/kg	Arsenic	13.99	NA	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	14	mg/kg	Arsenic	16.52	NA	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	14	mg/kg	Arsenic	10.30	NA	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	14	mg/kg	Arsenic	8.95	NA	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	15	mg/kg	Arsenic	10.99	NA	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	15	mg/kg	Arsenic	10.22	NA	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	Bioaccess2.5pH	15	mg/kg	Arsenic	11.25	NA	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	Bioaccess2.5pH	15	mg/kg	Arsenic	11.70	NA	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	Bioaccess2.5pH	15	mg/kg	Arsenic	10.51	NA	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	Bioaccess2.5pH	15	mg/kg	Arsenic	11.84	NA	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	Bioaccess2.5pH	15	mg/kg	Arsenic	14.42	NA	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	Bioaccess2.5pH	15	mg/kg	Arsenic	11.60	NA	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	Bioaccess2.5pH	15	mg/kg	Arsenic	11.06	NA	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	Bioaccess2.5pH	16	mg/kg	Arsenic	11.38	NA	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	Bioaccess2.5pH	16	mg/kg	Arsenic	10.17	NA	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	Bioaccess2.5pH	16	mg/kg	Arsenic	8.77	NA	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	Bioaccess2.5pH	16	mg/kg	Arsenic	9.06	NA	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	Bioaccess2.5pH	16	mg/kg	Arsenic	9.61	NA	T2
089-11-S-low-A-2	Wood ash and compost_low_S	Bioaccess2.5pH	16	mg/kg	Arsenic	9.16	NA	T2
090-11-S-low-B-2	Wood ash and compost_low_S	Bioaccess2.5pH	16	mg/kg	Arsenic	9.71	NA	T2
091-11-S-low-C-2	Wood ash and compost_low_S	Bioaccess2.5pH	16	mg/kg	Arsenic	8.72	NA	T2
092-11-S-low-D-2	Wood ash and compost_low_S	Bioaccess2.5pH	16	mg/kg	Arsenic	9.22	NA	T2
093-12-S-low-A-2	Biochar and compost_low_S	Bioaccess2.5pH	17	mg/kg	Arsenic	9.56	NA	T2
094-12-S-low-B-2	Biochar and compost_low_S	Bioaccess2.5pH	17	mg/kg	Arsenic	10.51	NA	T2
095-12-S-low-C-2	Biochar and compost_low_S	Bioaccess2.5pH	17	mg/kg	Arsenic	13.05	NA	T2
096-12-S-low-D-2	Biochar and compost_low_S	Bioaccess2.5pH	17	mg/kg	Arsenic	9.79	NA	T2
193-01-S-high-A-2	Solublephosphate_high_S	Bioaccess2.5pH	17	mg/kg	Arsenic	12.11	NA	T2
194-01-S-high-B-2	Solublephosphate_high_S	Bioaccess2.5pH	17	mg/kg	Arsenic	12.92	NA	T2
195-01-S-high-C-2	Solublephosphate_high_S	Bioaccess2.5pH	17	mg/kg	Arsenic	12.75	NA	T2
196-01-S-high-D-2	Solublephosphate_high_S	Bioaccess2.5pH	17	mg/kg	Arsenic	12.37	NA	T2
197-02-S-high-A-2	Biosolid_high_S	Bioaccess2.5pH	17	mg/kg	Arsenic	16.49	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
198-02-S-high-B-2	Biosolid_high_S	Bioaccess2.5pH	18	mg/kg	Arsenic	15.69	NA	T2
199-02-S-high-C-2	Biosolid_high_S	Bioaccess2.5pH	18	mg/kg	Arsenic	15.29	NA	T2
200-02-S-high-D-2	Biosolid_high_S	Bioaccess2.5pH	18	mg/kg	Arsenic	16.82	NA	T2
201-03-S-high-A-2	Wood ash_high_S	Bioaccess2.5pH	18	mg/kg	Arsenic	9.53	NA	T2
202-03-S-high-B-2	Wood ash_high_S	Bioaccess2.5pH	18	mg/kg	Arsenic	9.57	NA	T2
203-03-S-high-C-2	Wood ash_high_S	Bioaccess2.5pH	18	mg/kg	Arsenic	10.07	NA	T2
204-03-S-high-D-2	Wood ash_high_S	Bioaccess2.5pH	18	mg/kg	Arsenic	10.47	NA	T2
205-04-S-high-A-2	Biochar_high_S	Bioaccess2.5pH	18	mg/kg	Arsenic	10.62	NA	T2
206-04-S-high-B-2	Biochar_high_S	Bioaccess2.5pH	18	mg/kg	Arsenic	9.77	NA	T2
207-04-S-high-C-2	Biochar_high_S	Bioaccess2.5pH	19	mg/kg	Arsenic	8.09	NA	T2
208-04-S-high-D-2	Biochar_high_S	Bioaccess2.5pH	19	mg/kg	Arsenic	8.86	NA	T2
209-05-S-high-A-2	Compost_high_S	Bioaccess2.5pH	19	mg/kg	Arsenic	9.35	NA	T2
210-05-S-high-B-2	Compost_high_S	Bioaccess2.5pH	19	mg/kg	Arsenic	8.72	NA	T2
211-05-S-high-C-2	Compost_high_S	Bioaccess2.5pH	19	mg/kg	Arsenic	8.58	NA	T2
212-05-S-high-D-2	Compost_high_S	Bioaccess2.5pH	19	mg/kg	Arsenic	8.37	NA	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	19	mg/kg	Arsenic	16.83	NA	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	19	mg/kg	Arsenic	17.02	NA	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	19	mg/kg	Arsenic	14.14	NA	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	20	mg/kg	Arsenic	18.83	NA	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	20	mg/kg	Arsenic	13.58	NA	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	20	mg/kg	Arsenic	11.28	NA	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	20	mg/kg	Arsenic	10.76	NA	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	20	mg/kg	Arsenic	12.80	NA	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	Bioaccess2.5pH	20	mg/kg	Arsenic	11.98	NA	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	Bioaccess2.5pH	20	mg/kg	Arsenic	11.41	NA	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	Bioaccess2.5pH	20	mg/kg	Arsenic	12.61	NA	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	Bioaccess2.5pH	20	mg/kg	Arsenic	11.41	NA	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	Bioaccess2.5pH	21	mg/kg	Arsenic	20.14	NA	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	Bioaccess2.5pH	21	mg/kg	Arsenic	14.73	NA	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	Bioaccess2.5pH	21	mg/kg	Arsenic	14.17	NA	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	Bioaccess2.5pH	21	mg/kg	Arsenic	15.02	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
229-10-S-high-A-2	Wood ash and biochar_high_S	Bioaccess2.5pH	21	mg/kg	Arsenic	10.46	NA	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	Bioaccess2.5pH	21	mg/kg	Arsenic	9.79	NA	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	Bioaccess2.5pH	21	mg/kg	Arsenic	10.94	NA	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	Bioaccess2.5pH	21	mg/kg	Arsenic	10.75	NA	T2
233-11-S-high-A-2	Wood ash and compost_high_S	Bioaccess2.5pH	21	mg/kg	Arsenic	9.98	NA	T2
234-11-S-high-B-2	Wood ash and compost_high_S	Bioaccess2.5pH	22	mg/kg	Arsenic	11.38	NA	T2
235-11-S-high-C-2	Wood ash and compost_high_S	Bioaccess2.5pH	22	mg/kg	Arsenic	9.32	NA	T2
236-11-S-high-D-2	Wood ash and compost_high_S	Bioaccess2.5pH	22	mg/kg	Arsenic	8.79	NA	T2
237-12-S-high-A-2	Biochar and compost_high_S	Bioaccess2.5pH	22	mg/kg	Arsenic	8.94	NA	T2
238-12-S-high-B-2	Biochar and compost_high_S	Bioaccess2.5pH	22	mg/kg	Arsenic	9.57	NA	T2
239-12-S-high-C-2	Biochar and compost_high_S	Bioaccess2.5pH	22	mg/kg	Arsenic	9.64	NA	T2
240-12-S-high-D-2	Biochar and compost_high_S	Bioaccess2.5pH	22	mg/kg	Arsenic	9.42	NA	T2
289-01-I-low-A-2	Solublephosphate_low_I	Bioaccess2.5pH	1	mg/kg	Arsenic	12.22	NA	T2
290-01-I-low-B-2	Solublephosphate_low_I	Bioaccess2.5pH	1	mg/kg	Arsenic	12.53	NA	T2
291-01-I-low-C-2	Solublephosphate_low_I	Bioaccess2.5pH	1	mg/kg	Arsenic	11.95	NA	T2
292-01-I-low-D-2	Solublephosphate_low_I	Bioaccess2.5pH	1	mg/kg	Arsenic	12.20	NA	T2
293-02-I-low-A-2	Biosolid_low_I	Bioaccess2.5pH	1	mg/kg	Arsenic	11.49	NA	T2
294-02-I-low-B-2	Biosolid_low_I	Bioaccess2.5pH	1	mg/kg	Arsenic	10.55	NA	T2
295-02-I-low-C-2	Biosolid_low_I	Bioaccess2.5pH	1	mg/kg	Arsenic	10.93	NA	T2
296-02-I-low-D-2	Biosolid_low_I	Bioaccess2.5pH	1	mg/kg	Arsenic	10.95	NA	T2
297-03-I-low-A-2	Wood ash_low_I	Bioaccess2.5pH	2	mg/kg	Arsenic	9.80	NA	T2
298-03-I-low-B-2	Wood ash_low_I	Bioaccess2.5pH	2	mg/kg	Arsenic	9.56	NA	T2
299-03-I-low-C-2	Wood ash_low_I	Bioaccess2.5pH	2	mg/kg	Arsenic	9.22	NA	T2
300-03-I-low-D-2	Wood ash_low_I	Bioaccess2.5pH	2	mg/kg	Arsenic	8.70	NA	T2
301-04-I-low-A-2	Biochar_low_I	Bioaccess2.5pH	2	mg/kg	Arsenic	8.22	NA	T2
302-04-I-low-B-2	Biochar_low_I	Bioaccess2.5pH	2	mg/kg	Arsenic	7.83	NA	T2
303-04-I-low-C-2	Biochar_low_I	Bioaccess2.5pH	2	mg/kg	Arsenic	7.96	NA	T2
304-04-I-low-D-2	Biochar_low_I	Bioaccess2.5pH	2	mg/kg	Arsenic	8.28	NA	T2
305-05-I-low-A-2	Compost_low_I	Bioaccess2.5pH	3	mg/kg	Arsenic	8.35	NA	T2
306-05-I-low-B-2	Compost_low_I	Bioaccess2.5pH	3	mg/kg	Arsenic	9.04	NA	T2
307-05-I-low-C-2	Compost_low_I	Bioaccess2.5pH	3	mg/kg	Arsenic	8.52	NA	T2

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
308-05-I-low-D-2	Compost_low_I	Bioaccess2.5pH	3	mg/kg	Arsenic	8.69	NA	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	3	mg/kg	Arsenic	10.62	NA	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	3	mg/kg	Arsenic	11.79	NA	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	3	mg/kg	Arsenic	10.79	NA	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	3	mg/kg	Arsenic	10.88	NA	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	4	mg/kg	Arsenic	11.11	NA	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	4	mg/kg	Arsenic	10.65	NA	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	4	mg/kg	Arsenic	11.39	NA	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	4	mg/kg	Arsenic	10.96	NA	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	Bioaccess2.5pH	4	mg/kg	Arsenic	11.47	NA	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	Bioaccess2.5pH	4	mg/kg	Arsenic	11.80	NA	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	Bioaccess2.5pH	4	mg/kg	Arsenic	11.11	NA	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	Bioaccess2.5pH	4	mg/kg	Arsenic	11.31	NA	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	Bioaccess2.5pH	5	mg/kg	Arsenic	11.19	NA	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	Bioaccess2.5pH	5	mg/kg	Arsenic	9.77	NA	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	Bioaccess2.5pH	5	mg/kg	Arsenic	8.42	NA	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	Bioaccess2.5pH	5	mg/kg	Arsenic	8.63	NA	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	Bioaccess2.5pH	5	mg/kg	Arsenic	8.44	NA	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	Bioaccess2.5pH	5	mg/kg	Arsenic	8.65	NA	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	Bioaccess2.5pH	5	mg/kg	Arsenic	8.55	NA	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	Bioaccess2.5pH	5	mg/kg	Arsenic	8.78	NA	T2
329-11-I-low-A-2	Wood ash and compost_low_I	Bioaccess2.5pH	6	mg/kg	Arsenic	9.17	NA	T2
330-11-I-low-B-2	Wood ash and compost_low_I	Bioaccess2.5pH	6	mg/kg	Arsenic	8.52	NA	T2
331-11-I-low-C-2	Wood ash and compost_low_I	Bioaccess2.5pH	6	mg/kg	Arsenic	8.28	NA	T2
332-11-I-low-D-2	Wood ash and compost_low_I	Bioaccess2.5pH	6	mg/kg	Arsenic	8.14	NA	T2
333-12-I-low-A-2	Biochar and compost_low_I	Bioaccess2.5pH	6	mg/kg	Arsenic	8.22	NA	T2
334-12-I-low-B-2	Biochar and compost_low_I	Bioaccess2.5pH	6	mg/kg	Arsenic	8.07	NA	T2
335-12-I-low-C-2	Biochar and compost_low_I	Bioaccess2.5pH	6	mg/kg	Arsenic	8.41	NA	T2
336-12-I-low-D-2	Biochar and compost_low_I	Bioaccess2.5pH	6	mg/kg	Arsenic	8.51	NA	T2
337-01-I-high-A-2	Solublephosphate_high_I	Bioaccess2.5pH	7	mg/kg	Arsenic	11.86	NA	T2
338-01-I-high-B-2	Solublephosphate_high_I	Bioaccess2.5pH	7	mg/kg	Arsenic	12.35	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
339-01-I-high-C-2	Solublephosphate_high_I	Bioaccess2.5pH	7	mg/kg	Arsenic	12.14	NA	T2
340-01-I-high-D-2	Solublephosphate_high_I	Bioaccess2.5pH	7	mg/kg	Arsenic	11.25	NA	T2
341-02-I-high-A-2	Biosolid_high_I	Bioaccess2.5pH	7	mg/kg	Arsenic	11.27	NA	T2
342-02-I-high-B-2	Biosolid_high_I	Bioaccess2.5pH	7	mg/kg	Arsenic	11.32	NA	T2
343-02-I-high-C-2	Biosolid_high_I	Bioaccess2.5pH	7	mg/kg	Arsenic	11.63	NA	T2
344-02-I-high-D-2	Biosolid_high_I	Bioaccess2.5pH	7	mg/kg	Arsenic	10.99	NA	T2
345-03-I-high-A-2	Wood ash_high_I	Bioaccess2.5pH	8	mg/kg	Arsenic	9.14	NA	T2
346-03-I-high-B-2	Wood ash_high_I	Bioaccess2.5pH	8	mg/kg	Arsenic	9.96	NA	T2
347-03-I-high-C-2	Wood ash_high_I	Bioaccess2.5pH	8	mg/kg	Arsenic	9.00	NA	T2
348-03-I-high-D-2	Wood ash_high_I	Bioaccess2.5pH	8	mg/kg	Arsenic	10.57	NA	T2
349-04-I-high-A-2	Biochar_high_I	Bioaccess2.5pH	8	mg/kg	Arsenic	7.63	NA	T2
350-04-I-high-B-2	Biochar_high_I	Bioaccess2.5pH	8	mg/kg	Arsenic	8.61	NA	T2
351-04-I-high-C-2	Biochar_high_I	Bioaccess2.5pH	8	mg/kg	Arsenic	7.91	NA	T2
352-04-I-high-D-2	Biochar_high_I	Bioaccess2.5pH	8	mg/kg	Arsenic	7.89	NA	T2
353-05-I-high-A-2	Compost_high_I	Bioaccess2.5pH	9	mg/kg	Arsenic	9.30	NA	T2
354-05-I-high-B-2	Compost_high_I	Bioaccess2.5pH	9	mg/kg	Arsenic	9.69	NA	T2
355-05-I-high-C-2	Compost_high_I	Bioaccess2.5pH	9	mg/kg	Arsenic	9.39	NA	T2
356-05-I-high-D-2	Compost_high_I	Bioaccess2.5pH	9	mg/kg	Arsenic	8.47	NA	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	9	mg/kg	Arsenic	11.37	NA	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	9	mg/kg	Arsenic	12.82	NA	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	9	mg/kg	Arsenic	12.23	NA	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	9	mg/kg	Arsenic	14.59	NA	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	10	mg/kg	Arsenic	11.84	NA	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	10	mg/kg	Arsenic	11.65	NA	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	10	mg/kg	Arsenic	11.48	NA	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	10	mg/kg	Arsenic	12.21	NA	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	Bioaccess2.5pH	10	mg/kg	Arsenic	12.13	NA	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	Bioaccess2.5pH	10	mg/kg	Arsenic	12.03	NA	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	Bioaccess2.5pH	10	mg/kg	Arsenic	13.90	NA	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	Bioaccess2.5pH	10	mg/kg	Arsenic	13.42	NA	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	Bioaccess2.5pH	11	mg/kg	Arsenic	10.25	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
370-09-I-high-B-2	Biosolids and wood ash_high_I	Bioaccess2.5pH	11	mg/kg	Arsenic	10.18	NA	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	Bioaccess2.5pH	11	mg/kg	Arsenic	11.00	NA	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	Bioaccess2.5pH	11	mg/kg	Arsenic	11.08	NA	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	Bioaccess2.5pH	11	mg/kg	Arsenic	9.55	NA	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	Bioaccess2.5pH	11	mg/kg	Arsenic	10.48	NA	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	Bioaccess2.5pH	11	mg/kg	Arsenic	10.21	NA	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	Bioaccess2.5pH	11	mg/kg	Arsenic	9.89	NA	T2
377-11-I-high-A-2	Wood ash and compost_high_I	Bioaccess2.5pH	12	mg/kg	Arsenic	11.30	NA	T2
378-11-I-high-B-2	Wood ash and compost_high_I	Bioaccess2.5pH	12	mg/kg	Arsenic	10.74	NA	T2
379-11-I-high-C-2	Wood ash and compost_high_I	Bioaccess2.5pH	12	mg/kg	Arsenic	10.64	NA	T2
380-11-I-high-D-2	Wood ash and compost_high_I	Bioaccess2.5pH	12	mg/kg	Arsenic	11.25	NA	T2
381-12-I-high-A-2	Biochar and compost_high_I	Bioaccess2.5pH	12	mg/kg	Arsenic	9.69	NA	T2
382-12-I-high-B-2	Biochar and compost_high_I	Bioaccess2.5pH	12	mg/kg	Arsenic	8.92	NA	T2
383-12-I-high-C-2	Biochar and compost_high_I	Bioaccess2.5pH	12	mg/kg	Arsenic	8.86	NA	T2
384-12-I-high-D-2	Biochar and compost_high_I	Bioaccess2.5pH	12	mg/kg	Arsenic	8.75	NA	T2
385-00-I-none-A-2	control_none_I	Bioaccess2.5pH	13	mg/kg	Arsenic	8.23	NA	T2
386-00-I-none-B-2	control_none_I	Bioaccess2.5pH	13	mg/kg	Arsenic	6.89	NA	T2
387-00-I-none-C-2	control_none_I	Bioaccess2.5pH	13	mg/kg	Arsenic	7.67	NA	T2
388-00-I-none-D-2	control_none_I	Bioaccess2.5pH	13	mg/kg	Arsenic	7.38	NA	T2
049-01-S-low-A-2	Solublephosphate_low_S	Bioaccess2.5pH	1	%	Lead	26.54	blk_spk	T2
050-01-S-low-B-2	Solublephosphate_low_S	Bioaccess2.5pH	2	%	Lead	27.36	blk_spkdup_spk	T2
051-01-S-low-C-2	Solublephosphate_low_S	Bioaccess2.5pH	3	%	Lead	30.38	NA	T2
052-01-S-low-D-2	Solublephosphate_low_S	Bioaccess2.5pH	4	%	Lead	30.65	NA	T2
053-02-S-low-A-2	Biosolid_low_S	Bioaccess2.5pH	5	%	Lead	32.99	NA	T2
054-02-S-low-B-2	Biosolid_low_S	Bioaccess2.5pH	6	%	Lead	31.34	NA	T2
055-02-S-low-C-2	Biosolid_low_S	Bioaccess2.5pH	7	%	Lead	30.99	NA	T2
056-02-S-low-D-2	Biosolid_low_S	Bioaccess2.5pH	8	%	Lead	32.17	NA	T2
057-03-S-low-A-2	Wood ash_low_S	Bioaccess2.5pH	9	%	Lead	32.70	NA	T2
058-03-S-low-B-2	Wood ash_low_S	Bioaccess2.5pH	10	%	Lead	31.58	NA	T2
059-03-S-low-C-2	Wood ash_low_S	Bioaccess2.5pH	11	%	Lead	29.56	NA	T2
060-03-S-low-D-2	Wood ash_low_S	Bioaccess2.5pH	12	%	Lead	31.51	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
061-04-S-low-A-2	Biochar_low_S	Bioaccess2.5pH	13	%	Lead	31.11	NA	T2
062-04-S-low-B-2	Biochar_low_S	Bioaccess2.5pH	13	%	Lead	31.17	NA	T2
063-04-S-low-C-2	Biochar_low_S	Bioaccess2.5pH	13	%	Lead	30.14	NA	T2
064-04-S-low-D-2	Biochar_low_S	Bioaccess2.5pH	13	%	Lead	29.62	NA	T2
065-05-S-low-A-2	Compost_low_S	Bioaccess2.5pH	13	%	Lead	29.10	NA	T2
066-05-S-low-B-2	Compost_low_S	Bioaccess2.5pH	14	%	Lead	29.84	NA	T2
067-05-S-low-C-2	Compost_low_S	Bioaccess2.5pH	14	%	Lead	30.17	NA	T2
068-05-S-low-D-2	Compost_low_S	Bioaccess2.5pH	14	%	Lead	30.71	NA	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	14	%	Lead	29.64	NA	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	14	%	Lead	30.94	NA	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	14	%	Lead	29.84	NA	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	14	%	Lead	28.98	NA	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	14	%	Lead	28.63	NA	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	14	%	Lead	26.25	NA	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	15	%	Lead	29.79	NA	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	15	%	Lead	30.90	NA	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	Bioaccess2.5pH	15	%	Lead	30.56	NA	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	Bioaccess2.5pH	15	%	Lead	30.14	NA	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	Bioaccess2.5pH	15	%	Lead	31.22	NA	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	Bioaccess2.5pH	15	%	Lead	30.29	NA	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	Bioaccess2.5pH	15	%	Lead	35.11	NA	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	Bioaccess2.5pH	15	%	Lead	35.18	NA	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	Bioaccess2.5pH	15	%	Lead	32.88	NA	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	Bioaccess2.5pH	16	%	Lead	30.77	NA	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	Bioaccess2.5pH	16	%	Lead	29.15	NA	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	Bioaccess2.5pH	16	%	Lead	29.50	NA	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	Bioaccess2.5pH	16	%	Lead	29.80	NA	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	Bioaccess2.5pH	16	%	Lead	31.52	NA	T2
089-11-S-low-A-2	Wood ash and compost_low_S	Bioaccess2.5pH	16	%	Lead	30.10	NA	T2
090-11-S-low-B-2	Wood ash and compost_low_S	Bioaccess2.5pH	16	%	Lead	31.52	NA	T2
091-11-S-low-C-2	Wood ash and compost_low_S	Bioaccess2.5pH	16	%	Lead	30.01	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
092-11-S-low-D-2	Wood ash and compost_low_S	Bioaccess2.5pH	16	%	Lead	33.12	NA	T2
093-12-S-low-A-2	Biochar and compost_low_S	Bioaccess2.5pH	17	%	Lead	30.11	NA	T2
094-12-S-low-B-2	Biochar and compost_low_S	Bioaccess2.5pH	17	%	Lead	30.29	NA	T2
095-12-S-low-C-2	Biochar and compost_low_S	Bioaccess2.5pH	17	%	Lead	33.40	NA	T2
096-12-S-low-D-2	Biochar and compost_low_S	Bioaccess2.5pH	17	%	Lead	30.25	NA	T2
193-01-S-high-A-2	Solublephosphate_high_S	Bioaccess2.5pH	17	%	Lead	21.30	NA	T2
194-01-S-high-B-2	Solublephosphate_high_S	Bioaccess2.5pH	17	%	Lead	21.40	NA	T2
195-01-S-high-C-2	Solublephosphate_high_S	Bioaccess2.5pH	17	%	Lead	20.52	NA	T2
196-01-S-high-D-2	Solublephosphate_high_S	Bioaccess2.5pH	17	%	Lead	24.93	NA	T2
197-02-S-high-A-2	Biosolid_high_S	Bioaccess2.5pH	17	%	Lead	34.97	NA	T2
198-02-S-high-B-2	Biosolid_high_S	Bioaccess2.5pH	18	%	Lead	34.52	NA	T2
199-02-S-high-C-2	Biosolid_high_S	Bioaccess2.5pH	18	%	Lead	35.02	NA	T2
200-02-S-high-D-2	Biosolid_high_S	Bioaccess2.5pH	18	%	Lead	34.33	NA	T2
201-03-S-high-A-2	Wood ash_high_S	Bioaccess2.5pH	18	%	Lead	33.97	NA	T2
202-03-S-high-B-2	Wood ash_high_S	Bioaccess2.5pH	18	%	Lead	36.38	NA	T2
203-03-S-high-C-2	Wood ash_high_S	Bioaccess2.5pH	18	%	Lead	35.65	NA	T2
204-03-S-high-D-2	Wood ash_high_S	Bioaccess2.5pH	18	%	Lead	36.43	NA	T2
205-04-S-high-A-2	Biochar_high_S	Bioaccess2.5pH	18	%	Lead	36.92	NA	T2
206-04-S-high-B-2	Biochar_high_S	Bioaccess2.5pH	18	%	Lead	32.70	NA	T2
207-04-S-high-C-2	Biochar_high_S	Bioaccess2.5pH	19	%	Lead	28.66	NA	T2
208-04-S-high-D-2	Biochar_high_S	Bioaccess2.5pH	19	%	Lead	31.91	NA	T2
209-05-S-high-A-2	Compost_high_S	Bioaccess2.5pH	19	%	Lead	30.85	NA	T2
210-05-S-high-B-2	Compost_high_S	Bioaccess2.5pH	19	%	Lead	30.22	NA	T2
211-05-S-high-C-2	Compost_high_S	Bioaccess2.5pH	19	%	Lead	30.16	NA	T2
212-05-S-high-D-2	Compost_high_S	Bioaccess2.5pH	19	%	Lead	29.90	NA	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	19	%	Lead	27.41	NA	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	19	%	Lead	29.41	NA	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	19	%	Lead	26.50	NA	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	20	%	Lead	31.94	NA	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	20	%	Lead	25.73	NA	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	20	%	Lead	27.71	NA	T2

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	20	%	Lead	23.97	NA	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	20	%	Lead	28.08	NA	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	Bioaccess2.5pH	20	%	Lead	27.64	NA	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	Bioaccess2.5pH	20	%	Lead	30.14	NA	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	Bioaccess2.5pH	20	%	Lead	26.70	NA	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	Bioaccess2.5pH	20	%	Lead	26.77	NA	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	Bioaccess2.5pH	21	%	Lead	37.84	NA	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	Bioaccess2.5pH	21	%	Lead	38.34	NA	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	Bioaccess2.5pH	21	%	Lead	38.07	NA	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	Bioaccess2.5pH	21	%	Lead	36.35	NA	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	Bioaccess2.5pH	21	%	Lead	38.71	NA	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	Bioaccess2.5pH	21	%	Lead	36.23	NA	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	Bioaccess2.5pH	21	%	Lead	39.60	NA	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	Bioaccess2.5pH	21	%	Lead	35.70	NA	T2
233-11-S-high-A-2	Wood ash and compost_high_S	Bioaccess2.5pH	21	%	Lead	33.28	NA	T2
234-11-S-high-B-2	Wood ash and compost_high_S	Bioaccess2.5pH	22	%	Lead	36.26	NA	T2
235-11-S-high-C-2	Wood ash and compost_high_S	Bioaccess2.5pH	22	%	Lead	35.20	NA	T2
236-11-S-high-D-2	Wood ash and compost_high_S	Bioaccess2.5pH	22	%	Lead	33.56	NA	T2
237-12-S-high-A-2	Biochar and compost_high_S	Bioaccess2.5pH	22	%	Lead	35.50	NA	T2
238-12-S-high-B-2	Biochar and compost_high_S	Bioaccess2.5pH	22	%	Lead	33.50	NA	T2
239-12-S-high-C-2	Biochar and compost_high_S	Bioaccess2.5pH	22	%	Lead	34.28	NA	T2
240-12-S-high-D-2	Biochar and compost_high_S	Bioaccess2.5pH	22	%	Lead	34.29	NA	T2
289-01-I-low-A-2	Solublephosphate_low_I	Bioaccess2.5pH	1	%	Lead	34.89	NA	T2
290-01-I-low-B-2	Solublephosphate_low_I	Bioaccess2.5pH	1	%	Lead	41.51	NA	T2
291-01-I-low-C-2	Solublephosphate_low_I	Bioaccess2.5pH	1	%	Lead	35.70	blk_spk	T2
292-01-I-low-D-2	Solublephosphate_low_I	Bioaccess2.5pH	1	%	Lead	34.30	blk_spk	T2
293-02-I-low-A-2	Biosolid_low_I	Bioaccess2.5pH	1	%	Lead	34.07	blk_spk	T2
294-02-I-low-B-2	Biosolid_low_I	Bioaccess2.5pH	1	%	Lead	35.59	blk_spk	T2
295-02-I-low-C-2	Biosolid_low_I	Bioaccess2.5pH	1	%	Lead	34.10	blk_spk	T2
296-02-I-low-D-2	Biosolid_low_I	Bioaccess2.5pH	1	%	Lead	35.47	blk_spk	T2
297-03-I-low-A-2	Wood ash_low_I	Bioaccess2.5pH	2	%	Lead	40.89	blk_spk	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
298-03-I-low-B-2	Wood ash_low_I	Bioaccess2.5pH	2	%	Lead	41.52	blk_spk	T2
299-03-I-low-C-2	Wood ash_low_I	Bioaccess2.5pH	2	%	Lead	36.76	blk_spkdup_spk	T2
300-03-I-low-D-2	Wood ash_low_I	Bioaccess2.5pH	2	%	Lead	39.14	blk_spkdup_spk	T2
301-04-I-low-A-2	Biochar_low_I	Bioaccess2.5pH	2	%	Lead	36.19	blk_spkdup_spk	T2
302-04-I-low-B-2	Biochar_low_I	Bioaccess2.5pH	2	%	Lead	35.47	blk_spkdup_spk	T2
303-04-I-low-C-2	Biochar_low_I	Bioaccess2.5pH	2	%	Lead	34.99	blk_spkdup_spk	T2
304-04-I-low-D-2	Biochar_low_I	Bioaccess2.5pH	2	%	Lead	34.68	blk_spkdup_spk	T2
305-05-I-low-A-2	Compost_low_I	Bioaccess2.5pH	3	%	Lead	36.58	NA	T2
306-05-I-low-B-2	Compost_low_I	Bioaccess2.5pH	3	%	Lead	34.52	NA	T2
307-05-I-low-C-2	Compost_low_I	Bioaccess2.5pH	3	%	Lead	38.11	NA	T2
308-05-I-low-D-2	Compost_low_I	Bioaccess2.5pH	3	%	Lead	38.99	NA	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	3	%	Lead	32.75	NA	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	3	%	Lead	33.09	NA	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	3	%	Lead	37.42	NA	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	3	%	Lead	34.06	NA	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	4	%	Lead	38.92	NA	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	4	%	Lead	39.01	NA	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	4	%	Lead	38.45	NA	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	4	%	Lead	39.33	NA	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	Bioaccess2.5pH	4	%	Lead	38.55	NA	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	Bioaccess2.5pH	4	%	Lead	39.82	NA	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	Bioaccess2.5pH	4	%	Lead	43.43	NA	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	Bioaccess2.5pH	4	%	Lead	42.94	NA	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	Bioaccess2.5pH	5	%	Lead	37.60	NA	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	Bioaccess2.5pH	5	%	Lead	37.86	NA	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	Bioaccess2.5pH	5	%	Lead	37.07	NA	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	Bioaccess2.5pH	5	%	Lead	37.08	NA	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	Bioaccess2.5pH	5	%	Lead	36.92	NA	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	Bioaccess2.5pH	5	%	Lead	38.81	NA	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	Bioaccess2.5pH	5	%	Lead	37.87	NA	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	Bioaccess2.5pH	5	%	Lead	39.24	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
329-11-I-low-A-2	Wood ash and compost_low_I	Bioaccess2.5pH	6	%	Lead	36.04	NA	T2
330-11-I-low-B-2	Wood ash and compost_low_I	Bioaccess2.5pH	6	%	Lead	37.45	NA	T2
331-11-I-low-C-2	Wood ash and compost_low_I	Bioaccess2.5pH	6	%	Lead	39.00	NA	T2
332-11-I-low-D-2	Wood ash and compost_low_I	Bioaccess2.5pH	6	%	Lead	34.85	NA	T2
333-12-I-low-A-2	Biochar and compost_low_I	Bioaccess2.5pH	6	%	Lead	38.51	NA	T2
334-12-I-low-B-2	Biochar and compost_low_I	Bioaccess2.5pH	6	%	Lead	35.52	NA	T2
335-12-I-low-C-2	Biochar and compost_low_I	Bioaccess2.5pH	6	%	Lead	37.91	NA	T2
336-12-I-low-D-2	Biochar and compost_low_I	Bioaccess2.5pH	6	%	Lead	36.11	NA	T2
337-01-I-high-A-2	Solublephosphate_high_I	Bioaccess2.5pH	7	%	Lead	30.15	NA	T2
338-01-I-high-B-2	Solublephosphate_high_I	Bioaccess2.5pH	7	%	Lead	30.32	NA	T2
339-01-I-high-C-2	Solublephosphate_high_I	Bioaccess2.5pH	7	%	Lead	28.77	NA	T2
340-01-I-high-D-2	Solublephosphate_high_I	Bioaccess2.5pH	7	%	Lead	25.57	NA	T2
341-02-I-high-A-2	Biosolid_high_I	Bioaccess2.5pH	7	%	Lead	28.57	NA	T2
342-02-I-high-B-2	Biosolid_high_I	Bioaccess2.5pH	7	%	Lead	25.97	NA	T2
343-02-I-high-C-2	Biosolid_high_I	Bioaccess2.5pH	7	%	Lead	27.28	NA	T2
344-02-I-high-D-2	Biosolid_high_I	Bioaccess2.5pH	7	%	Lead	22.45	NA	T2
345-03-I-high-A-2	Wood ash_high_I	Bioaccess2.5pH	8	%	Lead	38.94	NA	T2
346-03-I-high-B-2	Wood ash_high_I	Bioaccess2.5pH	8	%	Lead	35.64	NA	T2
347-03-I-high-C-2	Wood ash_high_I	Bioaccess2.5pH	8	%	Lead	34.81	NA	T2
348-03-I-high-D-2	Wood ash_high_I	Bioaccess2.5pH	8	%	Lead	41.71	NA	T2
349-04-I-high-A-2	Biochar_high_I	Bioaccess2.5pH	8	%	Lead	41.52	NA	T2
350-04-I-high-B-2	Biochar_high_I	Bioaccess2.5pH	8	%	Lead	41.98	NA	T2
351-04-I-high-C-2	Biochar_high_I	Bioaccess2.5pH	8	%	Lead	37.71	NA	T2
352-04-I-high-D-2	Biochar_high_I	Bioaccess2.5pH	8	%	Lead	44.10	NA	T2
353-05-I-high-A-2	Compost_high_I	Bioaccess2.5pH	9	%	Lead	33.12	NA	T2
354-05-I-high-B-2	Compost_high_I	Bioaccess2.5pH	9	%	Lead	31.93	NA	T2
355-05-I-high-C-2	Compost_high_I	Bioaccess2.5pH	9	%	Lead	33.69	NA	T2
356-05-I-high-D-2	Compost_high_I	Bioaccess2.5pH	9	%	Lead	29.33	NA	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	9	%	Lead	22.76	NA	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	9	%	Lead	23.30	NA	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	9	%	Lead	26.96	NA	T2

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	9	%	Lead	25.53	NA	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	10	%	Lead	27.34	NA	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	10	%	Lead	22.42	NA	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	10	%	Lead	27.20	NA	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	10	%	Lead	26.44	NA	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	Bioaccess2.5pH	10	%	Lead	25.10	NA	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	Bioaccess2.5pH	10	%	Lead	27.64	NA	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	Bioaccess2.5pH	10	%	Lead	25.54	NA	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	Bioaccess2.5pH	10	%	Lead	25.12	NA	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	Bioaccess2.5pH	11	%	Lead	31.65	NA	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	Bioaccess2.5pH	11	%	Lead	32.14	NA	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	Bioaccess2.5pH	11	%	Lead	30.49	NA	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	Bioaccess2.5pH	11	%	Lead	30.38	NA	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	Bioaccess2.5pH	11	%	Lead	35.95	NA	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	Bioaccess2.5pH	11	%	Lead	40.79	NA	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	Bioaccess2.5pH	11	%	Lead	40.06	NA	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	Bioaccess2.5pH	11	%	Lead	36.08	NA	T2
377-11-I-high-A-2	Wood ash and compost_high_I	Bioaccess2.5pH	12	%	Lead	33.71	NA	T2
378-11-I-high-B-2	Wood ash and compost_high_I	Bioaccess2.5pH	12	%	Lead	34.45	NA	T2
379-11-I-high-C-2	Wood ash and compost_high_I	Bioaccess2.5pH	12	%	Lead	34.31	NA	T2
380-11-I-high-D-2	Wood ash and compost_high_I	Bioaccess2.5pH	12	%	Lead	36.31	NA	T2
381-12-I-high-A-2	Biochar and compost_high_I	Bioaccess2.5pH	12	%	Lead	32.37	NA	T2
382-12-I-high-B-2	Biochar and compost_high_I	Bioaccess2.5pH	12	%	Lead	32.20	NA	T2
383-12-I-high-C-2	Biochar and compost_high_I	Bioaccess2.5pH	12	%	Lead	30.66	NA	T2
384-12-I-high-D-2	Biochar and compost_high_I	Bioaccess2.5pH	12	%	Lead	31.15	NA	T2
385-00-I-none-A-2	control_none_I	Bioaccess2.5pH	13	%	Lead	33.61	NA	T2
386-00-I-none-B-2	control_none_I	Bioaccess2.5pH	13	%	Lead	31.71	NA	T2
387-00-I-none-C-2	control_none_I	Bioaccess2.5pH	13	%	Lead	32.49	NA	T2
388-00-I-none-D-2	control_none_I	Bioaccess2.5pH	13	%	Lead	32.32	NA	T2
049-01-S-low-A-2	Solublephosphate_low_S	Bioaccess2.5pH	1	mg/kg	Lead	413.35	blk_spk	T2
050-01-S-low-B-2	Solublephosphate_low_S	Bioaccess2.5pH	2	mg/kg	Lead	410.94	blk_spkdup_spk	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
051-01-S-low-C-2	Solublephosphate_low_S	Bioaccess2.5pH	3	mg/kg	Lead	452.08	NA	T2
052-01-S-low-D-2	Solublephosphate_low_S	Bioaccess2.5pH	4	mg/kg	Lead	467.47	NA	T2
053-02-S-low-A-2	Biosolid_low_S	Bioaccess2.5pH	5	mg/kg	Lead	485.72	NA	T2
054-02-S-low-B-2	Biosolid_low_S	Bioaccess2.5pH	6	mg/kg	Lead	461.58	NA	T2
055-02-S-low-C-2	Biosolid_low_S	Bioaccess2.5pH	7	mg/kg	Lead	474.94	NA	T2
056-02-S-low-D-2	Biosolid_low_S	Bioaccess2.5pH	8	mg/kg	Lead	471.27	NA	T2
057-03-S-low-A-2	Wood ash_low_S	Bioaccess2.5pH	9	mg/kg	Lead	475.09	NA	T2
058-03-S-low-B-2	Wood ash_low_S	Bioaccess2.5pH	10	mg/kg	Lead	470.25	NA	T2
059-03-S-low-C-2	Wood ash_low_S	Bioaccess2.5pH	11	mg/kg	Lead	454.48	NA	T2
060-03-S-low-D-2	Wood ash_low_S	Bioaccess2.5pH	12	mg/kg	Lead	480.90	NA	T2
061-04-S-low-A-2	Biochar_low_S	Bioaccess2.5pH	13	mg/kg	Lead	470.61	NA	T2
062-04-S-low-B-2	Biochar_low_S	Bioaccess2.5pH	13	mg/kg	Lead	469.09	NA	T2
063-04-S-low-C-2	Biochar_low_S	Bioaccess2.5pH	13	mg/kg	Lead	444.11	NA	T2
064-04-S-low-D-2	Biochar_low_S	Bioaccess2.5pH	13	mg/kg	Lead	437.69	NA	T2
065-05-S-low-A-2	Compost_low_S	Bioaccess2.5pH	13	mg/kg	Lead	435.41	NA	T2
066-05-S-low-B-2	Compost_low_S	Bioaccess2.5pH	14	mg/kg	Lead	451.24	NA	T2
067-05-S-low-C-2	Compost_low_S	Bioaccess2.5pH	14	mg/kg	Lead	453.81	NA	T2
068-05-S-low-D-2	Compost_low_S	Bioaccess2.5pH	14	mg/kg	Lead	467.03	NA	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	14	mg/kg	Lead	449.54	NA	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	14	mg/kg	Lead	453.34	NA	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	14	mg/kg	Lead	435.82	NA	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	14	mg/kg	Lead	435.45	NA	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	14	mg/kg	Lead	426.33	NA	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	14	mg/kg	Lead	397.99	NA	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	15	mg/kg	Lead	450.49	NA	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	15	mg/kg	Lead	444.84	NA	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	Bioaccess2.5pH	15	mg/kg	Lead	443.23	NA	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	Bioaccess2.5pH	15	mg/kg	Lead	446.41	NA	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	Bioaccess2.5pH	15	mg/kg	Lead	443.79	NA	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	Bioaccess2.5pH	15	mg/kg	Lead	452.95	NA	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	Bioaccess2.5pH	15	mg/kg	Lead	517.64	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
082-09-S-low-B-2	Biosolids and wood ash_low_S	Bioaccess2.5pH	15	mg/kg	Lead	526.52	NA	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	Bioaccess2.5pH	15	mg/kg	Lead	474.23	NA	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	Bioaccess2.5pH	16	mg/kg	Lead	463.06	NA	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	Bioaccess2.5pH	16	mg/kg	Lead	457.79	NA	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	Bioaccess2.5pH	16	mg/kg	Lead	437.02	NA	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	Bioaccess2.5pH	16	mg/kg	Lead	451.62	NA	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	Bioaccess2.5pH	16	mg/kg	Lead	451.67	NA	T2
089-11-S-low-A-2	Wood ash and compost_low_S	Bioaccess2.5pH	16	mg/kg	Lead	453.58	NA	T2
090-11-S-low-B-2	Wood ash and compost_low_S	Bioaccess2.5pH	16	mg/kg	Lead	466.83	NA	T2
091-11-S-low-C-2	Wood ash and compost_low_S	Bioaccess2.5pH	16	mg/kg	Lead	459.22	NA	T2
092-11-S-low-D-2	Wood ash and compost_low_S	Bioaccess2.5pH	16	mg/kg	Lead	463.47	NA	T2
093-12-S-low-A-2	Biochar and compost_low_S	Bioaccess2.5pH	17	mg/kg	Lead	446.89	NA	T2
094-12-S-low-B-2	Biochar and compost_low_S	Bioaccess2.5pH	17	mg/kg	Lead	467.85	NA	T2
095-12-S-low-C-2	Biochar and compost_low_S	Bioaccess2.5pH	17	mg/kg	Lead	496.78	NA	T2
096-12-S-low-D-2	Biochar and compost_low_S	Bioaccess2.5pH	17	mg/kg	Lead	463.26	NA	T2
193-01-S-high-A-2	Solublephosphate_high_S	Bioaccess2.5pH	17	mg/kg	Lead	327.04	NA	T2
194-01-S-high-B-2	Solublephosphate_high_S	Bioaccess2.5pH	17	mg/kg	Lead	335.77	NA	T2
195-01-S-high-C-2	Solublephosphate_high_S	Bioaccess2.5pH	17	mg/kg	Lead	312.77	NA	T2
196-01-S-high-D-2	Solublephosphate_high_S	Bioaccess2.5pH	17	mg/kg	Lead	360.49	NA	T2
197-02-S-high-A-2	Biosolid_high_S	Bioaccess2.5pH	17	mg/kg	Lead	515.05	NA	T2
198-02-S-high-B-2	Biosolid_high_S	Bioaccess2.5pH	18	mg/kg	Lead	524.99	NA	T2
199-02-S-high-C-2	Biosolid_high_S	Bioaccess2.5pH	18	mg/kg	Lead	519.02	NA	T2
200-02-S-high-D-2	Biosolid_high_S	Bioaccess2.5pH	18	mg/kg	Lead	522.49	NA	T2
201-03-S-high-A-2	Wood ash_high_S	Bioaccess2.5pH	18	mg/kg	Lead	500.94	NA	T2
202-03-S-high-B-2	Wood ash_high_S	Bioaccess2.5pH	18	mg/kg	Lead	519.69	NA	T2
203-03-S-high-C-2	Wood ash_high_S	Bioaccess2.5pH	18	mg/kg	Lead	509.51	NA	T2
204-03-S-high-D-2	Wood ash_high_S	Bioaccess2.5pH	18	mg/kg	Lead	545.06	NA	T2
205-04-S-high-A-2	Biochar_high_S	Bioaccess2.5pH	18	mg/kg	Lead	542.12	NA	T2
206-04-S-high-B-2	Biochar_high_S	Bioaccess2.5pH	18	mg/kg	Lead	498.36	NA	T2
207-04-S-high-C-2	Biochar_high_S	Bioaccess2.5pH	19	mg/kg	Lead	423.92	NA	T2
208-04-S-high-D-2	Biochar_high_S	Bioaccess2.5pH	19	mg/kg	Lead	461.00	NA	T2

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
209-05-S-high-A-2	Compost_high_S	Bioaccess2.5pH	19	mg/kg	Lead	448.01	NA	T2
210-05-S-high-B-2	Compost_high_S	Bioaccess2.5pH	19	mg/kg	Lead	437.08	NA	T2
211-05-S-high-C-2	Compost_high_S	Bioaccess2.5pH	19	mg/kg	Lead	449.35	NA	T2
212-05-S-high-D-2	Compost_high_S	Bioaccess2.5pH	19	mg/kg	Lead	456.06	NA	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	19	mg/kg	Lead	424.24	NA	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	19	mg/kg	Lead	437.71	NA	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	19	mg/kg	Lead	387.01	NA	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	20	mg/kg	Lead	474.93	NA	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	20	mg/kg	Lead	396.02	NA	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	20	mg/kg	Lead	416.96	NA	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	20	mg/kg	Lead	386.72	NA	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	20	mg/kg	Lead	410.87	NA	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	Bioaccess2.5pH	20	mg/kg	Lead	421.99	NA	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	Bioaccess2.5pH	20	mg/kg	Lead	456.80	NA	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	Bioaccess2.5pH	20	mg/kg	Lead	418.53	NA	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	Bioaccess2.5pH	20	mg/kg	Lead	404.47	NA	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	Bioaccess2.5pH	21	mg/kg	Lead	587.96	NA	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	Bioaccess2.5pH	21	mg/kg	Lead	565.24	NA	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	Bioaccess2.5pH	21	mg/kg	Lead	561.40	NA	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	Bioaccess2.5pH	21	mg/kg	Lead	544.04	NA	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	Bioaccess2.5pH	21	mg/kg	Lead	550.54	NA	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	Bioaccess2.5pH	21	mg/kg	Lead	532.85	NA	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	Bioaccess2.5pH	21	mg/kg	Lead	545.09	NA	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	Bioaccess2.5pH	21	mg/kg	Lead	522.92	NA	T2
233-11-S-high-A-2	Wood ash and compost_high_S	Bioaccess2.5pH	21	mg/kg	Lead	518.36	NA	T2
234-11-S-high-B-2	Wood ash and compost_high_S	Bioaccess2.5pH	22	mg/kg	Lead	529.76	NA	T2
235-11-S-high-C-2	Wood ash and compost_high_S	Bioaccess2.5pH	22	mg/kg	Lead	513.65	NA	T2
236-11-S-high-D-2	Wood ash and compost_high_S	Bioaccess2.5pH	22	mg/kg	Lead	510.59	NA	T2
237-12-S-high-A-2	Biochar and compost_high_S	Bioaccess2.5pH	22	mg/kg	Lead	502.96	NA	T2
238-12-S-high-B-2	Biochar and compost_high_S	Bioaccess2.5pH	22	mg/kg	Lead	494.80	NA	T2
239-12-S-high-C-2	Biochar and compost_high_S	Bioaccess2.5pH	22	mg/kg	Lead	513.86	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
240-12-S-high-D-2	Biochar and compost_high_S	Bioaccess2.5pH	22	mg/kg	Lead	510.44	NA	T2
289-01-I-low-A-2	Solublephosphate_low_I	Bioaccess2.5pH	1	mg/kg	Lead	517.08	NA	T2
290-01-I-low-B-2	Solublephosphate_low_I	Bioaccess2.5pH	1	mg/kg	Lead	564.98	NA	T2
291-01-I-low-C-2	Solublephosphate_low_I	Bioaccess2.5pH	1	mg/kg	Lead	501.99	blk_spk	T2
292-01-I-low-D-2	Solublephosphate_low_I	Bioaccess2.5pH	1	mg/kg	Lead	491.68	blk_spk	T2
293-02-I-low-A-2	Biosolid_low_I	Bioaccess2.5pH	1	mg/kg	Lead	495.72	blk_spk	T2
294-02-I-low-B-2	Biosolid_low_I	Bioaccess2.5pH	1	mg/kg	Lead	491.96	blk_spk	T2
295-02-I-low-C-2	Biosolid_low_I	Bioaccess2.5pH	1	mg/kg	Lead	460.14	blk_spk	T2
296-02-I-low-D-2	Biosolid_low_I	Bioaccess2.5pH	1	mg/kg	Lead	485.26	blk_spk	T2
297-03-I-low-A-2	Wood ash_low_I	Bioaccess2.5pH	2	mg/kg	Lead	583.99	blk_spk	T2
298-03-I-low-B-2	Wood ash_low_I	Bioaccess2.5pH	2	mg/kg	Lead	579.42	blk_spk	T2
299-03-I-low-C-2	Wood ash_low_I	Bioaccess2.5pH	2	mg/kg	Lead	515.43	blk_spkdup_spk	T2
300-03-I-low-D-2	Wood ash_low_I	Bioaccess2.5pH	2	mg/kg	Lead	545.38	blk_spkdup_spk	T2
301-04-I-low-A-2	Biochar_low_I	Bioaccess2.5pH	2	mg/kg	Lead	508.62	blk_spkdup_spk	T2
302-04-I-low-B-2	Biochar_low_I	Bioaccess2.5pH	2	mg/kg	Lead	501.22	blk_spkdup_spk	T2
303-04-I-low-C-2	Biochar_low_I	Bioaccess2.5pH	2	mg/kg	Lead	492.66	blk_spkdup_spk	T2
304-04-I-low-D-2	Biochar_low_I	Bioaccess2.5pH	2	mg/kg	Lead	479.38	blk_spkdup_spk	T2
305-05-I-low-A-2	Compost_low_I	Bioaccess2.5pH	3	mg/kg	Lead	522.70	NA	T2
306-05-I-low-B-2	Compost_low_I	Bioaccess2.5pH	3	mg/kg	Lead	500.09	NA	T2
307-05-I-low-C-2	Compost_low_I	Bioaccess2.5pH	3	mg/kg	Lead	507.87	NA	T2
308-05-I-low-D-2	Compost_low_I	Bioaccess2.5pH	3	mg/kg	Lead	545.05	NA	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	3	mg/kg	Lead	435.96	NA	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	3	mg/kg	Lead	454.05	NA	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	3	mg/kg	Lead	476.08	NA	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	3	mg/kg	Lead	452.43	NA	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	4	mg/kg	Lead	538.30	NA	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	4	mg/kg	Lead	554.07	NA	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	4	mg/kg	Lead	548.88	NA	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	4	mg/kg	Lead	540.99	NA	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	Bioaccess2.5pH	4	mg/kg	Lead	523.72	NA	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	Bioaccess2.5pH	4	mg/kg	Lead	520.99	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
319-08-I-low-C-2	Soluble phosphate and compost_low_I	Bioaccess2.5pH	4	mg/kg	Lead	539.55	NA	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	Bioaccess2.5pH	4	mg/kg	Lead	552.82	NA	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	Bioaccess2.5pH	5	mg/kg	Lead	498.87	NA	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	Bioaccess2.5pH	5	mg/kg	Lead	534.15	NA	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	Bioaccess2.5pH	5	mg/kg	Lead	496.64	NA	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	Bioaccess2.5pH	5	mg/kg	Lead	479.04	NA	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	Bioaccess2.5pH	5	mg/kg	Lead	511.81	NA	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	Bioaccess2.5pH	5	mg/kg	Lead	548.05	NA	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	Bioaccess2.5pH	5	mg/kg	Lead	547.61	NA	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	Bioaccess2.5pH	5	mg/kg	Lead	555.39	NA	T2
329-11-I-low-A-2	Wood ash and compost_low_I	Bioaccess2.5pH	6	mg/kg	Lead	514.02	NA	T2
330-11-I-low-B-2	Wood ash and compost_low_I	Bioaccess2.5pH	6	mg/kg	Lead	491.95	NA	T2
331-11-I-low-C-2	Wood ash and compost_low_I	Bioaccess2.5pH	6	mg/kg	Lead	491.79	NA	T2
332-11-I-low-D-2	Wood ash and compost_low_I	Bioaccess2.5pH	6	mg/kg	Lead	503.27	NA	T2
333-12-I-low-A-2	Biochar and compost_low_I	Bioaccess2.5pH	6	mg/kg	Lead	508.47	NA	T2
334-12-I-low-B-2	Biochar and compost_low_I	Bioaccess2.5pH	6	mg/kg	Lead	491.75	NA	T2
335-12-I-low-C-2	Biochar and compost_low_I	Bioaccess2.5pH	6	mg/kg	Lead	496.38	NA	T2
336-12-I-low-D-2	Biochar and compost_low_I	Bioaccess2.5pH	6	mg/kg	Lead	479.97	NA	T2
337-01-I-high-A-2	Solublephosphate_high_I	Bioaccess2.5pH	7	mg/kg	Lead	456.92	NA	T2
338-01-I-high-B-2	Solublephosphate_high_I	Bioaccess2.5pH	7	mg/kg	Lead	441.30	NA	T2
339-01-I-high-C-2	Solublephosphate_high_I	Bioaccess2.5pH	7	mg/kg	Lead	416.52	NA	T2
340-01-I-high-D-2	Solublephosphate_high_I	Bioaccess2.5pH	7	mg/kg	Lead	399.64	NA	T2
341-02-I-high-A-2	Biosolid_high_I	Bioaccess2.5pH	7	mg/kg	Lead	400.93	NA	T2
342-02-I-high-B-2	Biosolid_high_I	Bioaccess2.5pH	7	mg/kg	Lead	386.92	NA	T2
343-02-I-high-C-2	Biosolid_high_I	Bioaccess2.5pH	7	mg/kg	Lead	411.87	NA	T2
344-02-I-high-D-2	Biosolid_high_I	Bioaccess2.5pH	7	mg/kg	Lead	364.18	NA	T2
345-03-I-high-A-2	Wood ash_high_I	Bioaccess2.5pH	8	mg/kg	Lead	553.62	NA	T2
346-03-I-high-B-2	Wood ash_high_I	Bioaccess2.5pH	8	mg/kg	Lead	542.29	NA	T2
347-03-I-high-C-2	Wood ash_high_I	Bioaccess2.5pH	8	mg/kg	Lead	530.08	NA	T2
348-03-I-high-D-2	Wood ash_high_I	Bioaccess2.5pH	8	mg/kg	Lead	555.60	NA	T2
349-04-I-high-A-2	Biochar_high_I	Bioaccess2.5pH	8	mg/kg	Lead	503.70	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
350-04-I-high-B-2	Biochar_high_I	Bioaccess2.5pH	8	mg/kg	Lead	507.01	NA	T2
351-04-I-high-C-2	Biochar_high_I	Bioaccess2.5pH	8	mg/kg	Lead	503.18	NA	T2
352-04-I-high-D-2	Biochar_high_I	Bioaccess2.5pH	8	mg/kg	Lead	510.52	NA	T2
353-05-I-high-A-2	Compost_high_I	Bioaccess2.5pH	9	mg/kg	Lead	515.81	NA	T2
354-05-I-high-B-2	Compost_high_I	Bioaccess2.5pH	9	mg/kg	Lead	475.24	NA	T2
355-05-I-high-C-2	Compost_high_I	Bioaccess2.5pH	9	mg/kg	Lead	513.26	NA	T2
356-05-I-high-D-2	Compost_high_I	Bioaccess2.5pH	9	mg/kg	Lead	487.59	NA	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	9	mg/kg	Lead	335.75	NA	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	9	mg/kg	Lead	354.14	NA	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	9	mg/kg	Lead	329.48	NA	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	9	mg/kg	Lead	320.58	NA	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	10	mg/kg	Lead	404.86	NA	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	10	mg/kg	Lead	402.14	NA	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	10	mg/kg	Lead	407.79	NA	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	10	mg/kg	Lead	400.36	NA	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	Bioaccess2.5pH	10	mg/kg	Lead	345.49	NA	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	Bioaccess2.5pH	10	mg/kg	Lead	378.77	NA	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	Bioaccess2.5pH	10	mg/kg	Lead	372.10	NA	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	Bioaccess2.5pH	10	mg/kg	Lead	357.60	NA	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	Bioaccess2.5pH	11	mg/kg	Lead	412.29	NA	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	Bioaccess2.5pH	11	mg/kg	Lead	423.03	NA	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	Bioaccess2.5pH	11	mg/kg	Lead	405.35	NA	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	Bioaccess2.5pH	11	mg/kg	Lead	402.96	NA	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	Bioaccess2.5pH	11	mg/kg	Lead	525.95	NA	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	Bioaccess2.5pH	11	mg/kg	Lead	570.68	NA	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	Bioaccess2.5pH	11	mg/kg	Lead	545.51	NA	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	Bioaccess2.5pH	11	mg/kg	Lead	524.51	NA	T2
377-11-I-high-A-2	Wood ash and compost_high_I	Bioaccess2.5pH	12	mg/kg	Lead	499.29	NA	T2
378-11-I-high-B-2	Wood ash and compost_high_I	Bioaccess2.5pH	12	mg/kg	Lead	461.47	NA	T2
379-11-I-high-C-2	Wood ash and compost_high_I	Bioaccess2.5pH	12	mg/kg	Lead	486.85	NA	T2
380-11-I-high-D-2	Wood ash and compost_high_I	Bioaccess2.5pH	12	mg/kg	Lead	502.90	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
381-12-I-high-A-2	Biochar and compost_high_I	Bioaccess2.5pH	12	mg/kg	Lead	445.61	NA	T2
382-12-I-high-B-2	Biochar and compost_high_I	Bioaccess2.5pH	12	mg/kg	Lead	476.09	NA	T2
383-12-I-high-C-2	Biochar and compost_high_I	Bioaccess2.5pH	12	mg/kg	Lead	458.28	NA	T2
384-12-I-high-D-2	Biochar and compost_high_I	Bioaccess2.5pH	12	mg/kg	Lead	456.03	NA	T2
385-00-I-none-A-2	control_none_I	Bioaccess2.5pH	13	mg/kg	Lead	505.43	NA	T2
386-00-I-none-B-2	control_none_I	Bioaccess2.5pH	13	mg/kg	Lead	493.79	NA	T2
387-00-I-none-C-2	control_none_I	Bioaccess2.5pH	13	mg/kg	Lead	503.40	NA	T2
388-00-I-none-D-2	control_none_I	Bioaccess2.5pH	13	mg/kg	Lead	466.22	NA	T2
049-01-S-low-A-2	Solublephosphate_low_S	Bioaccess1.5pH	1	%	Arsenic	21.09	NA	T2
050-01-S-low-B-2	Solublephosphate_low_S	Bioaccess1.5pH	2	%	Arsenic	21.93	NA	T2
051-01-S-low-C-2	Solublephosphate_low_S	Bioaccess1.5pH	3	%	Arsenic	22.78	NA	T2
052-01-S-low-D-2	Solublephosphate_low_S	Bioaccess1.5pH	4	%	Arsenic	20.64	NA	T2
053-02-S-low-A-2	Biosolid_low_S	Bioaccess1.5pH	5	%	Arsenic	24.08	NA	T2
054-02-S-low-B-2	Biosolid_low_S	Bioaccess1.5pH	6	%	Arsenic	24.51	NA	T2
055-02-S-low-C-2	Biosolid_low_S	Bioaccess1.5pH	7	%	Arsenic	24.46	NA	T2
056-02-S-low-D-2	Biosolid_low_S	Bioaccess1.5pH	8	%	Arsenic	22.55	NA	T2
057-03-S-low-A-2	Wood ash_low_S	Bioaccess1.5pH	9	%	Arsenic	20.12	NA	T2
058-03-S-low-B-2	Wood ash_low_S	Bioaccess1.5pH	10	%	Arsenic	23.08	NA	T2
059-03-S-low-C-2	Wood ash_low_S	Bioaccess1.5pH	11	%	Arsenic	18.95	NA	T2
060-03-S-low-D-2	Wood ash_low_S	Bioaccess1.5pH	12	%	Arsenic	18.00	NA	T2
061-04-S-low-A-2	Biochar_low_S	Bioaccess1.5pH	13	%	Arsenic	20.31	dup_spk	T2
062-04-S-low-B-2	Biochar_low_S	Bioaccess1.5pH	13	%	Arsenic	22.38	dup_spk	T2
063-04-S-low-C-2	Biochar_low_S	Bioaccess1.5pH	13	%	Arsenic	22.79	dup_spk	T2
064-04-S-low-D-2	Biochar_low_S	Bioaccess1.5pH	13	%	Arsenic	22.11	dup_spk	T2
065-05-S-low-A-2	Compost_low_S	Bioaccess1.5pH	13	%	Arsenic	21.75	dup_spk	T2
066-05-S-low-B-2	Compost_low_S	Bioaccess1.5pH	14	%	Arsenic	20.77	NA	T2
067-05-S-low-C-2	Compost_low_S	Bioaccess1.5pH	14	%	Arsenic	21.13	NA	T2
068-05-S-low-D-2	Compost_low_S	Bioaccess1.5pH	14	%	Arsenic	20.64	NA	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	14	%	Arsenic	25.35	NA	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	14	%	Arsenic	25.88	NA	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	14	%	Arsenic	28.44	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	14	%	Arsenic	31.02	NA	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	14	%	Arsenic	22.99	NA	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	14	%	Arsenic	22.17	NA	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	15	%	Arsenic	24.44	NA	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	15	%	Arsenic	26.58	NA	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	Bioaccess1.5pH	15	%	Arsenic	26.86	NA	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	Bioaccess1.5pH	15	%	Arsenic	27.34	NA	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	Bioaccess1.5pH	15	%	Arsenic	27.00	NA	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	Bioaccess1.5pH	15	%	Arsenic	27.17	NA	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	Bioaccess1.5pH	15	%	Arsenic	29.85	NA	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	Bioaccess1.5pH	15	%	Arsenic	26.16	NA	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	Bioaccess1.5pH	15	%	Arsenic	25.04	NA	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	Bioaccess1.5pH	16	%	Arsenic	24.77	NA	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	Bioaccess1.5pH	16	%	Arsenic	21.28	NA	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	Bioaccess1.5pH	16	%	Arsenic	21.08	NA	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	Bioaccess1.5pH	16	%	Arsenic	21.09	NA	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	Bioaccess1.5pH	16	%	Arsenic	22.14	NA	T2
089-11-S-low-A-2	Wood ash and compost_low_S	Bioaccess1.5pH	16	%	Arsenic	24.64	NA	T2
090-11-S-low-B-2	Wood ash and compost_low_S	Bioaccess1.5pH	16	%	Arsenic	23.47	NA	T2
091-11-S-low-C-2	Wood ash and compost_low_S	Bioaccess1.5pH	16	%	Arsenic	22.43	NA	T2
092-11-S-low-D-2	Wood ash and compost_low_S	Bioaccess1.5pH	16	%	Arsenic	23.57	NA	T2
093-12-S-low-A-2	Biochar and compost_low_S	Bioaccess1.5pH	17	%	Arsenic	20.11	NA	T2
094-12-S-low-B-2	Biochar and compost_low_S	Bioaccess1.5pH	17	%	Arsenic	20.44	NA	T2
095-12-S-low-C-2	Biochar and compost_low_S	Bioaccess1.5pH	17	%	Arsenic	20.65	NA	T2
096-12-S-low-D-2	Biochar and compost_low_S	Bioaccess1.5pH	17	%	Arsenic	21.23	NA	T2
193-01-S-high-A-2	Solublephosphate_high_S	Bioaccess1.5pH	17	%	Arsenic	28.39	NA	T2
194-01-S-high-B-2	Solublephosphate_high_S	Bioaccess1.5pH	17	%	Arsenic	27.34	NA	T2
195-01-S-high-C-2	Solublephosphate_high_S	Bioaccess1.5pH	17	%	Arsenic	25.69	NA	T2
196-01-S-high-D-2	Solublephosphate_high_S	Bioaccess1.5pH	17	%	Arsenic	27.71	NA	T2
197-02-S-high-A-2	Biosolid_high_S	Bioaccess1.5pH	17	%	Arsenic	28.57	NA	T2
198-02-S-high-B-2	Biosolid_high_S	Bioaccess1.5pH	18	%	Arsenic	29.81	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
199-02-S-high-C-2	Biosolid_high_S	Bioaccess1.5pH	18	%	Arsenic	28.10	NA	T2
200-02-S-high-D-2	Biosolid_high_S	Bioaccess1.5pH	18	%	Arsenic	31.72	NA	T2
201-03-S-high-A-2	Wood ash_high_S	Bioaccess1.5pH	18	%	Arsenic	20.64	NA	T2
202-03-S-high-B-2	Wood ash_high_S	Bioaccess1.5pH	18	%	Arsenic	21.36	NA	T2
203-03-S-high-C-2	Wood ash_high_S	Bioaccess1.5pH	18	%	Arsenic	23.72	NA	T2
204-03-S-high-D-2	Wood ash_high_S	Bioaccess1.5pH	18	%	Arsenic	24.39	NA	T2
205-04-S-high-A-2	Biochar_high_S	Bioaccess1.5pH	18	%	Arsenic	22.95	NA	T2
206-04-S-high-B-2	Biochar_high_S	Bioaccess1.5pH	18	%	Arsenic	22.06	NA	T2
207-04-S-high-C-2	Biochar_high_S	Bioaccess1.5pH	19	%	Arsenic	22.03	NA	T2
208-04-S-high-D-2	Biochar_high_S	Bioaccess1.5pH	19	%	Arsenic	21.48	NA	T2
209-05-S-high-A-2	Compost_high_S	Bioaccess1.5pH	19	%	Arsenic	21.83	NA	T2
210-05-S-high-B-2	Compost_high_S	Bioaccess1.5pH	19	%	Arsenic	24.13	NA	T2
211-05-S-high-C-2	Compost_high_S	Bioaccess1.5pH	19	%	Arsenic	22.04	NA	T2
212-05-S-high-D-2	Compost_high_S	Bioaccess1.5pH	19	%	Arsenic	22.94	NA	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	19	%	Arsenic	35.20	NA	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	19	%	Arsenic	34.33	NA	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	19	%	Arsenic	30.12	NA	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	20	%	Arsenic	37.01	NA	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	20	%	Arsenic	31.02	NA	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	20	%	Arsenic	29.92	NA	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	20	%	Arsenic	26.16	NA	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	20	%	Arsenic	30.36	NA	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	Bioaccess1.5pH	20	%	Arsenic	28.22	NA	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	Bioaccess1.5pH	20	%	Arsenic	28.57	NA	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	Bioaccess1.5pH	20	%	Arsenic	30.90	NA	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	Bioaccess1.5pH	20	%	Arsenic	31.10	NA	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	Bioaccess1.5pH	21	%	Arsenic	32.51	NA	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	Bioaccess1.5pH	21	%	Arsenic	33.09	NA	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	Bioaccess1.5pH	21	%	Arsenic	33.64	NA	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	Bioaccess1.5pH	21	%	Arsenic	34.12	NA	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	Bioaccess1.5pH	21	%	Arsenic	30.27	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
230-10-S-high-B-2	Wood ash and biochar_high_S	Bioaccess1.5pH	21	%	Arsenic	24.72	NA	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	Bioaccess1.5pH	21	%	Arsenic	28.79	NA	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	Bioaccess1.5pH	21	%	Arsenic	29.03	NA	T2
233-11-S-high-A-2	Wood ash and compost_high_S	Bioaccess1.5pH	21	%	Arsenic	26.88	NA	T2
234-11-S-high-B-2	Wood ash and compost_high_S	Bioaccess1.5pH	22	%	Arsenic	24.24	NA	T2
235-11-S-high-C-2	Wood ash and compost_high_S	Bioaccess1.5pH	22	%	Arsenic	24.36	NA	T2
236-11-S-high-D-2	Wood ash and compost_high_S	Bioaccess1.5pH	22	%	Arsenic	23.96	NA	T2
237-12-S-high-A-2	Biochar and compost_high_S	Bioaccess1.5pH	22	%	Arsenic	24.72	NA	T2
238-12-S-high-B-2	Biochar and compost_high_S	Bioaccess1.5pH	22	%	Arsenic	25.00	NA	T2
239-12-S-high-C-2	Biochar and compost_high_S	Bioaccess1.5pH	22	%	Arsenic	24.52	NA	T2
240-12-S-high-D-2	Biochar and compost_high_S	Bioaccess1.5pH	22	%	Arsenic	23.16	NA	T2
289-01-I-low-A-2	Solublephosphate_low_I	Bioaccess1.5pH	1	%	Arsenic	24.53	NA	T2
290-01-I-low-B-2	Solublephosphate_low_I	Bioaccess1.5pH	1	%	Arsenic	25.22	NA	T2
291-01-I-low-C-2	Solublephosphate_low_I	Bioaccess1.5pH	1	%	Arsenic	25.27	NA	T2
292-01-I-low-D-2	Solublephosphate_low_I	Bioaccess1.5pH	1	%	Arsenic	23.64	NA	T2
293-02-I-low-A-2	Biosolid_low_I	Bioaccess1.5pH	1	%	Arsenic	23.55	NA	T2
294-02-I-low-B-2	Biosolid_low_I	Bioaccess1.5pH	1	%	Arsenic	22.34	NA	T2
295-02-I-low-C-2	Biosolid_low_I	Bioaccess1.5pH	1	%	Arsenic	23.64	NA	T2
296-02-I-low-D-2	Biosolid_low_I	Bioaccess1.5pH	1	%	Arsenic	23.84	NA	T2
297-03-I-low-A-2	Wood ash_low_I	Bioaccess1.5pH	2	%	Arsenic	21.72	NA	T2
298-03-I-low-B-2	Wood ash_low_I	Bioaccess1.5pH	2	%	Arsenic	20.64	NA	T2
299-03-I-low-C-2	Wood ash_low_I	Bioaccess1.5pH	2	%	Arsenic	20.30	NA	T2
300-03-I-low-D-2	Wood ash_low_I	Bioaccess1.5pH	2	%	Arsenic	19.30	NA	T2
301-04-I-low-A-2	Biochar_low_I	Bioaccess1.5pH	2	%	Arsenic	20.03	NA	T2
302-04-I-low-B-2	Biochar_low_I	Bioaccess1.5pH	2	%	Arsenic	20.48	NA	T2
303-04-I-low-C-2	Biochar_low_I	Bioaccess1.5pH	2	%	Arsenic	21.66	NA	T2
304-04-I-low-D-2	Biochar_low_I	Bioaccess1.5pH	2	%	Arsenic	20.47	NA	T2
305-05-I-low-A-2	Compost_low_I	Bioaccess1.5pH	3	%	Arsenic	20.77	NA	T2
306-05-I-low-B-2	Compost_low_I	Bioaccess1.5pH	3	%	Arsenic	18.69	NA	T2
307-05-I-low-C-2	Compost_low_I	Bioaccess1.5pH	3	%	Arsenic	19.97	NA	T2
308-05-I-low-D-2	Compost_low_I	Bioaccess1.5pH	3	%	Arsenic	18.80	NA	T2

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	3	%	Arsenic	23.65	NA	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	3	%	Arsenic	25.24	NA	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	3	%	Arsenic	26.92	NA	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	3	%	Arsenic	24.48	NA	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	4	%	Arsenic	23.08	NA	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	4	%	Arsenic	22.56	NA	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	4	%	Arsenic	22.68	NA	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	4	%	Arsenic	22.88	NA	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	Bioaccess1.5pH	4	%	Arsenic	25.13	NA	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	Bioaccess1.5pH	4	%	Arsenic	25.11	NA	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	Bioaccess1.5pH	4	%	Arsenic	26.41	NA	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	Bioaccess1.5pH	4	%	Arsenic	26.53	NA	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	Bioaccess1.5pH	5	%	Arsenic	23.90	NA	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	Bioaccess1.5pH	5	%	Arsenic	24.74	NA	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	Bioaccess1.5pH	5	%	Arsenic	25.36	NA	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	Bioaccess1.5pH	5	%	Arsenic	26.36	NA	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	Bioaccess1.5pH	5	%	Arsenic	23.00	NA	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	Bioaccess1.5pH	5	%	Arsenic	22.72	NA	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	Bioaccess1.5pH	5	%	Arsenic	22.29	NA	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	Bioaccess1.5pH	5	%	Arsenic	22.94	NA	T2
329-11-I-low-A-2	Wood ash and compost_low_I	Bioaccess1.5pH	6	%	Arsenic	21.74	NA	T2
330-11-I-low-B-2	Wood ash and compost_low_I	Bioaccess1.5pH	6	%	Arsenic	22.04	NA	T2
331-11-I-low-C-2	Wood ash and compost_low_I	Bioaccess1.5pH	6	%	Arsenic	22.69	NA	T2
332-11-I-low-D-2	Wood ash and compost_low_I	Bioaccess1.5pH	6	%	Arsenic	20.61	NA	T2
333-12-I-low-A-2	Biochar and compost_low_I	Bioaccess1.5pH	6	%	Arsenic	20.82	NA	T2
334-12-I-low-B-2	Biochar and compost_low_I	Bioaccess1.5pH	6	%	Arsenic	20.25	NA	T2
335-12-I-low-C-2	Biochar and compost_low_I	Bioaccess1.5pH	6	%	Arsenic	25.15	NA	T2
336-12-I-low-D-2	Biochar and compost_low_I	Bioaccess1.5pH	6	%	Arsenic	25.58	NA	T2
337-01-I-high-A-2	Solublephosphate_high_I	Bioaccess1.5pH	7	%	Arsenic	29.33	NA	T2
338-01-I-high-B-2	Solublephosphate_high_I	Bioaccess1.5pH	7	%	Arsenic	28.57	NA	T2
339-01-I-high-C-2	Solublephosphate_high_I	Bioaccess1.5pH	7	%	Arsenic	29.59	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
340-01-I-high-D-2	Solublephosphate_high_I	Bioaccess1.5pH	7	%	Arsenic	29.71	NA	T2
341-02-I-high-A-2	Biosolid_high_I	Bioaccess1.5pH	7	%	Arsenic	25.62	NA	T2
342-02-I-high-B-2	Biosolid_high_I	Bioaccess1.5pH	7	%	Arsenic	24.06	NA	T2
343-02-I-high-C-2	Biosolid_high_I	Bioaccess1.5pH	7	%	Arsenic	23.31	NA	T2
344-02-I-high-D-2	Biosolid_high_I	Bioaccess1.5pH	7	%	Arsenic	26.62	NA	T2
345-03-I-high-A-2	Wood ash_high_I	Bioaccess1.5pH	8	%	Arsenic	20.84	NA	T2
346-03-I-high-B-2	Wood ash_high_I	Bioaccess1.5pH	8	%	Arsenic	19.96	NA	T2
347-03-I-high-C-2	Wood ash_high_I	Bioaccess1.5pH	8	%	Arsenic	18.67	NA	T2
348-03-I-high-D-2	Wood ash_high_I	Bioaccess1.5pH	8	%	Arsenic	22.05	NA	T2
349-04-I-high-A-2	Biochar_high_I	Bioaccess1.5pH	8	%	Arsenic	18.88	NA	T2
350-04-I-high-B-2	Biochar_high_I	Bioaccess1.5pH	8	%	Arsenic	19.15	NA	T2
351-04-I-high-C-2	Biochar_high_I	Bioaccess1.5pH	8	%	Arsenic	18.99	NA	T2
352-04-I-high-D-2	Biochar_high_I	Bioaccess1.5pH	8	%	Arsenic	20.28	NA	T2
353-05-I-high-A-2	Compost_high_I	Bioaccess1.5pH	9	%	Arsenic	19.93	NA	T2
354-05-I-high-B-2	Compost_high_I	Bioaccess1.5pH	9	%	Arsenic	20.70	NA	T2
355-05-I-high-C-2	Compost_high_I	Bioaccess1.5pH	9	%	Arsenic	20.06	NA	T2
356-05-I-high-D-2	Compost_high_I	Bioaccess1.5pH	9	%	Arsenic	18.32	NA	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	9	%	Arsenic	24.61	NA	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	9	%	Arsenic	24.37	NA	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	9	%	Arsenic	30.80	NA	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	9	%	Arsenic	31.86	NA	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	10	%	Arsenic	29.72	NA	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	10	%	Arsenic	24.77	NA	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	10	%	Arsenic	27.70	NA	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	10	%	Arsenic	30.76	NA	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	Bioaccess1.5pH	10	%	Arsenic	31.70	NA	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	Bioaccess1.5pH	10	%	Arsenic	33.71	NA	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	Bioaccess1.5pH	10	%	Arsenic	30.32	NA	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	Bioaccess1.5pH	10	%	Arsenic	35.43	NA	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	Bioaccess1.5pH	11	%	Arsenic	28.22	NA	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	Bioaccess1.5pH	11	%	Arsenic	26.07	NA	T2

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
371-09-I-high-C-2	Biosolids and wood ash_high_I	Bioaccess1.5pH	11	%	Arsenic	25.37	NA	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	Bioaccess1.5pH	11	%	Arsenic	26.86	NA	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	Bioaccess1.5pH	11	%	Arsenic	23.06	NA	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	Bioaccess1.5pH	11	%	Arsenic	22.61	NA	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	Bioaccess1.5pH	11	%	Arsenic	24.22	NA	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	Bioaccess1.5pH	11	%	Arsenic	22.60	NA	T2
377-11-I-high-A-2	Wood ash and compost_high_I	Bioaccess1.5pH	12	%	Arsenic	27.01	NA	T2
378-11-I-high-B-2	Wood ash and compost_high_I	Bioaccess1.5pH	12	%	Arsenic	23.18	NA	T2
379-11-I-high-C-2	Wood ash and compost_high_I	Bioaccess1.5pH	12	%	Arsenic	25.82	NA	T2
380-11-I-high-D-2	Wood ash and compost_high_I	Bioaccess1.5pH	12	%	Arsenic	23.29	NA	T2
381-12-I-high-A-2	Biochar and compost_high_I	Bioaccess1.5pH	12	%	Arsenic	21.11	NA	T2
382-12-I-high-B-2	Biochar and compost_high_I	Bioaccess1.5pH	12	%	Arsenic	23.06	NA	T2
383-12-I-high-C-2	Biochar and compost_high_I	Bioaccess1.5pH	12	%	Arsenic	20.85	NA	T2
384-12-I-high-D-2	Biochar and compost_high_I	Bioaccess1.5pH	12	%	Arsenic	25.57	NA	T2
385-00-I-none-A-2	control_none_I	Bioaccess1.5pH	13	%	Arsenic	24.40	dup_spk	T2
386-00-I-none-B-2	control_none_I	Bioaccess1.5pH	13	%	Arsenic	22.20	dup_spk	T2
387-00-I-none-C-2	control_none_I	Bioaccess1.5pH	13	%	Arsenic	23.07	dup_spk	T2
388-00-I-none-D-2	control_none_I	Bioaccess1.5pH	13	%	Arsenic	21.34	dup_spk	T2
049-01-S-low-A-2	Solublephosphate_low_S	Bioaccess1.5pH	1	mg/kg	Arsenic	22.37	NA	T2
050-01-S-low-B-2	Solublephosphate_low_S	Bioaccess1.5pH	2	mg/kg	Arsenic	22.61	NA	T2
051-01-S-low-C-2	Solublephosphate_low_S	Bioaccess1.5pH	3	mg/kg	Arsenic	23.11	NA	T2
052-01-S-low-D-2	Solublephosphate_low_S	Bioaccess1.5pH	4	mg/kg	Arsenic	20.25	NA	T2
053-02-S-low-A-2	Biosolid_low_S	Bioaccess1.5pH	5	mg/kg	Arsenic	24.23	NA	T2
054-02-S-low-B-2	Biosolid_low_S	Bioaccess1.5pH	6	mg/kg	Arsenic	24.96	NA	T2
055-02-S-low-C-2	Biosolid_low_S	Bioaccess1.5pH	7	mg/kg	Arsenic	24.10	NA	T2
056-02-S-low-D-2	Biosolid_low_S	Bioaccess1.5pH	8	mg/kg	Arsenic	21.74	NA	T2
057-03-S-low-A-2	Wood ash_low_S	Bioaccess1.5pH	9	mg/kg	Arsenic	20.32	NA	T2
058-03-S-low-B-2	Wood ash_low_S	Bioaccess1.5pH	10	mg/kg	Arsenic	23.51	NA	T2
059-03-S-low-C-2	Wood ash_low_S	Bioaccess1.5pH	11	mg/kg	Arsenic	19.80	NA	T2
060-03-S-low-D-2	Wood ash_low_S	Bioaccess1.5pH	12	mg/kg	Arsenic	18.86	NA	T2
061-04-S-low-A-2	Biochar_low_S	Bioaccess1.5pH	13	mg/kg	Arsenic	21.49	dup_spk	T2

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
062-04-S-low-B-2	Biochar_low_S	Bioaccess1.5pH	13	mg/kg	Arsenic	23.37	dup_spk	T2
063-04-S-low-C-2	Biochar_low_S	Bioaccess1.5pH	13	mg/kg	Arsenic	22.63	dup_spk	T2
064-04-S-low-D-2	Biochar_low_S	Bioaccess1.5pH	13	mg/kg	Arsenic	22.50	dup_spk	T2
065-05-S-low-A-2	Compost_low_S	Bioaccess1.5pH	13	mg/kg	Arsenic	22.67	dup_spk	T2
066-05-S-low-B-2	Compost_low_S	Bioaccess1.5pH	14	mg/kg	Arsenic	21.05	NA	T2
067-05-S-low-C-2	Compost_low_S	Bioaccess1.5pH	14	mg/kg	Arsenic	22.13	NA	T2
068-05-S-low-D-2	Compost_low_S	Bioaccess1.5pH	14	mg/kg	Arsenic	21.54	NA	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	14	mg/kg	Arsenic	26.19	NA	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	14	mg/kg	Arsenic	26.01	NA	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	14	mg/kg	Arsenic	27.96	NA	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	14	mg/kg	Arsenic	32.13	NA	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	14	mg/kg	Arsenic	23.57	NA	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	14	mg/kg	Arsenic	23.37	NA	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	15	mg/kg	Arsenic	25.83	NA	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	15	mg/kg	Arsenic	26.42	NA	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	Bioaccess1.5pH	15	mg/kg	Arsenic	26.87	NA	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	Bioaccess1.5pH	15	mg/kg	Arsenic	27.14	NA	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	Bioaccess1.5pH	15	mg/kg	Arsenic	25.17	NA	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	Bioaccess1.5pH	15	mg/kg	Arsenic	26.71	NA	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	Bioaccess1.5pH	15	mg/kg	Arsenic	30.42	NA	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	Bioaccess1.5pH	15	mg/kg	Arsenic	27.10	NA	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	Bioaccess1.5pH	15	mg/kg	Arsenic	24.36	NA	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	Bioaccess1.5pH	16	mg/kg	Arsenic	25.46	NA	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	Bioaccess1.5pH	16	mg/kg	Arsenic	23.76	NA	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	Bioaccess1.5pH	16	mg/kg	Arsenic	22.30	NA	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	Bioaccess1.5pH	16	mg/kg	Arsenic	23.11	NA	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	Bioaccess1.5pH	16	mg/kg	Arsenic	22.38	NA	T2
089-11-S-low-A-2	Wood ash and compost_low_S	Bioaccess1.5pH	16	mg/kg	Arsenic	24.75	NA	T2
090-11-S-low-B-2	Wood ash and compost_low_S	Bioaccess1.5pH	16	mg/kg	Arsenic	24.65	NA	T2
091-11-S-low-C-2	Wood ash and compost_low_S	Bioaccess1.5pH	16	mg/kg	Arsenic	24.39	NA	T2
092-11-S-low-D-2	Wood ash and compost_low_S	Bioaccess1.5pH	16	mg/kg	Arsenic	23.05	NA	T2

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
093-12-S-low-A-2	Biochar and compost_low_S	Bioaccess1.5pH	17	mg/kg	Arsenic	21.26	NA	T2
094-12-S-low-B-2	Biochar and compost_low_S	Bioaccess1.5pH	17	mg/kg	Arsenic	21.66	NA	T2
095-12-S-low-C-2	Biochar and compost_low_S	Bioaccess1.5pH	17	mg/kg	Arsenic	20.79	NA	T2
096-12-S-low-D-2	Biochar and compost_low_S	Bioaccess1.5pH	17	mg/kg	Arsenic	22.41	NA	T2
193-01-S-high-A-2	Solublephosphate_high_S	Bioaccess1.5pH	17	mg/kg	Arsenic	27.10	NA	T2
194-01-S-high-B-2	Solublephosphate_high_S	Bioaccess1.5pH	17	mg/kg	Arsenic	27.34	NA	T2
195-01-S-high-C-2	Solublephosphate_high_S	Bioaccess1.5pH	17	mg/kg	Arsenic	26.08	NA	T2
196-01-S-high-D-2	Solublephosphate_high_S	Bioaccess1.5pH	17	mg/kg	Arsenic	26.97	NA	T2
197-02-S-high-A-2	Biosolid_high_S	Bioaccess1.5pH	17	mg/kg	Arsenic	28.85	NA	T2
198-02-S-high-B-2	Biosolid_high_S	Bioaccess1.5pH	18	mg/kg	Arsenic	31.11	NA	T2
199-02-S-high-C-2	Biosolid_high_S	Bioaccess1.5pH	18	mg/kg	Arsenic	28.06	NA	T2
200-02-S-high-D-2	Biosolid_high_S	Bioaccess1.5pH	18	mg/kg	Arsenic	32.57	NA	T2
201-03-S-high-A-2	Wood ash_high_S	Bioaccess1.5pH	18	mg/kg	Arsenic	21.21	NA	T2
202-03-S-high-B-2	Wood ash_high_S	Bioaccess1.5pH	18	mg/kg	Arsenic	21.33	NA	T2
203-03-S-high-C-2	Wood ash_high_S	Bioaccess1.5pH	18	mg/kg	Arsenic	22.90	NA	T2
204-03-S-high-D-2	Wood ash_high_S	Bioaccess1.5pH	18	mg/kg	Arsenic	23.62	NA	T2
205-04-S-high-A-2	Biochar_high_S	Bioaccess1.5pH	18	mg/kg	Arsenic	22.59	NA	T2
206-04-S-high-B-2	Biochar_high_S	Bioaccess1.5pH	18	mg/kg	Arsenic	21.99	NA	T2
207-04-S-high-C-2	Biochar_high_S	Bioaccess1.5pH	19	mg/kg	Arsenic	20.73	NA	T2
208-04-S-high-D-2	Biochar_high_S	Bioaccess1.5pH	19	mg/kg	Arsenic	21.54	NA	T2
209-05-S-high-A-2	Compost_high_S	Bioaccess1.5pH	19	mg/kg	Arsenic	21.77	NA	T2
210-05-S-high-B-2	Compost_high_S	Bioaccess1.5pH	19	mg/kg	Arsenic	23.29	NA	T2
211-05-S-high-C-2	Compost_high_S	Bioaccess1.5pH	19	mg/kg	Arsenic	22.23	NA	T2
212-05-S-high-D-2	Compost_high_S	Bioaccess1.5pH	19	mg/kg	Arsenic	24.07	NA	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	19	mg/kg	Arsenic	34.81	NA	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	19	mg/kg	Arsenic	34.03	NA	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	19	mg/kg	Arsenic	28.89	NA	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	20	mg/kg	Arsenic	34.77	NA	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	20	mg/kg	Arsenic	29.91	NA	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	20	mg/kg	Arsenic	28.20	NA	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	20	mg/kg	Arsenic	27.39	NA	T2

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	20	mg/kg	Arsenic	28.72	NA	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	Bioaccess1.5pH	20	mg/kg	Arsenic	27.23	NA	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	Bioaccess1.5pH	20	mg/kg	Arsenic	27.62	NA	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	Bioaccess1.5pH	20	mg/kg	Arsenic	30.14	NA	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	Bioaccess1.5pH	20	mg/kg	Arsenic	29.36	NA	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	Bioaccess1.5pH	21	mg/kg	Arsenic	31.39	NA	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	Bioaccess1.5pH	21	mg/kg	Arsenic	30.67	NA	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	Bioaccess1.5pH	21	mg/kg	Arsenic	31.94	NA	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	Bioaccess1.5pH	21	mg/kg	Arsenic	31.61	NA	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	Bioaccess1.5pH	21	mg/kg	Arsenic	28.23	NA	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	Bioaccess1.5pH	21	mg/kg	Arsenic	25.83	NA	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	Bioaccess1.5pH	21	mg/kg	Arsenic	28.44	NA	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	Bioaccess1.5pH	21	mg/kg	Arsenic	26.26	NA	T2
233-11-S-high-A-2	Wood ash and compost_high_S	Bioaccess1.5pH	21	mg/kg	Arsenic	27.55	NA	T2
234-11-S-high-B-2	Wood ash and compost_high_S	Bioaccess1.5pH	22	mg/kg	Arsenic	23.70	NA	T2
235-11-S-high-C-2	Wood ash and compost_high_S	Bioaccess1.5pH	22	mg/kg	Arsenic	24.59	NA	T2
236-11-S-high-D-2	Wood ash and compost_high_S	Bioaccess1.5pH	22	mg/kg	Arsenic	24.70	NA	T2
237-12-S-high-A-2	Biochar and compost_high_S	Bioaccess1.5pH	22	mg/kg	Arsenic	24.65	NA	T2
238-12-S-high-B-2	Biochar and compost_high_S	Bioaccess1.5pH	22	mg/kg	Arsenic	25.97	NA	T2
239-12-S-high-C-2	Biochar and compost_high_S	Bioaccess1.5pH	22	mg/kg	Arsenic	24.40	NA	T2
240-12-S-high-D-2	Biochar and compost_high_S	Bioaccess1.5pH	22	mg/kg	Arsenic	24.31	NA	T2
289-01-I-low-A-2	Solublephosphate_low_I	Bioaccess1.5pH	1	mg/kg	Arsenic	25.14	NA	T2
290-01-I-low-B-2	Solublephosphate_low_I	Bioaccess1.5pH	1	mg/kg	Arsenic	24.69	NA	T2
291-01-I-low-C-2	Solublephosphate_low_I	Bioaccess1.5pH	1	mg/kg	Arsenic	25.67	NA	T2
292-01-I-low-D-2	Solublephosphate_low_I	Bioaccess1.5pH	1	mg/kg	Arsenic	23.84	NA	T2
293-02-I-low-A-2	Biosolid_low_I	Bioaccess1.5pH	1	mg/kg	Arsenic	23.55	NA	T2
294-02-I-low-B-2	Biosolid_low_I	Bioaccess1.5pH	1	mg/kg	Arsenic	22.66	NA	T2
295-02-I-low-C-2	Biosolid_low_I	Bioaccess1.5pH	1	mg/kg	Arsenic	22.92	NA	T2
296-02-I-low-D-2	Biosolid_low_I	Bioaccess1.5pH	1	mg/kg	Arsenic	24.16	NA	T2
297-03-I-low-A-2	Wood ash_low_I	Bioaccess1.5pH	2	mg/kg	Arsenic	22.16	NA	T2
298-03-I-low-B-2	Wood ash_low_I	Bioaccess1.5pH	2	mg/kg	Arsenic	20.85	NA	T2

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
299-03-I-low-C-2	Wood ash_low_I	Bioaccess1.5pH	2	mg/kg	Arsenic	20.70	NA	T2
300-03-I-low-D-2	Wood ash_low_I	Bioaccess1.5pH	2	mg/kg	Arsenic	20.10	NA	T2
301-04-I-low-A-2	Biochar_low_I	Bioaccess1.5pH	2	mg/kg	Arsenic	20.47	NA	T2
302-04-I-low-B-2	Biochar_low_I	Bioaccess1.5pH	2	mg/kg	Arsenic	21.29	NA	T2
303-04-I-low-C-2	Biochar_low_I	Bioaccess1.5pH	2	mg/kg	Arsenic	21.73	NA	T2
304-04-I-low-D-2	Biochar_low_I	Bioaccess1.5pH	2	mg/kg	Arsenic	20.86	NA	T2
305-05-I-low-A-2	Compost_low_I	Bioaccess1.5pH	3	mg/kg	Arsenic	21.23	NA	T2
306-05-I-low-B-2	Compost_low_I	Bioaccess1.5pH	3	mg/kg	Arsenic	19.62	NA	T2
307-05-I-low-C-2	Compost_low_I	Bioaccess1.5pH	3	mg/kg	Arsenic	20.02	NA	T2
308-05-I-low-D-2	Compost_low_I	Bioaccess1.5pH	3	mg/kg	Arsenic	19.40	NA	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	3	mg/kg	Arsenic	22.05	NA	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	3	mg/kg	Arsenic	24.09	NA	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	3	mg/kg	Arsenic	24.01	NA	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	3	mg/kg	Arsenic	23.60	NA	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	4	mg/kg	Arsenic	23.47	NA	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	4	mg/kg	Arsenic	22.72	NA	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	4	mg/kg	Arsenic	22.84	NA	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	4	mg/kg	Arsenic	21.35	NA	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	Bioaccess1.5pH	4	mg/kg	Arsenic	23.10	NA	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	Bioaccess1.5pH	4	mg/kg	Arsenic	24.16	NA	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	Bioaccess1.5pH	4	mg/kg	Arsenic	24.57	NA	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	Bioaccess1.5pH	4	mg/kg	Arsenic	23.49	NA	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	Bioaccess1.5pH	5	mg/kg	Arsenic	22.26	NA	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	Bioaccess1.5pH	5	mg/kg	Arsenic	23.37	NA	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	Bioaccess1.5pH	5	mg/kg	Arsenic	23.05	NA	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	Bioaccess1.5pH	5	mg/kg	Arsenic	23.49	NA	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	Bioaccess1.5pH	5	mg/kg	Arsenic	22.34	NA	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	Bioaccess1.5pH	5	mg/kg	Arsenic	23.15	NA	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	Bioaccess1.5pH	5	mg/kg	Arsenic	23.07	NA	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	Bioaccess1.5pH	5	mg/kg	Arsenic	21.93	NA	T2
329-11-I-low-A-2	Wood ash and compost_low_I	Bioaccess1.5pH	6	mg/kg	Arsenic	22.42	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
330-11-I-low-B-2	Wood ash and compost_low_I	Bioaccess1.5pH	6	mg/kg	Arsenic	21.54	NA	T2
331-11-I-low-C-2	Wood ash and compost_low_I	Bioaccess1.5pH	6	mg/kg	Arsenic	21.57	NA	T2
332-11-I-low-D-2	Wood ash and compost_low_I	Bioaccess1.5pH	6	mg/kg	Arsenic	20.06	NA	T2
333-12-I-low-A-2	Biochar and compost_low_I	Bioaccess1.5pH	6	mg/kg	Arsenic	19.50	NA	T2
334-12-I-low-B-2	Biochar and compost_low_I	Bioaccess1.5pH	6	mg/kg	Arsenic	20.36	NA	T2
335-12-I-low-C-2	Biochar and compost_low_I	Bioaccess1.5pH	6	mg/kg	Arsenic	20.37	NA	T2
336-12-I-low-D-2	Biochar and compost_low_I	Bioaccess1.5pH	6	mg/kg	Arsenic	21.40	NA	T2
337-01-I-high-A-2	Solublephosphate_high_I	Bioaccess1.5pH	7	mg/kg	Arsenic	27.26	NA	T2
338-01-I-high-B-2	Solublephosphate_high_I	Bioaccess1.5pH	7	mg/kg	Arsenic	27.57	NA	T2
339-01-I-high-C-2	Solublephosphate_high_I	Bioaccess1.5pH	7	mg/kg	Arsenic	27.68	NA	T2
340-01-I-high-D-2	Solublephosphate_high_I	Bioaccess1.5pH	7	mg/kg	Arsenic	27.98	NA	T2
341-02-I-high-A-2	Biosolid_high_I	Bioaccess1.5pH	7	mg/kg	Arsenic	24.79	NA	T2
342-02-I-high-B-2	Biosolid_high_I	Bioaccess1.5pH	7	mg/kg	Arsenic	24.47	NA	T2
343-02-I-high-C-2	Biosolid_high_I	Bioaccess1.5pH	7	mg/kg	Arsenic	23.81	NA	T2
344-02-I-high-D-2	Biosolid_high_I	Bioaccess1.5pH	7	mg/kg	Arsenic	27.03	NA	T2
345-03-I-high-A-2	Wood ash_high_I	Bioaccess1.5pH	8	mg/kg	Arsenic	19.94	NA	T2
346-03-I-high-B-2	Wood ash_high_I	Bioaccess1.5pH	8	mg/kg	Arsenic	19.18	NA	T2
347-03-I-high-C-2	Wood ash_high_I	Bioaccess1.5pH	8	mg/kg	Arsenic	19.50	NA	T2
348-03-I-high-D-2	Wood ash_high_I	Bioaccess1.5pH	8	mg/kg	Arsenic	20.74	NA	T2
349-04-I-high-A-2	Biochar_high_I	Bioaccess1.5pH	8	mg/kg	Arsenic	17.31	NA	T2
350-04-I-high-B-2	Biochar_high_I	Bioaccess1.5pH	8	mg/kg	Arsenic	17.32	NA	T2
351-04-I-high-C-2	Biochar_high_I	Bioaccess1.5pH	8	mg/kg	Arsenic	18.02	NA	T2
352-04-I-high-D-2	Biochar_high_I	Bioaccess1.5pH	8	mg/kg	Arsenic	17.73	NA	T2
353-05-I-high-A-2	Compost_high_I	Bioaccess1.5pH	9	mg/kg	Arsenic	20.91	NA	T2
354-05-I-high-B-2	Compost_high_I	Bioaccess1.5pH	9	mg/kg	Arsenic	21.05	NA	T2
355-05-I-high-C-2	Compost_high_I	Bioaccess1.5pH	9	mg/kg	Arsenic	20.78	NA	T2
356-05-I-high-D-2	Compost_high_I	Bioaccess1.5pH	9	mg/kg	Arsenic	20.57	NA	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	9	mg/kg	Arsenic	25.72	NA	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	9	mg/kg	Arsenic	26.19	NA	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	9	mg/kg	Arsenic	25.77	NA	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	9	mg/kg	Arsenic	26.86	NA	T2

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	10	mg/kg	Arsenic	28.81	NA	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	10	mg/kg	Arsenic	27.94	NA	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	10	mg/kg	Arsenic	27.28	NA	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	10	mg/kg	Arsenic	30.47	NA	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	Bioaccess1.5pH	10	mg/kg	Arsenic	29.63	NA	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	Bioaccess1.5pH	10	mg/kg	Arsenic	29.23	NA	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	Bioaccess1.5pH	10	mg/kg	Arsenic	29.66	NA	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	Bioaccess1.5pH	10	mg/kg	Arsenic	32.26	NA	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	Bioaccess1.5pH	11	mg/kg	Arsenic	22.88	NA	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	Bioaccess1.5pH	11	mg/kg	Arsenic	22.22	NA	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	Bioaccess1.5pH	11	mg/kg	Arsenic	23.72	NA	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	Bioaccess1.5pH	11	mg/kg	Arsenic	24.46	NA	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	Bioaccess1.5pH	11	mg/kg	Arsenic	22.89	NA	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	Bioaccess1.5pH	11	mg/kg	Arsenic	23.08	NA	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	Bioaccess1.5pH	11	mg/kg	Arsenic	24.08	NA	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	Bioaccess1.5pH	11	mg/kg	Arsenic	23.38	NA	T2
377-11-I-high-A-2	Wood ash and compost_high_I	Bioaccess1.5pH	12	mg/kg	Arsenic	23.69	NA	T2
378-11-I-high-B-2	Wood ash and compost_high_I	Bioaccess1.5pH	12	mg/kg	Arsenic	22.39	NA	T2
379-11-I-high-C-2	Wood ash and compost_high_I	Bioaccess1.5pH	12	mg/kg	Arsenic	23.87	NA	T2
380-11-I-high-D-2	Wood ash and compost_high_I	Bioaccess1.5pH	12	mg/kg	Arsenic	22.43	NA	T2
381-12-I-high-A-2	Biochar and compost_high_I	Bioaccess1.5pH	12	mg/kg	Arsenic	20.95	NA	T2
382-12-I-high-B-2	Biochar and compost_high_I	Bioaccess1.5pH	12	mg/kg	Arsenic	20.28	NA	T2
383-12-I-high-C-2	Biochar and compost_high_I	Bioaccess1.5pH	12	mg/kg	Arsenic	19.65	NA	T2
384-12-I-high-D-2	Biochar and compost_high_I	Bioaccess1.5pH	12	mg/kg	Arsenic	21.83	NA	T2
385-00-I-none-A-2	control_none_I	Bioaccess1.5pH	13	mg/kg	Arsenic	24.12	dup_spk	T2
386-00-I-none-B-2	control_none_I	Bioaccess1.5pH	13	mg/kg	Arsenic	21.23	dup_spk	T2
387-00-I-none-C-2	control_none_I	Bioaccess1.5pH	13	mg/kg	Arsenic	22.12	dup_spk	T2
388-00-I-none-D-2	control_none_I	Bioaccess1.5pH	13	mg/kg	Arsenic	21.41	dup_spk	T2
049-01-S-low-A-2	Solublephosphate_low_S	Bioaccess1.5pH	1	%	Lead	62.98	NA	T2
050-01-S-low-B-2	Solublephosphate_low_S	Bioaccess1.5pH	2	%	Lead	65.91	NA	T2
051-01-S-low-C-2	Solublephosphate_low_S	Bioaccess1.5pH	3	%	Lead	65.50	blk_spk	T2



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
052-01-S-low-D-2	Solublephosphate_low_S	Bioaccess1.5pH	4	%	Lead	61.99	blk_spk	T2
053-02-S-low-A-2	Biosolid_low_S	Bioaccess1.5pH	5	%	Lead	65.88	blk_spk	T2
054-02-S-low-B-2	Biosolid_low_S	Bioaccess1.5pH	6	%	Lead	64.16	blk_spk	T2
055-02-S-low-C-2	Biosolid_low_S	Bioaccess1.5pH	7	%	Lead	62.07	blk_spk	T2
056-02-S-low-D-2	Biosolid_low_S	Bioaccess1.5pH	8	%	Lead	69.15	NA	T2
057-03-S-low-A-2	Wood ash_low_S	Bioaccess1.5pH	9	%	Lead	69.34	NA	T2
058-03-S-low-B-2	Wood ash_low_S	Bioaccess1.5pH	10	%	Lead	76.79	NA	T2
059-03-S-low-C-2	Wood ash_low_S	Bioaccess1.5pH	11	%	Lead	65.11	NA	T2
060-03-S-low-D-2	Wood ash_low_S	Bioaccess1.5pH	12	%	Lead	64.91	NA	T2
061-04-S-low-A-2	Biochar_low_S	Bioaccess1.5pH	13	%	Lead	69.84	dup_spk	T2
062-04-S-low-B-2	Biochar_low_S	Bioaccess1.5pH	13	%	Lead	69.63	dup_spk	T2
063-04-S-low-C-2	Biochar_low_S	Bioaccess1.5pH	13	%	Lead	71.33	dup_spk	T2
064-04-S-low-D-2	Biochar_low_S	Bioaccess1.5pH	13	%	Lead	69.91	dup_spk	T2
065-05-S-low-A-2	Compost_low_S	Bioaccess1.5pH	13	%	Lead	72.73	dup_spk	T2
066-05-S-low-B-2	Compost_low_S	Bioaccess1.5pH	14	%	Lead	62.36	NA	T2
067-05-S-low-C-2	Compost_low_S	Bioaccess1.5pH	14	%	Lead	65.24	NA	T2
068-05-S-low-D-2	Compost_low_S	Bioaccess1.5pH	14	%	Lead	63.86	NA	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	14	%	Lead	64.26	NA	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	14	%	Lead	67.47	NA	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	14	%	Lead	65.52	NA	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	14	%	Lead	63.50	NA	T2
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	14	%	Lead	64.41	NA	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	14	%	Lead	58.62	NA	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	15	%	Lead	65.98	NA	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	15	%	Lead	68.23	NA	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	Bioaccess1.5pH	15	%	Lead	67.53	NA	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	Bioaccess1.5pH	15	%	Lead	66.43	NA	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	Bioaccess1.5pH	15	%	Lead	66.15	NA	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	Bioaccess1.5pH	15	%	Lead	64.69	NA	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	Bioaccess1.5pH	15	%	Lead	67.38	NA	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	Bioaccess1.5pH	15	%	Lead	66.39	NA	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
083-09-S-low-C-2	Biosolids and wood ash_low_S	Bioaccess1.5pH	15	%	Lead	65.17	NA	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	Bioaccess1.5pH	16	%	Lead	64.42	NA	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	Bioaccess1.5pH	16	%	Lead	61.14	NA	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	Bioaccess1.5pH	16	%	Lead	63.00	NA	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	Bioaccess1.5pH	16	%	Lead	62.47	NA	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	Bioaccess1.5pH	16	%	Lead	66.80	NA	T2
089-11-S-low-A-2	Wood ash and compost_low_S	Bioaccess1.5pH	16	%	Lead	64.10	NA	T2
090-11-S-low-B-2	Wood ash and compost_low_S	Bioaccess1.5pH	16	%	Lead	66.23	NA	T2
091-11-S-low-C-2	Wood ash and compost_low_S	Bioaccess1.5pH	16	%	Lead	62.47	NA	T2
092-11-S-low-D-2	Wood ash and compost_low_S	Bioaccess1.5pH	16	%	Lead	69.42	NA	T2
093-12-S-low-A-2	Biochar and compost_low_S	Bioaccess1.5pH	17	%	Lead	61.42	NA	T2
094-12-S-low-B-2	Biochar and compost_low_S	Bioaccess1.5pH	17	%	Lead	58.89	NA	T2
095-12-S-low-C-2	Biochar and compost_low_S	Bioaccess1.5pH	17	%	Lead	63.49	NA	T2
096-12-S-low-D-2	Biochar and compost_low_S	Bioaccess1.5pH	17	%	Lead	61.05	NA	T2
193-01-S-high-A-2	Solublephosphate_high_S	Bioaccess1.5pH	17	%	Lead	63.23	NA	T2
194-01-S-high-B-2	Solublephosphate_high_S	Bioaccess1.5pH	17	%	Lead	61.62	NA	T2
195-01-S-high-C-2	Solublephosphate_high_S	Bioaccess1.5pH	17	%	Lead	62.13	NA	T2
196-01-S-high-D-2	Solublephosphate_high_S	Bioaccess1.5pH	17	%	Lead	69.23	NA	T2
197-02-S-high-A-2	Biosolid_high_S	Bioaccess1.5pH	17	%	Lead	65.32	NA	T2
198-02-S-high-B-2	Biosolid_high_S	Bioaccess1.5pH	18	%	Lead	70.45	NA	T2
199-02-S-high-C-2	Biosolid_high_S	Bioaccess1.5pH	18	%	Lead	66.83	NA	T2
200-02-S-high-D-2	Biosolid_high_S	Bioaccess1.5pH	18	%	Lead	67.88	NA	T2
201-03-S-high-A-2	Wood ash_high_S	Bioaccess1.5pH	18	%	Lead	64.03	NA	T2
202-03-S-high-B-2	Wood ash_high_S	Bioaccess1.5pH	18	%	Lead	65.67	NA	T2
203-03-S-high-C-2	Wood ash_high_S	Bioaccess1.5pH	18	%	Lead	65.60	NA	T2
204-03-S-high-D-2	Wood ash_high_S	Bioaccess1.5pH	18	%	Lead	64.51	NA	T2
205-04-S-high-A-2	Biochar_high_S	Bioaccess1.5pH	18	%	Lead	66.85	NA	T2
206-04-S-high-B-2	Biochar_high_S	Bioaccess1.5pH	18	%	Lead	60.48	NA	T2
207-04-S-high-C-2	Biochar_high_S	Bioaccess1.5pH	19	%	Lead	61.59	NA	T2
208-04-S-high-D-2	Biochar_high_S	Bioaccess1.5pH	19	%	Lead	67.22	NA	T2
209-05-S-high-A-2	Compost_high_S	Bioaccess1.5pH	19	%	Lead	67.44	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
210-05-S-high-B-2	Compost_high_S	Bioaccess1.5pH	19	%	Lead	67.68	NA	T2
211-05-S-high-C-2	Compost_high_S	Bioaccess1.5pH	19	%	Lead	68.15	NA	T2
212-05-S-high-D-2	Compost_high_S	Bioaccess1.5pH	19	%	Lead	63.92	NA	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	19	%	Lead	65.15	NA	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	19	%	Lead	66.16	NA	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	19	%	Lead	64.76	NA	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	20	%	Lead	66.08	NA	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	20	%	Lead	63.91	NA	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	20	%	Lead	68.88	NA	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	20	%	Lead	61.26	NA	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	20	%	Lead	71.85	NA	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	Bioaccess1.5pH	20	%	Lead	68.04	NA	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	Bioaccess1.5pH	20	%	Lead	67.86	NA	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	Bioaccess1.5pH	20	%	Lead	66.01	NA	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	Bioaccess1.5pH	20	%	Lead	67.78	NA	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	Bioaccess1.5pH	21	%	Lead	67.66	blk_spk	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	Bioaccess1.5pH	21	%	Lead	72.90	blk_spk	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	Bioaccess1.5pH	21	%	Lead	73.08	blk_spk	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	Bioaccess1.5pH	21	%	Lead	70.17	blk_spk	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	Bioaccess1.5pH	21	%	Lead	75.83	blk_spk	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	Bioaccess1.5pH	21	%	Lead	69.32	blk_spk	T2
231-10-S-high-C-2	Wood ash and biochar_high_S	Bioaccess1.5pH	21	%	Lead	74.71	blk_spk	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	Bioaccess1.5pH	21	%	Lead	69.70	blk_spk	T2
233-11-S-high-A-2	Wood ash and compost_high_S	Bioaccess1.5pH	21	%	Lead	66.23	blk_spk	T2
234-11-S-high-B-2	Wood ash and compost_high_S	Bioaccess1.5pH	22	%	Lead	67.10	blk_spkdup_spk	T2
235-11-S-high-C-2	Wood ash and compost_high_S	Bioaccess1.5pH	22	%	Lead	64.90	blk_spkdup_spk	T2
236-11-S-high-D-2	Wood ash and compost_high_S	Bioaccess1.5pH	22	%	Lead	63.06	blk_spkdup_spk	T2
237-12-S-high-A-2	Biochar and compost_high_S	Bioaccess1.5pH	22	%	Lead	65.80	blk_spkdup_spk	T2
238-12-S-high-B-2	Biochar and compost_high_S	Bioaccess1.5pH	22	%	Lead	64.63	blk_spkdup_spk	T2
239-12-S-high-C-2	Biochar and compost_high_S	Bioaccess1.5pH	22	%	Lead	63.38	blk_spkdup_spk	T2
240-12-S-high-D-2	Biochar and compost_high_S	Bioaccess1.5pH	22	%	Lead	64.07	blk_spkdup_spk	T2

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
289-01-I-low-A-2	Solublephosphate_low_I	Bioaccess1.5pH	1	%	Lead	73.90	NA	T2
290-01-I-low-B-2	Solublephosphate_low_I	Bioaccess1.5pH	1	%	Lead	80.56	NA	T2
291-01-I-low-C-2	Solublephosphate_low_I	Bioaccess1.5pH	1	%	Lead	83.15	NA	T2
292-01-I-low-D-2	Solublephosphate_low_I	Bioaccess1.5pH	1	%	Lead	74.74	NA	T2
293-02-I-low-A-2	Biosolid_low_I	Bioaccess1.5pH	1	%	Lead	73.09	NA	T2
294-02-I-low-B-2	Biosolid_low_I	Bioaccess1.5pH	1	%	Lead	74.39	NA	T2
295-02-I-low-C-2	Biosolid_low_I	Bioaccess1.5pH	1	%	Lead	72.19	NA	T2
296-02-I-low-D-2	Biosolid_low_I	Bioaccess1.5pH	1	%	Lead	75.93	NA	T2
297-03-I-low-A-2	Wood ash_low_I	Bioaccess1.5pH	2	%	Lead	76.47	NA	T2
298-03-I-low-B-2	Wood ash_low_I	Bioaccess1.5pH	2	%	Lead	77.37	NA	T2
299-03-I-low-C-2	Wood ash_low_I	Bioaccess1.5pH	2	%	Lead	76.25	NA	T2
300-03-I-low-D-2	Wood ash_low_I	Bioaccess1.5pH	2	%	Lead	75.10	NA	T2
301-04-I-low-A-2	Biochar_low_I	Bioaccess1.5pH	2	%	Lead	73.47	NA	T2
302-04-I-low-B-2	Biochar_low_I	Bioaccess1.5pH	2	%	Lead	74.23	NA	T2
303-04-I-low-C-2	Biochar_low_I	Bioaccess1.5pH	2	%	Lead	75.45	NA	T2
304-04-I-low-D-2	Biochar_low_I	Bioaccess1.5pH	2	%	Lead	76.82	NA	T2
305-05-I-low-A-2	Compost_low_I	Bioaccess1.5pH	3	%	Lead	74.67	blk_spk	T2
306-05-I-low-B-2	Compost_low_I	Bioaccess1.5pH	3	%	Lead	67.95	blk_spk	T2
307-05-I-low-C-2	Compost_low_I	Bioaccess1.5pH	3	%	Lead	74.12	blk_spk	T2
308-05-I-low-D-2	Compost_low_I	Bioaccess1.5pH	3	%	Lead	72.39	blk_spk	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	3	%	Lead	71.22	blk_spk	T2
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	3	%	Lead	70.07	blk_spk	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	3	%	Lead	80.08	blk_spk	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	3	%	Lead	72.96	blk_spk	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	4	%	Lead	75.70	blk_spk	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	4	%	Lead	70.83	blk_spk	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	4	%	Lead	71.89	blk_spk	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	4	%	Lead	74.69	blk_spk	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	Bioaccess1.5pH	4	%	Lead	77.93	blk_spk	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	Bioaccess1.5pH	4	%	Lead	77.33	blk_spk	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	Bioaccess1.5pH	4	%	Lead	82.52	blk_spk	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
320-08-I-low-D-2	Soluble phosphate and compost_low_I	Bioaccess1.5pH	4	%	Lead	81.65	blk_spk	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	Bioaccess1.5pH	5	%	Lead	71.66	blk_spk	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	Bioaccess1.5pH	5	%	Lead	74.80	blk_spk	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	Bioaccess1.5pH	5	%	Lead	76.90	blk_spk	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	Bioaccess1.5pH	5	%	Lead	73.51	blk_spk	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	Bioaccess1.5pH	5	%	Lead	73.71	blk_spk	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	Bioaccess1.5pH	5	%	Lead	74.81	blk_spk	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	Bioaccess1.5pH	5	%	Lead	71.69	blk_spk	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	Bioaccess1.5pH	5	%	Lead	79.44	blk_spk	T2
329-11-I-low-A-2	Wood ash and compost_low_I	Bioaccess1.5pH	6	%	Lead	76.13	blk_spk	T2
330-11-I-low-B-2	Wood ash and compost_low_I	Bioaccess1.5pH	6	%	Lead	77.66	blk_spk	T2
331-11-I-low-C-2	Wood ash and compost_low_I	Bioaccess1.5pH	6	%	Lead	86.66	blk_spk	T2
332-11-I-low-D-2	Wood ash and compost_low_I	Bioaccess1.5pH	6	%	Lead	71.65	blk_spk	T2
333-12-I-low-A-2	Biochar and compost_low_I	Bioaccess1.5pH	6	%	Lead	73.60	blk_spk	T2
334-12-I-low-B-2	Biochar and compost_low_I	Bioaccess1.5pH	6	%	Lead	71.72	blk_spk	T2
335-12-I-low-C-2	Biochar and compost_low_I	Bioaccess1.5pH	6	%	Lead	74.83	blk_spk	T2
336-12-I-low-D-2	Biochar and compost_low_I	Bioaccess1.5pH	6	%	Lead	77.15	blk_spk	T2
337-01-I-high-A-2	Solublephosphate_high_I	Bioaccess1.5pH	7	%	Lead	69.47	blk_spk	T2
338-01-I-high-B-2	Solublephosphate_high_I	Bioaccess1.5pH	7	%	Lead	77.51	blk_spk	T2
339-01-I-high-C-2	Solublephosphate_high_I	Bioaccess1.5pH	7	%	Lead	77.28	blk_spk	T2
340-01-I-high-D-2	Solublephosphate_high_I	Bioaccess1.5pH	7	%	Lead	71.03	blk_spk	T2
341-02-I-high-A-2	Biosolid_high_I	Bioaccess1.5pH	7	%	Lead	59.41	blk_spk	T2
342-02-I-high-B-2	Biosolid_high_I	Bioaccess1.5pH	7	%	Lead	56.63	blk_spk	T2
343-02-I-high-C-2	Biosolid_high_I	Bioaccess1.5pH	7	%	Lead	55.99	blk_spk	T2
344-02-I-high-D-2	Biosolid_high_I	Bioaccess1.5pH	7	%	Lead	56.10	blk_spk	T2
345-03-I-high-A-2	Wood ash_high_I	Bioaccess1.5pH	8	%	Lead	75.67	NA	T2
346-03-I-high-B-2	Wood ash_high_I	Bioaccess1.5pH	8	%	Lead	71.96	NA	T2
347-03-I-high-C-2	Wood ash_high_I	Bioaccess1.5pH	8	%	Lead	71.25	NA	T2
348-03-I-high-D-2	Wood ash_high_I	Bioaccess1.5pH	8	%	Lead	81.74	NA	T2
349-04-I-high-A-2	Biochar_high_I	Bioaccess1.5pH	8	%	Lead	87.38	NA	T2
350-04-I-high-B-2	Biochar_high_I	Bioaccess1.5pH	8	%	Lead	89.21	NA	T2

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
351-04-I-high-C-2	Biochar_high_I	Bioaccess1.5pH	8	%	Lead	80.93	NA	T2
352-04-I-high-D-2	Biochar_high_I	Bioaccess1.5pH	8	%	Lead	92.78	NA	T2
353-05-I-high-A-2	Compost_high_I	Bioaccess1.5pH	9	%	Lead	58.70	NA	T2
354-05-I-high-B-2	Compost_high_I	Bioaccess1.5pH	9	%	Lead	58.60	NA	T2
355-05-I-high-C-2	Compost_high_I	Bioaccess1.5pH	9	%	Lead	63.74	NA	T2
356-05-I-high-D-2	Compost_high_I	Bioaccess1.5pH	9	%	Lead	55.60	NA	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	9	%	Lead	61.21	NA	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	9	%	Lead	55.52	NA	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	9	%	Lead	68.49	NA	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	9	%	Lead	64.14	NA	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	10	%	Lead	76.99	NA	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	10	%	Lead	62.79	NA	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	10	%	Lead	75.02	NA	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	10	%	Lead	77.20	NA	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	Bioaccess1.5pH	10	%	Lead	77.82	NA	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	Bioaccess1.5pH	10	%	Lead	82.44	NA	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	Bioaccess1.5pH	10	%	Lead	72.15	NA	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	Bioaccess1.5pH	10	%	Lead	79.90	NA	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	Bioaccess1.5pH	11	%	Lead	72.41	NA	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	Bioaccess1.5pH	11	%	Lead	69.73	NA	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	Bioaccess1.5pH	11	%	Lead	66.70	NA	T2
372-09-I-high-D-2	Biosolids and wood ash_high_I	Bioaccess1.5pH	11	%	Lead	68.39	NA	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	Bioaccess1.5pH	11	%	Lead	73.68	NA	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	Bioaccess1.5pH	11	%	Lead	76.42	NA	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	Bioaccess1.5pH	11	%	Lead	78.68	NA	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	Bioaccess1.5pH	11	%	Lead	77.36	NA	T2
377-11-I-high-A-2	Wood ash and compost_high_I	Bioaccess1.5pH	12	%	Lead	68.84	NA	T2
378-11-I-high-B-2	Wood ash and compost_high_I	Bioaccess1.5pH	12	%	Lead	73.05	NA	T2
379-11-I-high-C-2	Wood ash and compost_high_I	Bioaccess1.5pH	12	%	Lead	72.87	NA	T2
380-11-I-high-D-2	Wood ash and compost_high_I	Bioaccess1.5pH	12	%	Lead	71.45	NA	T2
381-12-I-high-A-2	Biochar and compost_high_I	Bioaccess1.5pH	12	%	Lead	72.36	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
382-12-I-high-B-2	Biochar and compost_high_I	Bioaccess1.5pH	12	%	Lead	68.88	NA	T2
383-12-I-high-C-2	Biochar and compost_high_I	Bioaccess1.5pH	12	%	Lead	66.90	NA	T2
384-12-I-high-D-2	Biochar and compost_high_I	Bioaccess1.5pH	12	%	Lead	68.67	NA	T2
385-00-I-none-A-2	control_none_I	Bioaccess1.5pH	13	%	Lead	72.12	dup_spk	T2
386-00-I-none-B-2	control_none_I	Bioaccess1.5pH	13	%	Lead	74.29	dup_spk	T2
387-00-I-none-C-2	control_none_I	Bioaccess1.5pH	13	%	Lead	73.90	dup_spk	T2
388-00-I-none-D-2	control_none_I	Bioaccess1.5pH	13	%	Lead	71.75	dup_spk	T2
049-01-S-low-A-2	Solublephosphate_low_S	Bioaccess1.5pH	1	mg/kg	Lead	981.10	NA	T2
050-01-S-low-B-2	Solublephosphate_low_S	Bioaccess1.5pH	2	mg/kg	Lead	989.86	NA	T2
051-01-S-low-C-2	Solublephosphate_low_S	Bioaccess1.5pH	3	mg/kg	Lead	974.89	blk_spk	T2
052-01-S-low-D-2	Solublephosphate_low_S	Bioaccess1.5pH	4	mg/kg	Lead	945.50	blk_spk	T2
053-02-S-low-A-2	Biosolid_low_S	Bioaccess1.5pH	5	mg/kg	Lead	969.95	blk_spk	T2
054-02-S-low-B-2	Biosolid_low_S	Bioaccess1.5pH	6	mg/kg	Lead	944.92	blk_spk	T2
055-02-S-low-C-2	Biosolid_low_S	Bioaccess1.5pH	7	mg/kg	Lead	951.25	blk_spk	T2
056-02-S-low-D-2	Biosolid_low_S	Bioaccess1.5pH	8	mg/kg	Lead	1012.93	NA	T2
057-03-S-low-A-2	Wood ash_low_S	Bioaccess1.5pH	9	mg/kg	Lead	1007.41	NA	T2
058-03-S-low-B-2	Wood ash_low_S	Bioaccess1.5pH	10	mg/kg	Lead	1143.45	NA	T2
059-03-S-low-C-2	Wood ash_low_S	Bioaccess1.5pH	11	mg/kg	Lead	1001.16	NA	T2
060-03-S-low-D-2	Wood ash_low_S	Bioaccess1.5pH	12	mg/kg	Lead	990.72	NA	T2
061-04-S-low-A-2	Biochar_low_S	Bioaccess1.5pH	13	mg/kg	Lead	1056.66	dup_spk	T2
062-04-S-low-B-2	Biochar_low_S	Bioaccess1.5pH	13	mg/kg	Lead	1047.83	dup_spk	T2
063-04-S-low-C-2	Biochar_low_S	Bioaccess1.5pH	13	mg/kg	Lead	1051.07	dup_spk	T2
064-04-S-low-D-2	Biochar_low_S	Bioaccess1.5pH	13	mg/kg	Lead	1033.23	dup_spk	T2
065-05-S-low-A-2	Compost_low_S	Bioaccess1.5pH	13	mg/kg	Lead	1088.34	dup_spk	T2
066-05-S-low-B-2	Compost_low_S	Bioaccess1.5pH	14	mg/kg	Lead	942.97	NA	T2
067-05-S-low-C-2	Compost_low_S	Bioaccess1.5pH	14	mg/kg	Lead	981.21	NA	T2
068-05-S-low-D-2	Compost_low_S	Bioaccess1.5pH	14	mg/kg	Lead	971.19	NA	T2
069-06-S-low-A-2	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	14	mg/kg	Lead	974.70	NA	T2
070-06-S-low-B-2	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	14	mg/kg	Lead	988.40	NA	T2
071-06-S-low-C-2	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	14	mg/kg	Lead	956.92	NA	T2
072-06-S-low-D-2	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	14	mg/kg	Lead	954.01	NA	T2

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
073-07-S-low-A-2	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	14	mg/kg	Lead	959.04	NA	T2
074-07-S-low-B-2	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	14	mg/kg	Lead	888.61	NA	T2
075-07-S-low-C-2	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	15	mg/kg	Lead	997.65	NA	T2
076-07-S-low-D-2	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	15	mg/kg	Lead	982.34	NA	T2
077-08-S-low-A-2	Soluble phosphate and compost_low_S	Bioaccess1.5pH	15	mg/kg	Lead	979.40	NA	T2
078-08-S-low-B-2	Soluble phosphate and compost_low_S	Bioaccess1.5pH	15	mg/kg	Lead	983.77	NA	T2
079-08-S-low-C-2	Soluble phosphate and compost_low_S	Bioaccess1.5pH	15	mg/kg	Lead	940.15	NA	T2
080-08-S-low-D-2	Soluble phosphate and compost_low_S	Bioaccess1.5pH	15	mg/kg	Lead	967.39	NA	T2
081-09-S-low-A-2	Biosolids and wood ash_low_S	Bioaccess1.5pH	15	mg/kg	Lead	993.49	NA	T2
082-09-S-low-B-2	Biosolids and wood ash_low_S	Bioaccess1.5pH	15	mg/kg	Lead	993.55	NA	T2
083-09-S-low-C-2	Biosolids and wood ash_low_S	Bioaccess1.5pH	15	mg/kg	Lead	939.77	NA	T2
084-09-S-low-D-2	Biosolids and wood ash_low_S	Bioaccess1.5pH	16	mg/kg	Lead	969.36	NA	T2
085-10-S-low-A-2	Wood ash and biochar_low_S	Bioaccess1.5pH	16	mg/kg	Lead	960.07	NA	T2
086-10-S-low-B-2	Wood ash and biochar_low_S	Bioaccess1.5pH	16	mg/kg	Lead	933.20	NA	T2
087-10-S-low-C-2	Wood ash and biochar_low_S	Bioaccess1.5pH	16	mg/kg	Lead	946.86	NA	T2
088-10-S-low-D-2	Wood ash and biochar_low_S	Bioaccess1.5pH	16	mg/kg	Lead	957.11	NA	T2
089-11-S-low-A-2	Wood ash and compost_low_S	Bioaccess1.5pH	16	mg/kg	Lead	965.93	NA	T2
090-11-S-low-B-2	Wood ash and compost_low_S	Bioaccess1.5pH	16	mg/kg	Lead	980.87	NA	T2
091-11-S-low-C-2	Wood ash and compost_low_S	Bioaccess1.5pH	16	mg/kg	Lead	956.03	NA	T2
092-11-S-low-D-2	Wood ash and compost_low_S	Bioaccess1.5pH	16	mg/kg	Lead	971.30	NA	T2
093-12-S-low-A-2	Biochar and compost_low_S	Bioaccess1.5pH	17	mg/kg	Lead	911.75	NA	T2
094-12-S-low-B-2	Biochar and compost_low_S	Bioaccess1.5pH	17	mg/kg	Lead	909.63	NA	T2
095-12-S-low-C-2	Biochar and compost_low_S	Bioaccess1.5pH	17	mg/kg	Lead	944.38	NA	T2
096-12-S-low-D-2	Biochar and compost_low_S	Bioaccess1.5pH	17	mg/kg	Lead	935.05	NA	T2
193-01-S-high-A-2	Solublephosphate_high_S	Bioaccess1.5pH	17	mg/kg	Lead	971.02	NA	T2
194-01-S-high-B-2	Solublephosphate_high_S	Bioaccess1.5pH	17	mg/kg	Lead	967.07	NA	T2
195-01-S-high-C-2	Solublephosphate_high_S	Bioaccess1.5pH	17	mg/kg	Lead	946.95	NA	T2
196-01-S-high-D-2	Solublephosphate_high_S	Bioaccess1.5pH	17	mg/kg	Lead	1001.17	NA	T2
197-02-S-high-A-2	Biosolid_high_S	Bioaccess1.5pH	17	mg/kg	Lead	962.03	NA	T2
198-02-S-high-B-2	Biosolid_high_S	Bioaccess1.5pH	18	mg/kg	Lead	1071.42	NA	T2
199-02-S-high-C-2	Biosolid_high_S	Bioaccess1.5pH	18	mg/kg	Lead	990.60	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
200-02-S-high-D-2	Biosolid_high_S	Bioaccess1.5pH	18	mg/kg	Lead	1033.24	NA	T2
201-03-S-high-A-2	Wood ash_high_S	Bioaccess1.5pH	18	mg/kg	Lead	944.23	NA	T2
202-03-S-high-B-2	Wood ash_high_S	Bioaccess1.5pH	18	mg/kg	Lead	938.08	NA	T2
203-03-S-high-C-2	Wood ash_high_S	Bioaccess1.5pH	18	mg/kg	Lead	937.54	NA	T2
204-03-S-high-D-2	Wood ash_high_S	Bioaccess1.5pH	18	mg/kg	Lead	965.30	NA	T2
205-04-S-high-A-2	Biochar_high_S	Bioaccess1.5pH	18	mg/kg	Lead	981.66	NA	T2
206-04-S-high-B-2	Biochar_high_S	Bioaccess1.5pH	18	mg/kg	Lead	921.84	NA	T2
207-04-S-high-C-2	Biochar_high_S	Bioaccess1.5pH	19	mg/kg	Lead	911.17	NA	T2
208-04-S-high-D-2	Biochar_high_S	Bioaccess1.5pH	19	mg/kg	Lead	971.17	NA	T2
209-05-S-high-A-2	Compost_high_S	Bioaccess1.5pH	19	mg/kg	Lead	979.36	NA	T2
210-05-S-high-B-2	Compost_high_S	Bioaccess1.5pH	19	mg/kg	Lead	978.70	NA	T2
211-05-S-high-C-2	Compost_high_S	Bioaccess1.5pH	19	mg/kg	Lead	1015.26	NA	T2
212-05-S-high-D-2	Compost_high_S	Bioaccess1.5pH	19	mg/kg	Lead	974.79	NA	T2
213-06-S-high-A-2	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	19	mg/kg	Lead	1008.20	NA	T2
214-06-S-high-B-2	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	19	mg/kg	Lead	984.79	NA	T2
215-06-S-high-C-2	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	19	mg/kg	Lead	945.85	NA	T2
216-06-S-high-D-2	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	20	mg/kg	Lead	982.69	NA	T2
217-07-S-high-A-2	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	20	mg/kg	Lead	983.66	NA	T2
218-07-S-high-B-2	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	20	mg/kg	Lead	1036.34	NA	T2
219-07-S-high-C-2	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	20	mg/kg	Lead	988.46	NA	T2
220-07-S-high-D-2	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	20	mg/kg	Lead	1051.29	NA	T2
221-08-S-high-A-2	Soluble phosphate and compost_high_S	Bioaccess1.5pH	20	mg/kg	Lead	1038.71	NA	T2
222-08-S-high-B-2	Soluble phosphate and compost_high_S	Bioaccess1.5pH	20	mg/kg	Lead	1028.59	NA	T2
223-08-S-high-C-2	Soluble phosphate and compost_high_S	Bioaccess1.5pH	20	mg/kg	Lead	1034.90	NA	T2
224-08-S-high-D-2	Soluble phosphate and compost_high_S	Bioaccess1.5pH	20	mg/kg	Lead	1024.13	NA	T2
225-09-S-high-A-2	Biosolids and wood ash_high_S	Bioaccess1.5pH	21	mg/kg	Lead	1051.32	blk_spk	T2
226-09-S-high-B-2	Biosolids and wood ash_high_S	Bioaccess1.5pH	21	mg/kg	Lead	1074.69	blk_spk	T2
227-09-S-high-C-2	Biosolids and wood ash_high_S	Bioaccess1.5pH	21	mg/kg	Lead	1077.67	blk_spk	T2
228-09-S-high-D-2	Biosolids and wood ash_high_S	Bioaccess1.5pH	21	mg/kg	Lead	1050.31	blk_spk	T2
229-10-S-high-A-2	Wood ash and biochar_high_S	Bioaccess1.5pH	21	mg/kg	Lead	1078.39	blk_spk	T2
230-10-S-high-B-2	Wood ash and biochar_high_S	Bioaccess1.5pH	21	mg/kg	Lead	1019.48	blk_spk	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
231-10-S-high-C-2	Wood ash and biochar_high_S	Bioaccess1.5pH	21	mg/kg	Lead	1028.26	blk_spk	T2
232-10-S-high-D-2	Wood ash and biochar_high_S	Bioaccess1.5pH	21	mg/kg	Lead	1020.80	blk_spk	T2
233-11-S-high-A-2	Wood ash and compost_high_S	Bioaccess1.5pH	21	mg/kg	Lead	1031.40	blk_spk	T2
234-11-S-high-B-2	Wood ash and compost_high_S	Bioaccess1.5pH	22	mg/kg	Lead	980.30	blk_spkdup_spk	T2
235-11-S-high-C-2	Wood ash and compost_high_S	Bioaccess1.5pH	22	mg/kg	Lead	947.19	blk_spkdup_spk	T2
236-11-S-high-D-2	Wood ash and compost_high_S	Bioaccess1.5pH	22	mg/kg	Lead	959.36	blk_spkdup_spk	T2
237-12-S-high-A-2	Biochar and compost_high_S	Bioaccess1.5pH	22	mg/kg	Lead	932.11	blk_spkdup_spk	T2
238-12-S-high-B-2	Biochar and compost_high_S	Bioaccess1.5pH	22	mg/kg	Lead	954.72	blk_spkdup_spk	T2
239-12-S-high-C-2	Biochar and compost_high_S	Bioaccess1.5pH	22	mg/kg	Lead	950.19	blk_spkdup_spk	T2
240-12-S-high-D-2	Biochar and compost_high_S	Bioaccess1.5pH	22	mg/kg	Lead	953.65	blk_spkdup_spk	T2
289-01-I-low-A-2	Solublephosphate_low_I	Bioaccess1.5pH	1	mg/kg	Lead	1095.26	NA	T2
290-01-I-low-B-2	Solublephosphate_low_I	Bioaccess1.5pH	1	mg/kg	Lead	1096.58	NA	T2
291-01-I-low-C-2	Solublephosphate_low_I	Bioaccess1.5pH	1	mg/kg	Lead	1169.27	NA	T2
292-01-I-low-D-2	Solublephosphate_low_I	Bioaccess1.5pH	1	mg/kg	Lead	1071.38	NA	T2
293-02-I-low-A-2	Biosolid_low_I	Bioaccess1.5pH	1	mg/kg	Lead	1063.26	NA	T2
294-02-I-low-B-2	Biosolid_low_I	Bioaccess1.5pH	1	mg/kg	Lead	1028.28	NA	T2
295-02-I-low-C-2	Biosolid_low_I	Bioaccess1.5pH	1	mg/kg	Lead	974.14	NA	T2
296-02-I-low-D-2	Biosolid_low_I	Bioaccess1.5pH	1	mg/kg	Lead	1038.87	NA	T2
297-03-I-low-A-2	Wood ash_low_I	Bioaccess1.5pH	2	mg/kg	Lead	1092.08	NA	T2
298-03-I-low-B-2	Wood ash_low_I	Bioaccess1.5pH	2	mg/kg	Lead	1079.78	NA	T2
299-03-I-low-C-2	Wood ash_low_I	Bioaccess1.5pH	2	mg/kg	Lead	1069.13	NA	T2
300-03-I-low-D-2	Wood ash_low_I	Bioaccess1.5pH	2	mg/kg	Lead	1046.42	NA	T2
301-04-I-low-A-2	Biochar_low_I	Bioaccess1.5pH	2	mg/kg	Lead	1032.64	NA	T2
302-04-I-low-B-2	Biochar_low_I	Bioaccess1.5pH	2	mg/kg	Lead	1049.01	NA	T2
303-04-I-low-C-2	Biochar_low_I	Bioaccess1.5pH	2	mg/kg	Lead	1062.51	NA	T2
304-04-I-low-D-2	Biochar_low_I	Bioaccess1.5pH	2	mg/kg	Lead	1061.82	NA	T2
305-05-I-low-A-2	Compost_low_I	Bioaccess1.5pH	3	mg/kg	Lead	1066.92	blk_spk	T2
306-05-I-low-B-2	Compost_low_I	Bioaccess1.5pH	3	mg/kg	Lead	984.56	blk_spk	T2
307-05-I-low-C-2	Compost_low_I	Bioaccess1.5pH	3	mg/kg	Lead	987.71	blk_spk	T2
308-05-I-low-D-2	Compost_low_I	Bioaccess1.5pH	3	mg/kg	Lead	1012.04	blk_spk	T2
309-06-I-low-A-2	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	3	mg/kg	Lead	948.14	blk_spk	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
310-06-I-low-B-2	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	3	mg/kg	Lead	961.47	blk_spk	T2
311-06-I-low-C-2	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	3	mg/kg	Lead	1018.68	blk_spk	T2
312-06-I-low-D-2	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	3	mg/kg	Lead	969.16	blk_spk	T2
313-07-I-low-A-2	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	4	mg/kg	Lead	1047.05	blk_spk	T2
314-07-I-low-B-2	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	4	mg/kg	Lead	1005.99	blk_spk	T2
315-07-I-low-C-2	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	4	mg/kg	Lead	1026.44	blk_spk	T2
316-07-I-low-D-2	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	4	mg/kg	Lead	1027.46	blk_spk	T2
317-08-I-low-A-2	Soluble phosphate and compost_low_I	Bioaccess1.5pH	4	mg/kg	Lead	1058.61	blk_spk	T2
318-08-I-low-B-2	Soluble phosphate and compost_low_I	Bioaccess1.5pH	4	mg/kg	Lead	1011.89	blk_spk	T2
319-08-I-low-C-2	Soluble phosphate and compost_low_I	Bioaccess1.5pH	4	mg/kg	Lead	1025.15	blk_spk	T2
320-08-I-low-D-2	Soluble phosphate and compost_low_I	Bioaccess1.5pH	4	mg/kg	Lead	1051.30	blk_spk	T2
321-09-I-low-A-2	Biosolids and wood ash_low_I	Bioaccess1.5pH	5	mg/kg	Lead	950.63	blk_spk	T2
322-09-I-low-B-2	Biosolids and wood ash_low_I	Bioaccess1.5pH	5	mg/kg	Lead	1055.35	blk_spk	T2
323-09-I-low-C-2	Biosolids and wood ash_low_I	Bioaccess1.5pH	5	mg/kg	Lead	1030.31	blk_spk	T2
324-09-I-low-D-2	Biosolids and wood ash_low_I	Bioaccess1.5pH	5	mg/kg	Lead	949.75	blk_spk	T2
325-10-I-low-A-2	Wood ash and biochar_low_I	Bioaccess1.5pH	5	mg/kg	Lead	1021.70	blk_spk	T2
326-10-I-low-B-2	Wood ash and biochar_low_I	Bioaccess1.5pH	5	mg/kg	Lead	1056.34	blk_spk	T2
327-10-I-low-C-2	Wood ash and biochar_low_I	Bioaccess1.5pH	5	mg/kg	Lead	1036.61	blk_spk	T2
328-10-I-low-D-2	Wood ash and biochar_low_I	Bioaccess1.5pH	5	mg/kg	Lead	1124.24	blk_spk	T2
329-11-I-low-A-2	Wood ash and compost_low_I	Bioaccess1.5pH	6	mg/kg	Lead	1085.74	blk_spk	T2
330-11-I-low-B-2	Wood ash and compost_low_I	Bioaccess1.5pH	6	mg/kg	Lead	1020.09	blk_spk	T2
331-11-I-low-C-2	Wood ash and compost_low_I	Bioaccess1.5pH	6	mg/kg	Lead	1092.65	blk_spk	T2
332-11-I-low-D-2	Wood ash and compost_low_I	Bioaccess1.5pH	6	mg/kg	Lead	1034.84	blk_spk	T2
333-12-I-low-A-2	Biochar and compost_low_I	Bioaccess1.5pH	6	mg/kg	Lead	971.75	blk_spk	T2
334-12-I-low-B-2	Biochar and compost_low_I	Bioaccess1.5pH	6	mg/kg	Lead	992.89	blk_spk	T2
335-12-I-low-C-2	Biochar and compost_low_I	Bioaccess1.5pH	6	mg/kg	Lead	979.75	blk_spk	T2
336-12-I-low-D-2	Biochar and compost_low_I	Bioaccess1.5pH	6	mg/kg	Lead	1025.43	blk_spk	T2
337-01-I-high-A-2	Solublephosphate_high_I	Bioaccess1.5pH	7	mg/kg	Lead	1052.96	blk_spk	T2
338-01-I-high-B-2	Solublephosphate_high_I	Bioaccess1.5pH	7	mg/kg	Lead	1128.18	blk_spk	T2
339-01-I-high-C-2	Solublephosphate_high_I	Bioaccess1.5pH	7	mg/kg	Lead	1118.87	blk_spk	T2
340-01-I-high-D-2	Solublephosphate_high_I	Bioaccess1.5pH	7	mg/kg	Lead	1110.27	blk_spk	T2

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
341-02-I-high-A-2	Biosolid_high_I	Bioaccess1.5pH	7	mg/kg	Lead	833.64	blk_spk	T2
342-02-I-high-B-2	Biosolid_high_I	Bioaccess1.5pH	7	mg/kg	Lead	843.90	blk_spk	T2
343-02-I-high-C-2	Biosolid_high_I	Bioaccess1.5pH	7	mg/kg	Lead	845.42	blk_spk	T2
344-02-I-high-D-2	Biosolid_high_I	Bioaccess1.5pH	7	mg/kg	Lead	910.05	blk_spk	T2
345-03-I-high-A-2	Wood ash_high_I	Bioaccess1.5pH	8	mg/kg	Lead	1075.96	NA	T2
346-03-I-high-B-2	Wood ash_high_I	Bioaccess1.5pH	8	mg/kg	Lead	1095.04	NA	T2
347-03-I-high-C-2	Wood ash_high_I	Bioaccess1.5pH	8	mg/kg	Lead	1084.97	NA	T2
348-03-I-high-D-2	Wood ash_high_I	Bioaccess1.5pH	8	mg/kg	Lead	1088.85	NA	T2
349-04-I-high-A-2	Biochar_high_I	Bioaccess1.5pH	8	mg/kg	Lead	1060.04	NA	T2
350-04-I-high-B-2	Biochar_high_I	Bioaccess1.5pH	8	mg/kg	Lead	1077.58	NA	T2
351-04-I-high-C-2	Biochar_high_I	Bioaccess1.5pH	8	mg/kg	Lead	1079.90	NA	T2
352-04-I-high-D-2	Biochar_high_I	Bioaccess1.5pH	8	mg/kg	Lead	1073.94	NA	T2
353-05-I-high-A-2	Compost_high_I	Bioaccess1.5pH	9	mg/kg	Lead	914.10	NA	T2
354-05-I-high-B-2	Compost_high_I	Bioaccess1.5pH	9	mg/kg	Lead	872.14	NA	T2
355-05-I-high-C-2	Compost_high_I	Bioaccess1.5pH	9	mg/kg	Lead	971.14	NA	T2
356-05-I-high-D-2	Compost_high_I	Bioaccess1.5pH	9	mg/kg	Lead	924.21	NA	T2
357-06-I-high-A-2	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	9	mg/kg	Lead	902.94	NA	T2
358-06-I-high-B-2	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	9	mg/kg	Lead	844.04	NA	T2
359-06-I-high-C-2	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	9	mg/kg	Lead	836.96	NA	T2
360-06-I-high-D-2	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	9	mg/kg	Lead	805.50	NA	T2
361-07-I-high-A-2	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	10	mg/kg	Lead	1139.94	NA	T2
362-07-I-high-B-2	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	10	mg/kg	Lead	1126.23	NA	T2
363-07-I-high-C-2	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	10	mg/kg	Lead	1124.67	NA	T2
364-07-I-high-D-2	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	10	mg/kg	Lead	1169.09	NA	T2
365-08-I-high-A-2	Soluble phosphate and compost_high_I	Bioaccess1.5pH	10	mg/kg	Lead	1071.18	NA	T2
366-08-I-high-B-2	Soluble phosphate and compost_high_I	Bioaccess1.5pH	10	mg/kg	Lead	1129.62	NA	T2
367-08-I-high-C-2	Soluble phosphate and compost_high_I	Bioaccess1.5pH	10	mg/kg	Lead	1051.33	NA	T2
368-08-I-high-D-2	Soluble phosphate and compost_high_I	Bioaccess1.5pH	10	mg/kg	Lead	1137.64	NA	T2
369-09-I-high-A-2	Biosolids and wood ash_high_I	Bioaccess1.5pH	11	mg/kg	Lead	943.37	NA	T2
370-09-I-high-B-2	Biosolids and wood ash_high_I	Bioaccess1.5pH	11	mg/kg	Lead	917.96	NA	T2
371-09-I-high-C-2	Biosolids and wood ash_high_I	Bioaccess1.5pH	11	mg/kg	Lead	886.72	NA	T2



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
372-09-I-high-D-2	Biosolids and wood ash_high_I	Bioaccess1.5pH	11	mg/kg	Lead	907.16	NA	T2
373-10-I-high-A-2	Wood ash and biochar_high_I	Bioaccess1.5pH	11	mg/kg	Lead	1077.86	NA	T2
374-10-I-high-B-2	Wood ash and biochar_high_I	Bioaccess1.5pH	11	mg/kg	Lead	1069.07	NA	T2
375-10-I-high-C-2	Wood ash and biochar_high_I	Bioaccess1.5pH	11	mg/kg	Lead	1071.31	NA	T2
376-10-I-high-D-2	Wood ash and biochar_high_I	Bioaccess1.5pH	11	mg/kg	Lead	1124.43	NA	T2
377-11-I-high-A-2	Wood ash and compost_high_I	Bioaccess1.5pH	12	mg/kg	Lead	1019.50	NA	T2
378-11-I-high-B-2	Wood ash and compost_high_I	Bioaccess1.5pH	12	mg/kg	Lead	978.47	NA	T2
379-11-I-high-C-2	Wood ash and compost_high_I	Bioaccess1.5pH	12	mg/kg	Lead	1033.91	NA	T2
380-11-I-high-D-2	Wood ash and compost_high_I	Bioaccess1.5pH	12	mg/kg	Lead	989.56	NA	T2
381-12-I-high-A-2	Biochar and compost_high_I	Bioaccess1.5pH	12	mg/kg	Lead	996.09	NA	T2
382-12-I-high-B-2	Biochar and compost_high_I	Bioaccess1.5pH	12	mg/kg	Lead	1018.40	NA	T2
383-12-I-high-C-2	Biochar and compost_high_I	Bioaccess1.5pH	12	mg/kg	Lead	999.74	NA	T2
384-12-I-high-D-2	Biochar and compost_high_I	Bioaccess1.5pH	12	mg/kg	Lead	1005.34	NA	T2
385-00-I-none-A-2	control_none_I	Bioaccess1.5pH	13	mg/kg	Lead	1084.45	dup_spk	T2
386-00-I-none-B-2	control_none_I	Bioaccess1.5pH	13	mg/kg	Lead	1156.94	dup_spk	T2
387-00-I-none-C-2	control_none_I	Bioaccess1.5pH	13	mg/kg	Lead	1145.07	dup_spk	T2
388-00-I-none-D-2	control_none_I	Bioaccess1.5pH	13	mg/kg	Lead	1035.05	dup_spk	T2

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Table 44. Complete results for Timepoint 3 potentially mineralizable nitrogen, pH, electrical conductivity, total carbon, organic carbon, and synthetic precipitation leaching procedure

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
097-1_S_low_A	Soluble phosphate_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	44.50	NA	T3
098-1_S_low_B	Soluble phosphate_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	41.65	NA	T3
099-1_S_low_C	Soluble phosphate_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	51.30	NA	T3
100-1_S_low_D	Soluble phosphate_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	50.30	NA	T3
101-2_S_low_A	Biosolid_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	339.80	NA	T3
102-2_S_low_B	Biosolid_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	362.80	NA	T3
103-2_S_low_C	Biosolid_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	348.30	NA	T3
104-2_S_low_D	Biosolid_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	365.30	NA	T3
105-3_S_low_A	Wood ash_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	47.75	NA	T3
106-3_S_low_B	Wood ash_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	40.45	NA	T3
107-3_S_low_C	Wood ash_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	42.00	NA	T3
108-3_S_low_D	Wood ash_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	40.75	NA	T3
109-4_S_low_A	Biochar_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	36.72	NA	T3
110-4_S_low_B	Biochar_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	40.45	NA	T3
111-4_S_low_C	Biochar_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	43.25	NA	T3
112-4_S_low_D	Biochar_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	45.74	NA	T3
113-5_S_low_A	Compost_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	26.00	NA	T3
114-5_S_low_B	Compost_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	31.65	NA	T3
115-5_S_low_C	Compost_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	25.60	NA	T3
116-5_S_low_D	Compost_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	44.35	NA	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	457.80	NA	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	299.80	NA	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	311.80	NA	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	476.95	NA	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	39.26	NA	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	31.30	NA	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	35.63	NA	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	38.85	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
125-8_S_low_A	Soluble phosphate and compost_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	50.30	NA	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	42.55	NA	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	32.85	NA	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	42.55	NA	T3
129-9_S_low_A	Biosolids and wood ash_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	95.80	NA	T3
130-9_S_low_B	Biosolids and wood ash_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	76.82	NA	T3
131-9_S_low_C	Biosolids and wood ash_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	82.30	NA	T3
132-9_S_low_D	Biosolids and wood ash_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	111.30	NA	T3
133-10_S_low_A	Wood ash and biochar_low_S	WARING64	1	mg/kg	Nitrogen_Mineral	25.95	NA	T3
134-10_S_low_B	Wood ash and biochar_low_S	WARING64	2	mg/kg	Nitrogen_Mineral	39.19	NA	T3
135-10_S_low_C	Wood ash and biochar_low_S	WARING64	2	mg/kg	Nitrogen_Mineral	34.28	NA	T3
136-10_S_low_D	Wood ash and biochar_low_S	WARING64	2	mg/kg	Nitrogen_Mineral	32.89	NA	T3
137-11_S_low_A	Wood ash and compost_low_S	WARING64	2	mg/kg	Nitrogen_Mineral	45.89	NA	T3
138-11_S_low_B	Wood ash and compost_low_S	WARING64	2	mg/kg	Nitrogen_Mineral	23.33	NA	T3
139-11_S_low_C	Wood ash and compost_low_S	WARING64	2	mg/kg	Nitrogen_Mineral	31.90	NA	T3
140-11_S_low_D	Wood ash and compost_low_S	WARING64	2	mg/kg	Nitrogen_Mineral	35.33	NA	T3
141-12_S_low_A	Biochar and compost_low_S	WARING64	2	mg/kg	Nitrogen_Mineral	34.86	NA	T3
142-12_S_low_B	Biochar and compost_low_S	WARING64	2	mg/kg	Nitrogen_Mineral	33.65	NA	T3
143-12_S_low_C	Biochar and compost_low_S	WARING64	2	mg/kg	Nitrogen_Mineral	37.01	NA	T3
144-12_S_low_D	Biochar and compost_low_S	WARING64	2	mg/kg	Nitrogen_Mineral	33.25	NA	T3
241-1_S_high_A	Soluble phosphate_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	53.50	NA	T3
242-1_S_high_B	Soluble phosphate_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	38.34	NA	T3
243-1_S_high_C	Soluble phosphate_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	41.94	NA	T3
244-1_S_high_D	Soluble phosphate_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	45.00	NA	T3
245-2_S_high_A	Biosolid_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	782.06	NA	T3
246-2_S_high_B	Biosolid_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	887.14	NA	T3
247-2_S_high_C	Biosolid_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	837.00	NA	T3
248-2_S_high_D	Biosolid_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	841.75	NA	T3
249-3_S_high_A	Wood ash_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	36.30	NA	T3
250-3_S_high_B	Wood ash_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	31.07	NA	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
251-3_S_high_C	Wood ash_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	34.40	NA	T3
252-3_S_high_D	Wood ash_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	37.91	NA	T3
253-4_S_high_A	Biochar_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	36.64	NA	T3
254-4_S_high_B	Biochar_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	36.30	NA	T3
255-4_S_high_C	Biochar_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	25.39	NA	T3
256-4_S_high_D	Biochar_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	24.32	NA	T3
257-5_S_high_A	Compost_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	40.64	NA	T3
258-5_S_high_B	Compost_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	25.68	NA	T3
259-5_S_high_C	Compost_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	32.63	NA	T3
260-5_S_high_D	Compost_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	32.48	NA	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	1166.82	NA	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	1101.79	NA	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	1146.76	NA	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	1241.75	NA	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	35.59	NA	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	WARING64	2	mg/kg	Nitrogen_Mineral	66.28	NA	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	70.85	NA	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	71.82	NA	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	118.83	NA	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	118.32	NA	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	115.82	NA	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	135.32	NA	T3
273-9_S_high_A	Biosolids and wood ash_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	662.86	NA	T3
274-9_S_high_B	Biosolids and wood ash_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	587.85	NA	T3
275-9_S_high_C	Biosolids and wood ash_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	412.36	NA	T3
276-9_S_high_D	Biosolids and wood ash_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	577.82	NA	T3
277-10_S_high_A	Wood ash and biochar_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	37.28	NA	T3
278-10_S_high_B	Wood ash and biochar_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	36.24	NA	T3
279-10_S_high_C	Wood ash and biochar_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	32.39	NA	T3
280-10_S_high_D	Wood ash and biochar_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	31.09	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
281-11_S_high_A	Wood ash and compost_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	29.93	NA	T3
282-11_S_high_B	Wood ash and compost_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	31.21	NA	T3
283-11_S_high_C	Wood ash and compost_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	28.29	NA	T3
284-11_S_high_D	Wood ash and compost_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	27.26	NA	T3
285-12_S_high_A	Biochar and compost_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	35.20	NA	T3
286-12_S_high_B	Biochar and compost_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	27.34	NA	T3
287-12_S_high_C	Biochar and compost_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	28.41	NA	T3
288-12_S_high_D	Biochar and compost_high_S	WARING64	3	mg/kg	Nitrogen_Mineral	29.34	NA	T3
289-1_I_low_A	Soluble phosphate_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	35.20	NA	T3
290-1_I_low_B	Soluble phosphate_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	27.10	NA	T3
291-1_I_low_C	Soluble phosphate_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	46.39	NA	T3
292-1_I_low_D	Soluble phosphate_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	39.06	NA	T3
293-2_I_low_A	Biosolid_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	240.56	NA	T3
294-2_I_low_B	Biosolid_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	140.82	NA	T3
295-2_I_low_C	Biosolid_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	290.82	NA	T3
296-2_I_low_D	Biosolid_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	253.91	NA	T3
297-3_I_low_A	Wood ash_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	35.62	NA	T3
298-3_I_low_B	Wood ash_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	29.97	NA	T3
299-3_I_low_C	Wood ash_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	41.52	NA	T3
300-3_I_low_D	Wood ash_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	33.22	NA	T3
301-4_I_low_A	Biochar_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	60.82	NA	T3
302-4_I_low_B	Biochar_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	59.32	NA	T3
303-4_I_low_C	Biochar_low_I	WARING64	3	mg/kg	Nitrogen_Mineral	43.27	NA	T3
304-4_I_low_D	Biochar_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	60.44	NA	T3
305-5_I_low_A	Compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	46.21	NA	T3
306-5_I_low_B	Compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	86.90	NA	T3
307-5_I_low_C	Compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	40.22	NA	T3
308-5_I_low_D	Compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	36.39	NA	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	186.49	NA	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	472.88	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
311-6_I_low_C	Soluble phosphate and biosolids_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	310.82	NA	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	386.25	NA	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	44.55	NA	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	44.73	NA	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	46.64	NA	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	48.41	NA	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	40.24	NA	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	36.68	NA	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	56.03	NA	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	53.49	NA	T3
321-9_I_low_A	Biosolids and wood ash_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	151.67	NA	T3
322-9_I_low_B	Biosolids and wood ash_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	101.23	NA	T3
323-9_I_low_C	Biosolids and wood ash_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	115.91	NA	T3
324-9_I_low_D	Biosolids and wood ash_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	117.50	NA	T3
325-10_I_low_A	Wood ash and biochar_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	43.76	NA	T3
326-10_I_low_B	Wood ash and biochar_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	35.35	NA	T3
327-10_I_low_C	Wood ash and biochar_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	39.32	NA	T3
328-10_I_low_D	Wood ash and biochar_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	44.39	NA	T3
329-11_I_low_A	Wood ash and compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	29.98	NA	T3
330-11_I_low_B	Wood ash and compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	31.54	NA	T3
331-11_I_low_C	Wood ash and compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	39.07	NA	T3
332-11_I_low_D	Wood ash and compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	33.82	NA	T3
333-12_I_low_A	Biochar and compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	40.26	NA	T3
334-12_I_low_B	Biochar and compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	40.51	NA	T3
335-12_I_low_C	Biochar and compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	42.49	NA	T3
336-12_I_low_D	Biochar and compost_low_I	WARING64	4	mg/kg	Nitrogen_Mineral	43.68	NA	T3
337-1_I_high_A	Soluble phosphate_high_I	WARING64	4	mg/kg	Nitrogen_Mineral	49.77	NA	T3
338-1_I_high_B	Soluble phosphate_high_I	WARING64	4	mg/kg	Nitrogen_Mineral	55.89	NA	T3
339-1_I_high_C	Soluble phosphate_high_I	WARING64	4	mg/kg	Nitrogen_Mineral	59.83	NA	T3
340-1_I_high_D	Soluble phosphate_high_I	WARING64	4	mg/kg	Nitrogen_Mineral	56.12	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
341-2_I_high_A	Biosolid_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	1775.09	NA	T3
342-2_I_high_B	Biosolid_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	1458.53	NA	T3
343-2_I_high_C	Biosolid_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	990.08	NA	T3
344-2_I_high_D	Biosolid_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	1469.55	NA	T3
345-3_I_high_A	Wood ash_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	31.08	NA	T3
346-3_I_high_B	Wood ash_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	38.65	NA	T3
347-3_I_high_C	Wood ash_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	28.66	NA	T3
348-3_I_high_D	Wood ash_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	38.65	NA	T3
349-4_I_high_A	Biochar_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	44.36	NA	T3
350-4_I_high_B	Biochar_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	56.13	NA	T3
351-4_I_high_C	Biochar_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	52.85	NA	T3
352-4_I_high_D	Biochar_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	47.43	NA	T3
353-5_I_high_A	Compost_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	63.62	NA	T3
354-5_I_high_B	Compost_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	50.69	NA	T3
355-5_I_high_C	Compost_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	63.25	NA	T3
356-5_I_high_D	Compost_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	52.16	NA	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	1853.09	NA	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	1514.37	NA	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	1579.53	NA	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	1353.75	NA	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	52.09	NA	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	59.09	NA	T3
363-7_I_high_C	Soluble phosphate and biochar_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	72.59	NA	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	70.40	NA	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	96.65	NA	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	89.28	NA	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	108.21	NA	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	142.82	NA	T3
369-9_I_high_A	Biosolids and wood ash_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	511.80	NA	T3
370-9_I_high_B	Biosolids and wood ash_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	738.92	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
371-9_I_high_C	Biosolids and wood ash_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	769.63	NA	T3
372-9_I_high_D	Biosolids and wood ash_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	515.41	NA	T3
373-10_I_high_A	Wood ash and biochar_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	37.84	NA	T3
374-10_I_high_B	Wood ash and biochar_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	38.21	NA	T3
375-10_I_high_C	Wood ash and biochar_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	35.81	NA	T3
376-10_I_high_D	Wood ash and biochar_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	36.60	NA	T3
377-11_I_high_A	Wood ash and compost_high_I	WARING64	5	mg/kg	Nitrogen_Mineral	51.96	NA	T3
378-11_I_high_B	Wood ash and compost_high_I	WARING64	6	mg/kg	Nitrogen_Mineral	45.74	NA	T3
379-11_I_high_C	Wood ash and compost_high_I	WARING64	6	mg/kg	Nitrogen_Mineral	46.75	NA	T3
380-11_I_high_D	Wood ash and compost_high_I	WARING64	6	mg/kg	Nitrogen_Mineral	41.90	NA	T3
381-12_I_high_A	Biochar and compost_high_I	WARING64	6	mg/kg	Nitrogen_Mineral	41.96	NA	T3
382-12_I_high_B	Biochar and compost_high_I	WARING64	6	mg/kg	Nitrogen_Mineral	48.39	NA	T3
383-12_I_high_C	Biochar and compost_high_I	WARING64	6	mg/kg	Nitrogen_Mineral	53.53	NA	T3
384-12_I_high_D	Biochar and compost_high_I	WARING64	6	mg/kg	Nitrogen_Mineral	74.69	NA	T3
385-0_I_NA_A	control_none_I	WARING64	6	mg/kg	Nitrogen_Mineral	34.74	NA	T3
386-0_I_NA_B	control_none_I	WARING64	6	mg/kg	Nitrogen_Mineral	38.72	NA	T3
387-0_I_NA_C	control_none_I	WARING64	6	mg/kg	Nitrogen_Mineral	29.12	NA	T3
388-0_I_NA_D	control_none_I	WARING64	6	mg/kg	Nitrogen_Mineral	41.31	NA	T3
097-1_S_low_A	Soluble phosphate_low_S	THOMAS96	1	NA	pH	4.45	NA	T3
098-1_S_low_B	Soluble phosphate_low_S	THOMAS96	1	NA	pH	4.37	NA	T3
099-1_S_low_C	Soluble phosphate_low_S	THOMAS96	1	NA	pH	4.47	NA	T3
100-1_S_low_D	Soluble phosphate_low_S	THOMAS96	1	NA	pH	4.67	NA	T3
101-2_S_low_A	Biosolid_low_S	THOMAS96	1	NA	pH	5.23	NA	T3
102-2_S_low_B	Biosolid_low_S	THOMAS96	1	NA	pH	4.86	NA	T3
103-2_S_low_C	Biosolid_low_S	THOMAS96	1	NA	pH	4.98	NA	T3
104-2_S_low_D	Biosolid_low_S	THOMAS96	1	NA	pH	4.98	NA	T3
105-3_S_low_A	Wood ash_low_S	THOMAS96	1	NA	pH	4.88	NA	T3
106-3_S_low_B	Wood ash_low_S	THOMAS96	1	NA	pH	5.07	NA	T3
107-3_S_low_C	Wood ash_low_S	THOMAS96	1	NA	pH	4.87	NA	T3
108-3_S_low_D	Wood ash_low_S	THOMAS96	1	NA	pH	4.99	NA	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
109-4_S_low_A	Biochar_low_S	THOMAS96	1	NA	pH	4.78	NA	T3
110-4_S_low_B	Biochar_low_S	THOMAS96	1	NA	pH	4.71	NA	T3
111-4_S_low_C	Biochar_low_S	THOMAS96	1	NA	pH	4.71	NA	T3
112-4_S_low_D	Biochar_low_S	THOMAS96	1	NA	pH	4.86	NA	T3
113-5_S_low_A	Compost_low_S	THOMAS96	1	NA	pH	4.72	NA	T3
114-5_S_low_B	Compost_low_S	THOMAS96	1	NA	pH	4.71	NA	T3
115-5_S_low_C	Compost_low_S	THOMAS96	1	NA	pH	4.73	NA	T3
116-5_S_low_D	Compost_low_S	THOMAS96	1	NA	pH	4.72	NA	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	THOMAS96	2	NA	pH	4.92	NA	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	THOMAS96	2	NA	pH	4.79	NA	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	THOMAS96	2	NA	pH	4.78	NA	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	THOMAS96	2	NA	pH	4.95	NA	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	THOMAS96	2	NA	pH	4.64	NA	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	THOMAS96	2	NA	pH	4.64	NA	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	THOMAS96	2	NA	pH	4.53	NA	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	THOMAS96	2	NA	pH	4.58	NA	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	THOMAS96	2	NA	pH	4.70	NA	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	THOMAS96	2	NA	pH	4.67	NA	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	THOMAS96	2	NA	pH	4.71	NA	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	THOMAS96	2	NA	pH	4.63	NA	T3
129-9_S_low_A	Biosolids and wood ash_low_S	THOMAS96	2	NA	pH	4.97	NA	T3
130-9_S_low_B	Biosolids and wood ash_low_S	THOMAS96	2	NA	pH	4.99	NA	T3
131-9_S_low_C	Biosolids and wood ash_low_S	THOMAS96	2	NA	pH	4.96	NA	T3
132-9_S_low_D	Biosolids and wood ash_low_S	THOMAS96	2	NA	pH	4.98	NA	T3
133-10_S_low_A	Wood ash and biochar_low_S	THOMAS96	2	NA	pH	5.03	NA	T3
134-10_S_low_B	Wood ash and biochar_low_S	THOMAS96	2	NA	pH	5.11	NA	T3
135-10_S_low_C	Wood ash and biochar_low_S	THOMAS96	2	NA	pH	4.95	NA	T3
136-10_S_low_D	Wood ash and biochar_low_S	THOMAS96	2	NA	pH	5.09	NA	T3
137-11_S_low_A	Wood ash and compost_low_S	THOMAS96	3	NA	pH	4.75	NA	T3
138-11_S_low_B	Wood ash and compost_low_S	THOMAS96	3	NA	pH	4.81	NA	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
139-11_S_low_C	Wood ash and compost_low_S	THOMAS96	3	NA	pH	4.87	NA	T3
140-11_S_low_D	Wood ash and compost_low_S	THOMAS96	3	NA	pH	4.82	NA	T3
141-12_S_low_A	Biochar and compost_low_S	THOMAS96	3	NA	pH	4.64	NA	T3
142-12_S_low_B	Biochar and compost_low_S	THOMAS96	3	NA	pH	4.78	NA	T3
143-12_S_low_C	Biochar and compost_low_S	THOMAS96	3	NA	pH	4.58	NA	T3
144-12_S_low_D	Biochar and compost_low_S	THOMAS96	3	NA	pH	4.67	NA	T3
241-1_S_high_A	Soluble phosphate_high_S	THOMAS96	3	NA	pH	4.31	NA	T3
242-1_S_high_B	Soluble phosphate_high_S	THOMAS96	3	NA	pH	4.32	NA	T3
243-1_S_high_C	Soluble phosphate_high_S	THOMAS96	3	NA	pH	4.42	NA	T3
244-1_S_high_D	Soluble phosphate_high_S	THOMAS96	3	NA	pH	4.30	NA	T3
245-2_S_high_A	Biosolid_high_S	THOMAS96	3	NA	pH	5.36	NA	T3
246-2_S_high_B	Biosolid_high_S	THOMAS96	3	NA	pH	5.58	NA	T3
247-2_S_high_C	Biosolid_high_S	THOMAS96	3	NA	pH	5.58	NA	T3
248-2_S_high_D	Biosolid_high_S	THOMAS96	3	NA	pH	5.77	NA	T3
249-3_S_high_A	Wood ash_high_S	THOMAS96	3	NA	pH	5.26	NA	T3
250-3_S_high_B	Wood ash_high_S	THOMAS96	3	NA	pH	5.20	NA	T3
251-3_S_high_C	Wood ash_high_S	THOMAS96	3	NA	pH	5.18	NA	T3
252-3_S_high_D	Wood ash_high_S	THOMAS96	3	NA	pH	5.20	NA	T3
253-4_S_high_A	Biochar_high_S	THOMAS96	4	NA	pH	4.74	NA	T3
254-4_S_high_B	Biochar_high_S	THOMAS96	4	NA	pH	4.72	NA	T3
255-4_S_high_C	Biochar_high_S	THOMAS96	4	NA	pH	4.78	NA	T3
256-4_S_high_D	Biochar_high_S	THOMAS96	4	NA	pH	4.78	NA	T3
257-5_S_high_A	Compost_high_S	THOMAS96	4	NA	pH	4.63	NA	T3
258-5_S_high_B	Compost_high_S	THOMAS96	4	NA	pH	4.53	NA	T3
259-5_S_high_C	Compost_high_S	THOMAS96	4	NA	pH	4.56	NA	T3
260-5_S_high_D	Compost_high_S	THOMAS96	4	NA	pH	4.57	NA	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	THOMAS96	4	NA	pH	5.76	NA	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	THOMAS96	4	NA	pH	5.63	NA	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	THOMAS96	4	NA	pH	5.69	NA	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	THOMAS96	4	NA	pH	5.75	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
265-7_S_high_A	Soluble phosphate and biochar_high_S	THOMAS96	4	NA	pH	4.49	NA	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	THOMAS96	4	NA	pH	4.55	NA	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	THOMAS96	4	NA	pH	4.65	NA	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	THOMAS96	4	NA	pH	4.63	NA	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	THOMAS96	4	NA	pH	4.55	NA	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	THOMAS96	4	NA	pH	4.64	NA	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	THOMAS96	4	NA	pH	4.55	NA	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	THOMAS96	4	NA	pH	4.70	NA	T3
273-9_S_high_A	Biosolids and wood ash_high_S	THOMAS96	5	NA	pH	5.68	NA	T3
274-9_S_high_B	Biosolids and wood ash_high_S	THOMAS96	5	NA	pH	5.56	NA	T3
275-9_S_high_C	Biosolids and wood ash_high_S	THOMAS96	5	NA	pH	5.25	NA	T3
276-9_S_high_D	Biosolids and wood ash_high_S	THOMAS96	5	NA	pH	5.49	NA	T3
277-10_S_high_A	Wood ash and biochar_high_S	THOMAS96	5	NA	pH	5.11	NA	T3
278-10_S_high_B	Wood ash and biochar_high_S	THOMAS96	5	NA	pH	5.11	NA	T3
279-10_S_high_C	Wood ash and biochar_high_S	THOMAS96	5	NA	pH	5.15	NA	T3
280-10_S_high_D	Wood ash and biochar_high_S	THOMAS96	5	NA	pH	5.05	NA	T3
281-11_S_high_A	Wood ash and compost_high_S	THOMAS96	5	NA	pH	4.70	NA	T3
282-11_S_high_B	Wood ash and compost_high_S	THOMAS96	5	NA	pH	4.73	NA	T3
283-11_S_high_C	Wood ash and compost_high_S	THOMAS96	5	NA	pH	4.69	NA	T3
284-11_S_high_D	Wood ash and compost_high_S	THOMAS96	5	NA	pH	4.73	NA	T3
285-12_S_high_A	Biochar and compost_high_S	THOMAS96	5	NA	pH	4.58	NA	T3
286-12_S_high_B	Biochar and compost_high_S	THOMAS96	5	NA	pH	4.59	NA	T3
287-12_S_high_C	Biochar and compost_high_S	THOMAS96	5	NA	pH	4.56	NA	T3
288-12_S_high_D	Biochar and compost_high_S	THOMAS96	5	NA	pH	4.55	NA	T3
289-1_I_low_A	Soluble phosphate_low_I	THOMAS96	5	NA	pH	4.37	NA	T3
290-1_I_low_B	Soluble phosphate_low_I	THOMAS96	5	NA	pH	4.33	NA	T3
291-1_I_low_C	Soluble phosphate_low_I	THOMAS96	5	NA	pH	4.31	NA	T3
292-1_I_low_D	Soluble phosphate_low_I	THOMAS96	5	NA	pH	4.31	NA	T3
293-2_I_low_A	Biosolid_low_I	THOMAS96	6	NA	pH	4.51	NA	T3
294-2_I_low_B	Biosolid_low_I	THOMAS96	6	NA	pH	4.51	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
295-2_I_low_C	Biosolid_low_I	THOMAS96	6	NA	pH	4.63	NA	T3
296-2_I_low_D	Biosolid_low_I	THOMAS96	6	NA	pH	4.48	NA	T3
297-3_I_low_A	Wood ash_low_I	THOMAS96	6	NA	pH	4.78	NA	T3
298-3_I_low_B	Wood ash_low_I	THOMAS96	6	NA	pH	4.79	NA	T3
299-3_I_low_C	Wood ash_low_I	THOMAS96	6	NA	pH	4.61	NA	T3
300-3_I_low_D	Wood ash_low_I	THOMAS96	6	NA	pH	4.76	NA	T3
301-4_I_low_A	Biochar_low_I	THOMAS96	6	NA	pH	4.36	NA	T3
302-4_I_low_B	Biochar_low_I	THOMAS96	6	NA	pH	4.25	NA	T3
303-4_I_low_C	Biochar_low_I	THOMAS96	6	NA	pH	4.30	NA	T3
304-4_I_low_D	Biochar_low_I	THOMAS96	6	NA	pH	4.29	NA	T3
305-5_I_low_A	Compost_low_I	THOMAS96	6	NA	pH	4.24	NA	T3
306-5_I_low_B	Compost_low_I	THOMAS96	6	NA	pH	4.31	NA	T3
307-5_I_low_C	Compost_low_I	THOMAS96	6	NA	pH	4.42	NA	T3
308-5_I_low_D	Compost_low_I	THOMAS96	6	NA	pH	4.30	NA	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	THOMAS96	6	NA	pH	4.28	NA	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	THOMAS96	6	NA	pH	4.98	NA	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	THOMAS96	6	NA	pH	4.64	NA	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	THOMAS96	6	NA	pH	4.60	NA	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	THOMAS96	7	NA	pH	4.56	NA	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	THOMAS96	7	NA	pH	4.39	NA	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	THOMAS96	7	NA	pH	4.45	NA	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	THOMAS96	7	NA	pH	4.38	NA	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	THOMAS96	7	NA	pH	4.44	NA	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	THOMAS96	7	NA	pH	4.35	NA	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	THOMAS96	7	NA	pH	4.38	NA	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	THOMAS96	7	NA	pH	4.29	NA	T3
321-9_I_low_A	Biosolids and wood ash_low_I	THOMAS96	7	NA	pH	4.31	NA	T3
322-9_I_low_B	Biosolids and wood ash_low_I	THOMAS96	7	NA	pH	4.49	NA	T3
323-9_I_low_C	Biosolids and wood ash_low_I	THOMAS96	7	NA	pH	4.59	NA	T3
324-9_I_low_D	Biosolids and wood ash_low_I	THOMAS96	7	NA	pH	4.58	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
325-10_I_low_A	Wood ash and biochar_low_I	THOMAS96	7	NA	pH	4.78	NA	T3
326-10_I_low_B	Wood ash and biochar_low_I	THOMAS96	7	NA	pH	4.79	NA	T3
327-10_I_low_C	Wood ash and biochar_low_I	THOMAS96	7	NA	pH	4.81	NA	T3
328-10_I_low_D	Wood ash and biochar_low_I	THOMAS96	7	NA	pH	4.94	NA	T3
329-11_I_low_A	Wood ash and compost_low_I	THOMAS96	7	NA	pH	4.90	NA	T3
330-11_I_low_B	Wood ash and compost_low_I	THOMAS96	7	NA	pH	4.77	NA	T3
331-11_I_low_C	Wood ash and compost_low_I	THOMAS96	7	NA	pH	4.66	NA	T3
332-11_I_low_D	Wood ash and compost_low_I	THOMAS96	7	NA	pH	4.83	NA	T3
333-12_I_low_A	Biochar and compost_low_I	THOMAS96	8	NA	pH	4.57	NA	T3
334-12_I_low_B	Biochar and compost_low_I	THOMAS96	8	NA	pH	4.56	NA	T3
335-12_I_low_C	Biochar and compost_low_I	THOMAS96	8	NA	pH	4.49	NA	T3
336-12_I_low_D	Biochar and compost_low_I	THOMAS96	8	NA	pH	4.54	NA	T3
337-1_I_high_A	Soluble phosphate_high_I	THOMAS96	8	NA	pH	4.37	NA	T3
338-1_I_high_B	Soluble phosphate_high_I	THOMAS96	8	NA	pH	4.21	NA	T3
339-1_I_high_C	Soluble phosphate_high_I	THOMAS96	8	NA	pH	4.33	NA	T3
340-1_I_high_D	Soluble phosphate_high_I	THOMAS96	8	NA	pH	4.35	NA	T3
341-2_I_high_A	Biosolid_high_I	THOMAS96	8	NA	pH	5.02	NA	T3
342-2_I_high_B	Biosolid_high_I	THOMAS96	8	NA	pH	5.29	NA	T3
343-2_I_high_C	Biosolid_high_I	THOMAS96	8	NA	pH	4.61	NA	T3
344-2_I_high_D	Biosolid_high_I	THOMAS96	8	NA	pH	4.75	NA	T3
345-3_I_high_A	Wood ash_high_I	THOMAS96	8	NA	pH	5.12	NA	T3
346-3_I_high_B	Wood ash_high_I	THOMAS96	8	NA	pH	5.29	NA	T3
347-3_I_high_C	Wood ash_high_I	THOMAS96	8	NA	pH	5.23	NA	T3
348-3_I_high_D	Wood ash_high_I	THOMAS96	8	NA	pH	5.32	NA	T3
349-4_I_high_A	Biochar_high_I	THOMAS96	8	NA	pH	4.57	NA	T3
350-4_I_high_B	Biochar_high_I	THOMAS96	8	NA	pH	4.53	NA	T3
351-4_I_high_C	Biochar_high_I	THOMAS96	8	NA	pH	4.55	NA	T3
352-4_I_high_D	Biochar_high_I	THOMAS96	8	NA	pH	4.60	NA	T3
353-5_I_high_A	Compost_high_I	THOMAS96	9	NA	pH	4.59	NA	T3
354-5_I_high_B	Compost_high_I	THOMAS96	9	NA	pH	4.48	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
355-5_I_high_C	Compost_high_I	THOMAS96	9	NA	pH	4.50	NA	T3
356-5_I_high_D	Compost_high_I	THOMAS96	9	NA	pH	4.51	NA	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	THOMAS96	9	NA	pH	5.10	NA	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	THOMAS96	9	NA	pH	5.02	NA	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	THOMAS96	9	NA	pH	4.68	NA	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	THOMAS96	9	NA	pH	4.86	NA	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	THOMAS96	9	NA	pH	4.42	NA	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	THOMAS96	9	NA	pH	4.26	NA	T3
363-7_I_high_C	Soluble phosphate and biochar_high_I	THOMAS96	9	NA	pH	4.39	NA	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	THOMAS96	9	NA	pH	4.38	NA	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	THOMAS96	9	NA	pH	4.45	NA	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	THOMAS96	9	NA	pH	4.48	NA	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	THOMAS96	9	NA	pH	4.52	NA	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	THOMAS96	9	NA	pH	4.69	NA	T3
369-9_I_high_A	Biosolids and wood ash_high_I	THOMAS96	9	NA	pH	4.46	NA	T3
370-9_I_high_B	Biosolids and wood ash_high_I	THOMAS96	9	NA	pH	4.97	NA	T3
371-9_I_high_C	Biosolids and wood ash_high_I	THOMAS96	9	NA	pH	5.01	NA	T3
372-9_I_high_D	Biosolids and wood ash_high_I	THOMAS96	9	NA	pH	4.62	NA	T3
373-10_I_high_A	Wood ash and biochar_high_I	THOMAS96	10	NA	pH	5.45	NA	T3
374-10_I_high_B	Wood ash and biochar_high_I	THOMAS96	10	NA	pH	5.47	NA	T3
375-10_I_high_C	Wood ash and biochar_high_I	THOMAS96	10	NA	pH	5.47	NA	T3
376-10_I_high_D	Wood ash and biochar_high_I	THOMAS96	10	NA	pH	5.42	NA	T3
377-11_I_high_A	Wood ash and compost_high_I	THOMAS96	10	NA	pH	5.32	NA	T3
378-11_I_high_B	Wood ash and compost_high_I	THOMAS96	10	NA	pH	5.31	NA	T3
379-11_I_high_C	Wood ash and compost_high_I	THOMAS96	10	NA	pH	5.38	NA	T3
380-11_I_high_D	Wood ash and compost_high_I	THOMAS96	10	NA	pH	5.24	NA	T3
381-12_I_high_A	Biochar and compost_high_I	THOMAS96	10	NA	pH	4.69	NA	T3
382-12_I_high_B	Biochar and compost_high_I	THOMAS96	10	NA	pH	4.62	NA	T3
383-12_I_high_C	Biochar and compost_high_I	THOMAS96	10	NA	pH	4.65	NA	T3
384-12_I_high_D	Biochar and compost_high_I	THOMAS96	10	NA	pH	4.64	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
385-0_I_NA_A	control_none_I	THOMAS96	10	NA	pH	4.30	NA	T3
386-0_I_NA_B	control_none_I	THOMAS96	10	NA	pH	4.27	NA	T3
387-0_I_NA_C	control_none_I	THOMAS96	10	NA	pH	4.30	NA	T3
388-0_I_NA_D	control_none_I	THOMAS96	10	NA	pH	7.29	NA	T3
097-1_S_low_A	Soluble phosphate_low_S	SM2510B	1	mS/cm	Conductivity	0.78	NA	T3
098-1_S_low_B	Soluble phosphate_low_S	SM2510B	1	mS/cm	Conductivity	0.70	NA	T3
099-1_S_low_C	Soluble phosphate_low_S	SM2510B	1	mS/cm	Conductivity	0.70	NA	T3
100-1_S_low_D	Soluble phosphate_low_S	SM2510B	1	mS/cm	Conductivity	0.52	NA	T3
101-2_S_low_A	Biosolid_low_S	SM2510B	1	mS/cm	Conductivity	0.54	NA	T3
102-2_S_low_B	Biosolid_low_S	SM2510B	1	mS/cm	Conductivity	1.05	NA	T3
103-2_S_low_C	Biosolid_low_S	SM2510B	1	mS/cm	Conductivity	0.63	NA	T3
104-2_S_low_D	Biosolid_low_S	SM2510B	1	mS/cm	Conductivity	0.82	NA	T3
105-3_S_low_A	Wood ash_low_S	SM2510B	1	mS/cm	Conductivity	0.43	NA	T3
106-3_S_low_B	Wood ash_low_S	SM2510B	1	mS/cm	Conductivity	0.30	NA	T3
107-3_S_low_C	Wood ash_low_S	SM2510B	1	mS/cm	Conductivity	0.78	NA	T3
108-3_S_low_D	Wood ash_low_S	SM2510B	1	mS/cm	Conductivity	0.48	NA	T3
109-4_S_low_A	Biochar_low_S	SM2510B	1	mS/cm	Conductivity	0.43	NA	T3
110-4_S_low_B	Biochar_low_S	SM2510B	1	mS/cm	Conductivity	0.40	NA	T3
111-4_S_low_C	Biochar_low_S	SM2510B	1	mS/cm	Conductivity	0.39	NA	T3
112-4_S_low_D	Biochar_low_S	SM2510B	1	mS/cm	Conductivity	0.47	NA	T3
113-5_S_low_A	Compost_low_S	SM2510B	1	mS/cm	Conductivity	0.64	NA	T3
114-5_S_low_B	Compost_low_S	SM2510B	1	mS/cm	Conductivity	0.54	NA	T3
115-5_S_low_C	Compost_low_S	SM2510B	1	mS/cm	Conductivity	0.46	NA	T3
116-5_S_low_D	Compost_low_S	SM2510B	1	mS/cm	Conductivity	0.57	NA	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	SM2510B	2	mS/cm	Conductivity	0.42	NA	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	SM2510B	2	mS/cm	Conductivity	0.94	NA	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	SM2510B	2	mS/cm	Conductivity	0.64	NA	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	SM2510B	2	mS/cm	Conductivity	0.99	NA	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	SM2510B	2	mS/cm	Conductivity	0.50	NA	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	SM2510B	2	mS/cm	Conductivity	0.58	NA	T3



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123-7_S_low_C	Soluble phosphate and biochar_low_S	SM2510B	2	mS/cm	Conductivity	0.66	NA	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	SM2510B	2	mS/cm	Conductivity	0.59	NA	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	SM2510B	2	mS/cm	Conductivity	0.54	NA	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	SM2510B	2	mS/cm	Conductivity	0.65	NA	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	SM2510B	2	mS/cm	Conductivity	1.06	NA	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	SM2510B	2	mS/cm	Conductivity	0.77	NA	T3
129-9_S_low_A	Biosolids and wood ash_low_S	SM2510B	2	mS/cm	Conductivity	0.51	NA	T3
130-9_S_low_B	Biosolids and wood ash_low_S	SM2510B	2	mS/cm	Conductivity	0.41	NA	T3
131-9_S_low_C	Biosolids and wood ash_low_S	SM2510B	2	mS/cm	Conductivity	0.63	NA	T3
132-9_S_low_D	Biosolids and wood ash_low_S	SM2510B	2	mS/cm	Conductivity	0.48	NA	T3
133-10_S_low_A	Wood ash and biochar_low_S	SM2510B	2	mS/cm	Conductivity	0.27	NA	T3
134-10_S_low_B	Wood ash and biochar_low_S	SM2510B	2	mS/cm	Conductivity	0.31	NA	T3
135-10_S_low_C	Wood ash and biochar_low_S	SM2510B	2	mS/cm	Conductivity	0.56	NA	T3
136-10_S_low_D	Wood ash and biochar_low_S	SM2510B	2	mS/cm	Conductivity	0.42	NA	T3
137-11_S_low_A	Wood ash and compost_low_S	SM2510B	3	mS/cm	Conductivity	0.43	NA	T3
138-11_S_low_B	Wood ash and compost_low_S	SM2510B	3	mS/cm	Conductivity	0.44	NA	T3
139-11_S_low_C	Wood ash and compost_low_S	SM2510B	3	mS/cm	Conductivity	0.43	NA	T3
140-11_S_low_D	Wood ash and compost_low_S	SM2510B	3	mS/cm	Conductivity	4.65	NA	T3
141-12_S_low_A	Biochar and compost_low_S	SM2510B	3	mS/cm	Conductivity	0.51	NA	T3
142-12_S_low_B	Biochar and compost_low_S	SM2510B	3	mS/cm	Conductivity	0.42	NA	T3
143-12_S_low_C	Biochar and compost_low_S	SM2510B	3	mS/cm	Conductivity	0.46	NA	T3
144-12_S_low_D	Biochar and compost_low_S	SM2510B	3	mS/cm	Conductivity	0.43	NA	T3
241-1_S_high_A	Soluble phosphate_high_S	SM2510B	3	mS/cm	Conductivity	0.24	NA	T3
242-1_S_high_B	Soluble phosphate_high_S	SM2510B	3	mS/cm	Conductivity	0.89	NA	T3
243-1_S_high_C	Soluble phosphate_high_S	SM2510B	3	mS/cm	Conductivity	0.76	NA	T3
244-1_S_high_D	Soluble phosphate_high_S	SM2510B	3	mS/cm	Conductivity	0.52	NA	T3
245-2_S_high_A	Biosolid_high_S	SM2510B	3	mS/cm	Conductivity	0.24	NA	T3
246-2_S_high_B	Biosolid_high_S	SM2510B	3	mS/cm	Conductivity	0.88	NA	T3
247-2_S_high_C	Biosolid_high_S	SM2510B	3	mS/cm	Conductivity	0.27	NA	T3
248-2_S_high_D	Biosolid_high_S	SM2510B	3	mS/cm	Conductivity	1.05	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
249-3_S_high_A	Wood ash_high_S	SM2510B	3	mS/cm	Conductivity	0.60	NA	T3
250-3_S_high_B	Wood ash_high_S	SM2510B	3	mS/cm	Conductivity	0.78	NA	T3
251-3_S_high_C	Wood ash_high_S	SM2510B	3	mS/cm	Conductivity	0.77	NA	T3
252-3_S_high_D	Wood ash_high_S	SM2510B	3	mS/cm	Conductivity	0.61	NA	T3
253-4_S_high_A	Biochar_high_S	SM2510B	4	mS/cm	Conductivity	0.35	NA	T3
254-4_S_high_B	Biochar_high_S	SM2510B	4	mS/cm	Conductivity	0.45	NA	T3
255-4_S_high_C	Biochar_high_S	SM2510B	4	mS/cm	Conductivity	0.26	NA	T3
256-4_S_high_D	Biochar_high_S	SM2510B	4	mS/cm	Conductivity	0.24	NA	T3
257-5_S_high_A	Compost_high_S	SM2510B	4	mS/cm	Conductivity	0.48	NA	T3
258-5_S_high_B	Compost_high_S	SM2510B	4	mS/cm	Conductivity	0.79	NA	T3
259-5_S_high_C	Compost_high_S	SM2510B	4	mS/cm	Conductivity	0.57	NA	T3
260-5_S_high_D	Compost_high_S	SM2510B	4	mS/cm	Conductivity	0.72	NA	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	SM2510B	4	mS/cm	Conductivity	0.36	NA	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	SM2510B	4	mS/cm	Conductivity	2.21	NA	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	SM2510B	4	mS/cm	Conductivity	1.70	NA	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	SM2510B	4	mS/cm	Conductivity	2.10	NA	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	SM2510B	4	mS/cm	Conductivity	0.78	NA	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	SM2510B	4	mS/cm	Conductivity	0.56	NA	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	SM2510B	4	mS/cm	Conductivity	0.69	NA	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	SM2510B	4	mS/cm	Conductivity	0.70	NA	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	SM2510B	4	mS/cm	Conductivity	1.06	NA	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	SM2510B	4	mS/cm	Conductivity	1.18	NA	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	SM2510B	4	mS/cm	Conductivity	1.33	NA	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	SM2510B	4	mS/cm	Conductivity	1.00	NA	T3
273-9_S_high_A	Biosolids and wood ash_high_S	SM2510B	5	mS/cm	Conductivity	1.71	NA	T3
274-9_S_high_B	Biosolids and wood ash_high_S	SM2510B	5	mS/cm	Conductivity	1.82	NA	T3
275-9_S_high_C	Biosolids and wood ash_high_S	SM2510B	5	mS/cm	Conductivity	1.75	NA	T3
276-9_S_high_D	Biosolids and wood ash_high_S	SM2510B	5	mS/cm	Conductivity	1.96	NA	T3
277-10_S_high_A	Wood ash and biochar_high_S	SM2510B	5	mS/cm	Conductivity	0.59	NA	T3
278-10_S_high_B	Wood ash and biochar_high_S	SM2510B	5	mS/cm	Conductivity	0.64	NA	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
279-10_S_high_C	Wood ash and biochar_high_S	SM2510B	5	mS/cm	Conductivity	0.94	NA	T3
280-10_S_high_D	Wood ash and biochar_high_S	SM2510B	5	mS/cm	Conductivity	0.71	NA	T3
281-11_S_high_A	Wood ash and compost_high_S	SM2510B	5	mS/cm	Conductivity	0.46	NA	T3
282-11_S_high_B	Wood ash and compost_high_S	SM2510B	5	mS/cm	Conductivity	1.06	NA	T3
283-11_S_high_C	Wood ash and compost_high_S	SM2510B	5	mS/cm	Conductivity	1.08	NA	T3
284-11_S_high_D	Wood ash and compost_high_S	SM2510B	5	mS/cm	Conductivity	1.13	NA	T3
285-12_S_high_A	Biochar and compost_high_S	SM2510B	5	mS/cm	Conductivity	0.78	NA	T3
286-12_S_high_B	Biochar and compost_high_S	SM2510B	5	mS/cm	Conductivity	0.61	NA	T3
287-12_S_high_C	Biochar and compost_high_S	SM2510B	5	mS/cm	Conductivity	0.95	NA	T3
288-12_S_high_D	Biochar and compost_high_S	SM2510B	5	mS/cm	Conductivity	0.65	NA	T3
289-1_I_low_A	Soluble phosphate_low_I	SM2510B	5	mS/cm	Conductivity	0.53	NA	T3
290-1_I_low_B	Soluble phosphate_low_I	SM2510B	5	mS/cm	Conductivity	0.66	NA	T3
291-1_I_low_C	Soluble phosphate_low_I	SM2510B	5	mS/cm	Conductivity	2.14	NA	T3
292-1_I_low_D	Soluble phosphate_low_I	SM2510B	5	mS/cm	Conductivity	1.31	NA	T3
293-2_I_low_A	Biosolid_low_I	SM2510B	6	mS/cm	Conductivity	1.07	NA	T3
294-2_I_low_B	Biosolid_low_I	SM2510B	6	mS/cm	Conductivity	1.36	NA	T3
295-2_I_low_C	Biosolid_low_I	SM2510B	6	mS/cm	Conductivity	1.75	NA	T3
296-2_I_low_D	Biosolid_low_I	SM2510B	6	mS/cm	Conductivity	1.77	NA	T3
297-3_I_low_A	Wood ash_low_I	SM2510B	6	mS/cm	Conductivity	0.74	NA	T3
298-3_I_low_B	Wood ash_low_I	SM2510B	6	mS/cm	Conductivity	1.09	NA	T3
299-3_I_low_C	Wood ash_low_I	SM2510B	6	mS/cm	Conductivity	0.90	NA	T3
300-3_I_low_D	Wood ash_low_I	SM2510B	6	mS/cm	Conductivity	0.89	NA	T3
301-4_I_low_A	Biochar_low_I	SM2510B	6	mS/cm	Conductivity	0.88	NA	T3
302-4_I_low_B	Biochar_low_I	SM2510B	6	mS/cm	Conductivity	1.21	NA	T3
303-4_I_low_C	Biochar_low_I	SM2510B	6	mS/cm	Conductivity	1.25	NA	T3
304-4_I_low_D	Biochar_low_I	SM2510B	6	mS/cm	Conductivity	1.05	NA	T3
305-5_I_low_A	Compost_low_I	SM2510B	6	mS/cm	Conductivity	1.07	NA	T3
306-5_I_low_B	Compost_low_I	SM2510B	6	mS/cm	Conductivity	1.55	NA	T3
307-5_I_low_C	Compost_low_I	SM2510B	6	mS/cm	Conductivity	0.91	NA	T3
308-5_I_low_D	Compost_low_I	SM2510B	6	mS/cm	Conductivity	1.31	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
309-6_I_low_A	Soluble phosphate and biosolids_low_I	SM2510B	6	mS/cm	Conductivity	3.51	NA	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	SM2510B	6	mS/cm	Conductivity	2.14	NA	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	SM2510B	6	mS/cm	Conductivity	2.92	NA	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	SM2510B	6	mS/cm	Conductivity	2.19	NA	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	SM2510B	7	mS/cm	Conductivity	0.81	NA	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	SM2510B	7	mS/cm	Conductivity	1.18	NA	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	SM2510B	7	mS/cm	Conductivity	1.22	NA	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	SM2510B	7	mS/cm	Conductivity	1.17	NA	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	SM2510B	7	mS/cm	Conductivity	1.25	NA	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	SM2510B	7	mS/cm	Conductivity	1.49	NA	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	SM2510B	7	mS/cm	Conductivity	2.52	NA	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	SM2510B	7	mS/cm	Conductivity	2.30	NA	T3
321-9_I_low_A	Biosolids and wood ash_low_I	SM2510B	7	mS/cm	Conductivity	3.21	NA	T3
322-9_I_low_B	Biosolids and wood ash_low_I	SM2510B	7	mS/cm	Conductivity	2.34	NA	T3
323-9_I_low_C	Biosolids and wood ash_low_I	SM2510B	7	mS/cm	Conductivity	2.08	NA	T3
324-9_I_low_D	Biosolids and wood ash_low_I	SM2510B	7	mS/cm	Conductivity	3.52	NA	T3
325-10_I_low_A	Wood ash and biochar_low_I	SM2510B	7	mS/cm	Conductivity	1.52	NA	T3
326-10_I_low_B	Wood ash and biochar_low_I	SM2510B	7	mS/cm	Conductivity	1.18	NA	T3
327-10_I_low_C	Wood ash and biochar_low_I	SM2510B	7	mS/cm	Conductivity	1.80	NA	T3
328-10_I_low_D	Wood ash and biochar_low_I	SM2510B	7	mS/cm	Conductivity	1.10	NA	T3
329-11_I_low_A	Wood ash and compost_low_I	SM2510B	7	mS/cm	Conductivity	1.07	NA	T3
330-11_I_low_B	Wood ash and compost_low_I	SM2510B	7	mS/cm	Conductivity	1.28	NA	T3
331-11_I_low_C	Wood ash and compost_low_I	SM2510B	7	mS/cm	Conductivity	1.97	NA	T3
332-11_I_low_D	Wood ash and compost_low_I	SM2510B	7	mS/cm	Conductivity	1.27	NA	T3
333-12_I_low_A	Biochar and compost_low_I	SM2510B	8	mS/cm	Conductivity	0.76	NA	T3
334-12_I_low_B	Biochar and compost_low_I	SM2510B	8	mS/cm	Conductivity	0.57	NA	T3
335-12_I_low_C	Biochar and compost_low_I	SM2510B	8	mS/cm	Conductivity	0.61	NA	T3
336-12_I_low_D	Biochar and compost_low_I	SM2510B	8	mS/cm	Conductivity	0.63	NA	T3
337-1_I_high_A	Soluble phosphate_high_I	SM2510B	8	mS/cm	Conductivity	1.01	NA	T3
338-1_I_high_B	Soluble phosphate_high_I	SM2510B	8	mS/cm	Conductivity	1.68	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
339-1_I_high_C	Soluble phosphate_high_I	SM2510B	8	mS/cm	Conductivity	1.52	NA	T3
340-1_I_high_D	Soluble phosphate_high_I	SM2510B	8	mS/cm	Conductivity	1.65	NA	T3
341-2_I_high_A	Biosolid_high_I	SM2510B	8	mS/cm	Conductivity	7.02	NA	T3
342-2_I_high_B	Biosolid_high_I	SM2510B	8	mS/cm	Conductivity	5.28	NA	T3
343-2_I_high_C	Biosolid_high_I	SM2510B	8	mS/cm	Conductivity	5.99	NA	T3
344-2_I_high_D	Biosolid_high_I	SM2510B	8	mS/cm	Conductivity	8.17	NA	T3
345-3_I_high_A	Wood ash_high_I	SM2510B	8	mS/cm	Conductivity	1.63	NA	T3
346-3_I_high_B	Wood ash_high_I	SM2510B	8	mS/cm	Conductivity	1.16	NA	T3
347-3_I_high_C	Wood ash_high_I	SM2510B	8	mS/cm	Conductivity	1.15	NA	T3
348-3_I_high_D	Wood ash_high_I	SM2510B	8	mS/cm	Conductivity	1.57	NA	T3
349-4_I_high_A	Biochar_high_I	SM2510B	8	mS/cm	Conductivity	1.41	NA	T3
350-4_I_high_B	Biochar_high_I	SM2510B	8	mS/cm	Conductivity	0.90	NA	T3
351-4_I_high_C	Biochar_high_I	SM2510B	8	mS/cm	Conductivity	0.90	NA	T3
352-4_I_high_D	Biochar_high_I	SM2510B	8	mS/cm	Conductivity	0.87	NA	T3
353-5_I_high_A	Compost_high_I	SM2510B	9	mS/cm	Conductivity	1.48	NA	T3
354-5_I_high_B	Compost_high_I	SM2510B	9	mS/cm	Conductivity	2.26	NA	T3
355-5_I_high_C	Compost_high_I	SM2510B	9	mS/cm	Conductivity	2.03	NA	T3
356-5_I_high_D	Compost_high_I	SM2510B	9	mS/cm	Conductivity	2.61	NA	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	SM2510B	9	mS/cm	Conductivity	6.18	NA	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	SM2510B	9	mS/cm	Conductivity	7.42	NA	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	SM2510B	9	mS/cm	Conductivity	11.00	NA	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	SM2510B	9	mS/cm	Conductivity	7.77	NA	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	SM2510B	9	mS/cm	Conductivity	1.69	NA	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	SM2510B	9	mS/cm	Conductivity	4.34	NA	T3
363-7_I_high_C	Soluble phosphate and biochar_high_I	SM2510B	9	mS/cm	Conductivity	2.81	NA	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	SM2510B	9	mS/cm	Conductivity	2.91	NA	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	SM2510B	9	mS/cm	Conductivity	2.38	NA	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	SM2510B	9	mS/cm	Conductivity	2.20	NA	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	SM2510B	9	mS/cm	Conductivity	1.59	NA	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	SM2510B	9	mS/cm	Conductivity	1.52	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
369-9_I_high_A	Biosolids and wood ash_high_I	SM2510B	9	mS/cm	Conductivity	8.09	NA	T3
370-9_I_high_B	Biosolids and wood ash_high_I	SM2510B	9	mS/cm	Conductivity	5.57	NA	T3
371-9_I_high_C	Biosolids and wood ash_high_I	SM2510B	9	mS/cm	Conductivity	5.42	NA	T3
372-9_I_high_D	Biosolids and wood ash_high_I	SM2510B	9	mS/cm	Conductivity	7.02	NA	T3
373-10_I_high_A	Wood ash and biochar_high_I	SM2510B	10	mS/cm	Conductivity	0.99	NA	T3
374-10_I_high_B	Wood ash and biochar_high_I	SM2510B	10	mS/cm	Conductivity	1.06	NA	T3
375-10_I_high_C	Wood ash and biochar_high_I	SM2510B	10	mS/cm	Conductivity	1.31	NA	T3
376-10_I_high_D	Wood ash and biochar_high_I	SM2510B	10	mS/cm	Conductivity	1.56	NA	T3
377-11_I_high_A	Wood ash and compost_high_I	SM2510B	10	mS/cm	Conductivity	0.91	NA	T3
378-11_I_high_B	Wood ash and compost_high_I	SM2510B	10	mS/cm	Conductivity	1.53	NA	T3
379-11_I_high_C	Wood ash and compost_high_I	SM2510B	10	mS/cm	Conductivity	1.49	NA	T3
380-11_I_high_D	Wood ash and compost_high_I	SM2510B	10	mS/cm	Conductivity	1.26	NA	T3
381-12_I_high_A	Biochar and compost_high_I	SM2510B	10	mS/cm	Conductivity	1.61	NA	T3
382-12_I_high_B	Biochar and compost_high_I	SM2510B	10	mS/cm	Conductivity	1.46	NA	T3
383-12_I_high_C	Biochar and compost_high_I	SM2510B	10	mS/cm	Conductivity	1.43	NA	T3
384-12_I_high_D	Biochar and compost_high_I	SM2510B	10	mS/cm	Conductivity	0.84	NA	T3
385-0_I_NA_A	control_none_I	SM2510B	10	mS/cm	Conductivity	0.85	NA	T3
386-0_I_NA_B	control_none_I	SM2510B	10	mS/cm	Conductivity	1.03	NA	T3
387-0_I_NA_C	control_none_I	SM2510B	10	mS/cm	Conductivity	0.84	NA	T3
388-0_I_NA_D	control_none_I	SM2510B	10	mS/cm	Conductivity	1.07	NA	T3
097-1_S_low_A	Soluble phosphate_low_S	NELSON82	1	%	Carbon_total	11.82	NA	T3
098-1_S_low_B	Soluble phosphate_low_S	NELSON82	1	%	Carbon_total	8.66	NA	T3
099-1_S_low_C	Soluble phosphate_low_S	NELSON82	1	%	Carbon_total	13.17	NA	T3
100-1_S_low_D	Soluble phosphate_low_S	NELSON82	1	%	Carbon_total	7.61	NA	T3
101-2_S_low_A	Biosolid_low_S	NELSON82	1	%	Carbon_total	8.87	NA	T3
102-2_S_low_B	Biosolid_low_S	NELSON82	1	%	Carbon_total	9.50	NA	T3
103-2_S_low_C	Biosolid_low_S	NELSON82	1	%	Carbon_total	9.33	NA	T3
104-2_S_low_D	Biosolid_low_S	NELSON82	1	%	Carbon_total	8.84	NA	T3
105-3_S_low_A	Wood ash_low_S	NELSON82	1	%	Carbon_total	6.50	NA	T3
106-3_S_low_B	Wood ash_low_S	NELSON82	1	%	Carbon_total	10.67	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
107-3_S_low_C	Wood ash_low_S	NELSON82	1	%	Carbon_total	7.92	NA	T3
108-3_S_low_D	Wood ash_low_S	NELSON82	1	%	Carbon_total	8.94	NA	T3
109-4_S_low_A	Biochar_low_S	NELSON82	1	%	Carbon_total	10.15	NA	T3
110-4_S_low_B	Biochar_low_S	NELSON82	1	%	Carbon_total	12.91	NA	T3
111-4_S_low_C	Biochar_low_S	NELSON82	1	%	Carbon_total	11.34	NA	T3
112-4_S_low_D	Biochar_low_S	NELSON82	1	%	Carbon_total	8.83	NA	T3
113-5_S_low_A	Compost_low_S	NELSON82	1	%	Carbon_total	9.57	NA	T3
114-5_S_low_B	Compost_low_S	NELSON82	1	%	Carbon_total	8.61	NA	T3
115-5_S_low_C	Compost_low_S	NELSON82	1	%	Carbon_total	10.32	NA	T3
116-5_S_low_D	Compost_low_S	NELSON82	1	%	Carbon_total	7.50	NA	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	NELSON82	1	%	Carbon_total	8.74	NA	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	NELSON82	1	%	Carbon_total	7.51	NA	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	NELSON82	1	%	Carbon_total	7.05	NA	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	NELSON82	1	%	Carbon_total	9.60	NA	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	NELSON82	1	%	Carbon_total	7.84	NA	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	NELSON82	1	%	Carbon_total	8.83	NA	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	NELSON82	1	%	Carbon_total	11.78	NA	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	NELSON82	1	%	Carbon_total	10.56	NA	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	NELSON82	1	%	Carbon_total	7.91	NA	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	NELSON82	1	%	Carbon_total	10.89	NA	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	NELSON82	1	%	Carbon_total	9.04	NA	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	NELSON82	1	%	Carbon_total	5.75	NA	T3
129-9_S_low_A	Biosolids and wood ash_low_S	NELSON82	1	%	Carbon_total	10.10	NA	T3
130-9_S_low_B	Biosolids and wood ash_low_S	NELSON82	1	%	Carbon_total	9.50	NA	T3
131-9_S_low_C	Biosolids and wood ash_low_S	NELSON82	1	%	Carbon_total	12.35	NA	T3
132-9_S_low_D	Biosolids and wood ash_low_S	NELSON82	1	%	Carbon_total	11.67	NA	T3
133-10_S_low_A	Wood ash and biochar_low_S	NELSON82	1	%	Carbon_total	8.11	NA	T3
134-10_S_low_B	Wood ash and biochar_low_S	NELSON82	1	%	Carbon_total	8.47	NA	T3
135-10_S_low_C	Wood ash and biochar_low_S	NELSON82	1	%	Carbon_total	8.00	NA	T3
136-10_S_low_D	Wood ash and biochar_low_S	NELSON82	1	%	Carbon_total	7.67	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
137-11_S_low_A	Wood ash and compost_low_S	NELSON82	1	%	Carbon_total	10.47	NA	T3
138-11_S_low_B	Wood ash and compost_low_S	NELSON82	1	%	Carbon_total	11.94	NA	T3
139-11_S_low_C	Wood ash and compost_low_S	NELSON82	1	%	Carbon_total	10.53	NA	T3
140-11_S_low_D	Wood ash and compost_low_S	NELSON82	1	%	Carbon_total	8.70	NA	T3
141-12_S_low_A	Biochar and compost_low_S	NELSON82	1	%	Carbon_total	11.76	NA	T3
142-12_S_low_B	Biochar and compost_low_S	NELSON82	1	%	Carbon_total	10.62	NA	T3
143-12_S_low_C	Biochar and compost_low_S	NELSON82	1	%	Carbon_total	9.24	NA	T3
144-12_S_low_D	Biochar and compost_low_S	NELSON82	1	%	Carbon_total	13.17	NA	T3
241-1_S_high_A	Soluble phosphate_high_S	NELSON82	1	%	Carbon_total	8.31	NA	T3
242-1_S_high_B	Soluble phosphate_high_S	NELSON82	1	%	Carbon_total	6.76	NA	T3
243-1_S_high_C	Soluble phosphate_high_S	NELSON82	1	%	Carbon_total	10.17	NA	T3
244-1_S_high_D	Soluble phosphate_high_S	NELSON82	1	%	Carbon_total	6.70	NA	T3
245-2_S_high_A	Biosolid_high_S	NELSON82	1	%	Carbon_total	9.28	NA	T3
246-2_S_high_B	Biosolid_high_S	NELSON82	1	%	Carbon_total	11.53	NA	T3
247-2_S_high_C	Biosolid_high_S	NELSON82	1	%	Carbon_total	8.46	NA	T3
248-2_S_high_D	Biosolid_high_S	NELSON82	1	%	Carbon_total	6.41	NA	T3
249-3_S_high_A	Wood ash_high_S	NELSON82	1	%	Carbon_total	9.53	NA	T3
250-3_S_high_B	Wood ash_high_S	NELSON82	1	%	Carbon_total	10.45	NA	T3
251-3_S_high_C	Wood ash_high_S	NELSON82	1	%	Carbon_total	10.88	NA	T3
252-3_S_high_D	Wood ash_high_S	NELSON82	1	%	Carbon_total	10.12	NA	T3
253-4_S_high_A	Biochar_high_S	NELSON82	1	%	Carbon_total	9.55	NA	T3
254-4_S_high_B	Biochar_high_S	NELSON82	1	%	Carbon_total	8.87	NA	T3
255-4_S_high_C	Biochar_high_S	NELSON82	1	%	Carbon_total	9.86	NA	T3
256-4_S_high_D	Biochar_high_S	NELSON82	1	%	Carbon_total	8.04	NA	T3
257-5_S_high_A	Compost_high_S	NELSON82	1	%	Carbon_total	14.54	NA	T3
258-5_S_high_B	Compost_high_S	NELSON82	1	%	Carbon_total	10.93	NA	T3
259-5_S_high_C	Compost_high_S	NELSON82	1	%	Carbon_total	9.41	NA	T3
260-5_S_high_D	Compost_high_S	NELSON82	1	%	Carbon_total	8.77	NA	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	NELSON82	1	%	Carbon_total	9.31	NA	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	NELSON82	1	%	Carbon_total	8.71	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
263-6_S_high_C	Soluble phosphate and biosolids_high_S	NELSON82	1	%	Carbon_total	9.79	NA	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	NELSON82	1	%	Carbon_total	8.13	NA	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	NELSON82	1	%	Carbon_total	7.88	NA	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	NELSON82	1	%	Carbon_total	8.40	NA	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	NELSON82	1	%	Carbon_total	8.64	NA	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	NELSON82	1	%	Carbon_total	8.02	NA	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	NELSON82	1	%	Carbon_total	8.44	NA	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	NELSON82	1	%	Carbon_total	9.60	NA	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	NELSON82	1	%	Carbon_total	8.75	NA	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	NELSON82	1	%	Carbon_total	8.26	NA	T3
273-9_S_high_A	Biosolids and wood ash_high_S	NELSON82	1	%	Carbon_total	10.20	NA	T3
274-9_S_high_B	Biosolids and wood ash_high_S	NELSON82	1	%	Carbon_total	8.04	NA	T3
275-9_S_high_C	Biosolids and wood ash_high_S	NELSON82	1	%	Carbon_total	11.19	NA	T3
276-9_S_high_D	Biosolids and wood ash_high_S	NELSON82	1	%	Carbon_total	10.57	NA	T3
277-10_S_high_A	Wood ash and biochar_high_S	NELSON82	1	%	Carbon_total	7.59	NA	T3
278-10_S_high_B	Wood ash and biochar_high_S	NELSON82	1	%	Carbon_total	8.50	NA	T3
279-10_S_high_C	Wood ash and biochar_high_S	NELSON82	1	%	Carbon_total	9.30	NA	T3
280-10_S_high_D	Wood ash and biochar_high_S	NELSON82	1	%	Carbon_total	9.30	NA	T3
281-11_S_high_A	Wood ash and compost_high_S	NELSON82	1	%	Carbon_total	12.44	NA	T3
282-11_S_high_B	Wood ash and compost_high_S	NELSON82	1	%	Carbon_total	9.98	NA	T3
283-11_S_high_C	Wood ash and compost_high_S	NELSON82	1	%	Carbon_total	10.16	NA	T3
284-11_S_high_D	Wood ash and compost_high_S	NELSON82	1	%	Carbon_total	14.95	NA	T3
285-12_S_high_A	Biochar and compost_high_S	NELSON82	1	%	Carbon_total	8.50	NA	T3
286-12_S_high_B	Biochar and compost_high_S	NELSON82	1	%	Carbon_total	10.57	NA	T3
287-12_S_high_C	Biochar and compost_high_S	NELSON82	2	%	Carbon_total	8.09	NA	T3
288-12_S_high_D	Biochar and compost_high_S	NELSON82	2	%	Carbon_total	11.81	NA	T3
289-1_I_low_A	Soluble phosphate_low_I	NELSON82	2	%	Carbon_total	10.85	NA	T3
290-1_I_low_B	Soluble phosphate_low_I	NELSON82	2	%	Carbon_total	9.56	NA	T3
291-1_I_low_C	Soluble phosphate_low_I	NELSON82	2	%	Carbon_total	7.26	NA	T3
292-1_I_low_D	Soluble phosphate_low_I	NELSON82	2	%	Carbon_total	6.93	NA	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
293-2_I_low_A	Biosolid_low_I	NELSON82	2	%	Carbon_total	12.84	NA	T3
294-2_I_low_B	Biosolid_low_I	NELSON82	2	%	Carbon_total	12.63	NA	T3
295-2_I_low_C	Biosolid_low_I	NELSON82	2	%	Carbon_total	7.85	NA	T3
296-2_I_low_D	Biosolid_low_I	NELSON82	2	%	Carbon_total	7.31	NA	T3
297-3_I_low_A	Wood ash_low_I	NELSON82	2	%	Carbon_total	7.41	NA	T3
298-3_I_low_B	Wood ash_low_I	NELSON82	2	%	Carbon_total	8.13	NA	T3
299-3_I_low_C	Wood ash_low_I	NELSON82	2	%	Carbon_total	9.09	NA	T3
300-3_I_low_D	Wood ash_low_I	NELSON82	2	%	Carbon_total	8.41	NA	T3
301-4_I_low_A	Biochar_low_I	NELSON82	2	%	Carbon_total	10.81	NA	T3
302-4_I_low_B	Biochar_low_I	NELSON82	2	%	Carbon_total	10.01	NA	T3
303-4_I_low_C	Biochar_low_I	NELSON82	2	%	Carbon_total	11.74	NA	T3
304-4_I_low_D	Biochar_low_I	NELSON82	2	%	Carbon_total	9.65	NA	T3
305-5_I_low_A	Compost_low_I	NELSON82	2	%	Carbon_total	11.78	NA	T3
306-5_I_low_B	Compost_low_I	NELSON82	2	%	Carbon_total	7.99	NA	T3
307-5_I_low_C	Compost_low_I	NELSON82	2	%	Carbon_total	12.70	NA	T3
308-5_I_low_D	Compost_low_I	NELSON82	2	%	Carbon_total	11.90	NA	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	NELSON82	2	%	Carbon_total	9.22	NA	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	NELSON82	2	%	Carbon_total	9.83	NA	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	NELSON82	2	%	Carbon_total	10.21	NA	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	NELSON82	2	%	Carbon_total	6.80	NA	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	NELSON82	2	%	Carbon_total	10.13	NA	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	NELSON82	2	%	Carbon_total	8.46	NA	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	NELSON82	2	%	Carbon_total	10.33	NA	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	NELSON82	2	%	Carbon_total	9.75	NA	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	NELSON82	2	%	Carbon_total	8.66	NA	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	NELSON82	2	%	Carbon_total	9.76	NA	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	NELSON82	2	%	Carbon_total	8.07	NA	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	NELSON82	2	%	Carbon_total	10.76	NA	T3
321-9_I_low_A	Biosolids and wood ash_low_I	NELSON82	2	%	Carbon_total	7.73	NA	T3
322-9_I_low_B	Biosolids and wood ash_low_I	NELSON82	2	%	Carbon_total	11.96	NA	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
323-9_I_low_C	Biosolids and wood ash_low_I	NELSON82	2	%	Carbon_total	9.37	NA	T3
324-9_I_low_D	Biosolids and wood ash_low_I	NELSON82	2	%	Carbon_total	10.99	NA	T3
325-10_I_low_A	Wood ash and biochar_low_I	NELSON82	2	%	Carbon_total	12.84	NA	T3
326-10_I_low_B	Wood ash and biochar_low_I	NELSON82	2	%	Carbon_total	8.21	NA	T3
327-10_I_low_C	Wood ash and biochar_low_I	NELSON82	2	%	Carbon_total	7.97	NA	T3
328-10_I_low_D	Wood ash and biochar_low_I	NELSON82	2	%	Carbon_total	9.10	NA	T3
329-11_I_low_A	Wood ash and compost_low_I	NELSON82	2	%	Carbon_total	9.54	NA	T3
330-11_I_low_B	Wood ash and compost_low_I	NELSON82	2	%	Carbon_total	9.05	NA	T3
331-11_I_low_C	Wood ash and compost_low_I	NELSON82	2	%	Carbon_total	10.95	NA	T3
332-11_I_low_D	Wood ash and compost_low_I	NELSON82	2	%	Carbon_total	7.27	NA	T3
333-12_I_low_A	Biochar and compost_low_I	NELSON82	2	%	Carbon_total	9.71	NA	T3
334-12_I_low_B	Biochar and compost_low_I	NELSON82	2	%	Carbon_total	10.27	NA	T3
335-12_I_low_C	Biochar and compost_low_I	NELSON82	2	%	Carbon_total	12.60	NA	T3
336-12_I_low_D	Biochar and compost_low_I	NELSON82	2	%	Carbon_total	11.55	NA	T3
337-1_I_high_A	Soluble phosphate_high_I	NELSON82	2	%	Carbon_total	7.75	NA	T3
338-1_I_high_B	Soluble phosphate_high_I	NELSON82	2	%	Carbon_total	9.56	NA	T3
339-1_I_high_C	Soluble phosphate_high_I	NELSON82	2	%	Carbon_total	8.96	NA	T3
340-1_I_high_D	Soluble phosphate_high_I	NELSON82	2	%	Carbon_total	8.13	NA	T3
341-2_I_high_A	Biosolid_high_I	NELSON82	2	%	Carbon_total	10.52	NA	T3
342-2_I_high_B	Biosolid_high_I	NELSON82	2	%	Carbon_total	10.14	NA	T3
343-2_I_high_C	Biosolid_high_I	NELSON82	2	%	Carbon_total	12.66	NA	T3
344-2_I_high_D	Biosolid_high_I	NELSON82	2	%	Carbon_total	14.71	NA	T3
345-3_I_high_A	Wood ash_high_I	NELSON82	2	%	Carbon_total	10.10	NA	T3
346-3_I_high_B	Wood ash_high_I	NELSON82	2	%	Carbon_total	9.29	NA	T3
347-3_I_high_C	Wood ash_high_I	NELSON82	2	%	Carbon_total	9.14	NA	T3
348-3_I_high_D	Wood ash_high_I	NELSON82	2	%	Carbon_total	7.84	NA	T3
349-4_I_high_A	Biochar_high_I	NELSON82	2	%	Carbon_total	8.45	NA	T3
350-4_I_high_B	Biochar_high_I	NELSON82	2	%	Carbon_total	8.76	NA	T3
351-4_I_high_C	Biochar_high_I	NELSON82	2	%	Carbon_total	11.81	NA	T3
352-4_I_high_D	Biochar_high_I	NELSON82	2	%	Carbon_total	8.80	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
353-5_I_high_A	Compost_high_I	NELSON82	2	%	Carbon_total	9.87	NA	T3
354-5_I_high_B	Compost_high_I	NELSON82	2	%	Carbon_total	11.65	NA	T3
355-5_I_high_C	Compost_high_I	NELSON82	2	%	Carbon_total	6.66	NA	T3
356-5_I_high_D	Compost_high_I	NELSON82	2	%	Carbon_total	10.43	NA	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	NELSON82	2	%	Carbon_total	12.23	NA	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	NELSON82	2	%	Carbon_total	13.25	NA	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	NELSON82	2	%	Carbon_total	10.61	NA	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	NELSON82	2	%	Carbon_total	13.66	NA	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	NELSON82	2	%	Carbon_total	12.53	NA	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	NELSON82	2	%	Carbon_total	8.01	NA	T3
363-7_I_high_C	Soluble phosphate and biochar_high_I	NELSON82	2	%	Carbon_total	10.42	NA	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	NELSON82	2	%	Carbon_total	7.17	NA	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	NELSON82	2	%	Carbon_total	11.07	NA	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	NELSON82	2	%	Carbon_total	8.37	NA	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	NELSON82	2	%	Carbon_total	9.54	NA	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	NELSON82	2	%	Carbon_total	9.11	NA	T3
369-9_I_high_A	Biosolids and wood ash_high_I	NELSON82	2	%	Carbon_total	11.30	NA	T3
370-9_I_high_B	Biosolids and wood ash_high_I	NELSON82	2	%	Carbon_total	11.79	NA	T3
371-9_I_high_C	Biosolids and wood ash_high_I	NELSON82	2	%	Carbon_total	10.30	NA	T3
372-9_I_high_D	Biosolids and wood ash_high_I	NELSON82	2	%	Carbon_total	14.38	NA	T3
373-10_I_high_A	Wood ash and biochar_high_I	NELSON82	2	%	Carbon_total	10.96	NA	T3
374-10_I_high_B	Wood ash and biochar_high_I	NELSON82	2	%	Carbon_total	15.52	NA	T3
375-10_I_high_C	Wood ash and biochar_high_I	NELSON82	2	%	Carbon_total	9.34	NA	T3
376-10_I_high_D	Wood ash and biochar_high_I	NELSON82	2	%	Carbon_total	10.67	NA	T3
377-11_I_high_A	Wood ash and compost_high_I	NELSON82	2	%	Carbon_total	10.55	NA	T3
378-11_I_high_B	Wood ash and compost_high_I	NELSON82	2	%	Carbon_total	10.05	NA	T3
379-11_I_high_C	Wood ash and compost_high_I	NELSON82	2	%	Carbon_total	11.61	NA	T3
380-11_I_high_D	Wood ash and compost_high_I	NELSON82	2	%	Carbon_total	10.30	NA	T3
381-12_I_high_A	Biochar and compost_high_I	NELSON82	3	%	Carbon_total	11.56	NA	T3
382-12_I_high_B	Biochar and compost_high_I	NELSON82	3	%	Carbon_total	13.96	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
383-12_I_high_C	Biochar and compost_high_I	NELSON82	3	%	Carbon_total	15.06	NA	T3
384-12_I_high_D	Biochar and compost_high_I	NELSON82	3	%	Carbon_total	10.03	NA	T3
385-0_I_NA_A	control_none_I	NELSON82	3	%	Carbon_total	8.85	NA	T3
386-0_I_NA_B	control_none_I	NELSON82	3	%	Carbon_total	7.46	NA	T3
387-0_I_NA_C	control_none_I	NELSON82	3	%	Carbon_total	6.95	NA	T3
388-0_I_NA_D	control_none_I	NELSON82	3	%	Carbon_total	8.78	NA	T3
097-1_S_low_A	Soluble phosphate_low_S	HEANES84	1	%	Carbon_org	9.11	NA	T3
098-1_S_low_B	Soluble phosphate_low_S	HEANES84	1	%	Carbon_org	6.50	NA	T3
099-1_S_low_C	Soluble phosphate_low_S	HEANES84	1	%	Carbon_org	7.17	NA	T3
100-1_S_low_D	Soluble phosphate_low_S	HEANES84	1	%	Carbon_org	6.93	NA	T3
101-2_S_low_A	Biosolid_low_S	HEANES84	1	%	Carbon_org	8.13	NA	T3
102-2_S_low_B	Biosolid_low_S	HEANES84	1	%	Carbon_org	7.79	NA	T3
103-2_S_low_C	Biosolid_low_S	HEANES84	1	%	Carbon_org	9.43	NA	T3
104-2_S_low_D	Biosolid_low_S	HEANES84	1	%	Carbon_org	7.38	NA	T3
105-3_S_low_A	Wood ash_low_S	HEANES84	1	%	Carbon_org	7.18	NA	T3
106-3_S_low_B	Wood ash_low_S	HEANES84	1	%	Carbon_org	9.57	NA	T3
107-3_S_low_C	Wood ash_low_S	HEANES84	1	%	Carbon_org	6.71	NA	T3
108-3_S_low_D	Wood ash_low_S	HEANES84	1	%	Carbon_org	5.74	NA	T3
109-4_S_low_A	Biochar_low_S	HEANES84	1	%	Carbon_org	7.56	NA	T3
110-4_S_low_B	Biochar_low_S	HEANES84	1	%	Carbon_org	11.42	NA	T3
111-4_S_low_C	Biochar_low_S	HEANES84	1	%	Carbon_org	7.18	NA	T3
112-4_S_low_D	Biochar_low_S	HEANES84	1	%	Carbon_org	10.13	NA	T3
113-5_S_low_A	Compost_low_S	HEANES84	1	%	Carbon_org	7.90	NA	T3
114-5_S_low_B	Compost_low_S	HEANES84	1	%	Carbon_org	6.43	NA	T3
115-5_S_low_C	Compost_low_S	HEANES84	1	%	Carbon_org	7.48	NA	T3
116-5_S_low_D	Compost_low_S	HEANES84	1	%	Carbon_org	9.73	NA	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	HEANES84	1	%	Carbon_org	7.19	NA	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	HEANES84	1	%	Carbon_org	8.55	NA	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	HEANES84	1	%	Carbon_org	7.22	NA	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	HEANES84	1	%	Carbon_org	8.19	NA	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
121-7_S_low_A	Soluble phosphate and biochar_low_S	HEANES84	1	%	Carbon_org	5.68	NA	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	HEANES84	1	%	Carbon_org	7.77	NA	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	HEANES84	1	%	Carbon_org	9.45	NA	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	HEANES84	1	%	Carbon_org	7.77	NA	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	HEANES84	1	%	Carbon_org	9.34	NA	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	HEANES84	2	%	Carbon_org	9.56	NA	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	HEANES84	2	%	Carbon_org	8.19	NA	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	HEANES84	2	%	Carbon_org	9.33	NA	T3
129-9_S_low_A	Biosolids and wood ash_low_S	HEANES84	2	%	Carbon_org	12.28	NA	T3
130-9_S_low_B	Biosolids and wood ash_low_S	HEANES84	2	%	Carbon_org	5.49	NA	T3
131-9_S_low_C	Biosolids and wood ash_low_S	HEANES84	2	%	Carbon_org	6.43	NA	T3
132-9_S_low_D	Biosolids and wood ash_low_S	HEANES84	2	%	Carbon_org	11.42	NA	T3
133-10_S_low_A	Wood ash and biochar_low_S	HEANES84	2	%	Carbon_org	6.32	NA	T3
134-10_S_low_B	Wood ash and biochar_low_S	HEANES84	2	%	Carbon_org	8.49	NA	T3
135-10_S_low_C	Wood ash and biochar_low_S	HEANES84	2	%	Carbon_org	5.94	NA	T3
136-10_S_low_D	Wood ash and biochar_low_S	HEANES84	2	%	Carbon_org	7.79	NA	T3
137-11_S_low_A	Wood ash and compost_low_S	HEANES84	2	%	Carbon_org	7.83	NA	T3
138-11_S_low_B	Wood ash and compost_low_S	HEANES84	2	%	Carbon_org	6.92	NA	T3
139-11_S_low_C	Wood ash and compost_low_S	HEANES84	2	%	Carbon_org	6.91	NA	T3
140-11_S_low_D	Wood ash and compost_low_S	HEANES84	2	%	Carbon_org	8.15	NA	T3
141-12_S_low_A	Biochar and compost_low_S	HEANES84	2	%	Carbon_org	10.18	NA	T3
142-12_S_low_B	Biochar and compost_low_S	HEANES84	2	%	Carbon_org	8.22	NA	T3
143-12_S_low_C	Biochar and compost_low_S	HEANES84	2	%	Carbon_org	8.96	NA	T3
144-12_S_low_D	Biochar and compost_low_S	HEANES84	2	%	Carbon_org	6.61	NA	T3
241-1_S_high_A	Soluble phosphate_high_S	HEANES84	2	%	Carbon_org	8.26	NA	T3
242-1_S_high_B	Soluble phosphate_high_S	HEANES84	2	%	Carbon_org	7.47	NA	T3
243-1_S_high_C	Soluble phosphate_high_S	HEANES84	2	%	Carbon_org	6.85	NA	T3
244-1_S_high_D	Soluble phosphate_high_S	HEANES84	2	%	Carbon_org	7.20	NA	T3
245-2_S_high_A	Biosolid_high_S	HEANES84	2	%	Carbon_org	6.56	NA	T3
246-2_S_high_B	Biosolid_high_S	HEANES84	2	%	Carbon_org	8.18	NA	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
247-2_S_high_C	Biosolid_high_S	HEANES84	2	%	Carbon_org	7.29	NA	T3
248-2_S_high_D	Biosolid_high_S	HEANES84	2	%	Carbon_org	8.05	NA	T3
249-3_S_high_A	Wood ash_high_S	HEANES84	2	%	Carbon_org	7.68	NA	T3
250-3_S_high_B	Wood ash_high_S	HEANES84	2	%	Carbon_org	8.11	NA	T3
251-3_S_high_C	Wood ash_high_S	HEANES84	2	%	Carbon_org	6.75	NA	T3
252-3_S_high_D	Wood ash_high_S	HEANES84	2	%	Carbon_org	5.93	NA	T3
253-4_S_high_A	Biochar_high_S	HEANES84	2	%	Carbon_org	4.55	NA	T3
254-4_S_high_B	Biochar_high_S	HEANES84	2	%	Carbon_org	9.81	NA	T3
255-4_S_high_C	Biochar_high_S	HEANES84	2	%	Carbon_org	7.02	NA	T3
256-4_S_high_D	Biochar_high_S	HEANES84	2	%	Carbon_org	9.84	NA	T3
257-5_S_high_A	Compost_high_S	HEANES84	2	%	Carbon_org	6.99	NA	T3
258-5_S_high_B	Compost_high_S	HEANES84	2	%	Carbon_org	6.43	NA	T3
259-5_S_high_C	Compost_high_S	HEANES84	3	%	Carbon_org	6.55	NA	T3
260-5_S_high_D	Compost_high_S	HEANES84	3	%	Carbon_org	7.45	NA	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	HEANES84	3	%	Carbon_org	8.25	NA	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	HEANES84	3	%	Carbon_org	6.37	NA	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	HEANES84	3	%	Carbon_org	6.04	NA	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	HEANES84	3	%	Carbon_org	5.98	NA	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	HEANES84	3	%	Carbon_org	6.85	NA	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	HEANES84	3	%	Carbon_org	7.11	NA	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	HEANES84	3	%	Carbon_org	6.52	NA	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	HEANES84	3	%	Carbon_org	5.96	NA	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	HEANES84	3	%	Carbon_org	6.54	NA	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	HEANES84	3	%	Carbon_org	6.92	NA	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	HEANES84	3	%	Carbon_org	6.34	NA	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	HEANES84	3	%	Carbon_org	5.93	NA	T3
273-9_S_high_A	Biosolids and wood ash_high_S	HEANES84	3	%	Carbon_org	7.07	NA	T3
274-9_S_high_B	Biosolids and wood ash_high_S	HEANES84	3	%	Carbon_org	7.07	NA	T3
275-9_S_high_C	Biosolids and wood ash_high_S	HEANES84	3	%	Carbon_org	8.05	NA	T3
276-9_S_high_D	Biosolids and wood ash_high_S	HEANES84	3	%	Carbon_org	6.34	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
277-10_S_high_A	Wood ash and biochar_high_S	HEANES84	3	%	Carbon_org	6.70	NA	T3
278-10_S_high_B	Wood ash and biochar_high_S	HEANES84	3	%	Carbon_org	9.38	NA	T3
279-10_S_high_C	Wood ash and biochar_high_S	HEANES84	3	%	Carbon_org	7.08	NA	T3
280-10_S_high_D	Wood ash and biochar_high_S	HEANES84	4	%	Carbon_org	8.69	NA	T3
281-11_S_high_A	Wood ash and compost_high_S	HEANES84	4	%	Carbon_org	8.86	NA	T3
282-11_S_high_B	Wood ash and compost_high_S	HEANES84	4	%	Carbon_org	9.77	NA	T3
283-11_S_high_C	Wood ash and compost_high_S	HEANES84	4	%	Carbon_org	9.00	NA	T3
284-11_S_high_D	Wood ash and compost_high_S	HEANES84	4	%	Carbon_org	9.68	NA	T3
285-12_S_high_A	Biochar and compost_high_S	HEANES84	4	%	Carbon_org	8.39	NA	T3
286-12_S_high_B	Biochar and compost_high_S	HEANES84	4	%	Carbon_org	11.10	NA	T3
287-12_S_high_C	Biochar and compost_high_S	HEANES84	4	%	Carbon_org	10.53	NA	T3
288-12_S_high_D	Biochar and compost_high_S	HEANES84	4	%	Carbon_org	7.33	NA	T3
289-1_I_low_A	Soluble phosphate_low_I	HEANES84	4	%	Carbon_org	9.01	NA	T3
290-1_I_low_B	Soluble phosphate_low_I	HEANES84	4	%	Carbon_org	7.24	NA	T3
291-1_I_low_C	Soluble phosphate_low_I	HEANES84	4	%	Carbon_org	6.56	NA	T3
292-1_I_low_D	Soluble phosphate_low_I	HEANES84	4	%	Carbon_org	7.86	NA	T3
293-2_I_low_A	Biosolid_low_I	HEANES84	4	%	Carbon_org	10.69	NA	T3
294-2_I_low_B	Biosolid_low_I	HEANES84	4	%	Carbon_org	8.54	NA	T3
295-2_I_low_C	Biosolid_low_I	HEANES84	4	%	Carbon_org	7.45	NA	T3
296-2_I_low_D	Biosolid_low_I	HEANES84	4	%	Carbon_org	6.63	NA	T3
297-3_I_low_A	Wood ash_low_I	HEANES84	4	%	Carbon_org	6.66	NA	T3
298-3_I_low_B	Wood ash_low_I	HEANES84	4	%	Carbon_org	9.21	NA	T3
299-3_I_low_C	Wood ash_low_I	HEANES84	4	%	Carbon_org	8.34	NA	T3
300-3_I_low_D	Wood ash_low_I	HEANES84	4	%	Carbon_org	5.90	NA	T3
301-4_I_low_A	Biochar_low_I	HEANES84	4	%	Carbon_org	8.66	NA	T3
302-4_I_low_B	Biochar_low_I	HEANES84	4	%	Carbon_org	10.23	NA	T3
303-4_I_low_C	Biochar_low_I	HEANES84	4	%	Carbon_org	10.03	NA	T3
304-4_I_low_D	Biochar_low_I	HEANES84	4	%	Carbon_org	9.29	NA	T3
305-5_I_low_A	Compost_low_I	HEANES84	4	%	Carbon_org	11.34	NA	T3
306-5_I_low_B	Compost_low_I	HEANES84	4	%	Carbon_org	7.21	NA	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
307-5_I_low_C	Compost_low_I	HEANES84	4	%	Carbon_org	10.81	NA	T3
308-5_I_low_D	Compost_low_I	HEANES84	4	%	Carbon_org	9.35	NA	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	HEANES84	5	%	Carbon_org	7.64	NA	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	HEANES84	5	%	Carbon_org	7.45	NA	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	HEANES84	5	%	Carbon_org	10.38	NA	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	HEANES84	5	%	Carbon_org	8.53	NA	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	HEANES84	5	%	Carbon_org	8.20	NA	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	HEANES84	5	%	Carbon_org	7.90	NA	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	HEANES84	4	%	Carbon_org	8.71	NA	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	HEANES84	4	%	Carbon_org	7.70	NA	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	HEANES84	5	%	Carbon_org	8.94	NA	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	HEANES84	5	%	Carbon_org	9.59	NA	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	HEANES84	5	%	Carbon_org	6.89	NA	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	HEANES84	5	%	Carbon_org	9.81	NA	T3
321-9_I_low_A	Biosolids and wood ash_low_I	HEANES84	5	%	Carbon_org	7.51	NA	T3
322-9_I_low_B	Biosolids and wood ash_low_I	HEANES84	5	%	Carbon_org	10.54	NA	T3
323-9_I_low_C	Biosolids and wood ash_low_I	HEANES84	5	%	Carbon_org	9.60	NA	T3
324-9_I_low_D	Biosolids and wood ash_low_I	HEANES84	5	%	Carbon_org	7.48	NA	T3
325-10_I_low_A	Wood ash and biochar_low_I	HEANES84	5	%	Carbon_org	8.54	NA	T3
326-10_I_low_B	Wood ash and biochar_low_I	HEANES84	5	%	Carbon_org	7.51	NA	T3
327-10_I_low_C	Wood ash and biochar_low_I	HEANES84	5	%	Carbon_org	8.79	NA	T3
328-10_I_low_D	Wood ash and biochar_low_I	HEANES84	5	%	Carbon_org	8.00	NA	T3
329-11_I_low_A	Wood ash and compost_low_I	HEANES84	5	%	Carbon_org	8.37	NA	T3
330-11_I_low_B	Wood ash and compost_low_I	HEANES84	5	%	Carbon_org	8.38	NA	T3
331-11_I_low_C	Wood ash and compost_low_I	HEANES84	5	%	Carbon_org	9.02	NA	T3
332-11_I_low_D	Wood ash and compost_low_I	HEANES84	5	%	Carbon_org	7.87	NA	T3
333-12_I_low_A	Biochar and compost_low_I	HEANES84	5	%	Carbon_org	10.35	NA	T3
334-12_I_low_B	Biochar and compost_low_I	HEANES84	5	%	Carbon_org	8.69	NA	T3
335-12_I_low_C	Biochar and compost_low_I	HEANES84	5	%	Carbon_org	11.75	NA	T3
336-12_I_low_D	Biochar and compost_low_I	HEANES84	5	%	Carbon_org	9.04	NA	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
337-1_I_high_A	Soluble phosphate_high_I	HEANES84	5	%	Carbon_org	8.54	NA	T3
338-1_I_high_B	Soluble phosphate_high_I	HEANES84	6	%	Carbon_org	8.96	NA	T3
339-1_I_high_C	Soluble phosphate_high_I	HEANES84	6	%	Carbon_org	8.18	NA	T3
340-1_I_high_D	Soluble phosphate_high_I	HEANES84	6	%	Carbon_org	7.62	NA	T3
341-2_I_high_A	Biosolid_high_I	HEANES84	6	%	Carbon_org	9.36	NA	T3
342-2_I_high_B	Biosolid_high_I	HEANES84	6	%	Carbon_org	12.12	NA	T3
343-2_I_high_C	Biosolid_high_I	HEANES84	6	%	Carbon_org	11.78	NA	T3
344-2_I_high_D	Biosolid_high_I	HEANES84	6	%	Carbon_org	12.07	NA	T3
345-3_I_high_A	Wood ash_high_I	HEANES84	6	%	Carbon_org	8.50	NA	T3
346-3_I_high_B	Wood ash_high_I	HEANES84	6	%	Carbon_org	6.84	NA	T3
347-3_I_high_C	Wood ash_high_I	HEANES84	6	%	Carbon_org	7.57	NA	T3
348-3_I_high_D	Wood ash_high_I	HEANES84	6	%	Carbon_org	8.81	NA	T3
349-4_I_high_A	Biochar_high_I	HEANES84	6	%	Carbon_org	7.76	NA	T3
350-4_I_high_B	Biochar_high_I	HEANES84	6	%	Carbon_org	8.59	NA	T3
351-4_I_high_C	Biochar_high_I	HEANES84	6	%	Carbon_org	9.10	NA	T3
352-4_I_high_D	Biochar_high_I	HEANES84	6	%	Carbon_org	8.03	NA	T3
353-5_I_high_A	Compost_high_I	HEANES84	6	%	Carbon_org	8.89	NA	T3
354-5_I_high_B	Compost_high_I	HEANES84	6	%	Carbon_org	9.01	NA	T3
355-5_I_high_C	Compost_high_I	HEANES84	6	%	Carbon_org	9.06	NA	T3
356-5_I_high_D	Compost_high_I	HEANES84	6	%	Carbon_org	8.86	NA	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	HEANES84	6	%	Carbon_org	10.23	NA	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	HEANES84	6	%	Carbon_org	10.49	NA	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	HEANES84	6	%	Carbon_org	10.61	NA	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	HEANES84	6	%	Carbon_org	8.86	NA	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	HEANES84	6	%	Carbon_org	8.36	NA	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	HEANES84	6	%	Carbon_org	7.52	NA	T3
363-7_I_high_C	Soluble phosphate and biochar_high_I	HEANES84	6	%	Carbon_org	8.15	NA	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	HEANES84	6	%	Carbon_org	7.72	NA	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	HEANES84	6	%	Carbon_org	10.37	NA	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	HEANES84	6	%	Carbon_org	8.48	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
367-8_I_high_C	Soluble phosphate and compost_high_I	HEANES84	7	%	Carbon_org	9.88	NA	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	HEANES84	7	%	Carbon_org	9.49	NA	T3
369-9_I_high_A	Biosolids and wood ash_high_I	HEANES84	7	%	Carbon_org	12.42	NA	T3
370-9_I_high_B	Biosolids and wood ash_high_I	HEANES84	7	%	Carbon_org	11.82	NA	T3
371-9_I_high_C	Biosolids and wood ash_high_I	HEANES84	7	%	Carbon_org	14.14	NA	T3
372-9_I_high_D	Biosolids and wood ash_high_I	HEANES84	7	%	Carbon_org	12.33	NA	T3
373-10_I_high_A	Wood ash and biochar_high_I	HEANES84	7	%	Carbon_org	8.31	NA	T3
374-10_I_high_B	Wood ash and biochar_high_I	HEANES84	7	%	Carbon_org	11.78	NA	T3
375-10_I_high_C	Wood ash and biochar_high_I	HEANES84	7	%	Carbon_org	10.19	NA	T3
376-10_I_high_D	Wood ash and biochar_high_I	HEANES84	7	%	Carbon_org	11.48	NA	T3
377-11_I_high_A	Wood ash and compost_high_I	HEANES84	7	%	Carbon_org	8.92	NA	T3
378-11_I_high_B	Wood ash and compost_high_I	HEANES84	7	%	Carbon_org	7.69	NA	T3
379-11_I_high_C	Wood ash and compost_high_I	HEANES84	7	%	Carbon_org	8.45	NA	T3
380-11_I_high_D	Wood ash and compost_high_I	HEANES84	7	%	Carbon_org	9.39	NA	T3
381-12_I_high_A	Biochar and compost_high_I	HEANES84	7	%	Carbon_org	9.40	NA	T3
382-12_I_high_B	Biochar and compost_high_I	HEANES84	7	%	Carbon_org	9.61	NA	T3
383-12_I_high_C	Biochar and compost_high_I	HEANES84	7	%	Carbon_org	12.89	NA	T3
384-12_I_high_D	Biochar and compost_high_I	HEANES84	7	%	Carbon_org	12.58	NA	T3
385-0_I_NA_A	control_none_I	HEANES84	7	%	Carbon_org	7.55	NA	T3
386-0_I_NA_B	control_none_I	HEANES84	7	%	Carbon_org	8.25	NA	T3
387-0_I_NA_C	control_none_I	HEANES84	7	%	Carbon_org	7.53	NA	T3
388-0_I_NA_D	control_none_I	HEANES84	7	%	Carbon_org	6.76	NA	T3
097-1_S_low_A	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Aluminum	2.00E+00	N/A	T3
098-1_S_low_B	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Aluminum	1.85E+00	N/A	T3
099-1_S_low_C	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Aluminum	1.84E+00	N/A	T3
100-1_S_low_D	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Aluminum	1.88E+00	N/A	T3
101-2_S_low_A	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Aluminum	1.36E+00	N/A	T3
102-2_S_low_B	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Aluminum	1.86E+00	N/A	T3
103-2_S_low_C	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Aluminum	2.04E+00	N/A	T3
104-2_S_low_D	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Aluminum	2.24E+00	N/A	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
105-3_S_low_A	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Aluminum	1.66E+00	N/A	T3
106-3_S_low_B	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Aluminum	1.71E+00	N/A	T3
107-3_S_low_C	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Aluminum	1.38E+00	N/A	T3
108-3_S_low_D	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Aluminum	1.89E+00	N/A	T3
109-4_S_low_A	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Aluminum	1.48E+00	N/A	T3
110-4_S_low_B	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Aluminum	1.45E+00	N/A	T3
111-4_S_low_C	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Aluminum	1.30E+00	N/A	T3
112-4_S_low_D	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Aluminum	1.23E+00	N/A	T3
113-5_S_low_A	Compost_low_S	EPA6010C-SPLP	2	mg/L	Aluminum	1.38E+00	N/A	T3
114-5_S_low_B	Compost_low_S	EPA6010C-SPLP	2	mg/L	Aluminum	1.23E+00	N/A	T3
115-5_S_low_C	Compost_low_S	EPA6010C-SPLP	2	mg/L	Aluminum	1.57E+00	N/A	T3
116-5_S_low_D	Compost_low_S	EPA6010C-SPLP	2	mg/L	Aluminum	9.47E-01	N/A	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Aluminum	2.12E+00	N/A	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Aluminum	1.72E+00	N/A	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Aluminum	1.67E+00	N/A	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Aluminum	1.76E+00	N/A	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Aluminum	1.19E+00	N/A	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Aluminum	1.23E+00	N/A	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Aluminum	1.76E+00	N/A	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Aluminum	1.30E+00	N/A	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Aluminum	9.21E-01	N/A	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Aluminum	1.29E+00	N/A	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Aluminum	1.33E+00	N/A	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Aluminum	1.37E+00	N/A	T3
129-9_S_low_A	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Aluminum	1.15E+00	N/A	T3
130-9_S_low_B	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Aluminum	1.04E+00	N/A	T3
131-9_S_low_C	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Aluminum	1.08E+00	N/A	T3
132-9_S_low_D	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Aluminum	1.27E+00	N/A	T3
133-10_S_low_A	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Aluminum	1.70E+00	N/A	T3
134-10_S_low_B	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Aluminum	1.05E+00	N/A	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
135-10_S_low_C	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Aluminum	1.83E+00	N/A	T3
136-10_S_low_D	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Aluminum	1.89E+00	N/A	T3
137-11_S_low_A	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Aluminum	1.05E+00	N/A	T3
138-11_S_low_B	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Aluminum	1.62E+00	N/A	T3
139-11_S_low_C	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Aluminum	1.85E+00	N/A	T3
140-11_S_low_D	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Aluminum	1.74E+00	N/A	T3
141-12_S_low_A	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Aluminum	1.60E+00	N/A	T3
142-12_S_low_B	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Aluminum	1.03E+00	N/A	T3
143-12_S_low_C	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Aluminum	1.67E+00	N/A	T3
144-12_S_low_D	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Aluminum	1.46E+00	N/A	T3
241-1_S_high_A	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Aluminum	1.71E+00	N/A	T3
242-1_S_high_B	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Aluminum	1.32E+00	N/A	T3
243-1_S_high_C	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Aluminum	1.60E+00	N/A	T3
244-1_S_high_D	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Aluminum	1.61E+00	N/A	T3
245-2_S_high_A	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Aluminum	2.88E+00	N/A	T3
246-2_S_high_B	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Aluminum	2.46E+00	N/A	T3
247-2_S_high_C	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Aluminum	2.42E+00	N/A	T3
248-2_S_high_D	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Aluminum	2.95E+00	N/A	T3
249-3_S_high_A	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Aluminum	1.75E+00	N/A	T3
250-3_S_high_B	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Aluminum	1.45E+00	N/A	T3
251-3_S_high_C	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Aluminum	1.76E+00	N/A	T3
252-3_S_high_D	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Aluminum	1.49E+00	N/A	T3
253-4_S_high_A	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Aluminum	1.53E+00	N/A	T3
254-4_S_high_B	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Aluminum	1.81E+00	N/A	T3
255-4_S_high_C	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Aluminum	1.06E+00	N/A	T3
256-4_S_high_D	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Aluminum	1.37E+00	N/A	T3
257-5_S_high_A	Compost_high_S	EPA6010C-SPLP	6	mg/L	Aluminum	1.65E+00	N/A	T3
258-5_S_high_B	Compost_high_S	EPA6010C-SPLP	6	mg/L	Aluminum	1.35E+00	N/A	T3
259-5_S_high_C	Compost_high_S	EPA6010C-SPLP	6	mg/L	Aluminum	1.05E+00	N/A	T3
260-5_S_high_D	Compost_high_S	EPA6010C-SPLP	6	mg/L	Aluminum	1.18E+00	N/A	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
261-6_S_high_A	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Aluminum	2.42E+00	N/A	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Aluminum	1.88E+00	N/A	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Aluminum	1.65E+00	N/A	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Aluminum	1.88E+00	N/A	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Aluminum	1.83E+00	N/A	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Aluminum	1.71E+00	N/A	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Aluminum	1.93E+00	N/A	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Aluminum	1.68E+00	N/A	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Aluminum	1.79E+00	N/A	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Aluminum	1.91E+00	N/A	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Aluminum	1.55E+00	N/A	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Aluminum	1.62E+00	N/A	T3
273-9_S_high_A	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Aluminum	2.48E+00	N/A	T3
274-9_S_high_B	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Aluminum	2.28E+00	N/A	T3
275-9_S_high_C	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Aluminum	1.86E+00	N/A	T3
276-9_S_high_D	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Aluminum	2.63E+00	N/A	T3
277-10_S_high_A	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Aluminum	2.15E+00	N/A	T3
278-10_S_high_B	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Aluminum	1.65E+00	N/A	T3
279-10_S_high_C	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Aluminum	1.74E+00	N/A	T3
280-10_S_high_D	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Aluminum	1.57E+00	N/A	T3
281-11_S_high_A	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Aluminum	1.79E+00	N/A	T3
282-11_S_high_B	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Aluminum	1.84E+00	N/A	T3
283-11_S_high_C	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Aluminum	2.01E+00	N/A	T3
284-11_S_high_D	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Aluminum	1.68E+00	N/A	T3
285-12_S_high_A	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Aluminum	1.98E+00	N/A	T3
286-12_S_high_B	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Aluminum	1.92E+00	N/A	T3
287-12_S_high_C	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Aluminum	2.20E+00	N/A	T3
288-12_S_high_D	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Aluminum	2.22E+00	N/A	T3
289-1_I_low_A	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Aluminum	1.31E+00	N/A	T3
290-1_I_low_B	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Aluminum	1.15E+00	N/A	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
291-1_I_low_C	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Aluminum	1.13E+00	N/A	T3
292-1_I_low_D	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Aluminum	1.53E+00	N/A	T3
293-2_I_low_A	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Aluminum	1.10E+00	N/A	T3
294-2_I_low_B	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Aluminum	1.16E+00	N/A	T3
295-2_I_low_C	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Aluminum	1.25E+00	N/A	T3
296-2_I_low_D	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Aluminum	1.33E+00	N/A	T3
297-3_I_low_A	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Aluminum	1.30E+00	N/A	T3
298-3_I_low_B	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Aluminum	1.35E+00	N/A	T3
299-3_I_low_C	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Aluminum	1.28E+00	N/A	T3
300-3_I_low_D	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Aluminum	1.41E+00	N/A	T3
301-4_I_low_A	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Aluminum	1.27E+00	N/A	T3
302-4_I_low_B	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Aluminum	1.28E+00	N/A	T3
303-4_I_low_C	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Aluminum	1.27E+00	N/A	T3
304-4_I_low_D	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Aluminum	1.43E+00	N/A	T3
305-5_I_low_A	Compost_low_I	EPA6010C-SPLP	10	mg/L	Aluminum	1.32E+00	N/A	T3
306-5_I_low_B	Compost_low_I	EPA6010C-SPLP	10	mg/L	Aluminum	1.25E+00	N/A	T3
307-5_I_low_C	Compost_low_I	EPA6010C-SPLP	10	mg/L	Aluminum	1.23E+00	N/A	T3
308-5_I_low_D	Compost_low_I	EPA6010C-SPLP	10	mg/L	Aluminum	1.24E+00	N/A	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Aluminum	1.09E+00	N/A	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Aluminum	1.90E+00	N/A	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Aluminum	1.98E+00	N/A	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Aluminum	1.47E+00	N/A	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Aluminum	1.41E+00	N/A	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Aluminum	1.15E+00	N/A	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Aluminum	1.00E+00	N/A	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Aluminum	1.02E+00	N/A	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Aluminum	1.36E+00	N/A	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Aluminum	1.18E+00	N/A	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Aluminum	1.20E+00	N/A	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Aluminum	1.06E+00	N/A	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
321-9_I_low_A	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Aluminum	6.00E-01	N/A	T3
322-9_I_low_B	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Aluminum	8.76E-01	N/A	T3
323-9_I_low_C	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Aluminum	8.31E-01	N/A	T3
324-9_I_low_D	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Aluminum	8.44E-01	N/A	T3
325-10_I_low_A	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Aluminum	1.11E+00	N/A	T3
326-10_I_low_B	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Aluminum	1.17E+00	N/A	T3
327-10_I_low_C	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Aluminum	1.09E+00	N/A	T3
328-10_I_low_D	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Aluminum	1.33E+00	N/A	T3
329-11_I_low_A	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Aluminum	1.31E+00	N/A	T3
330-11_I_low_B	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Aluminum	9.49E-01	N/A	T3
331-11_I_low_C	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Aluminum	1.07E+00	N/A	T3
332-11_I_low_D	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Aluminum	1.18E+00	N/A	T3
333-12_I_low_A	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Aluminum	1.29E+00	N/A	T3
334-12_I_low_B	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Aluminum	1.31E+00	N/A	T3
335-12_I_low_C	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Aluminum	1.31E+00	N/A	T3
336-12_I_low_D	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Aluminum	1.23E+00	N/A	T3
337-1_I_high_A	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Aluminum	1.47E+00	N/A	T3
338-1_I_high_B	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Aluminum	1.33E+00	N/A	T3
339-1_I_high_C	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Aluminum	1.39E+00	N/A	T3
340-1_I_high_D	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Aluminum	1.30E+00	N/A	T3
341-2_I_high_A	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Aluminum	7.27E-01	N/A	T3
342-2_I_high_B	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Aluminum	8.20E-01	N/A	T3
343-2_I_high_C	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Aluminum	6.96E-01	N/A	T3
344-2_I_high_D	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Aluminum	6.70E-01	N/A	T3
345-3_I_high_A	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Aluminum	1.02E+00	N/A	T3
346-3_I_high_B	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Aluminum	1.39E+00	N/A	T3
347-3_I_high_C	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Aluminum	1.29E+00	N/A	T3
348-3_I_high_D	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Aluminum	1.24E+00	N/A	T3
349-4_I_high_A	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Aluminum	1.03E+00	dup1	T3
350-4_I_high_B	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Aluminum	1.18E+00	dup1	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
351-4_I_high_C	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Aluminum	1.17E+00	dup1	T3
352-4_I_high_D	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Aluminum	1.22E+00	dup1	T3
353-5_I_high_A	Compost_high_I	EPA6010C-SPLP	14	mg/L	Aluminum	1.44E+00	dup1	T3
354-5_I_high_B	Compost_high_I	EPA6010C-SPLP	14	mg/L	Aluminum	1.28E+00	dup1	T3
355-5_I_high_C	Compost_high_I	EPA6010C-SPLP	14	mg/L	Aluminum	1.22E+00	dup1	T3
356-5_I_high_D	Compost_high_I	EPA6010C-SPLP	14	mg/L	Aluminum	1.06E+00	dup1	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Aluminum	8.54E-01	dup1	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Aluminum	8.82E-01	dup1	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Aluminum	6.70E-01	dup1	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Aluminum	8.00E-01	dup1	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Aluminum	7.92E-01	dup1	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Aluminum	1.21E+00	dup1	T3
363-7_I_high_C	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Aluminum	1.57E+00	dup1	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Aluminum	1.02E+00	dup1	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Aluminum	1.43E+00	dup1	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Aluminum	1.24E+00	dup1	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Aluminum	1.63E+00	dup1	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Aluminum	1.24E+00	dup1	T3
369-9_I_high_A	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Aluminum	6.07E-01	dup1	T3
370-9_I_high_B	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Aluminum	6.80E-01	dup1	T3
371-9_I_high_C	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Aluminum	5.74E-01	dup1	T3
372-9_I_high_D	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Aluminum	1.22E+00	dup1	T3
373-10_I_high_A	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Aluminum	8.27E-01	dup1	T3
374-10_I_high_B	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Aluminum	1.63E+00	dup1	T3
375-10_I_high_C	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Aluminum	1.41E+00	dup1	T3
376-10_I_high_D	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Aluminum	1.39E+00	dup1	T3
377-11_I_high_A	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Aluminum	1.18E+00	dup1	T3
378-11_I_high_B	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Aluminum	9.45E-01	dup1	T3
379-11_I_high_C	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Aluminum	1.55E+00	dup1	T3
380-11_I_high_D	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Aluminum	1.20E+00	dup1	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
381-12_I_high_A	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Aluminum	1.38E+00	dup1	T3
382-12_I_high_B	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Aluminum	1.17E+00	dup1	T3
383-12_I_high_C	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Aluminum	1.52E+00	dup1	T3
384-12_I_high_D	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Aluminum	1.04E+00	dup1	T3
385-0_I_NA_A	control_none_I	EPA6010C-SPLP	17	mg/L	Aluminum	1.29E+00	N/A	T3
386-0_I_NA_B	control_none_I	EPA6010C-SPLP	17	mg/L	Aluminum	1.18E+00	N/A	T3
387-0_I_NA_C	control_none_I	EPA6010C-SPLP	17	mg/L	Aluminum	9.70E-01	N/A	T3
388-0_I_NA_D	control_none_I	EPA6010C-SPLP	17	mg/L	Aluminum	1.24E+00	N/A	T3
097-1_S_low_A	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Antimony	2.34E-02	N/A rl	T3
098-1_S_low_B	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Antimony	2.49E-02	N/A rl	T3
099-1_S_low_C	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Antimony	1.83E-02	N/A rl	T3
100-1_S_low_D	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Antimony	2.83E-02	N/A rl	T3
101-2_S_low_A	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Antimony	1.85E-02	N/A rl	T3
102-2_S_low_B	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Antimony	1.97E-02	N/A rl	T3
103-2_S_low_C	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Antimony	2.33E-02	N/A rl	T3
104-2_S_low_D	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Antimony	2.42E-02	N/A rl	T3
105-3_S_low_A	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Antimony	1.76E-02	N/A rl	T3
106-3_S_low_B	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Antimony	2.12E-02	N/A rl	T3
107-3_S_low_C	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Antimony	1.48E-02	N/A rl	T3
108-3_S_low_D	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Antimony	2.56E-02	N/A rl	T3
109-4_S_low_A	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Antimony	2.49E-02	N/A rl	T3
110-4_S_low_B	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Antimony	1.46E-02	N/A rl	T3
111-4_S_low_C	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Antimony	1.56E-02	N/A rl	T3
112-4_S_low_D	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Antimony	1.48E-02	N/A rl	T3
113-5_S_low_A	Compost_low_S	EPA6010C-SPLP	2	mg/L	Antimony	2.02E-02	N/A rl	T3
114-5_S_low_B	Compost_low_S	EPA6010C-SPLP	2	mg/L	Antimony	1.07E-02	N/A rl	T3
115-5_S_low_C	Compost_low_S	EPA6010C-SPLP	2	mg/L	Antimony	3.21E-02	N/A rl	T3
116-5_S_low_D	Compost_low_S	EPA6010C-SPLP	2	mg/L	Antimony	1.35E-02	N/A rl	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Antimony	2.60E-02	N/A rl	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Antimony	2.14E-02	N/A rl	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
119-6_S_low_C	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Antimony	2.11E-02	N/A rl	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Antimony	1.49E-02	N/A rl	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Antimony	1.94E-02	N/A rl	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Antimony	1.98E-02	N/A rl	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Antimony	3.16E-02	N/A rl	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Antimony	2.39E-02	N/A rl	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Antimony	1.46E-02	N/A rl	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Antimony	2.36E-02	N/A rl	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Antimony	1.57E-02	N/A rl	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Antimony	1.63E-02	N/A rl	T3
129-9_S_low_A	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Antimony	2.58E-02	N/A rl	T3
130-9_S_low_B	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Antimony	2.41E-02	N/A rl	T3
131-9_S_low_C	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Antimony	1.96E-02	N/A rl	T3
132-9_S_low_D	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Antimony	1.14E-02	N/A rl	T3
133-10_S_low_A	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Antimony	2.42E-02	N/A rl	T3
134-10_S_low_B	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Antimony	1.53E-02	N/A rl	T3
135-10_S_low_C	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Antimony	2.43E-02	N/A rl	T3
136-10_S_low_D	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Antimony	2.56E-02	N/A rl	T3
137-11_S_low_A	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Antimony	1.65E-02	N/A rl	T3
138-11_S_low_B	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Antimony	2.04E-02	N/A rl	T3
139-11_S_low_C	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Antimony	2.28E-02	N/A rl	T3
140-11_S_low_D	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Antimony	1.79E-02	N/A rl	T3
141-12_S_low_A	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Antimony	1.64E-02	N/A rl	T3
142-12_S_low_B	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Antimony	1.29E-02	N/A rl	T3
143-12_S_low_C	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Antimony	1.74E-02	N/A rl	T3
144-12_S_low_D	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Antimony	1.89E-02	N/A rl	T3
241-1_S_high_A	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Antimony	2.75E-02	N/A rl	T3
242-1_S_high_B	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Antimony	2.02E-02	N/A rl	T3
243-1_S_high_C	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Antimony	2.09E-02	N/A rl	T3
244-1_S_high_D	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Antimony	2.20E-02	N/A rl	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
245-2_S_high_A	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Antimony	4.36E-02	N/A rl	T3
246-2_S_high_B	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Antimony	3.74E-02	N/A rl	T3
247-2_S_high_C	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Antimony	3.10E-02	N/A rl	T3
248-2_S_high_D	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Antimony	3.60E-02	N/A rl	T3
249-3_S_high_A	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Antimony	1.74E-02	N/A rl	T3
250-3_S_high_B	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Antimony	1.47E-02	N/A rl	T3
251-3_S_high_C	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Antimony	2.39E-02	N/A rl	T3
252-3_S_high_D	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Antimony	1.40E-02	N/A rl	T3
253-4_S_high_A	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Antimony	1.96E-02	N/A rl	T3
254-4_S_high_B	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Antimony	3.32E-02	N/A rl	T3
255-4_S_high_C	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Antimony	1.60E-02	N/A rl	T3
256-4_S_high_D	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Antimony	1.89E-02	N/A rl	T3
257-5_S_high_A	Compost_high_S	EPA6010C-SPLP	6	mg/L	Antimony	3.47E-02	N/A rl	T3
258-5_S_high_B	Compost_high_S	EPA6010C-SPLP	6	mg/L	Antimony	1.85E-02	N/A rl	T3
259-5_S_high_C	Compost_high_S	EPA6010C-SPLP	6	mg/L	Antimony	1.54E-02	N/A rl	T3
260-5_S_high_D	Compost_high_S	EPA6010C-SPLP	6	mg/L	Antimony	1.64E-02	N/A rl	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Antimony	2.83E-02	N/A rl	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Antimony	3.49E-02	N/A rl	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Antimony	2.53E-02	N/A rl	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Antimony	2.57E-02	N/A rl	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Antimony	2.14E-02	N/A rl	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Antimony	2.78E-02	N/A rl	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Antimony	2.84E-02	N/A rl	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Antimony	4.08E-02	N/A rl	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Antimony	1.96E-02	N/A rl	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Antimony	1.85E-02	N/A rl	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Antimony	2.43E-02	N/A rl	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Antimony	2.17E-02	N/A rl	T3
273-9_S_high_A	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Antimony	4.05E-02	N/A rl	T3
274-9_S_high_B	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Antimony	4.75E-02	N/A rl	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
275-9_S_high_C	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Antimony	3.06E-02	N/A rl	T3
276-9_S_high_D	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Antimony	5.46E-02	N/A rl	T3
277-10_S_high_A	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Antimony	3.82E-02	N/A rl	T3
278-10_S_high_B	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Antimony	2.47E-02	N/A rl	T3
279-10_S_high_C	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Antimony	2.98E-02	N/A rl	T3
280-10_S_high_D	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Antimony	2.38E-02	N/A rl	T3
281-11_S_high_A	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Antimony	2.77E-02	N/A rl	T3
282-11_S_high_B	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Antimony	2.87E-02	N/A rl	T3
283-11_S_high_C	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Antimony	2.74E-02	N/A rl	T3
284-11_S_high_D	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Antimony	1.77E-02	N/A rl	T3
285-12_S_high_A	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Antimony	2.42E-02	N/A rl	T3
286-12_S_high_B	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Antimony	1.94E-02	N/A rl	T3
287-12_S_high_C	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Antimony	2.04E-02	N/A rl	T3
288-12_S_high_D	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Antimony	2.29E-02	N/A rl	T3
289-1_I_low_A	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Antimony	4.46E-02	N/A rl	T3
290-1_I_low_B	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Antimony	3.63E-02	N/A rl	T3
291-1_I_low_C	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Antimony	3.96E-02	N/A rl	T3
292-1_I_low_D	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Antimony	3.70E-02	N/A rl	T3
293-2_I_low_A	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Antimony	4.54E-02	N/A rl	T3
294-2_I_low_B	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Antimony	4.16E-02	N/A rl	T3
295-2_I_low_C	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Antimony	5.20E-02	N/A rl	T3
296-2_I_low_D	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Antimony	4.85E-02	N/A rl	T3
297-3_I_low_A	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Antimony	4.22E-02	N/A rl	T3
298-3_I_low_B	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Antimony	4.06E-02	N/A rl	T3
299-3_I_low_C	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Antimony	4.04E-02	N/A rl	T3
300-3_I_low_D	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Antimony	4.39E-02	N/A rl	T3
301-4_I_low_A	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Antimony	2.87E-02	N/A rl	T3
302-4_I_low_B	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Antimony	3.07E-02	N/A rl	T3
303-4_I_low_C	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Antimony	3.44E-02	N/A rl	T3
304-4_I_low_D	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Antimony	3.61E-02	N/A rl	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
305-5_I_low_A	Compost_low_I	EPA6010C-SPLP	10	mg/L	Antimony	2.99E-02	N/A rl	T3
306-5_I_low_B	Compost_low_I	EPA6010C-SPLP	10	mg/L	Antimony	2.69E-02	N/A rl	T3
307-5_I_low_C	Compost_low_I	EPA6010C-SPLP	10	mg/L	Antimony	3.27E-02	N/A rl	T3
308-5_I_low_D	Compost_low_I	EPA6010C-SPLP	10	mg/L	Antimony	3.15E-02	N/A rl	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Antimony	3.34E-02	N/A rl	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Antimony	3.50E-02	N/A rl	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Antimony	2.80E-02	N/A rl	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Antimony	3.34E-02	N/A rl	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Antimony	3.39E-02	N/A rl	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Antimony	3.68E-02	N/A rl	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Antimony	2.95E-02	N/A rl	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Antimony	2.98E-02	N/A rl	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Antimony	3.42E-02	N/A rl	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Antimony	2.94E-02	N/A rl	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Antimony	3.15E-02	N/A rl	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Antimony	2.63E-02	N/A rl	T3
321-9_I_low_A	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Antimony	3.30E-02	N/A rl	T3
322-9_I_low_B	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Antimony	4.07E-02	N/A rl	T3
323-9_I_low_C	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Antimony	2.30E-02	N/A rl	T3
324-9_I_low_D	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Antimony	4.26E-02	N/A rl	T3
325-10_I_low_A	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Antimony	3.21E-02	N/A rl	T3
326-10_I_low_B	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Antimony	3.74E-02	N/A rl	T3
327-10_I_low_C	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Antimony	1.60E-02	N/A rl	T3
328-10_I_low_D	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Antimony	3.39E-02	N/A rl	T3
329-11_I_low_A	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Antimony	4.16E-02	N/A rl	T3
330-11_I_low_B	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Antimony	1.54E-02	N/A rl	T3
331-11_I_low_C	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Antimony	3.42E-02	N/A rl	T3
332-11_I_low_D	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Antimony	3.46E-02	N/A rl	T3
333-12_I_low_A	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Antimony	3.34E-02	N/A rl	T3
334-12_I_low_B	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Antimony	3.73E-02	N/A rl	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
335-12_I_low_C	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Antimony	3.99E-02	N/A rl	T3
336-12_I_low_D	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Antimony	3.42E-02	N/A rl	T3
337-1_I_high_A	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Antimony	2.92E-02	N/A rl	T3
338-1_I_high_B	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Antimony	2.44E-02	N/A rl	T3
339-1_I_high_C	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Antimony	3.57E-02	N/A rl	T3
340-1_I_high_D	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Antimony	2.00E-02	N/A rl	T3
341-2_I_high_A	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Antimony	2.09E-02	N/A rl	T3
342-2_I_high_B	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Antimony	1.35E-02	N/A rl	T3
343-2_I_high_C	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Antimony	1.00E-02	N/A rl	T3
344-2_I_high_D	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Antimony	1.55E-02	N/A rl	T3
345-3_I_high_A	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Antimony	4.16E-02	N/A rl	T3
346-3_I_high_B	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Antimony	4.28E-02	N/A rl	T3
347-3_I_high_C	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Antimony	3.41E-02	N/A rl	T3
348-3_I_high_D	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Antimony	3.15E-02	N/A rl	T3
349-4_I_high_A	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Antimony	3.52E-02	N/A rl	T3
350-4_I_high_B	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Antimony	3.81E-02	N/A rl	T3
351-4_I_high_C	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Antimony	3.50E-02	N/A rl	T3
352-4_I_high_D	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Antimony	3.79E-02	N/A rl	T3
353-5_I_high_A	Compost_high_I	EPA6010C-SPLP	14	mg/L	Antimony	2.36E-02	N/A rl	T3
354-5_I_high_B	Compost_high_I	EPA6010C-SPLP	14	mg/L	Antimony	3.11E-02	N/A rl	T3
355-5_I_high_C	Compost_high_I	EPA6010C-SPLP	14	mg/L	Antimony	2.77E-02	N/A rl	T3
356-5_I_high_D	Compost_high_I	EPA6010C-SPLP	14	mg/L	Antimony	2.68E-02	N/A rl	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Antimony	1.11E-02	N/A rl	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Antimony	1.24E-02	N/A rl	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Antimony	9.27E-03	N/A rl	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Antimony	1.66E-02	N/A rl	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Antimony	3.12E-02	N/A rl	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Antimony	3.18E-02	N/A rl	T3
363-7_I_high_C	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Antimony	4.33E-02	N/A rl	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Antimony	3.69E-02	N/A rl	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
365-8_I_high_A	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Antimony	3.13E-02	N/A rl	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Antimony	1.99E-02	N/A rl	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Antimony	2.75E-02	N/A rl	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Antimony	2.98E-02	N/A rl	T3
369-9_I_high_A	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Antimony	1.78E-02	N/A rl	T3
370-9_I_high_B	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Antimony	2.89E-02	N/A rl	T3
371-9_I_high_C	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Antimony	2.11E-02	N/A rl	T3
372-9_I_high_D	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Antimony	3.30E-02	N/A rl	T3
373-10_I_high_A	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Antimony	4.23E-02	N/A rl	T3
374-10_I_high_B	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Antimony	5.02E-02	N/A rl	T3
375-10_I_high_C	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Antimony	4.63E-02	N/A rl	T3
376-10_I_high_D	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Antimony	4.70E-02	N/A rl	T3
377-11_I_high_A	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Antimony	3.66E-02	N/A rl	T3
378-11_I_high_B	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Antimony	4.10E-02	N/A rl	T3
379-11_I_high_C	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Antimony	3.86E-02	N/A rl	T3
380-11_I_high_D	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Antimony	4.00E-02	N/A rl	T3
381-12_I_high_A	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Antimony	2.95E-02	N/A rl	T3
382-12_I_high_B	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Antimony	2.36E-02	N/A rl	T3
383-12_I_high_C	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Antimony	1.60E-02	N/A rl	T3
384-12_I_high_D	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Antimony	2.83E-02	N/A rl	T3
385-0_I_NA_A	control_none_I	EPA6010C-SPLP	17	mg/L	Antimony	3.20E-02	N/A rl	T3
386-0_I_NA_B	control_none_I	EPA6010C-SPLP	17	mg/L	Antimony	3.09E-02	N/A rl	T3
387-0_I_NA_C	control_none_I	EPA6010C-SPLP	17	mg/L	Antimony	2.48E-02	N/A rl	T3
388-0_I_NA_D	control_none_I	EPA6010C-SPLP	17	mg/L	Antimony	3.90E-02	N/A rl	T3
097-1_S_low_A	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Arsenic	9.04E-02	N/A	T3
098-1_S_low_B	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Arsenic	9.84E-02	N/A	T3
099-1_S_low_C	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Arsenic	8.53E-02	N/A	T3
100-1_S_low_D	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Arsenic	9.70E-02	N/A	T3
101-2_S_low_A	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Arsenic	6.36E-02	N/A	T3
102-2_S_low_B	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Arsenic	5.61E-02	N/A	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
103-2_S_low_C	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Arsenic	7.73E-02	N/A	T3
104-2_S_low_D	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Arsenic	6.63E-02	N/A	T3
105-3_S_low_A	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Arsenic	4.10E-02	N/A rl	T3
106-3_S_low_B	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Arsenic	4.59E-02	N/A rl	T3
107-3_S_low_C	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Arsenic	3.13E-02	N/A rl	T3
108-3_S_low_D	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Arsenic	5.05E-02	N/A	T3
109-4_S_low_A	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Arsenic	5.30E-02	N/A	T3
110-4_S_low_B	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Arsenic	3.98E-02	N/A rl	T3
111-4_S_low_C	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Arsenic	3.69E-02	N/A rl	T3
112-4_S_low_D	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Arsenic	3.40E-02	N/A rl	T3
113-5_S_low_A	Compost_low_S	EPA6010C-SPLP	2	mg/L	Arsenic	3.52E-02	N/A rl	T3
114-5_S_low_B	Compost_low_S	EPA6010C-SPLP	2	mg/L	Arsenic	3.42E-02	N/A rl	T3
115-5_S_low_C	Compost_low_S	EPA6010C-SPLP	2	mg/L	Arsenic	4.90E-02	N/A rl	T3
116-5_S_low_D	Compost_low_S	EPA6010C-SPLP	2	mg/L	Arsenic	2.72E-02	N/A rl	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Arsenic	1.16E-01	N/A	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Arsenic	8.03E-02	N/A	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Arsenic	8.82E-02	N/A	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Arsenic	9.27E-02	N/A	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Arsenic	6.99E-02	N/A	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Arsenic	7.55E-02	N/A	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Arsenic	1.05E-01	N/A	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Arsenic	8.38E-02	N/A	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Arsenic	6.33E-02	N/A	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Arsenic	1.04E-01	N/A	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Arsenic	8.70E-02	N/A	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Arsenic	7.73E-02	N/A	T3
129-9_S_low_A	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Arsenic	5.64E-02	N/A	T3
130-9_S_low_B	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Arsenic	6.38E-02	N/A	T3
131-9_S_low_C	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Arsenic	5.50E-02	N/A	T3
132-9_S_low_D	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Arsenic	4.71E-02	N/A rl	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
133-10_S_low_A	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Arsenic	6.18E-02	N/A	T3
134-10_S_low_B	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Arsenic	4.45E-02	N/A rl	T3
135-10_S_low_C	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Arsenic	6.50E-02	N/A	T3
136-10_S_low_D	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Arsenic	5.72E-02	N/A	T3
137-11_S_low_A	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Arsenic	3.96E-02	N/A rl	T3
138-11_S_low_B	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Arsenic	5.13E-02	N/A	T3
139-11_S_low_C	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Arsenic	4.96E-02	N/A rl	T3
140-11_S_low_D	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Arsenic	4.59E-02	N/A rl	T3
141-12_S_low_A	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Arsenic	3.86E-02	N/A rl	T3
142-12_S_low_B	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Arsenic	3.90E-02	N/A rl	T3
143-12_S_low_C	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Arsenic	4.11E-02	N/A rl	T3
144-12_S_low_D	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Arsenic	4.29E-02	N/A rl	T3
241-1_S_high_A	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Arsenic	1.86E-01	N/A	T3
242-1_S_high_B	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Arsenic	1.32E-01	N/A	T3
243-1_S_high_C	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Arsenic	1.53E-01	N/A	T3
244-1_S_high_D	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Arsenic	1.52E-01	N/A	T3
245-2_S_high_A	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Arsenic	1.19E-01	N/A	T3
246-2_S_high_B	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Arsenic	1.19E-01	N/A	T3
247-2_S_high_C	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Arsenic	1.01E-01	N/A	T3
248-2_S_high_D	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Arsenic	1.18E-01	N/A	T3
249-3_S_high_A	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Arsenic	3.75E-02	N/A rl	T3
250-3_S_high_B	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Arsenic	3.30E-02	N/A rl	T3
251-3_S_high_C	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Arsenic	4.38E-02	N/A rl	T3
252-3_S_high_D	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Arsenic	3.90E-02	N/A rl	T3
253-4_S_high_A	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Arsenic	4.52E-02	N/A rl	T3
254-4_S_high_B	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Arsenic	5.69E-02	N/A	T3
255-4_S_high_C	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Arsenic	3.61E-02	N/A rl	T3
256-4_S_high_D	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Arsenic	3.77E-02	N/A rl	T3
257-5_S_high_A	Compost_high_S	EPA6010C-SPLP	6	mg/L	Arsenic	5.52E-02	N/A	T3
258-5_S_high_B	Compost_high_S	EPA6010C-SPLP	6	mg/L	Arsenic	3.90E-02	N/A rl	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
259-5_S_high_C	Compost_high_S	EPA6010C-SPLP	6	mg/L	Arsenic	3.25E-02	N/A rl	T3
260-5_S_high_D	Compost_high_S	EPA6010C-SPLP	6	mg/L	Arsenic	2.85E-02	N/A rl	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Arsenic	1.69E-01	N/A	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Arsenic	1.67E-01	N/A	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Arsenic	1.35E-01	N/A	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Arsenic	1.43E-01	N/A	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Arsenic	1.14E-01	N/A	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Arsenic	1.57E-01	N/A	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Arsenic	1.46E-01	N/A	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Arsenic	2.13E-01	N/A	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Arsenic	1.42E-01	N/A	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Arsenic	1.27E-01	N/A	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Arsenic	1.38E-01	N/A	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Arsenic	1.56E-01	N/A	T3
273-9_S_high_A	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Arsenic	1.23E-01	N/A	T3
274-9_S_high_B	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Arsenic	1.30E-01	N/A	T3
275-9_S_high_C	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Arsenic	8.66E-02	N/A	T3
276-9_S_high_D	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Arsenic	1.40E-01	N/A	T3
277-10_S_high_A	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Arsenic	6.11E-02	N/A	T3
278-10_S_high_B	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Arsenic	4.93E-02	N/A rl	T3
279-10_S_high_C	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Arsenic	4.84E-02	N/A rl	T3
280-10_S_high_D	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Arsenic	5.16E-02	N/A	T3
281-11_S_high_A	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Arsenic	5.06E-02	N/A	T3
282-11_S_high_B	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Arsenic	5.39E-02	N/A	T3
283-11_S_high_C	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Arsenic	5.78E-02	N/A	T3
284-11_S_high_D	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Arsenic	4.66E-02	N/A rl	T3
285-12_S_high_A	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Arsenic	5.51E-02	N/A	T3
286-12_S_high_B	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Arsenic	4.70E-02	N/A rl	T3
287-12_S_high_C	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Arsenic	5.68E-02	N/A	T3
288-12_S_high_D	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Arsenic	5.47E-02	N/A	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
289-1_I_low_A	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Arsenic	7.70E-02	N/A	T3
290-1_I_low_B	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Arsenic	7.59E-02	N/A	T3
291-1_I_low_C	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Arsenic	7.34E-02	N/A	T3
292-1_I_low_D	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Arsenic	7.66E-02	N/A	T3
293-2_I_low_A	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Arsenic	6.09E-02	N/A	T3
294-2_I_low_B	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Arsenic	5.31E-02	N/A	T3
295-2_I_low_C	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Arsenic	6.37E-02	N/A	T3
296-2_I_low_D	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Arsenic	6.29E-02	N/A	T3
297-3_I_low_A	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Arsenic	4.03E-02	N/A rl	T3
298-3_I_low_B	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Arsenic	4.60E-02	N/A rl	T3
299-3_I_low_C	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Arsenic	3.61E-02	N/A rl	T3
300-3_I_low_D	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Arsenic	3.95E-02	N/A rl	T3
301-4_I_low_A	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Arsenic	3.36E-02	N/A rl	T3
302-4_I_low_B	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Arsenic	3.34E-02	N/A rl	T3
303-4_I_low_C	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Arsenic	3.40E-02	N/A rl	T3
304-4_I_low_D	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Arsenic	3.52E-02	N/A rl	T3
305-5_I_low_A	Compost_low_I	EPA6010C-SPLP	10	mg/L	Arsenic	3.50E-02	N/A rl	T3
306-5_I_low_B	Compost_low_I	EPA6010C-SPLP	10	mg/L	Arsenic	3.05E-02	N/A rl	T3
307-5_I_low_C	Compost_low_I	EPA6010C-SPLP	10	mg/L	Arsenic	2.76E-02	N/A rl	T3
308-5_I_low_D	Compost_low_I	EPA6010C-SPLP	10	mg/L	Arsenic	2.92E-02	N/A rl	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Arsenic	7.49E-02	N/A	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Arsenic	1.15E-01	N/A	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Arsenic	9.14E-02	N/A	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Arsenic	9.35E-02	N/A	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Arsenic	6.78E-02	N/A	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Arsenic	6.58E-02	N/A	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Arsenic	5.76E-02	N/A	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Arsenic	6.10E-02	N/A	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Arsenic	7.96E-02	N/A	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Arsenic	6.68E-02	N/A	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
319-8_I_low_C	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Arsenic	7.35E-02	N/A	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Arsenic	5.71E-02	N/A	T3
321-9_I_low_A	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Arsenic	5.14E-02	N/A	T3
322-9_I_low_B	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Arsenic	4.49E-02	N/A rl	T3
323-9_I_low_C	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Arsenic	3.71E-02	N/A rl	T3
324-9_I_low_D	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Arsenic	4.68E-02	N/A rl	T3
325-10_I_low_A	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Arsenic	4.04E-02	N/A rl	T3
326-10_I_low_B	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Arsenic	4.13E-02	N/A rl	T3
327-10_I_low_C	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Arsenic	2.92E-02	N/A rl	T3
328-10_I_low_D	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Arsenic	3.84E-02	N/A rl	T3
329-11_I_low_A	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Arsenic	3.83E-02	N/A rl	T3
330-11_I_low_B	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Arsenic	2.62E-02	N/A rl	T3
331-11_I_low_C	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Arsenic	3.50E-02	N/A rl	T3
332-11_I_low_D	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Arsenic	3.53E-02	N/A rl	T3
333-12_I_low_A	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Arsenic	3.00E-02	N/A rl	T3
334-12_I_low_B	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Arsenic	3.68E-02	N/A rl	T3
335-12_I_low_C	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Arsenic	2.99E-02	N/A rl	T3
336-12_I_low_D	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Arsenic	3.03E-02	N/A rl	T3
337-1_I_high_A	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Arsenic	1.41E-01	N/A	T3
338-1_I_high_B	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Arsenic	1.25E-01	N/A	T3
339-1_I_high_C	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Arsenic	1.51E-01	N/A	T3
340-1_I_high_D	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Arsenic	1.13E-01	N/A	T3
341-2_I_high_A	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Arsenic	5.81E-02	N/A	T3
342-2_I_high_B	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Arsenic	6.95E-02	N/A	T3
343-2_I_high_C	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Arsenic	5.63E-02	N/A	T3
344-2_I_high_D	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Arsenic	5.33E-02	N/A	T3
345-3_I_high_A	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Arsenic	3.66E-02	N/A rl	T3
346-3_I_high_B	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Arsenic	4.39E-02	N/A rl	T3
347-3_I_high_C	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Arsenic	3.93E-02	N/A rl	T3
348-3_I_high_D	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Arsenic	4.02E-02	N/A rl	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
349-4_I_high_A	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Arsenic	2.41E-02	N/A rl	T3
350-4_I_high_B	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Arsenic	3.03E-02	N/A rl	T3
351-4_I_high_C	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Arsenic	3.20E-02	N/A rl	T3
352-4_I_high_D	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Arsenic	3.78E-02	N/A rl	T3
353-5_I_high_A	Compost_high_I	EPA6010C-SPLP	14	mg/L	Arsenic	4.39E-02	N/A rl	T3
354-5_I_high_B	Compost_high_I	EPA6010C-SPLP	14	mg/L	Arsenic	3.93E-02	N/A rl	T3
355-5_I_high_C	Compost_high_I	EPA6010C-SPLP	14	mg/L	Arsenic	3.95E-02	N/A rl	T3
356-5_I_high_D	Compost_high_I	EPA6010C-SPLP	14	mg/L	Arsenic	3.77E-02	N/A rl	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Arsenic	9.57E-02	N/A	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Arsenic	9.88E-02	N/A	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Arsenic	9.38E-02	N/A	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Arsenic	1.06E-01	N/A	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Arsenic	1.33E-01	N/A	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Arsenic	1.56E-01	N/A	T3
363-7_I_high_C	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Arsenic	1.93E-01	N/A	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Arsenic	1.60E-01	N/A	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Arsenic	1.68E-01	N/A	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Arsenic	1.33E-01	N/A	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Arsenic	1.62E-01	N/A	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Arsenic	1.57E-01	N/A	T3
369-9_I_high_A	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Arsenic	4.24E-02	N/A rl	T3
370-9_I_high_B	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Arsenic	4.82E-02	N/A rl	T3
371-9_I_high_C	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Arsenic	4.39E-02	N/A rl	T3
372-9_I_high_D	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Arsenic	5.75E-02	N/A	T3
373-10_I_high_A	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Arsenic	3.48E-02	N/A rl	T3
374-10_I_high_B	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Arsenic	5.23E-02	N/A	T3
375-10_I_high_C	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Arsenic	4.57E-02	N/A rl	T3
376-10_I_high_D	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Arsenic	4.18E-02	N/A rl	T3
377-11_I_high_A	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Arsenic	5.40E-02	N/A	T3
378-11_I_high_B	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Arsenic	4.72E-02	N/A rl	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
379-11_I_high_C	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Arsenic	5.74E-02	N/A	T3
380-11_I_high_D	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Arsenic	4.91E-02	N/A rl	T3
381-12_I_high_A	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Arsenic	5.04E-02	N/A	T3
382-12_I_high_B	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Arsenic	3.85E-02	N/A rl	T3
383-12_I_high_C	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Arsenic	4.69E-02	N/A rl	T3
384-12_I_high_D	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Arsenic	4.47E-02	N/A rl	T3
385-0_I_NA_A	control_none_I	EPA6010C-SPLP	17	mg/L	Arsenic	3.28E-02	N/A rl	T3
386-0_I_NA_B	control_none_I	EPA6010C-SPLP	17	mg/L	Arsenic	3.09E-02	N/A rl	T3
387-0_I_NA_C	control_none_I	EPA6010C-SPLP	17	mg/L	Arsenic	2.28E-02	N/A rl	T3
388-0_I_NA_D	control_none_I	EPA6010C-SPLP	17	mg/L	Arsenic	3.34E-02	N/A rl	T3
097-1_S_low_A	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Barium	2.74E-02	N/A rl	T3
098-1_S_low_B	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Barium	2.33E-02	N/A rl	T3
099-1_S_low_C	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Barium	1.96E-02	N/A rl	T3
100-1_S_low_D	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Barium	2.10E-02	N/A rl	T3
101-2_S_low_A	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Barium	1.37E-02	N/A rl	T3
102-2_S_low_B	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Barium	1.46E-02	N/A rl	T3
103-2_S_low_C	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Barium	1.19E-02	N/A rl	T3
104-2_S_low_D	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Barium	9.66E-03	N/A rl	T3
105-3_S_low_A	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Barium	2.51E-02	N/A rl	T3
106-3_S_low_B	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Barium	1.95E-02	N/A rl	T3
107-3_S_low_C	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Barium	2.62E-02	N/A rl	T3
108-3_S_low_D	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Barium	1.85E-02	N/A rl	T3
109-4_S_low_A	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Barium	2.05E-02	N/A rl	T3
110-4_S_low_B	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Barium	2.06E-02	N/A rl	T3
111-4_S_low_C	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Barium	2.37E-02	N/A rl	T3
112-4_S_low_D	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Barium	2.31E-02	N/A rl	T3
113-5_S_low_A	Compost_low_S	EPA6010C-SPLP	2	mg/L	Barium	3.10E-02	N/A rl	T3
114-5_S_low_B	Compost_low_S	EPA6010C-SPLP	2	mg/L	Barium	3.24E-02	N/A rl	T3
115-5_S_low_C	Compost_low_S	EPA6010C-SPLP	2	mg/L	Barium	3.10E-02	N/A rl	T3
116-5_S_low_D	Compost_low_S	EPA6010C-SPLP	2	mg/L	Barium	4.22E-02	N/A rl	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
117-6_S_low_A	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Barium	1.19E-02	N/A rl	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Barium	1.71E-02	N/A rl	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Barium	1.97E-02	N/A rl	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Barium	8.55E-03	N/A rl	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Barium	1.99E-02	N/A rl	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Barium	1.51E-02	N/A rl	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Barium	1.90E-02	N/A rl	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Barium	1.59E-02	N/A rl	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Barium	2.18E-02	N/A rl	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Barium	2.18E-02	N/A rl	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Barium	1.36E-02	N/A rl	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Barium	1.90E-02	N/A rl	T3
129-9_S_low_A	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Barium	5.75E-02	N/A rl	T3
130-9_S_low_B	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Barium	2.92E-02	N/A rl	T3
131-9_S_low_C	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Barium	3.32E-02	N/A rl	T3
132-9_S_low_D	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Barium	1.50E-02	N/A rl	T3
133-10_S_low_A	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Barium	1.97E-02	N/A rl	T3
134-10_S_low_B	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Barium	3.07E-02	N/A rl	T3
135-10_S_low_C	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Barium	2.09E-02	N/A rl	T3
136-10_S_low_D	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Barium	1.70E-02	N/A rl	T3
137-11_S_low_A	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Barium	2.38E-02	N/A rl	T3
138-11_S_low_B	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Barium	2.43E-02	N/A rl	T3
139-11_S_low_C	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Barium	2.62E-02	N/A rl	T3
140-11_S_low_D	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Barium	2.20E-02	N/A rl	T3
141-12_S_low_A	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Barium	2.02E-02	N/A rl	T3
142-12_S_low_B	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Barium	2.11E-02	N/A rl	T3
143-12_S_low_C	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Barium	2.00E-02	N/A rl	T3
144-12_S_low_D	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Barium	2.11E-02	N/A rl	T3
241-1_S_high_A	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Barium	1.22E-02	N/A rl	T3
242-1_S_high_B	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Barium	1.76E-02	N/A rl	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
243-1_S_high_C	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Barium	1.76E-02	N/A rl	T3
244-1_S_high_D	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Barium	1.83E-02	N/A rl	T3
245-2_S_high_A	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Barium	9.02E-03	N/A rl	T3
246-2_S_high_B	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Barium	7.40E-03	N/A rl	T3
247-2_S_high_C	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Barium	6.90E-03	N/A rl	T3
248-2_S_high_D	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Barium	7.65E-03	N/A rl	T3
249-3_S_high_A	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Barium	3.64E-02	N/A rl	T3
250-3_S_high_B	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Barium	2.39E-02	N/A rl	T3
251-3_S_high_C	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Barium	2.57E-02	N/A rl	T3
252-3_S_high_D	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Barium	2.98E-02	N/A rl	T3
253-4_S_high_A	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Barium	2.16E-02	N/A rl	T3
254-4_S_high_B	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Barium	1.81E-02	N/A rl	T3
255-4_S_high_C	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Barium	1.48E-02	N/A rl	T3
256-4_S_high_D	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Barium	1.18E-02	N/A rl	T3
257-5_S_high_A	Compost_high_S	EPA6010C-SPLP	6	mg/L	Barium	4.06E-02	N/A rl	T3
258-5_S_high_B	Compost_high_S	EPA6010C-SPLP	6	mg/L	Barium	3.57E-02	N/A rl	T3
259-5_S_high_C	Compost_high_S	EPA6010C-SPLP	6	mg/L	Barium	2.79E-02	N/A rl	T3
260-5_S_high_D	Compost_high_S	EPA6010C-SPLP	6	mg/L	Barium	3.53E-02	N/A rl	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Barium	1.55E-02	N/A rl	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Barium	7.55E-03	N/A rl	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Barium	6.23E-03	N/A rl	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Barium	7.28E-03	N/A rl	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Barium	1.44E-02	N/A rl	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Barium	1.38E-02	N/A rl	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Barium	1.11E-02	N/A rl	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Barium	1.31E-02	N/A rl	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Barium	1.44E-02	N/A rl	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Barium	1.18E-02	N/A rl	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Barium	1.30E-02	N/A rl	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Barium	1.65E-02	N/A rl	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
273-9_S_high_A	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Barium	9.34E-03	N/A rl	T3
274-9_S_high_B	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Barium	1.39E-02	N/A rl	T3
275-9_S_high_C	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Barium	2.64E-02	N/A rl	T3
276-9_S_high_D	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Barium	1.48E-02	N/A rl	T3
277-10_S_high_A	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Barium	2.45E-02	N/A rl	T3
278-10_S_high_B	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Barium	1.96E-02	N/A rl	T3
279-10_S_high_C	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Barium	2.41E-02	N/A rl	T3
280-10_S_high_D	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Barium	1.95E-02	N/A rl	T3
281-11_S_high_A	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Barium	3.77E-02	N/A rl	T3
282-11_S_high_B	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Barium	4.26E-02	N/A rl	T3
283-11_S_high_C	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Barium	3.37E-02	N/A rl	T3
284-11_S_high_D	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Barium	3.14E-02	N/A rl	T3
285-12_S_high_A	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Barium	2.82E-02	N/A rl	T3
286-12_S_high_B	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Barium	2.22E-02	N/A rl	T3
287-12_S_high_C	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Barium	2.76E-02	N/A rl	T3
288-12_S_high_D	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Barium	2.83E-02	N/A rl	T3
289-1_I_low_A	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Barium	4.21E-02	N/A rl	T3
290-1_I_low_B	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Barium	4.38E-02	N/A rl	T3
291-1_I_low_C	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Barium	8.30E-02	N/A rl	T3
292-1_I_low_D	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Barium	5.63E-02	N/A rl	T3
293-2_I_low_A	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Barium	8.17E-02	N/A rl	T3
294-2_I_low_B	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Barium	7.40E-02	N/A rl	T3
295-2_I_low_C	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Barium	7.32E-02	N/A rl	T3
296-2_I_low_D	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Barium	5.97E-02	N/A rl	T3
297-3_I_low_A	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Barium	6.10E-02	N/A rl	T3
298-3_I_low_B	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Barium	4.49E-02	N/A rl	T3
299-3_I_low_C	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Barium	9.42E-02	N/A rl	T3
300-3_I_low_D	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Barium	5.39E-02	N/A rl	T3
301-4_I_low_A	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Barium	8.26E-02	N/A rl	T3
302-4_I_low_B	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Barium	8.79E-02	N/A rl	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
303-4_I_low_C	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Barium	9.47E-02	N/A rl	T3
304-4_I_low_D	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Barium	8.81E-02	N/A rl	T3
305-5_I_low_A	Compost_low_I	EPA6010C-SPLP	10	mg/L	Barium	1.14E-01	N/A	T3
306-5_I_low_B	Compost_low_I	EPA6010C-SPLP	10	mg/L	Barium	6.51E-02	N/A rl	T3
307-5_I_low_C	Compost_low_I	EPA6010C-SPLP	10	mg/L	Barium	8.44E-02	N/A rl	T3
308-5_I_low_D	Compost_low_I	EPA6010C-SPLP	10	mg/L	Barium	1.04E-01	N/A	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Barium	5.90E-02	N/A rl	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Barium	9.79E-03	N/A rl	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Barium	2.09E-02	N/A rl	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Barium	3.11E-02	N/A rl	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Barium	5.39E-02	N/A rl	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Barium	6.68E-02	N/A rl	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Barium	9.64E-02	N/A rl	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Barium	8.60E-02	N/A rl	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Barium	7.11E-02	N/A rl	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Barium	7.34E-02	N/A rl	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Barium	5.94E-02	N/A rl	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Barium	9.79E-02	N/A rl	T3
321-9_I_low_A	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Barium	1.40E-01	N/A	T3
322-9_I_low_B	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Barium	1.00E-01	N/A	T3
323-9_I_low_C	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Barium	8.97E-02	N/A rl	T3
324-9_I_low_D	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Barium	9.43E-02	N/A rl	T3
325-10_I_low_A	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Barium	5.34E-02	N/A rl	T3
326-10_I_low_B	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Barium	6.11E-02	N/A rl	T3
327-10_I_low_C	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Barium	3.41E-02	N/A rl	T3
328-10_I_low_D	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Barium	5.62E-02	N/A rl	T3
329-11_I_low_A	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Barium	4.22E-02	N/A rl	T3
330-11_I_low_B	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Barium	4.37E-02	N/A rl	T3
331-11_I_low_C	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Barium	7.51E-02	N/A rl	T3
332-11_I_low_D	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Barium	6.14E-02	N/A rl	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
333-12_I_low_A	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Barium	7.05E-02	N/A rl	T3
334-12_I_low_B	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Barium	8.49E-02	N/A rl	T3
335-12_I_low_C	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Barium	1.07E-01	N/A	T3
336-12_I_low_D	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Barium	8.19E-02	N/A rl	T3
337-1_I_high_A	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Barium	3.30E-02	N/A rl	T3
338-1_I_high_B	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Barium	4.45E-02	N/A rl	T3
339-1_I_high_C	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Barium	3.81E-02	N/A rl	T3
340-1_I_high_D	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Barium	2.21E-02	N/A rl	T3
341-2_I_high_A	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Barium	1.56E-02	N/A rl	T3
342-2_I_high_B	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Barium	1.22E-02	N/A rl	T3
343-2_I_high_C	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Barium	5.95E-02	N/A rl	T3
344-2_I_high_D	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Barium	4.79E-02	N/A rl	T3
345-3_I_high_A	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Barium	7.49E-02	N/A rl	T3
346-3_I_high_B	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Barium	5.26E-02	N/A rl	T3
347-3_I_high_C	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Barium	5.46E-02	N/A rl	T3
348-3_I_high_D	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Barium	6.43E-02	N/A rl	T3
349-4_I_high_A	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Barium	1.12E-01	N/A	T3
350-4_I_high_B	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Barium	8.88E-02	N/A rl	T3
351-4_I_high_C	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Barium	8.72E-02	N/A rl	T3
352-4_I_high_D	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Barium	6.05E-02	N/A rl	T3
353-5_I_high_A	Compost_high_I	EPA6010C-SPLP	14	mg/L	Barium	4.44E-02	N/A rl	T3
354-5_I_high_B	Compost_high_I	EPA6010C-SPLP	14	mg/L	Barium	6.52E-02	N/A rl	T3
355-5_I_high_C	Compost_high_I	EPA6010C-SPLP	14	mg/L	Barium	8.11E-02	N/A rl	T3
356-5_I_high_D	Compost_high_I	EPA6010C-SPLP	14	mg/L	Barium	1.04E-01	N/A	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Barium	6.33E-03	N/A rl	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Barium	5.92E-03	N/A rl	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Barium	4.28E-03	N/A rl	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Barium	4.29E-03	N/A rl	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Barium	7.83E-02	N/A rl	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Barium	2.66E-02	N/A rl	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
363-7_I_high_C	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Barium	2.47E-02	N/A rl	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Barium	2.77E-02	N/A rl	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Barium	1.69E-02	N/A rl	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Barium	2.71E-02	N/A rl	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Barium	1.71E-02	N/A rl	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Barium	1.94E-02	N/A rl	T3
369-9_I_high_A	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Barium	7.84E-02	N/A rl	T3
370-9_I_high_B	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Barium	5.48E-02	N/A rl	T3
371-9_I_high_C	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Barium	7.53E-02	N/A rl	T3
372-9_I_high_D	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Barium	8.25E-02	N/A rl	T3
373-10_I_high_A	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Barium	9.72E-02	N/A rl	T3
374-10_I_high_B	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Barium	4.19E-02	N/A rl	T3
375-10_I_high_C	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Barium	5.14E-02	N/A rl	T3
376-10_I_high_D	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Barium	5.14E-02	N/A rl	T3
377-11_I_high_A	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Barium	5.80E-02	N/A rl	T3
378-11_I_high_B	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Barium	6.97E-02	N/A rl	T3
379-11_I_high_C	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Barium	4.44E-02	N/A rl	T3
380-11_I_high_D	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Barium	8.10E-02	N/A rl	T3
381-12_I_high_A	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Barium	5.05E-02	N/A rl	T3
382-12_I_high_B	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Barium	7.57E-02	N/A rl	T3
383-12_I_high_C	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Barium	4.84E-02	N/A rl	T3
384-12_I_high_D	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Barium	6.63E-02	N/A rl	T3
385-0_I_NA_A	control_none_I	EPA6010C-SPLP	17	mg/L	Barium	9.96E-02	N/A rl	T3
386-0_I_NA_B	control_none_I	EPA6010C-SPLP	17	mg/L	Barium	1.12E-01	N/A	T3
387-0_I_NA_C	control_none_I	EPA6010C-SPLP	17	mg/L	Barium	1.34E-01	N/A	T3
388-0_I_NA_D	control_none_I	EPA6010C-SPLP	17	mg/L	Barium	1.23E-01	N/A	T3
097-1_S_low_A	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Beryllium	1.04E-04	N/A rl	T3
098-1_S_low_B	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Beryllium	4.50E-05	N/A rl U	T3
099-1_S_low_C	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Beryllium	4.50E-05	N/A rl U	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
100-1_S_low_D	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Beryllium	4.50E-05	N/A rl U	T3
101-2_S_low_A	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Beryllium	4.50E-05	N/A rl U	T3
102-2_S_low_B	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Beryllium	4.50E-05	N/A rl U	T3
103-2_S_low_C	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Beryllium	4.50E-05	N/A rl U	T3
104-2_S_low_D	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Beryllium	4.50E-05	N/A rl U	T3
105-3_S_low_A	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Beryllium	4.50E-05	N/A rl U	T3
106-3_S_low_B	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Beryllium	4.50E-05	N/A rl U	T3
107-3_S_low_C	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Beryllium	1.35E-04	N/A rl	T3
108-3_S_low_D	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Beryllium	4.50E-05	N/A rl U	T3
109-4_S_low_A	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Beryllium	4.50E-05	N/A rl U	T3
110-4_S_low_B	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Beryllium	4.50E-05	N/A rl U	T3
111-4_S_low_C	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Beryllium	4.50E-05	N/A rl U	T3
112-4_S_low_D	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Beryllium	4.50E-05	N/A rl U	T3
113-5_S_low_A	Compost_low_S	EPA6010C-SPLP	2	mg/L	Beryllium	4.50E-05	N/A rl U	T3
114-5_S_low_B	Compost_low_S	EPA6010C-SPLP	2	mg/L	Beryllium	4.50E-05	N/A rl U	T3
115-5_S_low_C	Compost_low_S	EPA6010C-SPLP	2	mg/L	Beryllium	1.56E-04	N/A rl	T3
116-5_S_low_D	Compost_low_S	EPA6010C-SPLP	2	mg/L	Beryllium	4.50E-05	N/A rl U	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Beryllium	4.50E-05	N/A rl U	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Beryllium	4.50E-05	N/A rl U	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Beryllium	4.50E-05	N/A rl U	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Beryllium	4.50E-05	N/A rl U	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Beryllium	4.50E-05	N/A rl U	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Beryllium	4.50E-05	N/A rl U	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Beryllium	1.53E-04	N/A rl	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
124-7_S_low_D	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Beryllium	4.50E-05	N/A rl U	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Beryllium	4.50E-05	N/A rl U	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Beryllium	4.50E-05	N/A rl U	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Beryllium	4.50E-05	N/A rl U	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Beryllium	4.50E-05	N/A rl U	T3
129-9_S_low_A	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Beryllium	4.50E-05	N/A rl U	T3
130-9_S_low_B	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Beryllium	4.50E-05	N/A rl U	T3
131-9_S_low_C	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Beryllium	4.50E-05	N/A rl U	T3
132-9_S_low_D	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Beryllium	4.50E-05	N/A rl U	T3
133-10_S_low_A	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Beryllium	4.50E-05	N/A rl U	T3
134-10_S_low_B	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Beryllium	4.50E-05	N/A rl U	T3
135-10_S_low_C	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Beryllium	4.50E-05	N/A rl U	T3
136-10_S_low_D	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Beryllium	4.50E-05	N/A rl U	T3
137-11_S_low_A	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Beryllium	4.50E-05	N/A rl U	T3
138-11_S_low_B	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Beryllium	4.50E-05	N/A rl U	T3
139-11_S_low_C	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Beryllium	4.50E-05	N/A rl U	T3
140-11_S_low_D	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Beryllium	4.50E-05	N/A rl U	T3
141-12_S_low_A	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Beryllium	1.57E-04	N/A rl U	T3
142-12_S_low_B	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Beryllium	4.50E-05	N/A rl U	T3
143-12_S_low_C	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Beryllium	4.50E-05	N/A rl U	T3
144-12_S_low_D	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Beryllium	4.50E-05	N/A rl U	T3
241-1_S_high_A	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Beryllium	4.50E-05	N/A rl U	T3
242-1_S_high_B	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Beryllium	4.50E-05	N/A rl U	T3
243-1_S_high_C	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Beryllium	4.50E-05	N/A rl U	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
244-1_S_high_D	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Beryllium	4.50E-05	N/A rl U	T3
245-2_S_high_A	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Beryllium	1.92E-04	N/A rl	T3
246-2_S_high_B	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Beryllium	4.50E-05	N/A rl U	T3
247-2_S_high_C	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Beryllium	4.50E-05	N/A rl U	T3
248-2_S_high_D	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Beryllium	4.50E-05	N/A rl U	T3
249-3_S_high_A	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Beryllium	4.50E-05	N/A rl U	T3
250-3_S_high_B	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Beryllium	4.50E-05	N/A rl U	T3
251-3_S_high_C	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Beryllium	4.50E-05	N/A rl U	T3
252-3_S_high_D	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Beryllium	4.50E-05	N/A rl U	T3
253-4_S_high_A	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Beryllium	1.40E-04	N/A rl	T3
254-4_S_high_B	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Beryllium	4.50E-05	N/A rl U	T3
255-4_S_high_C	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Beryllium	4.50E-05	N/A rl U	T3
256-4_S_high_D	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Beryllium	4.50E-05	N/A rl U	T3
257-5_S_high_A	Compost_high_S	EPA6010C-SPLP	6	mg/L	Beryllium	4.50E-05	N/A rl U	T3
258-5_S_high_B	Compost_high_S	EPA6010C-SPLP	6	mg/L	Beryllium	4.50E-05	N/A rl U	T3
259-5_S_high_C	Compost_high_S	EPA6010C-SPLP	6	mg/L	Beryllium	4.50E-05	N/A rl U	T3
260-5_S_high_D	Compost_high_S	EPA6010C-SPLP	6	mg/L	Beryllium	4.50E-05	N/A rl U	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Beryllium	4.50E-05	N/A rl U	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Beryllium	4.50E-05	N/A rl U	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Beryllium	1.55E-04	N/A rl	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Beryllium	4.50E-05	N/A rl U	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Beryllium	4.50E-05	N/A rl U	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Beryllium	4.50E-05	N/A rl U	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Beryllium	4.50E-05	N/A rl U	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
268-7_S_high_D	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Beryllium	4.50E-05	N/A rl U	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Beryllium	4.50E-05	N/A rl U	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Beryllium	4.50E-05	N/A rl U	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Beryllium	1.85E-04	N/A rl U	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Beryllium	4.50E-05	N/A rl U	T3
273-9_S_high_A	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Beryllium	4.50E-05	N/A rl U	T3
274-9_S_high_B	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Beryllium	4.50E-05	N/A rl U	T3
275-9_S_high_C	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Beryllium	4.50E-05	N/A rl U	T3
276-9_S_high_D	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Beryllium	4.50E-05	N/A rl U	T3
277-10_S_high_A	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Beryllium	4.50E-05	N/A rl U	T3
278-10_S_high_B	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Beryllium	4.50E-05	N/A rl U	T3
279-10_S_high_C	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Beryllium	1.86E-04	N/A rl U	T3
280-10_S_high_D	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Beryllium	4.50E-05	N/A rl U	T3
281-11_S_high_A	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Beryllium	4.50E-05	N/A rl U	T3
282-11_S_high_B	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Beryllium	4.50E-05	N/A rl U	T3
283-11_S_high_C	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Beryllium	4.50E-05	N/A rl U	T3
284-11_S_high_D	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Beryllium	4.50E-05	N/A rl U	T3
285-12_S_high_A	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Beryllium	4.50E-05	N/A rl U	T3
286-12_S_high_B	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Beryllium	4.50E-05	N/A rl U	T3
287-12_S_high_C	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Beryllium	4.50E-05	N/A rl U	T3
288-12_S_high_D	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Beryllium	4.50E-05	N/A rl U	T3
289-1_I_low_A	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Beryllium	4.50E-05	N/A rl U	T3
290-1_I_low_B	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Beryllium	4.50E-05	N/A rl U	T3
291-1_I_low_C	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Beryllium	4.50E-05	N/A rl U	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
292-1_I_low_D	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Beryllium	4.50E-05	N/A rl U	T3
293-2_I_low_A	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Beryllium	4.50E-05	N/A rl U	T3
294-2_I_low_B	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Beryllium	4.50E-05	N/A rl U	T3
295-2_I_low_C	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Beryllium	4.50E-05	N/A rl U	T3
296-2_I_low_D	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Beryllium	4.50E-05	N/A rl U	T3
297-3_I_low_A	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Beryllium	1.72E-04	N/A rl U	T3
298-3_I_low_B	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Beryllium	4.50E-05	N/A rl U	T3
299-3_I_low_C	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Beryllium	4.50E-05	N/A rl U	T3
300-3_I_low_D	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Beryllium	4.50E-05	N/A rl U	T3
301-4_I_low_A	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Beryllium	4.50E-05	N/A rl U	T3
302-4_I_low_B	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Beryllium	4.50E-05	N/A rl U	T3
303-4_I_low_C	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Beryllium	4.50E-05	N/A rl U	T3
304-4_I_low_D	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Beryllium	4.50E-05	N/A rl U	T3
305-5_I_low_A	Compost_low_I	EPA6010C-SPLP	10	mg/L	Beryllium	1.89E-04	N/A rl U	T3
306-5_I_low_B	Compost_low_I	EPA6010C-SPLP	10	mg/L	Beryllium	4.50E-05	N/A rl U	T3
307-5_I_low_C	Compost_low_I	EPA6010C-SPLP	10	mg/L	Beryllium	4.50E-05	N/A rl U	T3
308-5_I_low_D	Compost_low_I	EPA6010C-SPLP	10	mg/L	Beryllium	4.50E-05	N/A rl U	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Beryllium	4.50E-05	N/A rl U	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Beryllium	4.50E-05	N/A rl U	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Beryllium	4.50E-05	N/A rl U	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Beryllium	4.50E-05	N/A rl U	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Beryllium	1.77E-04	N/A rl U	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Beryllium	4.50E-05	N/A rl U	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Beryllium	4.50E-05	N/A rl U	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
316-7_I_low_D	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Beryllium	4.50E-05	N/A rl U	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Beryllium	4.50E-05	N/A rl U	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Beryllium	4.50E-05	N/A rl U	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Beryllium	4.50E-05	N/A rl U	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Beryllium	4.50E-05	N/A rl U	T3
321-9_I_low_A	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Beryllium	4.50E-05	N/A rl U	T3
322-9_I_low_B	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Beryllium	4.50E-05	N/A rl U	T3
323-9_I_low_C	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Beryllium	1.59E-04	N/A rl	T3
324-9_I_low_D	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Beryllium	4.50E-05	N/A rl U	T3
325-10_I_low_A	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Beryllium	4.50E-05	N/A rl U	T3
326-10_I_low_B	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Beryllium	4.50E-05	N/A rl U	T3
327-10_I_low_C	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Beryllium	4.50E-05	N/A rl U	T3
328-10_I_low_D	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Beryllium	4.50E-05	N/A rl U	T3
329-11_I_low_A	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Beryllium	4.50E-05	N/A rl U	T3
330-11_I_low_B	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Beryllium	4.50E-05	N/A rl U	T3
331-11_I_low_C	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Beryllium	1.32E-04	N/A rl	T3
332-11_I_low_D	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Beryllium	4.50E-05	N/A rl U	T3
333-12_I_low_A	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Beryllium	4.50E-05	N/A rl U	T3
334-12_I_low_B	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Beryllium	4.50E-05	N/A rl U	T3
335-12_I_low_C	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Beryllium	4.50E-05	N/A rl U	T3
336-12_I_low_D	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Beryllium	4.50E-05	N/A rl U	T3
337-1_I_high_A	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Beryllium	4.50E-05	N/A rl U	T3
338-1_I_high_B	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Beryllium	4.50E-05	N/A rl U	T3
339-1_I_high_C	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Beryllium	1.80E-04	N/A rl	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
340-1_I_high_D	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Beryllium	4.50E-05	N/A rl U	T3
341-2_I_high_A	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Beryllium	4.50E-05	N/A rl U	T3
342-2_I_high_B	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Beryllium	4.50E-05	N/A rl U	T3
343-2_I_high_C	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Beryllium	4.50E-05	N/A rl U	T3
344-2_I_high_D	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Beryllium	4.50E-05	N/A rl U	T3
345-3_I_high_A	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Beryllium	4.50E-05	N/A rl U	T3
346-3_I_high_B	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Beryllium	4.50E-05	N/A rl U	T3
347-3_I_high_C	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Beryllium	4.50E-05	N/A rl U	T3
348-3_I_high_D	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Beryllium	4.50E-05	N/A rl U	T3
349-4_I_high_A	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Beryllium	4.50E-05	N/A rl U	T3
350-4_I_high_B	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Beryllium	4.50E-05	N/A rl U	T3
351-4_I_high_C	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Beryllium	4.50E-05	N/A rl U	T3
352-4_I_high_D	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Beryllium	4.50E-05	N/A rl U	T3
353-5_I_high_A	Compost_high_I	EPA6010C-SPLP	14	mg/L	Beryllium	4.50E-05	N/A rl U	T3
354-5_I_high_B	Compost_high_I	EPA6010C-SPLP	14	mg/L	Beryllium	4.50E-05	N/A rl U	T3
355-5_I_high_C	Compost_high_I	EPA6010C-SPLP	14	mg/L	Beryllium	4.50E-05	N/A rl U	T3
356-5_I_high_D	Compost_high_I	EPA6010C-SPLP	14	mg/L	Beryllium	4.50E-05	N/A rl U	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Beryllium	1.51E-04	N/A rl U	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Beryllium	4.50E-05	N/A rl U	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Beryllium	4.50E-05	N/A rl U	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Beryllium	4.50E-05	N/A rl U	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Beryllium	4.50E-05	N/A rl U	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Beryllium	4.50E-05	N/A rl U	T3
363-7_I_high_C	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Beryllium	4.50E-05	N/A rl U	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
364-7_I_high_D	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Beryllium	4.50E-05	N/A rl U	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Beryllium	1.51E-04	N/A rl	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Beryllium	4.50E-05	N/A rl U	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Beryllium	4.50E-05	N/A rl U	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Beryllium	4.50E-05	N/A rl U	T3
369-9_I_high_A	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Beryllium	4.50E-05	N/A rl U	T3
370-9_I_high_B	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Beryllium	4.50E-05	N/A rl U	T3
371-9_I_high_C	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Beryllium	4.50E-05	N/A rl U	T3
372-9_I_high_D	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Beryllium	4.50E-05	N/A rl U	T3
373-10_I_high_A	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Beryllium	1.51E-04	N/A rl	T3
374-10_I_high_B	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Beryllium	4.50E-05	N/A rl U	T3
375-10_I_high_C	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Beryllium	4.50E-05	N/A rl U	T3
376-10_I_high_D	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Beryllium	4.50E-05	N/A rl U	T3
377-11_I_high_A	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Beryllium	4.50E-05	N/A rl U	T3
378-11_I_high_B	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Beryllium	4.50E-05	N/A rl U	T3
379-11_I_high_C	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Beryllium	4.50E-05	N/A rl U	T3
380-11_I_high_D	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Beryllium	4.50E-05	N/A rl U	T3
381-12_I_high_A	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Beryllium	4.50E-05	N/A rl U	T3
382-12_I_high_B	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Beryllium	4.50E-05	N/A rl U	T3
383-12_I_high_C	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Beryllium	1.71E-04	N/A rl	T3
384-12_I_high_D	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Beryllium	4.50E-05	N/A rl U	T3
385-0_I_NA_A	control_none_I	EPA6010C-SPLP	17	mg/L	Beryllium	4.50E-05	N/A rl U	T3
386-0_I_NA_B	control_none_I	EPA6010C-SPLP	17	mg/L	Beryllium	1.34E-04	N/A rl	T3
387-0_I_NA_C	control_none_I	EPA6010C-SPLP	17	mg/L	Beryllium	5.30E-05	N/A rl	T3
388-0_I_NA_D	control_none_I	EPA6010C-SPLP	17	mg/L	Beryllium	4.50E-05	N/A rl U	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
097-1_S_low_A	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Cadmium	5.35E-03	N/A rl	T3
098-1_S_low_B	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Cadmium	4.98E-03	N/A rl	T3
099-1_S_low_C	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Cadmium	4.58E-03	N/A rl	T3
100-1_S_low_D	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Cadmium	4.56E-03	N/A rl	T3
101-2_S_low_A	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Cadmium	2.51E-03	N/A rl	T3
102-2_S_low_B	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Cadmium	2.01E-03	N/A rl	T3
103-2_S_low_C	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Cadmium	2.54E-03	N/A rl	T3
104-2_S_low_D	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Cadmium	2.91E-03	N/A rl	T3
105-3_S_low_A	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Cadmium	3.09E-03	N/A rl	T3
106-3_S_low_B	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Cadmium	3.28E-03	N/A rl	T3
107-3_S_low_C	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Cadmium	3.07E-03	N/A rl	T3
108-3_S_low_D	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Cadmium	3.11E-03	N/A rl	T3
109-4_S_low_A	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Cadmium	3.91E-03	N/A rl	T3
110-4_S_low_B	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Cadmium	3.70E-03	N/A rl	T3
111-4_S_low_C	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Cadmium	3.52E-03	N/A rl	T3
112-4_S_low_D	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Cadmium	3.44E-03	N/A rl	T3
113-5_S_low_A	Compost_low_S	EPA6010C-SPLP	2	mg/L	Cadmium	4.09E-03	N/A rl	T3
114-5_S_low_B	Compost_low_S	EPA6010C-SPLP	2	mg/L	Cadmium	4.13E-03	N/A rl	T3
115-5_S_low_C	Compost_low_S	EPA6010C-SPLP	2	mg/L	Cadmium	4.28E-03	N/A rl	T3
116-5_S_low_D	Compost_low_S	EPA6010C-SPLP	2	mg/L	Cadmium	4.60E-03	N/A rl	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Cadmium	3.12E-03	N/A rl	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Cadmium	3.69E-03	N/A rl	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Cadmium	3.95E-03	N/A rl	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Cadmium	2.40E-03	N/A rl	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Cadmium	4.35E-03	N/A rl	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Cadmium	3.85E-03	N/A rl	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Cadmium	3.98E-03	N/A rl	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Cadmium	4.59E-03	N/A rl	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Cadmium	4.50E-03	N/A rl	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Cadmium	4.04E-03	N/A rl	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
127-8_S_low_C	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Cadmium	3.88E-03	N/A rl	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Cadmium	4.01E-03	N/A rl	T3
129-9_S_low_A	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Cadmium	5.43E-03	N/A rl	T3
130-9_S_low_B	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Cadmium	3.85E-03	N/A rl	T3
131-9_S_low_C	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Cadmium	3.71E-03	N/A rl	T3
132-9_S_low_D	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Cadmium	3.15E-03	N/A rl	T3
133-10_S_low_A	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Cadmium	3.09E-03	N/A rl	T3
134-10_S_low_B	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Cadmium	3.36E-03	N/A rl	T3
135-10_S_low_C	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Cadmium	3.50E-03	N/A rl	T3
136-10_S_low_D	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Cadmium	2.76E-03	N/A rl	T3
137-11_S_low_A	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Cadmium	3.26E-03	N/A rl	T3
138-11_S_low_B	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Cadmium	3.46E-03	N/A rl	T3
139-11_S_low_C	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Cadmium	3.78E-03	N/A rl	T3
140-11_S_low_D	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Cadmium	3.73E-03	N/A rl	T3
141-12_S_low_A	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Cadmium	3.70E-03	N/A rl	T3
142-12_S_low_B	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Cadmium	2.97E-03	N/A rl	T3
143-12_S_low_C	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Cadmium	3.21E-03	N/A rl	T3
144-12_S_low_D	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Cadmium	3.41E-03	N/A rl	T3
241-1_S_high_A	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Cadmium	5.08E-03	N/A rl	T3
242-1_S_high_B	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Cadmium	6.43E-03	N/A rl	T3
243-1_S_high_C	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Cadmium	6.64E-03	N/A rl	T3
244-1_S_high_D	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Cadmium	7.21E-03	N/A rl	T3
245-2_S_high_A	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Cadmium	2.84E-03	N/A rl	T3
246-2_S_high_B	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Cadmium	2.34E-03	N/A rl	T3
247-2_S_high_C	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Cadmium	1.89E-03	N/A rl	T3
248-2_S_high_D	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Cadmium	2.38E-03	N/A rl	T3
249-3_S_high_A	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Cadmium	2.79E-03	N/A rl	T3
250-3_S_high_B	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Cadmium	2.55E-03	N/A rl	T3
251-3_S_high_C	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Cadmium	2.92E-03	N/A rl	T3
252-3_S_high_D	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Cadmium	2.52E-03	N/A rl	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
253-4_S_high_A	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Cadmium	3.84E-03	N/A rl	T3
254-4_S_high_B	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Cadmium	3.45E-03	N/A rl	T3
255-4_S_high_C	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Cadmium	2.92E-03	N/A rl	T3
256-4_S_high_D	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Cadmium	2.18E-03	N/A rl	T3
257-5_S_high_A	Compost_high_S	EPA6010C-SPLP	6	mg/L	Cadmium	4.49E-03	N/A rl	T3
258-5_S_high_B	Compost_high_S	EPA6010C-SPLP	6	mg/L	Cadmium	4.21E-03	N/A rl	T3
259-5_S_high_C	Compost_high_S	EPA6010C-SPLP	6	mg/L	Cadmium	3.74E-03	N/A rl	T3
260-5_S_high_D	Compost_high_S	EPA6010C-SPLP	6	mg/L	Cadmium	4.63E-03	N/A rl	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Cadmium	3.33E-03	N/A rl	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Cadmium	2.03E-03	N/A rl	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Cadmium	2.40E-03	N/A rl	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Cadmium	2.36E-03	N/A rl	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Cadmium	3.80E-03	N/A rl	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Cadmium	4.43E-03	N/A rl	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Cadmium	3.90E-03	N/A rl	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Cadmium	4.42E-03	N/A rl	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Cadmium	4.09E-03	N/A rl	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Cadmium	3.73E-03	N/A rl	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Cadmium	4.54E-03	N/A rl	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Cadmium	4.71E-03	N/A rl	T3
273-9_S_high_A	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Cadmium	2.57E-03	N/A rl	T3
274-9_S_high_B	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Cadmium	3.03E-03	N/A rl	T3
275-9_S_high_C	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Cadmium	3.58E-03	N/A rl	T3
276-9_S_high_D	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Cadmium	2.68E-03	N/A rl	T3
277-10_S_high_A	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Cadmium	3.28E-03	N/A rl	T3
278-10_S_high_B	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Cadmium	1.71E-03	N/A rl	T3
279-10_S_high_C	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Cadmium	3.15E-03	N/A rl	T3
280-10_S_high_D	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Cadmium	2.69E-03	N/A rl	T3
281-11_S_high_A	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Cadmium	4.04E-03	N/A rl	T3
282-11_S_high_B	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Cadmium	4.61E-03	N/A rl	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
283-11_S_high_C	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Cadmium	3.54E-03	N/A rl	T3
284-11_S_high_D	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Cadmium	3.82E-03	N/A rl	T3
285-12_S_high_A	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Cadmium	4.04E-03	N/A rl	T3
286-12_S_high_B	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Cadmium	3.30E-03	N/A rl	T3
287-12_S_high_C	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Cadmium	3.97E-03	N/A rl	T3
288-12_S_high_D	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Cadmium	3.93E-03	N/A rl	T3
289-1_I_low_A	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Cadmium	6.40E-03	N/A rl	T3
290-1_I_low_B	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Cadmium	6.37E-03	N/A rl	T3
291-1_I_low_C	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Cadmium	1.17E-02	N/A	T3
292-1_I_low_D	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Cadmium	7.51E-03	N/A rl	T3
293-2_I_low_A	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Cadmium	1.11E-02	N/A	T3
294-2_I_low_B	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Cadmium	8.40E-03	N/A rl	T3
295-2_I_low_C	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Cadmium	9.84E-03	N/A rl	T3
296-2_I_low_D	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Cadmium	6.62E-03	N/A rl	T3
297-3_I_low_A	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Cadmium	5.09E-03	N/A rl	T3
298-3_I_low_B	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Cadmium	4.43E-03	N/A rl	T3
299-3_I_low_C	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Cadmium	7.73E-03	N/A rl	T3
300-3_I_low_D	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Cadmium	4.68E-03	N/A rl	T3
301-4_I_low_A	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Cadmium	8.65E-03	N/A rl	T3
302-4_I_low_B	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Cadmium	9.03E-03	N/A rl	T3
303-4_I_low_C	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Cadmium	1.02E-02	N/A	T3
304-4_I_low_D	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Cadmium	9.15E-03	N/A rl	T3
305-5_I_low_A	Compost_low_I	EPA6010C-SPLP	10	mg/L	Cadmium	1.30E-02	N/A	T3
306-5_I_low_B	Compost_low_I	EPA6010C-SPLP	10	mg/L	Cadmium	6.91E-03	N/A rl	T3
307-5_I_low_C	Compost_low_I	EPA6010C-SPLP	10	mg/L	Cadmium	9.01E-03	N/A rl	T3
308-5_I_low_D	Compost_low_I	EPA6010C-SPLP	10	mg/L	Cadmium	1.10E-02	N/A	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Cadmium	1.07E-02	N/A	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Cadmium	2.58E-03	N/A rl	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Cadmium	3.40E-03	N/A rl	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Cadmium	5.52E-03	N/A rl	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
313-7_I_low_A	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Cadmium	7.76E-03	N/A rl	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Cadmium	9.29E-03	N/A rl	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Cadmium	1.42E-02	N/A	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Cadmium	1.22E-02	N/A	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Cadmium	9.88E-03	N/A rl	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Cadmium	1.02E-02	N/A	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Cadmium	8.04E-03	N/A rl	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Cadmium	1.41E-02	N/A	T3
321-9_I_low_A	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Cadmium	1.83E-02	N/A	T3
322-9_I_low_B	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Cadmium	1.04E-02	N/A	T3
323-9_I_low_C	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Cadmium	8.70E-03	N/A rl	T3
324-9_I_low_D	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Cadmium	8.12E-03	N/A rl	T3
325-10_I_low_A	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Cadmium	4.39E-03	N/A rl	T3
326-10_I_low_B	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Cadmium	5.06E-03	N/A rl	T3
327-10_I_low_C	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Cadmium	2.78E-03	N/A rl	T3
328-10_I_low_D	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Cadmium	4.64E-03	N/A rl	T3
329-11_I_low_A	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Cadmium	3.82E-03	N/A rl	T3
330-11_I_low_B	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Cadmium	3.59E-03	N/A rl	T3
331-11_I_low_C	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Cadmium	6.25E-03	N/A rl	T3
332-11_I_low_D	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Cadmium	4.75E-03	N/A rl	T3
333-12_I_low_A	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Cadmium	7.00E-03	N/A rl	T3
334-12_I_low_B	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Cadmium	8.41E-03	N/A rl	T3
335-12_I_low_C	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Cadmium	1.09E-02	N/A	T3
336-12_I_low_D	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Cadmium	8.28E-03	N/A rl	T3
337-1_I_high_A	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Cadmium	9.83E-03	N/A rl	T3
338-1_I_high_B	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Cadmium	1.42E-02	N/A	T3
339-1_I_high_C	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Cadmium	1.22E-02	N/A	T3
340-1_I_high_D	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Cadmium	7.47E-03	N/A rl	T3
341-2_I_high_A	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Cadmium	3.25E-03	N/A rl	T3
342-2_I_high_B	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Cadmium	2.91E-03	N/A rl	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
343-2_I_high_C	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Cadmium	9.76E-03	N/A rl	T3
344-2_I_high_D	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Cadmium	9.13E-03	N/A rl	T3
345-3_I_high_A	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Cadmium	4.17E-03	N/A rl	T3
346-3_I_high_B	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Cadmium	3.49E-03	N/A rl	T3
347-3_I_high_C	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Cadmium	4.03E-03	N/A rl	T3
348-3_I_high_D	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Cadmium	3.83E-03	N/A rl	T3
349-4_I_high_A	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Cadmium	1.14E-02	N/A	T3
350-4_I_high_B	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Cadmium	8.62E-03	N/A rl	T3
351-4_I_high_C	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Cadmium	8.34E-03	N/A rl	T3
352-4_I_high_D	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Cadmium	6.26E-03	N/A rl	T3
353-5_I_high_A	Compost_high_I	EPA6010C-SPLP	14	mg/L	Cadmium	4.89E-03	N/A rl	T3
354-5_I_high_B	Compost_high_I	EPA6010C-SPLP	14	mg/L	Cadmium	6.55E-03	N/A rl	T3
355-5_I_high_C	Compost_high_I	EPA6010C-SPLP	14	mg/L	Cadmium	8.18E-03	N/A rl	T3
356-5_I_high_D	Compost_high_I	EPA6010C-SPLP	14	mg/L	Cadmium	1.11E-02	N/A	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Cadmium	3.11E-03	N/A rl	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Cadmium	3.24E-03	N/A rl	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Cadmium	3.34E-03	N/A rl	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Cadmium	2.86E-03	N/A rl	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Cadmium	4.32E-02	N/A	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Cadmium	9.79E-03	N/A rl	T3
363-7_I_high_C	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Cadmium	7.07E-03	N/A rl	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Cadmium	1.03E-02	N/A	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Cadmium	5.75E-03	N/A rl	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Cadmium	1.01E-02	N/A	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Cadmium	5.80E-03	N/A rl	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Cadmium	5.97E-03	N/A rl	T3
369-9_I_high_A	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Cadmium	9.61E-03	N/A rl	T3
370-9_I_high_B	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Cadmium	5.84E-03	N/A rl	T3
371-9_I_high_C	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Cadmium	1.11E-02	N/A	T3
372-9_I_high_D	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Cadmium	1.38E-02	N/A	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
373-10_I_high_A	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Cadmium	5.98E-03	N/A rl	T3
374-10_I_high_B	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Cadmium	2.87E-03	N/A rl	T3
375-10_I_high_C	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Cadmium	3.29E-03	N/A rl	T3
376-10_I_high_D	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Cadmium	3.61E-03	N/A rl	T3
377-11_I_high_A	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Cadmium	4.22E-03	N/A rl	T3
378-11_I_high_B	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Cadmium	4.08E-03	N/A rl	T3
379-11_I_high_C	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Cadmium	3.39E-03	N/A rl	T3
380-11_I_high_D	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Cadmium	5.21E-03	N/A rl	T3
381-12_I_high_A	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Cadmium	4.89E-03	N/A rl	T3
382-12_I_high_B	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Cadmium	7.26E-03	N/A rl	T3
383-12_I_high_C	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Cadmium	4.75E-03	N/A rl	T3
384-12_I_high_D	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Cadmium	5.86E-03	N/A rl	T3
385-0_I_NA_A	control_none_I	EPA6010C-SPLP	17	mg/L	Cadmium	1.03E-02	N/A	T3
386-0_I_NA_B	control_none_I	EPA6010C-SPLP	17	mg/L	Cadmium	1.15E-02	N/A	T3
387-0_I_NA_C	control_none_I	EPA6010C-SPLP	17	mg/L	Cadmium	1.51E-02	N/A	T3
388-0_I_NA_D	control_none_I	EPA6010C-SPLP	17	mg/L	Cadmium	1.26E-02	N/A	T3
097-1_S_low_A	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Calcium	3.34E+00	N/A	T3
098-1_S_low_B	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Calcium	3.70E+00	N/A	T3
099-1_S_low_C	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Calcium	3.07E+00	N/A	T3
100-1_S_low_D	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Calcium	3.51E+00	N/A	T3
101-2_S_low_A	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Calcium	1.21E+00	N/A	T3
102-2_S_low_B	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Calcium	1.27E+00	N/A	T3
103-2_S_low_C	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Calcium	1.25E+00	N/A	T3
104-2_S_low_D	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Calcium	6.60E-01	N/A rl	T3
105-3_S_low_A	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Calcium	2.74E+00	N/A	T3
106-3_S_low_B	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Calcium	2.13E+00	N/A	T3
107-3_S_low_C	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Calcium	2.46E+00	N/A	T3
108-3_S_low_D	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Calcium	2.23E+00	N/A	T3
109-4_S_low_A	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Calcium	1.78E+00	N/A	T3
110-4_S_low_B	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Calcium	1.85E+00	N/A	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
111-4_S_low_C	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Calcium	2.11E+00	N/A	T3
112-4_S_low_D	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Calcium	1.78E+00	N/A	T3
113-5_S_low_A	Compost_low_S	EPA6010C-SPLP	2	mg/L	Calcium	2.47E+00	N/A	T3
114-5_S_low_B	Compost_low_S	EPA6010C-SPLP	2	mg/L	Calcium	2.65E+00	N/A	T3
115-5_S_low_C	Compost_low_S	EPA6010C-SPLP	2	mg/L	Calcium	2.44E+00	N/A	T3
116-5_S_low_D	Compost_low_S	EPA6010C-SPLP	2	mg/L	Calcium	3.26E+00	N/A	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Calcium	1.70E+00	N/A	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Calcium	2.55E+00	N/A	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Calcium	3.17E+00	N/A	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Calcium	1.25E+00	N/A	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Calcium	3.99E+00	N/A	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Calcium	2.52E+00	N/A	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Calcium	2.66E+00	N/A	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Calcium	2.62E+00	N/A	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Calcium	3.60E+00	N/A	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Calcium	3.06E+00	N/A	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Calcium	2.26E+00	N/A	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Calcium	2.93E+00	N/A	T3
129-9_S_low_A	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Calcium	1.15E+01	N/A	T3
130-9_S_low_B	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Calcium	4.98E+00	N/A	T3
131-9_S_low_C	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Calcium	5.63E+00	N/A	T3
132-9_S_low_D	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Calcium	1.78E+00	N/A	T3
133-10_S_low_A	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Calcium	2.42E+00	N/A	T3
134-10_S_low_B	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Calcium	3.20E+00	N/A	T3
135-10_S_low_C	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Calcium	2.68E+00	N/A	T3
136-10_S_low_D	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Calcium	1.81E+00	N/A	T3
137-11_S_low_A	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Calcium	2.16E+00	N/A	T3
138-11_S_low_B	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Calcium	2.73E+00	N/A	T3
139-11_S_low_C	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Calcium	2.81E+00	N/A	T3
140-11_S_low_D	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Calcium	2.25E+00	N/A	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
141-12_S_low_A	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Calcium	1.71E+00	N/A	T3
142-12_S_low_B	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Calcium	1.40E+00	N/A	T3
143-12_S_low_C	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Calcium	1.63E+00	N/A	T3
144-12_S_low_D	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Calcium	1.43E+00	N/A	T3
241-1_S_high_A	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Calcium	6.26E+00	N/A	T3
242-1_S_high_B	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Calcium	8.46E+00	N/A	T3
243-1_S_high_C	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Calcium	7.65E+00	N/A	T3
244-1_S_high_D	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Calcium	9.50E+00	N/A	T3
245-2_S_high_A	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Calcium	5.27E-01	N/A rl	T3
246-2_S_high_B	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Calcium	4.79E-01	N/A rl	T3
247-2_S_high_C	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Calcium	4.19E-01	N/A rl	T3
248-2_S_high_D	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Calcium	5.25E-01	N/A rl	T3
249-3_S_high_A	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Calcium	5.08E+00	N/A	T3
250-3_S_high_B	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Calcium	2.43E+00	N/A	T3
251-3_S_high_C	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Calcium	3.02E+00	N/A	T3
252-3_S_high_D	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Calcium	3.24E+00	N/A	T3
253-4_S_high_A	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Calcium	1.92E+00	N/A	T3
254-4_S_high_B	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Calcium	1.42E+00	N/A	T3
255-4_S_high_C	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Calcium	1.08E+00	N/A	T3
256-4_S_high_D	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Calcium	1.13E+00	N/A	T3
257-5_S_high_A	Compost_high_S	EPA6010C-SPLP	6	mg/L	Calcium	2.72E+00	N/A	T3
258-5_S_high_B	Compost_high_S	EPA6010C-SPLP	6	mg/L	Calcium	2.36E+00	N/A	T3
259-5_S_high_C	Compost_high_S	EPA6010C-SPLP	6	mg/L	Calcium	1.97E+00	N/A	T3
260-5_S_high_D	Compost_high_S	EPA6010C-SPLP	6	mg/L	Calcium	2.37E+00	N/A	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Calcium	8.68E-01	N/A rl	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Calcium	4.68E-01	N/A rl	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Calcium	3.95E-01	N/A rl	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Calcium	4.62E-01	N/A rl	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Calcium	3.63E+00	N/A	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Calcium	4.77E+00	N/A	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
267-7_S_high_C	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Calcium	4.63E+00	N/A	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Calcium	5.05E+00	N/A	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Calcium	4.17E+00	N/A	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Calcium	3.52E+00	N/A	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Calcium	3.84E+00	N/A	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Calcium	6.07E+00	N/A	T3
273-9_S_high_A	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Calcium	9.06E-01	N/A rl	T3
274-9_S_high_B	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Calcium	1.64E+00	N/A	T3
275-9_S_high_C	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Calcium	4.42E+00	N/A	T3
276-9_S_high_D	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Calcium	1.75E+00	N/A	T3
277-10_S_high_A	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Calcium	2.45E+00	N/A	T3
278-10_S_high_B	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Calcium	2.05E+00	N/A	T3
279-10_S_high_C	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Calcium	2.62E+00	N/A	T3
280-10_S_high_D	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Calcium	1.90E+00	N/A	T3
281-11_S_high_A	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Calcium	2.90E+00	N/A	T3
282-11_S_high_B	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Calcium	3.32E+00	N/A	T3
283-11_S_high_C	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Calcium	2.22E+00	N/A	T3
284-11_S_high_D	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Calcium	2.36E+00	N/A	T3
285-12_S_high_A	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Calcium	1.67E+00	N/A	T3
286-12_S_high_B	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Calcium	1.33E+00	N/A	T3
287-12_S_high_C	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Calcium	1.65E+00	N/A	T3
288-12_S_high_D	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Calcium	1.54E+00	N/A	T3
289-1_I_low_A	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Calcium	5.49E+00	N/A	T3
290-1_I_low_B	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Calcium	5.57E+00	N/A	T3
291-1_I_low_C	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Calcium	1.13E+01	N/A	T3
292-1_I_low_D	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Calcium	6.28E+00	N/A	T3
293-2_I_low_A	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Calcium	1.50E+01	N/A	T3
294-2_I_low_B	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Calcium	1.14E+01	N/A	T3
295-2_I_low_C	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Calcium	1.52E+01	N/A	T3
296-2_I_low_D	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Calcium	9.13E+00	N/A	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
297-3_I_low_A	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Calcium	6.27E+00	N/A	T3
298-3_I_low_B	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Calcium	4.79E+00	N/A	T3
299-3_I_low_C	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Calcium	9.57E+00	N/A	T3
300-3_I_low_D	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Calcium	5.74E+00	N/A	T3
301-4_I_low_A	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Calcium	5.91E+00	dup1	T3
302-4_I_low_B	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Calcium	6.18E+00	dup1	T3
303-4_I_low_C	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Calcium	6.99E+00	dup1	T3
304-4_I_low_D	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Calcium	6.28E+00	dup1	T3
305-5_I_low_A	Compost_low_I	EPA6010C-SPLP	10	mg/L	Calcium	9.35E+00	dup1	T3
306-5_I_low_B	Compost_low_I	EPA6010C-SPLP	10	mg/L	Calcium	4.83E+00	dup1	T3
307-5_I_low_C	Compost_low_I	EPA6010C-SPLP	10	mg/L	Calcium	6.61E+00	dup1	T3
308-5_I_low_D	Compost_low_I	EPA6010C-SPLP	10	mg/L	Calcium	8.17E+00	dup1	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Calcium	1.83E+01	dup1	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Calcium	2.67E+00	dup1	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Calcium	5.89E+00	dup1	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Calcium	9.25E+00	dup1	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Calcium	7.32E+00	dup1	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Calcium	8.93E+00	dup1	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Calcium	1.64E+01	dup1	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Calcium	1.25E+01	dup1	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Calcium	1.04E+01	dup1	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Calcium	1.10E+01	dup1	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Calcium	8.94E+00	dup1	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Calcium	1.64E+01	dup1	T3
321-9_I_low_A	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Calcium	4.27E+01	dup1	T3
322-9_I_low_B	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Calcium	2.38E+01	dup1	T3
323-9_I_low_C	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Calcium	2.15E+01	dup1	T3
324-9_I_low_D	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Calcium	2.04E+01	dup1	T3
325-10_I_low_A	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Calcium	5.86E+00	N/A	T3
326-10_I_low_B	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Calcium	7.13E+00	N/A	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
327-10_I_low_C	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Calcium	3.55E+00	N/A	T3
328-10_I_low_D	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Calcium	6.61E+00	N/A	T3
329-11_I_low_A	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Calcium	4.89E+00	N/A	T3
330-11_I_low_B	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Calcium	4.71E+00	N/A	T3
331-11_I_low_C	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Calcium	8.64E+00	N/A	T3
332-11_I_low_D	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Calcium	7.30E+00	N/A	T3
333-12_I_low_A	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Calcium	6.10E+00	N/A	T3
334-12_I_low_B	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Calcium	6.76E+00	N/A	T3
335-12_I_low_C	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Calcium	8.60E+00	N/A	T3
336-12_I_low_D	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Calcium	6.56E+00	N/A	T3
337-1_I_high_A	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Calcium	1.18E+01	N/A	T3
338-1_I_high_B	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Calcium	1.92E+01	N/A	T3
339-1_I_high_C	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Calcium	1.54E+01	N/A	T3
340-1_I_high_D	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Calcium	1.02E+01	N/A	T3
341-2_I_high_A	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Calcium	1.40E+01	N/A	T3
342-2_I_high_B	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Calcium	9.42E+00	N/A	T3
343-2_I_high_C	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Calcium	5.41E+01	N/A	T3
344-2_I_high_D	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Calcium	6.58E+01	N/A	T3
345-3_I_high_A	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Calcium	1.35E+01	N/A	T3
346-3_I_high_B	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Calcium	8.59E+00	N/A	T3
347-3_I_high_C	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Calcium	8.92E+00	N/A	T3
348-3_I_high_D	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Calcium	1.04E+01	N/A	T3
349-4_I_high_A	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Calcium	9.81E+00	dup1	T3
350-4_I_high_B	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Calcium	6.85E+00	dup1	T3
351-4_I_high_C	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Calcium	6.38E+00	dup1	T3
352-4_I_high_D	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Calcium	4.58E+00	dup1	T3
353-5_I_high_A	Compost_high_I	EPA6010C-SPLP	14	mg/L	Calcium	4.83E+00	dup1	T3
354-5_I_high_B	Compost_high_I	EPA6010C-SPLP	14	mg/L	Calcium	7.31E+00	dup1	T3
355-5_I_high_C	Compost_high_I	EPA6010C-SPLP	14	mg/L	Calcium	9.34E+00	dup1	T3
356-5_I_high_D	Compost_high_I	EPA6010C-SPLP	14	mg/L	Calcium	1.29E+01	dup1	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
357-6_I_high_A	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Calcium	2.06E+01	dup1	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Calcium	1.67E+01	dup1	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Calcium	1.56E+01	dup1	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Calcium	1.33E+01	dup1	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Calcium	9.56E+01	dup1	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Calcium	1.37E+01	dup1	T3
363-7_I_high_C	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Calcium	9.35E+00	dup1	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Calcium	1.74E+01	dup1	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Calcium	8.20E+00	dup1	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Calcium	1.94E+01	dup1	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Calcium	8.67E+00	dup1	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Calcium	1.11E+01	dup1	T3
369-9_I_high_A	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Calcium	8.51E+01	dup1	T3
370-9_I_high_B	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Calcium	6.20E+01	dup1	T3
371-9_I_high_C	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Calcium	1.63E+02	dup1	T3
372-9_I_high_D	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Calcium	1.44E+02	dup1	T3
373-10_I_high_A	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Calcium	2.71E+01	dup1	T3
374-10_I_high_B	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Calcium	6.59E+00	dup1	T3
375-10_I_high_C	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Calcium	8.41E+00	dup1	T3
376-10_I_high_D	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Calcium	8.74E+00	dup1	T3
377-11_I_high_A	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Calcium	1.14E+01	dup1	T3
378-11_I_high_B	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Calcium	1.53E+01	dup1	T3
379-11_I_high_C	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Calcium	8.00E+00	dup1	T3
380-11_I_high_D	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Calcium	1.91E+01	dup1	T3
381-12_I_high_A	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Calcium	5.68E+00	dup1	T3
382-12_I_high_B	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Calcium	9.40E+00	dup1	T3
383-12_I_high_C	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Calcium	5.61E+00	dup1	T3
384-12_I_high_D	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Calcium	8.18E+00	dup1	T3
385-0_I_NA_A	control_none_I	EPA6010C-SPLP	17	mg/L	Calcium	6.88E+00	N/A	T3
386-0_I_NA_B	control_none_I	EPA6010C-SPLP	17	mg/L	Calcium	8.20E+00	N/A	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
387-0_I_NA_C	control_none_I	EPA6010C-SPLP	17	mg/L	Calcium	1.16E+01	N/A	T3
388-0_I_NA_D	control_none_I	EPA6010C-SPLP	17	mg/L	Calcium	8.68E+00	N/A	T3
097-1_S_low_A	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Chromium	2.53E-03	N/A rl	T3
098-1_S_low_B	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Chromium	1.48E-03	N/A rl U	T3
099-1_S_low_C	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Chromium	1.48E-03	N/A rl U	T3
100-1_S_low_D	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Chromium	1.48E-03	N/A rl U	T3
101-2_S_low_A	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Chromium	1.48E-03	N/A rl U	T3
102-2_S_low_B	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Chromium	1.48E-03	N/A rl U	T3
103-2_S_low_C	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Chromium	1.48E-03	N/A rl U	T3
104-2_S_low_D	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Chromium	1.48E-03	N/A rl U	T3
105-3_S_low_A	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Chromium	1.48E-03	N/A rl U	T3
106-3_S_low_B	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Chromium	1.48E-03	N/A rl U	T3
107-3_S_low_C	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Chromium	1.48E-03	N/A rl U	T3
108-3_S_low_D	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Chromium	1.48E-03	N/A rl U	T3
109-4_S_low_A	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Chromium	1.48E-03	N/A rl U	T3
110-4_S_low_B	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Chromium	1.48E-03	N/A rl U	T3
111-4_S_low_C	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Chromium	1.48E-03	N/A rl U	T3
112-4_S_low_D	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Chromium	1.48E-03	N/A rl U	T3
113-5_S_low_A	Compost_low_S	EPA6010C-SPLP	2	mg/L	Chromium	1.48E-03	N/A rl U	T3
114-5_S_low_B	Compost_low_S	EPA6010C-SPLP	2	mg/L	Chromium	1.48E-03	N/A rl U	T3
115-5_S_low_C	Compost_low_S	EPA6010C-SPLP	2	mg/L	Chromium	1.48E-03	N/A rl U	T3
116-5_S_low_D	Compost_low_S	EPA6010C-SPLP	2	mg/L	Chromium	1.48E-03	N/A rl U	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Chromium	1.48E-03	N/A rl U	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Chromium	1.48E-03	N/A rl U	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
119-6_S_low_C	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Chromium	1.48E-03	N/A rl U	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Chromium	1.48E-03	N/A rl U	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Chromium	1.48E-03	N/A rl U	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Chromium	1.48E-03	N/A rl U	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Chromium	1.48E-03	N/A rl U	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Chromium	1.48E-03	N/A rl U	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Chromium	1.48E-03	N/A rl U	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Chromium	1.48E-03	N/A rl U	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Chromium	1.48E-03	N/A rl U	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Chromium	1.48E-03	N/A rl U	T3
129-9_S_low_A	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Chromium	1.48E-03	N/A rl U	T3
130-9_S_low_B	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Chromium	1.48E-03	N/A rl U	T3
131-9_S_low_C	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Chromium	1.48E-03	N/A rl U	T3
132-9_S_low_D	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Chromium	1.48E-03	N/A rl U	T3
133-10_S_low_A	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Chromium	2.12E-03	N/A rl U	T3
134-10_S_low_B	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Chromium	1.48E-03	N/A rl U	T3
135-10_S_low_C	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Chromium	1.48E-03	N/A rl U	T3
136-10_S_low_D	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Chromium	1.48E-03	N/A rl U	T3
137-11_S_low_A	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Chromium	1.48E-03	N/A rl U	T3
138-11_S_low_B	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Chromium	1.48E-03	N/A rl U	T3
139-11_S_low_C	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Chromium	1.48E-03	N/A rl U	T3
140-11_S_low_D	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Chromium	1.48E-03	N/A rl U	T3
141-12_S_low_A	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Chromium	1.48E-03	N/A rl U	T3
142-12_S_low_B	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Chromium	1.48E-03	N/A rl U	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
143-12_S_low_C	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Chromium	1.48E-03	N/A rl U	T3
144-12_S_low_D	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Chromium	1.48E-03	N/A rl U	T3
241-1_S_high_A	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Chromium	2.75E-03	N/A rl	T3
242-1_S_high_B	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Chromium	1.95E-03	N/A rl	T3
243-1_S_high_C	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Chromium	2.09E-03	N/A rl	T3
244-1_S_high_D	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Chromium	2.83E-03	N/A rl	T3
245-2_S_high_A	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Chromium	1.62E-03	N/A rl	T3
246-2_S_high_B	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Chromium	1.48E-03	N/A rl U	T3
247-2_S_high_C	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Chromium	1.48E-03	N/A rl U	T3
248-2_S_high_D	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Chromium	1.48E-03	N/A rl U	T3
249-3_S_high_A	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Chromium	1.48E-03	N/A rl U	T3
250-3_S_high_B	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Chromium	1.48E-03	N/A rl U	T3
251-3_S_high_C	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Chromium	1.48E-03	N/A rl U	T3
252-3_S_high_D	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Chromium	1.48E-03	N/A rl U	T3
253-4_S_high_A	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Chromium	1.56E-03	N/A rl	T3
254-4_S_high_B	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Chromium	1.48E-03	N/A rl U	T3
255-4_S_high_C	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Chromium	1.48E-03	N/A rl U	T3
256-4_S_high_D	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Chromium	1.48E-03	N/A rl U	T3
257-5_S_high_A	Compost_high_S	EPA6010C-SPLP	6	mg/L	Chromium	1.48E-03	N/A rl U	T3
258-5_S_high_B	Compost_high_S	EPA6010C-SPLP	6	mg/L	Chromium	1.48E-03	N/A rl U	T3
259-5_S_high_C	Compost_high_S	EPA6010C-SPLP	6	mg/L	Chromium	1.48E-03	N/A rl U	T3
260-5_S_high_D	Compost_high_S	EPA6010C-SPLP	6	mg/L	Chromium	1.48E-03	N/A rl U	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Chromium	1.48E-03	N/A rl U	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Chromium	1.48E-03	N/A rl U	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Chromium	1.48E-03	N/A rl U	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
264-6_S_high_D	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Chromium	1.48E-03	N/A rl U	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Chromium	1.48E-03	N/A rl U	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Chromium	1.48E-03	N/A rl U	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Chromium	2.12E-03	N/A rl	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Chromium	1.81E-03	N/A rl	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Chromium	1.48E-03	N/A rl U	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Chromium	1.48E-03	N/A rl U	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Chromium	1.48E-03	N/A rl U	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Chromium	1.48E-03	N/A rl U	T3
273-9_S_high_A	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Chromium	1.48E-03	N/A rl U	T3
274-9_S_high_B	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Chromium	1.48E-03	N/A rl U	T3
275-9_S_high_C	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Chromium	1.48E-03	N/A rl U	T3
276-9_S_high_D	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Chromium	1.48E-03	N/A rl U	T3
277-10_S_high_A	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Chromium	2.76E-03	N/A rl	T3
278-10_S_high_B	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Chromium	1.48E-03	N/A rl U	T3
279-10_S_high_C	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Chromium	1.48E-03	N/A rl U	T3
280-10_S_high_D	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Chromium	1.48E-03	N/A rl U	T3
281-11_S_high_A	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Chromium	1.48E-03	N/A rl U	T3
282-11_S_high_B	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Chromium	1.48E-03	N/A rl U	T3
283-11_S_high_C	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Chromium	1.48E-03	N/A rl U	T3
284-11_S_high_D	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Chromium	1.48E-03	N/A rl U	T3
285-12_S_high_A	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Chromium	1.48E-03	N/A rl U	T3
286-12_S_high_B	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Chromium	1.48E-03	N/A rl U	T3
287-12_S_high_C	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Chromium	1.48E-03	N/A rl U	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
288-12_S_high_D	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Chromium	1.48E-03	N/A rl U	T3
289-1_I_low_A	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Chromium	2.52E-03	N/A rl	T3
290-1_I_low_B	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Chromium	2.57E-03	N/A rl	T3
291-1_I_low_C	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Chromium	1.48E-03	N/A rl U	T3
292-1_I_low_D	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Chromium	1.61E-03	N/A rl	T3
293-2_I_low_A	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Chromium	1.48E-03	N/A rl U	T3
294-2_I_low_B	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Chromium	1.48E-03	N/A rl U	T3
295-2_I_low_C	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Chromium	1.48E-03	N/A rl U	T3
296-2_I_low_D	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Chromium	1.48E-03	N/A rl U	T3
297-3_I_low_A	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Chromium	1.48E-03	N/A rl U	T3
298-3_I_low_B	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Chromium	1.48E-03	N/A rl U	T3
299-3_I_low_C	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Chromium	1.48E-03	N/A rl U	T3
300-3_I_low_D	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Chromium	1.48E-03	N/A rl U	T3
301-4_I_low_A	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Chromium	1.48E-03	N/A rl U	T3
302-4_I_low_B	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Chromium	1.48E-03	N/A rl U	T3
303-4_I_low_C	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Chromium	1.48E-03	N/A rl U	T3
304-4_I_low_D	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Chromium	1.48E-03	N/A rl U	T3
305-5_I_low_A	Compost_low_I	EPA6010C-SPLP	10	mg/L	Chromium	1.48E-03	N/A rl U	T3
306-5_I_low_B	Compost_low_I	EPA6010C-SPLP	10	mg/L	Chromium	1.48E-03	N/A rl U	T3
307-5_I_low_C	Compost_low_I	EPA6010C-SPLP	10	mg/L	Chromium	1.48E-03	N/A rl U	T3
308-5_I_low_D	Compost_low_I	EPA6010C-SPLP	10	mg/L	Chromium	1.48E-03	N/A rl U	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Chromium	1.48E-03	N/A rl U	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Chromium	1.67E-03	N/A rl	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Chromium	1.90E-03	N/A rl	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Chromium	2.12E-03	N/A rl	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
313-7_I_low_A	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Chromium	2.40E-03	N/A rl	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Chromium	1.48E-03	N/A rl U	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Chromium	1.48E-03	N/A rl U	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Chromium	1.48E-03	N/A rl U	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Chromium	1.58E-03	N/A rl	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Chromium	1.48E-03	N/A rl U	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Chromium	1.92E-03	N/A rl	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Chromium	1.48E-03	N/A rl U	T3
321-9_I_low_A	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Chromium	1.48E-03	N/A rl U	T3
322-9_I_low_B	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Chromium	1.48E-03	N/A rl U	T3
323-9_I_low_C	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Chromium	1.48E-03	N/A rl U	T3
324-9_I_low_D	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Chromium	1.48E-03	N/A rl U	T3
325-10_I_low_A	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Chromium	1.48E-03	N/A rl U	T3
326-10_I_low_B	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Chromium	1.48E-03	N/A rl U	T3
327-10_I_low_C	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Chromium	1.48E-03	N/A rl U	T3
328-10_I_low_D	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Chromium	1.48E-03	N/A rl U	T3
329-11_I_low_A	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Chromium	1.48E-03	N/A rl U	T3
330-11_I_low_B	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Chromium	1.48E-03	N/A rl U	T3
331-11_I_low_C	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Chromium	1.48E-03	N/A rl U	T3
332-11_I_low_D	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Chromium	1.48E-03	N/A rl U	T3
333-12_I_low_A	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Chromium	1.48E-03	N/A rl U	T3
334-12_I_low_B	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Chromium	1.48E-03	N/A rl U	T3
335-12_I_low_C	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Chromium	1.48E-03	N/A rl U	T3
336-12_I_low_D	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Chromium	1.48E-03	N/A rl U	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
337-1_I_high_A	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Chromium	3.06E-03	N/A rl	T3
338-1_I_high_B	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Chromium	2.40E-03	N/A rl	T3
339-1_I_high_C	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Chromium	4.62E-03	N/A rl	T3
340-1_I_high_D	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Chromium	2.59E-03	N/A rl	T3
341-2_I_high_A	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Chromium	1.48E-03	N/A rl U	T3
342-2_I_high_B	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Chromium	1.48E-03	N/A rl U	T3
343-2_I_high_C	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Chromium	1.48E-03	N/A rl U	T3
344-2_I_high_D	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Chromium	1.48E-03	N/A rl U	T3
345-3_I_high_A	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Chromium	1.48E-03	N/A rl U	T3
346-3_I_high_B	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Chromium	1.48E-03	N/A rl U	T3
347-3_I_high_C	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Chromium	1.48E-03	N/A rl U	T3
348-3_I_high_D	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Chromium	1.48E-03	N/A rl U	T3
349-4_I_high_A	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Chromium	1.48E-03	N/A rl U	T3
350-4_I_high_B	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Chromium	1.48E-03	N/A rl U	T3
351-4_I_high_C	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Chromium	1.48E-03	N/A rl U	T3
352-4_I_high_D	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Chromium	1.48E-03	N/A rl U	T3
353-5_I_high_A	Compost_high_I	EPA6010C-SPLP	14	mg/L	Chromium	1.48E-03	N/A rl U	T3
354-5_I_high_B	Compost_high_I	EPA6010C-SPLP	14	mg/L	Chromium	1.48E-03	N/A rl U	T3
355-5_I_high_C	Compost_high_I	EPA6010C-SPLP	14	mg/L	Chromium	1.48E-03	N/A rl U	T3
356-5_I_high_D	Compost_high_I	EPA6010C-SPLP	14	mg/L	Chromium	1.48E-03	N/A rl U	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Chromium	2.07E-03	N/A rl	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Chromium	2.56E-03	N/A rl	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Chromium	5.89E-03	N/A rl	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Chromium	1.82E-03	N/A rl	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Chromium	1.48E-03	N/A rl U	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
362-7_I_high_B	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Chromium	2.78E-03	N/A rl	T3
363-7_I_high_C	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Chromium	2.74E-03	N/A rl	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Chromium	1.71E-03	N/A rl	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Chromium	3.21E-03	N/A rl	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Chromium	2.32E-03	N/A rl	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Chromium	3.24E-03	N/A rl	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Chromium	4.11E-03	N/A rl	T3
369-9_I_high_A	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Chromium	1.48E-03	N/A rl U	T3
370-9_I_high_B	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Chromium	1.48E-03	N/A rl U	T3
371-9_I_high_C	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Chromium	1.48E-03	N/A rl U	T3
372-9_I_high_D	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Chromium	1.50E-03	N/A rl	T3
373-10_I_high_A	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Chromium	1.48E-03	N/A rl U	T3
374-10_I_high_B	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Chromium	1.48E-03	N/A rl U	T3
375-10_I_high_C	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Chromium	1.48E-03	N/A rl U	T3
376-10_I_high_D	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Chromium	1.48E-03	N/A rl U	T3
377-11_I_high_A	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Chromium	1.48E-03	N/A rl U	T3
378-11_I_high_B	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Chromium	1.48E-03	N/A rl U	T3
379-11_I_high_C	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Chromium	1.48E-03	N/A rl U	T3
380-11_I_high_D	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Chromium	1.48E-03	N/A rl U	T3
381-12_I_high_A	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Chromium	1.48E-03	N/A rl U	T3
382-12_I_high_B	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Chromium	1.48E-03	N/A rl U	T3
383-12_I_high_C	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Chromium	1.48E-03	N/A rl U	T3
384-12_I_high_D	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Chromium	1.48E-03	N/A rl U	T3
385-0_I_NA_A	control_none_I	EPA6010C-SPLP	17	mg/L	Chromium	1.48E-03	N/A rl U	T3
386-0_I_NA_B	control_none_I	EPA6010C-SPLP	17	mg/L	Chromium	1.48E-03	N/A rl U	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
387-0_I_NA_C	control_none_I	EPA6010C-SPLP	17	mg/L	Chromium	1.48E-03	N/A rl U	T3
388-0_I_NA_D	control_none_I	EPA6010C-SPLP	17	mg/L	Chromium	1.48E-03	N/A rl U	T3
097-1_S_low_A	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Cobalt	2.25E-03	N/A rl	T3
098-1_S_low_B	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Cobalt	2.41E-03	N/A rl	T3
099-1_S_low_C	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Cobalt	2.10E-03	N/A rl	T3
100-1_S_low_D	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Cobalt	2.94E-03	N/A rl	T3
101-2_S_low_A	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Cobalt	1.72E-03	N/A rl	T3
102-2_S_low_B	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Cobalt	1.63E-03	N/A rl	T3
103-2_S_low_C	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Cobalt	1.78E-03	N/A rl	T3
104-2_S_low_D	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Cobalt	1.07E-03	N/A rl	T3
105-3_S_low_A	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Cobalt	1.59E-03	N/A rl	T3
106-3_S_low_B	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Cobalt	1.26E-03	N/A rl	T3
107-3_S_low_C	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Cobalt	8.93E-04	N/A rl	T3
108-3_S_low_D	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Cobalt	1.82E-03	N/A rl	T3
109-4_S_low_A	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Cobalt	1.32E-03	N/A rl	T3
110-4_S_low_B	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Cobalt	1.34E-03	N/A rl	T3
111-4_S_low_C	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Cobalt	1.53E-03	N/A rl	T3
112-4_S_low_D	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Cobalt	1.26E-03	N/A rl	T3
113-5_S_low_A	Compost_low_S	EPA6010C-SPLP	2	mg/L	Cobalt	1.80E-03	N/A rl	T3
114-5_S_low_B	Compost_low_S	EPA6010C-SPLP	2	mg/L	Cobalt	1.33E-03	N/A rl	T3
115-5_S_low_C	Compost_low_S	EPA6010C-SPLP	2	mg/L	Cobalt	2.01E-03	N/A rl	T3
116-5_S_low_D	Compost_low_S	EPA6010C-SPLP	2	mg/L	Cobalt	1.44E-03	N/A rl	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Cobalt	1.86E-03	N/A rl	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Cobalt	1.90E-03	N/A rl	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Cobalt	2.47E-03	N/A rl	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Cobalt	1.50E-03	N/A rl	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Cobalt	1.52E-03	N/A rl	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Cobalt	1.90E-03	N/A rl	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Cobalt	2.40E-03	N/A rl	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
124-7_S_low_D	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Cobalt	1.79E-03	N/A rl	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Cobalt	2.19E-03	N/A rl	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Cobalt	2.13E-03	N/A rl	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Cobalt	1.77E-03	N/A rl	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Cobalt	2.28E-03	N/A rl	T3
129-9_S_low_A	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Cobalt	3.80E-03	N/A rl	T3
130-9_S_low_B	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Cobalt	2.00E-03	N/A rl	T3
131-9_S_low_C	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Cobalt	2.67E-03	N/A rl	T3
132-9_S_low_D	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Cobalt	1.35E-03	N/A rl	T3
133-10_S_low_A	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Cobalt	1.84E-03	N/A rl	T3
134-10_S_low_B	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Cobalt	1.65E-03	N/A rl	T3
135-10_S_low_C	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Cobalt	1.95E-03	N/A rl	T3
136-10_S_low_D	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Cobalt	1.86E-03	N/A rl	T3
137-11_S_low_A	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Cobalt	1.43E-03	N/A rl	T3
138-11_S_low_B	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Cobalt	2.11E-03	N/A rl	T3
139-11_S_low_C	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Cobalt	1.55E-03	N/A rl	T3
140-11_S_low_D	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Cobalt	1.82E-03	N/A rl	T3
141-12_S_low_A	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Cobalt	1.25E-03	N/A rl	T3
142-12_S_low_B	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Cobalt	1.71E-03	N/A rl	T3
143-12_S_low_C	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Cobalt	1.45E-03	N/A rl	T3
144-12_S_low_D	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Cobalt	1.16E-03	N/A rl	T3
241-1_S_high_A	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Cobalt	3.03E-03	N/A rl	T3
242-1_S_high_B	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Cobalt	2.59E-03	N/A rl	T3
243-1_S_high_C	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Cobalt	2.90E-03	N/A rl	T3
244-1_S_high_D	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Cobalt	3.46E-03	N/A rl	T3
245-2_S_high_A	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Cobalt	2.79E-03	N/A rl	T3
246-2_S_high_B	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Cobalt	1.79E-03	N/A rl	T3
247-2_S_high_C	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Cobalt	2.76E-03	N/A rl	T3
248-2_S_high_D	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Cobalt	2.43E-03	N/A rl	T3
249-3_S_high_A	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Cobalt	1.22E-03	N/A rl	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
250-3_S_high_B	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Cobalt	1.68E-03	N/A rl	T3
251-3_S_high_C	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Cobalt	1.60E-03	N/A rl	T3
252-3_S_high_D	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Cobalt	1.22E-03	N/A rl	T3
253-4_S_high_A	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Cobalt	2.10E-03	N/A rl	T3
254-4_S_high_B	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Cobalt	9.43E-04	N/A rl	T3
255-4_S_high_C	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Cobalt	1.60E-03	N/A rl	T3
256-4_S_high_D	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Cobalt	1.27E-03	N/A rl	T3
257-5_S_high_A	Compost_high_S	EPA6010C-SPLP	6	mg/L	Cobalt	1.80E-03	N/A rl	T3
258-5_S_high_B	Compost_high_S	EPA6010C-SPLP	6	mg/L	Cobalt	1.70E-03	N/A rl	T3
259-5_S_high_C	Compost_high_S	EPA6010C-SPLP	6	mg/L	Cobalt	1.44E-03	N/A rl	T3
260-5_S_high_D	Compost_high_S	EPA6010C-SPLP	6	mg/L	Cobalt	1.50E-03	N/A rl	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Cobalt	3.00E-03	N/A rl	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Cobalt	2.21E-03	N/A rl	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Cobalt	2.12E-03	N/A rl	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Cobalt	2.10E-03	N/A rl	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Cobalt	2.03E-03	N/A rl	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Cobalt	2.37E-03	N/A rl	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Cobalt	2.32E-03	N/A rl	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Cobalt	1.90E-03	N/A rl	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Cobalt	1.49E-03	N/A rl	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Cobalt	1.69E-03	N/A rl	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Cobalt	2.27E-03	N/A rl	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Cobalt	2.61E-03	N/A rl	T3
273-9_S_high_A	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Cobalt	2.38E-03	N/A rl	T3
274-9_S_high_B	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Cobalt	2.89E-03	N/A rl	T3
275-9_S_high_C	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Cobalt	3.25E-03	N/A rl	T3
276-9_S_high_D	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Cobalt	2.61E-03	N/A rl	T3
277-10_S_high_A	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Cobalt	1.58E-03	N/A rl	T3
278-10_S_high_B	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Cobalt	1.92E-03	N/A rl	T3
279-10_S_high_C	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Cobalt	1.38E-03	N/A rl	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
280-10_S_high_D	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Cobalt	1.12E-03	N/A rl	T3
281-11_S_high_A	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Cobalt	2.27E-03	N/A rl	T3
282-11_S_high_B	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Cobalt	1.82E-03	N/A rl	T3
283-11_S_high_C	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Cobalt	1.87E-03	N/A rl	T3
284-11_S_high_D	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Cobalt	1.44E-03	N/A rl	T3
285-12_S_high_A	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Cobalt	1.70E-03	N/A rl	T3
286-12_S_high_B	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Cobalt	1.61E-03	N/A rl	T3
287-12_S_high_C	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Cobalt	1.37E-03	N/A rl	T3
288-12_S_high_D	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Cobalt	2.16E-03	N/A rl	T3
289-1_I_low_A	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Cobalt	2.15E-03	N/A rl	T3
290-1_I_low_B	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Cobalt	3.25E-03	N/A rl	T3
291-1_I_low_C	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Cobalt	3.95E-03	N/A rl	T3
292-1_I_low_D	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Cobalt	2.93E-03	N/A rl	T3
293-2_I_low_A	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Cobalt	3.13E-03	N/A rl	T3
294-2_I_low_B	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Cobalt	3.47E-03	N/A rl	T3
295-2_I_low_C	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Cobalt	2.68E-03	N/A rl	T3
296-2_I_low_D	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Cobalt	2.20E-03	N/A rl	T3
297-3_I_low_A	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Cobalt	1.89E-03	N/A rl	T3
298-3_I_low_B	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Cobalt	1.68E-03	N/A rl	T3
299-3_I_low_C	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Cobalt	1.52E-03	N/A rl	T3
300-3_I_low_D	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Cobalt	9.38E-04	N/A rl	T3
301-4_I_low_A	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Cobalt	1.69E-03	N/A rl	T3
302-4_I_low_B	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Cobalt	1.82E-03	N/A rl	T3
303-4_I_low_C	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Cobalt	2.35E-03	N/A rl	T3
304-4_I_low_D	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Cobalt	1.54E-03	N/A rl	T3
305-5_I_low_A	Compost_low_I	EPA6010C-SPLP	10	mg/L	Cobalt	2.94E-03	N/A rl	T3
306-5_I_low_B	Compost_low_I	EPA6010C-SPLP	10	mg/L	Cobalt	1.91E-03	N/A rl	T3
307-5_I_low_C	Compost_low_I	EPA6010C-SPLP	10	mg/L	Cobalt	2.50E-03	N/A rl	T3
308-5_I_low_D	Compost_low_I	EPA6010C-SPLP	10	mg/L	Cobalt	2.53E-03	N/A rl	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Cobalt	1.78E-03	N/A rl	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
310-6_I_low_B	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Cobalt	2.02E-03	N/A rl	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Cobalt	2.75E-03	N/A rl	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Cobalt	2.55E-03	N/A rl	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Cobalt	2.43E-03	N/A rl	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Cobalt	2.41E-03	N/A rl	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Cobalt	3.61E-03	N/A rl	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Cobalt	2.76E-03	N/A rl	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Cobalt	2.82E-03	N/A rl	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Cobalt	3.04E-03	N/A rl	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Cobalt	3.37E-03	N/A rl	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Cobalt	3.12E-03	N/A rl	T3
321-9_I_low_A	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Cobalt	7.23E-03	N/A rl	T3
322-9_I_low_B	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Cobalt	2.85E-03	N/A rl	T3
323-9_I_low_C	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Cobalt	1.85E-03	N/A rl	T3
324-9_I_low_D	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Cobalt	2.99E-03	N/A rl	T3
325-10_I_low_A	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Cobalt	1.43E-03	N/A rl	T3
326-10_I_low_B	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Cobalt	1.11E-03	N/A rl	T3
327-10_I_low_C	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Cobalt	8.53E-04	N/A rl	T3
328-10_I_low_D	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Cobalt	1.57E-03	N/A rl	T3
329-11_I_low_A	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Cobalt	1.78E-03	N/A rl	T3
330-11_I_low_B	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Cobalt	1.29E-03	N/A rl	T3
331-11_I_low_C	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Cobalt	1.55E-03	N/A rl	T3
332-11_I_low_D	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Cobalt	1.36E-03	N/A rl	T3
333-12_I_low_A	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Cobalt	1.19E-03	N/A rl	T3
334-12_I_low_B	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Cobalt	2.41E-03	N/A rl	T3
335-12_I_low_C	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Cobalt	1.90E-03	N/A rl	T3
336-12_I_low_D	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Cobalt	1.69E-03	N/A rl	T3
337-1_I_high_A	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Cobalt	3.23E-03	N/A rl	T3
338-1_I_high_B	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Cobalt	4.07E-03	N/A rl	T3
339-1_I_high_C	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Cobalt	2.87E-03	N/A rl	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
340-1_I_high_D	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Cobalt	2.41E-03	N/A rl	T3
341-2_I_high_A	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Cobalt	2.77E-03	N/A rl	T3
342-2_I_high_B	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Cobalt	2.18E-03	N/A rl	T3
343-2_I_high_C	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Cobalt	4.37E-03	N/A rl	T3
344-2_I_high_D	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Cobalt	6.38E-03	N/A rl	T3
345-3_I_high_A	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Cobalt	1.45E-03	N/A rl	T3
346-3_I_high_B	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Cobalt	8.20E-04	N/A rl	T3
347-3_I_high_C	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Cobalt	1.34E-03	N/A rl	T3
348-3_I_high_D	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Cobalt	1.67E-03	N/A rl	T3
349-4_I_high_A	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Cobalt	2.43E-03	N/A rl	T3
350-4_I_high_B	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Cobalt	1.75E-03	N/A rl	T3
351-4_I_high_C	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Cobalt	1.94E-03	N/A rl	T3
352-4_I_high_D	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Cobalt	1.25E-03	N/A rl	T3
353-5_I_high_A	Compost_high_I	EPA6010C-SPLP	14	mg/L	Cobalt	1.52E-03	N/A rl	T3
354-5_I_high_B	Compost_high_I	EPA6010C-SPLP	14	mg/L	Cobalt	1.33E-03	N/A rl	T3
355-5_I_high_C	Compost_high_I	EPA6010C-SPLP	14	mg/L	Cobalt	2.29E-03	N/A rl	T3
356-5_I_high_D	Compost_high_I	EPA6010C-SPLP	14	mg/L	Cobalt	2.34E-03	N/A rl	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Cobalt	4.40E-03	N/A rl	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Cobalt	2.77E-03	N/A rl	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Cobalt	2.48E-03	N/A rl	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Cobalt	2.19E-03	N/A rl	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Cobalt	1.07E-02	N/A	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Cobalt	2.88E-03	N/A rl	T3
363-7_I_high_C	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Cobalt	2.45E-03	N/A rl	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Cobalt	2.77E-03	N/A rl	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Cobalt	1.93E-03	N/A rl	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Cobalt	2.97E-03	N/A rl	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Cobalt	2.16E-03	N/A rl	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Cobalt	2.37E-03	N/A rl	T3
369-9_I_high_A	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Cobalt	3.57E-03	N/A rl	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
370-9_I_high_B	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Cobalt	2.67E-03	N/A rl	T3
371-9_I_high_C	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Cobalt	5.07E-03	N/A rl	T3
372-9_I_high_D	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Cobalt	5.74E-03	N/A rl	T3
373-10_I_high_A	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Cobalt	1.64E-03	N/A rl	T3
374-10_I_high_B	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Cobalt	6.66E-04	N/A rl	T3
375-10_I_high_C	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Cobalt	9.51E-04	N/A rl	T3
376-10_I_high_D	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Cobalt	1.09E-03	N/A rl	T3
377-11_I_high_A	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Cobalt	1.02E-03	N/A rl	T3
378-11_I_high_B	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Cobalt	1.14E-03	N/A rl	T3
379-11_I_high_C	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Cobalt	1.21E-03	N/A rl	T3
380-11_I_high_D	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Cobalt	1.93E-03	N/A rl	T3
381-12_I_high_A	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Cobalt	1.45E-03	N/A rl	T3
382-12_I_high_B	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Cobalt	1.58E-03	N/A rl	T3
383-12_I_high_C	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Cobalt	1.73E-03	N/A rl	T3
384-12_I_high_D	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Cobalt	1.15E-03	N/A rl	T3
385-0_I_NA_A	control_none_I	EPA6010C-SPLP	17	mg/L	Cobalt	2.96E-03	N/A rl	T3
386-0_I_NA_B	control_none_I	EPA6010C-SPLP	17	mg/L	Cobalt	2.67E-03	N/A rl	T3
387-0_I_NA_C	control_none_I	EPA6010C-SPLP	17	mg/L	Cobalt	3.02E-03	N/A rl	T3
388-0_I_NA_D	control_none_I	EPA6010C-SPLP	17	mg/L	Cobalt	2.45E-03	N/A rl	T3
097-1_S_low_A	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Copper	9.01E-03	N/A rl	T3
098-1_S_low_B	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Copper	9.22E-03	N/A rl	T3
099-1_S_low_C	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Copper	7.36E-03	N/A rl	T3
100-1_S_low_D	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Copper	7.51E-03	N/A rl	T3
101-2_S_low_A	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Copper	9.34E-03	N/A rl	T3
102-2_S_low_B	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Copper	8.12E-03	N/A rl	T3
103-2_S_low_C	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Copper	1.03E-02	N/A	T3
104-2_S_low_D	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Copper	9.53E-03	N/A rl	T3
105-3_S_low_A	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Copper	6.79E-03	N/A rl	T3
106-3_S_low_B	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Copper	6.94E-03	N/A rl	T3
107-3_S_low_C	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Copper	4.33E-03	N/A rl	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
108-3_S_low_D	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Copper	7.24E-03	N/A rl	T3
109-4_S_low_A	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Copper	6.78E-03	N/A rl	T3
110-4_S_low_B	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Copper	4.96E-03	N/A rl	T3
111-4_S_low_C	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Copper	4.65E-03	N/A rl	T3
112-4_S_low_D	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Copper	3.83E-03	N/A rl	T3
113-5_S_low_A	Compost_low_S	EPA6010C-SPLP	2	mg/L	Copper	7.03E-03	N/A rl	T3
114-5_S_low_B	Compost_low_S	EPA6010C-SPLP	2	mg/L	Copper	4.87E-03	N/A rl	T3
115-5_S_low_C	Compost_low_S	EPA6010C-SPLP	2	mg/L	Copper	8.22E-03	N/A rl	T3
116-5_S_low_D	Compost_low_S	EPA6010C-SPLP	2	mg/L	Copper	4.64E-03	N/A rl	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Copper	1.34E-02	N/A	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Copper	1.09E-02	N/A	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Copper	1.17E-02	N/A	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Copper	1.01E-02	N/A	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Copper	6.19E-03	N/A rl	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Copper	6.77E-03	N/A rl	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Copper	7.85E-03	N/A rl	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Copper	7.99E-03	N/A rl	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Copper	6.68E-03	N/A rl	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Copper	9.39E-03	N/A rl	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Copper	7.50E-03	N/A rl	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Copper	7.49E-03	N/A rl	T3
129-9_S_low_A	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Copper	1.07E-02	N/A	T3
130-9_S_low_B	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Copper	8.26E-03	N/A rl	T3
131-9_S_low_C	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Copper	8.78E-03	N/A rl	T3
132-9_S_low_D	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Copper	6.60E-03	N/A rl	T3
133-10_S_low_A	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Copper	7.37E-03	N/A rl	T3
134-10_S_low_B	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Copper	4.48E-03	N/A rl	T3
135-10_S_low_C	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Copper	6.92E-03	N/A rl	T3
136-10_S_low_D	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Copper	7.36E-03	N/A rl	T3
137-11_S_low_A	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Copper	4.57E-03	N/A rl	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
138-11_S_low_B	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Copper	7.47E-03	N/A rl	T3
139-11_S_low_C	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Copper	8.33E-03	N/A rl	T3
140-11_S_low_D	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Copper	6.84E-03	N/A rl	T3
141-12_S_low_A	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Copper	5.78E-03	N/A rl	T3
142-12_S_low_B	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Copper	4.58E-03	N/A rl	T3
143-12_S_low_C	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Copper	6.13E-03	N/A rl	T3
144-12_S_low_D	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Copper	4.22E-03	N/A rl	T3
241-1_S_high_A	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Copper	1.12E-02	N/A	T3
242-1_S_high_B	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Copper	8.12E-03	N/A rl	T3
243-1_S_high_C	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Copper	8.33E-03	N/A rl	T3
244-1_S_high_D	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Copper	9.31E-03	N/A rl	T3
245-2_S_high_A	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Copper	2.15E-02	N/A	T3
246-2_S_high_B	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Copper	2.09E-02	N/A	T3
247-2_S_high_C	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Copper	1.66E-02	N/A	T3
248-2_S_high_D	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Copper	2.48E-02	N/A	T3
249-3_S_high_A	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Copper	6.92E-03	N/A rl	T3
250-3_S_high_B	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Copper	4.13E-03	N/A rl	T3
251-3_S_high_C	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Copper	5.76E-03	N/A rl	T3
252-3_S_high_D	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Copper	7.17E-03	N/A rl	T3
253-4_S_high_A	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Copper	6.78E-03	dup1 rl	T3
254-4_S_high_B	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Copper	7.30E-03	dup1 rl	T3
255-4_S_high_C	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Copper	3.98E-03	dup1 rl	T3
256-4_S_high_D	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Copper	5.06E-03	dup1 rl	T3
257-5_S_high_A	Compost_high_S	EPA6010C-SPLP	6	mg/L	Copper	9.41E-03	dup1 rl	T3
258-5_S_high_B	Compost_high_S	EPA6010C-SPLP	6	mg/L	Copper	7.52E-03	dup1 rl	T3
259-5_S_high_C	Compost_high_S	EPA6010C-SPLP	6	mg/L	Copper	4.13E-03	dup1 rl	T3
260-5_S_high_D	Compost_high_S	EPA6010C-SPLP	6	mg/L	Copper	5.82E-03	dup1 rl	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Copper	4.09E-02	dup1	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
262-6_S_high_B	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Copper	2.65E-02	dup1	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Copper	1.94E-02	dup1	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Copper	2.20E-02	dup1	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Copper	6.73E-03	N/A rl	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Copper	9.08E-03	N/A rl	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Copper	7.47E-03	N/A rl	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Copper	1.05E-02	N/A	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Copper	1.02E-02	N/A	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Copper	1.01E-02	N/A	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Copper	9.71E-03	N/A rl	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Copper	1.22E-02	N/A	T3
273-9_S_high_A	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Copper	2.24E-02	N/A	T3
274-9_S_high_B	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Copper	2.01E-02	N/A	T3
275-9_S_high_C	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Copper	1.42E-02	N/A	T3
276-9_S_high_D	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Copper	1.78E-02	N/A	T3
277-10_S_high_A	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Copper	8.81E-03	N/A rl	T3
278-10_S_high_B	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Copper	5.57E-03	N/A rl	T3
279-10_S_high_C	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Copper	8.05E-03	N/A rl	T3
280-10_S_high_D	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Copper	7.41E-03	N/A rl	T3
281-11_S_high_A	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Copper	8.57E-03	N/A rl	T3
282-11_S_high_B	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Copper	9.29E-03	N/A rl	T3
283-11_S_high_C	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Copper	8.35E-03	N/A rl	T3
284-11_S_high_D	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Copper	8.51E-03	N/A rl	T3
285-12_S_high_A	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Copper	8.39E-03	N/A rl	T3
286-12_S_high_B	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Copper	7.28E-03	N/A rl	T3
287-12_S_high_C	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Copper	9.65E-03	N/A rl	T3
288-12_S_high_D	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Copper	8.22E-03	N/A rl	T3
289-1_I_low_A	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Copper	8.38E-03	N/A rl	T3
290-1_I_low_B	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Copper	8.09E-03	N/A rl	T3
291-1_I_low_C	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Copper	7.82E-03	N/A rl	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
292-1_I_low_D	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Copper	8.22E-03	N/A rl	T3
293-2_I_low_A	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Copper	1.23E-02	N/A	T3
294-2_I_low_B	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Copper	1.30E-02	N/A	T3
295-2_I_low_C	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Copper	1.39E-02	N/A	T3
296-2_I_low_D	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Copper	1.08E-02	N/A	T3
297-3_I_low_A	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Copper	8.45E-03	N/A rl	T3
298-3_I_low_B	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Copper	7.86E-03	N/A rl	T3
299-3_I_low_C	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Copper	8.07E-03	N/A rl	T3
300-3_I_low_D	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Copper	7.33E-03	N/A rl	T3
301-4_I_low_A	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Copper	6.47E-03	N/A rl	T3
302-4_I_low_B	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Copper	5.04E-03	N/A rl	T3
303-4_I_low_C	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Copper	5.83E-03	N/A rl	T3
304-4_I_low_D	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Copper	6.44E-03	N/A rl	T3
305-5_I_low_A	Compost_low_I	EPA6010C-SPLP	10	mg/L	Copper	8.58E-03	N/A rl	T3
306-5_I_low_B	Compost_low_I	EPA6010C-SPLP	10	mg/L	Copper	6.16E-03	N/A rl	T3
307-5_I_low_C	Compost_low_I	EPA6010C-SPLP	10	mg/L	Copper	7.60E-03	N/A rl	T3
308-5_I_low_D	Compost_low_I	EPA6010C-SPLP	10	mg/L	Copper	7.11E-03	N/A rl	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Copper	1.14E-02	N/A	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Copper	1.65E-02	N/A	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Copper	1.55E-02	N/A	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Copper	1.40E-02	N/A	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Copper	7.65E-03	N/A rl	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Copper	5.91E-03	N/A rl	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Copper	5.91E-03	N/A rl	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Copper	5.93E-03	N/A rl	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Copper	1.04E-02	N/A	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Copper	9.00E-03	N/A rl	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Copper	9.53E-03	N/A rl	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Copper	8.87E-03	N/A rl	T3
321-9_I_low_A	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Copper	1.24E-02	N/A	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
322-9_I_low_B	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Copper	1.18E-02	N/A	T3
323-9_I_low_C	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Copper	1.02E-02	N/A	T3
324-9_I_low_D	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Copper	1.01E-02	N/A	T3
325-10_I_low_A	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Copper	6.48E-03	N/A rl	T3
326-10_I_low_B	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Copper	7.10E-03	N/A rl	T3
327-10_I_low_C	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Copper	4.60E-03	N/A rl	T3
328-10_I_low_D	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Copper	7.94E-03	N/A rl	T3
329-11_I_low_A	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Copper	9.03E-03	N/A rl	T3
330-11_I_low_B	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Copper	5.86E-03	N/A rl	T3
331-11_I_low_C	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Copper	8.26E-03	N/A rl	T3
332-11_I_low_D	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Copper	7.79E-03	N/A rl	T3
333-12_I_low_A	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Copper	8.14E-03	N/A rl	T3
334-12_I_low_B	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Copper	7.89E-03	N/A rl	T3
335-12_I_low_C	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Copper	8.10E-03	N/A rl	T3
336-12_I_low_D	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Copper	7.59E-03	N/A rl	T3
337-1_I_high_A	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Copper	8.34E-03	N/A rl	T3
338-1_I_high_B	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Copper	9.00E-03	N/A rl	T3
339-1_I_high_C	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Copper	1.00E-02	N/A	T3
340-1_I_high_D	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Copper	7.50E-03	N/A rl	T3
341-2_I_high_A	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Copper	3.23E-02	N/A	T3
342-2_I_high_B	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Copper	2.23E-02	N/A	T3
343-2_I_high_C	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Copper	2.58E-02	N/A	T3
344-2_I_high_D	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Copper	4.82E-02	N/A	T3
345-3_I_high_A	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Copper	7.34E-03	N/A rl	T3
346-3_I_high_B	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Copper	8.31E-03	N/A rl	T3
347-3_I_high_C	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Copper	5.87E-03	N/A rl	T3
348-3_I_high_D	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Copper	6.67E-03	N/A rl	T3
349-4_I_high_A	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Copper	4.50E-03	N/A rl	T3
350-4_I_high_B	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Copper	5.76E-03	N/A rl	T3
351-4_I_high_C	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Copper	6.34E-03	N/A rl	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
352-4_I_high_D	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Copper	4.97E-03	N/A rl	T3
353-5_I_high_A	Compost_high_I	EPA6010C-SPLP	14	mg/L	Copper	1.16E-02	N/A	T3
354-5_I_high_B	Compost_high_I	EPA6010C-SPLP	14	mg/L	Copper	1.14E-02	N/A	T3
355-5_I_high_C	Compost_high_I	EPA6010C-SPLP	14	mg/L	Copper	1.12E-02	N/A	T3
356-5_I_high_D	Compost_high_I	EPA6010C-SPLP	14	mg/L	Copper	1.11E-02	N/A	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Copper	4.62E-02	N/A	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Copper	2.63E-02	N/A	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Copper	3.20E-02	N/A	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Copper	2.44E-02	N/A	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Copper	9.85E-03	dup1 rl	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Copper	7.26E-03	dup1 rl	T3
363-7_I_high_C	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Copper	8.99E-03	dup1 rl	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Copper	7.55E-03	dup1 rl	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Copper	1.51E-02	dup1	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Copper	1.43E-02	dup1	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Copper	1.40E-02	dup1	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Copper	1.62E-02	dup1	T3
369-9_I_high_A	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Copper	2.38E-02	dup1	T3
370-9_I_high_B	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Copper	2.84E-02	dup1	T3
371-9_I_high_C	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Copper	3.53E-02	dup1	T3
372-9_I_high_D	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Copper	4.73E-02	dup1	T3
373-10_I_high_A	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Copper	7.32E-03	N/A rl	T3
374-10_I_high_B	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Copper	8.24E-03	N/A rl	T3
375-10_I_high_C	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Copper	7.07E-03	N/A rl	T3
376-10_I_high_D	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Copper	6.56E-03	N/A rl	T3
377-11_I_high_A	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Copper	1.25E-02	N/A	T3
378-11_I_high_B	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Copper	1.13E-02	N/A	T3
379-11_I_high_C	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Copper	1.32E-02	N/A	T3
380-11_I_high_D	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Copper	1.30E-02	N/A	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
381-12_I_high_A	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Copper	1.08E-02	N/A	T3
382-12_I_high_B	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Copper	9.60E-03	N/A rl	T3
383-12_I_high_C	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Copper	8.80E-03	N/A rl	T3
384-12_I_high_D	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Copper	8.92E-03	N/A rl	T3
385-0_I_NA_A	control_none_I	EPA6010C-SPLP	17	mg/L	Copper	7.09E-03	N/A rl	T3
386-0_I_NA_B	control_none_I	EPA6010C-SPLP	17	mg/L	Copper	6.28E-03	N/A rl	T3
387-0_I_NA_C	control_none_I	EPA6010C-SPLP	17	mg/L	Copper	5.88E-03	N/A rl	T3
388-0_I_NA_D	control_none_I	EPA6010C-SPLP	17	mg/L	Copper	6.79E-03	N/A rl	T3
097-1_S_low_A	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Iron	5.21E-01	N/A	T3
098-1_S_low_B	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Iron	4.72E-01	N/A rl	T3
099-1_S_low_C	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Iron	4.73E-01	N/A rl	T3
100-1_S_low_D	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Iron	4.86E-01	N/A rl	T3
101-2_S_low_A	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Iron	4.36E-01	N/A rl	T3
102-2_S_low_B	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Iron	5.58E-01	N/A	T3
103-2_S_low_C	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Iron	5.78E-01	N/A	T3
104-2_S_low_D	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Iron	6.40E-01	N/A	T3
105-3_S_low_A	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Iron	5.51E-01	N/A	T3
106-3_S_low_B	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Iron	5.00E-01	N/A rl	T3
107-3_S_low_C	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Iron	4.61E-01	N/A rl	T3
108-3_S_low_D	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Iron	5.84E-01	N/A	T3
109-4_S_low_A	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Iron	4.17E-01	N/A rl	T3
110-4_S_low_B	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Iron	4.29E-01	N/A rl	T3
111-4_S_low_C	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Iron	3.56E-01	N/A rl	T3
112-4_S_low_D	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Iron	3.57E-01	N/A rl	T3
113-5_S_low_A	Compost_low_S	EPA6010C-SPLP	2	mg/L	Iron	3.60E-01	N/A rl	T3
114-5_S_low_B	Compost_low_S	EPA6010C-SPLP	2	mg/L	Iron	3.04E-01	N/A rl	T3
115-5_S_low_C	Compost_low_S	EPA6010C-SPLP	2	mg/L	Iron	4.28E-01	N/A rl	T3
116-5_S_low_D	Compost_low_S	EPA6010C-SPLP	2	mg/L	Iron	2.36E-01	N/A rl	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Iron	6.55E-01	N/A	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Iron	4.56E-01	N/A rl	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
119-6_S_low_C	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Iron	4.41E-01	N/A rl	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Iron	5.18E-01	N/A	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Iron	2.92E-01	N/A rl	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Iron	2.83E-01	N/A rl	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Iron	4.41E-01	N/A rl	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Iron	3.15E-01	N/A rl	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Iron	2.01E-01	N/A rl	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Iron	2.87E-01	N/A rl	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Iron	2.89E-01	N/A rl	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Iron	3.56E-01	N/A rl	T3
129-9_S_low_A	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Iron	3.07E-01	N/A rl	T3
130-9_S_low_B	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Iron	2.77E-01	N/A rl	T3
131-9_S_low_C	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Iron	2.97E-01	N/A rl	T3
132-9_S_low_D	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Iron	3.21E-01	N/A rl	T3
133-10_S_low_A	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Iron	5.30E-01	N/A	T3
134-10_S_low_B	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Iron	3.11E-01	N/A rl	T3
135-10_S_low_C	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Iron	5.90E-01	N/A	T3
136-10_S_low_D	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Iron	5.93E-01	N/A	T3
137-11_S_low_A	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Iron	3.26E-01	N/A rl	T3
138-11_S_low_B	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Iron	4.85E-01	N/A rl	T3
139-11_S_low_C	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Iron	5.61E-01	N/A	T3
140-11_S_low_D	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Iron	5.05E-01	N/A	T3
141-12_S_low_A	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Iron	4.12E-01	N/A rl	T3
142-12_S_low_B	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Iron	2.99E-01	N/A rl	T3
143-12_S_low_C	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Iron	4.39E-01	N/A rl	T3
144-12_S_low_D	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Iron	4.27E-01	N/A rl	T3
241-1_S_high_A	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Iron	3.95E-01	N/A rl	T3
242-1_S_high_B	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Iron	3.16E-01	N/A rl	T3
243-1_S_high_C	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Iron	4.10E-01	N/A rl	T3
244-1_S_high_D	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Iron	4.02E-01	N/A rl	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
245-2_S_high_A	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Iron	1.06E+00	N/A	T3
246-2_S_high_B	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Iron	9.17E-01	N/A	T3
247-2_S_high_C	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Iron	8.52E-01	N/A	T3
248-2_S_high_D	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Iron	1.13E+00	N/A	T3
249-3_S_high_A	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Iron	6.20E-01	N/A	T3
250-3_S_high_B	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Iron	4.99E-01	N/A rl	T3
251-3_S_high_C	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Iron	6.03E-01	N/A	T3
252-3_S_high_D	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Iron	5.42E-01	N/A	T3
253-4_S_high_A	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Iron	4.50E-01	N/A rl	T3
254-4_S_high_B	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Iron	5.34E-01	N/A	T3
255-4_S_high_C	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Iron	3.69E-01	N/A rl	T3
256-4_S_high_D	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Iron	3.93E-01	N/A rl	T3
257-5_S_high_A	Compost_high_S	EPA6010C-SPLP	6	mg/L	Iron	4.42E-01	N/A rl	T3
258-5_S_high_B	Compost_high_S	EPA6010C-SPLP	6	mg/L	Iron	3.53E-01	N/A rl	T3
259-5_S_high_C	Compost_high_S	EPA6010C-SPLP	6	mg/L	Iron	2.57E-01	N/A rl	T3
260-5_S_high_D	Compost_high_S	EPA6010C-SPLP	6	mg/L	Iron	3.22E-01	N/A rl	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Iron	1.00E+00	N/A	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Iron	7.11E-01	N/A	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Iron	6.26E-01	N/A	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Iron	7.02E-01	N/A	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Iron	5.65E-01	N/A	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Iron	5.01E-01	N/A	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Iron	5.85E-01	N/A	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Iron	5.07E-01	N/A	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Iron	5.40E-01	N/A	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Iron	5.71E-01	N/A	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Iron	4.26E-01	N/A rl	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Iron	4.66E-01	N/A rl	T3
273-9_S_high_A	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Iron	8.71E-01	N/A	T3
274-9_S_high_B	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Iron	8.27E-01	N/A	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
275-9_S_high_C	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Iron	5.57E-01	N/A	T3
276-9_S_high_D	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Iron	9.42E-01	N/A	T3
277-10_S_high_A	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Iron	7.80E-01	N/A	T3
278-10_S_high_B	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Iron	5.70E-01	N/A	T3
279-10_S_high_C	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Iron	6.20E-01	N/A	T3
280-10_S_high_D	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Iron	5.23E-01	N/A	T3
281-11_S_high_A	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Iron	5.72E-01	N/A	T3
282-11_S_high_B	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Iron	5.48E-01	N/A	T3
283-11_S_high_C	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Iron	6.40E-01	N/A	T3
284-11_S_high_D	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Iron	5.01E-01	N/A	T3
285-12_S_high_A	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Iron	5.81E-01	N/A	T3
286-12_S_high_B	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Iron	5.45E-01	N/A	T3
287-12_S_high_C	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Iron	6.56E-01	N/A	T3
288-12_S_high_D	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Iron	7.05E-01	N/A	T3
289-1_I_low_A	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Iron	3.78E-01	N/A rl	T3
290-1_I_low_B	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Iron	3.23E-01	N/A rl	T3
291-1_I_low_C	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Iron	2.46E-01	N/A rl	T3
292-1_I_low_D	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Iron	4.18E-01	N/A rl	T3
293-2_I_low_A	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Iron	3.21E-01	N/A rl	T3
294-2_I_low_B	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Iron	3.42E-01	N/A rl	T3
295-2_I_low_C	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Iron	3.63E-01	N/A rl	T3
296-2_I_low_D	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Iron	4.05E-01	N/A rl	T3
297-3_I_low_A	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Iron	4.22E-01	N/A rl	T3
298-3_I_low_B	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Iron	4.44E-01	N/A rl	T3
299-3_I_low_C	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Iron	3.82E-01	N/A rl	T3
300-3_I_low_D	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Iron	4.77E-01	N/A rl	T3
301-4_I_low_A	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Iron	3.22E-01	N/A rl	T3
302-4_I_low_B	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Iron	3.40E-01	N/A rl	T3
303-4_I_low_C	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Iron	3.21E-01	N/A rl	T3
304-4_I_low_D	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Iron	3.94E-01	N/A rl	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
305-5_I_low_A	Compost_low_I	EPA6010C-SPLP	10	mg/L	Iron	3.08E-01	N/A rl	T3
306-5_I_low_B	Compost_low_I	EPA6010C-SPLP	10	mg/L	Iron	3.49E-01	N/A rl	T3
307-5_I_low_C	Compost_low_I	EPA6010C-SPLP	10	mg/L	Iron	3.22E-01	N/A rl	T3
308-5_I_low_D	Compost_low_I	EPA6010C-SPLP	10	mg/L	Iron	3.02E-01	N/A rl	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Iron	3.02E-01	N/A rl	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Iron	6.38E-01	N/A	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Iron	6.40E-01	N/A	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Iron	4.25E-01	N/A rl	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Iron	3.96E-01	N/A rl	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Iron	2.86E-01	N/A rl	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Iron	2.19E-01	N/A rl	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Iron	2.35E-01	N/A rl	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Iron	3.39E-01	N/A rl	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Iron	2.82E-01	N/A rl	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Iron	3.37E-01	N/A rl	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Iron	2.31E-01	N/A rl	T3
321-9_I_low_A	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Iron	1.91E-01	N/A rl	T3
322-9_I_low_B	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Iron	2.56E-01	N/A rl	T3
323-9_I_low_C	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Iron	2.56E-01	N/A rl	T3
324-9_I_low_D	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Iron	2.61E-01	N/A rl	T3
325-10_I_low_A	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Iron	3.60E-01	N/A rl	T3
326-10_I_low_B	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Iron	3.61E-01	N/A rl	T3
327-10_I_low_C	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Iron	3.55E-01	N/A rl	T3
328-10_I_low_D	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Iron	4.29E-01	N/A rl	T3
329-11_I_low_A	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Iron	4.44E-01	N/A rl	T3
330-11_I_low_B	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Iron	3.14E-01	N/A rl	T3
331-11_I_low_C	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Iron	3.33E-01	N/A rl	T3
332-11_I_low_D	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Iron	4.00E-01	N/A rl	T3
333-12_I_low_A	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Iron	3.59E-01	N/A rl	T3
334-12_I_low_B	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Iron	3.46E-01	N/A rl	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
335-12_I_low_C	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Iron	3.12E-01	N/A rl	T3
336-12_I_low_D	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Iron	3.18E-01	N/A rl	T3
337-1_I_high_A	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Iron	3.75E-01	N/A rl	T3
338-1_I_high_B	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Iron	2.73E-01	N/A rl	T3
339-1_I_high_C	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Iron	3.36E-01	N/A rl	T3
340-1_I_high_D	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Iron	3.50E-01	N/A rl	T3
341-2_I_high_A	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Iron	2.89E-01	N/A rl	T3
342-2_I_high_B	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Iron	3.22E-01	N/A rl	T3
343-2_I_high_C	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Iron	2.49E-01	N/A rl	T3
344-2_I_high_D	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Iron	2.54E-01	N/A rl	T3
345-3_I_high_A	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Iron	3.62E-01	N/A rl	T3
346-3_I_high_B	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Iron	5.17E-01	N/A	T3
347-3_I_high_C	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Iron	4.64E-01	N/A rl	T3
348-3_I_high_D	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Iron	4.52E-01	N/A rl	T3
349-4_I_high_A	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Iron	2.24E-01	N/A rl	T3
350-4_I_high_B	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Iron	3.10E-01	N/A rl	T3
351-4_I_high_C	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Iron	3.06E-01	N/A rl	T3
352-4_I_high_D	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Iron	3.45E-01	N/A rl	T3
353-5_I_high_A	Compost_high_I	EPA6010C-SPLP	14	mg/L	Iron	4.26E-01	N/A rl	T3
354-5_I_high_B	Compost_high_I	EPA6010C-SPLP	14	mg/L	Iron	3.48E-01	N/A rl	T3
355-5_I_high_C	Compost_high_I	EPA6010C-SPLP	14	mg/L	Iron	3.17E-01	N/A rl	T3
356-5_I_high_D	Compost_high_I	EPA6010C-SPLP	14	mg/L	Iron	2.46E-01	N/A rl	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Iron	3.21E-01	N/A rl	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Iron	3.38E-01	N/A rl	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Iron	2.37E-01	N/A rl	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Iron	2.87E-01	N/A rl	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Iron	9.66E-02	N/A rl	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Iron	3.06E-01	N/A rl	T3
363-7_I_high_C	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Iron	4.67E-01	N/A rl	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Iron	2.63E-01	N/A rl	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
365-8_I_high_A	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Iron	4.54E-01	N/A rl	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Iron	3.15E-01	N/A rl	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Iron	4.96E-01	N/A rl	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Iron	3.95E-01	N/A rl	T3
369-9_I_high_A	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Iron	2.09E-01	N/A rl	T3
370-9_I_high_B	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Iron	2.52E-01	N/A rl	T3
371-9_I_high_C	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Iron	2.42E-01	N/A rl	T3
372-9_I_high_D	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Iron	4.61E-01	N/A rl	T3
373-10_I_high_A	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Iron	3.06E-01	N/A rl	T3
374-10_I_high_B	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Iron	6.39E-01	N/A	T3
375-10_I_high_C	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Iron	5.53E-01	N/A	T3
376-10_I_high_D	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Iron	5.37E-01	N/A	T3
377-11_I_high_A	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Iron	4.41E-01	N/A rl	T3
378-11_I_high_B	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Iron	3.79E-01	N/A rl	T3
379-11_I_high_C	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Iron	5.97E-01	N/A	T3
380-11_I_high_D	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Iron	4.22E-01	N/A rl	T3
381-12_I_high_A	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Iron	4.51E-01	N/A rl	T3
382-12_I_high_B	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Iron	3.19E-01	N/A rl	T3
383-12_I_high_C	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Iron	4.61E-01	N/A rl	T3
384-12_I_high_D	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Iron	3.55E-01	N/A rl	T3
385-0_I_NA_A	control_none_I	EPA6010C-SPLP	17	mg/L	Iron	3.62E-01	N/A rl	T3
386-0_I_NA_B	control_none_I	EPA6010C-SPLP	17	mg/L	Iron	3.29E-01	N/A rl	T3
387-0_I_NA_C	control_none_I	EPA6010C-SPLP	17	mg/L	Iron	2.32E-01	N/A rl	T3
388-0_I_NA_D	control_none_I	EPA6010C-SPLP	17	mg/L	Iron	3.42E-01	N/A rl	T3
097-1_S_low_A	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Lead	6.12E-02	N/A	T3
098-1_S_low_B	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Lead	5.36E-02	N/A	T3
099-1_S_low_C	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Lead	5.05E-02	N/A	T3
100-1_S_low_D	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Lead	5.27E-02	N/A	T3
101-2_S_low_A	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Lead	5.27E-02	N/A	T3
102-2_S_low_B	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Lead	5.84E-02	N/A	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
103-2_S_low_C	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Lead	6.11E-02	N/A	T3
104-2_S_low_D	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Lead	6.98E-02	N/A	T3
105-3_S_low_A	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Lead	4.92E-02	N/A rl	T3
106-3_S_low_B	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Lead	5.11E-02	N/A	T3
107-3_S_low_C	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Lead	3.26E-02	N/A rl	T3
108-3_S_low_D	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Lead	4.91E-02	N/A rl	T3
109-4_S_low_A	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Lead	4.84E-02	N/A rl	T3
110-4_S_low_B	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Lead	3.92E-02	N/A rl	T3
111-4_S_low_C	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Lead	4.35E-02	N/A rl	T3
112-4_S_low_D	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Lead	2.69E-02	N/A rl	T3
113-5_S_low_A	Compost_low_S	EPA6010C-SPLP	2	mg/L	Lead	4.74E-02	N/A rl	T3
114-5_S_low_B	Compost_low_S	EPA6010C-SPLP	2	mg/L	Lead	4.04E-02	N/A rl	T3
115-5_S_low_C	Compost_low_S	EPA6010C-SPLP	2	mg/L	Lead	5.56E-02	N/A	T3
116-5_S_low_D	Compost_low_S	EPA6010C-SPLP	2	mg/L	Lead	3.55E-02	N/A rl	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Lead	7.18E-02	N/A	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Lead	6.62E-02	N/A	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Lead	7.35E-02	N/A	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Lead	5.23E-02	N/A	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Lead	3.43E-02	N/A rl	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Lead	3.75E-02	N/A rl	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Lead	5.44E-02	N/A	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Lead	4.77E-02	N/A rl	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Lead	3.88E-02	N/A rl	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Lead	5.82E-02	N/A	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Lead	4.72E-02	N/A rl	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Lead	4.78E-02	N/A rl	T3
129-9_S_low_A	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Lead	5.28E-02	N/A	T3
130-9_S_low_B	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Lead	5.23E-02	N/A	T3
131-9_S_low_C	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Lead	5.22E-02	N/A	T3
132-9_S_low_D	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Lead	4.71E-02	N/A rl	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
133-10_S_low_A	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Lead	5.06E-02	N/A	T3
134-10_S_low_B	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Lead	3.89E-02	N/A rl	T3
135-10_S_low_C	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Lead	5.38E-02	N/A	T3
136-10_S_low_D	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Lead	5.46E-02	N/A	T3
137-11_S_low_A	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Lead	3.28E-02	N/A rl	T3
138-11_S_low_B	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Lead	4.81E-02	N/A rl	T3
139-11_S_low_C	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Lead	5.38E-02	N/A	T3
140-11_S_low_D	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Lead	4.73E-02	N/A rl	T3
141-12_S_low_A	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Lead	4.53E-02	N/A rl	T3
142-12_S_low_B	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Lead	3.65E-02	N/A rl	T3
143-12_S_low_C	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Lead	4.99E-02	N/A rl	T3
144-12_S_low_D	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Lead	4.20E-02	N/A rl	T3
241-1_S_high_A	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Lead	5.87E-02	N/A	T3
242-1_S_high_B	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Lead	3.97E-02	N/A rl	T3
243-1_S_high_C	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Lead	4.78E-02	N/A rl	T3
244-1_S_high_D	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Lead	4.82E-02	N/A rl	T3
245-2_S_high_A	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Lead	9.83E-02	N/A	T3
246-2_S_high_B	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Lead	1.02E-01	N/A	T3
247-2_S_high_C	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Lead	8.23E-02	N/A	T3
248-2_S_high_D	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Lead	1.03E-01	N/A	T3
249-3_S_high_A	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Lead	4.59E-02	N/A rl	T3
250-3_S_high_B	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Lead	3.91E-02	N/A rl	T3
251-3_S_high_C	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Lead	4.59E-02	N/A rl	T3
252-3_S_high_D	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Lead	4.16E-02	N/A rl	T3
253-4_S_high_A	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Lead	4.30E-02	N/A rl	T3
254-4_S_high_B	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Lead	5.25E-02	N/A	T3
255-4_S_high_C	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Lead	2.52E-02	N/A rl	T3
256-4_S_high_D	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Lead	3.53E-02	N/A rl	T3
257-5_S_high_A	Compost_high_S	EPA6010C-SPLP	6	mg/L	Lead	6.65E-02	N/A	T3
258-5_S_high_B	Compost_high_S	EPA6010C-SPLP	6	mg/L	Lead	5.14E-02	N/A	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
259-5_S_high_C	Compost_high_S	EPA6010C-SPLP	6	mg/L	Lead	3.79E-02	N/A rl	T3
260-5_S_high_D	Compost_high_S	EPA6010C-SPLP	6	mg/L	Lead	4.97E-02	N/A rl	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Lead	1.25E-01	N/A	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Lead	7.97E-02	N/A	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Lead	7.38E-02	N/A	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Lead	9.00E-02	N/A	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Lead	4.38E-02	N/A rl	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Lead	4.99E-02	N/A rl	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Lead	4.07E-02	N/A rl	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Lead	5.83E-02	N/A	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Lead	5.18E-02	N/A	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Lead	5.43E-02	N/A	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Lead	4.57E-02	N/A rl	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Lead	5.65E-02	N/A	T3
273-9_S_high_A	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Lead	9.29E-02	N/A	T3
274-9_S_high_B	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Lead	9.76E-02	N/A	T3
275-9_S_high_C	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Lead	7.58E-02	N/A	T3
276-9_S_high_D	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Lead	1.05E-01	N/A	T3
277-10_S_high_A	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Lead	6.14E-02	N/A	T3
278-10_S_high_B	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Lead	4.22E-02	N/A rl	T3
279-10_S_high_C	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Lead	5.72E-02	N/A	T3
280-10_S_high_D	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Lead	4.93E-02	N/A rl	T3
281-11_S_high_A	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Lead	6.33E-02	N/A	T3
282-11_S_high_B	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Lead	6.60E-02	N/A	T3
283-11_S_high_C	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Lead	6.63E-02	N/A	T3
284-11_S_high_D	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Lead	6.46E-02	N/A	T3
285-12_S_high_A	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Lead	6.57E-02	N/A	T3
286-12_S_high_B	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Lead	5.37E-02	N/A	T3
287-12_S_high_C	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Lead	7.04E-02	N/A	T3
288-12_S_high_D	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Lead	6.41E-02	N/A	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
289-1_I_low_A	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Lead	4.99E-02	N/A rl	T3
290-1_I_low_B	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Lead	5.13E-02	N/A	T3
291-1_I_low_C	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Lead	4.76E-02	N/A rl	T3
292-1_I_low_D	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Lead	5.18E-02	N/A	T3
293-2_I_low_A	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Lead	4.33E-02	N/A rl	T3
294-2_I_low_B	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Lead	4.63E-02	N/A rl	T3
295-2_I_low_C	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Lead	4.31E-02	N/A rl	T3
296-2_I_low_D	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Lead	3.98E-02	N/A rl	T3
297-3_I_low_A	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Lead	4.49E-02	N/A rl	T3
298-3_I_low_B	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Lead	4.96E-02	N/A rl	T3
299-3_I_low_C	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Lead	5.33E-02	N/A	T3
300-3_I_low_D	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Lead	4.95E-02	N/A rl	T3
301-4_I_low_A	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Lead	4.89E-02	N/A rl	T3
302-4_I_low_B	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Lead	4.58E-02	N/A rl	T3
303-4_I_low_C	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Lead	4.92E-02	N/A rl	T3
304-4_I_low_D	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Lead	4.92E-02	N/A rl	T3
305-5_I_low_A	Compost_low_I	EPA6010C-SPLP	10	mg/L	Lead	6.65E-02	N/A	T3
306-5_I_low_B	Compost_low_I	EPA6010C-SPLP	10	mg/L	Lead	4.63E-02	N/A rl	T3
307-5_I_low_C	Compost_low_I	EPA6010C-SPLP	10	mg/L	Lead	4.82E-02	N/A rl	T3
308-5_I_low_D	Compost_low_I	EPA6010C-SPLP	10	mg/L	Lead	6.04E-02	N/A	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Lead	3.70E-02	N/A rl	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Lead	6.53E-02	N/A	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Lead	4.82E-02	N/A rl	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Lead	5.30E-02	N/A	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Lead	5.60E-02	N/A	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Lead	4.54E-02	N/A rl	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Lead	4.38E-02	N/A rl	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Lead	4.41E-02	N/A rl	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Lead	7.14E-02	N/A	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Lead	6.08E-02	N/A	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
319-8_I_low_C	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Lead	6.08E-02	N/A	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Lead	5.73E-02	N/A	T3
321-9_I_low_A	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Lead	3.26E-02	N/A rl	T3
322-9_I_low_B	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Lead	3.70E-02	N/A rl	T3
323-9_I_low_C	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Lead	3.36E-02	N/A rl	T3
324-9_I_low_D	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Lead	3.22E-02	N/A rl	T3
325-10_I_low_A	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Lead	4.35E-02	N/A rl	T3
326-10_I_low_B	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Lead	4.84E-02	N/A rl	T3
327-10_I_low_C	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Lead	3.03E-02	N/A rl	T3
328-10_I_low_D	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Lead	4.92E-02	N/A rl	T3
329-11_I_low_A	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Lead	4.59E-02	N/A rl	T3
330-11_I_low_B	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Lead	3.50E-02	N/A rl	T3
331-11_I_low_C	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Lead	5.00E-02	N/A	T3
332-11_I_low_D	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Lead	5.17E-02	N/A	T3
333-12_I_low_A	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Lead	5.97E-02	N/A	T3
334-12_I_low_B	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Lead	5.89E-02	N/A	T3
335-12_I_low_C	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Lead	6.39E-02	N/A	T3
336-12_I_low_D	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Lead	5.38E-02	N/A	T3
337-1_I_high_A	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Lead	5.56E-02	N/A	T3
338-1_I_high_B	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Lead	5.20E-02	N/A	T3
339-1_I_high_C	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Lead	6.08E-02	N/A	T3
340-1_I_high_D	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Lead	4.54E-02	N/A rl	T3
341-2_I_high_A	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Lead	1.99E-02	N/A rl	T3
342-2_I_high_B	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Lead	1.84E-02	N/A rl	T3
343-2_I_high_C	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Lead	2.30E-02	N/A rl	T3
344-2_I_high_D	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Lead	2.36E-02	N/A rl	T3
345-3_I_high_A	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Lead	4.89E-02	N/A rl	T3
346-3_I_high_B	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Lead	6.17E-02	N/A	T3
347-3_I_high_C	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Lead	4.79E-02	N/A rl	T3
348-3_I_high_D	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Lead	5.54E-02	N/A	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
349-4_I_high_A	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Lead	4.23E-02	N/A rl	T3
350-4_I_high_B	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Lead	4.69E-02	N/A rl	T3
351-4_I_high_C	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Lead	4.69E-02	N/A rl	T3
352-4_I_high_D	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Lead	4.42E-02	N/A rl	T3
353-5_I_high_A	Compost_high_I	EPA6010C-SPLP	14	mg/L	Lead	7.84E-02	N/A	T3
354-5_I_high_B	Compost_high_I	EPA6010C-SPLP	14	mg/L	Lead	7.96E-02	N/A	T3
355-5_I_high_C	Compost_high_I	EPA6010C-SPLP	14	mg/L	Lead	7.87E-02	N/A	T3
356-5_I_high_D	Compost_high_I	EPA6010C-SPLP	14	mg/L	Lead	7.74E-02	N/A	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Lead	2.65E-02	N/A rl	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Lead	2.81E-02	N/A rl	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Lead	1.56E-02	N/A rl	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Lead	1.85E-02	N/A rl	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Lead	3.87E-02	N/A rl	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Lead	4.05E-02	N/A rl	T3
363-7_I_high_C	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Lead	5.34E-02	N/A	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Lead	3.99E-02	N/A rl	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Lead	5.38E-02	N/A	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Lead	5.97E-02	N/A	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Lead	6.01E-02	N/A	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Lead	5.44E-02	N/A	T3
369-9_I_high_A	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Lead	1.26E-02	N/A rl	T3
370-9_I_high_B	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Lead	1.67E-02	N/A rl	T3
371-9_I_high_C	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Lead	1.90E-02	N/A rl	T3
372-9_I_high_D	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Lead	2.38E-02	N/A rl	T3
373-10_I_high_A	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Lead	4.33E-02	N/A rl	T3
374-10_I_high_B	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Lead	6.45E-02	N/A	T3
375-10_I_high_C	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Lead	5.62E-02	N/A	T3
376-10_I_high_D	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Lead	5.28E-02	N/A	T3
377-11_I_high_A	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Lead	5.71E-02	N/A	T3
378-11_I_high_B	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Lead	5.14E-02	N/A	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
379-11_I_high_C	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Lead	6.68E-02	N/A	T3
380-11_I_high_D	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Lead	5.93E-02	N/A	T3
381-12_I_high_A	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Lead	6.18E-02	N/A	T3
382-12_I_high_B	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Lead	6.69E-02	N/A	T3
383-12_I_high_C	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Lead	6.10E-02	N/A	T3
384-12_I_high_D	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Lead	6.20E-02	N/A	T3
385-0_I_NA_A	control_none_I	EPA6010C-SPLP	17	mg/L	Lead	4.99E-02	N/A rl	T3
386-0_I_NA_B	control_none_I	EPA6010C-SPLP	17	mg/L	Lead	2.05E-01	N/A	T3
387-0_I_NA_C	control_none_I	EPA6010C-SPLP	17	mg/L	Lead	5.40E-02	N/A	T3
388-0_I_NA_D	control_none_I	EPA6010C-SPLP	17	mg/L	Lead	5.67E-02	N/A	T3
097-1_S_low_A	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Magnesium	1.09E+00	N/A	T3
098-1_S_low_B	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Magnesium	1.16E+00	N/A	T3
099-1_S_low_C	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Magnesium	1.08E+00	N/A	T3
100-1_S_low_D	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Magnesium	1.17E+00	N/A	T3
101-2_S_low_A	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Magnesium	6.24E-01	N/A	T3
102-2_S_low_B	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Magnesium	6.79E-01	N/A	T3
103-2_S_low_C	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Magnesium	7.43E-01	N/A	T3
104-2_S_low_D	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Magnesium	3.06E-01	N/A	T3
105-3_S_low_A	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Magnesium	8.36E-01	N/A	T3
106-3_S_low_B	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Magnesium	6.54E-01	N/A	T3
107-3_S_low_C	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Magnesium	8.08E-01	N/A	T3
108-3_S_low_D	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Magnesium	7.13E-01	N/A	T3
109-4_S_low_A	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Magnesium	6.37E-01	N/A	T3
110-4_S_low_B	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Magnesium	6.90E-01	N/A	T3
111-4_S_low_C	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Magnesium	7.74E-01	N/A	T3
112-4_S_low_D	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Magnesium	6.82E-01	N/A	T3
113-5_S_low_A	Compost_low_S	EPA6010C-SPLP	2	mg/L	Magnesium	1.10E+00	N/A	T3
114-5_S_low_B	Compost_low_S	EPA6010C-SPLP	2	mg/L	Magnesium	1.16E+00	N/A	T3
115-5_S_low_C	Compost_low_S	EPA6010C-SPLP	2	mg/L	Magnesium	9.78E-01	N/A	T3
116-5_S_low_D	Compost_low_S	EPA6010C-SPLP	2	mg/L	Magnesium	1.39E+00	N/A	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
117-6_S_low_A	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Magnesium	8.67E-01	N/A	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Magnesium	1.29E+00	N/A	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Magnesium	1.59E+00	N/A	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Magnesium	7.17E-01	N/A	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Magnesium	1.41E+00	dup1	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Magnesium	8.78E-01	dup1	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Magnesium	9.06E-01	dup1	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Magnesium	8.69E-01	dup1	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Magnesium	1.50E+00	dup1	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Magnesium	1.20E+00	dup1	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Magnesium	1.01E+00	dup1	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Magnesium	1.14E+00	dup1	T3
129-9_S_low_A	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Magnesium	4.98E+00	dup1	T3
130-9_S_low_B	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Magnesium	2.23E+00	dup1	T3
131-9_S_low_C	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Magnesium	2.48E+00	dup1	T3
132-9_S_low_D	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Magnesium	8.43E-01	dup1	T3
133-10_S_low_A	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Magnesium	6.91E-01	N/A	T3
134-10_S_low_B	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Magnesium	9.71E-01	N/A	T3
135-10_S_low_C	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Magnesium	8.20E-01	N/A	T3
136-10_S_low_D	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Magnesium	5.37E-01	N/A	T3
137-11_S_low_A	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Magnesium	8.05E-01	N/A	T3
138-11_S_low_B	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Magnesium	9.77E-01	N/A	T3
139-11_S_low_C	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Magnesium	9.23E-01	N/A	T3
140-11_S_low_D	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Magnesium	8.08E-01	N/A	T3
141-12_S_low_A	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Magnesium	7.44E-01	N/A	T3
142-12_S_low_B	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Magnesium	5.86E-01	N/A	T3
143-12_S_low_C	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Magnesium	6.87E-01	N/A	T3
144-12_S_low_D	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Magnesium	6.00E-01	N/A	T3
241-1_S_high_A	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Magnesium	2.06E+00	N/A	T3
242-1_S_high_B	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Magnesium	2.83E+00	N/A	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
243-1_S_high_C	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Magnesium	2.40E+00	N/A	T3
244-1_S_high_D	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Magnesium	2.92E+00	N/A	T3
245-2_S_high_A	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Magnesium	3.45E-01	N/A	T3
246-2_S_high_B	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Magnesium	2.15E-01	N/A	T3
247-2_S_high_C	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Magnesium	2.44E-01	N/A	T3
248-2_S_high_D	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Magnesium	2.76E-01	N/A	T3
249-3_S_high_A	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Magnesium	1.31E+00	N/A	T3
250-3_S_high_B	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Magnesium	7.39E-01	N/A	T3
251-3_S_high_C	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Magnesium	8.50E-01	N/A	T3
252-3_S_high_D	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Magnesium	9.07E-01	N/A	T3
253-4_S_high_A	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Magnesium	6.81E-01	dup1	T3
254-4_S_high_B	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Magnesium	4.85E-01	dup1	T3
255-4_S_high_C	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Magnesium	4.04E-01	dup1	T3
256-4_S_high_D	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Magnesium	4.23E-01	dup1	T3
257-5_S_high_A	Compost_high_S	EPA6010C-SPLP	6	mg/L	Magnesium	1.36E+00	dup1	T3
258-5_S_high_B	Compost_high_S	EPA6010C-SPLP	6	mg/L	Magnesium	1.13E+00	dup1	T3
259-5_S_high_C	Compost_high_S	EPA6010C-SPLP	6	mg/L	Magnesium	1.08E+00	dup1	T3
260-5_S_high_D	Compost_high_S	EPA6010C-SPLP	6	mg/L	Magnesium	1.21E+00	dup1	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Magnesium	3.87E-01	dup1	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Magnesium	2.42E-01	dup1	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Magnesium	1.85E-01	dup1	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Magnesium	2.38E-01	dup1	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Magnesium	1.35E+00	N/A	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Magnesium	1.72E+00	N/A	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Magnesium	1.71E+00	N/A	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Magnesium	1.72E+00	N/A	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Magnesium	1.86E+00	N/A	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Magnesium	1.62E+00	N/A	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Magnesium	1.81E+00	N/A	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Magnesium	2.60E+00	N/A	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
273-9_S_high_A	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Magnesium	4.86E-01	N/A	T3
274-9_S_high_B	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Magnesium	8.47E-01	N/A	T3
275-9_S_high_C	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Magnesium	3.07E+00	N/A	T3
276-9_S_high_D	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Magnesium	9.94E-01	N/A	T3
277-10_S_high_A	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Magnesium	7.57E-01	N/A	T3
278-10_S_high_B	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Magnesium	6.59E-01	N/A	T3
279-10_S_high_C	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Magnesium	7.63E-01	N/A	T3
280-10_S_high_D	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Magnesium	5.92E-01	N/A	T3
281-11_S_high_A	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Magnesium	1.17E+00	N/A	T3
282-11_S_high_B	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Magnesium	1.28E+00	N/A	T3
283-11_S_high_C	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Magnesium	9.16E-01	N/A	T3
284-11_S_high_D	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Magnesium	9.64E-01	N/A	T3
285-12_S_high_A	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Magnesium	8.01E-01	N/A	T3
286-12_S_high_B	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Magnesium	6.85E-01	N/A	T3
287-12_S_high_C	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Magnesium	7.50E-01	N/A	T3
288-12_S_high_D	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Magnesium	7.19E-01	N/A	T3
289-1_I_low_A	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Magnesium	1.70E+00	N/A	T3
290-1_I_low_B	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Magnesium	1.67E+00	N/A	T3
291-1_I_low_C	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Magnesium	3.17E+00	N/A	T3
292-1_I_low_D	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Magnesium	1.79E+00	N/A	T3
293-2_I_low_A	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Magnesium	5.95E+00	N/A	T3
294-2_I_low_B	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Magnesium	4.58E+00	N/A	T3
295-2_I_low_C	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Magnesium	6.26E+00	N/A	T3
296-2_I_low_D	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Magnesium	3.73E+00	N/A	T3
297-3_I_low_A	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Magnesium	1.81E+00	N/A	T3
298-3_I_low_B	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Magnesium	1.37E+00	N/A	T3
299-3_I_low_C	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Magnesium	2.73E+00	N/A	T3
300-3_I_low_D	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Magnesium	1.63E+00	N/A	T3
301-4_I_low_A	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Magnesium	1.85E+00	dup1	T3
302-4_I_low_B	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Magnesium	1.91E+00	dup1	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
303-4_I_low_C	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Magnesium	2.15E+00	dup1	T3
304-4_I_low_D	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Magnesium	1.92E+00	dup1	T3
305-5_I_low_A	Compost_low_I	EPA6010C-SPLP	10	mg/L	Magnesium	3.49E+00	dup1	T3
306-5_I_low_B	Compost_low_I	EPA6010C-SPLP	10	mg/L	Magnesium	1.85E+00	dup1	T3
307-5_I_low_C	Compost_low_I	EPA6010C-SPLP	10	mg/L	Magnesium	2.46E+00	dup1	T3
308-5_I_low_D	Compost_low_I	EPA6010C-SPLP	10	mg/L	Magnesium	2.83E+00	dup1	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Magnesium	7.64E+00	dup1	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Magnesium	1.15E+00	dup1	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Magnesium	2.59E+00	dup1	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Magnesium	3.86E+00	dup1	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Magnesium	2.26E+00	N/A	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Magnesium	2.67E+00	N/A	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Magnesium	4.12E+00	N/A	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Magnesium	3.53E+00	N/A	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Magnesium	4.03E+00	N/A	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Magnesium	4.01E+00	N/A	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Magnesium	3.41E+00	N/A	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Magnesium	5.59E+00	N/A	T3
321-9_I_low_A	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Magnesium	1.19E+01	N/A	T3
322-9_I_low_B	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Magnesium	7.92E+00	N/A	T3
323-9_I_low_C	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Magnesium	6.92E+00	N/A	T3
324-9_I_low_D	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Magnesium	6.97E+00	N/A	T3
325-10_I_low_A	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Magnesium	1.65E+00	N/A	T3
326-10_I_low_B	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Magnesium	2.08E+00	N/A	T3
327-10_I_low_C	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Magnesium	1.21E+00	N/A	T3
328-10_I_low_D	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Magnesium	1.90E+00	N/A	T3
329-11_I_low_A	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Magnesium	1.58E+00	N/A	T3
330-11_I_low_B	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Magnesium	1.73E+00	N/A	T3
331-11_I_low_C	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Magnesium	2.56E+00	N/A	T3
332-11_I_low_D	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Magnesium	2.25E+00	N/A	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
333-12_I_low_A	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Magnesium	2.06E+00	N/A	T3
334-12_I_low_B	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Magnesium	2.43E+00	N/A	T3
335-12_I_low_C	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Magnesium	3.27E+00	N/A	T3
336-12_I_low_D	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Magnesium	2.41E+00	N/A	T3
337-1_I_high_A	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Magnesium	3.78E+00	N/A	T3
338-1_I_high_B	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Magnesium	5.52E+00	N/A	T3
339-1_I_high_C	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Magnesium	4.78E+00	N/A	T3
340-1_I_high_D	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Magnesium	3.22E+00	N/A	T3
341-2_I_high_A	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Magnesium	7.86E+00	N/A	T3
342-2_I_high_B	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Magnesium	5.33E+00	N/A	T3
343-2_I_high_C	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Magnesium	1.89E+01	N/A	T3
344-2_I_high_D	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Magnesium	2.35E+01	N/A	T3
345-3_I_high_A	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Magnesium	3.20E+00	N/A	T3
346-3_I_high_B	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Magnesium	2.11E+00	N/A	T3
347-3_I_high_C	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Magnesium	2.32E+00	N/A	T3
348-3_I_high_D	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Magnesium	2.51E+00	N/A	T3
349-4_I_high_A	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Magnesium	2.81E+00	dup1	T3
350-4_I_high_B	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Magnesium	2.06E+00	dup1	T3
351-4_I_high_C	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Magnesium	2.00E+00	dup1	T3
352-4_I_high_D	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Magnesium	1.45E+00	dup1	T3
353-5_I_high_A	Compost_high_I	EPA6010C-SPLP	14	mg/L	Magnesium	2.37E+00	dup1	T3
354-5_I_high_B	Compost_high_I	EPA6010C-SPLP	14	mg/L	Magnesium	3.53E+00	dup1	T3
355-5_I_high_C	Compost_high_I	EPA6010C-SPLP	14	mg/L	Magnesium	4.23E+00	dup1	T3
356-5_I_high_D	Compost_high_I	EPA6010C-SPLP	14	mg/L	Magnesium	6.50E+00	dup1	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Magnesium	9.83E+00	dup1	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Magnesium	9.10E+00	dup1	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Magnesium	8.76E+00	dup1	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Magnesium	7.64E+00	dup1	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Magnesium	1.54E+01	dup1	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Magnesium	4.01E+00	dup1	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
363-7_I_high_C	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Magnesium	3.00E+00	dup1	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Magnesium	4.70E+00	dup1	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Magnesium	3.63E+00	dup1	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Magnesium	7.57E+00	dup1	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Magnesium	3.85E+00	dup1	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Magnesium	4.85E+00	dup1	T3
369-9_I_high_A	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Magnesium	2.41E+01	dup1	T3
370-9_I_high_B	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Magnesium	2.11E+01	dup1	T3
371-9_I_high_C	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Magnesium	2.98E+01	dup1	T3
372-9_I_high_D	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Magnesium	4.20E+01	dup1	T3
373-10_I_high_A	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Magnesium	6.84E+00	dup1	T3
374-10_I_high_B	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Magnesium	1.65E+00	dup1	T3
375-10_I_high_C	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Magnesium	2.09E+00	dup1	T3
376-10_I_high_D	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Magnesium	2.11E+00	dup1	T3
377-11_I_high_A	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Magnesium	3.76E+00	dup1	T3
378-11_I_high_B	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Magnesium	4.86E+00	dup1	T3
379-11_I_high_C	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Magnesium	2.76E+00	dup1	T3
380-11_I_high_D	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Magnesium	5.95E+00	dup1	T3
381-12_I_high_A	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Magnesium	2.58E+00	dup1	T3
382-12_I_high_B	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Magnesium	5.05E+00	dup1	T3
383-12_I_high_C	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Magnesium	2.65E+00	dup1	T3
384-12_I_high_D	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Magnesium	3.54E+00	dup1	T3
385-0_I_NA_A	control_none_I	EPA6010C-SPLP	17	mg/L	Magnesium	2.06E+00	N/A	T3
386-0_I_NA_B	control_none_I	EPA6010C-SPLP	17	mg/L	Magnesium	2.25E+00	N/A	T3
387-0_I_NA_C	control_none_I	EPA6010C-SPLP	17	mg/L	Magnesium	2.71E+00	N/A	T3
388-0_I_NA_D	control_none_I	EPA6010C-SPLP	17	mg/L	Magnesium	2.38E+00	N/A	T3
097-1_S_low_A	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Manganese	9.09E-01	N/A	T3
098-1_S_low_B	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Manganese	9.41E-01	N/A	T3
099-1_S_low_C	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Manganese	8.77E-01	N/A	T3
100-1_S_low_D	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Manganese	9.36E-01	N/A	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
101-2_S_low_A	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Manganese	2.55E-01	N/A	T3
102-2_S_low_B	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Manganese	3.17E-01	N/A	T3
103-2_S_low_C	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Manganese	2.92E-01	N/A	T3
104-2_S_low_D	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Manganese	2.05E-01	N/A	T3
105-3_S_low_A	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Manganese	3.95E-01	N/A	T3
106-3_S_low_B	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Manganese	3.89E-01	N/A	T3
107-3_S_low_C	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Manganese	3.91E-01	N/A	T3
108-3_S_low_D	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Manganese	4.04E-01	N/A	T3
109-4_S_low_A	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Manganese	4.76E-01	N/A	T3
110-4_S_low_B	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Manganese	4.66E-01	N/A	T3
111-4_S_low_C	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Manganese	5.46E-01	N/A	T3
112-4_S_low_D	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Manganese	4.47E-01	N/A	T3
113-5_S_low_A	Compost_low_S	EPA6010C-SPLP	2	mg/L	Manganese	6.38E-01	N/A	T3
114-5_S_low_B	Compost_low_S	EPA6010C-SPLP	2	mg/L	Manganese	6.52E-01	N/A	T3
115-5_S_low_C	Compost_low_S	EPA6010C-SPLP	2	mg/L	Manganese	5.96E-01	N/A	T3
116-5_S_low_D	Compost_low_S	EPA6010C-SPLP	2	mg/L	Manganese	7.66E-01	N/A	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Manganese	3.24E-01	N/A	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Manganese	5.37E-01	N/A	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Manganese	6.40E-01	N/A	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Manganese	2.22E-01	N/A	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Manganese	8.38E-01	dup1	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Manganese	7.00E-01	dup1	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Manganese	6.41E-01	dup1	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Manganese	6.41E-01	dup1	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Manganese	7.90E-01	dup1	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Manganese	7.29E-01	dup1	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Manganese	5.57E-01	dup1	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Manganese	6.76E-01	dup1	T3
129-9_S_low_A	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Manganese	1.66E+00	dup1	T3
130-9_S_low_B	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Manganese	8.03E-01	dup1	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
131-9_S_low_C	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Manganese	9.00E-01	dup1	T3
132-9_S_low_D	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Manganese	4.56E-01	dup1	T3
133-10_S_low_A	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Manganese	3.56E-01	N/A	T3
134-10_S_low_B	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Manganese	4.70E-01	N/A	T3
135-10_S_low_C	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Manganese	4.24E-01	N/A	T3
136-10_S_low_D	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Manganese	2.82E-01	N/A	T3
137-11_S_low_A	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Manganese	3.53E-01	N/A	T3
138-11_S_low_B	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Manganese	4.43E-01	N/A	T3
139-11_S_low_C	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Manganese	4.69E-01	N/A	T3
140-11_S_low_D	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Manganese	3.98E-01	N/A	T3
141-12_S_low_A	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Manganese	4.47E-01	N/A	T3
142-12_S_low_B	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Manganese	3.99E-01	N/A	T3
143-12_S_low_C	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Manganese	4.52E-01	N/A	T3
144-12_S_low_D	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Manganese	3.76E-01	N/A	T3
241-1_S_high_A	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Manganese	1.03E+00	N/A	T3
242-1_S_high_B	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Manganese	1.28E+00	N/A	T3
243-1_S_high_C	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Manganese	1.22E+00	N/A	T3
244-1_S_high_D	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Manganese	1.48E+00	N/A	T3
245-2_S_high_A	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Manganese	1.09E-01	N/A	T3
246-2_S_high_B	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Manganese	1.07E-01	N/A	T3
247-2_S_high_C	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Manganese	9.19E-02	N/A	T3
248-2_S_high_D	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Manganese	1.13E-01	N/A	T3
249-3_S_high_A	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Manganese	4.12E-01	N/A	T3
250-3_S_high_B	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Manganese	2.66E-01	N/A	T3
251-3_S_high_C	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Manganese	3.13E-01	N/A	T3
252-3_S_high_D	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Manganese	3.39E-01	N/A	T3
253-4_S_high_A	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Manganese	4.98E-01	dup1	T3
254-4_S_high_B	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Manganese	3.64E-01	dup1	T3
255-4_S_high_C	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Manganese	2.81E-01	dup1	T3
256-4_S_high_D	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Manganese	2.89E-01	dup1	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
257-5_S_high_A	Compost_high_S	EPA6010C-SPLP	6	mg/L	Manganese	6.69E-01	dup1	T3
258-5_S_high_B	Compost_high_S	EPA6010C-SPLP	6	mg/L	Manganese	6.64E-01	dup1	T3
259-5_S_high_C	Compost_high_S	EPA6010C-SPLP	6	mg/L	Manganese	5.62E-01	dup1	T3
260-5_S_high_D	Compost_high_S	EPA6010C-SPLP	6	mg/L	Manganese	6.03E-01	dup1	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Manganese	1.50E-01	dup1	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Manganese	6.52E-02	dup1	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Manganese	7.60E-02	dup1	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Manganese	7.53E-02	dup1	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Manganese	5.83E-01	N/A	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Manganese	7.18E-01	N/A	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Manganese	6.66E-01	N/A	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Manganese	7.30E-01	N/A	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Manganese	6.35E-01	N/A	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Manganese	5.22E-01	N/A	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Manganese	6.01E-01	N/A	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Manganese	8.48E-01	N/A	T3
273-9_S_high_A	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Manganese	1.43E-01	N/A	T3
274-9_S_high_B	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Manganese	2.26E-01	N/A	T3
275-9_S_high_C	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Manganese	5.16E-01	N/A	T3
276-9_S_high_D	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Manganese	2.28E-01	N/A	T3
277-10_S_high_A	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Manganese	3.27E-01	N/A	T3
278-10_S_high_B	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Manganese	2.59E-01	N/A	T3
279-10_S_high_C	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Manganese	3.01E-01	N/A	T3
280-10_S_high_D	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Manganese	2.56E-01	N/A	T3
281-11_S_high_A	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Manganese	5.22E-01	N/A	T3
282-11_S_high_B	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Manganese	5.98E-01	N/A	T3
283-11_S_high_C	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Manganese	4.71E-01	N/A	T3
284-11_S_high_D	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Manganese	4.27E-01	N/A	T3
285-12_S_high_A	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Manganese	4.66E-01	N/A	T3
286-12_S_high_B	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Manganese	3.92E-01	N/A	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
287-12_S_high_C	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Manganese	4.98E-01	N/A	T3
288-12_S_high_D	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Manganese	4.68E-01	N/A	T3
289-1_I_low_A	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Manganese	1.24E+00	N/A	T3
290-1_I_low_B	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Manganese	1.22E+00	N/A	T3
291-1_I_low_C	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Manganese	2.26E+00	N/A	T3
292-1_I_low_D	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Manganese	1.28E+00	N/A	T3
293-2_I_low_A	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Manganese	2.62E+00	N/A	T3
294-2_I_low_B	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Manganese	1.86E+00	N/A	T3
295-2_I_low_C	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Manganese	2.41E+00	N/A	T3
296-2_I_low_D	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Manganese	1.50E+00	N/A	T3
297-3_I_low_A	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Manganese	6.78E-01	N/A	T3
298-3_I_low_B	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Manganese	6.94E-01	N/A	T3
299-3_I_low_C	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Manganese	7.23E-01	N/A	T3
300-3_I_low_D	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Manganese	4.89E-01	N/A	T3
301-4_I_low_A	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Manganese	8.09E-01	N/A	T3
302-4_I_low_B	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Manganese	9.28E-01	N/A	T3
303-4_I_low_C	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Manganese	1.08E+00	N/A	T3
304-4_I_low_D	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Manganese	9.44E-01	N/A	T3
305-5_I_low_A	Compost_low_I	EPA6010C-SPLP	10	mg/L	Manganese	1.51E+00	N/A	T3
306-5_I_low_B	Compost_low_I	EPA6010C-SPLP	10	mg/L	Manganese	7.98E-01	N/A	T3
307-5_I_low_C	Compost_low_I	EPA6010C-SPLP	10	mg/L	Manganese	1.35E+00	N/A	T3
308-5_I_low_D	Compost_low_I	EPA6010C-SPLP	10	mg/L	Manganese	1.42E+00	N/A	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Manganese	2.45E+00	N/A	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Manganese	3.75E-01	N/A	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Manganese	8.12E-01	N/A	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Manganese	1.18E+00	N/A	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Manganese	1.15E+00	N/A	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Manganese	1.32E+00	N/A	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Manganese	2.41E+00	N/A	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Manganese	1.66E+00	N/A	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
317-8_I_low_A	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Manganese	1.64E+00	N/A	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Manganese	1.69E+00	N/A	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Manganese	1.52E+00	N/A	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Manganese	2.34E+00	N/A	T3
321-9_I_low_A	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Manganese	4.89E+00	N/A	T3
322-9_I_low_B	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Manganese	2.51E+00	N/A	T3
323-9_I_low_C	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Manganese	2.12E+00	N/A	T3
324-9_I_low_D	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Manganese	2.19E+00	N/A	T3
325-10_I_low_A	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Manganese	2.69E-01	N/A	T3
326-10_I_low_B	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Manganese	4.49E-01	N/A	T3
327-10_I_low_C	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Manganese	2.04E-01	N/A	T3
328-10_I_low_D	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Manganese	4.72E-01	N/A	T3
329-11_I_low_A	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Manganese	3.25E-01	N/A	T3
330-11_I_low_B	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Manganese	4.05E-01	N/A	T3
331-11_I_low_C	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Manganese	5.51E-01	N/A	T3
332-11_I_low_D	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Manganese	3.96E-01	N/A	T3
333-12_I_low_A	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Manganese	6.59E-01	N/A	T3
334-12_I_low_B	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Manganese	8.44E-01	N/A	T3
335-12_I_low_C	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Manganese	1.16E+00	N/A	T3
336-12_I_low_D	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Manganese	8.60E-01	N/A	T3
337-1_I_high_A	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Manganese	1.47E+00	N/A	T3
338-1_I_high_B	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Manganese	2.27E+00	N/A	T3
339-1_I_high_C	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Manganese	1.76E+00	N/A	T3
340-1_I_high_D	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Manganese	1.28E+00	N/A	T3
341-2_I_high_A	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Manganese	6.72E-01	N/A	T3
342-2_I_high_B	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Manganese	5.13E-01	N/A	T3
343-2_I_high_C	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Manganese	3.10E+00	N/A	T3
344-2_I_high_D	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Manganese	2.71E+00	N/A	T3
345-3_I_high_A	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Manganese	5.39E-01	N/A	T3
346-3_I_high_B	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Manganese	2.59E-01	N/A	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
347-3_I_high_C	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Manganese	3.86E-01	N/A	T3
348-3_I_high_D	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Manganese	4.27E-01	N/A	T3
349-4_I_high_A	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Manganese	1.06E+00	dup1	T3
350-4_I_high_B	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Manganese	8.38E-01	dup1	T3
351-4_I_high_C	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Manganese	8.09E-01	dup1	T3
352-4_I_high_D	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Manganese	5.11E-01	dup1	T3
353-5_I_high_A	Compost_high_I	EPA6010C-SPLP	14	mg/L	Manganese	6.07E-01	dup1	T3
354-5_I_high_B	Compost_high_I	EPA6010C-SPLP	14	mg/L	Manganese	8.60E-01	dup1	T3
355-5_I_high_C	Compost_high_I	EPA6010C-SPLP	14	mg/L	Manganese	1.06E+00	dup1	T3
356-5_I_high_D	Compost_high_I	EPA6010C-SPLP	14	mg/L	Manganese	1.57E+00	dup1	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Manganese	6.11E-01	dup1	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Manganese	6.53E-01	dup1	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Manganese	7.31E-01	dup1	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Manganese	6.50E-01	dup1	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Manganese	6.59E+00	dup1	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Manganese	1.36E+00	dup1	T3
363-7_I_high_C	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Manganese	9.03E-01	dup1	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Manganese	1.23E+00	dup1	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Manganese	6.38E-01	dup1	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Manganese	1.55E+00	dup1	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Manganese	8.03E-01	dup1	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Manganese	9.82E-01	dup1	T3
369-9_I_high_A	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Manganese	3.64E+00	dup1	T3
370-9_I_high_B	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Manganese	2.26E+00	dup1	T3
371-9_I_high_C	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Manganese	3.96E+00	dup1	T3
372-9_I_high_D	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Manganese	5.18E+00	dup1	T3
373-10_I_high_A	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Manganese	8.34E-01	dup1	T3
374-10_I_high_B	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Manganese	2.38E-01	dup1	T3
375-10_I_high_C	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Manganese	2.69E-01	dup1	T3
376-10_I_high_D	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Manganese	2.95E-01	dup1	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
377-11_I_high_A	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Manganese	4.62E-01	dup1	T3
378-11_I_high_B	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Manganese	6.18E-01	dup1	T3
379-11_I_high_C	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Manganese	3.35E-01	dup1	T3
380-11_I_high_D	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Manganese	6.48E-01	dup1	T3
381-12_I_high_A	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Manganese	4.69E-01	dup1	T3
382-12_I_high_B	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Manganese	9.31E-01	dup1	T3
383-12_I_high_C	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Manganese	4.61E-01	dup1	T3
384-12_I_high_D	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Manganese	7.62E-01	dup1	T3
385-0_I_NA_A	control_none_I	EPA6010C-SPLP	17	mg/L	Manganese	1.27E+00	N/A	T3
386-0_I_NA_B	control_none_I	EPA6010C-SPLP	17	mg/L	Manganese	1.42E+00	N/A	T3
387-0_I_NA_C	control_none_I	EPA6010C-SPLP	17	mg/L	Manganese	1.78E+00	N/A	T3
388-0_I_NA_D	control_none_I	EPA6010C-SPLP	17	mg/L	Manganese	1.56E+00	N/A	T3
097-1_S_low_A	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Nickel	9.99E-04	N/A rl	T3
098-1_S_low_B	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Nickel	1.01E-03	N/A rl	T3
099-1_S_low_C	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Nickel	1.14E-03	N/A rl	T3
100-1_S_low_D	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Nickel	9.22E-04	N/A rl	T3
101-2_S_low_A	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Nickel	1.96E-03	N/A rl	T3
102-2_S_low_B	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Nickel	1.36E-03	N/A rl	T3
103-2_S_low_C	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Nickel	1.30E-03	N/A rl	T3
104-2_S_low_D	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Nickel	1.97E-03	N/A rl	T3
105-3_S_low_A	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Nickel	1.50E-03	N/A rl	T3
106-3_S_low_B	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Nickel	7.86E-04	N/A rl U	T3
107-3_S_low_C	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Nickel	7.86E-04	N/A rl U	T3
108-3_S_low_D	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Nickel	9.88E-04	N/A rl	T3
109-4_S_low_A	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Nickel	1.65E-03	N/A rl	T3
110-4_S_low_B	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Nickel	7.86E-04	N/A rl U	T3
111-4_S_low_C	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Nickel	7.86E-04	N/A rl U	T3
112-4_S_low_D	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Nickel	7.86E-04	N/A rl U	T3
113-5_S_low_A	Compost_low_S	EPA6010C-SPLP	2	mg/L	Nickel	1.25E-03	N/A rl	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
114-5_S_low_B	Compost_low_S	EPA6010C-SPLP	2	mg/L	Nickel	7.86E-04	N/A rl U	T3
115-5_S_low_C	Compost_low_S	EPA6010C-SPLP	2	mg/L	Nickel	7.86E-04	N/A rl U	T3
116-5_S_low_D	Compost_low_S	EPA6010C-SPLP	2	mg/L	Nickel	2.58E-03	N/A rl	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Nickel	2.99E-03	N/A rl	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Nickel	1.68E-03	N/A rl	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Nickel	2.90E-03	N/A rl	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Nickel	1.30E-03	N/A rl	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Nickel	8.62E-04	N/A rl	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Nickel	1.21E-03	N/A rl	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Nickel	1.62E-03	N/A rl	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Nickel	1.31E-03	N/A rl	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Nickel	1.37E-03	N/A rl	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Nickel	1.11E-03	N/A rl	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Nickel	1.03E-03	N/A rl	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Nickel	7.86E-04	N/A rl U	T3
129-9_S_low_A	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Nickel	3.46E-03	N/A rl	T3
130-9_S_low_B	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Nickel	2.90E-03	N/A rl	T3
131-9_S_low_C	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Nickel	2.88E-03	N/A rl	T3
132-9_S_low_D	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Nickel	9.93E-04	N/A rl	T3
133-10_S_low_A	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Nickel	7.86E-04	N/A rl U	T3
134-10_S_low_B	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Nickel	7.86E-04	N/A rl U	T3
135-10_S_low_C	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Nickel	7.90E-04	N/A rl	T3
136-10_S_low_D	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Nickel	7.86E-04	N/A rl U	T3
137-11_S_low_A	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Nickel	1.23E-03	N/A rl	T3
138-11_S_low_B	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Nickel	7.86E-04	N/A rl U	T3
139-11_S_low_C	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Nickel	1.47E-03	N/A rl	T3
140-11_S_low_D	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Nickel	7.86E-04	N/A rl U	T3

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
141-12_S_low_A	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Nickel	7.86E-04	N/A rl U	T3
142-12_S_low_B	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Nickel	1.03E-03	N/A rl	T3
143-12_S_low_C	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Nickel	1.41E-03	N/A rl	T3
144-12_S_low_D	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Nickel	7.86E-04	N/A rl U	T3
241-1_S_high_A	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Nickel	2.11E-03	N/A rl	T3
242-1_S_high_B	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Nickel	2.58E-03	N/A rl	T3
243-1_S_high_C	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Nickel	1.57E-03	N/A rl	T3
244-1_S_high_D	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Nickel	3.30E-03	N/A rl	T3
245-2_S_high_A	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Nickel	6.06E-03	N/A rl	T3
246-2_S_high_B	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Nickel	7.53E-03	N/A rl	T3
247-2_S_high_C	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Nickel	4.05E-03	N/A rl	T3
248-2_S_high_D	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Nickel	6.91E-03	N/A rl	T3
249-3_S_high_A	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Nickel	1.24E-03	N/A rl	T3
250-3_S_high_B	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Nickel	7.86E-04	N/A rl U	T3
251-3_S_high_C	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Nickel	7.86E-04	N/A rl U	T3
252-3_S_high_D	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Nickel	1.23E-03	N/A rl	T3
253-4_S_high_A	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Nickel	7.86E-04	N/A rl U	T3
254-4_S_high_B	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Nickel	7.86E-04	N/A rl U	T3
255-4_S_high_C	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Nickel	1.16E-03	N/A rl	T3
256-4_S_high_D	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Nickel	7.86E-04	N/A rl U	T3
257-5_S_high_A	Compost_high_S	EPA6010C-SPLP	6	mg/L	Nickel	8.77E-04	N/A rl	T3
258-5_S_high_B	Compost_high_S	EPA6010C-SPLP	6	mg/L	Nickel	8.05E-04	N/A rl	T3
259-5_S_high_C	Compost_high_S	EPA6010C-SPLP	6	mg/L	Nickel	1.15E-03	N/A rl	T3
260-5_S_high_D	Compost_high_S	EPA6010C-SPLP	6	mg/L	Nickel	7.86E-04	N/A rl U	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Nickel	1.58E-02	N/A rl	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Nickel	6.56E-03	N/A rl	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Nickel	5.61E-03	N/A rl	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Nickel	6.36E-03	N/A rl	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
265-7_S_high_A	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Nickel	7.86E-04	N/A rl U	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Nickel	2.00E-03	N/A rl	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Nickel	1.63E-03	N/A rl	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Nickel	1.60E-03	N/A rl	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Nickel	7.86E-04	N/A rl U	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Nickel	2.56E-03	N/A rl	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Nickel	1.68E-03	N/A rl	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Nickel	2.47E-03	N/A rl	T3
273-9_S_high_A	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Nickel	7.26E-03	N/A rl	T3
274-9_S_high_B	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Nickel	1.06E-02	N/A rl	T3
275-9_S_high_C	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Nickel	6.33E-03	N/A rl	T3
276-9_S_high_D	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Nickel	6.37E-03	N/A rl	T3
277-10_S_high_A	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Nickel	8.63E-04	N/A rl	T3
278-10_S_high_B	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Nickel	7.86E-04	N/A rl U	T3
279-10_S_high_C	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Nickel	1.86E-03	N/A rl	T3
280-10_S_high_D	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Nickel	1.63E-03	N/A rl	T3
281-11_S_high_A	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Nickel	1.49E-03	N/A rl	T3
282-11_S_high_B	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Nickel	1.07E-03	N/A rl	T3
283-11_S_high_C	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Nickel	1.79E-03	N/A rl	T3
284-11_S_high_D	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Nickel	7.86E-04	N/A rl U	T3
285-12_S_high_A	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Nickel	1.48E-03	N/A rl	T3
286-12_S_high_B	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Nickel	7.86E-04	N/A rl U	T3
287-12_S_high_C	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Nickel	1.13E-03	N/A rl	T3
288-12_S_high_D	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Nickel	7.86E-04	N/A rl U	T3
289-1_I_low_A	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Nickel	1.63E-03	N/A rl	T3
290-1_I_low_B	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Nickel	2.58E-03	N/A rl	T3
291-1_I_low_C	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Nickel	2.91E-03	N/A rl	T3
292-1_I_low_D	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Nickel	1.87E-03	N/A rl	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
293-2_I_low_A	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Nickel	2.94E-03	N/A rl	T3
294-2_I_low_B	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Nickel	3.42E-03	N/A rl	T3
295-2_I_low_C	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Nickel	3.93E-03	N/A rl	T3
296-2_I_low_D	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Nickel	2.67E-03	N/A rl	T3
297-3_I_low_A	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Nickel	7.86E-04	N/A rl U	T3
298-3_I_low_B	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Nickel	7.86E-04	N/A rl U	T3
299-3_I_low_C	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Nickel	7.86E-04	N/A rl U	T3
300-3_I_low_D	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Nickel	1.37E-03	N/A rl	T3
301-4_I_low_A	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Nickel	1.59E-03	N/A rl	T3
302-4_I_low_B	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Nickel	1.27E-03	N/A rl	T3
303-4_I_low_C	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Nickel	7.86E-04	N/A rl U	T3
304-4_I_low_D	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Nickel	1.52E-03	N/A rl	T3
305-5_I_low_A	Compost_low_I	EPA6010C-SPLP	10	mg/L	Nickel	1.44E-03	N/A rl	T3
306-5_I_low_B	Compost_low_I	EPA6010C-SPLP	10	mg/L	Nickel	8.37E-04	N/A rl	T3
307-5_I_low_C	Compost_low_I	EPA6010C-SPLP	10	mg/L	Nickel	7.86E-04	N/A rl U	T3
308-5_I_low_D	Compost_low_I	EPA6010C-SPLP	10	mg/L	Nickel	1.13E-03	N/A rl	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Nickel	3.38E-03	N/A rl	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Nickel	2.74E-03	N/A rl	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Nickel	2.71E-03	N/A rl	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Nickel	3.68E-03	N/A rl	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Nickel	2.16E-03	N/A rl	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Nickel	7.86E-04	N/A rl U	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Nickel	1.22E-03	N/A rl	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Nickel	1.19E-03	N/A rl	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Nickel	2.45E-03	N/A rl	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Nickel	1.64E-03	N/A rl	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Nickel	1.30E-03	N/A rl	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Nickel	2.81E-03	N/A rl	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
321-9_I_low_A	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Nickel	4.53E-03	N/A rl	T3
322-9_I_low_B	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Nickel	2.13E-03	N/A rl	T3
323-9_I_low_C	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Nickel	3.80E-03	N/A rl	T3
324-9_I_low_D	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Nickel	3.49E-03	N/A rl	T3
325-10_I_low_A	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Nickel	1.56E-03	N/A rl	T3
326-10_I_low_B	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Nickel	8.57E-04	N/A rl	T3
327-10_I_low_C	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Nickel	7.86E-04	N/A rl U	T3
328-10_I_low_D	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Nickel	7.86E-04	N/A rl U	T3
329-11_I_low_A	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Nickel	1.45E-03	N/A rl	T3
330-11_I_low_B	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Nickel	1.12E-03	N/A rl	T3
331-11_I_low_C	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Nickel	1.82E-03	N/A rl	T3
332-11_I_low_D	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Nickel	1.39E-03	N/A rl	T3
333-12_I_low_A	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Nickel	1.28E-03	N/A rl	T3
334-12_I_low_B	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Nickel	2.64E-03	N/A rl	T3
335-12_I_low_C	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Nickel	1.14E-03	N/A rl	T3
336-12_I_low_D	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Nickel	1.06E-03	N/A rl	T3
337-1_I_high_A	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Nickel	2.86E-03	N/A rl	T3
338-1_I_high_B	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Nickel	3.38E-03	N/A rl	T3
339-1_I_high_C	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Nickel	3.30E-03	N/A rl	T3
340-1_I_high_D	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Nickel	1.42E-03	N/A rl	T3
341-2_I_high_A	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Nickel	7.89E-03	N/A rl	T3
342-2_I_high_B	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Nickel	4.23E-03	N/A rl	T3
343-2_I_high_C	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Nickel	7.34E-03	N/A rl	T3
344-2_I_high_D	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Nickel	1.53E-02	N/A rl	T3
345-3_I_high_A	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Nickel	1.13E-03	N/A rl	T3
346-3_I_high_B	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Nickel	1.21E-03	N/A rl	T3
347-3_I_high_C	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Nickel	1.08E-03	N/A rl	T3
348-3_I_high_D	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Nickel	1.29E-03	N/A rl	T3
349-4_I_high_A	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Nickel	9.21E-04	N/A rl	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
350-4_I_high_B	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Nickel	2.20E-03	N/A rl	T3
351-4_I_high_C	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Nickel	1.11E-03	N/A rl	T3
352-4_I_high_D	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Nickel	7.86E-04	N/A rl U	T3
353-5_I_high_A	Compost_high_I	EPA6010C-SPLP	14	mg/L	Nickel	7.86E-04	N/A rl U	T3
354-5_I_high_B	Compost_high_I	EPA6010C-SPLP	14	mg/L	Nickel	2.66E-03	N/A rl	T3
355-5_I_high_C	Compost_high_I	EPA6010C-SPLP	14	mg/L	Nickel	1.23E-03	N/A rl	T3
356-5_I_high_D	Compost_high_I	EPA6010C-SPLP	14	mg/L	Nickel	1.67E-03	N/A rl	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Nickel	9.41E-03	N/A rl	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Nickel	6.24E-03	N/A rl	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Nickel	8.09E-03	N/A rl	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Nickel	4.06E-03	N/A rl	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Nickel	8.27E-03	N/A rl	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Nickel	1.55E-03	N/A rl	T3
363-7_I_high_C	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Nickel	2.63E-03	N/A rl	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Nickel	3.76E-03	N/A rl	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Nickel	3.02E-03	N/A rl	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Nickel	3.02E-03	N/A rl	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Nickel	3.28E-03	N/A rl	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Nickel	2.72E-03	N/A rl	T3
369-9_I_high_A	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Nickel	7.17E-03	N/A rl	T3
370-9_I_high_B	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Nickel	6.12E-03	N/A rl	T3
371-9_I_high_C	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Nickel	1.53E-02	N/A rl	T3
372-9_I_high_D	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Nickel	1.78E-02	N/A rl	T3
373-10_I_high_A	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Nickel	1.62E-03	N/A rl	T3
374-10_I_high_B	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Nickel	8.49E-04	N/A rl	T3
375-10_I_high_C	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Nickel	7.86E-04	N/A rl U	T3
376-10_I_high_D	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Nickel	1.41E-03	N/A rl	T3
377-11_I_high_A	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Nickel	1.84E-03	N/A rl	T3
378-11_I_high_B	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Nickel	1.05E-03	N/A rl	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
379-11_I_high_C	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Nickel	1.33E-03	N/A rl	T3
380-11_I_high_D	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Nickel	9.37E-04	N/A rl	T3
381-12_I_high_A	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Nickel	1.97E-03	N/A rl	T3
382-12_I_high_B	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Nickel	1.31E-03	N/A rl	T3
383-12_I_high_C	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Nickel	1.22E-03	N/A rl	T3
384-12_I_high_D	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Nickel	1.75E-03	N/A rl	T3
385-0_I_NA_A	control_none_I	EPA6010C-SPLP	17	mg/L	Nickel	1.81E-03	N/A rl	T3
386-0_I_NA_B	control_none_I	EPA6010C-SPLP	17	mg/L	Nickel	2.69E-03	N/A rl	T3
387-0_I_NA_C	control_none_I	EPA6010C-SPLP	17	mg/L	Nickel	1.78E-03	N/A rl	T3
388-0_I_NA_D	control_none_I	EPA6010C-SPLP	17	mg/L	Nickel	7.86E-04	N/A rl U	T3
097-1_S_low_A	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Phosphorus	1.03E+00	N/A	T3
098-1_S_low_B	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Phosphorus	1.38E+00	N/A	T3
099-1_S_low_C	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Phosphorus	1.05E+00	N/A	T3
100-1_S_low_D	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Phosphorus	1.41E+00	N/A	T3
101-2_S_low_A	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Phosphorus	5.63E-01	N/A	T3
102-2_S_low_B	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Phosphorus	4.47E-01	N/A	T3
103-2_S_low_C	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Phosphorus	5.68E-01	N/A	T3
104-2_S_low_D	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Phosphorus	5.40E-01	N/A	T3
105-3_S_low_A	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Phosphorus	3.09E-01	N/A	T3
106-3_S_low_B	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Phosphorus	3.17E-01	N/A	T3
107-3_S_low_C	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Phosphorus	2.51E-01	N/A	T3
108-3_S_low_D	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Phosphorus	3.36E-01	N/A	T3
109-4_S_low_A	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Phosphorus	2.73E-01	N/A	T3
110-4_S_low_B	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Phosphorus	2.42E-01	N/A	T3
111-4_S_low_C	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Phosphorus	2.36E-01	N/A	T3
112-4_S_low_D	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Phosphorus	2.13E-01	N/A	T3
113-5_S_low_A	Compost_low_S	EPA6010C-SPLP	2	mg/L	Phosphorus	2.48E-01	N/A	T3
114-5_S_low_B	Compost_low_S	EPA6010C-SPLP	2	mg/L	Phosphorus	2.03E-01	N/A	T3
115-5_S_low_C	Compost_low_S	EPA6010C-SPLP	2	mg/L	Phosphorus	3.01E-01	N/A	T3
116-5_S_low_D	Compost_low_S	EPA6010C-SPLP	2	mg/L	Phosphorus	1.77E-01	N/A	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
117-6_S_low_A	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Phosphorus	2.44E+00	N/A	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Phosphorus	1.36E+00	N/A	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Phosphorus	1.42E+00	N/A	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Phosphorus	2.03E+00	N/A	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Phosphorus	1.28E+00	dup1	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Phosphorus	1.15E+00	dup1	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Phosphorus	1.19E+00	dup1	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Phosphorus	1.49E+00	dup1	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Phosphorus	1.30E+00	dup1	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Phosphorus	1.64E+00	dup1	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Phosphorus	1.25E+00	dup1	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Phosphorus	1.64E+00	dup1	T3
129-9_S_low_A	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Phosphorus	4.01E-01	dup1	T3
130-9_S_low_B	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Phosphorus	5.14E-01	dup1	T3
131-9_S_low_C	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Phosphorus	5.55E-01	dup1	T3
132-9_S_low_D	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Phosphorus	3.58E-01	dup1	T3
133-10_S_low_A	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Phosphorus	3.74E-01	N/A	T3
134-10_S_low_B	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Phosphorus	2.70E-01	N/A	T3
135-10_S_low_C	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Phosphorus	4.85E-01	N/A	T3
136-10_S_low_D	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Phosphorus	4.16E-01	N/A	T3
137-11_S_low_A	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Phosphorus	2.46E-01	N/A	T3
138-11_S_low_B	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Phosphorus	3.44E-01	N/A	T3
139-11_S_low_C	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Phosphorus	3.78E-01	N/A	T3
140-11_S_low_D	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Phosphorus	3.54E-01	N/A	T3
141-12_S_low_A	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Phosphorus	2.80E-01	N/A	T3
142-12_S_low_B	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Phosphorus	2.10E-01	N/A	T3
143-12_S_low_C	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Phosphorus	3.16E-01	N/A	T3
144-12_S_low_D	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Phosphorus	2.56E-01	N/A	T3
241-1_S_high_A	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Phosphorus	8.06E+00	N/A	T3
242-1_S_high_B	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Phosphorus	6.69E+00	N/A	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
243-1_S_high_C	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Phosphorus	6.52E+00	N/A	T3
244-1_S_high_D	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Phosphorus	7.43E+00	N/A	T3
245-2_S_high_A	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Phosphorus	1.13E+00	N/A	T3
246-2_S_high_B	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Phosphorus	1.37E+00	N/A	T3
247-2_S_high_C	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Phosphorus	1.16E+00	N/A	T3
248-2_S_high_D	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Phosphorus	1.37E+00	N/A	T3
249-3_S_high_A	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Phosphorus	3.47E-01	N/A	T3
250-3_S_high_B	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Phosphorus	2.99E-01	N/A	T3
251-3_S_high_C	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Phosphorus	3.93E-01	N/A	T3
252-3_S_high_D	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Phosphorus	2.92E-01	N/A	T3
253-4_S_high_A	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Phosphorus	2.71E-01	dup1	T3
254-4_S_high_B	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Phosphorus	3.58E-01	dup1	T3
255-4_S_high_C	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Phosphorus	2.12E-01	dup1	T3
256-4_S_high_D	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Phosphorus	2.70E-01	dup1	T3
257-5_S_high_A	Compost_high_S	EPA6010C-SPLP	6	mg/L	Phosphorus	3.66E-01	dup1	T3
258-5_S_high_B	Compost_high_S	EPA6010C-SPLP	6	mg/L	Phosphorus	3.03E-01	dup1	T3
259-5_S_high_C	Compost_high_S	EPA6010C-SPLP	6	mg/L	Phosphorus	2.66E-01	dup1	T3
260-5_S_high_D	Compost_high_S	EPA6010C-SPLP	6	mg/L	Phosphorus	2.75E-01	dup1	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Phosphorus	5.33E+00	dup1	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Phosphorus	5.09E+00	dup1	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Phosphorus	3.06E+00	dup1	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Phosphorus	3.63E+00	dup1	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Phosphorus	3.84E+00	N/A	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Phosphorus	7.38E+00	N/A	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Phosphorus	7.11E+00	N/A	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Phosphorus	9.35E+00	N/A	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Phosphorus	8.22E+00	N/A	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Phosphorus	7.61E+00	N/A	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Phosphorus	7.71E+00	N/A	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Phosphorus	9.11E+00	N/A	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
273-9_S_high_A	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Phosphorus	1.40E+00	N/A	T3
274-9_S_high_B	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Phosphorus	1.17E+00	N/A	T3
275-9_S_high_C	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Phosphorus	6.92E-01	N/A	T3
276-9_S_high_D	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Phosphorus	1.19E+00	N/A	T3
277-10_S_high_A	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Phosphorus	4.51E-01	N/A	T3
278-10_S_high_B	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Phosphorus	3.58E-01	N/A	T3
279-10_S_high_C	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Phosphorus	4.42E-01	N/A	T3
280-10_S_high_D	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Phosphorus	3.71E-01	N/A	T3
281-11_S_high_A	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Phosphorus	3.94E-01	N/A	T3
282-11_S_high_B	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Phosphorus	3.99E-01	N/A	T3
283-11_S_high_C	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Phosphorus	3.92E-01	N/A	T3
284-11_S_high_D	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Phosphorus	3.98E-01	N/A	T3
285-12_S_high_A	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Phosphorus	4.14E-01	N/A	T3
286-12_S_high_B	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Phosphorus	3.72E-01	N/A	T3
287-12_S_high_C	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Phosphorus	4.46E-01	N/A	T3
288-12_S_high_D	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Phosphorus	4.05E-01	N/A	T3
289-1_I_low_A	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Phosphorus	9.37E-01	N/A	T3
290-1_I_low_B	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Phosphorus	1.01E+00	N/A	T3
291-1_I_low_C	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Phosphorus	8.63E-01	N/A	T3
292-1_I_low_D	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Phosphorus	9.57E-01	N/A	T3
293-2_I_low_A	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Phosphorus	5.80E-01	N/A	T3
294-2_I_low_B	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Phosphorus	6.51E-01	N/A	T3
295-2_I_low_C	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Phosphorus	7.13E-01	N/A	T3
296-2_I_low_D	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Phosphorus	6.60E-01	N/A	T3
297-3_I_low_A	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Phosphorus	2.71E-01	N/A	T3
298-3_I_low_B	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Phosphorus	2.93E-01	N/A	T3
299-3_I_low_C	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Phosphorus	2.55E-01	N/A	T3
300-3_I_low_D	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Phosphorus	2.57E-01	N/A	T3
301-4_I_low_A	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Phosphorus	2.01E-01	N/A	T3
302-4_I_low_B	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Phosphorus	2.07E-01	N/A	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
303-4_I_low_C	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Phosphorus	1.96E-01	N/A	T3
304-4_I_low_D	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Phosphorus	2.15E-01	N/A	T3
305-5_I_low_A	Compost_low_I	EPA6010C-SPLP	10	mg/L	Phosphorus	2.27E-01	N/A	T3
306-5_I_low_B	Compost_low_I	EPA6010C-SPLP	10	mg/L	Phosphorus	2.16E-01	N/A	T3
307-5_I_low_C	Compost_low_I	EPA6010C-SPLP	10	mg/L	Phosphorus	2.18E-01	N/A	T3
308-5_I_low_D	Compost_low_I	EPA6010C-SPLP	10	mg/L	Phosphorus	2.05E-01	N/A	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Phosphorus	1.64E+00	N/A	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Phosphorus	2.87E+00	N/A	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Phosphorus	2.48E+00	N/A	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Phosphorus	2.19E+00	N/A	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Phosphorus	1.00E+00	N/A	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Phosphorus	8.70E-01	N/A	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Phosphorus	7.81E-01	N/A	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Phosphorus	8.01E-01	N/A	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Phosphorus	1.19E+00	N/A	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Phosphorus	1.04E+00	N/A	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Phosphorus	1.08E+00	N/A	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Phosphorus	8.95E-01	N/A	T3
321-9_I_low_A	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Phosphorus	4.79E-01	N/A	T3
322-9_I_low_B	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Phosphorus	5.08E-01	N/A	T3
323-9_I_low_C	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Phosphorus	5.27E-01	N/A	T3
324-9_I_low_D	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Phosphorus	4.70E-01	N/A	T3
325-10_I_low_A	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Phosphorus	2.88E-01	N/A	T3
326-10_I_low_B	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Phosphorus	2.61E-01	N/A	T3
327-10_I_low_C	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Phosphorus	2.62E-01	N/A	T3
328-10_I_low_D	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Phosphorus	2.89E-01	N/A	T3
329-11_I_low_A	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Phosphorus	3.28E-01	N/A	T3
330-11_I_low_B	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Phosphorus	2.53E-01	N/A	T3
331-11_I_low_C	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Phosphorus	2.50E-01	N/A	T3
332-11_I_low_D	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Phosphorus	2.86E-01	N/A	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
333-12_I_low_A	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Phosphorus	2.55E-01	N/A	T3
334-12_I_low_B	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Phosphorus	2.52E-01	N/A	T3
335-12_I_low_C	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Phosphorus	2.50E-01	N/A	T3
336-12_I_low_D	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Phosphorus	2.37E-01	N/A	T3
337-1_I_high_A	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Phosphorus	4.94E+00	N/A	T3
338-1_I_high_B	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Phosphorus	4.75E+00	N/A	T3
339-1_I_high_C	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Phosphorus	5.21E+00	N/A	T3
340-1_I_high_D	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Phosphorus	4.81E+00	N/A	T3
341-2_I_high_A	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Phosphorus	2.85E+00	N/A	T3
342-2_I_high_B	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Phosphorus	2.68E+00	N/A	T3
343-2_I_high_C	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Phosphorus	2.41E+00	N/A	T3
344-2_I_high_D	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Phosphorus	2.73E+00	N/A	T3
345-3_I_high_A	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Phosphorus	2.92E-01	N/A	T3
346-3_I_high_B	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Phosphorus	3.61E-01	N/A	T3
347-3_I_high_C	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Phosphorus	2.99E-01	N/A	T3
348-3_I_high_D	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Phosphorus	3.16E-01	N/A	T3
349-4_I_high_A	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Phosphorus	1.74E-01	N/A	T3
350-4_I_high_B	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Phosphorus	2.06E-01	N/A	T3
351-4_I_high_C	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Phosphorus	2.15E-01	N/A	T3
352-4_I_high_D	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Phosphorus	2.29E-01	N/A	T3
353-5_I_high_A	Compost_high_I	EPA6010C-SPLP	14	mg/L	Phosphorus	4.21E-01	N/A	T3
354-5_I_high_B	Compost_high_I	EPA6010C-SPLP	14	mg/L	Phosphorus	3.63E-01	N/A	T3
355-5_I_high_C	Compost_high_I	EPA6010C-SPLP	14	mg/L	Phosphorus	3.40E-01	N/A	T3
356-5_I_high_D	Compost_high_I	EPA6010C-SPLP	14	mg/L	Phosphorus	2.77E-01	N/A	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Phosphorus	8.72E+00	N/A	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Phosphorus	8.29E+00	N/A	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Phosphorus	9.53E+00	N/A	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Phosphorus	8.75E+00	N/A	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Phosphorus	4.74E+00	N/A	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Phosphorus	6.05E+00	N/A	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
363-7_I_high_C	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Phosphorus	6.18E+00	N/A	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Phosphorus	6.56E+00	N/A	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Phosphorus	7.38E+00	N/A	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Phosphorus	6.09E+00	N/A	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Phosphorus	7.27E+00	N/A	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Phosphorus	7.18E+00	N/A	T3
369-9_I_high_A	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Phosphorus	2.22E+00	N/A	T3
370-9_I_high_B	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Phosphorus	2.14E+00	N/A	T3
371-9_I_high_C	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Phosphorus	1.82E+00	N/A	T3
372-9_I_high_D	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Phosphorus	2.67E+00	N/A	T3
373-10_I_high_A	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Phosphorus	2.77E-01	N/A	T3
374-10_I_high_B	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Phosphorus	4.06E-01	N/A	T3
375-10_I_high_C	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Phosphorus	3.62E-01	N/A	T3
376-10_I_high_D	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Phosphorus	3.52E-01	N/A	T3
377-11_I_high_A	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Phosphorus	4.60E-01	N/A	T3
378-11_I_high_B	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Phosphorus	4.64E-01	N/A	T3
379-11_I_high_C	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Phosphorus	5.48E-01	N/A	T3
380-11_I_high_D	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Phosphorus	4.43E-01	N/A	T3
381-12_I_high_A	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Phosphorus	4.20E-01	N/A	T3
382-12_I_high_B	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Phosphorus	3.41E-01	N/A	T3
383-12_I_high_C	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Phosphorus	4.27E-01	N/A	T3
384-12_I_high_D	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Phosphorus	3.53E-01	N/A	T3
385-0_I_NA_A	control_none_I	EPA6010C-SPLP	17	mg/L	Phosphorus	1.98E-01	N/A	T3
386-0_I_NA_B	control_none_I	EPA6010C-SPLP	17	mg/L	Phosphorus	1.80E-01	N/A	T3
387-0_I_NA_C	control_none_I	EPA6010C-SPLP	17	mg/L	Phosphorus	1.64E-01	N/A	T3
388-0_I_NA_D	control_none_I	EPA6010C-SPLP	17	mg/L	Phosphorus	1.96E-01	N/A	T3
097-1_S_low_A	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Potassium	1.13E+01	N/A	T3
098-1_S_low_B	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Potassium	1.12E+01	N/A	T3
099-1_S_low_C	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Potassium	1.10E+01	N/A	T3
100-1_S_low_D	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Potassium	1.19E+01	N/A	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
101-2_S_low_A	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Potassium	3.49E+00	N/A	T3
102-2_S_low_B	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Potassium	3.22E+00	N/A	T3
103-2_S_low_C	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Potassium	3.50E+00	N/A	T3
104-2_S_low_D	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Potassium	2.71E+00	N/A	T3
105-3_S_low_A	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Potassium	5.67E+00	N/A	T3
106-3_S_low_B	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Potassium	5.12E+00	N/A	T3
107-3_S_low_C	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Potassium	5.59E+00	N/A	T3
108-3_S_low_D	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Potassium	5.41E+00	N/A	T3
109-4_S_low_A	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Potassium	4.22E+00	N/A	T3
110-4_S_low_B	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Potassium	4.06E+00	N/A	T3
111-4_S_low_C	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Potassium	4.29E+00	N/A	T3
112-4_S_low_D	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Potassium	4.21E+00	N/A	T3
113-5_S_low_A	Compost_low_S	EPA6010C-SPLP	2	mg/L	Potassium	5.73E+00	N/A	T3
114-5_S_low_B	Compost_low_S	EPA6010C-SPLP	2	mg/L	Potassium	5.45E+00	N/A	T3
115-5_S_low_C	Compost_low_S	EPA6010C-SPLP	2	mg/L	Potassium	5.81E+00	N/A	T3
116-5_S_low_D	Compost_low_S	EPA6010C-SPLP	2	mg/L	Potassium	5.95E+00	N/A	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Potassium	1.15E+01	N/A	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Potassium	1.16E+01	N/A	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Potassium	1.23E+01	N/A	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Potassium	1.02E+01	N/A	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Potassium	1.28E+01	dup1	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Potassium	1.16E+01	dup1	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Potassium	1.23E+01	dup1	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Potassium	1.23E+01	dup1	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Potassium	1.50E+01	dup1	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Potassium	1.53E+01	dup1	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Potassium	1.35E+01	dup1	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Potassium	1.39E+01	dup1	T3
129-9_S_low_A	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Potassium	9.74E+00	dup1	T3
130-9_S_low_B	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Potassium	7.55E+00	dup1	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
131-9_S_low_C	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Potassium	7.62E+00	dup1	T3
132-9_S_low_D	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Potassium	5.67E+00	dup1	T3
133-10_S_low_A	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Potassium	6.69E+00	N/A	T3
134-10_S_low_B	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Potassium	7.85E+00	N/A	T3
135-10_S_low_C	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Potassium	7.35E+00	N/A	T3
136-10_S_low_D	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Potassium	6.36E+00	N/A	T3
137-11_S_low_A	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Potassium	8.13E+00	N/A	T3
138-11_S_low_B	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Potassium	7.89E+00	N/A	T3
139-11_S_low_C	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Potassium	7.48E+00	N/A	T3
140-11_S_low_D	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Potassium	8.29E+00	N/A	T3
141-12_S_low_A	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Potassium	6.15E+00	N/A	T3
142-12_S_low_B	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Potassium	6.10E+00	N/A	T3
143-12_S_low_C	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Potassium	5.92E+00	N/A	T3
144-12_S_low_D	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Potassium	6.10E+00	N/A	T3
241-1_S_high_A	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Potassium	1.31E+01	N/A	T3
242-1_S_high_B	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Potassium	1.21E+01	N/A	T3
243-1_S_high_C	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Potassium	1.20E+01	N/A	T3
244-1_S_high_D	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Potassium	1.28E+01	N/A	T3
245-2_S_high_A	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Potassium	3.80E+00	N/A	T3
246-2_S_high_B	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Potassium	3.13E+00	N/A	T3
247-2_S_high_C	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Potassium	3.46E+00	N/A	T3
248-2_S_high_D	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Potassium	3.22E+00	N/A	T3
249-3_S_high_A	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Potassium	1.23E+01	N/A	T3
250-3_S_high_B	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Potassium	1.18E+01	N/A	T3
251-3_S_high_C	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Potassium	1.05E+01	N/A	T3
252-3_S_high_D	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Potassium	1.13E+01	N/A	T3
253-4_S_high_A	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Potassium	5.20E+00	dup1	T3
254-4_S_high_B	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Potassium	5.04E+00	dup1	T3
255-4_S_high_C	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Potassium	4.64E+00	dup1	T3
256-4_S_high_D	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Potassium	4.74E+00	dup1	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
257-5_S_high_A	Compost_high_S	EPA6010C-SPLP	6	mg/L	Potassium	1.21E+01	dup1	T3
258-5_S_high_B	Compost_high_S	EPA6010C-SPLP	6	mg/L	Potassium	1.04E+01	dup1	T3
259-5_S_high_C	Compost_high_S	EPA6010C-SPLP	6	mg/L	Potassium	9.93E+00	dup1	T3
260-5_S_high_D	Compost_high_S	EPA6010C-SPLP	6	mg/L	Potassium	1.07E+01	dup1	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Potassium	7.60E+00	dup1	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Potassium	6.37E+00	dup1	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Potassium	6.14E+00	dup1	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Potassium	6.79E+00	dup1	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Potassium	1.21E+01	N/A	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Potassium	1.54E+01	N/A	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Potassium	1.38E+01	N/A	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Potassium	1.62E+01	N/A	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Potassium	2.00E+01	N/A	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Potassium	1.62E+01	N/A	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Potassium	2.10E+01	N/A	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Potassium	2.29E+01	N/A	T3
273-9_S_high_A	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Potassium	1.03E+01	N/A	T3
274-9_S_high_B	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Potassium	1.19E+01	N/A	T3
275-9_S_high_C	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Potassium	1.36E+01	N/A	T3
276-9_S_high_D	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Potassium	1.19E+01	N/A	T3
277-10_S_high_A	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Potassium	1.49E+01	N/A	T3
278-10_S_high_B	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Potassium	1.26E+01	N/A	T3
279-10_S_high_C	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Potassium	1.46E+01	N/A	T3
280-10_S_high_D	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Potassium	1.47E+01	N/A	T3
281-11_S_high_A	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Potassium	1.83E+01	N/A	T3
282-11_S_high_B	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Potassium	1.97E+01	N/A	T3
283-11_S_high_C	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Potassium	2.01E+01	N/A	T3
284-11_S_high_D	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Potassium	1.88E+01	N/A	T3
285-12_S_high_A	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Potassium	1.30E+01	N/A	T3
286-12_S_high_B	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Potassium	1.21E+01	N/A	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
287-12_S_high_C	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Potassium	1.26E+01	N/A	T3
288-12_S_high_D	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Potassium	1.17E+01	N/A	T3
289-1_I_low_A	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Potassium	1.11E+01	N/A	T3
290-1_I_low_B	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Potassium	1.24E+01	N/A	T3
291-1_I_low_C	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Potassium	1.72E+01	N/A	T3
292-1_I_low_D	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Potassium	1.01E+01	N/A	T3
293-2_I_low_A	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Potassium	7.10E+00	N/A	T3
294-2_I_low_B	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Potassium	6.90E+00	N/A	T3
295-2_I_low_C	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Potassium	9.64E+00	N/A	T3
296-2_I_low_D	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Potassium	6.12E+00	N/A	T3
297-3_I_low_A	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Potassium	8.22E+00	N/A	T3
298-3_I_low_B	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Potassium	7.00E+00	N/A	T3
299-3_I_low_C	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Potassium	1.09E+01	N/A	T3
300-3_I_low_D	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Potassium	7.42E+00	N/A	T3
301-4_I_low_A	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Potassium	5.90E+00	N/A	T3
302-4_I_low_B	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Potassium	5.83E+00	N/A	T3
303-4_I_low_C	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Potassium	6.47E+00	N/A	T3
304-4_I_low_D	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Potassium	6.07E+00	N/A	T3
305-5_I_low_A	Compost_low_I	EPA6010C-SPLP	10	mg/L	Potassium	9.66E+00	N/A	T3
306-5_I_low_B	Compost_low_I	EPA6010C-SPLP	10	mg/L	Potassium	6.49E+00	N/A	T3
307-5_I_low_C	Compost_low_I	EPA6010C-SPLP	10	mg/L	Potassium	7.48E+00	N/A	T3
308-5_I_low_D	Compost_low_I	EPA6010C-SPLP	10	mg/L	Potassium	8.19E+00	N/A	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Potassium	1.93E+01	N/A	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Potassium	1.04E+01	N/A	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Potassium	1.41E+01	N/A	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Potassium	1.52E+01	N/A	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Potassium	1.69E+01	N/A	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Potassium	1.79E+01	N/A	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Potassium	1.85E+01	N/A	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Potassium	1.87E+01	N/A	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
317-8_I_low_A	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Potassium	2.52E+01	N/A	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Potassium	2.42E+01	N/A	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Potassium	2.24E+01	N/A	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Potassium	2.52E+01	N/A	T3
321-9_I_low_A	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Potassium	1.44E+01	N/A	T3
322-9_I_low_B	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Potassium	1.26E+01	N/A	T3
323-9_I_low_C	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Potassium	1.12E+01	N/A	T3
324-9_I_low_D	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Potassium	1.24E+01	N/A	T3
325-10_I_low_A	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Potassium	9.39E+00	N/A	T3
326-10_I_low_B	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Potassium	1.03E+01	N/A	T3
327-10_I_low_C	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Potassium	7.87E+00	N/A	T3
328-10_I_low_D	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Potassium	1.02E+01	N/A	T3
329-11_I_low_A	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Potassium	1.03E+01	N/A	T3
330-11_I_low_B	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Potassium	9.14E+00	N/A	T3
331-11_I_low_C	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Potassium	1.15E+01	N/A	T3
332-11_I_low_D	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Potassium	1.16E+01	N/A	T3
333-12_I_low_A	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Potassium	8.65E+00	N/A	T3
334-12_I_low_B	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Potassium	1.00E+01	N/A	T3
335-12_I_low_C	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Potassium	1.19E+01	N/A	T3
336-12_I_low_D	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Potassium	9.83E+00	N/A	T3
337-1_I_high_A	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Potassium	1.53E+01	N/A	T3
338-1_I_high_B	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Potassium	1.88E+01	N/A	T3
339-1_I_high_C	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Potassium	1.73E+01	N/A	T3
340-1_I_high_D	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Potassium	1.31E+01	N/A	T3
341-2_I_high_A	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Potassium	9.22E+00	N/A	T3
342-2_I_high_B	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Potassium	8.48E+00	N/A	T3
343-2_I_high_C	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Potassium	1.20E+01	N/A	T3
344-2_I_high_D	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Potassium	1.21E+01	N/A	T3
345-3_I_high_A	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Potassium	1.99E+01	N/A	T3
346-3_I_high_B	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Potassium	1.75E+01	N/A	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
347-3_I_high_C	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Potassium	1.63E+01	N/A	T3
348-3_I_high_D	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Potassium	1.66E+01	N/A	T3
349-4_I_high_A	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Potassium	1.01E+01	N/A	T3
350-4_I_high_B	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Potassium	8.82E+00	N/A	T3
351-4_I_high_C	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Potassium	8.56E+00	N/A	T3
352-4_I_high_D	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Potassium	7.47E+00	N/A	T3
353-5_I_high_A	Compost_high_I	EPA6010C-SPLP	14	mg/L	Potassium	1.34E+01	N/A	T3
354-5_I_high_B	Compost_high_I	EPA6010C-SPLP	14	mg/L	Potassium	1.87E+01	N/A	T3
355-5_I_high_C	Compost_high_I	EPA6010C-SPLP	14	mg/L	Potassium	1.92E+01	N/A	T3
356-5_I_high_D	Compost_high_I	EPA6010C-SPLP	14	mg/L	Potassium	2.11E+01	N/A	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Potassium	1.84E+01	N/A	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Potassium	1.64E+01	N/A	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Potassium	1.67E+01	N/A	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Potassium	1.57E+01	N/A	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Potassium	2.83E+01	N/A	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Potassium	1.97E+01	N/A	T3
363-7_I_high_C	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Potassium	1.88E+01	N/A	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Potassium	2.20E+01	N/A	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Potassium	2.59E+01	N/A	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Potassium	2.99E+01	N/A	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Potassium	2.50E+01	N/A	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Potassium	2.85E+01	N/A	T3
369-9_I_high_A	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Potassium	2.64E+01	N/A	T3
370-9_I_high_B	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Potassium	2.73E+01	N/A	T3
371-9_I_high_C	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Potassium	2.77E+01	N/A	T3
372-9_I_high_D	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Potassium	3.11E+01	N/A	T3
373-10_I_high_A	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Potassium	3.38E+01	dup1	T3
374-10_I_high_B	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Potassium	1.97E+01	dup1	T3
375-10_I_high_C	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Potassium	2.00E+01	dup1	T3
376-10_I_high_D	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Potassium	1.90E+01	dup1	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
377-11_I_high_A	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Potassium	3.26E+01	dup1	T3
378-11_I_high_B	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Potassium	3.27E+01	dup1	T3
379-11_I_high_C	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Potassium	2.73E+01	dup1	T3
380-11_I_high_D	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Potassium	3.37E+01	dup1	T3
381-12_I_high_A	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Potassium	1.97E+01	dup1	T3
382-12_I_high_B	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Potassium	2.38E+01	dup1	T3
383-12_I_high_C	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Potassium	1.83E+01	dup1	T3
384-12_I_high_D	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Potassium	2.03E+01	dup1	T3
385-0_I_NA_A	control_none_I	EPA6010C-SPLP	17	mg/L	Potassium	4.65E+00	N/A	T3
386-0_I_NA_B	control_none_I	EPA6010C-SPLP	17	mg/L	Potassium	5.04E+00	N/A	T3
387-0_I_NA_C	control_none_I	EPA6010C-SPLP	17	mg/L	Potassium	5.28E+00	N/A	T3
388-0_I_NA_D	control_none_I	EPA6010C-SPLP	17	mg/L	Potassium	5.25E+00	N/A	T3
097-1_S_low_A	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Selenium	9.05E-03	N/A rl U	T3
098-1_S_low_B	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Selenium	9.05E-03	N/A rl U	T3
099-1_S_low_C	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Selenium	9.05E-03	N/A rl U	T3
100-1_S_low_D	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Selenium	9.05E-03	N/A rl U	T3
101-2_S_low_A	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Selenium	9.05E-03	N/A rl U	T3
102-2_S_low_B	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Selenium	9.05E-03	N/A rl U	T3
103-2_S_low_C	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Selenium	9.05E-03	N/A rl U	T3
104-2_S_low_D	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Selenium	9.05E-03	N/A rl U	T3
105-3_S_low_A	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Selenium	9.05E-03	N/A rl U	T3
106-3_S_low_B	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Selenium	9.05E-03	N/A rl U	T3
107-3_S_low_C	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Selenium	9.05E-03	N/A rl U	T3
108-3_S_low_D	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Selenium	9.05E-03	N/A rl U	T3
109-4_S_low_A	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Selenium	9.05E-03	N/A rl U	T3
110-4_S_low_B	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Selenium	9.05E-03	N/A rl U	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
111-4_S_low_C	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Selenium	9.05E-03	N/A rl U	T3
112-4_S_low_D	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Selenium	9.05E-03	N/A rl U	T3
113-5_S_low_A	Compost_low_S	EPA6010C-SPLP	2	mg/L	Selenium	9.05E-03	N/A rl U	T3
114-5_S_low_B	Compost_low_S	EPA6010C-SPLP	2	mg/L	Selenium	9.05E-03	N/A rl U	T3
115-5_S_low_C	Compost_low_S	EPA6010C-SPLP	2	mg/L	Selenium	9.05E-03	N/A rl U	T3
116-5_S_low_D	Compost_low_S	EPA6010C-SPLP	2	mg/L	Selenium	9.05E-03	N/A rl U	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Selenium	9.05E-03	N/A rl U	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Selenium	9.05E-03	N/A rl U	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Selenium	9.05E-03	N/A rl U	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Selenium	9.05E-03	N/A rl U	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Selenium	9.05E-03	N/A rl U	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Selenium	9.05E-03	N/A rl U	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Selenium	9.05E-03	N/A rl U	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Selenium	9.05E-03	N/A rl U	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Selenium	9.05E-03	N/A rl U	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Selenium	9.05E-03	N/A rl U	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Selenium	9.05E-03	N/A rl U	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Selenium	9.05E-03	N/A rl U	T3
129-9_S_low_A	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Selenium	9.05E-03	N/A rl U	T3
130-9_S_low_B	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Selenium	9.05E-03	N/A rl U	T3
131-9_S_low_C	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Selenium	9.05E-03	N/A rl U	T3
132-9_S_low_D	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Selenium	9.05E-03	N/A rl U	T3
133-10_S_low_A	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Selenium	9.05E-03	N/A rl U	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
134-10_S_low_B	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Selenium	9.05E-03	N/A rl U	T3
135-10_S_low_C	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Selenium	9.05E-03	N/A rl U	T3
136-10_S_low_D	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Selenium	9.05E-03	N/A rl U	T3
137-11_S_low_A	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Selenium	9.05E-03	N/A rl U	T3
138-11_S_low_B	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Selenium	9.05E-03	N/A rl U	T3
139-11_S_low_C	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Selenium	9.05E-03	N/A rl U	T3
140-11_S_low_D	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Selenium	9.05E-03	N/A rl U	T3
141-12_S_low_A	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Selenium	9.05E-03	N/A rl U	T3
142-12_S_low_B	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Selenium	9.05E-03	N/A rl U	T3
143-12_S_low_C	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Selenium	9.05E-03	N/A rl U	T3
144-12_S_low_D	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Selenium	9.05E-03	N/A rl U	T3
241-1_S_high_A	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Selenium	9.05E-03	N/A rl U	T3
242-1_S_high_B	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Selenium	9.05E-03	N/A rl U	T3
243-1_S_high_C	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Selenium	9.05E-03	N/A rl U	T3
244-1_S_high_D	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Selenium	9.05E-03	N/A rl U	T3
245-2_S_high_A	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Selenium	9.05E-03	N/A rl U	T3
246-2_S_high_B	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Selenium	9.05E-03	N/A rl U	T3
247-2_S_high_C	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Selenium	9.05E-03	N/A rl U	T3
248-2_S_high_D	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Selenium	9.05E-03	N/A rl U	T3
249-3_S_high_A	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Selenium	9.05E-03	N/A rl U	T3
250-3_S_high_B	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Selenium	9.05E-03	N/A rl U	T3
251-3_S_high_C	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Selenium	9.05E-03	N/A rl U	T3
252-3_S_high_D	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Selenium	9.05E-03	N/A rl U	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
253-4_S_high_A	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Selenium	9.05E-03	N/A rl U	T3
254-4_S_high_B	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Selenium	9.05E-03	N/A rl U	T3
255-4_S_high_C	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Selenium	9.05E-03	N/A rl U	T3
256-4_S_high_D	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Selenium	9.05E-03	N/A rl U	T3
257-5_S_high_A	Compost_high_S	EPA6010C-SPLP	6	mg/L	Selenium	9.05E-03	N/A rl U	T3
258-5_S_high_B	Compost_high_S	EPA6010C-SPLP	6	mg/L	Selenium	9.05E-03	N/A rl U	T3
259-5_S_high_C	Compost_high_S	EPA6010C-SPLP	6	mg/L	Selenium	9.05E-03	N/A rl U	T3
260-5_S_high_D	Compost_high_S	EPA6010C-SPLP	6	mg/L	Selenium	9.05E-03	N/A rl U	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Selenium	9.05E-03	N/A rl U	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Selenium	9.05E-03	N/A rl U	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Selenium	9.05E-03	N/A rl U	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Selenium	9.05E-03	N/A rl U	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Selenium	9.05E-03	N/A rl U	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Selenium	9.05E-03	N/A rl U	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Selenium	9.05E-03	N/A rl U	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Selenium	9.05E-03	N/A rl U	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Selenium	9.05E-03	N/A rl U	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Selenium	9.05E-03	N/A rl U	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Selenium	9.05E-03	N/A rl U	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Selenium	9.05E-03	N/A rl U	T3
273-9_S_high_A	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Selenium	9.05E-03	N/A rl U	T3
274-9_S_high_B	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Selenium	9.05E-03	N/A rl U	T3
275-9_S_high_C	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Selenium	9.05E-03	N/A rl U	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
276-9_S_high_D	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Selenium	9.05E-03	N/A rl U	T3
277-10_S_high_A	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Selenium	9.05E-03	N/A rl U	T3
278-10_S_high_B	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Selenium	9.05E-03	N/A rl U	T3
279-10_S_high_C	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Selenium	9.05E-03	N/A rl U	T3
280-10_S_high_D	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Selenium	9.05E-03	N/A rl U	T3
281-11_S_high_A	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Selenium	9.05E-03	N/A rl U	T3
282-11_S_high_B	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Selenium	9.05E-03	N/A rl U	T3
283-11_S_high_C	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Selenium	9.05E-03	N/A rl U	T3
284-11_S_high_D	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Selenium	9.05E-03	N/A rl U	T3
285-12_S_high_A	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Selenium	9.05E-03	N/A rl U	T3
286-12_S_high_B	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Selenium	9.05E-03	N/A rl U	T3
287-12_S_high_C	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Selenium	9.05E-03	N/A rl U	T3
288-12_S_high_D	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Selenium	9.05E-03	N/A rl U	T3
289-1_I_low_A	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Selenium	9.05E-03	N/A rl U	T3
290-1_I_low_B	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Selenium	9.05E-03	N/A rl U	T3
291-1_I_low_C	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Selenium	9.05E-03	N/A rl U	T3
292-1_I_low_D	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Selenium	9.05E-03	N/A rl U	T3
293-2_I_low_A	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Selenium	9.05E-03	N/A rl U	T3
294-2_I_low_B	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Selenium	9.05E-03	N/A rl U	T3
295-2_I_low_C	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Selenium	9.05E-03	N/A rl U	T3
296-2_I_low_D	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Selenium	9.05E-03	N/A rl U	T3
297-3_I_low_A	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Selenium	9.05E-03	N/A rl U	T3
298-3_I_low_B	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Selenium	9.05E-03	N/A rl U	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
299-3_I_low_C	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Selenium	9.05E-03	N/A rl U	T3
300-3_I_low_D	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Selenium	9.05E-03	N/A rl U	T3
301-4_I_low_A	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Selenium	9.05E-03	N/A rl U	T3
302-4_I_low_B	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Selenium	9.05E-03	N/A rl U	T3
303-4_I_low_C	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Selenium	9.05E-03	N/A rl U	T3
304-4_I_low_D	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Selenium	9.05E-03	N/A rl U	T3
305-5_I_low_A	Compost_low_I	EPA6010C-SPLP	10	mg/L	Selenium	9.05E-03	N/A rl U	T3
306-5_I_low_B	Compost_low_I	EPA6010C-SPLP	10	mg/L	Selenium	9.05E-03	N/A rl U	T3
307-5_I_low_C	Compost_low_I	EPA6010C-SPLP	10	mg/L	Selenium	9.05E-03	N/A rl U	T3
308-5_I_low_D	Compost_low_I	EPA6010C-SPLP	10	mg/L	Selenium	9.05E-03	N/A rl U	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Selenium	9.05E-03	N/A rl U	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Selenium	9.05E-03	N/A rl U	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Selenium	9.05E-03	N/A rl U	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Selenium	9.05E-03	N/A rl U	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Selenium	9.05E-03	N/A rl U	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Selenium	9.05E-03	N/A rl U	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Selenium	9.05E-03	N/A rl U	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Selenium	9.05E-03	N/A rl U	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Selenium	9.05E-03	N/A rl U	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Selenium	9.05E-03	N/A rl U	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Selenium	9.05E-03	N/A rl U	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Selenium	9.05E-03	N/A rl U	T3
321-9_I_low_A	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Selenium	9.05E-03	N/A rl U	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
322-9_I_low_B	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Selenium	9.05E-03	N/A rl U	T3
323-9_I_low_C	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Selenium	9.05E-03	N/A rl U	T3
324-9_I_low_D	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Selenium	9.05E-03	N/A rl U	T3
325-10_I_low_A	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Selenium	9.05E-03	N/A rl U	T3
326-10_I_low_B	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Selenium	9.05E-03	N/A rl U	T3
327-10_I_low_C	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Selenium	9.05E-03	N/A rl U	T3
328-10_I_low_D	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Selenium	9.05E-03	N/A rl U	T3
329-11_I_low_A	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Selenium	9.05E-03	N/A rl U	T3
330-11_I_low_B	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Selenium	9.05E-03	N/A rl U	T3
331-11_I_low_C	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Selenium	9.05E-03	N/A rl U	T3
332-11_I_low_D	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Selenium	9.05E-03	N/A rl U	T3
333-12_I_low_A	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Selenium	9.05E-03	N/A rl U	T3
334-12_I_low_B	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Selenium	9.05E-03	N/A rl U	T3
335-12_I_low_C	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Selenium	9.05E-03	N/A rl U	T3
336-12_I_low_D	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Selenium	9.05E-03	N/A rl U	T3
337-1_I_high_A	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Selenium	9.05E-03	N/A rl U	T3
338-1_I_high_B	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Selenium	9.05E-03	N/A rl U	T3
339-1_I_high_C	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Selenium	9.05E-03	N/A rl U	T3
340-1_I_high_D	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Selenium	9.05E-03	N/A rl U	T3
341-2_I_high_A	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Selenium	9.05E-03	N/A rl U	T3
342-2_I_high_B	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Selenium	9.05E-03	N/A rl U	T3
343-2_I_high_C	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Selenium	9.05E-03	N/A rl U	T3
344-2_I_high_D	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Selenium	9.05E-03	N/A rl U	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
345-3_I_high_A	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Selenium	9.05E-03	N/A rl U	T3
346-3_I_high_B	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Selenium	9.05E-03	N/A rl U	T3
347-3_I_high_C	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Selenium	9.05E-03	N/A rl U	T3
348-3_I_high_D	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Selenium	9.05E-03	N/A rl U	T3
349-4_I_high_A	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Selenium	9.05E-03	N/A rl U	T3
350-4_I_high_B	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Selenium	9.05E-03	N/A rl U	T3
351-4_I_high_C	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Selenium	9.05E-03	N/A rl U	T3
352-4_I_high_D	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Selenium	9.05E-03	N/A rl U	T3
353-5_I_high_A	Compost_high_I	EPA6010C-SPLP	14	mg/L	Selenium	9.05E-03	N/A rl U	T3
354-5_I_high_B	Compost_high_I	EPA6010C-SPLP	14	mg/L	Selenium	9.05E-03	N/A rl U	T3
355-5_I_high_C	Compost_high_I	EPA6010C-SPLP	14	mg/L	Selenium	9.05E-03	N/A rl U	T3
356-5_I_high_D	Compost_high_I	EPA6010C-SPLP	14	mg/L	Selenium	9.05E-03	N/A rl U	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Selenium	9.05E-03	N/A rl U	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Selenium	9.05E-03	N/A rl U	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Selenium	9.05E-03	N/A rl U	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Selenium	9.05E-03	N/A rl U	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Selenium	9.05E-03	N/A rl U	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Selenium	9.05E-03	N/A rl U	T3
363-7_I_high_C	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Selenium	9.05E-03	N/A rl U	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Selenium	9.05E-03	N/A rl U	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Selenium	9.05E-03	N/A rl U	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Selenium	9.05E-03	N/A rl U	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Selenium	9.05E-03	N/A rl U	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
368-8_I_high_D	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Selenium	9.05E-03	N/A rl U	T3
369-9_I_high_A	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Selenium	9.05E-03	N/A rl U	T3
370-9_I_high_B	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Selenium	9.05E-03	N/A rl U	T3
371-9_I_high_C	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Selenium	9.05E-03	N/A rl U	T3
372-9_I_high_D	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Selenium	9.05E-03	N/A rl U	T3
373-10_I_high_A	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Selenium	9.05E-03	N/A rl U	T3
374-10_I_high_B	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Selenium	9.05E-03	N/A rl U	T3
375-10_I_high_C	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Selenium	9.05E-03	N/A rl U	T3
376-10_I_high_D	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Selenium	9.05E-03	N/A rl U	T3
377-11_I_high_A	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Selenium	9.05E-03	N/A rl U	T3
378-11_I_high_B	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Selenium	9.05E-03	N/A rl U	T3
379-11_I_high_C	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Selenium	9.05E-03	N/A rl U	T3
380-11_I_high_D	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Selenium	9.05E-03	N/A rl U	T3
381-12_I_high_A	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Selenium	9.05E-03	N/A rl U	T3
382-12_I_high_B	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Selenium	9.05E-03	N/A rl U	T3
383-12_I_high_C	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Selenium	9.05E-03	N/A rl U	T3
384-12_I_high_D	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Selenium	9.05E-03	N/A rl U	T3
385-0_I_NA_A	control_none_I	EPA6010C-SPLP	17	mg/L	Selenium	9.05E-03	N/A rl U	T3
386-0_I_NA_B	control_none_I	EPA6010C-SPLP	17	mg/L	Selenium	9.05E-03	N/A rl U	T3
387-0_I_NA_C	control_none_I	EPA6010C-SPLP	17	mg/L	Selenium	9.05E-03	N/A rl U	T3
388-0_I_NA_D	control_none_I	EPA6010C-SPLP	17	mg/L	Selenium	9.05E-03	N/A rl U	T3
097-1_S_low_A	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Silver	1.39E-02	N/A rl U	T3
098-1_S_low_B	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Silver	1.39E-02	N/A rl U	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
099-1_S_low_C	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Silver	1.39E-02	N/A rl U	T3
100-1_S_low_D	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Silver	1.39E-02	N/A rl U	T3
101-2_S_low_A	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Silver	1.39E-02	N/A rl U	T3
102-2_S_low_B	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Silver	1.39E-02	N/A rl U	T3
103-2_S_low_C	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Silver	1.39E-02	N/A rl U	T3
104-2_S_low_D	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Silver	1.39E-02	N/A rl U	T3
105-3_S_low_A	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Silver	1.39E-02	N/A rl U	T3
106-3_S_low_B	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Silver	1.39E-02	N/A rl U	T3
107-3_S_low_C	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Silver	1.39E-02	N/A rl U	T3
108-3_S_low_D	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Silver	1.39E-02	N/A rl U	T3
109-4_S_low_A	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Silver	1.39E-02	N/A rl U	T3
110-4_S_low_B	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Silver	1.39E-02	N/A rl U	T3
111-4_S_low_C	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Silver	1.39E-02	N/A rl U	T3
112-4_S_low_D	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Silver	1.39E-02	N/A rl U	T3
113-5_S_low_A	Compost_low_S	EPA6010C-SPLP	2	mg/L	Silver	1.39E-02	N/A rl U	T3
114-5_S_low_B	Compost_low_S	EPA6010C-SPLP	2	mg/L	Silver	1.39E-02	N/A rl U	T3
115-5_S_low_C	Compost_low_S	EPA6010C-SPLP	2	mg/L	Silver	1.39E-02	N/A rl U	T3
116-5_S_low_D	Compost_low_S	EPA6010C-SPLP	2	mg/L	Silver	1.39E-02	N/A rl U	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Silver	1.39E-02	N/A rl U	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Silver	1.39E-02	N/A rl U	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Silver	1.39E-02	N/A rl U	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Silver	1.39E-02	N/A rl U	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Silver	1.39E-02	N/A rl U	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
122-7_S_low_B	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Silver	1.39E-02	N/A rl U	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Silver	1.39E-02	N/A rl U	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Silver	1.39E-02	N/A rl U	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Silver	1.39E-02	N/A rl U	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Silver	1.39E-02	N/A rl U	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Silver	1.39E-02	N/A rl U	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Silver	1.39E-02	N/A rl U	T3
129-9_S_low_A	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Silver	1.39E-02	N/A rl U	T3
130-9_S_low_B	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Silver	1.39E-02	N/A rl U	T3
131-9_S_low_C	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Silver	1.39E-02	N/A rl U	T3
132-9_S_low_D	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Silver	1.39E-02	N/A rl U	T3
133-10_S_low_A	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Silver	1.39E-02	N/A rl U	T3
134-10_S_low_B	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Silver	1.39E-02	N/A rl U	T3
135-10_S_low_C	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Silver	1.39E-02	N/A rl U	T3
136-10_S_low_D	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Silver	1.39E-02	N/A rl U	T3
137-11_S_low_A	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Silver	1.39E-02	N/A rl U	T3
138-11_S_low_B	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Silver	1.39E-02	N/A rl U	T3
139-11_S_low_C	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Silver	1.39E-02	N/A rl U	T3
140-11_S_low_D	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Silver	1.39E-02	N/A rl U	T3
141-12_S_low_A	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Silver	1.39E-02	N/A rl U	T3
142-12_S_low_B	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Silver	1.39E-02	N/A rl U	T3
143-12_S_low_C	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Silver	1.39E-02	N/A rl U	T3
144-12_S_low_D	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Silver	1.39E-02	N/A rl U	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
241-1_S_high_A	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Silver	1.39E-02	N/A rl U	T3
242-1_S_high_B	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Silver	1.39E-02	N/A rl U	T3
243-1_S_high_C	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Silver	1.39E-02	N/A rl U	T3
244-1_S_high_D	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Silver	1.39E-02	N/A rl U	T3
245-2_S_high_A	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Silver	1.39E-02	N/A rl U	T3
246-2_S_high_B	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Silver	1.39E-02	N/A rl U	T3
247-2_S_high_C	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Silver	1.39E-02	N/A rl U	T3
248-2_S_high_D	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Silver	1.39E-02	N/A rl U	T3
249-3_S_high_A	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Silver	1.39E-02	N/A rl U	T3
250-3_S_high_B	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Silver	1.39E-02	N/A rl U	T3
251-3_S_high_C	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Silver	1.39E-02	N/A rl U	T3
252-3_S_high_D	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Silver	1.39E-02	N/A rl U	T3
253-4_S_high_A	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Silver	1.39E-02	N/A rl U	T3
254-4_S_high_B	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Silver	1.39E-02	N/A rl U	T3
255-4_S_high_C	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Silver	1.39E-02	N/A rl U	T3
256-4_S_high_D	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Silver	1.39E-02	N/A rl U	T3
257-5_S_high_A	Compost_high_S	EPA6010C-SPLP	6	mg/L	Silver	1.39E-02	N/A rl U	T3
258-5_S_high_B	Compost_high_S	EPA6010C-SPLP	6	mg/L	Silver	1.39E-02	N/A rl U	T3
259-5_S_high_C	Compost_high_S	EPA6010C-SPLP	6	mg/L	Silver	1.39E-02	N/A rl U	T3
260-5_S_high_D	Compost_high_S	EPA6010C-SPLP	6	mg/L	Silver	1.39E-02	N/A rl U	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Silver	1.39E-02	N/A rl U	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Silver	1.39E-02	N/A rl U	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Silver	1.39E-02	N/A rl U	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
264-6_S_high_D	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Silver	1.39E-02	N/A rl U	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Silver	1.39E-02	N/A rl U	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Silver	1.39E-02	N/A rl U	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Silver	1.39E-02	N/A rl U	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Silver	1.39E-02	N/A rl U	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Silver	1.39E-02	N/A rl U	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Silver	1.39E-02	N/A rl U	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Silver	1.39E-02	N/A rl U	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Silver	1.39E-02	N/A rl U	T3
273-9_S_high_A	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Silver	1.39E-02	N/A rl U	T3
274-9_S_high_B	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Silver	1.39E-02	N/A rl U	T3
275-9_S_high_C	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Silver	1.39E-02	N/A rl U	T3
276-9_S_high_D	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Silver	1.39E-02	N/A rl U	T3
277-10_S_high_A	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Silver	1.39E-02	N/A rl U	T3
278-10_S_high_B	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Silver	1.39E-02	N/A rl U	T3
279-10_S_high_C	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Silver	1.39E-02	N/A rl U	T3
280-10_S_high_D	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Silver	1.39E-02	N/A rl U	T3
281-11_S_high_A	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Silver	1.39E-02	N/A rl U	T3
282-11_S_high_B	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Silver	1.39E-02	N/A rl U	T3
283-11_S_high_C	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Silver	1.39E-02	N/A rl U	T3
284-11_S_high_D	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Silver	1.39E-02	N/A rl U	T3
285-12_S_high_A	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Silver	1.39E-02	N/A rl U	T3
286-12_S_high_B	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Silver	1.39E-02	N/A rl U	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
287-12_S_high_C	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Silver	1.39E-02	N/A rl U	T3
288-12_S_high_D	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Silver	1.39E-02	N/A rl U	T3
289-1_I_low_A	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Silver	1.39E-02	N/A rl U	T3
290-1_I_low_B	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Silver	1.39E-02	N/A rl U	T3
291-1_I_low_C	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Silver	1.39E-02	N/A rl U	T3
292-1_I_low_D	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Silver	1.39E-02	N/A rl U	T3
293-2_I_low_A	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Silver	1.39E-02	N/A rl U	T3
294-2_I_low_B	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Silver	1.39E-02	N/A rl U	T3
295-2_I_low_C	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Silver	1.39E-02	N/A rl U	T3
296-2_I_low_D	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Silver	1.39E-02	N/A rl U	T3
297-3_I_low_A	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Silver	1.39E-02	N/A rl U	T3
298-3_I_low_B	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Silver	1.39E-02	N/A rl U	T3
299-3_I_low_C	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Silver	1.39E-02	N/A rl U	T3
300-3_I_low_D	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Silver	1.39E-02	N/A rl U	T3
301-4_I_low_A	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Silver	1.39E-02	N/A rl U	T3
302-4_I_low_B	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Silver	1.39E-02	N/A rl U	T3
303-4_I_low_C	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Silver	1.39E-02	N/A rl U	T3
304-4_I_low_D	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Silver	1.39E-02	N/A rl U	T3
305-5_I_low_A	Compost_low_I	EPA6010C-SPLP	10	mg/L	Silver	1.39E-02	N/A rl U	T3
306-5_I_low_B	Compost_low_I	EPA6010C-SPLP	10	mg/L	Silver	1.39E-02	N/A rl U	T3
307-5_I_low_C	Compost_low_I	EPA6010C-SPLP	10	mg/L	Silver	1.39E-02	N/A rl U	T3
308-5_I_low_D	Compost_low_I	EPA6010C-SPLP	10	mg/L	Silver	1.39E-02	N/A rl U	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Silver	1.39E-02	N/A rl U	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
310-6_I_low_B	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Silver	1.39E-02	N/A rl U	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Silver	1.39E-02	N/A rl U	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Silver	1.39E-02	N/A rl U	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Silver	1.39E-02	N/A rl U	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Silver	1.39E-02	N/A rl U	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Silver	1.39E-02	N/A rl U	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Silver	1.39E-02	N/A rl U	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Silver	1.39E-02	N/A rl U	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Silver	1.39E-02	N/A rl U	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Silver	1.39E-02	N/A rl U	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Silver	1.39E-02	N/A rl U	T3
321-9_I_low_A	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Silver	1.39E-02	N/A rl U	T3
322-9_I_low_B	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Silver	1.39E-02	N/A rl U	T3
323-9_I_low_C	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Silver	1.39E-02	N/A rl U	T3
324-9_I_low_D	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Silver	1.39E-02	N/A rl U	T3
325-10_I_low_A	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Silver	1.39E-02	N/A rl U	T3
326-10_I_low_B	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Silver	1.39E-02	N/A rl U	T3
327-10_I_low_C	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Silver	1.39E-02	N/A rl U	T3
328-10_I_low_D	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Silver	1.39E-02	N/A rl U	T3
329-11_I_low_A	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Silver	1.39E-02	N/A rl U	T3
330-11_I_low_B	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Silver	1.39E-02	N/A rl U	T3
331-11_I_low_C	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Silver	1.39E-02	N/A rl U	T3
332-11_I_low_D	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Silver	1.39E-02	N/A rl U	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
333-12_I_low_A	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Silver	1.39E-02	N/A rl U	T3
334-12_I_low_B	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Silver	1.39E-02	N/A rl U	T3
335-12_I_low_C	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Silver	1.39E-02	N/A rl U	T3
336-12_I_low_D	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Silver	1.39E-02	N/A rl U	T3
337-1_I_high_A	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Silver	1.39E-02	N/A rl U	T3
338-1_I_high_B	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Silver	1.39E-02	N/A rl U	T3
339-1_I_high_C	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Silver	1.39E-02	N/A rl U	T3
340-1_I_high_D	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Silver	1.39E-02	N/A rl U	T3
341-2_I_high_A	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Silver	1.39E-02	N/A rl U	T3
342-2_I_high_B	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Silver	1.39E-02	N/A rl U	T3
343-2_I_high_C	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Silver	1.39E-02	N/A rl U	T3
344-2_I_high_D	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Silver	1.39E-02	N/A rl U	T3
345-3_I_high_A	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Silver	1.39E-02	N/A rl U	T3
346-3_I_high_B	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Silver	1.39E-02	N/A rl U	T3
347-3_I_high_C	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Silver	1.39E-02	N/A rl U	T3
348-3_I_high_D	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Silver	1.39E-02	N/A rl U	T3
349-4_I_high_A	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Silver	1.39E-02	N/A rl U	T3
350-4_I_high_B	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Silver	1.39E-02	N/A rl U	T3
351-4_I_high_C	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Silver	1.39E-02	N/A rl U	T3
352-4_I_high_D	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Silver	1.39E-02	N/A rl U	T3
353-5_I_high_A	Compost_high_I	EPA6010C-SPLP	14	mg/L	Silver	1.39E-02	N/A rl U	T3
354-5_I_high_B	Compost_high_I	EPA6010C-SPLP	14	mg/L	Silver	1.39E-02	N/A rl U	T3
355-5_I_high_C	Compost_high_I	EPA6010C-SPLP	14	mg/L	Silver	1.39E-02	N/A rl U	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
356-5_I_high_D	Compost_high_I	EPA6010C-SPLP	14	mg/L	Silver	1.39E-02	N/A rl U	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Silver	1.39E-02	N/A rl U	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Silver	1.39E-02	N/A rl U	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Silver	1.39E-02	N/A rl U	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Silver	1.39E-02	N/A rl U	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Silver	1.39E-02	N/A rl U	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Silver	1.39E-02	N/A rl U	T3
363-7_I_high_C	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Silver	1.39E-02	N/A rl U	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Silver	1.39E-02	N/A rl U	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Silver	1.39E-02	N/A rl U	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Silver	1.39E-02	N/A rl U	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Silver	1.39E-02	N/A rl U	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Silver	1.39E-02	N/A rl U	T3
369-9_I_high_A	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Silver	1.39E-02	N/A rl U	T3
370-9_I_high_B	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Silver	1.39E-02	N/A rl U	T3
371-9_I_high_C	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Silver	1.39E-02	N/A rl U	T3
372-9_I_high_D	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Silver	1.39E-02	N/A rl U	T3
373-10_I_high_A	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Silver	1.39E-02	N/A rl U	T3
374-10_I_high_B	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Silver	1.39E-02	N/A rl U	T3
375-10_I_high_C	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Silver	1.39E-02	N/A rl U	T3
376-10_I_high_D	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Silver	1.39E-02	N/A rl U	T3
377-11_I_high_A	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Silver	1.39E-02	N/A rl U	T3
378-11_I_high_B	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Silver	1.39E-02	N/A rl U	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
379-11_I_high_C	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Silver	1.39E-02	N/A rl U	T3
380-11_I_high_D	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Silver	1.39E-02	N/A rl U	T3
381-12_I_high_A	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Silver	1.39E-02	N/A rl U	T3
382-12_I_high_B	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Silver	1.39E-02	N/A rl U	T3
383-12_I_high_C	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Silver	1.39E-02	N/A rl U	T3
384-12_I_high_D	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Silver	1.39E-02	N/A rl U	T3
385-0_I_NA_A	control_none_I	EPA6010C-SPLP	17	mg/L	Silver	1.39E-02	N/A rl U	T3
386-0_I_NA_B	control_none_I	EPA6010C-SPLP	17	mg/L	Silver	1.39E-02	N/A rl U	T3
387-0_I_NA_C	control_none_I	EPA6010C-SPLP	17	mg/L	Silver	1.39E-02	N/A rl U	T3
388-0_I_NA_D	control_none_I	EPA6010C-SPLP	17	mg/L	Silver	1.39E-02	N/A rl U	T3
097-1_S_low_A	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Sodium	2.92E+00	N/A	T3
098-1_S_low_B	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Sodium	3.13E+00	N/A	T3
099-1_S_low_C	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Sodium	3.02E+00	N/A	T3
100-1_S_low_D	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Sodium	3.34E+00	N/A	T3
101-2_S_low_A	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Sodium	2.28E+00	N/A	T3
102-2_S_low_B	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Sodium	1.81E+00	N/A	T3
103-2_S_low_C	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Sodium	2.40E+00	N/A	T3
104-2_S_low_D	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Sodium	1.63E+00	N/A	T3
105-3_S_low_A	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Sodium	3.00E+00	N/A	T3
106-3_S_low_B	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Sodium	2.45E+00	N/A	T3
107-3_S_low_C	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Sodium	3.04E+00	N/A	T3
108-3_S_low_D	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Sodium	2.92E+00	N/A	T3
109-4_S_low_A	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Sodium	2.83E+00	N/A	T3
110-4_S_low_B	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Sodium	2.74E+00	N/A	T3
111-4_S_low_C	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Sodium	2.84E+00	N/A	T3
112-4_S_low_D	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Sodium	2.92E+00	N/A	T3
113-5_S_low_A	Compost_low_S	EPA6010C-SPLP	2	mg/L	Sodium	3.79E+00	N/A	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
114-5_S_low_B	Compost_low_S	EPA6010C-SPLP	2	mg/L	Sodium	3.67E+00	N/A	T3
115-5_S_low_C	Compost_low_S	EPA6010C-SPLP	2	mg/L	Sodium	3.53E+00	N/A	T3
116-5_S_low_D	Compost_low_S	EPA6010C-SPLP	2	mg/L	Sodium	3.88E+00	N/A	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Sodium	3.51E+00	N/A	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Sodium	3.40E+00	N/A	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Sodium	3.87E+00	N/A	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Sodium	3.58E+00	N/A	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Sodium	4.01E+00	dup1	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Sodium	3.33E+00	dup1	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Sodium	3.91E+00	dup1	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Sodium	3.51E+00	dup1	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Sodium	5.01E+00	dup1	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Sodium	4.71E+00	dup1	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Sodium	4.77E+00	dup1	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Sodium	4.42E+00	dup1	T3
129-9_S_low_A	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Sodium	5.32E+00	dup1	T3
130-9_S_low_B	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Sodium	3.54E+00	dup1	T3
131-9_S_low_C	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Sodium	3.67E+00	dup1	T3
132-9_S_low_D	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Sodium	2.48E+00	dup1	T3
133-10_S_low_A	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Sodium	3.03E+00	N/A	T3
134-10_S_low_B	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Sodium	3.83E+00	N/A	T3
135-10_S_low_C	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Sodium	3.28E+00	N/A	T3
136-10_S_low_D	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Sodium	2.88E+00	N/A	T3
137-11_S_low_A	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Sodium	3.93E+00	N/A	T3
138-11_S_low_B	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Sodium	3.70E+00	N/A	T3
139-11_S_low_C	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Sodium	3.38E+00	N/A	T3
140-11_S_low_D	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Sodium	3.74E+00	N/A	T3
141-12_S_low_A	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Sodium	3.57E+00	N/A	T3
142-12_S_low_B	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Sodium	3.32E+00	N/A	T3
143-12_S_low_C	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Sodium	3.27E+00	N/A	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
144-12_S_low_D	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Sodium	3.47E+00	N/A	T3
241-1_S_high_A	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Sodium	5.83E+00	N/A	T3
242-1_S_high_B	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Sodium	5.74E+00	N/A	T3
243-1_S_high_C	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Sodium	5.10E+00	N/A	T3
244-1_S_high_D	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Sodium	5.45E+00	N/A	T3
245-2_S_high_A	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Sodium	1.96E+00	N/A	T3
246-2_S_high_B	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Sodium	1.60E+00	N/A	T3
247-2_S_high_C	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Sodium	1.92E+00	N/A	T3
248-2_S_high_D	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Sodium	1.64E+00	N/A	T3
249-3_S_high_A	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Sodium	4.39E+00	N/A	T3
250-3_S_high_B	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Sodium	4.09E+00	N/A	T3
251-3_S_high_C	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Sodium	3.55E+00	N/A	T3
252-3_S_high_D	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Sodium	4.11E+00	N/A	T3
253-4_S_high_A	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Sodium	3.15E+00	dup1	T3
254-4_S_high_B	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Sodium	2.79E+00	dup1	T3
255-4_S_high_C	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Sodium	3.01E+00	dup1	T3
256-4_S_high_D	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Sodium	2.45E+00	dup1	T3
257-5_S_high_A	Compost_high_S	EPA6010C-SPLP	6	mg/L	Sodium	5.54E+00	dup1	T3
258-5_S_high_B	Compost_high_S	EPA6010C-SPLP	6	mg/L	Sodium	5.15E+00	dup1	T3
259-5_S_high_C	Compost_high_S	EPA6010C-SPLP	6	mg/L	Sodium	4.89E+00	dup1	T3
260-5_S_high_D	Compost_high_S	EPA6010C-SPLP	6	mg/L	Sodium	5.36E+00	dup1	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Sodium	3.21E+00	dup1	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Sodium	2.56E+00	dup1	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Sodium	2.79E+00	dup1	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Sodium	2.79E+00	dup1	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Sodium	4.77E+00	N/A	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Sodium	5.94E+00	N/A	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Sodium	5.43E+00	N/A	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Sodium	6.34E+00	N/A	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Sodium	7.57E+00	N/A	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
270-8_S_high_B	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Sodium	6.23E+00	N/A	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Sodium	8.23E+00	N/A	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Sodium	8.65E+00	N/A	T3
273-9_S_high_A	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Sodium	3.49E+00	N/A	T3
274-9_S_high_B	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Sodium	3.80E+00	N/A	T3
275-9_S_high_C	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Sodium	4.54E+00	N/A	T3
276-9_S_high_D	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Sodium	3.89E+00	N/A	T3
277-10_S_high_A	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Sodium	5.27E+00	N/A	T3
278-10_S_high_B	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Sodium	4.33E+00	N/A	T3
279-10_S_high_C	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Sodium	4.88E+00	N/A	T3
280-10_S_high_D	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Sodium	5.28E+00	N/A	T3
281-11_S_high_A	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Sodium	6.40E+00	N/A	T3
282-11_S_high_B	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Sodium	6.90E+00	N/A	T3
283-11_S_high_C	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Sodium	7.67E+00	N/A	T3
284-11_S_high_D	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Sodium	7.18E+00	N/A	T3
285-12_S_high_A	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Sodium	5.49E+00	N/A	T3
286-12_S_high_B	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Sodium	5.32E+00	N/A	T3
287-12_S_high_C	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Sodium	5.37E+00	N/A	T3
288-12_S_high_D	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Sodium	5.04E+00	N/A	T3
289-1_I_low_A	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Sodium	5.42E+00	N/A	T3
290-1_I_low_B	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Sodium	5.10E+00	N/A	T3
291-1_I_low_C	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Sodium	7.60E+00	N/A	T3
292-1_I_low_D	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Sodium	5.09E+00	N/A	T3
293-2_I_low_A	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Sodium	5.67E+00	N/A	T3
294-2_I_low_B	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Sodium	5.53E+00	N/A	T3
295-2_I_low_C	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Sodium	6.51E+00	N/A	T3
296-2_I_low_D	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Sodium	4.40E+00	N/A	T3
297-3_I_low_A	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Sodium	5.19E+00	N/A	T3
298-3_I_low_B	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Sodium	4.35E+00	N/A	T3
299-3_I_low_C	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Sodium	6.90E+00	N/A	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
300-3_I_low_D	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Sodium	4.63E+00	N/A	T3
301-4_I_low_A	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Sodium	4.93E+00	N/A	T3
302-4_I_low_B	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Sodium	5.05E+00	N/A	T3
303-4_I_low_C	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Sodium	5.25E+00	N/A	T3
304-4_I_low_D	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Sodium	4.87E+00	N/A	T3
305-5_I_low_A	Compost_low_I	EPA6010C-SPLP	10	mg/L	Sodium	8.36E+00	N/A	T3
306-5_I_low_B	Compost_low_I	EPA6010C-SPLP	10	mg/L	Sodium	4.71E+00	N/A	T3
307-5_I_low_C	Compost_low_I	EPA6010C-SPLP	10	mg/L	Sodium	5.60E+00	N/A	T3
308-5_I_low_D	Compost_low_I	EPA6010C-SPLP	10	mg/L	Sodium	5.95E+00	N/A	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Sodium	7.86E+00	N/A	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Sodium	4.05E+00	N/A	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Sodium	4.75E+00	N/A	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Sodium	5.37E+00	N/A	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Sodium	6.19E+00	N/A	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Sodium	6.66E+00	N/A	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Sodium	6.92E+00	N/A	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Sodium	7.25E+00	N/A	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Sodium	1.03E+01	N/A	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Sodium	9.51E+00	N/A	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Sodium	8.99E+00	N/A	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Sodium	1.06E+01	N/A	T3
321-9_I_low_A	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Sodium	8.15E+00	N/A	T3
322-9_I_low_B	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Sodium	7.38E+00	N/A	T3
323-9_I_low_C	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Sodium	6.21E+00	N/A	T3
324-9_I_low_D	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Sodium	7.04E+00	N/A	T3
325-10_I_low_A	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Sodium	5.45E+00	N/A	T3
326-10_I_low_B	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Sodium	6.38E+00	N/A	T3
327-10_I_low_C	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Sodium	5.04E+00	N/A	T3
328-10_I_low_D	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Sodium	6.27E+00	N/A	T3
329-11_I_low_A	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Sodium	5.34E+00	N/A	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
330-11_I_low_B	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Sodium	6.04E+00	N/A	T3
331-11_I_low_C	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Sodium	6.15E+00	N/A	T3
332-11_I_low_D	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Sodium	6.43E+00	N/A	T3
333-12_I_low_A	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Sodium	5.59E+00	N/A	T3
334-12_I_low_B	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Sodium	6.75E+00	N/A	T3
335-12_I_low_C	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Sodium	8.65E+00	N/A	T3
336-12_I_low_D	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Sodium	6.50E+00	N/A	T3
337-1_I_high_A	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Sodium	8.01E+00	N/A	T3
338-1_I_high_B	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Sodium	1.07E+01	N/A	T3
339-1_I_high_C	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Sodium	9.29E+00	N/A	T3
340-1_I_high_D	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Sodium	7.09E+00	N/A	T3
341-2_I_high_A	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Sodium	5.05E+00	N/A	T3
342-2_I_high_B	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Sodium	5.11E+00	N/A	T3
343-2_I_high_C	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Sodium	7.01E+00	N/A	T3
344-2_I_high_D	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Sodium	7.38E+00	N/A	T3
345-3_I_high_A	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Sodium	8.64E+00	N/A	T3
346-3_I_high_B	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Sodium	7.54E+00	N/A	T3
347-3_I_high_C	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Sodium	7.36E+00	N/A	T3
348-3_I_high_D	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Sodium	7.04E+00	N/A	T3
349-4_I_high_A	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Sodium	7.58E+00	N/A	T3
350-4_I_high_B	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Sodium	6.08E+00	N/A	T3
351-4_I_high_C	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Sodium	6.01E+00	N/A	T3
352-4_I_high_D	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Sodium	4.89E+00	N/A	T3
353-5_I_high_A	Compost_high_I	EPA6010C-SPLP	14	mg/L	Sodium	7.03E+00	N/A	T3
354-5_I_high_B	Compost_high_I	EPA6010C-SPLP	14	mg/L	Sodium	1.02E+01	N/A	T3
355-5_I_high_C	Compost_high_I	EPA6010C-SPLP	14	mg/L	Sodium	1.06E+01	N/A	T3
356-5_I_high_D	Compost_high_I	EPA6010C-SPLP	14	mg/L	Sodium	1.36E+01	N/A	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Sodium	8.21E+00	N/A	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Sodium	8.42E+00	N/A	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Sodium	8.18E+00	N/A	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
360-6_I_high_D	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Sodium	8.08E+00	N/A	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Sodium	1.73E+01	dup1	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Sodium	9.07E+00	dup1	T3
363-7_I_high_C	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Sodium	8.44E+00	dup1	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Sodium	1.04E+01	dup1	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Sodium	1.19E+01	dup1	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Sodium	1.42E+01	dup1	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Sodium	1.12E+01	dup1	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Sodium	1.35E+01	dup1	T3
369-9_I_high_A	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Sodium	9.42E+00	dup1	T3
370-9_I_high_B	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Sodium	1.03E+01	dup1	T3
371-9_I_high_C	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Sodium	1.03E+01	dup1	T3
372-9_I_high_D	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Sodium	1.28E+01	dup1	T3
373-10_I_high_A	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Sodium	1.73E+01	dup1	T3
374-10_I_high_B	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Sodium	7.48E+00	dup1	T3
375-10_I_high_C	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Sodium	7.95E+00	dup1	T3
376-10_I_high_D	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Sodium	7.41E+00	dup1	T3
377-11_I_high_A	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Sodium	1.33E+01	dup1	T3
378-11_I_high_B	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Sodium	1.28E+01	dup1	T3
379-11_I_high_C	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Sodium	1.07E+01	dup1	T3
380-11_I_high_D	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Sodium	1.31E+01	dup1	T3
381-12_I_high_A	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Sodium	9.25E+00	dup1	T3
382-12_I_high_B	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Sodium	1.33E+01	dup1	T3
383-12_I_high_C	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Sodium	8.49E+00	dup1	T3
384-12_I_high_D	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Sodium	1.03E+01	dup1	T3
385-0_I_NA_A	control_none_I	EPA6010C-SPLP	17	mg/L	Sodium	5.37E+00	N/A	T3
386-0_I_NA_B	control_none_I	EPA6010C-SPLP	17	mg/L	Sodium	4.68E+00	N/A	T3
387-0_I_NA_C	control_none_I	EPA6010C-SPLP	17	mg/L	Sodium	5.29E+00	N/A	T3
388-0_I_NA_D	control_none_I	EPA6010C-SPLP	17	mg/L	Sodium	5.89E+00	N/A	T3
097-1_S_low_A	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Thallium	4.25E-03	N/A rl U	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
098-1_S_low_B	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Thallium	4.25E-03	N/A rl U	T3
099-1_S_low_C	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Thallium	4.25E-03	N/A rl U	T3
100-1_S_low_D	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Thallium	4.25E-03	N/A rl U	T3
101-2_S_low_A	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Thallium	4.25E-03	N/A rl U	T3
102-2_S_low_B	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Thallium	4.25E-03	N/A rl U	T3
103-2_S_low_C	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Thallium	4.25E-03	N/A rl U	T3
104-2_S_low_D	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Thallium	4.25E-03	N/A rl U	T3
105-3_S_low_A	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Thallium	4.25E-03	N/A rl U	T3
106-3_S_low_B	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Thallium	4.25E-03	N/A rl U	T3
107-3_S_low_C	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Thallium	4.25E-03	N/A rl U	T3
108-3_S_low_D	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Thallium	4.25E-03	N/A rl U	T3
109-4_S_low_A	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Thallium	4.25E-03	N/A rl U	T3
110-4_S_low_B	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Thallium	4.25E-03	N/A rl U	T3
111-4_S_low_C	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Thallium	4.25E-03	N/A rl U	T3
112-4_S_low_D	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Thallium	4.25E-03	N/A rl U	T3
113-5_S_low_A	Compost_low_S	EPA6010C-SPLP	2	mg/L	Thallium	4.25E-03	N/A rl U	T3
114-5_S_low_B	Compost_low_S	EPA6010C-SPLP	2	mg/L	Thallium	4.25E-03	N/A rl U	T3
115-5_S_low_C	Compost_low_S	EPA6010C-SPLP	2	mg/L	Thallium	4.25E-03	N/A rl U	T3
116-5_S_low_D	Compost_low_S	EPA6010C-SPLP	2	mg/L	Thallium	4.25E-03	N/A rl U	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Thallium	4.25E-03	N/A rl U	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Thallium	4.25E-03	N/A rl U	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Thallium	4.25E-03	N/A rl U	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Thallium	4.25E-03	N/A rl U	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
121-7_S_low_A	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Thallium	4.25E-03	N/A rl U	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Thallium	4.25E-03	N/A rl U	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Thallium	4.25E-03	N/A rl U	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Thallium	4.25E-03	N/A rl U	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Thallium	4.25E-03	N/A rl U	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Thallium	4.25E-03	N/A rl U	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Thallium	4.25E-03	N/A rl U	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Thallium	6.39E-03	N/A rl	T3
129-9_S_low_A	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Thallium	4.25E-03	N/A rl U	T3
130-9_S_low_B	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Thallium	4.25E-03	N/A rl U	T3
131-9_S_low_C	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Thallium	4.25E-03	N/A rl U	T3
132-9_S_low_D	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Thallium	4.25E-03	N/A rl U	T3
133-10_S_low_A	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Thallium	4.25E-03	N/A rl U	T3
134-10_S_low_B	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Thallium	4.25E-03	N/A rl U	T3
135-10_S_low_C	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Thallium	4.25E-03	N/A rl U	T3
136-10_S_low_D	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Thallium	4.25E-03	N/A rl U	T3
137-11_S_low_A	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Thallium	4.25E-03	N/A rl U	T3
138-11_S_low_B	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Thallium	4.25E-03	N/A rl U	T3
139-11_S_low_C	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Thallium	4.25E-03	N/A rl U	T3
140-11_S_low_D	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Thallium	4.25E-03	N/A rl U	T3
141-12_S_low_A	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Thallium	4.25E-03	N/A rl U	T3
142-12_S_low_B	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Thallium	4.25E-03	N/A rl U	T3
143-12_S_low_C	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Thallium	4.25E-03	N/A rl U	T3
144-12_S_low_D	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Thallium	4.25E-03	N/A rl U	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
241-1_S_high_A	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Thallium	4.25E-03	N/A rl U	T3
242-1_S_high_B	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Thallium	4.25E-03	N/A rl U	T3
243-1_S_high_C	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Thallium	4.25E-03	N/A rl U	T3
244-1_S_high_D	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Thallium	4.25E-03	N/A rl U	T3
245-2_S_high_A	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Thallium	4.25E-03	N/A rl U	T3
246-2_S_high_B	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Thallium	4.25E-03	N/A rl U	T3
247-2_S_high_C	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Thallium	4.25E-03	N/A rl U	T3
248-2_S_high_D	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Thallium	4.25E-03	N/A rl U	T3
249-3_S_high_A	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Thallium	4.25E-03	N/A rl U	T3
250-3_S_high_B	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Thallium	4.25E-03	N/A rl U	T3
251-3_S_high_C	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Thallium	4.25E-03	N/A rl U	T3
252-3_S_high_D	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Thallium	4.25E-03	N/A rl U	T3
253-4_S_high_A	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Thallium	4.25E-03	N/A rl U	T3
254-4_S_high_B	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Thallium	4.25E-03	N/A rl U	T3
255-4_S_high_C	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Thallium	4.25E-03	N/A rl U	T3
256-4_S_high_D	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Thallium	4.25E-03	N/A rl U	T3
257-5_S_high_A	Compost_high_S	EPA6010C-SPLP	6	mg/L	Thallium	4.25E-03	N/A rl U	T3
258-5_S_high_B	Compost_high_S	EPA6010C-SPLP	6	mg/L	Thallium	4.25E-03	N/A rl U	T3
259-5_S_high_C	Compost_high_S	EPA6010C-SPLP	6	mg/L	Thallium	4.25E-03	N/A rl U	T3
260-5_S_high_D	Compost_high_S	EPA6010C-SPLP	6	mg/L	Thallium	4.25E-03	N/A rl U	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Thallium	4.25E-03	N/A rl U	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Thallium	4.25E-03	N/A rl U	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Thallium	4.25E-03	N/A rl U	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
264-6_S_high_D	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Thallium	4.25E-03	N/A rl U	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Thallium	4.25E-03	N/A rl U	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Thallium	4.25E-03	N/A rl U	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Thallium	4.25E-03	N/A rl U	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Thallium	4.25E-03	N/A rl U	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Thallium	4.25E-03	N/A rl U	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Thallium	4.25E-03	N/A rl U	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Thallium	4.25E-03	N/A rl U	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Thallium	4.25E-03	N/A rl U	T3
273-9_S_high_A	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Thallium	4.25E-03	N/A rl U	T3
274-9_S_high_B	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Thallium	4.25E-03	N/A rl U	T3
275-9_S_high_C	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Thallium	4.25E-03	N/A rl U	T3
276-9_S_high_D	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Thallium	4.25E-03	N/A rl U	T3
277-10_S_high_A	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Thallium	4.25E-03	N/A rl U	T3
278-10_S_high_B	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Thallium	4.25E-03	N/A rl U	T3
279-10_S_high_C	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Thallium	4.25E-03	N/A rl U	T3
280-10_S_high_D	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Thallium	4.25E-03	N/A rl U	T3
281-11_S_high_A	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Thallium	4.25E-03	N/A rl U	T3
282-11_S_high_B	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Thallium	4.25E-03	N/A rl U	T3
283-11_S_high_C	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Thallium	4.25E-03	N/A rl U	T3
284-11_S_high_D	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Thallium	4.25E-03	N/A rl U	T3
285-12_S_high_A	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Thallium	4.25E-03	N/A rl U	T3
286-12_S_high_B	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Thallium	4.25E-03	N/A rl U	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
287-12_S_high_C	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Thallium	4.25E-03	N/A rl U	T3
288-12_S_high_D	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Thallium	4.25E-03	N/A rl U	T3
289-1_I_low_A	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Thallium	4.25E-03	N/A rl U	T3
290-1_I_low_B	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Thallium	4.25E-03	N/A rl U	T3
291-1_I_low_C	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Thallium	4.25E-03	N/A rl U	T3
292-1_I_low_D	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Thallium	4.25E-03	N/A rl U	T3
293-2_I_low_A	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Thallium	4.25E-03	N/A rl U	T3
294-2_I_low_B	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Thallium	4.25E-03	N/A rl U	T3
295-2_I_low_C	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Thallium	4.25E-03	N/A rl U	T3
296-2_I_low_D	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Thallium	4.25E-03	N/A rl U	T3
297-3_I_low_A	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Thallium	4.25E-03	N/A rl U	T3
298-3_I_low_B	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Thallium	4.25E-03	N/A rl U	T3
299-3_I_low_C	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Thallium	4.25E-03	N/A rl U	T3
300-3_I_low_D	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Thallium	4.25E-03	N/A rl U	T3
301-4_I_low_A	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Thallium	4.25E-03	N/A rl U	T3
302-4_I_low_B	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Thallium	4.25E-03	N/A rl U	T3
303-4_I_low_C	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Thallium	4.25E-03	N/A rl U	T3
304-4_I_low_D	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Thallium	4.25E-03	N/A rl U	T3
305-5_I_low_A	Compost_low_I	EPA6010C-SPLP	10	mg/L	Thallium	4.25E-03	N/A rl U	T3
306-5_I_low_B	Compost_low_I	EPA6010C-SPLP	10	mg/L	Thallium	4.25E-03	N/A rl U	T3
307-5_I_low_C	Compost_low_I	EPA6010C-SPLP	10	mg/L	Thallium	4.25E-03	N/A rl U	T3
308-5_I_low_D	Compost_low_I	EPA6010C-SPLP	10	mg/L	Thallium	4.25E-03	N/A rl U	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Thallium	4.25E-03	N/A rl U	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
310-6_I_low_B	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Thallium	4.25E-03	N/A rl U	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Thallium	4.25E-03	N/A rl U	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Thallium	4.25E-03	N/A rl U	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Thallium	4.25E-03	N/A rl U	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Thallium	4.25E-03	N/A rl U	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Thallium	4.25E-03	N/A rl U	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Thallium	4.25E-03	N/A rl U	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Thallium	4.25E-03	N/A rl U	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Thallium	4.25E-03	N/A rl U	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Thallium	4.25E-03	N/A rl U	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Thallium	4.25E-03	N/A rl U	T3
321-9_I_low_A	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Thallium	4.25E-03	N/A rl U	T3
322-9_I_low_B	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Thallium	4.25E-03	N/A rl U	T3
323-9_I_low_C	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Thallium	4.25E-03	N/A rl U	T3
324-9_I_low_D	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Thallium	4.25E-03	N/A rl U	T3
325-10_I_low_A	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Thallium	4.25E-03	N/A rl U	T3
326-10_I_low_B	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Thallium	4.25E-03	N/A rl U	T3
327-10_I_low_C	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Thallium	4.25E-03	N/A rl U	T3
328-10_I_low_D	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Thallium	4.25E-03	N/A rl U	T3
329-11_I_low_A	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Thallium	4.25E-03	N/A rl U	T3
330-11_I_low_B	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Thallium	4.25E-03	N/A rl U	T3
331-11_I_low_C	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Thallium	4.25E-03	N/A rl U	T3
332-11_I_low_D	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Thallium	4.25E-03	N/A rl U	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
333-12_I_low_A	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Thallium	4.25E-03	N/A rl U	T3
334-12_I_low_B	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Thallium	4.25E-03	N/A rl U	T3
335-12_I_low_C	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Thallium	4.25E-03	N/A rl U	T3
336-12_I_low_D	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Thallium	4.25E-03	N/A rl U	T3
337-1_I_high_A	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Thallium	4.25E-03	N/A rl U	T3
338-1_I_high_B	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Thallium	4.25E-03	N/A rl U	T3
339-1_I_high_C	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Thallium	4.25E-03	N/A rl U	T3
340-1_I_high_D	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Thallium	4.25E-03	N/A rl U	T3
341-2_I_high_A	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Thallium	4.25E-03	N/A rl U	T3
342-2_I_high_B	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Thallium	4.25E-03	N/A rl U	T3
343-2_I_high_C	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Thallium	4.25E-03	N/A rl U	T3
344-2_I_high_D	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Thallium	4.25E-03	N/A rl U	T3
345-3_I_high_A	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Thallium	4.25E-03	N/A rl U	T3
346-3_I_high_B	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Thallium	4.25E-03	N/A rl U	T3
347-3_I_high_C	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Thallium	4.25E-03	N/A rl U	T3
348-3_I_high_D	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Thallium	4.25E-03	N/A rl U	T3
349-4_I_high_A	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Thallium	4.25E-03	N/A rl U	T3
350-4_I_high_B	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Thallium	4.25E-03	N/A rl U	T3
351-4_I_high_C	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Thallium	5.19E-03	N/A rl	T3
352-4_I_high_D	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Thallium	4.25E-03	N/A rl U	T3
353-5_I_high_A	Compost_high_I	EPA6010C-SPLP	14	mg/L	Thallium	4.25E-03	N/A rl U	T3
354-5_I_high_B	Compost_high_I	EPA6010C-SPLP	14	mg/L	Thallium	4.25E-03	N/A rl U	T3
355-5_I_high_C	Compost_high_I	EPA6010C-SPLP	14	mg/L	Thallium	4.25E-03	N/A rl U	T3
356-5_I_high_D	Compost_high_I	EPA6010C-SPLP	14	mg/L	Thallium	4.25E-03	N/A rl U	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
357-6_I_high_A	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Thallium	4.25E-03	N/A rl U	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Thallium	4.25E-03	N/A rl U	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Thallium	4.25E-03	N/A rl U	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Thallium	4.25E-03	N/A rl U	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Thallium	4.25E-03	N/A rl U	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Thallium	4.25E-03	N/A rl U	T3
363-7_I_high_C	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Thallium	4.25E-03	N/A rl U	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Thallium	4.25E-03	N/A rl U	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Thallium	4.25E-03	N/A rl U	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Thallium	4.25E-03	N/A rl U	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Thallium	4.25E-03	N/A rl U	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Thallium	4.25E-03	N/A rl U	T3
369-9_I_high_A	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Thallium	4.25E-03	N/A rl U	T3
370-9_I_high_B	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Thallium	4.25E-03	N/A rl U	T3
371-9_I_high_C	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Thallium	4.25E-03	N/A rl U	T3
372-9_I_high_D	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Thallium	4.25E-03	N/A rl U	T3
373-10_I_high_A	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Thallium	4.25E-03	N/A rl U	T3
374-10_I_high_B	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Thallium	4.25E-03	N/A rl U	T3
375-10_I_high_C	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Thallium	4.25E-03	N/A rl U	T3
376-10_I_high_D	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Thallium	4.25E-03	N/A rl U	T3
377-11_I_high_A	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Thallium	4.25E-03	N/A rl U	T3
378-11_I_high_B	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Thallium	4.25E-03	N/A rl U	T3
379-11_I_high_C	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Thallium	4.25E-03	N/A rl U	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
380-11_I_high_D	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Thallium	4.25E-03	N/A rl U	T3
381-12_I_high_A	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Thallium	4.25E-03	N/A rl U	T3
382-12_I_high_B	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Thallium	4.25E-03	N/A rl U	T3
383-12_I_high_C	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Thallium	4.25E-03	N/A rl U	T3
384-12_I_high_D	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Thallium	4.25E-03	N/A rl U	T3
385-0_I_NA_A	control_none_I	EPA6010C-SPLP	17	mg/L	Thallium	4.25E-03	N/A rl U	T3
386-0_I_NA_B	control_none_I	EPA6010C-SPLP	17	mg/L	Thallium	4.25E-03	N/A rl U	T3
387-0_I_NA_C	control_none_I	EPA6010C-SPLP	17	mg/L	Thallium	4.25E-03	N/A rl U	T3
388-0_I_NA_D	control_none_I	EPA6010C-SPLP	17	mg/L	Thallium	4.25E-03	N/A rl U	T3
097-1_S_low_A	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Vanadium	5.37E-03	N/A rl	T3
098-1_S_low_B	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Vanadium	7.28E-03	N/A rl	T3
099-1_S_low_C	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Vanadium	5.52E-03	N/A rl	T3
100-1_S_low_D	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Vanadium	6.94E-03	N/A rl	T3
101-2_S_low_A	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Vanadium	4.30E-03	N/A rl	T3
102-2_S_low_B	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Vanadium	3.04E-03	N/A rl	T3
103-2_S_low_C	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Vanadium	4.15E-03	N/A rl	T3
104-2_S_low_D	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Vanadium	4.28E-03	N/A rl	T3
105-3_S_low_A	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Vanadium	2.28E-03	N/A rl	T3
106-3_S_low_B	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Vanadium	2.89E-03	N/A rl	T3
107-3_S_low_C	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Vanadium	1.49E-03	N/A rl	T3
108-3_S_low_D	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Vanadium	3.08E-03	N/A rl	T3
109-4_S_low_A	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Vanadium	3.38E-03	N/A rl	T3
110-4_S_low_B	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Vanadium	2.14E-03	N/A rl	T3
111-4_S_low_C	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Vanadium	1.97E-03	N/A rl	T3
112-4_S_low_D	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Vanadium	2.09E-03	N/A rl	T3
113-5_S_low_A	Compost_low_S	EPA6010C-SPLP	2	mg/L	Vanadium	1.71E-03	N/A rl	T3
114-5_S_low_B	Compost_low_S	EPA6010C-SPLP	2	mg/L	Vanadium	1.79E-03	N/A rl	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
115-5_S_low_C	Compost_low_S	EPA6010C-SPLP	2	mg/L	Vanadium	3.04E-03	N/A rl	T3
116-5_S_low_D	Compost_low_S	EPA6010C-SPLP	2	mg/L	Vanadium	1.73E-03	N/A rl	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Vanadium	8.54E-03	N/A rl	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Vanadium	4.84E-03	N/A rl	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Vanadium	6.03E-03	N/A rl	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Vanadium	6.44E-03	N/A rl	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Vanadium	4.43E-03	N/A rl	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Vanadium	4.53E-03	N/A rl	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Vanadium	7.67E-03	N/A rl	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Vanadium	6.75E-03	N/A rl	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Vanadium	3.18E-03	N/A rl	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Vanadium	4.96E-03	N/A rl	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Vanadium	4.06E-03	N/A rl	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Vanadium	4.74E-03	N/A rl	T3
129-9_S_low_A	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Vanadium	3.90E-03	N/A rl	T3
130-9_S_low_B	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Vanadium	4.33E-03	N/A rl	T3
131-9_S_low_C	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Vanadium	3.49E-03	N/A rl	T3
132-9_S_low_D	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Vanadium	2.77E-03	N/A rl	T3
133-10_S_low_A	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Vanadium	3.55E-03	N/A rl	T3
134-10_S_low_B	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Vanadium	1.99E-03	N/A rl	T3
135-10_S_low_C	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Vanadium	5.88E-03	N/A rl	T3
136-10_S_low_D	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Vanadium	3.28E-03	N/A rl	T3
137-11_S_low_A	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Vanadium	2.23E-03	N/A rl	T3
138-11_S_low_B	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Vanadium	2.55E-03	N/A rl	T3
139-11_S_low_C	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Vanadium	3.13E-03	N/A rl	T3
140-11_S_low_D	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Vanadium	2.82E-03	N/A rl	T3
141-12_S_low_A	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Vanadium	2.65E-03	N/A rl	T3
142-12_S_low_B	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Vanadium	1.97E-03	N/A rl	T3
143-12_S_low_C	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Vanadium	2.21E-03	N/A rl	T3
144-12_S_low_D	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Vanadium	2.16E-03	N/A rl	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
241-1_S_high_A	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Vanadium	1.67E-02	N/A rl	T3
242-1_S_high_B	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Vanadium	1.49E-02	N/A rl	T3
243-1_S_high_C	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Vanadium	1.41E-02	N/A rl	T3
244-1_S_high_D	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Vanadium	1.58E-02	N/A rl	T3
245-2_S_high_A	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Vanadium	1.19E-02	N/A rl	T3
246-2_S_high_B	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Vanadium	1.06E-02	N/A rl	T3
247-2_S_high_C	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Vanadium	8.81E-03	N/A rl	T3
248-2_S_high_D	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Vanadium	1.16E-02	N/A rl	T3
249-3_S_high_A	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Vanadium	3.15E-03	N/A rl	T3
250-3_S_high_B	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Vanadium	2.11E-03	N/A rl	T3
251-3_S_high_C	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Vanadium	2.55E-03	N/A rl	T3
252-3_S_high_D	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Vanadium	2.06E-03	N/A rl	T3
253-4_S_high_A	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Vanadium	1.96E-03	N/A rl	T3
254-4_S_high_B	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Vanadium	2.87E-03	N/A rl	T3
255-4_S_high_C	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Vanadium	1.73E-03	N/A rl	T3
256-4_S_high_D	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Vanadium	1.94E-03	N/A rl	T3
257-5_S_high_A	Compost_high_S	EPA6010C-SPLP	6	mg/L	Vanadium	3.02E-03	N/A rl	T3
258-5_S_high_B	Compost_high_S	EPA6010C-SPLP	6	mg/L	Vanadium	1.97E-03	N/A rl	T3
259-5_S_high_C	Compost_high_S	EPA6010C-SPLP	6	mg/L	Vanadium	1.43E-03	N/A rl	T3
260-5_S_high_D	Compost_high_S	EPA6010C-SPLP	6	mg/L	Vanadium	1.91E-03	N/A rl	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Vanadium	1.49E-02	N/A rl	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Vanadium	1.33E-02	N/A rl	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Vanadium	1.17E-02	N/A rl	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Vanadium	1.28E-02	N/A rl	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Vanadium	7.04E-03	N/A rl	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Vanadium	7.21E-03	N/A rl	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Vanadium	1.21E-02	N/A rl	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Vanadium	1.37E-02	N/A rl	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Vanadium	6.07E-03	N/A rl	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Vanadium	6.24E-03	N/A rl	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
271-8_S_high_C	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Vanadium	5.21E-03	N/A rl	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Vanadium	5.71E-03	N/A rl	T3
273-9_S_high_A	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Vanadium	1.12E-02	N/A rl	T3
274-9_S_high_B	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Vanadium	9.94E-03	N/A rl	T3
275-9_S_high_C	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Vanadium	5.42E-03	N/A rl	T3
276-9_S_high_D	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Vanadium	1.11E-02	N/A rl	T3
277-10_S_high_A	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Vanadium	4.08E-03	N/A rl	T3
278-10_S_high_B	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Vanadium	3.20E-03	N/A rl	T3
279-10_S_high_C	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Vanadium	3.74E-03	N/A rl	T3
280-10_S_high_D	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Vanadium	3.77E-03	N/A rl	T3
281-11_S_high_A	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Vanadium	2.83E-03	N/A rl	T3
282-11_S_high_B	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Vanadium	2.81E-03	N/A rl	T3
283-11_S_high_C	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Vanadium	2.55E-03	N/A rl	T3
284-11_S_high_D	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Vanadium	2.82E-03	N/A rl	T3
285-12_S_high_A	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Vanadium	3.01E-03	N/A rl	T3
286-12_S_high_B	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Vanadium	2.82E-03	N/A rl	T3
287-12_S_high_C	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Vanadium	3.28E-03	N/A rl	T3
288-12_S_high_D	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Vanadium	2.51E-03	N/A rl	T3
289-1_I_low_A	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Vanadium	6.23E-03	N/A rl	T3
290-1_I_low_B	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Vanadium	6.37E-03	N/A rl	T3
291-1_I_low_C	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Vanadium	5.17E-03	N/A rl	T3
292-1_I_low_D	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Vanadium	5.15E-03	N/A rl	T3
293-2_I_low_A	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Vanadium	2.82E-03	N/A rl	T3
294-2_I_low_B	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Vanadium	1.68E-03	N/A rl	T3
295-2_I_low_C	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Vanadium	2.88E-03	N/A rl	T3
296-2_I_low_D	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Vanadium	2.49E-03	N/A rl	T3
297-3_I_low_A	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Vanadium	2.53E-03	N/A rl	T3
298-3_I_low_B	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Vanadium	2.37E-03	N/A rl	T3
299-3_I_low_C	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Vanadium	1.80E-03	N/A rl	T3
300-3_I_low_D	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Vanadium	1.67E-03	N/A rl	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
301-4_I_low_A	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Vanadium	1.22E-03	N/A rl	T3
302-4_I_low_B	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Vanadium	1.52E-03	N/A rl	T3
303-4_I_low_C	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Vanadium	1.37E-03	N/A rl	T3
304-4_I_low_D	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Vanadium	1.20E-03	N/A rl	T3
305-5_I_low_A	Compost_low_I	EPA6010C-SPLP	10	mg/L	Vanadium	1.78E-03	N/A rl	T3
306-5_I_low_B	Compost_low_I	EPA6010C-SPLP	10	mg/L	Vanadium	1.60E-03	N/A rl	T3
307-5_I_low_C	Compost_low_I	EPA6010C-SPLP	10	mg/L	Vanadium	1.43E-03	N/A rl	T3
308-5_I_low_D	Compost_low_I	EPA6010C-SPLP	10	mg/L	Vanadium	1.48E-03	N/A rl	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Vanadium	4.06E-03	N/A rl	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Vanadium	1.11E-02	N/A rl	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Vanadium	7.41E-03	N/A rl	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Vanadium	5.77E-03	N/A rl	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Vanadium	5.50E-03	N/A rl	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Vanadium	4.18E-03	N/A rl	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Vanadium	4.46E-03	N/A rl	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Vanadium	3.91E-03	N/A rl	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Vanadium	5.33E-03	N/A rl	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Vanadium	4.63E-03	N/A rl	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Vanadium	4.70E-03	N/A rl	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Vanadium	4.38E-03	N/A rl	T3
321-9_I_low_A	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Vanadium	1.85E-03	N/A rl	T3
322-9_I_low_B	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Vanadium	1.84E-03	N/A rl	T3
323-9_I_low_C	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Vanadium	2.13E-03	N/A rl	T3
324-9_I_low_D	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Vanadium	1.81E-03	N/A rl	T3
325-10_I_low_A	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Vanadium	1.72E-03	N/A rl	T3
326-10_I_low_B	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Vanadium	1.37E-03	N/A rl	T3
327-10_I_low_C	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Vanadium	1.38E-03	N/A rl	T3
328-10_I_low_D	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Vanadium	1.88E-03	N/A rl	T3
329-11_I_low_A	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Vanadium	1.86E-03	N/A rl	T3
330-11_I_low_B	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Vanadium	1.46E-03	N/A rl	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
331-11_I_low_C	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Vanadium	1.83E-03	N/A rl	T3
332-11_I_low_D	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Vanadium	1.25E-03	N/A rl	T3
333-12_I_low_A	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Vanadium	1.10E-03	N/A rl	T3
334-12_I_low_B	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Vanadium	1.79E-03	N/A rl	T3
335-12_I_low_C	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Vanadium	1.41E-03	N/A rl	T3
336-12_I_low_D	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Vanadium	1.18E-03	N/A rl	T3
337-1_I_high_A	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Vanadium	1.01E-02	N/A rl	T3
338-1_I_high_B	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Vanadium	9.61E-03	N/A rl	T3
339-1_I_high_C	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Vanadium	1.09E-02	N/A rl	T3
340-1_I_high_D	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Vanadium	1.19E-02	N/A rl	T3
341-2_I_high_A	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Vanadium	3.97E-03	N/A rl	T3
342-2_I_high_B	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Vanadium	3.71E-03	N/A rl	T3
343-2_I_high_C	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Vanadium	1.68E-03	N/A rl	T3
344-2_I_high_D	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Vanadium	4.49E-03	N/A rl	T3
345-3_I_high_A	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Vanadium	2.18E-03	N/A rl	T3
346-3_I_high_B	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Vanadium	2.27E-03	N/A rl	T3
347-3_I_high_C	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Vanadium	2.19E-03	N/A rl	T3
348-3_I_high_D	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Vanadium	1.92E-03	N/A rl	T3
349-4_I_high_A	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Vanadium	5.82E-04	N/A rl U	T3
350-4_I_high_B	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Vanadium	1.05E-03	N/A rl	T3
351-4_I_high_C	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Vanadium	1.17E-03	N/A rl	T3
352-4_I_high_D	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Vanadium	1.17E-03	N/A rl	T3
353-5_I_high_A	Compost_high_I	EPA6010C-SPLP	14	mg/L	Vanadium	2.18E-03	N/A rl	T3
354-5_I_high_B	Compost_high_I	EPA6010C-SPLP	14	mg/L	Vanadium	1.90E-03	N/A rl	T3
355-5_I_high_C	Compost_high_I	EPA6010C-SPLP	14	mg/L	Vanadium	1.90E-03	N/A rl	T3
356-5_I_high_D	Compost_high_I	EPA6010C-SPLP	14	mg/L	Vanadium	1.13E-03	N/A rl	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Vanadium	1.26E-02	N/A rl	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Vanadium	1.11E-02	N/A rl	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Vanadium	1.00E-02	N/A rl	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Vanadium	1.12E-02	N/A rl	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
361-7_I_high_A	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Vanadium	9.18E-03	N/A rl	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Vanadium	1.13E-02	N/A rl	T3
363-7_I_high_C	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Vanadium	1.14E-02	N/A rl	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Vanadium	1.18E-02	N/A rl	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Vanadium	1.38E-02	N/A rl	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Vanadium	1.06E-02	N/A rl	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Vanadium	1.25E-02	N/A rl	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Vanadium	1.37E-02	N/A rl	T3
369-9_I_high_A	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Vanadium	2.78E-03	N/A rl	T3
370-9_I_high_B	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Vanadium	3.21E-03	N/A rl	T3
371-9_I_high_C	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Vanadium	3.01E-03	N/A rl	T3
372-9_I_high_D	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Vanadium	3.68E-03	N/A rl	T3
373-10_I_high_A	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Vanadium	1.90E-03	N/A rl	T3
374-10_I_high_B	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Vanadium	2.77E-03	N/A rl	T3
375-10_I_high_C	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Vanadium	2.27E-03	N/A rl	T3
376-10_I_high_D	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Vanadium	2.12E-03	N/A rl	T3
377-11_I_high_A	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Vanadium	2.53E-03	N/A rl	T3
378-11_I_high_B	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Vanadium	2.04E-03	N/A rl	T3
379-11_I_high_C	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Vanadium	3.19E-03	N/A rl	T3
380-11_I_high_D	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Vanadium	2.61E-03	N/A rl	T3
381-12_I_high_A	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Vanadium	2.20E-03	N/A rl	T3
382-12_I_high_B	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Vanadium	1.58E-03	N/A rl	T3
383-12_I_high_C	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Vanadium	2.15E-03	N/A rl	T3
384-12_I_high_D	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Vanadium	1.69E-03	N/A rl	T3
385-0_I_NA_A	control_none_I	EPA6010C-SPLP	17	mg/L	Vanadium	1.72E-03	N/A rl	T3
386-0_I_NA_B	control_none_I	EPA6010C-SPLP	17	mg/L	Vanadium	2.03E-03	N/A rl	T3
387-0_I_NA_C	control_none_I	EPA6010C-SPLP	17	mg/L	Vanadium	1.61E-03	N/A rl	T3
388-0_I_NA_D	control_none_I	EPA6010C-SPLP	17	mg/L	Vanadium	1.65E-03	N/A rl	T3
097-1_S_low_A	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Zinc	3.56E-01	N/A	T3
098-1_S_low_B	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Zinc	3.48E-01	N/A	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
099-1_S_low_C	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Zinc	3.05E-01	N/A	T3
100-1_S_low_D	Soluble phosphate_low_S	EPA6010C-SPLP	1	mg/L	Zinc	3.27E-01	N/A	T3
101-2_S_low_A	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Zinc	1.20E-01	N/A	T3
102-2_S_low_B	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Zinc	1.59E-01	N/A	T3
103-2_S_low_C	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Zinc	1.69E-01	N/A	T3
104-2_S_low_D	Biosolid_low_S	EPA6010C-SPLP	1	mg/L	Zinc	1.48E-01	N/A	T3
105-3_S_low_A	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Zinc	1.86E-01	N/A	T3
106-3_S_low_B	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Zinc	1.98E-01	N/A	T3
107-3_S_low_C	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Zinc	1.58E-01	N/A	T3
108-3_S_low_D	Wood ash_low_S	EPA6010C-SPLP	1	mg/L	Zinc	1.71E-01	N/A	T3
109-4_S_low_A	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Zinc	2.19E-01	N/A	T3
110-4_S_low_B	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Zinc	2.15E-01	N/A	T3
111-4_S_low_C	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Zinc	2.31E-01	N/A	T3
112-4_S_low_D	Biochar_low_S	EPA6010C-SPLP	2	mg/L	Zinc	1.82E-01	N/A	T3
113-5_S_low_A	Compost_low_S	EPA6010C-SPLP	2	mg/L	Zinc	2.66E-01	N/A	T3
114-5_S_low_B	Compost_low_S	EPA6010C-SPLP	2	mg/L	Zinc	2.65E-01	N/A	T3
115-5_S_low_C	Compost_low_S	EPA6010C-SPLP	2	mg/L	Zinc	2.70E-01	N/A	T3
116-5_S_low_D	Compost_low_S	EPA6010C-SPLP	2	mg/L	Zinc	2.87E-01	N/A	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Zinc	1.79E-01	N/A	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Zinc	2.21E-01	N/A	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Zinc	2.64E-01	N/A	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	EPA6010C-SPLP	2	mg/L	Zinc	1.37E-01	N/A	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Zinc	2.78E-01	N/A	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Zinc	2.47E-01	N/A	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Zinc	2.69E-01	N/A	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	EPA6010C-SPLP	3	mg/L	Zinc	2.52E-01	N/A	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Zinc	2.62E-01	N/A	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Zinc	2.72E-01	N/A	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Zinc	2.19E-01	N/A	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	EPA6010C-SPLP	3	mg/L	Zinc	2.34E-01	N/A	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
129-9_S_low_A	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Zinc	4.10E-01	N/A	T3
130-9_S_low_B	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Zinc	2.41E-01	N/A	T3
131-9_S_low_C	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Zinc	2.65E-01	N/A	T3
132-9_S_low_D	Biosolids and wood ash_low_S	EPA6010C-SPLP	3	mg/L	Zinc	1.71E-01	N/A	T3
133-10_S_low_A	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Zinc	1.60E-01	N/A	T3
134-10_S_low_B	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Zinc	1.70E-01	N/A	T3
135-10_S_low_C	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Zinc	1.77E-01	N/A	T3
136-10_S_low_D	Wood ash and biochar_low_S	EPA6010C-SPLP	4	mg/L	Zinc	1.59E-01	N/A	T3
137-11_S_low_A	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Zinc	1.35E-01	N/A	T3
138-11_S_low_B	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Zinc	1.95E-01	N/A	T3
139-11_S_low_C	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Zinc	2.01E-01	N/A	T3
140-11_S_low_D	Wood ash and compost_low_S	EPA6010C-SPLP	4	mg/L	Zinc	1.83E-01	N/A	T3
141-12_S_low_A	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Zinc	1.99E-01	N/A	T3
142-12_S_low_B	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Zinc	1.46E-01	N/A	T3
143-12_S_low_C	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Zinc	2.05E-01	N/A	T3
144-12_S_low_D	Biochar and compost_low_S	EPA6010C-SPLP	4	mg/L	Zinc	1.66E-01	N/A	T3
241-1_S_high_A	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Zinc	3.42E-01	N/A	T3
242-1_S_high_B	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Zinc	3.84E-01	N/A	T3
243-1_S_high_C	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Zinc	3.78E-01	N/A	T3
244-1_S_high_D	Soluble phosphate_high_S	EPA6010C-SPLP	5	mg/L	Zinc	4.29E-01	N/A	T3
245-2_S_high_A	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Zinc	1.51E-01	N/A	T3
246-2_S_high_B	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Zinc	1.33E-01	N/A	T3
247-2_S_high_C	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Zinc	1.23E-01	N/A	T3
248-2_S_high_D	Biosolid_high_S	EPA6010C-SPLP	5	mg/L	Zinc	1.35E-01	N/A	T3
249-3_S_high_A	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Zinc	1.43E-01	N/A	T3
250-3_S_high_B	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Zinc	1.14E-01	N/A	T3
251-3_S_high_C	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Zinc	1.28E-01	N/A	T3
252-3_S_high_D	Wood ash_high_S	EPA6010C-SPLP	5	mg/L	Zinc	1.19E-01	N/A	T3
253-4_S_high_A	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Zinc	2.10E-01	dup1	T3
254-4_S_high_B	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Zinc	1.86E-01	dup1	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
255-4_S_high_C	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Zinc	1.07E-01	dup1	T3
256-4_S_high_D	Biochar_high_S	EPA6010C-SPLP	6	mg/L	Zinc	1.40E-01	dup1	T3
257-5_S_high_A	Compost_high_S	EPA6010C-SPLP	6	mg/L	Zinc	2.69E-01	dup1	T3
258-5_S_high_B	Compost_high_S	EPA6010C-SPLP	6	mg/L	Zinc	2.59E-01	dup1	T3
259-5_S_high_C	Compost_high_S	EPA6010C-SPLP	6	mg/L	Zinc	1.95E-01	dup1	T3
260-5_S_high_D	Compost_high_S	EPA6010C-SPLP	6	mg/L	Zinc	2.30E-01	dup1	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Zinc	1.71E-01	dup1	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Zinc	1.04E-01	dup1	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Zinc	9.65E-02	dup1	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	EPA6010C-SPLP	6	mg/L	Zinc	1.13E-01	dup1	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Zinc	2.21E-01	N/A	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Zinc	2.67E-01	N/A	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Zinc	2.32E-01	N/A	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	EPA6010C-SPLP	7	mg/L	Zinc	2.53E-01	N/A	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Zinc	2.31E-01	N/A	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Zinc	1.99E-01	N/A	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Zinc	2.20E-01	N/A	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	EPA6010C-SPLP	7	mg/L	Zinc	2.87E-01	N/A	T3
273-9_S_high_A	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Zinc	1.40E-01	N/A	T3
274-9_S_high_B	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Zinc	1.45E-01	N/A	T3
275-9_S_high_C	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Zinc	2.09E-01	N/A	T3
276-9_S_high_D	Biosolids and wood ash_high_S	EPA6010C-SPLP	7	mg/L	Zinc	1.47E-01	N/A	T3
277-10_S_high_A	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Zinc	1.46E-01	N/A	T3
278-10_S_high_B	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Zinc	1.03E-01	N/A	T3
279-10_S_high_C	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Zinc	1.31E-01	N/A	T3
280-10_S_high_D	Wood ash and biochar_high_S	EPA6010C-SPLP	8	mg/L	Zinc	1.22E-01	N/A	T3
281-11_S_high_A	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Zinc	2.18E-01	N/A	T3
282-11_S_high_B	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Zinc	2.55E-01	N/A	T3
283-11_S_high_C	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Zinc	2.18E-01	N/A	T3
284-11_S_high_D	Wood ash and compost_high_S	EPA6010C-SPLP	8	mg/L	Zinc	2.01E-01	N/A	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
285-12_S_high_A	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Zinc	2.21E-01	N/A	T3
286-12_S_high_B	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Zinc	1.88E-01	N/A	T3
287-12_S_high_C	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Zinc	2.36E-01	N/A	T3
288-12_S_high_D	Biochar and compost_high_S	EPA6010C-SPLP	8	mg/L	Zinc	2.14E-01	N/A	T3
289-1_I_low_A	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Zinc	3.92E-01	N/A	T3
290-1_I_low_B	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Zinc	3.90E-01	N/A	T3
291-1_I_low_C	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Zinc	7.09E-01	N/A	T3
292-1_I_low_D	Soluble phosphate_low_I	EPA6010C-SPLP	9	mg/L	Zinc	4.70E-01	N/A	T3
293-2_I_low_A	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Zinc	7.84E-01	N/A	T3
294-2_I_low_B	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Zinc	6.28E-01	N/A	T3
295-2_I_low_C	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Zinc	7.10E-01	N/A	T3
296-2_I_low_D	Biosolid_low_I	EPA6010C-SPLP	9	mg/L	Zinc	4.83E-01	N/A	T3
297-3_I_low_A	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Zinc	2.93E-01	N/A	T3
298-3_I_low_B	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Zinc	2.31E-01	N/A	T3
299-3_I_low_C	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Zinc	4.71E-01	N/A	T3
300-3_I_low_D	Wood ash_low_I	EPA6010C-SPLP	9	mg/L	Zinc	2.67E-01	N/A	T3
301-4_I_low_A	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Zinc	5.60E-01	N/A	T3
302-4_I_low_B	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Zinc	5.86E-01	N/A	T3
303-4_I_low_C	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Zinc	6.37E-01	N/A	T3
304-4_I_low_D	Biochar_low_I	EPA6010C-SPLP	10	mg/L	Zinc	5.91E-01	N/A	T3
305-5_I_low_A	Compost_low_I	EPA6010C-SPLP	10	mg/L	Zinc	8.10E-01	N/A	T3
306-5_I_low_B	Compost_low_I	EPA6010C-SPLP	10	mg/L	Zinc	4.29E-01	N/A	T3
307-5_I_low_C	Compost_low_I	EPA6010C-SPLP	10	mg/L	Zinc	5.62E-01	N/A	T3
308-5_I_low_D	Compost_low_I	EPA6010C-SPLP	10	mg/L	Zinc	7.05E-01	N/A	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Zinc	7.75E-01	N/A	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Zinc	1.63E-01	N/A	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Zinc	2.70E-01	N/A	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	EPA6010C-SPLP	10	mg/L	Zinc	4.22E-01	N/A	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Zinc	4.78E-01	N/A	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Zinc	5.67E-01	N/A	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
315-7_I_low_C	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Zinc	8.40E-01	N/A	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	EPA6010C-SPLP	11	mg/L	Zinc	7.32E-01	N/A	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Zinc	6.04E-01	N/A	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Zinc	6.08E-01	N/A	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Zinc	4.94E-01	N/A	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	EPA6010C-SPLP	11	mg/L	Zinc	8.28E-01	N/A	T3
321-9_I_low_A	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Zinc	1.35E+00	N/A	T3
322-9_I_low_B	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Zinc	7.27E-01	N/A	T3
323-9_I_low_C	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Zinc	6.12E-01	N/A	T3
324-9_I_low_D	Biosolids and wood ash_low_I	EPA6010C-SPLP	11	mg/L	Zinc	5.79E-01	N/A	T3
325-10_I_low_A	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Zinc	2.50E-01	N/A	T3
326-10_I_low_B	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Zinc	2.99E-01	N/A	T3
327-10_I_low_C	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Zinc	1.56E-01	N/A	T3
328-10_I_low_D	Wood ash and biochar_low_I	EPA6010C-SPLP	12	mg/L	Zinc	2.76E-01	N/A	T3
329-11_I_low_A	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Zinc	2.07E-01	N/A	T3
330-11_I_low_B	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Zinc	1.88E-01	N/A	T3
331-11_I_low_C	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Zinc	3.67E-01	N/A	T3
332-11_I_low_D	Wood ash and compost_low_I	EPA6010C-SPLP	12	mg/L	Zinc	2.74E-01	N/A	T3
333-12_I_low_A	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Zinc	4.27E-01	N/A	T3
334-12_I_low_B	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Zinc	5.22E-01	N/A	T3
335-12_I_low_C	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Zinc	6.80E-01	N/A	T3
336-12_I_low_D	Biochar and compost_low_I	EPA6010C-SPLP	12	mg/L	Zinc	5.12E-01	N/A	T3
337-1_I_high_A	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Zinc	5.82E-01	N/A	T3
338-1_I_high_B	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Zinc	8.47E-01	N/A	T3
339-1_I_high_C	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Zinc	7.11E-01	N/A	T3
340-1_I_high_D	Soluble phosphate_high_I	EPA6010C-SPLP	13	mg/L	Zinc	4.13E-01	N/A	T3
341-2_I_high_A	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Zinc	2.25E-01	N/A	T3
342-2_I_high_B	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Zinc	1.63E-01	N/A	T3
343-2_I_high_C	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Zinc	1.01E+00	N/A	T3
344-2_I_high_D	Biosolid_high_I	EPA6010C-SPLP	13	mg/L	Zinc	9.18E-01	N/A	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
345-3_I_high_A	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Zinc	1.96E-01	N/A	T3
346-3_I_high_B	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Zinc	1.60E-01	N/A	T3
347-3_I_high_C	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Zinc	1.69E-01	N/A	T3
348-3_I_high_D	Wood ash_high_I	EPA6010C-SPLP	13	mg/L	Zinc	1.85E-01	N/A	T3
349-4_I_high_A	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Zinc	7.18E-01	dup1	T3
350-4_I_high_B	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Zinc	5.31E-01	dup1	T3
351-4_I_high_C	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Zinc	5.23E-01	dup1	T3
352-4_I_high_D	Biochar_high_I	EPA6010C-SPLP	14	mg/L	Zinc	3.82E-01	dup1	T3
353-5_I_high_A	Compost_high_I	EPA6010C-SPLP	14	mg/L	Zinc	3.10E-01	dup1	T3
354-5_I_high_B	Compost_high_I	EPA6010C-SPLP	14	mg/L	Zinc	4.10E-01	dup1	T3
355-5_I_high_C	Compost_high_I	EPA6010C-SPLP	14	mg/L	Zinc	4.98E-01	dup1	T3
356-5_I_high_D	Compost_high_I	EPA6010C-SPLP	14	mg/L	Zinc	6.50E-01	dup1	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Zinc	1.99E-01	dup1	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Zinc	1.90E-01	dup1	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Zinc	2.35E-01	dup1	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	EPA6010C-SPLP	14	mg/L	Zinc	2.29E-01	dup1	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Zinc	2.00E+00	dup1	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Zinc	5.33E-01	dup1	T3
363-7_I_high_C	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Zinc	4.04E-01	dup1	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	EPA6010C-SPLP	15	mg/L	Zinc	5.49E-01	dup1	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Zinc	2.69E-01	dup1	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Zinc	5.24E-01	dup1	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Zinc	3.01E-01	dup1	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	EPA6010C-SPLP	15	mg/L	Zinc	2.99E-01	dup1	T3
369-9_I_high_A	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Zinc	9.16E-01	dup1	T3
370-9_I_high_B	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Zinc	4.73E-01	dup1	T3
371-9_I_high_C	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Zinc	8.70E-01	dup1	T3
372-9_I_high_D	Biosolids and wood ash_high_I	EPA6010C-SPLP	15	mg/L	Zinc	1.20E+00	dup1	T3
373-10_I_high_A	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Zinc	2.67E-01	dup1	T3
374-10_I_high_B	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Zinc	1.32E-01	dup1	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_qc_batch	units	analyte	meas_value	flag	Time Point
375-10_I_high_C	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Zinc	1.47E-01	dup1	T3
376-10_I_high_D	Wood ash and biochar_high_I	EPA6010C-SPLP	16	mg/L	Zinc	1.40E-01	dup1	T3
377-11_I_high_A	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Zinc	1.82E-01	dup1	T3
378-11_I_high_B	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Zinc	1.66E-01	dup1	T3
379-11_I_high_C	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Zinc	1.50E-01	dup1	T3
380-11_I_high_D	Wood ash and compost_high_I	EPA6010C-SPLP	16	mg/L	Zinc	2.59E-01	dup1	T3
381-12_I_high_A	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Zinc	2.86E-01	dup1	T3
382-12_I_high_B	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Zinc	4.33E-01	dup1	T3
383-12_I_high_C	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Zinc	2.97E-01	dup1	T3
384-12_I_high_D	Biochar and compost_high_I	EPA6010C-SPLP	16	mg/L	Zinc	3.42E-01	dup1	T3
385-0_I_NA_A	control_none_I	EPA6010C-SPLP	17	mg/L	Zinc	6.33E-01	N/A	T3
386-0_I_NA_B	control_none_I	EPA6010C-SPLP	17	mg/L	Zinc	6.73E-01	N/A	T3
387-0_I_NA_C	control_none_I	EPA6010C-SPLP	17	mg/L	Zinc	8.98E-01	N/A	T3
388-0_I_NA_D	control_none_I	EPA6010C-SPLP	17	mg/L	Zinc	7.64E-01	N/A	T3

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Table 45. Complete results for Timepoint 3 Mehlich 3-extractable lead and phosphorus, total elemental content, moisture content, total nitrogen, and bioaccessible lead and arsenic at pH 1.5 and 2.5.

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
097-1_S_low_A	Soluble phosphate_low_S	EPA6010_MEHLICH3	1	mg/kg	Lead	304.57	NA	T3
098-1_S_low_B	Soluble phosphate_low_S	EPA6010_MEHLICH3	1	mg/kg	Lead	285.71	NA	T3
099-1_S_low_C	Soluble phosphate_low_S	EPA6010_MEHLICH3	1	mg/kg	Lead	283.21	NA	T3
100-1_S_low_D	Soluble phosphate_low_S	EPA6010_MEHLICH3	1	mg/kg	Lead	278.44	NA	T3
101-2_S_low_A	Biosolid_low_S	EPA6010_MEHLICH3	1	mg/kg	Lead	217.27	NA	T3
102-2_S_low_B	Biosolid_low_S	EPA6010_MEHLICH3	1	mg/kg	Lead	275.91	NA	T3
103-2_S_low_C	Biosolid_low_S	EPA6010_MEHLICH3	1	mg/kg	Lead	262.71	NA	T3
104-2_S_low_D	Biosolid_low_S	EPA6010_MEHLICH3	1	mg/kg	Lead	243.60	NA	T3
105-3_S_low_A	Wood ash_low_S	EPA6010_MEHLICH3	2	mg/kg	Lead	270.80	NA	T3
106-3_S_low_B	Wood ash_low_S	EPA6010_MEHLICH3	2	mg/kg	Lead	264.28	NA	T3
107-3_S_low_C	Wood ash_low_S	EPA6010_MEHLICH3	2	mg/kg	Lead	297.29	NA	T3
108-3_S_low_D	Wood ash_low_S	EPA6010_MEHLICH3	2	mg/kg	Lead	252.32	NA	T3
109-4_S_low_A	Biochar_low_S	EPA6010_MEHLICH3	2	mg/kg	Lead	275.04	NA	T3
110-4_S_low_B	Biochar_low_S	EPA6010_MEHLICH3	2	mg/kg	Lead	295.44	NA	T3
111-4_S_low_C	Biochar_low_S	EPA6010_MEHLICH3	2	mg/kg	Lead	34.92	NA	T3
112-4_S_low_D	Biochar_low_S	EPA6010_MEHLICH3	2	mg/kg	Lead	280.80	NA	T3
113-5_S_low_A	Compost_low_S	EPA6010_MEHLICH3	3	mg/kg	Lead	155.21	NA	T3
114-5_S_low_B	Compost_low_S	EPA6010_MEHLICH3	3	mg/kg	Lead	287.29	NA	T3
115-5_S_low_C	Compost_low_S	EPA6010_MEHLICH3	3	mg/kg	Lead	269.24	NA	T3
116-5_S_low_D	Compost_low_S	EPA6010_MEHLICH3	3	mg/kg	Lead	282.32	NA	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	EPA6010_MEHLICH3	3	mg/kg	Lead	283.98	NA	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	EPA6010_MEHLICH3	3	mg/kg	Lead	296.02	NA	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	EPA6010_MEHLICH3	3	mg/kg	Lead	304.44	NA	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	EPA6010_MEHLICH3	3	mg/kg	Lead	291.35	NA	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	EPA6010_MEHLICH3	4	mg/kg	Lead	276.61	NA	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	EPA6010_MEHLICH3	4	mg/kg	Lead	286.52	NA	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	EPA6010_MEHLICH3	4	mg/kg	Lead	268.53	NA	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	EPA6010_MEHLICH3	4	mg/kg	Lead	297.92	NA	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	EPA6010_MEHLICH3	4	mg/kg	Lead	279.40	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
126-8_S_low_B	Soluble phosphate and compost_low_S	EPA6010_MEHLICH3	4	mg/kg	Lead	279.46	NA	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	EPA6010_MEHLICH3	4	mg/kg	Lead	290.52	NA	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	EPA6010_MEHLICH3	4	mg/kg	Lead	254.29	NA	T3
129-9_S_low_A	Biosolids and wood ash_low_S	EPA6010_MEHLICH3	5	mg/kg	Lead	248.14	NA	T3
130-9_S_low_B	Biosolids and wood ash_low_S	EPA6010_MEHLICH3	5	mg/kg	Lead	246.80	NA	T3
131-9_S_low_C	Biosolids and wood ash_low_S	EPA6010_MEHLICH3	5	mg/kg	Lead	265.95	NA	T3
132-9_S_low_D	Biosolids and wood ash_low_S	EPA6010_MEHLICH3	5	mg/kg	Lead	289.03	NA	T3
133-10_S_low_A	Wood ash and biochar_low_S	EPA6010_MEHLICH3	5	mg/kg	Lead	254.46	NA	T3
134-10_S_low_B	Wood ash and biochar_low_S	EPA6010_MEHLICH3	5	mg/kg	Lead	280.80	NA	T3
135-10_S_low_C	Wood ash and biochar_low_S	EPA6010_MEHLICH3	5	mg/kg	Lead	277.07	NA	T3
136-10_S_low_D	Wood ash and biochar_low_S	EPA6010_MEHLICH3	5	mg/kg	Lead	279.11	NA	T3
137-11_S_low_A	Wood ash and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Lead	273.21	NA	T3
138-11_S_low_B	Wood ash and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Lead	251.88	NA	T3
139-11_S_low_C	Wood ash and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Lead	273.58	NA	T3
140-11_S_low_D	Wood ash and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Lead	266.52	NA	T3
141-12_S_low_A	Biochar and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Lead	288.47	NA	T3
142-12_S_low_B	Biochar and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Lead	290.66	NA	T3
143-12_S_low_C	Biochar and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Lead	282.64	NA	T3
144-12_S_low_D	Biochar and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Lead	282.87	NA	T3
241-1_S_high_A	Soluble phosphate_high_S	EPA6010_MEHLICH3	7	mg/kg	Lead	295.64	NA	T3
242-1_S_high_B	Soluble phosphate_high_S	EPA6010_MEHLICH3	7	mg/kg	Lead	299.42	NA	T3
243-1_S_high_C	Soluble phosphate_high_S	EPA6010_MEHLICH3	7	mg/kg	Lead	293.25	NA	T3
244-1_S_high_D	Soluble phosphate_high_S	EPA6010_MEHLICH3	7	mg/kg	Lead	287.86	NA	T3
245-2_S_high_A	Biosolid_high_S	EPA6010_MEHLICH3	7	mg/kg	Lead	286.04	NA	T3
246-2_S_high_B	Biosolid_high_S	EPA6010_MEHLICH3	7	mg/kg	Lead	313.92	NA	T3
247-2_S_high_C	Biosolid_high_S	EPA6010_MEHLICH3	7	mg/kg	Lead	278.52	NA	T3
248-2_S_high_D	Biosolid_high_S	EPA6010_MEHLICH3	7	mg/kg	Lead	294.58	NA	T3
249-3_S_high_A	Wood ash_high_S	EPA6010_MEHLICH3	8	mg/kg	Lead	254.07	NA	T3
250-3_S_high_B	Wood ash_high_S	EPA6010_MEHLICH3	8	mg/kg	Lead	295.23	NA	T3
251-3_S_high_C	Wood ash_high_S	EPA6010_MEHLICH3	8	mg/kg	Lead	272.70	NA	T3
252-3_S_high_D	Wood ash_high_S	EPA6010_MEHLICH3	8	mg/kg	Lead	282.24	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
253-4_S_high_A	Biochar_high_S	EPA6010_MEHLICH3	8	mg/kg	Lead	292.37	NA	T3
254-4_S_high_B	Biochar_high_S	EPA6010_MEHLICH3	8	mg/kg	Lead	243.02	NA	T3
255-4_S_high_C	Biochar_high_S	EPA6010_MEHLICH3	8	mg/kg	Lead	253.24	NA	T3
256-4_S_high_D	Biochar_high_S	EPA6010_MEHLICH3	8	mg/kg	Lead	278.83	NA	T3
257-5_S_high_A	Compost_high_S	EPA6010_MEHLICH3	9	mg/kg	Lead	264.05	NA	T3
258-5_S_high_B	Compost_high_S	EPA6010_MEHLICH3	9	mg/kg	Lead	263.87	NA	T3
259-5_S_high_C	Compost_high_S	EPA6010_MEHLICH3	9	mg/kg	Lead	297.47	NA	T3
260-5_S_high_D	Compost_high_S	EPA6010_MEHLICH3	9	mg/kg	Lead	245.33	NA	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	EPA6010_MEHLICH3	9	mg/kg	Lead	303.05	NA	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	EPA6010_MEHLICH3	9	mg/kg	Lead	284.61	NA	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	EPA6010_MEHLICH3	9	mg/kg	Lead	293.62	NA	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	EPA6010_MEHLICH3	9	mg/kg	Lead	298.20	NA	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	EPA6010_MEHLICH3	10	mg/kg	Lead	285.25	NA	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	EPA6010_MEHLICH3	10	mg/kg	Lead	289.07	NA	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	EPA6010_MEHLICH3	10	mg/kg	Lead	288.33	NA	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	EPA6010_MEHLICH3	10	mg/kg	Lead	292.65	NA	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	EPA6010_MEHLICH3	10	mg/kg	Lead	287.74	NA	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	EPA6010_MEHLICH3	10	mg/kg	Lead	299.41	NA	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	EPA6010_MEHLICH3	10	mg/kg	Lead	301.79	NA	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	EPA6010_MEHLICH3	10	mg/kg	Lead	297.43	NA	T3
273-9_S_high_A	Biosolids and wood ash_high_S	EPA6010_MEHLICH3	11	mg/kg	Lead	240.76	NA	T3
274-9_S_high_B	Biosolids and wood ash_high_S	EPA6010_MEHLICH3	11	mg/kg	Lead	280.26	NA	T3
275-9_S_high_C	Biosolids and wood ash_high_S	EPA6010_MEHLICH3	11	mg/kg	Lead	298.57	NA	T3
276-9_S_high_D	Biosolids and wood ash_high_S	EPA6010_MEHLICH3	11	mg/kg	Lead	268.02	NA	T3
277-10_S_high_A	Wood ash and biochar_high_S	EPA6010_MEHLICH3	11	mg/kg	Lead	273.35	NA	T3
278-10_S_high_B	Wood ash and biochar_high_S	EPA6010_MEHLICH3	11	mg/kg	Lead	289.76	NA	T3
279-10_S_high_C	Wood ash and biochar_high_S	EPA6010_MEHLICH3	11	mg/kg	Lead	268.95	NA	T3
280-10_S_high_D	Wood ash and biochar_high_S	EPA6010_MEHLICH3	11	mg/kg	Lead	301.51	NA	T3
281-11_S_high_A	Wood ash and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Lead	293.42	NA	T3
282-11_S_high_B	Wood ash and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Lead	279.12	NA	T3
283-11_S_high_C	Wood ash and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Lead	291.51	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
284-11_S_high_D	Wood ash and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Lead	279.07	NA	T3
285-12_S_high_A	Biochar and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Lead	281.03	NA	T3
286-12_S_high_B	Biochar and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Lead	304.64	NA	T3
287-12_S_high_C	Biochar and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Lead	278.50	NA	T3
288-12_S_high_D	Biochar and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Lead	277.34	NA	T3
289-1_I_low_A	Soluble phosphate_low_I	EPA6010_MEHLICH3	13	mg/kg	Lead	268.83	NA	T3
290-1_I_low_B	Soluble phosphate_low_I	EPA6010_MEHLICH3	13	mg/kg	Lead	277.60	NA	T3
291-1_I_low_C	Soluble phosphate_low_I	EPA6010_MEHLICH3	13	mg/kg	Lead	281.54	NA	T3
292-1_I_low_D	Soluble phosphate_low_I	EPA6010_MEHLICH3	13	mg/kg	Lead	265.80	NA	T3
293-2_I_low_A	Biosolid_low_I	EPA6010_MEHLICH3	13	mg/kg	Lead	252.69	NA	T3
294-2_I_low_B	Biosolid_low_I	EPA6010_MEHLICH3	13	mg/kg	Lead	242.27	NA	T3
295-2_I_low_C	Biosolid_low_I	EPA6010_MEHLICH3	13	mg/kg	Lead	243.75	NA	T3
296-2_I_low_D	Biosolid_low_I	EPA6010_MEHLICH3	13	mg/kg	Lead	241.72	NA	T3
297-3_I_low_A	Wood ash_low_I	EPA6010_MEHLICH3	14	mg/kg	Lead	271.64	NA	T3
298-3_I_low_B	Wood ash_low_I	EPA6010_MEHLICH3	14	mg/kg	Lead	273.77	NA	T3
299-3_I_low_C	Wood ash_low_I	EPA6010_MEHLICH3	14	mg/kg	Lead	278.54	NA	T3
300-3_I_low_D	Wood ash_low_I	EPA6010_MEHLICH3	14	mg/kg	Lead	270.18	NA	T3
301-4_I_low_A	Biochar_low_I	EPA6010_MEHLICH3	14	mg/kg	Lead	245.37	NA	T3
302-4_I_low_B	Biochar_low_I	EPA6010_MEHLICH3	14	mg/kg	Lead	245.74	NA	T3
303-4_I_low_C	Biochar_low_I	EPA6010_MEHLICH3	14	mg/kg	Lead	252.87	NA	T3
304-4_I_low_D	Biochar_low_I	EPA6010_MEHLICH3	14	mg/kg	Lead	270.53	NA	T3
305-5_I_low_A	Compost_low_I	EPA6010_MEHLICH3	15	mg/kg	Lead	270.73	NA	T3
306-5_I_low_B	Compost_low_I	EPA6010_MEHLICH3	15	mg/kg	Lead	250.95	NA	T3
307-5_I_low_C	Compost_low_I	EPA6010_MEHLICH3	15	mg/kg	Lead	231.73	NA	T3
308-5_I_low_D	Compost_low_I	EPA6010_MEHLICH3	15	mg/kg	Lead	259.85	NA	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	EPA6010_MEHLICH3	15	mg/kg	Lead	239.55	NA	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	EPA6010_MEHLICH3	15	mg/kg	Lead	254.94	NA	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	EPA6010_MEHLICH3	15	mg/kg	Lead	253.43	NA	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	EPA6010_MEHLICH3	15	mg/kg	Lead	245.19	NA	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	EPA6010_MEHLICH3	16	mg/kg	Lead	260.79	NA	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	EPA6010_MEHLICH3	16	mg/kg	Lead	253.12	NA	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
315-7_I_low_C	Soluble phosphate and biochar_low_I	EPA6010_MEHLICH3	16	mg/kg	Lead	244.17	NA	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	EPA6010_MEHLICH3	16	mg/kg	Lead	259.76	NA	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	EPA6010_MEHLICH3	16	mg/kg	Lead	267.47	NA	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	EPA6010_MEHLICH3	16	mg/kg	Lead	260.15	NA	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	EPA6010_MEHLICH3	16	mg/kg	Lead	254.42	NA	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	EPA6010_MEHLICH3	16	mg/kg	Lead	264.26	NA	T3
321-9_I_low_A	Biosolids and wood ash_low_I	EPA6010_MEHLICH3	17	mg/kg	Lead	233.23	NA	T3
322-9_I_low_B	Biosolids and wood ash_low_I	EPA6010_MEHLICH3	17	mg/kg	Lead	250.21	NA	T3
323-9_I_low_C	Biosolids and wood ash_low_I	EPA6010_MEHLICH3	17	mg/kg	Lead	237.04	NA	T3
324-9_I_low_D	Biosolids and wood ash_low_I	EPA6010_MEHLICH3	17	mg/kg	Lead	251.77	NA	T3
325-10_I_low_A	Wood ash and biochar_low_I	EPA6010_MEHLICH3	17	mg/kg	Lead	273.82	NA	T3
326-10_I_low_B	Wood ash and biochar_low_I	EPA6010_MEHLICH3	17	mg/kg	Lead	262.40	NA	T3
327-10_I_low_C	Wood ash and biochar_low_I	EPA6010_MEHLICH3	17	mg/kg	Lead	270.27	NA	T3
328-10_I_low_D	Wood ash and biochar_low_I	EPA6010_MEHLICH3	17	mg/kg	Lead	288.43	NA	T3
329-11_I_low_A	Wood ash and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Lead	265.82	NA	T3
330-11_I_low_B	Wood ash and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Lead	294.67	NA	T3
331-11_I_low_C	Wood ash and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Lead	269.56	NA	T3
332-11_I_low_D	Wood ash and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Lead	255.61	NA	T3
333-12_I_low_A	Biochar and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Lead	246.32	NA	T3
334-12_I_low_B	Biochar and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Lead	259.87	NA	T3
335-12_I_low_C	Biochar and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Lead	258.12	NA	T3
336-12_I_low_D	Biochar and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Lead	259.93	NA	T3
337-1_I_high_A	Soluble phosphate_high_I	EPA6010_MEHLICH3	19	mg/kg	Lead	294.06	NA	T3
338-1_I_high_B	Soluble phosphate_high_I	EPA6010_MEHLICH3	19	mg/kg	Lead	286.59	NA	T3
339-1_I_high_C	Soluble phosphate_high_I	EPA6010_MEHLICH3	19	mg/kg	Lead	295.65	NA	T3
340-1_I_high_D	Soluble phosphate_high_I	EPA6010_MEHLICH3	19	mg/kg	Lead	279.91	NA	T3
341-2_I_high_A	Biosolid_high_I	EPA6010_MEHLICH3	19	mg/kg	Lead	184.60	NA	T3
342-2_I_high_B	Biosolid_high_I	EPA6010_MEHLICH3	19	mg/kg	Lead	194.58	NA	T3
343-2_I_high_C	Biosolid_high_I	EPA6010_MEHLICH3	19	mg/kg	Lead	188.01	NA	T3
344-2_I_high_D	Biosolid_high_I	EPA6010_MEHLICH3	19	mg/kg	Lead	200.49	NA	T3
345-3_I_high_A	Wood ash_high_I	EPA6010_MEHLICH3	20	mg/kg	Lead	311.81	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
346-3_I_high_B	Wood ash_high_I	EPA6010_MEHLICH3	20	mg/kg	Lead	324.93	NA	T3
347-3_I_high_C	Wood ash_high_I	EPA6010_MEHLICH3	20	mg/kg	Lead	310.37	NA	T3
348-3_I_high_D	Wood ash_high_I	EPA6010_MEHLICH3	20	mg/kg	Lead	311.48	NA	T3
349-4_I_high_A	Biochar_high_I	EPA6010_MEHLICH3	20	mg/kg	Lead	240.46	NA	T3
350-4_I_high_B	Biochar_high_I	EPA6010_MEHLICH3	20	mg/kg	Lead	254.18	NA	T3
351-4_I_high_C	Biochar_high_I	EPA6010_MEHLICH3	20	mg/kg	Lead	244.31	NA	T3
352-4_I_high_D	Biochar_high_I	EPA6010_MEHLICH3	20	mg/kg	Lead	254.29	NA	T3
353-5_I_high_A	Compost_high_I	EPA6010_MEHLICH3	21	mg/kg	Lead	277.22	NA	T3
354-5_I_high_B	Compost_high_I	EPA6010_MEHLICH3	21	mg/kg	Lead	257.69	NA	T3
355-5_I_high_C	Compost_high_I	EPA6010_MEHLICH3	21	mg/kg	Lead	257.12	NA	T3
356-5_I_high_D	Compost_high_I	EPA6010_MEHLICH3	21	mg/kg	Lead	258.34	NA	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	EPA6010_MEHLICH3	21	mg/kg	Lead	228.49	NA	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	EPA6010_MEHLICH3	21	mg/kg	Lead	207.02	NA	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	EPA6010_MEHLICH3	21	mg/kg	Lead	203.39	NA	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	EPA6010_MEHLICH3	21	mg/kg	Lead	175.60	NA	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	EPA6010_MEHLICH3	22	mg/kg	Lead	310.03	NA	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	EPA6010_MEHLICH3	22	mg/kg	Lead	311.76	NA	T3
363-7_I_high_C	Soluble phosphate and biochar_high_I	EPA6010_MEHLICH3	22	mg/kg	Lead	308.43	NA	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	EPA6010_MEHLICH3	22	mg/kg	Lead	286.03	NA	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	EPA6010_MEHLICH3	22	mg/kg	Lead	292.88	NA	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	EPA6010_MEHLICH3	22	mg/kg	Lead	293.83	NA	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	EPA6010_MEHLICH3	22	mg/kg	Lead	295.17	NA	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	EPA6010_MEHLICH3	22	mg/kg	Lead	281.49	NA	T3
369-9_I_high_A	Biosolids and wood ash_high_I	EPA6010_MEHLICH3	23	mg/kg	Lead	183.89	NA	T3
370-9_I_high_B	Biosolids and wood ash_high_I	EPA6010_MEHLICH3	23	mg/kg	Lead	195.57	NA	T3
371-9_I_high_C	Biosolids and wood ash_high_I	EPA6010_MEHLICH3	23	mg/kg	Lead	191.58	NA	T3
372-9_I_high_D	Biosolids and wood ash_high_I	EPA6010_MEHLICH3	23	mg/kg	Lead	194.45	NA	T3
373-10_I_high_A	Wood ash and biochar_high_I	EPA6010_MEHLICH3	23	mg/kg	Lead	306.49	NA	T3
374-10_I_high_B	Wood ash and biochar_high_I	EPA6010_MEHLICH3	23	mg/kg	Lead	290.99	NA	T3
375-10_I_high_C	Wood ash and biochar_high_I	EPA6010_MEHLICH3	23	mg/kg	Lead	277.49	NA	T3
376-10_I_high_D	Wood ash and biochar_high_I	EPA6010_MEHLICH3	23	mg/kg	Lead	293.53	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
377-11_I_high_A	Wood ash and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Lead	295.69	NA	T3
378-11_I_high_B	Wood ash and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Lead	280.35	NA	T3
379-11_I_high_C	Wood ash and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Lead	290.45	NA	T3
380-11_I_high_D	Wood ash and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Lead	282.09	NA	T3
381-12_I_high_A	Biochar and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Lead	263.90	NA	T3
382-12_I_high_B	Biochar and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Lead	254.92	NA	T3
383-12_I_high_C	Biochar and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Lead	259.24	NA	T3
384-12_I_high_D	Biochar and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Lead	242.34	NA	T3
385-0_I_NA_A	control_none_I	EPA6010_MEHLICH3	24	mg/kg	Lead	237.20	NA	T3
386-0_I_NA_B	control_none_I	EPA6010_MEHLICH3	24	mg/kg	Lead	249.74	NA	T3
387-0_I_NA_C	control_none_I	EPA6010_MEHLICH3	24	mg/kg	Lead	236.95	NA	T3
388-0_I_NA_D	control_none_I	EPA6010_MEHLICH3	24	mg/kg	Lead	232.03	NA	T3
097-1_S_low_A	Soluble phosphate_low_S	EPA6010_MEHLICH3	1	mg/kg	Posphorus	359.42	NA	T3
098-1_S_low_B	Soluble phosphate_low_S	EPA6010_MEHLICH3	1	mg/kg	Posphorus	331.62	NA	T3
099-1_S_low_C	Soluble phosphate_low_S	EPA6010_MEHLICH3	1	mg/kg	Posphorus	435.92	NA	T3
100-1_S_low_D	Soluble phosphate_low_S	EPA6010_MEHLICH3	1	mg/kg	Posphorus	414.05	NA	T3
101-2_S_low_A	Biosolid_low_S	EPA6010_MEHLICH3	1	mg/kg	Posphorus	217.50	NA	T3
102-2_S_low_B	Biosolid_low_S	EPA6010_MEHLICH3	1	mg/kg	Posphorus	208.25	NA	T3
103-2_S_low_C	Biosolid_low_S	EPA6010_MEHLICH3	1	mg/kg	Posphorus	204.26	NA	T3
104-2_S_low_D	Biosolid_low_S	EPA6010_MEHLICH3	1	mg/kg	Posphorus	209.46	NA	T3
105-3_S_low_A	Wood ash_low_S	EPA6010_MEHLICH3	2	mg/kg	Posphorus	174.58	NA	T3
106-3_S_low_B	Wood ash_low_S	EPA6010_MEHLICH3	2	mg/kg	Posphorus	173.42	NA	T3
107-3_S_low_C	Wood ash_low_S	EPA6010_MEHLICH3	2	mg/kg	Posphorus	174.06	NA	T3
108-3_S_low_D	Wood ash_low_S	EPA6010_MEHLICH3	2	mg/kg	Posphorus	178.35	NA	T3
109-4_S_low_A	Biochar_low_S	EPA6010_MEHLICH3	2	mg/kg	Posphorus	166.49	NA	T3
110-4_S_low_B	Biochar_low_S	EPA6010_MEHLICH3	2	mg/kg	Posphorus	167.36	NA	T3
111-4_S_low_C	Biochar_low_S	EPA6010_MEHLICH3	2	mg/kg	Posphorus	19.01	NA	T3
112-4_S_low_D	Biochar_low_S	EPA6010_MEHLICH3	2	mg/kg	Posphorus	161.53	NA	T3
113-5_S_low_A	Compost_low_S	EPA6010_MEHLICH3	3	mg/kg	Posphorus	105.77	NA	T3
114-5_S_low_B	Compost_low_S	EPA6010_MEHLICH3	3	mg/kg	Posphorus	180.19	NA	T3
115-5_S_low_C	Compost_low_S	EPA6010_MEHLICH3	3	mg/kg	Posphorus	174.87	NA	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
116-5_S_low_D	Compost_low_S	EPA6010_MEHLICH3	3	mg/kg	Posphorus	167.75	NA	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	EPA6010_MEHLICH3	3	mg/kg	Posphorus	397.07	NA	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	EPA6010_MEHLICH3	3	mg/kg	Posphorus	387.01	NA	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	EPA6010_MEHLICH3	3	mg/kg	Posphorus	365.71	NA	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	EPA6010_MEHLICH3	3	mg/kg	Posphorus	392.99	NA	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	EPA6010_MEHLICH3	4	mg/kg	Posphorus	425.45	NA	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	EPA6010_MEHLICH3	4	mg/kg	Posphorus	461.30	NA	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	EPA6010_MEHLICH3	4	mg/kg	Posphorus	428.83	NA	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	EPA6010_MEHLICH3	4	mg/kg	Posphorus	388.89	NA	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	EPA6010_MEHLICH3	4	mg/kg	Posphorus	429.00	NA	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	EPA6010_MEHLICH3	4	mg/kg	Posphorus	415.39	NA	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	EPA6010_MEHLICH3	4	mg/kg	Posphorus	498.35	NA	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	EPA6010_MEHLICH3	4	mg/kg	Posphorus	403.66	NA	T3
129-9_S_low_A	Biosolids and wood ash_low_S	EPA6010_MEHLICH3	5	mg/kg	Posphorus	217.80	NA	T3
130-9_S_low_B	Biosolids and wood ash_low_S	EPA6010_MEHLICH3	5	mg/kg	Posphorus	237.04	NA	T3
131-9_S_low_C	Biosolids and wood ash_low_S	EPA6010_MEHLICH3	5	mg/kg	Posphorus	223.71	NA	T3
132-9_S_low_D	Biosolids and wood ash_low_S	EPA6010_MEHLICH3	5	mg/kg	Posphorus	224.27	NA	T3
133-10_S_low_A	Wood ash and biochar_low_S	EPA6010_MEHLICH3	5	mg/kg	Posphorus	177.57	NA	T3
134-10_S_low_B	Wood ash and biochar_low_S	EPA6010_MEHLICH3	5	mg/kg	Posphorus	178.27	NA	T3
135-10_S_low_C	Wood ash and biochar_low_S	EPA6010_MEHLICH3	5	mg/kg	Posphorus	200.38	NA	T3
136-10_S_low_D	Wood ash and biochar_low_S	EPA6010_MEHLICH3	5	mg/kg	Posphorus	173.38	NA	T3
137-11_S_low_A	Wood ash and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Posphorus	189.87	NA	T3
138-11_S_low_B	Wood ash and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Posphorus	194.03	NA	T3
139-11_S_low_C	Wood ash and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Posphorus	182.91	NA	T3
140-11_S_low_D	Wood ash and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Posphorus	183.49	NA	T3
141-12_S_low_A	Biochar and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Posphorus	173.94	NA	T3
142-12_S_low_B	Biochar and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Posphorus	174.52	NA	T3
143-12_S_low_C	Biochar and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Posphorus	177.94	NA	T3
144-12_S_low_D	Biochar and compost_low_S	EPA6010_MEHLICH3	6	mg/kg	Posphorus	175.68	NA	T3
241-1_S_high_A	Soluble phosphate_high_S	EPA6010_MEHLICH3	7	mg/kg	Posphorus	936.38	NA	T3
242-1_S_high_B	Soluble phosphate_high_S	EPA6010_MEHLICH3	7	mg/kg	Posphorus	978.29	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
243-1_S_high_C	Soluble phosphate_high_S	EPA6010_MEHLICH3	7	mg/kg	Posphorus	921.34	NA	T3
244-1_S_high_D	Soluble phosphate_high_S	EPA6010_MEHLICH3	7	mg/kg	Posphorus	963.21	NA	T3
245-2_S_high_A	Biosolid_high_S	EPA6010_MEHLICH3	7	mg/kg	Posphorus	243.95	NA	T3
246-2_S_high_B	Biosolid_high_S	EPA6010_MEHLICH3	7	mg/kg	Posphorus	262.17	NA	T3
247-2_S_high_C	Biosolid_high_S	EPA6010_MEHLICH3	7	mg/kg	Posphorus	241.55	NA	T3
248-2_S_high_D	Biosolid_high_S	EPA6010_MEHLICH3	7	mg/kg	Posphorus	253.47	NA	T3
249-3_S_high_A	Wood ash_high_S	EPA6010_MEHLICH3	8	mg/kg	Posphorus	192.23	NA	T3
250-3_S_high_B	Wood ash_high_S	EPA6010_MEHLICH3	8	mg/kg	Posphorus	188.03	NA	T3
251-3_S_high_C	Wood ash_high_S	EPA6010_MEHLICH3	8	mg/kg	Posphorus	198.43	NA	T3
252-3_S_high_D	Wood ash_high_S	EPA6010_MEHLICH3	8	mg/kg	Posphorus	197.90	NA	T3
253-4_S_high_A	Biochar_high_S	EPA6010_MEHLICH3	8	mg/kg	Posphorus	174.65	NA	T3
254-4_S_high_B	Biochar_high_S	EPA6010_MEHLICH3	8	mg/kg	Posphorus	184.86	NA	T3
255-4_S_high_C	Biochar_high_S	EPA6010_MEHLICH3	8	mg/kg	Posphorus	179.96	NA	T3
256-4_S_high_D	Biochar_high_S	EPA6010_MEHLICH3	8	mg/kg	Posphorus	177.25	NA	T3
257-5_S_high_A	Compost_high_S	EPA6010_MEHLICH3	9	mg/kg	Posphorus	199.67	NA	T3
258-5_S_high_B	Compost_high_S	EPA6010_MEHLICH3	9	mg/kg	Posphorus	207.32	NA	T3
259-5_S_high_C	Compost_high_S	EPA6010_MEHLICH3	9	mg/kg	Posphorus	201.37	NA	T3
260-5_S_high_D	Compost_high_S	EPA6010_MEHLICH3	9	mg/kg	Posphorus	205.28	NA	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	EPA6010_MEHLICH3	9	mg/kg	Posphorus	493.74	NA	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	EPA6010_MEHLICH3	9	mg/kg	Posphorus	584.26	NA	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	EPA6010_MEHLICH3	9	mg/kg	Posphorus	414.75	NA	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	EPA6010_MEHLICH3	9	mg/kg	Posphorus	502.21	NA	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	EPA6010_MEHLICH3	10	mg/kg	Posphorus	718.30	NA	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	EPA6010_MEHLICH3	10	mg/kg	Posphorus	836.19	NA	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	EPA6010_MEHLICH3	10	mg/kg	Posphorus	862.69	NA	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	EPA6010_MEHLICH3	10	mg/kg	Posphorus	895.92	NA	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	EPA6010_MEHLICH3	10	mg/kg	Posphorus	891.59	NA	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	EPA6010_MEHLICH3	10	mg/kg	Posphorus	953.26	NA	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	EPA6010_MEHLICH3	10	mg/kg	Posphorus	863.89	NA	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	EPA6010_MEHLICH3	10	mg/kg	Posphorus	905.67	NA	T3
273-9_S_high_A	Biosolids and wood ash_high_S	EPA6010_MEHLICH3	11	mg/kg	Posphorus	249.91	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
274-9_S_high_B	Biosolids and wood ash_high_S	EPA6010_MEHLICH3	11	mg/kg	Posphorus	255.83	NA	T3
275-9_S_high_C	Biosolids and wood ash_high_S	EPA6010_MEHLICH3	11	mg/kg	Posphorus	260.08	NA	T3
276-9_S_high_D	Biosolids and wood ash_high_S	EPA6010_MEHLICH3	11	mg/kg	Posphorus	275.42	NA	T3
277-10_S_high_A	Wood ash and biochar_high_S	EPA6010_MEHLICH3	11	mg/kg	Posphorus	183.21	NA	T3
278-10_S_high_B	Wood ash and biochar_high_S	EPA6010_MEHLICH3	11	mg/kg	Posphorus	185.68	NA	T3
279-10_S_high_C	Wood ash and biochar_high_S	EPA6010_MEHLICH3	11	mg/kg	Posphorus	189.59	NA	T3
280-10_S_high_D	Wood ash and biochar_high_S	EPA6010_MEHLICH3	11	mg/kg	Posphorus	181.03	NA	T3
281-11_S_high_A	Wood ash and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Posphorus	196.80	NA	T3
282-11_S_high_B	Wood ash and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Posphorus	194.06	NA	T3
283-11_S_high_C	Wood ash and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Posphorus	186.28	NA	T3
284-11_S_high_D	Wood ash and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Posphorus	198.78	NA	T3
285-12_S_high_A	Biochar and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Posphorus	195.11	NA	T3
286-12_S_high_B	Biochar and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Posphorus	193.94	NA	T3
287-12_S_high_C	Biochar and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Posphorus	191.95	NA	T3
288-12_S_high_D	Biochar and compost_high_S	EPA6010_MEHLICH3	12	mg/kg	Posphorus	190.98	NA	T3
289-1_I_low_A	Soluble phosphate_low_I	EPA6010_MEHLICH3	13	mg/kg	Posphorus	393.21	NA	T3
290-1_I_low_B	Soluble phosphate_low_I	EPA6010_MEHLICH3	13	mg/kg	Posphorus	397.13	NA	T3
291-1_I_low_C	Soluble phosphate_low_I	EPA6010_MEHLICH3	13	mg/kg	Posphorus	393.22	NA	T3
292-1_I_low_D	Soluble phosphate_low_I	EPA6010_MEHLICH3	13	mg/kg	Posphorus	386.62	NA	T3
293-2_I_low_A	Biosolid_low_I	EPA6010_MEHLICH3	13	mg/kg	Posphorus	273.38	NA	T3
294-2_I_low_B	Biosolid_low_I	EPA6010_MEHLICH3	13	mg/kg	Posphorus	289.24	NA	T3
295-2_I_low_C	Biosolid_low_I	EPA6010_MEHLICH3	13	mg/kg	Posphorus	293.39	NA	T3
296-2_I_low_D	Biosolid_low_I	EPA6010_MEHLICH3	13	mg/kg	Posphorus	292.16	NA	T3
297-3_I_low_A	Wood ash_low_I	EPA6010_MEHLICH3	14	mg/kg	Posphorus	181.85	NA	T3
298-3_I_low_B	Wood ash_low_I	EPA6010_MEHLICH3	14	mg/kg	Posphorus	183.03	NA	T3
299-3_I_low_C	Wood ash_low_I	EPA6010_MEHLICH3	14	mg/kg	Posphorus	178.31	NA	T3
300-3_I_low_D	Wood ash_low_I	EPA6010_MEHLICH3	14	mg/kg	Posphorus	182.26	NA	T3
301-4_I_low_A	Biochar_low_I	EPA6010_MEHLICH3	14	mg/kg	Posphorus	174.55	NA	T3
302-4_I_low_B	Biochar_low_I	EPA6010_MEHLICH3	14	mg/kg	Posphorus	176.89	NA	T3
303-4_I_low_C	Biochar_low_I	EPA6010_MEHLICH3	14	mg/kg	Posphorus	175.54	NA	T3
304-4_I_low_D	Biochar_low_I	EPA6010_MEHLICH3	14	mg/kg	Posphorus	161.26	NA	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
305-5_I_low_A	Compost_low_I	EPA6010_MEHLICH3	15	mg/kg	Posphorus	178.51	NA	T3
306-5_I_low_B	Compost_low_I	EPA6010_MEHLICH3	15	mg/kg	Posphorus	190.22	NA	T3
307-5_I_low_C	Compost_low_I	EPA6010_MEHLICH3	15	mg/kg	Posphorus	166.78	NA	T3
308-5_I_low_D	Compost_low_I	EPA6010_MEHLICH3	15	mg/kg	Posphorus	164.52	NA	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	EPA6010_MEHLICH3	15	mg/kg	Posphorus	473.68	NA	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	EPA6010_MEHLICH3	15	mg/kg	Posphorus	489.38	NA	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	EPA6010_MEHLICH3	15	mg/kg	Posphorus	481.47	NA	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	EPA6010_MEHLICH3	15	mg/kg	Posphorus	505.90	NA	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	EPA6010_MEHLICH3	16	mg/kg	Posphorus	399.54	NA	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	EPA6010_MEHLICH3	16	mg/kg	Posphorus	410.79	NA	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	EPA6010_MEHLICH3	16	mg/kg	Posphorus	417.60	NA	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	EPA6010_MEHLICH3	16	mg/kg	Posphorus	406.93	NA	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	EPA6010_MEHLICH3	16	mg/kg	Posphorus	406.03	NA	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	EPA6010_MEHLICH3	16	mg/kg	Posphorus	410.31	NA	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	EPA6010_MEHLICH3	16	mg/kg	Posphorus	410.07	NA	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	EPA6010_MEHLICH3	16	mg/kg	Posphorus	404.96	NA	T3
321-9_I_low_A	Biosolids and wood ash_low_I	EPA6010_MEHLICH3	17	mg/kg	Posphorus	324.91	NA	T3
322-9_I_low_B	Biosolids and wood ash_low_I	EPA6010_MEHLICH3	17	mg/kg	Posphorus	292.81	NA	T3
323-9_I_low_C	Biosolids and wood ash_low_I	EPA6010_MEHLICH3	17	mg/kg	Posphorus	288.03	NA	T3
324-9_I_low_D	Biosolids and wood ash_low_I	EPA6010_MEHLICH3	17	mg/kg	Posphorus	295.15	NA	T3
325-10_I_low_A	Wood ash and biochar_low_I	EPA6010_MEHLICH3	17	mg/kg	Posphorus	176.03	NA	T3
326-10_I_low_B	Wood ash and biochar_low_I	EPA6010_MEHLICH3	17	mg/kg	Posphorus	189.23	NA	T3
327-10_I_low_C	Wood ash and biochar_low_I	EPA6010_MEHLICH3	17	mg/kg	Posphorus	195.05	NA	T3
328-10_I_low_D	Wood ash and biochar_low_I	EPA6010_MEHLICH3	17	mg/kg	Posphorus	176.49	NA	T3
329-11_I_low_A	Wood ash and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Posphorus	196.59	NA	T3
330-11_I_low_B	Wood ash and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Posphorus	193.54	NA	T3
331-11_I_low_C	Wood ash and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Posphorus	191.76	NA	T3
332-11_I_low_D	Wood ash and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Posphorus	196.17	NA	T3
333-12_I_low_A	Biochar and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Posphorus	185.38	NA	T3
334-12_I_low_B	Biochar and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Posphorus	180.40	NA	T3
335-12_I_low_C	Biochar and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Posphorus	177.08	NA	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
336-12_I_low_D	Biochar and compost_low_I	EPA6010_MEHLICH3	18	mg/kg	Posphorus	176.33	NA	T3
337-1_I_high_A	Soluble phosphate_high_I	EPA6010_MEHLICH3	19	mg/kg	Posphorus	850.64	NA	T3
338-1_I_high_B	Soluble phosphate_high_I	EPA6010_MEHLICH3	19	mg/kg	Posphorus	836.04	NA	T3
339-1_I_high_C	Soluble phosphate_high_I	EPA6010_MEHLICH3	19	mg/kg	Posphorus	821.39	NA	T3
340-1_I_high_D	Soluble phosphate_high_I	EPA6010_MEHLICH3	19	mg/kg	Posphorus	904.21	NA	T3
341-2_I_high_A	Biosolid_high_I	EPA6010_MEHLICH3	19	mg/kg	Posphorus	551.62	NA	T3
342-2_I_high_B	Biosolid_high_I	EPA6010_MEHLICH3	19	mg/kg	Posphorus	583.02	NA	T3
343-2_I_high_C	Biosolid_high_I	EPA6010_MEHLICH3	19	mg/kg	Posphorus	549.32	NA	T3
344-2_I_high_D	Biosolid_high_I	EPA6010_MEHLICH3	19	mg/kg	Posphorus	566.72	NA	T3
345-3_I_high_A	Wood ash_high_I	EPA6010_MEHLICH3	20	mg/kg	Posphorus	209.67	NA	T3
346-3_I_high_B	Wood ash_high_I	EPA6010_MEHLICH3	20	mg/kg	Posphorus	201.84	NA	T3
347-3_I_high_C	Wood ash_high_I	EPA6010_MEHLICH3	20	mg/kg	Posphorus	201.88	NA	T3
348-3_I_high_D	Wood ash_high_I	EPA6010_MEHLICH3	20	mg/kg	Posphorus	203.36	NA	T3
349-4_I_high_A	Biochar_high_I	EPA6010_MEHLICH3	20	mg/kg	Posphorus	189.28	NA	T3
350-4_I_high_B	Biochar_high_I	EPA6010_MEHLICH3	20	mg/kg	Posphorus	181.95	NA	T3
351-4_I_high_C	Biochar_high_I	EPA6010_MEHLICH3	20	mg/kg	Posphorus	183.39	NA	T3
352-4_I_high_D	Biochar_high_I	EPA6010_MEHLICH3	20	mg/kg	Posphorus	188.47	NA	T3
353-5_I_high_A	Compost_high_I	EPA6010_MEHLICH3	21	mg/kg	Posphorus	221.38	NA	T3
354-5_I_high_B	Compost_high_I	EPA6010_MEHLICH3	21	mg/kg	Posphorus	224.60	NA	T3
355-5_I_high_C	Compost_high_I	EPA6010_MEHLICH3	21	mg/kg	Posphorus	218.66	NA	T3
356-5_I_high_D	Compost_high_I	EPA6010_MEHLICH3	21	mg/kg	Posphorus	216.65	NA	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	EPA6010_MEHLICH3	21	mg/kg	Posphorus	1022.34	NA	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	EPA6010_MEHLICH3	21	mg/kg	Posphorus	1060.75	NA	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	EPA6010_MEHLICH3	21	mg/kg	Posphorus	1079.14	NA	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	EPA6010_MEHLICH3	21	mg/kg	Posphorus	1093.34	NA	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	EPA6010_MEHLICH3	22	mg/kg	Posphorus	947.93	NA	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	EPA6010_MEHLICH3	22	mg/kg	Posphorus	899.24	NA	T3
363-7_I_high_C	Soluble phosphate and biochar_high_I	EPA6010_MEHLICH3	22	mg/kg	Posphorus	916.09	NA	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	EPA6010_MEHLICH3	22	mg/kg	Posphorus	940.38	NA	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	EPA6010_MEHLICH3	22	mg/kg	Posphorus	895.88	NA	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	EPA6010_MEHLICH3	22	mg/kg	Posphorus	904.33	NA	T3

SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
367-8_I_high_C	Soluble phosphate and compost_high_I	EPA6010_MEHLICH3	22	mg/kg	Posphorus	929.17	NA	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	EPA6010_MEHLICH3	22	mg/kg	Posphorus	946.52	NA	T3
369-9_I_high_A	Biosolids and wood ash_high_I	EPA6010_MEHLICH3	23	mg/kg	Posphorus	581.22	NA	T3
370-9_I_high_B	Biosolids and wood ash_high_I	EPA6010_MEHLICH3	23	mg/kg	Posphorus	558.69	NA	T3
371-9_I_high_C	Biosolids and wood ash_high_I	EPA6010_MEHLICH3	23	mg/kg	Posphorus	572.22	NA	T3
372-9_I_high_D	Biosolids and wood ash_high_I	EPA6010_MEHLICH3	23	mg/kg	Posphorus	604.11	NA	T3
373-10_I_high_A	Wood ash and biochar_high_I	EPA6010_MEHLICH3	23	mg/kg	Posphorus	200.16	NA	T3
374-10_I_high_B	Wood ash and biochar_high_I	EPA6010_MEHLICH3	23	mg/kg	Posphorus	202.35	NA	T3
375-10_I_high_C	Wood ash and biochar_high_I	EPA6010_MEHLICH3	23	mg/kg	Posphorus	203.11	NA	T3
376-10_I_high_D	Wood ash and biochar_high_I	EPA6010_MEHLICH3	23	mg/kg	Posphorus	198.04	NA	T3
377-11_I_high_A	Wood ash and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Posphorus	229.64	NA	T3
378-11_I_high_B	Wood ash and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Posphorus	230.74	NA	T3
379-11_I_high_C	Wood ash and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Posphorus	233.86	NA	T3
380-11_I_high_D	Wood ash and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Posphorus	231.25	NA	T3
381-12_I_high_A	Biochar and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Posphorus	210.94	NA	T3
382-12_I_high_B	Biochar and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Posphorus	211.16	NA	T3
383-12_I_high_C	Biochar and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Posphorus	207.05	NA	T3
384-12_I_high_D	Biochar and compost_high_I	EPA6010_MEHLICH3	24	mg/kg	Posphorus	207.32	NA	T3
385-0_I_NA_A	control_none_I	EPA6010_MEHLICH3	24	mg/kg	Posphorus	172.56	NA	T3
386-0_I_NA_B	control_none_I	EPA6010_MEHLICH3	24	mg/kg	Posphorus	156.78	NA	T3
387-0_I_NA_C	control_none_I	EPA6010_MEHLICH3	24	mg/kg	Posphorus	167.33	NA	T3
388-0_I_NA_D	control_none_I	EPA6010_MEHLICH3	24	mg/kg	Posphorus	167.61	NA	T3
385-0_I_NA_A	control_NA_NA	EPA6010	7	mg/kg	Arsenic	89.03		T3
385-0_I_NA_A	control_NA_NA	EPA6010	7	mg/kg	Lead	1370.82	dupsbk	T3
386-0_I_NA_B	control_NA_NA	EPA6010	7	mg/kg	Arsenic	89.27		T3
386-0_I_NA_B	control_NA_NA	EPA6010	7	mg/kg	Lead	1309.99	dupsbk	T3
387-0_I_NA_C	control_NA_NA	EPA6010	7	mg/kg	Arsenic	87.07		T3
387-0_I_NA_C	control_NA_NA	EPA6010	7	mg/kg	Lead	1329.15	dupsbk	T3
388-0_I_NA_D	control_NA_NA	EPA6010	7	mg/kg	Arsenic	88.54		T3
388-0_I_NA_D	control_NA_NA	EPA6010	7	mg/kg	Lead	1298.84	dupsbk	T3
097-1_S_low_A	Soluble phosphate_low_S	CALC	NA	%	Moisture	27.73	NA	T3

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
097-1_S_low_A	Soluble phosphate_low_S	CALC	NA	%	Moisture	25.33	NA	T3
097-1_S_low_A	Soluble phosphate_low_S	CALC	NA	%	Moisture	30.23	NA	T3
097-1_S_low_A	Soluble phosphate_low_S	CALC	NA	%	Moisture	30.13	NA	T3
098-1_S_low_B	Soluble phosphate_low_S	CALC	NA	%	Moisture	32.16	NA	T3
098-1_S_low_B	Soluble phosphate_low_S	CALC	NA	%	Moisture	33.46	NA	T3
098-1_S_low_B	Soluble phosphate_low_S	CALC	NA	%	Moisture	35.06	NA	T3
098-1_S_low_B	Soluble phosphate_low_S	CALC	NA	%	Moisture	35.06	NA	T3
099-1_S_low_C	Soluble phosphate_low_S	CALC	NA	%	Moisture	33.57	NA	T3
099-1_S_low_C	Soluble phosphate_low_S	CALC	NA	%	Moisture	31.87	NA	T3
099-1_S_low_C	Soluble phosphate_low_S	CALC	NA	%	Moisture	35.67	NA	T3
099-1_S_low_C	Soluble phosphate_low_S	CALC	NA	%	Moisture	35.67	NA	T3
100-1_S_low_D	Soluble phosphate_low_S	CALC	NA	%	Moisture	31.43	NA	T3
100-1_S_low_D	Soluble phosphate_low_S	CALC	NA	%	Moisture	34.33	NA	T3
100-1_S_low_D	Soluble phosphate_low_S	CALC	NA	%	Moisture	33.43	NA	T3
100-1_S_low_D	Soluble phosphate_low_S	CALC	NA	%	Moisture	33.43	NA	T3
101-2_S_low_A	Biosolid_low_S	CALC	NA	%	Moisture	30.48	NA	T3
101-2_S_low_A	Biosolid_low_S	CALC	NA	%	Moisture	31.08	NA	T3
101-2_S_low_A	Biosolid_low_S	CALC	NA	%	Moisture	27.58	NA	T3
101-2_S_low_A	Biosolid_low_S	CALC	NA	%	Moisture	27.58	NA	T3
102-2_S_low_B	Biosolid_low_S	CALC	NA	%	Moisture	32.97	NA	T3
102-2_S_low_B	Biosolid_low_S	CALC	NA	%	Moisture	31.97	NA	T3
102-2_S_low_B	Biosolid_low_S	CALC	NA	%	Moisture	30.67	NA	T3
102-2_S_low_B	Biosolid_low_S	CALC	NA	%	Moisture	30.67	NA	T3
103-2_S_low_C	Biosolid_low_S	CALC	NA	%	Moisture	34.96	NA	T3
103-2_S_low_C	Biosolid_low_S	CALC	NA	%	Moisture	36.76	NA	T3
103-2_S_low_C	Biosolid_low_S	CALC	NA	%	Moisture	34.16	NA	T3
103-2_S_low_C	Biosolid_low_S	CALC	NA	%	Moisture	34.16	NA	T3
104-2_S_low_D	Biosolid_low_S	CALC	NA	%	Moisture	36.92	NA	T3
104-2_S_low_D	Biosolid_low_S	CALC	NA	%	Moisture	33.72	NA	T3
104-2_S_low_D	Biosolid_low_S	CALC	NA	%	Moisture	34.22	NA	T3
104-2_S_low_D	Biosolid_low_S	CALC	NA	%	Moisture	34.22	NA	T3

SWEL – Soil Water Environmental Lab
Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
105-3_S_low_A	Wood ash_low_S	CALC	NA	%	Moisture	32.08	NA	T3
105-3_S_low_A	Wood ash_low_S	CALC	NA	%	Moisture	25.48	NA	T3
105-3_S_low_A	Wood ash_low_S	CALC	NA	%	Moisture	28.68	NA	T3
105-3_S_low_A	Wood ash_low_S	CALC	NA	%	Moisture	28.68	NA	T3
106-3_S_low_B	Wood ash_low_S	CALC	NA	%	Moisture	27.61	NA	T3
106-3_S_low_B	Wood ash_low_S	CALC	NA	%	Moisture	34.41	NA	T3
106-3_S_low_B	Wood ash_low_S	CALC	NA	%	Moisture	28.91	NA	T3
106-3_S_low_B	Wood ash_low_S	CALC	NA	%	Moisture	28.91	NA	T3
107-3_S_low_C	Wood ash_low_S	CALC	NA	%	Moisture	23.77	NA	T3
107-3_S_low_C	Wood ash_low_S	CALC	NA	%	Moisture	25.67	NA	T3
107-3_S_low_C	Wood ash_low_S	CALC	NA	%	Moisture	26.67	NA	T3
107-3_S_low_C	Wood ash_low_S	CALC	NA	%	Moisture	26.67	NA	T3
108-3_S_low_D	Wood ash_low_S	CALC	NA	%	Moisture	26.26	NA	T3
108-3_S_low_D	Wood ash_low_S	CALC	NA	%	Moisture	27.56	NA	T3
108-3_S_low_D	Wood ash_low_S	CALC	NA	%	Moisture	25.06	NA	T3
108-3_S_low_D	Wood ash_low_S	CALC	NA	%	Moisture	25.06	NA	T3
109-4_S_low_A	Biochar_low_S	CALC	NA	%	Moisture	29.46	NA	T3
109-4_S_low_A	Biochar_low_S	CALC	NA	%	Moisture	29.56	NA	T3
109-4_S_low_A	Biochar_low_S	CALC	NA	%	Moisture	33.66	NA	T3
109-4_S_low_A	Biochar_low_S	CALC	NA	%	Moisture	33.66	NA	T3
110-4_S_low_B	Biochar_low_S	CALC	NA	%	Moisture	36.09	NA	T3
110-4_S_low_B	Biochar_low_S	CALC	NA	%	Moisture	32.79	NA	T3
110-4_S_low_B	Biochar_low_S	CALC	NA	%	Moisture	32.49	NA	T3
110-4_S_low_B	Biochar_low_S	CALC	NA	%	Moisture	32.49	NA	T3
111-4_S_low_C	Biochar_low_S	CALC	NA	%	Moisture	35.34	NA	T3
111-4_S_low_C	Biochar_low_S	CALC	NA	%	Moisture	33.64	NA	T3
111-4_S_low_C	Biochar_low_S	CALC	NA	%	Moisture	29.44	NA	T3
111-4_S_low_C	Biochar_low_S	CALC	NA	%	Moisture	29.44	NA	T3
112-4_S_low_D	Biochar_low_S	CALC	NA	%	Moisture	29.66	NA	T3
112-4_S_low_D	Biochar_low_S	CALC	NA	%	Moisture	32.96	NA	T3
112-4_S_low_D	Biochar_low_S	CALC	NA	%	Moisture	27.86	NA	T3



SWEL – Soil Water Environmental Lab

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
112-4_S_low_D	Biochar_low_S	CALC	NA	%	Moisture	27.86	NA	T3
113-5_S_low_A	Compost_low_S	CALC	NA	%	Moisture	34.15	NA	T3
113-5_S_low_A	Compost_low_S	CALC	NA	%	Moisture	34.25	NA	T3
113-5_S_low_A	Compost_low_S	CALC	NA	%	Moisture	29.65	NA	T3
113-5_S_low_A	Compost_low_S	CALC	NA	%	Moisture	29.65	NA	T3
114-5_S_low_B	Compost_low_S	CALC	NA	%	Moisture	34.11	NA	T3
114-5_S_low_B	Compost_low_S	CALC	NA	%	Moisture	29.11	NA	T3
114-5_S_low_B	Compost_low_S	CALC	NA	%	Moisture	31.31	NA	T3
114-5_S_low_B	Compost_low_S	CALC	NA	%	Moisture	31.31	NA	T3
115-5_S_low_C	Compost_low_S	CALC	NA	%	Moisture	30.08	NA	T3
115-5_S_low_C	Compost_low_S	CALC	NA	%	Moisture	27.98	NA	T3
115-5_S_low_C	Compost_low_S	CALC	NA	%	Moisture	33.98	NA	T3
115-5_S_low_C	Compost_low_S	CALC	NA	%	Moisture	33.98	NA	T3
116-5_S_low_D	Compost_low_S	CALC	NA	%	Moisture	31.90	NA	T3
116-5_S_low_D	Compost_low_S	CALC	NA	%	Moisture	33.20	NA	T3
116-5_S_low_D	Compost_low_S	CALC	NA	%	Moisture	30.90	NA	T3
116-5_S_low_D	Compost_low_S	CALC	NA	%	Moisture	30.90	NA	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	33.65	NA	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	31.95	NA	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	30.25	NA	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	30.25	NA	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	34.92	NA	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	35.42	NA	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	30.92	NA	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	30.92	NA	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	35.08	NA	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	33.58	NA	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	35.88	NA	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	35.88	NA	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	32.47	NA	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	35.67	NA	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
120-6_S_low_D	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	35.47	NA	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	CALC	NA	%	Moisture	35.47	NA	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	27.94	NA	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	30.74	NA	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	29.84	NA	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	29.84	NA	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	37.02	NA	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	34.62	NA	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	34.42	NA	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	34.42	NA	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	31.38	NA	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	30.28	NA	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	28.38	NA	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	28.38	NA	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	34.71	NA	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	32.21	NA	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	31.41	NA	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	CALC	NA	%	Moisture	31.41	NA	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	29.41	NA	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	31.41	NA	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	32.81	NA	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	32.81	NA	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	34.81	NA	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	37.61	NA	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	36.01	NA	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	36.01	NA	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	31.82	NA	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	30.72	NA	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	30.32	NA	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	30.32	NA	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	31.74	NA	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
128-8_S_low_D	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	33.44	NA	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	33.54	NA	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	CALC	NA	%	Moisture	33.54	NA	T3
129-9_S_low_A	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	27.26	NA	T3
129-9_S_low_A	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	25.86	NA	T3
129-9_S_low_A	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	28.56	NA	T3
129-9_S_low_A	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	28.56	NA	T3
130-9_S_low_B	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	28.84	NA	T3
130-9_S_low_B	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	27.44	NA	T3
130-9_S_low_B	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	30.94	NA	T3
130-9_S_low_B	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	30.94	NA	T3
131-9_S_low_C	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	34.95	NA	T3
131-9_S_low_C	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	36.45	NA	T3
131-9_S_low_C	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	34.95	NA	T3
131-9_S_low_C	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	34.95	NA	T3
132-9_S_low_D	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	32.48	NA	T3
132-9_S_low_D	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	33.08	NA	T3
132-9_S_low_D	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	32.78	NA	T3
132-9_S_low_D	Biosolids and wood ash_low_S	CALC	NA	%	Moisture	32.78	NA	T3
133-10_S_low_A	Wood ash and biochar_low_S	CALC	NA	%	Moisture	31.85	NA	T3
133-10_S_low_A	Wood ash and biochar_low_S	CALC	NA	%	Moisture	31.65	NA	T3
133-10_S_low_A	Wood ash and biochar_low_S	CALC	NA	%	Moisture	27.35	NA	T3
133-10_S_low_A	Wood ash and biochar_low_S	CALC	NA	%	Moisture	27.35	NA	T3
134-10_S_low_B	Wood ash and biochar_low_S	CALC	NA	%	Moisture	28.61	NA	T3
134-10_S_low_B	Wood ash and biochar_low_S	CALC	NA	%	Moisture	25.51	NA	T3
134-10_S_low_B	Wood ash and biochar_low_S	CALC	NA	%	Moisture	26.11	NA	T3
134-10_S_low_B	Wood ash and biochar_low_S	CALC	NA	%	Moisture	26.11	NA	T3
135-10_S_low_C	Wood ash and biochar_low_S	CALC	NA	%	Moisture	25.85	NA	T3
135-10_S_low_C	Wood ash and biochar_low_S	CALC	NA	%	Moisture	23.75	NA	T3
135-10_S_low_C	Wood ash and biochar_low_S	CALC	NA	%	Moisture	23.15	NA	T3
135-10_S_low_C	Wood ash and biochar_low_S	CALC	NA	%	Moisture	23.15	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
136-10_S_low_D	Wood ash and biochar_low_S	CALC	NA	%	Moisture	28.18	NA	T3
136-10_S_low_D	Wood ash and biochar_low_S	CALC	NA	%	Moisture	25.98	NA	T3
136-10_S_low_D	Wood ash and biochar_low_S	CALC	NA	%	Moisture	31.78	NA	T3
136-10_S_low_D	Wood ash and biochar_low_S	CALC	NA	%	Moisture	31.78	NA	T3
137-11_S_low_A	Wood ash and compost_low_S	CALC	NA	%	Moisture	30.38	NA	T3
137-11_S_low_A	Wood ash and compost_low_S	CALC	NA	%	Moisture	30.98	NA	T3
137-11_S_low_A	Wood ash and compost_low_S	CALC	NA	%	Moisture	27.78	NA	T3
137-11_S_low_A	Wood ash and compost_low_S	CALC	NA	%	Moisture	27.78	NA	T3
138-11_S_low_B	Wood ash and compost_low_S	CALC	NA	%	Moisture	26.22	NA	T3
138-11_S_low_B	Wood ash and compost_low_S	CALC	NA	%	Moisture	24.62	NA	T3
138-11_S_low_B	Wood ash and compost_low_S	CALC	NA	%	Moisture	24.02	NA	T3
138-11_S_low_B	Wood ash and compost_low_S	CALC	NA	%	Moisture	24.02	NA	T3
139-11_S_low_C	Wood ash and compost_low_S	CALC	NA	%	Moisture	35.71	NA	T3
139-11_S_low_C	Wood ash and compost_low_S	CALC	NA	%	Moisture	33.11	NA	T3
139-11_S_low_C	Wood ash and compost_low_S	CALC	NA	%	Moisture	36.61	NA	T3
139-11_S_low_C	Wood ash and compost_low_S	CALC	NA	%	Moisture	36.61	NA	T3
140-11_S_low_D	Wood ash and compost_low_S	CALC	NA	%	Moisture	32.69	NA	T3
140-11_S_low_D	Wood ash and compost_low_S	CALC	NA	%	Moisture	28.89	NA	T3
140-11_S_low_D	Wood ash and compost_low_S	CALC	NA	%	Moisture	34.19	NA	T3
140-11_S_low_D	Wood ash and compost_low_S	CALC	NA	%	Moisture	34.19	NA	T3
141-12_S_low_A	Biochar and compost_low_S	CALC	NA	%	Moisture	35.54	NA	T3
141-12_S_low_A	Biochar and compost_low_S	CALC	NA	%	Moisture	37.14	NA	T3
141-12_S_low_A	Biochar and compost_low_S	CALC	NA	%	Moisture	33.34	NA	T3
141-12_S_low_A	Biochar and compost_low_S	CALC	NA	%	Moisture	33.34	NA	T3
142-12_S_low_B	Biochar and compost_low_S	CALC	NA	%	Moisture	33.79	NA	T3
142-12_S_low_B	Biochar and compost_low_S	CALC	NA	%	Moisture	30.79	NA	T3
142-12_S_low_B	Biochar and compost_low_S	CALC	NA	%	Moisture	34.79	NA	T3
142-12_S_low_B	Biochar and compost_low_S	CALC	NA	%	Moisture	34.79	NA	T3
143-12_S_low_C	Biochar and compost_low_S	CALC	NA	%	Moisture	33.50	NA	T3
143-12_S_low_C	Biochar and compost_low_S	CALC	NA	%	Moisture	34.50	NA	T3
143-12_S_low_C	Biochar and compost_low_S	CALC	NA	%	Moisture	33.90	NA	T3

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
143-12_S_low_C	Biochar and compost_low_S	CALC	NA	%	Moisture	33.90	NA	T3
144-12_S_low_D	Biochar and compost_low_S	CALC	NA	%	Moisture	37.66	NA	T3
144-12_S_low_D	Biochar and compost_low_S	CALC	NA	%	Moisture	32.76	NA	T3
144-12_S_low_D	Biochar and compost_low_S	CALC	NA	%	Moisture	32.66	NA	T3
144-12_S_low_D	Biochar and compost_low_S	CALC	NA	%	Moisture	32.66	NA	T3
241-1_S_high_A	Soluble phosphate_high_S	CALC	NA	%	Moisture	33.19	NA	T3
241-1_S_high_A	Soluble phosphate_high_S	CALC	NA	%	Moisture	33.19	NA	T3
241-1_S_high_A	Soluble phosphate_high_S	CALC	NA	%	Moisture	31.09	NA	T3
241-1_S_high_A	Soluble phosphate_high_S	CALC	NA	%	Moisture	31.09	NA	T3
242-1_S_high_B	Soluble phosphate_high_S	CALC	NA	%	Moisture	31.97	NA	T3
242-1_S_high_B	Soluble phosphate_high_S	CALC	NA	%	Moisture	37.37	NA	T3
242-1_S_high_B	Soluble phosphate_high_S	CALC	NA	%	Moisture	32.47	NA	T3
242-1_S_high_B	Soluble phosphate_high_S	CALC	NA	%	Moisture	32.47	NA	T3
243-1_S_high_C	Soluble phosphate_high_S	CALC	NA	%	Moisture	34.26	NA	T3
243-1_S_high_C	Soluble phosphate_high_S	CALC	NA	%	Moisture	35.46	NA	T3
243-1_S_high_C	Soluble phosphate_high_S	CALC	NA	%	Moisture	30.16	NA	T3
243-1_S_high_C	Soluble phosphate_high_S	CALC	NA	%	Moisture	30.16	NA	T3
244-1_S_high_D	Soluble phosphate_high_S	CALC	NA	%	Moisture	28.79	NA	T3
244-1_S_high_D	Soluble phosphate_high_S	CALC	NA	%	Moisture	30.19	NA	T3
244-1_S_high_D	Soluble phosphate_high_S	CALC	NA	%	Moisture	27.89	NA	T3
244-1_S_high_D	Soluble phosphate_high_S	CALC	NA	%	Moisture	27.89	NA	T3
245-2_S_high_A	Biosolid_high_S	CALC	NA	%	Moisture	40.87	NA	T3
245-2_S_high_A	Biosolid_high_S	CALC	NA	%	Moisture	42.47	NA	T3
245-2_S_high_A	Biosolid_high_S	CALC	NA	%	Moisture	42.47	NA	T3
245-2_S_high_A	Biosolid_high_S	CALC	NA	%	Moisture	42.47	NA	T3
246-2_S_high_B	Biosolid_high_S	CALC	NA	%	Moisture	37.64	NA	T3
246-2_S_high_B	Biosolid_high_S	CALC	NA	%	Moisture	42.84	NA	T3
246-2_S_high_B	Biosolid_high_S	CALC	NA	%	Moisture	39.14	NA	T3
246-2_S_high_B	Biosolid_high_S	CALC	NA	%	Moisture	39.14	NA	T3
247-2_S_high_C	Biosolid_high_S	CALC	NA	%	Moisture	40.65	NA	T3
247-2_S_high_C	Biosolid_high_S	CALC	NA	%	Moisture	45.85	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
247-2_S_high_C	Biosolid_high_S	CALC	NA	%	Moisture	45.35	NA	T3
247-2_S_high_C	Biosolid_high_S	CALC	NA	%	Moisture	45.35	NA	T3
248-2_S_high_D	Biosolid_high_S	CALC	NA	%	Moisture	38.20	NA	T3
248-2_S_high_D	Biosolid_high_S	CALC	NA	%	Moisture	40.60	NA	T3
248-2_S_high_D	Biosolid_high_S	CALC	NA	%	Moisture	39.50	NA	T3
248-2_S_high_D	Biosolid_high_S	CALC	NA	%	Moisture	39.50	NA	T3
249-3_S_high_A	Wood ash_high_S	CALC	NA	%	Moisture	34.21	NA	T3
249-3_S_high_A	Wood ash_high_S	CALC	NA	%	Moisture	33.01	NA	T3
249-3_S_high_A	Wood ash_high_S	CALC	NA	%	Moisture	33.01	NA	T3
249-3_S_high_A	Wood ash_high_S	CALC	NA	%	Moisture	33.01	NA	T3
250-3_S_high_B	Wood ash_high_S	CALC	NA	%	Moisture	34.62	NA	T3
250-3_S_high_B	Wood ash_high_S	CALC	NA	%	Moisture	31.62	NA	T3
250-3_S_high_B	Wood ash_high_S	CALC	NA	%	Moisture	31.02	NA	T3
250-3_S_high_B	Wood ash_high_S	CALC	NA	%	Moisture	31.02	NA	T3
251-3_S_high_C	Wood ash_high_S	CALC	NA	%	Moisture	31.87	NA	T3
251-3_S_high_C	Wood ash_high_S	CALC	NA	%	Moisture	35.07	NA	T3
251-3_S_high_C	Wood ash_high_S	CALC	NA	%	Moisture	31.17	NA	T3
251-3_S_high_C	Wood ash_high_S	CALC	NA	%	Moisture	31.17	NA	T3
252-3_S_high_D	Wood ash_high_S	CALC	NA	%	Moisture	28.17	NA	T3
252-3_S_high_D	Wood ash_high_S	CALC	NA	%	Moisture	28.37	NA	T3
252-3_S_high_D	Wood ash_high_S	CALC	NA	%	Moisture	24.47	NA	T3
252-3_S_high_D	Wood ash_high_S	CALC	NA	%	Moisture	24.47	NA	T3
253-4_S_high_A	Biochar_high_S	CALC	NA	%	Moisture	37.16	NA	T3
253-4_S_high_A	Biochar_high_S	CALC	NA	%	Moisture	37.26	NA	T3
253-4_S_high_A	Biochar_high_S	CALC	NA	%	Moisture	38.76	NA	T3
253-4_S_high_A	Biochar_high_S	CALC	NA	%	Moisture	38.76	NA	T3
254-4_S_high_B	Biochar_high_S	CALC	NA	%	Moisture	43.59	NA	T3
254-4_S_high_B	Biochar_high_S	CALC	NA	%	Moisture	41.09	NA	T3
254-4_S_high_B	Biochar_high_S	CALC	NA	%	Moisture	40.09	NA	T3
254-4_S_high_B	Biochar_high_S	CALC	NA	%	Moisture	40.09	NA	T3
255-4_S_high_C	Biochar_high_S	CALC	NA	%	Moisture	40.64	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
255-4_S_high_C	Biochar_high_S	CALC	NA	%	Moisture	35.94	NA	T3
255-4_S_high_C	Biochar_high_S	CALC	NA	%	Moisture	35.34	NA	T3
255-4_S_high_C	Biochar_high_S	CALC	NA	%	Moisture	35.34	NA	T3
256-4_S_high_D	Biochar_high_S	CALC	NA	%	Moisture	24.65	NA	T3
256-4_S_high_D	Biochar_high_S	CALC	NA	%	Moisture	29.55	NA	T3
256-4_S_high_D	Biochar_high_S	CALC	NA	%	Moisture	28.05	NA	T3
256-4_S_high_D	Biochar_high_S	CALC	NA	%	Moisture	28.05	NA	T3
257-5_S_high_A	Compost_high_S	CALC	NA	%	Moisture	28.83	NA	T3
257-5_S_high_A	Compost_high_S	CALC	NA	%	Moisture	29.13	NA	T3
257-5_S_high_A	Compost_high_S	CALC	NA	%	Moisture	23.53	NA	T3
257-5_S_high_A	Compost_high_S	CALC	NA	%	Moisture	23.53	NA	T3
258-5_S_high_B	Compost_high_S	CALC	NA	%	Moisture	25.93	NA	T3
258-5_S_high_B	Compost_high_S	CALC	NA	%	Moisture	24.03	NA	T3
258-5_S_high_B	Compost_high_S	CALC	NA	%	Moisture	24.33	NA	T3
258-5_S_high_B	Compost_high_S	CALC	NA	%	Moisture	24.33	NA	T3
259-5_S_high_C	Compost_high_S	CALC	NA	%	Moisture	38.77	NA	T3
259-5_S_high_C	Compost_high_S	CALC	NA	%	Moisture	33.67	NA	T3
259-5_S_high_C	Compost_high_S	CALC	NA	%	Moisture	33.57	NA	T3
259-5_S_high_C	Compost_high_S	CALC	NA	%	Moisture	33.57	NA	T3
260-5_S_high_D	Compost_high_S	CALC	NA	%	Moisture	30.98	NA	T3
260-5_S_high_D	Compost_high_S	CALC	NA	%	Moisture	35.98	NA	T3
260-5_S_high_D	Compost_high_S	CALC	NA	%	Moisture	33.88	NA	T3
260-5_S_high_D	Compost_high_S	CALC	NA	%	Moisture	33.88	NA	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	39.66	NA	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	40.96	NA	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	39.96	NA	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	39.96	NA	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	37.98	NA	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	40.28	NA	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	40.18	NA	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	40.18	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
263-6_S_high_C	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	41.46	NA	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	41.46	NA	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	39.76	NA	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	39.76	NA	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	34.92	NA	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	37.52	NA	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	37.92	NA	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	CALC	NA	%	Moisture	37.92	NA	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	38.63	NA	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	33.63	NA	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	35.33	NA	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	35.33	NA	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	27.94	NA	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	31.74	NA	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	29.34	NA	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	29.34	NA	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	35.45	NA	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	31.15	NA	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	33.15	NA	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	33.15	NA	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	35.05	NA	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	35.25	NA	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	33.95	NA	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	CALC	NA	%	Moisture	33.95	NA	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	34.87	NA	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	38.07	NA	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	35.37	NA	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	35.37	NA	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	38.95	NA	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	35.85	NA	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	38.05	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
270-8_S_high_B	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	38.05	NA	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	34.91	NA	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	35.11	NA	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	35.71	NA	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	35.71	NA	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	33.31	NA	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	35.21	NA	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	35.61	NA	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	CALC	NA	%	Moisture	35.61	NA	T3
273-9_S_high_A	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	38.70	NA	T3
273-9_S_high_A	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	37.10	NA	T3
273-9_S_high_A	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	39.40	NA	T3
273-9_S_high_A	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	39.40	NA	T3
274-9_S_high_B	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	38.70	NA	T3
274-9_S_high_B	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	36.10	NA	T3
274-9_S_high_B	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	39.00	NA	T3
274-9_S_high_B	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	39.00	NA	T3
275-9_S_high_C	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	35.78	NA	T3
275-9_S_high_C	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	42.28	NA	T3
275-9_S_high_C	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	35.88	NA	T3
275-9_S_high_C	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	35.88	NA	T3
276-9_S_high_D	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	39.93	NA	T3
276-9_S_high_D	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	44.73	NA	T3
276-9_S_high_D	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	42.43	NA	T3
276-9_S_high_D	Biosolids and wood ash_high_S	CALC	NA	%	Moisture	42.43	NA	T3
277-10_S_high_A	Wood ash and biochar_high_S	CALC	NA	%	Moisture	31.18	NA	T3
277-10_S_high_A	Wood ash and biochar_high_S	CALC	NA	%	Moisture	34.38	NA	T3
277-10_S_high_A	Wood ash and biochar_high_S	CALC	NA	%	Moisture	33.28	NA	T3
277-10_S_high_A	Wood ash and biochar_high_S	CALC	NA	%	Moisture	33.28	NA	T3
278-10_S_high_B	Wood ash and biochar_high_S	CALC	NA	%	Moisture	38.67	NA	T3
278-10_S_high_B	Wood ash and biochar_high_S	CALC	NA	%	Moisture	38.97	NA	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
278-10_S_high_B	Wood ash and biochar_high_S	CALC	NA	%	Moisture	32.97	NA	T3
278-10_S_high_B	Wood ash and biochar_high_S	CALC	NA	%	Moisture	32.97	NA	T3
279-10_S_high_C	Wood ash and biochar_high_S	CALC	NA	%	Moisture	35.90	NA	T3
279-10_S_high_C	Wood ash and biochar_high_S	CALC	NA	%	Moisture	29.80	NA	T3
279-10_S_high_C	Wood ash and biochar_high_S	CALC	NA	%	Moisture	35.50	NA	T3
279-10_S_high_C	Wood ash and biochar_high_S	CALC	NA	%	Moisture	35.50	NA	T3
280-10_S_high_D	Wood ash and biochar_high_S	CALC	NA	%	Moisture	34.70	NA	T3
280-10_S_high_D	Wood ash and biochar_high_S	CALC	NA	%	Moisture	34.20	NA	T3
280-10_S_high_D	Wood ash and biochar_high_S	CALC	NA	%	Moisture	30.50	NA	T3
280-10_S_high_D	Wood ash and biochar_high_S	CALC	NA	%	Moisture	30.50	NA	T3
281-11_S_high_A	Wood ash and compost_high_S	CALC	NA	%	Moisture	22.62	NA	T3
281-11_S_high_A	Wood ash and compost_high_S	CALC	NA	%	Moisture	17.92	NA	T3
281-11_S_high_A	Wood ash and compost_high_S	CALC	NA	%	Moisture	22.42	NA	T3
281-11_S_high_A	Wood ash and compost_high_S	CALC	NA	%	Moisture	22.42	NA	T3
282-11_S_high_B	Wood ash and compost_high_S	CALC	NA	%	Moisture	29.13	NA	T3
282-11_S_high_B	Wood ash and compost_high_S	CALC	NA	%	Moisture	24.23	NA	T3
282-11_S_high_B	Wood ash and compost_high_S	CALC	NA	%	Moisture	28.03	NA	T3
282-11_S_high_B	Wood ash and compost_high_S	CALC	NA	%	Moisture	28.03	NA	T3
283-11_S_high_C	Wood ash and compost_high_S	CALC	NA	%	Moisture	35.13	NA	T3
283-11_S_high_C	Wood ash and compost_high_S	CALC	NA	%	Moisture	28.53	NA	T3
283-11_S_high_C	Wood ash and compost_high_S	CALC	NA	%	Moisture	33.33	NA	T3
283-11_S_high_C	Wood ash and compost_high_S	CALC	NA	%	Moisture	33.33	NA	T3
284-11_S_high_D	Wood ash and compost_high_S	CALC	NA	%	Moisture	31.23	NA	T3
284-11_S_high_D	Wood ash and compost_high_S	CALC	NA	%	Moisture	31.73	NA	T3
284-11_S_high_D	Wood ash and compost_high_S	CALC	NA	%	Moisture	28.63	NA	T3
284-11_S_high_D	Wood ash and compost_high_S	CALC	NA	%	Moisture	28.63	NA	T3
285-12_S_high_A	Biochar and compost_high_S	CALC	NA	%	Moisture	26.35	NA	T3
285-12_S_high_A	Biochar and compost_high_S	CALC	NA	%	Moisture	28.85	NA	T3
285-12_S_high_A	Biochar and compost_high_S	CALC	NA	%	Moisture	26.95	NA	T3
285-12_S_high_A	Biochar and compost_high_S	CALC	NA	%	Moisture	26.95	NA	T3
286-12_S_high_B	Biochar and compost_high_S	CALC	NA	%	Moisture	30.73	NA	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
286-12_S_high_B	Biochar and compost_high_S	CALC	NA	%	Moisture	31.73	NA	T3
286-12_S_high_B	Biochar and compost_high_S	CALC	NA	%	Moisture	32.53	NA	T3
286-12_S_high_B	Biochar and compost_high_S	CALC	NA	%	Moisture	32.53	NA	T3
287-12_S_high_C	Biochar and compost_high_S	CALC	NA	%	Moisture	36.69	NA	T3
287-12_S_high_C	Biochar and compost_high_S	CALC	NA	%	Moisture	33.69	NA	T3
287-12_S_high_C	Biochar and compost_high_S	CALC	NA	%	Moisture	32.39	NA	T3
287-12_S_high_C	Biochar and compost_high_S	CALC	NA	%	Moisture	32.39	NA	T3
288-12_S_high_D	Biochar and compost_high_S	CALC	NA	%	Moisture	33.86	NA	T3
288-12_S_high_D	Biochar and compost_high_S	CALC	NA	%	Moisture	30.26	NA	T3
288-12_S_high_D	Biochar and compost_high_S	CALC	NA	%	Moisture	30.16	NA	T3
288-12_S_high_D	Biochar and compost_high_S	CALC	NA	%	Moisture	30.16	NA	T3
289-1_I_low_A	Soluble phosphate_low_I	CALC	NA	%	Moisture	16.68	NA	T3
289-1_I_low_A	Soluble phosphate_low_I	CALC	NA	%	Moisture	21.08	NA	T3
289-1_I_low_A	Soluble phosphate_low_I	CALC	NA	%	Moisture	23.08	NA	T3
289-1_I_low_A	Soluble phosphate_low_I	CALC	NA	%	Moisture	23.08	NA	T3
290-1_I_low_B	Soluble phosphate_low_I	CALC	NA	%	Moisture	17.94	NA	T3
290-1_I_low_B	Soluble phosphate_low_I	CALC	NA	%	Moisture	16.34	NA	T3
290-1_I_low_B	Soluble phosphate_low_I	CALC	NA	%	Moisture	19.44	NA	T3
290-1_I_low_B	Soluble phosphate_low_I	CALC	NA	%	Moisture	19.44	NA	T3
291-1_I_low_C	Soluble phosphate_low_I	CALC	NA	%	Moisture	26.49	NA	T3
291-1_I_low_C	Soluble phosphate_low_I	CALC	NA	%	Moisture	25.39	NA	T3
291-1_I_low_C	Soluble phosphate_low_I	CALC	NA	%	Moisture	25.29	NA	T3
291-1_I_low_C	Soluble phosphate_low_I	CALC	NA	%	Moisture	25.29	NA	T3
292-1_I_low_D	Soluble phosphate_low_I	CALC	NA	%	Moisture	16.64	NA	T3
292-1_I_low_D	Soluble phosphate_low_I	CALC	NA	%	Moisture	20.74	NA	T3
292-1_I_low_D	Soluble phosphate_low_I	CALC	NA	%	Moisture	20.64	NA	T3
292-1_I_low_D	Soluble phosphate_low_I	CALC	NA	%	Moisture	20.64	NA	T3
293-2_I_low_A	Biosolid_low_I	CALC	NA	%	Moisture	22.26	NA	T3
293-2_I_low_A	Biosolid_low_I	CALC	NA	%	Moisture	18.36	NA	T3
293-2_I_low_A	Biosolid_low_I	CALC	NA	%	Moisture	24.26	NA	T3
293-2_I_low_A	Biosolid_low_I	CALC	NA	%	Moisture	24.26	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
294-2_I_low_B	Biosolid_low_I	CALC	NA	%	Moisture	18.05	NA	T3
294-2_I_low_B	Biosolid_low_I	CALC	NA	%	Moisture	19.25	NA	T3
294-2_I_low_B	Biosolid_low_I	CALC	NA	%	Moisture	24.05	NA	T3
294-2_I_low_B	Biosolid_low_I	CALC	NA	%	Moisture	24.05	NA	T3
295-2_I_low_C	Biosolid_low_I	CALC	NA	%	Moisture	23.83	NA	T3
295-2_I_low_C	Biosolid_low_I	CALC	NA	%	Moisture	24.93	NA	T3
295-2_I_low_C	Biosolid_low_I	CALC	NA	%	Moisture	26.33	NA	T3
295-2_I_low_C	Biosolid_low_I	CALC	NA	%	Moisture	26.33	NA	T3
296-2_I_low_D	Biosolid_low_I	CALC	NA	%	Moisture	17.45	NA	T3
296-2_I_low_D	Biosolid_low_I	CALC	NA	%	Moisture	22.45	NA	T3
296-2_I_low_D	Biosolid_low_I	CALC	NA	%	Moisture	19.95	NA	T3
296-2_I_low_D	Biosolid_low_I	CALC	NA	%	Moisture	19.95	NA	T3
297-3_I_low_A	Wood ash_low_I	CALC	NA	%	Moisture	21.27	NA	T3
297-3_I_low_A	Wood ash_low_I	CALC	NA	%	Moisture	24.97	NA	T3
297-3_I_low_A	Wood ash_low_I	CALC	NA	%	Moisture	22.77	NA	T3
297-3_I_low_A	Wood ash_low_I	CALC	NA	%	Moisture	22.77	NA	T3
298-3_I_low_B	Wood ash_low_I	CALC	NA	%	Moisture	18.46	NA	T3
298-3_I_low_B	Wood ash_low_I	CALC	NA	%	Moisture	22.26	NA	T3
298-3_I_low_B	Wood ash_low_I	CALC	NA	%	Moisture	19.16	NA	T3
298-3_I_low_B	Wood ash_low_I	CALC	NA	%	Moisture	19.16	NA	T3
299-3_I_low_C	Wood ash_low_I	CALC	NA	%	Moisture	13.35	NA	T3
299-3_I_low_C	Wood ash_low_I	CALC	NA	%	Moisture	16.25	NA	T3
299-3_I_low_C	Wood ash_low_I	CALC	NA	%	Moisture	13.65	NA	T3
299-3_I_low_C	Wood ash_low_I	CALC	NA	%	Moisture	13.65	NA	T3
300-3_I_low_D	Wood ash_low_I	CALC	NA	%	Moisture	15.15	NA	T3
300-3_I_low_D	Wood ash_low_I	CALC	NA	%	Moisture	14.75	NA	T3
300-3_I_low_D	Wood ash_low_I	CALC	NA	%	Moisture	19.15	NA	T3
300-3_I_low_D	Wood ash_low_I	CALC	NA	%	Moisture	19.15	NA	T3
301-4_I_low_A	Biochar_low_I	CALC	NA	%	Moisture	28.52	NA	T3
301-4_I_low_A	Biochar_low_I	CALC	NA	%	Moisture	26.32	NA	T3
301-4_I_low_A	Biochar_low_I	CALC	NA	%	Moisture	25.72	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
301-4_I_low_A	Biochar_low_I	CALC	NA	%	Moisture	25.72	NA	T3
302-4_I_low_B	Biochar_low_I	CALC	NA	%	Moisture	13.78	NA	T3
302-4_I_low_B	Biochar_low_I	CALC	NA	%	Moisture	18.88	NA	T3
302-4_I_low_B	Biochar_low_I	CALC	NA	%	Moisture	14.88	NA	T3
302-4_I_low_B	Biochar_low_I	CALC	NA	%	Moisture	14.88	NA	T3
303-4_I_low_C	Biochar_low_I	CALC	NA	%	Moisture	26.87	NA	T3
303-4_I_low_C	Biochar_low_I	CALC	NA	%	Moisture	30.37	NA	T3
303-4_I_low_C	Biochar_low_I	CALC	NA	%	Moisture	28.97	NA	T3
303-4_I_low_C	Biochar_low_I	CALC	NA	%	Moisture	28.97	NA	T3
304-4_I_low_D	Biochar_low_I	CALC	NA	%	Moisture	19.96	NA	T3
304-4_I_low_D	Biochar_low_I	CALC	NA	%	Moisture	21.06	NA	T3
304-4_I_low_D	Biochar_low_I	CALC	NA	%	Moisture	22.36	NA	T3
304-4_I_low_D	Biochar_low_I	CALC	NA	%	Moisture	22.36	NA	T3
305-5_I_low_A	Compost_low_I	CALC	NA	%	Moisture	28.03	NA	T3
305-5_I_low_A	Compost_low_I	CALC	NA	%	Moisture	23.53	NA	T3
305-5_I_low_A	Compost_low_I	CALC	NA	%	Moisture	25.33	NA	T3
305-5_I_low_A	Compost_low_I	CALC	NA	%	Moisture	25.33	NA	T3
306-5_I_low_B	Compost_low_I	CALC	NA	%	Moisture	16.31	NA	T3
306-5_I_low_B	Compost_low_I	CALC	NA	%	Moisture	16.11	NA	T3
306-5_I_low_B	Compost_low_I	CALC	NA	%	Moisture	14.71	NA	T3
306-5_I_low_B	Compost_low_I	CALC	NA	%	Moisture	14.71	NA	T3
307-5_I_low_C	Compost_low_I	CALC	NA	%	Moisture	33.02	NA	T3
307-5_I_low_C	Compost_low_I	CALC	NA	%	Moisture	32.92	NA	T3
307-5_I_low_C	Compost_low_I	CALC	NA	%	Moisture	34.42	NA	T3
307-5_I_low_C	Compost_low_I	CALC	NA	%	Moisture	34.42	NA	T3
308-5_I_low_D	Compost_low_I	CALC	NA	%	Moisture	24.41	NA	T3
308-5_I_low_D	Compost_low_I	CALC	NA	%	Moisture	21.21	NA	T3
308-5_I_low_D	Compost_low_I	CALC	NA	%	Moisture	22.51	NA	T3
308-5_I_low_D	Compost_low_I	CALC	NA	%	Moisture	22.51	NA	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	20.54	NA	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	24.64	NA	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
309-6_I_low_A	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	21.14	NA	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	21.14	NA	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	21.22	NA	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	20.52	NA	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	19.82	NA	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	19.82	NA	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	18.48	NA	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	24.38	NA	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	21.38	NA	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	21.38	NA	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	28.27	NA	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	27.97	NA	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	23.67	NA	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	CALC	NA	%	Moisture	23.67	NA	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	21.25	NA	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	23.35	NA	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	24.15	NA	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	24.15	NA	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	17.48	NA	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	17.58	NA	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	22.48	NA	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	22.48	NA	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	22.98	NA	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	21.68	NA	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	24.98	NA	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	24.98	NA	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	21.33	NA	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	22.03	NA	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	21.83	NA	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	CALC	NA	%	Moisture	21.83	NA	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	26.12	NA	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
317-8_I_low_A	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	24.92	NA	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	25.12	NA	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	25.12	NA	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	22.22	NA	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	23.02	NA	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	25.12	NA	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	25.12	NA	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	26.66	NA	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	26.36	NA	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	25.96	NA	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	25.96	NA	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	22.49	NA	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	19.29	NA	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	21.29	NA	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	CALC	NA	%	Moisture	21.29	NA	T3
321-9_I_low_A	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	18.98	NA	T3
321-9_I_low_A	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	20.28	NA	T3
321-9_I_low_A	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	19.88	NA	T3
321-9_I_low_A	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	19.88	NA	T3
322-9_I_low_B	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	20.92	NA	T3
322-9_I_low_B	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	22.12	NA	T3
322-9_I_low_B	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	25.32	NA	T3
322-9_I_low_B	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	25.32	NA	T3
323-9_I_low_C	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	22.31	NA	T3
323-9_I_low_C	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	27.21	NA	T3
323-9_I_low_C	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	26.01	NA	T3
323-9_I_low_C	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	26.01	NA	T3
324-9_I_low_D	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	24.99	NA	T3
324-9_I_low_D	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	24.99	NA	T3
324-9_I_low_D	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	25.99	NA	T3
324-9_I_low_D	Biosolids and wood ash_low_I	CALC	NA	%	Moisture	25.99	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
325-10_I_low_A	Wood ash and biochar_low_I	CALC	NA	%	Moisture	22.64	NA	T3
325-10_I_low_A	Wood ash and biochar_low_I	CALC	NA	%	Moisture	21.54	NA	T3
325-10_I_low_A	Wood ash and biochar_low_I	CALC	NA	%	Moisture	23.14	NA	T3
325-10_I_low_A	Wood ash and biochar_low_I	CALC	NA	%	Moisture	23.14	NA	T3
326-10_I_low_B	Wood ash and biochar_low_I	CALC	NA	%	Moisture	18.01	NA	T3
326-10_I_low_B	Wood ash and biochar_low_I	CALC	NA	%	Moisture	19.61	NA	T3
326-10_I_low_B	Wood ash and biochar_low_I	CALC	NA	%	Moisture	22.41	NA	T3
326-10_I_low_B	Wood ash and biochar_low_I	CALC	NA	%	Moisture	22.41	NA	T3
327-10_I_low_C	Wood ash and biochar_low_I	CALC	NA	%	Moisture	12.28	NA	T3
327-10_I_low_C	Wood ash and biochar_low_I	CALC	NA	%	Moisture	13.58	NA	T3
327-10_I_low_C	Wood ash and biochar_low_I	CALC	NA	%	Moisture	13.38	NA	T3
327-10_I_low_C	Wood ash and biochar_low_I	CALC	NA	%	Moisture	13.38	NA	T3
328-10_I_low_D	Wood ash and biochar_low_I	CALC	NA	%	Moisture	18.53	NA	T3
328-10_I_low_D	Wood ash and biochar_low_I	CALC	NA	%	Moisture	20.83	NA	T3
328-10_I_low_D	Wood ash and biochar_low_I	CALC	NA	%	Moisture	21.03	NA	T3
328-10_I_low_D	Wood ash and biochar_low_I	CALC	NA	%	Moisture	21.03	NA	T3
329-11_I_low_A	Wood ash and compost_low_I	CALC	NA	%	Moisture	19.66	NA	T3
329-11_I_low_A	Wood ash and compost_low_I	CALC	NA	%	Moisture	19.66	NA	T3
329-11_I_low_A	Wood ash and compost_low_I	CALC	NA	%	Moisture	17.66	NA	T3
329-11_I_low_A	Wood ash and compost_low_I	CALC	NA	%	Moisture	17.66	NA	T3
330-11_I_low_B	Wood ash and compost_low_I	CALC	NA	%	Moisture	15.07	NA	T3
330-11_I_low_B	Wood ash and compost_low_I	CALC	NA	%	Moisture	17.27	NA	T3
330-11_I_low_B	Wood ash and compost_low_I	CALC	NA	%	Moisture	19.37	NA	T3
330-11_I_low_B	Wood ash and compost_low_I	CALC	NA	%	Moisture	19.37	NA	T3
331-11_I_low_C	Wood ash and compost_low_I	CALC	NA	%	Moisture	12.82	NA	T3
331-11_I_low_C	Wood ash and compost_low_I	CALC	NA	%	Moisture	14.22	NA	T3
331-11_I_low_C	Wood ash and compost_low_I	CALC	NA	%	Moisture	15.32	NA	T3
331-11_I_low_C	Wood ash and compost_low_I	CALC	NA	%	Moisture	13.32	NA	T3
332-11_I_low_D	Wood ash and compost_low_I	CALC	NA	%	Moisture	18.00	NA	T3
332-11_I_low_D	Wood ash and compost_low_I	CALC	NA	%	Moisture	20.80	NA	T3
332-11_I_low_D	Wood ash and compost_low_I	CALC	NA	%	Moisture	15.50	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
332-11_I_low_D	Wood ash and compost_low_I	CALC	NA	%	Moisture	15.50	NA	T3
333-12_I_low_A	Biochar and compost_low_I	CALC	NA	%	Moisture	17.54	NA	T3
333-12_I_low_A	Biochar and compost_low_I	CALC	NA	%	Moisture	16.14	NA	T3
333-12_I_low_A	Biochar and compost_low_I	CALC	NA	%	Moisture	18.94	NA	T3
333-12_I_low_A	Biochar and compost_low_I	CALC	NA	%	Moisture	18.94	NA	T3
334-12_I_low_B	Biochar and compost_low_I	CALC	NA	%	Moisture	17.99	NA	T3
334-12_I_low_B	Biochar and compost_low_I	CALC	NA	%	Moisture	18.29	NA	T3
334-12_I_low_B	Biochar and compost_low_I	CALC	NA	%	Moisture	16.29	NA	T3
334-12_I_low_B	Biochar and compost_low_I	CALC	NA	%	Moisture	16.29	NA	T3
335-12_I_low_C	Biochar and compost_low_I	CALC	NA	%	Moisture	23.59	NA	T3
335-12_I_low_C	Biochar and compost_low_I	CALC	NA	%	Moisture	22.89	NA	T3
335-12_I_low_C	Biochar and compost_low_I	CALC	NA	%	Moisture	20.49	NA	T3
335-12_I_low_C	Biochar and compost_low_I	CALC	NA	%	Moisture	20.49	NA	T3
336-12_I_low_D	Biochar and compost_low_I	CALC	NA	%	Moisture	19.79	NA	T3
336-12_I_low_D	Biochar and compost_low_I	CALC	NA	%	Moisture	20.69	NA	T3
336-12_I_low_D	Biochar and compost_low_I	CALC	NA	%	Moisture	21.09	NA	T3
336-12_I_low_D	Biochar and compost_low_I	CALC	NA	%	Moisture	21.09	NA	T3
337-1_I_high_A	Soluble phosphate_high_I	CALC	NA	%	Moisture	19.47	NA	T3
337-1_I_high_A	Soluble phosphate_high_I	CALC	NA	%	Moisture	15.07	NA	T3
337-1_I_high_A	Soluble phosphate_high_I	CALC	NA	%	Moisture	17.27	NA	T3
337-1_I_high_A	Soluble phosphate_high_I	CALC	NA	%	Moisture	17.27	NA	T3
338-1_I_high_B	Soluble phosphate_high_I	CALC	NA	%	Moisture	15.19	NA	T3
338-1_I_high_B	Soluble phosphate_high_I	CALC	NA	%	Moisture	15.79	NA	T3
338-1_I_high_B	Soluble phosphate_high_I	CALC	NA	%	Moisture	16.89	NA	T3
338-1_I_high_B	Soluble phosphate_high_I	CALC	NA	%	Moisture	14.89	NA	T3
339-1_I_high_C	Soluble phosphate_high_I	CALC	NA	%	Moisture	13.97	NA	T3
339-1_I_high_C	Soluble phosphate_high_I	CALC	NA	%	Moisture	12.77	NA	T3
339-1_I_high_C	Soluble phosphate_high_I	CALC	NA	%	Moisture	13.77	NA	T3
339-1_I_high_C	Soluble phosphate_high_I	CALC	NA	%	Moisture	13.77	NA	T3
340-1_I_high_D	Soluble phosphate_high_I	CALC	NA	%	Moisture	16.29	NA	T3
340-1_I_high_D	Soluble phosphate_high_I	CALC	NA	%	Moisture	14.69	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
340-1_I_high_D	Soluble phosphate_high_I	CALC	NA	%	Moisture	15.39	NA	T3
340-1_I_high_D	Soluble phosphate_high_I	CALC	NA	%	Moisture	15.39	NA	T3
341-2_I_high_A	Biosolid_high_I	CALC	NA	%	Moisture	25.95	NA	T3
341-2_I_high_A	Biosolid_high_I	CALC	NA	%	Moisture	26.15	NA	T3
341-2_I_high_A	Biosolid_high_I	CALC	NA	%	Moisture	24.85	NA	T3
341-2_I_high_A	Biosolid_high_I	CALC	NA	%	Moisture	24.85	NA	T3
342-2_I_high_B	Biosolid_high_I	CALC	NA	%	Moisture	32.93	NA	T3
342-2_I_high_B	Biosolid_high_I	CALC	NA	%	Moisture	29.53	NA	T3
342-2_I_high_B	Biosolid_high_I	CALC	NA	%	Moisture	29.23	NA	T3
342-2_I_high_B	Biosolid_high_I	CALC	NA	%	Moisture	29.23	NA	T3
343-2_I_high_C	Biosolid_high_I	CALC	NA	%	Moisture	21.64	NA	T3
343-2_I_high_C	Biosolid_high_I	CALC	NA	%	Moisture	23.34	NA	T3
343-2_I_high_C	Biosolid_high_I	CALC	NA	%	Moisture	26.84	NA	T3
343-2_I_high_C	Biosolid_high_I	CALC	NA	%	Moisture	26.84	NA	T3
344-2_I_high_D	Biosolid_high_I	CALC	NA	%	Moisture	30.27	NA	T3
344-2_I_high_D	Biosolid_high_I	CALC	NA	%	Moisture	30.97	NA	T3
344-2_I_high_D	Biosolid_high_I	CALC	NA	%	Moisture	31.27	NA	T3
344-2_I_high_D	Biosolid_high_I	CALC	NA	%	Moisture	31.27	NA	T3
345-3_I_high_A	Wood ash_high_I	CALC	NA	%	Moisture	19.44	NA	T3
345-3_I_high_A	Wood ash_high_I	CALC	NA	%	Moisture	19.64	NA	T3
345-3_I_high_A	Wood ash_high_I	CALC	NA	%	Moisture	23.84	NA	T3
345-3_I_high_A	Wood ash_high_I	CALC	NA	%	Moisture	23.84	NA	T3
346-3_I_high_B	Wood ash_high_I	CALC	NA	%	Moisture	12.16	NA	T3
346-3_I_high_B	Wood ash_high_I	CALC	NA	%	Moisture	14.66	NA	T3
346-3_I_high_B	Wood ash_high_I	CALC	NA	%	Moisture	15.06	NA	T3
346-3_I_high_B	Wood ash_high_I	CALC	NA	%	Moisture	15.06	NA	T3
347-3_I_high_C	Wood ash_high_I	CALC	NA	%	Moisture	21.59	NA	T3
347-3_I_high_C	Wood ash_high_I	CALC	NA	%	Moisture	21.59	NA	T3
347-3_I_high_C	Wood ash_high_I	CALC	NA	%	Moisture	17.29	NA	T3
347-3_I_high_C	Wood ash_high_I	CALC	NA	%	Moisture	17.29	NA	T3
348-3_I_high_D	Wood ash_high_I	CALC	NA	%	Moisture	16.40	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
348-3_I_high_D	Wood ash_high_I	CALC	NA	%	Moisture	18.20	NA	T3
348-3_I_high_D	Wood ash_high_I	CALC	NA	%	Moisture	19.40	NA	T3
348-3_I_high_D	Wood ash_high_I	CALC	NA	%	Moisture	19.40	NA	T3
349-4_I_high_A	Biochar_high_I	CALC	NA	%	Moisture	16.37	NA	T3
349-4_I_high_A	Biochar_high_I	CALC	NA	%	Moisture	18.37	NA	T3
349-4_I_high_A	Biochar_high_I	CALC	NA	%	Moisture	18.77	NA	T3
349-4_I_high_A	Biochar_high_I	CALC	NA	%	Moisture	18.77	NA	T3
350-4_I_high_B	Biochar_high_I	CALC	NA	%	Moisture	20.56	NA	T3
350-4_I_high_B	Biochar_high_I	CALC	NA	%	Moisture	18.46	NA	T3
350-4_I_high_B	Biochar_high_I	CALC	NA	%	Moisture	16.56	NA	T3
350-4_I_high_B	Biochar_high_I	CALC	NA	%	Moisture	16.56	NA	T3
351-4_I_high_C	Biochar_high_I	CALC	NA	%	Moisture	14.76	NA	T3
351-4_I_high_C	Biochar_high_I	CALC	NA	%	Moisture	16.06	NA	T3
351-4_I_high_C	Biochar_high_I	CALC	NA	%	Moisture	14.06	NA	T3
351-4_I_high_C	Biochar_high_I	CALC	NA	%	Moisture	12.06	NA	T3
352-4_I_high_D	Biochar_high_I	CALC	NA	%	Moisture	17.55	NA	T3
352-4_I_high_D	Biochar_high_I	CALC	NA	%	Moisture	19.05	NA	T3
352-4_I_high_D	Biochar_high_I	CALC	NA	%	Moisture	19.05	NA	T3
352-4_I_high_D	Biochar_high_I	CALC	NA	%	Moisture	19.05	NA	T3
353-5_I_high_A	Compost_high_I	CALC	NA	%	Moisture	18.07	NA	T3
353-5_I_high_A	Compost_high_I	CALC	NA	%	Moisture	12.57	NA	T3
353-5_I_high_A	Compost_high_I	CALC	NA	%	Moisture	15.27	NA	T3
353-5_I_high_A	Compost_high_I	CALC	NA	%	Moisture	15.27	NA	T3
354-5_I_high_B	Compost_high_I	CALC	NA	%	Moisture	20.28	NA	T3
354-5_I_high_B	Compost_high_I	CALC	NA	%	Moisture	20.98	NA	T3
354-5_I_high_B	Compost_high_I	CALC	NA	%	Moisture	18.88	NA	T3
354-5_I_high_B	Compost_high_I	CALC	NA	%	Moisture	18.88	NA	T3
355-5_I_high_C	Compost_high_I	CALC	NA	%	Moisture	17.44	NA	T3
355-5_I_high_C	Compost_high_I	CALC	NA	%	Moisture	16.94	NA	T3
355-5_I_high_C	Compost_high_I	CALC	NA	%	Moisture	21.44	NA	T3
355-5_I_high_C	Compost_high_I	CALC	NA	%	Moisture	21.44	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
356-5_I_high_D	Compost_high_I	CALC	NA	%	Moisture	17.80	NA	T3
356-5_I_high_D	Compost_high_I	CALC	NA	%	Moisture	15.60	NA	T3
356-5_I_high_D	Compost_high_I	CALC	NA	%	Moisture	16.80	NA	T3
356-5_I_high_D	Compost_high_I	CALC	NA	%	Moisture	16.80	NA	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	22.55	NA	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	25.55	NA	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	23.55	NA	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	23.55	NA	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	26.31	NA	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	25.81	NA	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	27.31	NA	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	27.31	NA	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	22.56	NA	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	19.86	NA	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	19.76	NA	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	19.76	NA	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	26.66	NA	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	29.86	NA	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	27.36	NA	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	CALC	NA	%	Moisture	27.36	NA	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	24.37	NA	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	22.57	NA	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	23.67	NA	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	23.67	NA	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	21.87	NA	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	20.77	NA	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	24.97	NA	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	24.97	NA	T3
363-7_I_high_C	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	22.01	NA	T3
363-7_I_high_C	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	21.91	NA	T3
363-7_I_high_C	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	27.71	NA	T3

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363-7_I_high_C	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	27.71	NA	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	27.60	NA	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	30.90	NA	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	29.60	NA	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	CALC	NA	%	Moisture	29.60	NA	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	17.89	NA	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	23.09	NA	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	18.19	NA	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	18.19	NA	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	13.13	NA	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	14.73	NA	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	15.43	NA	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	14.43	NA	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	16.67	NA	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	14.47	NA	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	17.77	NA	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	17.77	NA	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	16.40	NA	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	19.20	NA	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	18.10	NA	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	CALC	NA	%	Moisture	18.10	NA	T3
369-9_I_high_A	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	26.42	NA	T3
369-9_I_high_A	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	20.62	NA	T3
369-9_I_high_A	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	24.82	NA	T3
369-9_I_high_A	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	24.82	NA	T3
370-9_I_high_B	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	21.54	NA	T3
370-9_I_high_B	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	18.74	NA	T3
370-9_I_high_B	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	21.54	NA	T3
370-9_I_high_B	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	21.54	NA	T3
371-9_I_high_C	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	17.44	NA	T3
371-9_I_high_C	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	21.24	NA	T3



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371-9_I_high_C	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	22.94	NA	T3
371-9_I_high_C	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	22.94	NA	T3
372-9_I_high_D	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	27.70	NA	T3
372-9_I_high_D	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	27.10	NA	T3
372-9_I_high_D	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	24.80	NA	T3
372-9_I_high_D	Biosolids and wood ash_high_I	CALC	NA	%	Moisture	24.80	NA	T3
373-10_I_high_A	Wood ash and biochar_high_I	CALC	NA	%	Moisture	14.17	NA	T3
373-10_I_high_A	Wood ash and biochar_high_I	CALC	NA	%	Moisture	16.17	NA	T3
373-10_I_high_A	Wood ash and biochar_high_I	CALC	NA	%	Moisture	12.07	NA	T3
373-10_I_high_A	Wood ash and biochar_high_I	CALC	NA	%	Moisture	12.07	NA	T3
374-10_I_high_B	Wood ash and biochar_high_I	CALC	NA	%	Moisture	16.00	NA	T3
374-10_I_high_B	Wood ash and biochar_high_I	CALC	NA	%	Moisture	12.20	NA	T3
374-10_I_high_B	Wood ash and biochar_high_I	CALC	NA	%	Moisture	16.40	NA	T3
374-10_I_high_B	Wood ash and biochar_high_I	CALC	NA	%	Moisture	16.40	NA	T3
375-10_I_high_C	Wood ash and biochar_high_I	CALC	NA	%	Moisture	14.37	NA	T3
375-10_I_high_C	Wood ash and biochar_high_I	CALC	NA	%	Moisture	14.57	NA	T3
375-10_I_high_C	Wood ash and biochar_high_I	CALC	NA	%	Moisture	14.77	NA	T3
375-10_I_high_C	Wood ash and biochar_high_I	CALC	NA	%	Moisture	14.77	NA	T3
376-10_I_high_D	Wood ash and biochar_high_I	CALC	NA	%	Moisture	17.67	NA	T3
376-10_I_high_D	Wood ash and biochar_high_I	CALC	NA	%	Moisture	18.67	NA	T3
376-10_I_high_D	Wood ash and biochar_high_I	CALC	NA	%	Moisture	16.67	NA	T3
376-10_I_high_D	Wood ash and biochar_high_I	CALC	NA	%	Moisture	16.67	NA	T3
377-11_I_high_A	Wood ash and compost_high_I	CALC	NA	%	Moisture	14.02	NA	T3
377-11_I_high_A	Wood ash and compost_high_I	CALC	NA	%	Moisture	18.32	NA	T3
377-11_I_high_A	Wood ash and compost_high_I	CALC	NA	%	Moisture	16.42	NA	T3
377-11_I_high_A	Wood ash and compost_high_I	CALC	NA	%	Moisture	13.42	NA	T3
378-11_I_high_B	Wood ash and compost_high_I	CALC	NA	%	Moisture	14.99	NA	T3
378-11_I_high_B	Wood ash and compost_high_I	CALC	NA	%	Moisture	16.29	NA	T3
378-11_I_high_B	Wood ash and compost_high_I	CALC	NA	%	Moisture	14.69	NA	T3
378-11_I_high_B	Wood ash and compost_high_I	CALC	NA	%	Moisture	14.69	NA	T3
379-11_I_high_C	Wood ash and compost_high_I	CALC	NA	%	Moisture	13.68	NA	T3



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379-11_I_high_C	Wood ash and compost_high_I	CALC	NA	%	Moisture	15.88	NA	T3
379-11_I_high_C	Wood ash and compost_high_I	CALC	NA	%	Moisture	13.78	NA	T3
379-11_I_high_C	Wood ash and compost_high_I	CALC	NA	%	Moisture	13.78	NA	T3
380-11_I_high_D	Wood ash and compost_high_I	CALC	NA	%	Moisture	19.74	NA	T3
380-11_I_high_D	Wood ash and compost_high_I	CALC	NA	%	Moisture	12.24	NA	T3
380-11_I_high_D	Wood ash and compost_high_I	CALC	NA	%	Moisture	18.54	NA	T3
380-11_I_high_D	Wood ash and compost_high_I	CALC	NA	%	Moisture	13.54	NA	T3
381-12_I_high_A	Biochar and compost_high_I	CALC	NA	%	Moisture	25.42	NA	T3
381-12_I_high_A	Biochar and compost_high_I	CALC	NA	%	Moisture	26.82	NA	T3
381-12_I_high_A	Biochar and compost_high_I	CALC	NA	%	Moisture	27.62	NA	T3
381-12_I_high_A	Biochar and compost_high_I	CALC	NA	%	Moisture	27.62	NA	T3
382-12_I_high_B	Biochar and compost_high_I	CALC	NA	%	Moisture	15.69	NA	T3
382-12_I_high_B	Biochar and compost_high_I	CALC	NA	%	Moisture	14.19	NA	T3
382-12_I_high_B	Biochar and compost_high_I	CALC	NA	%	Moisture	15.99	NA	T3
382-12_I_high_B	Biochar and compost_high_I	CALC	NA	%	Moisture	15.99	NA	T3
383-12_I_high_C	Biochar and compost_high_I	CALC	NA	%	Moisture	13.73	NA	T3
383-12_I_high_C	Biochar and compost_high_I	CALC	NA	%	Moisture	14.03	NA	T3
383-12_I_high_C	Biochar and compost_high_I	CALC	NA	%	Moisture	13.83	NA	T3
383-12_I_high_C	Biochar and compost_high_I	CALC	NA	%	Moisture	13.83	NA	T3
384-12_I_high_D	Biochar and compost_high_I	CALC	NA	%	Moisture	19.06	NA	T3
384-12_I_high_D	Biochar and compost_high_I	CALC	NA	%	Moisture	19.46	NA	T3
384-12_I_high_D	Biochar and compost_high_I	CALC	NA	%	Moisture	14.96	NA	T3
384-12_I_high_D	Biochar and compost_high_I	CALC	NA	%	Moisture	14.96	NA	T3
385-0_I_NA_A	control_none_I	CALC	NA	%	Moisture	14.75	NA	T3
385-0_I_NA_A	control_none_I	CALC	NA	%	Moisture	20.05	NA	T3
385-0_I_NA_A	control_none_I	CALC	NA	%	Moisture	15.35	NA	T3
385-0_I_NA_A	control_none_I	CALC	NA	%	Moisture	15.35	NA	T3
386-0_I_NA_B	control_none_I	CALC	NA	%	Moisture	23.01	NA	T3
386-0_I_NA_B	control_none_I	CALC	NA	%	Moisture	20.91	NA	T3
386-0_I_NA_B	control_none_I	CALC	NA	%	Moisture	22.61	NA	T3
386-0_I_NA_B	control_none_I	CALC	NA	%	Moisture	22.61	NA	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
387-0_I_NA_C	control_none_I	CALC	NA	%	Moisture	14.91	NA	T3
387-0_I_NA_C	control_none_I	CALC	NA	%	Moisture	13.71	NA	T3
387-0_I_NA_C	control_none_I	CALC	NA	%	Moisture	14.41	NA	T3
387-0_I_NA_C	control_none_I	CALC	NA	%	Moisture	14.41	NA	T3
388-0_I_NA_D	control_none_I	CALC	NA	%	Moisture	15.87	NA	T3
388-0_I_NA_D	control_none_I	CALC	NA	%	Moisture	21.07	NA	T3
388-0_I_NA_D	control_none_I	CALC	NA	%	Moisture	17.07	NA	T3
388-0_I_NA_D	control_none_I	CALC	NA	%	Moisture	17.07	NA	T3
097-1_S_low_A	Soluble phosphate_low_S	BREMNER82	1	%	Nitrogen_total	0.49	NA	T3
098-1_S_low_B	Soluble phosphate_low_S	BREMNER82	1	%	Nitrogen_total	0.38	NA	T3
099-1_S_low_C	Soluble phosphate_low_S	BREMNER82	1	%	Nitrogen_total	0.50	NA	T3
100-1_S_low_D	Soluble phosphate_low_S	BREMNER82	1	%	Nitrogen_total	0.33	NA	T3
101-2_S_low_A	Biosolid_low_S	BREMNER82	1	%	Nitrogen_total	0.45	NA	T3
102-2_S_low_B	Biosolid_low_S	BREMNER82	1	%	Nitrogen_total	0.48	NA	T3
103-2_S_low_C	Biosolid_low_S	BREMNER82	1	%	Nitrogen_total	0.46	NA	T3
104-2_S_low_D	Biosolid_low_S	BREMNER82	1	%	Nitrogen_total	0.40	NA	T3
105-3_S_low_A	Wood ash_low_S	BREMNER82	1	%	Nitrogen_total	0.27	NA	T3
106-3_S_low_B	Wood ash_low_S	BREMNER82	1	%	Nitrogen_total	0.42	NA	T3
107-3_S_low_C	Wood ash_low_S	BREMNER82	1	%	Nitrogen_total	0.34	NA	T3
108-3_S_low_D	Wood ash_low_S	BREMNER82	1	%	Nitrogen_total	0.38	NA	T3
109-4_S_low_A	Biochar_low_S	BREMNER82	1	%	Nitrogen_total	0.43	NA	T3
110-4_S_low_B	Biochar_low_S	BREMNER82	1	%	Nitrogen_total	0.55	NA	T3
111-4_S_low_C	Biochar_low_S	BREMNER82	1	%	Nitrogen_total	0.45	NA	T3
112-4_S_low_D	Biochar_low_S	BREMNER82	1	%	Nitrogen_total	0.36	NA	T3
113-5_S_low_A	Compost_low_S	BREMNER82	1	%	Nitrogen_total	0.39	NA	T3
114-5_S_low_B	Compost_low_S	BREMNER82	1	%	Nitrogen_total	0.37	NA	T3
115-5_S_low_C	Compost_low_S	BREMNER82	1	%	Nitrogen_total	0.43	NA	T3
116-5_S_low_D	Compost_low_S	BREMNER82	1	%	Nitrogen_total	0.37	NA	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	BREMNER82	1	%	Nitrogen_total	0.41	NA	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	BREMNER82	1	%	Nitrogen_total	0.36	NA	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	BREMNER82	1	%	Nitrogen_total	0.34	NA	T3



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120-6_S_low_D	Soluble phosphate and biosolids_low_S	BREMNER82	1	%	Nitrogen_total	0.46	NA	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	BREMNER82	1	%	Nitrogen_total	0.31	NA	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	BREMNER82	1	%	Nitrogen_total	0.35	NA	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	BREMNER82	1	%	Nitrogen_total	0.49	NA	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	BREMNER82	1	%	Nitrogen_total	0.42	NA	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	BREMNER82	1	%	Nitrogen_total	0.33	NA	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	BREMNER82	1	%	Nitrogen_total	0.44	NA	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	BREMNER82	1	%	Nitrogen_total	0.36	NA	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	BREMNER82	1	%	Nitrogen_total	0.26	NA	T3
129-9_S_low_A	Biosolids and wood ash_low_S	BREMNER82	1	%	Nitrogen_total	0.47	NA	T3
130-9_S_low_B	Biosolids and wood ash_low_S	BREMNER82	1	%	Nitrogen_total	0.42	NA	T3
131-9_S_low_C	Biosolids and wood ash_low_S	BREMNER82	1	%	Nitrogen_total	0.52	NA	T3
132-9_S_low_D	Biosolids and wood ash_low_S	BREMNER82	1	%	Nitrogen_total	0.54	NA	T3
133-10_S_low_A	Wood ash and biochar_low_S	BREMNER82	1	%	Nitrogen_total	0.33	NA	T3
134-10_S_low_B	Wood ash and biochar_low_S	BREMNER82	1	%	Nitrogen_total	0.36	NA	T3
135-10_S_low_C	Wood ash and biochar_low_S	BREMNER82	1	%	Nitrogen_total	0.32	NA	T3
136-10_S_low_D	Wood ash and biochar_low_S	BREMNER82	1	%	Nitrogen_total	0.31	NA	T3
137-11_S_low_A	Wood ash and compost_low_S	BREMNER82	1	%	Nitrogen_total	0.42	NA	T3
138-11_S_low_B	Wood ash and compost_low_S	BREMNER82	1	%	Nitrogen_total	0.46	NA	T3
139-11_S_low_C	Wood ash and compost_low_S	BREMNER82	1	%	Nitrogen_total	0.44	NA	T3
140-11_S_low_D	Wood ash and compost_low_S	BREMNER82	1	%	Nitrogen_total	0.37	NA	T3
141-12_S_low_A	Biochar and compost_low_S	BREMNER82	1	%	Nitrogen_total	0.47	NA	T3
142-12_S_low_B	Biochar and compost_low_S	BREMNER82	1	%	Nitrogen_total	0.40	NA	T3
143-12_S_low_C	Biochar and compost_low_S	BREMNER82	1	%	Nitrogen_total	0.39	NA	T3
144-12_S_low_D	Biochar and compost_low_S	BREMNER82	1	%	Nitrogen_total	0.52	NA	T3
241-1_S_high_A	Soluble phosphate_high_S	BREMNER82	1	%	Nitrogen_total	0.34	NA	T3
242-1_S_high_B	Soluble phosphate_high_S	BREMNER82	1	%	Nitrogen_total	0.28	NA	T3
243-1_S_high_C	Soluble phosphate_high_S	BREMNER82	1	%	Nitrogen_total	0.42	NA	T3
244-1_S_high_D	Soluble phosphate_high_S	BREMNER82	1	%	Nitrogen_total	0.28	NA	T3
245-2_S_high_A	Biosolid_high_S	BREMNER82	1	%	Nitrogen_total	0.53	NA	T3
246-2_S_high_B	Biosolid_high_S	BREMNER82	1	%	Nitrogen_total	0.67	NA	T3



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247-2_S_high_C	Biosolid_high_S	BREMNER82	1	%	Nitrogen_total	0.48	NA	T3
248-2_S_high_D	Biosolid_high_S	BREMNER82	1	%	Nitrogen_total	0.35	NA	T3
249-3_S_high_A	Wood ash_high_S	BREMNER82	1	%	Nitrogen_total	0.40	NA	T3
250-3_S_high_B	Wood ash_high_S	BREMNER82	1	%	Nitrogen_total	0.42	NA	T3
251-3_S_high_C	Wood ash_high_S	BREMNER82	1	%	Nitrogen_total	0.43	NA	T3
252-3_S_high_D	Wood ash_high_S	BREMNER82	1	%	Nitrogen_total	0.41	NA	T3
253-4_S_high_A	Biochar_high_S	BREMNER82	1	%	Nitrogen_total	0.41	NA	T3
254-4_S_high_B	Biochar_high_S	BREMNER82	1	%	Nitrogen_total	0.34	NA	T3
255-4_S_high_C	Biochar_high_S	BREMNER82	1	%	Nitrogen_total	0.38	NA	T3
256-4_S_high_D	Biochar_high_S	BREMNER82	1	%	Nitrogen_total	0.33	NA	T3
257-5_S_high_A	Compost_high_S	BREMNER82	1	%	Nitrogen_total	0.59	NA	T3
258-5_S_high_B	Compost_high_S	BREMNER82	1	%	Nitrogen_total	0.44	NA	T3
259-5_S_high_C	Compost_high_S	BREMNER82	1	%	Nitrogen_total	0.39	NA	T3
260-5_S_high_D	Compost_high_S	BREMNER82	1	%	Nitrogen_total	0.52	NA	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	BREMNER82	1	%	Nitrogen_total	0.58	NA	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	BREMNER82	1	%	Nitrogen_total	0.55	NA	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	BREMNER82	1	%	Nitrogen_total	0.58	NA	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	BREMNER82	1	%	Nitrogen_total	0.50	NA	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	BREMNER82	1	%	Nitrogen_total	0.31	NA	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	BREMNER82	1	%	Nitrogen_total	0.33	NA	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	BREMNER82	1	%	Nitrogen_total	0.34	NA	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	BREMNER82	1	%	Nitrogen_total	0.33	NA	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	BREMNER82	1	%	Nitrogen_total	0.35	NA	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	BREMNER82	1	%	Nitrogen_total	0.41	NA	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	BREMNER82	1	%	Nitrogen_total	0.38	NA	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	BREMNER82	1	%	Nitrogen_total	0.35	NA	T3
273-9_S_high_A	Biosolids and wood ash_high_S	BREMNER82	1	%	Nitrogen_total	0.54	NA	T3
274-9_S_high_B	Biosolids and wood ash_high_S	BREMNER82	1	%	Nitrogen_total	0.42	NA	T3
275-9_S_high_C	Biosolids and wood ash_high_S	BREMNER82	1	%	Nitrogen_total	0.55	NA	T3
276-9_S_high_D	Biosolids and wood ash_high_S	BREMNER82	1	%	Nitrogen_total	0.55	NA	T3
277-10_S_high_A	Wood ash and biochar_high_S	BREMNER82	1	%	Nitrogen_total	0.32	NA	T3



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278-10_S_high_B	Wood ash and biochar_high_S	BREMNER82	1	%	Nitrogen_total	0.34	NA	T3
279-10_S_high_C	Wood ash and biochar_high_S	BREMNER82	1	%	Nitrogen_total	0.35	NA	T3
280-10_S_high_D	Wood ash and biochar_high_S	BREMNER82	1	%	Nitrogen_total	0.36	NA	T3
281-11_S_high_A	Wood ash and compost_high_S	BREMNER82	1	%	Nitrogen_total	0.47	NA	T3
282-11_S_high_B	Wood ash and compost_high_S	BREMNER82	1	%	Nitrogen_total	0.40	NA	T3
283-11_S_high_C	Wood ash and compost_high_S	BREMNER82	1	%	Nitrogen_total	0.41	NA	T3
284-11_S_high_D	Wood ash and compost_high_S	BREMNER82	1	%	Nitrogen_total	0.60	NA	T3
285-12_S_high_A	Biochar and compost_high_S	BREMNER82	1	%	Nitrogen_total	0.34	NA	T3
286-12_S_high_B	Biochar and compost_high_S	BREMNER82	1	%	Nitrogen_total	0.42	NA	T3
287-12_S_high_C	Biochar and compost_high_S	BREMNER82	2	%	Nitrogen_total	0.35	NA	T3
288-12_S_high_D	Biochar and compost_high_S	BREMNER82	2	%	Nitrogen_total	0.46	NA	T3
289-1_I_low_A	Soluble phosphate_low_I	BREMNER82	2	%	Nitrogen_total	0.43	NA	T3
290-1_I_low_B	Soluble phosphate_low_I	BREMNER82	2	%	Nitrogen_total	0.39	NA	T3
291-1_I_low_C	Soluble phosphate_low_I	BREMNER82	2	%	Nitrogen_total	0.31	NA	T3
292-1_I_low_D	Soluble phosphate_low_I	BREMNER82	2	%	Nitrogen_total	0.29	NA	T3
293-2_I_low_A	Biosolid_low_I	BREMNER82	2	%	Nitrogen_total	0.75	NA	T3
294-2_I_low_B	Biosolid_low_I	BREMNER82	2	%	Nitrogen_total	0.65	NA	T3
295-2_I_low_C	Biosolid_low_I	BREMNER82	2	%	Nitrogen_total	0.50	NA	T3
296-2_I_low_D	Biosolid_low_I	BREMNER82	2	%	Nitrogen_total	0.38	NA	T3
297-3_I_low_A	Wood ash_low_I	BREMNER82	2	%	Nitrogen_total	0.31	NA	T3
298-3_I_low_B	Wood ash_low_I	BREMNER82	2	%	Nitrogen_total	0.34	NA	T3
299-3_I_low_C	Wood ash_low_I	BREMNER82	2	%	Nitrogen_total	0.39	NA	T3
300-3_I_low_D	Wood ash_low_I	BREMNER82	2	%	Nitrogen_total	0.36	NA	T3
301-4_I_low_A	Biochar_low_I	BREMNER82	2	%	Nitrogen_total	0.44	NA	T3
302-4_I_low_B	Biochar_low_I	BREMNER82	2	%	Nitrogen_total	0.39	NA	T3
303-4_I_low_C	Biochar_low_I	BREMNER82	2	%	Nitrogen_total	0.45	NA	T3
304-4_I_low_D	Biochar_low_I	BREMNER82	2	%	Nitrogen_total	0.38	NA	T3
305-5_I_low_A	Compost_low_I	BREMNER82	2	%	Nitrogen_total	0.48	NA	T3
306-5_I_low_B	Compost_low_I	BREMNER82	2	%	Nitrogen_total	0.35	NA	T3
307-5_I_low_C	Compost_low_I	BREMNER82	2	%	Nitrogen_total	0.53	NA	T3
308-5_I_low_D	Compost_low_I	BREMNER82	2	%	Nitrogen_total	0.49	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
309-6_I_low_A	Soluble phosphate and biosolids_low_I	BREMNER82	2	%	Nitrogen_total	0.56	NA	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	BREMNER82	2	%	Nitrogen_total	0.55	NA	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	BREMNER82	2	%	Nitrogen_total	0.64	NA	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	BREMNER82	2	%	Nitrogen_total	0.39	NA	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	BREMNER82	2	%	Nitrogen_total	0.41	NA	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	BREMNER82	2	%	Nitrogen_total	0.35	NA	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	BREMNER82	2	%	Nitrogen_total	0.42	NA	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	BREMNER82	2	%	Nitrogen_total	0.40	NA	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	BREMNER82	2	%	Nitrogen_total	0.36	NA	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	BREMNER82	2	%	Nitrogen_total	0.38	NA	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	BREMNER82	2	%	Nitrogen_total	0.35	NA	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	BREMNER82	2	%	Nitrogen_total	0.46	NA	T3
321-9_I_low_A	Biosolids and wood ash_low_I	BREMNER82	2	%	Nitrogen_total	0.44	NA	T3
322-9_I_low_B	Biosolids and wood ash_low_I	BREMNER82	2	%	Nitrogen_total	0.73	NA	T3
323-9_I_low_C	Biosolids and wood ash_low_I	BREMNER82	2	%	Nitrogen_total	0.50	NA	T3
324-9_I_low_D	Biosolids and wood ash_low_I	BREMNER82	2	%	Nitrogen_total	0.61	NA	T3
325-10_I_low_A	Wood ash and biochar_low_I	BREMNER82	2	%	Nitrogen_total	0.50	NA	T3
326-10_I_low_B	Wood ash and biochar_low_I	BREMNER82	2	%	Nitrogen_total	0.33	NA	T3
327-10_I_low_C	Wood ash and biochar_low_I	BREMNER82	2	%	Nitrogen_total	0.32	NA	T3
328-10_I_low_D	Wood ash and biochar_low_I	BREMNER82	2	%	Nitrogen_total	0.38	NA	T3
329-11_I_low_A	Wood ash and compost_low_I	BREMNER82	2	%	Nitrogen_total	0.39	NA	T3
330-11_I_low_B	Wood ash and compost_low_I	BREMNER82	2	%	Nitrogen_total	0.38	NA	T3
331-11_I_low_C	Wood ash and compost_low_I	BREMNER82	2	%	Nitrogen_total	0.45	NA	T3
332-11_I_low_D	Wood ash and compost_low_I	BREMNER82	2	%	Nitrogen_total	0.32	NA	T3
333-12_I_low_A	Biochar and compost_low_I	BREMNER82	2	%	Nitrogen_total	0.40	NA	T3
334-12_I_low_B	Biochar and compost_low_I	BREMNER82	2	%	Nitrogen_total	0.42	NA	T3
335-12_I_low_C	Biochar and compost_low_I	BREMNER82	2	%	Nitrogen_total	0.39	NA	T3
336-12_I_low_D	Biochar and compost_low_I	BREMNER82	2	%	Nitrogen_total	0.35	NA	T3
337-1_I_high_A	Soluble phosphate_high_I	BREMNER82	2	%	Nitrogen_total	0.34	NA	T3
338-1_I_high_B	Soluble phosphate_high_I	BREMNER82	2	%	Nitrogen_total	0.34	NA	T3
339-1_I_high_C	Soluble phosphate_high_I	BREMNER82	2	%	Nitrogen_total	0.43	NA	T3



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340-1_I_high_D	Soluble phosphate_high_I	BREMNER82	2	%	Nitrogen_total	0.34	NA	T3
341-2_I_high_A	Biosolid_high_I	BREMNER82	2	%	Nitrogen_total	0.39	NA	T3
342-2_I_high_B	Biosolid_high_I	BREMNER82	2	%	Nitrogen_total	0.46	NA	T3
343-2_I_high_C	Biosolid_high_I	BREMNER82	2	%	Nitrogen_total	0.29	NA	T3
344-2_I_high_D	Biosolid_high_I	BREMNER82	2	%	Nitrogen_total	0.40	NA	T3
345-3_I_high_A	Wood ash_high_I	BREMNER82	2	%	Nitrogen_total	1.30	NA	T3
346-3_I_high_B	Wood ash_high_I	BREMNER82	2	%	Nitrogen_total	1.27	NA	T3
347-3_I_high_C	Wood ash_high_I	BREMNER82	2	%	Nitrogen_total	0.40	NA	T3
348-3_I_high_D	Wood ash_high_I	BREMNER82	2	%	Nitrogen_total	0.36	NA	T3
349-4_I_high_A	Biochar_high_I	BREMNER82	2	%	Nitrogen_total	0.34	NA	T3
350-4_I_high_B	Biochar_high_I	BREMNER82	2	%	Nitrogen_total	0.34	NA	T3
351-4_I_high_C	Biochar_high_I	BREMNER82	2	%	Nitrogen_total	0.44	NA	T3
352-4_I_high_D	Biochar_high_I	BREMNER82	2	%	Nitrogen_total	0.35	NA	T3
353-5_I_high_A	Compost_high_I	BREMNER82	2	%	Nitrogen_total	0.39	NA	T3
354-5_I_high_B	Compost_high_I	BREMNER82	2	%	Nitrogen_total	0.47	NA	T3
355-5_I_high_C	Compost_high_I	BREMNER82	2	%	Nitrogen_total	0.29	NA	T3
356-5_I_high_D	Compost_high_I	BREMNER82	2	%	Nitrogen_total	0.41	NA	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	BREMNER82	2	%	Nitrogen_total	1.32	NA	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	BREMNER82	2	%	Nitrogen_total	1.29	NA	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	BREMNER82	2	%	Nitrogen_total	1.02	NA	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	BREMNER82	2	%	Nitrogen_total	1.45	NA	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	BREMNER82	2	%	Nitrogen_total	0.48	NA	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	BREMNER82	2	%	Nitrogen_total	0.30	NA	T3
363-7_I_high_C	Soluble phosphate and biochar_high_I	BREMNER82	2	%	Nitrogen_total	0.37	NA	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	BREMNER82	2	%	Nitrogen_total	0.28	NA	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	BREMNER82	2	%	Nitrogen_total	0.46	NA	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	BREMNER82	2	%	Nitrogen_total	0.37	NA	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	BREMNER82	2	%	Nitrogen_total	0.41	NA	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	BREMNER82	2	%	Nitrogen_total	0.39	NA	T3
369-9_I_high_A	Biosolids and wood ash_high_I	BREMNER82	2	%	Nitrogen_total	1.04	NA	T3
370-9_I_high_B	Biosolids and wood ash_high_I	BREMNER82	2	%	Nitrogen_total	1.11	NA	T3



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371-9_I_high_C	Biosolids and wood ash_high_I	BREMNER82	2	%	Nitrogen_total	0.96	NA	T3
372-9_I_high_D	Biosolids and wood ash_high_I	BREMNER82	2	%	Nitrogen_total	1.41	NA	T3
373-10_I_high_A	Wood ash and biochar_high_I	BREMNER82	2	%	Nitrogen_total	0.38	NA	T3
374-10_I_high_B	Wood ash and biochar_high_I	BREMNER82	2	%	Nitrogen_total	0.53	NA	T3
375-10_I_high_C	Wood ash and biochar_high_I	BREMNER82	2	%	Nitrogen_total	0.32	NA	T3
376-10_I_high_D	Wood ash and biochar_high_I	BREMNER82	2	%	Nitrogen_total	0.38	NA	T3
377-11_I_high_A	Wood ash and compost_high_I	BREMNER82	2	%	Nitrogen_total	0.39	NA	T3
378-11_I_high_B	Wood ash and compost_high_I	BREMNER82	2	%	Nitrogen_total	0.40	NA	T3
379-11_I_high_C	Wood ash and compost_high_I	BREMNER82	2	%	Nitrogen_total	0.41	NA	T3
380-11_I_high_D	Wood ash and compost_high_I	BREMNER82	2	%	Nitrogen_total	0.40	NA	T3
381-12_I_high_A	Biochar and compost_high_I	BREMNER82	3	%	Nitrogen_total	0.45	NA	T3
382-12_I_high_B	Biochar and compost_high_I	BREMNER82	3	%	Nitrogen_total	0.51	NA	T3
383-12_I_high_C	Biochar and compost_high_I	BREMNER82	3	%	Nitrogen_total	0.56	NA	T3
384-12_I_high_D	Biochar and compost_high_I	BREMNER82	3	%	Nitrogen_total	0.37	NA	T3
385-0_I_NA_A	control_none_I	BREMNER82	3	%	Nitrogen_total	0.39	NA	T3
386-0_I_NA_B	control_none_I	BREMNER82	3	%	Nitrogen_total	0.35	NA	T3
387-0_I_NA_C	control_none_I	BREMNER82	3	%	Nitrogen_total	0.32	NA	T3
388-0_I_NA_D	control_none_I	BREMNER82	3	%	Nitrogen_total	0.42	NA	T3
097-1_S_low_A	Soluble phosphate_low_S	Bioaccess2.5pH	23	%	Arsenic	8.51	NA	T3
098-1_S_low_B	Soluble phosphate_low_S	Bioaccess2.5pH	23	%	Arsenic	8.62	NA	T3
099-1_S_low_C	Soluble phosphate_low_S	Bioaccess2.5pH	23	%	Arsenic	9.79	NA	T3
100-1_S_low_D	Soluble phosphate_low_S	Bioaccess2.5pH	23	%	Arsenic	9.04	NA	T3
101-2_S_low_A	Biosolid_low_S	Bioaccess2.5pH	23	%	Arsenic	11.87	NA	T3
102-2_S_low_B	Biosolid_low_S	Bioaccess2.5pH	23	%	Arsenic	9.04	NA	T3
103-2_S_low_C	Biosolid_low_S	Bioaccess2.5pH	23	%	Arsenic	10.26	NA	T3
104-2_S_low_D	Biosolid_low_S	Bioaccess2.5pH	23	%	Arsenic	9.92	NA	T3
105-3_S_low_A	Wood ash_low_S	Bioaccess2.5pH	23	%	Arsenic	7.56	NA	T3
106-3_S_low_B	Wood ash_low_S	Bioaccess2.5pH	24	%	Arsenic	8.22	NA	T3
107-3_S_low_C	Wood ash_low_S	Bioaccess2.5pH	24	%	Arsenic	7.59	NA	T3
108-3_S_low_D	Wood ash_low_S	Bioaccess2.5pH	24	%	Arsenic	8.09	NA	T3
109-4_S_low_A	Biochar_low_S	Bioaccess2.5pH	24	%	Arsenic	8.01	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
110-4_S_low_B	Biochar_low_S	Bioaccess2.5pH	24	%	Arsenic	7.22	NA	T3
111-4_S_low_C	Biochar_low_S	Bioaccess2.5pH	24	%	Arsenic	6.94	NA	T3
112-4_S_low_D	Biochar_low_S	Bioaccess2.5pH	24	%	Arsenic	7.44	NA	T3
113-5_S_low_A	Compost_low_S	Bioaccess2.5pH	24	%	Arsenic	7.17	NA	T3
114-5_S_low_B	Compost_low_S	Bioaccess2.5pH	24	%	Arsenic	7.32	NA	T3
115-5_S_low_C	Compost_low_S	Bioaccess2.5pH	25	%	Arsenic	7.63	NA	T3
116-5_S_low_D	Compost_low_S	Bioaccess2.5pH	25	%	Arsenic	6.37	NA	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	25	%	Arsenic	9.45	NA	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	25	%	Arsenic	10.52	NA	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	25	%	Arsenic	10.22	NA	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	25	%	Arsenic	10.97	NA	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	25	%	Arsenic	8.95	NA	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	25	%	Arsenic	9.07	NA	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	25	%	Arsenic	8.67	NA	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	26	%	Arsenic	8.59	NA	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	Bioaccess2.5pH	26	%	Arsenic	8.94	NA	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	Bioaccess2.5pH	26	%	Arsenic	9.22	NA	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	Bioaccess2.5pH	26	%	Arsenic	11.61	NA	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	Bioaccess2.5pH	26	%	Arsenic	8.46	NA	T3
129-9_S_low_A	Biosolids and wood ash_low_S	Bioaccess2.5pH	26	%	Arsenic	8.58	NA	T3
130-9_S_low_B	Biosolids and wood ash_low_S	Bioaccess2.5pH	26	%	Arsenic	10.48	NA	T3
131-9_S_low_C	Biosolids and wood ash_low_S	Bioaccess2.5pH	26	%	Arsenic	10.59	NA	T3
132-9_S_low_D	Biosolids and wood ash_low_S	Bioaccess2.5pH	26	%	Arsenic	10.75	NA	T3
133-10_S_low_A	Wood ash and biochar_low_S	Bioaccess2.5pH	27	%	Arsenic	8.17	NA	T3
134-10_S_low_B	Wood ash and biochar_low_S	Bioaccess2.5pH	27	%	Arsenic	7.82	NA	T3
135-10_S_low_C	Wood ash and biochar_low_S	Bioaccess2.5pH	27	%	Arsenic	8.31	NA	T3
136-10_S_low_D	Wood ash and biochar_low_S	Bioaccess2.5pH	27	%	Arsenic	9.01	NA	T3
137-11_S_low_A	Wood ash and compost_low_S	Bioaccess2.5pH	27	%	Arsenic	9.01	NA	T3
138-11_S_low_B	Wood ash and compost_low_S	Bioaccess2.5pH	27	%	Arsenic	9.04	NA	T3
139-11_S_low_C	Wood ash and compost_low_S	Bioaccess2.5pH	27	%	Arsenic	8.38	NA	T3
140-11_S_low_D	Wood ash and compost_low_S	Bioaccess2.5pH	27	%	Arsenic	8.66	NA	T3



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141-12_S_low_A	Biochar and compost_low_S	Bioaccess2.5pH	27	%	Arsenic	8.03	NA	T3
142-12_S_low_B	Biochar and compost_low_S	Bioaccess2.5pH	28	%	Arsenic	7.98	NA	T3
143-12_S_low_C	Biochar and compost_low_S	Bioaccess2.5pH	28	%	Arsenic	7.29	NA	T3
144-12_S_low_D	Biochar and compost_low_S	Bioaccess2.5pH	28	%	Arsenic	7.15	NA	T3
241-1_S_high_A	Soluble phosphate_high_S	Bioaccess2.5pH	28	%	Arsenic	11.76	NA	T3
242-1_S_high_B	Soluble phosphate_high_S	Bioaccess2.5pH	28	%	Arsenic	10.48	NA	T3
243-1_S_high_C	Soluble phosphate_high_S	Bioaccess2.5pH	28	%	Arsenic	11.69	NA	T3
244-1_S_high_D	Soluble phosphate_high_S	Bioaccess2.5pH	28	%	Arsenic	11.18	NA	T3
245-2_S_high_A	Biosolid_high_S	Bioaccess2.5pH	28	%	Arsenic	15.98	NA	T3
246-2_S_high_B	Biosolid_high_S	Bioaccess2.5pH	28	%	Arsenic	14.11	NA	T3
247-2_S_high_C	Biosolid_high_S	Bioaccess2.5pH	29	%	Arsenic	23.92	NA	T3
248-2_S_high_D	Biosolid_high_S	Bioaccess2.5pH	29	%	Arsenic	15.27	NA	T3
249-3_S_high_A	Wood ash_high_S	Bioaccess2.5pH	29	%	Arsenic	7.99	NA	T3
250-3_S_high_B	Wood ash_high_S	Bioaccess2.5pH	29	%	Arsenic	8.15	NA	T3
251-3_S_high_C	Wood ash_high_S	Bioaccess2.5pH	29	%	Arsenic	8.85	NA	T3
252-3_S_high_D	Wood ash_high_S	Bioaccess2.5pH	29	%	Arsenic	9.01	NA	T3
253-4_S_high_A	Biochar_high_S	Bioaccess2.5pH	29	%	Arsenic	7.87	NA	T3
254-4_S_high_B	Biochar_high_S	Bioaccess2.5pH	29	%	Arsenic	8.63	NA	T3
255-4_S_high_C	Biochar_high_S	Bioaccess2.5pH	29	%	Arsenic	8.53	NA	T3
256-4_S_high_D	Biochar_high_S	Bioaccess2.5pH	30	%	Arsenic	7.76	NA	T3
257-5_S_high_A	Compost_high_S	Bioaccess2.5pH	30	%	Arsenic	8.00	NA	T3
258-5_S_high_B	Compost_high_S	Bioaccess2.5pH	30	%	Arsenic	7.98	NA	T3
259-5_S_high_C	Compost_high_S	Bioaccess2.5pH	30	%	Arsenic	7.13	NA	T3
260-5_S_high_D	Compost_high_S	Bioaccess2.5pH	30	%	Arsenic	6.29	NA	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	30	%	Arsenic	17.97	NA	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	30	%	Arsenic	18.19	NA	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	30	%	Arsenic	16.71	NA	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	30	%	Arsenic	18.19	NA	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	31	%	Arsenic	10.17	NA	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	31	%	Arsenic	11.89	NA	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	31	%	Arsenic	10.28	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
268-7_S_high_D	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	31	%	Arsenic	12.36	NA	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	Bioaccess2.5pH	31	%	Arsenic	9.86	NA	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	Bioaccess2.5pH	31	%	Arsenic	11.34	NA	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	Bioaccess2.5pH	31	%	Arsenic	10.60	NA	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	Bioaccess2.5pH	31	%	Arsenic	10.46	NA	T3
273-9_S_high_A	Biosolids and wood ash_high_S	Bioaccess2.5pH	31	%	Arsenic	16.44	NA	T3
274-9_S_high_B	Biosolids and wood ash_high_S	Bioaccess2.5pH	32	%	Arsenic	15.19	NA	T3
275-9_S_high_C	Biosolids and wood ash_high_S	Bioaccess2.5pH	32	%	Arsenic	14.08	NA	T3
276-9_S_high_D	Biosolids and wood ash_high_S	Bioaccess2.5pH	32	%	Arsenic	16.88	NA	T3
277-10_S_high_A	Wood ash and biochar_high_S	Bioaccess2.5pH	32	%	Arsenic	10.16	NA	T3
278-10_S_high_B	Wood ash and biochar_high_S	Bioaccess2.5pH	32	%	Arsenic	8.68	NA	T3
279-10_S_high_C	Wood ash and biochar_high_S	Bioaccess2.5pH	32	%	Arsenic	9.24	NA	T3
280-10_S_high_D	Wood ash and biochar_high_S	Bioaccess2.5pH	32	%	Arsenic	11.42	NA	T3
281-11_S_high_A	Wood ash and compost_high_S	Bioaccess2.5pH	32	%	Arsenic	8.18	NA	T3
282-11_S_high_B	Wood ash and compost_high_S	Bioaccess2.5pH	32	%	Arsenic	8.63	NA	T3
283-11_S_high_C	Wood ash and compost_high_S	Bioaccess2.5pH	33	%	Arsenic	8.21	NA	T3
284-11_S_high_D	Wood ash and compost_high_S	Bioaccess2.5pH	33	%	Arsenic	8.50	NA	T3
285-12_S_high_A	Biochar and compost_high_S	Bioaccess2.5pH	33	%	Arsenic	8.27	NA	T3
286-12_S_high_B	Biochar and compost_high_S	Bioaccess2.5pH	33	%	Arsenic	7.43	NA	T3
287-12_S_high_C	Biochar and compost_high_S	Bioaccess2.5pH	33	%	Arsenic	8.47	NA	T3
288-12_S_high_D	Biochar and compost_high_S	Bioaccess2.5pH	33	%	Arsenic	8.11	NA	T3
289-1_I_low_A	Soluble phosphate_low_I	Bioaccess2.5pH	33	%	Arsenic	9.76	NA	T3
290-1_I_low_B	Soluble phosphate_low_I	Bioaccess2.5pH	33	%	Arsenic	10.54	NA	T3
291-1_I_low_C	Soluble phosphate_low_I	Bioaccess2.5pH	33	%	Arsenic	9.83	NA	T3
292-1_I_low_D	Soluble phosphate_low_I	Bioaccess2.5pH	34	%	Arsenic	8.81	NA	T3
293-2_I_low_A	Biosolid_low_I	Bioaccess2.5pH	34	%	Arsenic	8.67	NA	T3
294-2_I_low_B	Biosolid_low_I	Bioaccess2.5pH	34	%	Arsenic	8.64	NA	T3
295-2_I_low_C	Biosolid_low_I	Bioaccess2.5pH	34	%	Arsenic	9.41	NA	T3
296-2_I_low_D	Biosolid_low_I	Bioaccess2.5pH	34	%	Arsenic	9.04	NA	T3
297-3_I_low_A	Wood ash_low_I	Bioaccess2.5pH	34	%	Arsenic	8.32	NA	T3
298-3_I_low_B	Wood ash_low_I	Bioaccess2.5pH	34	%	Arsenic	7.73	NA	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
299-3_I_low_C	Wood ash_low_I	Bioaccess2.5pH	34	%	Arsenic	7.69	NA	T3
300-3_I_low_D	Wood ash_low_I	Bioaccess2.5pH	34	%	Arsenic	6.95	NA	T3
301-4_I_low_A	Biochar_low_I	Bioaccess2.5pH	35	%	Arsenic	8.43	NA	T3
302-4_I_low_B	Biochar_low_I	Bioaccess2.5pH	35	%	Arsenic	7.53	NA	T3
303-4_I_low_C	Biochar_low_I	Bioaccess2.5pH	35	%	Arsenic	7.06	NA	T3
304-4_I_low_D	Biochar_low_I	Bioaccess2.5pH	35	%	Arsenic	7.27	NA	T3
305-5_I_low_A	Compost_low_I	Bioaccess2.5pH	35	%	Arsenic	7.79	NA	T3
306-5_I_low_B	Compost_low_I	Bioaccess2.5pH	35	%	Arsenic	8.00	NA	T3
307-5_I_low_C	Compost_low_I	Bioaccess2.5pH	35	%	Arsenic	8.17	NA	T3
308-5_I_low_D	Compost_low_I	Bioaccess2.5pH	35	%	Arsenic	7.76	NA	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	35	%	Arsenic	9.99	NA	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	36	%	Arsenic	13.46	NA	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	36	%	Arsenic	12.37	NA	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	36	%	Arsenic	11.83	NA	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	36	%	Arsenic	9.44	NA	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	36	%	Arsenic	9.18	NA	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	36	%	Arsenic	10.47	NA	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	36	%	Arsenic	10.91	NA	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	Bioaccess2.5pH	36	%	Arsenic	10.81	NA	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	Bioaccess2.5pH	36	%	Arsenic	10.32	NA	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	Bioaccess2.5pH	37	%	Arsenic	11.67	NA	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	Bioaccess2.5pH	37	%	Arsenic	9.12	NA	T3
321-9_I_low_A	Biosolids and wood ash_low_I	Bioaccess2.5pH	37	%	Arsenic	9.97	NA	T3
322-9_I_low_B	Biosolids and wood ash_low_I	Bioaccess2.5pH	37	%	Arsenic	9.08	NA	T3
323-9_I_low_C	Biosolids and wood ash_low_I	Bioaccess2.5pH	37	%	Arsenic	9.31	NA	T3
324-9_I_low_D	Biosolids and wood ash_low_I	Bioaccess2.5pH	37	%	Arsenic	9.11	NA	T3
325-10_I_low_A	Wood ash and biochar_low_I	Bioaccess2.5pH	37	%	Arsenic	7.79	NA	T3
326-10_I_low_B	Wood ash and biochar_low_I	Bioaccess2.5pH	37	%	Arsenic	7.81	NA	T3
327-10_I_low_C	Wood ash and biochar_low_I	Bioaccess2.5pH	37	%	Arsenic	6.46	NA	T3
328-10_I_low_D	Wood ash and biochar_low_I	Bioaccess2.5pH	38	%	Arsenic	8.83	NA	T3
329-11_I_low_A	Wood ash and compost_low_I	Bioaccess2.5pH	38	%	Arsenic	7.82	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
330-11_I_low_B	Wood ash and compost_low_I	Bioaccess2.5pH	38	%	Arsenic	7.58	NA	T3
331-11_I_low_C	Wood ash and compost_low_I	Bioaccess2.5pH	38	%	Arsenic	8.85	NA	T3
332-11_I_low_D	Wood ash and compost_low_I	Bioaccess2.5pH	38	%	Arsenic	8.22	NA	T3
333-12_I_low_A	Biochar and compost_low_I	Bioaccess2.5pH	38	%	Arsenic	7.98	NA	T3
334-12_I_low_B	Biochar and compost_low_I	Bioaccess2.5pH	38	%	Arsenic	7.15	NA	T3
335-12_I_low_C	Biochar and compost_low_I	Bioaccess2.5pH	38	%	Arsenic	8.71	NA	T3
336-12_I_low_D	Biochar and compost_low_I	Bioaccess2.5pH	38	%	Arsenic	9.01	NA	T3
345-3_I_high_A	Wood ash_high_I	Bioaccess2.5pH	39	%	Arsenic	9.75	NA	T3
346-3_I_high_B	Wood ash_high_I	Bioaccess2.5pH	40	%	Arsenic	11.17	NA	T3
347-3_I_high_C	Wood ash_high_I	Bioaccess2.5pH	40	%	Arsenic	9.76	NA	T3
348-3_I_high_D	Wood ash_high_I	Bioaccess2.5pH	40	%	Arsenic	11.23	NA	T3
349-4_I_high_A	Biochar_high_I	Bioaccess2.5pH	40	%	Arsenic	7.56	NA	T3
350-4_I_high_B	Biochar_high_I	Bioaccess2.5pH	40	%	Arsenic	8.18	NA	T3
351-4_I_high_C	Biochar_high_I	Bioaccess2.5pH	40	%	Arsenic	7.75	NA	T3
352-4_I_high_D	Biochar_high_I	Bioaccess2.5pH	40	%	Arsenic	7.81	NA	T3
353-5_I_high_A	Compost_high_I	Bioaccess2.5pH	40	%	Arsenic	7.55	NA	T3
354-5_I_high_B	Compost_high_I	Bioaccess2.5pH	40	%	Arsenic	7.73	NA	T3
355-5_I_high_C	Compost_high_I	Bioaccess2.5pH	41	%	Arsenic	8.70	NA	T3
356-5_I_high_D	Compost_high_I	Bioaccess2.5pH	41	%	Arsenic	7.10	NA	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	41	%	Arsenic	9.50	NA	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	41	%	Arsenic	10.38	NA	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	41	%	Arsenic	12.09	NA	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	41	%	Arsenic	14.60	NA	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	41	%	Arsenic	11.48	NA	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	41	%	Arsenic	9.20	NA	T3
363-7_I_high_C	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	41	%	Arsenic	9.44	NA	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	42	%	Arsenic	12.04	NA	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	Bioaccess2.5pH	42	%	Arsenic	12.05	NA	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	Bioaccess2.5pH	42	%	Arsenic	11.57	NA	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	Bioaccess2.5pH	42	%	Arsenic	11.46	NA	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	Bioaccess2.5pH	42	%	Arsenic	12.51	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
369-9_I_high_A	Biosolids and wood ash_high_I	Bioaccess2.5pH	42	%	Arsenic	11.04	NA	T3
370-9_I_high_B	Biosolids and wood ash_high_I	Bioaccess2.5pH	42	%	Arsenic	10.62	NA	T3
371-9_I_high_C	Biosolids and wood ash_high_I	Bioaccess2.5pH	42	%	Arsenic	10.69	NA	T3
372-9_I_high_D	Biosolids and wood ash_high_I	Bioaccess2.5pH	42	%	Arsenic	10.97	NA	T3
373-10_I_high_A	Wood ash and biochar_high_I	Bioaccess2.5pH	43	%	Arsenic	9.65	NA	T3
374-10_I_high_B	Wood ash and biochar_high_I	Bioaccess2.5pH	43	%	Arsenic	9.02	NA	T3
375-10_I_high_C	Wood ash and biochar_high_I	Bioaccess2.5pH	43	%	Arsenic	10.04	NA	T3
376-10_I_high_D	Wood ash and biochar_high_I	Bioaccess2.5pH	43	%	Arsenic	10.05	NA	T3
377-11_I_high_A	Wood ash and compost_high_I	Bioaccess2.5pH	43	%	Arsenic	11.58	NA	T3
378-11_I_high_B	Wood ash and compost_high_I	Bioaccess2.5pH	43	%	Arsenic	10.20	NA	T3
379-11_I_high_C	Wood ash and compost_high_I	Bioaccess2.5pH	43	%	Arsenic	10.65	NA	T3
380-11_I_high_D	Wood ash and compost_high_I	Bioaccess2.5pH	43	%	Arsenic	10.64	NA	T3
381-12_I_high_A	Biochar and compost_high_I	Bioaccess2.5pH	43	%	Arsenic	7.61	NA	T3
382-12_I_high_B	Biochar and compost_high_I	Bioaccess2.5pH	44	%	Arsenic	12.06	NA	T3
383-12_I_high_C	Biochar and compost_high_I	Bioaccess2.5pH	44	%	Arsenic	7.98	NA	T3
384-12_I_high_D	Biochar and compost_high_I	Bioaccess2.5pH	44	%	Arsenic	8.76	NA	T3
097-1_S_low_A	Soluble phosphate_low_S	Bioaccess2.5pH	23	mg/kg	Arsenic	9.03	NA	T3
098-1_S_low_B	Soluble phosphate_low_S	Bioaccess2.5pH	23	mg/kg	Arsenic	8.89	NA	T3
099-1_S_low_C	Soluble phosphate_low_S	Bioaccess2.5pH	23	mg/kg	Arsenic	9.93	NA	T3
100-1_S_low_D	Soluble phosphate_low_S	Bioaccess2.5pH	23	mg/kg	Arsenic	8.87	NA	T3
101-2_S_low_A	Biosolid_low_S	Bioaccess2.5pH	23	mg/kg	Arsenic	11.94	NA	T3
102-2_S_low_B	Biosolid_low_S	Bioaccess2.5pH	23	mg/kg	Arsenic	9.21	NA	T3
103-2_S_low_C	Biosolid_low_S	Bioaccess2.5pH	23	mg/kg	Arsenic	10.11	NA	T3
104-2_S_low_D	Biosolid_low_S	Bioaccess2.5pH	23	mg/kg	Arsenic	9.56	NA	T3
105-3_S_low_A	Wood ash_low_S	Bioaccess2.5pH	23	mg/kg	Arsenic	7.63	NA	T3
106-3_S_low_B	Wood ash_low_S	Bioaccess2.5pH	24	mg/kg	Arsenic	8.37	NA	T3
107-3_S_low_C	Wood ash_low_S	Bioaccess2.5pH	24	mg/kg	Arsenic	7.93	NA	T3
108-3_S_low_D	Wood ash_low_S	Bioaccess2.5pH	24	mg/kg	Arsenic	8.48	NA	T3
109-4_S_low_A	Biochar_low_S	Bioaccess2.5pH	24	mg/kg	Arsenic	8.48	NA	T3
110-4_S_low_B	Biochar_low_S	Bioaccess2.5pH	24	mg/kg	Arsenic	7.54	NA	T3
111-4_S_low_C	Biochar_low_S	Bioaccess2.5pH	24	mg/kg	Arsenic	6.89	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
112-4_S_low_D	Biochar_low_S	Bioaccess2.5pH	24	mg/kg	Arsenic	7.57	NA	T3
113-5_S_low_A	Compost_low_S	Bioaccess2.5pH	24	mg/kg	Arsenic	7.48	NA	T3
114-5_S_low_B	Compost_low_S	Bioaccess2.5pH	24	mg/kg	Arsenic	7.42	NA	T3
115-5_S_low_C	Compost_low_S	Bioaccess2.5pH	25	mg/kg	Arsenic	7.99	NA	T3
116-5_S_low_D	Compost_low_S	Bioaccess2.5pH	25	mg/kg	Arsenic	6.65	NA	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	25	mg/kg	Arsenic	9.76	NA	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	25	mg/kg	Arsenic	10.57	NA	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	25	mg/kg	Arsenic	10.05	NA	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	25	mg/kg	Arsenic	11.36	NA	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	25	mg/kg	Arsenic	9.18	NA	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	25	mg/kg	Arsenic	9.56	NA	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	25	mg/kg	Arsenic	9.17	NA	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	26	mg/kg	Arsenic	8.54	NA	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	Bioaccess2.5pH	26	mg/kg	Arsenic	8.95	NA	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	Bioaccess2.5pH	26	mg/kg	Arsenic	9.16	NA	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	Bioaccess2.5pH	26	mg/kg	Arsenic	10.82	NA	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	Bioaccess2.5pH	26	mg/kg	Arsenic	8.32	NA	T3
129-9_S_low_A	Biosolids and wood ash_low_S	Bioaccess2.5pH	26	mg/kg	Arsenic	8.74	NA	T3
130-9_S_low_B	Biosolids and wood ash_low_S	Bioaccess2.5pH	26	mg/kg	Arsenic	10.86	NA	T3
131-9_S_low_C	Biosolids and wood ash_low_S	Bioaccess2.5pH	26	mg/kg	Arsenic	10.30	NA	T3
132-9_S_low_D	Biosolids and wood ash_low_S	Bioaccess2.5pH	26	mg/kg	Arsenic	11.05	NA	T3
133-10_S_low_A	Wood ash and biochar_low_S	Bioaccess2.5pH	27	mg/kg	Arsenic	9.13	NA	T3
134-10_S_low_B	Wood ash and biochar_low_S	Bioaccess2.5pH	27	mg/kg	Arsenic	8.28	NA	T3
135-10_S_low_C	Wood ash and biochar_low_S	Bioaccess2.5pH	27	mg/kg	Arsenic	9.10	NA	T3
136-10_S_low_D	Wood ash and biochar_low_S	Bioaccess2.5pH	27	mg/kg	Arsenic	9.10	NA	T3
137-11_S_low_A	Wood ash and compost_low_S	Bioaccess2.5pH	27	mg/kg	Arsenic	9.04	NA	T3
138-11_S_low_B	Wood ash and compost_low_S	Bioaccess2.5pH	27	mg/kg	Arsenic	9.50	NA	T3
139-11_S_low_C	Wood ash and compost_low_S	Bioaccess2.5pH	27	mg/kg	Arsenic	9.11	NA	T3
140-11_S_low_D	Wood ash and compost_low_S	Bioaccess2.5pH	27	mg/kg	Arsenic	8.47	NA	T3
141-12_S_low_A	Biochar and compost_low_S	Bioaccess2.5pH	27	mg/kg	Arsenic	8.49	NA	T3
142-12_S_low_B	Biochar and compost_low_S	Bioaccess2.5pH	28	mg/kg	Arsenic	8.45	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
143-12_S_low_C	Biochar and compost_low_S	Bioaccess2.5pH	28	mg/kg	Arsenic	7.34	NA	T3
144-12_S_low_D	Biochar and compost_low_S	Bioaccess2.5pH	28	mg/kg	Arsenic	7.55	NA	T3
241-1_S_high_A	Soluble phosphate_high_S	Bioaccess2.5pH	28	mg/kg	Arsenic	11.23	NA	T3
242-1_S_high_B	Soluble phosphate_high_S	Bioaccess2.5pH	28	mg/kg	Arsenic	10.48	NA	T3
243-1_S_high_C	Soluble phosphate_high_S	Bioaccess2.5pH	28	mg/kg	Arsenic	11.87	NA	T3
244-1_S_high_D	Soluble phosphate_high_S	Bioaccess2.5pH	28	mg/kg	Arsenic	10.88	NA	T3
245-2_S_high_A	Biosolid_high_S	Bioaccess2.5pH	28	mg/kg	Arsenic	16.14	NA	T3
246-2_S_high_B	Biosolid_high_S	Bioaccess2.5pH	28	mg/kg	Arsenic	14.73	NA	T3
247-2_S_high_C	Biosolid_high_S	Bioaccess2.5pH	29	mg/kg	Arsenic	23.90	NA	T3
248-2_S_high_D	Biosolid_high_S	Bioaccess2.5pH	29	mg/kg	Arsenic	15.68	NA	T3
249-3_S_high_A	Wood ash_high_S	Bioaccess2.5pH	29	mg/kg	Arsenic	8.21	NA	T3
250-3_S_high_B	Wood ash_high_S	Bioaccess2.5pH	29	mg/kg	Arsenic	8.13	NA	T3
251-3_S_high_C	Wood ash_high_S	Bioaccess2.5pH	29	mg/kg	Arsenic	8.54	NA	T3
252-3_S_high_D	Wood ash_high_S	Bioaccess2.5pH	29	mg/kg	Arsenic	8.73	NA	T3
253-4_S_high_A	Biochar_high_S	Bioaccess2.5pH	29	mg/kg	Arsenic	7.75	NA	T3
254-4_S_high_B	Biochar_high_S	Bioaccess2.5pH	29	mg/kg	Arsenic	8.60	NA	T3
255-4_S_high_C	Biochar_high_S	Bioaccess2.5pH	29	mg/kg	Arsenic	8.03	NA	T3
256-4_S_high_D	Biochar_high_S	Bioaccess2.5pH	30	mg/kg	Arsenic	7.78	NA	T3
257-5_S_high_A	Compost_high_S	Bioaccess2.5pH	30	mg/kg	Arsenic	7.98	NA	T3
258-5_S_high_B	Compost_high_S	Bioaccess2.5pH	30	mg/kg	Arsenic	7.70	NA	T3
259-5_S_high_C	Compost_high_S	Bioaccess2.5pH	30	mg/kg	Arsenic	7.19	NA	T3
260-5_S_high_D	Compost_high_S	Bioaccess2.5pH	30	mg/kg	Arsenic	6.59	NA	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	30	mg/kg	Arsenic	17.77	NA	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	30	mg/kg	Arsenic	18.03	NA	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	30	mg/kg	Arsenic	16.03	NA	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	30	mg/kg	Arsenic	17.09	NA	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	31	mg/kg	Arsenic	9.80	NA	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	31	mg/kg	Arsenic	11.21	NA	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	31	mg/kg	Arsenic	10.77	NA	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	31	mg/kg	Arsenic	11.69	NA	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	Bioaccess2.5pH	31	mg/kg	Arsenic	9.51	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
270-8_S_high_B	Soluble phosphate and compost_high_S	Bioaccess2.5pH	31	mg/kg	Arsenic	10.97	NA	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	Bioaccess2.5pH	31	mg/kg	Arsenic	10.35	NA	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	Bioaccess2.5pH	31	mg/kg	Arsenic	9.87	NA	T3
273-9_S_high_A	Biosolids and wood ash_high_S	Bioaccess2.5pH	31	mg/kg	Arsenic	15.87	NA	T3
274-9_S_high_B	Biosolids and wood ash_high_S	Bioaccess2.5pH	32	mg/kg	Arsenic	14.08	NA	T3
275-9_S_high_C	Biosolids and wood ash_high_S	Bioaccess2.5pH	32	mg/kg	Arsenic	13.37	NA	T3
276-9_S_high_D	Biosolids and wood ash_high_S	Bioaccess2.5pH	32	mg/kg	Arsenic	15.64	NA	T3
277-10_S_high_A	Wood ash and biochar_high_S	Bioaccess2.5pH	32	mg/kg	Arsenic	9.48	NA	T3
278-10_S_high_B	Wood ash and biochar_high_S	Bioaccess2.5pH	32	mg/kg	Arsenic	9.06	NA	T3
279-10_S_high_C	Wood ash and biochar_high_S	Bioaccess2.5pH	32	mg/kg	Arsenic	9.13	NA	T3
280-10_S_high_D	Wood ash and biochar_high_S	Bioaccess2.5pH	32	mg/kg	Arsenic	10.33	NA	T3
281-11_S_high_A	Wood ash and compost_high_S	Bioaccess2.5pH	32	mg/kg	Arsenic	8.38	NA	T3
282-11_S_high_B	Wood ash and compost_high_S	Bioaccess2.5pH	32	mg/kg	Arsenic	8.44	NA	T3
283-11_S_high_C	Wood ash and compost_high_S	Bioaccess2.5pH	33	mg/kg	Arsenic	8.29	NA	T3
284-11_S_high_D	Wood ash and compost_high_S	Bioaccess2.5pH	33	mg/kg	Arsenic	8.77	NA	T3
285-12_S_high_A	Biochar and compost_high_S	Bioaccess2.5pH	33	mg/kg	Arsenic	8.24	NA	T3
286-12_S_high_B	Biochar and compost_high_S	Bioaccess2.5pH	33	mg/kg	Arsenic	7.72	NA	T3
287-12_S_high_C	Biochar and compost_high_S	Bioaccess2.5pH	33	mg/kg	Arsenic	8.43	NA	T3
288-12_S_high_D	Biochar and compost_high_S	Bioaccess2.5pH	33	mg/kg	Arsenic	8.52	NA	T3
289-1_I_low_A	Soluble phosphate_low_I	Bioaccess2.5pH	33	mg/kg	Arsenic	10.00	NA	T3
290-1_I_low_B	Soluble phosphate_low_I	Bioaccess2.5pH	33	mg/kg	Arsenic	10.32	NA	T3
291-1_I_low_C	Soluble phosphate_low_I	Bioaccess2.5pH	33	mg/kg	Arsenic	9.99	NA	T3
292-1_I_low_D	Soluble phosphate_low_I	Bioaccess2.5pH	34	mg/kg	Arsenic	8.88	NA	T3
293-2_I_low_A	Biosolid_low_I	Bioaccess2.5pH	34	mg/kg	Arsenic	8.66	NA	T3
294-2_I_low_B	Biosolid_low_I	Bioaccess2.5pH	34	mg/kg	Arsenic	8.76	NA	T3
295-2_I_low_C	Biosolid_low_I	Bioaccess2.5pH	34	mg/kg	Arsenic	9.13	NA	T3
296-2_I_low_D	Biosolid_low_I	Bioaccess2.5pH	34	mg/kg	Arsenic	9.16	NA	T3
297-3_I_low_A	Wood ash_low_I	Bioaccess2.5pH	34	mg/kg	Arsenic	8.48	NA	T3
298-3_I_low_B	Wood ash_low_I	Bioaccess2.5pH	34	mg/kg	Arsenic	7.81	NA	T3
299-3_I_low_C	Wood ash_low_I	Bioaccess2.5pH	34	mg/kg	Arsenic	7.84	NA	T3
300-3_I_low_D	Wood ash_low_I	Bioaccess2.5pH	34	mg/kg	Arsenic	7.24	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
301-4_I_low_A	Biochar_low_I	Bioaccess2.5pH	35	mg/kg	Arsenic	8.62	NA	T3
302-4_I_low_B	Biochar_low_I	Bioaccess2.5pH	35	mg/kg	Arsenic	7.82	NA	T3
303-4_I_low_C	Biochar_low_I	Bioaccess2.5pH	35	mg/kg	Arsenic	7.08	NA	T3
304-4_I_low_D	Biochar_low_I	Bioaccess2.5pH	35	mg/kg	Arsenic	7.41	NA	T3
305-5_I_low_A	Compost_low_I	Bioaccess2.5pH	35	mg/kg	Arsenic	7.96	NA	T3
306-5_I_low_B	Compost_low_I	Bioaccess2.5pH	35	mg/kg	Arsenic	8.40	NA	T3
307-5_I_low_C	Compost_low_I	Bioaccess2.5pH	35	mg/kg	Arsenic	8.19	NA	T3
308-5_I_low_D	Compost_low_I	Bioaccess2.5pH	35	mg/kg	Arsenic	8.01	NA	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	35	mg/kg	Arsenic	9.31	NA	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	36	mg/kg	Arsenic	12.85	NA	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	36	mg/kg	Arsenic	11.03	NA	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	36	mg/kg	Arsenic	11.40	NA	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	36	mg/kg	Arsenic	9.60	NA	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	36	mg/kg	Arsenic	9.25	NA	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	36	mg/kg	Arsenic	10.54	NA	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	36	mg/kg	Arsenic	10.18	NA	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	Bioaccess2.5pH	36	mg/kg	Arsenic	9.93	NA	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	Bioaccess2.5pH	36	mg/kg	Arsenic	9.93	NA	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	Bioaccess2.5pH	37	mg/kg	Arsenic	10.85	NA	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	Bioaccess2.5pH	37	mg/kg	Arsenic	8.08	NA	T3
321-9_I_low_A	Biosolids and wood ash_low_I	Bioaccess2.5pH	37	mg/kg	Arsenic	9.28	NA	T3
322-9_I_low_B	Biosolids and wood ash_low_I	Bioaccess2.5pH	37	mg/kg	Arsenic	8.57	NA	T3
323-9_I_low_C	Biosolids and wood ash_low_I	Bioaccess2.5pH	37	mg/kg	Arsenic	8.46	NA	T3
324-9_I_low_D	Biosolids and wood ash_low_I	Bioaccess2.5pH	37	mg/kg	Arsenic	8.12	NA	T3
325-10_I_low_A	Wood ash and biochar_low_I	Bioaccess2.5pH	37	mg/kg	Arsenic	7.56	NA	T3
326-10_I_low_B	Wood ash and biochar_low_I	Bioaccess2.5pH	37	mg/kg	Arsenic	7.95	NA	T3
327-10_I_low_C	Wood ash and biochar_low_I	Bioaccess2.5pH	37	mg/kg	Arsenic	6.69	NA	T3
328-10_I_low_D	Wood ash and biochar_low_I	Bioaccess2.5pH	38	mg/kg	Arsenic	8.44	NA	T3
329-11_I_low_A	Wood ash and compost_low_I	Bioaccess2.5pH	38	mg/kg	Arsenic	8.07	NA	T3
330-11_I_low_B	Wood ash and compost_low_I	Bioaccess2.5pH	38	mg/kg	Arsenic	7.41	NA	T3
331-11_I_low_C	Wood ash and compost_low_I	Bioaccess2.5pH	38	mg/kg	Arsenic	8.42	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
332-11_I_low_D	Wood ash and compost_low_I	Bioaccess2.5pH	38	mg/kg	Arsenic	8.00	NA	T3
333-12_I_low_A	Biochar and compost_low_I	Bioaccess2.5pH	38	mg/kg	Arsenic	7.47	NA	T3
334-12_I_low_B	Biochar and compost_low_I	Bioaccess2.5pH	38	mg/kg	Arsenic	7.19	NA	T3
335-12_I_low_C	Biochar and compost_low_I	Bioaccess2.5pH	38	mg/kg	Arsenic	7.05	NA	T3
336-12_I_low_D	Biochar and compost_low_I	Bioaccess2.5pH	38	mg/kg	Arsenic	7.54	NA	T3
345-3_I_high_A	Wood ash_high_I	Bioaccess2.5pH	39	mg/kg	Arsenic	9.33	NA	T3
346-3_I_high_B	Wood ash_high_I	Bioaccess2.5pH	40	mg/kg	Arsenic	10.73	NA	T3
347-3_I_high_C	Wood ash_high_I	Bioaccess2.5pH	40	mg/kg	Arsenic	10.20	NA	T3
348-3_I_high_D	Wood ash_high_I	Bioaccess2.5pH	40	mg/kg	Arsenic	10.56	NA	T3
349-4_I_high_A	Biochar_high_I	Bioaccess2.5pH	40	mg/kg	Arsenic	6.93	NA	T3
350-4_I_high_B	Biochar_high_I	Bioaccess2.5pH	40	mg/kg	Arsenic	7.39	NA	T3
351-4_I_high_C	Biochar_high_I	Bioaccess2.5pH	40	mg/kg	Arsenic	7.35	NA	T3
352-4_I_high_D	Biochar_high_I	Bioaccess2.5pH	40	mg/kg	Arsenic	6.83	NA	T3
353-5_I_high_A	Compost_high_I	Bioaccess2.5pH	40	mg/kg	Arsenic	7.93	NA	T3
354-5_I_high_B	Compost_high_I	Bioaccess2.5pH	40	mg/kg	Arsenic	7.86	NA	T3
355-5_I_high_C	Compost_high_I	Bioaccess2.5pH	41	mg/kg	Arsenic	9.01	NA	T3
356-5_I_high_D	Compost_high_I	Bioaccess2.5pH	41	mg/kg	Arsenic	7.97	NA	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	41	mg/kg	Arsenic	9.93	NA	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	41	mg/kg	Arsenic	11.15	NA	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	41	mg/kg	Arsenic	10.11	NA	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	41	mg/kg	Arsenic	12.31	NA	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	41	mg/kg	Arsenic	11.13	NA	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	41	mg/kg	Arsenic	10.37	NA	T3
363-7_I_high_C	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	41	mg/kg	Arsenic	9.30	NA	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	42	mg/kg	Arsenic	11.92	NA	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	Bioaccess2.5pH	42	mg/kg	Arsenic	11.27	NA	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	Bioaccess2.5pH	42	mg/kg	Arsenic	10.03	NA	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	Bioaccess2.5pH	42	mg/kg	Arsenic	11.21	NA	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	Bioaccess2.5pH	42	mg/kg	Arsenic	11.40	NA	T3
369-9_I_high_A	Biosolids and wood ash_high_I	Bioaccess2.5pH	42	mg/kg	Arsenic	8.95	NA	T3
370-9_I_high_B	Biosolids and wood ash_high_I	Bioaccess2.5pH	42	mg/kg	Arsenic	9.05	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
371-9_I_high_C	Biosolids and wood ash_high_I	Bioaccess2.5pH	42	mg/kg	Arsenic	9.99	NA	T3
372-9_I_high_D	Biosolids and wood ash_high_I	Bioaccess2.5pH	42	mg/kg	Arsenic	9.99	NA	T3
373-10_I_high_A	Wood ash and biochar_high_I	Bioaccess2.5pH	43	mg/kg	Arsenic	9.58	NA	T3
374-10_I_high_B	Wood ash and biochar_high_I	Bioaccess2.5pH	43	mg/kg	Arsenic	9.21	NA	T3
375-10_I_high_C	Wood ash and biochar_high_I	Bioaccess2.5pH	43	mg/kg	Arsenic	9.98	NA	T3
376-10_I_high_D	Wood ash and biochar_high_I	Bioaccess2.5pH	43	mg/kg	Arsenic	10.40	NA	T3
377-11_I_high_A	Wood ash and compost_high_I	Bioaccess2.5pH	43	mg/kg	Arsenic	10.15	NA	T3
378-11_I_high_B	Wood ash and compost_high_I	Bioaccess2.5pH	43	mg/kg	Arsenic	9.85	NA	T3
379-11_I_high_C	Wood ash and compost_high_I	Bioaccess2.5pH	43	mg/kg	Arsenic	9.84	NA	T3
380-11_I_high_D	Wood ash and compost_high_I	Bioaccess2.5pH	43	mg/kg	Arsenic	10.25	NA	T3
381-12_I_high_A	Biochar and compost_high_I	Bioaccess2.5pH	43	mg/kg	Arsenic	7.55	NA	T3
382-12_I_high_B	Biochar and compost_high_I	Bioaccess2.5pH	44	mg/kg	Arsenic	10.61	NA	T3
383-12_I_high_C	Biochar and compost_high_I	Bioaccess2.5pH	44	mg/kg	Arsenic	7.52	NA	T3
384-12_I_high_D	Biochar and compost_high_I	Bioaccess2.5pH	44	mg/kg	Arsenic	7.48	NA	T3
097-1_S_low_A	Soluble phosphate_low_S	Bioaccess2.5pH	23	%	Lead	26.71	NA	T3
098-1_S_low_B	Soluble phosphate_low_S	Bioaccess2.5pH	23	%	Lead	25.70	NA	T3
099-1_S_low_C	Soluble phosphate_low_S	Bioaccess2.5pH	23	%	Lead	27.75	NA	T3
100-1_S_low_D	Soluble phosphate_low_S	Bioaccess2.5pH	23	%	Lead	26.06	NA	T3
101-2_S_low_A	Biosolid_low_S	Bioaccess2.5pH	23	%	Lead	31.56	NA	T3
102-2_S_low_B	Biosolid_low_S	Bioaccess2.5pH	23	%	Lead	29.85	NA	T3
103-2_S_low_C	Biosolid_low_S	Bioaccess2.5pH	23	%	Lead	28.07	NA	T3
104-2_S_low_D	Biosolid_low_S	Bioaccess2.5pH	23	%	Lead	29.66	NA	T3
105-3_S_low_A	Wood ash_low_S	Bioaccess2.5pH	23	%	Lead	29.18	NA	T3
106-3_S_low_B	Wood ash_low_S	Bioaccess2.5pH	24	%	Lead	27.86	NA	T3
107-3_S_low_C	Wood ash_low_S	Bioaccess2.5pH	24	%	Lead	28.22	NA	T3
108-3_S_low_D	Wood ash_low_S	Bioaccess2.5pH	24	%	Lead	25.84	NA	T3
109-4_S_low_A	Biochar_low_S	Bioaccess2.5pH	24	%	Lead	27.34	NA	T3
110-4_S_low_B	Biochar_low_S	Bioaccess2.5pH	24	%	Lead	26.76	NA	T3
111-4_S_low_C	Biochar_low_S	Bioaccess2.5pH	24	%	Lead	28.86	NA	T3
112-4_S_low_D	Biochar_low_S	Bioaccess2.5pH	24	%	Lead	29.48	NA	T3
113-5_S_low_A	Compost_low_S	Bioaccess2.5pH	24	%	Lead	27.29	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
114-5_S_low_B	Compost_low_S	Bioaccess2.5pH	24	%	Lead	27.39	NA	T3
115-5_S_low_C	Compost_low_S	Bioaccess2.5pH	25	%	Lead	26.93	NA	T3
116-5_S_low_D	Compost_low_S	Bioaccess2.5pH	25	%	Lead	25.91	NA	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	25	%	Lead	25.89	NA	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	25	%	Lead	29.48	NA	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	25	%	Lead	28.78	NA	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	25	%	Lead	27.55	NA	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	25	%	Lead	26.34	NA	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	25	%	Lead	25.50	NA	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	25	%	Lead	25.39	NA	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	26	%	Lead	26.79	NA	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	Bioaccess2.5pH	26	%	Lead	26.98	NA	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	Bioaccess2.5pH	26	%	Lead	25.93	NA	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	Bioaccess2.5pH	26	%	Lead	28.69	NA	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	Bioaccess2.5pH	26	%	Lead	25.44	NA	T3
129-9_S_low_A	Biosolids and wood ash_low_S	Bioaccess2.5pH	26	%	Lead	27.24	NA	T3
130-9_S_low_B	Biosolids and wood ash_low_S	Bioaccess2.5pH	26	%	Lead	30.23	NA	T3
131-9_S_low_C	Biosolids and wood ash_low_S	Bioaccess2.5pH	26	%	Lead	30.17	NA	T3
132-9_S_low_D	Biosolids and wood ash_low_S	Bioaccess2.5pH	26	%	Lead	29.42	NA	T3
133-10_S_low_A	Wood ash and biochar_low_S	Bioaccess2.5pH	27	%	Lead	28.33	NA	T3
134-10_S_low_B	Wood ash and biochar_low_S	Bioaccess2.5pH	27	%	Lead	29.81	NA	T3
135-10_S_low_C	Wood ash and biochar_low_S	Bioaccess2.5pH	27	%	Lead	28.96	NA	T3
136-10_S_low_D	Wood ash and biochar_low_S	Bioaccess2.5pH	27	%	Lead	30.43	NA	T3
137-11_S_low_A	Wood ash and compost_low_S	Bioaccess2.5pH	27	%	Lead	30.72	NA	T3
138-11_S_low_B	Wood ash and compost_low_S	Bioaccess2.5pH	27	%	Lead	29.00	NA	T3
139-11_S_low_C	Wood ash and compost_low_S	Bioaccess2.5pH	27	%	Lead	30.33	NA	T3
140-11_S_low_D	Wood ash and compost_low_S	Bioaccess2.5pH	27	%	Lead	32.92	NA	T3
141-12_S_low_A	Biochar and compost_low_S	Bioaccess2.5pH	27	%	Lead	31.36	NA	T3
142-12_S_low_B	Biochar and compost_low_S	Bioaccess2.5pH	28	%	Lead	30.75	NA	T3
143-12_S_low_C	Biochar and compost_low_S	Bioaccess2.5pH	28	%	Lead	30.26	NA	T3
144-12_S_low_D	Biochar and compost_low_S	Bioaccess2.5pH	28	%	Lead	29.51	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
241-1_S_high_A	Soluble phosphate_high_S	Bioaccess2.5pH	28	%	Lead	22.41	NA	T3
242-1_S_high_B	Soluble phosphate_high_S	Bioaccess2.5pH	28	%	Lead	20.63	NA	T3
243-1_S_high_C	Soluble phosphate_high_S	Bioaccess2.5pH	28	%	Lead	24.02	NA	T3
244-1_S_high_D	Soluble phosphate_high_S	Bioaccess2.5pH	28	%	Lead	22.58	NA	T3
245-2_S_high_A	Biosolid_high_S	Bioaccess2.5pH	28	%	Lead	34.34	NA	T3
246-2_S_high_B	Biosolid_high_S	Bioaccess2.5pH	28	%	Lead	30.78	NA	T3
247-2_S_high_C	Biosolid_high_S	Bioaccess2.5pH	29	%	Lead	32.66	NA	T3
248-2_S_high_D	Biosolid_high_S	Bioaccess2.5pH	29	%	Lead	31.22	NA	T3
249-3_S_high_A	Wood ash_high_S	Bioaccess2.5pH	29	%	Lead	27.83	NA	T3
250-3_S_high_B	Wood ash_high_S	Bioaccess2.5pH	29	%	Lead	32.02	NA	T3
251-3_S_high_C	Wood ash_high_S	Bioaccess2.5pH	29	%	Lead	30.20	NA	T3
252-3_S_high_D	Wood ash_high_S	Bioaccess2.5pH	29	%	Lead	29.85	NA	T3
253-4_S_high_A	Biochar_high_S	Bioaccess2.5pH	29	%	Lead	28.48	NA	T3
254-4_S_high_B	Biochar_high_S	Bioaccess2.5pH	29	%	Lead	29.30	NA	T3
255-4_S_high_C	Biochar_high_S	Bioaccess2.5pH	29	%	Lead	29.98	NA	T3
256-4_S_high_D	Biochar_high_S	Bioaccess2.5pH	30	%	Lead	28.77	NA	T3
257-5_S_high_A	Compost_high_S	Bioaccess2.5pH	30	%	Lead	29.28	NA	T3
258-5_S_high_B	Compost_high_S	Bioaccess2.5pH	30	%	Lead	29.27	NA	T3
259-5_S_high_C	Compost_high_S	Bioaccess2.5pH	30	%	Lead	28.98	NA	T3
260-5_S_high_D	Compost_high_S	Bioaccess2.5pH	30	%	Lead	25.60	NA	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	30	%	Lead	28.60	NA	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	30	%	Lead	28.44	NA	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	30	%	Lead	31.35	NA	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	30	%	Lead	29.99	NA	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	31	%	Lead	23.43	NA	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	31	%	Lead	23.96	NA	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	31	%	Lead	20.60	NA	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	31	%	Lead	24.89	NA	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	Bioaccess2.5pH	31	%	Lead	23.67	NA	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	Bioaccess2.5pH	31	%	Lead	23.94	NA	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	Bioaccess2.5pH	31	%	Lead	22.42	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
272-8_S_high_D	Soluble phosphate and compost_high_S	Bioaccess2.5pH	31	%	Lead	24.14	NA	T3
273-9_S_high_A	Biosolids and wood ash_high_S	Bioaccess2.5pH	31	%	Lead	33.15	NA	T3
274-9_S_high_B	Biosolids and wood ash_high_S	Bioaccess2.5pH	32	%	Lead	34.61	NA	T3
275-9_S_high_C	Biosolids and wood ash_high_S	Bioaccess2.5pH	32	%	Lead	34.44	NA	T3
276-9_S_high_D	Biosolids and wood ash_high_S	Bioaccess2.5pH	32	%	Lead	34.89	NA	T3
277-10_S_high_A	Wood ash and biochar_high_S	Bioaccess2.5pH	32	%	Lead	32.99	NA	T3
278-10_S_high_B	Wood ash and biochar_high_S	Bioaccess2.5pH	32	%	Lead	31.06	NA	T3
279-10_S_high_C	Wood ash and biochar_high_S	Bioaccess2.5pH	32	%	Lead	34.57	NA	T3
280-10_S_high_D	Wood ash and biochar_high_S	Bioaccess2.5pH	32	%	Lead	32.29	NA	T3
281-11_S_high_A	Wood ash and compost_high_S	Bioaccess2.5pH	32	%	Lead	29.14	NA	T3
282-11_S_high_B	Wood ash and compost_high_S	Bioaccess2.5pH	32	%	Lead	31.17	NA	T3
283-11_S_high_C	Wood ash and compost_high_S	Bioaccess2.5pH	33	%	Lead	31.64	NA	T3
284-11_S_high_D	Wood ash and compost_high_S	Bioaccess2.5pH	33	%	Lead	29.88	NA	T3
285-12_S_high_A	Biochar and compost_high_S	Bioaccess2.5pH	33	%	Lead	31.11	NA	T3
286-12_S_high_B	Biochar and compost_high_S	Bioaccess2.5pH	33	%	Lead	30.90	NA	T3
287-12_S_high_C	Biochar and compost_high_S	Bioaccess2.5pH	33	%	Lead	31.06	NA	T3
288-12_S_high_D	Biochar and compost_high_S	Bioaccess2.5pH	33	%	Lead	30.13	NA	T3
289-1_I_low_A	Soluble phosphate_low_I	Bioaccess2.5pH	33	%	Lead	28.79	NA	T3
290-1_I_low_B	Soluble phosphate_low_I	Bioaccess2.5pH	33	%	Lead	32.80	NA	T3
291-1_I_low_C	Soluble phosphate_low_I	Bioaccess2.5pH	33	%	Lead	30.64	NA	T3
292-1_I_low_D	Soluble phosphate_low_I	Bioaccess2.5pH	34	%	Lead	28.21	NA	T3
293-2_I_low_A	Biosolid_low_I	Bioaccess2.5pH	34	%	Lead	26.29	NA	T3
294-2_I_low_B	Biosolid_low_I	Bioaccess2.5pH	34	%	Lead	28.61	NA	T3
295-2_I_low_C	Biosolid_low_I	Bioaccess2.5pH	34	%	Lead	29.27	NA	T3
296-2_I_low_D	Biosolid_low_I	Bioaccess2.5pH	34	%	Lead	28.18	NA	T3
297-3_I_low_A	Wood ash_low_I	Bioaccess2.5pH	34	%	Lead	33.72	NA	T3
298-3_I_low_B	Wood ash_low_I	Bioaccess2.5pH	34	%	Lead	30.32	NA	T3
299-3_I_low_C	Wood ash_low_I	Bioaccess2.5pH	34	%	Lead	33.30	NA	T3
300-3_I_low_D	Wood ash_low_I	Bioaccess2.5pH	34	%	Lead	32.34	NA	T3
301-4_I_low_A	Biochar_low_I	Bioaccess2.5pH	35	%	Lead	31.62	NA	T3
302-4_I_low_B	Biochar_low_I	Bioaccess2.5pH	35	%	Lead	32.07	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
303-4_I_low_C	Biochar_low_I	Bioaccess2.5pH	35	%	Lead	30.71	NA	T3
304-4_I_low_D	Biochar_low_I	Bioaccess2.5pH	35	%	Lead	31.82	NA	T3
305-5_I_low_A	Compost_low_I	Bioaccess2.5pH	35	%	Lead	31.90	NA	T3
306-5_I_low_B	Compost_low_I	Bioaccess2.5pH	35	%	Lead	32.31	NA	T3
307-5_I_low_C	Compost_low_I	Bioaccess2.5pH	35	%	Lead	33.77	NA	T3
308-5_I_low_D	Compost_low_I	Bioaccess2.5pH	35	%	Lead	33.70	NA	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	35	%	Lead	27.09	NA	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	36	%	Lead	30.25	NA	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	36	%	Lead	31.82	NA	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	36	%	Lead	30.59	NA	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	36	%	Lead	31.90	NA	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	36	%	Lead	30.52	NA	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	36	%	Lead	32.90	NA	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	36	%	Lead	33.18	NA	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	Bioaccess2.5pH	36	%	Lead	34.18	NA	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	Bioaccess2.5pH	36	%	Lead	33.60	NA	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	Bioaccess2.5pH	37	%	Lead	33.27	NA	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	Bioaccess2.5pH	37	%	Lead	29.92	NA	T3
321-9_I_low_A	Biosolids and wood ash_low_I	Bioaccess2.5pH	37	%	Lead	28.65	NA	T3
322-9_I_low_B	Biosolids and wood ash_low_I	Bioaccess2.5pH	37	%	Lead	28.50	NA	T3
323-9_I_low_C	Biosolids and wood ash_low_I	Bioaccess2.5pH	37	%	Lead	30.19	NA	T3
324-9_I_low_D	Biosolids and wood ash_low_I	Bioaccess2.5pH	37	%	Lead	28.97	NA	T3
325-10_I_low_A	Wood ash and biochar_low_I	Bioaccess2.5pH	37	%	Lead	31.68	NA	T3
326-10_I_low_B	Wood ash and biochar_low_I	Bioaccess2.5pH	37	%	Lead	32.06	NA	T3
327-10_I_low_C	Wood ash and biochar_low_I	Bioaccess2.5pH	37	%	Lead	29.35	NA	T3
328-10_I_low_D	Wood ash and biochar_low_I	Bioaccess2.5pH	38	%	Lead	34.76	NA	T3
329-11_I_low_A	Wood ash and compost_low_I	Bioaccess2.5pH	38	%	Lead	30.45	NA	T3
330-11_I_low_B	Wood ash and compost_low_I	Bioaccess2.5pH	38	%	Lead	29.84	NA	T3
331-11_I_low_C	Wood ash and compost_low_I	Bioaccess2.5pH	38	%	Lead	36.68	NA	T3
332-11_I_low_D	Wood ash and compost_low_I	Bioaccess2.5pH	38	%	Lead	31.75	NA	T3
333-12_I_low_A	Biochar and compost_low_I	Bioaccess2.5pH	38	%	Lead	31.01	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
334-12_I_low_B	Biochar and compost_low_I	Bioaccess2.5pH	38	%	Lead	30.52	NA	T3
335-12_I_low_C	Biochar and compost_low_I	Bioaccess2.5pH	38	%	Lead	31.01	NA	T3
336-12_I_low_D	Biochar and compost_low_I	Bioaccess2.5pH	38	%	Lead	29.86	NA	T3
345-3_I_high_A	Wood ash_high_I	Bioaccess2.5pH	39	%	Lead	36.25	NA	T3
346-3_I_high_B	Wood ash_high_I	Bioaccess2.5pH	40	%	Lead	34.19	NA	T3
347-3_I_high_C	Wood ash_high_I	Bioaccess2.5pH	40	%	Lead	33.38	NA	T3
348-3_I_high_D	Wood ash_high_I	Bioaccess2.5pH	40	%	Lead	38.54	NA	T3
349-4_I_high_A	Biochar_high_I	Bioaccess2.5pH	40	%	Lead	34.00	NA	T3
350-4_I_high_B	Biochar_high_I	Bioaccess2.5pH	40	%	Lead	33.88	NA	T3
351-4_I_high_C	Biochar_high_I	Bioaccess2.5pH	40	%	Lead	30.28	NA	T3
352-4_I_high_D	Biochar_high_I	Bioaccess2.5pH	40	%	Lead	35.97	NA	T3
353-5_I_high_A	Compost_high_I	Bioaccess2.5pH	40	%	Lead	25.25	NA	T3
354-5_I_high_B	Compost_high_I	Bioaccess2.5pH	40	%	Lead	25.92	NA	T3
355-5_I_high_C	Compost_high_I	Bioaccess2.5pH	41	%	Lead	26.19	NA	T3
356-5_I_high_D	Compost_high_I	Bioaccess2.5pH	41	%	Lead	23.77	NA	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	41	%	Lead	16.13	NA	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	41	%	Lead	13.20	NA	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	41	%	Lead	15.51	NA	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	41	%	Lead	15.03	NA	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	41	%	Lead	24.07	NA	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	41	%	Lead	18.42	NA	T3
363-7_I_high_C	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	41	%	Lead	19.91	NA	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	42	%	Lead	22.17	NA	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	Bioaccess2.5pH	42	%	Lead	21.62	NA	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	Bioaccess2.5pH	42	%	Lead	21.39	NA	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	Bioaccess2.5pH	42	%	Lead	19.17	NA	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	Bioaccess2.5pH	42	%	Lead	20.24	NA	T3
369-9_I_high_A	Biosolids and wood ash_high_I	Bioaccess2.5pH	42	%	Lead	18.90	NA	T3
370-9_I_high_B	Biosolids and wood ash_high_I	Bioaccess2.5pH	42	%	Lead	20.89	NA	T3
371-9_I_high_C	Biosolids and wood ash_high_I	Bioaccess2.5pH	42	%	Lead	19.97	NA	T3
372-9_I_high_D	Biosolids and wood ash_high_I	Bioaccess2.5pH	42	%	Lead	19.55	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
373-10_I_high_A	Wood ash and biochar_high_I	Bioaccess2.5pH	43	%	Lead	33.33	NA	T3
374-10_I_high_B	Wood ash and biochar_high_I	Bioaccess2.5pH	43	%	Lead	32.34	NA	T3
375-10_I_high_C	Wood ash and biochar_high_I	Bioaccess2.5pH	43	%	Lead	34.48	NA	T3
376-10_I_high_D	Wood ash and biochar_high_I	Bioaccess2.5pH	43	%	Lead	32.43	NA	T3
377-11_I_high_A	Wood ash and compost_high_I	Bioaccess2.5pH	43	%	Lead	28.02	NA	T3
378-11_I_high_B	Wood ash and compost_high_I	Bioaccess2.5pH	43	%	Lead	30.31	NA	T3
379-11_I_high_C	Wood ash and compost_high_I	Bioaccess2.5pH	43	%	Lead	28.81	NA	T3
380-11_I_high_D	Wood ash and compost_high_I	Bioaccess2.5pH	43	%	Lead	29.89	NA	T3
381-12_I_high_A	Biochar and compost_high_I	Bioaccess2.5pH	43	%	Lead	27.06	NA	T3
382-12_I_high_B	Biochar and compost_high_I	Bioaccess2.5pH	44	%	Lead	26.78	NA	T3
383-12_I_high_C	Biochar and compost_high_I	Bioaccess2.5pH	44	%	Lead	24.54	NA	T3
384-12_I_high_D	Biochar and compost_high_I	Bioaccess2.5pH	44	%	Lead	24.78	NA	T3
097-1_S_low_A	Soluble phosphate_low_S	Bioaccess2.5pH	23	mg/kg	Lead	416.04	NA	T3
098-1_S_low_B	Soluble phosphate_low_S	Bioaccess2.5pH	23	mg/kg	Lead	385.96	NA	T3
099-1_S_low_C	Soluble phosphate_low_S	Bioaccess2.5pH	23	mg/kg	Lead	412.98	NA	T3
100-1_S_low_D	Soluble phosphate_low_S	Bioaccess2.5pH	23	mg/kg	Lead	397.38	NA	T3
101-2_S_low_A	Biosolid_low_S	Bioaccess2.5pH	23	mg/kg	Lead	464.68	NA	T3
102-2_S_low_B	Biosolid_low_S	Bioaccess2.5pH	23	mg/kg	Lead	439.68	NA	T3
103-2_S_low_C	Biosolid_low_S	Bioaccess2.5pH	23	mg/kg	Lead	430.21	NA	T3
104-2_S_low_D	Biosolid_low_S	Bioaccess2.5pH	23	mg/kg	Lead	434.40	NA	T3
105-3_S_low_A	Wood ash_low_S	Bioaccess2.5pH	23	mg/kg	Lead	424.03	NA	T3
106-3_S_low_B	Wood ash_low_S	Bioaccess2.5pH	24	mg/kg	Lead	414.87	NA	T3
107-3_S_low_C	Wood ash_low_S	Bioaccess2.5pH	24	mg/kg	Lead	433.86	NA	T3
108-3_S_low_D	Wood ash_low_S	Bioaccess2.5pH	24	mg/kg	Lead	394.35	NA	T3
109-4_S_low_A	Biochar_low_S	Bioaccess2.5pH	24	mg/kg	Lead	413.66	NA	T3
110-4_S_low_B	Biochar_low_S	Bioaccess2.5pH	24	mg/kg	Lead	402.65	NA	T3
111-4_S_low_C	Biochar_low_S	Bioaccess2.5pH	24	mg/kg	Lead	425.32	NA	T3
112-4_S_low_D	Biochar_low_S	Bioaccess2.5pH	24	mg/kg	Lead	435.74	NA	T3
113-5_S_low_A	Compost_low_S	Bioaccess2.5pH	24	mg/kg	Lead	408.45	NA	T3
114-5_S_low_B	Compost_low_S	Bioaccess2.5pH	24	mg/kg	Lead	414.20	NA	T3
115-5_S_low_C	Compost_low_S	Bioaccess2.5pH	25	mg/kg	Lead	405.13	NA	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
116-5_S_low_D	Compost_low_S	Bioaccess2.5pH	25	mg/kg	Lead	394.03	NA	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	25	mg/kg	Lead	392.63	NA	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	25	mg/kg	Lead	431.83	NA	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	25	mg/kg	Lead	420.31	NA	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	Bioaccess2.5pH	25	mg/kg	Lead	413.93	NA	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	25	mg/kg	Lead	392.25	NA	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	25	mg/kg	Lead	386.49	NA	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	25	mg/kg	Lead	383.91	NA	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	Bioaccess2.5pH	26	mg/kg	Lead	385.78	NA	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	Bioaccess2.5pH	26	mg/kg	Lead	391.27	NA	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	Bioaccess2.5pH	26	mg/kg	Lead	384.04	NA	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	Bioaccess2.5pH	26	mg/kg	Lead	407.78	NA	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	Bioaccess2.5pH	26	mg/kg	Lead	380.50	NA	T3
129-9_S_low_A	Biosolids and wood ash_low_S	Bioaccess2.5pH	26	mg/kg	Lead	401.67	NA	T3
130-9_S_low_B	Biosolids and wood ash_low_S	Bioaccess2.5pH	26	mg/kg	Lead	452.34	NA	T3
131-9_S_low_C	Biosolids and wood ash_low_S	Bioaccess2.5pH	26	mg/kg	Lead	435.15	NA	T3
132-9_S_low_D	Biosolids and wood ash_low_S	Bioaccess2.5pH	26	mg/kg	Lead	442.73	NA	T3
133-10_S_low_A	Wood ash and biochar_low_S	Bioaccess2.5pH	27	mg/kg	Lead	444.90	NA	T3
134-10_S_low_B	Wood ash and biochar_low_S	Bioaccess2.5pH	27	mg/kg	Lead	441.55	NA	T3
135-10_S_low_C	Wood ash and biochar_low_S	Bioaccess2.5pH	27	mg/kg	Lead	438.94	NA	T3
136-10_S_low_D	Wood ash and biochar_low_S	Bioaccess2.5pH	27	mg/kg	Lead	436.10	NA	T3
137-11_S_low_A	Wood ash and compost_low_S	Bioaccess2.5pH	27	mg/kg	Lead	462.98	NA	T3
138-11_S_low_B	Wood ash and compost_low_S	Bioaccess2.5pH	27	mg/kg	Lead	429.50	NA	T3
139-11_S_low_C	Wood ash and compost_low_S	Bioaccess2.5pH	27	mg/kg	Lead	464.15	NA	T3
140-11_S_low_D	Wood ash and compost_low_S	Bioaccess2.5pH	27	mg/kg	Lead	460.64	NA	T3
141-12_S_low_A	Biochar and compost_low_S	Bioaccess2.5pH	27	mg/kg	Lead	465.43	NA	T3
142-12_S_low_B	Biochar and compost_low_S	Bioaccess2.5pH	28	mg/kg	Lead	474.90	NA	T3
143-12_S_low_C	Biochar and compost_low_S	Bioaccess2.5pH	28	mg/kg	Lead	450.14	NA	T3
144-12_S_low_D	Biochar and compost_low_S	Bioaccess2.5pH	28	mg/kg	Lead	451.91	NA	T3
241-1_S_high_A	Soluble phosphate_high_S	Bioaccess2.5pH	28	mg/kg	Lead	344.13	NA	T3
242-1_S_high_B	Soluble phosphate_high_S	Bioaccess2.5pH	28	mg/kg	Lead	323.67	NA	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
243-1_S_high_C	Soluble phosphate_high_S	Bioaccess2.5pH	28	mg/kg	Lead	366.12	NA	T3
244-1_S_high_D	Soluble phosphate_high_S	Bioaccess2.5pH	28	mg/kg	Lead	326.57	NA	T3
245-2_S_high_A	Biosolid_high_S	Bioaccess2.5pH	28	mg/kg	Lead	505.74	NA	T3
246-2_S_high_B	Biosolid_high_S	Bioaccess2.5pH	28	mg/kg	Lead	468.12	NA	T3
247-2_S_high_C	Biosolid_high_S	Bioaccess2.5pH	29	mg/kg	Lead	484.14	NA	T3
248-2_S_high_D	Biosolid_high_S	Bioaccess2.5pH	29	mg/kg	Lead	475.18	NA	T3
249-3_S_high_A	Wood ash_high_S	Bioaccess2.5pH	29	mg/kg	Lead	410.40	NA	T3
250-3_S_high_B	Wood ash_high_S	Bioaccess2.5pH	29	mg/kg	Lead	457.34	NA	T3
251-3_S_high_C	Wood ash_high_S	Bioaccess2.5pH	29	mg/kg	Lead	431.55	NA	T3
252-3_S_high_D	Wood ash_high_S	Bioaccess2.5pH	29	mg/kg	Lead	446.69	NA	T3
253-4_S_high_A	Biochar_high_S	Bioaccess2.5pH	29	mg/kg	Lead	418.25	NA	T3
254-4_S_high_B	Biochar_high_S	Bioaccess2.5pH	29	mg/kg	Lead	446.59	NA	T3
255-4_S_high_C	Biochar_high_S	Bioaccess2.5pH	29	mg/kg	Lead	443.58	NA	T3
256-4_S_high_D	Biochar_high_S	Bioaccess2.5pH	30	mg/kg	Lead	415.61	NA	T3
257-5_S_high_A	Compost_high_S	Bioaccess2.5pH	30	mg/kg	Lead	425.17	NA	T3
258-5_S_high_B	Compost_high_S	Bioaccess2.5pH	30	mg/kg	Lead	423.25	NA	T3
259-5_S_high_C	Compost_high_S	Bioaccess2.5pH	30	mg/kg	Lead	431.69	NA	T3
260-5_S_high_D	Compost_high_S	Bioaccess2.5pH	30	mg/kg	Lead	390.47	NA	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	30	mg/kg	Lead	442.66	NA	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	30	mg/kg	Lead	423.34	NA	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	30	mg/kg	Lead	457.85	NA	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	Bioaccess2.5pH	30	mg/kg	Lead	446.02	NA	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	31	mg/kg	Lead	360.58	NA	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	31	mg/kg	Lead	360.48	NA	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	31	mg/kg	Lead	332.42	NA	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	Bioaccess2.5pH	31	mg/kg	Lead	364.22	NA	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	Bioaccess2.5pH	31	mg/kg	Lead	361.36	NA	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	Bioaccess2.5pH	31	mg/kg	Lead	362.90	NA	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	Bioaccess2.5pH	31	mg/kg	Lead	351.56	NA	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	Bioaccess2.5pH	31	mg/kg	Lead	364.75	NA	T3
273-9_S_high_A	Biosolids and wood ash_high_S	Bioaccess2.5pH	31	mg/kg	Lead	515.09	NA	T3

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
274-9_S_high_B	Biosolids and wood ash_high_S	Bioaccess2.5pH	32	mg/kg	Lead	510.14	NA	T3
275-9_S_high_C	Biosolids and wood ash_high_S	Bioaccess2.5pH	32	mg/kg	Lead	507.92	NA	T3
276-9_S_high_D	Biosolids and wood ash_high_S	Bioaccess2.5pH	32	mg/kg	Lead	522.22	NA	T3
277-10_S_high_A	Wood ash and biochar_high_S	Bioaccess2.5pH	32	mg/kg	Lead	469.09	NA	T3
278-10_S_high_B	Wood ash and biochar_high_S	Bioaccess2.5pH	32	mg/kg	Lead	456.78	NA	T3
279-10_S_high_C	Wood ash and biochar_high_S	Bioaccess2.5pH	32	mg/kg	Lead	475.81	NA	T3
280-10_S_high_D	Wood ash and biochar_high_S	Bioaccess2.5pH	32	mg/kg	Lead	472.88	NA	T3
281-11_S_high_A	Wood ash and compost_high_S	Bioaccess2.5pH	32	mg/kg	Lead	453.83	NA	T3
282-11_S_high_B	Wood ash and compost_high_S	Bioaccess2.5pH	32	mg/kg	Lead	455.39	NA	T3
283-11_S_high_C	Wood ash and compost_high_S	Bioaccess2.5pH	33	mg/kg	Lead	461.76	NA	T3
284-11_S_high_D	Wood ash and compost_high_S	Bioaccess2.5pH	33	mg/kg	Lead	454.58	NA	T3
285-12_S_high_A	Biochar and compost_high_S	Bioaccess2.5pH	33	mg/kg	Lead	440.72	NA	T3
286-12_S_high_B	Biochar and compost_high_S	Bioaccess2.5pH	33	mg/kg	Lead	456.49	NA	T3
287-12_S_high_C	Biochar and compost_high_S	Bioaccess2.5pH	33	mg/kg	Lead	465.62	NA	T3
288-12_S_high_D	Biochar and compost_high_S	Bioaccess2.5pH	33	mg/kg	Lead	448.46	NA	T3
289-1_I_low_A	Soluble phosphate_low_I	Bioaccess2.5pH	33	mg/kg	Lead	426.64	NA	T3
290-1_I_low_B	Soluble phosphate_low_I	Bioaccess2.5pH	33	mg/kg	Lead	446.51	NA	T3
291-1_I_low_C	Soluble phosphate_low_I	Bioaccess2.5pH	33	mg/kg	Lead	430.84	NA	T3
292-1_I_low_D	Soluble phosphate_low_I	Bioaccess2.5pH	34	mg/kg	Lead	404.38	NA	T3
293-2_I_low_A	Biosolid_low_I	Bioaccess2.5pH	34	mg/kg	Lead	382.50	NA	T3
294-2_I_low_B	Biosolid_low_I	Bioaccess2.5pH	34	mg/kg	Lead	395.45	NA	T3
295-2_I_low_C	Biosolid_low_I	Bioaccess2.5pH	34	mg/kg	Lead	395.00	NA	T3
296-2_I_low_D	Biosolid_low_I	Bioaccess2.5pH	34	mg/kg	Lead	385.62	NA	T3
297-3_I_low_A	Wood ash_low_I	Bioaccess2.5pH	34	mg/kg	Lead	481.61	NA	T3
298-3_I_low_B	Wood ash_low_I	Bioaccess2.5pH	34	mg/kg	Lead	423.19	NA	T3
299-3_I_low_C	Wood ash_low_I	Bioaccess2.5pH	34	mg/kg	Lead	466.90	NA	T3
300-3_I_low_D	Wood ash_low_I	Bioaccess2.5pH	34	mg/kg	Lead	450.57	NA	T3
301-4_I_low_A	Biochar_low_I	Bioaccess2.5pH	35	mg/kg	Lead	444.46	NA	T3
302-4_I_low_B	Biochar_low_I	Bioaccess2.5pH	35	mg/kg	Lead	453.16	NA	T3
303-4_I_low_C	Biochar_low_I	Bioaccess2.5pH	35	mg/kg	Lead	432.40	NA	T3
304-4_I_low_D	Biochar_low_I	Bioaccess2.5pH	35	mg/kg	Lead	439.88	NA	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
305-5_I_low_A	Compost_low_I	Bioaccess2.5pH	35	mg/kg	Lead	455.89	NA	T3
306-5_I_low_B	Compost_low_I	Bioaccess2.5pH	35	mg/kg	Lead	468.08	NA	T3
307-5_I_low_C	Compost_low_I	Bioaccess2.5pH	35	mg/kg	Lead	450.05	NA	T3
308-5_I_low_D	Compost_low_I	Bioaccess2.5pH	35	mg/kg	Lead	471.16	NA	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	35	mg/kg	Lead	360.68	NA	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	36	mg/kg	Lead	415.04	NA	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	36	mg/kg	Lead	404.85	NA	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	Bioaccess2.5pH	36	mg/kg	Lead	406.26	NA	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	36	mg/kg	Lead	441.28	NA	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	36	mg/kg	Lead	433.41	NA	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	36	mg/kg	Lead	469.67	NA	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	Bioaccess2.5pH	36	mg/kg	Lead	456.46	NA	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	Bioaccess2.5pH	36	mg/kg	Lead	464.31	NA	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	Bioaccess2.5pH	36	mg/kg	Lead	439.58	NA	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	Bioaccess2.5pH	37	mg/kg	Lead	413.26	NA	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	Bioaccess2.5pH	37	mg/kg	Lead	385.30	NA	T3
321-9_I_low_A	Biosolids and wood ash_low_I	Bioaccess2.5pH	37	mg/kg	Lead	380.06	NA	T3
322-9_I_low_B	Biosolids and wood ash_low_I	Bioaccess2.5pH	37	mg/kg	Lead	402.13	NA	T3
323-9_I_low_C	Biosolids and wood ash_low_I	Bioaccess2.5pH	37	mg/kg	Lead	404.47	NA	T3
324-9_I_low_D	Biosolids and wood ash_low_I	Bioaccess2.5pH	37	mg/kg	Lead	374.29	NA	T3
325-10_I_low_A	Wood ash and biochar_low_I	Bioaccess2.5pH	37	mg/kg	Lead	439.19	NA	T3
326-10_I_low_B	Wood ash and biochar_low_I	Bioaccess2.5pH	37	mg/kg	Lead	452.71	NA	T3
327-10_I_low_C	Wood ash and biochar_low_I	Bioaccess2.5pH	37	mg/kg	Lead	424.46	NA	T3
328-10_I_low_D	Wood ash and biochar_low_I	Bioaccess2.5pH	38	mg/kg	Lead	491.96	NA	T3
329-11_I_low_A	Wood ash and compost_low_I	Bioaccess2.5pH	38	mg/kg	Lead	434.20	NA	T3
330-11_I_low_B	Wood ash and compost_low_I	Bioaccess2.5pH	38	mg/kg	Lead	391.99	NA	T3
331-11_I_low_C	Wood ash and compost_low_I	Bioaccess2.5pH	38	mg/kg	Lead	462.46	NA	T3
332-11_I_low_D	Wood ash and compost_low_I	Bioaccess2.5pH	38	mg/kg	Lead	458.50	NA	T3
333-12_I_low_A	Biochar and compost_low_I	Bioaccess2.5pH	38	mg/kg	Lead	409.39	NA	T3
334-12_I_low_B	Biochar and compost_low_I	Bioaccess2.5pH	38	mg/kg	Lead	422.58	NA	T3
335-12_I_low_C	Biochar and compost_low_I	Bioaccess2.5pH	38	mg/kg	Lead	406.06	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
336-12_I_low_D	Biochar and compost_low_I	Bioaccess2.5pH	38	mg/kg	Lead	396.89	NA	T3
345-3_I_high_A	Wood ash_high_I	Bioaccess2.5pH	39	mg/kg	Lead	515.39	NA	T3
346-3_I_high_B	Wood ash_high_I	Bioaccess2.5pH	40	mg/kg	Lead	520.26	NA	T3
347-3_I_high_C	Wood ash_high_I	Bioaccess2.5pH	40	mg/kg	Lead	508.26	NA	T3
348-3_I_high_D	Wood ash_high_I	Bioaccess2.5pH	40	mg/kg	Lead	513.47	NA	T3
349-4_I_high_A	Biochar_high_I	Bioaccess2.5pH	40	mg/kg	Lead	412.43	NA	T3
350-4_I_high_B	Biochar_high_I	Bioaccess2.5pH	40	mg/kg	Lead	409.21	NA	T3
351-4_I_high_C	Biochar_high_I	Bioaccess2.5pH	40	mg/kg	Lead	404.07	NA	T3
352-4_I_high_D	Biochar_high_I	Bioaccess2.5pH	40	mg/kg	Lead	416.41	NA	T3
353-5_I_high_A	Compost_high_I	Bioaccess2.5pH	40	mg/kg	Lead	393.17	NA	T3
354-5_I_high_B	Compost_high_I	Bioaccess2.5pH	40	mg/kg	Lead	385.76	NA	T3
355-5_I_high_C	Compost_high_I	Bioaccess2.5pH	41	mg/kg	Lead	399.03	NA	T3
356-5_I_high_D	Compost_high_I	Bioaccess2.5pH	41	mg/kg	Lead	395.09	NA	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	41	mg/kg	Lead	237.93	NA	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	41	mg/kg	Lead	200.70	NA	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	41	mg/kg	Lead	189.59	NA	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	Bioaccess2.5pH	41	mg/kg	Lead	188.71	NA	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	41	mg/kg	Lead	356.34	NA	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	41	mg/kg	Lead	330.42	NA	T3
363-7_I_high_C	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	41	mg/kg	Lead	298.43	NA	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	Bioaccess2.5pH	42	mg/kg	Lead	335.76	NA	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	Bioaccess2.5pH	42	mg/kg	Lead	297.66	NA	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	Bioaccess2.5pH	42	mg/kg	Lead	293.10	NA	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	Bioaccess2.5pH	42	mg/kg	Lead	279.27	NA	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	Bioaccess2.5pH	42	mg/kg	Lead	288.16	NA	T3
369-9_I_high_A	Biosolids and wood ash_high_I	Bioaccess2.5pH	42	mg/kg	Lead	246.24	NA	T3
370-9_I_high_B	Biosolids and wood ash_high_I	Bioaccess2.5pH	42	mg/kg	Lead	274.95	NA	T3
371-9_I_high_C	Biosolids and wood ash_high_I	Bioaccess2.5pH	42	mg/kg	Lead	265.45	NA	T3
372-9_I_high_D	Biosolids and wood ash_high_I	Bioaccess2.5pH	42	mg/kg	Lead	259.28	NA	T3
373-10_I_high_A	Wood ash and biochar_high_I	Bioaccess2.5pH	43	mg/kg	Lead	487.67	NA	T3
374-10_I_high_B	Wood ash and biochar_high_I	Bioaccess2.5pH	43	mg/kg	Lead	452.44	NA	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
375-10_I_high_C	Wood ash and biochar_high_I	Bioaccess2.5pH	43	mg/kg	Lead	469.54	NA	T3
376-10_I_high_D	Wood ash and biochar_high_I	Bioaccess2.5pH	43	mg/kg	Lead	471.38	NA	T3
377-11_I_high_A	Wood ash and compost_high_I	Bioaccess2.5pH	43	mg/kg	Lead	415.03	NA	T3
378-11_I_high_B	Wood ash and compost_high_I	Bioaccess2.5pH	43	mg/kg	Lead	406.02	NA	T3
379-11_I_high_C	Wood ash and compost_high_I	Bioaccess2.5pH	43	mg/kg	Lead	408.81	NA	T3
380-11_I_high_D	Wood ash and compost_high_I	Bioaccess2.5pH	43	mg/kg	Lead	413.96	NA	T3
381-12_I_high_A	Biochar and compost_high_I	Bioaccess2.5pH	43	mg/kg	Lead	372.52	NA	T3
382-12_I_high_B	Biochar and compost_high_I	Bioaccess2.5pH	44	mg/kg	Lead	395.95	NA	T3
383-12_I_high_C	Biochar and compost_high_I	Bioaccess2.5pH	44	mg/kg	Lead	366.74	NA	T3
384-12_I_high_D	Biochar and compost_high_I	Bioaccess2.5pH	44	mg/kg	Lead	362.76	NA	T3
337-1_I_high_A	Soluble phosphate_high_I	Bioaccess2.5pH	45	%	Arsenic	10.34		T3
338-1_I_high_B	Soluble phosphate_high_I	Bioaccess2.5pH	45	%	Arsenic	9.91		T3
339-1_I_high_C	Soluble phosphate_high_I	Bioaccess2.5pH	45	%	Arsenic	10.85		T3
340-1_I_high_D	Soluble phosphate_high_I	Bioaccess2.5pH	45	%	Arsenic	11.19		T3
341-2_I_high_A	Biosolid_high_I	Bioaccess2.5pH	45	%	Arsenic	10.60		T3
342-2_I_high_B	Biosolid_high_I	Bioaccess2.5pH	45	%	Arsenic	12.58		T3
343-2_I_high_C	Biosolid_high_I	Bioaccess2.5pH	45	%	Arsenic	10.14		T3
344-2_I_high_D	Biosolid_high_I	Bioaccess2.5pH	45	%	Arsenic	9.88		T3
385-0_I_NA_A	control_NA_NA	Bioaccess2.5pH	49	%	Arsenic	7.21		T3
386-0_I_NA_B	control_NA_NA	Bioaccess2.5pH	49	%	Arsenic	6.78		T3
387-0_I_NA_C	control_NA_NA	Bioaccess2.5pH	49	%	Arsenic	7.96		T3
388-0_I_NA_D	control_NA_NA	Bioaccess2.5pH	49	%	Arsenic	7.92		T3
337-1_I_high_A	Soluble phosphate_high_I	Bioaccess2.5pH	45	mg/kg	Arsenic	9.61		T3
338-1_I_high_B	Soluble phosphate_high_I	Bioaccess2.5pH	45	mg/kg	Arsenic	9.56		T3
339-1_I_high_C	Soluble phosphate_high_I	Bioaccess2.5pH	45	mg/kg	Arsenic	10.15		T3
340-1_I_high_D	Soluble phosphate_high_I	Bioaccess2.5pH	45	mg/kg	Arsenic	10.54		T3
341-2_I_high_A	Biosolid_high_I	Bioaccess2.5pH	45	mg/kg	Arsenic	10.26		T3
342-2_I_high_B	Biosolid_high_I	Bioaccess2.5pH	45	mg/kg	Arsenic	12.79		T3
343-2_I_high_C	Biosolid_high_I	Bioaccess2.5pH	45	mg/kg	Arsenic	10.36		T3
344-2_I_high_D	Biosolid_high_I	Bioaccess2.5pH	45	mg/kg	Arsenic	10.03		T3
385-0_I_NA_A	control_NA_NA	Bioaccess2.5pH	49	mg/kg	Arsenic	6.42		T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
386-0_I_NA_B	control_NA_NA	Bioaccess2.5pH	49	mg/kg	Arsenic	6.05		T3
387-0_I_NA_C	control_NA_NA	Bioaccess2.5pH	49	mg/kg	Arsenic	6.93		T3
388-0_I_NA_D	control_NA_NA	Bioaccess2.5pH	49	mg/kg	Arsenic	7.01		T3
337-1_I_high_A	Soluble phosphate_high_I	Bioaccess2.5pH	45	%	Lead	27.07		T3
338-1_I_high_B	Soluble phosphate_high_I	Bioaccess2.5pH	45	%	Lead	27.76		T3
339-1_I_high_C	Soluble phosphate_high_I	Bioaccess2.5pH	45	%	Lead	29.07		T3
340-1_I_high_D	Soluble phosphate_high_I	Bioaccess2.5pH	45	%	Lead	24.91		T3
341-2_I_high_A	Biosolid_high_I	Bioaccess2.5pH	45	%	Lead	23.81		T3
342-2_I_high_B	Biosolid_high_I	Bioaccess2.5pH	45	%	Lead	23.57		T3
343-2_I_high_C	Biosolid_high_I	Bioaccess2.5pH	45	%	Lead	21.92		T3
344-2_I_high_D	Biosolid_high_I	Bioaccess2.5pH	45	%	Lead	20.54		T3
385-0_I_NA_A	control_NA_NA	Bioaccess2.5pH	49	%	Lead	27.64		T3
386-0_I_NA_B	control_NA_NA	Bioaccess2.5pH	49	%	Lead	31.33		T3
387-0_I_NA_C	control_NA_NA	Bioaccess2.5pH	49	%	Lead	30.69		T3
388-0_I_NA_D	control_NA_NA	Bioaccess2.5pH	49	%	Lead	31.08		T3
337-1_I_high_A	Soluble phosphate_high_I	Bioaccess2.5pH	45	mg/kg	Lead	410.33		T3
338-1_I_high_B	Soluble phosphate_high_I	Bioaccess2.5pH	45	mg/kg	Lead	404.10		T3
339-1_I_high_C	Soluble phosphate_high_I	Bioaccess2.5pH	45	mg/kg	Lead	420.91		T3
340-1_I_high_D	Soluble phosphate_high_I	Bioaccess2.5pH	45	mg/kg	Lead	389.31		T3
341-2_I_high_A	Biosolid_high_I	Bioaccess2.5pH	45	mg/kg	Lead	334.04		T3
342-2_I_high_B	Biosolid_high_I	Bioaccess2.5pH	45	mg/kg	Lead	351.19		T3
343-2_I_high_C	Biosolid_high_I	Bioaccess2.5pH	45	mg/kg	Lead	331.02		T3
344-2_I_high_D	Biosolid_high_I	Bioaccess2.5pH	45	mg/kg	Lead	333.25		T3
385-0_I_NA_A	control_NA_NA	Bioaccess2.5pH	49	mg/kg	Lead	378.91		T3
386-0_I_NA_B	control_NA_NA	Bioaccess2.5pH	49	mg/kg	Lead	410.42		T3
387-0_I_NA_C	control_NA_NA	Bioaccess2.5pH	49	mg/kg	Lead	407.91		T3
388-0_I_NA_D	control_NA_NA	Bioaccess2.5pH	49	mg/kg	Lead	403.66		T3
097-1_S_low_A	Soluble phosphate_low_S	Bioaccess1.5pH	1	%	Arsenic	19.36	NA	T3
098-1_S_low_B	Soluble phosphate_low_S	Bioaccess1.5pH	1	%	Arsenic	17.71	NA	T3
099-1_S_low_C	Soluble phosphate_low_S	Bioaccess1.5pH	1	%	Arsenic	21.40	NA	T3
100-1_S_low_D	Soluble phosphate_low_S	Bioaccess1.5pH	1	%	Arsenic	20.28	NA	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
101-2_S_low_A	Biosolid_low_S	Bioaccess1.5pH	1	%	Arsenic	21.86	NA	T3
102-2_S_low_B	Biosolid_low_S	Bioaccess1.5pH	1	%	Arsenic	20.17	NA	T3
103-2_S_low_C	Biosolid_low_S	Bioaccess1.5pH	1	%	Arsenic	19.72	NA	T3
104-2_S_low_D	Biosolid_low_S	Bioaccess1.5pH	1	%	Arsenic	21.24	NA	T3
105-3_S_low_A	Wood ash_low_S	Bioaccess1.5pH	1	%	Arsenic	18.60	NA	T3
106-3_S_low_B	Wood ash_low_S	Bioaccess1.5pH	2	%	Arsenic	15.63	NA	T3
107-3_S_low_C	Wood ash_low_S	Bioaccess1.5pH	2	%	Arsenic	15.40	NA	T3
108-3_S_low_D	Wood ash_low_S	Bioaccess1.5pH	2	%	Arsenic	15.57	NA	T3
109-4_S_low_A	Biochar_low_S	Bioaccess1.5pH	2	%	Arsenic	14.30	NA	T3
110-4_S_low_B	Biochar_low_S	Bioaccess1.5pH	2	%	Arsenic	14.23	NA	T3
111-4_S_low_C	Biochar_low_S	Bioaccess1.5pH	2	%	Arsenic	15.15	NA	T3
112-4_S_low_D	Biochar_low_S	Bioaccess1.5pH	2	%	Arsenic	15.28	NA	T3
113-5_S_low_A	Compost_low_S	Bioaccess1.5pH	2	%	Arsenic	16.92	NA	T3
114-5_S_low_B	Compost_low_S	Bioaccess1.5pH	2	%	Arsenic	16.10	NA	T3
115-5_S_low_C	Compost_low_S	Bioaccess1.5pH	3	%	Arsenic	19.03	NA	T3
116-5_S_low_D	Compost_low_S	Bioaccess1.5pH	3	%	Arsenic	16.64	NA	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	3	%	Arsenic	19.81	NA	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	3	%	Arsenic	19.70	NA	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	3	%	Arsenic	20.31	NA	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	3	%	Arsenic	22.54	NA	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	3	%	Arsenic	19.57	NA	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	3	%	Arsenic	20.09	NA	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	3	%	Arsenic	20.04	NA	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	4	%	Arsenic	21.04	NA	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	Bioaccess1.5pH	4	%	Arsenic	19.08	NA	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	Bioaccess1.5pH	4	%	Arsenic	19.25	NA	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	Bioaccess1.5pH	4	%	Arsenic	23.20	NA	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	Bioaccess1.5pH	4	%	Arsenic	18.73	NA	T3
129-9_S_low_A	Biosolids and wood ash_low_S	Bioaccess1.5pH	4	%	Arsenic	17.54	NA	T3
130-9_S_low_B	Biosolids and wood ash_low_S	Bioaccess1.5pH	4	%	Arsenic	20.69	NA	T3
131-9_S_low_C	Biosolids and wood ash_low_S	Bioaccess1.5pH	4	%	Arsenic	20.85	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
132-9_S_low_D	Biosolids and wood ash_low_S	Bioaccess1.5pH	4	%	Arsenic	19.25	NA	T3
133-10_S_low_A	Wood ash and biochar_low_S	Bioaccess1.5pH	5	%	Arsenic	17.99	NA	T3
134-10_S_low_B	Wood ash and biochar_low_S	Bioaccess1.5pH	5	%	Arsenic	18.31	NA	T3
135-10_S_low_C	Wood ash and biochar_low_S	Bioaccess1.5pH	5	%	Arsenic	16.34	NA	T3
136-10_S_low_D	Wood ash and biochar_low_S	Bioaccess1.5pH	5	%	Arsenic	18.62	NA	T3
137-11_S_low_A	Wood ash and compost_low_S	Bioaccess1.5pH	5	%	Arsenic	16.93	NA	T3
138-11_S_low_B	Wood ash and compost_low_S	Bioaccess1.5pH	5	%	Arsenic	16.53	NA	T3
139-11_S_low_C	Wood ash and compost_low_S	Bioaccess1.5pH	5	%	Arsenic	16.48	NA	T3
140-11_S_low_D	Wood ash and compost_low_S	Bioaccess1.5pH	5	%	Arsenic	17.07	NA	T3
141-12_S_low_A	Biochar and compost_low_S	Bioaccess1.5pH	5	%	Arsenic	14.86	NA	T3
142-12_S_low_B	Biochar and compost_low_S	Bioaccess1.5pH	6	%	Arsenic	15.32	NA	T3
143-12_S_low_C	Biochar and compost_low_S	Bioaccess1.5pH	6	%	Arsenic	16.49	NA	T3
144-12_S_low_D	Biochar and compost_low_S	Bioaccess1.5pH	6	%	Arsenic	15.14	NA	T3
241-1_S_high_A	Soluble phosphate_high_S	Bioaccess1.5pH	6	%	Arsenic	24.41	NA	T3
242-1_S_high_B	Soluble phosphate_high_S	Bioaccess1.5pH	6	%	Arsenic	22.30	NA	T3
243-1_S_high_C	Soluble phosphate_high_S	Bioaccess1.5pH	6	%	Arsenic	24.40	NA	T3
244-1_S_high_D	Soluble phosphate_high_S	Bioaccess1.5pH	6	%	Arsenic	25.09	NA	T3
245-2_S_high_A	Biosolid_high_S	Bioaccess1.5pH	6	%	Arsenic	28.72	NA	T3
246-2_S_high_B	Biosolid_high_S	Bioaccess1.5pH	6	%	Arsenic	26.00	NA	T3
247-2_S_high_C	Biosolid_high_S	Bioaccess1.5pH	7	%	Arsenic	24.64	NA	T3
248-2_S_high_D	Biosolid_high_S	Bioaccess1.5pH	7	%	Arsenic	25.40	NA	T3
249-3_S_high_A	Wood ash_high_S	Bioaccess1.5pH	7	%	Arsenic	17.68	NA	T3
250-3_S_high_B	Wood ash_high_S	Bioaccess1.5pH	7	%	Arsenic	17.89	NA	T3
251-3_S_high_C	Wood ash_high_S	Bioaccess1.5pH	7	%	Arsenic	20.60	NA	T3
252-3_S_high_D	Wood ash_high_S	Bioaccess1.5pH	7	%	Arsenic	21.39	NA	T3
253-4_S_high_A	Biochar_high_S	Bioaccess1.5pH	7	%	Arsenic	19.62	NA	T3
254-4_S_high_B	Biochar_high_S	Bioaccess1.5pH	7	%	Arsenic	21.28	NA	T3
255-4_S_high_C	Biochar_high_S	Bioaccess1.5pH	7	%	Arsenic	19.55	NA	T3
256-4_S_high_D	Biochar_high_S	Bioaccess1.5pH	8	%	Arsenic	20.83	NA	T3
257-5_S_high_A	Compost_high_S	Bioaccess1.5pH	8	%	Arsenic	20.18	NA	T3
258-5_S_high_B	Compost_high_S	Bioaccess1.5pH	8	%	Arsenic	17.69	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
259-5_S_high_C	Compost_high_S	Bioaccess1.5pH	8	%	Arsenic	16.31	NA	T3
260-5_S_high_D	Compost_high_S	Bioaccess1.5pH	8	%	Arsenic	16.50	NA	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	8	%	Arsenic	30.24	NA	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	8	%	Arsenic	32.11	NA	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	8	%	Arsenic	29.19	NA	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	8	%	Arsenic	31.21	NA	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	9	%	Arsenic	23.96	NA	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	9	%	Arsenic	24.58	NA	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	9	%	Arsenic	23.28	NA	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	9	%	Arsenic	27.33	NA	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	Bioaccess1.5pH	9	%	Arsenic	23.91	NA	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	Bioaccess1.5pH	9	%	Arsenic	24.90	NA	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	Bioaccess1.5pH	9	%	Arsenic	23.52	NA	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	Bioaccess1.5pH	9	%	Arsenic	24.04	NA	T3
273-9_S_high_A	Biosolids and wood ash_high_S	Bioaccess1.5pH	9	%	Arsenic	28.96	NA	T3
274-9_S_high_B	Biosolids and wood ash_high_S	Bioaccess1.5pH	10	%	Arsenic	26.68	NA	T3
275-9_S_high_C	Biosolids and wood ash_high_S	Bioaccess1.5pH	10	%	Arsenic	25.61	NA	T3
276-9_S_high_D	Biosolids and wood ash_high_S	Bioaccess1.5pH	10	%	Arsenic	28.34	NA	T3
277-10_S_high_A	Wood ash and biochar_high_S	Bioaccess1.5pH	10	%	Arsenic	21.21	NA	T3
278-10_S_high_B	Wood ash and biochar_high_S	Bioaccess1.5pH	10	%	Arsenic	16.42	NA	T3
279-10_S_high_C	Wood ash and biochar_high_S	Bioaccess1.5pH	10	%	Arsenic	18.61	NA	T3
280-10_S_high_D	Wood ash and biochar_high_S	Bioaccess1.5pH	10	%	Arsenic	21.03	NA	T3
281-11_S_high_A	Wood ash and compost_high_S	Bioaccess1.5pH	10	%	Arsenic	18.93	NA	T3
282-11_S_high_B	Wood ash and compost_high_S	Bioaccess1.5pH	10	%	Arsenic	20.30	NA	T3
283-11_S_high_C	Wood ash and compost_high_S	Bioaccess1.5pH	11	%	Arsenic	18.34	NA	T3
284-11_S_high_D	Wood ash and compost_high_S	Bioaccess1.5pH	11	%	Arsenic	19.14	NA	T3
285-12_S_high_A	Biochar and compost_high_S	Bioaccess1.5pH	11	%	Arsenic	18.39	NA	T3
286-12_S_high_B	Biochar and compost_high_S	Bioaccess1.5pH	11	%	Arsenic	16.39	NA	T3
287-12_S_high_C	Biochar and compost_high_S	Bioaccess1.5pH	11	%	Arsenic	19.22	NA	T3
288-12_S_high_D	Biochar and compost_high_S	Bioaccess1.5pH	11	%	Arsenic	17.49	NA	T3
289-1_I_low_A	Soluble phosphate_low_I	Bioaccess1.5pH	11	%	Arsenic	23.14	NA	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
290-1_I_low_B	Soluble phosphate_low_I	Bioaccess1.5pH	11	%	Arsenic	24.51	NA	T3
291-1_I_low_C	Soluble phosphate_low_I	Bioaccess1.5pH	11	%	Arsenic	23.88	NA	T3
292-1_I_low_D	Soluble phosphate_low_I	Bioaccess1.5pH	12	%	Arsenic	22.93	NA	T3
293-2_I_low_A	Biosolid_low_I	Bioaccess1.5pH	12	%	Arsenic	19.93	NA	T3
294-2_I_low_B	Biosolid_low_I	Bioaccess1.5pH	12	%	Arsenic	21.77	NA	T3
295-2_I_low_C	Biosolid_low_I	Bioaccess1.5pH	12	%	Arsenic	22.96	NA	T3
296-2_I_low_D	Biosolid_low_I	Bioaccess1.5pH	12	%	Arsenic	22.82	NA	T3
297-3_I_low_A	Wood ash_low_I	Bioaccess1.5pH	12	%	Arsenic	22.78	NA	T3
298-3_I_low_B	Wood ash_low_I	Bioaccess1.5pH	12	%	Arsenic	21.75	NA	T3
299-3_I_low_C	Wood ash_low_I	Bioaccess1.5pH	12	%	Arsenic	22.39	NA	T3
300-3_I_low_D	Wood ash_low_I	Bioaccess1.5pH	12	%	Arsenic	20.18	NA	T3
301-4_I_low_A	Biochar_low_I	Bioaccess1.5pH	13	%	Arsenic	21.55	NA	T3
302-4_I_low_B	Biochar_low_I	Bioaccess1.5pH	13	%	Arsenic	18.80	NA	T3
303-4_I_low_C	Biochar_low_I	Bioaccess1.5pH	13	%	Arsenic	19.76	NA	T3
304-4_I_low_D	Biochar_low_I	Bioaccess1.5pH	13	%	Arsenic	18.23	NA	T3
305-5_I_low_A	Compost_low_I	Bioaccess1.5pH	13	%	Arsenic	20.53	NA	T3
306-5_I_low_B	Compost_low_I	Bioaccess1.5pH	13	%	Arsenic	21.25	NA	T3
307-5_I_low_C	Compost_low_I	Bioaccess1.5pH	13	%	Arsenic	21.57	NA	T3
308-5_I_low_D	Compost_low_I	Bioaccess1.5pH	13	%	Arsenic	21.07	NA	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	13	%	Arsenic	24.35	NA	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	14	%	Arsenic	23.65	NA	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	14	%	Arsenic	27.24	NA	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	14	%	Arsenic	24.71	NA	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	14	%	Arsenic	23.05	NA	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	14	%	Arsenic	24.91	NA	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	14	%	Arsenic	24.24	NA	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	14	%	Arsenic	24.51	NA	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	Bioaccess1.5pH	14	%	Arsenic	24.05	NA	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	Bioaccess1.5pH	14	%	Arsenic	23.72	NA	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	Bioaccess1.5pH	15	%	Arsenic	27.20	NA	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	Bioaccess1.5pH	15	%	Arsenic	25.65	NA	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
321-9_I_low_A	Biosolids and wood ash_low_I	Bioaccess1.5pH	15	%	Arsenic	21.84	NA	T3
322-9_I_low_B	Biosolids and wood ash_low_I	Bioaccess1.5pH	15	%	Arsenic	22.54	NA	T3
323-9_I_low_C	Biosolids and wood ash_low_I	Bioaccess1.5pH	15	%	Arsenic	24.39	NA	T3
324-9_I_low_D	Biosolids and wood ash_low_I	Bioaccess1.5pH	15	%	Arsenic	23.83	NA	T3
325-10_I_low_A	Wood ash and biochar_low_I	Bioaccess1.5pH	15	%	Arsenic	22.27	NA	T3
326-10_I_low_B	Wood ash and biochar_low_I	Bioaccess1.5pH	15	%	Arsenic	23.32	NA	T3
327-10_I_low_C	Wood ash and biochar_low_I	Bioaccess1.5pH	15	%	Arsenic	16.86	NA	T3
328-10_I_low_D	Wood ash and biochar_low_I	Bioaccess1.5pH	16	%	Arsenic	21.97	NA	T3
329-11_I_low_A	Wood ash and compost_low_I	Bioaccess1.5pH	16	%	Arsenic	21.18	NA	T3
330-11_I_low_B	Wood ash and compost_low_I	Bioaccess1.5pH	16	%	Arsenic	18.84	NA	T3
331-11_I_low_C	Wood ash and compost_low_I	Bioaccess1.5pH	16	%	Arsenic	23.32	NA	T3
332-11_I_low_D	Wood ash and compost_low_I	Bioaccess1.5pH	16	%	Arsenic	19.18	NA	T3
333-12_I_low_A	Biochar and compost_low_I	Bioaccess1.5pH	16	%	Arsenic	18.77	NA	T3
334-12_I_low_B	Biochar and compost_low_I	Bioaccess1.5pH	16	%	Arsenic	18.37	NA	T3
335-12_I_low_C	Biochar and compost_low_I	Bioaccess1.5pH	16	%	Arsenic	23.25	NA	T3
336-12_I_low_D	Biochar and compost_low_I	Bioaccess1.5pH	16	%	Arsenic	22.08	NA	T3
337-1_I_high_A	Soluble phosphate_high_I	Bioaccess1.5pH	17	%	Arsenic	29.45	NA	T3
338-1_I_high_B	Soluble phosphate_high_I	Bioaccess1.5pH	17	%	Arsenic	25.16	NA	T3
339-1_I_high_C	Soluble phosphate_high_I	Bioaccess1.5pH	17	%	Arsenic	27.94	NA	T3
340-1_I_high_D	Soluble phosphate_high_I	Bioaccess1.5pH	17	%	Arsenic	24.58	NA	T3
341-2_I_high_A	Biosolid_high_I	Bioaccess1.5pH	17	%	Arsenic	21.82	NA	T3
342-2_I_high_B	Biosolid_high_I	Bioaccess1.5pH	17	%	Arsenic	23.34	NA	T3
343-2_I_high_C	Biosolid_high_I	Bioaccess1.5pH	17	%	Arsenic	19.69	NA	T3
344-2_I_high_D	Biosolid_high_I	Bioaccess1.5pH	17	%	Arsenic	20.76	NA	T3
345-3_I_high_A	Wood ash_high_I	Bioaccess1.5pH	17	%	Arsenic	24.92	NA	T3
346-3_I_high_B	Wood ash_high_I	Bioaccess1.5pH	18	%	Arsenic	25.38	NA	T3
347-3_I_high_C	Wood ash_high_I	Bioaccess1.5pH	18	%	Arsenic	21.72	NA	T3
348-3_I_high_D	Wood ash_high_I	Bioaccess1.5pH	18	%	Arsenic	23.57	NA	T3
349-4_I_high_A	Biochar_high_I	Bioaccess1.5pH	18	%	Arsenic	21.27	NA	T3
350-4_I_high_B	Biochar_high_I	Bioaccess1.5pH	18	%	Arsenic	22.59	NA	T3
351-4_I_high_C	Biochar_high_I	Bioaccess1.5pH	18	%	Arsenic	21.14	NA	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
352-4_I_high_D	Biochar_high_I	Bioaccess1.5pH	18	%	Arsenic	22.16	NA	T3
353-5_I_high_A	Compost_high_I	Bioaccess1.5pH	18	%	Arsenic	18.69	NA	T3
354-5_I_high_B	Compost_high_I	Bioaccess1.5pH	18	%	Arsenic	20.11	NA	T3
355-5_I_high_C	Compost_high_I	Bioaccess1.5pH	19	%	Arsenic	20.55	NA	T3
356-5_I_high_D	Compost_high_I	Bioaccess1.5pH	22	%	Arsenic	14.55	NA	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	19	%	Arsenic	22.63	NA	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	19	%	Arsenic	22.16	NA	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	19	%	Arsenic	26.86	NA	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	19	%	Arsenic	30.91	NA	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	19	%	Arsenic	29.73	NA	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	19	%	Arsenic	23.97	NA	T3
363-7_I_high_C	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	19	%	Arsenic	26.75	NA	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	20	%	Arsenic	25.98	NA	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	Bioaccess1.5pH	20	%	Arsenic	29.96	NA	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	Bioaccess1.5pH	20	%	Arsenic	28.60	NA	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	Bioaccess1.5pH	20	%	Arsenic	27.89	NA	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	Bioaccess1.5pH	20	%	Arsenic	29.88	NA	T3
369-9_I_high_A	Biosolids and wood ash_high_I	Bioaccess1.5pH	20	%	Arsenic	22.78	NA	T3
370-9_I_high_B	Biosolids and wood ash_high_I	Bioaccess1.5pH	20	%	Arsenic	23.80	NA	T3
371-9_I_high_C	Biosolids and wood ash_high_I	Bioaccess1.5pH	20	%	Arsenic	21.99	NA	T3
372-9_I_high_D	Biosolids and wood ash_high_I	Bioaccess1.5pH	20	%	Arsenic	23.05	NA	T3
373-10_I_high_A	Wood ash and biochar_high_I	Bioaccess1.5pH	21	%	Arsenic	26.22	NA	T3
374-10_I_high_B	Wood ash and biochar_high_I	Bioaccess1.5pH	21	%	Arsenic	23.73	NA	T3
375-10_I_high_C	Wood ash and biochar_high_I	Bioaccess1.5pH	21	%	Arsenic	24.48	NA	T3
376-10_I_high_D	Wood ash and biochar_high_I	Bioaccess1.5pH	21	%	Arsenic	23.48	NA	T3
377-11_I_high_A	Wood ash and compost_high_I	Bioaccess1.5pH	21	%	Arsenic	27.77	NA	T3
378-11_I_high_B	Wood ash and compost_high_I	Bioaccess1.5pH	21	%	Arsenic	24.91	NA	T3
379-11_I_high_C	Wood ash and compost_high_I	Bioaccess1.5pH	21	%	Arsenic	26.49	NA	T3
380-11_I_high_D	Wood ash and compost_high_I	Bioaccess1.5pH	21	%	Arsenic	26.71	NA	T3
381-12_I_high_A	Biochar and compost_high_I	Bioaccess1.5pH	21	%	Arsenic	20.48	NA	T3
382-12_I_high_B	Biochar and compost_high_I	Bioaccess1.5pH	22	%	Arsenic	21.34	NA	T3

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
383-12_I_high_C	Biochar and compost_high_I	Bioaccess1.5pH	22	%	Arsenic	17.76	NA	T3
384-12_I_high_D	Biochar and compost_high_I	Bioaccess1.5pH	22	%	Arsenic	23.37	NA	T3
385-0_I_NA_A	control_none_I	Bioaccess1.5pH	22	%	Arsenic	20.33	NA	T3
386-0_I_NA_B	control_none_I	Bioaccess1.5pH	22	%	Arsenic	20.12	NA	T3
387-0_I_NA_C	control_none_I	Bioaccess1.5pH	22	%	Arsenic	20.67	NA	T3
388-0_I_NA_D	control_none_I	Bioaccess1.5pH	22	%	Arsenic	22.22	NA	T3
097-1_S_low_A	Soluble phosphate_low_S	Bioaccess1.5pH	1	mg/kg	Arsenic	20.53	NA	T3
098-1_S_low_B	Soluble phosphate_low_S	Bioaccess1.5pH	1	mg/kg	Arsenic	18.26	NA	T3
099-1_S_low_C	Soluble phosphate_low_S	Bioaccess1.5pH	1	mg/kg	Arsenic	21.71	NA	T3
100-1_S_low_D	Soluble phosphate_low_S	Bioaccess1.5pH	1	mg/kg	Arsenic	19.89	NA	T3
101-2_S_low_A	Biosolid_low_S	Bioaccess1.5pH	1	mg/kg	Arsenic	21.99	NA	T3
102-2_S_low_B	Biosolid_low_S	Bioaccess1.5pH	1	mg/kg	Arsenic	20.55	NA	T3
103-2_S_low_C	Biosolid_low_S	Bioaccess1.5pH	1	mg/kg	Arsenic	19.43	NA	T3
104-2_S_low_D	Biosolid_low_S	Bioaccess1.5pH	1	mg/kg	Arsenic	20.47	NA	T3
105-3_S_low_A	Wood ash_low_S	Bioaccess1.5pH	1	mg/kg	Arsenic	18.79	NA	T3
106-3_S_low_B	Wood ash_low_S	Bioaccess1.5pH	2	mg/kg	Arsenic	15.92	NA	T3
107-3_S_low_C	Wood ash_low_S	Bioaccess1.5pH	2	mg/kg	Arsenic	16.09	NA	T3
108-3_S_low_D	Wood ash_low_S	Bioaccess1.5pH	2	mg/kg	Arsenic	16.32	NA	T3
109-4_S_low_A	Biochar_low_S	Bioaccess1.5pH	2	mg/kg	Arsenic	15.13	NA	T3
110-4_S_low_B	Biochar_low_S	Bioaccess1.5pH	2	mg/kg	Arsenic	14.86	NA	T3
111-4_S_low_C	Biochar_low_S	Bioaccess1.5pH	2	mg/kg	Arsenic	15.04	NA	T3
112-4_S_low_D	Biochar_low_S	Bioaccess1.5pH	2	mg/kg	Arsenic	15.54	NA	T3
113-5_S_low_A	Compost_low_S	Bioaccess1.5pH	2	mg/kg	Arsenic	17.63	NA	T3
114-5_S_low_B	Compost_low_S	Bioaccess1.5pH	2	mg/kg	Arsenic	16.31	NA	T3
115-5_S_low_C	Compost_low_S	Bioaccess1.5pH	3	mg/kg	Arsenic	19.94	NA	T3
116-5_S_low_D	Compost_low_S	Bioaccess1.5pH	3	mg/kg	Arsenic	17.37	NA	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	3	mg/kg	Arsenic	20.47	NA	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	3	mg/kg	Arsenic	19.80	NA	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	3	mg/kg	Arsenic	19.97	NA	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	3	mg/kg	Arsenic	23.35	NA	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	3	mg/kg	Arsenic	20.06	NA	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
122-7_S_low_B	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	3	mg/kg	Arsenic	21.18	NA	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	3	mg/kg	Arsenic	21.17	NA	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	4	mg/kg	Arsenic	20.91	NA	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	Bioaccess1.5pH	4	mg/kg	Arsenic	19.09	NA	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	Bioaccess1.5pH	4	mg/kg	Arsenic	19.10	NA	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	Bioaccess1.5pH	4	mg/kg	Arsenic	21.63	NA	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	Bioaccess1.5pH	4	mg/kg	Arsenic	18.41	NA	T3
129-9_S_low_A	Biosolids and wood ash_low_S	Bioaccess1.5pH	4	mg/kg	Arsenic	17.88	NA	T3
130-9_S_low_B	Biosolids and wood ash_low_S	Bioaccess1.5pH	4	mg/kg	Arsenic	21.44	NA	T3
131-9_S_low_C	Biosolids and wood ash_low_S	Bioaccess1.5pH	4	mg/kg	Arsenic	20.28	NA	T3
132-9_S_low_D	Biosolids and wood ash_low_S	Bioaccess1.5pH	4	mg/kg	Arsenic	19.78	NA	T3
133-10_S_low_A	Wood ash and biochar_low_S	Bioaccess1.5pH	5	mg/kg	Arsenic	20.09	NA	T3
134-10_S_low_B	Wood ash and biochar_low_S	Bioaccess1.5pH	5	mg/kg	Arsenic	19.37	NA	T3
135-10_S_low_C	Wood ash and biochar_low_S	Bioaccess1.5pH	5	mg/kg	Arsenic	17.91	NA	T3
136-10_S_low_D	Wood ash and biochar_low_S	Bioaccess1.5pH	5	mg/kg	Arsenic	18.81	NA	T3
137-11_S_low_A	Wood ash and compost_low_S	Bioaccess1.5pH	5	mg/kg	Arsenic	17.00	NA	T3
138-11_S_low_B	Wood ash and compost_low_S	Bioaccess1.5pH	5	mg/kg	Arsenic	17.36	NA	T3
139-11_S_low_C	Wood ash and compost_low_S	Bioaccess1.5pH	5	mg/kg	Arsenic	17.92	NA	T3
140-11_S_low_D	Wood ash and compost_low_S	Bioaccess1.5pH	5	mg/kg	Arsenic	16.69	NA	T3
141-12_S_low_A	Biochar and compost_low_S	Bioaccess1.5pH	5	mg/kg	Arsenic	15.71	NA	T3
142-12_S_low_B	Biochar and compost_low_S	Bioaccess1.5pH	6	mg/kg	Arsenic	16.23	NA	T3
143-12_S_low_C	Biochar and compost_low_S	Bioaccess1.5pH	6	mg/kg	Arsenic	16.60	NA	T3
144-12_S_low_D	Biochar and compost_low_S	Bioaccess1.5pH	6	mg/kg	Arsenic	15.98	NA	T3
241-1_S_high_A	Soluble phosphate_high_S	Bioaccess1.5pH	6	mg/kg	Arsenic	23.31	NA	T3
242-1_S_high_B	Soluble phosphate_high_S	Bioaccess1.5pH	6	mg/kg	Arsenic	22.29	NA	T3
243-1_S_high_C	Soluble phosphate_high_S	Bioaccess1.5pH	6	mg/kg	Arsenic	24.76	NA	T3
244-1_S_high_D	Soluble phosphate_high_S	Bioaccess1.5pH	6	mg/kg	Arsenic	24.42	NA	T3
245-2_S_high_A	Biosolid_high_S	Bioaccess1.5pH	6	mg/kg	Arsenic	29.00	NA	T3
246-2_S_high_B	Biosolid_high_S	Bioaccess1.5pH	6	mg/kg	Arsenic	27.14	NA	T3
247-2_S_high_C	Biosolid_high_S	Bioaccess1.5pH	7	mg/kg	Arsenic	24.61	NA	T3
248-2_S_high_D	Biosolid_high_S	Bioaccess1.5pH	7	mg/kg	Arsenic	26.08	NA	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
249-3_S_high_A	Wood ash_high_S	Bioaccess1.5pH	7	mg/kg	Arsenic	18.17	NA	T3
250-3_S_high_B	Wood ash_high_S	Bioaccess1.5pH	7	mg/kg	Arsenic	17.85	NA	T3
251-3_S_high_C	Wood ash_high_S	Bioaccess1.5pH	7	mg/kg	Arsenic	19.89	NA	T3
252-3_S_high_D	Wood ash_high_S	Bioaccess1.5pH	7	mg/kg	Arsenic	20.72	NA	T3
253-4_S_high_A	Biochar_high_S	Bioaccess1.5pH	7	mg/kg	Arsenic	19.31	NA	T3
254-4_S_high_B	Biochar_high_S	Bioaccess1.5pH	7	mg/kg	Arsenic	21.21	NA	T3
255-4_S_high_C	Biochar_high_S	Bioaccess1.5pH	7	mg/kg	Arsenic	18.40	NA	T3
256-4_S_high_D	Biochar_high_S	Bioaccess1.5pH	8	mg/kg	Arsenic	20.89	NA	T3
257-5_S_high_A	Compost_high_S	Bioaccess1.5pH	8	mg/kg	Arsenic	20.13	NA	T3
258-5_S_high_B	Compost_high_S	Bioaccess1.5pH	8	mg/kg	Arsenic	17.08	NA	T3
259-5_S_high_C	Compost_high_S	Bioaccess1.5pH	8	mg/kg	Arsenic	16.44	NA	T3
260-5_S_high_D	Compost_high_S	Bioaccess1.5pH	8	mg/kg	Arsenic	17.31	NA	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	8	mg/kg	Arsenic	29.91	NA	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	8	mg/kg	Arsenic	31.83	NA	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	8	mg/kg	Arsenic	28.00	NA	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	8	mg/kg	Arsenic	29.31	NA	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	9	mg/kg	Arsenic	23.10	NA	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	9	mg/kg	Arsenic	23.17	NA	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	9	mg/kg	Arsenic	24.37	NA	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	9	mg/kg	Arsenic	25.85	NA	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	Bioaccess1.5pH	9	mg/kg	Arsenic	23.07	NA	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	Bioaccess1.5pH	9	mg/kg	Arsenic	24.07	NA	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	Bioaccess1.5pH	9	mg/kg	Arsenic	22.95	NA	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	Bioaccess1.5pH	9	mg/kg	Arsenic	22.69	NA	T3
273-9_S_high_A	Biosolids and wood ash_high_S	Bioaccess1.5pH	9	mg/kg	Arsenic	27.96	NA	T3
274-9_S_high_B	Biosolids and wood ash_high_S	Bioaccess1.5pH	10	mg/kg	Arsenic	24.73	NA	T3
275-9_S_high_C	Biosolids and wood ash_high_S	Bioaccess1.5pH	10	mg/kg	Arsenic	24.32	NA	T3
276-9_S_high_D	Biosolids and wood ash_high_S	Bioaccess1.5pH	10	mg/kg	Arsenic	26.26	NA	T3
277-10_S_high_A	Wood ash and biochar_high_S	Bioaccess1.5pH	10	mg/kg	Arsenic	19.78	NA	T3
278-10_S_high_B	Wood ash and biochar_high_S	Bioaccess1.5pH	10	mg/kg	Arsenic	17.15	NA	T3
279-10_S_high_C	Wood ash and biochar_high_S	Bioaccess1.5pH	10	mg/kg	Arsenic	18.39	NA	T3

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
280-10_S_high_D	Wood ash and biochar_high_S	Bioaccess1.5pH	10	mg/kg	Arsenic	19.02	NA	T3
281-11_S_high_A	Wood ash and compost_high_S	Bioaccess1.5pH	10	mg/kg	Arsenic	19.40	NA	T3
282-11_S_high_B	Wood ash and compost_high_S	Bioaccess1.5pH	10	mg/kg	Arsenic	19.84	NA	T3
283-11_S_high_C	Wood ash and compost_high_S	Bioaccess1.5pH	11	mg/kg	Arsenic	18.51	NA	T3
284-11_S_high_D	Wood ash and compost_high_S	Bioaccess1.5pH	11	mg/kg	Arsenic	19.74	NA	T3
285-12_S_high_A	Biochar and compost_high_S	Bioaccess1.5pH	11	mg/kg	Arsenic	18.33	NA	T3
286-12_S_high_B	Biochar and compost_high_S	Bioaccess1.5pH	11	mg/kg	Arsenic	17.02	NA	T3
287-12_S_high_C	Biochar and compost_high_S	Bioaccess1.5pH	11	mg/kg	Arsenic	19.13	NA	T3
288-12_S_high_D	Biochar and compost_high_S	Bioaccess1.5pH	11	mg/kg	Arsenic	18.36	NA	T3
289-1_I_low_A	Soluble phosphate_low_I	Bioaccess1.5pH	11	mg/kg	Arsenic	23.72	NA	T3
290-1_I_low_B	Soluble phosphate_low_I	Bioaccess1.5pH	11	mg/kg	Arsenic	24.00	NA	T3
291-1_I_low_C	Soluble phosphate_low_I	Bioaccess1.5pH	11	mg/kg	Arsenic	24.25	NA	T3
292-1_I_low_D	Soluble phosphate_low_I	Bioaccess1.5pH	12	mg/kg	Arsenic	23.12	NA	T3
293-2_I_low_A	Biosolid_low_I	Bioaccess1.5pH	12	mg/kg	Arsenic	19.92	NA	T3
294-2_I_low_B	Biosolid_low_I	Bioaccess1.5pH	12	mg/kg	Arsenic	22.07	NA	T3
295-2_I_low_C	Biosolid_low_I	Bioaccess1.5pH	12	mg/kg	Arsenic	22.26	NA	T3
296-2_I_low_D	Biosolid_low_I	Bioaccess1.5pH	12	mg/kg	Arsenic	23.13	NA	T3
297-3_I_low_A	Wood ash_low_I	Bioaccess1.5pH	12	mg/kg	Arsenic	23.24	NA	T3
298-3_I_low_B	Wood ash_low_I	Bioaccess1.5pH	12	mg/kg	Arsenic	21.97	NA	T3
299-3_I_low_C	Wood ash_low_I	Bioaccess1.5pH	12	mg/kg	Arsenic	22.83	NA	T3
300-3_I_low_D	Wood ash_low_I	Bioaccess1.5pH	12	mg/kg	Arsenic	21.02	NA	T3
301-4_I_low_A	Biochar_low_I	Bioaccess1.5pH	13	mg/kg	Arsenic	22.02	NA	T3
302-4_I_low_B	Biochar_low_I	Bioaccess1.5pH	13	mg/kg	Arsenic	19.54	NA	T3
303-4_I_low_C	Biochar_low_I	Bioaccess1.5pH	13	mg/kg	Arsenic	19.83	NA	T3
304-4_I_low_D	Biochar_low_I	Bioaccess1.5pH	13	mg/kg	Arsenic	18.58	NA	T3
305-5_I_low_A	Compost_low_I	Bioaccess1.5pH	13	mg/kg	Arsenic	20.98	NA	T3
306-5_I_low_B	Compost_low_I	Bioaccess1.5pH	13	mg/kg	Arsenic	22.30	NA	T3
307-5_I_low_C	Compost_low_I	Bioaccess1.5pH	13	mg/kg	Arsenic	21.62	NA	T3
308-5_I_low_D	Compost_low_I	Bioaccess1.5pH	13	mg/kg	Arsenic	21.74	NA	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	13	mg/kg	Arsenic	22.70	NA	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	14	mg/kg	Arsenic	22.58	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
311-6_I_low_C	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	14	mg/kg	Arsenic	24.30	NA	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	14	mg/kg	Arsenic	23.82	NA	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	14	mg/kg	Arsenic	23.44	NA	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	14	mg/kg	Arsenic	25.10	NA	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	14	mg/kg	Arsenic	24.41	NA	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	14	mg/kg	Arsenic	22.87	NA	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	Bioaccess1.5pH	14	mg/kg	Arsenic	22.10	NA	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	Bioaccess1.5pH	14	mg/kg	Arsenic	22.83	NA	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	Bioaccess1.5pH	15	mg/kg	Arsenic	25.31	NA	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	Bioaccess1.5pH	15	mg/kg	Arsenic	22.71	NA	T3
321-9_I_low_A	Biosolids and wood ash_low_I	Bioaccess1.5pH	15	mg/kg	Arsenic	20.34	NA	T3
322-9_I_low_B	Biosolids and wood ash_low_I	Bioaccess1.5pH	15	mg/kg	Arsenic	21.29	NA	T3
323-9_I_low_C	Biosolids and wood ash_low_I	Bioaccess1.5pH	15	mg/kg	Arsenic	22.17	NA	T3
324-9_I_low_D	Biosolids and wood ash_low_I	Bioaccess1.5pH	15	mg/kg	Arsenic	21.24	NA	T3
325-10_I_low_A	Wood ash and biochar_low_I	Bioaccess1.5pH	15	mg/kg	Arsenic	21.63	NA	T3
326-10_I_low_B	Wood ash and biochar_low_I	Bioaccess1.5pH	15	mg/kg	Arsenic	23.75	NA	T3
327-10_I_low_C	Wood ash and biochar_low_I	Bioaccess1.5pH	15	mg/kg	Arsenic	17.44	NA	T3
328-10_I_low_D	Wood ash and biochar_low_I	Bioaccess1.5pH	16	mg/kg	Arsenic	21.01	NA	T3
329-11_I_low_A	Wood ash and compost_low_I	Bioaccess1.5pH	16	mg/kg	Arsenic	21.84	NA	T3
330-11_I_low_B	Wood ash and compost_low_I	Bioaccess1.5pH	16	mg/kg	Arsenic	18.41	NA	T3
331-11_I_low_C	Wood ash and compost_low_I	Bioaccess1.5pH	16	mg/kg	Arsenic	22.17	NA	T3
332-11_I_low_D	Wood ash and compost_low_I	Bioaccess1.5pH	16	mg/kg	Arsenic	18.67	NA	T3
333-12_I_low_A	Biochar and compost_low_I	Bioaccess1.5pH	16	mg/kg	Arsenic	17.59	NA	T3
334-12_I_low_B	Biochar and compost_low_I	Bioaccess1.5pH	16	mg/kg	Arsenic	18.46	NA	T3
335-12_I_low_C	Biochar and compost_low_I	Bioaccess1.5pH	16	mg/kg	Arsenic	18.83	NA	T3
336-12_I_low_D	Biochar and compost_low_I	Bioaccess1.5pH	16	mg/kg	Arsenic	18.47	NA	T3
337-1_I_high_A	Soluble phosphate_high_I	Bioaccess1.5pH	17	mg/kg	Arsenic	27.38	NA	T3
338-1_I_high_B	Soluble phosphate_high_I	Bioaccess1.5pH	17	mg/kg	Arsenic	24.28	NA	T3
339-1_I_high_C	Soluble phosphate_high_I	Bioaccess1.5pH	17	mg/kg	Arsenic	26.14	NA	T3
340-1_I_high_D	Soluble phosphate_high_I	Bioaccess1.5pH	17	mg/kg	Arsenic	23.15	NA	T3
341-2_I_high_A	Biosolid_high_I	Bioaccess1.5pH	17	mg/kg	Arsenic	21.11	NA	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
342-2_I_high_B	Biosolid_high_I	Bioaccess1.5pH	17	mg/kg	Arsenic	23.73	NA	T3
343-2_I_high_C	Biosolid_high_I	Bioaccess1.5pH	17	mg/kg	Arsenic	20.11	NA	T3
344-2_I_high_D	Biosolid_high_I	Bioaccess1.5pH	17	mg/kg	Arsenic	21.07	NA	T3
345-3_I_high_A	Wood ash_high_I	Bioaccess1.5pH	17	mg/kg	Arsenic	23.85	NA	T3
346-3_I_high_B	Wood ash_high_I	Bioaccess1.5pH	18	mg/kg	Arsenic	24.39	NA	T3
347-3_I_high_C	Wood ash_high_I	Bioaccess1.5pH	18	mg/kg	Arsenic	22.69	NA	T3
348-3_I_high_D	Wood ash_high_I	Bioaccess1.5pH	18	mg/kg	Arsenic	22.18	NA	T3
349-4_I_high_A	Biochar_high_I	Bioaccess1.5pH	18	mg/kg	Arsenic	19.51	NA	T3
350-4_I_high_B	Biochar_high_I	Bioaccess1.5pH	18	mg/kg	Arsenic	20.43	NA	T3
351-4_I_high_C	Biochar_high_I	Bioaccess1.5pH	18	mg/kg	Arsenic	20.06	NA	T3
352-4_I_high_D	Biochar_high_I	Bioaccess1.5pH	18	mg/kg	Arsenic	19.38	NA	T3
353-5_I_high_A	Compost_high_I	Bioaccess1.5pH	18	mg/kg	Arsenic	19.62	NA	T3
354-5_I_high_B	Compost_high_I	Bioaccess1.5pH	18	mg/kg	Arsenic	20.45	NA	T3
355-5_I_high_C	Compost_high_I	Bioaccess1.5pH	19	mg/kg	Arsenic	21.29	NA	T3
356-5_I_high_D	Compost_high_I	Bioaccess1.5pH	22	mg/kg	Arsenic	16.33	NA	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	19	mg/kg	Arsenic	23.66	NA	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	19	mg/kg	Arsenic	23.81	NA	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	19	mg/kg	Arsenic	22.47	NA	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	19	mg/kg	Arsenic	26.06	NA	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	19	mg/kg	Arsenic	28.82	NA	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	19	mg/kg	Arsenic	27.04	NA	T3
363-7_I_high_C	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	19	mg/kg	Arsenic	26.34	NA	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	20	mg/kg	Arsenic	25.73	NA	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	Bioaccess1.5pH	20	mg/kg	Arsenic	28.00	NA	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	Bioaccess1.5pH	20	mg/kg	Arsenic	24.80	NA	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	Bioaccess1.5pH	20	mg/kg	Arsenic	27.27	NA	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	Bioaccess1.5pH	20	mg/kg	Arsenic	27.21	NA	T3
369-9_I_high_A	Biosolids and wood ash_high_I	Bioaccess1.5pH	20	mg/kg	Arsenic	18.48	NA	T3
370-9_I_high_B	Biosolids and wood ash_high_I	Bioaccess1.5pH	20	mg/kg	Arsenic	20.29	NA	T3
371-9_I_high_C	Biosolids and wood ash_high_I	Bioaccess1.5pH	20	mg/kg	Arsenic	20.56	NA	T3
372-9_I_high_D	Biosolids and wood ash_high_I	Bioaccess1.5pH	20	mg/kg	Arsenic	21.00	NA	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
373-10_I_high_A	Wood ash and biochar_high_I	Bioaccess1.5pH	21	mg/kg	Arsenic	26.03	NA	T3
374-10_I_high_B	Wood ash and biochar_high_I	Bioaccess1.5pH	21	mg/kg	Arsenic	24.23	NA	T3
375-10_I_high_C	Wood ash and biochar_high_I	Bioaccess1.5pH	21	mg/kg	Arsenic	24.34	NA	T3
376-10_I_high_D	Wood ash and biochar_high_I	Bioaccess1.5pH	21	mg/kg	Arsenic	24.28	NA	T3
377-11_I_high_A	Wood ash and compost_high_I	Bioaccess1.5pH	21	mg/kg	Arsenic	24.36	NA	T3
378-11_I_high_B	Wood ash and compost_high_I	Bioaccess1.5pH	21	mg/kg	Arsenic	24.06	NA	T3
379-11_I_high_C	Wood ash and compost_high_I	Bioaccess1.5pH	21	mg/kg	Arsenic	24.49	NA	T3
380-11_I_high_D	Wood ash and compost_high_I	Bioaccess1.5pH	21	mg/kg	Arsenic	25.73	NA	T3
381-12_I_high_A	Biochar and compost_high_I	Bioaccess1.5pH	21	mg/kg	Arsenic	20.32	NA	T3
382-12_I_high_B	Biochar and compost_high_I	Bioaccess1.5pH	22	mg/kg	Arsenic	18.77	NA	T3
383-12_I_high_C	Biochar and compost_high_I	Bioaccess1.5pH	22	mg/kg	Arsenic	16.74	NA	T3
384-12_I_high_D	Biochar and compost_high_I	Bioaccess1.5pH	22	mg/kg	Arsenic	19.95	NA	T3
385-0_I_NA_A	control_none_I	Bioaccess1.5pH	22	mg/kg	Arsenic	18.10	NA	T3
386-0_I_NA_B	control_none_I	Bioaccess1.5pH	22	mg/kg	Arsenic	17.96	NA	T3
387-0_I_NA_C	control_none_I	Bioaccess1.5pH	22	mg/kg	Arsenic	18.00	NA	T3
388-0_I_NA_D	control_none_I	Bioaccess1.5pH	22	mg/kg	Arsenic	19.68	NA	T3
097-1_S_low_A	Soluble phosphate_low_S	Bioaccess1.5pH	1	%	Lead	66.11	NA	T3
098-1_S_low_B	Soluble phosphate_low_S	Bioaccess1.5pH	1	%	Lead	59.99	NA	T3
099-1_S_low_C	Soluble phosphate_low_S	Bioaccess1.5pH	1	%	Lead	69.41	NA	T3
100-1_S_low_D	Soluble phosphate_low_S	Bioaccess1.5pH	1	%	Lead	66.28	NA	T3
101-2_S_low_A	Biosolid_low_S	Bioaccess1.5pH	1	%	Lead	67.86	NA	T3
102-2_S_low_B	Biosolid_low_S	Bioaccess1.5pH	1	%	Lead	69.46	NA	T3
103-2_S_low_C	Biosolid_low_S	Bioaccess1.5pH	1	%	Lead	63.13	NA	T3
104-2_S_low_D	Biosolid_low_S	Bioaccess1.5pH	1	%	Lead	68.62	NA	T3
105-3_S_low_A	Wood ash_low_S	Bioaccess1.5pH	1	%	Lead	68.04	NA	T3
106-3_S_low_B	Wood ash_low_S	Bioaccess1.5pH	2	%	Lead	61.78	NA	T3
107-3_S_low_C	Wood ash_low_S	Bioaccess1.5pH	2	%	Lead	59.37	NA	T3
108-3_S_low_D	Wood ash_low_S	Bioaccess1.5pH	2	%	Lead	57.89	NA	T3
109-4_S_low_A	Biochar_low_S	Bioaccess1.5pH	2	%	Lead	56.28	NA	T3
110-4_S_low_B	Biochar_low_S	Bioaccess1.5pH	2	%	Lead	59.35	NA	T3
111-4_S_low_C	Biochar_low_S	Bioaccess1.5pH	2	%	Lead	57.28	NA	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
112-4_S_low_D	Biochar_low_S	Bioaccess1.5pH	2	%	Lead	63.86	NA	T3
113-5_S_low_A	Compost_low_S	Bioaccess1.5pH	2	%	Lead	65.55	NA	T3
114-5_S_low_B	Compost_low_S	Bioaccess1.5pH	2	%	Lead	59.35	NA	T3
115-5_S_low_C	Compost_low_S	Bioaccess1.5pH	3	%	Lead	66.55	NA	T3
116-5_S_low_D	Compost_low_S	Bioaccess1.5pH	3	%	Lead	63.76	NA	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	3	%	Lead	62.25	NA	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	3	%	Lead	68.02	NA	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	3	%	Lead	67.12	NA	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	3	%	Lead	67.85	NA	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	3	%	Lead	66.80	NA	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	3	%	Lead	64.15	NA	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	3	%	Lead	63.59	NA	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	4	%	Lead	71.73	NA	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	Bioaccess1.5pH	4	%	Lead	65.28	NA	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	Bioaccess1.5pH	4	%	Lead	67.13	NA	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	Bioaccess1.5pH	4	%	Lead	71.81	NA	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	Bioaccess1.5pH	4	%	Lead	64.89	NA	T3
129-9_S_low_A	Biosolids and wood ash_low_S	Bioaccess1.5pH	4	%	Lead	62.42	NA	T3
130-9_S_low_B	Biosolids and wood ash_low_S	Bioaccess1.5pH	4	%	Lead	58.94	NA	T3
131-9_S_low_C	Biosolids and wood ash_low_S	Bioaccess1.5pH	4	%	Lead	67.05	NA	T3
132-9_S_low_D	Biosolids and wood ash_low_S	Bioaccess1.5pH	4	%	Lead	61.17	NA	T3
133-10_S_low_A	Wood ash and biochar_low_S	Bioaccess1.5pH	5	%	Lead	64.90	NA	T3
134-10_S_low_B	Wood ash and biochar_low_S	Bioaccess1.5pH	5	%	Lead	67.00	NA	T3
135-10_S_low_C	Wood ash and biochar_low_S	Bioaccess1.5pH	5	%	Lead	62.52	NA	T3
136-10_S_low_D	Wood ash and biochar_low_S	Bioaccess1.5pH	5	%	Lead	68.09	NA	T3
137-11_S_low_A	Wood ash and compost_low_S	Bioaccess1.5pH	5	%	Lead	66.64	NA	T3
138-11_S_low_B	Wood ash and compost_low_S	Bioaccess1.5pH	5	%	Lead	64.93	NA	T3
139-11_S_low_C	Wood ash and compost_low_S	Bioaccess1.5pH	5	%	Lead	64.80	NA	T3
140-11_S_low_D	Wood ash and compost_low_S	Bioaccess1.5pH	5	%	Lead	70.58	NA	T3
141-12_S_low_A	Biochar and compost_low_S	Bioaccess1.5pH	5	%	Lead	66.98	NA	T3
142-12_S_low_B	Biochar and compost_low_S	Bioaccess1.5pH	6	%	Lead	61.71	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
143-12_S_low_C	Biochar and compost_low_S	Bioaccess1.5pH	6	%	Lead	67.19	NA	T3
144-12_S_low_D	Biochar and compost_low_S	Bioaccess1.5pH	6	%	Lead	63.42	NA	T3
241-1_S_high_A	Soluble phosphate_high_S	Bioaccess1.5pH	6	%	Lead	64.19	NA	T3
242-1_S_high_B	Soluble phosphate_high_S	Bioaccess1.5pH	6	%	Lead	64.21	NA	T3
243-1_S_high_C	Soluble phosphate_high_S	Bioaccess1.5pH	6	%	Lead	68.22	NA	T3
244-1_S_high_D	Soluble phosphate_high_S	Bioaccess1.5pH	6	%	Lead	70.25	NA	T3
245-2_S_high_A	Biosolid_high_S	Bioaccess1.5pH	6	%	Lead	75.21	NA	T3
246-2_S_high_B	Biosolid_high_S	Bioaccess1.5pH	6	%	Lead	69.59	NA	T3
247-2_S_high_C	Biosolid_high_S	Bioaccess1.5pH	7	%	Lead	69.58	NA	T3
248-2_S_high_D	Biosolid_high_S	Bioaccess1.5pH	7	%	Lead	69.47	NA	T3
249-3_S_high_A	Wood ash_high_S	Bioaccess1.5pH	7	%	Lead	64.53	NA	T3
250-3_S_high_B	Wood ash_high_S	Bioaccess1.5pH	7	%	Lead	72.00	NA	T3
251-3_S_high_C	Wood ash_high_S	Bioaccess1.5pH	7	%	Lead	68.96	NA	T3
252-3_S_high_D	Wood ash_high_S	Bioaccess1.5pH	7	%	Lead	67.23	NA	T3
253-4_S_high_A	Biochar_high_S	Bioaccess1.5pH	7	%	Lead	67.98	NA	T3
254-4_S_high_B	Biochar_high_S	Bioaccess1.5pH	7	%	Lead	67.79	NA	T3
255-4_S_high_C	Biochar_high_S	Bioaccess1.5pH	7	%	Lead	69.88	NA	T3
256-4_S_high_D	Biochar_high_S	Bioaccess1.5pH	8	%	Lead	81.11	NA	T3
257-5_S_high_A	Compost_high_S	Bioaccess1.5pH	8	%	Lead	71.03	NA	T3
258-5_S_high_B	Compost_high_S	Bioaccess1.5pH	8	%	Lead	71.50	NA	T3
259-5_S_high_C	Compost_high_S	Bioaccess1.5pH	8	%	Lead	67.79	NA	T3
260-5_S_high_D	Compost_high_S	Bioaccess1.5pH	8	%	Lead	63.85	NA	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	8	%	Lead	66.71	NA	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	8	%	Lead	70.10	NA	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	8	%	Lead	73.61	NA	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	8	%	Lead	72.19	NA	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	9	%	Lead	63.93	NA	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	9	%	Lead	70.27	NA	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	9	%	Lead	61.09	NA	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	9	%	Lead	70.56	NA	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	Bioaccess1.5pH	9	%	Lead	68.08	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
270-8_S_high_B	Soluble phosphate and compost_high_S	Bioaccess1.5pH	9	%	Lead	72.94	NA	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	Bioaccess1.5pH	9	%	Lead	67.05	NA	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	Bioaccess1.5pH	9	%	Lead	67.92	NA	T3
273-9_S_high_A	Biosolids and wood ash_high_S	Bioaccess1.5pH	9	%	Lead	68.67	NA	T3
274-9_S_high_B	Biosolids and wood ash_high_S	Bioaccess1.5pH	10	%	Lead	69.83	NA	T3
275-9_S_high_C	Biosolids and wood ash_high_S	Bioaccess1.5pH	10	%	Lead	72.69	NA	T3
276-9_S_high_D	Biosolids and wood ash_high_S	Bioaccess1.5pH	10	%	Lead	68.43	NA	T3
277-10_S_high_A	Wood ash and biochar_high_S	Bioaccess1.5pH	10	%	Lead	68.35	NA	T3
278-10_S_high_B	Wood ash and biochar_high_S	Bioaccess1.5pH	10	%	Lead	65.56	NA	T3
279-10_S_high_C	Wood ash and biochar_high_S	Bioaccess1.5pH	10	%	Lead	71.13	NA	T3
280-10_S_high_D	Wood ash and biochar_high_S	Bioaccess1.5pH	10	%	Lead	69.32	NA	T3
281-11_S_high_A	Wood ash and compost_high_S	Bioaccess1.5pH	10	%	Lead	64.25	NA	T3
282-11_S_high_B	Wood ash and compost_high_S	Bioaccess1.5pH	10	%	Lead	69.57	NA	T3
283-11_S_high_C	Wood ash and compost_high_S	Bioaccess1.5pH	11	%	Lead	67.80	NA	T3
284-11_S_high_D	Wood ash and compost_high_S	Bioaccess1.5pH	11	%	Lead	66.47	NA	T3
285-12_S_high_A	Biochar and compost_high_S	Bioaccess1.5pH	11	%	Lead	68.08	NA	T3
286-12_S_high_B	Biochar and compost_high_S	Bioaccess1.5pH	11	%	Lead	69.08	NA	T3
287-12_S_high_C	Biochar and compost_high_S	Bioaccess1.5pH	11	%	Lead	67.92	NA	T3
288-12_S_high_D	Biochar and compost_high_S	Bioaccess1.5pH	11	%	Lead	66.59	NA	T3
289-1_I_low_A	Soluble phosphate_low_I	Bioaccess1.5pH	11	%	Lead	68.34	NA	T3
290-1_I_low_B	Soluble phosphate_low_I	Bioaccess1.5pH	11	%	Lead	79.17	NA	T3
291-1_I_low_C	Soluble phosphate_low_I	Bioaccess1.5pH	11	%	Lead	72.77	NA	T3
292-1_I_low_D	Soluble phosphate_low_I	Bioaccess1.5pH	12	%	Lead	70.35	NA	T3
293-2_I_low_A	Biosolid_low_I	Bioaccess1.5pH	12	%	Lead	63.73	NA	T3
294-2_I_low_B	Biosolid_low_I	Bioaccess1.5pH	12	%	Lead	64.63	NA	T3
295-2_I_low_C	Biosolid_low_I	Bioaccess1.5pH	12	%	Lead	71.01	NA	T3
296-2_I_low_D	Biosolid_low_I	Bioaccess1.5pH	12	%	Lead	71.43	NA	T3
297-3_I_low_A	Wood ash_low_I	Bioaccess1.5pH	12	%	Lead	72.68	NA	T3
298-3_I_low_B	Wood ash_low_I	Bioaccess1.5pH	12	%	Lead	74.34	NA	T3
299-3_I_low_C	Wood ash_low_I	Bioaccess1.5pH	12	%	Lead	77.98	NA	T3
300-3_I_low_D	Wood ash_low_I	Bioaccess1.5pH	12	%	Lead	74.79	NA	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
301-4_I_low_A	Biochar_low_I	Bioaccess1.5pH	13	%	Lead	74.36	NA	T3
302-4_I_low_B	Biochar_low_I	Bioaccess1.5pH	13	%	Lead	73.20	NA	T3
303-4_I_low_C	Biochar_low_I	Bioaccess1.5pH	13	%	Lead	72.78	NA	T3
304-4_I_low_D	Biochar_low_I	Bioaccess1.5pH	13	%	Lead	75.01	NA	T3
305-5_I_low_A	Compost_low_I	Bioaccess1.5pH	13	%	Lead	75.12	NA	T3
306-5_I_low_B	Compost_low_I	Bioaccess1.5pH	13	%	Lead	68.92	NA	T3
307-5_I_low_C	Compost_low_I	Bioaccess1.5pH	13	%	Lead	78.87	NA	T3
308-5_I_low_D	Compost_low_I	Bioaccess1.5pH	13	%	Lead	75.70	NA	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	13	%	Lead	70.26	NA	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	14	%	Lead	72.10	NA	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	14	%	Lead	79.59	NA	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	14	%	Lead	70.69	NA	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	14	%	Lead	74.74	NA	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	14	%	Lead	76.51	NA	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	14	%	Lead	78.09	NA	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	14	%	Lead	77.95	NA	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	Bioaccess1.5pH	14	%	Lead	77.54	NA	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	Bioaccess1.5pH	14	%	Lead	75.77	NA	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	Bioaccess1.5pH	15	%	Lead	87.70	NA	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	Bioaccess1.5pH	15	%	Lead	79.16	NA	T3
321-9_I_low_A	Biosolids and wood ash_low_I	Bioaccess1.5pH	15	%	Lead	69.24	NA	T3
322-9_I_low_B	Biosolids and wood ash_low_I	Bioaccess1.5pH	15	%	Lead	67.28	NA	T3
323-9_I_low_C	Biosolids and wood ash_low_I	Bioaccess1.5pH	15	%	Lead	72.60	NA	T3
324-9_I_low_D	Biosolids and wood ash_low_I	Bioaccess1.5pH	15	%	Lead	68.92	NA	T3
325-10_I_low_A	Wood ash and biochar_low_I	Bioaccess1.5pH	15	%	Lead	77.40	NA	T3
326-10_I_low_B	Wood ash and biochar_low_I	Bioaccess1.5pH	15	%	Lead	78.04	NA	T3
327-10_I_low_C	Wood ash and biochar_low_I	Bioaccess1.5pH	15	%	Lead	70.36	NA	T3
328-10_I_low_D	Wood ash and biochar_low_I	Bioaccess1.5pH	16	%	Lead	75.04	NA	T3
329-11_I_low_A	Wood ash and compost_low_I	Bioaccess1.5pH	16	%	Lead	72.48	NA	T3
330-11_I_low_B	Wood ash and compost_low_I	Bioaccess1.5pH	16	%	Lead	73.58	NA	T3
331-11_I_low_C	Wood ash and compost_low_I	Bioaccess1.5pH	16	%	Lead	88.18	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
332-11_I_low_D	Wood ash and compost_low_I	Bioaccess1.5pH	16	%	Lead	74.84	NA	T3
333-12_I_low_A	Biochar and compost_low_I	Bioaccess1.5pH	16	%	Lead	72.02	NA	T3
334-12_I_low_B	Biochar and compost_low_I	Bioaccess1.5pH	16	%	Lead	68.45	NA	T3
335-12_I_low_C	Biochar and compost_low_I	Bioaccess1.5pH	16	%	Lead	74.68	NA	T3
336-12_I_low_D	Biochar and compost_low_I	Bioaccess1.5pH	16	%	Lead	72.32	NA	T3
337-1_I_high_A	Soluble phosphate_high_I	Bioaccess1.5pH	17	%	Lead	72.02	NA	T3
338-1_I_high_B	Soluble phosphate_high_I	Bioaccess1.5pH	17	%	Lead	70.22	NA	T3
339-1_I_high_C	Soluble phosphate_high_I	Bioaccess1.5pH	17	%	Lead	72.97	NA	T3
340-1_I_high_D	Soluble phosphate_high_I	Bioaccess1.5pH	17	%	Lead	65.44	NA	T3
341-2_I_high_A	Biosolid_high_I	Bioaccess1.5pH	17	%	Lead	51.84	NA	T3
342-2_I_high_B	Biosolid_high_I	Bioaccess1.5pH	17	%	Lead	48.09	NA	T3
343-2_I_high_C	Biosolid_high_I	Bioaccess1.5pH	17	%	Lead	48.94	NA	T3
344-2_I_high_D	Biosolid_high_I	Bioaccess1.5pH	17	%	Lead	45.90	NA	T3
345-3_I_high_A	Wood ash_high_I	Bioaccess1.5pH	17	%	Lead	79.22	NA	T3
346-3_I_high_B	Wood ash_high_I	Bioaccess1.5pH	18	%	Lead	69.39	NA	T3
347-3_I_high_C	Wood ash_high_I	Bioaccess1.5pH	18	%	Lead	67.21	NA	T3
348-3_I_high_D	Wood ash_high_I	Bioaccess1.5pH	18	%	Lead	77.37	NA	T3
349-4_I_high_A	Biochar_high_I	Bioaccess1.5pH	18	%	Lead	81.61	NA	T3
350-4_I_high_B	Biochar_high_I	Bioaccess1.5pH	18	%	Lead	79.97	NA	T3
351-4_I_high_C	Biochar_high_I	Bioaccess1.5pH	18	%	Lead	73.47	NA	T3
352-4_I_high_D	Biochar_high_I	Bioaccess1.5pH	18	%	Lead	85.94	NA	T3
353-5_I_high_A	Compost_high_I	Bioaccess1.5pH	18	%	Lead	57.93	NA	T3
354-5_I_high_B	Compost_high_I	Bioaccess1.5pH	18	%	Lead	61.29	NA	T3
355-5_I_high_C	Compost_high_I	Bioaccess1.5pH	19	%	Lead	61.84	NA	T3
356-5_I_high_D	Compost_high_I	Bioaccess1.5pH	22	%	Lead	60.46	NA	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	19	%	Lead	52.99	NA	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	19	%	Lead	50.38	NA	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	19	%	Lead	59.36	NA	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	19	%	Lead	60.82	NA	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	19	%	Lead	73.29	NA	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	19	%	Lead	57.36	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
363-7_I_high_C	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	19	%	Lead	68.40	NA	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	20	%	Lead	66.80	NA	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	Bioaccess1.5pH	20	%	Lead	70.66	NA	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	Bioaccess1.5pH	20	%	Lead	70.60	NA	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	Bioaccess1.5pH	20	%	Lead	65.22	NA	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	Bioaccess1.5pH	20	%	Lead	68.27	NA	T3
369-9_I_high_A	Biosolids and wood ash_high_I	Bioaccess1.5pH	20	%	Lead	50.20	NA	T3
370-9_I_high_B	Biosolids and wood ash_high_I	Bioaccess1.5pH	20	%	Lead	53.15	NA	T3
371-9_I_high_C	Biosolids and wood ash_high_I	Bioaccess1.5pH	20	%	Lead	49.54	NA	T3
372-9_I_high_D	Biosolids and wood ash_high_I	Bioaccess1.5pH	20	%	Lead	52.84	NA	T3
373-10_I_high_A	Wood ash and biochar_high_I	Bioaccess1.5pH	21	%	Lead	72.12	NA	T3
374-10_I_high_B	Wood ash and biochar_high_I	Bioaccess1.5pH	21	%	Lead	75.53	NA	T3
375-10_I_high_C	Wood ash and biochar_high_I	Bioaccess1.5pH	21	%	Lead	73.43	NA	T3
376-10_I_high_D	Wood ash and biochar_high_I	Bioaccess1.5pH	21	%	Lead	74.55	NA	T3
377-11_I_high_A	Wood ash and compost_high_I	Bioaccess1.5pH	21	%	Lead	63.83	NA	T3
378-11_I_high_B	Wood ash and compost_high_I	Bioaccess1.5pH	21	%	Lead	69.37	NA	T3
379-11_I_high_C	Wood ash and compost_high_I	Bioaccess1.5pH	21	%	Lead	62.20	NA	T3
380-11_I_high_D	Wood ash and compost_high_I	Bioaccess1.5pH	21	%	Lead	72.01	NA	T3
381-12_I_high_A	Biochar and compost_high_I	Bioaccess1.5pH	21	%	Lead	67.11	NA	T3
382-12_I_high_B	Biochar and compost_high_I	Bioaccess1.5pH	22	%	Lead	66.59	NA	T3
383-12_I_high_C	Biochar and compost_high_I	Bioaccess1.5pH	22	%	Lead	61.98	NA	T3
384-12_I_high_D	Biochar and compost_high_I	Bioaccess1.5pH	22	%	Lead	63.13	NA	T3
385-0_I_NA_A	control_none_I	Bioaccess1.5pH	22	%	Lead	75.28	NA	T3
386-0_I_NA_B	control_none_I	Bioaccess1.5pH	22	%	Lead	79.63	NA	T3
387-0_I_NA_C	control_none_I	Bioaccess1.5pH	22	%	Lead	78.92	NA	T3
388-0_I_NA_D	control_none_I	Bioaccess1.5pH	22	%	Lead	76.22	NA	T3
097-1_S_low_A	Soluble phosphate_low_S	Bioaccess1.5pH	1	mg/kg	Lead	1029.81	NA	T3
098-1_S_low_B	Soluble phosphate_low_S	Bioaccess1.5pH	1	mg/kg	Lead	901.05	NA	T3
099-1_S_low_C	Soluble phosphate_low_S	Bioaccess1.5pH	1	mg/kg	Lead	1033.01	NA	T3
100-1_S_low_D	Soluble phosphate_low_S	Bioaccess1.5pH	1	mg/kg	Lead	1010.90	NA	T3
101-2_S_low_A	Biosolid_low_S	Bioaccess1.5pH	1	mg/kg	Lead	999.20	NA	T3

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Detailed Incubation Results

Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
102-2_S_low_B	Biosolid_low_S	Bioaccess1.5pH	1	mg/kg	Lead	1023.05	NA	T3
103-2_S_low_C	Biosolid_low_S	Bioaccess1.5pH	1	mg/kg	Lead	967.45	NA	T3
104-2_S_low_D	Biosolid_low_S	Bioaccess1.5pH	1	mg/kg	Lead	1005.10	NA	T3
105-3_S_low_A	Wood ash_low_S	Bioaccess1.5pH	1	mg/kg	Lead	988.64	NA	T3
106-3_S_low_B	Wood ash_low_S	Bioaccess1.5pH	2	mg/kg	Lead	919.85	NA	T3
107-3_S_low_C	Wood ash_low_S	Bioaccess1.5pH	2	mg/kg	Lead	912.99	NA	T3
108-3_S_low_D	Wood ash_low_S	Bioaccess1.5pH	2	mg/kg	Lead	883.68	NA	T3
109-4_S_low_A	Biochar_low_S	Bioaccess1.5pH	2	mg/kg	Lead	851.51	NA	T3
110-4_S_low_B	Biochar_low_S	Bioaccess1.5pH	2	mg/kg	Lead	893.11	NA	T3
111-4_S_low_C	Biochar_low_S	Bioaccess1.5pH	2	mg/kg	Lead	844.06	NA	T3
112-4_S_low_D	Biochar_low_S	Bioaccess1.5pH	2	mg/kg	Lead	943.85	NA	T3
113-5_S_low_A	Compost_low_S	Bioaccess1.5pH	2	mg/kg	Lead	980.90	NA	T3
114-5_S_low_B	Compost_low_S	Bioaccess1.5pH	2	mg/kg	Lead	897.48	NA	T3
115-5_S_low_C	Compost_low_S	Bioaccess1.5pH	3	mg/kg	Lead	1001.02	NA	T3
116-5_S_low_D	Compost_low_S	Bioaccess1.5pH	3	mg/kg	Lead	969.65	NA	T3
117-6_S_low_A	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	3	mg/kg	Lead	944.21	NA	T3
118-6_S_low_B	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	3	mg/kg	Lead	996.51	NA	T3
119-6_S_low_C	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	3	mg/kg	Lead	980.38	NA	T3
120-6_S_low_D	Soluble phosphate and biosolids_low_S	Bioaccess1.5pH	3	mg/kg	Lead	1019.45	NA	T3
121-7_S_low_A	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	3	mg/kg	Lead	994.58	NA	T3
122-7_S_low_B	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	3	mg/kg	Lead	972.50	NA	T3
123-7_S_low_C	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	3	mg/kg	Lead	961.47	NA	T3
124-7_S_low_D	Soluble phosphate and biochar_low_S	Bioaccess1.5pH	4	mg/kg	Lead	1032.72	NA	T3
125-8_S_low_A	Soluble phosphate and compost_low_S	Bioaccess1.5pH	4	mg/kg	Lead	946.79	NA	T3
126-8_S_low_B	Soluble phosphate and compost_low_S	Bioaccess1.5pH	4	mg/kg	Lead	994.12	NA	T3
127-8_S_low_C	Soluble phosphate and compost_low_S	Bioaccess1.5pH	4	mg/kg	Lead	1020.64	NA	T3
128-8_S_low_D	Soluble phosphate and compost_low_S	Bioaccess1.5pH	4	mg/kg	Lead	970.38	NA	T3
129-9_S_low_A	Biosolids and wood ash_low_S	Bioaccess1.5pH	4	mg/kg	Lead	920.32	NA	T3
130-9_S_low_B	Biosolids and wood ash_low_S	Bioaccess1.5pH	4	mg/kg	Lead	881.98	NA	T3
131-9_S_low_C	Biosolids and wood ash_low_S	Bioaccess1.5pH	4	mg/kg	Lead	966.93	NA	T3
132-9_S_low_D	Biosolids and wood ash_low_S	Bioaccess1.5pH	4	mg/kg	Lead	920.48	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
133-10_S_low_A	Wood ash and biochar_low_S	Bioaccess1.5pH	5	mg/kg	Lead	1019.15	NA	T3
134-10_S_low_B	Wood ash and biochar_low_S	Bioaccess1.5pH	5	mg/kg	Lead	992.51	NA	T3
135-10_S_low_C	Wood ash and biochar_low_S	Bioaccess1.5pH	5	mg/kg	Lead	947.57	NA	T3
136-10_S_low_D	Wood ash and biochar_low_S	Bioaccess1.5pH	5	mg/kg	Lead	975.60	NA	T3
137-11_S_low_A	Wood ash and compost_low_S	Bioaccess1.5pH	5	mg/kg	Lead	1004.14	NA	T3
138-11_S_low_B	Wood ash and compost_low_S	Bioaccess1.5pH	5	mg/kg	Lead	961.68	NA	T3
139-11_S_low_C	Wood ash and compost_low_S	Bioaccess1.5pH	5	mg/kg	Lead	991.67	NA	T3
140-11_S_low_D	Wood ash and compost_low_S	Bioaccess1.5pH	5	mg/kg	Lead	987.51	NA	T3
141-12_S_low_A	Biochar and compost_low_S	Bioaccess1.5pH	5	mg/kg	Lead	994.16	NA	T3
142-12_S_low_B	Biochar and compost_low_S	Bioaccess1.5pH	6	mg/kg	Lead	953.20	NA	T3
143-12_S_low_C	Biochar and compost_low_S	Bioaccess1.5pH	6	mg/kg	Lead	999.43	NA	T3
144-12_S_low_D	Biochar and compost_low_S	Bioaccess1.5pH	6	mg/kg	Lead	971.33	NA	T3
241-1_S_high_A	Soluble phosphate_high_S	Bioaccess1.5pH	6	mg/kg	Lead	985.75	NA	T3
242-1_S_high_B	Soluble phosphate_high_S	Bioaccess1.5pH	6	mg/kg	Lead	1007.72	NA	T3
243-1_S_high_C	Soluble phosphate_high_S	Bioaccess1.5pH	6	mg/kg	Lead	1039.76	NA	T3
244-1_S_high_D	Soluble phosphate_high_S	Bioaccess1.5pH	6	mg/kg	Lead	1016.04	NA	T3
245-2_S_high_A	Biosolid_high_S	Bioaccess1.5pH	6	mg/kg	Lead	1107.84	NA	T3
246-2_S_high_B	Biosolid_high_S	Bioaccess1.5pH	6	mg/kg	Lead	1058.32	NA	T3
247-2_S_high_C	Biosolid_high_S	Bioaccess1.5pH	7	mg/kg	Lead	1031.26	NA	T3
248-2_S_high_D	Biosolid_high_S	Bioaccess1.5pH	7	mg/kg	Lead	1057.43	NA	T3
249-3_S_high_A	Wood ash_high_S	Bioaccess1.5pH	7	mg/kg	Lead	951.68	NA	T3
250-3_S_high_B	Wood ash_high_S	Bioaccess1.5pH	7	mg/kg	Lead	1028.51	NA	T3
251-3_S_high_C	Wood ash_high_S	Bioaccess1.5pH	7	mg/kg	Lead	985.57	NA	T3
252-3_S_high_D	Wood ash_high_S	Bioaccess1.5pH	7	mg/kg	Lead	1005.92	NA	T3
253-4_S_high_A	Biochar_high_S	Bioaccess1.5pH	7	mg/kg	Lead	998.24	NA	T3
254-4_S_high_B	Biochar_high_S	Bioaccess1.5pH	7	mg/kg	Lead	1033.23	NA	T3
255-4_S_high_C	Biochar_high_S	Bioaccess1.5pH	7	mg/kg	Lead	1033.80	NA	T3
256-4_S_high_D	Biochar_high_S	Bioaccess1.5pH	8	mg/kg	Lead	1171.86	NA	T3
257-5_S_high_A	Compost_high_S	Bioaccess1.5pH	8	mg/kg	Lead	1031.51	NA	T3
258-5_S_high_B	Compost_high_S	Bioaccess1.5pH	8	mg/kg	Lead	1033.92	NA	T3
259-5_S_high_C	Compost_high_S	Bioaccess1.5pH	8	mg/kg	Lead	1009.84	NA	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
260-5_S_high_D	Compost_high_S	Bioaccess1.5pH	8	mg/kg	Lead	973.66	NA	T3
261-6_S_high_A	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	8	mg/kg	Lead	1032.45	NA	T3
262-6_S_high_B	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	8	mg/kg	Lead	1043.49	NA	T3
263-6_S_high_C	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	8	mg/kg	Lead	1075.08	NA	T3
264-6_S_high_D	Soluble phosphate and biosolids_high_S	Bioaccess1.5pH	8	mg/kg	Lead	1073.52	NA	T3
265-7_S_high_A	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	9	mg/kg	Lead	984.05	NA	T3
266-7_S_high_B	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	9	mg/kg	Lead	1057.31	NA	T3
267-7_S_high_C	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	9	mg/kg	Lead	985.78	NA	T3
268-7_S_high_D	Soluble phosphate and biochar_high_S	Bioaccess1.5pH	9	mg/kg	Lead	1032.36	NA	T3
269-8_S_high_A	Soluble phosphate and compost_high_S	Bioaccess1.5pH	9	mg/kg	Lead	1039.36	NA	T3
270-8_S_high_B	Soluble phosphate and compost_high_S	Bioaccess1.5pH	9	mg/kg	Lead	1105.60	NA	T3
271-8_S_high_C	Soluble phosphate and compost_high_S	Bioaccess1.5pH	9	mg/kg	Lead	1051.19	NA	T3
272-8_S_high_D	Soluble phosphate and compost_high_S	Bioaccess1.5pH	9	mg/kg	Lead	1026.31	NA	T3
273-9_S_high_A	Biosolids and wood ash_high_S	Bioaccess1.5pH	9	mg/kg	Lead	1066.95	NA	T3
274-9_S_high_B	Biosolids and wood ash_high_S	Bioaccess1.5pH	10	mg/kg	Lead	1029.32	NA	T3
275-9_S_high_C	Biosolids and wood ash_high_S	Bioaccess1.5pH	10	mg/kg	Lead	1071.97	NA	T3
276-9_S_high_D	Biosolids and wood ash_high_S	Bioaccess1.5pH	10	mg/kg	Lead	1024.29	NA	T3
277-10_S_high_A	Wood ash and biochar_high_S	Bioaccess1.5pH	10	mg/kg	Lead	972.01	NA	T3
278-10_S_high_B	Wood ash and biochar_high_S	Bioaccess1.5pH	10	mg/kg	Lead	964.17	NA	T3
279-10_S_high_C	Wood ash and biochar_high_S	Bioaccess1.5pH	10	mg/kg	Lead	979.06	NA	T3
280-10_S_high_D	Wood ash and biochar_high_S	Bioaccess1.5pH	10	mg/kg	Lead	1015.35	NA	T3
281-11_S_high_A	Wood ash and compost_high_S	Bioaccess1.5pH	10	mg/kg	Lead	1000.64	NA	T3
282-11_S_high_B	Wood ash and compost_high_S	Bioaccess1.5pH	10	mg/kg	Lead	1016.39	NA	T3
283-11_S_high_C	Wood ash and compost_high_S	Bioaccess1.5pH	11	mg/kg	Lead	989.44	NA	T3
284-11_S_high_D	Wood ash and compost_high_S	Bioaccess1.5pH	11	mg/kg	Lead	1011.28	NA	T3
285-12_S_high_A	Biochar and compost_high_S	Bioaccess1.5pH	11	mg/kg	Lead	964.48	NA	T3
286-12_S_high_B	Biochar and compost_high_S	Bioaccess1.5pH	11	mg/kg	Lead	1020.41	NA	T3
287-12_S_high_C	Biochar and compost_high_S	Bioaccess1.5pH	11	mg/kg	Lead	1018.23	NA	T3
288-12_S_high_D	Biochar and compost_high_S	Bioaccess1.5pH	11	mg/kg	Lead	991.17	NA	T3
289-1_I_low_A	Soluble phosphate_low_I	Bioaccess1.5pH	11	mg/kg	Lead	1012.95	NA	T3
290-1_I_low_B	Soluble phosphate_low_I	Bioaccess1.5pH	11	mg/kg	Lead	1077.70	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
291-1_I_low_C	Soluble phosphate_low_I	Bioaccess1.5pH	11	mg/kg	Lead	1023.34	NA	T3
292-1_I_low_D	Soluble phosphate_low_I	Bioaccess1.5pH	12	mg/kg	Lead	1008.40	NA	T3
293-2_I_low_A	Biosolid_low_I	Bioaccess1.5pH	12	mg/kg	Lead	927.19	NA	T3
294-2_I_low_B	Biosolid_low_I	Bioaccess1.5pH	12	mg/kg	Lead	893.42	NA	T3
295-2_I_low_C	Biosolid_low_I	Bioaccess1.5pH	12	mg/kg	Lead	958.30	NA	T3
296-2_I_low_D	Biosolid_low_I	Bioaccess1.5pH	12	mg/kg	Lead	977.35	NA	T3
297-3_I_low_A	Wood ash_low_I	Bioaccess1.5pH	12	mg/kg	Lead	1037.91	NA	T3
298-3_I_low_B	Wood ash_low_I	Bioaccess1.5pH	12	mg/kg	Lead	1037.44	NA	T3
299-3_I_low_C	Wood ash_low_I	Bioaccess1.5pH	12	mg/kg	Lead	1093.39	NA	T3
300-3_I_low_D	Wood ash_low_I	Bioaccess1.5pH	12	mg/kg	Lead	1042.07	NA	T3
301-4_I_low_A	Biochar_low_I	Bioaccess1.5pH	13	mg/kg	Lead	1045.16	NA	T3
302-4_I_low_B	Biochar_low_I	Bioaccess1.5pH	13	mg/kg	Lead	1034.40	NA	T3
303-4_I_low_C	Biochar_low_I	Bioaccess1.5pH	13	mg/kg	Lead	1024.95	NA	T3
304-4_I_low_D	Biochar_low_I	Bioaccess1.5pH	13	mg/kg	Lead	1036.89	NA	T3
305-5_I_low_A	Compost_low_I	Bioaccess1.5pH	13	mg/kg	Lead	1073.45	NA	T3
306-5_I_low_B	Compost_low_I	Bioaccess1.5pH	13	mg/kg	Lead	998.56	NA	T3
307-5_I_low_C	Compost_low_I	Bioaccess1.5pH	13	mg/kg	Lead	1051.07	NA	T3
308-5_I_low_D	Compost_low_I	Bioaccess1.5pH	13	mg/kg	Lead	1058.35	NA	T3
309-6_I_low_A	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	13	mg/kg	Lead	935.26	NA	T3
310-6_I_low_B	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	14	mg/kg	Lead	989.43	NA	T3
311-6_I_low_C	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	14	mg/kg	Lead	1012.53	NA	T3
312-6_I_low_D	Soluble phosphate and biosolids_low_I	Bioaccess1.5pH	14	mg/kg	Lead	938.95	NA	T3
313-7_I_low_A	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	14	mg/kg	Lead	1033.81	NA	T3
314-7_I_low_B	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	14	mg/kg	Lead	1086.62	NA	T3
315-7_I_low_C	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	14	mg/kg	Lead	1114.96	NA	T3
316-7_I_low_D	Soluble phosphate and biochar_low_I	Bioaccess1.5pH	14	mg/kg	Lead	1072.17	NA	T3
317-8_I_low_A	Soluble phosphate and compost_low_I	Bioaccess1.5pH	14	mg/kg	Lead	1053.39	NA	T3
318-8_I_low_B	Soluble phosphate and compost_low_I	Bioaccess1.5pH	14	mg/kg	Lead	991.41	NA	T3
319-8_I_low_C	Soluble phosphate and compost_low_I	Bioaccess1.5pH	15	mg/kg	Lead	1089.52	NA	T3
320-8_I_low_D	Soluble phosphate and compost_low_I	Bioaccess1.5pH	15	mg/kg	Lead	1019.20	NA	T3
321-9_I_low_A	Biosolids and wood ash_low_I	Bioaccess1.5pH	15	mg/kg	Lead	918.60	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
322-9_I_low_B	Biosolids and wood ash_low_I	Bioaccess1.5pH	15	mg/kg	Lead	949.23	NA	T3
323-9_I_low_C	Biosolids and wood ash_low_I	Bioaccess1.5pH	15	mg/kg	Lead	972.72	NA	T3
324-9_I_low_D	Biosolids and wood ash_low_I	Bioaccess1.5pH	15	mg/kg	Lead	890.47	NA	T3
325-10_I_low_A	Wood ash and biochar_low_I	Bioaccess1.5pH	15	mg/kg	Lead	1072.92	NA	T3
326-10_I_low_B	Wood ash and biochar_low_I	Bioaccess1.5pH	15	mg/kg	Lead	1101.95	NA	T3
327-10_I_low_C	Wood ash and biochar_low_I	Bioaccess1.5pH	15	mg/kg	Lead	1017.49	NA	T3
328-10_I_low_D	Wood ash and biochar_low_I	Bioaccess1.5pH	16	mg/kg	Lead	1062.09	NA	T3
329-11_I_low_A	Wood ash and compost_low_I	Bioaccess1.5pH	16	mg/kg	Lead	1033.74	NA	T3
330-11_I_low_B	Wood ash and compost_low_I	Bioaccess1.5pH	16	mg/kg	Lead	966.46	NA	T3
331-11_I_low_C	Wood ash and compost_low_I	Bioaccess1.5pH	16	mg/kg	Lead	1111.80	NA	T3
332-11_I_low_D	Wood ash and compost_low_I	Bioaccess1.5pH	16	mg/kg	Lead	1080.80	NA	T3
333-12_I_low_A	Biochar and compost_low_I	Bioaccess1.5pH	16	mg/kg	Lead	950.80	NA	T3
334-12_I_low_B	Biochar and compost_low_I	Bioaccess1.5pH	16	mg/kg	Lead	947.57	NA	T3
335-12_I_low_C	Biochar and compost_low_I	Bioaccess1.5pH	16	mg/kg	Lead	977.81	NA	T3
336-12_I_low_D	Biochar and compost_low_I	Bioaccess1.5pH	16	mg/kg	Lead	961.23	NA	T3
337-1_I_high_A	Soluble phosphate_high_I	Bioaccess1.5pH	17	mg/kg	Lead	1091.55	NA	T3
338-1_I_high_B	Soluble phosphate_high_I	Bioaccess1.5pH	17	mg/kg	Lead	1022.06	NA	T3
339-1_I_high_C	Soluble phosphate_high_I	Bioaccess1.5pH	17	mg/kg	Lead	1056.51	NA	T3
340-1_I_high_D	Soluble phosphate_high_I	Bioaccess1.5pH	17	mg/kg	Lead	1022.91	NA	T3
341-2_I_high_A	Biosolid_high_I	Bioaccess1.5pH	17	mg/kg	Lead	727.37	NA	T3
342-2_I_high_B	Biosolid_high_I	Bioaccess1.5pH	17	mg/kg	Lead	716.64	NA	T3
343-2_I_high_C	Biosolid_high_I	Bioaccess1.5pH	17	mg/kg	Lead	738.96	NA	T3
344-2_I_high_D	Biosolid_high_I	Bioaccess1.5pH	17	mg/kg	Lead	744.60	NA	T3
345-3_I_high_A	Wood ash_high_I	Bioaccess1.5pH	17	mg/kg	Lead	1126.34	NA	T3
346-3_I_high_B	Wood ash_high_I	Bioaccess1.5pH	18	mg/kg	Lead	1055.99	NA	T3
347-3_I_high_C	Wood ash_high_I	Bioaccess1.5pH	18	mg/kg	Lead	1023.52	NA	T3
348-3_I_high_D	Wood ash_high_I	Bioaccess1.5pH	18	mg/kg	Lead	1030.74	NA	T3
349-4_I_high_A	Biochar_high_I	Bioaccess1.5pH	18	mg/kg	Lead	990.04	NA	T3
350-4_I_high_B	Biochar_high_I	Bioaccess1.5pH	18	mg/kg	Lead	966.00	NA	T3
351-4_I_high_C	Biochar_high_I	Bioaccess1.5pH	18	mg/kg	Lead	980.34	NA	T3
352-4_I_high_D	Biochar_high_I	Bioaccess1.5pH	18	mg/kg	Lead	994.77	NA	T3

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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
353-5_I_high_A	Compost_high_I	Bioaccess1.5pH	18	mg/kg	Lead	902.11	NA	T3
354-5_I_high_B	Compost_high_I	Bioaccess1.5pH	18	mg/kg	Lead	912.10	NA	T3
355-5_I_high_C	Compost_high_I	Bioaccess1.5pH	19	mg/kg	Lead	942.25	NA	T3
356-5_I_high_D	Compost_high_I	Bioaccess1.5pH	22	mg/kg	Lead	1004.91	NA	T3
357-6_I_high_A	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	19	mg/kg	Lead	781.63	NA	T3
358-6_I_high_B	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	19	mg/kg	Lead	765.90	NA	T3
359-6_I_high_C	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	19	mg/kg	Lead	725.35	NA	T3
360-6_I_high_D	Soluble phosphate and biosolids_high_I	Bioaccess1.5pH	19	mg/kg	Lead	763.76	NA	T3
361-7_I_high_A	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	19	mg/kg	Lead	1085.19	NA	T3
362-7_I_high_B	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	19	mg/kg	Lead	1028.81	NA	T3
363-7_I_high_C	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	19	mg/kg	Lead	1025.34	NA	T3
364-7_I_high_D	Soluble phosphate and biochar_high_I	Bioaccess1.5pH	20	mg/kg	Lead	1011.54	NA	T3
365-8_I_high_A	Soluble phosphate and compost_high_I	Bioaccess1.5pH	20	mg/kg	Lead	972.59	NA	T3
366-8_I_high_B	Soluble phosphate and compost_high_I	Bioaccess1.5pH	20	mg/kg	Lead	967.44	NA	T3
367-8_I_high_C	Soluble phosphate and compost_high_I	Bioaccess1.5pH	20	mg/kg	Lead	950.38	NA	T3
368-8_I_high_D	Soluble phosphate and compost_high_I	Bioaccess1.5pH	20	mg/kg	Lead	972.02	NA	T3
369-9_I_high_A	Biosolids and wood ash_high_I	Bioaccess1.5pH	20	mg/kg	Lead	653.97	NA	T3
370-9_I_high_B	Biosolids and wood ash_high_I	Bioaccess1.5pH	20	mg/kg	Lead	699.64	NA	T3
371-9_I_high_C	Biosolids and wood ash_high_I	Bioaccess1.5pH	20	mg/kg	Lead	658.69	NA	T3
372-9_I_high_D	Biosolids and wood ash_high_I	Bioaccess1.5pH	20	mg/kg	Lead	700.83	NA	T3
373-10_I_high_A	Wood ash and biochar_high_I	Bioaccess1.5pH	21	mg/kg	Lead	1055.11	NA	T3
374-10_I_high_B	Wood ash and biochar_high_I	Bioaccess1.5pH	21	mg/kg	Lead	1056.60	NA	T3
375-10_I_high_C	Wood ash and biochar_high_I	Bioaccess1.5pH	21	mg/kg	Lead	999.94	NA	T3
376-10_I_high_D	Wood ash and biochar_high_I	Bioaccess1.5pH	21	mg/kg	Lead	1083.58	NA	T3
377-11_I_high_A	Wood ash and compost_high_I	Bioaccess1.5pH	21	mg/kg	Lead	945.34	NA	T3
378-11_I_high_B	Wood ash and compost_high_I	Bioaccess1.5pH	21	mg/kg	Lead	929.27	NA	T3
379-11_I_high_C	Wood ash and compost_high_I	Bioaccess1.5pH	21	mg/kg	Lead	882.56	NA	T3
380-11_I_high_D	Wood ash and compost_high_I	Bioaccess1.5pH	21	mg/kg	Lead	997.34	NA	T3
381-12_I_high_A	Biochar and compost_high_I	Bioaccess1.5pH	21	mg/kg	Lead	923.75	NA	T3
382-12_I_high_B	Biochar and compost_high_I	Bioaccess1.5pH	22	mg/kg	Lead	984.50	NA	T3
383-12_I_high_C	Biochar and compost_high_I	Bioaccess1.5pH	22	mg/kg	Lead	926.32	NA	T3



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Pot_ID_Ramboll	Treatment x Rate x Application Method	method_code	lab_gc_batch	units	analyte	meas_value	flag	Time Point
384-12_I_high_D	Biochar and compost_high_I	Bioaccess1.5pH	22	mg/kg	Lead	924.24	NA	T3
385-0_I_NA_A	control_none_I	Bioaccess1.5pH	22	mg/kg	Lead	1032.01	NA	T3
386-0_I_NA_B	control_none_I	Bioaccess1.5pH	22	mg/kg	Lead	1043.19	NA	T3
387-0_I_NA_C	control_none_I	Bioaccess1.5pH	22	mg/kg	Lead	1048.95	NA	T3
388-0_I_NA_D	control_none_I	Bioaccess1.5pH	22	mg/kg	Lead	989.99	NA	T3

Table 46. Reporting limits and method detection limits by method and analyte

sample_material	method_code	Sample Preparation Method Reference	units	analyte	reporting_limit	Method_detection_limit	timepoint
Soil<150µm	Bioaccess1.5pH	USEPA Method 1340	%	Arsenic	5	0.5955	T1
Soil<150µm	Bioaccess1.5pH	USEPA Method 1340	%	Lead	5	0.2412	T1
Soil<150µm	Bioaccess2.5pH	USEPA Method 1340	%	Arsenic	5	0.5955	T1
Soil<150µm	Bioaccess2.5pH	USEPA Method 1340	%	Lead	5	0.2412	T1
Soil<2mm	BREMNER82	NA	%	Nitrogen_total	0.1	0.1	T1
Soil<2mm	EPA6010	USEPA 3051A	mg/kg	Aluminum	160	0.2505	T1
Soil<2mm	EPA6010	USEPA 3051A	mg/kg	Antimony	5	0.7323	T1
Soil<2mm	EPA6010	USEPA 3051A	mg/kg	Arsenic	5	0.5955	T1
Soil<2mm	EPA6010	USEPA 3051A	mg/kg	Barium	5	0.003	T1
Soil<2mm	EPA6010	USEPA 3051A	mg/kg	Beryllium	0.25	0.0045	T1
Soil<2mm	EPA6010	USEPA 3051A	mg/kg	Cadmium	0.25	0.0162	T1
Soil<2mm	EPA6010	USEPA 3051A	mg/kg	Calcium	2000	0.2652	T1
Soil<2mm	EPA6010	USEPA 3051A	mg/kg	Chromium	1	0.1476	T1
Soil<2mm	EPA6010	USEPA 3051A	mg/kg	Cobalt	0.5	0.0393	T1

SWEL – Soil Water Environmental Lab
RLs and MDLs by Method and Analyte

sample_material	method_code	Sample Preparation Method Reference	units	analyte	reporting_limit	Method_detection_limit	timepoint
Soil<2mm	EPA6010	USEPA 3051A	mg/kg	Copper	1	0.0627	T1
Soil<2mm	EPA6010	USEPA 3051A	mg/kg	Iron	20	0.1047	T1
Soil<2mm	EPA6010	USEPA 3051A	mg/kg	Lead	10	0.2412	T1
Soil<2mm	EPA6010	USEPA 3051A	mg/kg	Magnesium	25	0.03	T1
Soil<2mm	EPA6010	USEPA 3051A	mg/kg	Manganese	1.25	0.0231	T1
Soil<2mm	EPA6010	USEPA 3051A	mg/kg	Nickel	10	0.0786	T1
Soil<2mm	EPA6010	USEPA 3051A	mg/kg	Potassium	200	1.2981	T1
Soil<2mm	EPA6010	USEPA 3051A	mg/kg	Selenium	25	0.9045	T1
Soil<2mm	EPA6010	USEPA 3051A	mg/kg	Silver	5	1.39076	T1
Soil<2mm	EPA6010	USEPA 3051A	mg/kg	Sodium	150	0.0678	T1
Soil<2mm	EPA6010	USEPA 3051A	mg/kg	Thallium	2.5	0.4248	T1
Soil<2mm	EPA6010	USEPA 3051A	mg/kg	Vanadium	2.5	0.0582	T1
Soil<2mm	EPA6010	USEPA 3051A	mg/kg	Zinc	1.25	0.0792	T1
Soil<2mm	EPA6010_MEHLICH 3	Mehlich 1984	mg/kg	Lead	1	0.07323	T1
Soil<2mm	EPA6010_MEHLICH 3	Mehlich 1984	mg/kg	Phosphorus	1.5	0.07323	T1
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Aluminum	0.08	0.00251	T1

SWEL – Soil Water Environmental Lab
RLs and MDLs by Method and Analyte

sample_material	method_code	Sample Preparation Method Reference	units	analyte	reporting_limit	Method_detection_limit	timepoint
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Antimony	0.15	0.00732	T1
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Arsenic	0.01	0.00596	T1
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Barium	0.05	0.00003	T1
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Beryllium	0.0025	4.5E-05	T1
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Cadmium	0.0025	0.00016	T1
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Calcium	0.2	0.00265	T1
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Chromium	0.1	0.00148	T1
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Cobalt	0.05	0.00039	T1
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Copper	0.01	0.00063	T1
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Iron	0.5	0.00105	T1
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Lead	0.01	0.00241	T1
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Magnesium	0.25	0.0003	T1
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Manganese	0.0125	0.00023	T1
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Nickel	0.2	0.00079	T1
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Phosphorus	0.15	0.00732	T1
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Potassium	0.75	0.01298	T1
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Selenium	0.5	0.00905	T1
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Silver	0.15	0.01391	T1
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Sodium	0.75	0.00068	T1
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Thallium	0.025	0.00425	T1
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Vanadium	0.025	0.00058	T1
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Zinc	0.0125	0.00079	T1
Soil<2mm	HEANES84	NA	%	Carbon_org	0.4	0.4	T1
Soil<2mm	NELSON82	NA	%	Carbon_total	1	1	T1
Soil<2mm	WARING64	Bremner 1994	mg/kg	Nitrogen_Mineral	0.05	0.05	T1

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RLs and MDLs by Method and Analyte

sample_material	method_code	Sample Preparation Method Reference	units	analyte	reporting_limit	Method_detection_limit	timepoint
Soil<150µm	Bioaccess1.5pH	USEPA Method 1340	%	Arsenic	5	0.5955	T2
Soil<150µm	Bioaccess1.5pH	USEPA Method 1340	%	Lead	5	0.2412	T2
Soil<150µm	Bioaccess2.5pH	USEPA Method 1340	%	Arsenic	5	0.5955	T2
Soil<150µm	Bioaccess2.5pH	USEPA Method 1340	%	Lead	100	0.2412	T2
Soil<2mm	BREMNER83	NA	%	Nitrogen_total	0.1	0.1	T2
Soil<2mm	EPA6010_MEHLICH 3	Mehlich 1984	mg/kg	Lead	1	0.07323	T2
Soil<2mm	EPA6010_MEHLICH 3	Mehlich 1984	mg/kg	Phosphorus	7.5	0.07323	T2
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Aluminum	0.8	0.00251	T2
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Antimony	0.05	0.00732	T2
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Arsenic	0.05	0.00596	T2
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Barium	0.05	0.00003	T2
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Beryllium	0.0025	4.5E-05	T2
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Cadmium	0.0025	0.00016	T2
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Calcium	5	0.00265	T2
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Chromium	0.1	0.00148	T2
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Cobalt	0.005	0.00039	T2
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Copper	0.01	0.00063	T2
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Iron	0.5	0.00105	T2
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Lead	0.25	0.00241	T2
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Magnesium	0.25	0.0003	T2
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Manganese	0.0125	0.00023	T2
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Nickel	0.1	0.00079	T2

SWEL – Soil Water Environmental Lab
RLs and MDLs by Method and Analyte

sample_material	method_code	Sample Preparation Method Reference	units	analyte	reporting_limit	Method_detection_limit	timepoint
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Phosphorus	0.75	0.00732	T2
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Potassium	0.75	0.01298	T2
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Selenium	0.05	0.00905	T2
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Silver	0.75	0.01391	T2
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Sodium	0.5	0.00068	T2
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Thallium	0.025	0.00425	T2
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Vanadium	0.025	0.00058	T2
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Zinc	0.0125	0.00079	T2
Soil<2mm	HEANES84	NA	%	Carbon_org	0.4	0.4	T2
Soil<2mm	NELSON82	NA	%	Carbon_total	1	1	T2
Soil<2mm	WARING65	Bremner 1995	mg/kg	Nitrogen_Mineral	0.05	0.05	T2
Soil<150µm	Bioaccess1.5pH	USEPA Method 1340	%	Arsenic	5	0.5955	T3
Soil<150µm	Bioaccess1.5pH	USEPA Method 1340	%	Lead	5	0.2412	T3
Soil<150µm	Bioaccess2.5pH	USEPA Method 1340	%	Arsenic	4	0.5955	T3
Soil<150µm	Bioaccess2.5pH	USEPA Method 1340	%	Lead	5	0.2412	T3
Soil<2mm	BREMNER84	NA	%	Nitrogen_total	0.1	0.1	T3
Soil<2mm	EPA6010_MEHLICH3	Mehlich 1984	mg/kg	Lead	0.5	0.07323	T3
Soil<2mm	EPA6010_MEHLICH3	Mehlich 1984	mg/kg	Phosphorus	1.5	0.02412	T3
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Aluminum	0.25	0.00251	T3
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Antimony	0.1	0.00732	T3
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Arsenic	0.05	0.00596	T3

SWEL – Soil Water Environmental Lab
RLs and MDLs by Method and Analyte

sample_material	method_code	Sample Preparation Method Reference	units	analyte	reporting_limit	Method_detection_limit	timepoint
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Barium	0.1	0.00003	T3
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Beryllium	0.005	4.5E-05	T3
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Cadmium	0.01	0.00016	T3
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Calcium	1	0.00265	T3
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Chromium	0.1	0.00148	T3
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Cobalt	0.01	0.00039	T3
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Copper	0.01	0.00063	T3
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Iron	0.5	0.00105	T3
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Lead	0.05	0.00241	T3
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Magnesium	0.1	0.0003	T3
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Manganese	0.025	0.00023	T3
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Nickel	0.05	0.00079	T3
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Phosphorus	0.15	0.00732	T3
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Potassium	0.75	0.01298	T3
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Selenium	0.2	0.00905	T3
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Silver	1	0.01391	T3
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Sodium	0.75	0.00068	T3
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Thallium	0.05	0.00425	T3
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Vanadium	0.05	0.00058	T3
Soil<2mm	EPA6010C-SPLP	USEPA 1312	mg/L	Zinc	0.05	0.00079	T3
Soil<2mm	HEANES84	NA	%	Carbon_org	0.4	0.4	T3
Soil<2mm	NELSON82	NA	%	Carbon_total	1	1	T3
Soil<2mm	WARING66	Bremner 1996	mg/kg	Nitrogen_Mineral	0.05	0.05	T3



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October 29, 2019

Analytical Report for Service Request No: K1909649

Amy Kephart
Ramboll Environ
901 Fifth Avenue Suite 2820
Seattle, WA 98164

RE: SATES

Dear Amy,

Enclosed are the results of the sample(s) submitted to our laboratory October 16, 2019
For your reference, these analyses have been assigned our service request number **K1909649**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager



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Polychlorinated Biphenyls (PCBs)

Semivolatile Organic Compounds by GCMS

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable. See case narrative.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.



Case Narrative

ALS Environmental—Kelso Laboratory
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Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649
Date Received: 10/16/2019

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier level IV requested by the client.

Sample Receipt:

Five soil samples were received for analysis at ALS Environmental on 10/16/2019. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Semivolatiles by GC/MS:

Method 8270D, Semivolatile Organic Compounds by GC/MS 10/19/2019: The following analytes were flagged as outside the control criterion for Continuing Calibration Verification (CCV) MS07\1019F002.D: Aniline and Benzoic Acid. In accordance with the EPA Method, 80% or more of the CCV analytes must have passed within 20% of the true value. The remaining analytes are allowed a 40% difference as per the ALS SOP. The CCV met these criteria. No further corrective action was required.

Method 8270D, Semivolatile Organic Compounds by GC/MS 10/19/2019: The control criteria were exceeded for Nitrobenzene-d5 in sample Muriate of Potash 0-0-60 and each surrogate in sample Landfill Ash 5-13-19 due to matrix interference. The presence of non-target background components prevented adequate resolution of the surrogate. Accurate quantitation was not possible. No further corrective action was appropriate.

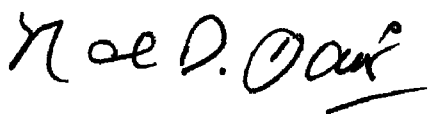
Semivolatile GC:

Method 8082A, Polychlorinated Biphenyls (PCBs) 10/23/19: The control criteria were exceeded for Decachlorobiphenyl in sample Biosolids B due to matrix interference. The presence of non-target background components prevented adequate resolution of the surrogate. Accurate quantitation was not possible. No further corrective action was appropriate.

Method 8082A, Polychlorinated Biphenyls (PCBs) 10/23/19: Sample Biosolids B was diluted due to matrix interference.

Metals:

No significant anomalies were noted with this analysis.

Approved by 

Date 10/29/2019



Chain of Custody

ALS Environmental—Kelso Laboratory
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Phone (360)577-7222 Fax (360)636-1068
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CHAIN OF CUSTODY
103447

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SR# K1909649
COC Set _____ of _____
COC# _____

1317 South 13th Ave, Kelso, WA 98626 Phone (360) 577-7222 / 800-695-7222 / FAX (360) 636-1068
www.alsglobal.com

Project Name SATES		Project Number:		NUMBER OF CONTAINERS	14D	28D	999D						Remarks	
Project Manager FORWARD RESULTS TO AMY REPHART					8082A / PCB	9270D / SVO	7471B / Hg	160.3 Modified / TS	1	2	3	4		5
Company TECK														
Address														
Phone #		email												
Sampler Signature		Sampler Printed Name												
CLIENT SAMPLE ID	LABID	SAMPLING Date	Time	Matrix										
1. Baseline Soil		10/15/19	1200		1			X						
2. Muriale of potash 0-060			1230		1	X	X	X	X					
3. TSP 052419			1230		1	X	X	X	X					
4. LANDFILL ASH 5-13-19			1325		2	X	X	X	X					
5. Biosolids B			1310		2	X	X	X	X					
6.														
7.														
8.														
9.														
10.														

Report Requirements <input type="checkbox"/> I. Routine Report: Method Blank, Surrogate, as required <input type="checkbox"/> II. Report Dup., MS, MSD as required <input type="checkbox"/> III. CLP Like Summary (no raw data) <input type="checkbox"/> IV. Data Validation Report <input type="checkbox"/> V. EDD	Invoice Information P.O.# _____ Bill To: _____ _____	Circle which metals are to be analyzed Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg	
	Turnaround Requirements <input type="checkbox"/> 24 hr. _____ 48 hr. <input type="checkbox"/> 5 Day _____ <input type="checkbox"/> Standard _____	Special Instructions/Comments: _____ *Indicate State Hydrocarbon Procedure: AK CA WI Northwest Other _____ (Circle One)	
	Requested Report Date _____		

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature	Signature	Signature	Signature	Signature	Signature
Printed Name MARTINA V. M	Printed Name J. Buchanan	Printed Name	Printed Name	Printed Name	Printed Name
Firm OSU	Firm 10/16/19 0930	Firm	Firm	Firm	Firm
Date/Time 10/15/19 13:00	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time



PCMH

Cooler Receipt and Preservation Form

Client TECK / RAMBOLL Service Request K1909649
 Received: 10/16/19 Opened: 10/16/19 By: BR Unloaded: 10/16/19 By: BR

1. Samples were received via? **USPS** *Fed Ex* **UPS** *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) **Cooler** *Box* *Envelope* *Other* NA
3. Were custody seals on coolers? *NA* **Y** *N* If yes, how many and where? 2 front
- If present, were custody seals intact? **Y** *N* If present, were they signed and dated? **Y** *N*

Raw Cooler Temp	Corrected Cooler Temp	Raw Temp Blank	Corrected Temp Blank	Corr. Factor	Thermometer ID	Cooler/COC ID	Tracking Number	NA	Filed
-0.1	-0.1	1.2	1.2	0.0	349	NA	1Z44294E019W24510	NA	Y

4. Packing material: *Inserts* **Baggies** **Bubble Wrap** *Gel Packs* **Wet Ice** *Dry Ice* *Sleeves*
5. Were custody papers properly filled out (ink, signed, etc.)? *NA* **Y** *N*
6. Were samples received in good condition (temperature, unbroken)? *Indicate in the table below.* *NA* **Y** *N*
 If applicable, tissue samples were received: *Frozen* *Partially Thawed* *Thawed*
7. Were all sample labels complete (i.e analysis, preservation, etc.)? *NA* **Y** *N*
8. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* *NA* **Y** *N*
9. Were appropriate bottles/containers and volumes received for the tests indicated? *NA* **Y** *N*
10. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? *Indicate in the table below* *NA* **Y** *N*
11. Were VOA vials received without headspace? *Indicate in the table below.* *NA* **Y** *N*
12. Was C12/Res negative? *NA* **Y** *N*

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions: _____



Total Solids

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www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil
Analysis Method: 160.3 Modified
Prep Method: None

Service Request: K1909649
Date Collected: 10/15/19
Date Received: 10/16/19
Units: Percent
Basis: As Received

Solids, Total

Sample Name	Lab Code	Result	MRL	MDL	Dil.	Date Analyzed	Q
Baseline Soil	K1909649-001	92.5	-	-	1	10/16/19 18:33	
Muriate of Potash 0-0-60	K1909649-002	99.8	-	-	1	10/16/19 18:33	
TSP 052419	K1909649-003	98.1	-	-	1	10/16/19 18:33	
Landfill Ash 5-13-19	K1909649-004	75.1	-	-	1	10/16/19 18:33	
Biosolids B	K1909649-005	95.4	-	-	1	10/16/19 18:33	



Metals

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www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil
Sample Name: Baseline Soil
Lab Code: K1909649-001

Service Request: K1909649
Date Collected: 10/15/19 12:00
Date Received: 10/16/19 09:30
Basis: Dry

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Mercury	7471B	0.203	mg/Kg	0.018	0.002	1	10/22/19 09:33	10/21/19	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil
Sample Name: Muriate of Potash 0-0-60
Lab Code: K1909649-002

Service Request: K1909649
Date Collected: 10/15/19 12:30
Date Received: 10/16/19 09:30
Basis: Dry

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Mercury	7471B	ND U	mg/Kg	0.014	0.001	1	10/22/19 09:38	10/21/19	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil
Sample Name: TSP 052419
Lab Code: K1909649-003

Service Request: K1909649
Date Collected: 10/15/19 12:30
Date Received: 10/16/19 09:30
Basis: Dry

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Mercury	7471B	0.016	mg/Kg	0.014	0.001	1	10/22/19 09:39	10/21/19	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil
Sample Name: Landfill Ash 5-13-19
Lab Code: K1909649-004

Service Request: K1909649
Date Collected: 10/15/19 13:25
Date Received: 10/16/19 09:30
Basis: Dry

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Mercury	7471B	0.058	mg/Kg	0.023	0.002	1	10/22/19 09:41	10/21/19	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil
Sample Name: Biosolids B
Lab Code: K1909649-005

Service Request: K1909649
Date Collected: 10/15/19 13:10
Date Received: 10/16/19 09:30
Basis: Dry

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Mercury	7471B	0.850	mg/Kg	0.036	0.004	2	10/22/19 11:44	10/21/19	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil
Sample Name: Method Blank
Lab Code: KQ1915281-01

Service Request: K1909649
Date Collected: NA
Date Received: NA
Basis: Dry

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Mercury	7471B	ND U	mg/Kg	0.02	0.002	1	10/22/19 09:12	10/21/19	

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649
Date Collected: 10/15/19
Date Received: 10/16/19
Date Analyzed: 10/22/19

Replicate Sample Summary

Total Metals

Sample Name: Baseline Soil
Lab Code: K1909649-001

Units: mg/Kg
Basis: Dry

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate Sample	Average	RPD	RPD Limit
					KQ1915281-05 Result			
Mercury	7471B	0.021	0.002	0.203	0.186	0.195	9	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649
Date Collected: 10/15/19
Date Received: 10/16/19
Date Analyzed: 10/22/19
Date Extracted: 10/21/19

Matrix Spike Summary
Total Metals

Sample Name: Baseline Soil
Lab Code: K1909649-001
Analysis Method: 7471B
Prep Method: Method

Units: mg/Kg
Basis: Dry

Matrix Spike
KQ1915281-06

<u>Analyte Name</u>	<u>Sample Result</u>	<u>Result</u>	<u>Spike Amount</u>	<u>% Rec</u>	<u>% Rec Limits</u>
Mercury	0.203	0.628	0.459	92	80-120

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649

Date Analyzed: 10/22/19

Lab Control Sample Summary

Total Metals

Units:mg/Kg

Basis:Dry

Lab Control Sample

KQ1915281-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Mercury	7471B	10.7	12.0	89	60-139

ALS Group USA, Corp.
dba ALS Environmental

Prep Summary Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649

Metals

Prep Method: Method
Analytical Method: 7471B

Extraction Lot: 346844
Extraction Date: 10/21/19 12:00

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Amount	Percent Solids
Baseline Soil	K1909649-001	10/15/19	10/16/19	0.611 g	50 mL	
Muriate of Potash 0-0-60	K1909649-002	10/15/19	10/16/19	0.694 g	50 mL	
TSP 052419	K1909649-003	10/15/19	10/16/19	0.706 g	50 mL	
Landfill Ash 5-13-19	K1909649-004	10/15/19	10/16/19	0.578 g	50 mL	
Biosolids B	K1909649-005	10/15/19	10/16/19	0.588 g	50 mL	
Method Blank	KQ1915281-01MB	NA	NA	0.5 g	50 mL	
Lab Control Sample	KQ1915281-02LCS	NA	NA	0.2510 g	50 mL	
Duplicate	KQ1915281-05DUP	10/15/19	10/16/19	0.517 g	50 mL	
Matrix Spike	KQ1915281-06MS	10/15/19	10/16/19	0.588 g	50 mL	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909649

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Concentration Units: ug/L

Sample ID	Analyte	Method	Analysis Batch:	Result	True Value	% Rec	% Rec. Limits
ICV 10/22/19 09:04	Mercury	7471B	656498	5.09	5.00	102	90-110
CCV 10/22/19 09:08	Mercury	7471B	656498	5.05	5.00	101	90-110
CCV 10/22/19 09:28	Mercury	7471B	656498	4.96	5.00	99	90-110
CCV 10/22/19 09:47	Mercury	7471B	656498	4.87	5.00	97	90-110
CCV 10/22/19 10:07	Mercury	7471B	656498	5.05	5.00	101	90-110
CCV 10/22/19 10:26	Mercury	7471B	656498	4.99	5.00	100	90-110
CCV 10/22/19 10:46	Mercury	7471B	656498	5.07	5.00	101	90-110
CCV 10/22/19 11:06	Mercury	7471B	656498	4.96	5.00	99	90-110
CCV 10/22/19 11:25	Mercury	7471B	656498	5.02	5.00	100	90-110
CCV 10/22/19 11:51	Mercury	7471B	656498	5.10	5.00	102	90-110
CCV 10/22/19 12:03	Mercury	7471B	656498	5.02	5.00	100	90-110
CCV 10/22/19 12:11	Mercury	7471B	656498	5.04	5.00	101	90-110

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909649

INITIAL AND CONTINUING CALIBRATION BLANKS

Concentration Units: ug/L

Sample ID	Analyte	Method	Analysis Batch:	Result	C
ICB 10/22/19 09:05	Mercury	7471B	656498	0.02	U
CCB 10/22/19 09:10	Mercury	7471B	656498	0.02	U
CCB 10/22/19 09:30	Mercury	7471B	656498	-0.0230	J
CCB 10/22/19 09:49	Mercury	7471B	656498	0.02	U
CCB 10/22/19 10:08	Mercury	7471B	656498	0.02	U
CCB 10/22/19 10:28	Mercury	7471B	656498	0.02	U
CCB 10/22/19 10:48	Mercury	7471B	656498	0.02	U
CCB 10/22/19 11:07	Mercury	7471B	656498	0.02	U
CCB 10/22/19 11:27	Mercury	7471B	656498	-0.0230	J
CCB 10/22/19 11:52	Mercury	7471B	656498	0.02	U
CCB 10/22/19 12:05	Mercury	7471B	656498	0.02	U
CCB 10/22/19 12:13	Mercury	7471B	656498	0.02	U

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909649

LOW LEVEL INITIAL AND LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Concentration Units: ug/L

Sample ID	Analyte	Method	Analysis Batch:	Result	True Value	% Rec	% Rec. Limits	Analysis Date
LLICV	Mercury	7471B	656498	0.20	0.2	99	50-150	10/22/19 09:07

ALS Group USA, Corp.
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QA/QC Report

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909649

POST SPIKE SAMPLE RECOVERY

Concentration Units: ppb

Sample ID	Analyte	Method	Analysis Batch:	Initial Sample Result	Post Spike Result	True Value	% Rec	% Rec. Limits	Analysis Date
K1909649-005A	Mercury	7471B	656498	4.77	9.04	5.00	85	80-120	10/22/19 12:08

Results flagged with a pound (#) indicate the control criteria is not applicable.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909649

ICP SERIAL DILUTIONS

Concentration Units: ppb

Sample ID	Analyte	Method	Analysis Batch:	Initial Sample Result	Serial Dillution Result	% Diff	% Diff. Limit	Analysis Date
K1909649-005SDL	Mercury	7471B	656498	9.5	11.9	25	10	10/22/19 11:46

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QA/QC Report

Client: Ramboll US Corporation
Project: SATES/

Service Request: K1909649

Detection Limits

Instrument: K-CVAA-02

Matrix: Soil

Analyte	Wavelength (nm)	Units	MRL	MDL	Method
Mercury	253	ug/L	0.2	0.02	7471B

Client: Ramboll US Corporation
Project: SATES/

Service Request: K1909649

Analysis Run Log

Instrument ID: K-CVAA-02

Analytical BatchID: 656498

Sample	Dilution Factor	Date/Time	H g
ZZZZZZ	1	10/22/19 08:54	
ZZZZZZ	1	10/22/19 08:55	
ZZZZZZ	1	10/22/19 08:57	
ZZZZZZ	1	10/22/19 08:59	
ZZZZZZ	1	10/22/19 09:00	
ZZZZZZ	1	10/22/19 09:02	
ICV1	1	10/22/19 09:04	X
ICB1	1	10/22/19 09:05	X
LLICV1	1	10/22/19 09:07	X
CCV1	1	10/22/19 09:08	X
CCB1	1	10/22/19 09:10	X
KQ1915281-01MB	1	10/22/19 09:12	X
KQ1915281-02LCS1	10	10/22/19 09:13	X
ZZZZZZ	1	10/22/19 09:15	
ZZZZZZ	1	10/22/19 09:16	
ZZZZZZ	1	10/22/19 09:18	
ZZZZZZ	1	10/22/19 09:20	
ZZZZZZ	1	10/22/19 09:21	
ZZZZZZ	1	10/22/19 09:23	
ZZZZZZ	1	10/22/19 09:25	
ZZZZZZ	1	10/22/19 09:26	
CCV2	1	10/22/19 09:28	X
CCB2	1	10/22/19 09:30	X
ZZZZZZ	1	10/22/19 09:31	
K1909649-001	1	10/22/19 09:33	X
K1909649-001DUP	1	10/22/19 09:34	X
K1909649-001MS	1	10/22/19 09:36	X
K1909649-002	1	10/22/19 09:38	X
K1909649-003	1	10/22/19 09:39	X
K1909649-004	1	10/22/19 09:41	X
ZZZZZZ	1	10/22/19 09:42	
ZZZZZZ	1	10/22/19 09:44	
ZZZZZZ	1	10/22/19 09:46	
CCV3	1	10/22/19 09:47	X
CCB3	1	10/22/19 09:49	X
ZZZZZZ	10	10/22/19 09:51	
ZZZZZZ	1	10/22/19 09:52	

Client: Ramboll US Corporation
Project: SATES/

Service Request: K1909649

Analysis Run Log

Instrument ID: K-CVAA-02

Analytical BatchID: 656498

Sample	Dilution Factor	Date/Time	H g
ZZZZZZ	1	10/22/19 09:54	
ZZZZZZ	1	10/22/19 09:56	
ZZZZZZ	1	10/22/19 09:57	
ZZZZZZ	1	10/22/19 09:59	
ZZZZZZ	1	10/22/19 10:00	
ZZZZZZ	1	10/22/19 10:02	
ZZZZZZ	1	10/22/19 10:04	
ZZZZZZ	1	10/22/19 10:05	
CCV4	1	10/22/19 10:07	X
CCB4	1	10/22/19 10:08	X
ZZZZZZ	1	10/22/19 10:10	
ZZZZZZ	1	10/22/19 10:12	
ZZZZZZ	1	10/22/19 10:13	
ZZZZZZ	1	10/22/19 10:15	
ZZZZZZ	1	10/22/19 10:17	
ZZZZZZ	1	10/22/19 10:18	
ZZZZZZ	1	10/22/19 10:20	
ZZZZZZ	1	10/22/19 10:22	
ZZZZZZ	1	10/22/19 10:23	
ZZZZZZ	1	10/22/19 10:25	
CCV5	1	10/22/19 10:26	X
CCB5	1	10/22/19 10:28	X
ZZZZZZ	1	10/22/19 10:30	
ZZZZZZ	1	10/22/19 10:31	
ZZZZZZ	1	10/22/19 10:33	
ZZZZZZ	1	10/22/19 10:35	
ZZZZZZ	10	10/22/19 10:36	
ZZZZZZ	1	10/22/19 10:38	
ZZZZZZ	1	10/22/19 10:39	
ZZZZZZ	1	10/22/19 10:41	
ZZZZZZ	1	10/22/19 10:43	
ZZZZZZ	1	10/22/19 10:44	
CCV6	1	10/22/19 10:46	X
CCB6	1	10/22/19 10:48	X
ZZZZZZ	1	10/22/19 10:49	
ZZZZZZ	1	10/22/19 10:51	
ZZZZZZ	1	10/22/19 10:52	

Client: Ramboll US Corporation
Project: SATES/

Service Request: K1909649

Analysis Run Log

Instrument ID: K-CVAA-02

Analytical BatchID: 656498

Sample	Dilution Factor	Date/Time	H g
ZZZZZZ	1	10/22/19 10:54	
ZZZZZZ	1	10/22/19 10:56	
ZZZZZZ	1	10/22/19 10:57	
ZZZZZZ	1	10/22/19 10:59	
ZZZZZZ	1	10/22/19 11:01	
ZZZZZZ	1	10/22/19 11:02	
ZZZZZZ	1	10/22/19 11:04	
CCV7	1	10/22/19 11:06	X
CCB7	1	10/22/19 11:07	X
ZZZZZZ	1	10/22/19 11:09	
ZZZZZZ	1	10/22/19 11:10	
ZZZZZZ	1	10/22/19 11:12	
ZZZZZZ	1	10/22/19 11:14	
ZZZZZZ	1	10/22/19 11:15	
ZZZZZZ	1	10/22/19 11:17	
ZZZZZZ	1	10/22/19 11:18	
ZZZZZZ	1	10/22/19 11:20	
ZZZZZZ	1	10/22/19 11:22	
ZZZZZZ	1	10/22/19 11:23	
CCV8	1	10/22/19 11:25	X
CCB8	1	10/22/19 11:27	X
ZZZZZZ	1	10/22/19 11:28	
ZZZZZZ	1	10/22/19 11:30	
ZZZZZZ	1	10/22/19 11:32	
ZZZZZZ	1	10/22/19 11:33	
ZZZZZZ	1	10/22/19 11:35	
ZZZZZZ	1	10/22/19 11:36	
K1909649-005	2	10/22/19 11:44	X
K1909649-005SDL	10	10/22/19 11:46	X
ZZZZZZ	5	10/22/19 11:47	
ZZZZZZ	5	10/22/19 11:49	
CCV9	1	10/22/19 11:51	X
CCB9	1	10/22/19 11:52	X
ZZZZZZ	1	10/22/19 11:54	
ZZZZZZ	1	10/22/19 11:56	
ZZZZZZ	1	10/22/19 11:57	
ZZZZZZ	1	10/22/19 12:01	

Client: Ramboll US Corporation
Project: SATES/

Service Request: K1909649

Analysis Run Log

Instrument ID: K-CVAA-02

Analytical BatchID: 656498

Sample	Dilution Factor	Date/Time	H g
CCV10	1	10/22/19 12:03	X
CCB10	1	10/22/19 12:05	X
K1909649-005PS	2	10/22/19 12:08	X
<i>ZZZZZ</i>	1	10/22/19 12:10	
CCV11	1	10/22/19 12:11	X
CCB11	1	10/22/19 12:13	X



Polychlorinated Biphenyls (PCBs)

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909649

**Cover Page - Organic Analysis Data Package
 Polychlorinated Biphenyls (PCBs)**

Sample Name	Lab Code	Date Collected	Date Received
Muriate of Potash 0-0-60	K1909649-002	10/15/2019	10/16/2019
TSP 052419	K1909649-003	10/15/2019	10/16/2019
Landfill Ash 5-13-19	K1909649-004	10/15/2019	10/16/2019
Biosolids B	K1909649-005	10/15/2019	10/16/2019
Muriate of Potash 0-0-60MS	KWG1904500-1	10/15/2019	10/16/2019
Muriate of Potash 0-0-60DMS	KWG1904500-2	10/15/2019	10/16/2019
Landfill Ash 5-13-19MS	KWG1904504-1	10/15/2019	10/16/2019
Landfill Ash 5-13-19DMS	KWG1904504-2	10/15/2019	10/16/2019

Analytical Results

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649
Date Collected: 10/15/2019
Date Received: 10/16/2019

Polychlorinated Biphenyls (PCBs)

Sample Name: Muriate of Potash 0-0-60
Lab Code: K1909649-002
Extraction Method: EPA 3541
Analysis Method: 8082A

Units: ug/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	9.2	9.2	1	10/16/19	10/18/19	KWG1904500	
Aroclor 1221	ND	U	19	19	1	10/16/19	10/18/19	KWG1904500	
Aroclor 1232	ND	U	9.2	9.2	1	10/16/19	10/18/19	KWG1904500	
Aroclor 1242	ND	U	9.2	9.2	1	10/16/19	10/18/19	KWG1904500	
Aroclor 1248	ND	U	9.2	9.2	1	10/16/19	10/18/19	KWG1904500	
Aroclor 1254	ND	U	9.2	9.2	1	10/16/19	10/18/19	KWG1904500	
Aroclor 1260	ND	U	9.2	9.2	1	10/16/19	10/18/19	KWG1904500	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	97	43-148	10/18/19	Acceptable

Comments: _____

Analytical Results

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649
Date Collected: 10/15/2019
Date Received: 10/16/2019

Polychlorinated Biphenyls (PCBs)

Sample Name: TSP 052419
Lab Code: K1909649-003
Extraction Method: EPA 3541
Analysis Method: 8082A

Units: ug/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	9.9	9.9	1	10/16/19	10/18/19	KWG1904500	
Aroclor 1221	ND	U	20	20	1	10/16/19	10/18/19	KWG1904500	
Aroclor 1232	ND	U	9.9	9.9	1	10/16/19	10/18/19	KWG1904500	
Aroclor 1242	ND	U	9.9	9.9	1	10/16/19	10/18/19	KWG1904500	
Aroclor 1248	ND	U	9.9	9.9	1	10/16/19	10/18/19	KWG1904500	
Aroclor 1254	ND	U	9.9	9.9	1	10/16/19	10/18/19	KWG1904500	
Aroclor 1260	ND	U	9.9	9.9	1	10/16/19	10/18/19	KWG1904500	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	105	43-148	10/18/19	Acceptable

Comments: _____

Analytical Results

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649
Date Collected: 10/15/2019
Date Received: 10/16/2019

Polychlorinated Biphenyls (PCBs)

Sample Name: Landfill Ash 5-13-19
Lab Code: K1909649-004
Extraction Method: EPA 3541
Analysis Method: 8082A

Units: ug/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	13	13	1	10/17/19	10/23/19	KWG1904504	
Aroclor 1221	ND	U	26	26	1	10/17/19	10/23/19	KWG1904504	
Aroclor 1232	ND	U	13	13	1	10/17/19	10/23/19	KWG1904504	
Aroclor 1242	ND	U	13	13	1	10/17/19	10/23/19	KWG1904504	
Aroclor 1248	ND	U	13	13	1	10/17/19	10/23/19	KWG1904504	
Aroclor 1254	ND	U	13	13	1	10/17/19	10/23/19	KWG1904504	
Aroclor 1260	ND	U	13	13	1	10/17/19	10/23/19	KWG1904504	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	90	43-148	10/23/19	Acceptable

Comments: _____

Analytical Results

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649
Date Collected: 10/15/2019
Date Received: 10/16/2019

Polychlorinated Biphenyls (PCBs)

Sample Name: Biosolids B
Lab Code: K1909649-005
Extraction Method: EPA 3541
Analysis Method: 8082A

Units: ug/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	99	99	10	10/16/19	10/23/19	KWG1904500	
Aroclor 1221	ND	U	200	200	10	10/16/19	10/23/19	KWG1904500	
Aroclor 1232	ND	U	99	99	10	10/16/19	10/23/19	KWG1904500	
Aroclor 1242	ND	U	99	99	10	10/16/19	10/23/19	KWG1904500	
Aroclor 1248	ND	U	99	99	10	10/16/19	10/23/19	KWG1904500	
Aroclor 1254	ND	U	99	99	10	10/16/19	10/23/19	KWG1904500	
Aroclor 1260	ND	U	99	99	10	10/16/19	10/23/19	KWG1904500	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	197	43-148	10/23/19	Outside Control Limits

Comments: _____

Analytical Results

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649
Date Collected: NA
Date Received: NA

Polychlorinated Biphenyls (PCBs)

Sample Name: Method Blank
Lab Code: KWG1904500-4
Extraction Method: EPA 3541
Analysis Method: 8082A

Units: ug/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	8.8	8.8	1	10/16/19	10/18/19	KWG1904500	
Aroclor 1221	ND	U	18	18	1	10/16/19	10/18/19	KWG1904500	
Aroclor 1232	ND	U	8.8	8.8	1	10/16/19	10/18/19	KWG1904500	
Aroclor 1242	ND	U	8.8	8.8	1	10/16/19	10/18/19	KWG1904500	
Aroclor 1248	ND	U	8.8	8.8	1	10/16/19	10/18/19	KWG1904500	
Aroclor 1254	ND	U	8.8	8.8	1	10/16/19	10/18/19	KWG1904500	
Aroclor 1260	ND	U	8.8	8.8	1	10/16/19	10/18/19	KWG1904500	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	87	43-148	10/18/19	Acceptable

Comments: _____

Analytical Results

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649
Date Collected: NA
Date Received: NA

Polychlorinated Biphenyls (PCBs)

Sample Name: Method Blank
Lab Code: KWG1904504-4
Extraction Method: EPA 3541
Analysis Method: 8082A

Units: ug/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	9.6	9.6	1	10/17/19	10/23/19	KWG1904504	
Aroclor 1221	ND	U	20	20	1	10/17/19	10/23/19	KWG1904504	
Aroclor 1232	ND	U	9.6	9.6	1	10/17/19	10/23/19	KWG1904504	
Aroclor 1242	ND	U	9.6	9.6	1	10/17/19	10/23/19	KWG1904504	
Aroclor 1248	ND	U	9.6	9.6	1	10/17/19	10/23/19	KWG1904504	
Aroclor 1254	ND	U	9.6	9.6	1	10/17/19	10/23/19	KWG1904504	
Aroclor 1260	ND	U	9.6	9.6	1	10/17/19	10/23/19	KWG1904504	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	72	43-148	10/23/19	Acceptable

Comments: _____

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649

**Surrogate Recovery Summary
 Polychlorinated Biphenyls (PCBs)**

Extraction Method: EPA 3541
Analysis Method: 8082A

Units: Percent
Level: Low

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>
Muriate of Potash 0-0-60	K1909649-002	97
TSP 052419	K1909649-003	105
Landfill Ash 5-13-19	K1909649-004	90
Biosolids B	K1909649-005	197 D *
Method Blank	KWG1904500-4	87
Method Blank	KWG1904504-4	72
Muriate of Potash 0-0-60MS	KWG1904500-1	88
Muriate of Potash 0-0-60DMS	KWG1904500-2	79
Landfill Ash 5-13-19MS	KWG1904504-1	81
Landfill Ash 5-13-19DMS	KWG1904504-2	75
Lab Control Sample	KWG1904500-3	88
Lab Control Sample	KWG1904504-3	81

Surrogate Recovery Control Limits (%)

Sur1 = Decachlorobiphenyl 43-148

Results flagged with an asterisk (*) indicate values outside control criteria.
 Results flagged with a pound (#) indicate the control criteria is not applicable.

QA/QC Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649
Date Extracted: 10/16/2019
Date Analyzed: 10/18/2019

Matrix Spike/Duplicate Matrix Spike Summary
Polychlorinated Biphenyls (PCBs)

Sample Name: Muriate of Potash 0-0-60
Lab Code: K1909649-002
Extraction Method: EPA 3541
Analysis Method: 8082A

Units: ug/Kg
Basis: Dry
Level: Low
Extraction Lot: KWG1904500

Analyte Name	Sample Result	Muriate of Potash 0-0-60MS KWG1904500-1 Matrix Spike			Muriate of Potash 0-0-60DMS KWG1904500-2 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Spike Amount	%Rec	Result	Spike Amount	%Rec			
Aroclor 1016	ND	89.8	99.7	90	69.3	87.5	79	23-145	26	40
Aroclor 1260	ND	104	99.7	104	80.0	87.5	91	24-148	26	40

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649
Date Extracted: 10/17/2019
Date Analyzed: 10/23/2019

Matrix Spike/Duplicate Matrix Spike Summary
Polychlorinated Biphenyls (PCBs)

Sample Name: Landfill Ash 5-13-19
Lab Code: K1909649-004
Extraction Method: EPA 3541
Analysis Method: 8082A

Units: ug/Kg
Basis: Dry
Level: Low
Extraction Lot: KWG1904504

Analyte Name	Sample Result	Landfill Ash 5-13-19MS KWG1904504-1 Matrix Spike			Landfill Ash 5-13-19DMS KWG1904504-2 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Spike Amount	%Rec	Result	Spike Amount	%Rec			
Aroclor 1016	ND	188	263	71	177	265	67	23-145	6	40
Aroclor 1260	ND	221	263	84	206	265	78	24-148	7	40

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649
Date Extracted: 10/16/2019
Date Analyzed: 10/18/2019

Lab Control Spike Summary
Polychlorinated Biphenyls (PCBs)

Extraction Method: EPA 3541
Analysis Method: 8082A

Units: ug/Kg
Basis: Dry
Level: Low
Extraction Lot: KWG1904500

Lab Control Sample
 KWG1904500-3
Lab Control Spike

Analyte Name	Result	Spike Amount	%Rec	%Rec Limits
Aroclor 1016	87.3	100	87	42-122
Aroclor 1260	99.5	100	100	50-124

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649
Date Extracted: 10/17/2019
Date Analyzed: 10/23/2019

Lab Control Spike Summary
Polychlorinated Biphenyls (PCBs)

Extraction Method: EPA 3541
Analysis Method: 8082A

Units: ug/Kg
Basis: Dry
Level: Low
Extraction Lot: KWG1904504

Lab Control Sample
 KWG1904504-3
Lab Control Spike

Analyte Name	Result	Spike Amount	%Rec	%Rec Limits
Aroclor 1016	149	200	74	42-122
Aroclor 1260	167	200	83	50-124

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649
Date Extracted: 10/16/2019
Date Analyzed: 10/18/2019
Time Analyzed: 19:48

Method Blank Summary
Polychlorinated Biphenyls (PCBs)

Sample Name: Method Blank
Lab Code: KWG1904500-4
Extraction Method: EPA 3541
Analysis Method: 8082A

Instrument ID: GC27.i
File ID: J:\GC27\DATA\101819.B\1018F015.D
Level: Low
Extraction Lot: KWG1904500

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG1904500-3	J:\GC27\DATA\101819.B\1018F016.D	10/18/19	20:20
Muriate of Potash 0-0-60	K1909649-002	J:\GC27\DATA\101819.B\1018F017.D	10/18/19	20:52
Muriate of Potash 0-0-60MS	KWG1904500-1	J:\GC27\DATA\101819.B\1018F018.D	10/18/19	21:23
Muriate of Potash 0-0-60DMS	KWG1904500-2	J:\GC27\DATA\101819.B\1018F019.D	10/18/19	21:55
TSP 052419	K1909649-003	J:\GC27\DATA\101819.B\1018F020.D	10/18/19	22:27
Biosolids B	K1909649-005	J:\GC27\DATA\102319.B\1023F025.D	10/23/19	23:19

QA/QC Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649
Date Extracted: 10/17/2019
Date Analyzed: 10/23/2019
Time Analyzed: 12:48

Method Blank Summary
Polychlorinated Biphenyls (PCBs)

Sample Name: Method Blank
Lab Code: KWG1904504-4
Extraction Method: EPA 3541
Analysis Method: 8082A

Instrument ID: GC27.i
File ID: J:\GC27\DATA\102319.B\1023F005.D
Level: Low
Extraction Lot: KWG1904504

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG1904504-3	J:\GC27\DATA\102319.B\1023F006.D	10/23/19	13:19
Landfill Ash 5-13-19	K1909649-004	J:\GC27\DATA\102319.B\1023F007.D	10/23/19	13:51
Landfill Ash 5-13-19MS	KWG1904504-1	J:\GC27\DATA\102319.B\1023F008.D	10/23/19	14:23
Landfill Ash 5-13-19DMS	KWG1904504-2	J:\GC27\DATA\102319.B\1023F009.D	10/23/19	14:54

QA/QC Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649
Date Extracted: 10/16/2019
Date Analyzed: 10/18/2019
Time Analyzed: 20:20

Lab Control Sample Summary
Polychlorinated Biphenyls (PCBs)

Sample Name: Lab Control Sample
Lab Code: KWG1904500-3
Extraction Method: EPA 3541
Analysis Method: 8082A

Instrument ID: GC27.i
File ID: J:\GC27\DATA\101819.B\1018F016.D
Level: Low
Extraction Lot: KWG1904500

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Method Blank	KWG1904500-4	J:\GC27\DATA\101819.B\1018F015.D	10/18/19	19:48
Muriate of Potash 0-0-60	K1909649-002	J:\GC27\DATA\101819.B\1018F017.D	10/18/19	20:52
Muriate of Potash 0-0-60MS	KWG1904500-1	J:\GC27\DATA\101819.B\1018F018.D	10/18/19	21:23
Muriate of Potash 0-0-60DMS	KWG1904500-2	J:\GC27\DATA\101819.B\1018F019.D	10/18/19	21:55
TSP 052419	K1909649-003	J:\GC27\DATA\101819.B\1018F020.D	10/18/19	22:27
Biosolids B	K1909649-005	J:\GC27\DATA\102319.B\1023F025.D	10/23/19	23:19

QA/QC Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649
Date Extracted: 10/17/2019
Date Analyzed: 10/23/2019
Time Analyzed: 13:19

Lab Control Sample Summary
Polychlorinated Biphenyls (PCBs)

Sample Name: Lab Control Sample
Lab Code: KWG1904504-3
Extraction Method: EPA 3541
Analysis Method: 8082A

Instrument ID: GC27.i
File ID: J:\GC27\DATA\102319.B\1023F006.D
Level: Low
Extraction Lot: KWG1904504

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Method Blank	KWG1904504-4	J:\GC27\DATA\102319.B\1023F005.D	10/23/19	12:48
Landfill Ash 5-13-19	K1909649-004	J:\GC27\DATA\102319.B\1023F007.D	10/23/19	13:51
Landfill Ash 5-13-19MS	KWG1904504-1	J:\GC27\DATA\102319.B\1023F008.D	10/23/19	14:23
Landfill Ash 5-13-19DMS	KWG1904504-2	J:\GC27\DATA\102319.B\1023F009.D	10/23/19	14:54

Client: Ramboll US Corporation
 Project: SATES

Service Request: K1909649
 Calibration Date: 09/04/2019

**Initial Calibration Summary
 Polychlorinated Biphenyls (PCBs)**

Calibration ID: CAL16127
 Instrument ID: GC27.i

Column: DB-35MS

Level ID	File ID	Level ID	File ID
A	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F005.D	V	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F026.D
B	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F006.D	W	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F027.D
C	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F007.D	X	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F028.D
D	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F008.D	Y	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F033.D
E	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F009.D	Z	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F034.D
F	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F010.D	AA	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F035.D
G	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F011.D	AB	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F036.D
H	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F012.D	AC	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F037.D
I	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F013.D	AD	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F038.D
J	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F014.D	AE	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F039.D
K	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F015.D	AF	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F040.D
L	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F016.D	AG	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F041.D
M	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F017.D	AH	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F042.D
N	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F018.D	AI	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F043.D
O	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F019.D	AJ	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F044.D
P	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F020.D	AK	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F009.D
Q	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F021.D	AL	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F010.D
R	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F022.D	AM	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F011.D
S	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F023.D	AN	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F012.D
T	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F024.D		
U	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F025.D		

Analyte Name	Level ID			Level ID			Level ID			Level ID			Level ID		
	ID	Amt	RF	ID	Amt	RF	ID	Amt	RF	ID	Amt	RF	ID	Amt	RF
Decachlorobiphenyl	A	0.10	1.23E+6	B	0.20	1.17E+6	C	0.50	1.10E+6	D	1.0	1.11E+6	E	2.0	1.14E+6
	F	5.0	1.05E+6	G	10	9.84E+5	H	20	9.51E+5						
Aroclor 1016 {1}	A	1.0	39400	B	2.0	35500	C	5.0	32500	D	10	35200	E	20	35700
	F	50	32900	G	100	31400	H	200	30300						
Aroclor 1016 {2}	A	1.0	31700	B	2.0	29200	C	5.0	26900	D	10	28300	E	20	29300
	F	50	27500	G	100	26100	H	200	25000						
Aroclor 1016 {3}	A	1.0	92700	B	2.0	97900	C	5.0	83800	D	10	85000	E	20	90000
	F	50	86200	G	100	80100	H	200	79700						
Aroclor 1016 {4}	A	1.0	51300	B	2.0	53400	C	5.0	52500	D	10	53400	E	20	54900
	F	50	51000	G	100	47600	H	200	46300						
Aroclor 1016 {5}	A	1.0	36000	B	2.0	34900	C	5.0	35600	D	10	36700	E	20	37600
	F	50	35100	G	100	33200	H	200	32100						
Aroclor 1260 {1}	A	1.0	35400	B	2.0	35400	C	5.0	31900	D	10	33900	E	20	34900
	F	50	32900	G	100	32000	H	200	31600						
Aroclor 1260 {2}	A	1.0	48500	B	2.0	46000	C	5.0	44700	D	10	47300	E	20	50200
	F	50	47300	G	100	44900	H	200	43900						

Results flagged with an asterisk (*) indicate values outside control criteria.

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909649
Calibration Date: 09/04/2019

Initial Calibration Summary
Polychlorinated Biphenyls (PCBs)

Calibration ID: CAL16127
Instrument ID: GC27.i

Column: DB-35MS

Analyte Name	Level ID			Level ID			Level ID			Level ID					
	Amt	RF		Amt	RF		Amt	RF		Amt	RF				
Aroclor 1260 {3}	A	1.0	54100	B	2.0	50400	C	5.0	49200	D	10	51700	E	20	52700
	F	50	49600	G	100	47300	H	200	46200						
Aroclor 1260 {4}	A	1.0	1.21E+5	B	2.0	1.07E+5	C	5.0	1.03E+5	D	10	1.07E+5	E	20	1.10E+5
	F	50	1.03E+5	G	100	99200	H	200	99100						
Aroclor 1260 {5}	A	1.0	89800	B	2.0	81800	C	5.0	77900	D	10	81000	E	20	81300
	F	50	76900	G	100	73500	H	200	72700						

Results flagged with an asterisk (*) indicate values outside control criteria.

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909649
Calibration Date: 09/04/2019

Initial Calibration Summary
Polychlorinated Biphenyls (PCBs)

Calibration ID: CAL16127
Instrument ID: GC27.i

Column: DB-35MS

Analyte Name	Compound Type	Calibration Evaluation				
		Fit Type	Eval.	Eval. Result	Q	Control Criteria
Decachlorobiphenyl	SURR	AverageRF	% RSD	8.4		≤ 20
Aroclor 1016 {1}	MULTI	AverageRF	% RSD	8.5		≤ 20
Aroclor 1016 {2}	MULTI	AverageRF	% RSD	7.5		≤ 20
Aroclor 1016 {3}	MULTI	AverageRF	% RSD	7.2		≤ 20
Aroclor 1016 {4}	MULTI	AverageRF	% RSD	5.8		≤ 20
Aroclor 1016 {5}	MULTI	AverageRF	% RSD	5.1		≤ 20
Aroclor 1260 {1}	MULTI	AverageRF	% RSD	4.9		≤ 20
Aroclor 1260 {2}	MULTI	AverageRF	% RSD	4.6		≤ 20
Aroclor 1260 {3}	MULTI	AverageRF	% RSD	5.3		≤ 20
Aroclor 1260 {4}	MULTI	AverageRF	% RSD	6.7		≤ 20
Aroclor 1260 {5}	MULTI	AverageRF	% RSD	6.9		≤ 20

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909649
Calibration Date: 09/04/2019
Date Analyzed: 09/05/2019

Second Source Calibration Verification
Polychlorinated Biphenyls (PCBs)

Calibration Type: External Standard
Analysis Method: 8082A

Calibration ID: CAL16127
Units: ng/mL

File ID: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F045.D
 \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F046.D
 \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F047.D
 \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F049.D
 \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F050.D
 \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F051.D
 \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F052.D
 \\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F013.D
 \\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F014.D

Column ID: DB-35MS

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Aroclor 1016 {1}	20	20	34100	33400	-2	NA	± 100 %	AverageRF
Aroclor 1016 {2}	20	18	28000	25600	-9	NA	± 100 %	AverageRF
Aroclor 1016 {3}	20	18	86900	78700	-9	NA	± 100 %	AverageRF
Aroclor 1016 {4}	20	18	51300	47100	-8	NA	± 100 %	AverageRF
Aroclor 1016 {5}	20	18	35100	31700	-10	NA	± 100 %	AverageRF
Aroclor 1016	20	18	NA	NA	NA	-8	± 20 %	NA
Aroclor 1260 {1}	20	17	33500	28900	-14	NA	± 100 %	AverageRF
Aroclor 1260 {2}	20	22	46600	50500	8	NA	± 100 %	AverageRF
Aroclor 1260 {3}	20	20	50200	51200	2	NA	± 100 %	AverageRF
Aroclor 1260 {4}	20	20	106000	107000	0	NA	± 100 %	AverageRF
Aroclor 1260 {5}	20	19	79400	76800	-3	NA	± 100 %	AverageRF
Aroclor 1260	20	20	NA	NA	NA	-1	± 20 %	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

Client: Ramboll US Corporation
 Project: SATES

Service Request: K1909649
 Calibration Date: 09/04/2019

**Initial Calibration Summary
 Polychlorinated Biphenyls (PCBs)**

Calibration ID: CAL16127
 Instrument ID: GC27.i

Column: DB-XLB

Level ID	File ID	Level ID	File ID
A	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F005.D	V	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F026.D
B	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F006.D	W	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F027.D
C	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F007.D	X	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F028.D
D	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F008.D	Y	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F033.D
E	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F009.D	Z	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F034.D
F	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F010.D	AA	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F035.D
G	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F011.D	AB	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F036.D
H	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F012.D	AC	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F037.D
I	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F013.D	AD	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F038.D
J	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F014.D	AE	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F039.D
K	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F015.D	AF	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F040.D
L	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F016.D	AG	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F041.D
M	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F017.D	AH	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F042.D
N	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F018.D	AI	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F043.D
O	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F019.D	AJ	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F044.D
P	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F020.D	AK	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F009.D
Q	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F021.D	AL	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F010.D
R	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F022.D	AM	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F011.D
S	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F023.D	AN	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F012.D
T	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F024.D		
U	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F025.D		

Analyte Name	Level ID			Level ID			Level ID			Level ID			Level ID		
	Level ID	Amt	RF	Level ID	Amt	RF	Level ID	Amt	RF	Level ID	Amt	RF	Level ID	Amt	RF
Decachlorobiphenyl	A	0.10	4.62E+5	B	0.20	4.97E+5	C	0.50	4.53E+5	D	1.0	4.84E+5	E	2.0	4.96E+5
	F	5.0	4.31E+5	G	10	3.89E+5	H	20	3.60E+5						
Aroclor 1016 {1}	A	1.0	16100	B	2.0	14200	C	5.0	13800	D	10	14700	E	20	16600
	F	50	15800	G	100	15000	H	200	14200						
Aroclor 1016 {2}	A	1.0	23800	B	2.0	22200	C	5.0	21100	D	10	22900	E	20	24400
	F	50	22500	G	100	20600	H	200	19300						
Aroclor 1016 {3}	A	1.0	22100	B	2.0	23700	C	5.0	23700	D	10	25800	E	20	27200
	F	50	25400	G	100	23000	H	200	21900						
Aroclor 1016 {4}	A	1.0	20500	B	2.0	18200	C	5.0	16800	D	10	17800	E	20	19400
	F	50	17900	G	100	16500	H	200	15400						
Aroclor 1016 {5}	A	1.0	18300	B	2.0	16000	C	5.0	16300	D	10	17500	E	20	18600
	F	50	17200	G	100	15900	H	200	15000						
Aroclor 1260 {1}	A	1.0	13200	B	2.0	13400	C	5.0	14000	D	10	15100	E	20	15800
	F	50	15100	G	100	13700	H	200	13100						
Aroclor 1260 {2}	A	1.0	29200	B	2.0	26700	C	5.0	22500	D	10	22700	E	20	23400
	F	50	21200	G	100	19200	H	200	18500						

Results flagged with an asterisk (*) indicate values outside control criteria.

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909649
Calibration Date: 09/04/2019

Initial Calibration Summary
Polychlorinated Biphenyls (PCBs)

Calibration ID: CAL16127
Instrument ID: GC27.i

Column: DB-XLB

Analyte Name	Level			Level			Level			Level					
	ID	Amt	RF	ID	Amt	RF	ID	Amt	RF	ID	Amt	RF			
Aroclor 1260 {3}	A	1.0	26800	B	2.0	24400	C	5.0	22900	D	10	23200	E	20	23600
	F	50	21600	G	100	19500	H	200	18200						
Aroclor 1260 {4}	A	1.0	57100	B	2.0	51900	C	5.0	49800	D	10	50300	E	20	50400
	F	50	44200	G	100	39600	H	200	36900						
Aroclor 1260 {5}	A	1.0	30900	B	2.0	27800	C	5.0	30800	D	10	32300	E	20	33000
	F	50	29500	G	100	26700	H	200	24500						

Results flagged with an asterisk (*) indicate values outside control criteria.

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909649
Calibration Date: 09/04/2019

Initial Calibration Summary
Polychlorinated Biphenyls (PCBs)

Calibration ID: CAL16127
Instrument ID: GC27.i

Column: DB-XLB

Analyte Name	Compound Type	Calibration Evaluation				
		Fit Type	Eval.	Eval. Result	Q	Control Criteria
Decachlorobiphenyl	SURR	AverageRF	% RSD	11.3		≤ 20
Aroclor 1016 {1}	MULTI	AverageRF	% RSD	6.8		≤ 20
Aroclor 1016 {2}	MULTI	AverageRF	% RSD	7.8		≤ 20
Aroclor 1016 {3}	MULTI	AverageRF	% RSD	7.8		≤ 20
Aroclor 1016 {4}	MULTI	AverageRF	% RSD	9.0		≤ 20
Aroclor 1016 {5}	MULTI	AverageRF	% RSD	7.5		≤ 20
Aroclor 1260 {1}	MULTI	AverageRF	% RSD	7.1		≤ 20
Aroclor 1260 {2}	MULTI	AverageRF	% RSD	15.6		≤ 20
Aroclor 1260 {3}	MULTI	AverageRF	% RSD	12.1		≤ 20
Aroclor 1260 {4}	MULTI	AverageRF	% RSD	14.2		≤ 20
Aroclor 1260 {5}	MULTI	AverageRF	% RSD	9.8		≤ 20

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909649
Calibration Date: 09/04/2019
Date Analyzed: 09/05/2019

Second Source Calibration Verification
Polychlorinated Biphenyls (PCBs)

Calibration Type: External Standard
Analysis Method: 8082A

Calibration ID: CAL16127
Units: ng/mL

File ID: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F045.D
 \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F046.D
 \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F047.D
 \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F049.D
 \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F050.D
 \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F051.D
 \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F052.D
 \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F013.D
 \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F014.D

Column ID: DB-XLB

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Aroclor 1016 {1}	20	21	15100	15500	3	NA	± 100 %	AverageRF
Aroclor 1016 {2}	20	20	22100	21600	-2	NA	± 100 %	AverageRF
Aroclor 1016 {3}	20	20	24100	24200	0	NA	± 100 %	AverageRF
Aroclor 1016 {4}	20	19	17800	17000	-4	NA	± 100 %	AverageRF
Aroclor 1016 {5}	20	20	16800	16800	0	NA	± 100 %	AverageRF
Aroclor 1016	20	20	NA	NA	NA	-1	± 20 %	NA
Aroclor 1260 {1}	20	21	14200	15000	6	NA	± 100 %	AverageRF
Aroclor 1260 {2}	20	21	22900	24600	7	NA	± 100 %	AverageRF
Aroclor 1260 {3}	20	21	22500	23400	4	NA	± 100 %	AverageRF
Aroclor 1260 {4}	20	20	47500	48700	2	NA	± 100 %	AverageRF
Aroclor 1260 {5}	20	20	29400	30000	2	NA	± 100 %	AverageRF
Aroclor 1260	20	21	NA	NA	NA	4	± 20 %	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

QA/QC Results

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909649
Date Analyzed: 10/18/2019

Continuing Calibration Verification Summary
Polychlorinated Biphenyls (PCBs)

Calibration Type: External Standard
Analysis Method: 8082A

Calibration Date: 09/04/2019
Calibration ID: CAL16127
Analysis Lot: KWG1904567
Units: ng/mL
Column ID: DB-35MS

File ID: \\ALKLSWS002\INSTDATA\GC27\DATA\101819.B\1018F013.D

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	2.0	2.2	1090000	1190000	9	NA	± 20	AverageRF
Aroclor 1016 {1}	20	22	34100	37700	11	NA	± 100	AverageRF
Aroclor 1016 {2}	20	23	28000	31700	13	NA	± 100	AverageRF
Aroclor 1016 {3}	20	20	86900	86400	-1	NA	± 100	AverageRF
Aroclor 1016 {4}	20	21	51300	54600	6	NA	± 100	AverageRF
Aroclor 1016 {5}	20	22	35100	39200	11	NA	± 100	AverageRF
Aroclor 1016	20	22	NA	NA	NA	8	± 20	NA
Aroclor 1260 {1}	20	22	33500	37500	12	NA	± 100	AverageRF
Aroclor 1260 {2}	20	24	46600	55500	19	NA	± 100	AverageRF
Aroclor 1260 {3}	20	24	50200	59100	18	NA	± 100	AverageRF
Aroclor 1260 {4}	20	23	106000	122000	15	NA	± 100	AverageRF
Aroclor 1260 {5}	20	23	79400	91000	15	NA	± 100	AverageRF
Aroclor 1260	20	23	NA	NA	NA	16	± 20	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909649
Date Analyzed: 10/18/2019

Continuing Calibration Verification Summary
Polychlorinated Biphenyls (PCBs)

Calibration Type: External Standard
Analysis Method: 8082A

Calibration Date: 09/04/2019
Calibration ID: CAL16127
Analysis Lot: KWG1904567
Units: ng/mL
Column ID: DB-XLB

File ID: \\ALKLSWS002\INSTDATA\GC27\DATA\101819_R.B\1018F013.D

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	2.0	1.9	446000	435000	-3	NA	± 20	AverageRF
Aroclor 1016 {1}	20	19	15100	14100	-6	NA	± 100	AverageRF
Aroclor 1016 {2}	20	22	22100	23800	8	NA	± 100	AverageRF
Aroclor 1016 {3}	20	19	24100	23200	-4	NA	± 100	AverageRF
Aroclor 1016 {4}	20	19	17800	17200	-4	NA	± 100	AverageRF
Aroclor 1016 {5}	20	20	16800	17000	1	NA	± 100	AverageRF
Aroclor 1016	20	20	NA	NA	NA	-1	± 20	NA
Aroclor 1260 {1}	20	22	14200	15900	12	NA	± 100	AverageRF
Aroclor 1260 {2}	20	20	22900	22900	0	NA	± 100	AverageRF
Aroclor 1260 {3}	20	21	22500	23200	3	NA	± 100	AverageRF
Aroclor 1260 {4}	20	20	47500	47500	0	NA	± 100	AverageRF
Aroclor 1260 {5}	20	21	29400	30500	4	NA	± 100	AverageRF
Aroclor 1260	20	21	NA	NA	NA	4	± 20	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909649
Date Analyzed: 10/19/2019

Continuing Calibration Verification Summary
Polychlorinated Biphenyls (PCBs)

Calibration Type: External Standard
Analysis Method: 8082A

Calibration Date: 09/04/2019
Calibration ID: CAL16127
Analysis Lot: KWG1904567
Units: ng/mL
Column ID: DB-35MS

File ID: \\ALKLSWS002\INSTDATA\GC27\DATA\101819.B\1018F027.D

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	2.0	2.3	1090000	1250000	14	NA	± 20	AverageRF
Aroclor 1016 {1}	20	24	34100	40500	19	NA	± 100	AverageRF
Aroclor 1016 {2}	20	24	28000	33900	21	NA	± 100	AverageRF
Aroclor 1016 {3}	20	22	86900	96000	10	NA	± 100	AverageRF
Aroclor 1016 {4}	20	23	51300	57900	13	NA	± 100	AverageRF
Aroclor 1016 {5}	20	24	35100	42000	20	NA	± 100	AverageRF
Aroclor 1016	20	23	NA	NA	NA	17	± 20	NA
Aroclor 1260 {1}	20	23	33500	38700	15	NA	± 100	AverageRF
Aroclor 1260 {2}	20	25	46600	58300	25	NA	± 100	AverageRF
Aroclor 1260 {3}	20	25	50200	61900	24	NA	± 100	AverageRF
Aroclor 1260 {4}	20	24	106000	129000	21	NA	± 100	AverageRF
Aroclor 1260 {5}	20	24	79400	94100	19	NA	± 100	AverageRF
Aroclor 1260	20	24	NA	NA	NA	21 *	± 20	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909649
Date Analyzed: 10/19/2019

Continuing Calibration Verification Summary
Polychlorinated Biphenyls (PCBs)

Calibration Type: External Standard
Analysis Method: 8082A

Calibration Date: 09/04/2019
Calibration ID: CAL16127
Analysis Lot: KWG1904567
Units: ng/mL
Column ID: DB-XLB

File ID: \\ALKLSWS002\INSTDATA\GC27\DATA\101819_R.B\1018F027.D

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	2.0	2.0	446000	438000	-2	NA	± 20	AverageRF
Aroclor 1016 {1}	20	21	15100	16100	7	NA	± 100	AverageRF
Aroclor 1016 {2}	20	23	22100	25000	13	NA	± 100	AverageRF
Aroclor 1016 {3}	20	21	24100	24800	3	NA	± 100	AverageRF
Aroclor 1016 {4}	20	21	17800	18600	5	NA	± 100	AverageRF
Aroclor 1016 {5}	20	22	16800	18200	8	NA	± 100	AverageRF
Aroclor 1016	20	21	NA	NA	NA	7	± 20	NA
Aroclor 1260 {1}	20	23	14200	16100	13	NA	± 100	AverageRF
Aroclor 1260 {2}	20	20	22900	23200	1	NA	± 100	AverageRF
Aroclor 1260 {3}	20	21	22500	23600	5	NA	± 100	AverageRF
Aroclor 1260 {4}	20	20	47500	47900	1	NA	± 100	AverageRF
Aroclor 1260 {5}	20	21	29400	30500	3	NA	± 100	AverageRF
Aroclor 1260	20	21	NA	NA	NA	5	± 20	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909649
Date Analyzed: 10/23/2019

Continuing Calibration Verification Summary
Polychlorinated Biphenyls (PCBs)

Calibration Type: External Standard
Analysis Method: 8082A

Calibration Date: 09/04/2019
Calibration ID: CAL16127
Analysis Lot: KWG1904604
Units: ng/mL
Column ID: DB-35MS

File ID: \\ALKLSWS002\INSTDATA\GC27\DATA\102319.B\1023F003.D

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	2.0	2.0	1090000	1090000	0	NA	± 20	AverageRF
Aroclor 1016 {1}	20	21	34100	35100	3	NA	± 100	AverageRF
Aroclor 1016 {2}	20	21	28000	29300	5	NA	± 100	AverageRF
Aroclor 1016 {3}	20	19	86900	81000	-7	NA	± 100	AverageRF
Aroclor 1016 {4}	20	19	51300	49700	-3	NA	± 100	AverageRF
Aroclor 1016 {5}	20	20	35100	35600	1	NA	± 100	AverageRF
Aroclor 1016	20	20	NA	NA	NA	0	± 20	NA
Aroclor 1260 {1}	20	21	33500	34900	4	NA	± 100	AverageRF
Aroclor 1260 {2}	20	22	46600	51100	10	NA	± 100	AverageRF
Aroclor 1260 {3}	20	22	50200	54700	9	NA	± 100	AverageRF
Aroclor 1260 {4}	20	21	106000	112000	6	NA	± 100	AverageRF
Aroclor 1260 {5}	20	21	79400	82800	4	NA	± 100	AverageRF
Aroclor 1260	20	21	NA	NA	NA	7	± 20	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909649
Date Analyzed: 10/23/2019

Continuing Calibration Verification Summary
Polychlorinated Biphenyls (PCBs)

Calibration Type: External Standard
Analysis Method: 8082A

Calibration Date: 09/04/2019
Calibration ID: CAL16127
Analysis Lot: KWG1904604
Units: ng/mL
Column ID: DB-XLB

File ID: \\ALKLSWS002\INSTDATA\GC27\DATA\102319_R.B\1023F003.D

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	2.0	1.8	446000	408000	-9	NA	± 20	AverageRF
Aroclor 1016 {1}	20	17	15100	12700	-15	NA	± 100	AverageRF
Aroclor 1016 {2}	20	19	22100	20800	-6	NA	± 100	AverageRF
Aroclor 1016 {3}	20	17	24100	21100	-13	NA	± 100	AverageRF
Aroclor 1016 {4}	20	17	17800	15300	-14	NA	± 100	AverageRF
Aroclor 1016 {5}	20	18	16800	15100	-10	NA	± 100	AverageRF
Aroclor 1016	20	18	NA	NA	NA	-12	± 20	NA
Aroclor 1260 {1}	20	20	14200	14100	0	NA	± 100	AverageRF
Aroclor 1260 {2}	20	18	22900	21000	-8	NA	± 100	AverageRF
Aroclor 1260 {3}	20	19	22500	21800	-3	NA	± 100	AverageRF
Aroclor 1260 {4}	20	19	47500	44900	-5	NA	± 100	AverageRF
Aroclor 1260 {5}	20	20	29400	28700	-2	NA	± 100	AverageRF
Aroclor 1260	20	19	NA	NA	NA	-4	± 20	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909649
Date Analyzed: 10/23/2019

Continuing Calibration Verification Summary
Polychlorinated Biphenyls (PCBs)

Calibration Type: External Standard
Analysis Method: 8082A

Calibration Date: 09/04/2019
Calibration ID: CAL16127
Analysis Lot: KWG1904604
Units: ng/mL
Column ID: DB-35MS

File ID: \\ALKLSWS002\INSTDATA\GC27\DATA\102319.B\1023F010.D

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	2.0	2.1	1090000	1160000	7	NA	± 20	AverageRF
Aroclor 1016 {1}	20	21	34100	35700	4	NA	± 100	AverageRF
Aroclor 1016 {2}	20	21	28000	29600	6	NA	± 100	AverageRF
Aroclor 1016 {3}	20	19	86900	81200	-7	NA	± 100	AverageRF
Aroclor 1016 {4}	20	20	51300	51700	1	NA	± 100	AverageRF
Aroclor 1016 {5}	20	21	35100	37200	6	NA	± 100	AverageRF
Aroclor 1016	20	20	NA	NA	NA	2	± 20	NA
Aroclor 1260 {1}	20	21	33500	35400	6	NA	± 100	AverageRF
Aroclor 1260 {2}	20	23	46600	52900	14	NA	± 100	AverageRF
Aroclor 1260 {3}	20	23	50200	56700	13	NA	± 100	AverageRF
Aroclor 1260 {4}	20	22	106000	118000	11	NA	± 100	AverageRF
Aroclor 1260 {5}	20	22	79400	87600	10	NA	± 100	AverageRF
Aroclor 1260	20	22	NA	NA	NA	11	± 20	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909649
Date Analyzed: 10/23/2019

Continuing Calibration Verification Summary
Polychlorinated Biphenyls (PCBs)

Calibration Type: External Standard
Analysis Method: 8082A

Calibration Date: 09/04/2019
Calibration ID: CAL16127
Analysis Lot: KWG1904604
Units: ng/mL
Column ID: DB-XLB

File ID: \\ALKLSWS002\INSTDATA\GC27\DATA\102319_R.B\1023F010.D

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	2.0	1.9	446000	414000	-7	NA	± 20	AverageRF
Aroclor 1016 {1}	20	19	15100	14000	-7	NA	± 100	AverageRF
Aroclor 1016 {2}	20	20	22100	22000	0	NA	± 100	AverageRF
Aroclor 1016 {3}	20	19	24100	22500	-7	NA	± 100	AverageRF
Aroclor 1016 {4}	20	18	17800	16400	-8	NA	± 100	AverageRF
Aroclor 1016 {5}	20	19	16800	16100	-4	NA	± 100	AverageRF
Aroclor 1016	20	19	NA	NA	NA	-5	± 20	NA
Aroclor 1260 {1}	20	20	14200	14400	2	NA	± 100	AverageRF
Aroclor 1260 {2}	20	19	22900	21700	-5	NA	± 100	AverageRF
Aroclor 1260 {3}	20	20	22500	22000	-2	NA	± 100	AverageRF
Aroclor 1260 {4}	20	19	47500	45400	-4	NA	± 100	AverageRF
Aroclor 1260 {5}	20	20	29400	29200	-1	NA	± 100	AverageRF
Aroclor 1260	20	20	NA	NA	NA	-2	± 20	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909649
Date Analyzed: 10/23/2019

Continuing Calibration Verification Summary
Polychlorinated Biphenyls (PCBs)

Calibration Type: External Standard
Analysis Method: 8082A

Calibration Date: 09/04/2019
Calibration ID: CAL16127
Analysis Lot: KWG1904604
Units: ng/mL
Column ID: DB-35MS

File ID: \\ALKLSWS002\INSTDATA\GC27\DATA\102319.B\1023F021.D

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	2.0	2.2	1090000	1200000	10	NA	± 20	AverageRF
Aroclor 1016 {1}	20	22	34100	36900	8	NA	± 100	AverageRF
Aroclor 1016 {2}	20	22	28000	31100	11	NA	± 100	AverageRF
Aroclor 1016 {3}	20	20	86900	85400	-2	NA	± 100	AverageRF
Aroclor 1016 {4}	20	21	51300	53400	4	NA	± 100	AverageRF
Aroclor 1016 {5}	20	22	35100	38400	9	NA	± 100	AverageRF
Aroclor 1016	20	21	NA	NA	NA	6	± 20	NA
Aroclor 1260 {1}	20	22	33500	36300	8	NA	± 100	AverageRF
Aroclor 1260 {2}	20	23	46600	54800	17	NA	± 100	AverageRF
Aroclor 1260 {3}	20	23	50200	58900	17	NA	± 100	AverageRF
Aroclor 1260 {4}	20	23	106000	123000	16	NA	± 100	AverageRF
Aroclor 1260 {5}	20	23	79400	90600	14	NA	± 100	AverageRF
Aroclor 1260	20	23	NA	NA	NA	15	± 20	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909649
Date Analyzed: 10/23/2019

Continuing Calibration Verification Summary
Polychlorinated Biphenyls (PCBs)

Calibration Type: External Standard
Analysis Method: 8082A

Calibration Date: 09/04/2019
Calibration ID: CAL16127
Analysis Lot: KWG1904604
Units: ng/mL
Column ID: DB-XLB

File ID: \\ALKLSWS002\INSTDATA\GC27\DATA\102319_R.B\1023F021.D

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	2.0	2.0	446000	445000	0	NA	± 20	AverageRF
Aroclor 1016 {1}	20	18	15100	13800	-9	NA	± 100	AverageRF
Aroclor 1016 {2}	20	20	22100	22400	2	NA	± 100	AverageRF
Aroclor 1016 {3}	20	19	24100	22300	-7	NA	± 100	AverageRF
Aroclor 1016 {4}	20	19	17800	16500	-7	NA	± 100	AverageRF
Aroclor 1016 {5}	20	20	16800	16500	-2	NA	± 100	AverageRF
Aroclor 1016	20	19	NA	NA	NA	-5	± 20	NA
Aroclor 1260 {1}	20	21	14200	15000	6	NA	± 100	AverageRF
Aroclor 1260 {2}	20	20	22900	22800	0	NA	± 100	AverageRF
Aroclor 1260 {3}	20	20	22500	23000	2	NA	± 100	AverageRF
Aroclor 1260 {4}	20	20	47500	47800	1	NA	± 100	AverageRF
Aroclor 1260 {5}	20	21	29400	30500	4	NA	± 100	AverageRF
Aroclor 1260	20	20	NA	NA	NA	2	± 20	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909649
Date Analyzed: 10/23/2019

Continuing Calibration Verification Summary
Polychlorinated Biphenyls (PCBs)

Calibration Type: External Standard
Analysis Method: 8082A

Calibration Date: 09/04/2019
Calibration ID: CAL16127
Analysis Lot: KWG1904604
Units: ng/mL
Column ID: DB-35MS

File ID: \\ALKLSWS002\INSTDATA\GC27\DATA\102319.B\1023F026.D

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	2.0	2.5	1090000	1340000	23 *	NA	± 20	AverageRF
Aroclor 1016 {1}	20	22	34100	37400	10	NA	± 100	AverageRF
Aroclor 1016 {2}	20	22	28000	31000	11	NA	± 100	AverageRF
Aroclor 1016 {3}	20	20	86900	86500	-1	NA	± 100	AverageRF
Aroclor 1016 {4}	20	21	51300	53800	5	NA	± 100	AverageRF
Aroclor 1016 {5}	20	22	35100	38300	9	NA	± 100	AverageRF
Aroclor 1016	20	21	NA	NA	NA	7	± 20	NA
Aroclor 1260 {1}	20	22	33500	36700	9	NA	± 100	AverageRF
Aroclor 1260 {2}	20	24	46600	55700	20	NA	± 100	AverageRF
Aroclor 1260 {3}	20	24	50200	60500	21	NA	± 100	AverageRF
Aroclor 1260 {4}	20	23	106000	123000	16	NA	± 100	AverageRF
Aroclor 1260 {5}	20	23	79400	90800	14	NA	± 100	AverageRF
Aroclor 1260	20	23	NA	NA	NA	16	± 20	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909649
Date Analyzed: 10/23/2019

Continuing Calibration Verification Summary
Polychlorinated Biphenyls (PCBs)

Calibration Type: External Standard
Analysis Method: 8082A

Calibration Date: 09/04/2019
Calibration ID: CAL16127
Analysis Lot: KWG1904604
Units: ng/mL
Column ID: DB-XLB

File ID: \\ALKLSWS002\INSTDATA\GC27\DATA\102319_R.B\1023F026.D

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	2.0	2.1	446000	464000	4	NA	± 20	AverageRF
Aroclor 1016 {1}	20	18	15100	13900	-8	NA	± 100	AverageRF
Aroclor 1016 {2}	20	21	22100	23100	4	NA	± 100	AverageRF
Aroclor 1016 {3}	20	19	24100	23300	-3	NA	± 100	AverageRF
Aroclor 1016 {4}	20	19	17800	17200	-3	NA	± 100	AverageRF
Aroclor 1016 {5}	20	20	16800	16600	-1	NA	± 100	AverageRF
Aroclor 1016	20	20	NA	NA	NA	-2	± 20	NA
Aroclor 1260 {1}	20	22	14200	15300	8	NA	± 100	AverageRF
Aroclor 1260 {2}	20	20	22900	23100	1	NA	± 100	AverageRF
Aroclor 1260 {3}	20	21	22500	23900	6	NA	± 100	AverageRF
Aroclor 1260 {4}	20	20	47500	48700	2	NA	± 100	AverageRF
Aroclor 1260 {5}	20	21	29400	31000	5	NA	± 100	AverageRF
Aroclor 1260	20	21	NA	NA	NA	5	± 20	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

Client: Ramboll US Corporation
 Project: SATES

Service Request: K1909649

Analysis Run Log
 Polychlorinated Biphenyls (PCBs)

Analysis Method: 8082A

Analysis Lot: KWG1904567
 Instrument ID: GC27.i
 Column: DB-35MS

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
1018F003.D	Continuing Calibration Verification	KWG1904567-1	10/18/2019	13:29		10/18/2019	13:29
1018F004.D	Instrument Blank	KWG1904567-2	10/18/2019	14:00		10/18/2019	14:00
1018F005.D	ZZZZZZ	ZZZZZZ	10/18/2019	14:32		10/18/2019	14:32
1018F006.D	ZZZZZZ	ZZZZZZ	10/18/2019	15:03		10/18/2019	15:03
1018F007.D	ZZZZZZ	ZZZZZZ	10/18/2019	15:35		10/18/2019	15:35
1018F008.D	ZZZZZZ	ZZZZZZ	10/18/2019	16:07		10/18/2019	16:07
1018F009.D	ZZZZZZ	ZZZZZZ	10/18/2019	16:39		10/18/2019	16:39
1018F010.D	ZZZZZZ	ZZZZZZ	10/18/2019	17:10		10/18/2019	17:10
1018F011.D	ZZZZZZ	ZZZZZZ	10/18/2019	17:42		10/18/2019	17:42
1018F012.D	ZZZZZZ	ZZZZZZ	10/18/2019	18:13		10/18/2019	18:13
1018F013.D	Continuing Calibration Verification	KWG1904567-3	10/18/2019	18:45		10/18/2019	18:45
1018F014.D	Instrument Blank	KWG1904567-4	10/18/2019	19:17		10/18/2019	19:17
1018F015.D	Method Blank	KWG1904500-4	10/18/2019	19:48		10/18/2019	19:48
1018F016.D	Lab Control Sample	KWG1904500-3	10/18/2019	20:20		10/18/2019	20:20
1018F017.D	Muriate of Potash 0-0-60	K1909649-002	10/18/2019	20:52		10/18/2019	20:52
1018F018.D	Muriate of Potash 0-0-60MS	KWG1904500-1	10/18/2019	21:23		10/18/2019	21:23
1018F019.D	Muriate of Potash 0-0-60DMS	KWG1904500-2	10/18/2019	21:55		10/18/2019	21:55
1018F020.D	TSP 052419	K1909649-003	10/18/2019	22:27		10/18/2019	22:27
1018F022.D	ZZZZZZ	ZZZZZZ	10/18/2019	23:30		10/18/2019	23:30
1018F023.D	ZZZZZZ	ZZZZZZ	10/19/2019	00:01		10/19/2019	00:01
1018F024.D	ZZZZZZ	ZZZZZZ	10/19/2019	00:33		10/19/2019	00:33
1018F025.D	ZZZZZZ	ZZZZZZ	10/19/2019	01:04		10/19/2019	01:04
1018F026.D	ZZZZZZ	ZZZZZZ	10/19/2019	01:36		10/19/2019	01:36
1018F027.D	Continuing Calibration Verification	KWG1904567-5	10/19/2019	02:08		10/19/2019	02:08
1018F028.D	Instrument Blank	KWG1904567-6	10/19/2019	02:39		10/19/2019	02:39

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

Client: Ramboll US Corporation
 Project: SATES

Service Request: K1909649

Analysis Run Log
 Polychlorinated Biphenyls (PCBs)

Analysis Method: 8082A

Analysis Lot: KWG1904604
 Instrument ID: GC27.i
 Column: DB-35MS

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
1023F003.D	Continuing Calibration Verification	KWG1904604-1	10/23/2019	11:45		10/23/2019	11:45
1023F004.D	Instrument Blank	KWG1904604-2	10/23/2019	12:16		10/23/2019	12:16
1023F005.D	Method Blank	KWG1904504-4	10/23/2019	12:48		10/23/2019	12:48
1023F006.D	Lab Control Sample	KWG1904504-3	10/23/2019	13:19		10/23/2019	13:19
1023F007.D	Landfill Ash 5-13-19	K1909649-004	10/23/2019	13:51		10/23/2019	13:51
1023F008.D	Landfill Ash 5-13-19MS	KWG1904504-1	10/23/2019	14:23		10/23/2019	14:23
1023F009.D	Landfill Ash 5-13-19DMS	KWG1904504-2	10/23/2019	14:54		10/23/2019	14:54
1023F010.D	Continuing Calibration Verification	KWG1904604-3	10/23/2019	15:26		10/23/2019	15:26
1023F011.D	Instrument Blank	KWG1904604-4	10/23/2019	15:58		10/23/2019	15:58
1023F012.D	ZZZZZZ	ZZZZZZ	10/23/2019	16:29		10/23/2019	16:29
1023F013.D	ZZZZZZ	ZZZZZZ	10/23/2019	17:01		10/23/2019	17:01
1023F014.D	ZZZZZZ	ZZZZZZ	10/23/2019	17:33		10/23/2019	17:33
1023F015.D	ZZZZZZ	ZZZZZZ	10/23/2019	18:05		10/23/2019	18:05
1023F016.D	ZZZZZZ	ZZZZZZ	10/23/2019	18:36		10/23/2019	18:36
1023F017.D	ZZZZZZ	ZZZZZZ	10/23/2019	19:08		10/23/2019	19:08
1023F018.D	ZZZZZZ	ZZZZZZ	10/23/2019	19:39		10/23/2019	19:39
1023F019.D	ZZZZZZ	ZZZZZZ	10/23/2019	20:11		10/23/2019	20:11
1023F020.D	ZZZZZZ	ZZZZZZ	10/23/2019	20:42		10/23/2019	20:42
1023F021.D	Continuing Calibration Verification	KWG1904604-5	10/23/2019	21:14		10/23/2019	21:14
1023F022.D	Instrument Blank	KWG1904604-6	10/23/2019	21:45		10/23/2019	21:45
1023F025.D	Biosolids B	K1909649-005	10/23/2019	23:19		10/23/2019	23:19
1023F026.D	Continuing Calibration Verification	KWG1904604-7	10/23/2019	23:51		10/23/2019	23:51
1023F027.D	Instrument Blank	KWG1904604-8	10/24/2019	00:22		10/24/2019	00:22

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

QA/QC Results

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649
Date Extracted: 10/16/2019

Extraction Prep Log
Polychlorinated Biphenyls (PCBs)

Extraction Method: EPA 3541
Analysis Method: 8082A

Extraction Lot: KWG1904500
Level: Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
Muriate of Potash 0-0-60	K1909649-002	10/15/19	10/16/19	2.179g	8mL	99.8	
TSP 052419	K1909649-003	10/15/19	10/16/19	2.074g	8mL	98.1	
Biosolids B	K1909649-005	10/15/19	10/16/19	2.122g	8mL	95.4	
Method Blank	KWG1904500-4	NA	NA	2.290g	8mL	NA	
Muriate of Potash 0-0-60MS	KWG1904500-1	10/15/19	10/16/19	2.010g	8mL	99.8	
Muriate of Potash 0-0-60DMS	KWG1904500-2	10/15/19	10/16/19	2.290g	8mL	99.8	
Lab Control Sample	KWG1904500-3	NA	NA	2.000g	8mL	NA	

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

QA/QC Results

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649
Date Extracted: 10/17/2019

Extraction Prep Log
Polychlorinated Biphenyls (PCBs)

Extraction Method: EPA 3541
Analysis Method: 8082A

Extraction Lot: KWG1904504
Level: Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
Landfill Ash 5-13-19	K1909649-004	10/15/19	10/16/19	2.0920g	8mL	75.1	
Method Blank	KWG1904504-4	NA	NA	2.0920g	8mL	NA	
Landfill Ash 5-13-19MS	KWG1904504-1	10/15/19	10/16/19	2.0230g	8mL	75.1	
Landfill Ash 5-13-19DMS	KWG1904504-2	10/15/19	10/16/19	2.0120g	8mL	75.1	
Lab Control Sample	KWG1904504-3	NA	NA	2.0000g	8mL	NA	

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis



Semi-Volatile Organic Compounds by GC/MS

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649
Date Collected: 10/15/19 12:30
Date Received: 10/16/19 09:30

Sample Name: Muriate of Potash 0-0-60
Lab Code: K1909649-002

Units: mg/Kg
Basis: Dry

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	ND U	0.25	0.011	1	10/19/19 13:35	10/16/19	
1,2-Dichlorobenzene	ND U	0.25	0.0078	1	10/19/19 13:35	10/16/19	
1,3-Dichlorobenzene	ND U	0.25	0.0084	1	10/19/19 13:35	10/16/19	
1,4-Dichlorobenzene	ND U	0.25	0.0083	1	10/19/19 13:35	10/16/19	
2,4,5-Trichlorophenol	ND U	0.25	0.0083	1	10/19/19 13:35	10/16/19	
2,4,6-Trichlorophenol	ND U	0.25	0.014	1	10/19/19 13:35	10/16/19	
2,4-Dichlorophenol	ND U	0.25	0.0077	1	10/19/19 13:35	10/16/19	
2,4-Dimethylphenol	ND U	0.25	0.036	1	10/19/19 13:35	10/16/19	
2,4-Dinitrophenol	ND U	1.5	0.14	1	10/19/19 13:35	10/16/19	
2,4-Dinitrotoluene	ND U	0.25	0.015	1	10/19/19 13:35	10/16/19	
2,6-Dinitrotoluene	ND U	0.25	0.0073	1	10/19/19 13:35	10/16/19	
2-Chloronaphthalene	ND U	0.25	0.010	1	10/19/19 13:35	10/16/19	
2-Chlorophenol	ND U	0.25	0.0086	1	10/19/19 13:35	10/16/19	
2-Methyl-4,6-dinitrophenol	ND U	1.5	0.032	1	10/19/19 13:35	10/16/19	
2-Methylnaphthalene	ND U	0.25	0.011	1	10/19/19 13:35	10/16/19	
2-Methylphenol	ND U	0.25	0.015	1	10/19/19 13:35	10/16/19	
2-Nitroaniline	ND U	0.25	0.042	1	10/19/19 13:35	10/16/19	
2-Nitrophenol	ND U	0.25	0.014	1	10/19/19 13:35	10/16/19	
3,3'-Dichlorobenzidine	ND U	0.25	0.027	1	10/19/19 13:35	10/16/19	
3-Nitroaniline	ND U	0.25	0.0079	1	10/19/19 13:35	10/16/19	
4-Bromophenyl Phenyl Ether	ND U	0.25	0.013	1	10/19/19 13:35	10/16/19	
4-Chloro-3-methylphenol	ND U	0.25	0.16	1	10/19/19 13:35	10/16/19	
4-Chloroaniline	ND U	0.25	0.0070	1	10/19/19 13:35	10/16/19	
4-Chlorophenyl Phenyl Ether	ND U	0.25	0.0085	1	10/19/19 13:35	10/16/19	
4-Methylphenol	ND U	0.25	0.010	1	10/19/19 13:35	10/16/19	
4-Nitroaniline	ND U	1.5	0.0099	1	10/19/19 13:35	10/16/19	
4-Nitrophenol	ND U	1.5	0.049	1	10/19/19 13:35	10/16/19	
Acenaphthene	ND U	0.25	0.0093	1	10/19/19 13:35	10/16/19	
Acenaphthylene	ND U	0.25	0.0071	1	10/19/19 13:35	10/16/19	
Aniline	ND U	0.74	0.012	1	10/19/19 13:35	10/16/19	*
Anthracene	ND U	0.25	0.0086	1	10/19/19 13:35	10/16/19	
Benz(a)anthracene	ND U	0.25	0.0091	1	10/19/19 13:35	10/16/19	
Benzo(a)pyrene	ND U	0.25	0.016	1	10/19/19 13:35	10/16/19	
Benzo(b)fluoranthene	ND U	0.25	0.012	1	10/19/19 13:35	10/16/19	
Benzo(g,h,i)perylene	ND U	0.25	0.011	1	10/19/19 13:35	10/16/19	
Benzo(k)fluoranthene	ND U	0.25	0.014	1	10/19/19 13:35	10/16/19	
Benzoic Acid	ND U	1.5	0.14	1	10/19/19 13:35	10/16/19	*
Benzyl Alcohol	ND U	0.25	0.0073	1	10/19/19 13:35	10/16/19	
Bis(2-chloroethoxy)methane	ND U	0.25	0.0094	1	10/19/19 13:35	10/16/19	
Bis(2-chloroethyl) Ether	ND U	0.25	0.0082	1	10/19/19 13:35	10/16/19	
Bis(2-ethylhexyl) Phthalate	0.0094 J	0.25	0.0071	1	10/19/19 13:35	10/16/19	
Butyl Benzyl Phthalate	ND U	0.25	0.015	1	10/19/19 13:35	10/16/19	
Chrysene	ND U	0.25	0.014	1	10/19/19 13:35	10/16/19	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649
Date Collected: 10/15/19 12:30
Date Received: 10/16/19 09:30

Sample Name: Muriate of Potash 0-0-60
Lab Code: K1909649-002

Units: mg/Kg
Basis: Dry

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Dibenz(a,h)anthracene	ND U	0.25	0.014	1	10/19/19 13:35	10/16/19	
Dibenzofuran	ND U	0.25	0.0098	1	10/19/19 13:35	10/16/19	
Diethyl Phthalate	ND U	0.25	0.0079	1	10/19/19 13:35	10/16/19	
Dimethyl Phthalate	ND U	0.25	0.0076	1	10/19/19 13:35	10/16/19	
Di-n-butyl Phthalate	ND U	0.25	0.015	1	10/19/19 13:35	10/16/19	
Di-n-octyl Phthalate	0.041 JX	0.25	0.010	1	10/19/19 13:35	10/16/19	
Fluoranthene	ND U	0.25	0.012	1	10/19/19 13:35	10/16/19	
Fluorene	ND U	0.25	0.013	1	10/19/19 13:35	10/16/19	
Hexachlorobenzene	ND U	0.25	0.016	1	10/19/19 13:35	10/16/19	
Hexachlorobutadiene	ND U	0.25	0.011	1	10/19/19 13:35	10/16/19	
Hexachlorocyclopentadiene	ND U	0.25	0.024	1	10/19/19 13:35	10/16/19	
Hexachloroethane	ND U	0.25	0.0079	1	10/19/19 13:35	10/16/19	
Indeno(1,2,3-cd)pyrene	ND U	0.25	0.011	1	10/19/19 13:35	10/16/19	
Isophorone	ND U	0.25	0.011	1	10/19/19 13:35	10/16/19	
Naphthalene	ND U	0.25	0.011	1	10/19/19 13:35	10/16/19	
Nitrobenzene	ND U	0.25	0.011	1	10/19/19 13:35	10/16/19	
N-Nitrosodimethylamine	ND U	1.5	0.30	1	10/19/19 13:35	10/16/19	
N-Nitrosodi-n-propylamine	ND U	0.25	0.011	1	10/19/19 13:35	10/16/19	
N-Nitrosodiphenylamine	ND U	0.25	0.0075	1	10/19/19 13:35	10/16/19	
Pentachlorophenol	ND U	1.5	0.063	1	10/19/19 13:35	10/16/19	
Phenanthrene	ND U	0.25	0.011	1	10/19/19 13:35	10/16/19	
Phenol	ND U	0.25	0.019	1	10/19/19 13:35	10/16/19	
Pyrene	ND U	0.25	0.0096	1	10/19/19 13:35	10/16/19	
2,2'-Oxybis(1-chloropropane)	ND U	0.25	0.0079	1	10/19/19 13:35	10/16/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	44	35 - 118	10/19/19 13:35	
2-Fluorobiphenyl	41	37 - 103	10/19/19 13:35	
2-Fluorophenol	31	30 - 98	10/19/19 13:35	
Nitrobenzene-d5	35	36 - 112	10/19/19 13:35	*
Phenol-d6	33	31 - 103	10/19/19 13:35	
Terphenyl-d14	59	18 - 127	10/19/19 13:35	

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Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649
Date Collected: 10/15/19 12:30
Date Received: 10/16/19 09:30

Sample Name: TSP 052419
Lab Code: K1909649-003

Units: mg/Kg
Basis: Dry

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	ND U	0.25	0.011	1	10/19/19 14:16	10/16/19	
1,2-Dichlorobenzene	ND U	0.25	0.0078	1	10/19/19 14:16	10/16/19	
1,3-Dichlorobenzene	ND U	0.25	0.0084	1	10/19/19 14:16	10/16/19	
1,4-Dichlorobenzene	ND U	0.25	0.0083	1	10/19/19 14:16	10/16/19	
2,4,5-Trichlorophenol	ND U	0.25	0.0083	1	10/19/19 14:16	10/16/19	
2,4,6-Trichlorophenol	ND U	0.25	0.014	1	10/19/19 14:16	10/16/19	
2,4-Dichlorophenol	ND U	0.25	0.0077	1	10/19/19 14:16	10/16/19	
2,4-Dimethylphenol	ND U	0.25	0.036	1	10/19/19 14:16	10/16/19	
2,4-Dinitrophenol	ND U	1.5	0.14	1	10/19/19 14:16	10/16/19	
2,4-Dinitrotoluene	ND U	0.25	0.015	1	10/19/19 14:16	10/16/19	
2,6-Dinitrotoluene	ND U	0.25	0.0073	1	10/19/19 14:16	10/16/19	
2-Chloronaphthalene	ND U	0.25	0.010	1	10/19/19 14:16	10/16/19	
2-Chlorophenol	ND U	0.25	0.0086	1	10/19/19 14:16	10/16/19	
2-Methyl-4,6-dinitrophenol	ND U	1.5	0.032	1	10/19/19 14:16	10/16/19	
2-Methylnaphthalene	ND U	0.25	0.011	1	10/19/19 14:16	10/16/19	
2-Methylphenol	ND U	0.25	0.015	1	10/19/19 14:16	10/16/19	
2-Nitroaniline	ND U	0.25	0.042	1	10/19/19 14:16	10/16/19	
2-Nitrophenol	ND U	0.25	0.014	1	10/19/19 14:16	10/16/19	
3,3'-Dichlorobenzidine	ND U	0.25	0.027	1	10/19/19 14:16	10/16/19	
3-Nitroaniline	ND U	0.25	0.0079	1	10/19/19 14:16	10/16/19	
4-Bromophenyl Phenyl Ether	ND U	0.25	0.013	1	10/19/19 14:16	10/16/19	
4-Chloro-3-methylphenol	ND U	0.25	0.16	1	10/19/19 14:16	10/16/19	
4-Chloroaniline	ND U	0.25	0.0070	1	10/19/19 14:16	10/16/19	
4-Chlorophenyl Phenyl Ether	ND U	0.25	0.0085	1	10/19/19 14:16	10/16/19	
4-Methylphenol	ND U	0.25	0.010	1	10/19/19 14:16	10/16/19	
4-Nitroaniline	ND U	1.5	0.0099	1	10/19/19 14:16	10/16/19	
4-Nitrophenol	ND U	1.5	0.049	1	10/19/19 14:16	10/16/19	
Acenaphthene	ND U	0.25	0.0093	1	10/19/19 14:16	10/16/19	
Acenaphthylene	ND U	0.25	0.0071	1	10/19/19 14:16	10/16/19	
Aniline	ND U	0.76	0.012	1	10/19/19 14:16	10/16/19	*
Anthracene	ND U	0.25	0.0086	1	10/19/19 14:16	10/16/19	
Benz(a)anthracene	ND U	0.25	0.0091	1	10/19/19 14:16	10/16/19	
Benzo(a)pyrene	ND U	0.25	0.016	1	10/19/19 14:16	10/16/19	
Benzo(b)fluoranthene	ND U	0.25	0.012	1	10/19/19 14:16	10/16/19	
Benzo(g,h,i)perylene	ND U	0.25	0.011	1	10/19/19 14:16	10/16/19	
Benzo(k)fluoranthene	ND U	0.25	0.014	1	10/19/19 14:16	10/16/19	
Benzoic Acid	ND U	1.5	0.14	1	10/19/19 14:16	10/16/19	*
Benzyl Alcohol	ND U	0.25	0.0073	1	10/19/19 14:16	10/16/19	
Bis(2-chloroethoxy)methane	ND U	0.25	0.0094	1	10/19/19 14:16	10/16/19	
Bis(2-chloroethyl) Ether	ND U	0.25	0.0082	1	10/19/19 14:16	10/16/19	
Bis(2-ethylhexyl) Phthalate	0.010 J	0.25	0.0071	1	10/19/19 14:16	10/16/19	
Butyl Benzyl Phthalate	ND U	0.25	0.015	1	10/19/19 14:16	10/16/19	
Chrysene	ND U	0.25	0.014	1	10/19/19 14:16	10/16/19	

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Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649
Date Collected: 10/15/19 12:30
Date Received: 10/16/19 09:30

Sample Name: TSP 052419
Lab Code: K1909649-003

Units: mg/Kg
Basis: Dry

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Dibenz(a,h)anthracene	ND U	0.25	0.014	1	10/19/19 14:16	10/16/19	
Dibenzofuran	ND U	0.25	0.0098	1	10/19/19 14:16	10/16/19	
Diethyl Phthalate	0.0086 J	0.25	0.0079	1	10/19/19 14:16	10/16/19	
Dimethyl Phthalate	ND U	0.25	0.0076	1	10/19/19 14:16	10/16/19	
Di-n-butyl Phthalate	ND U	0.25	0.015	1	10/19/19 14:16	10/16/19	
Di-n-octyl Phthalate	ND U	0.25	0.010	1	10/19/19 14:16	10/16/19	
Fluoranthene	ND U	0.25	0.012	1	10/19/19 14:16	10/16/19	
Fluorene	ND U	0.25	0.013	1	10/19/19 14:16	10/16/19	
Hexachlorobenzene	ND U	0.25	0.016	1	10/19/19 14:16	10/16/19	
Hexachlorobutadiene	ND U	0.25	0.011	1	10/19/19 14:16	10/16/19	
Hexachlorocyclopentadiene	ND U	0.25	0.024	1	10/19/19 14:16	10/16/19	
Hexachloroethane	ND U	0.25	0.0079	1	10/19/19 14:16	10/16/19	
Indeno(1,2,3-cd)pyrene	ND U	0.25	0.011	1	10/19/19 14:16	10/16/19	
Isophorone	ND U	0.25	0.011	1	10/19/19 14:16	10/16/19	
Naphthalene	ND U	0.25	0.011	1	10/19/19 14:16	10/16/19	
Nitrobenzene	ND U	0.25	0.011	1	10/19/19 14:16	10/16/19	
N-Nitrosodimethylamine	ND U	1.5	0.30	1	10/19/19 14:16	10/16/19	
N-Nitrosodi-n-propylamine	ND U	0.25	0.011	1	10/19/19 14:16	10/16/19	
N-Nitrosodiphenylamine	ND U	0.25	0.0075	1	10/19/19 14:16	10/16/19	
Pentachlorophenol	ND U	1.5	0.063	1	10/19/19 14:16	10/16/19	
Phenanthrene	ND U	0.25	0.011	1	10/19/19 14:16	10/16/19	
Phenol	ND U	0.25	0.019	1	10/19/19 14:16	10/16/19	
Pyrene	ND U	0.25	0.0096	1	10/19/19 14:16	10/16/19	
2,2'-Oxybis(1-chloropropane)	ND U	0.25	0.0079	1	10/19/19 14:16	10/16/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	49	35 - 118	10/19/19 14:16	
2-Fluorobiphenyl	51	37 - 103	10/19/19 14:16	
2-Fluorophenol	38	30 - 98	10/19/19 14:16	
Nitrobenzene-d5	46	36 - 112	10/19/19 14:16	
Phenol-d6	41	31 - 103	10/19/19 14:16	
Terphenyl-d14	65	18 - 127	10/19/19 14:16	

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Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649
Date Collected: 10/15/19 13:25
Date Received: 10/16/19 09:30

Sample Name: Landfill Ash 5-13-19
Lab Code: K1909649-004

Units: mg/Kg
Basis: Dry

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	ND U	0.65	0.022	1	10/19/19 14:58	10/16/19	
1,2-Dichlorobenzene	ND U	0.65	0.016	1	10/19/19 14:58	10/16/19	
1,3-Dichlorobenzene	ND U	0.65	0.017	1	10/19/19 14:58	10/16/19	
1,4-Dichlorobenzene	ND U	0.65	0.017	1	10/19/19 14:58	10/16/19	
2,4,5-Trichlorophenol	ND U	0.65	0.017	1	10/19/19 14:58	10/16/19	
2,4,6-Trichlorophenol	ND U	0.65	0.028	1	10/19/19 14:58	10/16/19	
2,4-Dichlorophenol	ND U	0.65	0.016	1	10/19/19 14:58	10/16/19	
2,4-Dimethylphenol	ND U	0.65	0.071	1	10/19/19 14:58	10/16/19	
2,4-Dinitrophenol	ND U	3.9	0.28	1	10/19/19 14:58	10/16/19	
2,4-Dinitrotoluene	ND U	0.65	0.030	1	10/19/19 14:58	10/16/19	
2,6-Dinitrotoluene	ND U	0.65	0.015	1	10/19/19 14:58	10/16/19	
2-Chloronaphthalene	ND U	0.65	0.020	1	10/19/19 14:58	10/16/19	
2-Chlorophenol	ND U	0.65	0.017	1	10/19/19 14:58	10/16/19	
2-Methyl-4,6-dinitrophenol	ND U	3.9	0.063	1	10/19/19 14:58	10/16/19	
2-Methylnaphthalene	ND U	0.65	0.022	1	10/19/19 14:58	10/16/19	
2-Methylphenol	ND U	0.65	0.030	1	10/19/19 14:58	10/16/19	
2-Nitroaniline	ND U	0.65	0.083	1	10/19/19 14:58	10/16/19	
2-Nitrophenol	ND U	0.65	0.028	1	10/19/19 14:58	10/16/19	
3,3'-Dichlorobenzidine	ND U	0.65	0.053	1	10/19/19 14:58	10/16/19	
3-Nitroaniline	ND U	0.65	0.016	1	10/19/19 14:58	10/16/19	
4-Bromophenyl Phenyl Ether	ND U	0.65	0.026	1	10/19/19 14:58	10/16/19	
4-Chloro-3-methylphenol	ND U	0.65	0.32	1	10/19/19 14:58	10/16/19	
4-Chloroaniline	ND U	0.65	0.014	1	10/19/19 14:58	10/16/19	
4-Chlorophenyl Phenyl Ether	ND U	0.65	0.017	1	10/19/19 14:58	10/16/19	
4-Methylphenol	ND U	0.65	0.020	1	10/19/19 14:58	10/16/19	
4-Nitroaniline	ND U	3.9	0.020	1	10/19/19 14:58	10/16/19	
4-Nitrophenol	ND U	3.9	0.096	1	10/19/19 14:58	10/16/19	
Acenaphthene	ND U	0.65	0.019	1	10/19/19 14:58	10/16/19	
Acenaphthylene	ND U	0.65	0.014	1	10/19/19 14:58	10/16/19	
Aniline	ND U	2.0	0.024	1	10/19/19 14:58	10/16/19	*
Anthracene	ND U	0.65	0.017	1	10/19/19 14:58	10/16/19	
Benz(a)anthracene	ND U	0.65	0.018	1	10/19/19 14:58	10/16/19	
Benzo(a)pyrene	ND U	0.65	0.032	1	10/19/19 14:58	10/16/19	
Benzo(b)fluoranthene	ND U	0.65	0.024	1	10/19/19 14:58	10/16/19	
Benzo(g,h,i)perylene	ND U	0.65	0.022	1	10/19/19 14:58	10/16/19	
Benzo(k)fluoranthene	ND U	0.65	0.028	1	10/19/19 14:58	10/16/19	
Benzoic Acid	ND U	3.9	0.28	1	10/19/19 14:58	10/16/19	*
Benzyl Alcohol	ND U	0.65	0.015	1	10/19/19 14:58	10/16/19	
Bis(2-chloroethoxy)methane	ND U	0.65	0.019	1	10/19/19 14:58	10/16/19	
Bis(2-chloroethyl) Ether	ND U	0.65	0.017	1	10/19/19 14:58	10/16/19	
Bis(2-ethylhexyl) Phthalate	ND U	0.65	0.014	1	10/19/19 14:58	10/16/19	
Butyl Benzyl Phthalate	ND U	0.65	0.030	1	10/19/19 14:58	10/16/19	
Chrysene	ND U	0.65	0.028	1	10/19/19 14:58	10/16/19	

ALS Group USA, Corp.
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Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649
Date Collected: 10/15/19 13:25
Date Received: 10/16/19 09:30

Sample Name: Landfill Ash 5-13-19
Lab Code: K1909649-004

Units: mg/Kg
Basis: Dry

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Dibenz(a,h)anthracene	ND U	0.65	0.028	1	10/19/19 14:58	10/16/19	
Dibenzofuran	ND U	0.65	0.020	1	10/19/19 14:58	10/16/19	
Diethyl Phthalate	0.022 J	0.65	0.016	1	10/19/19 14:58	10/16/19	
Dimethyl Phthalate	ND U	0.65	0.015	1	10/19/19 14:58	10/16/19	
Di-n-butyl Phthalate	ND U	0.65	0.030	1	10/19/19 14:58	10/16/19	
Di-n-octyl Phthalate	ND U	0.65	0.020	1	10/19/19 14:58	10/16/19	
Fluoranthene	ND U	0.65	0.024	1	10/19/19 14:58	10/16/19	
Fluorene	ND U	0.65	0.026	1	10/19/19 14:58	10/16/19	
Hexachlorobenzene	ND U	0.65	0.032	1	10/19/19 14:58	10/16/19	
Hexachlorobutadiene	ND U	0.65	0.022	1	10/19/19 14:58	10/16/19	
Hexachlorocyclopentadiene	ND U	0.65	0.047	1	10/19/19 14:58	10/16/19	
Hexachloroethane	ND U	0.65	0.016	1	10/19/19 14:58	10/16/19	
Indeno(1,2,3-cd)pyrene	ND U	0.65	0.022	1	10/19/19 14:58	10/16/19	
Isophorone	ND U	0.65	0.022	1	10/19/19 14:58	10/16/19	
Naphthalene	0.040 J	0.65	0.022	1	10/19/19 14:58	10/16/19	
Nitrobenzene	ND U	0.65	0.022	1	10/19/19 14:58	10/16/19	
N-Nitrosodimethylamine	ND U	3.9	0.59	1	10/19/19 14:58	10/16/19	
N-Nitrosodi-n-propylamine	ND U	0.65	0.022	1	10/19/19 14:58	10/16/19	
N-Nitrosodiphenylamine	ND U	0.65	0.015	1	10/19/19 14:58	10/16/19	
Pentachlorophenol	ND U	3.9	0.13	1	10/19/19 14:58	10/16/19	
Phenanthrene	ND U	0.65	0.022	1	10/19/19 14:58	10/16/19	
Phenol	ND U	0.65	0.038	1	10/19/19 14:58	10/16/19	
Pyrene	ND U	0.65	0.019	1	10/19/19 14:58	10/16/19	
2,2'-Oxybis(1-chloropropane)	ND U	0.65	0.016	1	10/19/19 14:58	10/16/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	0	35 - 118	10/19/19 14:58	*
2-Fluorobiphenyl	24	37 - 103	10/19/19 14:58	*
2-Fluorophenol	0	30 - 98	10/19/19 14:58	*
Nitrobenzene-d5	18	36 - 112	10/19/19 14:58	*
Phenol-d6	1	31 - 103	10/19/19 14:58	*
Terphenyl-d14	0	18 - 127	10/19/19 14:58	*

ALS Group USA, Corp.
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Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649
Date Collected: 10/15/19 13:10
Date Received: 10/16/19 09:30

Sample Name: Biosolids B
Lab Code: K1909649-005

Units: mg/Kg
Basis: Dry

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	ND U	20	0.69	10	10/19/19 15:39	10/16/19	
1,2-Dichlorobenzene	ND U	20	0.49	10	10/19/19 15:39	10/16/19	
1,3-Dichlorobenzene	ND U	20	0.53	10	10/19/19 15:39	10/16/19	
1,4-Dichlorobenzene	ND U	20	0.52	10	10/19/19 15:39	10/16/19	
2,4,5-Trichlorophenol	ND U	20	0.52	10	10/19/19 15:39	10/16/19	
2,4,6-Trichlorophenol	ND U	20	0.87	10	10/19/19 15:39	10/16/19	
2,4-Dichlorophenol	ND U	20	0.48	10	10/19/19 15:39	10/16/19	
2,4-Dimethylphenol	ND U	20	2.3	10	10/19/19 15:39	10/16/19	
2,4-Dinitrophenol	ND U	120	8.7	10	10/19/19 15:39	10/16/19	
2,4-Dinitrotoluene	ND U	20	0.93	10	10/19/19 15:39	10/16/19	
2,6-Dinitrotoluene	ND U	20	0.46	10	10/19/19 15:39	10/16/19	
2-Chloronaphthalene	ND U	20	0.62	10	10/19/19 15:39	10/16/19	
2-Chlorophenol	ND U	20	0.54	10	10/19/19 15:39	10/16/19	
2-Methyl-4,6-dinitrophenol	ND U	120	2.0	10	10/19/19 15:39	10/16/19	
2-Methylnaphthalene	ND U	20	0.69	10	10/19/19 15:39	10/16/19	
2-Methylphenol	ND U	20	0.93	10	10/19/19 15:39	10/16/19	
2-Nitroaniline	ND U	20	2.7	10	10/19/19 15:39	10/16/19	
2-Nitrophenol	ND U	20	0.87	10	10/19/19 15:39	10/16/19	
3,3'-Dichlorobenzidine	ND U	20	1.7	10	10/19/19 15:39	10/16/19	
3-Nitroaniline	ND U	20	0.49	10	10/19/19 15:39	10/16/19	
4-Bromophenyl Phenyl Ether	ND U	20	0.81	10	10/19/19 15:39	10/16/19	
4-Chloro-3-methylphenol	ND U	20	10	10	10/19/19 15:39	10/16/19	
4-Chloroaniline	ND U	20	0.44	10	10/19/19 15:39	10/16/19	
4-Chlorophenyl Phenyl Ether	ND U	20	0.53	10	10/19/19 15:39	10/16/19	
4-Methylphenol	4.0 J	20	0.62	10	10/19/19 15:39	10/16/19	
4-Nitroaniline	ND U	120	0.62	10	10/19/19 15:39	10/16/19	
4-Nitrophenol	ND U	120	3.1	10	10/19/19 15:39	10/16/19	
Acenaphthene	ND U	20	0.58	10	10/19/19 15:39	10/16/19	
Acenaphthylene	ND U	20	0.44	10	10/19/19 15:39	10/16/19	
Aniline	ND U	62	0.75	10	10/19/19 15:39	10/16/19	*
Anthracene	ND U	20	0.54	10	10/19/19 15:39	10/16/19	
Benz(a)anthracene	ND U	20	0.57	10	10/19/19 15:39	10/16/19	
Benzo(a)pyrene	ND U	20	1.0	10	10/19/19 15:39	10/16/19	
Benzo(b)fluoranthene	ND U	20	0.75	10	10/19/19 15:39	10/16/19	
Benzo(g,h,i)perylene	ND U	20	0.69	10	10/19/19 15:39	10/16/19	
Benzo(k)fluoranthene	ND U	20	0.87	10	10/19/19 15:39	10/16/19	
Benzoic Acid	ND U	120	8.7	10	10/19/19 15:39	10/16/19	*
Benzyl Alcohol	ND U	20	0.46	10	10/19/19 15:39	10/16/19	
Bis(2-chloroethoxy)methane	ND U	20	0.59	10	10/19/19 15:39	10/16/19	
Bis(2-chloroethyl) Ether	ND U	20	0.51	10	10/19/19 15:39	10/16/19	
Bis(2-ethylhexyl) Phthalate	82	20	0.44	10	10/19/19 15:39	10/16/19	
Butyl Benzyl Phthalate	ND U	20	0.93	10	10/19/19 15:39	10/16/19	
Chrysene	ND U	20	0.87	10	10/19/19 15:39	10/16/19	

ALS Group USA, Corp.
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Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649
Date Collected: 10/15/19 13:10
Date Received: 10/16/19 09:30

Sample Name: Biosolids B
Lab Code: K1909649-005

Units: mg/Kg
Basis: Dry

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Dibenz(a,h)anthracene	ND U	20	0.87	10	10/19/19 15:39	10/16/19	
Dibenzofuran	ND U	20	0.61	10	10/19/19 15:39	10/16/19	
Diethyl Phthalate	0.74 J	20	0.49	10	10/19/19 15:39	10/16/19	
Dimethyl Phthalate	ND U	20	0.48	10	10/19/19 15:39	10/16/19	
Di-n-butyl Phthalate	ND U	20	0.93	10	10/19/19 15:39	10/16/19	
Di-n-octyl Phthalate	ND U	20	0.62	10	10/19/19 15:39	10/16/19	
Fluoranthene	ND U	20	0.75	10	10/19/19 15:39	10/16/19	
Fluorene	ND U	20	0.81	10	10/19/19 15:39	10/16/19	
Hexachlorobenzene	ND U	20	1.0	10	10/19/19 15:39	10/16/19	
Hexachlorobutadiene	ND U	20	0.69	10	10/19/19 15:39	10/16/19	
Hexachlorocyclopentadiene	ND U	20	1.5	10	10/19/19 15:39	10/16/19	
Hexachloroethane	ND U	20	0.49	10	10/19/19 15:39	10/16/19	
Indeno(1,2,3-cd)pyrene	ND U	20	0.69	10	10/19/19 15:39	10/16/19	
Isophorone	ND U	20	0.69	10	10/19/19 15:39	10/16/19	
Naphthalene	ND U	20	0.69	10	10/19/19 15:39	10/16/19	
Nitrobenzene	ND U	20	0.69	10	10/19/19 15:39	10/16/19	
N-Nitrosodimethylamine	ND U	120	19	10	10/19/19 15:39	10/16/19	
N-Nitrosodi-n-propylamine	ND U	20	0.69	10	10/19/19 15:39	10/16/19	
N-Nitrosodiphenylamine	ND U	20	0.47	10	10/19/19 15:39	10/16/19	
Pentachlorophenol	ND U	120	4.0	10	10/19/19 15:39	10/16/19	
Phenanthrene	ND U	20	0.69	10	10/19/19 15:39	10/16/19	
Phenol	2.5 J	20	1.2	10	10/19/19 15:39	10/16/19	
Pyrene	ND U	20	0.60	10	10/19/19 15:39	10/16/19	
2,2'-Oxybis(1-chloropropane)	ND U	20	0.49	10	10/19/19 15:39	10/16/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	35	35 - 118	10/19/19 15:39	
2-Fluorobiphenyl	59	37 - 103	10/19/19 15:39	
2-Fluorophenol	38	30 - 98	10/19/19 15:39	
Nitrobenzene-d5	50	36 - 112	10/19/19 15:39	
Phenol-d6	36	31 - 103	10/19/19 15:39	
Terphenyl-d14	75	18 - 127	10/19/19 15:39	

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Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: KQ1915120-04

Units: mg/Kg
Basis: Dry

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	ND U	0.24	0.011	1	10/19/19 10:50	10/16/19	
1,2-Dichlorobenzene	ND U	0.24	0.0078	1	10/19/19 10:50	10/16/19	
1,3-Dichlorobenzene	ND U	0.24	0.0084	1	10/19/19 10:50	10/16/19	
1,4-Dichlorobenzene	ND U	0.24	0.0083	1	10/19/19 10:50	10/16/19	
2,4,5-Trichlorophenol	ND U	0.24	0.0083	1	10/19/19 10:50	10/16/19	
2,4,6-Trichlorophenol	ND U	0.24	0.014	1	10/19/19 10:50	10/16/19	
2,4-Dichlorophenol	ND U	0.24	0.0077	1	10/19/19 10:50	10/16/19	
2,4-Dimethylphenol	ND U	0.24	0.036	1	10/19/19 10:50	10/16/19	
2,4-Dinitrophenol	ND U	1.5	0.14	1	10/19/19 10:50	10/16/19	
2,4-Dinitrotoluene	ND U	0.24	0.015	1	10/19/19 10:50	10/16/19	
2,6-Dinitrotoluene	ND U	0.24	0.0073	1	10/19/19 10:50	10/16/19	
2-Chloronaphthalene	ND U	0.24	0.010	1	10/19/19 10:50	10/16/19	
2-Chlorophenol	ND U	0.24	0.0086	1	10/19/19 10:50	10/16/19	
2-Methyl-4,6-dinitrophenol	ND U	1.5	0.032	1	10/19/19 10:50	10/16/19	
2-Methylnaphthalene	ND U	0.24	0.011	1	10/19/19 10:50	10/16/19	
2-Methylphenol	ND U	0.24	0.015	1	10/19/19 10:50	10/16/19	
2-Nitroaniline	ND U	0.24	0.042	1	10/19/19 10:50	10/16/19	
2-Nitrophenol	ND U	0.24	0.014	1	10/19/19 10:50	10/16/19	
3,3'-Dichlorobenzidine	ND U	0.24	0.027	1	10/19/19 10:50	10/16/19	
3-Nitroaniline	ND U	0.24	0.0079	1	10/19/19 10:50	10/16/19	
4-Bromophenyl Phenyl Ether	ND U	0.24	0.013	1	10/19/19 10:50	10/16/19	
4-Chloro-3-methylphenol	ND U	0.24	0.16	1	10/19/19 10:50	10/16/19	
4-Chloroaniline	ND U	0.24	0.0070	1	10/19/19 10:50	10/16/19	
4-Chlorophenyl Phenyl Ether	ND U	0.24	0.0085	1	10/19/19 10:50	10/16/19	
4-Methylphenol	ND U	0.24	0.010	1	10/19/19 10:50	10/16/19	
4-Nitroaniline	ND U	1.5	0.0099	1	10/19/19 10:50	10/16/19	
4-Nitrophenol	ND U	1.5	0.049	1	10/19/19 10:50	10/16/19	
Acenaphthene	ND U	0.24	0.0093	1	10/19/19 10:50	10/16/19	
Acenaphthylene	ND U	0.24	0.0071	1	10/19/19 10:50	10/16/19	
Aniline	ND U	0.73	0.012	1	10/19/19 10:50	10/16/19	
Anthracene	ND U	0.24	0.0086	1	10/19/19 10:50	10/16/19	
Benz(a)anthracene	ND U	0.24	0.0091	1	10/19/19 10:50	10/16/19	
Benzo(a)pyrene	ND U	0.24	0.016	1	10/19/19 10:50	10/16/19	
Benzo(b)fluoranthene	ND U	0.24	0.012	1	10/19/19 10:50	10/16/19	
Benzo(g,h,i)perylene	ND U	0.24	0.011	1	10/19/19 10:50	10/16/19	
Benzo(k)fluoranthene	ND U	0.24	0.014	1	10/19/19 10:50	10/16/19	
Benzoic Acid	ND U	1.5	0.14	1	10/19/19 10:50	10/16/19	
Benzyl Alcohol	ND U	0.24	0.0073	1	10/19/19 10:50	10/16/19	
Bis(2-chloroethoxy)methane	ND U	0.24	0.0094	1	10/19/19 10:50	10/16/19	
Bis(2-chloroethyl) Ether	ND U	0.24	0.0082	1	10/19/19 10:50	10/16/19	
Bis(2-ethylhexyl) Phthalate	ND U	0.24	0.0071	1	10/19/19 10:50	10/16/19	
Butyl Benzyl Phthalate	ND U	0.24	0.015	1	10/19/19 10:50	10/16/19	
Chrysene	ND U	0.24	0.014	1	10/19/19 10:50	10/16/19	

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Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: KQ1915120-04

Units: mg/Kg
Basis: Dry

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Dibenz(a,h)anthracene	ND U	0.24	0.014	1	10/19/19 10:50	10/16/19	
Dibenzofuran	ND U	0.24	0.0098	1	10/19/19 10:50	10/16/19	
Diethyl Phthalate	ND U	0.24	0.0079	1	10/19/19 10:50	10/16/19	
Dimethyl Phthalate	ND U	0.24	0.0076	1	10/19/19 10:50	10/16/19	
Di-n-butyl Phthalate	ND U	0.24	0.015	1	10/19/19 10:50	10/16/19	
Di-n-octyl Phthalate	ND U	0.24	0.010	1	10/19/19 10:50	10/16/19	
Fluoranthene	ND U	0.24	0.012	1	10/19/19 10:50	10/16/19	
Fluorene	ND U	0.24	0.013	1	10/19/19 10:50	10/16/19	
Hexachlorobenzene	ND U	0.24	0.016	1	10/19/19 10:50	10/16/19	
Hexachlorobutadiene	ND U	0.24	0.011	1	10/19/19 10:50	10/16/19	
Hexachlorocyclopentadiene	ND U	0.24	0.024	1	10/19/19 10:50	10/16/19	
Hexachloroethane	ND U	0.24	0.0079	1	10/19/19 10:50	10/16/19	
Indeno(1,2,3-cd)pyrene	ND U	0.24	0.011	1	10/19/19 10:50	10/16/19	
Isophorone	ND U	0.24	0.011	1	10/19/19 10:50	10/16/19	
Naphthalene	ND U	0.24	0.011	1	10/19/19 10:50	10/16/19	
Nitrobenzene	ND U	0.24	0.011	1	10/19/19 10:50	10/16/19	
N-Nitrosodimethylamine	ND U	1.5	0.30	1	10/19/19 10:50	10/16/19	
N-Nitrosodi-n-propylamine	ND U	0.24	0.011	1	10/19/19 10:50	10/16/19	
N-Nitrosodiphenylamine	ND U	0.24	0.0075	1	10/19/19 10:50	10/16/19	
Pentachlorophenol	ND U	1.5	0.063	1	10/19/19 10:50	10/16/19	
Phenanthrene	ND U	0.24	0.011	1	10/19/19 10:50	10/16/19	
Phenol	ND U	0.24	0.019	1	10/19/19 10:50	10/16/19	
Pyrene	ND U	0.24	0.0096	1	10/19/19 10:50	10/16/19	
2,2'-Oxybis(1-chloropropane)	ND U	0.24	0.0079	1	10/19/19 10:50	10/16/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	45	35 - 118	10/19/19 10:50	
2-Fluorobiphenyl	45	37 - 103	10/19/19 10:50	
2-Fluorophenol	39	30 - 98	10/19/19 10:50	
Nitrobenzene-d5	44	36 - 112	10/19/19 10:50	
Phenol-d6	41	31 - 103	10/19/19 10:50	
Terphenyl-d14	66	18 - 127	10/19/19 10:50	

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649

SURROGATE RECOVERY SUMMARY
Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Extraction Method: EPA 3541

Sample Name	Lab Code	2,4,6-Tribromophenol	2-Fluorobiphenyl	2-Fluorophenol
		35-118	37-103	30-98
Muriate of Potash 0-0-60	K1909649-002	44	41	31
TSP 052419	K1909649-003	49	51	38
Landfill Ash 5-13-19	K1909649-004	0*	24*	0*
Biosolids B	K1909649-005	35	59	38
Method Blank	KQ1915120-04	45	45	39
Lab Control Sample	KQ1915120-03	62	58	48
Muriate of Potash 0-0-60	KQ1915120-01	47	39	28*
Muriate of Potash 0-0-60	KQ1915120-02	56	51	42

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649

SURROGATE RECOVERY SUMMARY
Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Extraction Method: EPA 3541

Sample Name	Lab Code	Nitrobenzene-d5	Phenol-d6	Terphenyl-d14
		36-112	31-103	18-127
Muriate of Potash 0-0-60	K1909649-002	35*	33	59
TSP 052419	K1909649-003	46	41	65
Landfill Ash 5-13-19	K1909649-004	18*	1*	0*
Biosolids B	K1909649-005	50	36	75
Method Blank	KQ1915120-04	44	41	66
Lab Control Sample	KQ1915120-03	57	52	72
Muriate of Potash 0-0-60	KQ1915120-01	34*	34	54
Muriate of Potash 0-0-60	KQ1915120-02	49	47	62

ALS Group USA, Corp.
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QA/QC Report

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909649
Date Analyzed: 10/19/19 10:09

Internal Standard Area and RT SUMMARY
Semivolatile Organic Compounds by GC/MS

File ID: J:\MS07\DATA\101919\1019F002.D\
Instrument ID: K-MS-07
Analysis Method: 8270D

Lab Code: KQ1915292-04
Analysis Lot: 656208
Signal ID: 1

	1,4-Dichlorobenzene-d4		Acenaphthene-d10		Chrysene-d12	
	Area	RT	Area	RT	Area	RT
Result ==>	35,594	9.36	73,151	14.32	99,875	21.17
Upper Limit ==>	71,188	9.86	146,302	14.82	199,750	21.67
Lower Limit ==>	17,797	8.86	36,576	13.82	49,938	20.67

Associated Analyses

Sample Name	Lab Code	Area	RT	Area	RT	Area	RT
Method Blank	KQ1915120-04	31876	9.36	65764	14.31	87319	21.14
Lab Control Sample	KQ1915120-03	32502	9.35	64959	14.32	95765	21.15
Muriate of Potash 0-0-60MS	KQ1915120-01	31234	9.35	66827	14.32	89514	21.15
Muriate of Potash 0-0-60DMS	KQ1915120-02	30699	9.36	66831	14.31	90661	21.15
Muriate of Potash 0-0-60	K1909649-002	31977	9.35	64870	14.31	90672	21.14
TSP 052419	K1909649-003	31016	9.35	62271	14.31	77657	21.14
Landfill Ash 5-13-19	K1909649-004	30658	9.35	63514	14.31	80664	21.13
Biosolids B	K1909649-005	31763	9.34	60373	14.31	79234	21.14

ALS Group USA, Corp.
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QA/QC Report

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909649
Date Analyzed: 10/19/19 10:09

Internal Standard Area and RT SUMMARY
Semivolatile Organic Compounds by GC/MS

File ID: J:\MS07\DATA\101919\1019F002.D\
Instrument ID: K-MS-07
Analysis Method: 8270D

Lab Code: KQ1915292-04
Analysis Lot: 656208
Signal ID: 1

	Naphthalene-d8		Perylene-d12		Phenanthrene-d10	
	Area	RT	Area	RT	Area	RT
Result ==>	134,242	11.46	105,871	24.34	115,653	16.73
Upper Limit ==>	268,484	11.96	211,742	24.84	231,306	17.23
Lower Limit ==>	67,121	10.96	52,936	23.84	57,827	16.23

Associated Analyses

Method Blank	KQ1915120-04	114837	11.45	100334	24.31	102026	16.72
Lab Control Sample	KQ1915120-03	118676	11.45	102080	24.33	107586	16.72
Muriate of Potash 0-0-60MS	KQ1915120-01	116151	11.45	100186	24.32	107591	16.72
Muriate of Potash 0-0-60DMS	KQ1915120-02	119570	11.45	98699	24.31	105820	16.72
Muriate of Potash 0-0-60	K1909649-002	115123	11.44	99159	24.31	107608	16.71
TSP 052419	K1909649-003	112505	11.44	86479	24.31	97252	16.71
Landfill Ash 5-13-19	K1909649-004	109892	11.44	88224	24.31	97315	16.71
Biosolids B	K1909649-005	116514	11.44	84502	24.32	96713	16.71

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649
Date Collected: 10/15/19
Date Received: 10/16/19
Date Analyzed: 10/19/19
Date Extracted: 10/16/19

Duplicate Matrix Spike Summary
Semivolatile Organic Compounds by GC/MS

Sample Name: Muriate of Potash 0-0-60
Lab Code: K1909649-002
Analysis Method: 8270D
Prep Method: EPA 3541

Units: mg/Kg
Basis: Dry

Analyte Name	Sample Result	Matrix Spike KQ1915120-01			Duplicate Matrix Spike KQ1915120-02			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,2,4-Trichlorobenzene	ND U	0.937	2.49	38	1.27	2.45	52	35-105	30	40
1,2-Dichlorobenzene	ND U	0.812	2.49	33 *	1.19	2.45	49	36-96	38	40
1,3-Dichlorobenzene	ND U	0.759	2.49	30	1.18	2.45	48	28-91	43*	40
1,4-Dichlorobenzene	ND U	0.790	2.49	32	1.19	2.45	49	28-95	41*	40
2,4,5-Trichlorophenol	ND U	1.11	2.49	44	1.29	2.45	53	27-115	15	40
2,4,6-Trichlorophenol	ND U	1.09	2.49	44	1.36	2.45	56	39-106	22	40
2,4-Dichlorophenol	ND U	0.973	2.49	39	1.29	2.45	53	29-106	28	40
2,4-Dimethylphenol	ND U	0.700	2.49	28	0.819	2.45	33	10-117	16	40
2,4-Dinitrophenol	ND U	1.45 J	2.49	58	1.59	2.45	65	10-145	9	40
2,4-Dinitrotoluene	ND U	1.49	2.49	60	1.65	2.45	67	36-127	11	40
2,6-Dinitrotoluene	ND U	1.41	2.49	56	1.61	2.45	66	36-125	13	40
2-Chloronaphthalene	ND U	1.11	2.49	45	1.40	2.45	57	37-110	23	40
2-Chlorophenol	ND U	0.792	2.49	32	1.13	2.45	46	27-96	35	40
2-Methyl-4,6-dinitrophenol	ND U	1.31 J	2.49	53	1.48 J	2.45	60	10-138	12	40
2-Methylnaphthalene	ND U	1.04	2.49	42	1.36	2.45	56	30-105	27	40
2-Methylphenol	ND U	0.853	2.49	34	1.19	2.45	49	14-103	33	40
2-Nitroaniline	ND U	1.27	2.49	51	1.48	2.45	60	34-121	15	40
2-Nitrophenol	ND U	0.934	2.49	37	1.28	2.45	52	31-102	31	40
3,3'-Dichlorobenzidine	ND U	1.16	2.49	46	1.34	2.45	55	10-120	15	40
3-Nitroaniline	ND U	1.31	2.49	52	1.46	2.45	60	15-123	11	40
4-Bromophenyl Phenyl Ether	ND U	1.30	2.49	52	1.53	2.45	62	45-109	16	40
4-Chloro-3-methylphenol	ND U	1.13	2.49	45	1.30	2.45	53	34-100	14	40
4-Chloroaniline	ND U	1.05	2.49	42	1.28	2.45	52	11-98	20	40
4-Chlorophenyl Phenyl Ether	ND U	1.23	2.49	49	1.47	2.45	60	35-115	18	40
4-Methylphenol	ND U	0.890	2.49	36	1.21	2.45	49	26-97	30	40
4-Nitroaniline	ND U	1.36 J	2.49	54	1.53	2.45	63	10-137	12	40
4-Nitrophenol	ND U	1.30 J	2.49	52	1.54	2.45	63	12-141	17	40
Acenaphthene	ND U	1.18	2.49	47	1.44	2.45	59	30-113	20	40
Acenaphthylene	ND U	1.18	2.49	47	1.44	2.45	59	46-108	20	40
Aniline	ND U	0.747 J	2.49	30	1.04	2.45	42	10-92	32	40
Anthracene	ND U	1.32	2.49	53	1.48	2.45	60	48-111	12	40
Benz(a)anthracene	ND U	1.40	2.49	56	1.53	2.45	63	47-114	9	40
Benzo(a)pyrene	ND U	1.44	2.49	58	1.61	2.45	66	31-122	11	40
Benzo(b)fluoranthene	ND U	1.28	2.49	51	1.44	2.45	59	33-124	11	40
Benzo(g,h,i)perylene	ND U	1.17	2.49	47	1.33	2.45	54	26-126	13	40

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649
Date Collected: 10/15/19
Date Received: 10/16/19
Date Analyzed: 10/19/19
Date Extracted: 10/16/19

Duplicate Matrix Spike Summary
Semivolatile Organic Compounds by GC/MS

Sample Name: Muriate of Potash 0-0-60
Lab Code: K1909649-002
Analysis Method: 8270D
Prep Method: EPA 3541

Units: mg/Kg
Basis: Dry

Analyte Name	Matrix Spike KQ1915120-01				Duplicate Matrix Spike KQ1915120-02				% Rec Limits	RPD	RPD Limit
	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec				
Benzo(k)fluoranthene	ND U	1.44	2.49	58	1.68	2.45	69	36-117	16	40	
Benzoic Acid	ND U	1.66	2.49	67	1.88	2.45	77	10-85	12	40	
Benzyl Alcohol	ND U	0.955	2.49	38 *	1.33	2.45	54	40-96	33	40	
Bis(2-chloroethoxy)methane	ND U	0.977	2.49	39	1.28	2.45	52	33-106	27	40	
Bis(2-chloroethyl) Ether	ND U	0.834	2.49	33	1.21	2.45	49	29-103	37	40	
Bis(2-ethylhexyl) Phthalate	0.0094 J	1.70	2.49	68	1.83	2.45	74	35-126	7	40	
Butyl Benzyl Phthalate	ND U	1.74	2.49	70	1.88	2.45	77	36-129	8	40	
Chrysene	ND U	1.40	2.49	56	1.53	2.45	63	33-121	9	40	
Dibenz(a,h)anthracene	ND U	1.39	2.49	56	1.57	2.45	64	30-127	12	40	
Dibenzofuran	ND U	1.23	2.49	49	1.45	2.45	59	35-112	16	40	
Diethyl Phthalate	ND U	1.43	2.49	57	1.58	2.45	64	23-131	10	40	
Dimethyl Phthalate	ND U	1.36	2.49	54	1.57	2.45	64	28-124	15	40	
Di-n-butyl Phthalate	ND U	1.56	2.49	62	1.76	2.45	72	28-144	12	40	
Di-n-octyl Phthalate	0.041 JX	1.51	2.49	59	1.70	2.45	68	36-136	12	40	
Fluoranthene	ND U	1.45	2.49	58	1.62	2.45	66	34-142	11	40	
Fluorene	ND U	1.29	2.49	52	1.47	2.45	60	31-116	13	40	
Hexachlorobenzene	ND U	1.26	2.49	51	1.44	2.45	59	37-119	13	40	
Hexachlorobutadiene	ND U	0.906	2.49	36	1.25	2.45	51	27-107	32	40	
Hexachlorocyclopentadiene	ND U	0.529	2.49	21	0.680	2.45	28	10-79	25	40	
Hexachloroethane	ND U	0.773	2.49	31	1.17	2.45	48	25-102	41*	40	
Indeno(1,2,3-cd)pyrene	ND U	1.33	2.49	53	1.52	2.45	62	29-132	13	40	
Isophorone	ND U	0.946	2.49	38	1.28	2.45	52	33-103	30	40	
Naphthalene	ND U	0.964	2.49	39	1.26	2.45	51	31-103	26	40	
Nitrobenzene	ND U	0.989	2.49	40	1.37	2.45	56	34-99	32	40	
N-Nitrosodimethylamine	ND U	0.825 J	2.49	33	1.27 J	2.45	52	20-98	42*	40	
N-Nitrosodi-n-propylamine	ND U	0.944	2.49	38	1.25	2.45	51	32-107	28	40	
N-Nitrosodiphenylamine	ND U	1.33	2.49	54	1.42	2.45	58	35-112	6	40	
Pentachlorophenol	ND U	1.16 J	2.49	47	1.36 J	2.45	56	10-135	16	40	
Phenanthrene	ND U	1.31	2.49	53	1.50	2.45	61	35-119	13	40	
Phenol	ND U	0.759	2.49	30	1.03	2.45	42	18-106	31	40	
Pyrene	ND U	1.51	2.49	61	1.69	2.45	69	26-130	11	40	
2,2'-Oxybis(1-chloropropane)	ND U	0.804	2.49	32	1.10	2.45	45	25-106	31	40	

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649
Date Analyzed: 10/19/19
Date Extracted: 10/16/19

Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Units: mg/Kg
Basis: Dry
Analysis Lot: 656208

Lab Control Sample
KQ1915120-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,2,4-Trichlorobenzene	2.08	3.33	62	43-98
1,2-Dichlorobenzene	1.94	3.33	58	42-96
1,3-Dichlorobenzene	1.88	3.33	56	39-93
1,4-Dichlorobenzene	1.91	3.33	57	40-93
2,2'-Oxybis(1-chloropropane)	1.72	3.33	52	37-102
2,4,5-Trichlorophenol	1.94	3.33	58	46-117
2,4,6-Trichlorophenol	2.00	3.33	60	50-114
2,4-Dichlorophenol	1.91	3.33	57	52-106
2,4-Dimethylphenol	1.39	3.33	42	18-94
2,4-Dinitrophenol	2.32	3.33	70	22-136
2,4-Dinitrotoluene	2.67	3.33	80	44-120
2,6-Dinitrotoluene	2.48	3.33	74	47-116
2-Chloronaphthalene	2.22	3.33	67	48-102
2-Chlorophenol	1.75	3.33	53	49-102
2-Methyl-4,6-dinitrophenol	2.23	3.33	67	36-132
2-Methylnaphthalene	2.11	3.33	63	47-102
2-Methylphenol	1.80	3.33	54	46-109
2-Nitroaniline	2.25	3.33	67	53-106
2-Nitrophenol	2.05	3.33	62	50-111
3,3'-Dichlorobenzidine	2.19	3.33	66	28-90
3-Nitroaniline	2.35	3.33	70	45-108
4-Bromophenyl Phenyl Ether	2.23	3.33	67	54-113
4-Chloro-3-methylphenol	1.92	3.33	58	53-109
4-Chloroaniline	1.94	3.33	58	43-100
4-Chlorophenyl Phenyl Ether	2.16	3.33	65	52-106
4-Methylphenol	1.75	3.33	52	48-114
4-Nitroaniline	2.48	3.33	75	44-113
4-Nitrophenol	2.73	3.33	82	41-135
Acenaphthene	2.13	3.33	64	51-102
Acenaphthylene	2.16	3.33	65	48-103
Aniline	1.53	3.33	46	30-95
Anthracene	2.25	3.33	68	53-101
Benz(a)anthracene	2.33	3.33	70	55-106
Benzo(a)pyrene	2.48	3.33	74	52-104
Benzo(b)fluoranthene	2.31	3.33	69	50-107
Benzo(g,h,i)perylene	2.02	3.33	61	50-111
Benzo(k)fluoranthene	2.53	3.33	76	52-107
Benzoic Acid	2.65	3.33	79	31-125
Benzyl Alcohol	1.98	3.33	59	48-107
Bis(2-chloroethoxy)methane	2.07	3.33	62	51-102
Bis(2-chloroethyl) Ether	1.92	3.33	57	47-104

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649
Date Analyzed: 10/19/19
Date Extracted: 10/16/19

Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Units: mg/Kg
Basis: Dry
Analysis Lot: 656208

Lab Control Sample
KQ1915120-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Bis(2-ethylhexyl) Phthalate	2.83	3.33	85	49-114
Butyl Benzyl Phthalate	2.94	3.33	88	51-114
Chrysene	2.34	3.33	70	51-102
Dibenz(a,h)anthracene	2.49	3.33	75	56-109
Dibenzofuran	2.18	3.33	65	48-100
Diethyl Phthalate	2.52	3.33	75	52-105
Dimethyl Phthalate	2.42	3.33	73	53-104
Di-n-butyl Phthalate	2.80	3.33	84	53-107
Di-n-octyl Phthalate	2.63	3.33	79	44-119
Fluoranthene	2.59	3.33	78	53-111
Fluorene	2.27	3.33	68	51-100
Hexachlorobenzene	2.13	3.33	64	54-110
Hexachlorobutadiene	2.13	3.33	64	36-101
Hexachlorocyclopentadiene	1.11	3.33	33	10-50
Hexachloroethane	1.91	3.33	57	35-94
Indeno(1,2,3-cd)pyrene	2.36	3.33	71	56-108
Isophorone	1.91	3.33	57	44-105
Naphthalene	2.11	3.33	63	46-98
Nitrobenzene	2.11	3.33	63	51-109
N-Nitrosodimethylamine	1.98 J	3.33	60	43-116
N-Nitrosodi-n-propylamine	1.89	3.33	57	51-107
N-Nitrosodiphenylamine	2.25	3.33	68	38-106
Pentachlorophenol	1.98 J	3.33	59	35-113
Phenanthrene	2.26	3.33	68	54-102
Phenol	1.52	3.33	46	46-99
Pyrene	2.48	3.33	75	47-113

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649
Date Analyzed: 10/19/19 10:50
Date Extracted: 10/16/19

Method Blank Summary
Semivolatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: KQ1915120-04
Analysis Method: 8270D
Prep Method: EPA 3541

Instrument ID: K-MS-07
File ID: J:\MS07\DATA\101919\1019F003.D\
Analysis Lot: 656208
Extraction Lot: 346731

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	KQ1915120-03	J:\MS07\DATA\101919\1019F004.D\	10/19/19 11:31
Muriate of Potash 0-0-60MS	KQ1915120-01	J:\MS07\DATA\101919\1019F005.D\	10/19/19 12:12
Muriate of Potash 0-0-60DMS	KQ1915120-02	J:\MS07\DATA\101919\1019F006.D\	10/19/19 12:54
Muriate of Potash 0-0-60	K1909649-002	J:\MS07\DATA\101919\1019F007.D\	10/19/19 13:35
TSP 052419	K1909649-003	J:\MS07\DATA\101919\1019F008.D\	10/19/19 14:16
Landfill Ash 5-13-19	K1909649-004	J:\MS07\DATA\101919\1019F009.D\	10/19/19 14:58
Biosolids B	K1909649-005	J:\MS07\DATA\101919\1019F010.D\	10/19/19 15:39

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909649
Date Analyzed: 10/19/19 11:31
Date Extracted: 10/16/19

Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Sample Name: Lab Control Sample
Lab Code: KQ1915120-03
Analysis Method: 8270D
Prep Method: EPA 3541

Instrument ID: K-MS-07
File ID: J:\MS07\DATA\101919\1019F004.D\
Analysis Lot: 656208
Extraction Lot: 346731

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	KQ1915120-04	J:\MS07\DATA\101919\1019F003.D\	10/19/19 10:50
Muriate of Potash 0-0-60MS	KQ1915120-01	J:\MS07\DATA\101919\1019F005.D\	10/19/19 12:12
Muriate of Potash 0-0-60DMS	KQ1915120-02	J:\MS07\DATA\101919\1019F006.D\	10/19/19 12:54
Muriate of Potash 0-0-60	K1909649-002	J:\MS07\DATA\101919\1019F007.D\	10/19/19 13:35
TSP 052419	K1909649-003	J:\MS07\DATA\101919\1019F008.D\	10/19/19 14:16
Landfill Ash 5-13-19	K1909649-004	J:\MS07\DATA\101919\1019F009.D\	10/19/19 14:58
Biosolids B	K1909649-005	J:\MS07\DATA\101919\1019F010.D\	10/19/19 15:39

ALS Group USA, Corp.
dba ALS Environmental

QC/QC Report

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909649
Date Analyzed: 10/19/19 08:29

Tune Summary
Semivolatile Organic Compounds by GC/MS

File ID: J:\MS07\DATA\101919\1019F001.D\
Instrument ID: K-MS-07

Analytical Method: 8270D
Analysis Lot: 656208

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	30	80	56.12	21456	Pass
68	69	0	2	0.00	0	Pass
69	198	0	100	73.01	27912	Pass
70	69	0	2	0.00	0	Pass
127	198	25	75	54.28	20752	Pass
197	198	0	1	0.00	0	Pass
198	198	100	100	100.00	38232	Pass
199	198	5	9	6.80	2599	Pass
275	198	10	30	24.25	9272	Pass
365	198	0.75	100	2.96	1130	Pass
441	443	0.01	100	75.15	3593	Pass
442	198	40	110	62.15	23760	Pass
443	442	15	24	20.12	4781	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	KQ1915292-04	J:\MS07\DATA\101919\1019F002.D\	10/19/19 10:09	
Method Blank	KQ1915120-04	J:\MS07\DATA\101919\1019F003.D\	10/19/19 10:50	
Lab Control Sample	KQ1915120-03	J:\MS07\DATA\101919\1019F004.D\	10/19/19 11:31	
Muriate of Potash 0-0-60	KQ1915120-01	J:\MS07\DATA\101919\1019F005.D\	10/19/19 12:12	
Muriate of Potash 0-0-60	KQ1915120-02	J:\MS07\DATA\101919\1019F006.D\	10/19/19 12:54	
Muriate of Potash 0-0-60	K1909649-002	J:\MS07\DATA\101919\1019F007.D\	10/19/19 13:35	
TSP 052419	K1909649-003	J:\MS07\DATA\101919\1019F008.D\	10/19/19 14:16	
Landfill Ash 5-13-19	K1909649-004	J:\MS07\DATA\101919\1019F009.D\	10/19/19 14:58	
Biosolids B	K1909649-005	J:\MS07\DATA\101919\1019F010.D\	10/19/19 15:39	

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909649
Calibration Date: 10/17/2019

Initial Calibration Summary
Semivolatile Organic Compounds by GC/MS

Calibration ID: KC1900441
Instrument ID: K-MS-07

Signal ID: 1

#	Lab Code	Sample Name	File Location	Acquisition Date
02	KC1900441-02	8270/P ICAL @ 1ppm SVM62-22C	J:\MS07\DATA\101719\1017F003.D	10/17/2019 13:49
03	KC1900441-03	8270/P ICAL @ 2.5ppm SVM62-22D	J:\MS07\DATA\101719\1017F004.D	10/17/2019 14:31
04	KC1900441-04	8270/P ICAL @ 5ppm SVM62-22E	J:\MS07\DATA\101719\1017F005.D	10/17/2019 15:12
05	KC1900441-05	8270/P ICAL @ 7.5ppm SVM62-22F	J:\MS07\DATA\101719\1017F006.D	10/17/2019 15:53
06	KC1900441-06	8270/P ICAL @ 10ppm SVM62-22G	J:\MS07\DATA\101719\1017F007.D	10/17/2019 16:35
07	KC1900441-07	8270/P ICAL @ 20ppm SVM62-22H	J:\MS07\DATA\101719\1017F008.D	10/17/2019 17:16
08	KC1900441-08	8270/P ICAL @ 50ppm SVM62-22I	J:\MS07\DATA\101719\1017F009.D	10/17/2019 17:58
09	KC1900441-09	8270/P ICAL @ 80ppm SVM62-22J	J:\MS07\DATA\101719\1017F010.D	10/17/2019 18:40
10	KC1900441-10	8270/P ICAL @ 140ppm SVM62-22L	J:\MS07\DATA\101719\1017F012.D	10/17/2019 20:03
11	KC1900441-11	8270/P ICAL @ 180ppm SVM62-22M	J:\MS07\DATA\101719\1017F013.D	10/17/2019 20:44
12	KC1900441-12	8270/P ICAL @ 200ppm SVM62-22N	J:\MS07\DATA\101719\1017F014.D	10/17/2019 21:26

Analyte

1,2,4-Trichlorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.3686	03	2.500	0.3482	04	5.000	0.3403	05	7.500	0.3348
06	10.000	0.3445	07	20.000	0.3304	08	50.000	0.3417	09	80.000	0.3446
10	140.000	0.3454	11	180.000	0.3397	12	200.000	0.3344			

1,2-Dichlorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.552	03	2.500	1.293	04	5.000	1.356	05	7.500	1.364
06	10.000	1.364	07	20.000	1.361	08	50.000	1.405	09	80.000	1.431
10	140.000	1.379	11	180.000	1.359	12	200.000	1.366			

1,3-Dichlorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.506	03	2.500	1.338	04	5.000	1.411	05	7.500	1.433
06	10.000	1.416	07	20.000	1.416	08	50.000	1.438	09	80.000	1.46
10	140.000	1.431	11	180.000	1.435	12	200.000	1.389			

1,4-Dichlorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.395	03	2.500	1.426	04	5.000	1.556	05	7.500	1.522
06	10.000	1.494	07	20.000	1.47	08	50.000	1.51	09	80.000	1.536
10	140.000	1.461	11	180.000	1.468	12	200.000	1.468			

2,2'-Oxybis(1-chloropropane)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.500	1.102	04	5.000	1.16	05	7.500	1.097	06	10.000	1.105
07	20.000	1.149	08	50.000	1.16	09	80.000	1.152	10	140.000	1.051
11	180.000	1.016	12	200.000	1.003						

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909649
Calibration Date: 10/17/2019

Initial Calibration Summary
Semivolatile Organic Compounds by GC/MS

Calibration ID: KC1900441
Instrument ID: K-MS-07

Signal ID: 1

Analyte

2,4,5-Trichlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	5.000	0.371	05	7.500	0.4108	06	10.000	0.4209	07	20.000	0.4623
08	50.000	0.4927	09	80.000	0.4885	10	140.000	0.4833	11	180.000	0.4838
12	200.000	0.4737									

2,4,6-Tribromophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
05	7.500	0.1901	06	10.000	0.2147	07	20.000	0.2402	08	50.000	0.2673
09	80.000	0.2778	10	140.000	0.2758	11	180.000	0.2754	12	200.000	0.2649

2,4,6-Trichlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	5.000	0.3304	05	7.500	0.3623	06	10.000	0.397	07	20.000	0.4072
08	50.000	0.4412	09	80.000	0.4527	10	140.000	0.4411	11	180.000	0.4467
12	200.000	0.4458									

2,4-Dichlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.2564	03	2.500	0.2897	04	5.000	0.3055	05	7.500	0.3206
06	10.000	0.3204	07	20.000	0.3244	08	50.000	0.3319	09	80.000	0.3326
10	140.000	0.3252	11	180.000	0.3227	12	200.000	0.3211			

2,4-Dimethylphenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.2807	03	2.500	0.2779	04	5.000	0.2929	05	7.500	0.29
06	10.000	0.2851	07	20.000	0.3092	08	50.000	0.2977	09	80.000	0.3032
10	140.000	0.2897	11	180.000	0.288	12	200.000	0.2841			

2,4-Dinitrophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	10.000	0.02282	07	20.000	0.06053	08	50.000	0.1216	09	80.000	0.1599
10	140.000	0.1952	11	180.000	0.2249	12	200.000	0.2326			

2,4-Dinitrotoluene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.3237	03	2.500	0.2993	04	5.000	0.3504	05	7.500	0.3722
06	10.000	0.3802	07	20.000	0.3977	08	50.000	0.3967	09	80.000	0.3801
10	140.000	0.4002	11	180.000	0.4318	12	200.000	0.4182			

2,6-Dinitrotoluene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.2556	03	2.500	0.2343	04	5.000	0.2796	05	7.500	0.2977
06	10.000	0.2953	07	20.000	0.3108	08	50.000	0.3144	09	80.000	0.3041
10	140.000	0.3014	11	180.000	0.3063	12	200.000	0.3148			

2-Chloronaphthalene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.07	03	2.500	0.9877	04	5.000	1.016	05	7.500	1.049

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2-Chloronaphthalene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	10.000	1.067	07	20.000	1.086	08	50.000	1.154	09	80.000	1.203
10	140.000	1.166	11	180.000	1.196	12	200.000	1.181			

2-Chlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.303	03	2.500	1.241	04	5.000	1.305	05	7.500	1.304
06	10.000	1.302	07	20.000	1.306	08	50.000	1.377	09	80.000	1.411
10	140.000	1.356	11	180.000	1.352	12	200.000	1.344			

2-Fluorobiphenyl

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.415	03	2.500	1.404	04	5.000	1.361	05	7.500	1.404
06	10.000	1.412	07	20.000	1.436	08	50.000	1.49	09	80.000	1.591
10	140.000	1.576	11	180.000	1.599	12	200.000	1.561			

2-Fluorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.154	03	2.500	1.16	04	5.000	1.204	05	7.500	1.253
06	10.000	1.275	07	20.000	1.259	08	50.000	1.24	09	80.000	1.263
10	140.000	1.243	11	180.000	1.231	12	200.000	1.252			

2-Methyl-4,6-dinitrophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
05	7.500	0.06817	06	10.000	0.1137	07	20.000	0.1662	08	50.000	0.218
09	80.000	0.2431	10	140.000	0.2705	11	180.000	0.2918	12	200.000	0.2896

2-Methylnaphthalene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.6742	03	2.500	0.6523	04	5.000	0.6464	05	7.500	0.656
06	10.000	0.6829	07	20.000	0.668	08	50.000	0.689	09	80.000	0.6504
10	140.000	0.6428	11	180.000	0.6459	12	200.000	0.6376			

2-Methylphenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.069	03	2.500	0.9233	04	5.000	0.9822	05	7.500	0.9489
06	10.000	0.9426	07	20.000	0.995	08	50.000	1.079	09	80.000	1.084
10	140.000	1.011	11	180.000	0.9791	12	200.000	0.9683			

2-Nitroaniline

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.3831	03	2.500	0.2803	04	5.000	0.338	05	7.500	0.3691
06	10.000	0.3644	07	20.000	0.3805	08	50.000	0.3713	09	80.000	0.3596
10	140.000	0.3653	11	180.000	0.3724	12	200.000	0.3733			

2-Nitrophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	5.000	0.1542	05	7.500	0.1774	06	10.000	0.1919	07	20.000	0.2026

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2-Nitrophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
08	50.000	0.2073	09	80.000	0.2149	10	140.000	0.2078	11	180.000	0.2089
12	200.000	0.2072									

3,3'-Dichlorobenzidine

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.500	0.3669	04	5.000	0.4309	05	7.500	0.433	06	10.000	0.4658
07	20.000	0.4594	08	50.000	0.5075	09	80.000	0.5596	10	140.000	0.5491
11	180.000	0.5458	12	200.000	0.5363						

3-Nitroaniline

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.2475	03	2.500	0.2536	04	5.000	0.2951	05	7.500	0.3087
06	10.000	0.331	07	20.000	0.3324	08	50.000	0.3308	09	80.000	0.3153
10	140.000	0.3214	11	180.000	0.3378	12	200.000	0.3397			

4-Bromophenyl Phenyl Ether

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.2643	03	2.500	0.2507	04	5.000	0.2469	05	7.500	0.2489
06	10.000	0.2668	07	20.000	0.261	08	50.000	0.2876	09	80.000	0.2841
10	140.000	0.2713	11	180.000	0.2674	12	200.000	0.2572			

4-Chloro-3-methylphenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.23	03	2.500	0.2622	04	5.000	0.3112	05	7.500	0.3117
06	10.000	0.3203	07	20.000	0.3268	08	50.000	0.3327	09	80.000	0.3027
10	140.000	0.2918	11	180.000	0.2912	12	200.000	0.2856			

4-Chloroaniline

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.4488	03	2.500	0.4335	04	5.000	0.4533	05	7.500	0.4392
06	10.000	0.4585	07	20.000	0.4566	08	50.000	0.4687	09	80.000	0.4281
10	140.000	0.4143	11	180.000	0.4052	12	200.000	0.412			

4-Chlorophenyl Phenyl Ether

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.7576	03	2.500	0.6837	04	5.000	0.6613	05	7.500	0.687
06	10.000	0.6675	07	20.000	0.6615	08	50.000	0.6566	09	80.000	0.6352
10	140.000	0.6381	11	180.000	0.653	12	200.000	0.6363			

4-Methylphenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.353	03	2.500	1.368	04	5.000	1.493	05	7.500	1.479
06	10.000	1.564	07	20.000	1.491	08	50.000	1.601	09	80.000	1.627
10	140.000	1.534	11	180.000	1.494	12	200.000	1.486			

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4-Nitroaniline

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.500	0.2553	04	5.000	0.3035	05	7.500	0.305	06	10.000	0.292
07	20.000	0.3169	08	50.000	0.3133	09	80.000	0.3118	10	140.000	0.3301
11	180.000	0.3469	12	200.000	0.3482						

4-Nitrophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	5.000	0.1671	05	7.500	0.1815	06	10.000	0.1924	07	20.000	0.2184
08	50.000	0.2428	09	80.000	0.2405	10	140.000	0.268	11	180.000	0.2907
12	200.000	0.2897									

Acenaphthene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.074	03	2.500	0.9854	04	5.000	1.007	05	7.500	1.018
06	10.000	1.049	07	20.000	1.019	08	50.000	1.037	09	80.000	1.022
10	140.000	1.002	11	180.000	1.003	12	200.000	0.9667			

Acenaphthylene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.624	03	2.500	1.522	04	5.000	1.605	05	7.500	1.637
06	10.000	1.645	07	20.000	1.642	08	50.000	1.714	09	80.000	1.728
10	140.000	1.633	11	180.000	1.671	12	200.000	1.649			

Aniline

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.797	03	2.500	1.652	04	5.000	1.729	05	7.500	1.709
06	10.000	1.773	07	20.000	1.784	08	50.000	1.765	09	80.000	1.764
10	140.000	1.716	11	180.000	1.711	12	200.000	1.696			

Anthracene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.11	03	2.500	1.055	04	5.000	1.062	05	7.500	1.032
06	10.000	1.08	07	20.000	1.084	08	50.000	1.065	09	80.000	1.086
10	140.000	1.063	11	180.000	1.075	12	200.000	1.015			

Benz(a)anthracene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.172	03	2.500	0.9552	04	5.000	0.9861	05	7.500	0.9676
06	10.000	1.013	07	20.000	1.015	08	50.000	1.062	09	80.000	1.064
10	140.000	1.03	11	180.000	1.023	12	200.000	1.019			

Benzo(a)pyrene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.8752	03	2.500	0.8317	04	5.000	0.8463	05	7.500	0.8788
06	10.000	0.895	07	20.000	0.9677	08	50.000	1.029	09	80.000	1.06
10	140.000	1.059	11	180.000	1.042	12	200.000	1.022			

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Benzo(b)fluoranthene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
05	7.500	0.9578	06	10.000	0.9596	07	20.000	1.025	08	50.000	1.11
09	80.000	1.196	10	140.000	1.29	11	180.000	1.322	12	200.000	1.351

Benzo(g,h,i)perylene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.8434	03	2.500	0.8484	04	5.000	0.9114	05	7.500	0.9592
06	10.000	1.041	07	20.000	1.094	08	50.000	1.066	09	80.000	1.108
10	140.000	1.085	11	180.000	1.085	12	200.000	1.069			

Benzo(k)fluoranthene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.9544	03	2.500	0.9169	04	5.000	0.9472	05	7.500	0.9673
06	10.000	0.9709	07	20.000	1.049	08	50.000	1.115	09	80.000	1.104
10	140.000	0.9793	11	180.000	0.9823	12	200.000	0.8775			

Benzoic Acid

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	10.000	0.02721	07	20.000	0.08667	08	50.000	0.1374	09	80.000	0.1514
10	140.000	0.1757	11	180.000	0.1918	12	200.000	0.1905			

Benzyl Alcohol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.729	03	2.500	0.7636	04	5.000	0.8235	05	7.500	0.7883
06	10.000	0.8231	07	20.000	0.7999	08	50.000	0.868	09	80.000	0.8703
10	140.000	0.8511	11	180.000	0.8337	12	200.000	0.854			

Bis(2-chloroethoxy)methane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.3682	03	2.500	0.3888	04	5.000	0.3703	05	7.500	0.357
06	10.000	0.3862	07	20.000	0.3863	08	50.000	0.3892	09	80.000	0.4025
10	140.000	0.3764	11	180.000	0.3645	12	200.000	0.3657			

Bis(2-chloroethyl) Ether

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.16	03	2.500	1.112	04	5.000	1.166	05	7.500	1.147
06	10.000	1.199	07	20.000	1.165	08	50.000	1.185	09	80.000	1.21
10	140.000	1.146	11	180.000	1.147	12	200.000	1.121			

Bis(2-ethylhexyl) Phthalate

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.5715	03	2.500	0.5501	04	5.000	0.5789	05	7.500	0.6148
06	10.000	0.6685	07	20.000	0.6903	08	50.000	0.7603	09	80.000	0.7815
10	140.000	0.7354	11	180.000	0.7292	12	200.000	0.7121			

Butyl Benzyl Phthalate

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.4258	03	2.500	0.4263	04	5.000	0.503	05	7.500	0.5187

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Butyl Benzyl Phthalate

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	10.000	0.5479	07	20.000	0.5619	08	50.000	0.589	09	80.000	0.6013
10	140.000	0.5513	11	180.000	0.5399	12	200.000	0.5322			

Chrysene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.095	03	2.500	1.026	04	5.000	1.014	05	7.500	1.057
06	10.000	1.076	07	20.000	1.042	08	50.000	1.07	09	80.000	1.091
10	140.000	1.039	11	180.000	1.059	12	200.000	1.044			

Di-n-butyl Phthalate

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.500	0.8823	04	5.000	0.9481	05	7.500	0.9788	06	10.000	0.9839
07	20.000	1.062	08	50.000	1.201	09	80.000	1.299	10	140.000	1.315
11	180.000	1.276	12	200.000	1.238						

Di-n-octyl Phthalate

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	5.000	0.8655	05	7.500	0.9401	06	10.000	0.989	07	20.000	1.101
08	50.000	1.169	09	80.000	1.25	10	140.000	1.261	11	180.000	1.283
12	200.000	1.242									

Dibenz(a,h)anthracene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.500	0.7255	04	5.000	0.8067	05	7.500	0.8886	06	10.000	0.937
07	20.000	1.061	08	50.000	1.037	09	80.000	1.109	10	140.000	1.093
11	180.000	1.102	12	200.000	1.073						

Dibenzofuran

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.803	03	2.500	1.614	04	5.000	1.654	05	7.500	1.669
06	10.000	1.652	07	20.000	1.682	08	50.000	1.677	09	80.000	1.622
10	140.000	1.605	11	180.000	1.688	12	200.000	1.634			

Diethyl Phthalate

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.628	03	2.500	1.167	04	5.000	1.273	05	7.500	1.25
06	10.000	1.265	07	20.000	1.3	08	50.000	1.268	09	80.000	1.18
10	140.000	1.247	11	180.000	1.31	12	200.000	1.278			

Dimethyl Phthalate

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.38	03	2.500	1.189	04	5.000	1.306	05	7.500	1.312
06	10.000	1.287	07	20.000	1.315	08	50.000	1.3	09	80.000	1.246
10	140.000	1.253	11	180.000	1.274	12	200.000	1.272			

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Fluoranthene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.126	03	2.500	0.9052	04	5.000	0.941	05	7.500	0.9114
06	10.000	0.9621	07	20.000	0.9875	08	50.000	1.087	09	80.000	1.142
10	140.000	1.141	11	180.000	1.122	12	200.000	1.094			

Fluorene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.318	03	2.500	1.241	04	5.000	1.263	05	7.500	1.314
06	10.000	1.26	07	20.000	1.248	08	50.000	1.252	09	80.000	1.188
10	140.000	1.183	11	180.000	1.193	12	200.000	1.175			

Hexachlorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.3825	03	2.500	0.3326	04	5.000	0.336	05	7.500	0.3478
06	10.000	0.3571	07	20.000	0.3472	08	50.000	0.3624	09	80.000	0.3638
10	140.000	0.3511	11	180.000	0.3481	12	200.000	0.3389			

Hexachlorobutadiene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.23	03	2.500	0.2244	04	5.000	0.2312	05	7.500	0.2181
06	10.000	0.2294	07	20.000	0.2322	08	50.000	0.2296	09	80.000	0.2473
10	140.000	0.2399	11	180.000	0.2385	12	200.000	0.2358			

Hexachlorocyclopentadiene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	5.000	0.3282	05	7.500	0.3413	06	10.000	0.3785	07	20.000	0.4013
08	50.000	0.4541	09	80.000	0.5376	10	140.000	0.5557	11	180.000	0.5582
12	200.000	0.5449									

Hexachloroethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.6431	03	2.500	0.6646	04	5.000	0.7219	05	7.500	0.6712
06	10.000	0.6789	07	20.000	0.688	08	50.000	0.7065	09	80.000	0.7054
10	140.000	0.6991	11	180.000	0.6885	12	200.000	0.6834			

Indeno(1,2,3-cd)pyrene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	5.000	0.78	05	7.500	0.8563	06	10.000	0.9531	07	20.000	1.08
08	50.000	1.051	09	80.000	1.082	10	140.000	1.106	11	180.000	1.178
12	200.000	1.157									

Isophorone

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.6978	03	2.500	0.6028	04	5.000	0.6539	05	7.500	0.6569
06	10.000	0.6589	07	20.000	0.6652	08	50.000	0.6562	09	80.000	0.6385
10	140.000	0.5993	11	180.000	0.6053	12	200.000	0.6186			

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Signal ID: 1

Analyte

N-Nitrosodi-n-propylamine

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	5.000	0.8242	05	7.500	0.8426	06	10.000	0.9	07	20.000	0.8374
08	50.000	0.9006	09	80.000	0.9042	10	140.000	0.8269	11	180.000	0.8424
12	200.000	0.8232									

N-Nitrosodimethylamine

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.500	0.7211	04	5.000	0.8907	05	7.500	0.8754	06	10.000	0.8833
07	20.000	0.8958	08	50.000	0.9202	09	80.000	0.9325	10	140.000	0.9105
11	180.000	0.9457	12	200.000	0.916						

N-Nitrosodiphenylamine

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.064	03	2.500	0.8827	04	5.000	0.9358	05	7.500	0.9309
06	10.000	0.9125	07	20.000	0.8899	08	50.000	0.8565	09	80.000	0.7948
10	140.000	0.8291	11	180.000	0.8452	12	200.000	0.8462			

Naphthalene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.094	03	2.500	0.9516	04	5.000	0.9337	05	7.500	0.922
06	10.000	0.943	07	20.000	0.953	08	50.000	0.9382	09	80.000	0.9561
10	140.000	0.9208	11	180.000	0.9113	12	200.000	0.9124			

Nitrobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.236	03	2.500	1.23	04	5.000	1.252	05	7.500	1.301
06	10.000	1.307	07	20.000	1.339	08	50.000	1.452	09	80.000	1.444
10	140.000	1.387	11	180.000	1.335	12	200.000	1.379			

Nitrobenzene-d5

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.565	03	2.500	1.356	04	5.000	1.415	05	7.500	1.529
06	10.000	1.522	07	20.000	1.564	08	50.000	1.67	09	80.000	1.668
10	140.000	1.616	11	180.000	1.623	12	200.000	1.581			

Pentachlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	5.000	0.09417	05	7.500	0.1104	06	10.000	0.1359	07	20.000	0.1624
08	50.000	0.207	09	80.000	0.2255	10	140.000	0.2341	11	180.000	0.2403
12	200.000	0.2326									

Phenanthrene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.181	03	2.500	1.053	04	5.000	1.029	05	7.500	1.022
06	10.000	1.029	07	20.000	1.006	08	50.000	1.019	09	80.000	1.049
10	140.000	0.9994	11	180.000	1.033	12	200.000	0.9916			

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909649
Calibration Date: 10/17/2019

Initial Calibration Summary
Semivolatile Organic Compounds by GC/MS

Calibration ID: KC1900441
Instrument ID: K-MS-07

Signal ID: 1

Analyte

Phenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.653	03	2.500	1.471	04	5.000	1.578	05	7.500	1.556
06	10.000	1.597	07	20.000	1.607	08	50.000	1.686	09	80.000	1.645
10	140.000	1.634	11	180.000	1.596	12	200.000	1.572			

Phenol-d6

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.675	03	2.500	1.338	04	5.000	1.508	05	7.500	1.519
06	10.000	1.507	07	20.000	1.537	08	50.000	1.578	09	80.000	1.614
10	140.000	1.544	11	180.000	1.525	12	200.000	1.529			

Pyrene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.379	03	2.500	1.144	04	5.000	1.158	05	7.500	1.13
06	10.000	1.167	07	20.000	1.152	08	50.000	1.295	09	80.000	1.299
10	140.000	1.217	11	180.000	1.181	12	200.000	1.161			

Terphenyl-d14

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.223	03	2.500	0.9776	04	5.000	1.026	05	7.500	1.016
06	10.000	1.064	07	20.000	1.028	08	50.000	1.169	09	80.000	1.197
10	140.000	1.095	11	180.000	1.061	12	200.000	1.049			

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909649
Calibration Date: 10/17/2019

Initial Calibration Summary
Semivolatile Organic Compounds by GC/MS

Calibration ID: KC1900441
Instrument ID: K-MS-07

Signal ID: 1

Analyte Name	Compound Type	Calibration Evaluation				Calibration Evaluation	
		Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
1,2,4-Trichlorobenzene	TRG	Average RF	% RSD	2.9	20	0.343	0.01
1,2-Dichlorobenzene	TRG	Average RF	% RSD	4.7	20	1.385	0.01
1,3-Dichlorobenzene	TRG	Average RF	% RSD	2.9	20	1.425	0.01
1,4-Dichlorobenzene	TRG	Average RF	% RSD	3.2	20	1.482	0.01
2,2'-Oxybis(1-chloropropane)	TRG	Average RF	% RSD	5.4	20	1.099	0.01
2,4,5-Trichlorophenol	TRG	Average RF	% RSD	9.5	20	0.4541	0.2
2,4,6-Tribromophenol	SURR	Average RF	% RSD	13.1	20	0.2508	0.01
2,4,6-Trichlorophenol	TRG	Average RF	% RSD	10.5	20	0.4138	0.2
2,4-Dichlorophenol	TRG	Average RF	% RSD	7.2	20	0.3137	0.2
2,4-Dimethylphenol	TRG	Average RF	% RSD	3.3	20	0.2908	0.2
2,4-Dinitrophenol	TRG	Quadratic	COD	0.9995	0.990	0.1453	0.01
2,4-Dinitrotoluene	TRG	Average RF	% RSD	10.5	20	0.3773	0.2
2,6-Dinitrotoluene	TRG	Average RF	% RSD	8.8	20	0.2922	0.2
2-Chloronaphthalene	TRG	Average RF	% RSD	6.9	20	1.107	0.8
2-Chlorophenol	TRG	Average RF	% RSD	3.5	20	1.327	0.8
2-Fluorobiphenyl	SURR	Average RF	% RSD	6.0	20	1.477	0.01
2-Fluorophenol	SURR	Average RF	% RSD	3.3	20	1.23	0.01
2-Methyl-4,6-dinitrophenol	TRG	Quadratic	COD	0.9994	0.990	0.2076	0.01
2-Methylnaphthalene	TRG	Average RF	% RSD	2.6	20	0.6587	0.4
2-Methylphenol	TRG	Average RF	% RSD	5.6	20	0.9983	0.7
2-Nitroaniline	TRG	Average RF	% RSD	8.1	20	0.3598	0.01
2-Nitrophenol	TRG	Average RF	% RSD	9.9	20	0.1969	0.1
3,3'-Dichlorobenzidine	TRG	Average RF	% RSD	13.2	20	0.4854	0.01
3-Nitroaniline	TRG	Average RF	% RSD	10.4	20	0.3103	0.01
4-Bromophenyl Phenyl Ether	TRG	Average RF	% RSD	5.1	20	0.2642	0.1
4-Chloro-3-methylphenol	TRG	Average RF	% RSD	10.1	20	0.2969	0.01
4-Chloroaniline	TRG	Average RF	% RSD	4.8	20	0.438	0.01
4-Chlorophenyl Phenyl Ether	TRG	Average RF	% RSD	5.2	20	0.6671	0.4
4-Methylphenol	TRG	Average RF	% RSD	5.6	20	1.499	0.6
4-Nitroaniline	TRG	Average RF	% RSD	8.7	20	0.3123	0.01
4-Nitrophenol	TRG	Quadratic	COD	0.9995	0.990	0.2323	0.01
Acenaphthene	TRG	Average RF	% RSD	2.9	20	1.017	0.9
Acenaphthylene	TRG	Average RF	% RSD	3.3	20	1.643	0.9
Aniline	TRG	Average RF	% RSD	2.5	20	1.736	0.01

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909649
Calibration Date: 10/17/2019

Initial Calibration Summary
Semivolatile Organic Compounds by GC/MS

Calibration ID: KC1900441
Instrument ID: K-MS-07

Signal ID: 1

Analyte Name	Compound Type	Calibration Evaluation				Calibration Evaluation	
		Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
Anthracene	TRG	Average RF	% RSD	2.5	20	1.066	0.7
Benz(a)anthracene	TRG	Average RF	% RSD	5.7	20	1.028	0.8
Benzo(a)pyrene	TRG	Average RF	% RSD	9.5	20	0.9551	0.7
Benzo(b)fluoranthene	TRG	Average RF	% RSD	14.0	20	1.151	0.7
Benzo(g,h,i)perylene	TRG	Average RF	% RSD	10.0	20	1.01	0.5
Benzo(k)fluoranthene	TRG	Average RF	% RSD	7.4	20	0.9876	0.7
Benzoic Acid	TRG	Quadratic	COD	0.9992	0.990	0.1373	0.01
Benzyl Alcohol	TRG	Average RF	% RSD	5.5	20	0.8186	0.01
Bis(2-chloroethoxy)methane	TRG	Average RF	% RSD	3.7	20	0.3777	0.3
Bis(2-chloroethyl) Ether	TRG	Average RF	% RSD	2.6	20	1.16	0.7
Bis(2-ethylhexyl) Phthalate	TRG	Average RF	% RSD	12.1	20	0.6721	0.01
Butyl Benzyl Phthalate	TRG	Average RF	% RSD	10.9	20	0.527	0.01
Chrysene	TRG	Average RF	% RSD	2.5	20	1.056	0.7
Di-n-butyl Phthalate	TRG	Average RF	% RSD	14.7	20	1.118	0.01
Di-n-octyl Phthalate	TRG	Average RF	% RSD	13.9	20	1.122	0.01
Dibenz(a,h)anthracene	TRG	Average RF	% RSD	13.9	20	0.9834	0.4
Dibenzofuran	TRG	Average RF	% RSD	3.3	20	1.664	0.8
Diethyl Phthalate	TRG	Average RF	% RSD	9.4	20	1.288	0.01
Dimethyl Phthalate	TRG	Average RF	% RSD	3.8	20	1.285	0.01
Fluoranthene	TRG	Average RF	% RSD	9.3	20	1.038	0.6
Fluorene	TRG	Average RF	% RSD	4.0	20	1.24	0.9
Hexachlorobenzene	TRG	Average RF	% RSD	4.1	20	0.3516	0.1
Hexachlorobutadiene	TRG	Average RF	% RSD	3.4	20	0.2324	0.01
Hexachlorocyclopentadiene	TRG	Quadratic	COD	0.9981	0.990	0.4555	0.05
Hexachloroethane	TRG	Average RF	% RSD	3.2	20	0.6864	0.3
Indeno(1,2,3-cd)pyrene	TRG	Average RF	% RSD	13.2	20	1.027	0.5
Isophorone	TRG	Average RF	% RSD	4.9	20	0.6412	0.4
N-Nitrosodi-n-propylamine	TRG	Average RF	% RSD	4.1	20	0.8557	0.5
N-Nitrosodimethylamine	TRG	Average RF	% RSD	7.1	20	0.8891	0.01
N-Nitrosodiphenylamine	TRG	Average RF	% RSD	8.1	20	0.8898	0.01
Naphthalene	TRG	Average RF	% RSD	5.3	20	0.9487	0.7
Nitrobenzene	TRG	Average RF	% RSD	5.8	20	1.333	0.2
Nitrobenzene-d5	SURR	Average RF	% RSD	6.3	20	1.555	0.01
Pentachlorophenol	TRG	Quadratic	COD	0.9989	0.990	0.1825	0.05
Phenanthrene	TRG	Average RF	% RSD	4.9	20	1.037	0.7

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909649
Calibration Date: 10/17/2019

Initial Calibration Summary
Semivolatile Organic Compounds by GC/MS

Calibration ID: KC1900441
Instrument ID: K-MS-07

Signal ID: 1

Analyte Name	Compound Type	Calibration Evaluation				Calibration Evaluation	
		Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
Phenol	TRG	Average RF	% RSD	3.6	20	1.6	0.8
Phenol-d6	SURR	Average RF	% RSD	5.4	20	1.534	0.01
Pyrene	TRG	Average RF	% RSD	6.7	20	1.208	0.6
Terphenyl-d14	SURR	Average RF	% RSD	7.4	20	1.082	0.01

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909649
Calibration Date: 10/17/2019

**Initial Calibration Verification Summary
Semivolatile Organic Compounds by GC/MS**

Calibration ID: KC1900441
Instrument ID: K-MS-07

Signal ID: 1

#	Lab Code	Sample Name	File Location	Acquisition Date
13	KC1900441-13	8270 ICV @ 80ppm SVM62-23B	J:\MS07\DATA\101719\1017F015.D	10/17/2019 22:07
01	KC1900441-01	Paper ICV @ 80ppm SVM62-07A	J:\MS07\DATA\101819\1018F002.D	10/18/2019 08:49

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
1,2,4-Trichlorobenzene	80.0	81.0	3.43E-1	3.475E-1	1.31	±30	Average RF
1,2-Dichlorobenzene	80.0	85.1	1.385E0	1.473E0	6.40	±30	Average RF
1,3-Dichlorobenzene	80.0	84.6	1.425E0	1.506E0	5.70	±30	Average RF
1,4-Dichlorobenzene	80.0	81.6	1.482E0	1.513E0	2.04	±30	Average RF
2,4,5-Trichlorophenol	80.0	89.9	4.541E-1	5.104E-1	12.40	±30	Average RF
2,4,6-Trichlorophenol	80.0	88.8	4.138E-1	4.593E-1	10.99	±30	Average RF
2,4-Dichlorophenol	80.0	82.9	3.137E-1	3.252E-1	3.67	±30	Average RF
2,4-Dimethylphenol	80.0	79.5	2.908E-1	2.889E-1	-0.660	±30	Average RF
2,4-Dinitrophenol	80.0	86.0	1.453E-1	1.701E-1	7.52	±30	Quadratic
2,4-Dinitrotoluene	80.0	85.0	3.773E-1	4.009E-1	6.26	±30	Average RF
2,6-Dinitrotoluene	80.0	88.4	2.922E-1	3.228E-1	10.48	±30	Average RF
2-Chloronaphthalene	80.0	88.1	1.107E0	1.219E0	10.12	±30	Average RF
2-Chlorophenol	80.0	81.2	1.327E0	1.347E0	1.50	±30	Average RF
2-Methyl-4,6-dinitrophenol	80.0	85.0	2.076E-1	2.598E-1	6.31	±30	Quadratic
2-Methylnaphthalene	80.0	81.5	6.587E-1	6.711E-1	1.89	±30	Average RF
2-Methylphenol	80.0	85.5	9.983E-1	1.067E0	6.89	±30	Average RF
2-Nitroaniline	80.0	81.5	3.598E-1	3.666E-1	1.90	±30	Average RF
2-Nitrophenol	80.0	83.8	1.969E-1	2.064E-1	4.80	±30	Average RF
3,3'-Dichlorobenzidine	80.0	91.1	4.854E-1	5.531E-1	13.93	±30	Average RF
3-Nitroaniline	80.0	84.0	3.103E-1	3.259E-1	5.02	±30	Average RF
4-Bromophenyl Phenyl Ether	80.0	86.8	2.642E-1	2.867E-1	8.52	±30	Average RF
4-Chloro-3-methylphenol	80.0	85.2	2.969E-1	3.161E-1	6.46	±30	Average RF
4-Chloroaniline	80.0	82.1	4.38E-1	4.498E-1	2.68	±30	Average RF
4-Chlorophenyl Phenyl Ether	80.0	80.2	6.671E-1	6.69E-1	0.287	±30	Average RF
4-Methylphenol	160	143	1.499E0	1.341E0	-10.564	±30	Average RF
4-Nitroaniline	80.0	82.0	3.123E-1	3.201E-1	2.49	±30	Average RF
4-Nitrophenol	80.0	78.8	2.323E-1	2.432E-1	-1.471	±30	Quadratic
Acenaphthene	80.0	82.3	1.017E0	1.046E0	2.90	±30	Average RF
Acenaphthylene	80.0	90.9	1.643E0	1.867E0	13.68	±30	Average RF
Aniline	80.0	81.7	1.736E0	1.773E0	2.13	±30	Average RF
Anthracene	80.0	82.5	1.066E0	1.1E0	3.18	±30	Average RF
Benz(a)anthracene	80.0	92.9	1.028E0	1.193E0	16.07	±30	Average RF

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909649
Calibration Date: 10/17/2019

**Initial Calibration Verification Summary
Semivolatile Organic Compounds by GC/MS**

Calibration ID: KC1900441
Instrument ID: K-MS-07

Signal ID: 1

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
Benzo(a)pyrene	80.0	90.0	9.551E-1	1.074E0	12.44	±30	Average RF
Benzo(b)fluoranthene	80.0	81.8	1.151E0	1.177E0	2.20	±30	Average RF
Benzo(g,h,i)perylene	80.0	90.3	1.01E0	1.14E0	12.88	±30	Average RF
Benzo(k)fluoranthene	80.0	89.6	9.876E-1	1.107E0	12.05	±30	Average RF
Benzoic Acid	80.0	91.7	1.373E-1	1.814E-1	14.57	±30	Quadratic
Benzyl Alcohol	80.0	86.9	8.186E-1	8.892E-1	8.62	±30	Average RF
Bis(2-chloroethoxy)methane	80.0	83.7	3.777E-1	3.953E-1	4.66	±30	Average RF
Bis(2-chloroethyl) Ether	80.0	84.9	1.16E0	1.231E0	6.16	±30	Average RF
Bis(2-ethylhexyl) Phthalate	80.0	95.8	6.721E-1	8.044E-1	19.70	±30	Average RF
Butyl Benzyl Phthalate	80.0	94.0	5.27E-1	6.189E-1	17.44	±30	Average RF
Chrysene	80.0	86.2	1.056E0	1.138E0	7.78	±30	Average RF
Dibenz(a,h)anthracene	80.0	90.5	9.834E-1	1.113E0	13.19	±30	Average RF
Dibenzofuran	80.0	78.6	1.664E0	1.633E0	-1.812	±30	Average RF
Diethyl Phthalate	80.0	76.0	1.288E0	1.223E0	-5.024	±30	Average RF
Dimethyl Phthalate	80.0	77.6	1.285E0	1.246E0	-3.017	±30	Average RF
Di-n-butyl Phthalate	80.0	88.4	1.118E0	1.236E0	10.52	±30	Average RF
Di-n-octyl Phthalate	80.0	82.6	1.122E0	1.159E0	3.31	±30	Average RF
Fluoranthene	80.0	88.4	1.038E0	1.147E0	10.51	±30	Average RF
Fluorene	80.0	82.0	1.24E0	1.271E0	2.55	±30	Average RF
Hexachlorobenzene	80.0	85.0	3.516E-1	3.735E-1	6.22	±30	Average RF
Hexachlorobutadiene	80.0	83.4	2.324E-1	2.424E-1	4.30	±30	Average RF
Hexachlorocyclopentadiene	80.0	82.7	4.555E-1	5.303E-1	3.35	±30	Quadratic
Hexachloroethane	80.0	84.7	6.864E-1	7.272E-1	5.94	±30	Average RF
Indeno(1,2,3-cd)pyrene	80.0	84.3	1.027E0	1.083E0	5.41	±30	Average RF
Isophorone	80.0	78.2	6.412E-1	6.27E-1	-2.222	±30	Average RF
Naphthalene	80.0	83.4	9.487E-1	9.895E-1	4.30	±30	Average RF
Nitrobenzene	80.0	92.4	1.333E0	1.539E0	15.50	±30	Average RF
N-Nitrosodimethylamine	80.0	81.8	8.891E-1	9.087E-1	2.21	±30	Average RF
N-Nitrosodi-n-propylamine	80.0	96.0	8.557E-1	1.027E0	20.00	±30	Average RF
N-Nitrosodiphenylamine	80.0	92.5	8.898E-1	1.029E0	15.67	±30	Average RF
Pentachlorophenol	80.0	83.8	1.825E-1	2.314E-1	4.77	±30	Quadratic
Phenanthrene	80.0	81.8	1.037E0	1.061E0	2.30	±30	Average RF
Phenol	80.0	81.0	1.6E0	1.62E0	1.29	±30	Average RF
Pyrene	80.0	93.5	1.208E0	1.412E0	16.93	±30	Average RF
2,2'-Oxybis(1-chloropropane)	80.0	103	1.099E0	1.412E0	28.44	±30	Average RF

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909649
Calibration Date: 10/17/2019

**Initial Calibration Verification Summary
Semivolatile Organic Compounds by GC/MS**

Calibration ID: KC1900441
Instrument ID: K-MS-07

Signal ID: 1

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
2,4,6-Tribromophenol	80.0	83.0	2.508E-1	2.601E-1	3.73	±30	Average RF
2-Fluorobiphenyl	80.0	80.3	1.477E0	1.484E0	0.433	±30	Average RF
2-Fluorophenol	80.0	77.9	1.23E0	1.198E0	-2.598	±30	Average RF
Nitrobenzene-d5	80.0	84.1	1.555E0	1.636E0	5.17	±30	Average RF
Phenol-d6	80.0	80.8	1.534E0	1.55E0	1.02	±30	Average RF
Terphenyl-d14	80.0	85.6	1.082E0	1.159E0	7.05	±30	Average RF

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909649
Date Analyzed: 10/19/19 10:09

**Continuing Calibration Verification (CCV) Summary
Semivolatile Organic Compounds by GC/MS**

Analysis Method: 8270D
File ID: J:\MS07\DATA\101919\1019F002.D\
Signal ID: 1

Calibration Date: 10/17/2019
Calibration ID: KC1900441
Analysis Lot: 656208
Units: ug/mL

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
1,2,4-Trichlorobenzene	80.0	81.7	0.343	0.3502	2.1	NA	±20	Average RF
1,2-Dichlorobenzene	80.0	77.5	1.3846	1.3404	-3.2	NA	±20	Average RF
1,3-Dichlorobenzene	80.0	77.9	1.4248	1.3874	-2.6	NA	±20	Average RF
1,4-Dichlorobenzene	80.0	79.1	1.4824	1.465	-1.2	NA	±20	Average RF
2,4,5-Trichlorophenol	80.0	76.9	0.4541	0.4368	-3.8	NA	±20	Average RF
2,4,6-Trichlorophenol	80.0	80.7	0.4138	0.4173	0.9	NA	±20	Average RF
2,4-Dichlorophenol	80.0	83.4	0.3137	0.3269	4.2	NA	±20	Average RF
2,4-Dimethylphenol	80.0	78.4	0.2908	0.285	-2.0	NA	±20	Average RF
2,4-Dinitrophenol	80.0	87.1	0.1453	0.1731	NA	8.8	±20	Quadratic
2,4-Dinitrotoluene	80.0	86.8	0.3773	0.4093	8.5	NA	±20	Average RF
2,6-Dinitrotoluene	80.0	83.2	0.2922	0.304	4.0	NA	±20	Average RF
2-Chloronaphthalene	80.0	82.7	1.1069	1.1445	3.4	NA	±20	Average RF
2-Chlorophenol	80.0	80.4	1.3273	1.3334	0.5	NA	±20	Average RF
2-Methyl-4,6-dinitrophenol	80.0	83.3	0.2076	0.2536	NA	4.2	±20	Quadratic
2-Methylnaphthalene	80.0	78.2	0.6587	0.6436	-2.3	NA	±20	Average RF
2-Methylphenol	80.0	81.4	0.9983	1.0152	1.7	NA	±20	Average RF
2-Nitroaniline	80.0	78.9	0.3598	0.355	-1.3	NA	±20	Average RF
2-Nitrophenol	80.0	86.8	0.1969	0.2136	8.5	NA	±20	Average RF
3,3'-Dichlorobenzidine	80.0	85.8	0.4854	0.5204	7.2	NA	±20	Average RF
3-Nitroaniline	80.0	81.2	0.3103	0.3148	1.4	NA	±20	Average RF
4-Bromophenyl Phenyl Ether	80.0	76.1	0.2642	0.2513	-4.9	NA	±20	Average RF
4-Chloro-3-methylphenol	80.0	78.9	0.2969	0.2928	-1.4	NA	±20	Average RF
4-Chloroaniline	80.0	71.2	0.438	0.3899	-11.0	NA	±20	Average RF
4-Chlorophenyl Phenyl Ether	80.0	75.1	0.6671	0.6263	-6.1	NA	±20	Average RF
4-Methylphenol	80.0	79.6	1.4991	1.492	-0.5	NA	±20	Average RF
4-Nitroaniline	80.0	81.3	0.3123	0.3172	1.6	NA	±20	Average RF
4-Nitrophenol	80.0	88.6	0.2323	0.2777	NA	10.7	±20	Quadratic
Acenaphthene	80.0	79.6	1.0166	1.011	-0.5	NA	±20	Average RF
Acenaphthylene	80.0	79.1	1.6427	1.6238	-1.2	NA	±20	Average RF
Aniline	80.0	60.1	1.736	1.3051	-24.8*	NA	±20	Average RF
Anthracene	80.0	78.0	1.0661	1.0389	-2.6	NA	±20	Average RF
Benz(a)anthracene	80.0	80.0	1.0279	1.0283	0.0	NA	±20	Average RF
Benzo(a)pyrene	80.0	84.4	0.9551	1.008	5.5	NA	±20	Average RF
Benzo(b)fluoranthene	80.0	80.7	1.1513	1.1612	0.9	NA	±20	Average RF
Benzo(g,h,i)perylene	80.0	82.9	1.0101	1.0467	3.6	NA	±20	Average RF
Benzo(k)fluoranthene	80.0	86.1	0.9876	1.0634	7.7	NA	±20	Average RF
Benzoic Acid	80.0	103	0.1373	0.21	NA	29.0*	±20	Quadratic
Benzyl Alcohol	80.0	78.2	0.8186	0.7999	-2.3	NA	±20	Average RF
Bis(2-chloroethoxy)methane	80.0	78.6	0.3777	0.371	-1.8	NA	±20	Average RF

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909649
Date Analyzed: 10/19/19 10:09

**Continuing Calibration Verification (CCV) Summary
Semivolatile Organic Compounds by GC/MS**

Analysis Method: 8270D
File ID: J:\MS07\DATA\101919\1019F002.D\
Signal ID: 1

Calibration Date: 10/17/2019
Calibration ID: KC1900441
Analysis Lot: 656208
Units: ug/mL

Bis(2-chloroethyl) Ether	80.0	72.7	1.1599	1.0533	-9.2	NA	±20	Average RF
Bis(2-ethylhexyl) Phthalate	80.0	93.3	0.6721	0.7836	16.6	NA	±20	Average RF
Butyl Benzyl Phthalate	80.0	92.2	0.527	0.6073	15.2	NA	±20	Average RF
Chrysene	80.0	81.0	1.0557	1.0693	1.3	NA	±20	Average RF
Dibenz(a,h)anthracene	80.0	86.1	0.9834	1.058	7.6	NA	±20	Average RF
Dibenzofuran	80.0	76.2	1.6636	1.5846	-4.8	NA	±20	Average RF
Diethyl Phthalate	80.0	80.1	1.2879	1.2887	0.1	NA	±20	Average RF
Dimethyl Phthalate	80.0	78.4	1.2849	1.2588	-2.0	NA	±20	Average RF
Di-n-butyl Phthalate	80.0	92.3	1.1184	1.2898	15.3	NA	±20	Average RF
Di-n-octyl Phthalate	80.0	93.4	1.1224	1.3098	16.7	NA	±20	Average RF
Fluoranthene	80.0	85.8	1.0381	1.113	7.2	NA	±20	Average RF
Fluorene	80.0	77.9	1.2396	1.2076	-2.6	NA	±20	Average RF
Hexachlorobenzene	80.0	75.1	0.3516	0.3301	-6.1	NA	±20	Average RF
Hexachlorobutadiene	80.0	83.0	0.2324	0.2412	3.8	NA	±20	Average RF
Hexachlorocyclopentadiene	80.0	66.2	0.4555	0.4171	NA	-17.3	±20	Quadratic
Hexachloroethane	80.0	80.1	0.6864	0.6875	0.2	NA	±20	Average RF
Indeno(1,2,3-cd)pyrene	80.0	81.9	1.0271	1.0509	2.3	NA	±20	Average RF
Isophorone	80.0	76.0	0.6412	0.6092	-5.0	NA	±20	Average RF
Naphthalene	80.0	78.1	0.9487	0.9257	-2.4	NA	±20	Average RF
Nitrobenzene	80.0	81.6	1.3329	1.359	2.0	NA	±20	Average RF
N-Nitrosodimethylamine	80.0	78.2	0.8891	0.8691	-2.3	NA	±20	Average RF
N-Nitrosodi-n-propylamine	80.0	73.9	0.8557	0.7905	-7.6	NA	±20	Average RF
N-Nitrosodiphenylamine	80.0	76.3	0.8898	0.8488	-4.6	NA	±20	Average RF
Pentachlorophenol	80.0	77.0	0.1825	0.2109	NA	-3.8	±20	Quadratic
Phenanthrene	80.0	78.2	1.0374	1.0143	-2.2	NA	±20	Average RF
Phenol	80.0	70.8	1.5995	1.4152	-11.5	NA	±20	Average RF
Pyrene	80.0	86.0	1.2076	1.2973	7.4	NA	±20	Average RF
2,2'-Oxybis(1-chloropropane)	80.0	65.3	1.0994	0.8973	-18.4	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
2,4,6-Tribromophenol	80.0	71.1	0.2508	0.2229	-11.1	NA	±20	Average RF
2-Fluorobiphenyl	80.0	75.3	1.4773	1.3912	-5.8	NA	±20	Average RF
2-Fluorophenol	80.0	71.5	1.2304	1.0993	-10.7	NA	±20	Average RF
Nitrobenzene-d5	80.0	73.8	1.5554	1.4349	-7.7	NA	±20	Average RF
Phenol-d6	80.0	72.0	1.534	1.38	-10.0	NA	±20	Average RF
Terphenyl-d14	80.0	80.3	1.0824	1.086	0.3	NA	±20	Average RF

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Ramboll US Corporation
 Project: SATES

Service Request:K1909649

Analysis Run Log
 Semivolatile Organic Compounds by GC/MS

Analysis Method:

Analysis Lot:656208

Instrument ID:K-MS-07

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
J:\MS07\DATA\101919\1019F001.D\	ZZZZZZZ	ZZZZZZZ	10/19/2019	08:29:00	
J:\MS07\DATA\101919\1019F001.D\	ZZZZZZZ	ZZZZZZZ	10/19/2019	08:29:00	
J:\MS07\DATA\101919\1019F002.D\	ZZZZZZZ	ZZZZZZZ	10/19/2019	10:09:00	
J:\MS07\DATA\101919\1019F002.D\	Continuing Calibration Verification	KQ1915292-04	10/19/2019	10:09:00	
J:\MS07\DATA\101919\1019F003.D\	Method Blank	KQ1915120-04	10/19/2019	10:50:00	
J:\MS07\DATA\101919\1019F004.D\	Lab Control Sample	KQ1915120-03	10/19/2019	11:31:00	
J:\MS07\DATA\101919\1019F005.D\	Muriate of Potash 0-0-60 MS	KQ1915120-01	10/19/2019	12:12:00	
J:\MS07\DATA\101919\1019F006.D\	Muriate of Potash 0-0-60 DMS	KQ1915120-02	10/19/2019	12:54:00	
J:\MS07\DATA\101919\1019F007.D\	Muriate of Potash 0-0-60	K1909649-002	10/19/2019	13:35:00	
J:\MS07\DATA\101919\1019F008.D\	TSP 052419	K1909649-003	10/19/2019	14:16:00	
J:\MS07\DATA\101919\1019F009.D\	Landfill Ash 5-13-19	K1909649-004	10/19/2019	14:58:00	
J:\MS07\DATA\101919\1019F010.D\	Biosolids B	K1909649-005	10/19/2019	15:39:00	
J:\MS07\DATA\101919\1019F011.D\	ZZZZZZZ	ZZZZZZZ	10/19/2019	16:20:00	
J:\MS07\DATA\101919\1019F012.D\	ZZZZZZZ	ZZZZZZZ	10/19/2019	17:01:00	
J:\MS07\DATA\101919\1019F013.D\	ZZZZZZZ	ZZZZZZZ	10/19/2019	17:43:00	

ALS Group USA, Corp.
dba ALS Environmental

Prep Summary Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request:K1909649

Semivolatile Organic Compounds by GC/MS

Prep Method: EPA 3541
Analytical Method: 8270D

Extraction Lot: 346731
Extraction Date: 10/16/19 18:40

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Amount	Percent Solids
Muriate of Potash 0-0-60	K1909649-002	10/15/19	10/16/19	40.415 g	1 mL	99.8
TSP 052419	K1909649-003	10/15/19	10/16/19	40.095 g	1 mL	98.1
Landfill Ash 5-13-19	K1909649-004	10/15/19	10/16/19	20.4030 g	1 mL	75.1
Biosolids B	K1909649-005	10/15/19	10/16/19	40.610 g	8 mL	95.4
Matrix Spike	KQ1915120-01MS	10/15/19	10/16/19	40.168 g	1 mL	99.8
Duplicate Matrix Spike	KQ1915120-02DMS	10/15/19	10/16/19	40.903 g	1 mL	99.8
Lab Control Sample	KQ1915120-03LCS	NA	NA	30.00 g	1 mL	
Method Blank	KQ1915120-04MB	NA	NA	40.9030 g	1 mL	



Raw Data

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com



Total Solids

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Benchsheet

Service Request #: K1909660, KQ1915109, K1909661,
 K1909649, K1909654
Test: TS
Method: 160.3 Modified

Run #: 655825
Balance ID: K-BALANCE-48

Matrix	Lab Code	Tare (g)	Wet Wt. (g)	Tare + Dry Wt. (g)	Dry Weight (g)	% Total Solids	RPD
Soil	K1909660-001	1.266	14.758	12.762	11.5	77.9	
Soil	K1909660-001DUP	1.267	14.507	12.666	11.4	78.6	<1
Soil	K1909660-002	1.270	15.800	14.219	12.9	82.0	
Soil	K1909661-001	1.258	10.738	9.611	8.35	77.8	
Soil	K1909661-002	1.273	12.001	10.032	8.76	73.0	
Soil	K1909649-001	1.270	14.624	14.795	13.5	92.5	
Soil	K1909649-002	1.268	10.164	11.409	10.1	99.8	
Soil	K1909649-003	1.265	10.490	11.551	10.3	98.1	
Soil	K1909649-004	1.269	10.116	8.865	7.60	75.1	
Soil	K1909649-005	1.267	10.090	10.891	9.62	95.4	
Sediment	K1909654-001	1.261	10.040	12.326	11.1	110	

Oven1	Oven ID	Temp In	Temp Out	Date In	Time In	Date Out	Time Out	Thermometer ID
	K-OVEN-07	105	105	10/16/2019	18:33	10/17/2019	07:53	

	Cal EQID	Cal Start Value	Cal End Value	Start Date	Start Time	End Date	End Time
Calibration1	K-BALANCE-48	1.000, 99.999	1.000, 100.000	10/16/2019	17:00	10/16/2019	18:32
Calibration2	K-BALANCE-48	1.000, 100.000	1.000, 100.000	10/17/2019	09:50	10/17/2019	09:58

Comments: TA SN:42868 Reviewed by SC 10/17/19 K1909654 sent abck for reanalysis.



Metals

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

CVAA Mercury Soil Data Review Form
K-CVAA-02

Element: Hg

Analysis Lot #: 102219B HG2

Starlims #: 656498

Cal. STD/CCV Source: HG3-26-F

Pipette IDs: U52540, HG2-5.0

16mL Tube Lot #: P7340417

KMnO4: HG3-26-E Expiration Date: 10/18/2020

NH2OH-HCl/NaCl HG3-25-W Expiration Date: 10/11/2020

SnCl2/HCl: HG3-26-A Expiration Date: 11/2/2019

Service Request Numbers:

K1909596,K1909649,K1909669,K1909500,K1909753,K1909754,K1909634

K1909600 (TCLP Site)

	Yes	No	NA
1) Appropriate standardization completed	<u>X</u>	<u> </u>	<u> </u>
2) ICV within 10% of true value	<u>X</u>	<u> </u>	<u> </u>
3) CCVs in control (+/- 10%)	<u>X</u>	<u> </u>	<u> </u>
4) CCBs and or ICBs below MRL	<u>X</u>	<u> </u>	<u> </u>
5) CCV/CCB check run every 10 samples	<u>X</u>	<u> </u>	<u> </u>
6) All reported samples within calibration range	<u>X</u>	<u> </u>	<u> </u>
7) Calculations correct	<u>X</u>	<u> </u>	<u> </u>

Comments: K1909754 sent back for redigest per RM. sp 10/23/19

Data reviewed against service request(s) to ensure no samples were omitted: JH (Initials)

Primary Reviewed By: JH

Date: 10/22/19

Secondary Reviewed By: Rad Pu

Date: 10/23/19

Data Review Form

Instrument ID#: K-CVAA-02
DataFile Name: R:\ICPI\WIP\DATA\K-CVAA-02 (QUICKTRACE)\102219B HG2.csv
RUNNO: 656498

K1909500

No exceptions to report.

K1909596

No exceptions to report.

K1909634

No exceptions to report.

K1909649

No exceptions to report.

K1909669



No exceptions to report.

K1909753

No exceptions to report.

K1909754

No exceptions to report.

Primary Approver:  10/22/19
Secondary Approver:  10/23/19

CVAA Hg ANALYTICAL WORKSHEET

Method: 7471	Cal. Inter. Std* (100ppb): HG3-26-F 2nd Source Inter Std** (1ppm): HG3-25-I
---------------------	--

Analysis For: Hg **DATA**

Pos.	SAMPLE NUMBER	Measured (µg/L)	Dilution Factor	Recoveries (ICV, CCV, LCS, MS)	Comments:
1	Cal. Blk.	0.000	~	~	
2	Std 0.2*	0.200	~	(0.10-50mL)	
3	Std 0.5*	0.500	~	(0.25-50mL)	
4	Std 1.0*	1.000	~	(0.5-50mL)	
5	Std 5.0*	5.000	~	(2.5-50mL)	
6	Std 10.0*	10.000	~	(5.0-50mL)	
7	ICV1**	5.09	~	102%	
8	ICB1	-0.011	~		
9	LLICV1*	0.198	~	99%	
10	CCV1*	5.05	~	101%	
11	CCB1	-0.015	~		
12	KQ1915281-01	0.015	~		
13	KQ1915281-02 10X	5.370	10	89%	
14	K1909596-001	0.022	~		
15	K1909596-001A	4.710	~	94%	
16	KQ1915281-03	0.011	~		
17	KQ1915281-04	5.060	~	101%	
18	K1909596-004	0.002	~		
19	K1909596-005	0.014	~		
20	K1909596-006	0.018	~		
21	K1909596-007	0.010	~		
22	CCV2	4.960	~	99%	
23	CCB2	-0.023	~		
24	K1909596-008	0.031	~		
25	K1909649-001	2.300	~		
26	KQ1915281-05	1.780	~		
27	KQ1915281-06	6.830	~	91%	
28	K1909649-002	-0.038	~		
29	K1909649-003	0.216	~		
30	K1909649-004	0.499	~		
31	K1909649-005	10.500	~		OVER RANGE 10/22/19-7
32	K1909669-001	0.435	~		

Comments:

Soil/Tissue Spike Level:

Method	Spike Level	MRL	LCS Limit	MS Limit	RPD	Post-Spike @ 5ppb
7470A Water	5.0 µg/L	0.2 µg/L	80-120%	75-125%	20%	+/- 20%
245.1 Water	5.0 µg/L	0.2 µg/L	85-115%	70-130%	20%	+/- 20%
7470A TCLP	5.0 µg/L	1.0 µg/L	80-120%	75-125%	20%	+/- 20%
7471A Soil LCSS	7.1mg/kg	0.02 mg/kg	51-149%	80-120%	20%	+/- 20%
7471A Tissue Dorm	0.41 mg/kg	0.02 mg/kg	68-136%	80-120%	20%	+/- 20%

CVAH Hg ANALYTICAL WORKSHEET

Analysis For: Hg		DATA				
Pos.	SAMPLE NUMBER	Measured (µg/L)	Dilution Factor	Recoveries (ICV, CCV, LCS, MS)		Comments:
33	KQ1915271-03	-0.029	~			
34	CCV3	4.870	~	97%		
35	CCB3	-0.018	~			
36	KQ1915271-04 10X	5.260	10	88%		
37	K1909500-012	0.964	~			
38	K1909753-001	0.233	~			
39	K1909753-002	1.040	~			
40	K1909753-003	0.521	~			
41	K1909753-004	1.170	~			
42	K1909753-005	0.378	~			
43	K1909753-006	0.502	~			
44	K1909753-007	0.829	~			
45	K1909753-008	0.765	~			
46	CCV4	5.050	~	101%		
47	CCB4	-0.009	~			
48	K1909753-009	0.031	~			
49	K1909753-010	0.059	~			
50	K1909753-011	0.754	~			
51	K1909753-012	2.420	~			SDL= 3%
52	K1909753-014	0.120	~			
53	K1909753-016	1.350	~			
54	K1909753-017	0.341	~			
55	K1909753-018	0.550	~			
56	K1909753-019	0.232	~			
57	K1909753-020	0.407	~			
58	CCV5	4.990	~	100%		
59	CCB5	-0.017	~			
60	K1909753-020A	5.010	~	92%		
61	KQ1915271-01	0.397	~			
62	KQ1915271-02	5.390	~	100%		
63	KQ1915250-03	-0.039	~			
64	KQ1915250-04 10X	5.420	10	88%		
Comments:						
Soil/Tissue Spike Level:						
Method	Spike Level	MRL	LCS Limit	MS Limit	RPD	Post-Spike @ 5ppb
7470A Water	5.0 µg/L	0.2 µg/L	80-120%	75-125%	20%	+/- 20%
245.1 Water	5.0 µg/L	0.2 µg/L	85-115%	70-130%	20%	+/- 20%
7470A TCLP	5.0 µg/L	1.0 µg/L	80-120%	75-125%	20%	+/- 20%
7471A Soil LCSS	7.1mg/kg	0.02 mg/kg	51-149%	80-120%	20%	+/- 20%
7471A Tissue Dorm	0.41 mg/kg	0.02 mg/kg	68-136%	80-120%	20%	+/- 20%

CVAA Hg ANALYTICAL WORKSHEET

Analysis For: Hg		DATA				Comments:
Pos.	SAMPLE NUMBER	Measured (µg/L)	Dilution Factor	Recoveries (ICV, CCV, LCS, MS)		Comments:
65	K1909754-001	2.130	~			SDL= 1%
66	K1909754-002	0.433	~			
67	K1909754-003	0.380	~			
68	K1909754-004	0.181	~			
69	K1909754-005	0.205	~			
70	CCV6	5.070	~	101%		
71	CCB6	0.000	~			
72	K1909754-006	0.502	~			
73	K1909754-007	0.418	~			
74	K1909754-008	0.081	~			
75	K1909754-009	0.165	~			
76	K1909754-010	0.260	~			
77	K1909754-011	0.200	~			
78	K1909754-012	0.839	~			
79	K1909754-013	0.370	~			
80	K1909754-014	0.083	~			
81	K1909754-015	0.229	~			
82	CCV7	4.960	~	99%		
83	CCB7	-0.009	~			
84	K1909754-016	1.260	~			
85	K1909754-016A	5.810	~	91%		
86	KQ1915250-01	4.240	~			SEE RERUN 10/20/19
87	KQ1915250-02	6.050	~	96%		
88	KQ1915282-01	-0.025	~			
89	KQ1915282-02	5.080	~	101%		
90	K1909634-001 E	0.243	~			
91	K1909634-001A E	4.580	~	87%		
92	KQ1915282-03	0.258	~			
93	KQ1915282-04	5.050	~	96%		
94	CCV8	5.020	~	100%		
95	CCB8	-0.023	~			
96	MB	-0.011	~			

Comments:

Soil/Tissue Spike Level:

Method	Spike Level	MRL	LCS Limit	MS Limit	RPD	Post-Spike @ 5ppb
7470A Water	5.0 µg/L	0.2 µg/L	80-120%	75-125%	20%	+/- 20%
245.1 Water	5.0 µg/L	0.2 µg/L	85-115%	70-130%	20%	+/- 20%
7470A TCLP	5.0 µg/L	1.0 µg/L	80-120%	75-125%	20%	+/- 20%
7471A Soil LCSS	7.1mg/kg	0.02 mg/kg	51-149%	80-120%	20%	+/- 20%
7471A Tissue Dorm	0.41 mg/kg	0.02 mg/kg	68-136%	80-120%	20%	+/- 20%

CVAH Hg ANALYTICAL WORKSHEET

Analysis For: Hg		DATA				
Pos.	SAMPLE NUMBER	Measured (µg/L)	Dilution Factor	Recoveries (ICV, CCV, LCS, MS)		Comments:
97	LCS	5.180	~	104%		
98	K1909600-002 E	0.001	~		Cx	0.001
99	K1909600-002A E	3.910	~	78%		
100	K1909600-002 D E	0.006	~		Cx	0.007
101	K1909600-002 S E	3.400	~		Cx	3.953
102	K1909649-005 2X	4.770	2			
103	K1909649-005L 10X	1.190	10			SDL =24% SEE POST SPIKE
104	K1909753-012L 5X	0.468	5			10122119 78
105	K1909754-001L 5X	0.432	5			
106	CCV9	5.100	~	102%		
107	CCB9	-0.018	~			
108	KQ1915250-01	4.240	~			
109	K1909600-002A D E	4.290	~	86%		
110	K1909600-002A S E	7.690	~	86%		
111	KQ1915250-01	9.450	~			WRONG SAMPLE 10122119 78
112	CCV10	5.020	~	100%		
113	CCB10	-0.009	~			
114	K1909649-005A 2X	9.040	2	85%		
115	KQ1915250-01	1.230	~			
116	CCV11	5.040	~	101%		
117	CCB11	-0.019	~			
118						
119						
120						
121						
122						
123						
124						
125						
126						
127						
128						

Comments:

Soil/Tissue Spike Level:						
Method	Spike Level	MRL	LCS Limit	MS Limit	RPD	Post-Spike @ 5ppb
7470A Water	5.0 µg/L	0.2 µg/L	80-120%	75-125%	20%	+/- 20%
245.1 Water	5.0 µg/L	0.2 µg/L	85-115%	70-130%	20%	+/- 20%
7470A TCLP	5.0 µg/L	1.0 µg/L	80-120%	75-125%	20%	+/- 20%
7471A Soil LCSS	7.1mg/kg	0.02 mg/kg	51-149%	80-120%	20%	+/- 20%
7471A Tissue Dorm	0.41 mg/kg	0.02 mg/kg	68-136%	80-120%	20%	+/- 20%

Report Generated By CETAC QuickTrace

Analyst: alkls.alklsp196

Worksheet file: C:\Program Files\QuickTrace\Worksheets\102219B HG2.wsz

Date Started: 10/21/2019 2:50:47 PM

Comment:

Results

Sample Name				Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags
Calibration Blank				STD	10/22/19 08:54:11 am	0.000	152	18.85	
Replicates	137.0	163.3	187.1	122.1					
Standard #1				STD	10/22/19 08:55:48 am	0.200	1047	2.11	
Replicates	1062.4	1029.7	1069.7	1026.6					
Standard #2				STD	10/22/19 08:57:25 am	0.500	2340	1.53	
Replicates	2341.5	2301.5	2387.6	2329.5					
Standard #3				STD	10/22/19 08:59:03 am	1.000	4537	0.67	
Replicates	4509.0	4517.2	4575.7	4545.5					
Standard #4				STD	10/22/19 09:00:42 am	5.000	23166	0.29	
Replicates	23065.6	23213.8	23183.4	23200.7					
Standard #5				STD	10/22/19 09:02:21 am	10.000	44912	0.43	
Replicates	44643.1	44896.0	45061.5	45047.2					

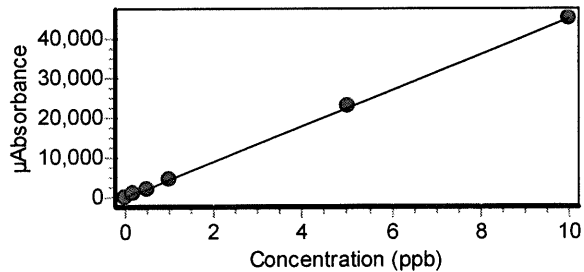
Calibration

Equation: $A = 152.396 + 4500.119C$

R2: 0.99976

SEE: 336.0181

Flags:



ICV1				ICV	10/22/19 09:04:01 am	5.090	23049	0.37	
Replicates	22921.7	23076.7	23101.2	23096.7					
% Recovery	101.76								
ICB1				ICB	10/22/19 09:05:37 am	-0.011	105	27.61	
Replicates	144.1	74.7	100.4	99.3					

Sample Name	Type	Date/Time	Conc (ppb)	μAbs	%RSD	Flags
LLICV1	CRDL	10/22/19 09:07:14 am	0.198	1043	2.59	
Replicates		1031.8 1010.7 1057.8				1071.4
% Recovery		98.95				
CCV1	CCV	10/22/19 09:08:53 am	5.050	22870	0.69	
Replicates		22735.1 22750.4 22931.2				23064.3
% Recovery		100.97				
CCB1	CCB	10/22/19 09:10:29 am	-0.015	85	19.12	
Replicates		78.7 95.5 64.6				99.9
KQ1915281-01	UNK	10/22/19 09:12:05 am	0.015	221	16.84	
Replicates		223.6 270.4 209.6				181.1
KQ1915281-02 10X	UNK	10/22/19 09:13:42 am	5.370	24305	0.21	
Replicates		24242.2 24285.6 24343.3				24348.6
K1909596-001	UNK	10/22/19 09:15:19 am	0.022	252	12.18	
Replicates		263.1 237.0 218.1				288.4
K1909596-001A	UNK	10/22/19 09:16:56 am	4.710	21326	0.16	
Replicates		21294.2 21304.3 21338.3				21367.1
KQ1915281-03	UNK	10/22/19 09:18:34 am	0.011	203	13.95	
Replicates		200.1 242.5 195.0				175.1
KQ1915281-04	UNK	10/22/19 09:20:12 am	5.060	22924	0.54	
Replicates		22748.5 23035.9 22957.9				22952.9
K1909596-004	UNK	10/22/19 09:21:50 am	0.002	163	1.85	
Replicates		165.1 164.8 163.9				158.6
K1909596-005	UNK	10/22/19 09:23:28 am	0.014	215	10.25	
Replicates		235.2 214.7 184.5				225.9
K1909596-006	UNK	10/22/19 09:25:07 am	0.018	232	6.97	
Replicates		213.9 251.8 237.3				225.9

Sample Name				Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags
K1909596-007				UNK	10/22/19 09:26:46 am	0.010	199	21.16	
Replicates	217.8	174.3	156.0	249.3					
CCV2				CCV	10/22/19 09:28:24 am	4.960	22490	0.30	
Replicates	22425.7	22439.3	22540.3	22555.7					
% Recovery	99.28								
CCB2				CCB	10/22/19 09:30:00 am	-0.023	48	103.18	
Replicates	30.8	115.0	47.8	-2.3					
K1909596-008				UNK	10/22/19 09:31:40 am	0.031	290	9.95	
Replicates	278.3	298.1	326.0	258.4					
K1909649-001				UNK	10/22/19 09:33:19 am	2.300	10522	0.20	
Replicates	10500.2	10509.4	10545.9	10532.0					
KQ1915281-05				UNK	10/22/19 09:34:55 am	1.780	8172	0.66	
Replicates	8094.8	8199.8	8178.5	8216.8					
KQ1915281-06				UNK	10/22/19 09:36:31 am	6.830	30908	0.41	
Replicates	31086.2	30890.3	30859.0	30794.9					
K1909649-002				UNK	10/22/19 09:38:08 am	-0.038	-19	101.54	
Replicates	-34.1	-26.7	-25.6	9.5					
K1909649-003				UNK	10/22/19 09:39:45 am	0.216	1125	2.80	
Replicates	1126.5	1084.9	1124.7	1161.9					
K1909649-004				UNK	10/22/19 09:41:22 am	0.499	2397	1.64	
Replicates	2369.3	2455.4	2380.4	2383.2					
K1909649-005				UNK	10/22/19 09:42:59 am	10.500	47446	0.34	O
Replicates	47226.4	47440.5	47516.1	47599.2					
									<i>Over range See dilution 10/22/19 JT</i>
K1909669-001				UNK	10/22/19 09:44:37 am	0.435	2110	1.70	
Replicates	2065.1	2106.3	2152.5	2116.3					

Sample Name				Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags
KQ1915271-03				UNK	10/22/19 09:46:15 am	-0.029	22	181.00	
Replicates	20.6	33.7	-30.9	64.4					
CCV3				CCV	10/22/19 09:47:53 am	4.870	22059	1.67	
Replicates	22485.5	22232.5	21846.0	21673.9					
% Recovery	97.36								
CCB3				CCB	10/22/19 09:49:30 am	-0.018	72	36.05	
Replicates	85.3	68.2	37.2	96.7					
KQ1915271-04 10X				UNK	10/22/19 09:51:08 am	5.260	23819	0.55	
Replicates	23647.5	23809.6	23854.7	23965.2					
K1909500-012				UNK	10/22/19 09:52:46 am	0.964	4489	0.67	
Replicates	4451.8	4478.6	4501.6	4522.1					
K1909753-001				UNK	10/22/19 09:54:25 am	0.233	1202	2.87	
Replicates	1178.7	1188.8	1187.6	1253.5					
K1909753-002				UNK	10/22/19 09:56:04 am	1.040	4831	1.02	
Replicates	4902.1	4807.3	4821.8	4791.6					
K1909753-003				UNK	10/22/19 09:57:40 am	0.521	2498	0.83	
Replicates	2513.6	2490.5	2514.8	2471.5					
K1909753-004				UNK	10/22/19 09:59:17 am	1.170	5439	1.01	
Replicates	5367.9	5501.8	5440.4	5445.4					
K1909753-005				UNK	10/22/19 10:00:53 am	0.378	1853	1.34	
Replicates	1873.8	1856.7	1816.8	1863.1					
K1909753-006				UNK	10/22/19 10:02:30 am	0.502	2412	0.62	
Replicates	2409.0	2395.4	2413.2	2431.7					
K1909753-007				UNK	10/22/19 10:04:07 am	0.829	3881	0.90	
Replicates	3851.0	3855.5	3925.3	3891.9					

Sample Name				Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags
K1909753-008				UNK	10/22/19 10:05:44 am	0.765	3597	1.60	
Replicates	3515.1	3624.4	3602.6	3646.3					
CCV4				CCV	10/22/19 10:07:23 am	5.050	22885	0.50	
Replicates	22843.8	22975.1	22977.3	22742.1					
% Recovery	101.03								
CCB4				CCB	10/22/19 10:08:59 am	-0.009	112	37.83	
Replicates	66.5	160.4	133.2	88.7					
K1909753-009				UNK	10/22/19 10:10:37 am	0.031	294	5.24	
Replicates	315.6	290.5	288.9	279.7					
K1909753-010				UNK	10/22/19 10:12:15 am	0.059	419	6.96	
Replicates	437.0	429.0	435.7	375.9					
K1909753-011				UNK	10/22/19 10:13:53 am	0.754	3545	4.15	
Replicates	3325.3	3601.0	3639.7	3612.2					
K1909753-012				UNK	10/22/19 10:15:32 am	2.420	11043	0.50	
Replicates	10979.4	11058.2	11025.3	11110.9					
K1909753-014				UNK	10/22/19 10:17:11 am	0.120	690	1.86	
Replicates	697.5	688.0	702.1	673.1					
K1909753-016				UNK	10/22/19 10:18:50 am	1.350	6238	0.78	
Replicates	6183.1	6297.6	6218.4	6251.0					
K1909753-017				UNK	10/22/19 10:20:27 am	0.341	1689	1.52	
Replicates	1675.7	1709.2	1710.7	1658.8					
K1909753-018				UNK	10/22/19 10:22:03 am	0.550	2628	1.37	
Replicates	2651.3	2580.9	2618.6	2660.1					
K1909753-019				UNK	10/22/19 10:23:40 am	0.232	1195	1.31	
Replicates	1182.4	1200.2	1183.1	1215.1					

Sample Name				Type	Date/Time	Conc (ppb)	μAbs	%RSD	Flags
K1909753-020				UNK	10/22/19 10:25:16 am	0.407	1985	1.20	
Replicates	1981.8	1979.1	1960.3	2017.6					
CCV5				CCV	10/22/19 10:26:55 am	4.990	22616	0.23	
Replicates	22567.1	22673.9	22644.3	22580.2					
% Recovery	99.84								
CCB5				CCB	10/22/19 10:28:31 am	-0.017	76	68.60	
Replicates	144.4	70.8	68.1	18.8					
K1909753-020A				UNK	10/22/19 10:30:08 am	5.010	22682	0.49	
Replicates	22517.5	22715.4	22766.9	22726.5					
KQ1915271-01				UNK	10/22/19 10:31:46 am	0.397	1940	1.09	
Replicates	1959.9	1910.3	1948.3	1941.6					
KQ1915271-02				UNK	10/22/19 10:33:23 am	5.390	24400	0.55	
Replicates	24217.2	24413.5	24427.7	24541.2					
KQ9195250-03				UNK	10/22/19 10:35:01 am	-0.039	-21	112.79	
Replicates	-17.1	-55.7	-0.8	-11.3					
KQ1915250-04 10X				UNK	10/22/19 10:36:39 am	5.420	24545	0.22	
Replicates	24523.4	24494.3	24621.0	24541.5					
K1909754-001				UNK	10/22/19 10:38:18 am	2.130	9715	0.45	
Replicates	9652.3	9750.4	9739.3	9719.3					
K1909754-002				UNK	10/22/19 10:39:57 am	0.433	2099	1.18	
Replicates	2069.9	2119.9	2087.2	2119.7					
K1909754-003				UNK	10/22/19 10:41:36 am	0.380	1863	2.01	
Replicates	1846.0	1829.0	1863.1	1915.8					
K1909754-004				UNK	10/22/19 10:43:13 am	0.181	967	5.81	
Replicates	1006.5	957.3	891.8	1013.5					

Sample Name				Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags
K1909754-005				UNK	10/22/19 10:44:49 am	0.205	1073	2.03	
Replicates	1064.9	1046.8	1085.6	1095.7					
CCV6				CCV	10/22/19 10:46:28 am	5.070	22988	0.75	
Replicates	22845.9	22851.5	23050.9	23205.4					
% Recovery	101.49								
CCB6				CCB	10/22/19 10:48:04 am	0.000	152	8.77	
Replicates	151.4	147.6	169.9	138.1					
K1909754-006				UNK	10/22/19 10:49:41 am	0.502	2409	2.43	
Replicates	2488.8	2370.0	2361.1	2417.4					
K1909754-007				UNK	10/22/19 10:51:18 am	0.418	2035	1.41	
Replicates	2027.5	2048.5	1999.2	2065.9					
K1909754-008				UNK	10/22/19 10:52:55 am	0.081	516	3.53	
Replicates	532.0	510.7	492.1	527.7					
K1909754-009				UNK	10/22/19 10:54:32 am	0.165	893	5.49	
Replicates	858.1	919.9	948.6	846.4					
K1909754-010				UNK	10/22/19 10:56:10 am	0.260	1322	3.05	
Replicates	1341.1	1270.2	1312.1	1363.6					
K1909754-011				UNK	10/22/19 10:57:48 am	0.200	1051	1.82	
Replicates	1037.5	1040.9	1078.9	1044.8					
K1909754-012				UNK	10/22/19 10:59:26 am	0.839	3928	0.51	
Replicates	3914.5	3909.8	3953.7	3933.1					
K1909754-013				UNK	10/22/19 11:01:05 am	0.370	1818	2.19	
Replicates	1803.1	1838.3	1861.4	1770.6					
K1909754-014				UNK	10/22/19 11:02:43 am	0.082	524	5.40	
Replicates	511.0	566.2	509.6	508.5					

Sample Name	Type	Date/Time	Conc (ppb)	μAbs	%RSD	Flags
K1909754-015 Replicates	UNK	10/22/19 11:04:23 am	0.229	1182	2.01	
			1183.9	1198.0	1198.2	1147.7
CCV7 Replicates % Recovery	CCV	10/22/19 11:06:01 am	4.960	22459	0.53	
			22312.7	22412.0	22541.1	22570.9
			99.14			
CCB7 Replicates	CCB	10/22/19 11:07:37 am	-0.009	111	7.46	
			119.3	99.8	114.1	109.6
K1909754-016 Replicates	UNK	10/22/19 11:09:15 am	1.260	5837	0.64	
			5803.4	5847.3	5885.4	5812.0
K1909754-016A Replicates	UNK	10/22/19 11:10:52 am	5.810	26279	0.52	
			26091.4	26260.2	26377.2	26388.0
KQ1915250-01 Replicates	UNK	10/22/19 11:12:29 am	4.240	19246	0.40	Re run 10/22/19 <i>ST</i>
			19313.4	19161.3	19198.4	19310.3
KQ1915250-02 Replicates	UNK	10/22/19 11:14:07 am	6.050	27378	0.50	
			27197.8	27363.6	27433.6	27518.0
KQ1915282-01 Replicates	UNK	10/22/19 11:15:44 am	-0.024	42	78.64	
			68.9	17.6	9.5	71.9
KQ1915282-02 Replicates	UNK	10/22/19 11:17:21 am	5.080	23031	0.21	
			23025.2	23060.5	23072.5	22966.5
K1909634-001 Replicates	UNK	10/22/19 11:18:59 am	0.243	1244	6.29	
			1150.8	1207.8	1308.0	1309.3
K1909634-001A Replicates	UNK	10/22/19 11:20:37 am	4.580	20759	2.33	
			20115.5	20654.6	21114.6	21149.5
KQ1915282-03 Replicates	UNK	10/22/19 11:22:15 am	0.258	1314	4.86	
			1235.6	1289.8	1352.9	1376.9

Sample Name	Type	Date/Time	Conc (ppb)	μAbs	%RSD	Flags
KQ1915282-04 Replicates	UNK	10/22/19 11:23:54 am	5.050	22888	0.59	
		22765.3 22801.2 22918.3	23067.1			
CCV8 Replicates % Recovery	CCV	10/22/19 11:25:32 am	5.020	22727	0.28	
		22631.1 22769.7 22747.0	22760.9			
		100.33				
CCB8 Replicates	CCB	10/22/19 11:27:09 am	-0.023	50	32.82	
		31.9 70.2 43.1	55.7			
MB Replicates	UNK	10/22/19 11:28:47 am	-0.011	104	17.74	
		103.9 120.3 77.9	112.1			
LCS Replicates	UNK	10/22/19 11:30:27 am	5.180	23446	0.37	
		23339.9 23426.1 23545.6	23474.0			
K1909600-002 Replicates	UNK	10/22/19 11:32:04 am	0.001	159	11.49	
		154.1 143.7 185.3	152.1			
K1909600-002A Replicates	UNK	10/22/19 11:33:42 am	3.910	17751	0.23	
		17764.6 17790.8 17692.5	17754.4			
K1909600-002 D Replicates	UNK	10/22/19 11:35:19 am	0.006	181	17.98	
		161.5 221.4 148.6	191.4			
K1909600-002 S Replicates	UNK	10/22/19 11:36:57 am	3.400	15445	0.12	
		15437.5 15431.1 15438.2	15472.3			
K1909649-005 2X Replicates	UNK	10/22/19 11:44:39 am	4.770	21612	0.77	
		21754.5 21692.5 21625.5	21377.1			
K1909649-005L 10X Replicates	UNK	10/22/19 11:46:17 am	1.190	5491	0.47	
		5462.2 5523.7 5495.6	5483.3			
K1909753-012L 5X Replicates	UNK	10/22/19 11:47:54 am	0.468	2260	1.53	
		2262.3 2268.3 2212.6	2295.6			

Sample Name				Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags
K1909754-001L 5X				UNK	10/22/19 11:49:32 am	0.432	2098	0.46	
Replicates	2100.3	2103.0	2106.1	2084.5					
CCV9				CCV	10/22/19 11:51:11 am	5.100	23105	0.30	
Replicates	23023.0	23074.6	23148.9	23173.1					
% Recovery	102.01								
CCB9				CCB	10/22/19 11:52:47 am	-0.018	69	42.64	
Replicates	99.5	73.7	74.8	28.7					
KQ1915250-01				UNK	10/22/19 11:54:25 am	4.240	19249	0.19	
Replicates	19206.1	19232.7	19272.0	19284.4					<i>Re pour and rerun 10/22/19 JT</i>
K1909600-002A D				UNK	10/22/19 11:56:04 am	4.290	19448	0.23	
Replicates	19393.1	19433.2	19487.9	19479.6					
K19096002A S				UNK	10/22/19 11:57:43 am	7.690	34771	1.46	
Replicates	34224.1	34497.9	35003.0	35358.2					
KQ1915250-01				UNK	10/22/19 12:01:53 pm	9.450	42693	0.75	
Replicates	42283.3	42597.5	42924.7	42964.5					<i>Wrong Sample 10/22/19 JT</i>
CCV10				CCV	10/22/19 12:03:32 pm	5.020	22740	0.19	
Replicates	22787.8	22762.7	22698.0	22711.1					
% Recovery	100.39								
CCB10				CCB	10/22/19 12:05:08 pm	-0.009	114	47.05	
Replicates	191.4	80.3	106.8	76.5					
K1909649-005A 2X				UNK	10/22/19 12:08:40 pm	9.040	40853	1.33	
Replicates	40120.3	40756.6	41257.1	41278.3					
KQ1915250-01				UNK	10/22/19 12:10:18 pm	1.230	5700	0.75	
Replicates	5636.9	5711.1	5720.6	5729.8					
CCV11				CCV	10/22/19 12:11:57 pm	5.040	22826	0.55	
Replicates	22663.5	22804.1	22877.1	22960.8					
% Recovery	100.77								

Sample Name	Type	Date/Time	Conc (ppb)	μAbs	%RSD	Flags	
CCB11	CCB	10/22/19 12:13:33 pm	-0.019	66	18.91		
Replicates				60.0	83.0	54.4	64.8

Preparation Information Benchsheet

Prep Run#: 346844
 Team: Metals/JHINSON

Prep Workflow: HgDigs
 Prep Method: Method

Status: Prepped
 Prep Date/Time: 10/21/19 12:00

Number of Copies to make: 3

#	Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Final Vol	Sample Description
1	KQ1915281-01	MB		7471B/Hg		Solid	0.5g	50.00mL	
2	KQ1915281-02	LCSI		7471B/Hg		Solid	0.2510g	50.00mL	
3	K1909596-001	MR #7 Composite 1	.22	7471B/Hg		Sediment	0.516g	50.00mL	TANDREWS K-Balance-48
4	KQ1915281-03	K1909596-001 DUP	.22	7471B/Hg		Solid	0.644g	50.00mL	TANDREWS K-Balance-48
5	KQ1915281-04	K1909596-001 MS	.22	7471B/Hg		Solid	0.534g	50.00mL	TANDREWS K-Balance-48
6	K1909596-004	MR #7 Composite 2	.13	7471B/Hg		Sediment	0.580g	50.00mL	TANDREWS K-Balance-48
7	K1909596-005	MR #7 Composite 3	.13	7471B/Hg		Sediment	0.739g	50.00mL	TANDREWS K-Balance-48
8	K1909596-006	MR #8 Composite 1	.13	7471B/Hg		Sediment	0.635g	50.00mL	TANDREWS K-Balance-48
9	K1909596-007	MR #8 Composite 2	.13	7471B/Hg		Sediment	0.608g	50.00mL	TANDREWS K-Balance-48
10	K1909596-008	MR #8 Composite 3	.13	7471B/Hg		Sediment	0.510g	50.00mL	TANDREWS K-Balance-48
11	K1909649-001	Baseline Soil	.01	7471B/Hg		Soil	0.611g	50.00mL	TANDREWS K-Balance-48
12	KQ1915281-05	K1909649-001 DUP	.01	7471B/Hg		Solid	0.517g	50.00mL	TANDREWS K-Balance-48
13	KQ1915281-06	K1909649-001 MS	.01	7471B/Hg		Solid	0.588g	50.00mL	TANDREWS K-Balance-48
14	K1909649-002	Muriate of Potash 0-0-60	.01	7471B/Hg		Soil	0.694g	50.00mL	TANDREWS K-Balance-48
15	K1909649-003	TSP 052419	.01	7471B/Hg		Soil	0.706g	50.00mL	TANDREWS K-Balance-48
16	K1909649-004	Landfill Ash 5-13-19	.01	7471B/Hg		Soil	0.578g	50.00mL	TANDREWS K-Balance-48
17	K1909649-005	Biosolids B	.01	7471B/Hg		Soil	0.588g	50.00mL	TANDREWS K-Balance-48
18	K1909669-001	Hampton Ditch	.01	7471B/Hg		Soil	0.544g	50.00mL	TANDREWS K-Balance-48

Spiking Solutions

Name: K-MET SOIL CRM	Inventory ID 190199	Logbook Ref: D099-540	Expires On: 05/31/2020
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Name: K-MET Hg Source Standard 1000 ug/L	Inventory ID 203441	Logbook Ref: HG3-25-1	Expires On: 11/01/2019
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KQ1915281-04 0.25mL KQ1915281-06 0.25mL

Preparation Materials

K-MET 100ml Centrifuge Tube 1902243 (202197) K-MET 16 mL Tube P7340417 (203828) K-MET HCl Hg 0000216381 (198094)
 K-MET HNO3 Hg 0000221802 (202063)

Preparation Information Benchsheet

Prep Run#: 346844
Team: Metals/JHINSON

Prep Workflow: HgDigs
Prep Method: Method

Status: Prepped
Prep Date/Time: 10/21/19 12:00

Preparation Steps

Step:	Weigh	Step:	Digestion
Started:	10/21/19 12:00	Started:	10/21/19 11:45
Finished:	10/21/19 12:50	Finished:	10/21/19 12:15
By:	JHINSON	By:	JHINSON
Comments		Comments	

Preparation Equipment

K-Balance-37	Digestion	Date Checked	10/21/2019	K-Block/Digester-15	Digestion	Corrected Temperature	95 deg C
K-Block/Digester-15	Digestion	Correction Factor	0 deg C	K-Block/Digester-15	Digestion	Observed Temperature	95 deg C
K-Block/Digester-15	Digestion	Thermometer ID 699924	NONE	K-Block/Digester-15	Digestion	Thermometer Location	30 NONE
K-DG1000A	Digestion			K-U/72662	Digestion		
K-HG2-5.0	Digestion			K-U52540	Digestion		
K-DG250A	Digestion			K-DG500A	Digestion		
K-DG1000C	Digestion						

Comments: Cal Std: HG3-26-F.

Reviewed By: _____ **Date:** _____

Preparation Information Benchsheet

Prep Run#: 346844
 Team: Metals/TANDREWS
 Number of Copies to make: 3

Prep Workflow: HgDigs
 Prep Method: Method

Status: Draft
 Prep Date/Time: 10/17/19 17:22 PM

#	Lab Code	Client ID	B#	Method / Test	Matrix	Amt. Ext.	pH	Int. Vol	Final Vol	Surr Amt	Spike Amt
1	KQ1915281-01	MB		7471B/Hg	Solid						
2	KQ1915281-02	LCSI		7471B/Hg	Solid						
3	K1909596-001	MR #7 Composite 1	.22	7471B/Hg	Sediment	0.251					
4	KQ1915281-03	K1909596-001 DUP	.22	7471B/Hg	Solid						
5	KQ1915281-04	K1909596-001 MS	.22	7471B/Hg	Solid	0.439					
6	K1909596-004	MR #7 Composite 2	.13	7471B/Hg	Sediment						
7	K1909596-005	MR #7 Composite 3	.13	7471B/Hg	Sediment						
8	K1909596-006	MR #8 Composite 1	.13	7471B/Hg	Sediment						
9	K1909596-007	MR #8 Composite 2	.13	7471B/Hg	Sediment						
10	K1909596-008	MR #8 Composite 3	.13	7471B/Hg	Sediment						
11	K1909649-001	Baseline Soil	.01	7471B/Hg	Soil	0.525					
12	KQ1915281-05	K1909649-001 DUP	.01	7471B/Hg	Solid	0.478					
13	KQ1915281-06	K1909649-001 MS	.01	7471B/Hg	Solid	5.439					
14	K1909649-002	Muriate of Potash 0-0-60	.01	7471B/Hg	Soil						
15	K1909649-003	TSP 052419	.01	7471B/Hg	Soil						
16	K1909649-004	Landfill Ash 5-13-19	.01	7471B/Hg	Soil						
17	K1909649-005	Biosolids B	.01	7471B/Hg	Soil						
18	K1909669-001	Hampton Ditch	.01	7471B/Hg	Soil						

Comments: *Cal 37 ✓ 10/21/19 Cal Std: HQ3-26-F Cal Curve digested w/ Batch # 346907*

Surrogate ID: *Nigard Bk 95/95/30 145-1215 10/21/19*

Spike ID: _____

Witnessed By: _____

Analyst: _____

Assisted By: *656498*

Printed 10/18/19 15:00

Preparation Information Benchsheet

Page 1 of 1

Pre-Prep Information Benchsheet

Prep Run #: 346844

Container Lot No: 1902243

Prep Due Date: Oct-25-2019

#	Lab Code	Bottle	Test Name	Weight	Sample Comments	Test Comments
1	K1909596-001	.22	Hg : 7471B	0.516g		TANDREWS K-Balance-48
2	K1909596-001 D1P KQ1915204-01	.22	Hg : 7471B	0.644g		TANDREWS K-Balance-48
3	K1909596-001 MS KQ1915204-02	.22	Hg : 7471B	0.534g		TANDREWS K-Balance-48
4	K1909596-004	.13	Hg : 7471B	0.580g		TANDREWS K-Balance-48
5	K1909596-005	.13	Hg : 7471B	0.739g		TANDREWS K-Balance-48
6	K1909596-006	.13	Hg : 7471B	0.635g		TANDREWS K-Balance-48
7	K1909596-007	.13	Hg : 7471B	0.608g		TANDREWS K-Balance-48
8	K1909596-008	.13	Hg : 7471B	0.510g		TANDREWS K-Balance-48
9	K1909669-001	.01	Hg : 7471B	0.544g		TANDREWS K-Balance-48
10	K1909669-001 D1P KQ1915204-03	.01	Hg : 7471B	0.704g		TANDREWS K-Balance-48
11	K1909669-001 MS KQ1915204-04	.01	Hg : 7471B	0.514g		TANDREWS K-Balance-48

Relinquished By: <i>TA</i>	Date/Time: 10/17/19 1722	Received By: <i>[Signature]</i>	Date/Time: 10/21/19 0730
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Pre-Prep Information Benchsheet

Prep Run #: 346727

Container Lot No: 1902243

Prep Due Date: Oct-25-2019

#	Lab Code	Bottle	Test Name	Weight	Sample Comments	Test Comments
1	K1909649-001	.01	Hg : 7471B	0.611g		TANDREWS K-Balance-48
2	K1909649-001 DUTP	.01	Hg : 7471B	0.517g		TANDREWS K-Balance-48
3	KO1915117-01	.01	Hg : 7471B	0.588g		TANDREWS K-Balance-48
4	K1909649-002	.01	Hg : 7471B	0.694g		TANDREWS K-Balance-48
5	K1909649-003	.01	Hg : 7471B	0.706g		TANDREWS K-Balance-48
6	K1909649-004	.01	Hg : 7471B	0.578g		TANDREWS K-Balance-48
7	K1909649-005	.01	Hg : 7471B	0.588g		TANDREWS K-Balance-48

Relinquished By: TK	Date/Time: 10-16-19/1844	Received By: <i>[Signature]</i>	Date/Time: 10/21/19 0735
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Preparation Information Benchsheet

Prep Run#: 346923
 Team: Metals/JHINSON

Prep Workflow: HgDigs
 Prep Method: Method

Status: Prepped
 Prep Date/Time: 10/21/19 12:00

Number of Copies to make: 2

#	Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Final Vol	Sample Description
1	KQ1915271-03	MB		7471B/Hg		Solid	0.5g	50.00mL	
2	KQ1915271-04	LCSI		7471B/Hg		Solid	0.2500g	50.00mL	
3	K1909500-012	CB007-SE-1-100919	.05	7471B/Hg		Sediment	0.590g	50.00mL	TANDREWS K-Balance-47
4	K1909753-001	JS002-SE-1-101019	.02	7471B/Hg		Sediment	0.550g	50.00mL	SDANIELS K-Balance-50
5	K1909753-002	JS001-SE-1-101019	.02	7471B/Hg		Sediment	0.527g	50.00mL	SDANIELS K-Balance-50
6	K1909753-003	DM016-SE-1-101019	.02	7471B/Hg		Sediment	0.533g	50.00mL	SDANIELS K-Balance-50
7	K1909753-004	DM015-SE-1-101019	.03	7471B/Hg		Sediment	0.537g	50.00mL	SDANIELS K-Balance-50
8	K1909753-005	DM016-SE-2-101019	.03	7471B/Hg		Sediment	0.568g	50.00mL	SDANIELS K-Balance-50
9	K1909753-006	DM008-SE-1-101119	.02	7471B/Hg		Sediment	0.521g	50.00mL	SDANIELS K-Balance-50
10	K1909753-007	DM010-SE-1-101119	.02	7471B/Hg		Sediment	0.578g	50.00mL	SDANIELS K-Balance-50
11	K1909753-008	CB016-SE-1-101119	.03	7471B/Hg		Sediment	0.545g	50.00mL	SDANIELS K-Balance-50
12	K1909753-009	CB047-SE-1-101119	.02	7471B/Hg		Sediment	0.503g	50.00mL	SDANIELS K-Balance-50
13	K1909753-010	CB039-SE-1-101119	.02	7471B/Hg		Sediment	0.571g	50.00mL	SDANIELS K-Balance-50
14	K1909753-011	CB009-SE-1-101219	.03	7471B/Hg		Sediment	0.531g	50.00mL	SDANIELS K-Balance-50
15	K1909753-012	CB010-SE-1-101219	.03	7471B/Hg		Sediment	0.544g	50.00mL	SDANIELS K-Balance-50
16	K1909753-014	DM025-SE-1-101219	.02	7471B/Hg		Sediment	0.549g	50.00mL	SDANIELS K-Balance-50
17	K1909753-016	DM061-SE-1-101219	.03	7471B/Hg		Sediment	0.555g	50.00mL	SDANIELS K-Balance-50
18	K1909753-017	DM019-SE-1-101419	.02	7471B/Hg		Sediment	0.552g	50.00mL	SDANIELS K-Balance-50
19	K1909753-018	DM020-SE-1-101419	.02	7471B/Hg		Sediment	0.554g	50.00mL	SDANIELS K-Balance-50
20	K1909753-019	DM027-SE-1-101419	.02	7471B/Hg		Sediment	0.526g	50.00mL	SDANIELS K-Balance-50
21	K1909753-020	CB020-SE-1-101419	.02	7471B/Hg		Sediment	0.559g	50.00mL	SDANIELS K-Balance-50
22	KQ1915271-01	K1909753-020 DUP	.02	7471B/Hg		Solid	0.543g	50.00mL	SDANIELS K-Balance-50
23	KQ1915271-02	K1909753-020 MS	.02	7471B/Hg		Solid	0.523g	50.00mL	SDANIELS K-Balance-50

Spiking Solutions

Name: K-MET SOIL CRM	Inventory ID	190199	Logbook Ref:	D099-540	Expires On:	05/31/2020
KQ1915271-04 0.25g						
Name: K-MET Hg Source Standard 1000 ug/L	Inventory ID	203441	Logbook Ref:	HG3-25-1	Expires On:	11/01/2019
KQ1915271-02 0.25mL						

Preparation Information Benchsheet

Prep Run#: 346923
Team: Metals/JHINSON

Prep WorkFlow: HgDigs
Prep Method: Method

Status: Prepped
Prep Date/Time: 10/21/19 12:00

Preparation Materials

K-MET 100ml Centrifuge Tube	1902243 (202197)	K-MET 16 mL Tube	P7340417 (203828)	K-MET HCl Hg	0000216381 (198094)
K-MET HNO3 Hg	0000234822 (203961)				

Preparation Steps

Step: Weigh	Started: 10/21/19 12:00	Step: Digestion	Started: 10/21/19 09:32
Finished: 10/21/19 12:48		Finished: 10/21/19 10:02	
By: JHINSON		By: JHINSON	
Comments			

Preparation Equipment

K-Balance-37	Digestion	Date Checked	10/21/2019	K-Block-Digester-14	Digestion	Corrected Temperature	95 deg C
K-Block-Digester-14	Digestion	Correction Factor	0 deg C	K-Block-Digester-14	Digestion	Observed Temperature	95 deg C
K-Block-Digester-14	Digestion	Thermometer ID 697024	NONE	K-Block-Digester-14	Digestion	Thermometer Location	30 NONE
K-HG2-5.0	Digestion			K-DG100A	Digestion		
K-U72662	Digestion			K-DG250A	Digestion		
K-DG1000C	Digestion			K-DG500A	Digestion		
K-U52540	Digestion						

Comments: Cal Std: HG3-26-F.

Reviewed By: _____ Date: _____

Preparation Information Benchsheet

Prep Run#: 346923
 Team: Metals/SDANIELS
 Number of Copies to make: 2

Prep Workflow: HgDigs
 Prep Method: Method

Status: Draft
 Prep Date/Time: 10/18/19 14:12 PM

7471
10/23
24

#	Lab Code	Client ID	B#	Method / Test	Matrix	Amt. Ext.	pH	Int. Vol	Final Vol	Surr Amt	Spike Amt
1	KQ1915271-03	MB		7471B/Hg	Solid						
2	KQ1915271-04	LCSI		7471B/Hg	Solid	0.250					
3	K1909500-012	CB007-SE-1-100919	.05	7471B/Hg	Sediment						
4	K1909753-001	JS002-SE-1-101019	.02	7471B/Hg	Sediment						
5	K1909753-002	JS001-SE-1-101019	.02	7471B/Hg	Sediment						
6	K1909753-003	DM016-SE-1-101019	.02	7471B/Hg	Sediment						
7	K1909753-004	DM015-SE-1-101019	.03	7471B/Hg	Sediment						
8	K1909753-005	DM016-SE-2-101019	.03	7471B/Hg	Sediment						
9	K1909753-006	DM008-SE-1-101119	.02	7471B/Hg	Sediment						
10	K1909753-007	DM010-SE-1-101119	.02	7471B/Hg	Sediment						
11	K1909753-008	CB016-SE-1-101119	.03	7471B/Hg	Sediment						
12	K1909753-009	CB047-SE-1-101119	.02	7471B/Hg	Sediment						
13	K1909753-010	CB039-SE-1-101119	.02	7471B/Hg	Sediment						
14	K1909753-011	CB009-SE-1-101219	.03	7471B/Hg	Sediment						
15	K1909753-012	CB010-SE-1-101219	.03	7471B/Hg	Sediment						
16	K1909753-014	DM025-SE-1-101219	.02	7471B/Hg	Sediment						
17	K1909753-016	DM061-SE-1-101219	.03	7471B/Hg	Sediment						
18	K1909753-017	DM019-SE-1-101419	.02	7471B/Hg	Sediment						
19	K1909753-018	DM020-SE-1-101419	.02	7471B/Hg	Sediment						
20	K1909753-019	DM027-SE-1-101419	.02	7471B/Hg	Sediment						
21	K1909753-020	CB020-SE-1-101419	.02	7471B/Hg	Sediment	0.403					
22	KQ1915271-01	K1909753-020 DUP	.02	7471B/Hg	Solid	0.392					
23	KQ1915271-02	K1909753-020 MS	.02	7471B/Hg	Solid	0.577					

Comments: Bad 37 v 10/21/19 Cal Std: Hg-3-20-F Cal curve digested w/ Ref A 346907
 Digest 216 14/19/30 0938-1002 10/21/19
 Surrogate ID: Spike ID:

Witnessed By: _____ Assisted By: _____
 Analyst: _____



Pre-Prep Information Benchsheet

Prep Run #: 346442

Container Lot No: 1902243

Prep Due Date: Oct-21-2019

#	Lab Code	Bottle	Test Name	Weight	Sample Comments	Test Comments
1	KI909500-012	.05	Hg : 7471B	0.590g		TANDREWS K-Balance-47
2	KI909500-012 DUP KO1914862-01	.05	Hg : 7471B	0.710g		TANDREWS K-Balance-47
3	KI909500-012 MS KO1914862-02	.05	Hg : 7471B	0.775g		TANDREWS K-Balance-47

Relinquished By: 	Date/Time: 10-11-19 / 1721	Received By: 	Date/Time: 10/21/19 0730
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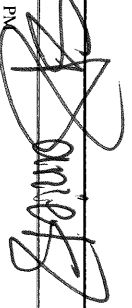
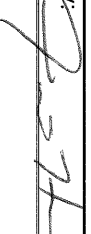
Pre-Prep Information Benchsheet

Prep Run #: 346923

Container Lot No: 1904119-9275-AK

Prep Due Date: Oct-28-2019

#	Lab Code	Bottle	Test Name	Weight	Sample Comments	Test Comments
1	K1909753-001	.02	Hg : 7471B	0.550g		SDANIELS K-Balance-50
2	K1909753-002	.02	Hg : 7471B	0.527g		SDANIELS K-Balance-50
3	K1909753-003	.02	Hg : 7471B	0.533g		SDANIELS K-Balance-50
4	K1909753-004	.03	Hg : 7471B	0.537g		SDANIELS K-Balance-50
5	K1909753-005	.03	Hg : 7471B	0.508g		SDANIELS K-Balance-50
6	K1909753-006	.02	Hg : 7471B	0.521g		SDANIELS K-Balance-50
7	K1909753-007	.02	Hg : 7471B	0.578g		SDANIELS K-Balance-50
8	K1909753-008	.03	Hg : 7471B	0.545g		SDANIELS K-Balance-50
9	K1909753-009	.02	Hg : 7471B	0.503g		SDANIELS K-Balance-50
10	K1909753-010	.02	Hg : 7471B	0.571g		SDANIELS K-Balance-50
11	K1909753-011	.03	Hg : 7471B	0.531g		SDANIELS K-Balance-50
12	K1909753-012	.03	Hg : 7471B	0.544g		SDANIELS K-Balance-50
13	K1909753-014	.02	Hg : 7471B	0.549g		SDANIELS K-Balance-50
14	K1909753-016	.03	Hg : 7471B	0.555g		SDANIELS K-Balance-50
15	K1909753-017	.02	Hg : 7471B	0.552g		SDANIELS K-Balance-50
16	K1909753-018	.02	Hg : 7471B	0.554g		SDANIELS K-Balance-50
17	K1909753-019	.02	Hg : 7471B	0.526g		SDANIELS K-Balance-50
18	K1909753-020	.02	Hg : 7471B	0.559g		SDANIELS K-Balance-50
19	K1909753-020 DUP KQ1915271-01	.02	Hg : 7471B	0.543g		SDANIELS K-Balance-50
20	K1909753-020 MS KQ1915271-02	.02	Hg : 7471B	0.523g		SDANIELS K-Balance-50

Relinquished By: 	Date/Time: 10/18/19	Received By: 	Date/Time: 10/21/19 0730
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14:18

Preparation Information Benchsheet

Prep Run#: 346907

Team: Metals/JHINSON

Number of Copies to make: 1

Prep Workflow: HgDigs

Prep Method: Method

Status: Prepped

Prep Date/Time: 10/21/19 11:18

#	Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Final Vol	Sample Description
1	KQ1915250-03	MB		7471B/Hg		Solid	0.5g	50.00mL	
2	KQ1915250-04	LCSI		7471B/Hg		Solid	0.2560g	50.00mL	
3	K1909754-001	CB021-SE-1-101419	.02	7471B/Hg		Sediment	0.570g	50.00mL	SDANIELS K-Balance-50
4	K1909754-002	CB024-SE-1-101419	.02	7471B/Hg		Sediment	0.535g	50.00mL	SDANIELS K-Balance-50
5	K1909754-003	CB027-SE-1-101419	.02	7471B/Hg		Sediment	0.522g	50.00mL	SDANIELS K-Balance-50
6	K1909754-004	CB014-SE-1-101519	.03	7471B/Hg		Sediment	0.546g	50.00mL	SDANIELS K-Balance-50
7	K1909754-005	CB014-SE-2-101519	.02	7471B/Hg		Sediment	0.541g	50.00mL	SDANIELS K-Balance-50
8	K1909754-006	CB029-SE-1-101519	.02	7471B/Hg		Sediment	0.556g	50.00mL	SDANIELS K-Balance-50
9	K1909754-007	CB044-SE-1-101519	.02	7471B/Hg		Sediment	0.513g	50.00mL	SDANIELS K-Balance-50
10	K1909754-008	3-R7-2019-SE-1-101519	.02	7471B/Hg		Sediment	0.524g	50.00mL	SDANIELS K-Balance-50
11	K1909754-009	DM007-SE-1-101519	.02	7471B/Hg		Sediment	0.558g	50.00mL	SDANIELS K-Balance-50
12	K1909754-010	DM024-SE-1-101519	.03	7471B/Hg		Sediment	0.550g	50.00mL	SDANIELS K-Balance-50
13	K1909754-011	DM024-SE-2-101519	.02	7471B/Hg		Sediment	0.522g	50.00mL	SDANIELS K-Balance-50
14	K1909754-012	1-B5-NRT-SE-1-101519	.02	7471B/Hg		Sediment	0.571g	50.00mL	SDANIELS K-Balance-50
15	K1909754-013	CB002-SE-1-101619	.03	7471B/Hg		Sediment	0.567g	50.00mL	SDANIELS K-Balance-50
16	K1909754-014	3-R8-2019-SE-1-101619	.02	7471B/Hg		Sediment	0.554g	50.00mL	SDANIELS K-Balance-50
17	K1909754-015	1-B6-NRT-SE-1-101619	.02	7471B/Hg		Sediment	0.504g	50.00mL	SDANIELS K-Balance-50
18	K1909754-016	DM044-SE-1-101619	.02	7471B/Hg		Sediment	0.586g	50.00mL	SDANIELS K-Balance-50
19	KQ1915250-01	K1909754-016 DUP	.02	7471B/Hg		Solid	0.508g	50.00mL	SDANIELS K-Balance-50
20	KQ1915250-02	K1909754-016 MS	.02	7471B/Hg		Solid	0.546g	50.00mL	SDANIELS K-Balance-50

Spiking Solutions

Name: K-MET SOIL CRM Inventory ID 190199 Logbook Ref: D099-540 Expires On: 05/31/2020

KQ1915250-04 0.25g

Name: K-MET Hg Source Standard 1000 ug/L Inventory ID 203441 Logbook Ref: HG3-25-1 Expires On: 11/01/2019

KQ1915250-02 0.25mL

Preparation Materials

K-MET 100ml Centrifuge Tube 1902243 (202197)

K-MET HNO3 Hg 0000221802 (202063)

K-MET 16 mL Tube

P7340417 (203828)

K-MET HCl Hg

0000216381 (198094)

Preparation Information Benchsheet

Prep Run#: 346907
Team: Metals/JHINSON

Prep WorkFlow: HgDigs
Prep Method: Method

Status: Prepped
Prep Date/Time: 10/21/19 11:18

Preparation Steps

Step:	Weigh	Step:	Digestion
Started:	10/21/19 11:18	Started:	10/21/19 09:28
Finished:	10/21/19 12:45	Finished:	10/21/19 09:58
By:	JHINSON	By:	JHINSON
Comments		Comments	

Preparation Equipment

K-Balance-37	Digestion	Date Checked	10/21/2019	K-Block/Digester-15	Digestion	Corrected Temperature	95 deg C
K-Block/Digester-15	Digestion	Correction Factor	0 deg C	K-Block/Digester-15	Digestion	Observed Temperature	95 deg C
K-Block/Digester-15	Digestion	Thermometer ID 699924	NONE	K-Block/Digester-15	Digestion	Thermometer Location	30 NONE
K-U52540	Digestion			K-DG500A	Digestion		
K-DG1000C	Digestion			K-DG250A	Digestion		
K-U72662	Digestion			K-DG100A	Digestion		
K-HG2-5.0	Digestion						

Comments: Cal Std: HG3-26-F.

Reviewed By: _____ **Date:** _____

Preparation Information Benchsheet

Prep Run#: 346907
 Team: Metals/SDANIELS
 Number of Copies to make: 1

Prep Workflow: HgDigs
 Prep Method: Method

Status: Draft
 Prep Date/Time: 10/18/19 11:18 AM

#	Lab Code	Client ID	B#	Method / Test	Matrix	Amt. Ext.	pH	Int. Vol	Final Vol	Surr Amt	Spike Amt
1	KQ1915250-03	MB		7471B / Hg	Solid						
2	KQ1915250-04	LCS1		7471B / Hg	Solid						
3	K1909754-001	CB021-SE-1-101419	.02	7471B / Hg	Sediment	0.256					
4	K1909754-002	CB024-SE-1-101419	.02	7471B / Hg	Sediment						
5	K1909754-003	CB027-SE-1-101419	.02	7471B / Hg	Sediment						
6	K1909754-004	CB014-SE-1-101519	.03	7471B / Hg	Sediment						
7	K1909754-005	CB014-SE-2-101519	.02	7471B / Hg	Sediment						
8	K1909754-006	CB029-SE-1-101519	.02	7471B / Hg	Sediment						
9	K1909754-007	CB044-SE-1-101519	.02	7471B / Hg	Sediment						
10	K1909754-008	3-R-7-2019-SE-1-101519	.02	7471B / Hg	Sediment						
11	K1909754-009	DM007-SE-1-101519	.02	7471B / Hg	Sediment						
12	K1909754-010	DM024-SE-1-101519	.03	7471B / Hg	Sediment						
13	K1909754-011	DM024-SE-2-101519	.02	7471B / Hg	Sediment						
14	K1909754-012	1-B5-NRT-SE-1-101519	.02	7471B / Hg	Sediment						
15	K1909754-013	CB002-SE-1-101619	.03	7471B / Hg	Sediment						
16	K1909754-014	3-R-8-2019-SE-1-101619	.02	7471B / Hg	Sediment						
17	K1909754-015	1-B6-NRT-SE-1-101619	.02	7471B / Hg	Sediment						
18	K1909754-016	DM044-SE-1-101619	.02	7471B / Hg	Sediment						
19	KQ1915250-01	K1909754-016 DUP	.02	7471B / Hg	Solid						
20	KQ1915250-02	K1909754-016 MS	.02	7471B / Hg	Solid						

Comments: Bal 37, retail 9 Cal Std: HQ3-26-E Cal Curve digested w/ this batch

Digest BK 15/95/30 0938-0958 retail 9

Spike ID:

Witnessed By:

Analyst:

Assisted By:

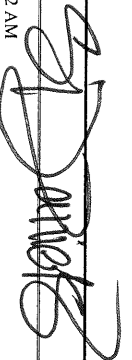
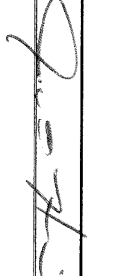
Pre-Prep Information Benchsheet

Prep Run #: 346907

Container Lot No: 1904119-9275-AK

Prep Due Date: Oct-28-2019

#	Lab Code	Bottle	Test Name	Weight	Sample Comments	Test Comments
1	K1909754-001	.02	Hg : 7471B	0.570g		SDANIELS K-Balance-50
2	K1909754-002	.02	Hg : 7471B	0.535g		SDANIELS K-Balance-50
3	K1909754-003	.02	Hg : 7471B	0.522g		SDANIELS K-Balance-50
4	K1909754-004	.03	Hg : 7471B	0.546g		SDANIELS K-Balance-50
5	K1909754-005	.02	Hg : 7471B	0.541g		SDANIELS K-Balance-50
6	K1909754-006	.02	Hg : 7471B	0.556g		SDANIELS K-Balance-50
7	K1909754-007	.02	Hg : 7471B	0.513g		SDANIELS K-Balance-50
8	K1909754-008	.02	Hg : 7471B	0.524g		SDANIELS K-Balance-50
9	K1909754-009	.02	Hg : 7471B	0.558g		SDANIELS K-Balance-50
10	K1909754-010	.03	Hg : 7471B	0.550g		SDANIELS K-Balance-50
11	K1909754-011	.02	Hg : 7471B	0.522g		SDANIELS K-Balance-50
12	K1909754-012	.02	Hg : 7471B	0.571g		SDANIELS K-Balance-50
13	K1909754-013	.03	Hg : 7471B	0.567g		SDANIELS K-Balance-50
14	K1909754-014	.02	Hg : 7471B	0.554g		SDANIELS K-Balance-50
15	K1909754-015	.02	Hg : 7471B	0.504g		SDANIELS K-Balance-50
16	K1909754-016	.02	Hg : 7471B	0.586g		SDANIELS K-Balance-50
17	K1909754-016 DUP KQ1915250-01	.02	Hg : 7471B	0.508g		SDANIELS K-Balance-50
18	K1909754-016 MS KQ1915250-02	.02	Hg : 7471B	0.546g		SDANIELS K-Balance-50

Relinquished By: 	Date/Time: 10/18/19 11:28	Received By: 	Date/Time: 10/21/19 0730
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Printed 10/18/2019 11:20:22 AM

Preparation Information Benchsheet

Preparation Information Benchsheet

Prep Run#: 346929

Team: Metals/JHINSON

Number of Copies to make: 1

Prep Workflow: HgDigLP

Prep Method: Method

Status: Prepped

Prep Date/Time: 10/21/19 11:45

#	Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Final Vol	Sample Description
1	KO1915282-01	MB		7470A/Hg TCLP		NonAq Liquid	0.5000g	50.00mL	
2	KO1915282-02	LCS		7470A/Hg TCLP		NonAq Liquid	0.5000g	50.00mL	
3	K1909634-001	Solvent Waste-Cleaning Dept.	.03	7470A/Hg TCLP		NonAq Liquid	0.5130g	50.00mL	
4	KO1915282-03	K1909634-001 DUP	.03	7470A/Hg TCLP		NonAq Liquid	0.5070g	50.00mL	
5	KO1915282-04	K1909634-001 MS	.03	7470A/Hg TCLP		NonAq Liquid	0.5110g	50.00mL	

Spiking Solutions

Name: K-MET Hg Source Standard 1000 ug/L Inventory ID 203441 Logbook Ref: HG3-25-1 Expires On: 11/01/2019

Preparation Materials

K-MET 100ml Centrifuge Tube 1902243 (202197) K-MET 16 mL Tube P7340417 (203828) K-MET HCl Hg 0000216381 (198094)
 K-MET HNO3 Hg 0000221802 (202063)

Preparation Steps

Step: Digestion
 Started: 10/21/19 11:45
 Finished: 10/21/19 12:15
 By: JHINSON
 Comments

Preparation Equipment

K-Balance-37	Digestion	Date Checked	10/21/2019	K-Block/Digester-15	Digestion	Corrected Temperature	95 deg C
K-Block/Digester-15	Digestion	Correction Factor	0 deg C	K-Block/Digester-15	Digestion	Observed Temperature	95 deg C
K-Block/Digester-15	Digestion	Thermometer ID 699924	NONE	K-Block/Digester-15	Digestion	Thermometer Location	30 NONE
K-U72662	Digestion			K-DG100A	Digestion		
K-HG2-5-0	Digestion			K-U52540	Digestion		
K-DG1000C	Digestion			K-DG250A	Digestion		
K-DG500A	Digestion						

Comments: Cal Std: HG3-26-F.

Reviewed By: _____ Date: _____

Preparation Information Benchsheet

7471 10/23

Prep Run#: 346929

Team: Metals/JHINSON

Prep WorkFlow: HgDIGLP

Prep Method: Method

Status: Draft

Prep Date/Time: 10/18/19 03:10 PM

Number of Copies to make: 1

#	Lab Code	Client ID	B#	Method / Test	Matrix	Amt. Ext.	pH	Int. Vol	Final Vol	Surr Amt	Spike Amt
1	KQ1915282-01	MB		7470A / Hg TCLP	NonAq Liquid						
2	KQ1915282-02	LCS		7470A / Hg TCLP	NonAq Liquid						
3	K1909634-001	Solvent Waste-Cleaning Dept.	.03	7470A / Hg TCLP	NonAq Liquid	0.513					
4	KQ1915282-03	K1909634-001 DUP	.03	7470A / Hg TCLP	NonAq Liquid	0.507					
5	KQ1915282-04	K1909634-001 MS	0.49	7470A / Hg TCLP	NonAq Liquid	0.511					

Comments: *Bad 37 ✓ 10/21/19 Cal Std: HA3-26-F Cal curve digested w/ Batch # 346707*

Sigurd *Blk 15/05/20* *1145-1215* *10/21/19*

Surrogate ID: _____

Spike ID: _____

Witnessed By: _____

Analyst: _____

Assisted By: _____



Polychlorinated Biphenyls (PCBs)

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Comment: Ultra Low Level PCB Aroclors by EPA 8082A
Operator: SAA
Data Path: C:\GC27\DATA\090419ICAL\
Pre-Seq Cmd:
Post-Seq Cmd:

CAL 16/27

Method Sections To Run On A Barcode Mismatch
(X) Full Method (X) Inject Anyway
() Reprocessing Only () Don't Inject

Line Type	Vial	DataFile	Method	Sample Name
1 SOLV	100	0904F001	ULSPLT	PRIMER
2 SOLV	100	0904F002	ULSPLT	PRIMER
3 SOLV	1	0904F003	ULSPLT	DDX MARKER
4 IB	2	0904F004	ULSPLT	IB
5 ICAL	3	0904F005	ULSPLT	PCB8-12K 1660 @ 0.1-1 PPB
6 ICAL	4	0904F006	ULSPLT	PCB8-12L 1660 @ 0.2-2 PPB
7 ICAL	5	0904F007	ULSPLT	PCB8-12M 1660 @ 0.5-5 PPB
8 ICAL	6	0904F008	ULSPLT	PCB8-12N 1660 @ 1-10 PPB
9 ICAL	7	0904F009	ULSPLT	PCB7-91B 1660 @ 2-20 PPB
10 ICAL	8	0904F010	ULSPLT	PCB7-91C 1660 @ 5-50 PPB
11 ICAL	9	0904F011	ULSPLT	PCB7-91D 1660 @ 10-100 PPB
12 ICAL	10	0904F012	ULSPLT	PCB8-11K1660 @ 20-200 PPB
13 ICAL	11	0904F013	ULSPLT	PCB8-13A 2154 @ 1-2 PPB
14 ICAL	12	0904F014	ULSPLT	PCB8-13B 2154 @ 2-4 PPB
15 ICAL	13	0904F015	ULSPLT	PCB8-13C 2154 @ 5-10 PPB
16 ICAL	14	0904F016	ULSPLT	PCB8-13D 2154 @ 10-20 PPB
17 ICAL	15	0904F017	ULSPLT	PCB7-91E 2154 @ 20-40 PPB
18 ICAL	16	0904F018	ULSPLT	PCB7-91F 2154 @ 50-100 PPB
19 ICAL	17	0904F019	ULSPLT	PCB7-91G 2154 @ 100-200 PPB
20 ICAL	18	0904F020	ULSPLT	PCB7-90H 2154 @ 200-400 PPB
21 ICAL	19	0904F021	ULSPLT	PCB8-13E 3262 @ 1 PPB
22 ICAL	20	0904F022	ULSPLT	PCB8-13F 3262 @ 2 PPB
23 ICAL	21	0904F023	ULSPLT	PCB8-13G 3262 @ 5 PPB
24 ICAL	22	0904F024	ULSPLT	PCB8-13H 3262 @ 10 PPB
25 ICAL	23	0904F025	ULSPLT	PCB7-91H 3262 @ 20 PPB
26 ICAL	24	0904F026	ULSPLT	PCB7-91I 3262 @ 50 PPB
27 ICAL	25	0904F027	ULSPLT	PCB7-91J 3262 @ 100 PPB
28 ICAL	26	0904F028	ULSPLT	PCB7-90I 3262 @ 200 PPB
29 ICAL	27	0904F029	ULSPLT	PCB8-13I 4268 @ 1 PPB
30 ICAL	28	0904F030	ULSPLT	PCB8-13J 4268 @ 2 PPB
31 ICAL	29	0904F031	ULSPLT	PCB8-13K 4268 @ 5 PPB
32 ICAL	30	0904F032	ULSPLT	PCB8-13L 4268 @ 10 PPB
33 ICAL	31	0904F033	ULSPLT	PCB8-4H 4268 @ 20 PPB
34 ICAL	32	0904F034	ULSPLT	PCB8-4F 4268 @ 50 PPB
35 ICAL	33	0904F035	ULSPLT	PCB8-4G 4268 @ 100 PPB
36 ICAL	34	0904F036	ULSPLT	PCB8-4E 4268 @ 200 PPB
37 ICAL	35	0904F037	ULSPLT	PCB8-13M 1248 @ 1 PPB
38 ICAL	36	0904F038	ULSPLT	PCB8-13N 1248 @ 2 PPB
39 ICAL	37	0904F039	ULSPLT	PCB8-14A 1248 @ 5 PPB
40 ICAL	38	0904F040	ULSPLT	PCB8-14B 1248 @ 10 PPB
41 ICAL	39	0904F041	ULSPLT	PCB7-91N 1248 @ 20 PPB
42 ICAL	40	0904F042	ULSPLT	PCB7-91O 1248 @ 50 PPB
43 ICAL	41	0904F043	ULSPLT	PCB7-92A 1248 @ 100 PPB

Line Type	Vial	DataFile	Method	Sample Name
44 ICAL	42	0904F044	ULSPLT	PCB7-91A 1248 @ 200 PPB
45 ICV	43	0904F045	ULSPLT	PCB8-14C 1016 ICV @ 20 PPB
46 ICV	44	0904F046	ULSPLT	PCB8-14D 1221 ICV @ 20 PPB
47 ICV	45	0904F047	ULSPLT	PCB8-14E 1232 ICV @ 20 PPB
48 ICV	46	0904F048	ULSPLT	PCB8-14F 1242 ICV @ 20 PPB
49 ICV	47	0904F049	ULSPLT	PCB8-14G 1248 ICV @ 20 PPB
50 ICV	48	0904F050	ULSPLT	PCB8-14H 1254 ICV @ 20 PPB
51 ICV	49	0904F051	ULSPLT	PCB8-14I 1260 ICV @ 20 PPB
52 ICV	50	0904F052	ULSPLT	PCB8-14J 1262 ICV @ 20 PPB
53 ICV	51	0904F053	ULSPLT	PCB8-14K 1268 ICV @ 20 PPB

Injection Log

Directory: j:\GC27\Data\090919

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	100	0909F001.D	1.	PRIMER		09/09/22019 10:49:0
2	100	0909F002.D	1.	PRIMER		09/09/22019 11:20:3
3	1	0909F003.D	1.	IB		09/09/22019 11:52:0
4	2	0909F004.D	1.	PCB8-015A 4268 @ 1 PPB		09/09/22019 12:23:4
5	3	0909F005.D	1.	PCB8-015B 4268 @ 2 PPB		09/09/22019 12:55:2
6	4	0909F006.D	1.	PCB8-015C 4268 @ 5 PPB		09/09/22019 1:27:1
7	5	0909F007.D	1.	PCB8-015D 4268 @ 10 PPB		09/09/22019 1:58:4
8	6	0909F008.D	1.	PCB8-015E 1242 ICV @ 20 PPB		09/09/22019 2:30:2
9	7	0909F009.D	1.	PCB8-015H 4268 @ 1 PPB		09/09/22019 3:02:1
10	8	0909F010.D	1.	PCB8-015I 4268 @ 2 PPB		09/09/22019 3:33:5
11	9	0909F011.D	1.	PCB8-015J 4268 @ 5 PPB		09/09/22019 4:05:3
12	10	0909F012.D	1.	PCB8-015K 4268 @ 10 PPB		09/09/22019 4:37:0
13	11	0909F013.D	1.	PCB8-015E 1242 ICV @ 20 PPB		09/09/22019 5:08:4
14	12	0909F014.D	1.	PCB8-015F 1268 ICV @ 20 PPB		09/09/22019 5:40:1

ALS-Kelso
Initial Calibration Checklist GC

Method: 8082A PCB
ICAL ID or Date: CAL16127
Instrument: GC 27

Primary Secondary

- The new ICAL is saved with a unique ID.
- ICAL was performed continuously (i.e. not interrupted by maintenance event).
- All analytes in blank are $< \frac{1}{2}$ MRL.
- ICAL contains minimum number of concentrations.
- No internal levels excluded for any analytes.
- Retention times updated using a midpoint of the calibration. Secondary reviewer double check peak IDs.
- Calibration files quantitated with new method.
- Check integrations. Primary reviewer must check all integrations electronically. Secondary reviewer will check low point and high point electronically.
- ICAL files added to calibration table.
- The average RF or COD meets method criteria for all analytes.
- ICV is quantitated against new ICAL.
- ICV meets method criteria.
- Linked in Stealth to an appropriate method. An appropriate method will be one that contains all analytes that were analyzed.
- All calibration reports included: ICAL SUMMARY, ICAL DETAILED, ICV SUMMARY.
- Enviroquant/Target responses match those in Stealth.
- All quant reports and manual integrations initialed and dated.

Data packet should be in the following order: Sequence log, Calibration Review, Stealth ICAL reports, and quant reports.

Primary: SA

Date: 9/11/19

Secondary: [Signature]

Date: 9/12/19

Initial Calibration - Summary Report

Calibration ID: CAL16127
Method ID: MJ706

Instrument ID: GC27.i
Column Name: DB-35MS

Parameter Name	Type	Curve Fit	Min RF	Mean RF	Max %RSD	%RSD	Min COD	COD	MRL Check	Conc ½ Low pt.
Aroclor 1221 {1}	MULTI	AverageRF		2.3E+4	20	10.7			OK	
Aroclor 1221 {2}	MULTI	AverageRF		1.5E+4	20	10.9			OK	
Aroclor 1221 {3}	MULTI	AverageRF		5.5E+4	20	10.1			OK	
Aroclor 1232 {1}	MULTI	AverageRF		1.6E+4	20	12.2			OK	
Aroclor 1232 {2}	MULTI	AverageRF		4.7E+4	20	12.4			OK	
Aroclor 1232 {3}	MULTI	AverageRF		3.8E+4	20	10.7			OK	
Aroclor 1232 {4}	MULTI	AverageRF		1.4E+4	20	8.8			OK	
Aroclor 1232 {5}	MULTI	AverageRF		2.6E+4	20	12.7			OK	
Aroclor 1242 {1}	MULTI	AverageRF		3.0E+4	20	8.7			OK	
Aroclor 1242 {2}	MULTI	AverageRF		2.3E+4	20	5.4			OK	
Aroclor 1242 {3}	MULTI	AverageRF		6.8E+4	20	6.7			OK	
Aroclor 1242 {4}	MULTI	AverageRF		4.1E+4	20	5.7			OK	
Aroclor 1242 {5}	MULTI	AverageRF		2.8E+4	20	5.5			OK	
Aroclor 1248 {1}	MULTI	AverageRF		4.2E+4	20	12.9			OK	
Aroclor 1248 {2}	MULTI	AverageRF		2.8E+4	20	10.5			OK	
Aroclor 1248 {3}	MULTI	AverageRF		5.3E+4	20	13.7			OK	
Aroclor 1248 {4}	MULTI	AverageRF		3.8E+4	20	9.2			OK	
Aroclor 1248 {5}	MULTI	AverageRF		3.3E+4	20	10.6			OK	
Aroclor 1254 {1}	MULTI	AverageRF		3.6E+4	20	10.1			OK	
Aroclor 1254 {2}	MULTI	AverageRF		6.3E+4	20	10.8			OK	
Aroclor 1254 {3}	MULTI	AverageRF		1.2E+5	20	11.8			OK	
Aroclor 1254 {4}	MULTI	AverageRF		7.3E+4	20	9.6			OK	
Aroclor 1254 {5}	MULTI	AverageRF		4.6E+4	20	8.2			OK	
Aroclor 1262 {1}	MULTI	AverageRF		9.4E+4	20	10.5			OK	
Aroclor 1262 {2}	MULTI	AverageRF		8.3E+4	20	10.9			OK	
Aroclor 1262 {3}	MULTI	AverageRF		1.5E+5	20	10.1			OK	
Aroclor 1262 {4}	MULTI	AverageRF		1.1E+5	20	10.5			OK	
Aroclor 1262 {5}	MULTI	AverageRF		4.8E+4	20	8.4			OK	
Aroclor 1268 {1}	MULTI	AverageRF		1.6E+5	20	5.8			OK	
Aroclor 1268 {2}	MULTI	AverageRF		1.5E+5	20	7.0			OK	
Aroclor 1268 {3}	MULTI	AverageRF		1.2E+5	20	5.9			OK	
Aroclor 1268 {4}	MULTI	AverageRF		3.5E+5	20	7.1			OK	
Tetrachloro-m-xylene	SURR	AverageRF		1.8E+6	20	3.7			NA	
Decachlorobiphenyl	SURR	AverageRF		1.1E+6	20	8.4			NA	
Aroclor 1016 {1}	MULTI	AverageRF		3.4E+4	20	8.5			OK	
Aroclor 1016 {2}	MULTI	AverageRF		2.8E+4	20	7.5			OK	
Aroclor 1016 {3}	MULTI	AverageRF		8.7E+4	20	7.2			OK	
Aroclor 1016 {4}	MULTI	AverageRF		5.1E+4	20	5.8			OK	
Aroclor 1016 {5}	MULTI	AverageRF		3.5E+4	20	5.1			OK	
Aroclor 1260 {1}	MULTI	AverageRF		3.4E+4	20	4.9			OK	
Aroclor 1260 {2}	MULTI	AverageRF		4.7E+4	20	4.6			OK	
Aroclor 1260 {3}	MULTI	AverageRF		5.0E+4	20	5.3			OK	
Aroclor 1260 {4}	MULTI	AverageRF		1.1E+5	20	6.7			OK	
Aroclor 1260 {5}	MULTI	AverageRF		7.9E+4	20	6.9			OK	

Initial Calibration - Summary Report

Calibration ID: CAL16127
Method ID: MJ706

Instrument ID: GC27.i
Column Name: DB-XLB

Parameter Name	Type	Curve Fit	Min RF	Mean RF	Max %RSD	%RSD	Min COD	COD	MRL Check	Conc ½ Low pt.
Aroclor 1221 {1}	MULTI	AverageRF		6.5E+3	20	7.8			OK	
Aroclor 1221 {2}	MULTI	AverageRF		6.5E+3	20	4.5			OK	
Aroclor 1221 {3}	MULTI	AverageRF		2.5E+4	20	8.6			OK	
Aroclor 1232 {1}	MULTI	AverageRF		2.0E+4	20	7.5			OK	
Aroclor 1232 {2}	MULTI	AverageRF		1.1E+4	20	5.6			OK	
Aroclor 1232 {3}	MULTI	AverageRF		7.3E+3	20	7.2			OK	
Aroclor 1232 {4}	MULTI	AverageRF		1.5E+4	20	7.5			OK	
Aroclor 1232 {5}	MULTI	AverageRF		1.8E+4	20	6.6			OK	
Aroclor 1242 {1}	MULTI	AverageRF		1.3E+4	20	11.9			OK	
Aroclor 1242 {2}	MULTI	AverageRF		1.8E+4	20	7.4			OK	
Aroclor 1242 {3}	MULTI	AverageRF		2.6E+4	20	4.9			OK	
Aroclor 1242 {4}	MULTI	AverageRF		2.9E+4	20	5.5			OK	
Aroclor 1242 {5}	MULTI	AverageRF		1.6E+4	20	9.8			OK	
Aroclor 1248 {1}	MULTI	AverageRF		2.1E+4	20	7.6			OK	
Aroclor 1248 {2}	MULTI	AverageRF		1.8E+4	20	8.3			OK	
Aroclor 1248 {3}	MULTI	AverageRF		2.4E+4	20	11.8			OK	
Aroclor 1248 {4}	MULTI	AverageRF		1.9E+4	20	9.9			OK	
Aroclor 1248 {5}	MULTI	AverageRF		2.9E+4	20	9.7			OK	
Aroclor 1254 {1}	MULTI	AverageRF		3.2E+4	20	9.6			OK	
Aroclor 1254 {2}	MULTI	AverageRF		1.7E+4	20	7.2			OK	
Aroclor 1254 {3}	MULTI	AverageRF		4.9E+4	20	11.2			OK	
Aroclor 1254 {4}	MULTI	AverageRF		1.5E+4	20	9.1			OK	
Aroclor 1254 {5}	MULTI	AverageRF		2.4E+4	20	10.5			OK	
Aroclor 1262 {1}	MULTI	AverageRF		4.2E+4	20	15.0			OK	
Aroclor 1262 {2}	MULTI	AverageRF		3.2E+4	20	14.6			OK	
Aroclor 1262 {3}	MULTI	AverageRF		6.6E+4	20	17.0			OK	
Aroclor 1262 {4}	MULTI	AverageRF		4.4E+4	20	14.1			OK	
Aroclor 1262 {5}	MULTI	AverageRF		2.3E+4	20	13.1			OK	
Aroclor 1268 {1}	MULTI	AverageRF		7.1E+4	20	9.2			OK	
Aroclor 1268 {2}	MULTI	AverageRF		6.3E+4	20	7.5			OK	
Aroclor 1268 {3}	MULTI	AverageRF		5.4E+4	20	6.5			OK	
Aroclor 1268 {4}	MULTI	AverageRF		1.5E+5	20	9.3			OK	
Tetrachloro-m-xylene	SURR	AverageRF		8.3E+5	20	7.2			NA	
Decachlorobiphenyl	SURR	AverageRF		4.5E+5	20	11.3			NA	
Aroclor 1016 {1}	MULTI	AverageRF		1.5E+4	20	6.8			OK	
Aroclor 1016 {2}	MULTI	AverageRF		2.2E+4	20	7.8			OK	
Aroclor 1016 {3}	MULTI	AverageRF		2.4E+4	20	7.8			OK	
Aroclor 1016 {4}	MULTI	AverageRF		1.8E+4	20	9.0			OK	
Aroclor 1016 {5}	MULTI	AverageRF		1.7E+4	20	7.5			OK	
Aroclor 1260 {1}	MULTI	AverageRF		1.4E+4	20	7.1			OK	
Aroclor 1260 {2}	MULTI	AverageRF		2.3E+4	20	15.6			OK	
Aroclor 1260 {3}	MULTI	AverageRF		2.2E+4	20	12.1			OK	
Aroclor 1260 {4}	MULTI	AverageRF		4.8E+4	20	14.2			OK	
Aroclor 1260 {5}	MULTI	AverageRF		2.9E+4	20	9.8			OK	

Initial Calibration - Detailed Report

Calibration ID: CAL16127
Method ID: MJ706

Instrument ID: GC27.i
Column Name: DB-35MS
Calibration Fit: AverageRF

#	FileID	File Location	Acquisition Date	Quantitation Date	Last Updated
1	289595	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F005.D	09/04/2019 18:32	09/11/2019 09:52	09/11/2019 13:26
2	289597	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F006.D	09/04/2019 19:04	09/11/2019 09:52	09/11/2019 13:26
3	289599	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F007.D	09/04/2019 19:35	09/11/2019 09:52	09/11/2019 13:26
4	289601	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F008.D	09/04/2019 20:07	09/11/2019 09:52	09/11/2019 13:26
5	289603	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F009.D	09/04/2019 20:39	09/11/2019 09:52	09/11/2019 13:26
6	289605	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F010.D	09/04/2019 21:10	09/11/2019 09:52	09/11/2019 13:26
7	289607	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F011.D	09/04/2019 21:42	09/11/2019 09:52	09/11/2019 13:26
8	289609	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F012.D	09/04/2019 22:13	09/11/2019 09:52	09/11/2019 13:26
9	289611	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F013.D	09/04/2019 22:45	09/11/2019 09:52	09/11/2019 13:26
10	289613	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F014.D	09/04/2019 23:17	09/11/2019 09:52	09/11/2019 13:26
11	289615	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F015.D	09/04/2019 23:48	09/11/2019 09:53	09/11/2019 13:26
12	289617	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F016.D	09/05/2019 00:20	09/11/2019 09:53	09/11/2019 13:26
13	289619	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F017.D	09/05/2019 00:51	09/11/2019 09:53	09/11/2019 13:26
14	289621	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F018.D	09/05/2019 01:23	09/11/2019 09:53	09/11/2019 13:26
15	289623	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F019.D	09/05/2019 01:55	09/11/2019 09:53	09/11/2019 13:26
16	289625	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F020.D	09/05/2019 02:26	09/11/2019 09:53	09/11/2019 13:26
17	289627	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F021.D	09/05/2019 02:58	09/11/2019 09:53	09/11/2019 13:26
18	289629	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F022.D	09/05/2019 03:29	09/11/2019 09:53	09/11/2019 13:26
19	289631	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F023.D	09/05/2019 04:01	09/11/2019 09:53	09/11/2019 13:26
20	289633	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F024.D	09/05/2019 04:32	09/11/2019 09:53	09/11/2019 13:26
21	289635	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F025.D	09/05/2019 05:04	09/11/2019 09:53	09/11/2019 13:26
22	289637	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F026.D	09/05/2019 05:35	09/11/2019 09:53	09/11/2019 13:26
23	289639	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F027.D	09/05/2019 06:07	09/11/2019 09:53	09/11/2019 13:26
24	289641	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F028.D	09/05/2019 06:38	09/11/2019 09:53	09/11/2019 13:27
25	289643	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F033.D	09/05/2019 09:16	09/11/2019 09:53	09/11/2019 13:27
26	289645	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F034.D	09/05/2019 09:48	09/11/2019 09:53	09/11/2019 13:27
27	289647	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F035.D	09/05/2019 10:20	09/11/2019 09:53	09/11/2019 13:27
28	289649	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F036.D	09/05/2019 10:52	09/11/2019 09:53	09/11/2019 13:27
29	289651	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F037.D	09/05/2019 11:23	09/11/2019 09:53	09/11/2019 13:27
30	289653	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F038.D	09/05/2019 11:55	09/11/2019 09:53	09/11/2019 13:27
31	289655	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F039.D	09/05/2019 12:26	09/11/2019 09:53	09/11/2019 13:27
32	289657	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F040.D	09/05/2019 12:58	09/11/2019 09:53	09/11/2019 13:27
33	289659	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F041.D	09/05/2019 13:30	09/11/2019 09:53	09/11/2019 13:27
34	289661	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F042.D	09/05/2019 14:02	09/11/2019 09:53	09/11/2019 13:27
35	289663	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F043.D	09/05/2019 14:33	09/11/2019 09:53	09/11/2019 13:27
36	289665	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F044.D	09/05/2019 15:05	09/11/2019 09:53	09/11/2019 13:27
37	289681	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F009.D	09/09/2019 15:02	09/11/2019 09:54	09/11/2019 13:27
38	289683	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F010.D	09/09/2019 15:33	09/11/2019 09:54	09/11/2019 13:27
39	289685	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F011.D	09/09/2019 16:05	09/11/2019 09:54	09/11/2019 13:27
40	289687	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F012.D	09/09/2019 16:37	09/11/2019 09:54	09/11/2019 13:27

Parameter Name	# RF		# RF		# RF		# RF		# RF		Mean RF	%RSD		
	#	RF	#	RF	#	RF	#	RF	#	RF				
Tetrachloro-m-xylene	1	1.9E+6	2	1.9E+6	3	1.7E+6	4	1.8E+6	5	1.9E+6	6	1.8E+6	1.8E+6	3.7
	7	1.7E+6	8	1.7E+6										
Decachlorobiphenyl	1	1.2E+6	2	1.2E+6	3	1.1E+6	4	1.1E+6	5	1.1E+6	6	1.0E+6	1.1E+6	8.4
	7	9.8E+5	8	9.5E+5										
Aroclor 1016 {1}	1	3.9E+4	2	3.5E+4	3	3.3E+4	4	3.5E+4	5	3.6E+4	6	3.3E+4	3.4E+4	8.5
	7	3.1E+4	8	3.0E+4										

Initial Calibration - Detailed Report

Initial Calibration - Detailed Report

Calibration ID: CAL16127
Method ID: MJ706

Instrument ID: GC27.i
Column Name: DB-35MS
Calibration Fit: AverageRF

Parameter Name	#	RF	#	RF	#	RF	#	RF	#	RF	#	RF	Mean RF	%RSD
Aroclor 1016 {2}	1	3.2E+4	2	2.9E+4	3	2.7E+4	4	2.8E+4	5	2.9E+4	6	2.8E+4	2.8E+4	7.5
	7	2.6E+4	8	2.5E+4										
Aroclor 1016 {3}	1	9.3E+4	2	9.8E+4	3	8.4E+4	4	8.5E+4	5	9.0E+4	6	8.6E+4	8.7E+4	7.2
	7	8.0E+4	8	8.0E+4										
Aroclor 1016 {4}	1	5.1E+4	2	5.3E+4	3	5.3E+4	4	5.3E+4	5	5.5E+4	6	5.1E+4	5.1E+4	5.8
	7	4.8E+4	8	4.6E+4										
Aroclor 1016 {5}	1	3.6E+4	2	3.5E+4	3	3.6E+4	4	3.7E+4	5	3.8E+4	6	3.5E+4	3.5E+4	5.1
	7	3.3E+4	8	3.2E+4										
Aroclor 1221 {1}					9	2.5E+4	10	2.6E+4	11	2.5E+4	12	2.5E+4	2.3E+4	10.7
	13	2.2E+4	14	2.0E+4	15	2.0E+4	16	2.1E+4						
Aroclor 1221 {2}					9	1.7E+4	10	1.6E+4	11	1.5E+4	12	1.5E+4	1.5E+4	10.9
	13	1.4E+4	14	1.3E+4	15	1.3E+4	16	1.4E+4						
Aroclor 1221 {3}					9	6.0E+4	10	6.2E+4	11	5.8E+4	12	5.8E+4	5.5E+4	10.1
	13	5.3E+4	14	4.9E+4	15	4.7E+4	16	5.1E+4						
Aroclor 1232 {1}									17	1.9E+4	18	1.7E+4	1.6E+4	12.2
	19	1.6E+4	20	1.6E+4	21	1.5E+4	22	1.4E+4	23	1.3E+4	24	1.5E+4		
Aroclor 1232 {2}									17	5.7E+4	18	4.8E+4	4.7E+4	12.4
	19	5.1E+4	20	5.1E+4	21	4.4E+4	22	4.2E+4	23	3.9E+4	24	4.3E+4		
Aroclor 1232 {3}									17	3.1E+4	18	4.3E+4	3.8E+4	10.7
	19	4.0E+4	20	4.2E+4	21	4.0E+4	22	3.7E+4	23	3.4E+4	24	3.8E+4		
Aroclor 1232 {4}									17	1.2E+4	18	1.5E+4	1.4E+4	8.8
	19	1.5E+4	20	1.5E+4	21	1.4E+4	22	1.3E+4	23	1.2E+4	24	1.4E+4		
Aroclor 1232 {5}									17	3.3E+4	18	2.9E+4	2.6E+4	12.7
	19	2.6E+4	20	2.8E+4	21	2.4E+4	22	2.4E+4	23	2.2E+4	24	2.5E+4		
Aroclor 1242 {1}					25	3.0E+4	26	3.0E+4	27	2.8E+4	28	3.1E+4	3.0E+4	8.7
					37	3.5E+4	38	3.1E+4	39	2.7E+4	40	2.7E+4		
Aroclor 1242 {2}					25	2.3E+4	26	2.4E+4	27	2.2E+4	28	2.4E+4	2.3E+4	5.4
					37	2.2E+4	38	2.4E+4	39	2.1E+4	40	2.2E+4		
Aroclor 1242 {3}					25	6.9E+4	26	7.2E+4	27	6.8E+4	28	7.1E+4	6.8E+4	6.7
					37	7.5E+4	38	6.7E+4	39	6.3E+4	40	6.2E+4		
Aroclor 1242 {4}					25	4.2E+4	26	4.3E+4	27	4.0E+4	28	4.5E+4	4.1E+4	5.7
					37	3.9E+4	38	3.9E+4	39	4.0E+4	40	3.9E+4		
Aroclor 1242 {5}					25	2.8E+4	26	2.8E+4	27	2.7E+4	28	3.1E+4	2.8E+4	5.5
					37	2.8E+4	38	3.0E+4	39	2.7E+4	40	2.6E+4		
Aroclor 1248 {1}									29	5.1E+4	30	4.5E+4	4.2E+4	12.9
	31	4.6E+4	32	4.2E+4	33	3.8E+4	34	3.6E+4	35	3.6E+4	36	3.9E+4		
Aroclor 1248 {2}									29	3.3E+4	30	3.1E+4	2.8E+4	10.5
	31	2.9E+4	32	3.1E+4	33	2.5E+4	34	2.6E+4	35	2.5E+4	36	2.7E+4		
Aroclor 1248 {3}									29	6.1E+4	30	6.2E+4	5.3E+4	13.7
	31	5.5E+4	32	5.5E+4	33	4.9E+4	34	4.6E+4	35	4.3E+4	36	4.9E+4		
Aroclor 1248 {4}									29	3.8E+4	30	4.2E+4	3.8E+4	9.2
	31	4.1E+4	32	4.0E+4	33	3.6E+4	34	3.4E+4	35	3.2E+4	36	3.7E+4		
Aroclor 1248 {5}									29	3.5E+4	30	3.6E+4	3.3E+4	10.6
	31	3.7E+4	32	3.6E+4	33	3.1E+4	34	2.9E+4	35	2.8E+4	36	3.3E+4		
Aroclor 1254 {1}					9	4.0E+4	10	4.0E+4	11	3.7E+4	12	4.0E+4	3.6E+4	10.1
	13	3.5E+4	14	3.2E+4	15	3.1E+4	16	3.6E+4						
Aroclor 1254 {2}					9	7.1E+4	10	7.0E+4	11	6.4E+4	12	6.7E+4	6.3E+4	10.8
	13	5.8E+4	14	5.5E+4	15	5.3E+4	16	6.2E+4						

Initial Calibration - Detailed Report

Initial Calibration - Detailed Report

Calibration ID: CAL16127	Instrument ID: GC27.i
Method ID: MJ706	Column Name: DB-35MS
	Calibration Fit: AverageRF

Parameter Name	#	RF	#	RF	#	RF	#	RF	#	RF	#	RF	Mean RF	%RSD
Aroclor 1254 {3}			9	1.4E+5	10	1.4E+5	11	1.3E+5	12	1.3E+5			1.2E+5	11.8
	13	1.1E+5	14	1.1E+5	15	1.0E+5	16	1.2E+5						
Aroclor 1254 {4}			9	7.5E+4	10	8.2E+4	11	7.6E+4	12	8.1E+4			7.3E+4	9.6
	13	6.8E+4	14	6.5E+4	15	6.3E+4	16	7.4E+4						
Aroclor 1254 {5}			9	4.3E+4	10	4.9E+4	11	4.9E+4	12	5.0E+4			4.6E+4	8.2
	13	4.5E+4	14	4.2E+4	15	4.0E+4	16	4.7E+4						
Aroclor 1260 {1}	1	3.5E+4	2	3.5E+4	3	3.2E+4	4	3.4E+4	5	3.5E+4	6	3.3E+4	3.4E+4	4.9
	7	3.2E+4	8	3.2E+4										
Aroclor 1260 {2}	1	4.8E+4	2	4.6E+4	3	4.5E+4	4	4.7E+4	5	5.0E+4	6	4.7E+4	4.7E+4	4.6
	7	4.5E+4	8	4.4E+4										
Aroclor 1260 {3}	1	5.4E+4	2	5.0E+4	3	4.9E+4	4	5.2E+4	5	5.3E+4	6	5.0E+4	5.0E+4	5.3
	7	4.7E+4	8	4.6E+4										
Aroclor 1260 {4}	1	1.2E+5	2	1.1E+5	3	1.0E+5	4	1.1E+5	5	1.1E+5	6	1.0E+5	1.1E+5	6.7
	7	9.9E+4	8	9.9E+4										
Aroclor 1260 {5}	1	9.0E+4	2	8.2E+4	3	7.8E+4	4	8.1E+4	5	8.1E+4	6	7.7E+4	7.9E+4	6.9
	7	7.3E+4	8	7.3E+4										
Aroclor 1262 {1}									17	1.0E+5	18	1.0E+5	9.4E+4	10.5
	19	1.0E+5	20	1.0E+5	21	8.8E+4	22	8.4E+4	23	7.8E+4	24	9.1E+4		
Aroclor 1262 {2}									17	9.7E+4	18	8.8E+4	8.3E+4	10.9
	19	8.5E+4	20	9.0E+4	21	7.8E+4	22	7.5E+4	23	6.9E+4	24	8.1E+4		
Aroclor 1262 {3}									17	1.7E+5	18	1.7E+5	1.5E+5	10.1
	19	1.6E+5	20	1.6E+5	21	1.4E+5	22	1.4E+5	23	1.3E+5	24	1.5E+5		
Aroclor 1262 {4}									17	1.2E+5	18	1.2E+5	1.1E+5	10.5
	19	1.1E+5	20	1.2E+5	21	1.0E+5	22	9.8E+4	23	9.2E+4	24	1.1E+5		
Aroclor 1262 {5}									17	5.0E+4	18	5.1E+4	4.8E+4	8.4
	19	4.9E+4	20	5.2E+4	21	4.5E+4	22	4.4E+4	23	4.1E+4	24	4.9E+4		
Aroclor 1268 {1}	25	1.6E+5	26	1.6E+5	27	1.6E+5	28	1.8E+5					1.6E+5	5.8
	37	1.7E+5	38	1.7E+5	39	1.6E+5	40	1.5E+5						
Aroclor 1268 {2}	25	1.4E+5	26	1.5E+5	27	1.4E+5	28	1.7E+5					1.5E+5	7.0
	37	1.6E+5	38	1.4E+5	39	1.4E+5	40	1.4E+5						
Aroclor 1268 {3}	25	1.2E+5	26	1.3E+5	27	1.2E+5	28	1.4E+5					1.2E+5	5.9
	37	1.2E+5	38	1.2E+5	39	1.2E+5	40	1.2E+5						
Aroclor 1268 {4}	25	3.4E+5	26	3.6E+5	27	3.4E+5	28	4.1E+5					3.5E+5	7.1
	37	3.5E+5	38	3.5E+5	39	3.3E+5	40	3.3E+5						

Calibration ID:	CAL16127	Instrument ID:	GC27.i
Method ID:	MJ706	Column Name:	DB-35MS

#	FileID	File Location	Acquisition Date	Quantitation Date	Last Updated
1	289595	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F005.D	09/04/2019 18:32	09/11/2019 09:52	09/11/2019 13:26
2	289597	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F006.D	09/04/2019 19:04	09/11/2019 09:52	09/11/2019 13:26
3	289599	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F007.D	09/04/2019 19:35	09/11/2019 09:52	09/11/2019 13:26
4	289601	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F008.D	09/04/2019 20:07	09/11/2019 09:52	09/11/2019 13:26
5	289603	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F009.D	09/04/2019 20:39	09/11/2019 09:52	09/11/2019 13:26
6	289605	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F010.D	09/04/2019 21:10	09/11/2019 09:52	09/11/2019 13:26
7	289607	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F011.D	09/04/2019 21:42	09/11/2019 09:52	09/11/2019 13:26
8	289609	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F012.D	09/04/2019 22:13	09/11/2019 09:52	09/11/2019 13:26
9	289611	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F013.D	09/04/2019 22:45	09/11/2019 09:52	09/11/2019 13:26
10	289613	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F014.D	09/04/2019 23:17	09/11/2019 09:52	09/11/2019 13:26
11	289615	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F015.D	09/04/2019 23:48	09/11/2019 09:53	09/11/2019 13:26
12	289617	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F016.D	09/05/2019 00:20	09/11/2019 09:53	09/11/2019 13:26
13	289619	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F017.D	09/05/2019 00:51	09/11/2019 09:53	09/11/2019 13:26
14	289621	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F018.D	09/05/2019 01:23	09/11/2019 09:53	09/11/2019 13:26
15	289623	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F019.D	09/05/2019 01:55	09/11/2019 09:53	09/11/2019 13:26
16	289625	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F020.D	09/05/2019 02:26	09/11/2019 09:53	09/11/2019 13:26
17	289627	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F021.D	09/05/2019 02:58	09/11/2019 09:53	09/11/2019 13:26
18	289629	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F022.D	09/05/2019 03:29	09/11/2019 09:53	09/11/2019 13:26
19	289631	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F023.D	09/05/2019 04:01	09/11/2019 09:53	09/11/2019 13:26
20	289633	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F024.D	09/05/2019 04:32	09/11/2019 09:53	09/11/2019 13:26
21	289635	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F025.D	09/05/2019 05:04	09/11/2019 09:53	09/11/2019 13:26
22	289637	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F026.D	09/05/2019 05:35	09/11/2019 09:53	09/11/2019 13:26
23	289639	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F027.D	09/05/2019 06:07	09/11/2019 09:53	09/11/2019 13:26
24	289641	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F028.D	09/05/2019 06:38	09/11/2019 09:53	09/11/2019 13:27
25	289643	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F033.D	09/05/2019 09:16	09/11/2019 09:53	09/11/2019 13:27
26	289645	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F034.D	09/05/2019 09:48	09/11/2019 09:53	09/11/2019 13:27
27	289647	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F035.D	09/05/2019 10:20	09/11/2019 09:53	09/11/2019 13:27
28	289649	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F036.D	09/05/2019 10:52	09/11/2019 09:53	09/11/2019 13:27
29	289651	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F037.D	09/05/2019 11:23	09/11/2019 09:53	09/11/2019 13:27
30	289653	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F038.D	09/05/2019 11:55	09/11/2019 09:53	09/11/2019 13:27
31	289655	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F039.D	09/05/2019 12:26	09/11/2019 09:53	09/11/2019 13:27
32	289657	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F040.D	09/05/2019 12:58	09/11/2019 09:53	09/11/2019 13:27
33	289659	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F041.D	09/05/2019 13:30	09/11/2019 09:53	09/11/2019 13:27
34	289661	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F042.D	09/05/2019 14:02	09/11/2019 09:53	09/11/2019 13:27
35	289663	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F043.D	09/05/2019 14:33	09/11/2019 09:53	09/11/2019 13:27
36	289665	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F044.D	09/05/2019 15:05	09/11/2019 09:53	09/11/2019 13:27
37	289681	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F009.D	09/09/2019 15:02	09/11/2019 09:54	09/11/2019 13:27
38	289683	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F010.D	09/09/2019 15:33	09/11/2019 09:54	09/11/2019 13:27
39	289685	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F011.D	09/09/2019 16:05	09/11/2019 09:54	09/11/2019 13:27
40	289687	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F012.D	09/09/2019 16:37	09/11/2019 09:54	09/11/2019 13:27

Parameter Name	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D
Tetrachloro-m-xylene	1	0.1	0.1059	5.9	2	0.2	0.2063	3.2	3	0.5	0.4839	-3.2
	4	1	0.9930	-0.7	5	2	2.064	3.2	6	5	4.940	-1.2
	7	10	9.640	-3.6	8	20	19.28	-3.6				

Initial Calibration - Detailed Report

Calibration ID: CAL16127
Method ID: MJ706

Instrument ID: GC27.i
Column Name: DB-35MS

Parameter Name	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D
Decachlorobiphenyl	1	0.1	0.1124	12.4	2	0.2	0.2138	6.9	3	0.5	0.5063	1.3
	4	1	1.018	1.8	5	2	2.085	4.3	6	5	4.794	-4.1
	7	10	9.023	-9.8	8	20	17.46	-12.7				
Aroclor 1016 {1}	1	1	1.155	15.5	2	2	2.079	4.0	3	5	4.767	-4.7
	4	10	10.33	3.3	5	20	20.94	4.7	6	50	48.25	-3.5
	7	100	91.87	-8.1	8	200	177.8	-11.1				
Aroclor 1016 {2}	1	1	1.132	13.2	2	2	2.083	4.2	3	5	4.803	-3.9
	4	10	10.12	1.2	5	20	20.91	4.5	6	50	49.11	-1.8
	7	100	93.26	-6.7	8	200	178.8	-10.6				
Aroclor 1016 {3}	1	1	1.067	6.7	2	2	2.251	12.6	3	5	4.820	-3.6
	4	10	9.783	-2.2	5	20	20.71	3.6	6	50	49.60	-0.8
	7	100	92.10	-7.9	8	200	183.3	-8.3				
Aroclor 1016 {4}	1	1	1.000	0.0	2	2	2.081	4.0	3	5	5.122	2.4
	4	10	10.40	4.0	5	20	21.40	7.0	6	50	49.71	-0.6
	7	100	92.70	-7.3	8	200	180.7	-9.7				
Aroclor 1016 {5}	1	1	1.024	2.4	2	2	1.985	-0.8	3	5	5.067	1.3
	4	10	10.45	4.5	5	20	21.38	6.9	6	50	49.89	-0.2
	7	100	94.52	-5.5	8	200	182.5	-8.7				
Aroclor 1221 {1}									9	2	2.199	9.9
	10	4	4.536	13.4	11	10	10.80	8.0	12	20	21.27	6.3
	13	40	38.41	-4.0	14	100	88.56	-11.4	15	200	171.2	-14.4
	16	400	368.7	-7.8								
Aroclor 1221 {2}									9	2	2.353	17.7
	10	4	4.421	10.5	11	10	10.11	1.1	12	20	21.14	5.7
	13	40	38.94	-2.7	14	100	88.87	-11.1	15	200	172.7	-13.7
	16	400	370.0	-7.5								
Aroclor 1221 {3}									9	2	2.198	9.9
	10	4	4.518	13.0	11	10	10.55	5.5	12	20	21.35	6.8
	13	40	38.88	-2.8	14	100	89.45	-10.5	15	200	171.9	-14.1
	16	400	369.5	-7.6								
Aroclor 1232 {1}					17	1	1.231	23.1	18	2	2.177	8.9
	19	5	5.011	0.2	20	10	10.45	4.5	21	20	19.05	-4.7
	22	50	44.95	-10.1	23	100	84.17	-15.8	24	200	187.9	-6.1
Aroclor 1232 {2}					17	1	1.210	21.0	18	2	2.054	2.7
	19	5	5.409	8.2	20	10	10.87	8.7	21	20	18.94	-5.3
	22	50	45.04	-9.9	23	100	83.19	-16.8	24	200	183.0	-8.5
Aroclor 1232 {3}					17	1	0.8195	-18.0	18	2	2.245	12.2
	19	5	5.245	4.9	20	10	11.10	11.0	21	20	21.12	5.6
	22	50	48.38	-3.2	23	100	88.32	-11.7	24	200	198.4	-0.8

Initial Calibration - Detailed Report

Calibration ID:	CAL16127	Instrument ID:	GC27.i
Method ID:	MJ706	Column Name:	DB-35MS

Parameter Name	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D
Aroclor 1232 {4}												
					17	1	0.8727	-12.7	18	2	2.236	11.8
	19	5	5.344	6.9	20	10	10.76	7.6	21	20	20.02	0.1
	22	50	48.07	-3.9	23	100	89.25	-10.8	24	200	201.9	0.9
Aroclor 1232 {5}												
					17	1	1.246	24.6	18	2	2.166	8.3
	19	5	4.979	-0.4	20	10	10.49	4.9	21	20	18.57	-7.2
	22	50	45.38	-9.2	23	100	83.39	-16.6	24	200	191.3	-4.3
Aroclor 1242 {1}												
	25	20	19.87	-0.6	26	50	50.08	0.2	27	100	94.97	-5.0
	28	200	205.6	2.8								
	37	1	1.177	17.7	38	2	2.073	3.6	39	5	4.529	-9.4
	40	10	9.074	-9.3								
Aroclor 1242 {2}												
	25	20	20.05	0.2	26	50	52.02	4.0	27	100	97.76	-2.2
	28	200	213.9	7.0								
	37	1	0.9620	-3.8	38	2	2.136	6.8	39	5	4.634	-7.3
	40	10	9.530	-4.7								
Aroclor 1242 {3}												
	25	20	20.07	0.4	26	50	52.86	5.7	27	100	99.81	-0.2
	28	200	208.0	4.0								
	37	1	1.099	9.9	38	2	1.961	-1.9	39	5	4.598	-8.0
	40	10	9.017	-9.8								
Aroclor 1242 {4}												
	25	20	20.45	2.3	26	50	52.61	5.2	27	100	98.51	-1.5
	28	200	221.8	10.9								
	37	1	0.9631	-3.7	38	2	1.904	-4.8	39	5	4.843	-3.1
	40	10	9.474	-5.3								
Aroclor 1242 {5}												
	25	20	20.05	0.2	26	50	50.07	0.1	27	100	96.25	-3.8
	28	200	217.2	8.6								
	37	1	1.002	0.2	38	2	2.133	6.7	39	5	4.783	-4.3
	40	10	9.223	-7.8								
Aroclor 1248 {1}												
					29	1	1.216	21.6	30	2	2.171	8.6
	31	5	5.541	10.8	32	10	10.16	1.6	33	20	18.34	-8.3
	34	50	43.36	-13.3	35	100	84.96	-15.0	36	200	188.1	-6.0
Aroclor 1248 {2}												
					29	1	1.150	15.0	30	2	2.213	10.6
	31	5	5.050	1.0	32	10	10.83	8.3	33	20	17.93	-10.4
	34	50	46.24	-7.5	35	100	86.26	-13.7	36	200	193.2	-3.4
Aroclor 1248 {3}												
					29	1	1.168	16.8	30	2	2.378	18.9
	31	5	5.261	5.2	32	10	10.45	4.5	33	20	18.67	-6.6
	34	50	43.48	-13.0	35	100	81.09	-18.9	36	200	186.4	-6.8
Aroclor 1248 {4}												
					29	1	1.009	0.9	30	2	2.245	12.2
	31	5	5.445	8.9	32	10	10.68	6.8	33	20	19.24	-3.8
	34	50	45.70	-8.6	35	100	85.24	-14.8	36	200	196.5	-1.7
Aroclor 1248 {5}												
					29	1	1.045	4.5	30	2	2.200	10.0
	31	5	5.630	12.6	32	10	10.92	9.2	33	20	18.42	-7.9
	34	50	44.40	-11.2	35	100	84.61	-15.4	36	200	196.4	-1.8

Initial Calibration - Detailed Report

Calibration ID:	CAL16127	Instrument ID:	GC27.i
Method ID:	MJ706	Column Name:	DB-35MS

Parameter Name	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D
Aroclor 1254 {1}									9	1	1.094	9.4
	10	2	2.237	11.8	11	5	5.072	1.4	12	10	10.97	9.7
	13	20	19.13	-4.4	14	50	44.20	-11.6	15	100	84.80	-15.2
	16	200	197.7	-1.2								
Aroclor 1254 {2}									9	1	1.136	13.6
	10	2	2.245	12.3	11	5	5.125	2.5	12	10	10.73	7.3
	13	20	18.65	-6.8	14	50	43.80	-12.4	15	100	85.04	-15.0
	16	200	196.8	-1.6								
Aroclor 1254 {3}									9	1	1.147	14.7
	10	2	2.258	12.9	11	5	5.193	3.9	12	10	10.82	8.2
	13	20	18.64	-6.8	14	50	43.13	-13.7	15	100	83.53	-16.5
	16	200	194.6	-2.7								
Aroclor 1254 {4}									9	1	1.034	3.4
	10	2	2.253	12.7	11	5	5.178	3.6	12	10	11.06	10.6
	13	20	18.74	-6.3	14	50	44.21	-11.6	15	100	86.92	-13.1
	16	200	201.5	0.8								
Aroclor 1254 {5}									9	1	0.9372	-6.3
	10	2	2.145	7.3	11	5	5.334	6.7	12	10	11.04	10.4
	13	20	19.59	-2.1	14	50	45.53	-8.9	15	100	88.77	-11.2
	16	200	208.3	4.2								
Aroclor 1260 {1}	1	1	1.056	5.6	2	2	2.115	5.8	3	5	4.756	-4.9
	4	10	10.13	1.3	5	20	20.85	4.3	6	50	49.11	-1.8
	7	100	95.48	-4.5	8	200	188.5	-5.8				
Aroclor 1260 {2}	1	1	1.040	4.0	2	2	1.973	-1.4	3	5	4.792	-4.2
	4	10	10.15	1.5	5	20	21.56	7.8	6	50	50.79	1.6
	7	100	96.33	-3.7	8	200	188.6	-5.7				
Aroclor 1260 {3}	1	1	1.078	7.8	2	2	2.011	0.5	3	5	4.902	-2.0
	4	10	10.31	3.1	5	20	21.03	5.1	6	50	49.45	-1.1
	7	100	94.24	-5.8	8	200	184.4	-7.8				
Aroclor 1260 {4}	1	1	1.139	13.9	2	2	2.012	0.6	3	5	4.832	-3.4
	4	10	10.12	1.2	5	20	20.74	3.7	6	50	48.56	-2.9
	7	100	93.46	-6.5	8	200	186.8	-6.6				
Aroclor 1260 {5}	1	1	1.131	13.1	2	2	2.062	3.1	3	5	4.909	-1.8
	4	10	10.21	2.1	5	20	20.48	2.4	6	50	48.47	-3.1
	7	100	92.58	-7.4	8	200	183.3	-8.4				
Aroclor 1262 {1}					17	1	1.068	6.8	18	2	2.222	11.1
	19	5	5.381	7.6	20	10	11.02	10.2	21	20	18.80	-6.0
	22	50	44.90	-10.2	23	100	82.98	-17.0	24	200	194.9	-2.5
Aroclor 1262 {2}					17	1	1.168	16.8	18	2	2.126	6.3
	19	5	5.144	2.9	20	10	10.88	8.8	21	20	18.73	-6.4
	22	50	44.99	-10.0	23	100	83.31	-16.7	24	200	196.4	-1.8

Initial Calibration - Detailed Report

Calibration ID: CAL16127
Method ID: MJ706

Instrument ID: GC27.i
Column Name: DB-35MS

Parameter Name	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D
Aroclor 1262 {3}					17	1	1.101	10.1	18	2	2.199	9.9
	19	5	5.189	3.8	20	10	10.85	8.5	21	20	18.53	-7.4
	22	50	44.58	-10.8	23	100	84.02	-16.0	24	200	203.6	1.8
Aroclor 1262 {4}					17	1	1.089	8.9	18	2	2.247	12.3
	19	5	5.210	4.2	20	10	10.90	9.0	21	20	18.65	-6.7
	22	50	44.54	-10.9	23	100	83.24	-16.8	24	200	200.0	0.0
Aroclor 1262 {5}					17	1	1.052	5.2	18	2	2.151	7.6
	19	5	5.172	3.4	20	10	10.96	9.6	21	20	18.86	-5.7
	22	50	45.78	-8.4	23	100	85.85	-14.2	24	200	205.0	2.5
Aroclor 1268 {1}	25	20	19.76	-1.2	26	50	50.12	0.2	27	100	95.01	-5.0
	28	200	222.6	11.3								
	37	1	1.037	3.7	38	2	2.045	2.3	39	5	4.751	-5.0
	40	10	9.358	-6.4								
Aroclor 1268 {2}	25	20	19.73	-1.4	26	50	50.62	1.2	27	100	95.92	-4.1
	28	200	227.1	13.5								
	37	1	1.067	6.7	38	2	1.940	-3.0	39	5	4.684	-6.3
	40	10	9.333	-6.7								
Aroclor 1268 {3}	25	20	19.99	0.0	26	50	50.76	1.5	27	100	96.39	-3.6
	28	200	226.9	13.5								
	37	1	1.001	0.1	38	2	1.937	-3.1	39	5	4.839	-3.2
	40	10	9.489	-5.1								
Aroclor 1268 {4}	25	20	19.68	-1.6	26	50	50.87	1.7	27	100	97.05	-2.9
	28	200	232.7	16.4								
	37	1	0.9955	-0.4	38	2	1.978	-1.1	39	5	4.720	-5.6
	40	10	9.362	-6.4								

Initial Calibration - Detailed Report

Calibration ID:	CAL16127	Instrument ID:	GC27.i
Method ID:	MJ706	Column Name:	DB-XLB
		Calibration Fit:	AverageRF

#	FileID	File Location	Acquisition Date	Quantitation Date	Last Updated
1	289596	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F005.D	09/04/2019 18:32	09/11/2019 09:54	09/11/2019 13:26
2	289598	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F006.D	09/04/2019 19:04	09/11/2019 09:54	09/11/2019 13:26
3	289600	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F007.D	09/04/2019 19:35	09/11/2019 09:54	09/11/2019 13:26
4	289602	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F008.D	09/04/2019 20:07	09/11/2019 09:54	09/11/2019 13:26
5	289604	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F009.D	09/04/2019 20:39	09/11/2019 09:54	09/11/2019 13:26
6	289606	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F010.D	09/04/2019 21:10	09/11/2019 09:54	09/11/2019 13:26
7	289608	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F011.D	09/04/2019 21:42	09/11/2019 09:54	09/11/2019 13:26
8	289610	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F012.D	09/04/2019 22:13	09/11/2019 09:54	09/11/2019 13:26
9	289612	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F013.D	09/04/2019 22:45	09/11/2019 09:54	09/11/2019 13:26
10	289614	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F014.D	09/04/2019 23:17	09/11/2019 09:54	09/11/2019 13:26
11	289616	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F015.D	09/04/2019 23:48	09/11/2019 09:54	09/11/2019 13:26
12	289618	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F016.D	09/05/2019 00:20	09/11/2019 09:54	09/11/2019 13:26
13	289620	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F017.D	09/05/2019 00:51	09/11/2019 09:54	09/11/2019 13:26
14	289622	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F018.D	09/05/2019 01:23	09/11/2019 09:54	09/11/2019 13:26
15	289624	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F019.D	09/05/2019 01:55	09/11/2019 09:54	09/11/2019 13:26
16	289626	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F020.D	09/05/2019 02:26	09/11/2019 09:54	09/11/2019 13:26
17	289628	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F021.D	09/05/2019 02:58	09/11/2019 09:54	09/11/2019 13:26
18	289630	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F022.D	09/05/2019 03:29	09/11/2019 09:54	09/11/2019 13:26
19	289632	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F023.D	09/05/2019 04:01	09/11/2019 09:54	09/11/2019 13:26
20	289634	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F024.D	09/05/2019 04:32	09/11/2019 09:54	09/11/2019 13:26
21	289636	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F025.D	09/05/2019 05:04	09/11/2019 09:54	09/11/2019 13:26
22	289638	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F026.D	09/05/2019 05:35	09/11/2019 09:54	09/11/2019 13:26
23	289640	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F027.D	09/05/2019 06:07	09/11/2019 09:54	09/11/2019 13:27
24	289642	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F028.D	09/05/2019 06:38	09/11/2019 09:54	09/11/2019 13:27
25	289644	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F033.D	09/05/2019 09:16	09/11/2019 09:54	09/11/2019 13:27
26	289646	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F034.D	09/05/2019 09:48	09/11/2019 09:54	09/11/2019 13:27
27	289648	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F035.D	09/05/2019 10:20	09/11/2019 09:55	09/11/2019 13:27
28	289650	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F036.D	09/05/2019 10:52	09/11/2019 09:55	09/11/2019 13:27
29	289652	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F037.D	09/05/2019 11:23	09/11/2019 09:55	09/11/2019 13:27
30	289654	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F038.D	09/05/2019 11:55	09/11/2019 09:55	09/11/2019 13:27
31	289656	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F039.D	09/05/2019 12:26	09/11/2019 09:55	09/11/2019 13:27
32	289658	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F040.D	09/05/2019 12:58	09/11/2019 09:55	09/11/2019 13:27
33	289660	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F041.D	09/05/2019 13:30	09/11/2019 09:55	09/11/2019 13:27
34	289662	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F042.D	09/05/2019 14:02	09/11/2019 09:55	09/11/2019 13:27
35	289664	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F043.D	09/05/2019 14:33	09/11/2019 09:55	09/11/2019 13:27
36	289666	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F044.D	09/05/2019 15:05	09/11/2019 09:55	09/11/2019 13:27
37	289682	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F009.D	09/09/2019 15:02	09/11/2019 09:55	09/11/2019 13:27
38	289684	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F010.D	09/09/2019 15:33	09/11/2019 09:55	09/11/2019 13:27
39	289686	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F011.D	09/09/2019 16:05	09/11/2019 09:55	09/11/2019 13:27
40	289688	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F012.D	09/09/2019 16:37	09/11/2019 09:55	09/11/2019 13:27

Parameter Name	# RF		# RF		# RF		# RF		# RF		Mean RF	%RSD
	#	RF	#	RF	#	RF	#	RF	#	RF		
Tetrachloro-m-xylene	1	8.5E+5	2	8.6E+5	3	8.5E+5	4	8.9E+5	5	9.0E+5	8.3E+5	7.2
	7	7.5E+5	8	7.4E+5								
Decachlorobiphenyl	1	4.6E+5	2	5.0E+5	3	4.5E+5	4	4.8E+5	5	5.0E+5	4.5E+5	11.3
	7	3.9E+5	8	3.6E+5								
Aroclor 1016 {1}	1	1.6E+4	2	1.4E+4	3	1.4E+4	4	1.5E+4	5	1.7E+4	1.5E+4	6.8
	7	1.5E+4	8	1.4E+4								

Initial Calibration - Detailed Report

Calibration ID:	CAL16127	Instrument ID:	GC27.i
Method ID:	MJ706	Column Name:	DB-XLB
		Calibration Fit:	AverageRF

Parameter Name	#	RF	#	RF	#	RF	#	RF	#	RF	#	RF	Mean RF	%RSD	
Aroclor 1016 {2}	1	2.4E+4	2	2.2E+4	3	2.1E+4	4	2.3E+4	5	2.4E+4	6	2.2E+4	2.2E+4	7.8	
	7	2.1E+4	8	1.9E+4											
Aroclor 1016 {3}	1	2.2E+4	2	2.4E+4	3	2.4E+4	4	2.6E+4	5	2.7E+4	6	2.5E+4	2.4E+4	7.8	
	7	2.3E+4	8	2.2E+4											
Aroclor 1016 {4}	1	2.0E+4	2	1.8E+4	3	1.7E+4	4	1.8E+4	5	1.9E+4	6	1.8E+4	1.8E+4	9.0	
	7	1.6E+4	8	1.5E+4											
Aroclor 1016 {5}	1	1.8E+4	2	1.6E+4	3	1.6E+4	4	1.7E+4	5	1.9E+4	6	1.7E+4	1.7E+4	7.5	
	7	1.6E+4	8	1.5E+4											
Aroclor 1221 {1}					9	7.5E+3	10	6.0E+3	11	6.0E+3	12	6.8E+3	6.5E+3	7.8	
					13	6.7E+3	14	6.3E+3	15	6.2E+3	16	6.5E+3			
Aroclor 1221 {2}					9	6.0E+3	10	6.8E+3	11	6.5E+3	12	6.8E+3	6.5E+3	4.5	
					13	6.6E+3	14	6.4E+3	15	6.2E+3	16	6.4E+3			
Aroclor 1221 {3}					9	2.6E+4	10	2.6E+4	11	2.5E+4	12	2.8E+4	2.5E+4	8.6	
					13	2.6E+4	14	2.3E+4	15	2.2E+4	16	2.2E+4			
Aroclor 1232 {1}									17	1.7E+4	18	1.9E+4	2.0E+4	7.5	
					19	2.0E+4	20	2.1E+4	21	2.1E+4	22	2.0E+4	23	1.9E+4	24
Aroclor 1232 {2}									17	1.2E+4	18	1.1E+4	1.1E+4	5.6	
					19	1.0E+4	20	1.1E+4	21	1.1E+4	22	1.1E+4	23	1.0E+4	24
Aroclor 1232 {3}									17	7.0E+3	18	6.5E+3	7.3E+3	7.2	
					19	7.3E+3	20	7.7E+3	21	7.1E+3	22	7.5E+3	23	7.3E+3	24
Aroclor 1232 {4}									17	1.4E+4	18	1.7E+4	1.5E+4	7.5	
					19	1.5E+4	20	1.7E+4	21	1.6E+4	22	1.5E+4	23	1.4E+4	24
Aroclor 1232 {5}									17	1.6E+4	18	1.8E+4	1.8E+4	6.6	
					19	1.8E+4	20	2.0E+4	21	1.8E+4	22	1.8E+4	23	1.6E+4	24
Aroclor 1242 {1}					25	1.4E+4	26	1.5E+4	27	1.4E+4	28	1.4E+4	1.3E+4	11.9	
					37	1.1E+4	38	1.1E+4	39	1.1E+4	40	1.2E+4			
Aroclor 1242 {2}					25	1.9E+4	26	2.0E+4	27	1.8E+4	28	1.9E+4	1.8E+4	7.4	
					37	2.0E+4	38	1.7E+4	39	1.6E+4	40	1.8E+4			
Aroclor 1242 {3}					25	2.7E+4	26	2.7E+4	27	2.5E+4	28	2.6E+4	2.6E+4	4.9	
					37	2.7E+4	38	2.5E+4	39	2.4E+4	40	2.5E+4			
Aroclor 1242 {4}					25	3.1E+4	26	3.2E+4	27	2.8E+4	28	3.0E+4	2.9E+4	5.5	
					37	3.0E+4	38	2.8E+4	39	2.7E+4	40	2.8E+4			
Aroclor 1242 {5}					25	1.6E+4	26	1.8E+4	27	1.7E+4	28	1.8E+4	1.6E+4	9.8	
					37	1.6E+4	38	1.4E+4	39	1.4E+4	40	1.5E+4			
Aroclor 1248 {1}									29	2.0E+4	30	2.2E+4	2.1E+4	7.6	
					31	2.2E+4	32	2.4E+4	33	2.3E+4	34	2.1E+4	35	1.9E+4	36
Aroclor 1248 {2}									29	1.6E+4	30	1.9E+4	1.8E+4	8.3	
					31	1.9E+4	32	2.1E+4	33	1.9E+4	34	1.9E+4	35	1.6E+4	36
Aroclor 1248 {3}									29	2.7E+4	30	2.7E+4	2.4E+4	11.8	
					31	2.5E+4	32	2.6E+4	33	2.4E+4	34	2.2E+4	35	2.0E+4	36
Aroclor 1248 {4}									29	2.1E+4	30	2.1E+4	1.9E+4	9.9	
					31	2.0E+4	32	2.0E+4	33	1.8E+4	34	1.8E+4	35	1.6E+4	36
Aroclor 1248 {5}									29	2.8E+4	30	3.0E+4	2.9E+4	9.7	
					31	3.0E+4	32	3.3E+4	33	3.0E+4	34	2.7E+4	35	2.4E+4	36
Aroclor 1254 {1}					9	3.4E+4	10	3.3E+4	11	3.4E+4	12	3.7E+4	3.2E+4	9.6	
					13	3.3E+4	14	3.0E+4	15	2.7E+4	16	3.0E+4			
Aroclor 1254 {2}					9	1.6E+4	10	1.6E+4	11	1.7E+4	12	2.0E+4	1.7E+4	7.2	
					13	1.8E+4	14	1.7E+4	15	1.6E+4	16	1.7E+4			

Initial Calibration - Detailed Report

Calibration ID: CAL16127	Instrument ID: GC27.i
Method ID: MJ706	Column Name: DB-XLB
	Calibration Fit: AverageRF

Parameter Name	#	RF	#	RF	#	RF	#	RF	#	RF	#	RF	Mean RF	%RSD
Aroclor 1254 {3}			9	5.3E+4	10	5.4E+4	11	5.2E+4	12	5.7E+4			4.9E+4	11.2
	13	5.0E+4	14	4.5E+4	15	4.1E+4	16	4.4E+4						
Aroclor 1254 {4}			9	1.8E+4	10	1.4E+4	11	1.5E+4	12	1.7E+4			1.5E+4	9.1
	13	1.5E+4	14	1.5E+4	15	1.4E+4	16	1.5E+4						
Aroclor 1254 {5}			9	2.5E+4	10	2.8E+4	11	2.5E+4	12	2.8E+4			2.4E+4	10.5
	13	2.3E+4	14	2.2E+4	15	2.1E+4	16	2.3E+4						
Aroclor 1260 {1}	1	1.3E+4	2	1.3E+4	3	1.4E+4	4	1.5E+4	5	1.6E+4	6	1.5E+4	1.4E+4	7.1
	7	1.4E+4	8	1.3E+4										
Aroclor 1260 {2}	1	2.9E+4	2	2.7E+4	3	2.2E+4	4	2.3E+4	5	2.3E+4	6	2.1E+4	2.3E+4	15.6
	7	1.9E+4	8	1.9E+4										
Aroclor 1260 {3}	1	2.7E+4	2	2.4E+4	3	2.3E+4	4	2.3E+4	5	2.4E+4	6	2.2E+4	2.2E+4	12.1
	7	1.9E+4	8	1.8E+4										
Aroclor 1260 {4}	1	5.7E+4	2	5.2E+4	3	5.0E+4	4	5.0E+4	5	5.0E+4	6	4.4E+4	4.8E+4	14.2
	7	4.0E+4	8	3.7E+4										
Aroclor 1260 {5}	1	3.1E+4	2	2.8E+4	3	3.1E+4	4	3.2E+4	5	3.3E+4	6	3.0E+4	2.9E+4	9.8
	7	2.7E+4	8	2.5E+4										
Aroclor 1262 {1}			17	4.8E+4	18	4.8E+4							4.2E+4	15.0
	19	4.6E+4	20	4.9E+4	21	4.1E+4	22	3.8E+4	23	3.3E+4	24	3.6E+4		
Aroclor 1262 {2}			17	3.6E+4	18	3.7E+4							3.2E+4	14.6
	19	3.5E+4	20	3.7E+4	21	3.1E+4	22	2.9E+4	23	2.5E+4	24	2.8E+4		
Aroclor 1262 {3}			17	7.7E+4	18	7.7E+4							6.6E+4	17.0
	19	7.3E+4	20	7.5E+4	21	6.2E+4	22	5.6E+4	23	5.0E+4	24	5.5E+4		
Aroclor 1262 {4}			17	5.0E+4	18	4.8E+4							4.4E+4	14.1
	19	4.8E+4	20	5.1E+4	21	4.3E+4	22	3.9E+4	23	3.5E+4	24	3.8E+4		
Aroclor 1262 {5}			17	2.5E+4	18	2.7E+4							2.3E+4	13.1
	19	2.4E+4	20	2.5E+4	21	2.1E+4	22	2.0E+4	23	1.8E+4	24	2.0E+4		
Aroclor 1268 {1}	25	7.3E+4	26	6.8E+4	27	6.1E+4	28	6.5E+4					7.1E+4	9.2
	37	7.9E+4	38	8.0E+4	39	7.4E+4	40	7.3E+4						
Aroclor 1268 {2}	25	6.4E+4	26	6.1E+4	27	5.5E+4	28	5.9E+4					6.3E+4	7.5
	37	6.9E+4	38	6.8E+4	39	6.3E+4	40	6.3E+4						
Aroclor 1268 {3}	25	5.6E+4	26	5.3E+4	27	4.7E+4	28	5.1E+4					5.4E+4	6.5
	37	5.9E+4	38	5.6E+4	39	5.5E+4	40	5.4E+4						
Aroclor 1268 {4}	25	1.5E+5	26	1.4E+5	27	1.2E+5	28	1.4E+5					1.5E+5	9.3
	37	1.6E+5	38	1.6E+5	39	1.5E+5	40	1.5E+5						

Initial Calibration - Detailed Report

Calibration ID:	CAL16127	Instrument ID:	GC27.i
Method ID:	MJ706	Column Name:	DB-XLB

#	FileID	File Location	Acquisition Date	Quantitation Date	Last Updated
1	289596	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F005.D	09/04/2019 18:32	09/11/2019 09:54	09/11/2019 13:26
2	289598	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F006.D	09/04/2019 19:04	09/11/2019 09:54	09/11/2019 13:26
3	289600	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F007.D	09/04/2019 19:35	09/11/2019 09:54	09/11/2019 13:26
4	289602	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F008.D	09/04/2019 20:07	09/11/2019 09:54	09/11/2019 13:26
5	289604	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F009.D	09/04/2019 20:39	09/11/2019 09:54	09/11/2019 13:26
6	289606	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F010.D	09/04/2019 21:10	09/11/2019 09:54	09/11/2019 13:26
7	289608	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F011.D	09/04/2019 21:42	09/11/2019 09:54	09/11/2019 13:26
8	289610	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F012.D	09/04/2019 22:13	09/11/2019 09:54	09/11/2019 13:26
9	289612	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F013.D	09/04/2019 22:45	09/11/2019 09:54	09/11/2019 13:26
10	289614	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F014.D	09/04/2019 23:17	09/11/2019 09:54	09/11/2019 13:26
11	289616	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F015.D	09/04/2019 23:48	09/11/2019 09:54	09/11/2019 13:26
12	289618	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F016.D	09/05/2019 00:20	09/11/2019 09:54	09/11/2019 13:26
13	289620	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F017.D	09/05/2019 00:51	09/11/2019 09:54	09/11/2019 13:26
14	289622	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F018.D	09/05/2019 01:23	09/11/2019 09:54	09/11/2019 13:26
15	289624	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F019.D	09/05/2019 01:55	09/11/2019 09:54	09/11/2019 13:26
16	289626	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F020.D	09/05/2019 02:26	09/11/2019 09:54	09/11/2019 13:26
17	289628	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F021.D	09/05/2019 02:58	09/11/2019 09:54	09/11/2019 13:26
18	289630	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F022.D	09/05/2019 03:29	09/11/2019 09:54	09/11/2019 13:26
19	289632	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F023.D	09/05/2019 04:01	09/11/2019 09:54	09/11/2019 13:26
20	289634	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F024.D	09/05/2019 04:32	09/11/2019 09:54	09/11/2019 13:26
21	289636	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F025.D	09/05/2019 05:04	09/11/2019 09:54	09/11/2019 13:26
22	289638	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F026.D	09/05/2019 05:35	09/11/2019 09:54	09/11/2019 13:26
23	289640	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F027.D	09/05/2019 06:07	09/11/2019 09:54	09/11/2019 13:27
24	289642	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F028.D	09/05/2019 06:38	09/11/2019 09:54	09/11/2019 13:27
25	289644	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F033.D	09/05/2019 09:16	09/11/2019 09:54	09/11/2019 13:27
26	289646	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F034.D	09/05/2019 09:48	09/11/2019 09:54	09/11/2019 13:27
27	289648	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F035.D	09/05/2019 10:20	09/11/2019 09:55	09/11/2019 13:27
28	289650	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F036.D	09/05/2019 10:52	09/11/2019 09:55	09/11/2019 13:27
29	289652	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F037.D	09/05/2019 11:23	09/11/2019 09:55	09/11/2019 13:27
30	289654	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F038.D	09/05/2019 11:55	09/11/2019 09:55	09/11/2019 13:27
31	289656	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F039.D	09/05/2019 12:26	09/11/2019 09:55	09/11/2019 13:27
32	289658	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F040.D	09/05/2019 12:58	09/11/2019 09:55	09/11/2019 13:27
33	289660	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F041.D	09/05/2019 13:30	09/11/2019 09:55	09/11/2019 13:27
34	289662	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F042.D	09/05/2019 14:02	09/11/2019 09:55	09/11/2019 13:27
35	289664	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F043.D	09/05/2019 14:33	09/11/2019 09:55	09/11/2019 13:27
36	289666	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F044.D	09/05/2019 15:05	09/11/2019 09:55	09/11/2019 13:27
37	289682	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F009.D	09/09/2019 15:02	09/11/2019 09:55	09/11/2019 13:27
38	289684	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F010.D	09/09/2019 15:33	09/11/2019 09:55	09/11/2019 13:27
39	289686	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F011.D	09/09/2019 16:05	09/11/2019 09:55	09/11/2019 13:27
40	289688	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F012.D	09/09/2019 16:37	09/11/2019 09:55	09/11/2019 13:27

Parameter Name	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D
Tetrachloro-m-xylene	1	0.1	0.1019	1.9	2	0.2	0.2060	3.0	3	0.5	0.5140	2.8
	4	1	1.074	7.4	5	2	2.170	8.5	6	5	4.841	-3.2
	7	10	9.062	-9.4	8	20	17.81	-11.0				

Initial Calibration - Detailed Report

Calibration ID: CAL16127
Method ID: MJ706

Instrument ID: GC27.i
Column Name: DB-XLB

Parameter Name	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D
Decachlorobiphenyl	1	0.1	0.1035	3.5	2	0.2	0.2225	11.3	3	0.5	0.5079	1.6
	4	1	1.084	8.4	5	2	2.221	11.1	6	5	4.828	-3.4
	7	10	8.713	-12.9	8	20	16.11	-19.5				
Aroclor 1016 {1}	1	1	1.069	6.9	2	2	1.888	-5.6	3	5	4.595	-8.1
	4	10	9.731	-2.7	5	20	22.10	10.5	6	50	52.61	5.2
	7	100	99.61	-0.4	8	200	188.3	-5.9				
Aroclor 1016 {2}	1	1	1.078	7.8	2	2	2.012	0.6	3	5	4.770	-4.6
	4	10	10.36	3.6	5	20	22.12	10.6	6	50	50.85	1.7
	7	100	93.13	-6.9	8	200	174.4	-12.8				
Aroclor 1016 {3}	1	1	0.9173	-8.3	2	2	1.965	-1.8	3	5	4.907	-1.9
	4	10	10.71	7.1	5	20	22.59	13.0	6	50	52.72	5.4
	7	100	95.50	-4.5	8	200	181.8	-9.1				
Aroclor 1016 {4}	1	1	1.148	14.8	2	2	2.046	2.3	3	5	4.722	-5.6
	4	10	9.977	-0.2	5	20	21.76	8.8	6	50	50.31	0.6
	7	100	92.59	-7.4	8	200	173.4	-13.3				
Aroclor 1016 {5}	1	1	1.089	8.9	2	2	1.898	-5.1	3	5	4.838	-3.2
	4	10	10.37	3.7	5	20	22.05	10.3	6	50	51.10	2.2
	7	100	94.20	-5.8	8	200	178.2	-10.9				
Aroclor 1221 {1}									9	2	2.318	15.9
	10	4	3.704	-7.4	11	10	9.292	-7.1	12	20	20.99	4.9
	13	40	41.09	2.7	14	100	96.29	-3.7	15	200	190.1	-5.0
	16	400	398.4	-0.4								
Aroclor 1221 {2}									9	2	1.848	-7.6
	10	4	4.192	4.8	11	10	10.15	1.5	12	20	21.16	5.8
	13	40	40.82	2.1	14	100	98.51	-1.5	15	200	191.1	-4.4
	16	400	397.4	-0.7								
Aroclor 1221 {3}									9	2	2.123	6.2
	10	4	4.166	4.2	11	10	10.20	2.0	12	20	22.52	12.6
	13	40	41.31	3.3	14	100	94.40	-5.6	15	200	174.0	-13.0
	16	400	361.8	-9.6								
Aroclor 1232 {1}					17	1	0.8504	-15.0	18	2	1.956	-2.2
	19	5	4.997	-0.1	20	10	10.91	9.1	21	20	21.33	6.7
	22	50	51.97	3.9	23	100	95.91	-4.1	24	200	203.1	1.5
Aroclor 1232 {2}					17	1	1.106	10.6	18	2	1.971	-1.5
	19	5	4.776	-4.5	20	10	10.49	4.9	21	20	19.64	-1.8
	22	50	50.09	0.2	23	100	92.58	-7.4	24	200	198.9	-0.5
Aroclor 1232 {3}					17	1	0.9480	-5.2	18	2	1.784	-10.8
	19	5	4.941	-1.2	20	10	10.52	5.2	21	20	19.35	-3.2
	22	50	51.21	2.4	23	100	99.69	-0.3	24	200	226.2	13.1

Initial Calibration - Detailed Report

Calibration ID: CAL16127	Instrument ID: GC27.i
Method ID: MJ706	Column Name: DB-XLB

Parameter Name	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D
Aroclor 1232 {4}												
					17	1	0.8910	-10.9	18	2	2.180	9.0
	19	5	5.097	1.9	20	10	11.00	10.0	21	20	20.47	2.3
	22	50	49.00	-2.0	23	100	91.14	-8.9	24	200	197.1	-1.4
Aroclor 1232 {5}												
					17	1	0.9185	-8.2	18	2	2.002	0.1
	19	5	5.113	2.3	20	10	11.28	12.8	21	20	20.33	1.7
	22	50	50.22	0.4	23	100	91.94	-8.1	24	200	198.0	-1.0
Aroclor 1242 {1}												
	25	20	21.51	7.6	26	50	57.08	14.2	27	100	108.3	8.3
	28	200	223.9	11.9								
	37	1	0.8622	-13.8	38	2	1.726	-13.7	39	5	4.429	-11.4
	40	10	9.693	-3.1								
Aroclor 1242 {2}												
	25	20	21.02	5.1	26	50	54.08	8.2	27	100	99.07	-0.9
	28	200	204.5	2.2								
	37	1	1.085	8.5	38	2	1.845	-7.7	39	5	4.396	-12.1
	40	10	9.671	-3.3								
Aroclor 1242 {3}												
	25	20	20.95	4.8	26	50	52.45	4.9	27	100	95.95	-4.1
	28	200	200.2	0.1								
	37	1	1.065	6.5	38	2	1.968	-1.6	39	5	4.644	-7.1
	40	10	9.650	-3.5								
Aroclor 1242 {4}												
	25	20	21.16	5.8	26	50	53.80	7.6	27	100	96.18	-3.8
	28	200	208.2	4.1								
	37	1	1.014	1.4	38	2	1.906	-4.7	39	5	4.620	-7.6
	40	10	9.722	-2.8								
Aroclor 1242 {5}												
	25	20	20.78	3.9	26	50	55.70	11.4	27	100	105.0	5.0
	28	200	223.9	11.9								
	37	1	1.002	0.2	38	2	1.746	-12.7	39	5	4.430	-11.4
	40	10	9.171	-8.3								
Aroclor 1248 {1}												
					29	1	0.9229	-7.7	30	2	2.075	3.7
	31	5	5.223	4.5	32	10	11.25	12.5	33	20	21.01	5.1
	34	50	48.88	-2.2	35	100	90.94	-9.1	36	200	186.6	-6.7
Aroclor 1248 {2}												
					29	1	0.8857	-11.4	30	2	2.081	4.1
	31	5	5.279	5.6	32	10	11.33	13.3	33	20	20.29	1.5
	34	50	50.26	0.5	35	100	88.82	-11.2	36	200	195.4	-2.3
Aroclor 1248 {3}												
					29	1	1.121	12.1	30	2	2.275	13.7
	31	5	5.232	4.6	32	10	10.87	8.7	33	20	19.83	-0.9
	34	50	46.19	-7.6	35	100	82.60	-17.4	36	200	173.5	-13.2
Aroclor 1248 {4}												
					29	1	1.104	10.4	30	2	2.214	10.7
	31	5	5.213	4.3	32	10	10.81	8.1	33	20	19.58	-2.1
	34	50	46.99	-6.0	35	100	84.47	-15.5	36	200	180.5	-9.7
Aroclor 1248 {5}												
					29	1	0.9884	-1.2	30	2	2.097	4.8
	31	5	5.301	6.0	32	10	11.52	15.2	33	20	20.93	4.7
	34	50	47.02	-6.0	35	100	84.51	-15.5	36	200	183.8	-8.1

Initial Calibration - Detailed Report

Calibration ID:	CAL16127	Instrument ID:	GC27.i
Method ID:	MJ706	Column Name:	DB-XLB

Parameter Name	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D
Aroclor 1254 {1}					9	1	1.043	4.3				
	10	2	2.069	3.5	11	5	5.292	5.8	12	10	11.52	15.2
	13	20	20.28	1.4	14	50	46.66	-6.7	15	100	84.98	-15.0
	16	200	183.1	-8.5								
Aroclor 1254 {2}					9	1	0.9497	-5.0				
	10	2	1.871	-6.5	11	5	4.966	-0.7	12	10	11.53	15.3
	13	20	21.03	5.1	14	50	49.55	-0.9	15	100	94.26	-5.7
	16	200	196.7	-1.6								
Aroclor 1254 {3}					9	1	1.068	6.8				
	10	2	2.178	8.9	11	5	5.283	5.7	12	10	11.52	15.2
	13	20	20.13	0.7	14	50	45.61	-8.8	15	100	83.04	-17.0
	16	200	177.1	-11.4								
Aroclor 1254 {4}					9	1	1.145	14.5				
	10	2	1.786	-10.7	11	5	4.841	-3.2	12	10	11.22	12.2
	13	20	20.16	0.8	14	50	48.03	-3.9	15	100	91.30	-8.7
	16	200	198.0	-1.0								
Aroclor 1254 {5}					9	1	1.036	3.6				
	10	2	2.268	13.4	11	5	5.187	3.7	12	10	11.40	14.0
	13	20	19.29	-3.6	14	50	45.38	-9.2	15	100	85.14	-14.9
	16	200	186.0	-7.0								
Aroclor 1260 {1}	1	1	0.9276	-7.2	2	2	1.894	-5.3	3	5	4.943	-1.1
	4	10	10.66	6.6	5	20	22.22	11.1	6	50	53.28	6.6
	7	100	96.85	-3.2	8	200	185.2	-7.4				
Aroclor 1260 {2}	1	1	1.272	27.2	2	2	2.330	16.5	3	5	4.905	-1.9
	4	10	9.916	-0.8	5	20	20.37	1.8	6	50	46.32	-7.4
	7	100	83.74	-16.3	8	200	161.6	-19.2				
Aroclor 1260 {3}	1	1	1.189	18.9	2	2	2.170	8.5	3	5	5.085	1.7
	4	10	10.29	2.9	5	20	20.95	4.8	6	50	47.90	-4.2
	7	100	86.67	-13.3	8	200	161.5	-19.2				
Aroclor 1260 {4}	1	1	1.202	20.2	2	2	2.183	9.1	3	5	5.237	4.7
	4	10	10.58	5.8	5	20	21.22	6.1	6	50	46.55	-6.9
	7	100	83.24	-16.8	8	200	155.4	-22.3				
Aroclor 1260 {5}	1	1	1.050	5.0	2	2	1.890	-5.5	3	5	5.228	4.6
	4	10	10.96	9.6	5	20	22.41	12.0	6	50	50.12	0.2
	7	100	90.71	-9.3	8	200	166.7	-16.7				
Aroclor 1262 {1}					17	1	1.140	14.0	18	2	2.249	12.5
	19	5	5.471	9.4	20	10	11.60	16.0	21	20	19.44	-2.8
	22	50	44.35	-11.3	23	100	77.69	-22.3	24	200	168.9	-15.6
Aroclor 1262 {2}					17	1	1.123	12.3	18	2	2.301	15.1
	19	5	5.417	8.3	20	10	11.50	15.0	21	20	19.33	-3.3
	22	50	44.61	-10.8	23	100	78.47	-21.5	24	200	170.0	-15.0

Initial Calibration - Detailed Report

Calibration ID: CAL16127
Method ID: MJ706

Instrument ID: GC27.i
Column Name: DB-XLB

Parameter Name	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D
Aroclor 1262 {3}												
					17	1	1.166	16.6	18	2	2.355	17.7
	19	5	5.568	11.4	20	10	11.46	14.6	21	20	18.97	-5.2
	22	50	42.73	-14.5	23	100	75.98	-24.0	24	200	166.8	-16.6
Aroclor 1262 {4}												
					17	1	1.139	13.9	18	2	2.185	9.2
	19	5	5.462	9.2	20	10	11.61	16.1	21	20	19.44	-2.8
	22	50	44.80	-10.4	23	100	78.80	-21.2	24	200	171.8	-14.1
Aroclor 1262 {5}												
					17	1	1.091	9.1	18	2	2.361	18.0
	19	5	5.321	6.4	20	10	11.22	12.2	21	20	18.81	-6.0
	22	50	45.00	-10.0	23	100	81.03	-19.0	24	200	178.4	-10.8
Aroclor 1268 {1}												
	25	20	20.43	2.1	26	50	47.84	-4.3	27	100	84.63	-15.4
	28	200	181.2	-9.4								
	37	1	1.098	9.8	38	2	2.227	11.4	39	5	5.185	3.7
	40	10	10.20	2.0								
Aroclor 1268 {2}												
	25	20	20.44	2.2	26	50	48.72	-2.6	27	100	87.19	-12.8
	28	200	187.3	-6.3								
	37	1	1.097	9.7	38	2	2.178	8.9	39	5	4.995	-0.1
	40	10	10.10	1.0								
Aroclor 1268 {3}												
	25	20	20.62	3.1	26	50	49.30	-1.4	27	100	87.86	-12.1
	28	200	188.3	-5.9								
	37	1	1.089	8.9	38	2	2.095	4.8	39	5	5.078	1.6
	40	10	10.11	1.1								
Aroclor 1268 {4}												
	25	20	19.88	-0.6	26	50	47.01	-6.0	27	100	84.27	-15.7
	28	200	186.4	-6.8								
	37	1	1.105	10.5	38	2	2.238	11.9	39	5	5.259	5.2
	40	10	10.15	1.5								

Second Source Calibration Verification Summary

CalibrationID: CAL16127 Units: ppb
Method ID: MJ706 Column: DB-35MS
DataFile Location: \\ALKLSWS002\INSTDATA\GC27\DATA\090419ICAL.B\0904F

Parameter Name	File ID	Curve Fit	Method Criteria	AveRF	SSV RF	% Diff	True Value	Sol'n Conc	% Drift
Aroclor 1016	289667	NA	20				20.00	18.5	-7.6
Aroclor 1016 {1}	289667	AverageRF	100	3.4E+4	3.3E+4	-2.1	20.00	19.6	
Aroclor 1016 {2}	289667	AverageRF	100	2.8E+4	2.6E+4	-8.5	20.00	18.3	
Aroclor 1016 {3}	289667	AverageRF	100	8.7E+4	7.9E+4	-9.4	20.00	18.1	
Aroclor 1016 {4}	289667	AverageRF	100	5.1E+4	4.7E+4	-8.2	20.00	18.4	
Aroclor 1016 {5}	289667	AverageRF	100	3.5E+4	3.2E+4	-9.8	20.00	18.0	
Aroclor 1221	289669	NA	20				20.00	19.6	-2.2
Aroclor 1221 {1}	289669	AverageRF	100	2.3E+4	2.3E+4	-2.1	20.00	19.6	
Aroclor 1221 {2}	289669	AverageRF	100	1.5E+4	1.4E+4	-1.6	20.00	19.7	
Aroclor 1221 {3}	289669	AverageRF	100	5.5E+4	5.3E+4	-2.8	20.00	19.4	
Aroclor 1232	289671	NA	20				20.00	17.7	-11.6
Aroclor 1232 {1}	289671	AverageRF	100	1.6E+4	1.2E+4	-20.6	20.00	15.9	
Aroclor 1232 {2}	289671	AverageRF	100	4.7E+4	4.0E+4	-14.9	20.00	17.0	
Aroclor 1232 {3}	289671	AverageRF	100	3.8E+4	3.6E+4	-6.1	20.00	18.8	
Aroclor 1232 {4}	289671	AverageRF	100	1.4E+4	1.3E+4	-6.1	20.00	18.8	
Aroclor 1232 {5}	289671	AverageRF	100	2.6E+4	2.4E+4	-10.4	20.00	17.9	
Aroclor 1242	289689	NA	20				20.00	20.8	4.2
Aroclor 1242 {1}	289689	AverageRF	100	3.0E+4	3.1E+4	4.5	20.00	20.9	
Aroclor 1242 {2}	289689	AverageRF	100	2.3E+4	2.4E+4	4.2	20.00	20.8	
Aroclor 1242 {3}	289689	AverageRF	100	6.8E+4	6.9E+4	1.1	20.00	20.2	
Aroclor 1242 {4}	289689	AverageRF	100	4.1E+4	4.4E+4	7.5	20.00	21.5	
Aroclor 1242 {5}	289689	AverageRF	100	2.8E+4	2.9E+4	3.5	20.00	20.7	
Aroclor 1248	289673	NA	20				20.00	17.6	-12.2
Aroclor 1248 {1}	289673	AverageRF	100	4.2E+4	3.7E+4	-11.2	20.00	17.8	
Aroclor 1248 {2}	289673	AverageRF	100	2.8E+4	2.7E+4	-6.6	20.00	18.7	
Aroclor 1248 {3}	289673	AverageRF	100	5.3E+4	4.5E+4	-13.6	20.00	17.3	
Aroclor 1248 {4}	289673	AverageRF	100	3.8E+4	3.2E+4	-14.1	20.00	17.2	
Aroclor 1248 {5}	289673	AverageRF	100	3.3E+4	2.8E+4	-15.7	20.00	16.9	
Aroclor 1254	289675	NA	20				20.00	19.7	-1.6
Aroclor 1254 {1}	289675	AverageRF	100	3.6E+4	3.7E+4	2.4	20.00	20.5	
Aroclor 1254 {2}	289675	AverageRF	100	6.3E+4	6.8E+4	8.2	20.00	21.6	
Aroclor 1254 {3}	289675	AverageRF	100	1.2E+5	1.1E+5	-8.3	20.00	18.3	
Aroclor 1254 {4}	289675	AverageRF	100	7.3E+4	7.0E+4	-4.7	20.00	19.1	
Aroclor 1254 {5}	289675	AverageRF	100	4.6E+4	4.3E+4	-5.5	20.00	18.9	
Aroclor 1260	289677	NA	20				20.00	19.8	-1.2
Aroclor 1260 {1}	289677	AverageRF	100	3.4E+4	2.9E+4	-13.8	20.00	17.2	
Aroclor 1260 {2}	289677	AverageRF	100	4.7E+4	5.1E+4	8.4	20.00	21.7	
Aroclor 1260 {3}	289677	AverageRF	100	5.0E+4	5.1E+4	2.2	20.00	20.4	
Aroclor 1260 {4}	289677	AverageRF	100	1.1E+5	1.1E+5	0.3	20.00	20.1	
Aroclor 1260 {5}	289677	AverageRF	100	7.9E+4	7.7E+4	-3.3	20.00	19.3	
Aroclor 1262	289679	NA	20				20.00	19.3	-3.5
Aroclor 1262 {1}	289679	AverageRF	100	9.4E+4	9.0E+4	-4.0	20.00	19.2	
Aroclor 1262 {2}	289679	AverageRF	100	8.3E+4	8.1E+4	-2.8	20.00	19.4	
Aroclor 1262 {3}	289679	AverageRF	100	1.5E+5	1.4E+5	-5.0	20.00	19.0	
Aroclor 1262 {4}	289679	AverageRF	100	1.1E+5	1.1E+5	-3.5	20.00	19.3	
Aroclor 1262 {5}	289679	AverageRF	100	4.8E+4	4.7E+4	-2.5	20.00	19.5	
Aroclor 1268	289691	NA	20				20.00	19.8	-1.2

Second Source Calibration Verification Summary

CalibrationID: CAL16127

Units: ppb

Method ID: MJ706

Column: DB-35MS

DataFile Location: \\ALKLSWS002\INSTDATA\GC27\DATA\090419\CAL.B\0909F

Parameter Name	File ID	Curve Fit	Method Criteria	AveRF	SSV RF	% Diff	True Value	Sol'n Conc	% Drift
Aroclor 1268 {1}	289691	AverageRF	100	1.6E+5	1.7E+5	2.2	20.00	20.4	
Aroclor 1268 {2}	289691	AverageRF	100	1.5E+5	1.7E+5	13.7	20.00	22.7	
Aroclor 1268 {3}	289691	AverageRF	100	1.2E+5	1.1E+5	-8.2	20.00	18.4	
Aroclor 1268 {4}	289691	AverageRF	100	3.5E+5	3.1E+5	-12.7	20.00	17.5	

Second Source Calibration Verification Summary

CalibrationID: CAL16127

Units: ppb

Method ID: MJ706

Column: DB-XLB

DataFile Location: \\ALKLSWS002\INSTDATA\GC27\DATA\090419ICAL_R.B\090

Parameter Name	File ID	Curve Fit	Method Criteria	AveRF	SSV RF	% Diff	True Value	Sol'n Conc	% Drift
Aroclor 1016	289668	NA	20				20.00	19.9	-0.7
Aroclor 1016 {1}	289668	AverageRF	100	1.5E+4	1.6E+4	3.1	20.00	20.6	
Aroclor 1016 {2}	289668	AverageRF	100	2.2E+4	2.2E+4	-2.2	20.00	19.6	
Aroclor 1016 {3}	289668	AverageRF	100	2.4E+4	2.4E+4	0.2	20.00	20.0	
Aroclor 1016 {4}	289668	AverageRF	100	1.8E+4	1.7E+4	-4.5	20.00	19.1	
Aroclor 1016 {5}	289668	AverageRF	100	1.7E+4	1.7E+4	0.0	20.00	20.0	
Aroclor 1221	289670	NA	20				20.00	20.3	1.7
Aroclor 1221 {1}	289670	AverageRF	100	6.5E+3	6.4E+3	-1.9	20.00	19.6	
Aroclor 1221 {2}	289670	AverageRF	100	6.5E+3	6.6E+3	3.1	20.00	20.6	
Aroclor 1221 {3}	289670	AverageRF	100	2.5E+4	2.6E+4	4.0	20.00	20.8	
Aroclor 1232	289672	NA	20				20.00	19.6	-1.8
Aroclor 1232 {1}	289672	AverageRF	100	2.0E+4	1.9E+4	-3.7	20.00	19.3	
Aroclor 1232 {2}	289672	AverageRF	100	1.1E+4	1.1E+4	-1.1	20.00	19.8	
Aroclor 1232 {3}	289672	AverageRF	100	7.3E+3	7.2E+3	-2.5	20.00	19.5	
Aroclor 1232 {4}	289672	AverageRF	100	1.5E+4	1.5E+4	-0.6	20.00	19.9	
Aroclor 1232 {5}	289672	AverageRF	100	1.8E+4	1.7E+4	-1.0	20.00	19.8	
Aroclor 1242	289690	NA	20				20.00	22.2	11.1
Aroclor 1242 {1}	289690	AverageRF	100	1.3E+4	1.4E+4	9.6	20.00	21.9	
Aroclor 1242 {2}	289690	AverageRF	100	1.8E+4	2.0E+4	11.7	20.00	22.3	
Aroclor 1242 {3}	289690	AverageRF	100	2.6E+4	2.9E+4	11.3	20.00	22.3	
Aroclor 1242 {4}	289690	AverageRF	100	2.9E+4	3.3E+4	11.5	20.00	22.3	
Aroclor 1242 {5}	289690	AverageRF	100	1.6E+4	1.8E+4	11.4	20.00	22.3	
Aroclor 1248	289674	NA	20				20.00	19.3	-3.7
Aroclor 1248 {1}	289674	AverageRF	100	2.1E+4	2.1E+4	0.3	20.00	20.1	
Aroclor 1248 {2}	289674	AverageRF	100	1.8E+4	1.9E+4	3.5	20.00	20.7	
Aroclor 1248 {3}	289674	AverageRF	100	2.4E+4	2.3E+4	-6.4	20.00	18.7	
Aroclor 1248 {4}	289674	AverageRF	100	1.9E+4	1.7E+4	-8.3	20.00	18.3	
Aroclor 1248 {5}	289674	AverageRF	100	2.9E+4	2.6E+4	-7.8	20.00	18.4	
Aroclor 1254	289676	NA	20				20.00	19.5	-2.5
Aroclor 1254 {1}	289676	AverageRF	100	3.2E+4	3.2E+4	-2.2	20.00	19.6	
Aroclor 1254 {2}	289676	AverageRF	100	1.7E+4	1.5E+4	-14.0	20.00	17.2	
Aroclor 1254 {3}	289676	AverageRF	100	4.9E+4	4.8E+4	-1.8	20.00	19.6	
Aroclor 1254 {4}	289676	AverageRF	100	1.5E+4	1.6E+4	5.0	20.00	21.0	
Aroclor 1254 {5}	289676	AverageRF	100	2.4E+4	2.4E+4	0.3	20.00	20.1	
Aroclor 1260	289678	NA	20				20.00	20.9	4.3
Aroclor 1260 {1}	289678	AverageRF	100	1.4E+4	1.5E+4	5.7	20.00	21.1	
Aroclor 1260 {2}	289678	AverageRF	100	2.3E+4	2.5E+4	7.4	20.00	21.5	
Aroclor 1260 {3}	289678	AverageRF	100	2.2E+4	2.3E+4	3.8	20.00	20.8	
Aroclor 1260 {4}	289678	AverageRF	100	4.8E+4	4.9E+4	2.4	20.00	20.5	
Aroclor 1260 {5}	289678	AverageRF	100	2.9E+4	3.0E+4	2.0	20.00	20.4	
Aroclor 1262	289680	NA	20				20.00	20.1	0.3
Aroclor 1262 {1}	289680	AverageRF	100	4.2E+4	4.2E+4	-1.4	20.00	19.7	
Aroclor 1262 {2}	289680	AverageRF	100	3.2E+4	3.3E+4	2.6	20.00	20.5	
Aroclor 1262 {3}	289680	AverageRF	100	6.6E+4	6.5E+4	-1.6	20.00	19.7	
Aroclor 1262 {4}	289680	AverageRF	100	4.4E+4	4.5E+4	2.5	20.00	20.5	
Aroclor 1262 {5}	289680	AverageRF	100	2.3E+4	2.3E+4	-0.8	20.00	19.8	
Aroclor 1268	289692	NA	20				20.00	20.4	1.9

Second Source Calibration Verification Summary

CalibrationID: CAL16127

Units: ppb

Method ID: MJ706

Column: DB-XLB

DataFile Location: \\ALKLSWS002\INSTDATA\GC27\DATA\090419\CAL_R.B\090

Parameter Name	File ID	Curve Fit	Method Criteria	AveRF	SSV RF	% Diff	True Value	Sol'n Conc	% Drift
Aroclor 1268 {1}	289692	AverageRF	100	7.1E+4	7.6E+4	5.9	20.00	21.2	
Aroclor 1268 {2}	289692	AverageRF	100	6.3E+4	7.4E+4	17.2	20.00	23.4	
Aroclor 1268 {3}	289692	AverageRF	100	5.4E+4	5.1E+4	-4.9	20.00	19.0	
Aroclor 1268 {4}	289692	AverageRF	100	1.5E+5	1.3E+5	-10.6	20.00	17.9	

ALS Environmental - Kelso
 INITIAL CALIBRATION DATA

Start Cal Date : 04-SEP-2019 18:32
 End Cal Date : 09-SEP-2019 16:37
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 4.04
 Integrator : Falcon
 Method file : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Cal Date : 11-Sep-2019 09:38 stephenie.andrews
 Curve Type : Average

Calibration File Names:

Level 1: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F037.D
 Level 2: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F038.D
 Level 3: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F039.D
 Level 4: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F040.D
 Level 5: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F041.D
 Level 6: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F042.D
 Level 7: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F043.D
 Level 8: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F044.D

Compound	1.000	2.000	5.000	10.000	20.000	50.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	100.000	200.000						
	Level 7	Level 8						
2 Aroclor 1016 (1)	39400	35481	32536	35243	35735	32935	34127	8.543
	31352	30335						
(2)	31706	29178	26907	28336	29286	27515	28013	7.456
	26126	25049						
(3)	92717	97851	83798	85035	90017	86236	86924	7.223
	80056	79685						
(4)	51318	53369	52545	53358	54893	50996	51297	5.785
	47553	46346						
(5)	36002	34881	35617	36727	37567	35068	35144	5.106
	33217	32076						
3 Aroclor 1221 (1)	25348	26146	24903	24519	22142	20422	23059	10.673
	19735	21255						
(2)	17213	16168	14788	15459	14240	13000	14629	10.889
	12630	13531						
(3)	60161	61843	57737	58454	53211	48974	54749	10.118
	47046	50568						

ALS Environmental - Kelso
 INITIAL CALIBRATION DATA

Start Cal Date : 04-SEP-2019 18:32
 End Cal Date : 09-SEP-2019 16:37
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 4.04
 Integrator : Falcon
 Method file : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Cal Date : 11-Sep-2019 09:38 stephenie.andrews
 Curve Type : Average

Compound	1.000	2.000	5.000	10.000	20.000	50.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	100.000	200.000						
	Level 7	Level 8						
4 Aroclor 1232 (1)	19213 13133	16986 14656	15638	16311	14864	14027	15603	12.226
(2)	56739 39010	48158 42915	50729	50954	44400	42242	46893	12.371
(3)	31107 33524	42598 37659	39814	42134	40089	36730	37957	10.685
(4)	12043 12316	15426 13928	14749	14855	13815	13267	13800	8.768
(5)	32879 22001	28572 25241	26275	27668	24498	23947	26385	12.703
5 Aroclor 1242 (1)	34993 28228	30805 30557	26922	26970	29530	29770	29722	8.749
(2)	21742 22095	24138 24174	20948	21537	22655	23516	22601	5.428
(3)	75132 68246	67048 71122	62881	61657	68629	72292	68376	6.673
(4)	39369 40268	38905 45340	39593	38726	41797	43012	40876	5.710
(5)	28378 27250	30201 30746	27083	26114	28379	28355	28313	5.499

ALS Environmental - Kelso

INITIAL CALIBRATION DATA

Start Cal Date : 04-SEP-2019 18:32
 End Cal Date : 09-SEP-2019 16:37
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 4.04
 Integrator : Falcon
 Method file : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Cal Date : 11-Sep-2019 09:38 stephenie.andrews
 Curve Type : Average

Compound	1.000	2.000	5.000	10.000	20.000	50.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	100.000	200.000						
	Level 7	Level 8						
6 Aroclor 1248(1)	50810	45364	46307	42457	38328	36241		
	35501	39298					41788	12.903
(2)	32701	31454	28715	30795	25486	26290		
	24522	27468					28429	10.510
(3)	61351	62439	55261	54856	49030	45673		
	42585	48950					52518	13.652
(4)	37952	42224	40962	40191	36188	34381		
	32064	36966					37616	9.150
(5)	34640	36487	37342	36202	30551	29451		
	28060	32565					33162	10.627
7 Aroclor 1254(1)	39510	40398	36641	39628	34545	31937		
	30635	35702					36124	10.069
(2)	71048	70214	64108	67135	58318	54791		
	53183	61524					62540	10.833
(3)	141481	139215	128062	133428	114932	106372		
	103004	119966					123308	11.827
(4)	75413	82203	75558	80728	68358	64524		
	63425	73526					72967	9.581
(5)	42724	48901	48630	50336	44645	41515		
	40470	47483					45588	8.218

ALS Environmental - Kelso

INITIAL CALIBRATION DATA

Start Cal Date : 04-SEP-2019 18:32
 End Cal Date : 09-SEP-2019 16:37
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 4.04
 Integrator : Falcon
 Method file : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Cal Date : 11-Sep-2019 09:38 stephenie.andrews
 Curve Type : Average

Compound	1.000	2.000	5.000	10.000	20.000	50.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	100.000	200.000						
	Level 7	Level 8						
8 Aroclor 1260(1)	35380	35440	31871	33943	34938	32910		
	31991	31579					33506	4.856
(2)	48458	45971	44666	47320	50243	47343		
	44896	43946					46605	4.579
(3)	54080	50431	49169	51725	52732	49608		
	47266	46243					50157	5.302
(4)	120908	106796	102574	107419	110051	103085		
	99207	99118					106145	6.708
(5)	89767	81841	77927	81033	81276	76945		
	73487	72740					79377	6.853
9 Aroclor 1262(1)	99950	103939	100680	103083	87956	84001		
	77629	91170					93551	10.475
(2)	96868	88129	85293	90222	77623	74592		
	69063	81420					82901	10.907
(3)	167071	166766	157402	164613	140496	135236		
	127443	154380					151676	10.136
(4)	120058	123876	114903	120223	102837	98223		
	91790	110255					110271	10.528
(5)	50324	51444	49477	52439	45096	43791		
	41061	49018					47831	8.447

ALS Environmental - Kelso
INITIAL CALIBRATION DATA

Start Cal Date : 04-SEP-2019 18:32
 End Cal Date : 09-SEP-2019 16:37
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 4.04
 Integrator : Falcon
 Method file : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Cal Date : 11-Sep-2019 09:38 stephenie.andrews
 Curve Type : Average

Compound	1.000	2.000	5.000	10.000	20.000	50.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	100.000	200.000						
	Level 7	Level 8						
10 Aroclor 1268(1)	169676	167277	155429	153064	161633	163952		
	155400	182032					163558	5.842
(2)	155852	141718	136877	136355	144098	147906		
	140136	165868					146101	6.980
(3)	124219	120195	120085	117734	124036	125965		
	119598	140768					124075	5.887
(4)	348997	346692	330941	328207	344893	356681		
	340233	407884					350566	7.122
M 75 Aroclors, Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
\$ 1 Tetrachloro-m-xylene	1907640	1858185	1743106	1788482	1858760	1779238		
	1736100	1736606					1801015	3.654
\$ 11 Decachlorobiphenyl	1225750	1165365	1103794	1109360	1136485	1045118		
	983592	951410					1090109	8.449

ALS Environmental - Kelso

INITIAL CALIBRATION DATA

Start Cal Date : 04-SEP-2019 18:32
 End Cal Date : 09-SEP-2019 16:37
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 4.04
 Integrator : Falcon
 Method file : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Cal Date : 11-Sep-2019 09:50 stephenie.andrews
 Curve Type : Average

Calibration File Names:

Level 1: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F037.D
 Level 2: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F038.D
 Level 3: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F039.D
 Level 4: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F040.D
 Level 5: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F041.D
 Level 6: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F042.D
 Level 7: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F043.D
 Level 8: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F044.D

Compound	1.000	2.000	5.000	10.000	20.000	50.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	100.000	200.000						
	Level 7	Level 8						
=====	=====	=====	=====	=====	=====	=====	=====	=====
2 Aroclor 1016(1)	16102	14211	13838	14653	16638	15844		
	14998	14176					15058	6.809
(2)	23810	22211	21066	22872	24429	22456		
	20566	19251					22083	7.772
(3)	22120	23688	23664	25829	27236	25427		
	23028	21914					24113	7.805
(4)	20451	18221	16824	17773	19384	17925		
	16495	15447					17815	8.981
(5)	18348	15991	16302	17464	18577	17220		
	15871	15011					16848	7.480
3 Aroclor 1221(1)	7535	6022	6042	6822	6680	6261		
	6180	6476					6502	7.814
(2)	5961	6760	6546	6826	6583	6354		
	6165	6408					6450	4.523
(3)	26403	25905	25359	28008	25684	23478		
	21633	22493					24870	8.628

ALS Environmental - Kelso
 INITIAL CALIBRATION DATA

Start Cal Date : 04-SEP-2019 18:32
 End Cal Date : 09-SEP-2019 16:37
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 4.04
 Integrator : Falcon
 Method file : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Cal Date : 11-Sep-2019 09:50 stephenie.andrews
 Curve Type : Average

Compound	1.000	2.000	5.000	10.000	20.000	50.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	100.000	200.000						
	Level 7	Level 8						
4 Aroclor 1232 (1)	16743	19256	19676	21488	21002	20464		
	18884	19993					19688	7.476
(2)	12087	10767	10438	11465	10731	10948		
	10117	10870					10928	5.575
(3)	6960	6549	7256	7724	7103	7519		
	7319	8303					7342	7.173
(4)	13507	16520	15454	16669	15512	14856		
	13816	14942					15159	7.486
(5)	16086	17530	17910	19751	17806	17590		
	16101	17335					17514	6.589
5 Aroclor 1242 (1)	11033	11045	11335	12404	13764	14609		
	13855	14325					12796	11.869
(2)	19732	16777	15987	17586	19116	19668		
	18014	18590					18184	7.444
(3)	27331	25259	23835	24766	26886	26924		
	24625	25687					25664	4.941
(4)	29709	27922	27071	28484	30996	31524		
	28179	30500					29298	5.506
(5)	15907	13865	14072	14564	16498	17691		
	16674	17776					15881	9.798

ALS Environmental - Kelso
 INITIAL CALIBRATION DATA

Start Cal Date : 04-SEP-2019 18:32
 End Cal Date : 09-SEP-2019 16:37
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 4.04
 Integrator : Falcon
 Method file : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Cal Date : 11-Sep-2019 09:50 stephenie.andrews
 Curve Type : Average

Compound	1.000	2.000	5.000	10.000	20.000	50.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	100.000	200.000						
	Level 7	Level 8						
6 Aroclor 1248(1)	19785	22237	22394	24110	22523	20956		
	19494	19998					21437	7.622
(2)	16327	19184	19463	20883	18703	18529		
	16372	18005					18433	8.348
(3)	26968	27374	25182	26161	23861	22234		
	19880	20880					24067	11.759
(4)	20734	20793	19589	20309	18388	17657		
	15868	16957					18787	9.872
(5)	28321	30039	30376	33005	29992	26948		
	24213	26330					28653	9.671
7 Aroclor 1254(1)	33696	33428	34197	37209	32764	30151		
	27455	29572					32309	9.552
(2)	16138	15893	16877	19594	17863	16840		
	16017	16714					16992	7.219
(3)	52699	53720	52131	56813	49668	45002		
	40971	43692					49337	11.232
(4)	17591	13724	14882	17252	15492	14765		
	14032	15218					15369	9.075
(5)	25148	27531	25184	27669	23411	22032		
	20669	22576					24278	10.487

ALS Environmental - Kelso

INITIAL CALIBRATION DATA

Start Cal Date : 04-SEP-2019 18:32
 End Cal Date : 09-SEP-2019 16:37
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 4.04
 Integrator : Falcon
 Method file : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Cal Date : 11-Sep-2019 09:50 stephenie.andrews
 Curve Type : Average

Compound	1.000	2.000	5.000	10.000	20.000	50.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	100.000	200.000						
	Level 7	Level 8						
8 Aroclor 1260 (1)	13166	13446	14031	15125	15770	15124		
	13747	13145					14194	7.125
(2)	29181	26714	22497	22739	23356	21245		
	19204	18526					22933	15.628
(3)	26758	24407	22884	23156	23569	21553		
	19499	18170					22500	12.129
(4)	57128	51872	49776	50288	50419	44250		
	39561	36924					47527	14.198
(5)	30924	27829	30792	32278	32995	29520		
	26713	24540					29449	9.839
9 Aroclor 1262 (1)	48433	47758	46472	49270	41286	37668		
	32992	35864					42468	14.991
(2)	36415	37319	35138	37283	31352	28939		
	25449	27565					32432	14.576
(3)	76536	77284	73091	75226	62242	56098		
	49870	54747					65637	17.001
(4)	50041	48013	48018	51044	42728	39384		
	34633	37764					43953	14.074
(5)	24800	26831	24192	25497	21378	20461		
	18420	20282					22733	13.138

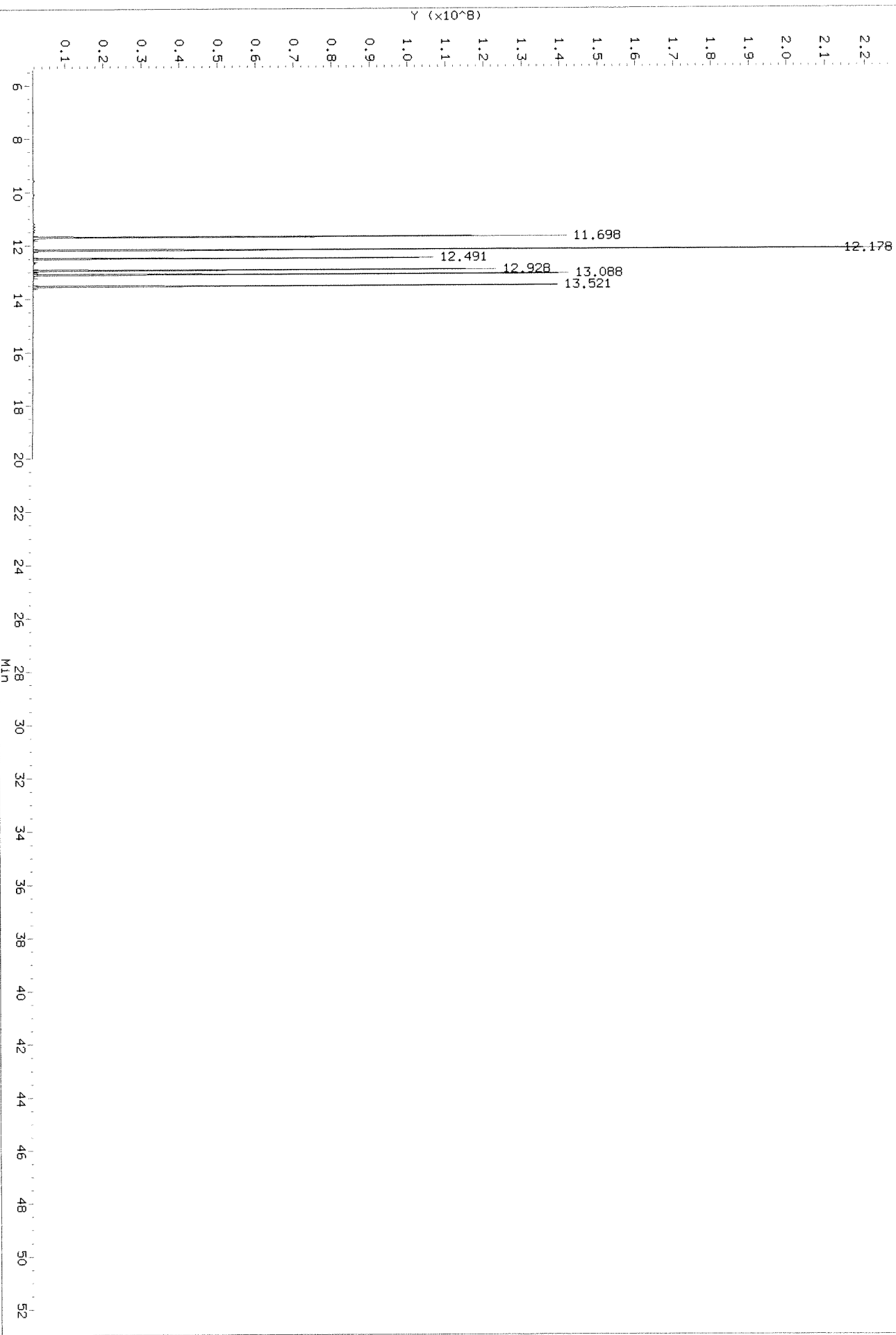
ALS Environmental - Kelso
 INITIAL CALIBRATION DATA

Start Cal Date : 04-SEP-2019 18:32
 End Cal Date : 09-SEP-2019 16:37
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 4.04
 Integrator : Falcon
 Method file : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Cal Date : 11-Sep-2019 09:50 stephenie.andrews
 Curve Type : Average

Compound	1.000	2.000	5.000	10.000	20.000	50.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	100.000	200.000						
	Level 7	Level 8						
10 Aroclor 1268(1)	78515 60501	79608 64781	74140	72934	73025	68402	71488	9.188
(2)	68850 54699	68303 58760	62669	63335	64127	61129	62734	7.468
(3)	58656 47325	56426 50702	54706	54465	55538	53114	53867	6.534
(4)	161279 122981	163316 136010	153505	148114	145062	137200	145933	9.346
M 75 Aroclors, Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
\$ 1 Tetrachloro-m-xylene	846440 752891	855870 739701	854112	891940	901415	804378	830843	7.223
\$ 11 Decachlorobiphenyl	462000 388952	496710 359578	453428	483785	495841	431051	446418	11.277

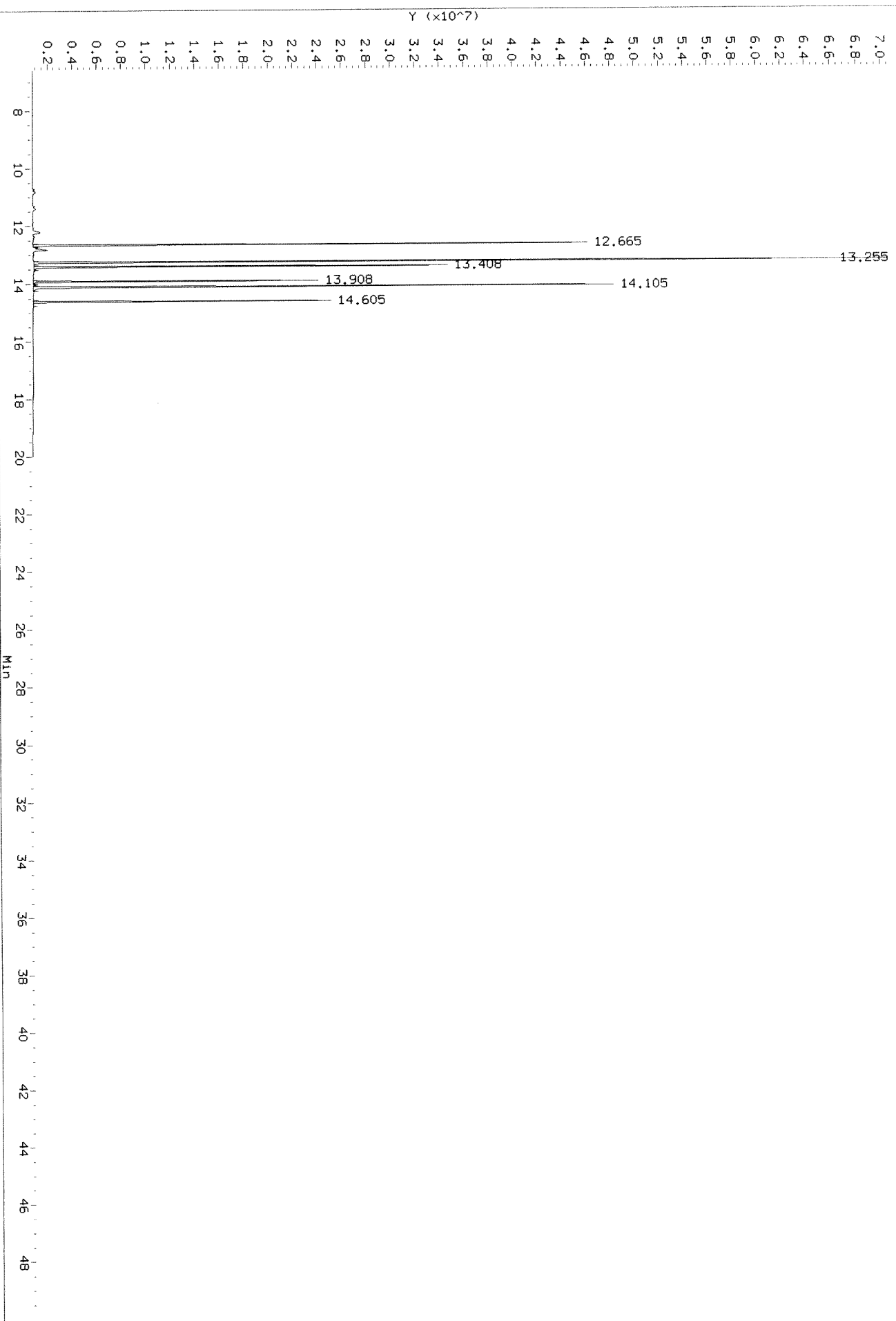
Front	TCMX	1016	1221	1232	1242	1248	1254	1260	1262	1268 DCB	2,4'4,4'-DDX
	6.969	8.056	7.656	7.655	8.053	9.722	11.776	13.196	13.579	14.950	16.859
		9.306	7.892	8.055	9.300	9.928	12.242	13.583	14.049	15.050	12.178
		9.749	8.056	8.825	9.743	11.058	12.399	14.053	14.429	15.440	12.481
		9.929	9.302	9.302	9.926	11.325	12.739	14.429	15.055	16.426	12.928
		10.316	9.929	9.929	10.186	11.802	13.302	15.059	15.922		13.088
											13.521
Rear	TCMX	1016	1221	1232	1242	1248	1254	1260	1262	1268 DCB	2,4'4,4'-DDX
	8.436	9.166	8.826	9.166	9.163	10.965	12.429	13.546	14.789	16.200	18.136
		9.916	8.979	9.916	9.913	11.015	12.482	14.793	15.159	16.326	13.255
		11.066	9.166	10.296	10.963	11.515	12.806	15.163	15.692	16.700	13.408
		11.516		10.966	11.013	12.032	12.899	15.693	16.199	17.720	13.908
		11.753		11.016	11.250	12.555	14.372	16.196	17.202		14.105
											14.605

HP6890 GC Data, ECD1A.CH: 5.401 to 52.351 Min



Data File: \\alk1sws002\instdata\GC27\Data\090419ICAL_r.b\0904F003.D
Injection Date: 04-SEP-2019 17:29

HP6890 GC Data, ECD2B.CH: 6.601 to 49.689 Min



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F003.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F003.D
Inj Date : 04-SEP-2019 17:29
Sample Info: DDX MARKER
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : ALL.SUB
Sub List #2 : ALL.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.998	0.000	191494	0	0.106	0.000		100.00 (R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

SA 9/11/19
W

Data File: \\alkisus002\instdata\GC27\Data\090419ICAL.p\0904F003.D

Date: 04-SEP-2019 17:29

Client ID:

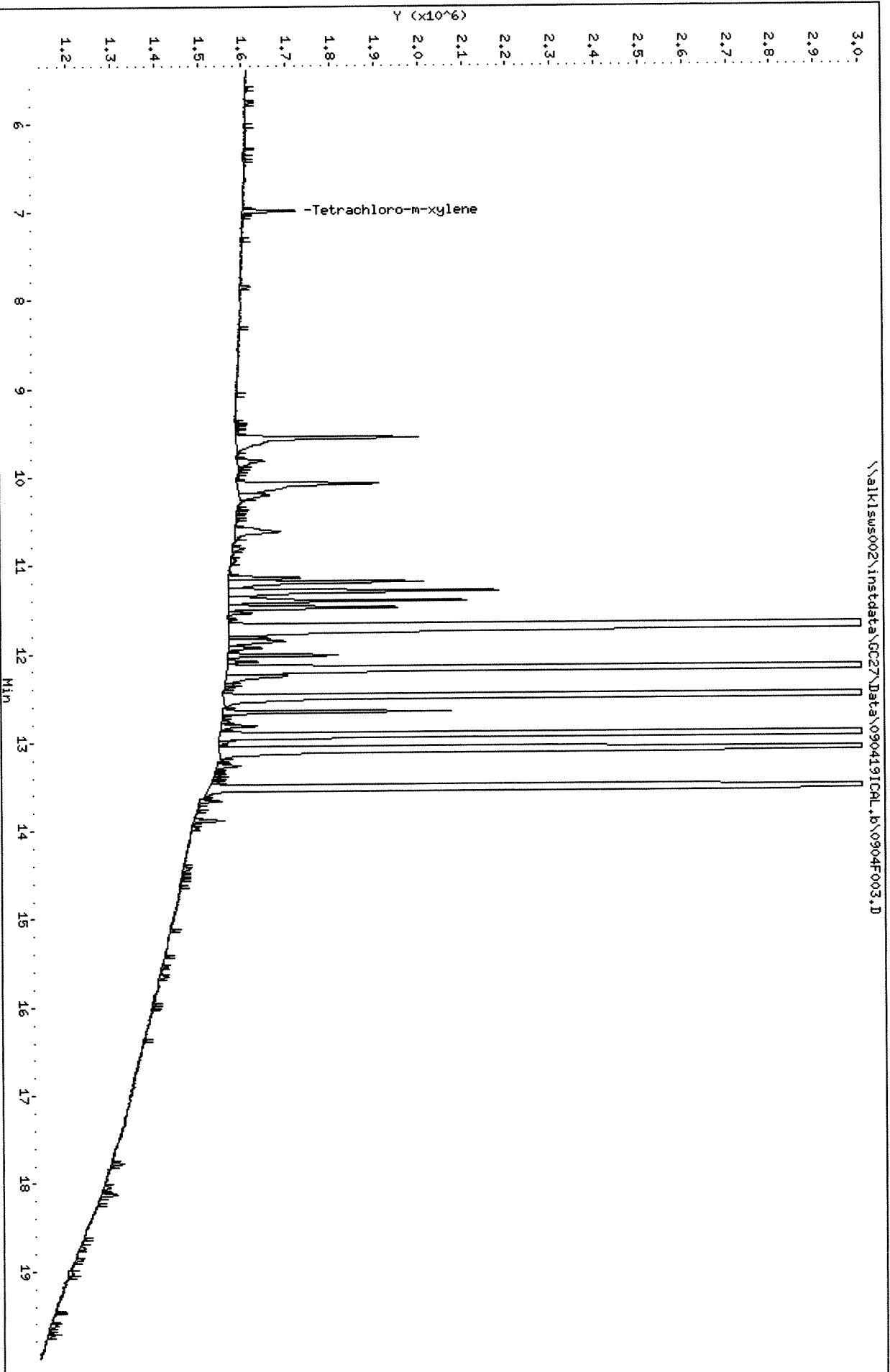
Sample Info: DDV MARKER

Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Data File: \\alkisw002\instdata\GC27\Data\090419ICL_r.b\0904F003.D

Date: 04-SEP-2019 17:29

Client ID:

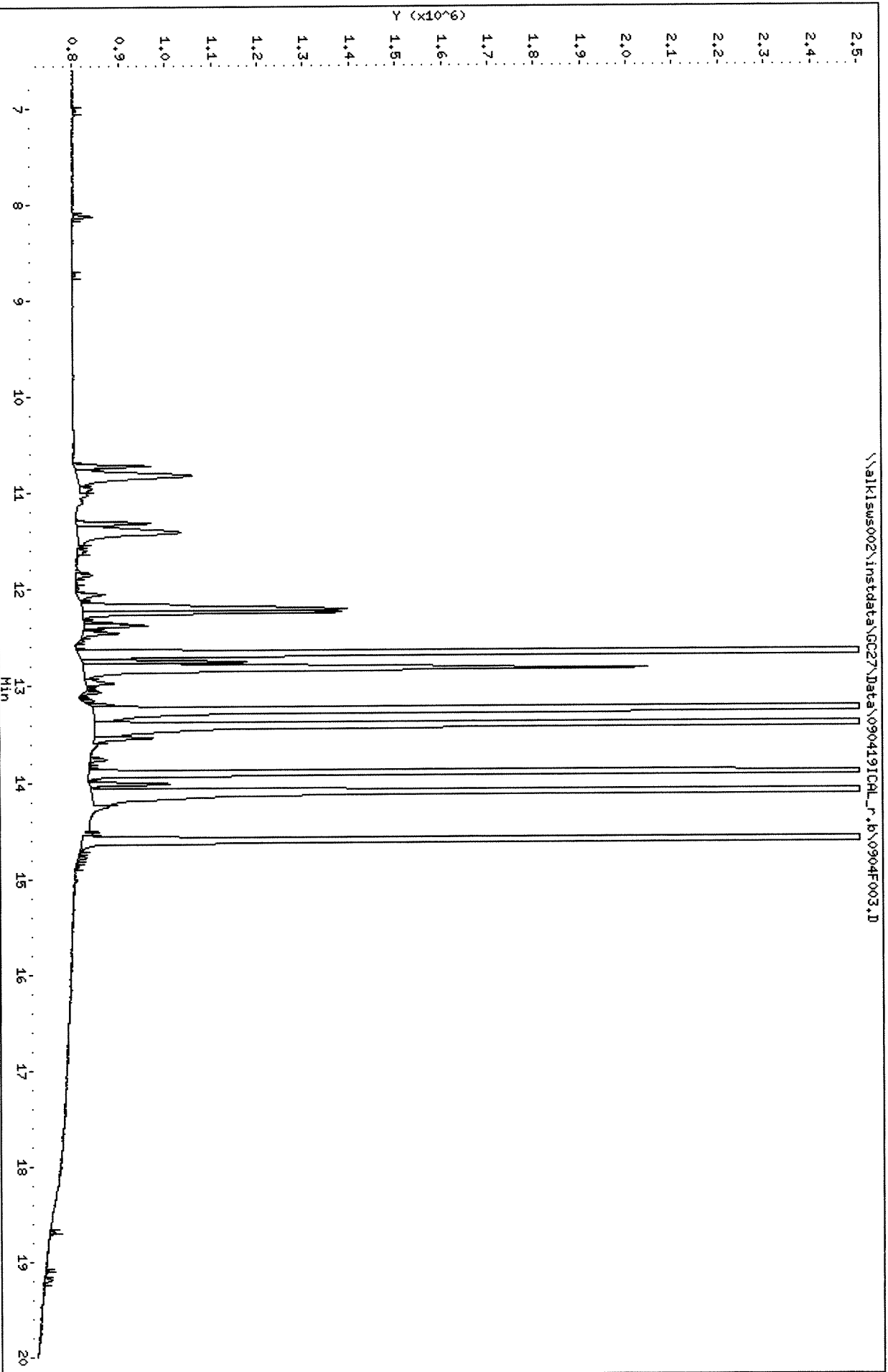
Sample Info: DDH MARKER

Column phase: DB-XXLB

Instrument: GC27.i

Operator: SMA

Column diameter: 0.32



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F004.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F004.D
Inj Date : 04-SEP-2019 18:00
Sample Info: IB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : ALL.SUB
Sub List #2 : ALL.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
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SA 9/11/19
W

Data File: \\alk1sus002\instdata\GC27\Data\090419ICAL.b\0904F004.D

Date : 04-SEP-2019 18:00

Client ID:

Sample Info: IB

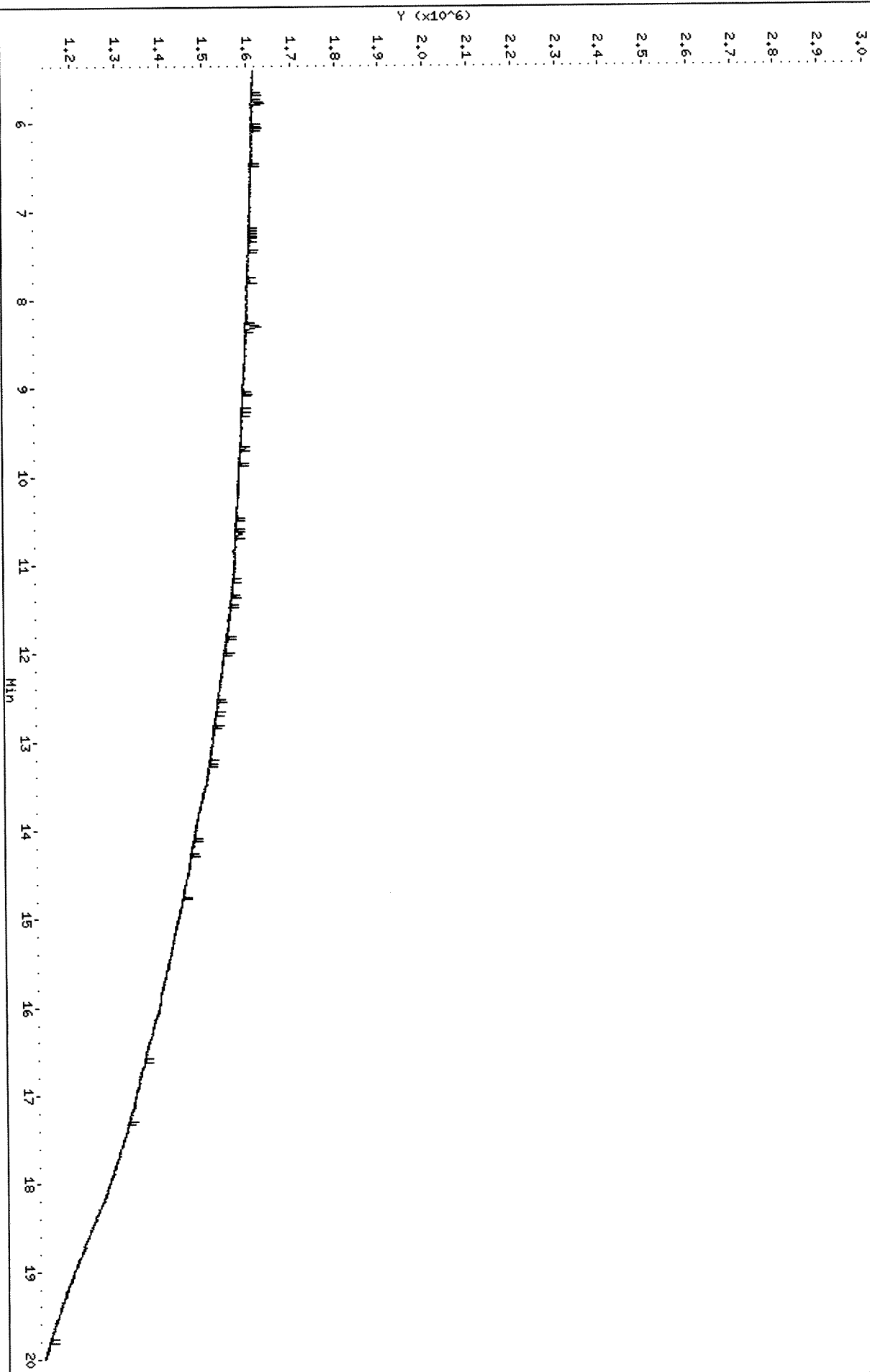
Instrument: GC27.1

Operator: SAA

Column diameter: 0.32

Column phase: DB-35MS

\\alk1sus002\instdata\GC27\Data\090419ICAL.b\0904F004.D



Data File: \\alkisw5002\instdata\GC27\Data\090419ICL_r.b\0904F004.D

Date: 04-SEP-2019 18:00

Client ID:

Sample Info: IB

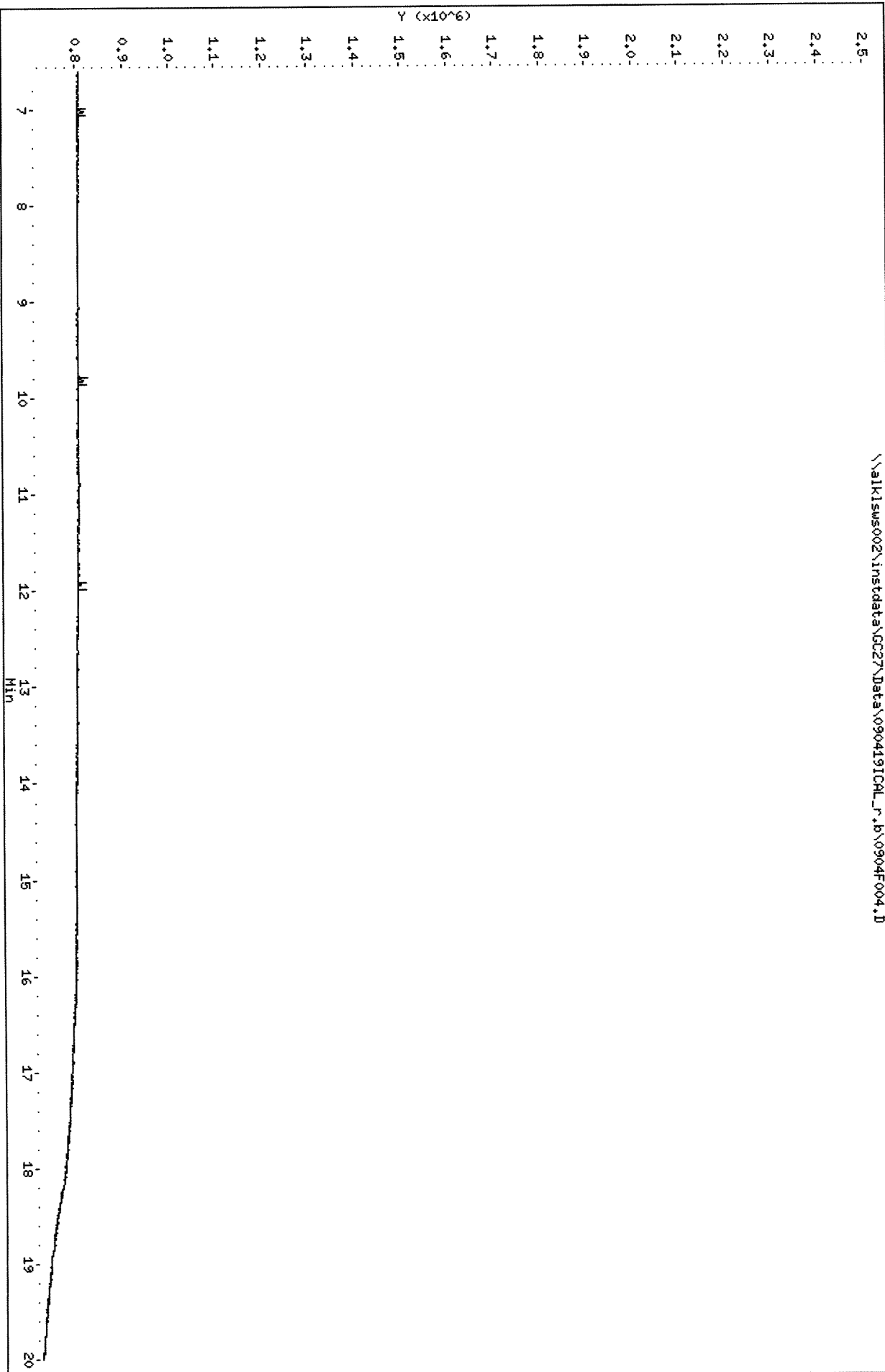
Column phase: DB-XLB

Instrument: GC27.1

Operator: SAA

Column diameter: 0.32

\\alkisw5002\instdata\GC27\Data\090419ICL_r.b\0904F004.D



ALS Environmental - Kelso


Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F005.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F005.D
 Inj Date : 04-SEP-2019 18:32
 Sample Info: PCB8-12K 1660 @ 0.1-1 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 1660.SUB
 Sub List #2 : 1660.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.969	8.436	190764	84644	0.106	0.102		100.00
Aroclor 1016	8.059	9.166	39400	16102	1.15	1.07	80.00- 120.00	100.00 (M)
	9.306	9.912	31706	23810	1.13	1.08	66.06- 99.09	80.47 (M)
	9.749	11.062	92717	22120	1.07	0.917	210.14- 315.22	235.32 (M)
	9.932	11.516	51318	20451	1.00	1.15	122.22- 183.34	130.25 (M)
	10.316	11.752	36002	18348	1.02	1.09	84.59- 126.89	91.38 (M)
	Average of Peak Amounts =				1.07	1.06		
Aroclor 1260	13.202	13.546	35380	13166	1.06	0.928	80.00- 120.00	100.00 (M)
	13.589	14.792	48458	29181	1.04	1.27	111.33- 167.00	136.96 (M)
	14.062	15.159	54080	26758	1.08	1.19	117.15- 175.73	152.85 (M)
	14.439	15.689	120908	57128	1.14	1.20	251.10- 376.65	341.74 (M)
	15.069	16.192	89767	30924	1.13	1.05	184.28- 276.42	253.72 (M)
	Average of Peak Amounts =				1.09	1.13		
Decachlorobiphenyl	16.869	18.136	122575	46200	0.112	0.103		100.00

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19


Data File: \\alkisus002\instdata\GC27\Data\090419ICAL.b\0904F005.D

Date: 04-SEP-2019 18:32

Client ID:

Sample Info: PCB8-12K 1660 @ 0.1-1 PPB

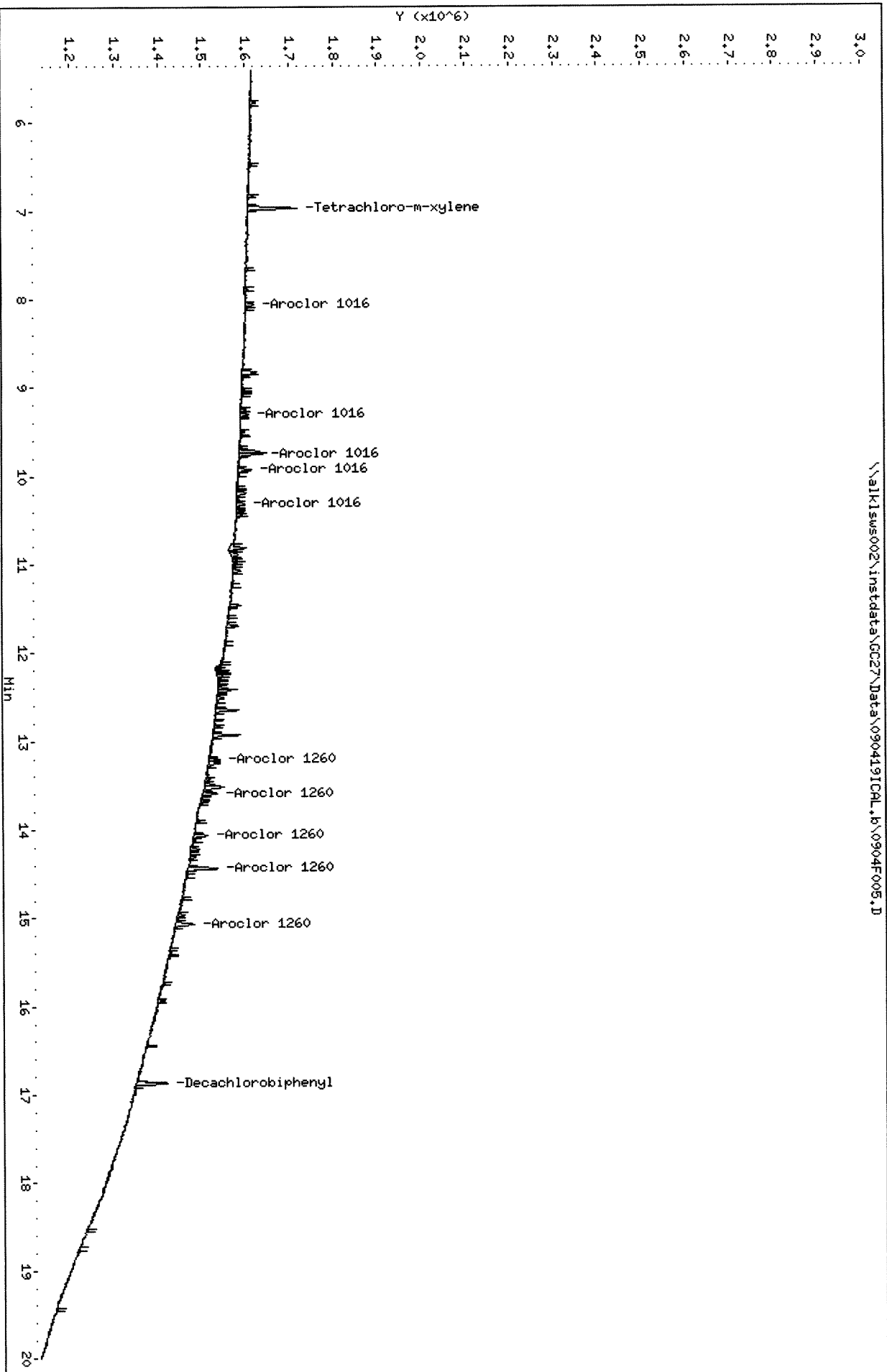
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

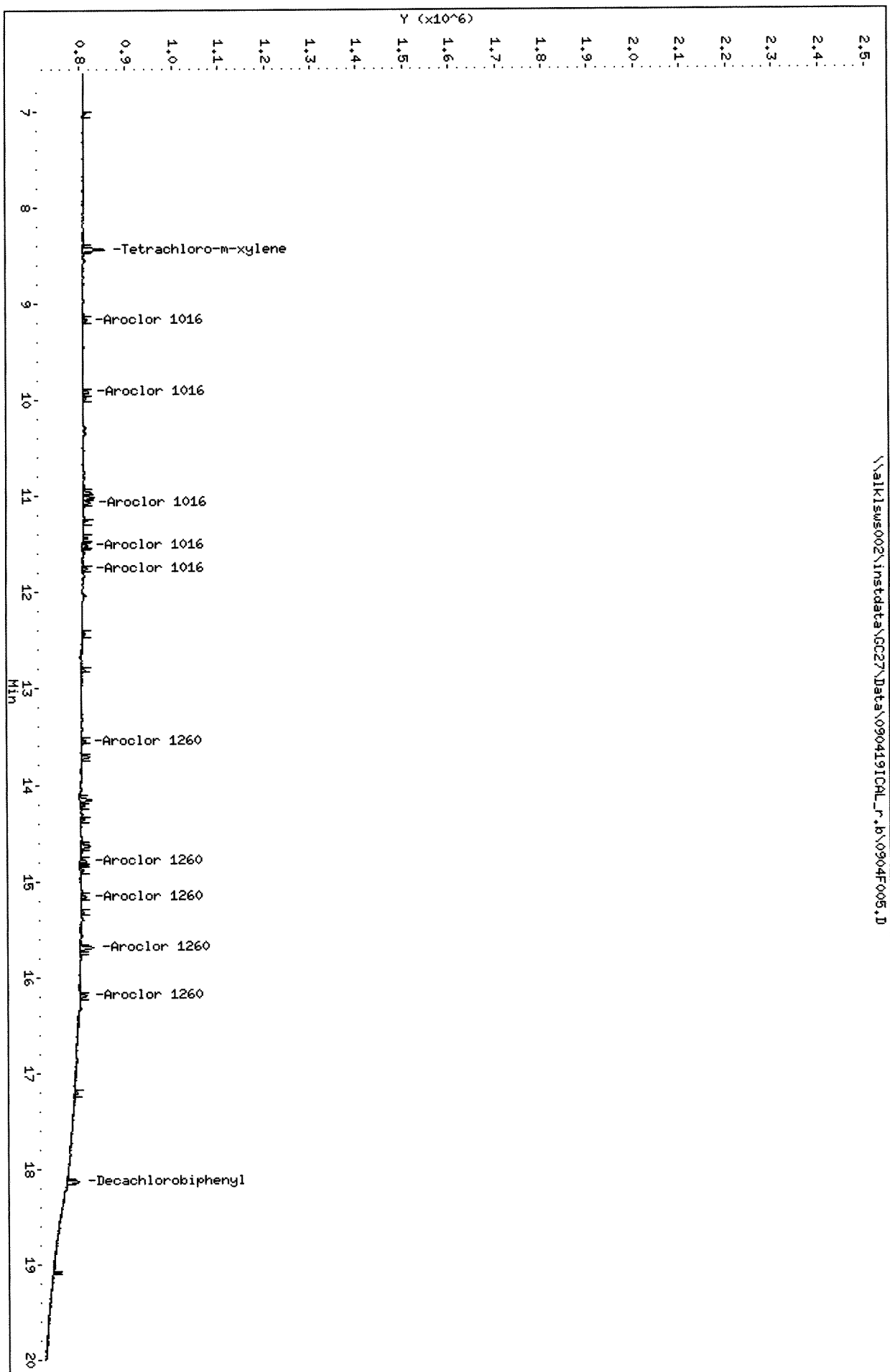
Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL.b\0904F005.D



Data File: \\alk1sws002\instdata\GC27\Data\090419ICAL_r.b\0904F005.D
Date: 04-SEP-2019 18:32
Client ID:
Sample Info: PCB8-12K 1660 @ 0.1-1 PPB
Column phase: DB-XLB

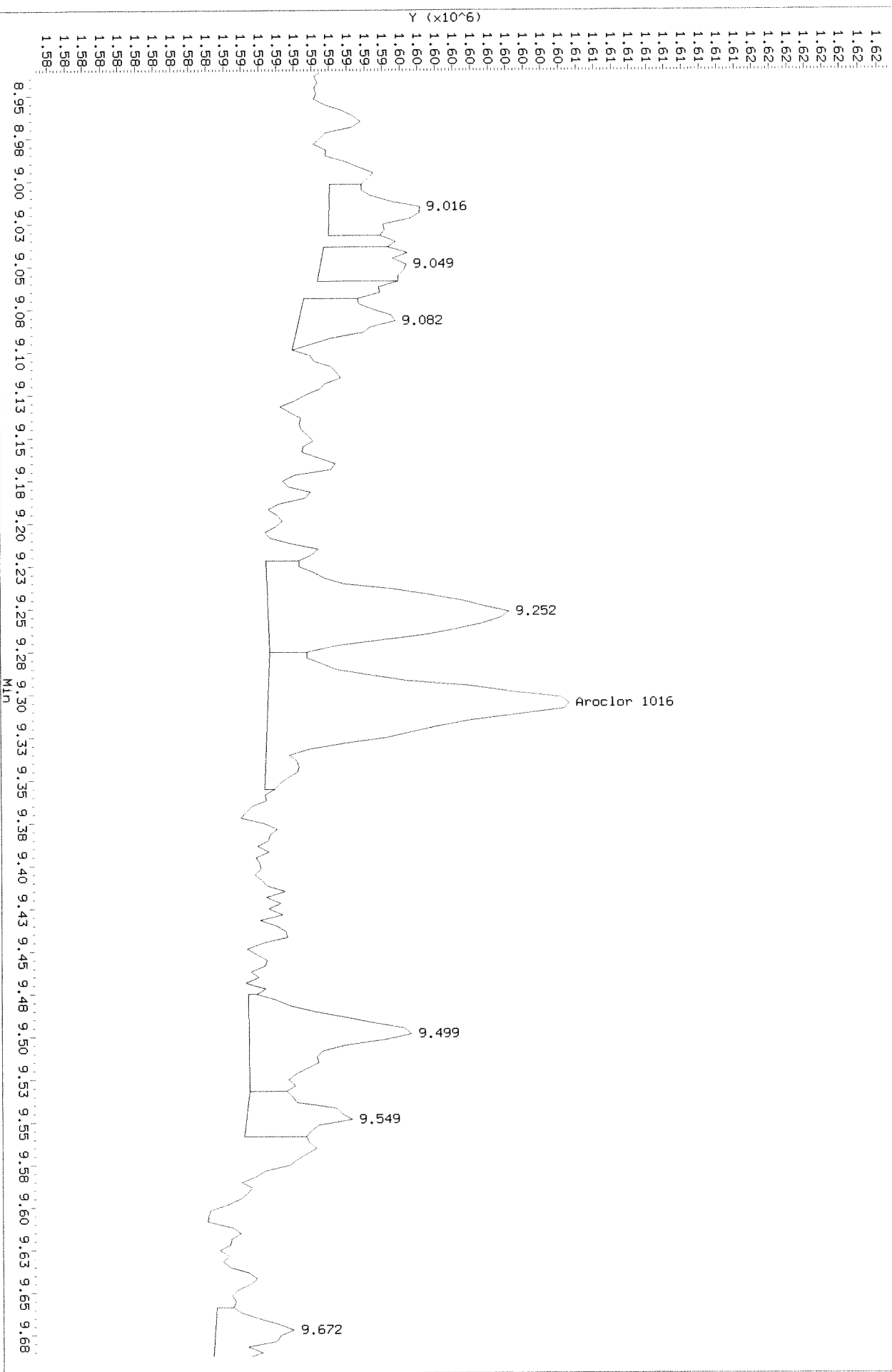
Instrument: GC27.i
Operator: SBA
Column diameter: 0.32



Data File: \\alk1sww002\instdata\GC27\Data\090419ICAL.b\0904F005.D
Injection Date: 04-SEP-2019 18:32
Instrument: GC27.1
Client Sample ID:

Before

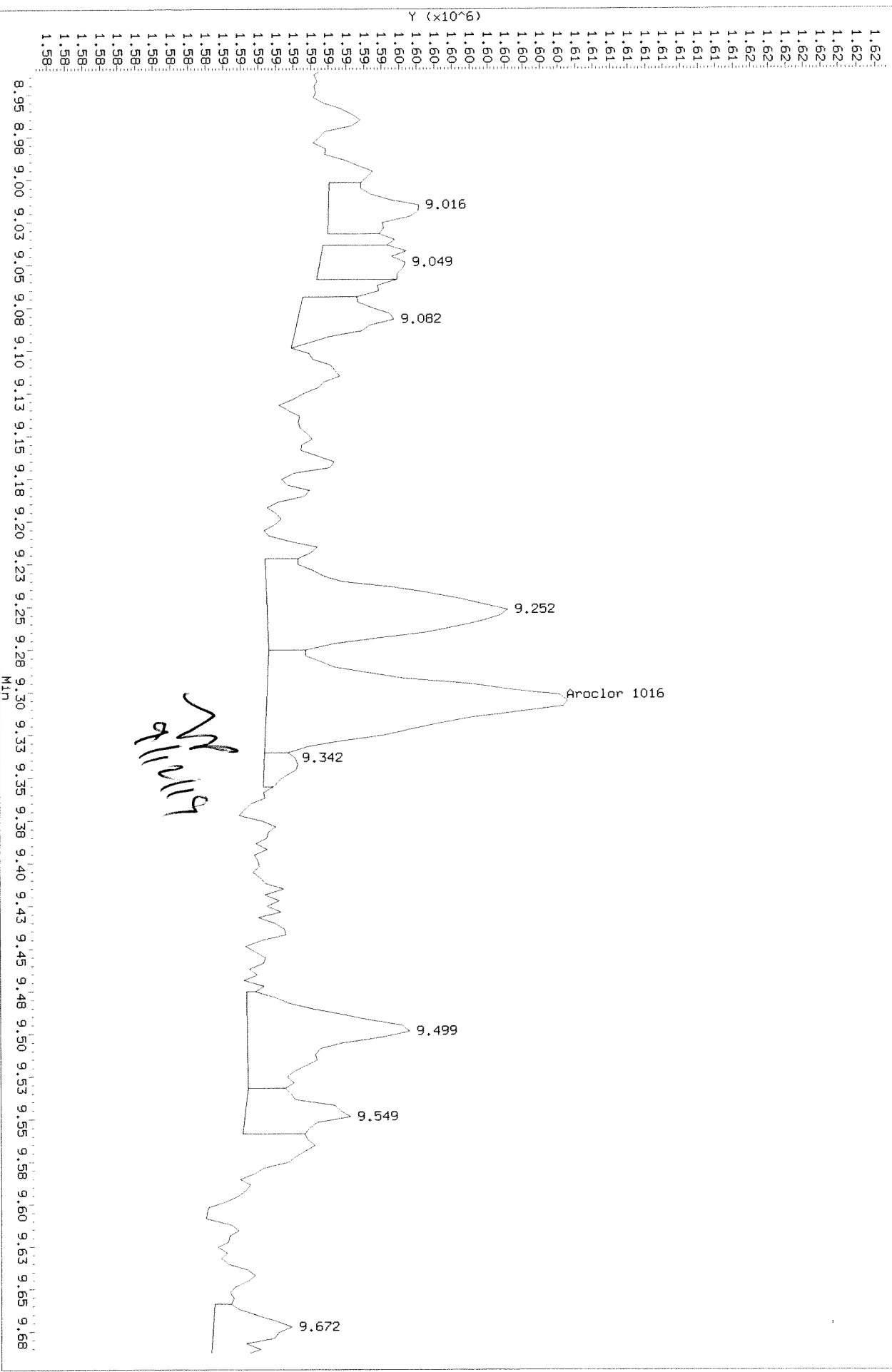
HP6890 GC Data, ECD1A.CH: 8.937 to 9.688 MIN



Data File: \\alk1sww002\instdata\GC27\Data\090419ICAL.B\0904F005.D
Injection Date: 04-SEP-2019 18:32
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 8.937 to 9.688 MIN

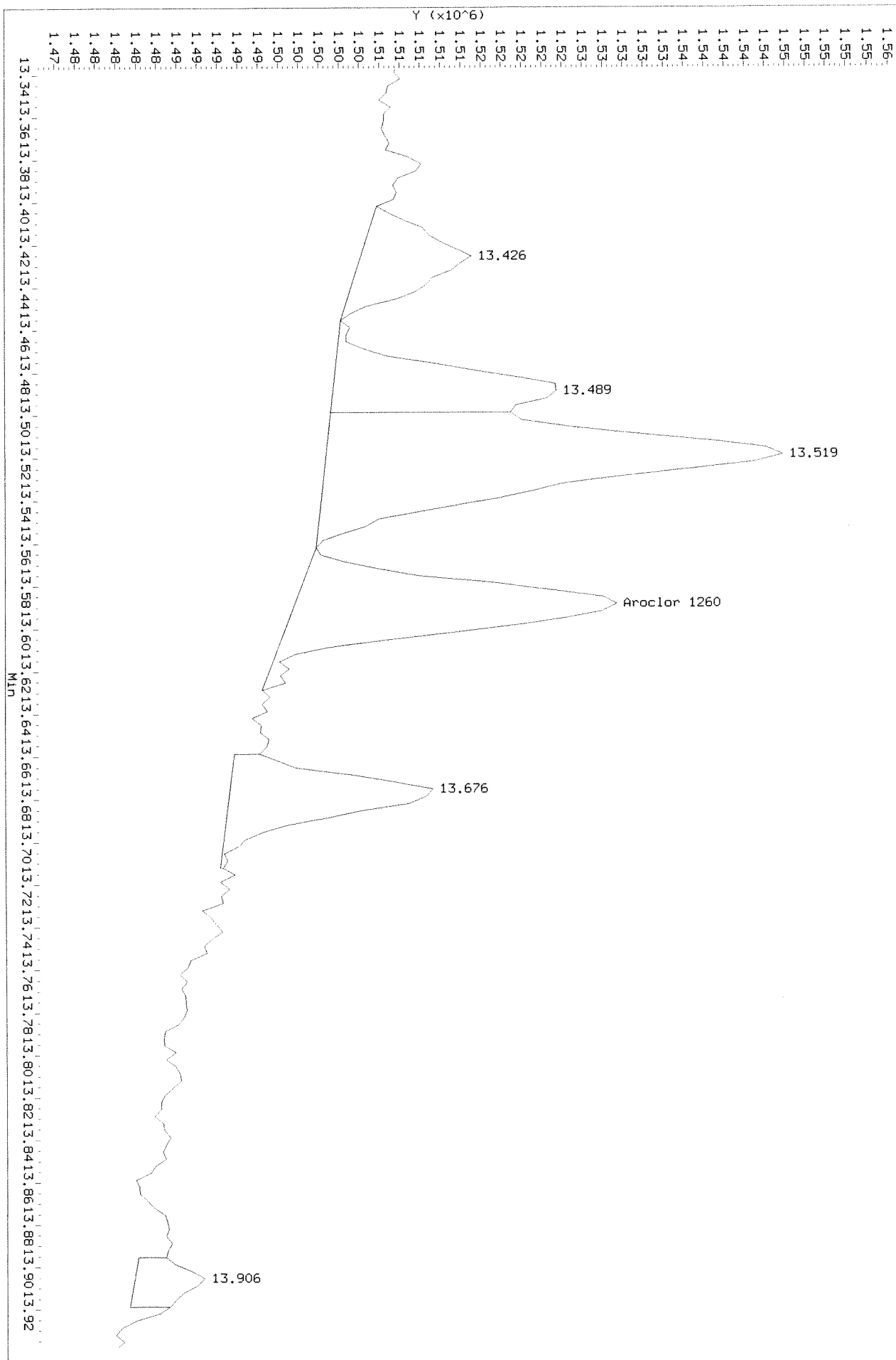
After shoulder 9/11/19 SA



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F005.D
Injection Date: 04-SEP-2019 18:32
Instrument: GC27.1
Client Sample ID:

Before

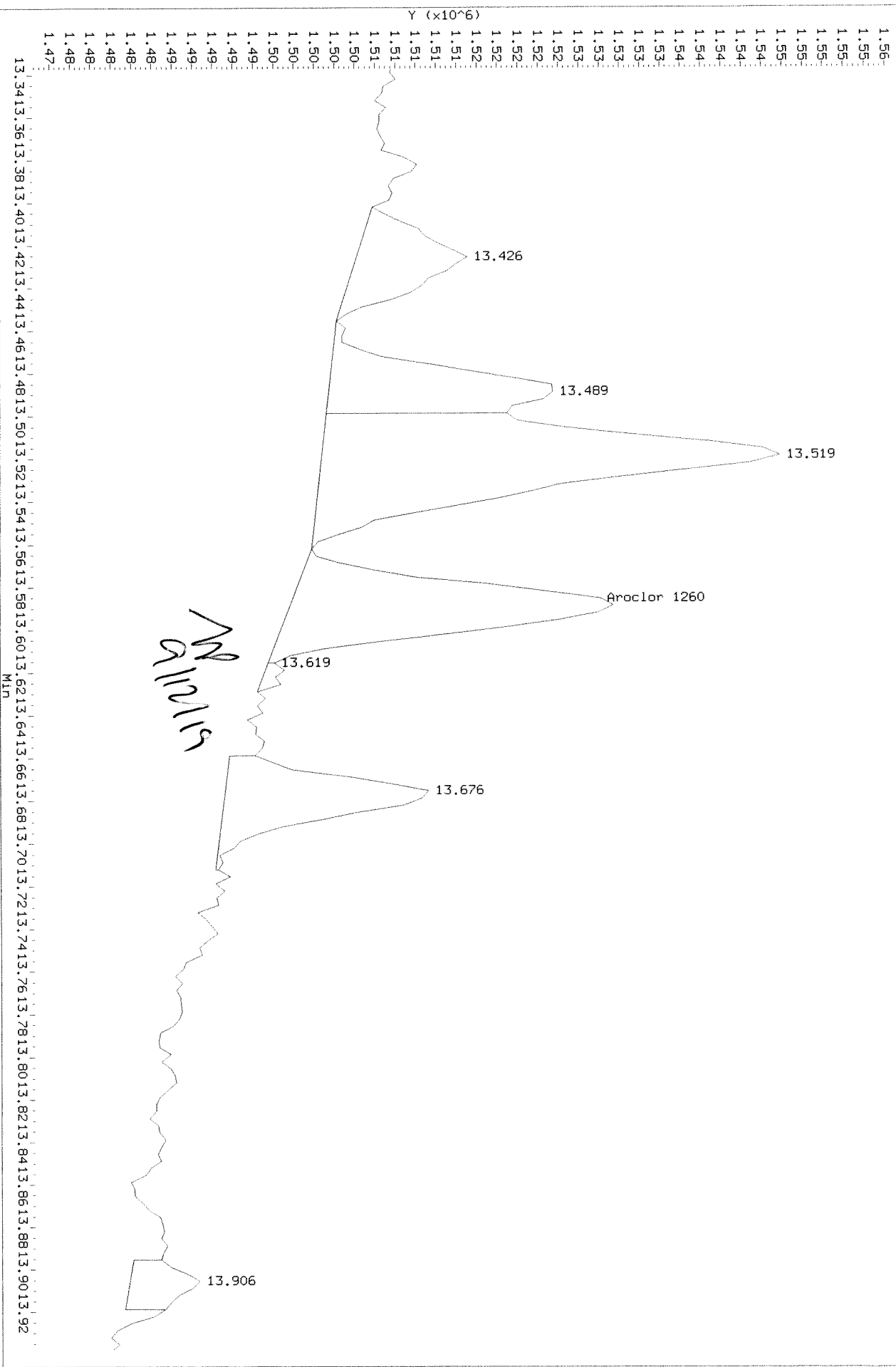
HP6890 GC Data, ECD1A.CH: 13.338 to 13.938 Min



Data File: \\alklsws002\instdata\GC27\Data\090419ICL.R\0904F005.D
Injection Date: 04-SEP-2019 18:32
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 13.338 to 13.938 MIN

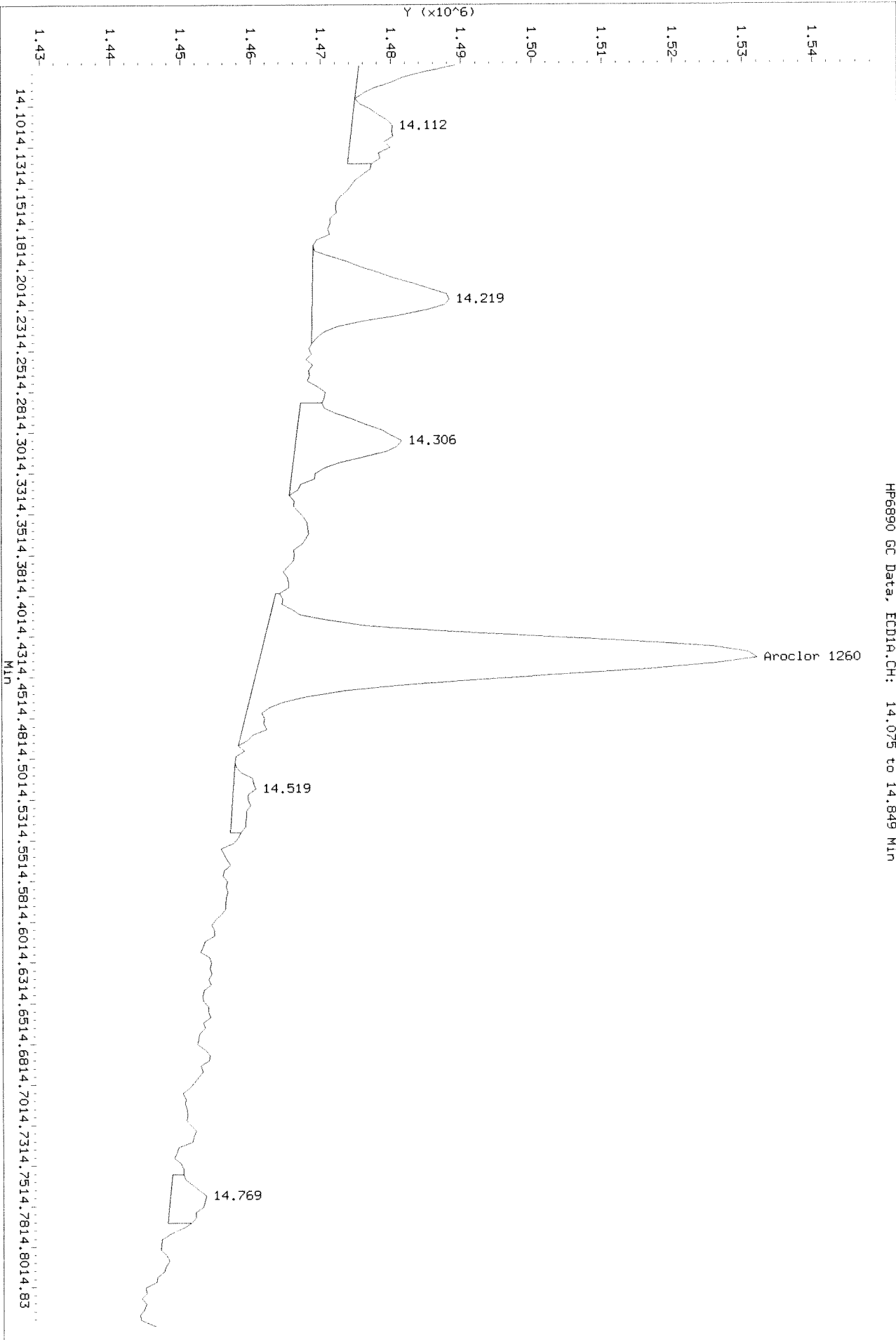
After Shoulder 9/11/19 SA



Data File: \\alk1sws002\instdata\GC27\Data\090419ICAL.B\0904F005.D
Injection Date: 04-SEP-2019 18:32
Instrument: GC27.1
Client Sample ID:

Before

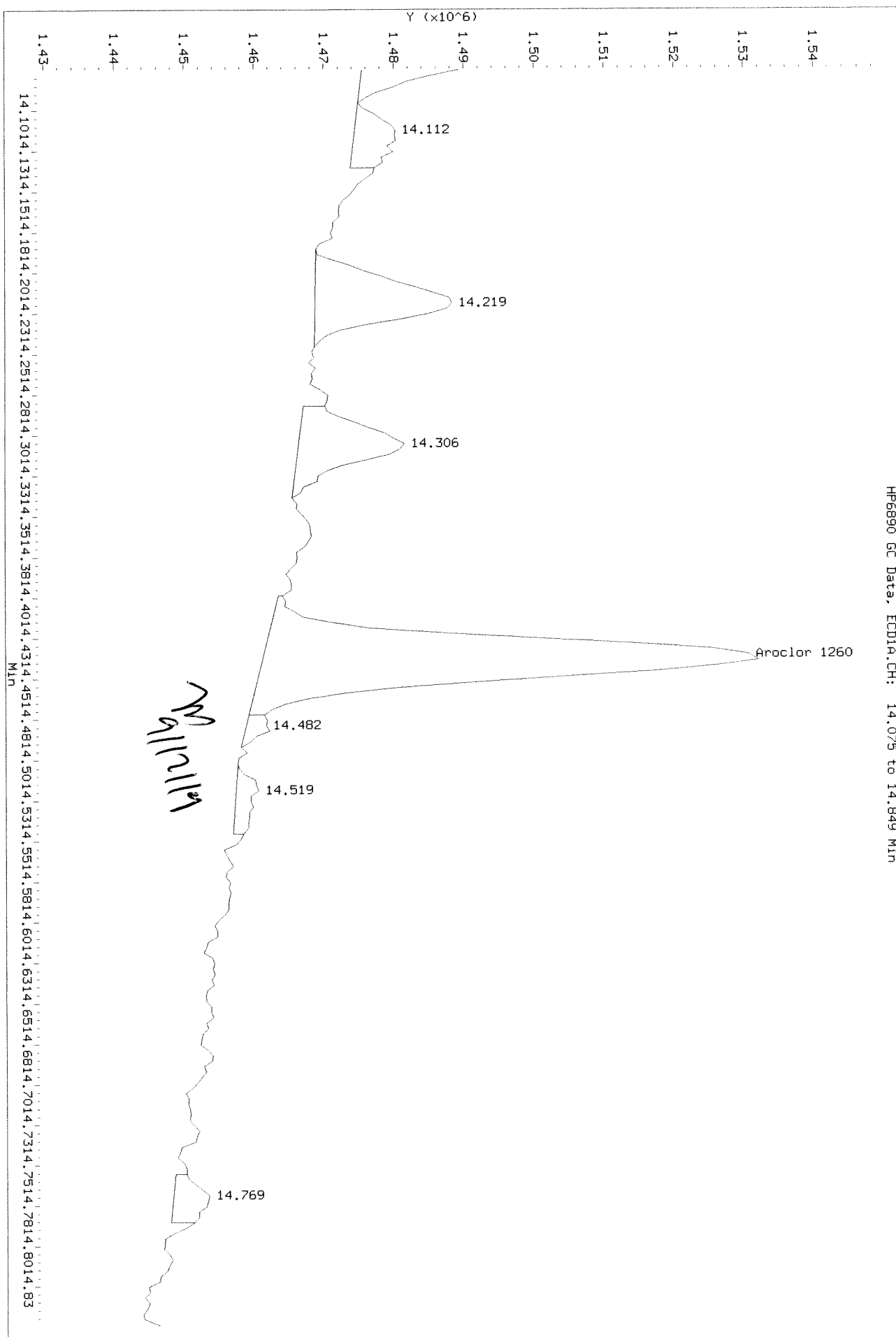
HP6890 GC Data, ECD1A.CH: 14.075 to 14.849 MIN



Data File: \\alk1swws002\instdata\GC27\Data\090419ICAL.b\0904F005.D
Injection Date: 04-SEP-2019 18:32
Instrument: GC27.1
Client Sample ID:

After Sharber 9/11/19 SA

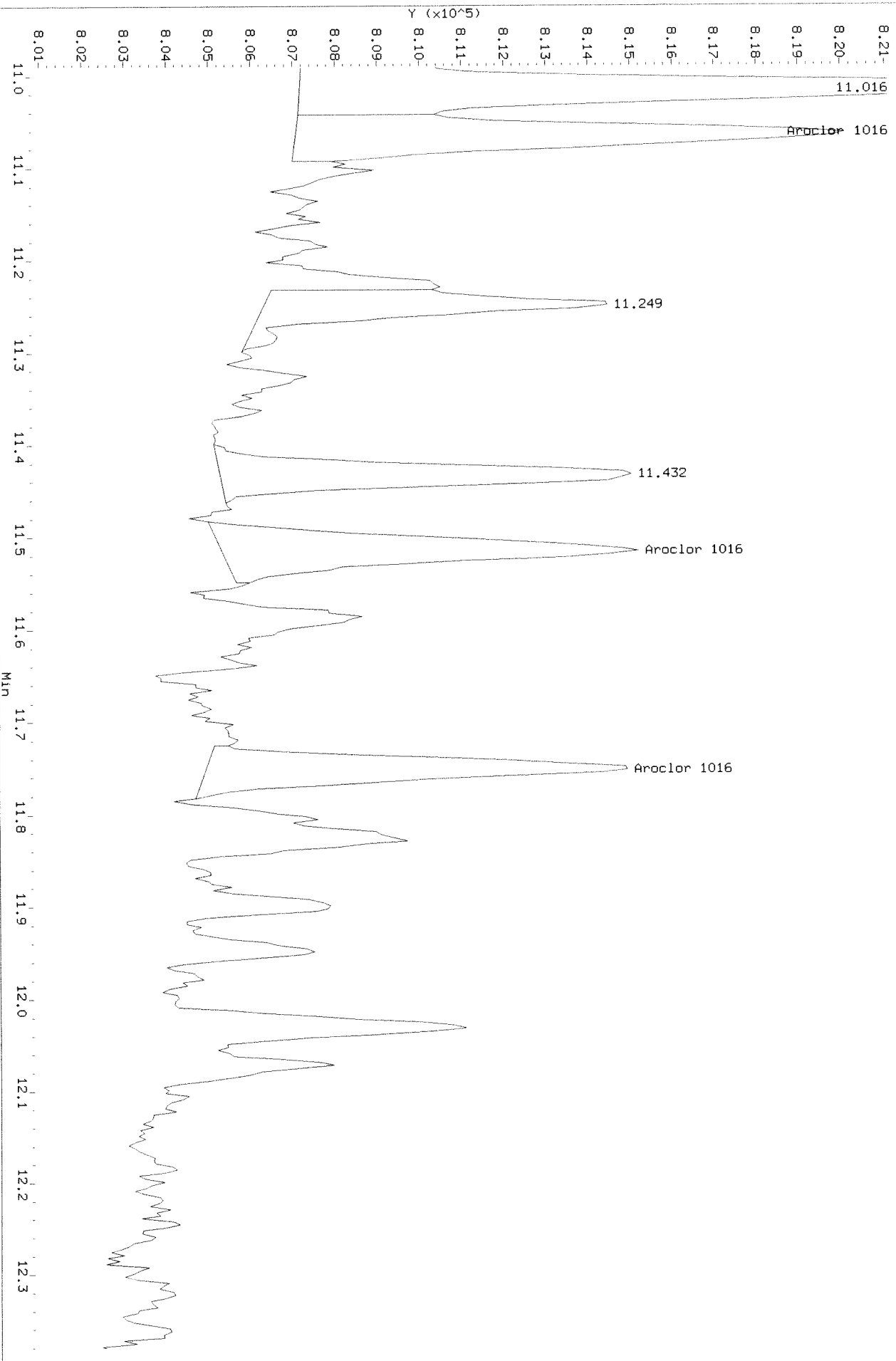
HP6890 GC Data, ECD1A.CH: 14.075 to 14.849 MIN



Data File: \\alklms002\instdata\GC27\Data\090419ICHL_r.b\0904F005.D
Injection Date: 04-SEP-2019 18:32
Instrument: GC27.1
Client Sample ID:

Refer

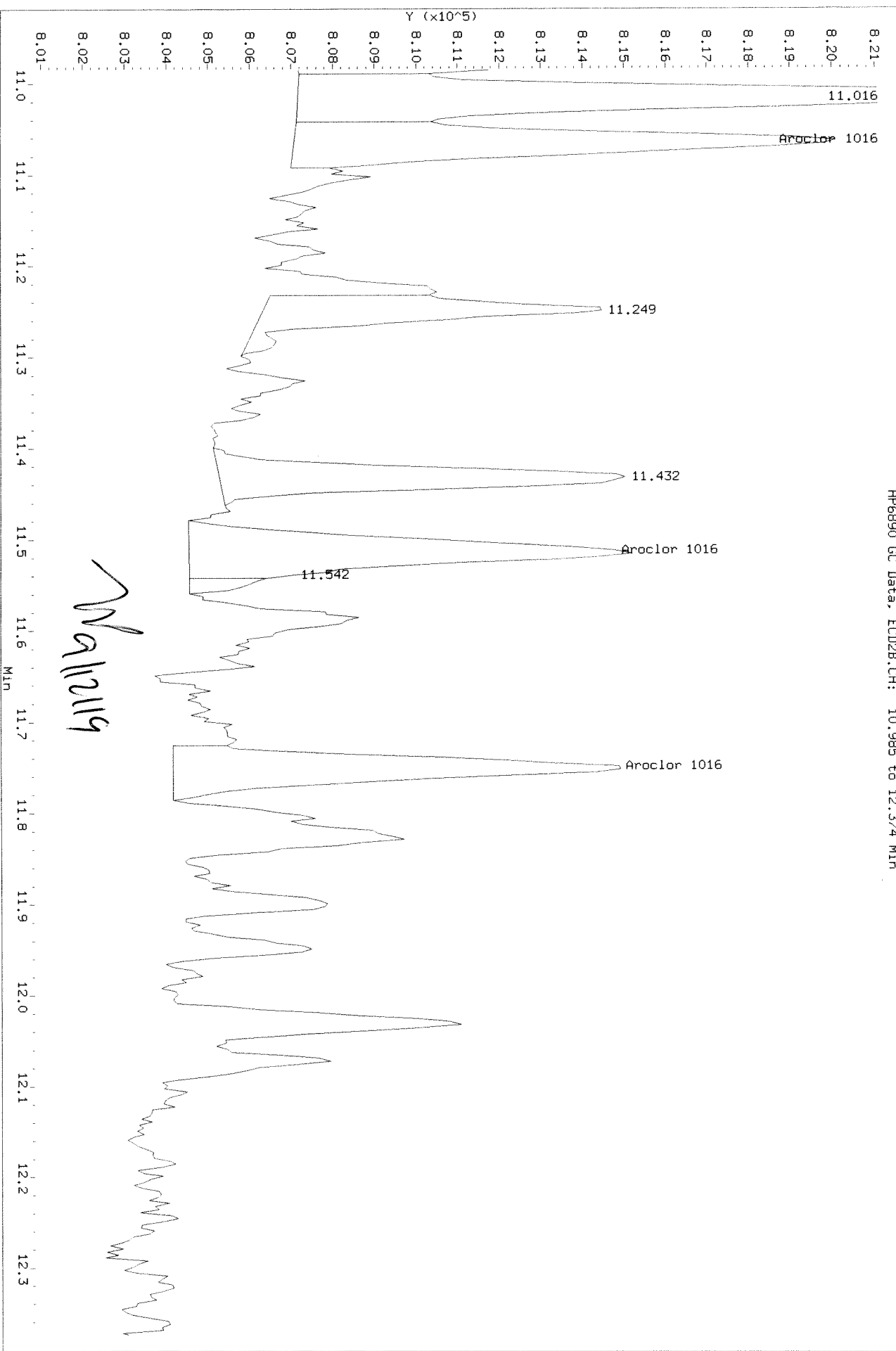
HP6890 GC Data, ECD2B.CH: 10.991 to 12.380 MIN



Data File: \\valkissw002\instdata\GC27\Data\090419ICAL.r.b\0904F005.D
Injection Date: 04-SEP-2019 18:32
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 10.985 to 12.374 Min

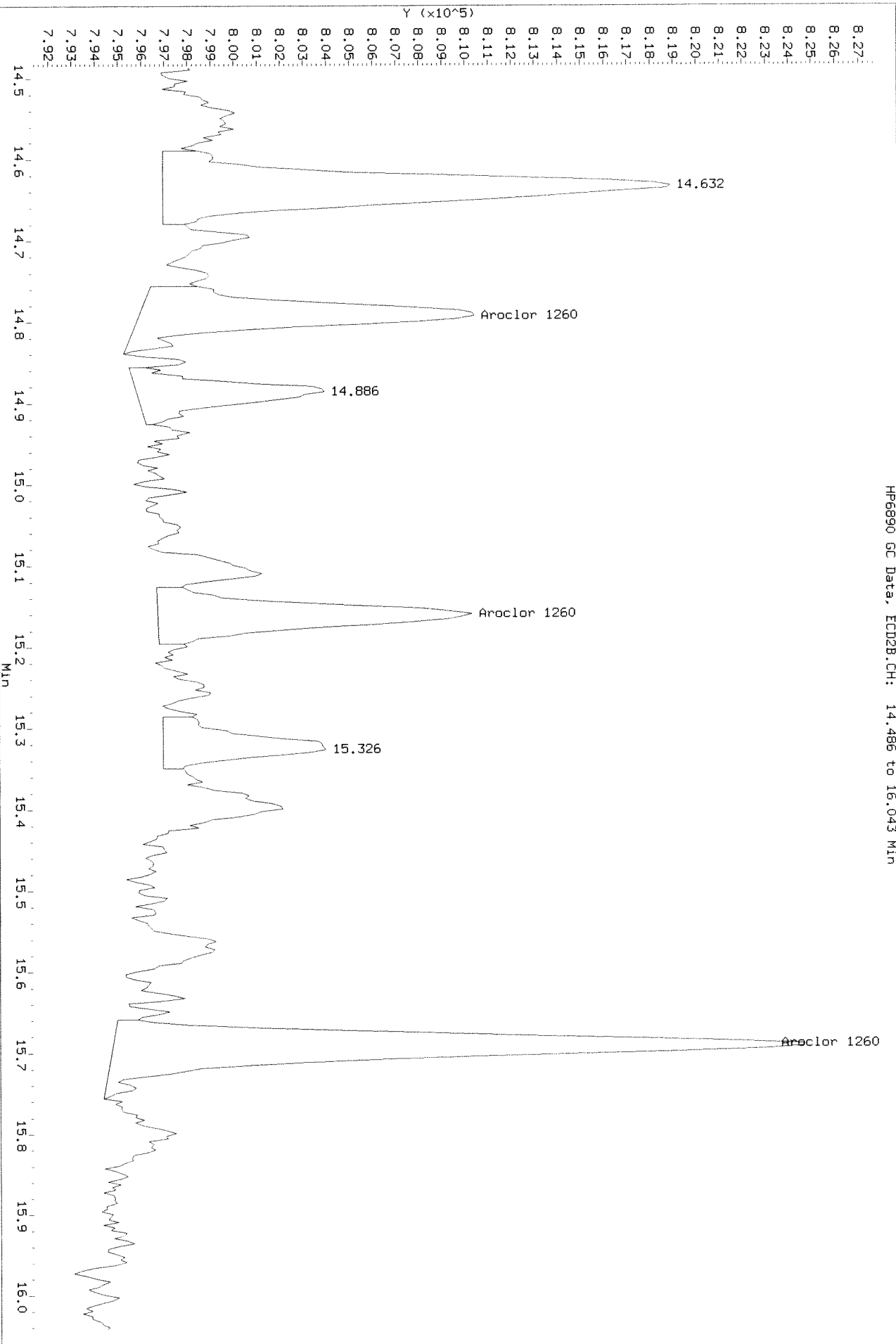
After baseline shoulder 9/11/19 A



Data File: \\alklms002\instdata\GC27\Data\090419ICAL_r.b\0904F005.D
Injection Date: 04-SEP-2019 18:32
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 14.486 to 16.043 Min

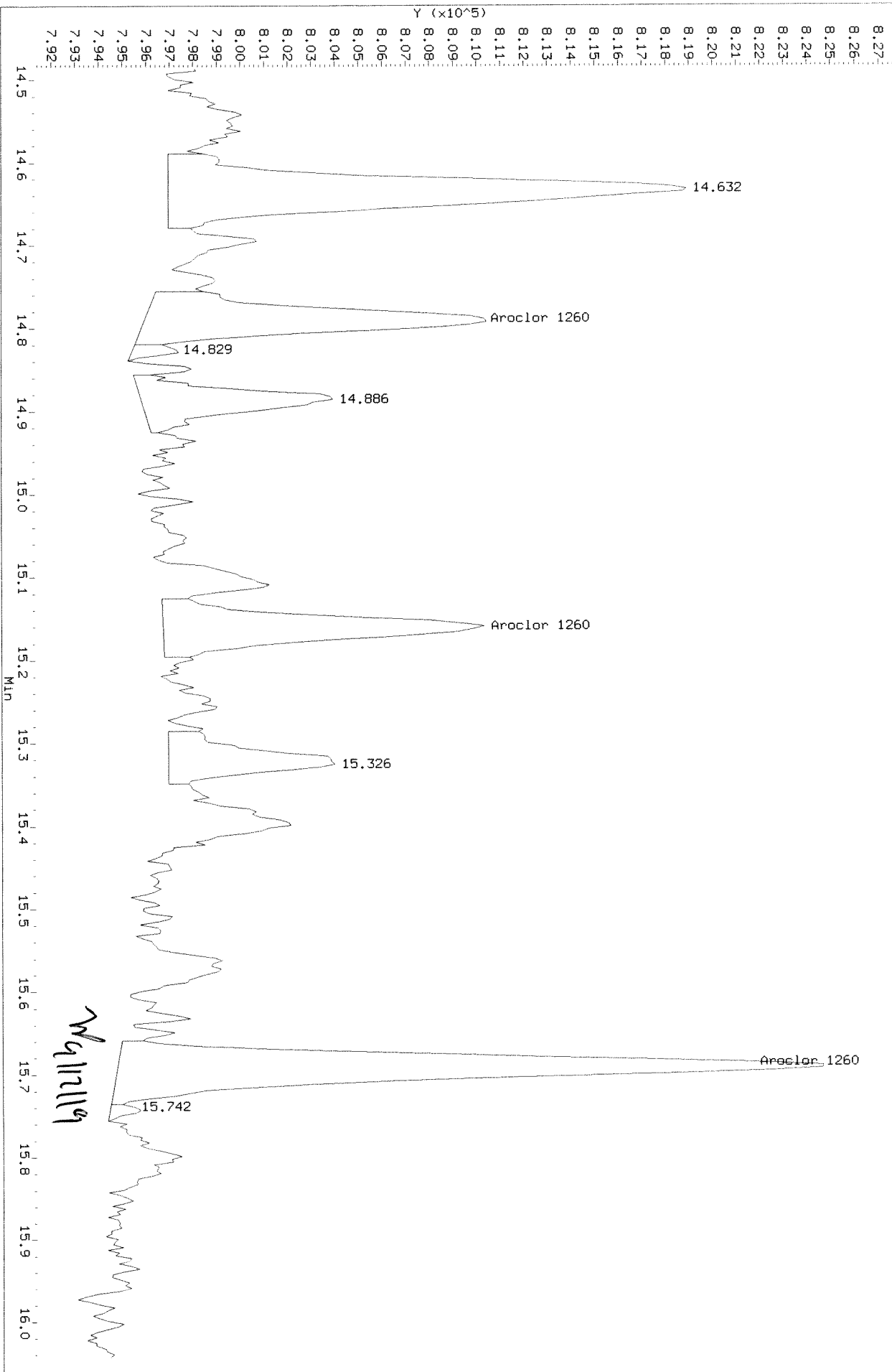
Before



Data File: \\alkisw002\instdata\GC27\Data\090419ICDL_r.b\0904F005.D
Injection Date: 04-SEP-2019 18:32
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 14.486 to 16.043 MIN

After shoulder 9/11/19 SA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F006.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F006.D
 Inj Date : 04-SEP-2019 19:04
 Sample Info: PCB8-12L 1660 @ 0.2-2 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 1660.SUB
 Sub List #2 : 1660.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.971	8.438	371637	171174	0.206	0.206		100.00
Aroclor 1016	8.057	9.168	70961	28422	2.08	1.89	80.00- 120.00	100.00 (M)
	9.304	9.918	58355	44421	2.08	2.01	66.06- 99.09	82.24 (M)
	9.747	11.064	195701	47375	2.25	1.96	210.14- 315.22	275.79 (M)
	9.931	11.518	106737	36442	2.08	2.05	122.22- 183.34	150.42 (M)
	10.314	11.754	69761	31982	1.98	1.90	84.59- 126.89	98.31 (M)
	Average of Peak Amounts =				2.09	1.96		
Aroclor 1260	13.197	13.548	70879	26891	2.12	1.89	80.00- 120.00	100.00
	13.581	14.791	91941	53427	1.97	2.33	111.33- 167.00	129.72
	14.051	15.164	100862	48814	2.01	2.17	117.15- 175.73	142.30
	14.427	15.691	213592	103743	2.01	2.18	251.10- 376.65	301.35
	15.061	16.194	163681	55657	2.06	1.89	184.28- 276.42	230.93
	Average of Peak Amounts =				2.03	2.09		
Decachlorobiphenyl	16.857	18.134	233073	99342	0.214	0.223		100.00

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
 W

Data File: \\alkisws002\instdata\GC27\Data\090419ICAL.b\0904F006.D

Date: 04-SEP-2019 19:04

Client ID:

Sample Info: PCB8-12L 1660 @ 0.2-2 PPB

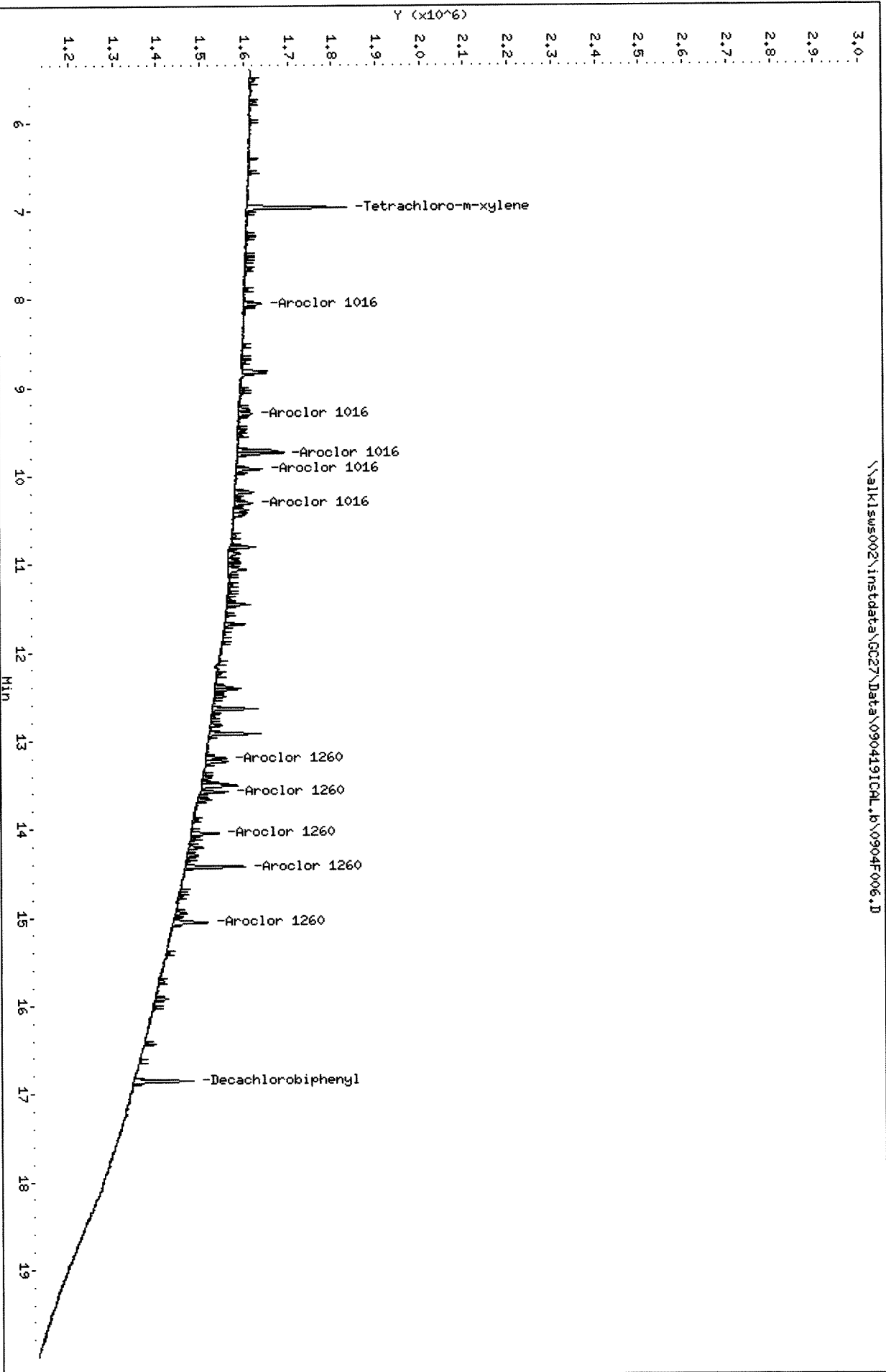
Column phase: DB-35MS

Instrument: GC27.1

Operator: SAH

Column diameter: 0.32

\\alkisws002\instdata\GC27\Data\090419ICAL.b\0904F006.D



Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904f006.D

Date: 04-SEP-2019 19:04

Client ID:

Sample Info: PCB8-12L 1660 @ 0.2-2 PPB

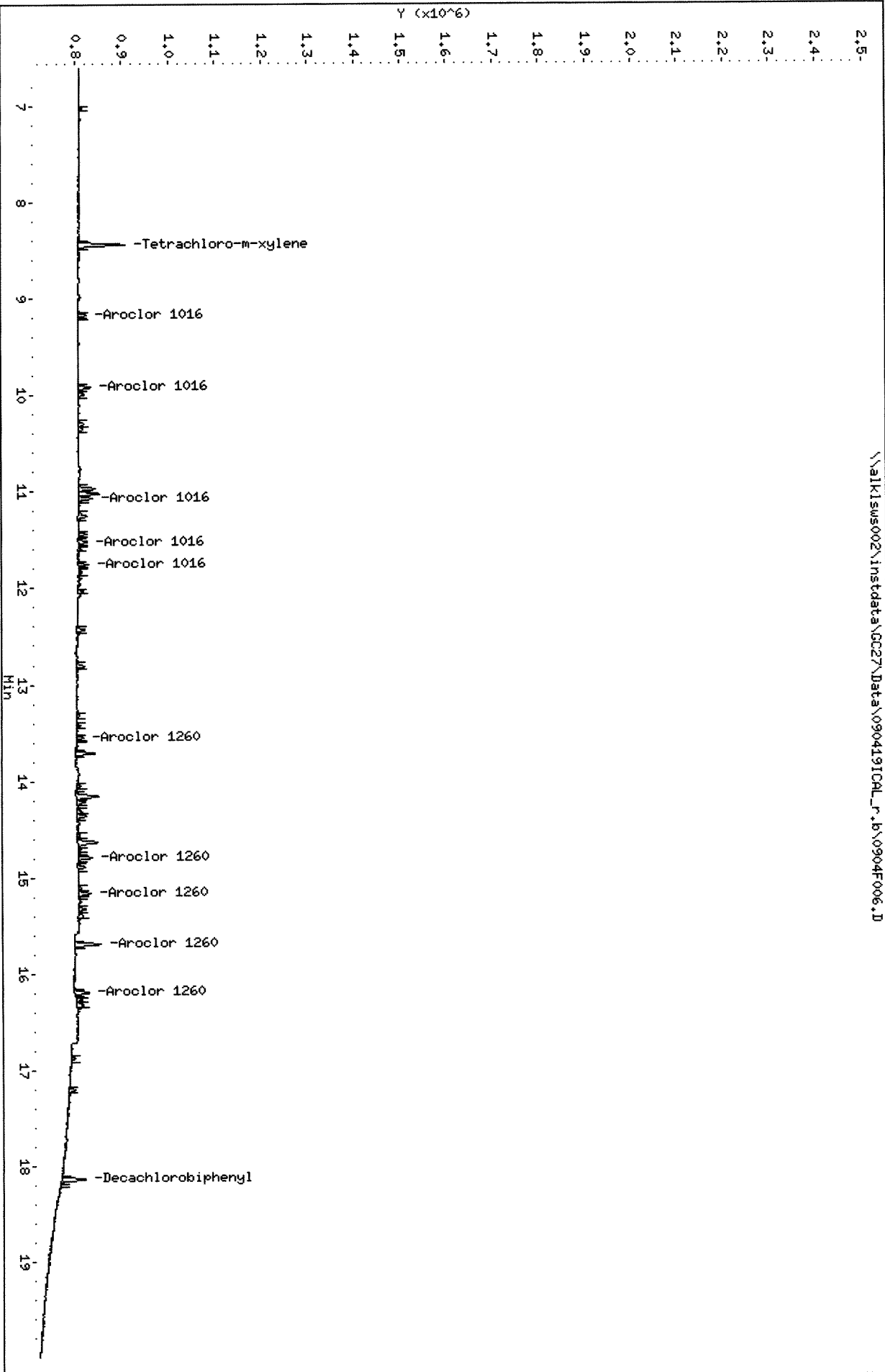
Column phase: DB-XLB

Instrument: GC27.1

Operator: SAA

Column diameter: 0.32

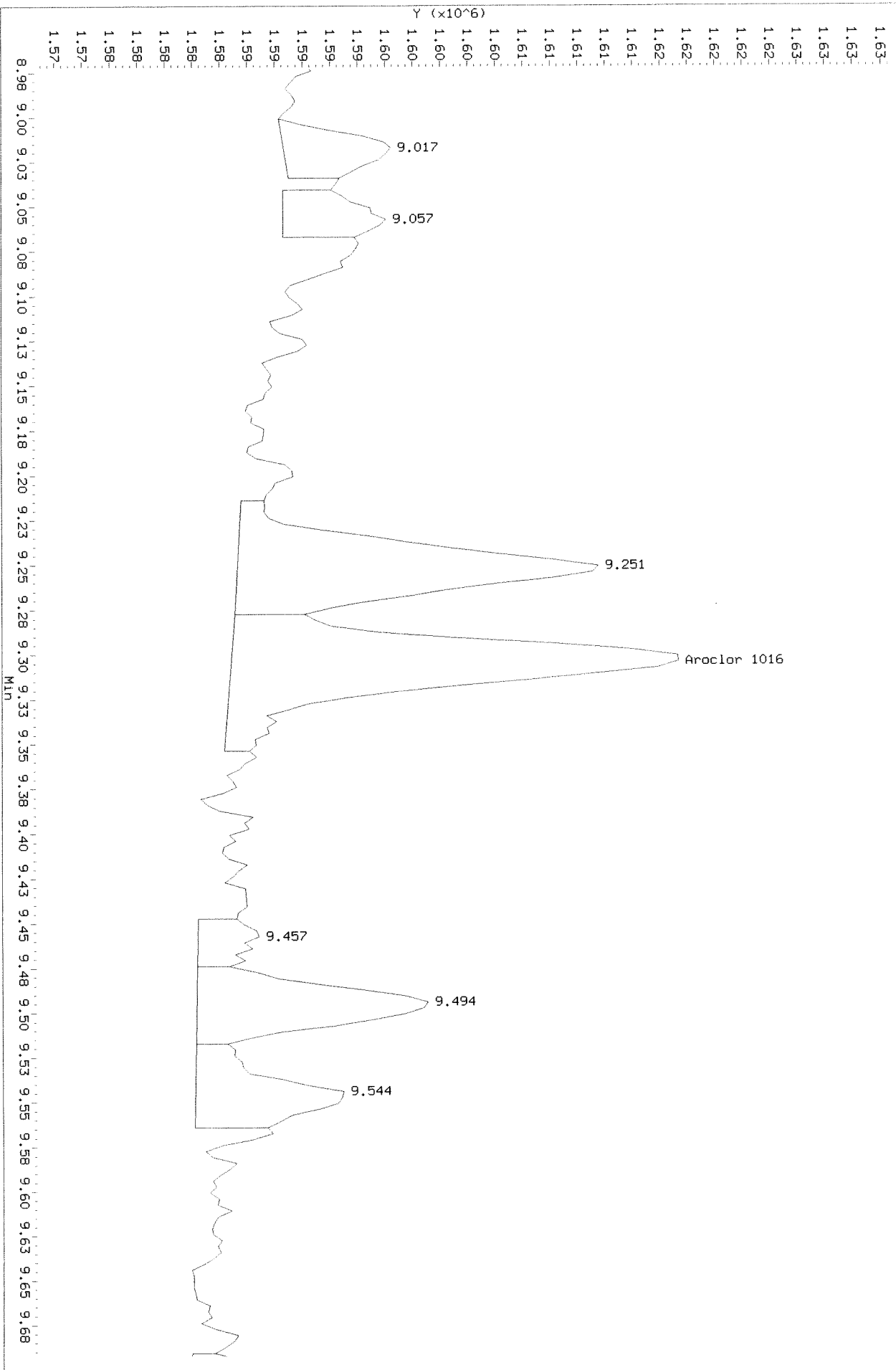
\\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904f006.D



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904f006.D
Injection Date: 04-SEP-2019 19:04
Instrument: GC27.1
Client Sample ID:

Before

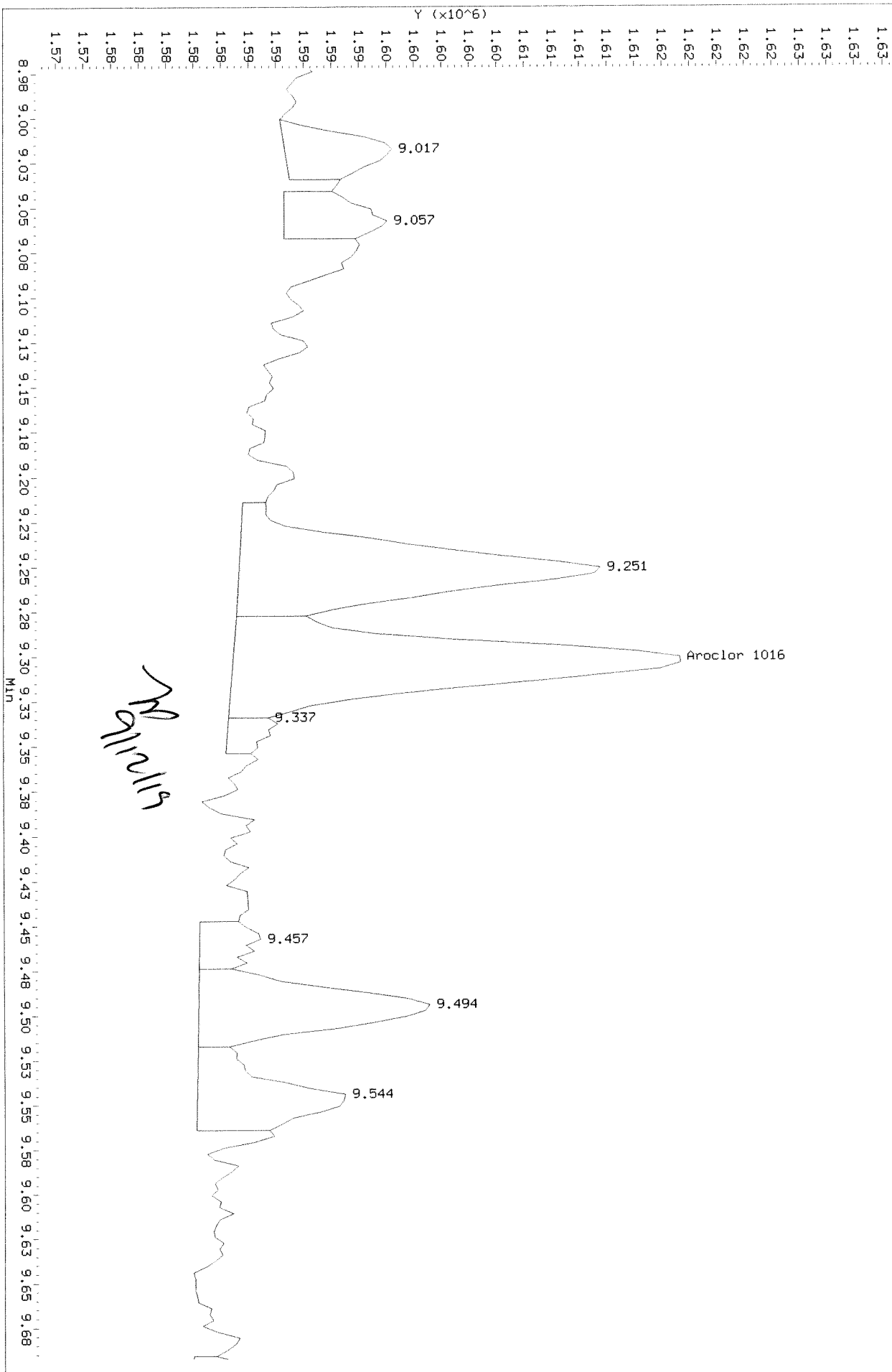
HP6890 GC Data, ECD1A.CH: 8.973 to 9.692 Min



Data File: \\alk1sww002\instdata\GC27\Data\090419ICAL.B\0904F006.D
Injection Date: 04-SEP-2019 19:04
Instrument: GC27.1
Client Sample ID:

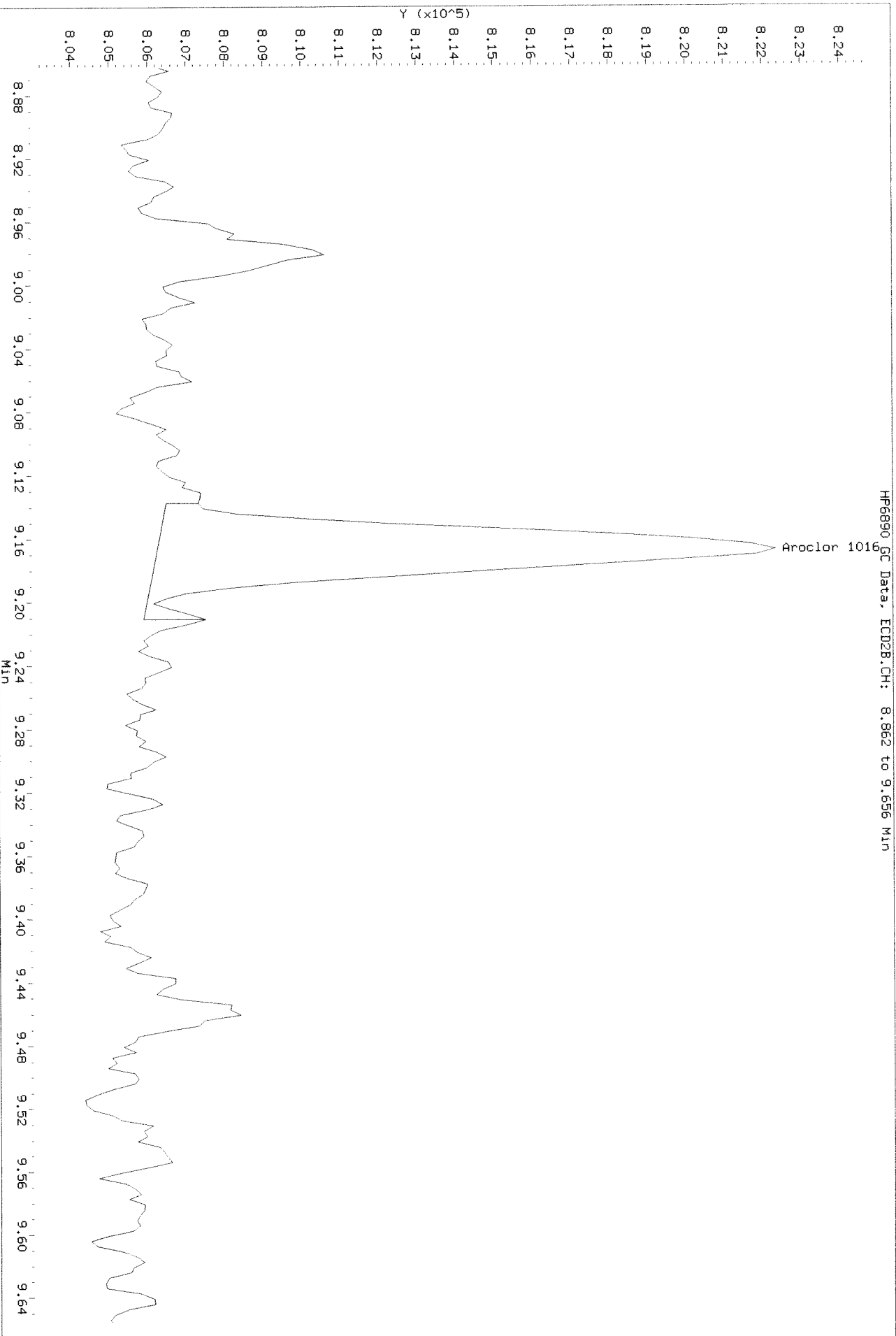
After shoulder 9/11/19 SA

HP6890 GC Data, ECD1A.CH: 8.973 to 9.692 Min



Data File: \\alklsws002\instdata\GC27\Data\090419ICHL_r.b\0904F006.D
Injection Date: 04-SEP-2019 19:04
Instrument: GC27.1
Client Sample ID:

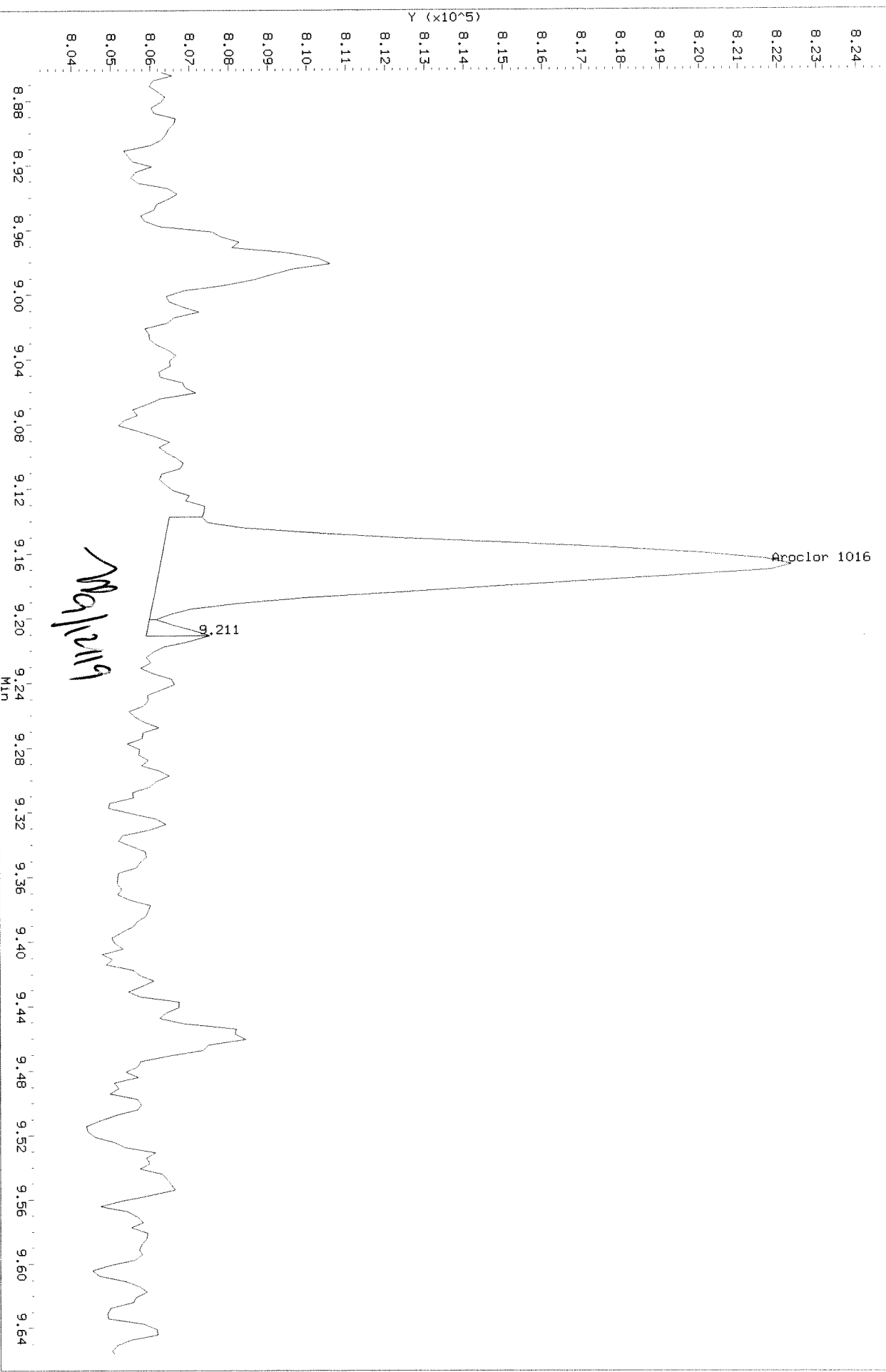
Refer



Data File: \\alklsws002\instdata\GC27\Data\090419ICALL_r.b\0904F006.D
Injection Date: 04-SEP-2019 19:04
Instrument: GC27.1
Client Sample ID:

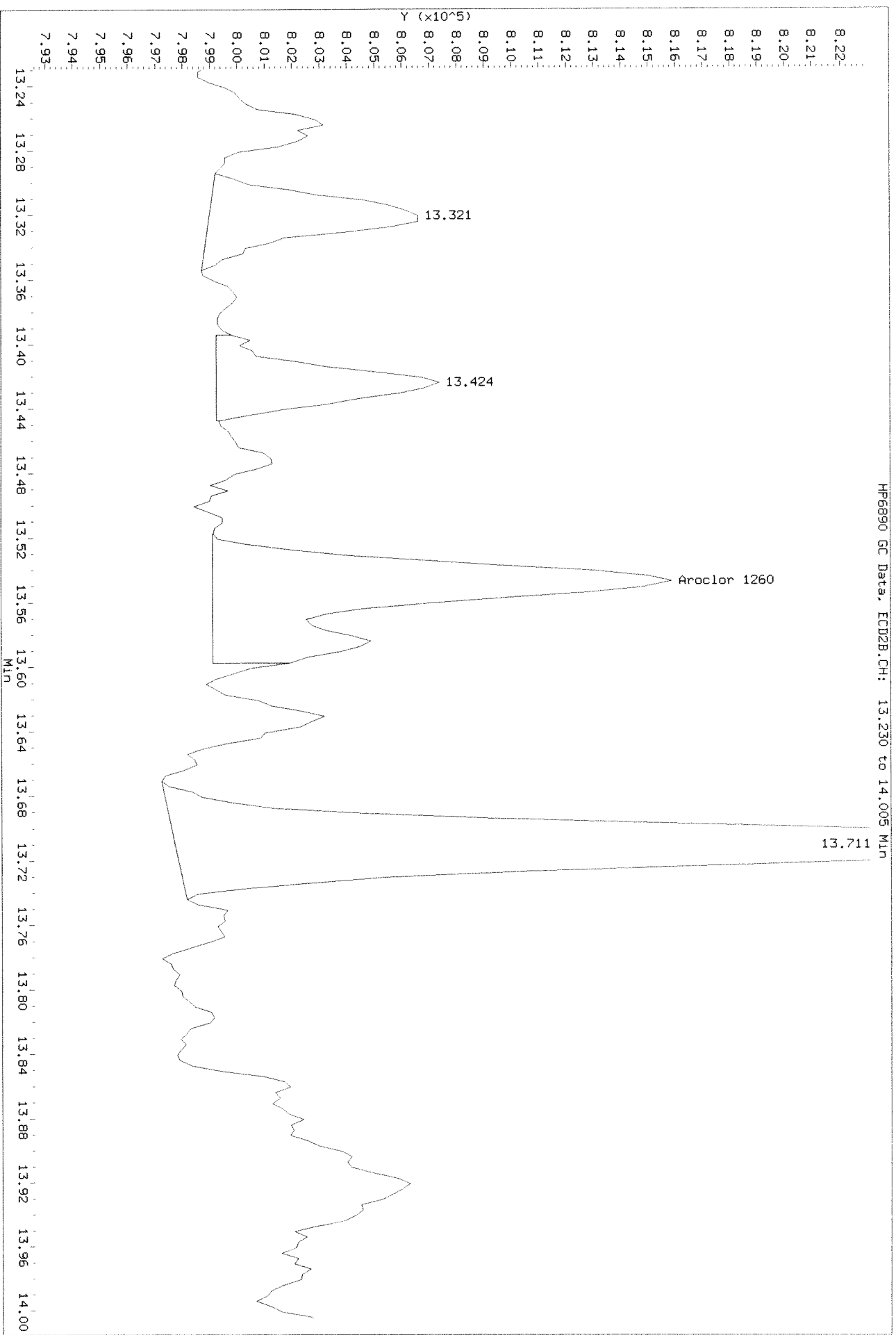
HP6890 GC Data, ECD2B.CH: 8.862 to 9.656 MIN

After shoulder 9/11/19 SA



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F006.D
Injection Date: 04-SEP-2019 19:04
Instrument: GC27.1
Client Sample ID:

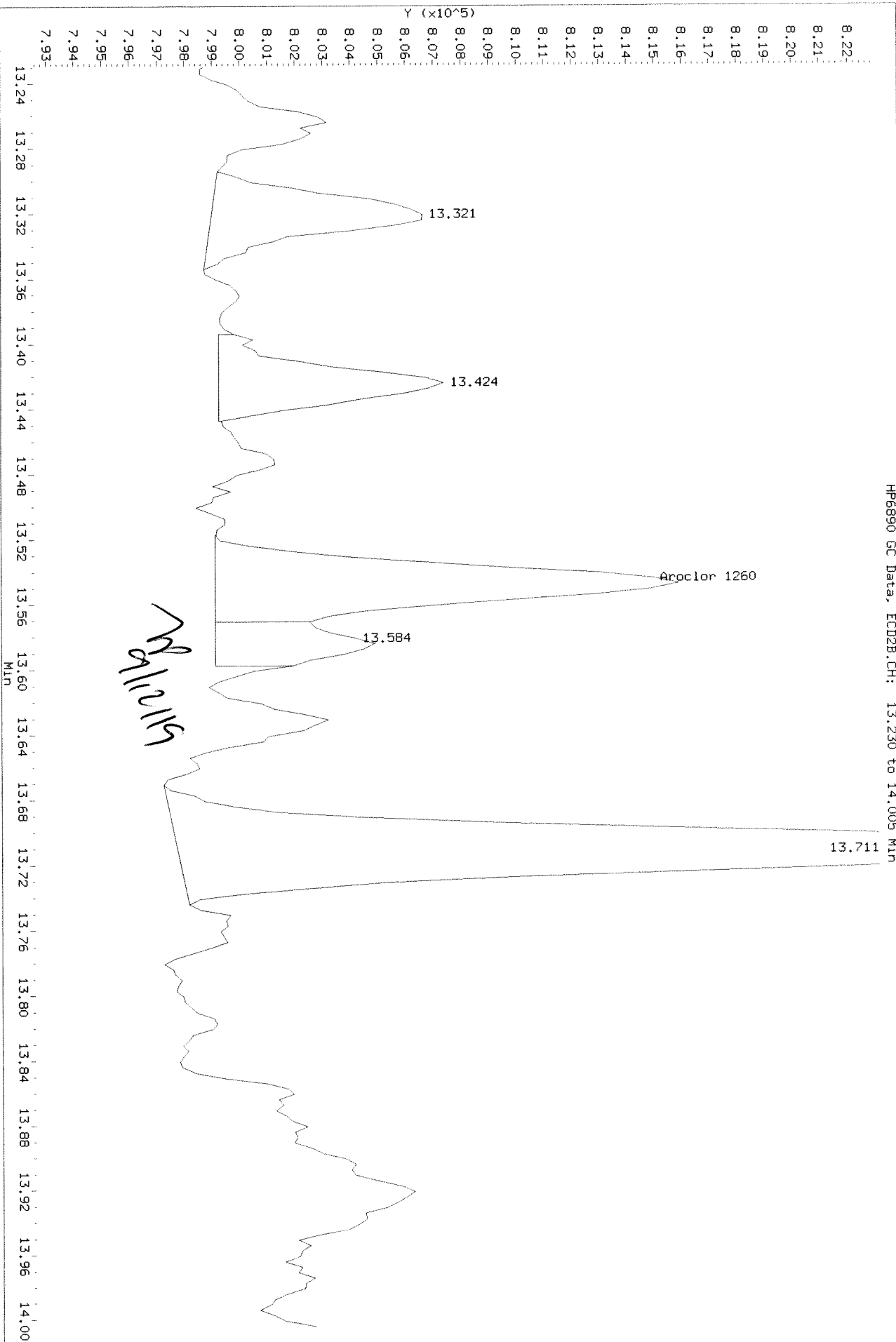
Bellevue



Data File: \\alk1sww002\instdata\GC27\Data\090419ICAL_r.b\0904F006.D
Injection Date: 04-SEP-2019 19:04
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 13.230 to 14.005 Min

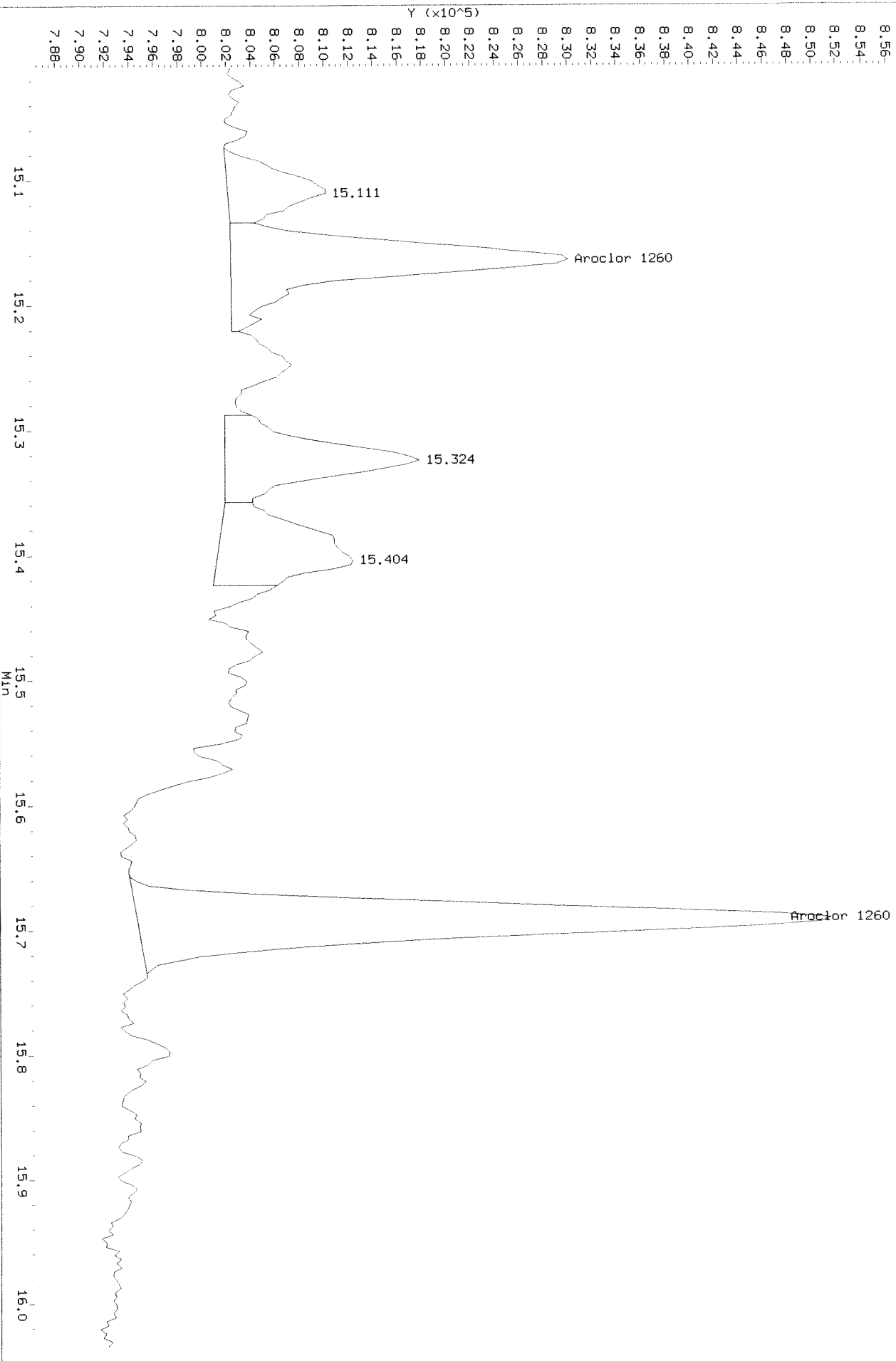
After shoulder 9/11/19



Data File: \\alk1sww002\inetdata\GC27\Data\090419ICAL_r.b\0904F006.D
Injection Date: 04-SEP-2019 19:04
Instrument: GC27.1
Client Sample ID:

Refer

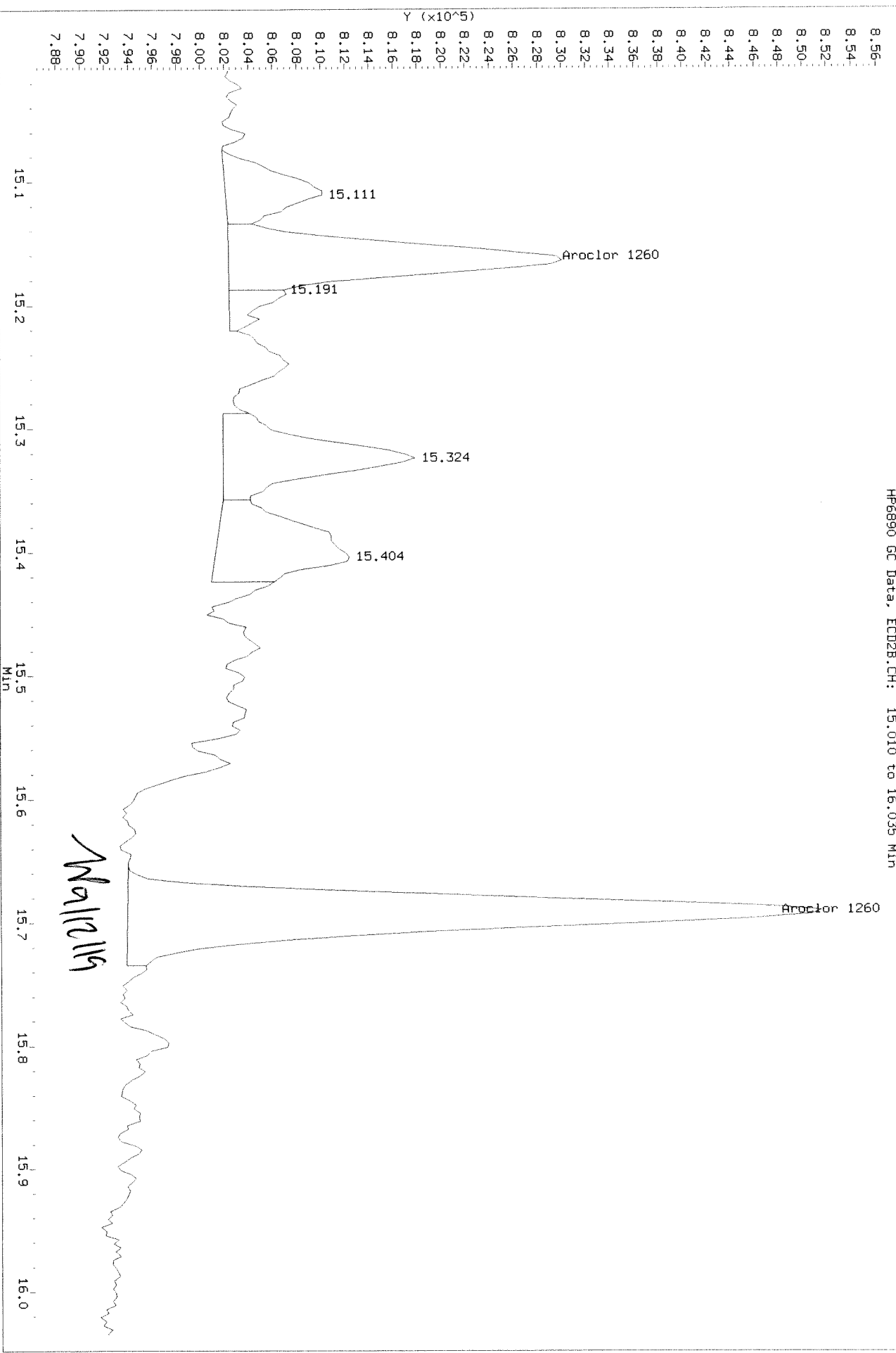
HP6890 GC Data, ECD2B.CH: 15.010 to 16.035 Min



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F006.D
Injection Date: 04-SEP-2019 19:04
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 15.010 to 16.035 Min

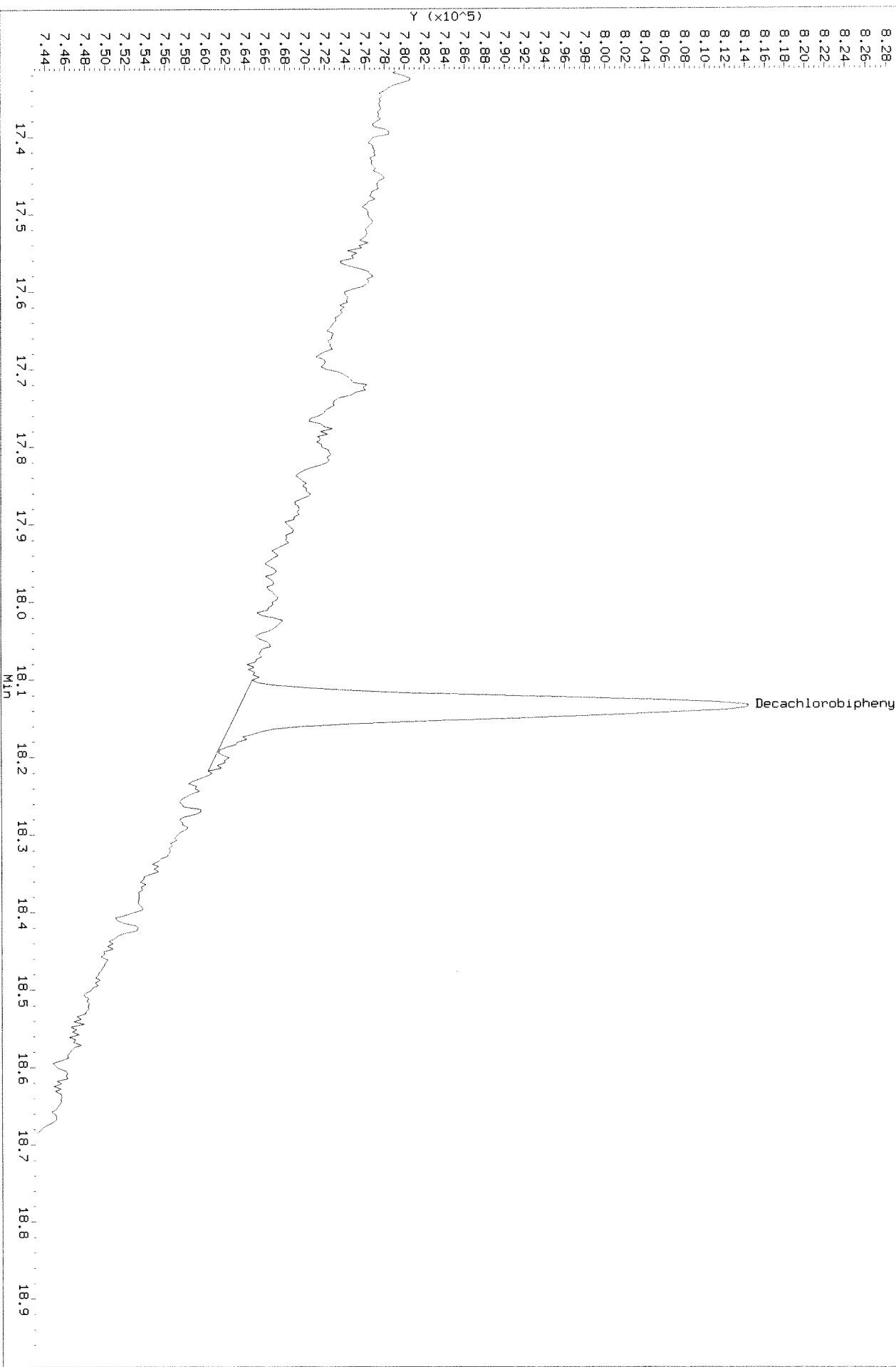
After baseline/shoulder 9/11/19 SA



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.r.b\0904F006.D
Injection Date: 04-SEP-2019 19:04
Instrument: GC27.1
Client Sample ID:

Refer

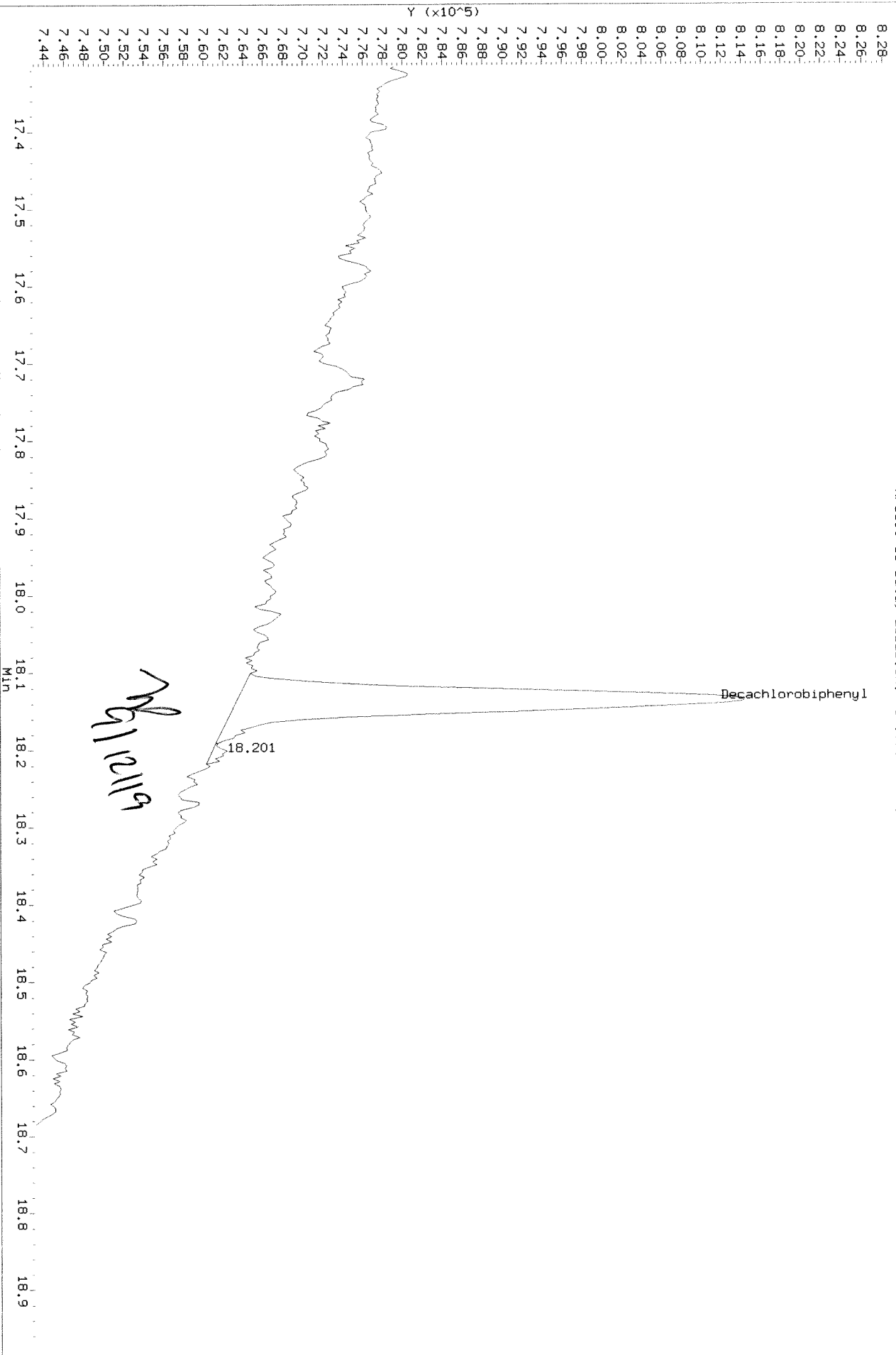
HP6890 GC Data, ECD2B.CH: 17.315 to 18.967 Min



Data File: \\alklsws002\instdata\GC27\Data\090419ICL_r.b\0904F006.D
Injection Date: 04-SEP-2019 19:04
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 17.315 to 18.967 Min

After shoulder 9/11/19 A



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F007.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F007.D
 Inj Date : 04-SEP-2019 19:35
 Sample Info: PCB8-12M 1660 @ 0.5-5 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 1660.SUB
 Sub List #2 : 1660.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.968	8.438	871553	427056	0.484	0.514		100.00
Aroclor 1016	8.058	9.171	162681	69188	4.77	4.59	80.00- 120.00	100.00 (M)
	9.304	9.918	134537	105330	4.80	4.77	66.06- 99.09	82.70 (M)
	9.748	11.068	418990	118320	4.82	4.91	210.14- 315.22	257.55 (M)
	9.931	11.518	262724	84122	5.12	4.72	122.22- 183.34	161.50 (M)
	10.314	11.754	178085	81510	5.07	4.84	84.59- 126.89	109.47 (M)
	Average of Peak Amounts =				4.92	4.77		
Aroclor 1260	13.194	13.548	159357	70156	4.76	4.94	80.00- 120.00	100.00
	13.581	14.791	223328	112486	4.79	4.91	111.33- 167.00	140.14
	14.054	15.164	245847	114421	4.90	5.09	117.15- 175.73	154.27
	14.428	15.694	512869	248882	4.83	5.24	251.10- 376.65	321.84
	15.061	16.198	389635	153959	4.91	5.23	184.28- 276.42	244.50
	Average of Peak Amounts =				4.84	5.08		
Decachlorobiphenyl	16.858	18.138	551897	226714	0.506	0.508		100.00

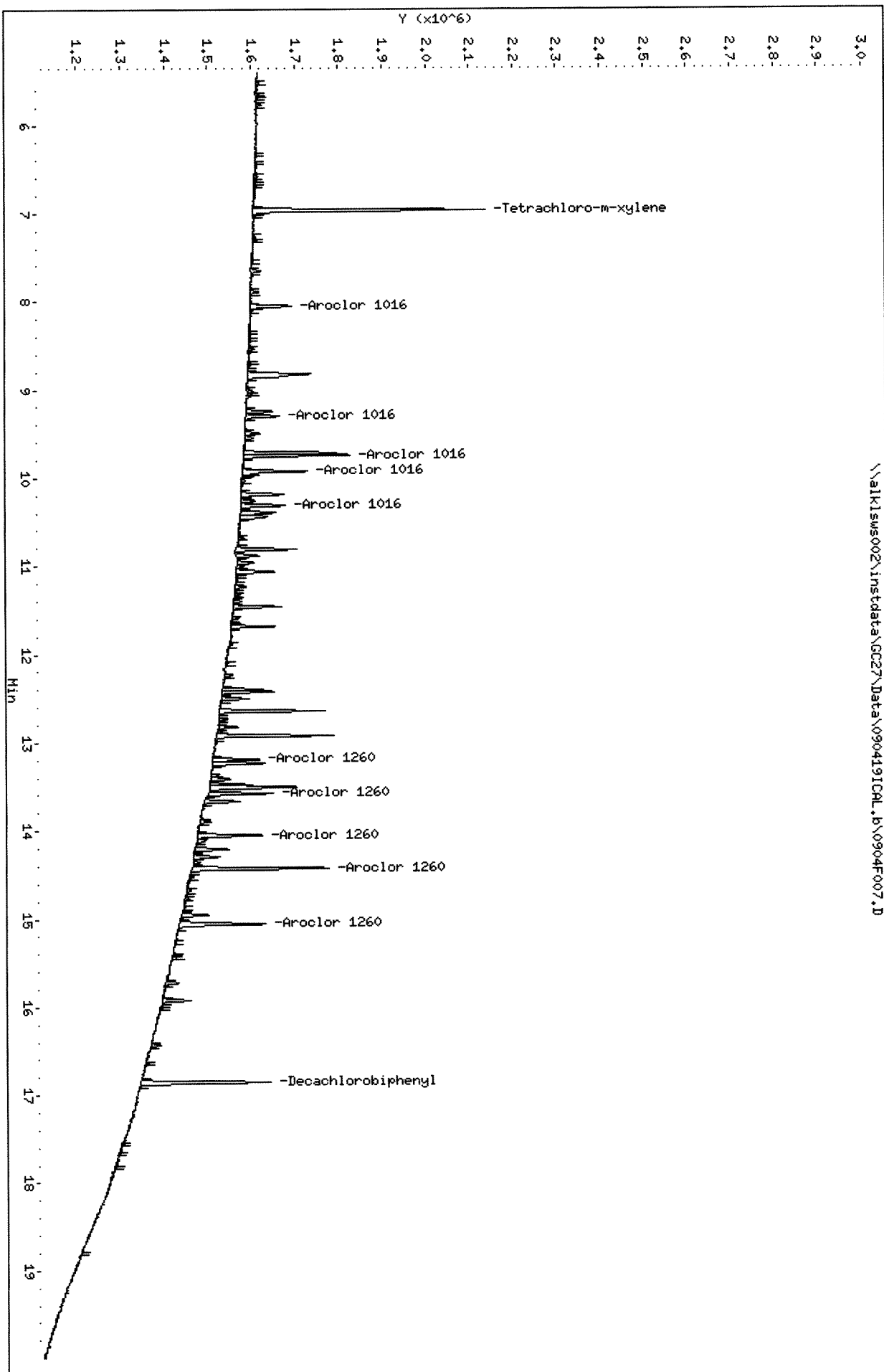
QC Flag Legend

M - Compound response manually integrated.

SAA 9/11/19
W

Data File: \\alkisus002\instdata\GC27\Data\090419ICAL.b\0904F007.D
Date: 04-SEP-2019 19:35
Client ID:
Sample Info: PCB8-12H 1660 @ 0.5-5 PPB
Column phase: DB-35MS

Instrument: GC27.1
Operator: SAA
Column diameter: 0.32



Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F007.D

Date: 04-SEP-2019 19:35

Client ID:

Sample Info: PCB8-12M 1660 @ 0.5-5 PPB

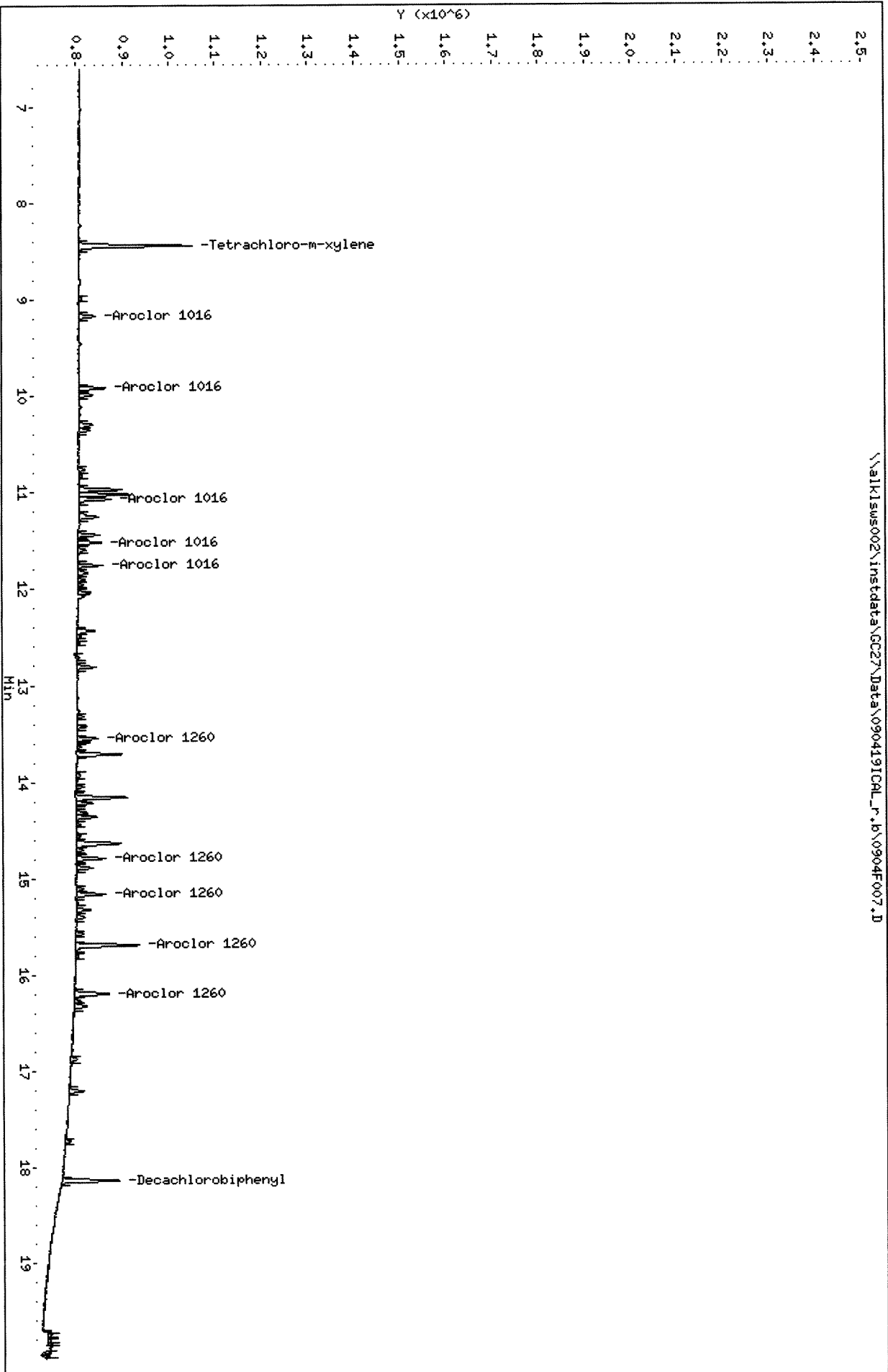
Column phase: DB-XLB

Instrument: GC27.1

Operator: SAA

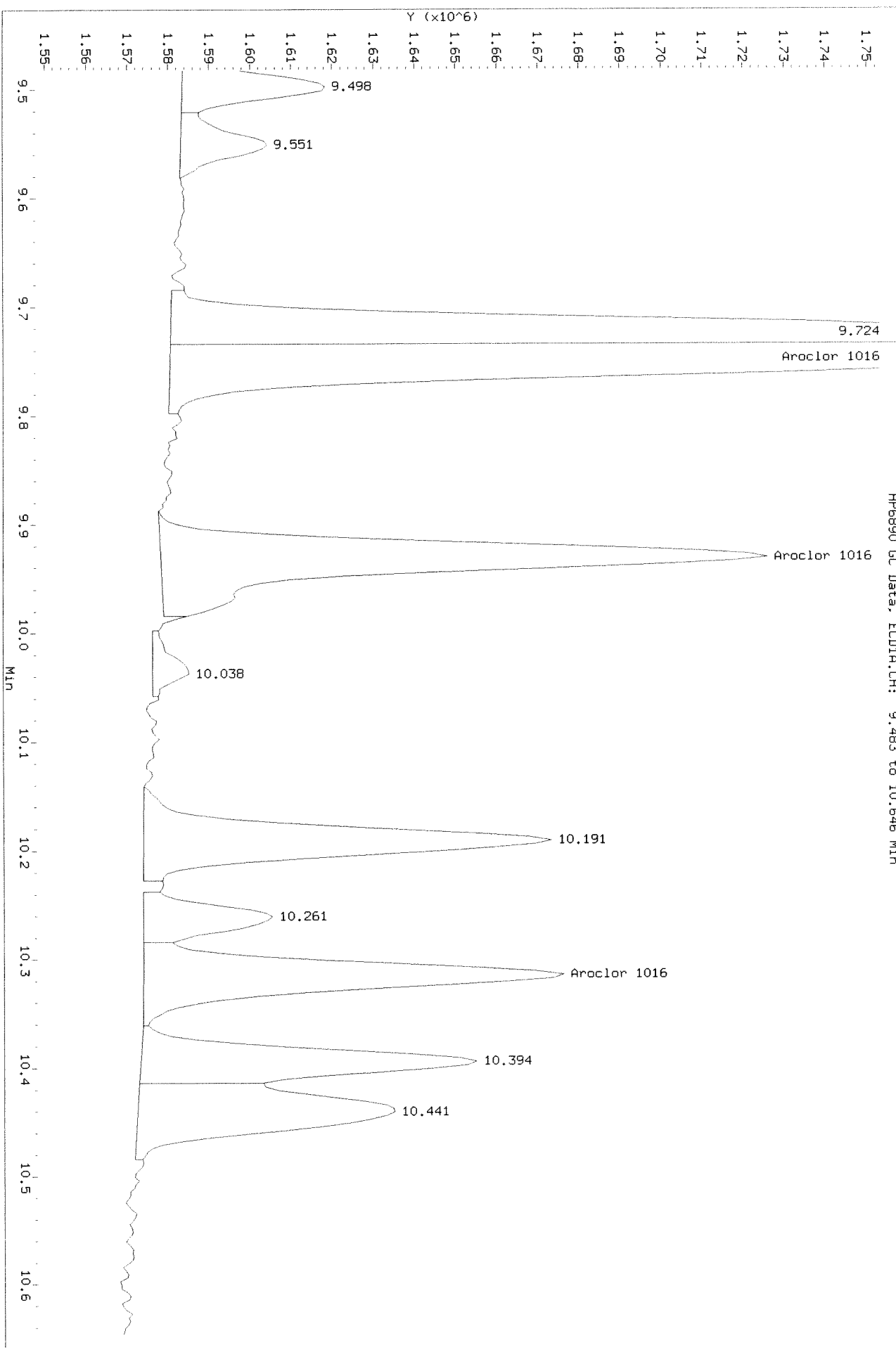
Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F007.D



Data File: \\alklsm002\instdata\GC27\Data\090419ICAL.b\0904F007.D
Injection Date: 04-SEP-2019 19:35
Instrument: GC27.1
Client Sample ID:

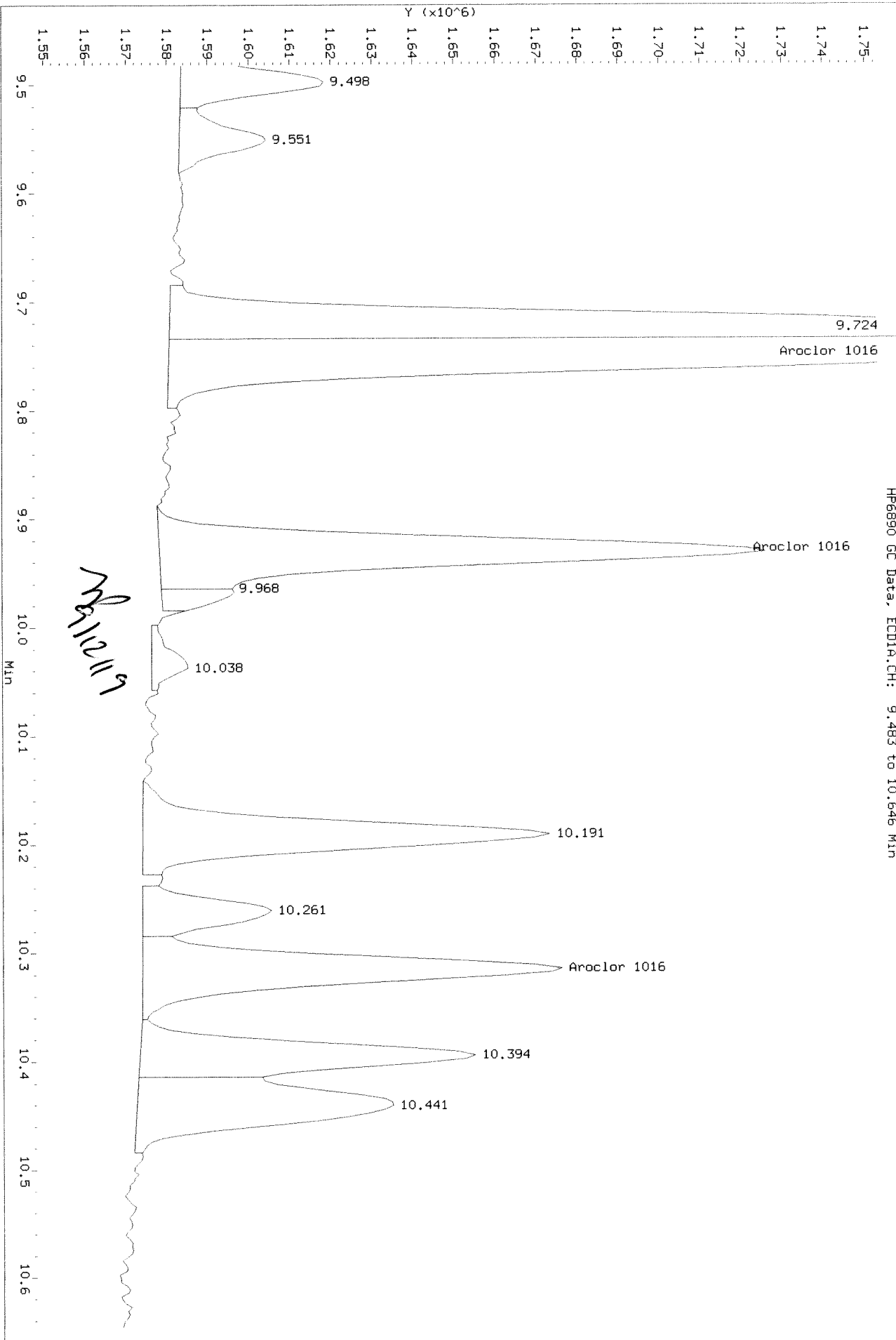
Before



Data File: \\alklms002\instdata\GC27\Data\090419ICM.L\0904F007.D
Injection Date: 04-SEP-2019 19:35
Instrument: GC27.1
Client Sample ID:

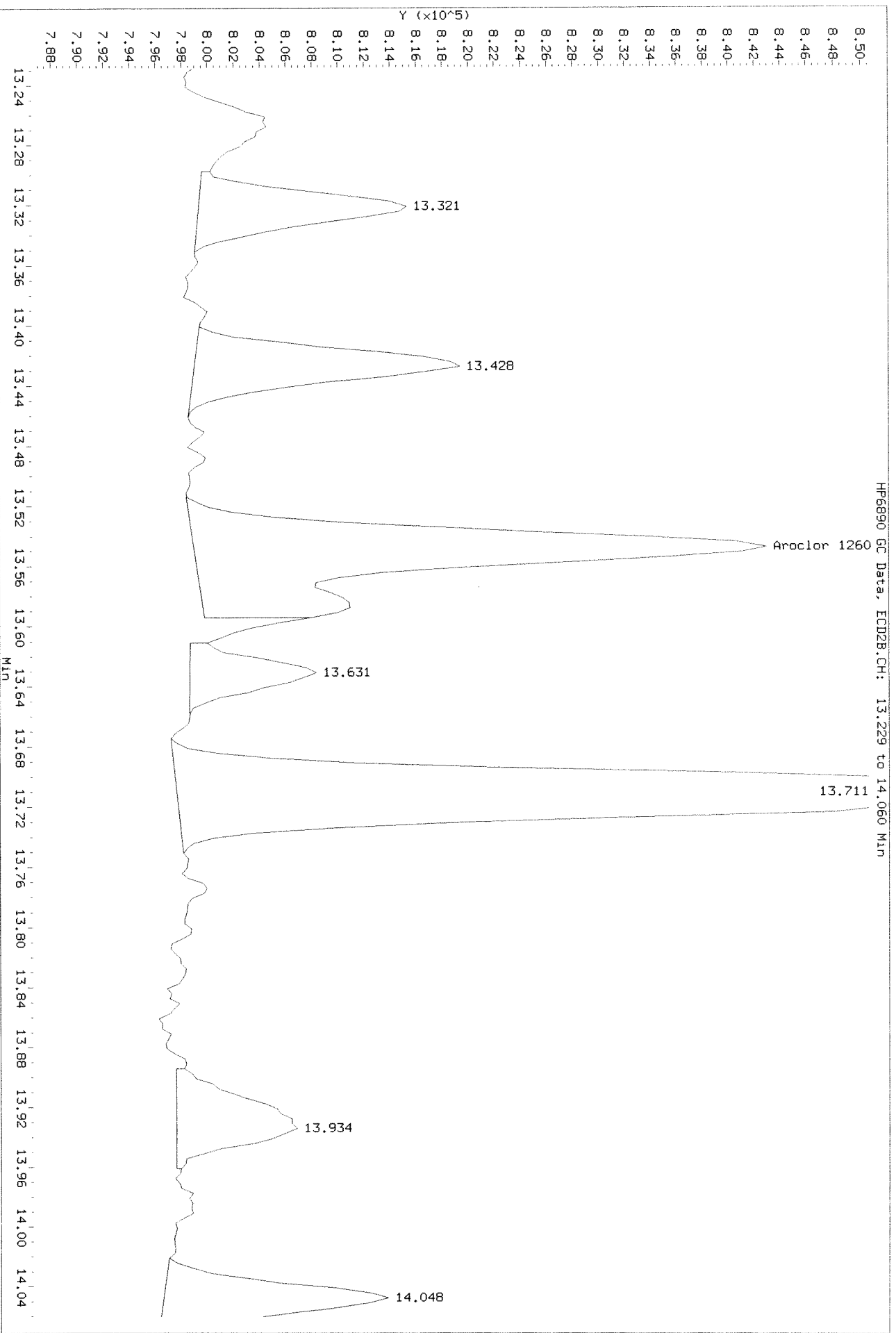
HP6890 GC Data, ECD1A.CH: 9.483 to 10.646 Min

After shoulder 9/11/19



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F007.D
Injection Date: 04-SEP-2019 19:35
Instrument: GC27.1
Client Sample ID:

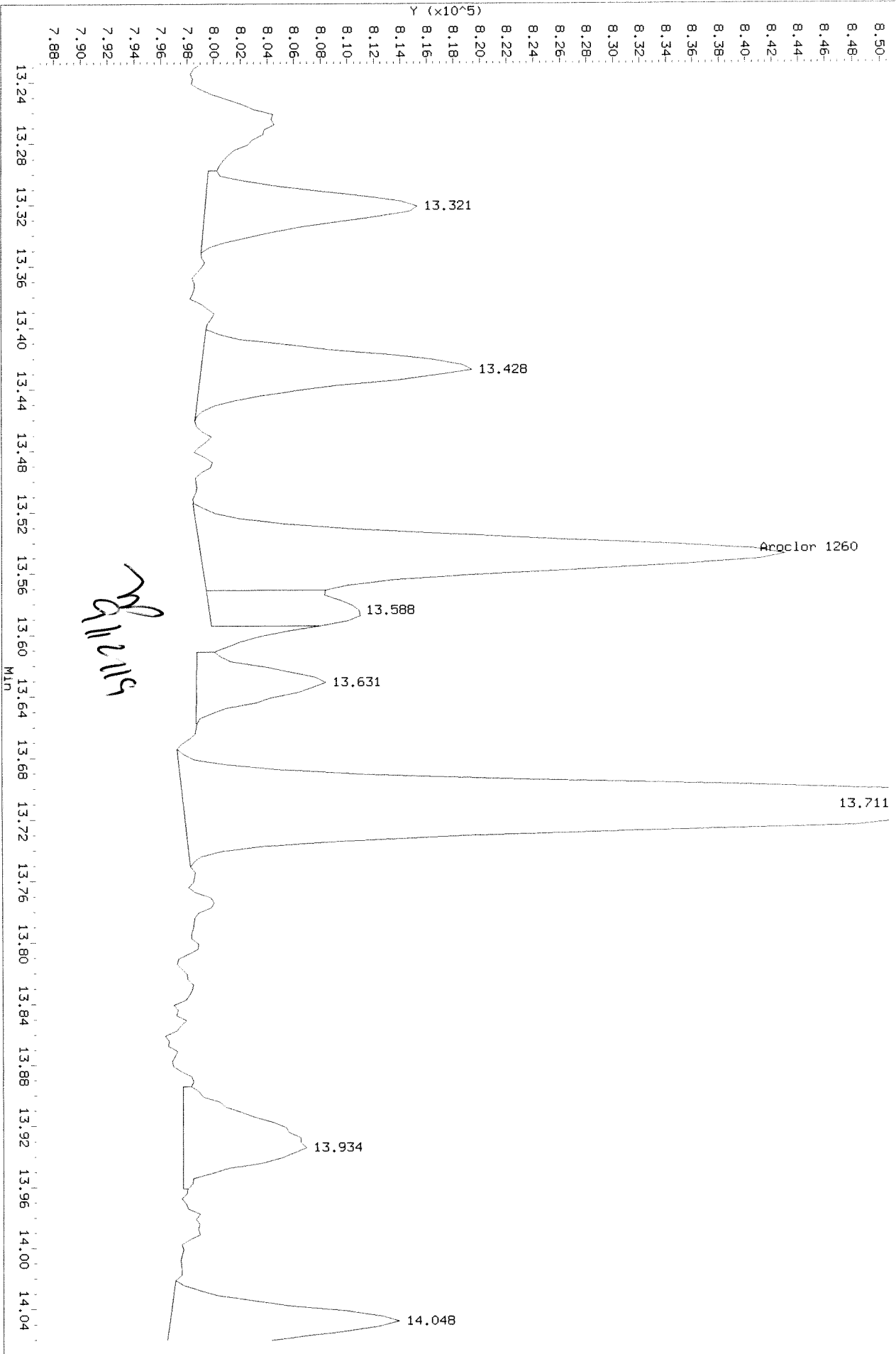
Refer



Data File: \\alkisw002\instdata\GC27\Data\090419ICL_r.b\0904F007.D
Injection Date: 04-SEP-2019 19:35
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 13.229 to 14.060 MIN

After should be 9/11/19 SA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F008.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F008.D
 Inj Date : 04-SEP-2019 20:07
 Sample Info: PCB8-12N 1660 @ 1-10 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 1660.SUB
 Sub List #2 : 1660.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.970	8.437	1788482	891940	0.993	1.07		100.00
Aroclor 1016	8.057	9.167	352429	146530	10.3	9.73	80.00- 120.00	100.00 (M)
	9.304	9.917	283357	228723	10.1	10.4	66.06- 99.09	80.40 (M)
	9.747	11.067	850350	258289	9.78	10.7	210.14- 315.22	241.28 (M)
	9.930	11.517	533581	177734	10.4	9.98	122.22- 183.34	151.40 (M)
	10.314	11.754	367268	174636	10.5	10.4	84.59- 126.89	104.21 (M)
	Average of Peak Amounts =				10.2	10.2		
Aroclor 1260	13.194	13.547	339434	151253	10.1	10.7	80.00- 120.00	100.00
	13.580	14.794	473199	227394	10.2	9.92	111.33- 167.00	139.41
	14.054	15.164	517253	231555	10.3	10.3	117.15- 175.73	152.39
	14.427	15.694	1074187	502884	10.1	10.6	251.10- 376.65	316.46
	15.060	16.194	810326	322776	10.2	11.0	184.28- 276.42	238.73
	Average of Peak Amounts =				10.2	10.5		
Decachlorobiphenyl	16.857	18.137	1109360	483785	1.02	1.08		100.00

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
 TX

Data File: \\aik1s02\instdata\GC27\Data\090419ICL.b\0904F008.D

Date: 04-SEP-2019 20:07

Client ID:

Sample Info: PCB8-12N 1660 @ 1-10 PPB

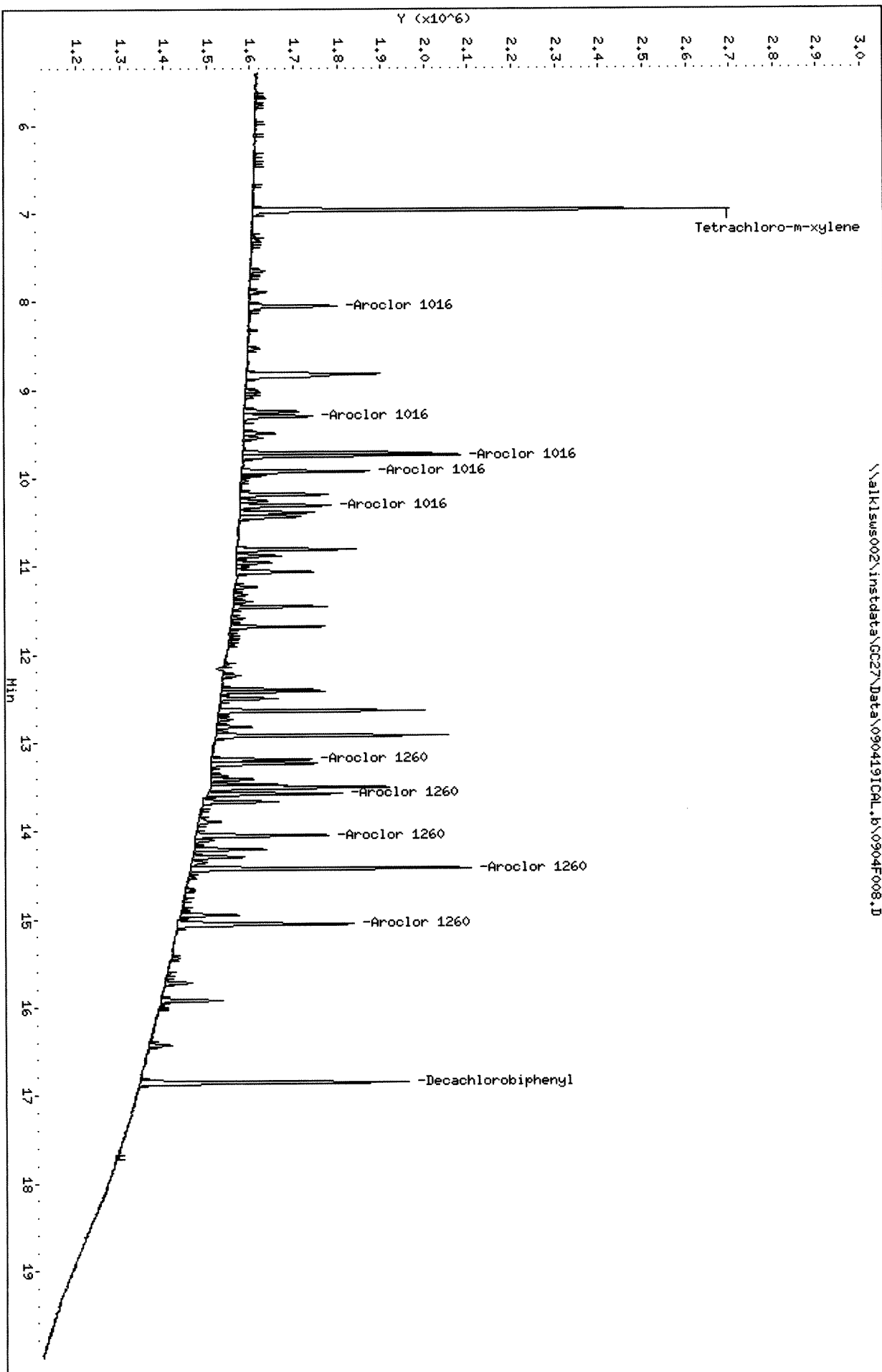
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

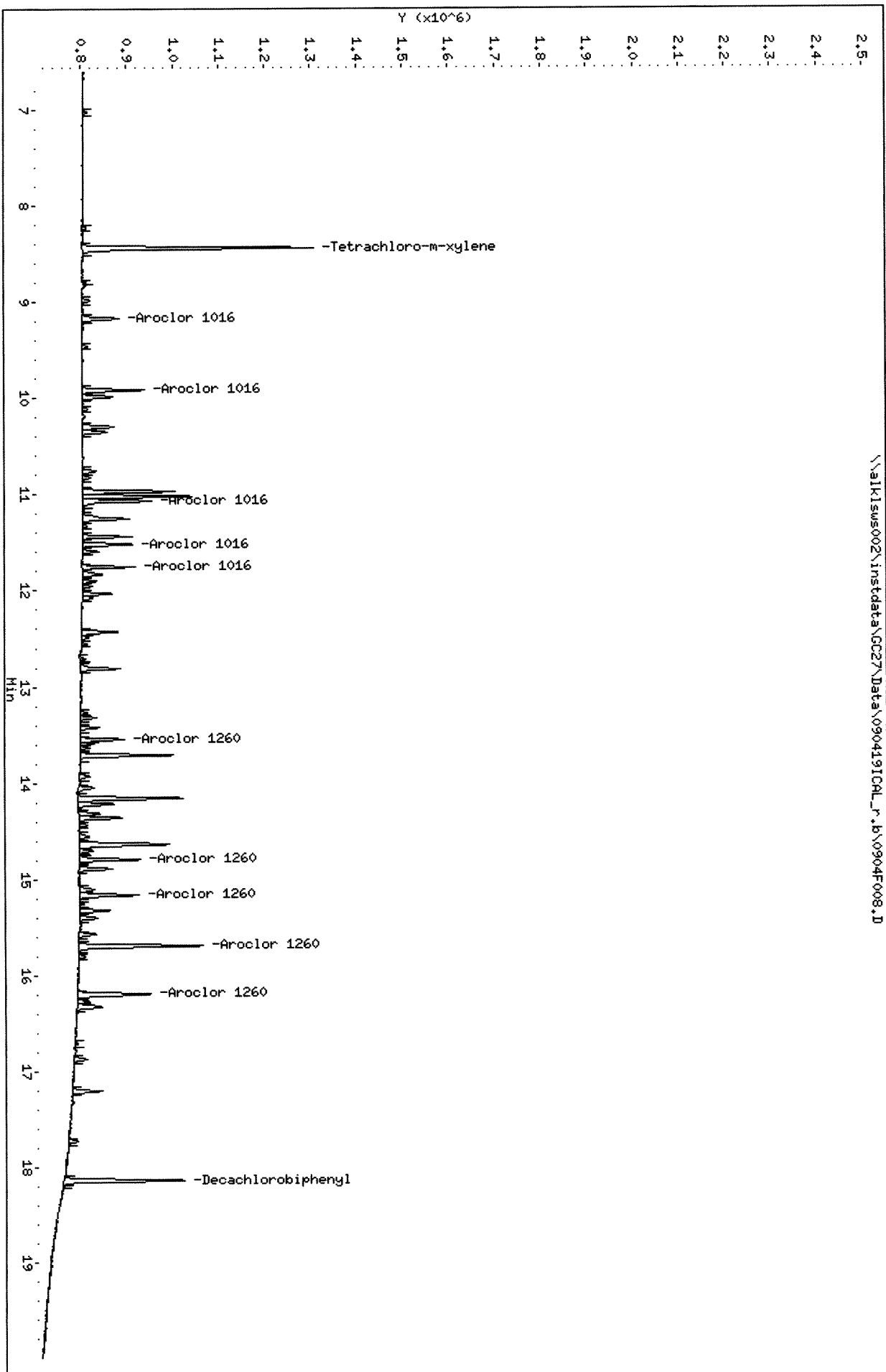
\\aik1s02\instdata\GC27\Data\090419ICL.b\0904F008.D



Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F008.D
Date: 04-SEP-2019 20:07
Client ID:
Sample Info: PCB8-12N 1660 @ 1-10 PPB
Column phase: DB-XLB

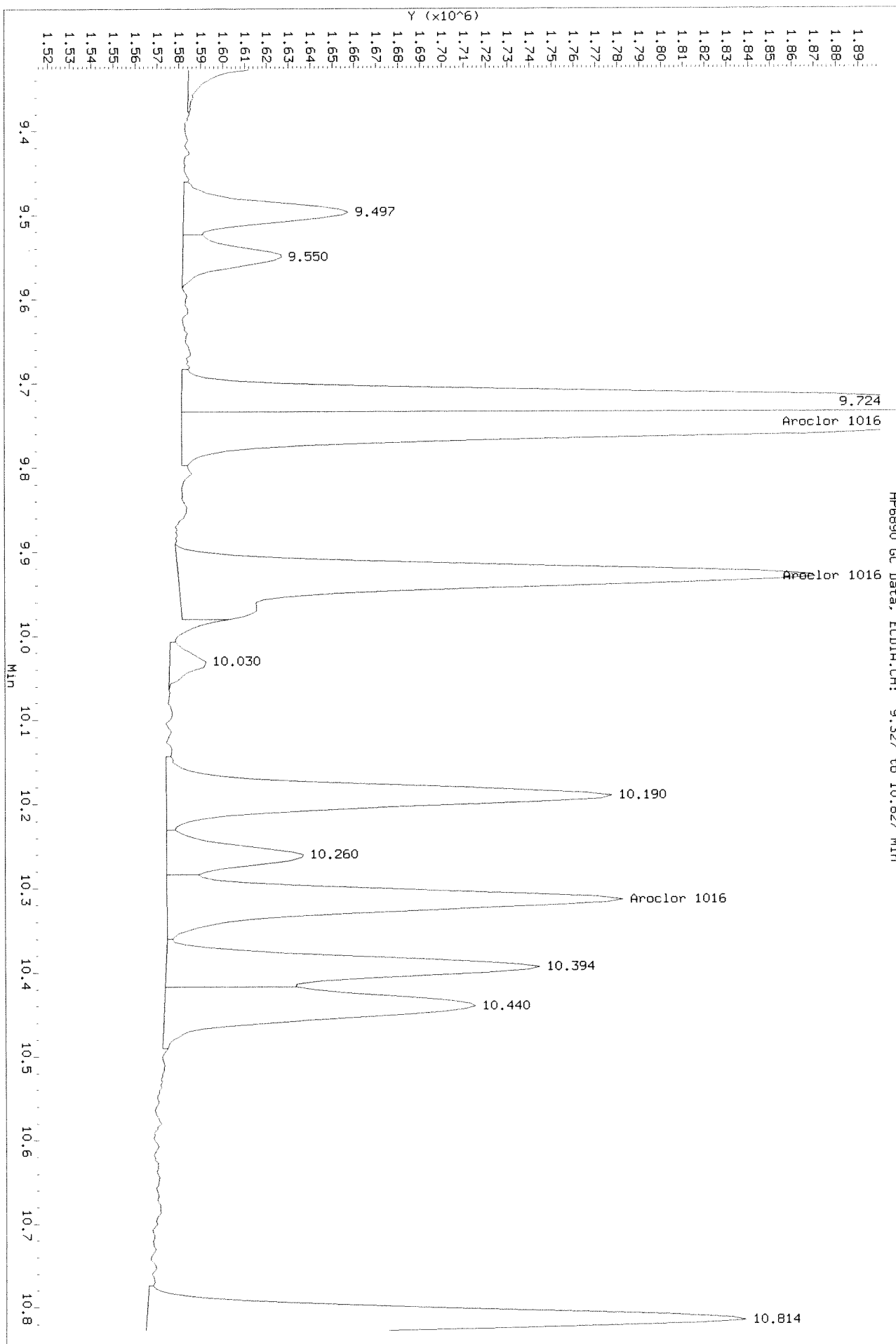
Instrument: GC27.i
Operator: SAA
Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F008.D



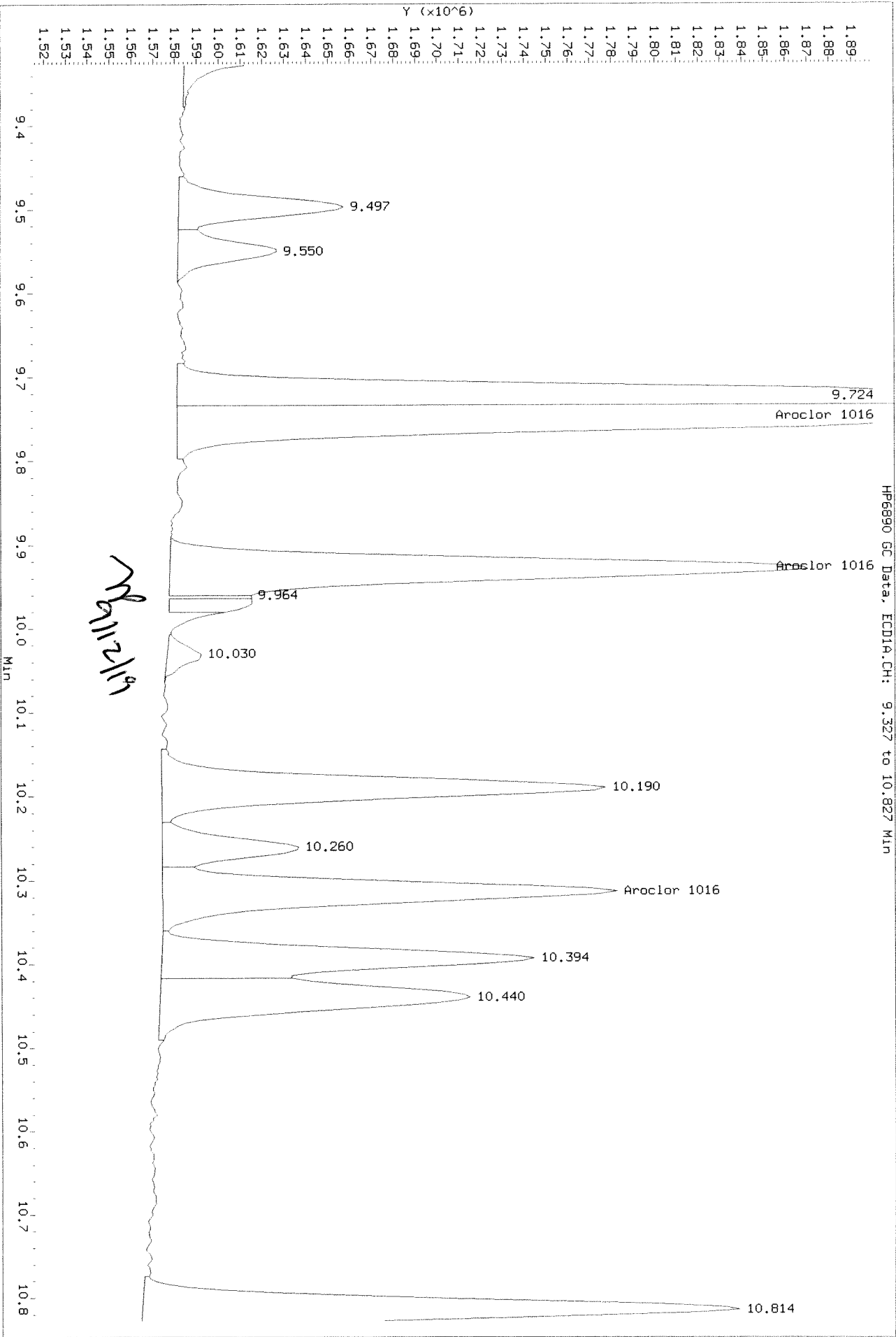
Data File: \\alkjsws002\instdata\GC27\Data\090419ICAL.b\0904F008.D
Injection Date: 04-SEP-2019 20:07
Instrument: GC27.1
Client Sample ID:

Refer



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F008.D
Injection Date: 04-SEP-2019 20:07
Instrument: GC27.1
Client Sample ID:

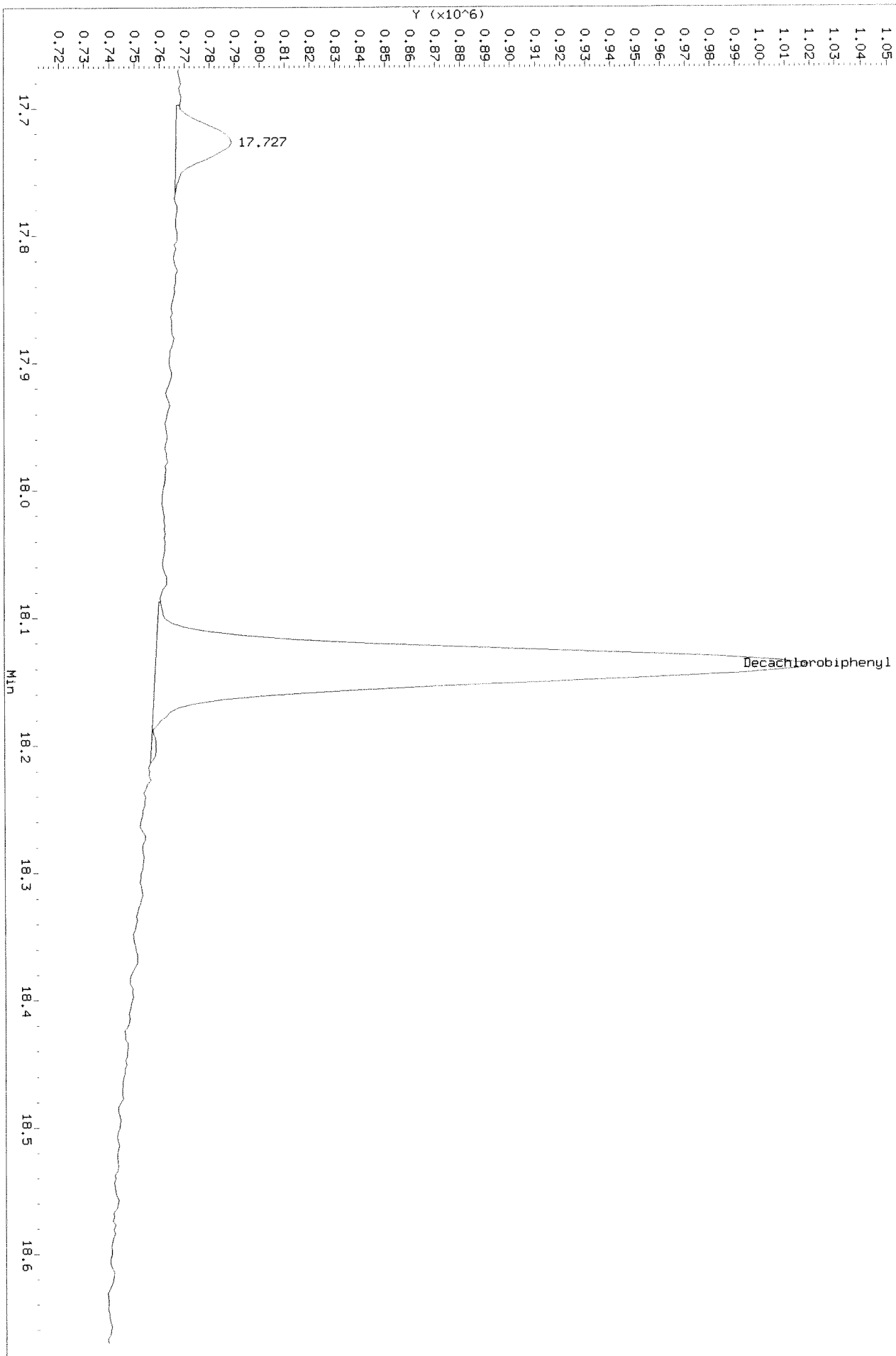
After Shaulker 9/11/19



Data File: \\alklsws002\instdata\GC27\Data\090419ICALL_r.b\0904F008.D
Injection Date: 04-SEP-2019 20:07
Instrument: GC27.1
Client Sample ID:

Before

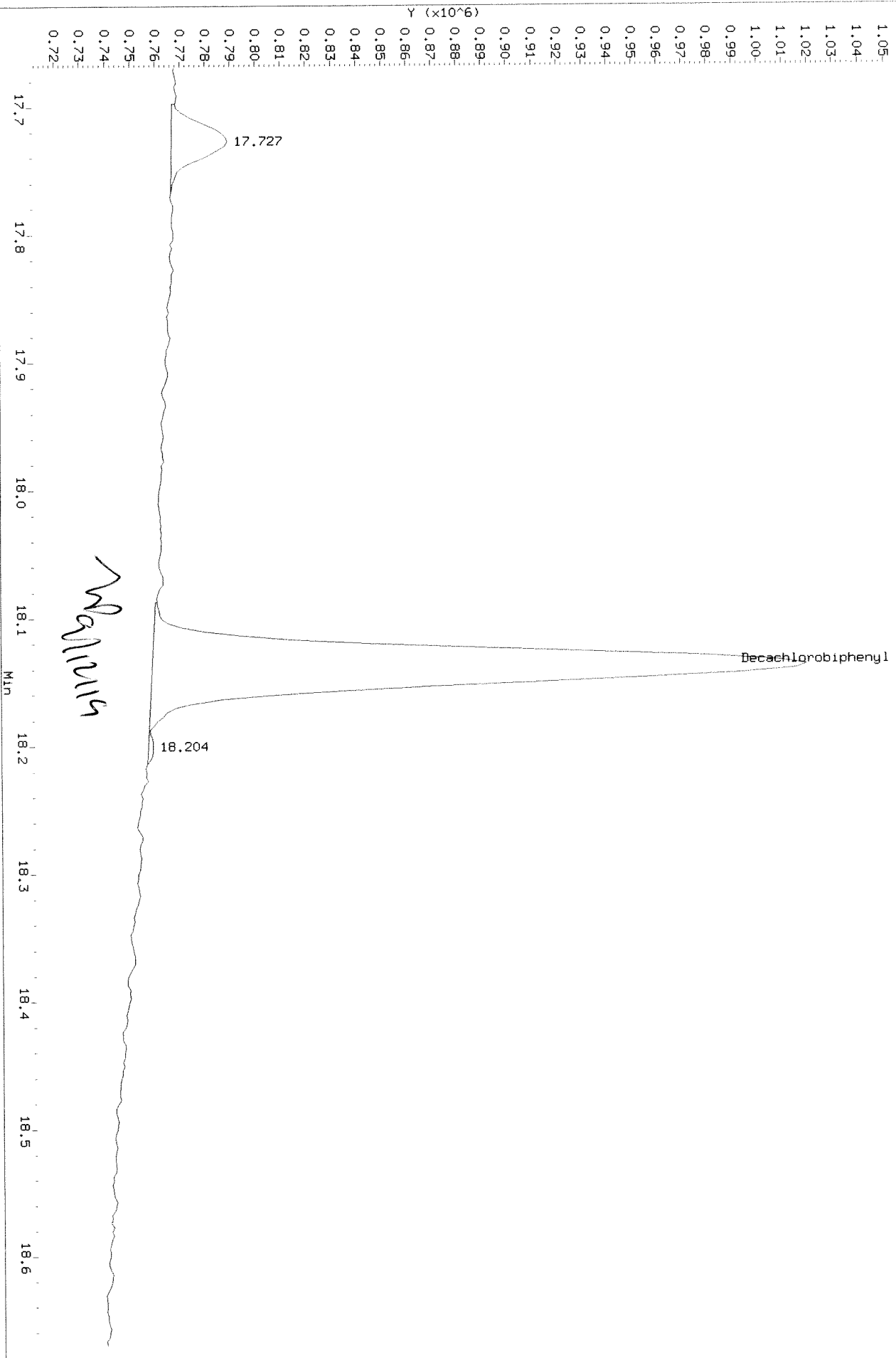
HP6890 GC Data, ECD2B.CH: 17.669 to 18.670 MIN



Data File: \\alk1sww002\instdata\GC27\Data\090419ICL_r.b\0904F008.D
Injection Date: 04-SEP-2019 20:07
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 17.669 to 18.670 MIN

After Shoulder 9/11/19 SA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F009.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F009.D
 Inj Date : 04-SEP-2019 20:39
 Sample Info: PCB7-91B 1660 @ 2-20 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 1660.SUB
 Sub List #2 : 1660.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.969	8.436	3717520	1802829	2.06	2.17		100.00
Aroclor 1016	8.056	9.166	714691	332767	20.9	22.1	80.00- 120.00	100.00 (M)
	9.306	9.916	585721	488572	20.9	22.1	66.06- 99.09	81.95 (M)
	9.749	11.066	1800343	544729	20.7	22.6	210.14- 315.22	251.91 (M)
	9.929	11.516	1097854	387672	21.4	21.8	122.22- 183.34	153.61 (M)
	10.316	11.753	751336	371543	21.4	22.1	84.59- 126.89	105.13 (M)
	Average of Peak Amounts =				21.1	22.1		
Aroclor 1260	13.196	13.546	698763	315400	20.9	22.2	80.00- 120.00	100.00 (M)
	13.583	14.793	1004858	467119	21.6	20.4	111.33- 167.00	143.81 (M)
	14.053	15.163	1054649	471379	21.0	21.0	117.15- 175.73	150.93 (M)
	14.429	15.693	2201022	1008384	20.7	21.2	251.10- 376.65	314.99 (M)
	15.059	16.196	1625528	659897	20.5	22.4	184.28- 276.42	232.63 (M)
	Average of Peak Amounts =				20.9	21.4		
Decachlorobiphenyl	16.859	18.136	2272969	991682	2.09	2.22		100.00

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
MP

Data File: \\alkisw002\instdata\GC27\Data\090419ICL.b\0904F009.D

Date : 04-SEP-2019 20:39

Client ID:

Sample Info: PCB7-91B 1660 @ 2-20 PPB

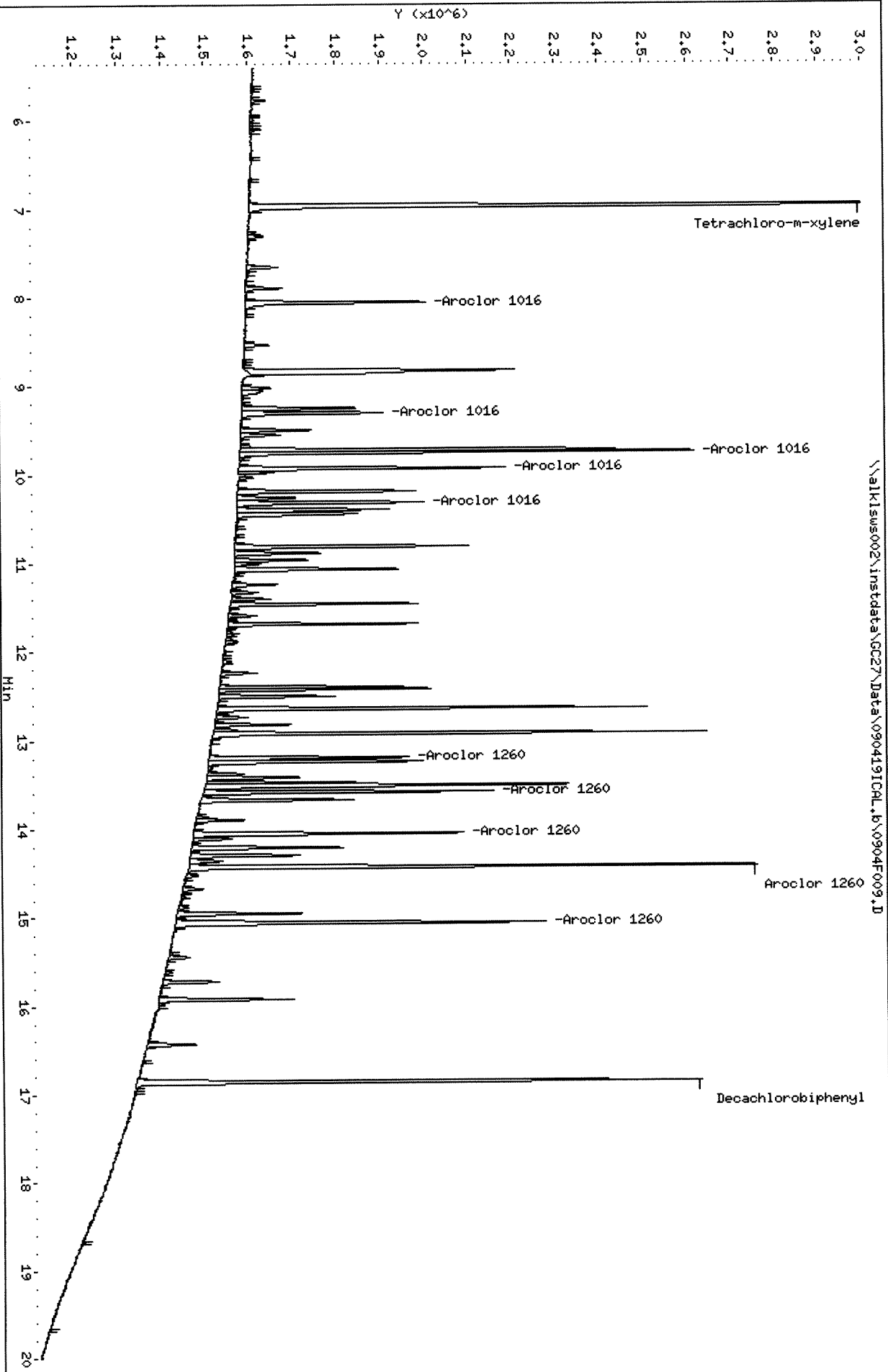
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alkisw002\instdata\GC27\Data\090419ICL.b\0904F009.D



Data File: \\AIK1sus002\instdata\GC27\Data\090419ICAL_r.b\0904f009.D

Date : 04-SEP-2019 20:39

Client ID:

Sample Info: PCB7-91B 1660 @ 2-20 PPB

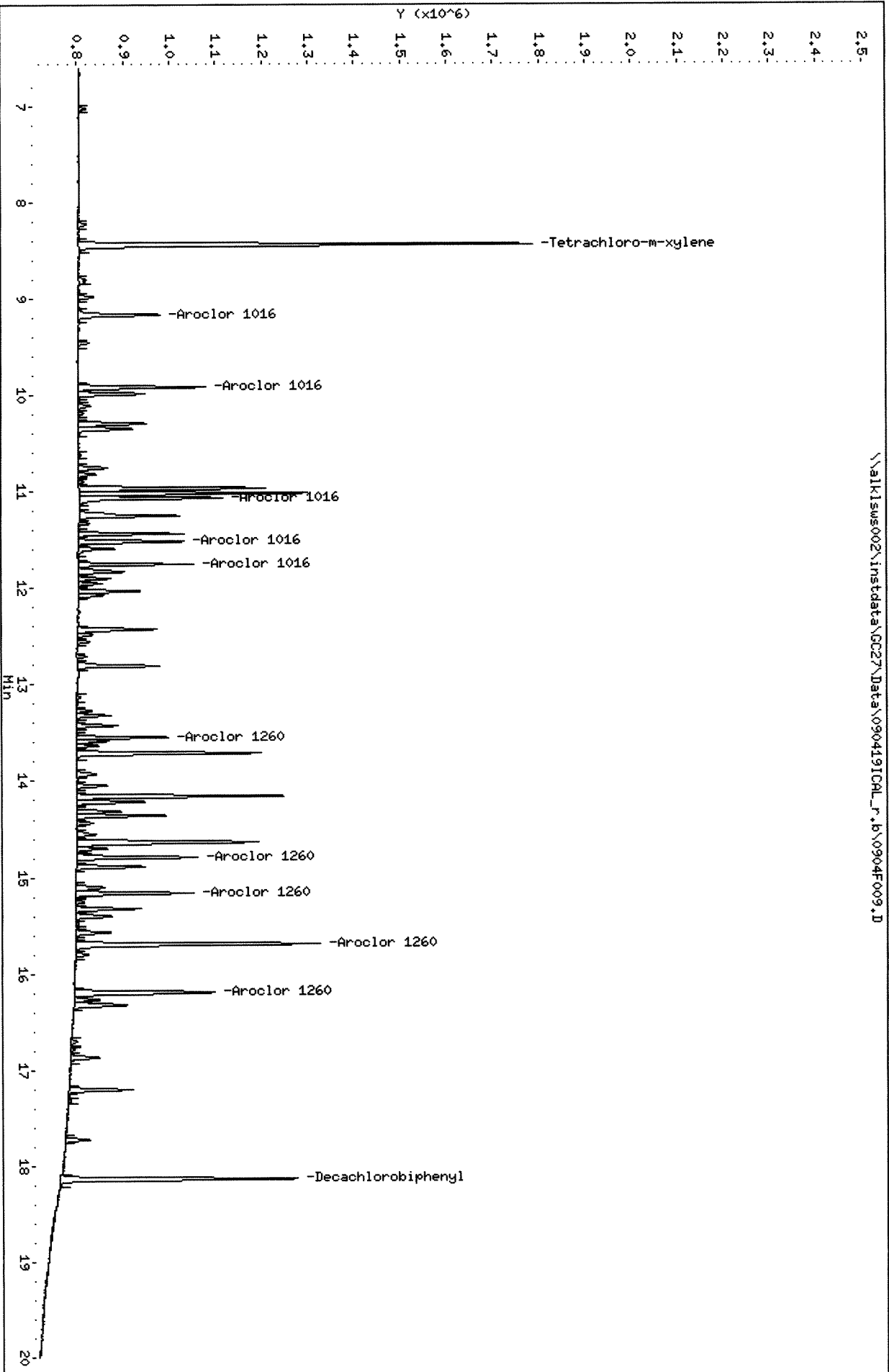
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

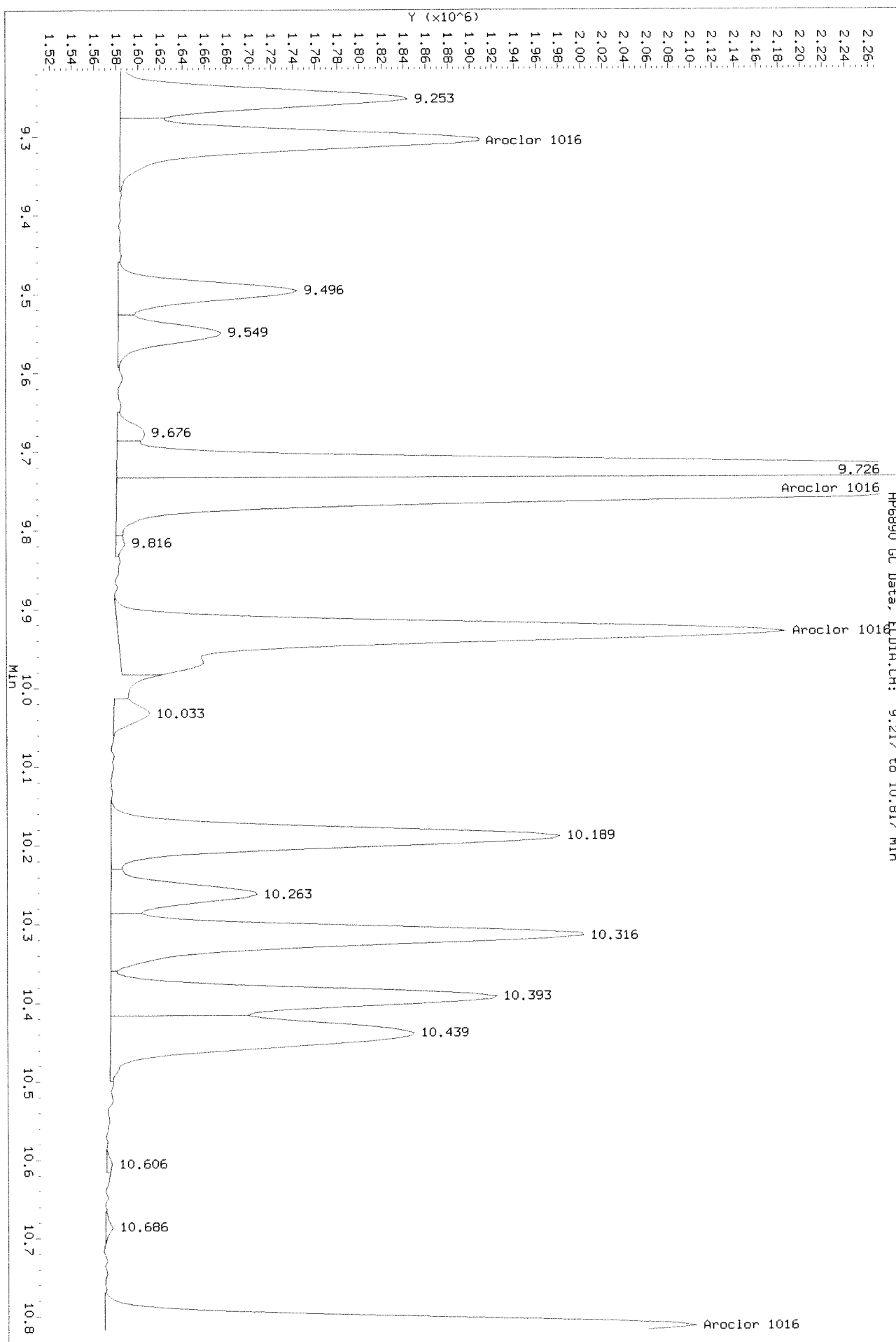
Column diameter: 0.32

\\AIK1sus002\instdata\GC27\Data\090419ICAL_r.b\0904f009.D



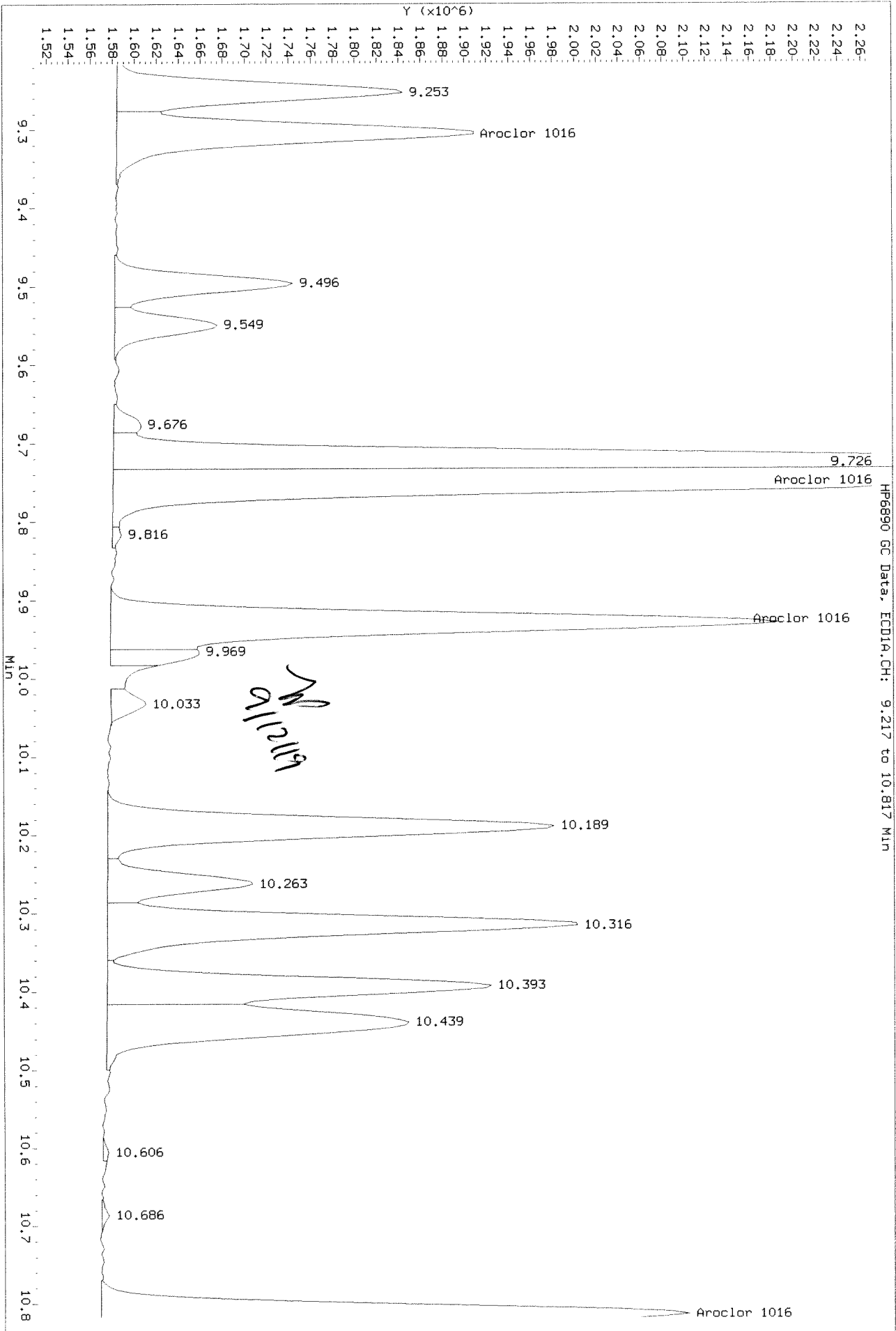
Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F009.D
Injection Date: 04-SEP-2019 20:39
Instrument: GC27.1
Client Sample ID:

Refer



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F009.D
Injection Date: 04-SEP-2019 20:39
Instrument: GC27.1
Client Sample ID:

After shoulder 9/11/19 ST



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F010.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F010.D
 Inj Date : 04-SEP-2019 21:10
 Sample Info: PCB7-91C 1660 @ 5-50 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 1660.SUB
 Sub List #2 : 1660.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.969	8.435	8896188	4021888	4.94	4.84		100.00
Aroclor 1016	8.055	9.165	1646734	792222	48.3	52.6	80.00- 120.00	100.00
	9.305	9.915	1375755	1122809	49.1	50.8	66.06- 99.09	83.54
	9.749	11.065	4311819	1271332	49.6	52.7	210.14- 315.22	261.84
	9.929	11.515	2549815	896272	49.7	50.3	122.22- 183.34	154.84
	10.315	11.752	1753417	860990	49.9	51.1	84.59- 126.89	106.48
	Average of Peak Amounts =				49.3	51.5		
Aroclor 1260	13.195	13.549	1645507	756220	49.1	53.3	80.00- 120.00	100.00
	13.582	14.792	2367135	1062267	50.8	46.3	111.33- 167.00	143.85
	14.052	15.162	2480383	1077657	49.5	47.9	117.15- 175.73	150.74
	14.429	15.692	5154268	2212493	48.6	46.6	251.10- 376.65	313.23
	15.059	16.195	3847249	1475984	48.5	50.1	184.28- 276.42	233.80
	Average of Peak Amounts =				49.3	48.8		
Decachlorobiphenyl	16.855	18.135	5225592	2155257	4.79	4.83		100.00

SA 9/11/19
 JP

Data File: \\alkisw002\instdata\GC27\Data\090419ICL.b\0904F010.D

Date: 04-SEP-2019 21:10

Client ID:

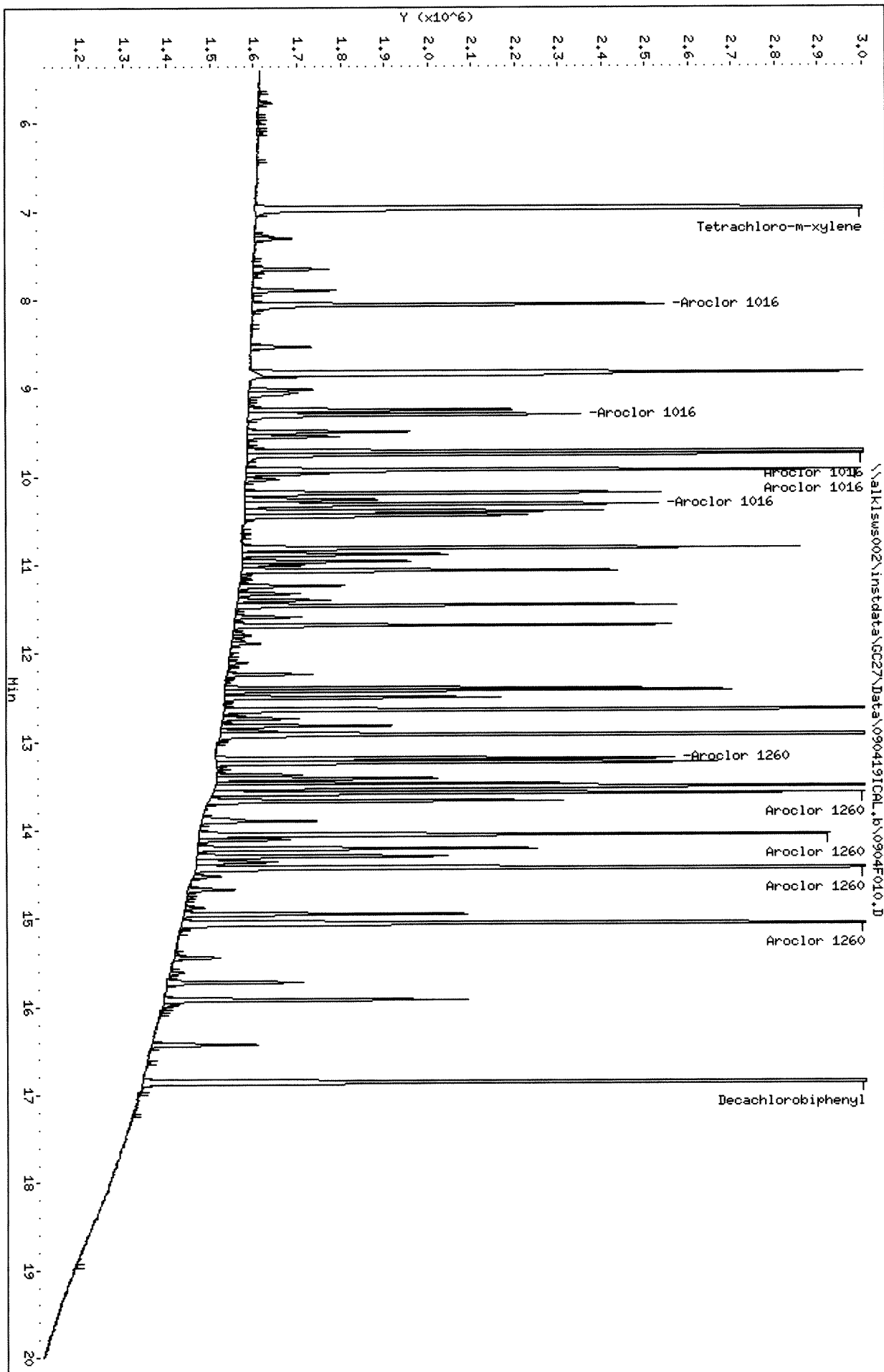
Sample Info: PCB7-91C 1660 @ 5-50 PPB

Column phase: DB-35MS

Instrument: GC27.i

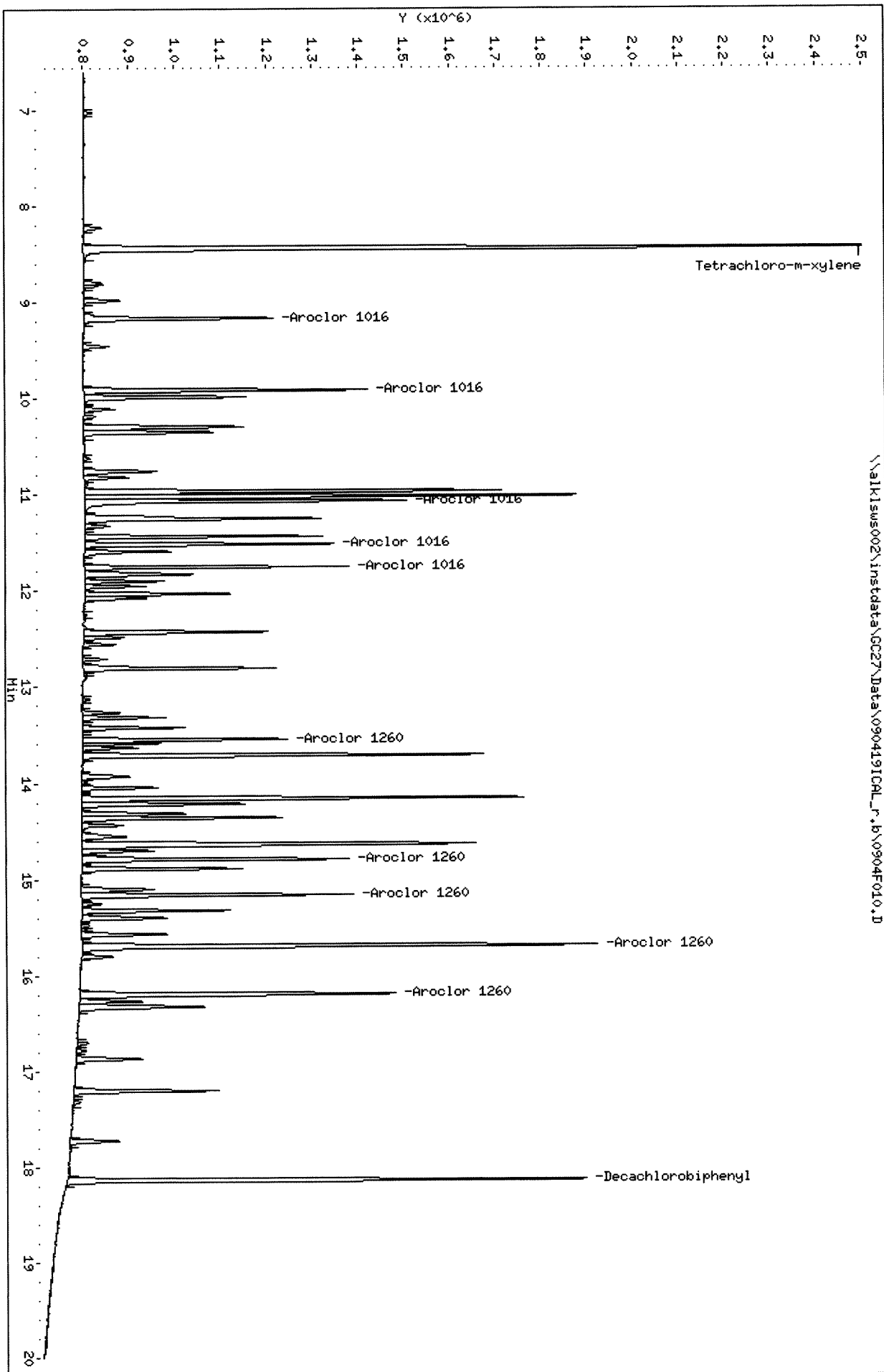
Operator: SAA

Column diameter: 0.32



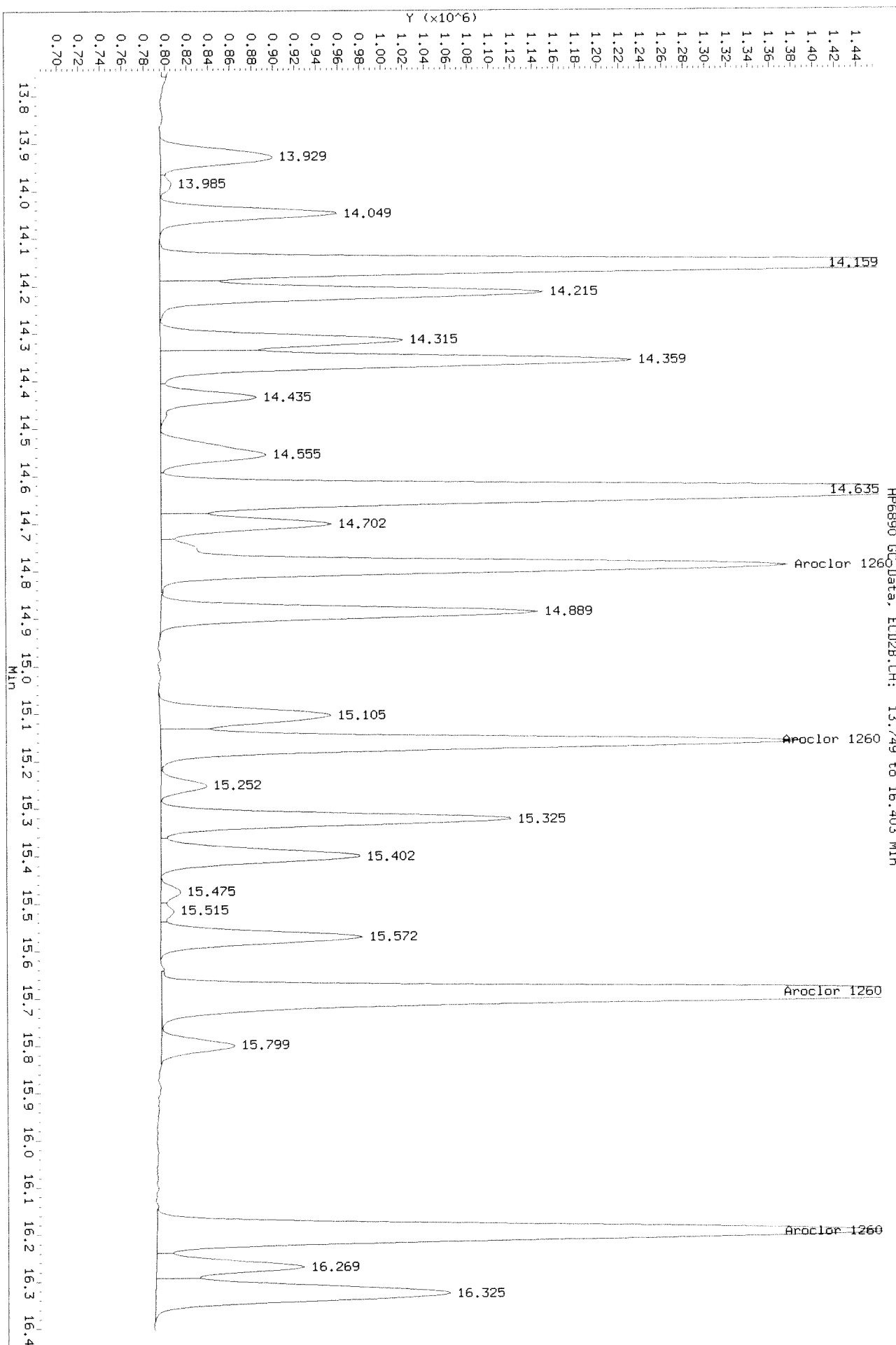
Data File: \\alkisws002\instdata\GC27\Data\090419ICAL_r.b\0904F010.D
Date: 04-SEP-2019 21:10
Client ID:
Sample Info: PCB7-91C 1660 e 5-50 PPB
Column phase: DB-XLB

Instrument: GC27.i
Operator: SMA
Column diameter: 0.32



Data File: \\alk1swws002\instdata\GC27\Data\090419ICALL_r.b\0904F010.D
Injection Date: 04-SEP-2019 21:10
Instrument: GC27.1
Client Sample ID:

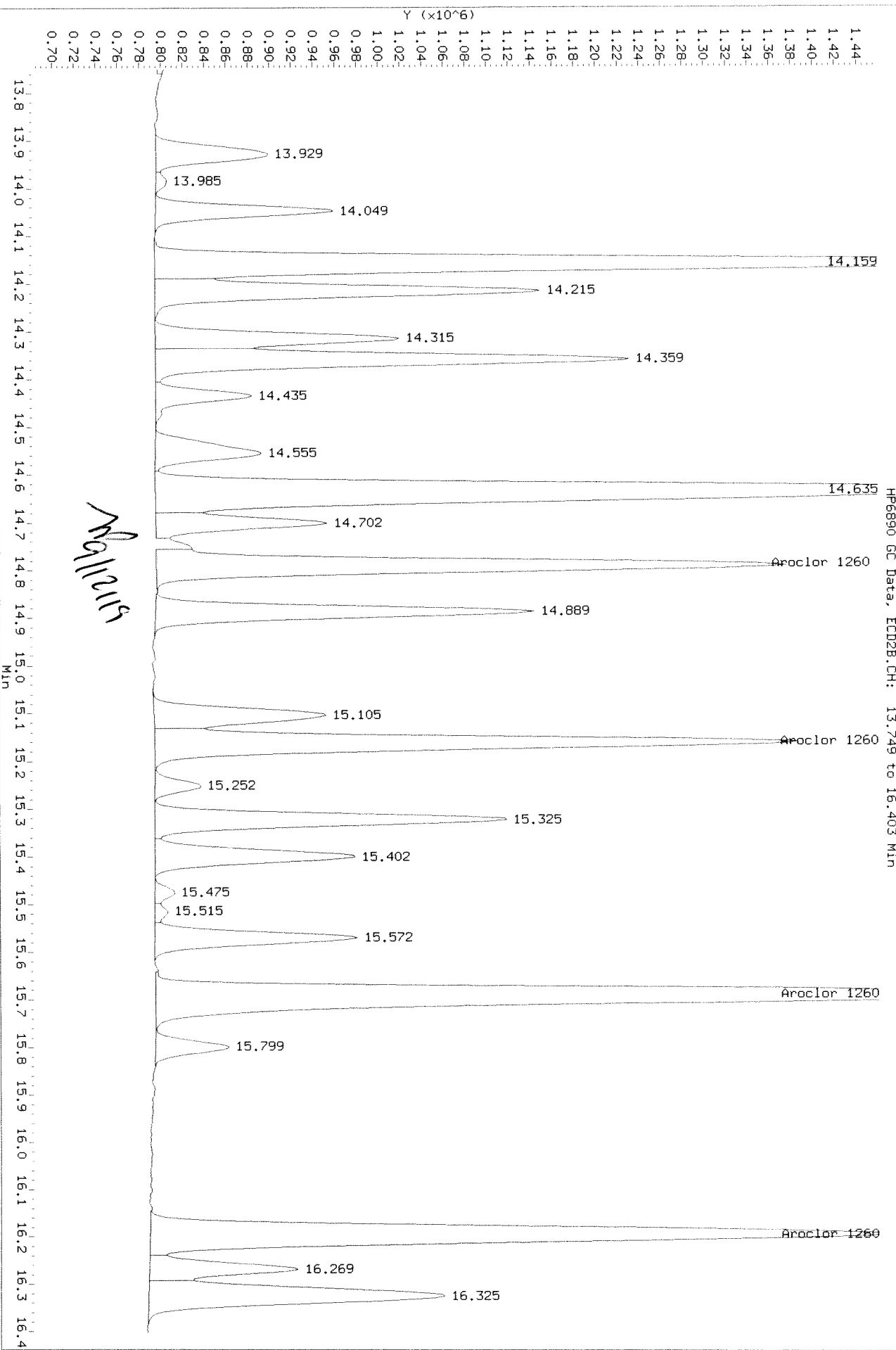
Refer



Data File: \\alk1swe002\instdata\GC27\Data\090419ICAL_r.b\0904F010.D
Injection Date: 04-SEP-2019 21:10
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 13.749 to 16.403 MIN

After shoulder 9/11/19 SA




ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F011.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F011.D
 Inj Date : 04-SEP-2019 21:42
 Sample Info: PCB7-91D 1660 @ 10-100 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 1660.SUB
 Sub List #2 : 1660.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.968	8.435	17360995	7528908	9.64	9.06		100.00
Aroclor 1016	8.054	9.165	3135184	1499817	91.9	99.6	80.00- 120.00	100.00
	9.301	9.915	2612611	2056550	93.3	93.1	66.06- 99.09	83.33
	9.748	11.065	8005581	2302843	92.1	95.5	210.14- 315.22	255.35
	9.928	11.515	4755316	1649457	92.7	92.6	122.22- 183.34	151.68
	10.314	11.751	3321662	1587142	94.5	94.2	84.59- 126.89	105.95
	Average of Peak Amounts =				92.9	95.0		
Aroclor 1260	13.194	13.545	3199075	1374717	95.5	96.8	80.00- 120.00	100.00
	13.578	14.791	4489559	1920441	96.3	83.7	111.33- 167.00	140.34
	14.051	15.161	4726617	1949941	94.2	86.7	117.15- 175.73	147.75
	14.424	15.691	9920670	3956077	93.5	83.2	251.10- 376.65	310.11
	15.058	16.191	7348705	2671256	92.6	90.7	184.28- 276.42	229.71
	Average of Peak Amounts =				94.4	88.2		
Decachlorobiphenyl	16.858	18.135	9835921	3889522	9.02	8.71		100.00

SA 9/11/19


Data File: \\aik1s002\instdata\GC27\Data\090419ICL.b\0904F011.D

Date: 04-SEP-2019 21:42

Client ID:

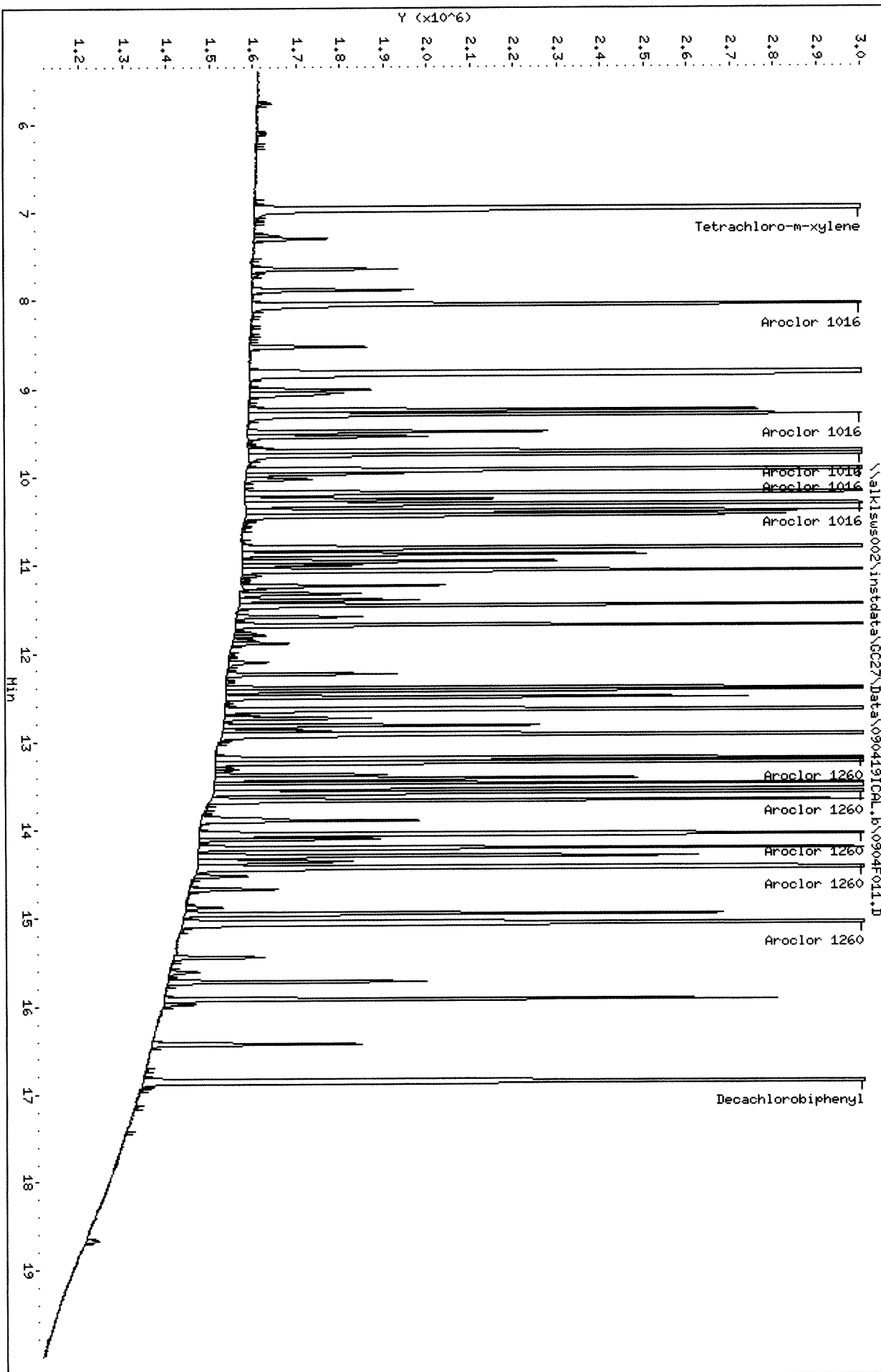
Sample Info: PCB7-91D 1660 @ 10-100 PPS

Column phase: DB-35MS

Instrument: GC27.1

Operator: SAA

Column diameter: 0.32



Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F011.D

Date: 04-SEP-2019 21:42

Client ID:

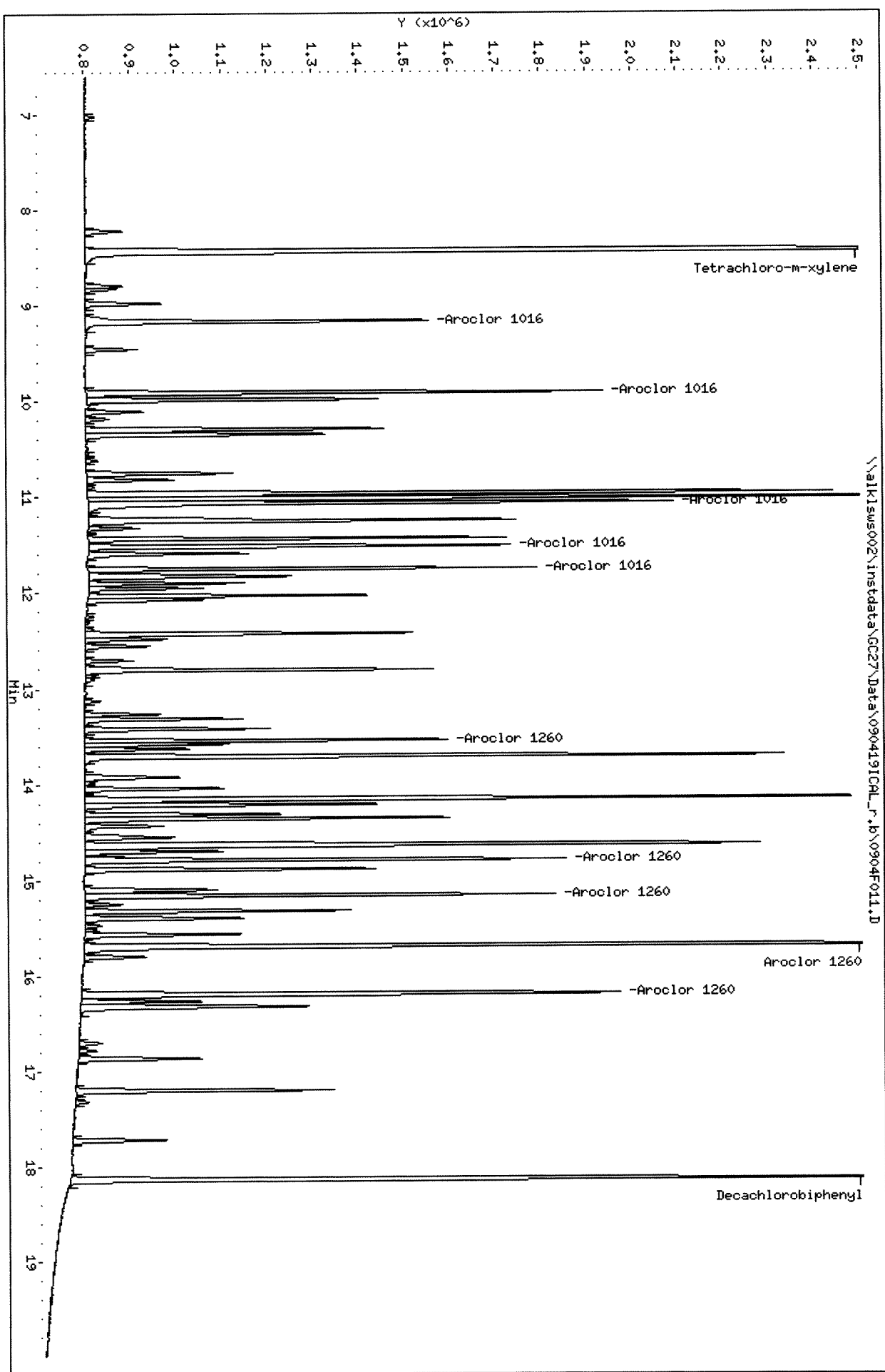
Sample Info: PCB7-91D 1660 @ 10-100 PPB

Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F012.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F012.D
 Inj Date : 04-SEP-2019 22:13
 Sample Info: PCB8-11K1660 @ 20-200 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 1660.SUB
 Sub List #2 : 1660.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.968	8.439	34732123	14794010	19.3	17.8		100.00
Aroclor 1016	8.055	9.169	6067021	2835151	178	188	80.00- 120.00	100.00
	9.305	9.915	5009784	3850240	179	174	66.06- 99.09	82.57
	9.748	11.065	15936918	4382709	183	182	210.14- 315.22	262.68
	9.928	11.515	9269177	3089452	181	173	122.22- 183.34	152.78
	10.315	11.752	6415173	3002232	183	178	84.59- 126.89	105.74
	Average of Peak Amounts =				181	179		
Aroclor 1260	13.195	13.549	6315706	2628978	188	185	80.00- 120.00	100.00
	13.582	14.792	8789170	3705205	189	162	111.33- 167.00	139.16
	14.052	15.162	9248597	3634060	184	162	117.15- 175.73	146.44
	14.428	15.692	19823684	7384751	187	155	251.10- 376.65	313.88
	15.058	16.195	14548081	4907991	183	167	184.28- 276.42	230.35
	Average of Peak Amounts =				186	166		
Decachlorobiphenyl	16.858	18.135	19028191	7191566	17.5	16.1		100.00

SA 9/11/19
 W

Data File: \\aik1s002\instdata\GC27\Data\090419ICL.b\0904F012.D

Date : 04-SEP-2019 22:13

Client ID:

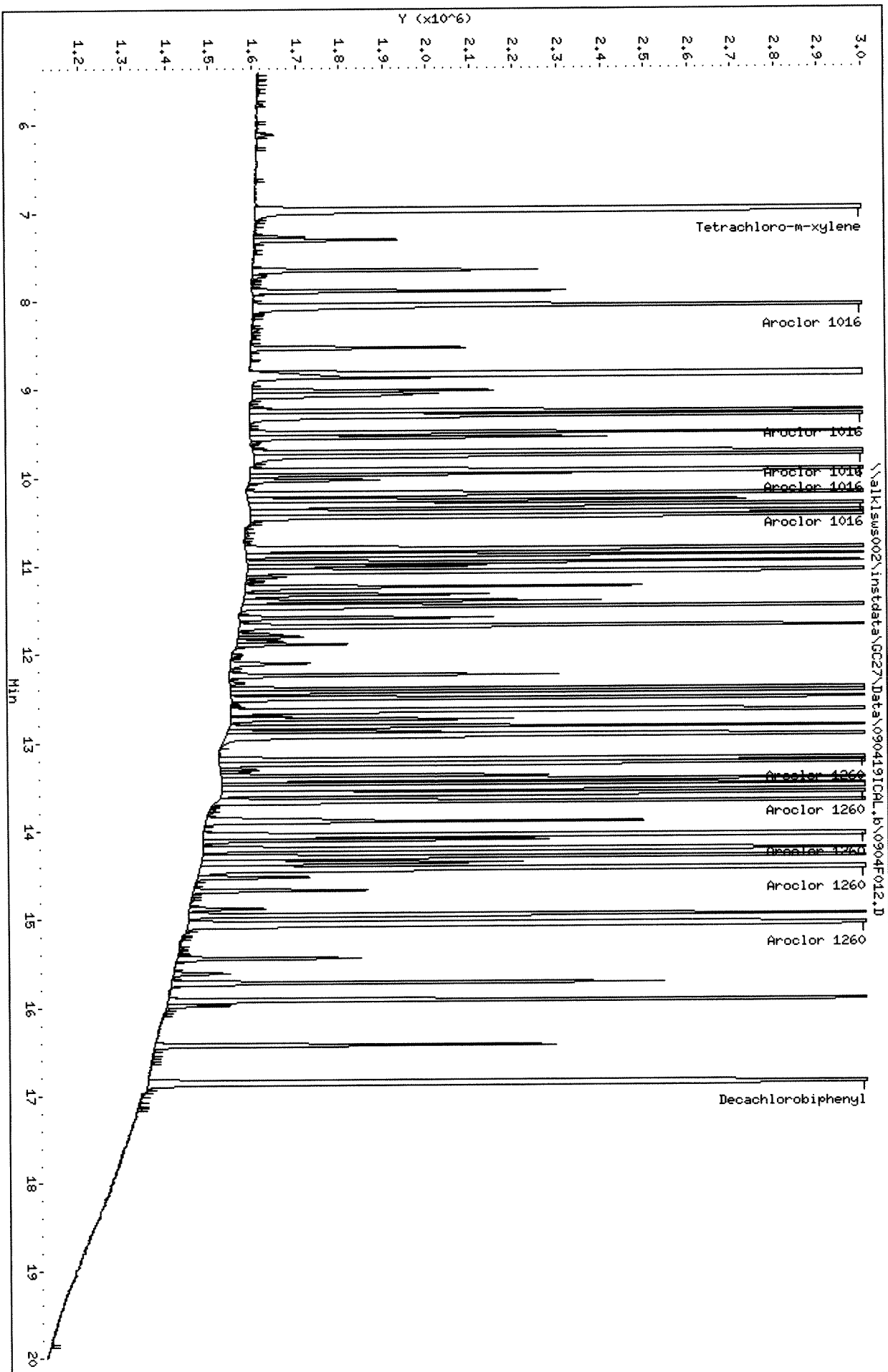
Sample Info: PCB8-14K1660 @ 20-200 PPB

Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F012.D
Date: 04-SEP-2019 22:13

Client ID:

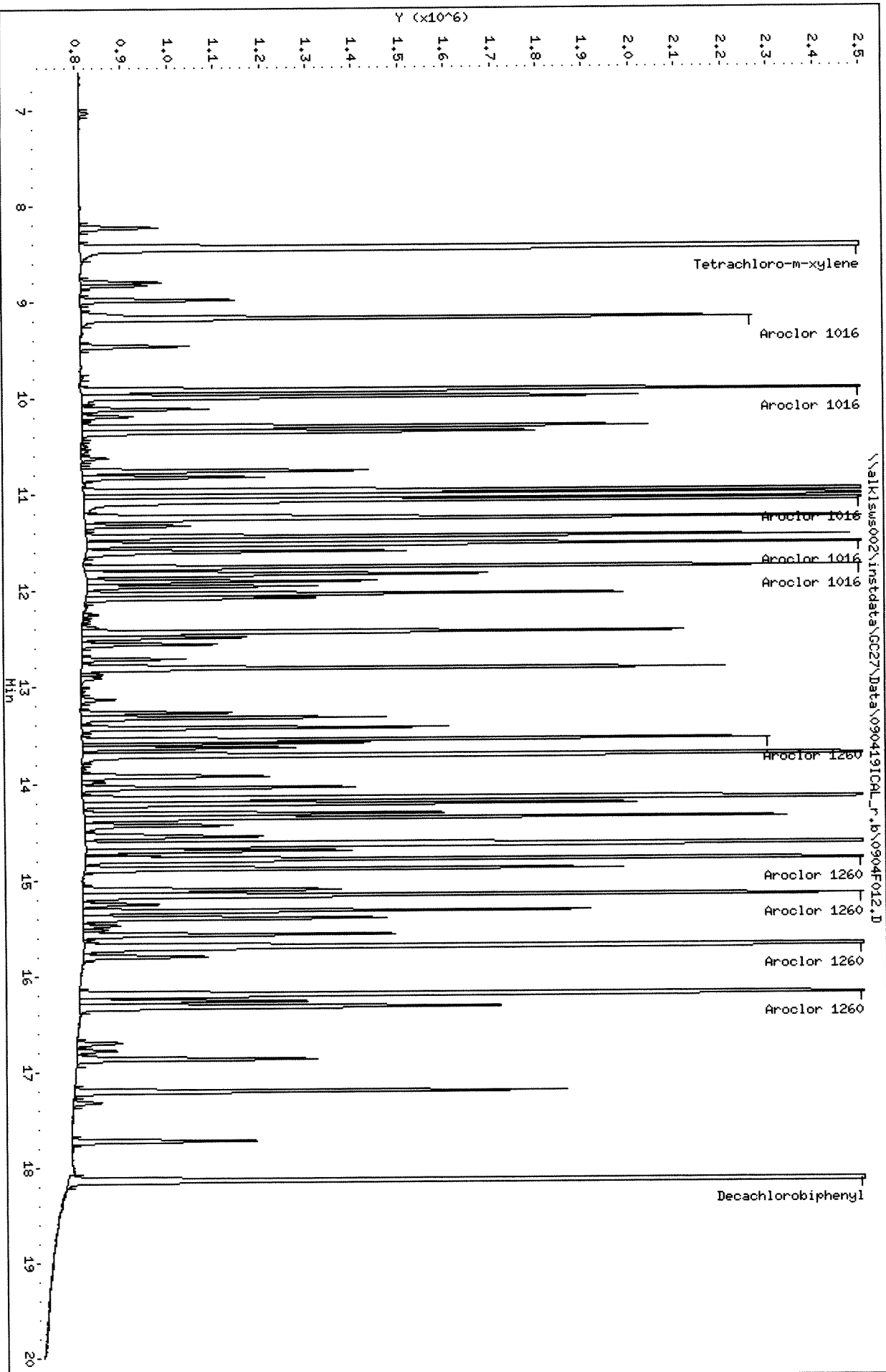
Sample Info: PCB8-11K1660 @ 20-200 PPB

Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F013.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F013.D
 Inj Date : 04-SEP-2019 22:45
 Sample Info: PCB8-13A 2154 @ 1-2 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 2154.sub
 Sub List #2 : 2154.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1221	7.657	8.827	50695	15070	2.20	2.32	80.00- 120.00	100.00 (M)
	7.893	8.980	34425	11922	2.35	1.85	50.93- 76.39	67.91 (M)
	8.060	9.167	120321	52805	2.20	2.12	190.33- 285.49	237.34 (M)
	Average of Peak Amounts =				2.25	2.10		
Aroclor 1254	11.773	12.430	39510	33696	1.09	1.04	80.00- 120.00	100.00 (M)
	12.243	12.483	71048	16138	1.14	0.950	137.86- 206.79	179.82 (M)
	12.400	12.810	141481	52699	1.15	1.07	268.82- 403.23	358.09 (M)
	12.740	12.903	75413	17591	1.03	1.14	164.76- 247.13	190.87 (M)
	13.307	14.377	42724	25148	0.937	1.04	106.40- 159.60	108.13 (M)
	Average of Peak Amounts =				1.07	1.05		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
 wp

Data File: \\aik1s002\instdata\GC27\Data\090419ICL.b\0904F013.D

Date: 04-SEP-2019 22:45

Client ID:

Sample Info: PCB8-138 2154 @ 1-2 PPB

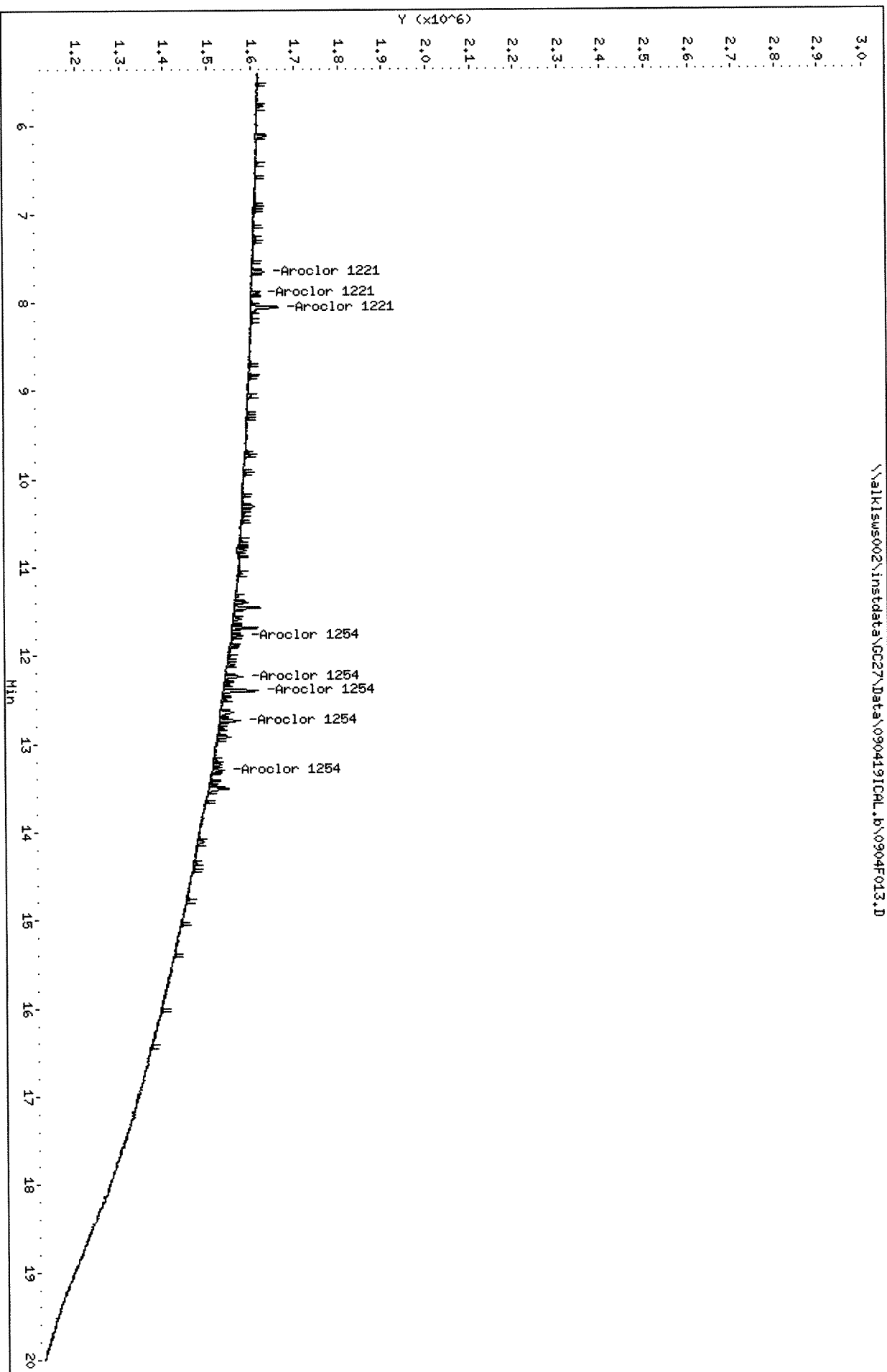
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\aik1s002\instdata\GC27\Data\090419ICL.b\0904F013.D



Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F013.D

Date: 04-SEP-2019 22:45

Client ID:

Sample Info: PCB8-13A 2154 @ 1-2 PPB

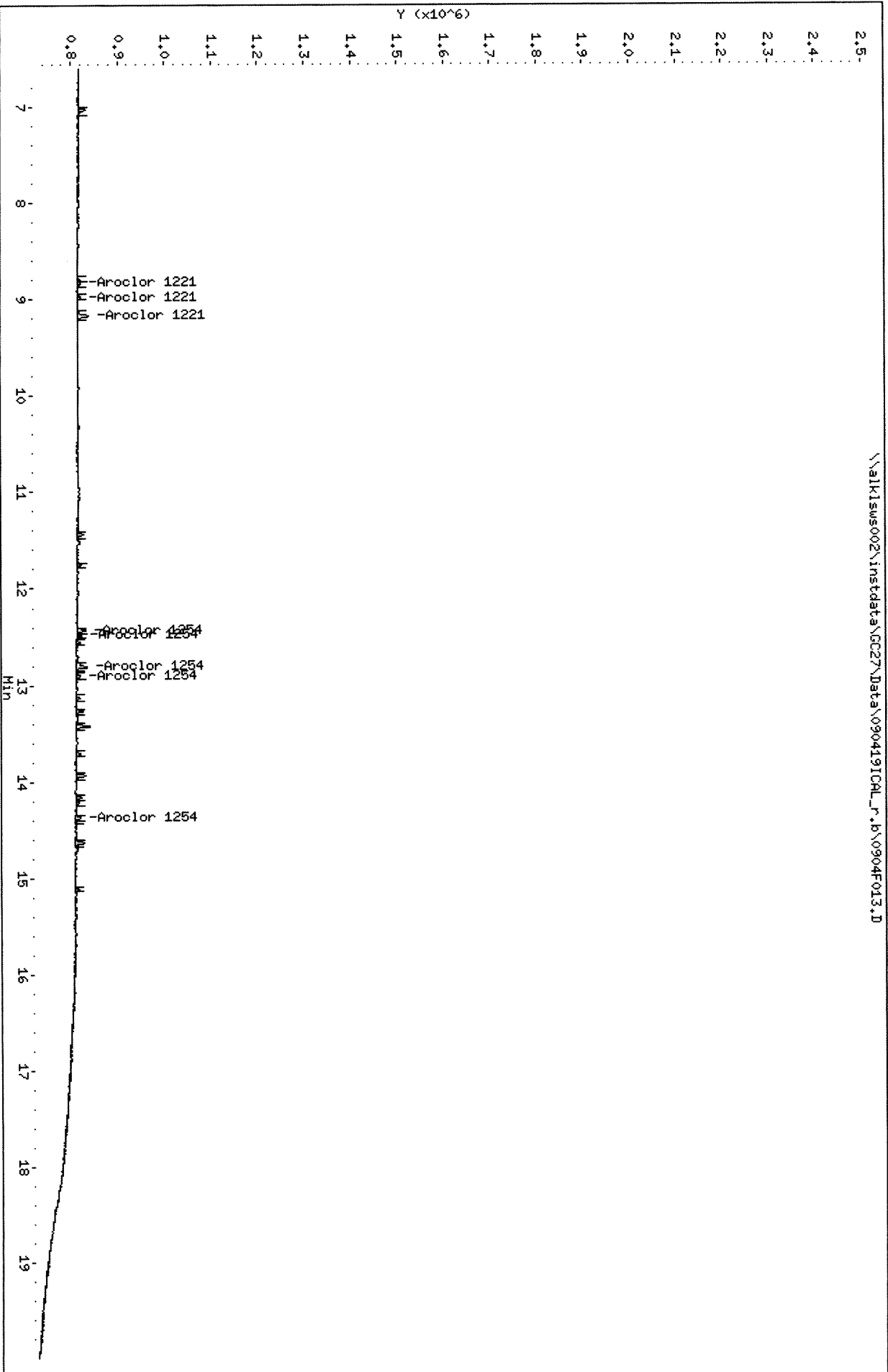
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

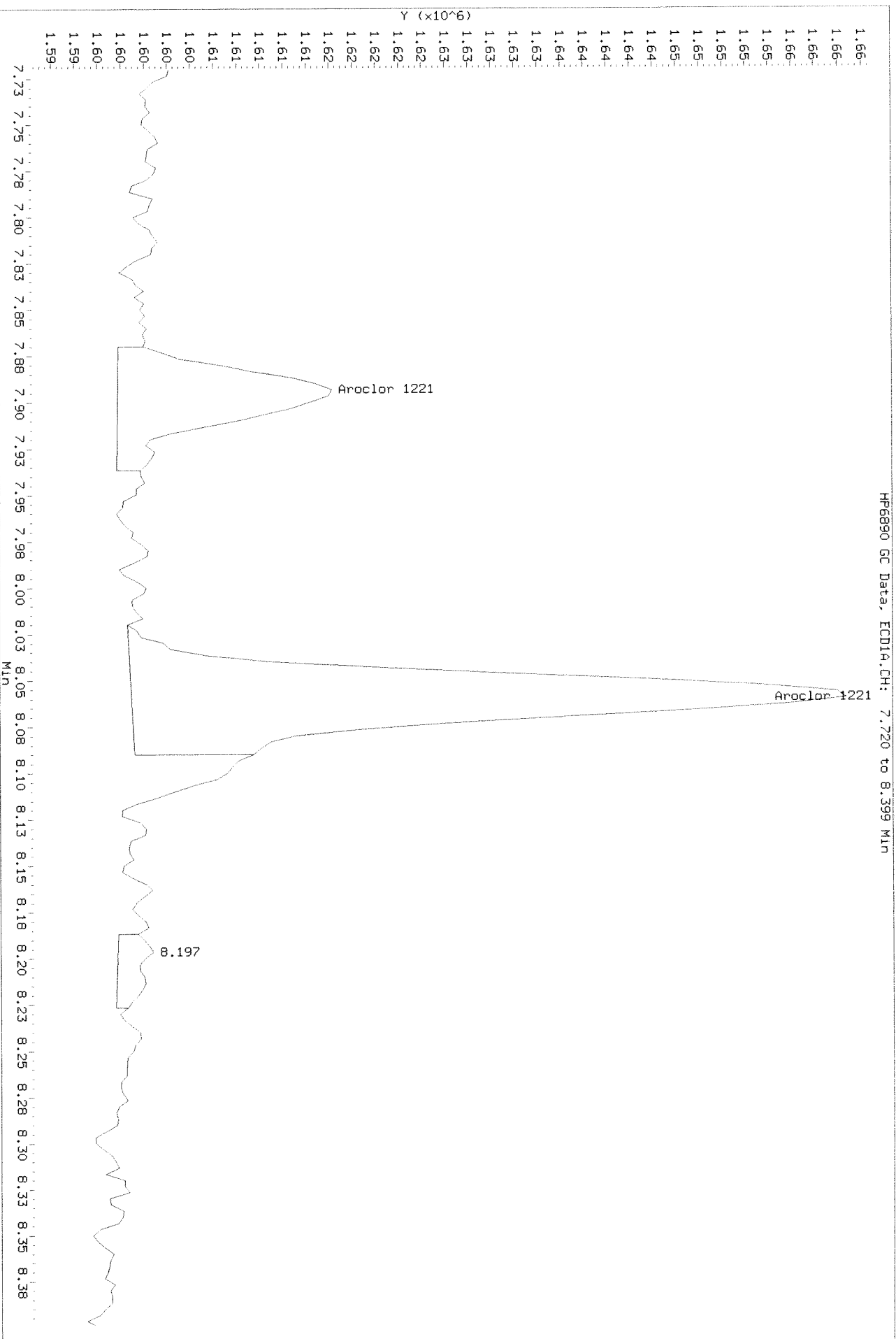
Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F013.D



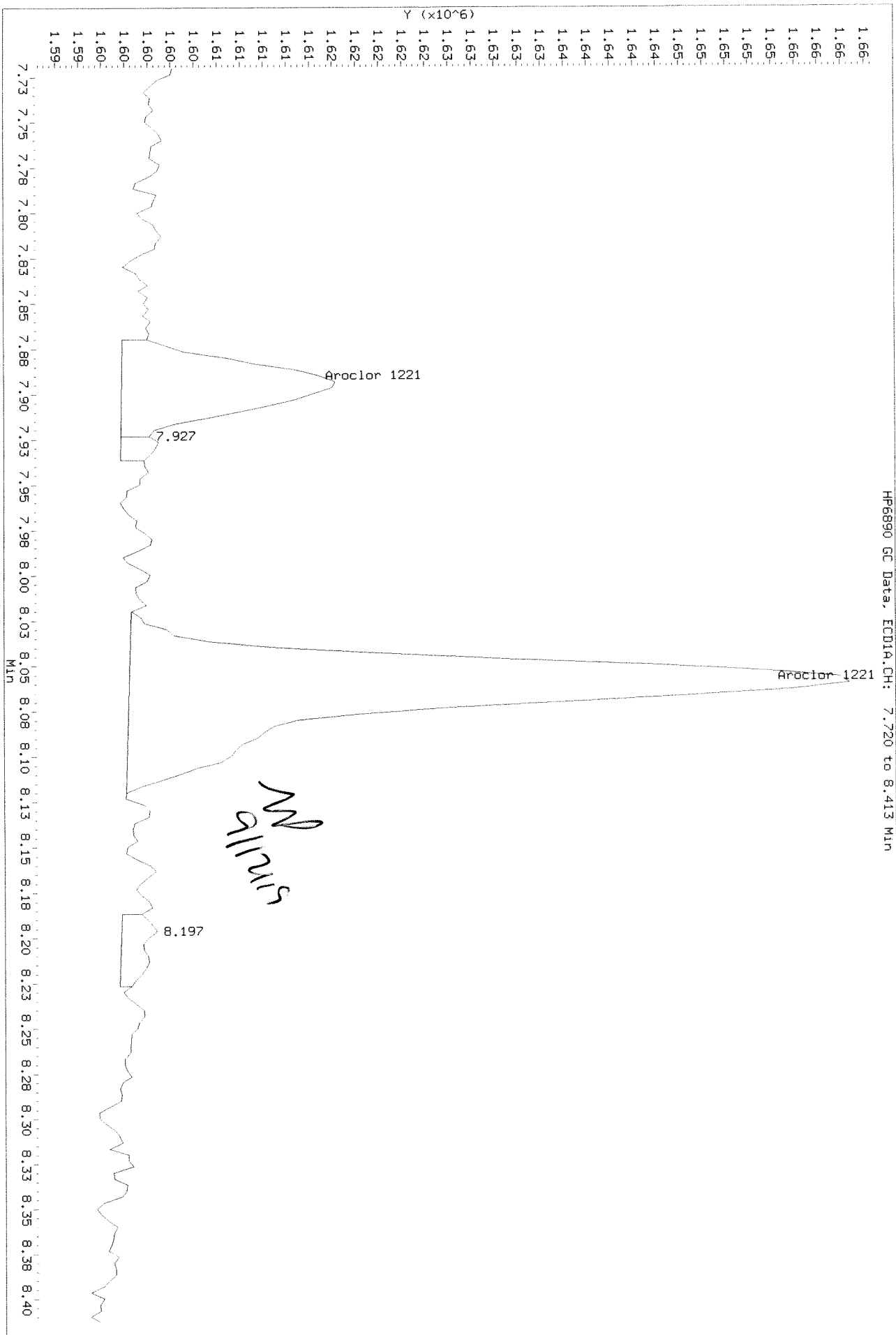
Data File: \\alk1sww002\instdata\GC27\Data\090419ICAL.B\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

Before



Data File: \\alkisws002\instdata\GC27\Data\090419ICAL.B\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

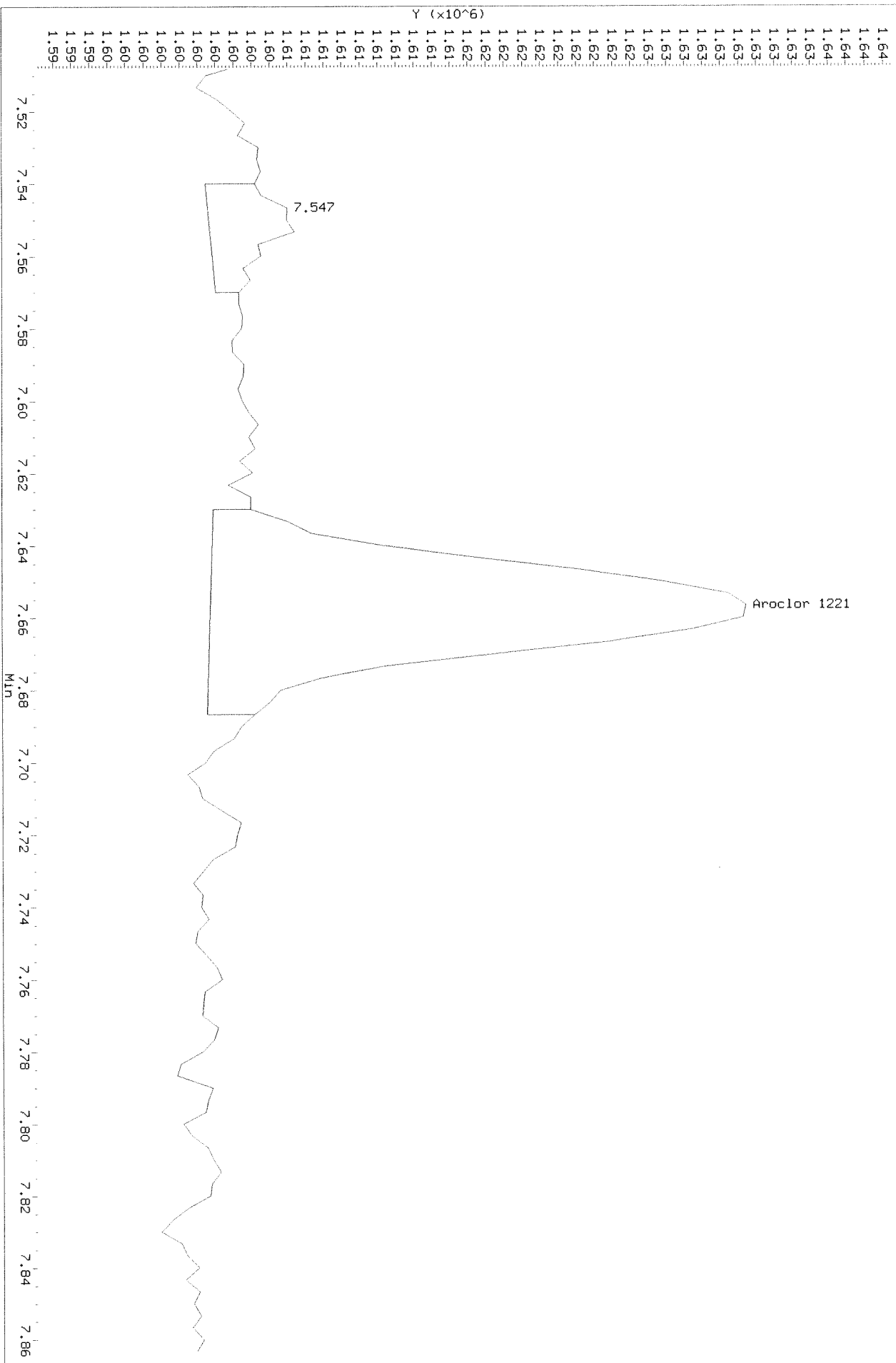
After baseline 9/11/19 A



Data File: \\alkjsws002\inst\data\GC27\Data\090419ICL.b\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 7.508 to 7.863 Min

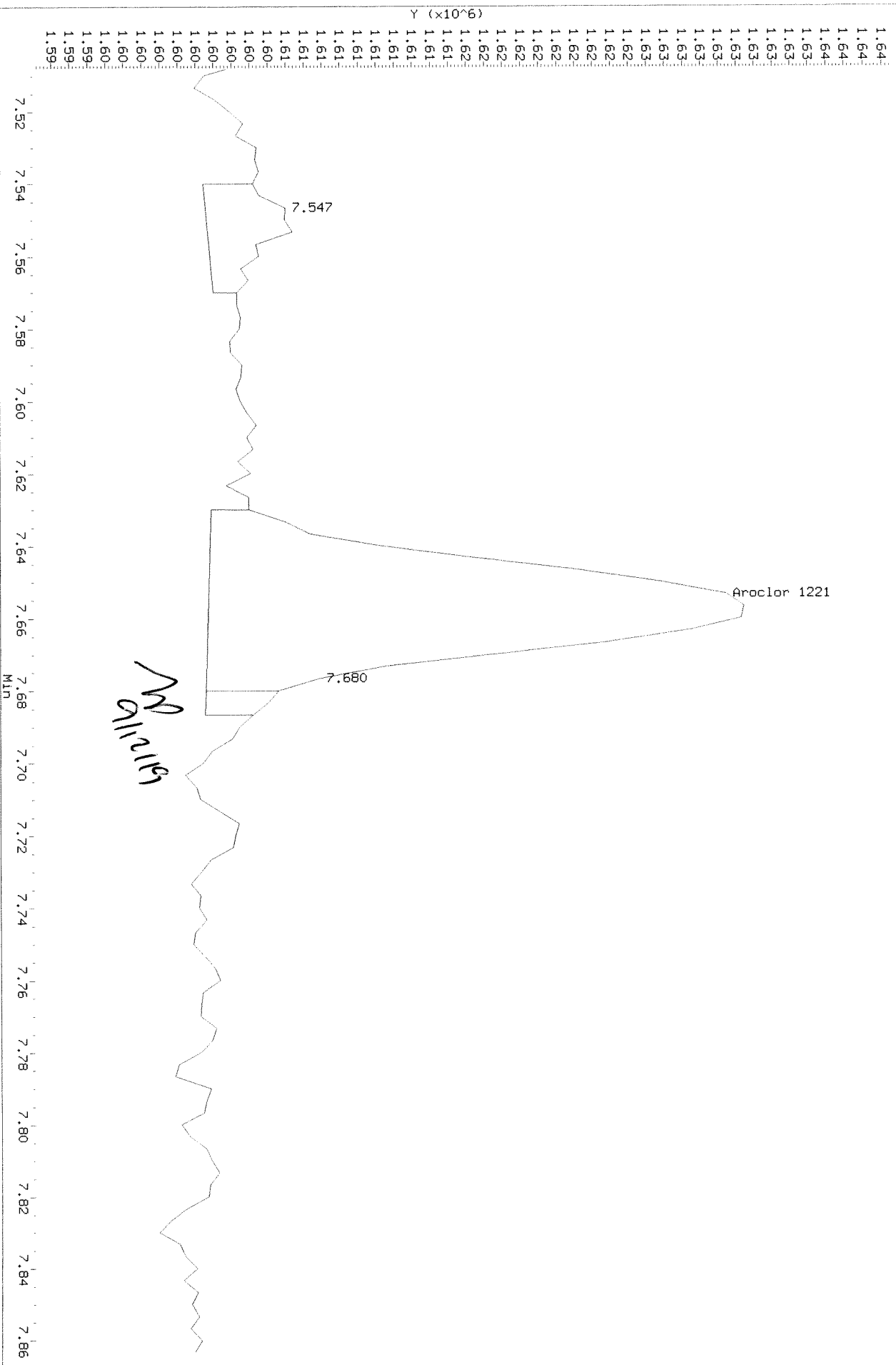
Before



Data File: \\alkjsws002\instdata\GC27\Data\090419ICAL.H\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 7.508 to 7.863 MIN

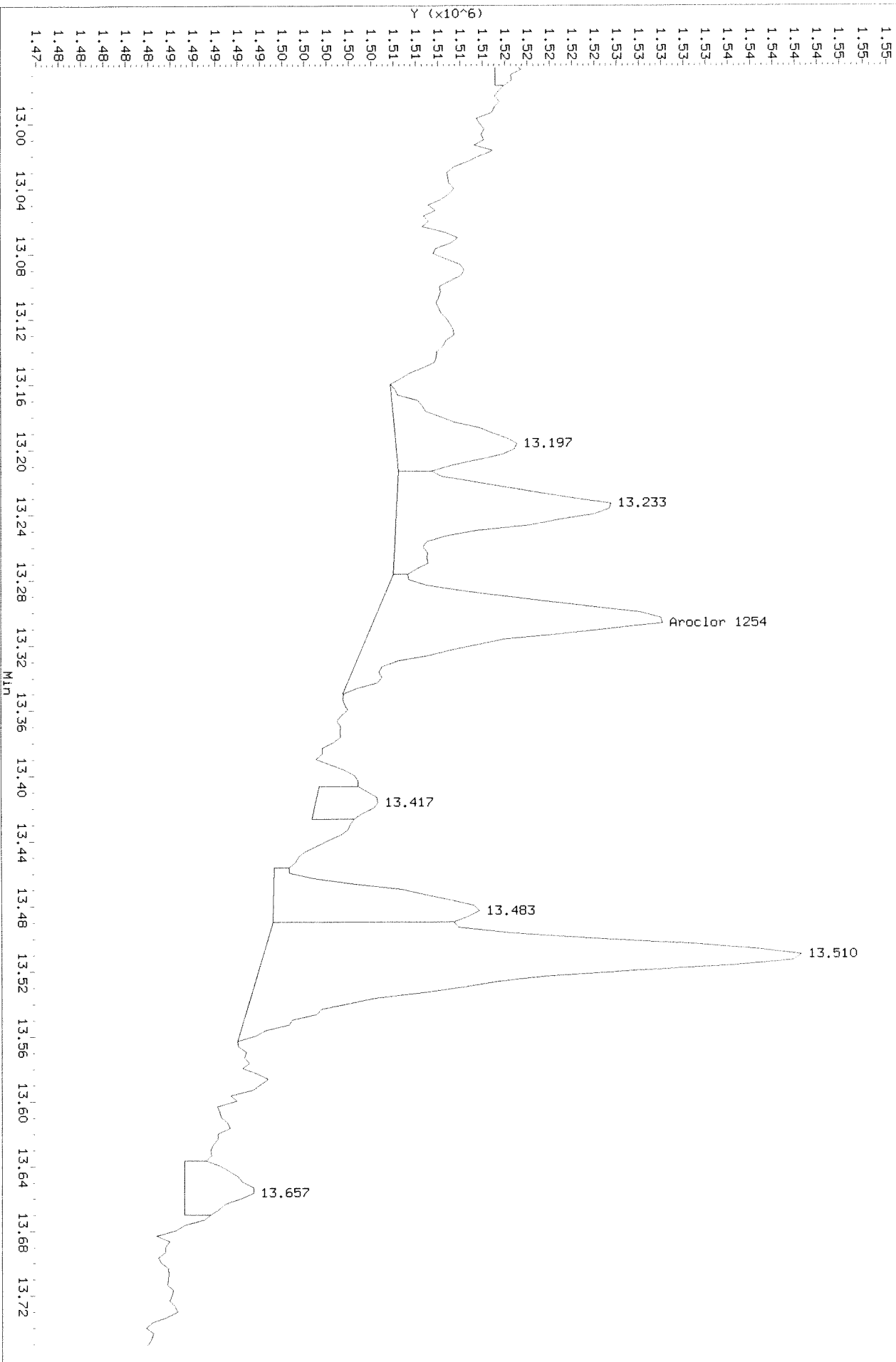
After Shoulder 9/11/19 SA



Data File: \\alkisw002\instdata\GC27\Data\090419ICL.b\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 12.965 to 13.752 Min

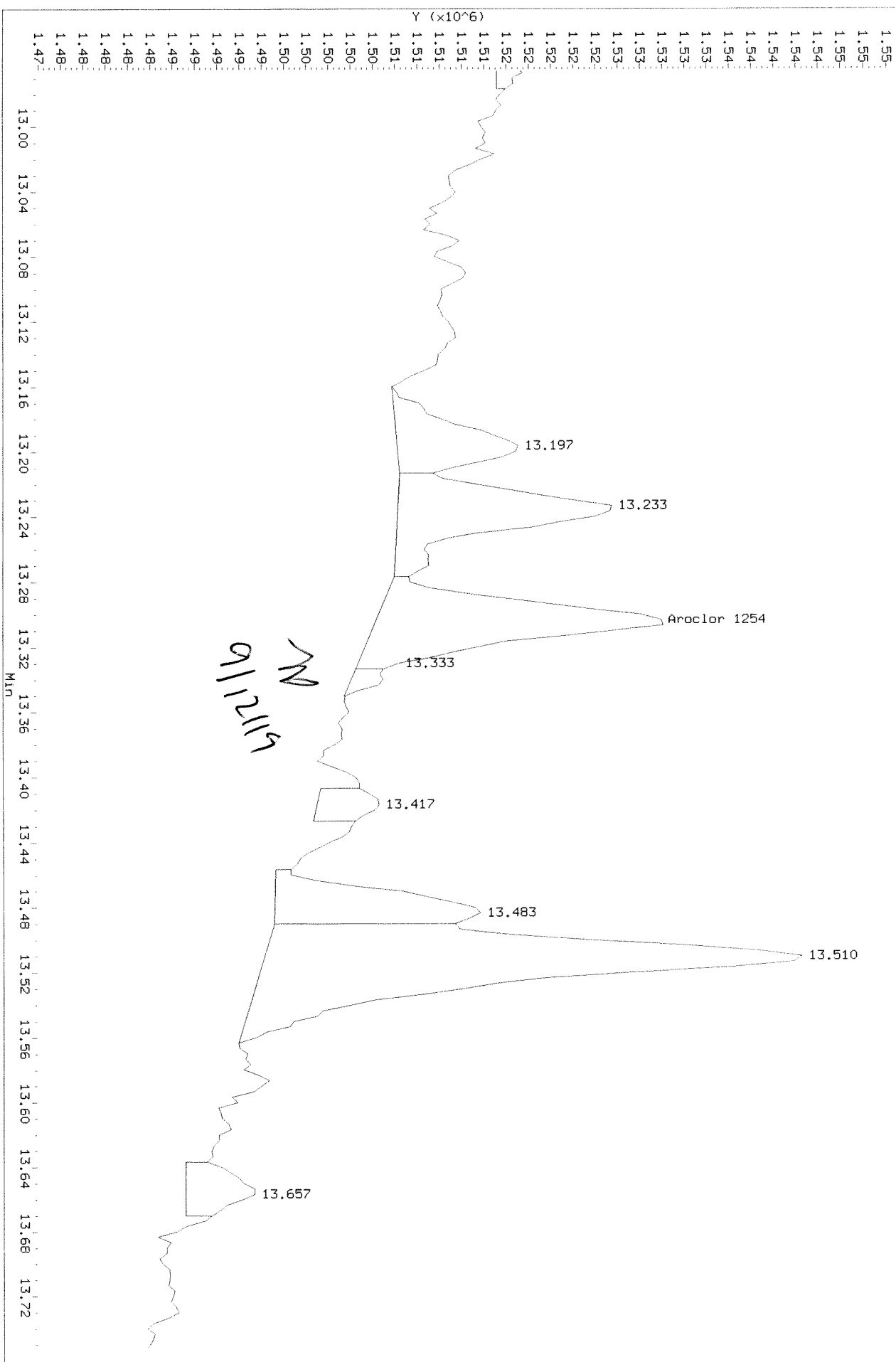
Before



Data File: \\alklsw002\instdata\GC27\Data\090419ICAL.b\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

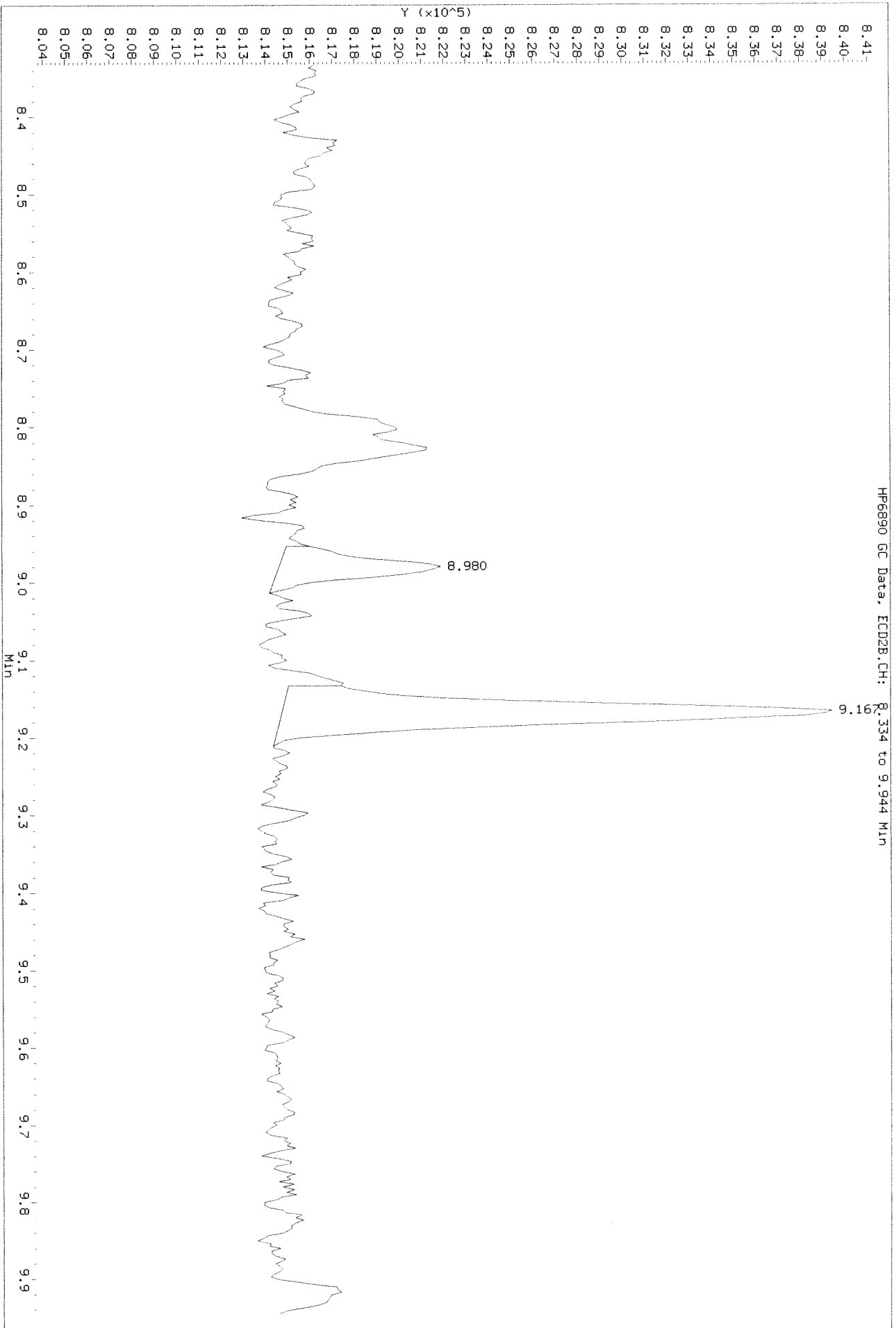
After Shoulder 9/11/19

HP6890 GC Data, ECD1A.CH: 12.965 to 13.752 Min



Data File: \\alk1sws002\instdata\GC27\Data\090419ICL_r.b\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

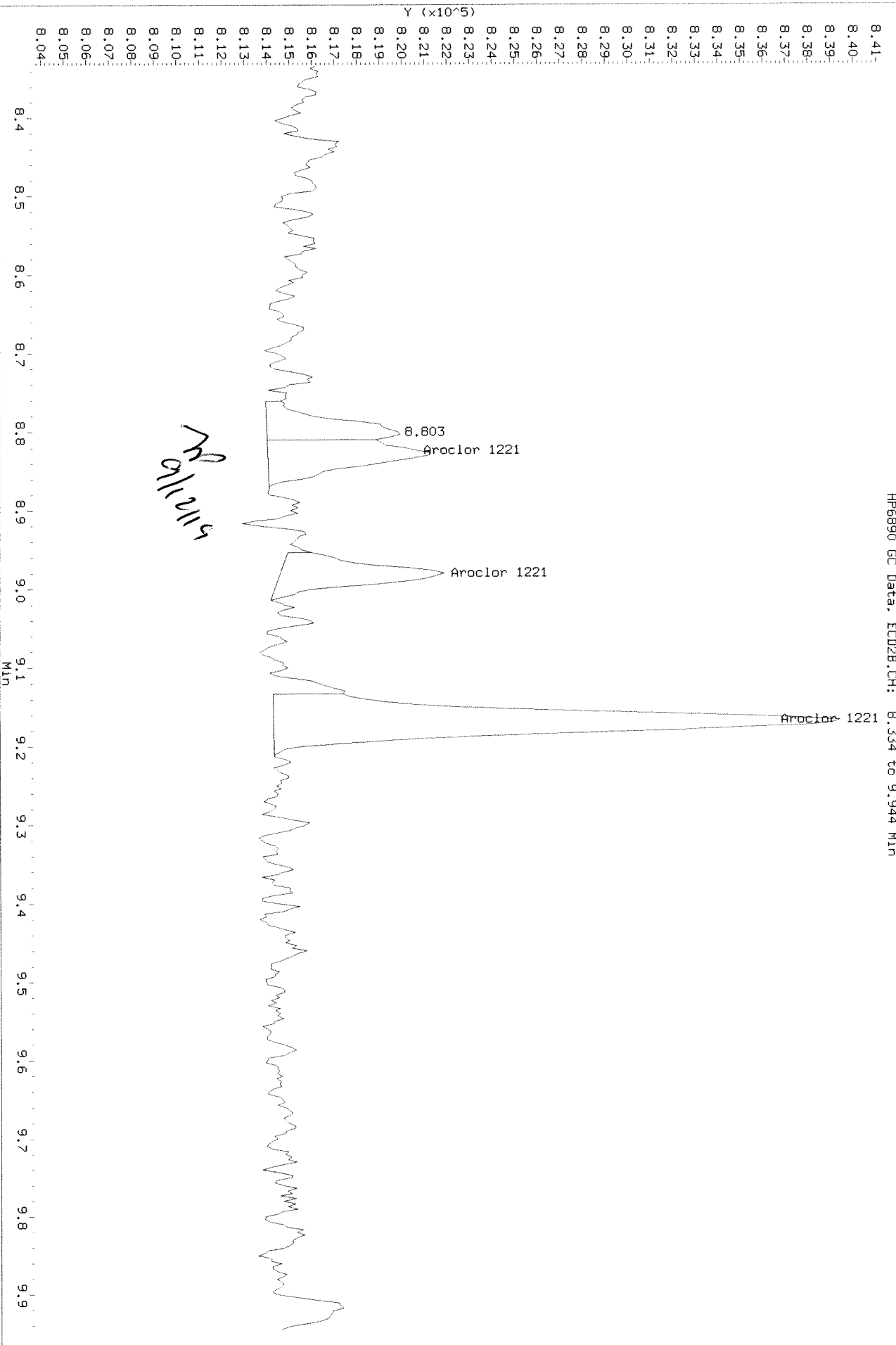
Before



Data File: \\alk1sws002\instdata\GC27\Data\090419ICL_r_b\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 8.334 to 9.944 Min

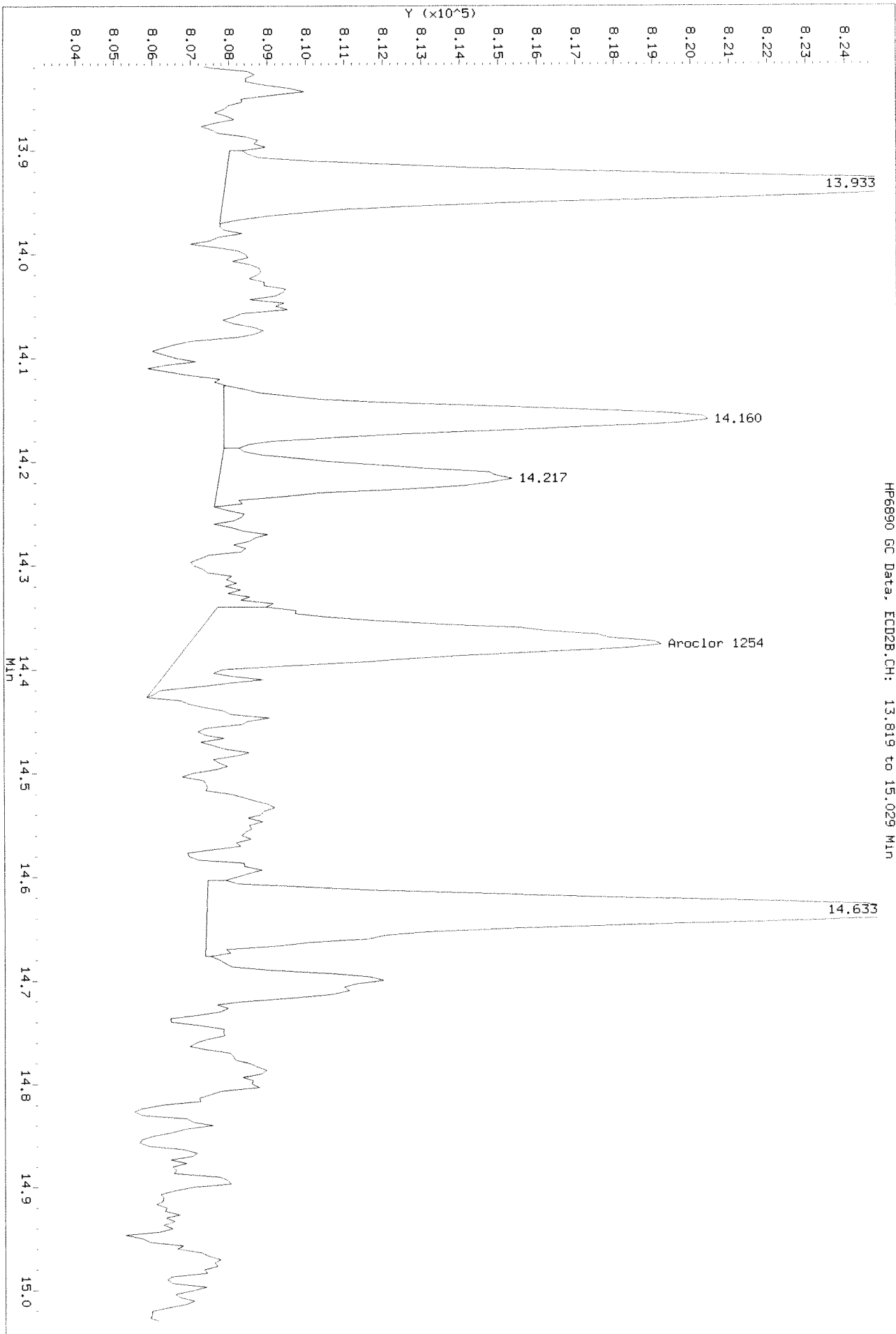
After missed peak 9/11/19 SA



Data File: \\alklsws002\instdata\GC27\Data\090419\ICL-r.b\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

Refer

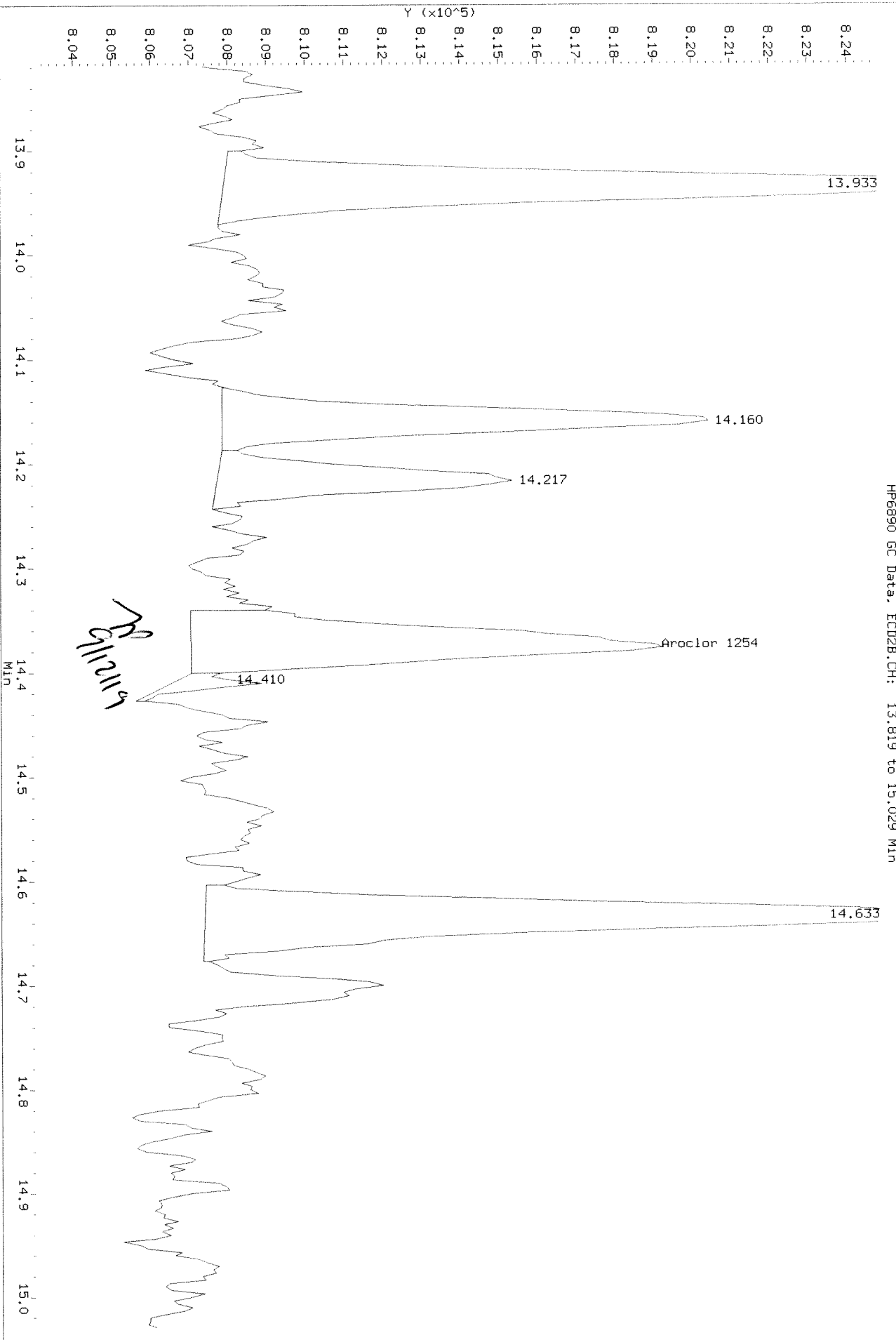
HP6890 GC Data, ECD28.CH: 13.819 to 15.029 Min



Data File: \\alkisw002\instdata\GC27\Data\090419ICALL_r.b\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 13.819 to 15.029 MIN

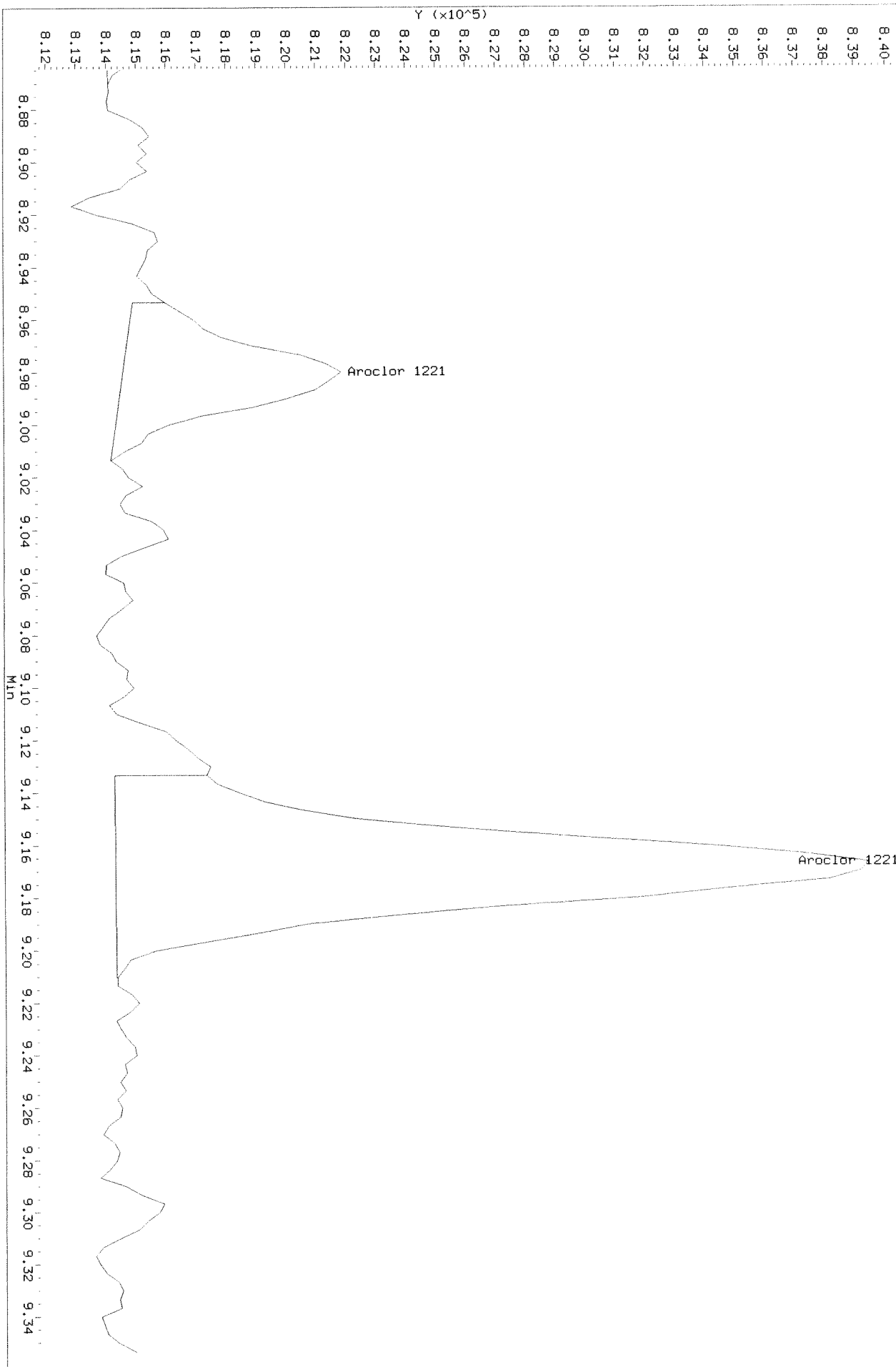
After Shell bar 1/11/19 SA



Data File: \\alkisw002\inetdata\GC27\Data\090419ICALL_r.b\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

Before

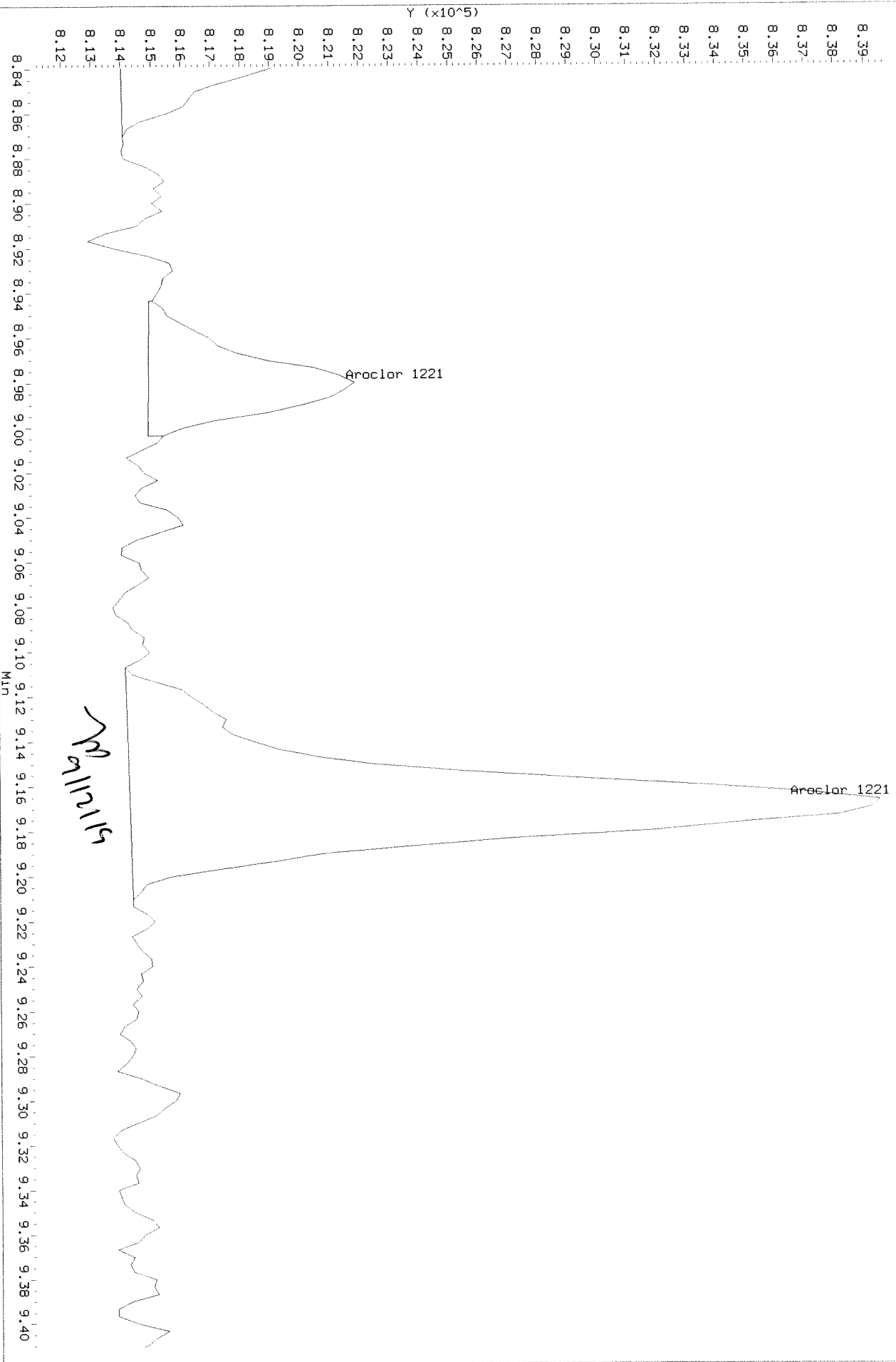
HP6890 GC Data, ECD2B.CH: 8.865 to 9.354 MIN



Data File: \\alkisw002\instdata\GC27\Data\090419ICALL_r.b\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 8.840 to 9.410 MIN

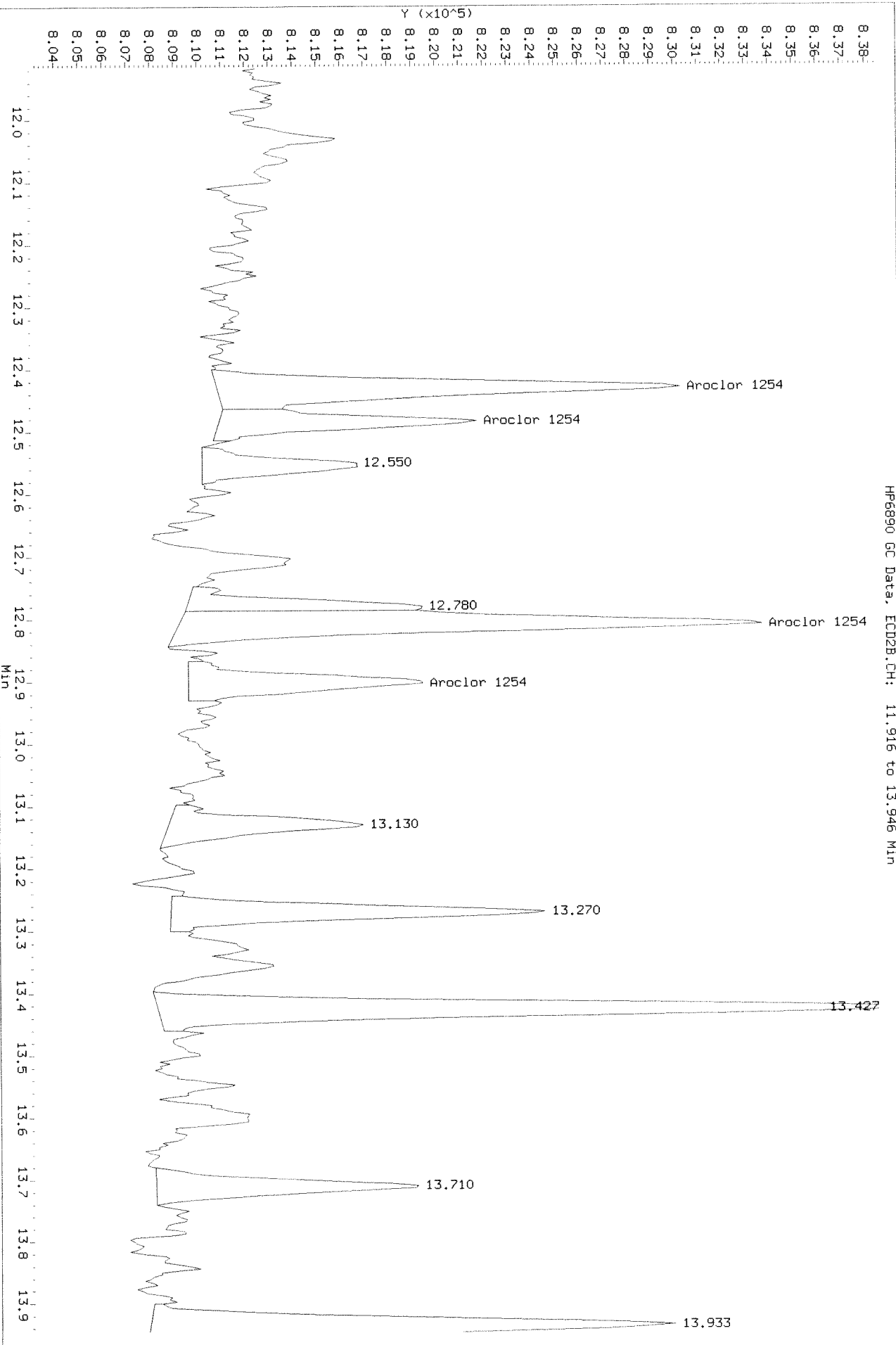
After baseline 9/11/19



Data File: \\alkisw002\instdata\GC27\Data\090419ICAL_r.b\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

Before

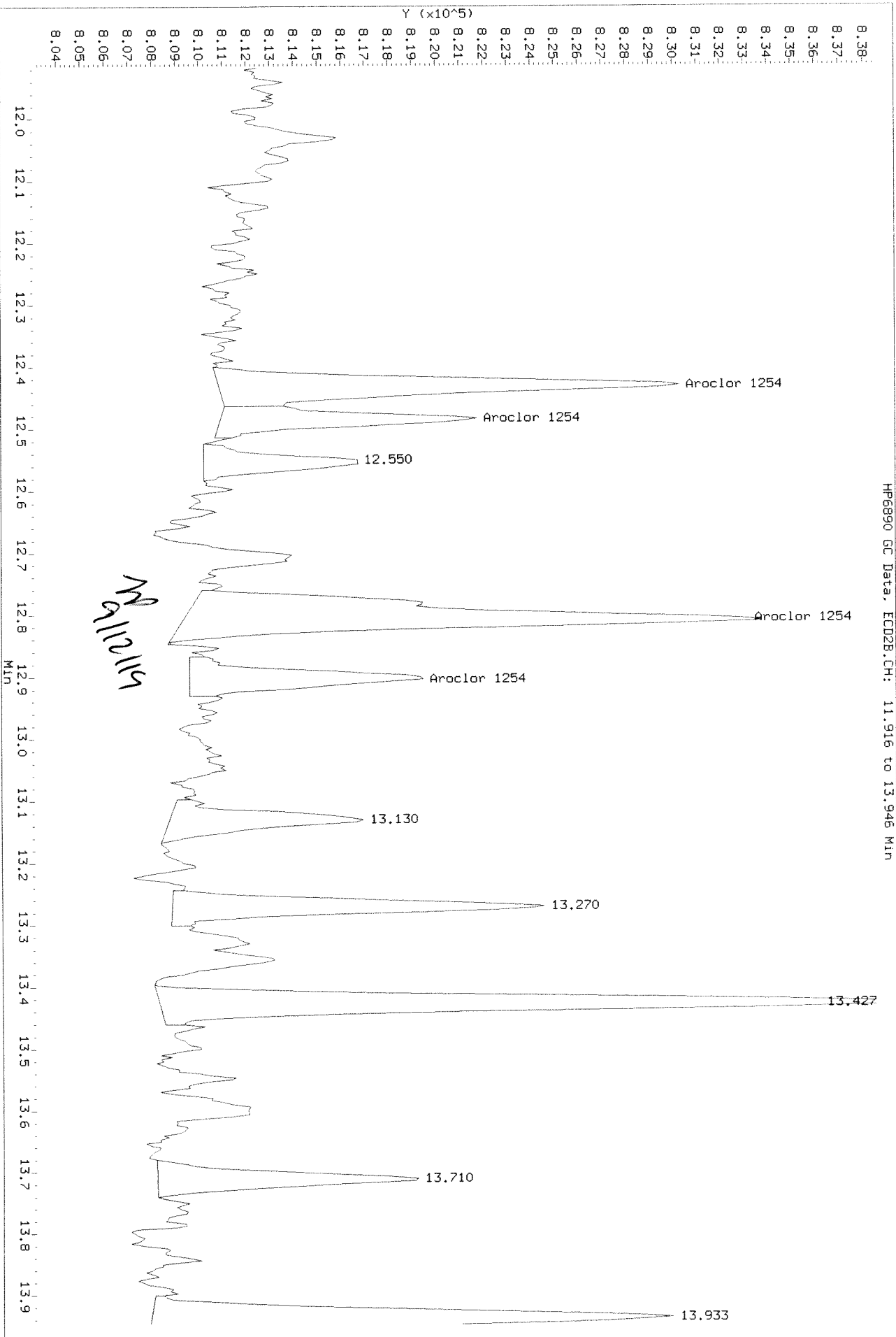
HP6890 GC Data, ECD2B.CH: 11.916 to 13.946 Min



Data File: \\alklsws002\inst\data\GC27\Data\090419ICL-r.b\09041013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.Ch: 11.916 to 13.946 Min

After baseline 9/11/19 RA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F014.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F014.D
 Inj Date : 04-SEP-2019 23:17
 Sample Info: PCB8-13B 2154 @ 2-4 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 2154.sub
 Sub List #2 : 2154.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
=====								
Aroclor 1221	7.655	8.825	104585	24086	4.54	3.70	80.00- 120.00	100.00 (M)
	7.895	8.981	64670	27039	4.42	4.19	50.93- 76.39	61.83 (M)
	8.058	9.168	247372	103619	4.52	4.17	190.33- 285.49	236.53 (M)
	Average of Peak Amounts =				4.49	4.02		
Aroclor 1254	11.771	12.428	80796	66855	2.24	2.07	80.00- 120.00	100.00 (M)
	12.241	12.485	140427	31785	2.25	1.87	137.86- 206.79	173.80 (M)
	12.398	12.808	278429	107440	2.26	2.18	268.82- 403.23	344.61 (M)
	12.738	12.901	164406	27448	2.25	1.79	164.76- 247.13	203.48 (M)
	13.305	14.375	97801	55061	2.15	2.27	106.40- 159.60	121.05 (M)
	Average of Peak Amounts =				2.23	2.04		

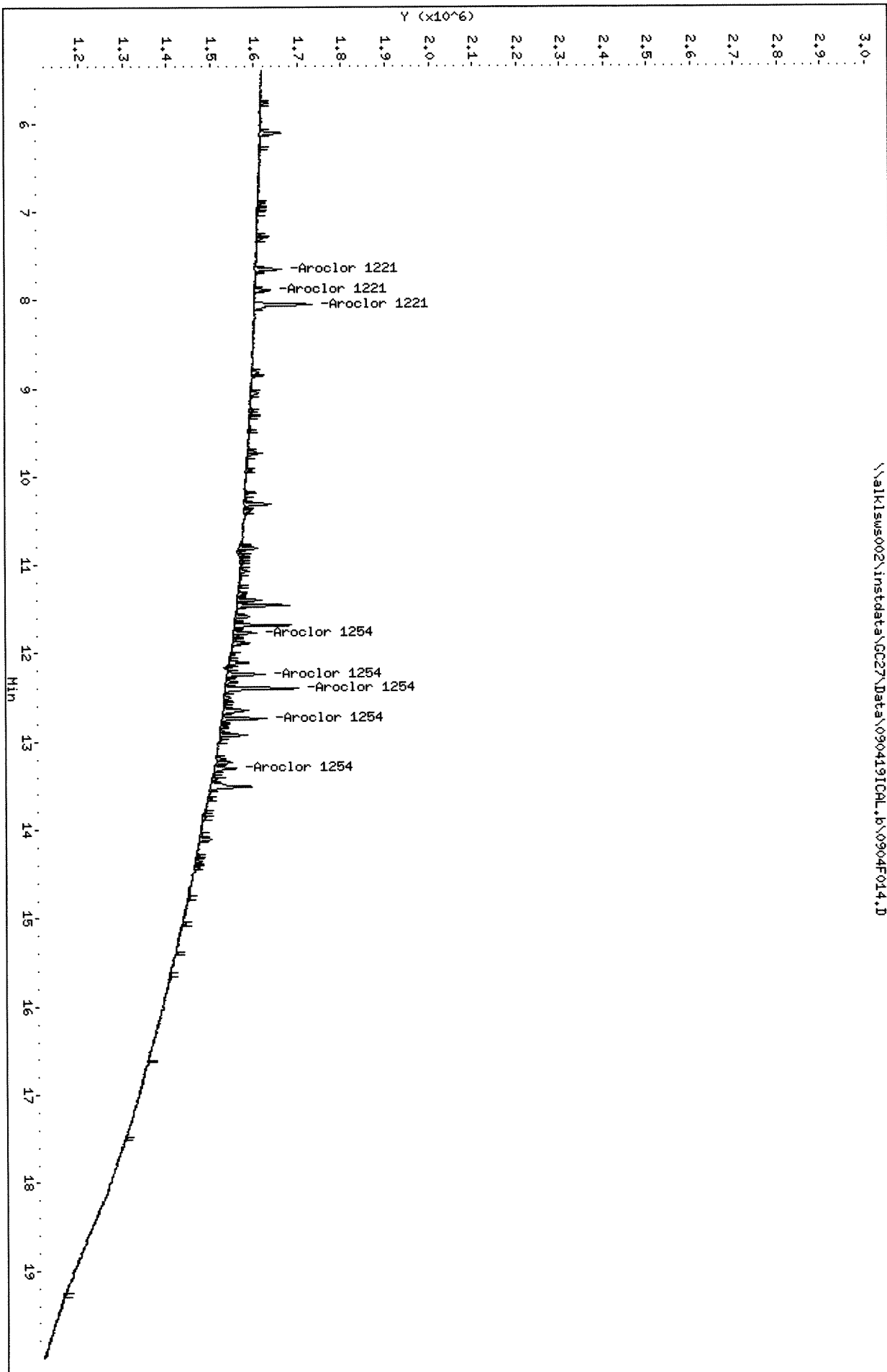
QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
 TR

Data File: \\alkisws002\instdata\GC27\Data\090419ICAL.b\0904F014.D
Date : 04-SEP-2019 23:17
Client ID:
Sample Info: PCB8-13B 2154 @ 2-4 PPB
Column phase: DB-35MS

Instrument: GC27.i
Operator: SAA
Column diameter: 0.32



Data File: \\alklisms002\instdata\GC27\Data\090419ICAL_r.b\0904F014.D
Date : 04-SEP-2019 23:17

Client ID:

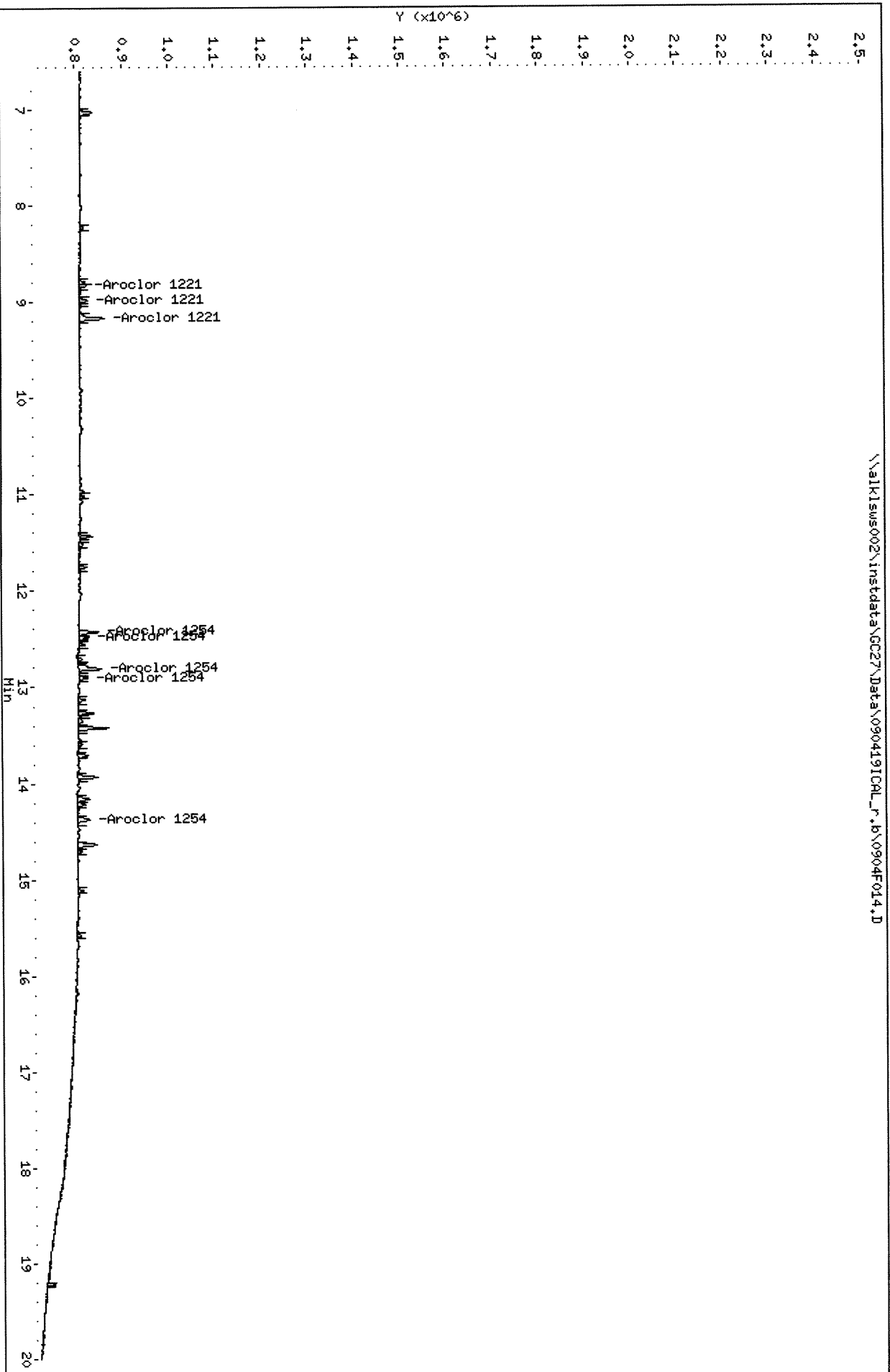
Sample Info: PCB8-13B 2154 @ 2-4 PBB

Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

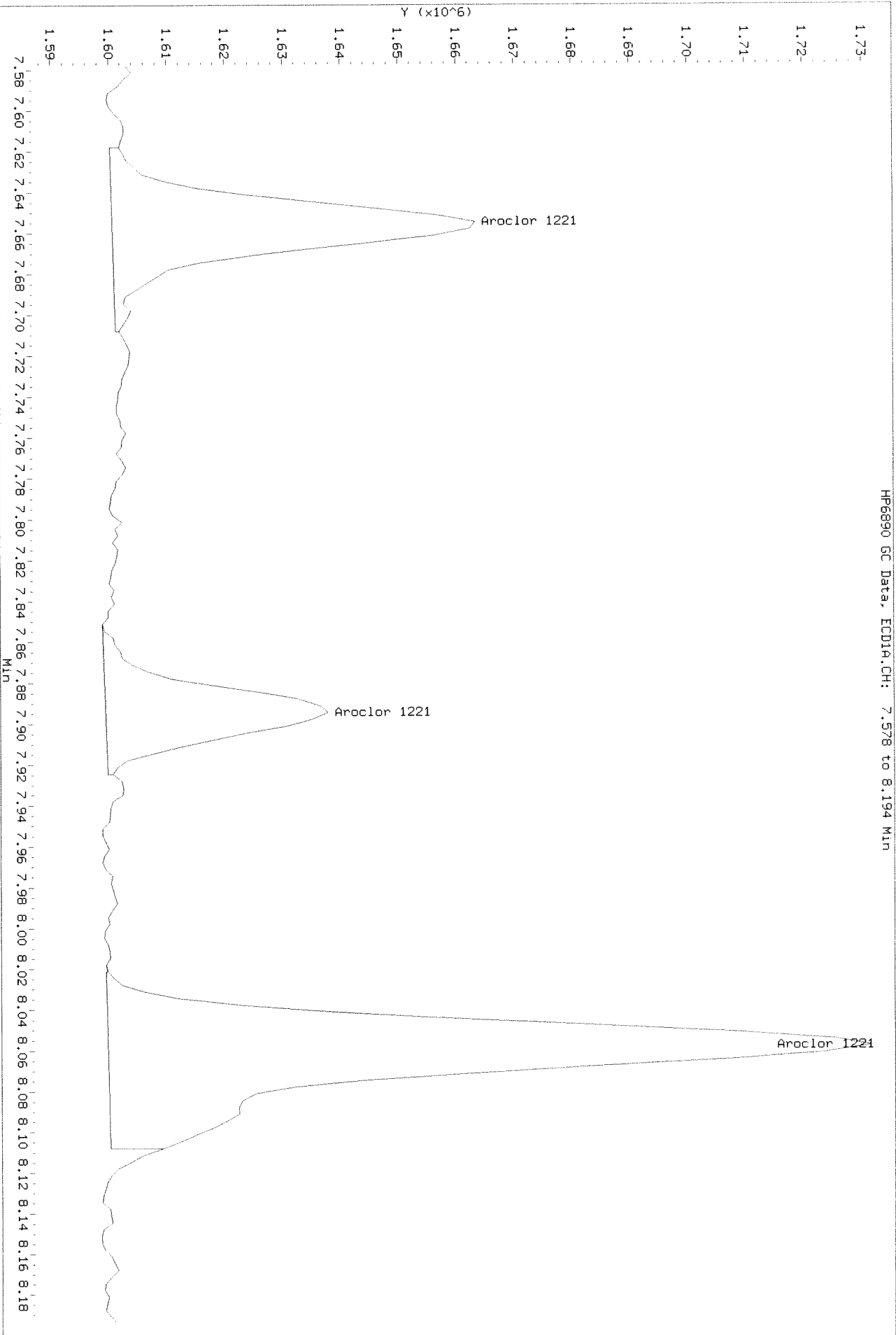
Column diameter: 0.32



Data File: \\alklms002\instdata\GC27\Data\090419ICDL.b\0904F014.D
Injection Date: 04-SEP-2019 23:17
Instrument: GC27.1
Client Sample ID:

Before

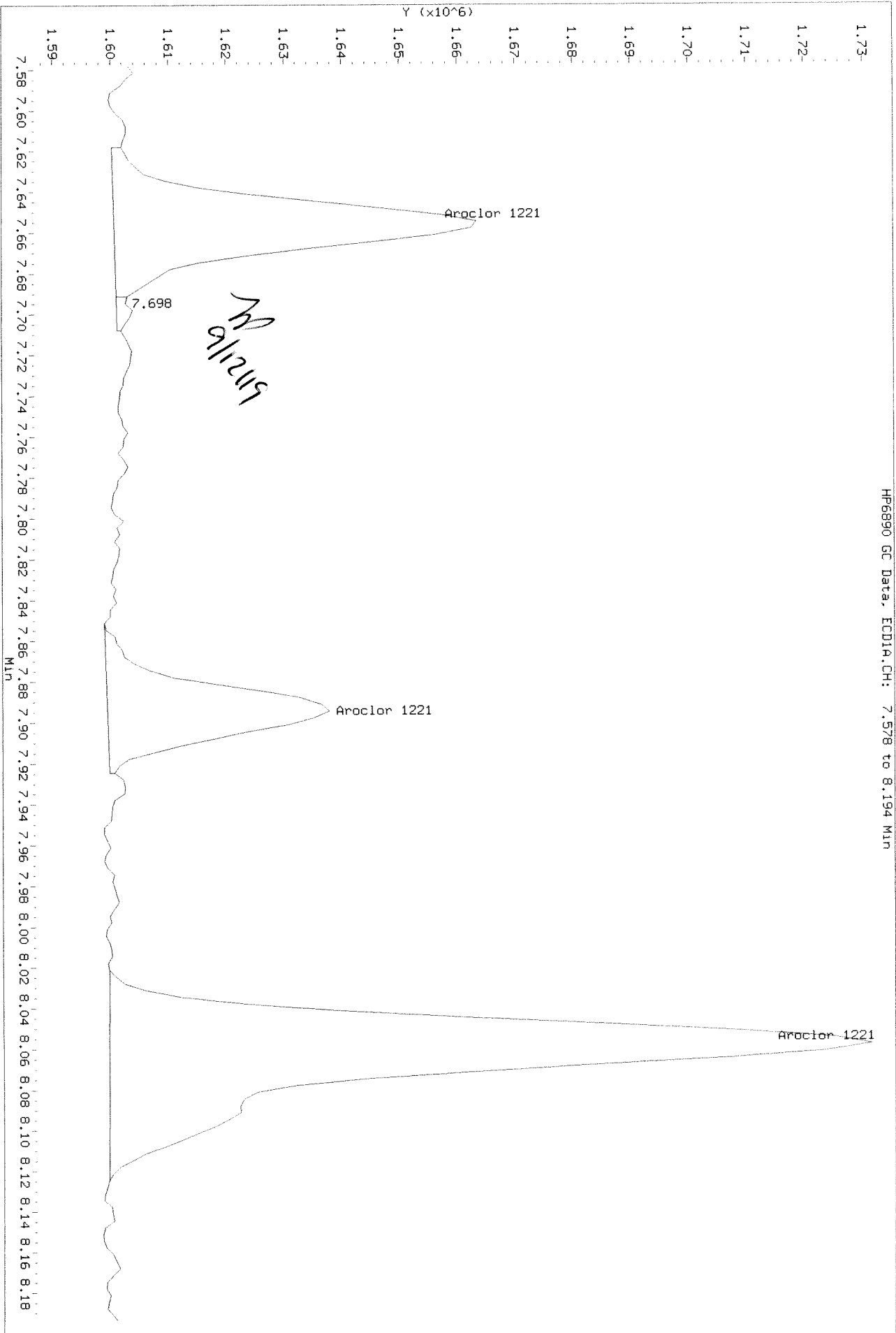
HP6890 GC Data, ECD1A.CH: 7.578 to 8.194 Min



Data File: \\alkjms002\instdata\GC27\Data\090419ICAL.b\0904F014.D
Injection Date: 04-SEP-2019 23:17
Instrument: GC27.1
Client Sample ID:

After base line/shoulder 9/11/19 SA

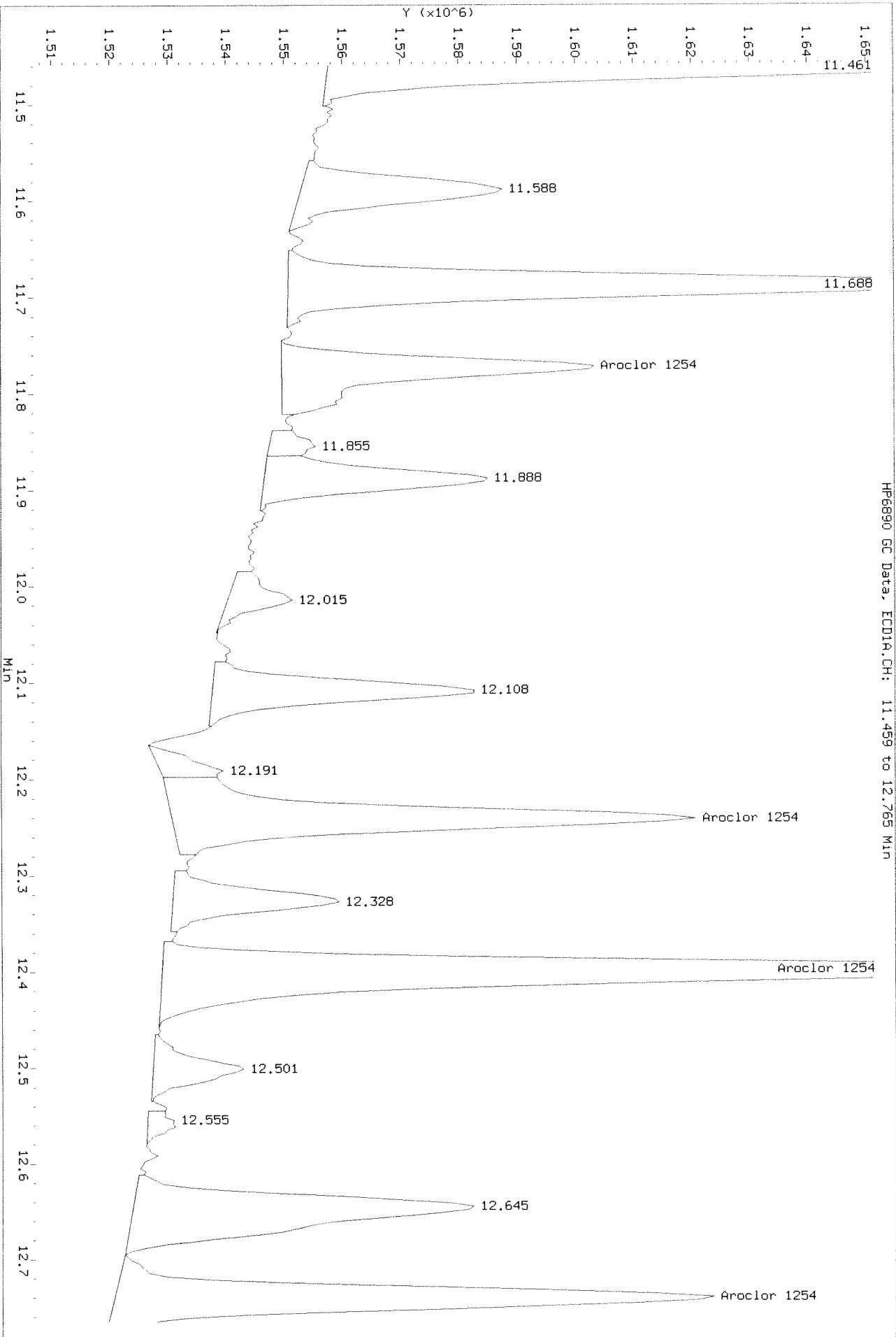
HP6890 GC Data, ECD1A.CH: 7.578 to 8.194 Min



Data File: \\alkjsws002\inst\data\GC27\Data\090419ICL.b\0904F014.D
Injection Date: 04-SEP-2019 23:17
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 11.459 to 12.765 Min

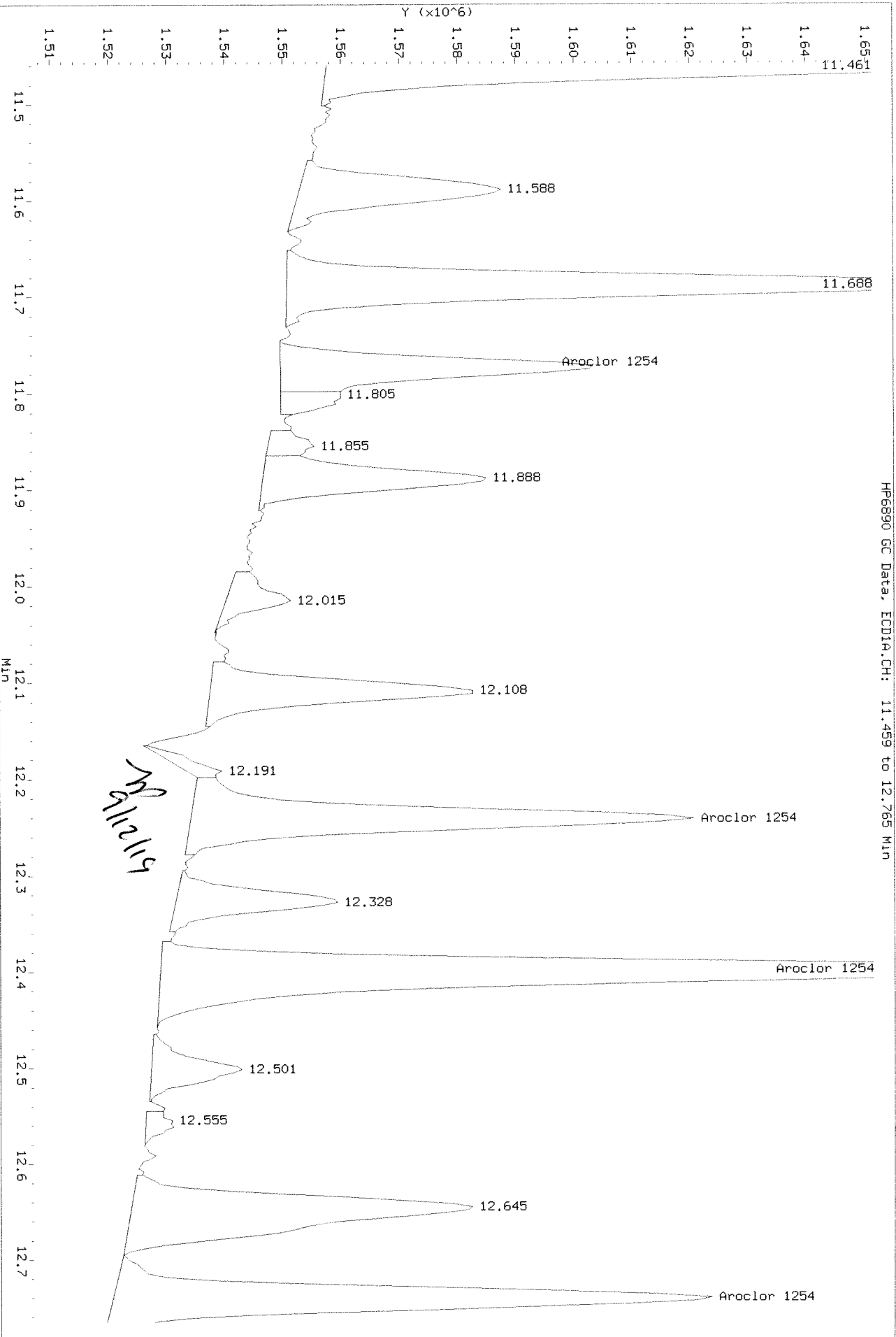
Refer 9/11/19 GA



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F014.D
Injection Date: 04-SEP-2019 23:17
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 11.459 to 12.765 Min

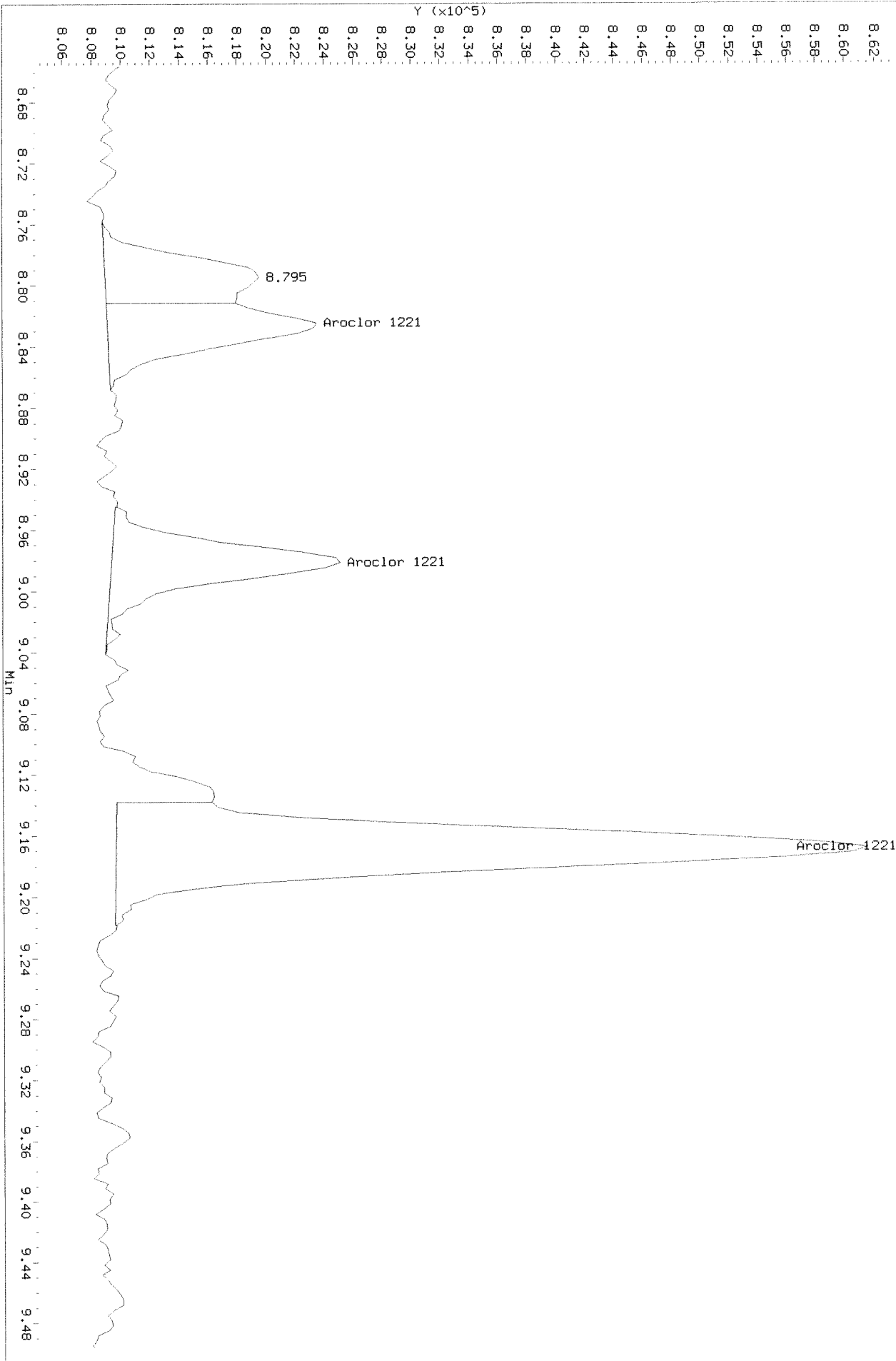
After shoulder 9/11/19



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F014.D
Injection Date: 04-SEP-2019 23:17
Instrument: GC27.1
Client Sample ID:

Before

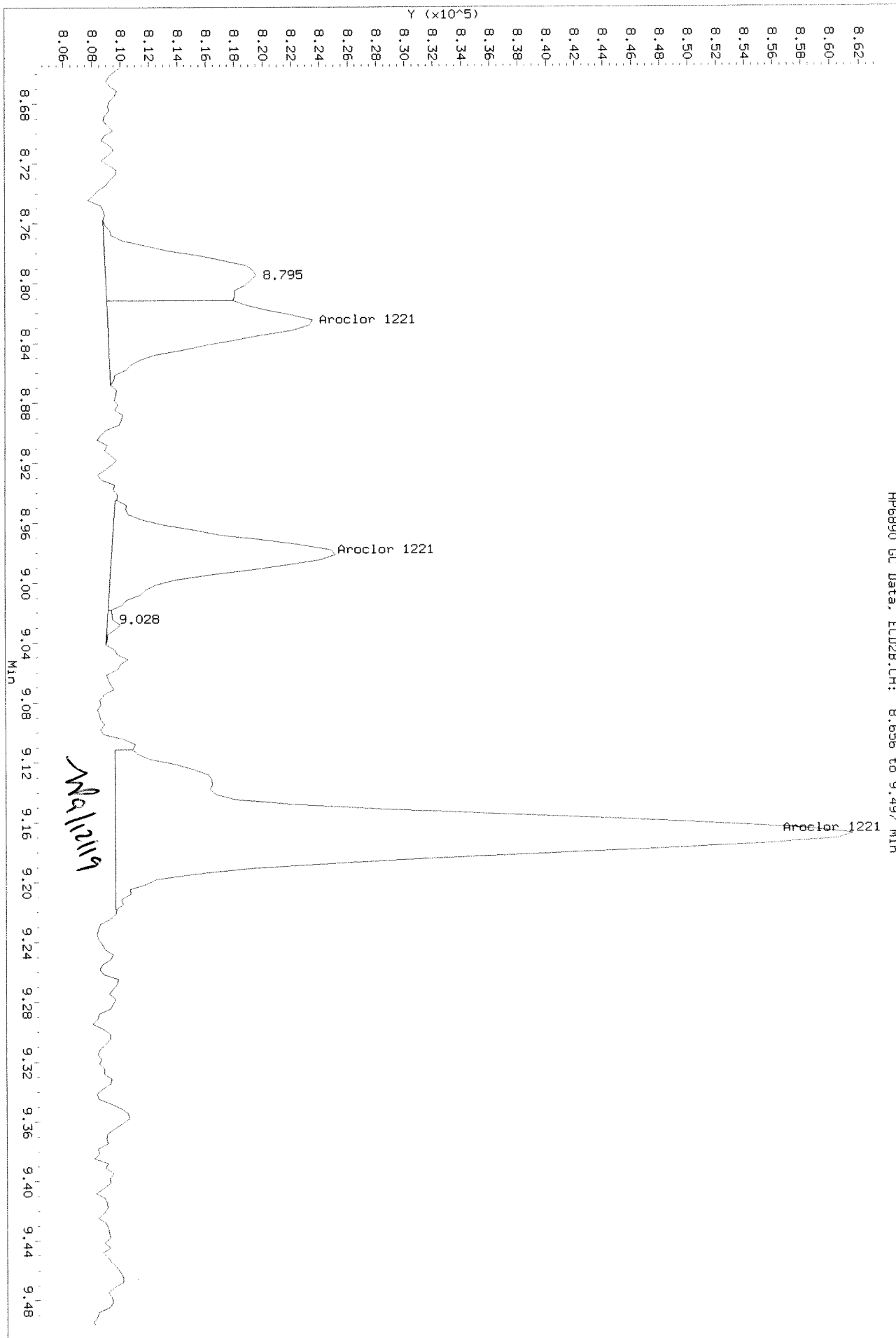
HP6890 GC Data, ECD2B.CH: 8.656 to 9.497 MIN



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F014.D
Injection Date: 04-SEP-2019 23:17
Instrument: GC27.1
Client Sample ID:

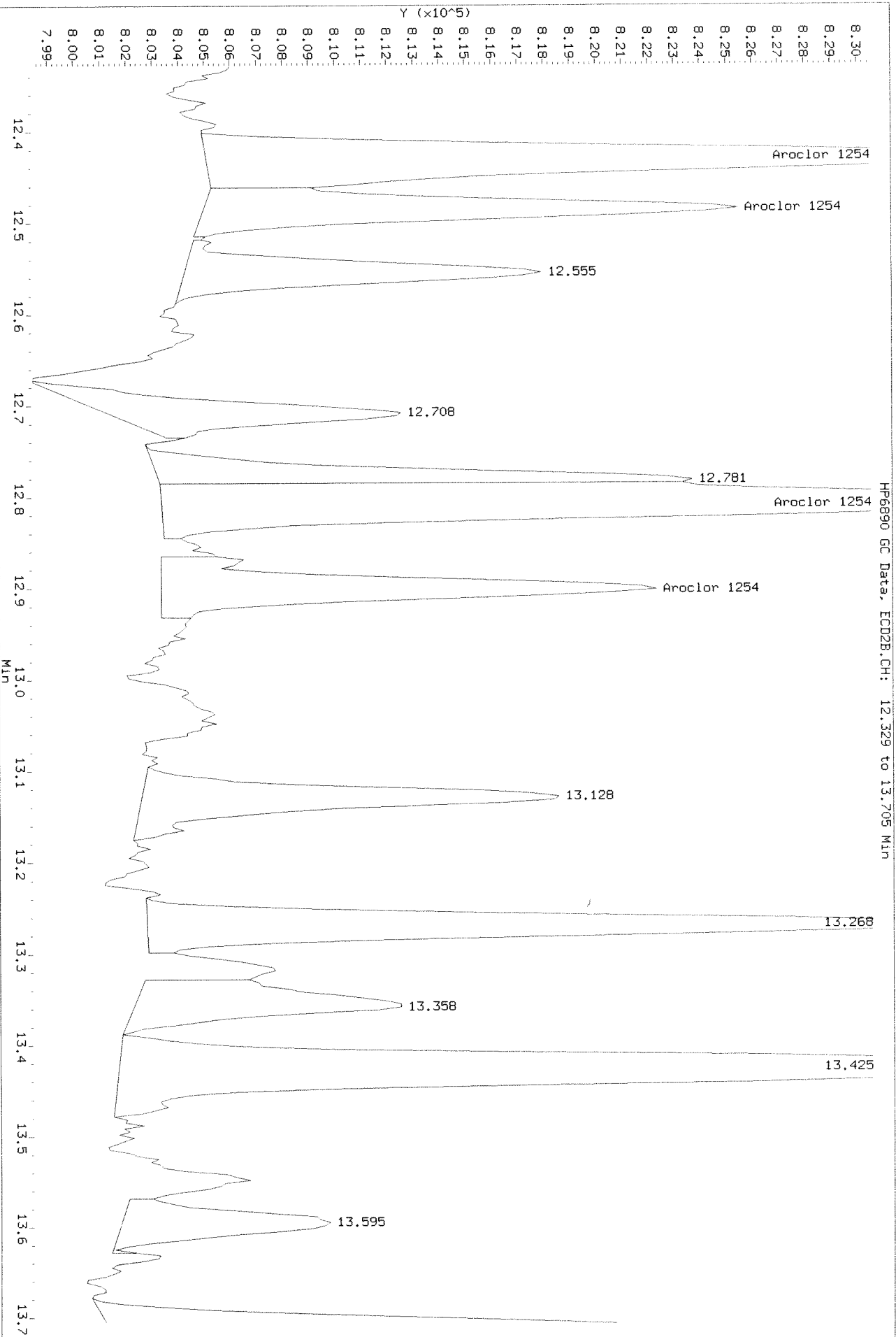
HP6890 GC Data, ECD2B.CH: 8.656 to 9.497 MIN

After base line/shoulder 9/11/19 SA



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F014.D
Injection Date: 04-SEP-2019 23:17
Instrument: GC27.1
Client Sample ID:

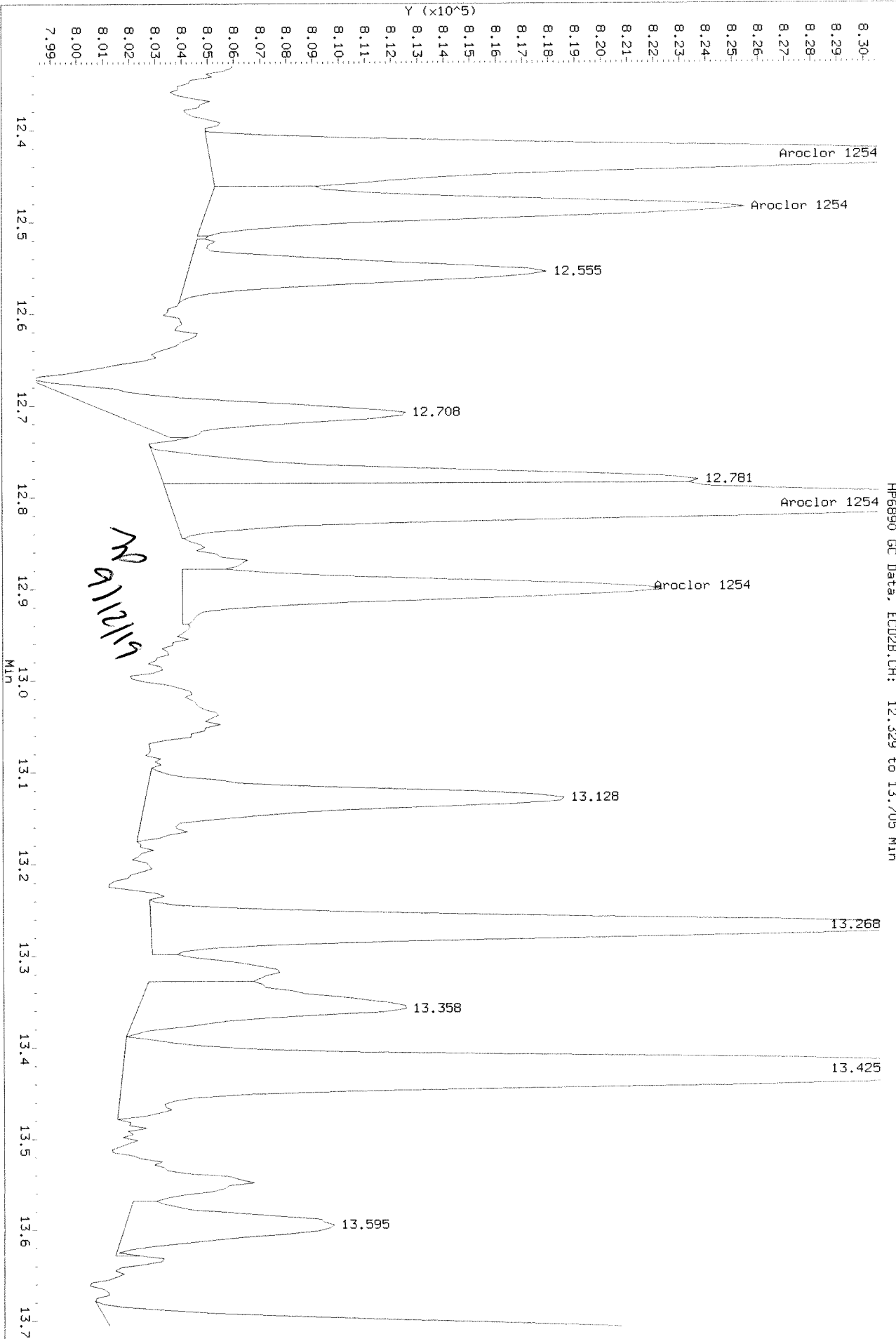
Refer



Data File: \\alkisw002\instdata\GC27\Data\090419ICALL_r_b\0904F014.D
Injection Date: 04-SEP-2019 23:17
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 12.329 to 13.705 MIN

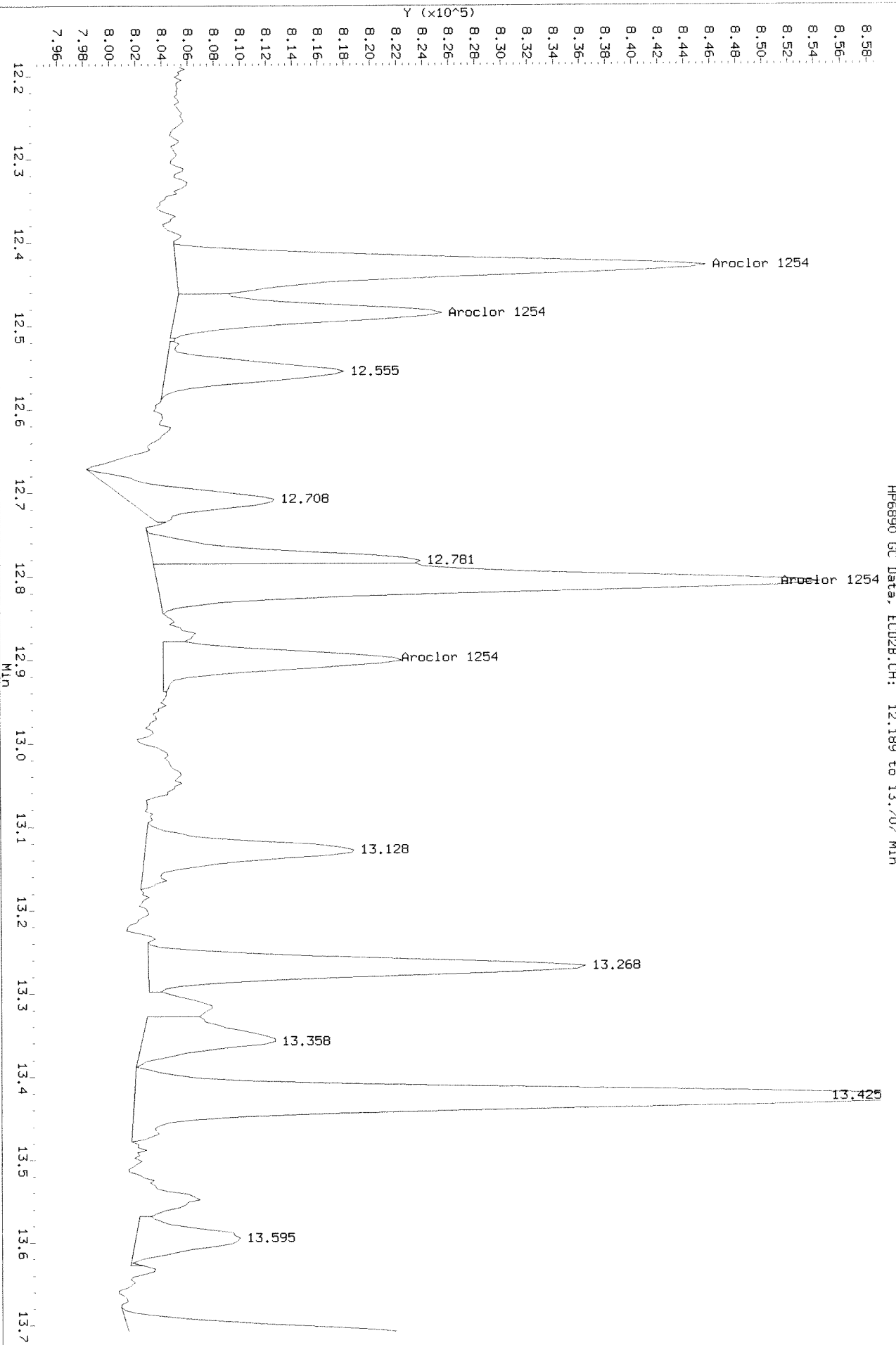
After shoulder 9/11/19 SA



Data File: \\alklsws002\instdata\GC27\Data\090419ICL-r.b\0904F014.D
Injection Date: 04-SEP-2019 23:17
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 12.189 to 13.707 Min

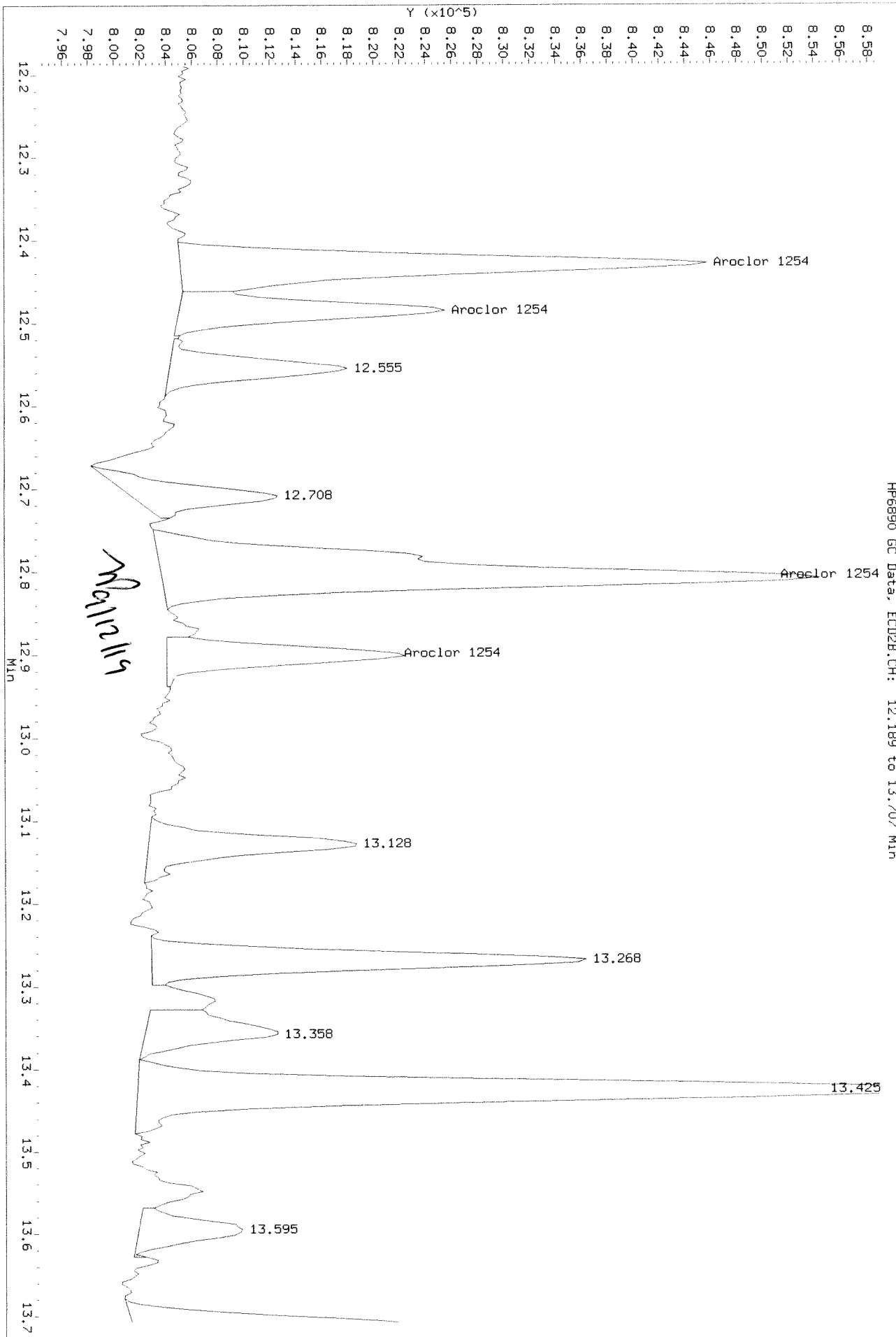
Before



Data File: \\alk1sws002\instdata\GC27\Data\090419ICALL_r.b\0904F014.D
Injection Date: 04-SEP-2019 23:17
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 12.189 to 13.707 Min

After base line 9/11/19 AS



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F015.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F015.D
 Inj Date : 04-SEP-2019 23:48
 Sample Info: PCB8-13C 2154 @ 5-10 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 2154.sub
 Sub List #2 : 2154.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1221	7.658	8.824	249026	60415	10.8	9.29	80.00- 120.00	100.00
	7.894	8.981	147882	65463	10.1	10.1	50.93- 76.39	59.38
	8.058	9.168	577373	253591	10.5	10.2	190.33- 285.49	231.85
	Average of Peak Amounts =				10.5	9.86		
Aroclor 1254	11.774	12.428	183207	170987	5.07	5.29	80.00- 120.00	100.00 (M)
	12.241	12.484	320540	84384	5.13	4.97	137.86- 206.79	174.96 (M)
	12.401	12.808	640312	260656	5.19	5.28	268.82- 403.23	349.50 (M)
	12.741	12.901	377788	74408	5.18	4.84	164.76- 247.13	206.21 (M)
	13.301	14.374	243150	125921	5.33	5.19	106.40- 159.60	132.72 (M)
Average of Peak Amounts =				5.18	5.11			

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
W

Data File: \\alklsws002\instdata\GC27\Data\090419ICRL.b\0904F015.D

Date : 04-SEP-2019 23:48

Client ID:

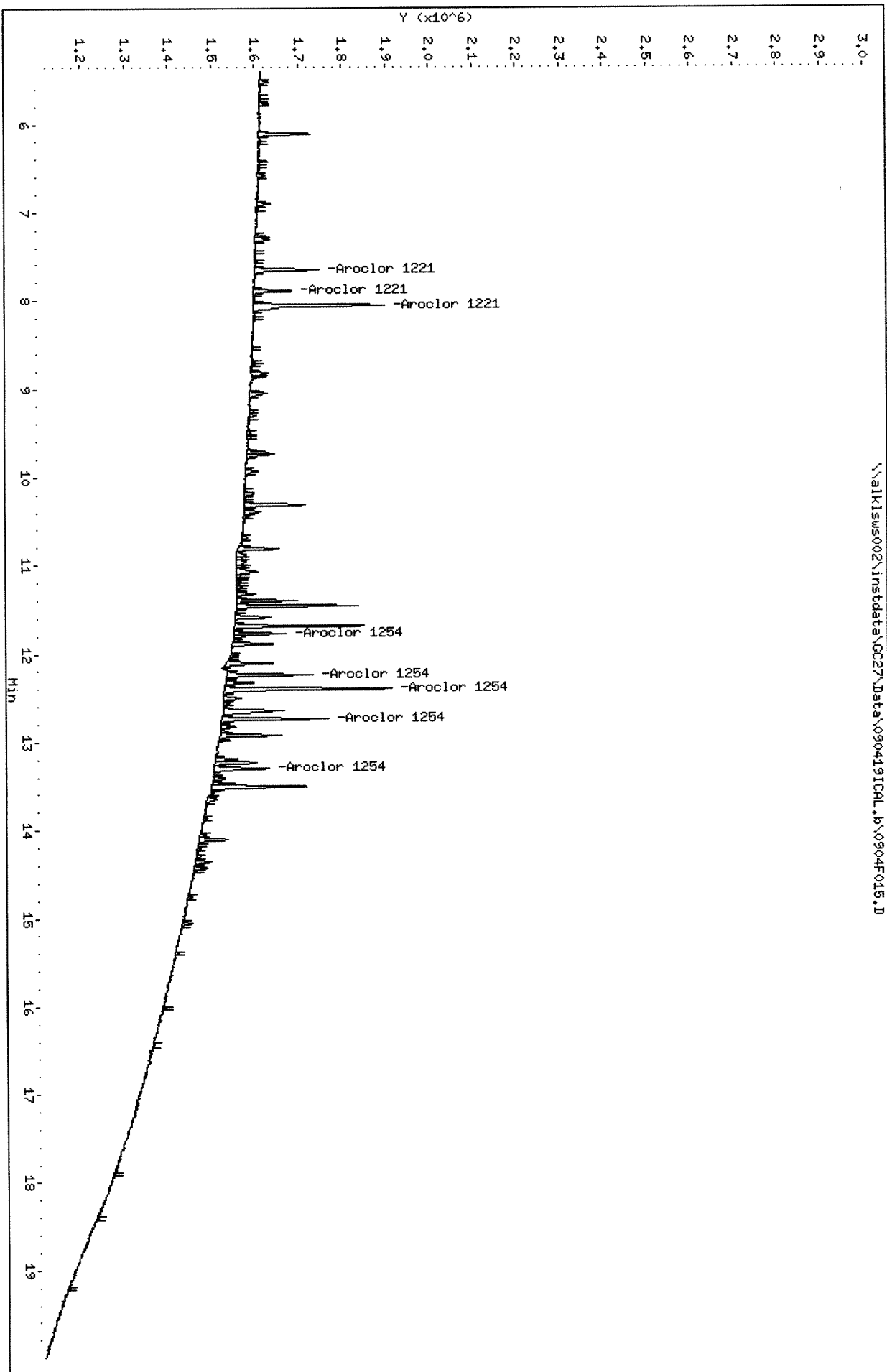
Sample Info: PCB8-13C 2154 @ 5-10 PPB

Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Data File: \\aikisus002\inst\data\GC27\Data\090419ICAL_r.b\0904F015.D

Date: 04-SEP-2019 23:48

Client ID:

Sample Info: PCB8-13C 2154 @ 5-10 PPB

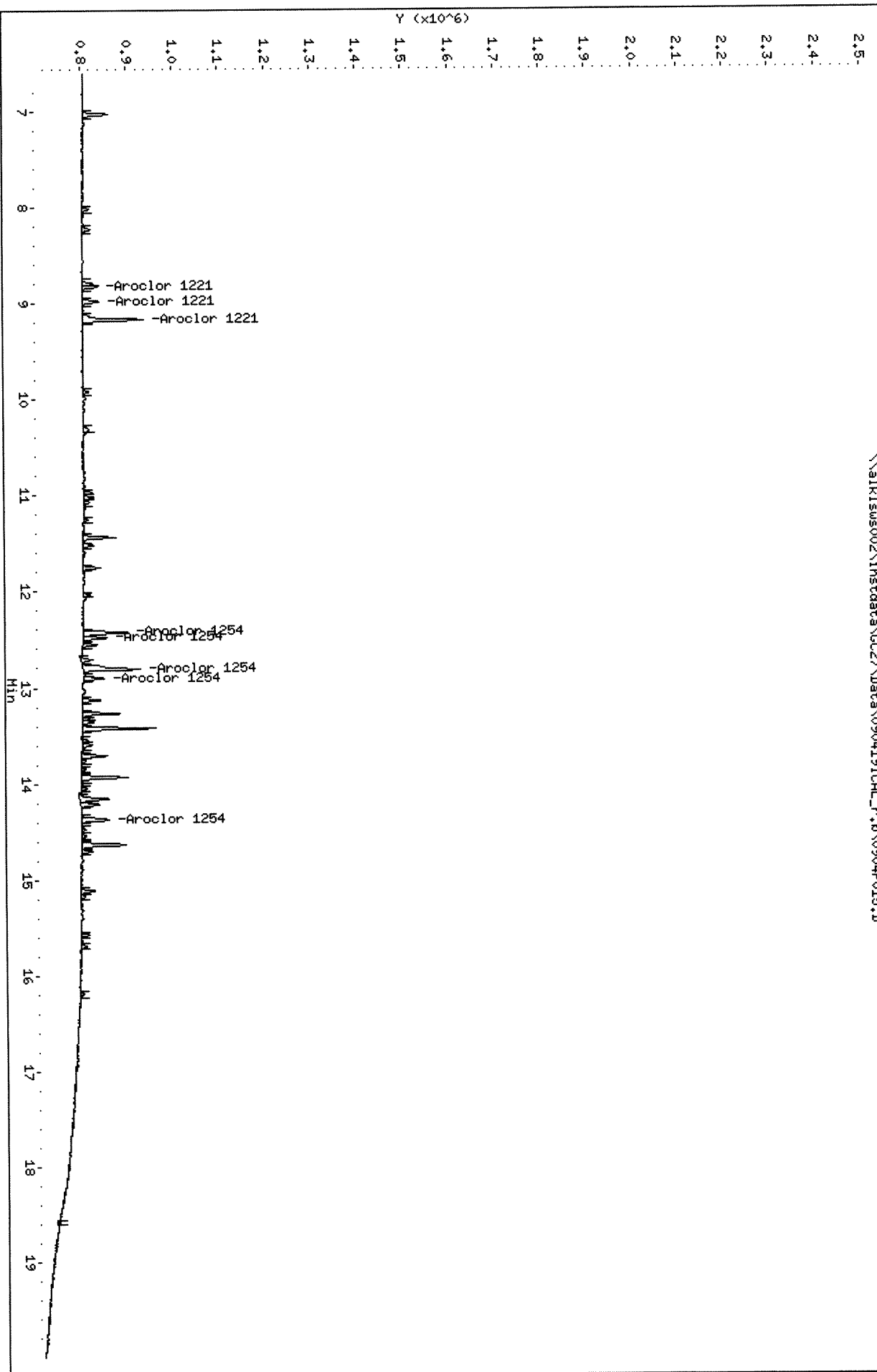
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

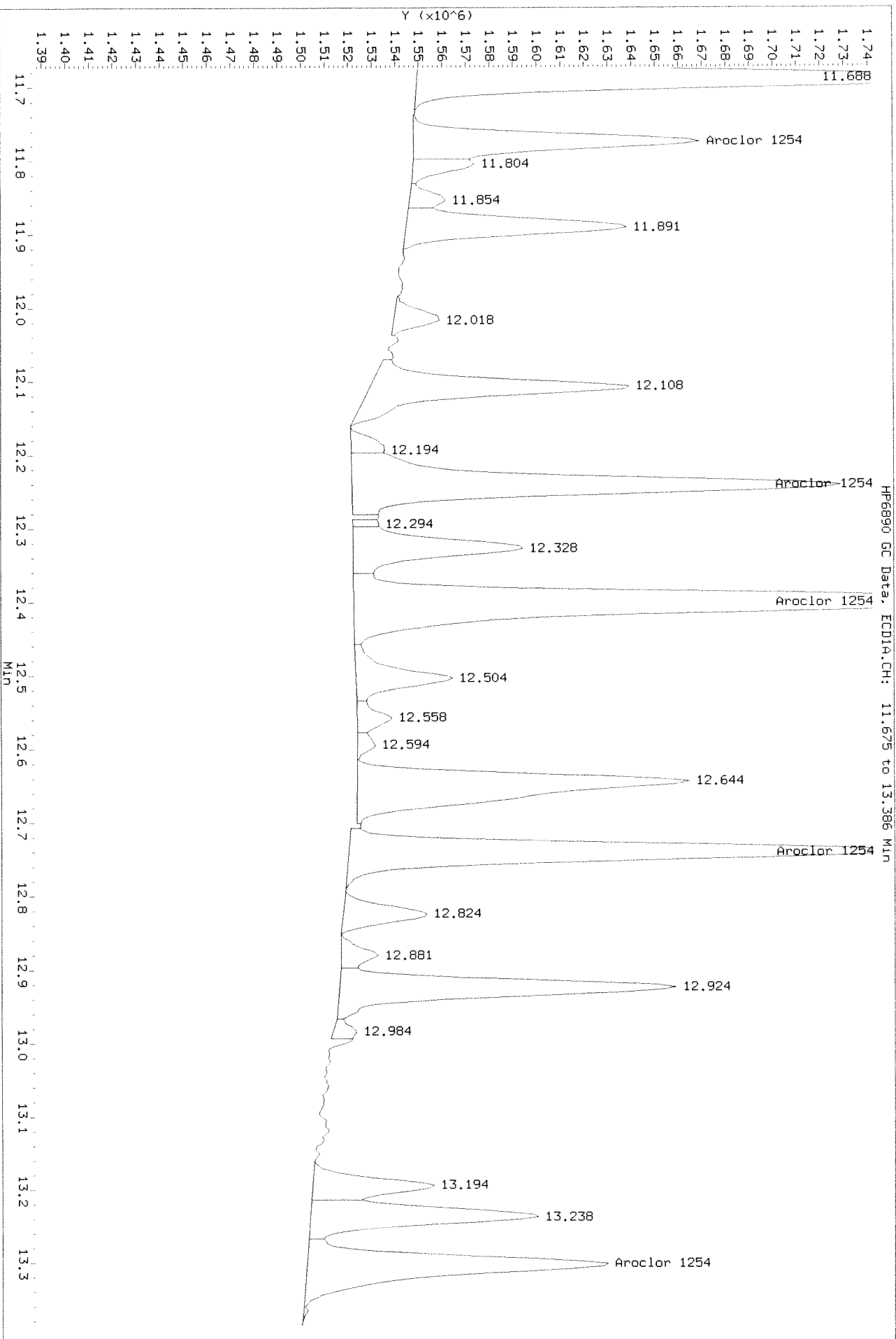
Column diameter: 0.32

\\aikisus002\inst\data\GC27\Data\090419ICAL_r.b\0904F015.D



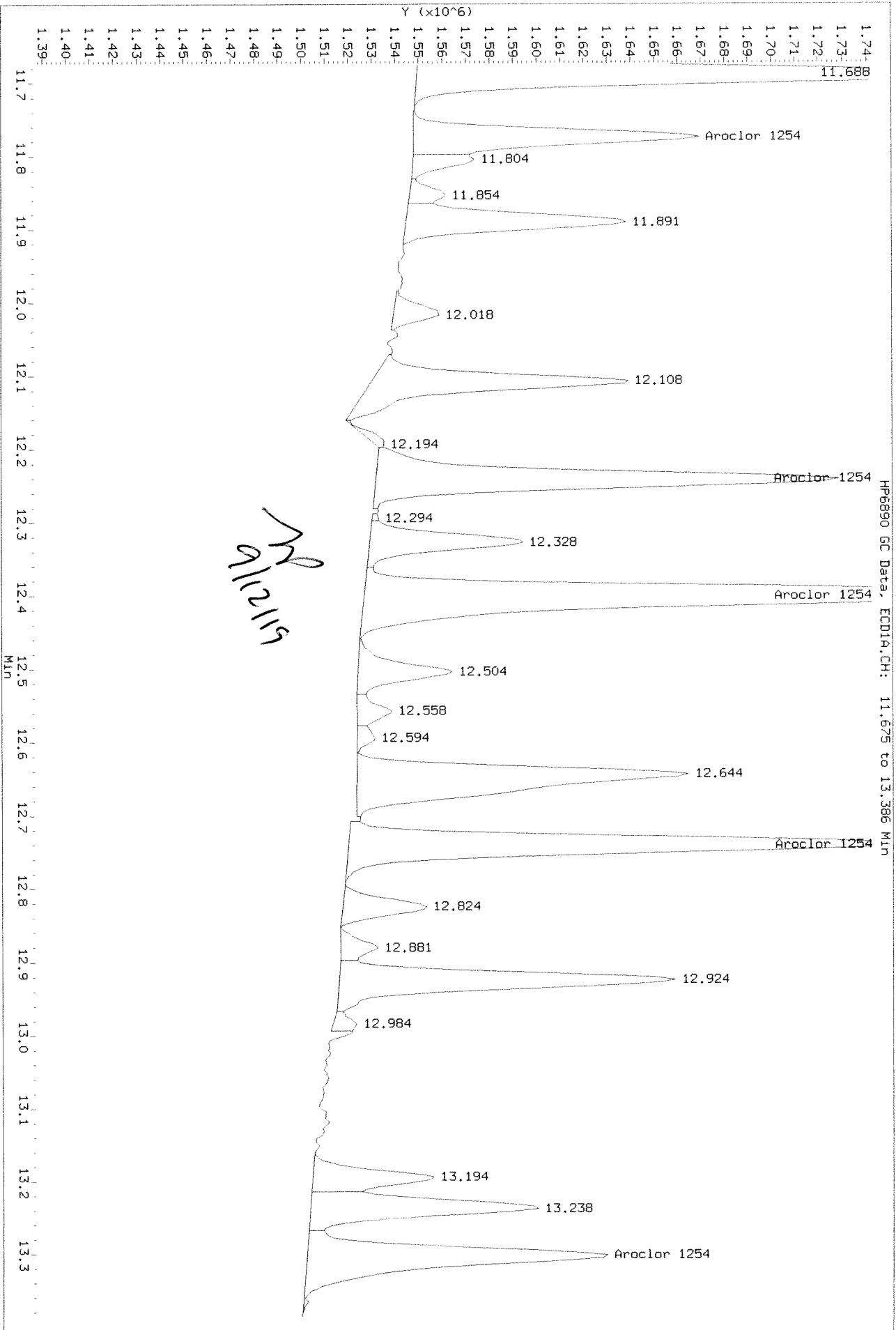
Data File: \\alklms002\instdata\GC27\Data\090419ICAL.P\0904F015.D
Injection Date: 04-SEP-2019 23:48
Instrument: GC27.1
Client Sample ID:

Before



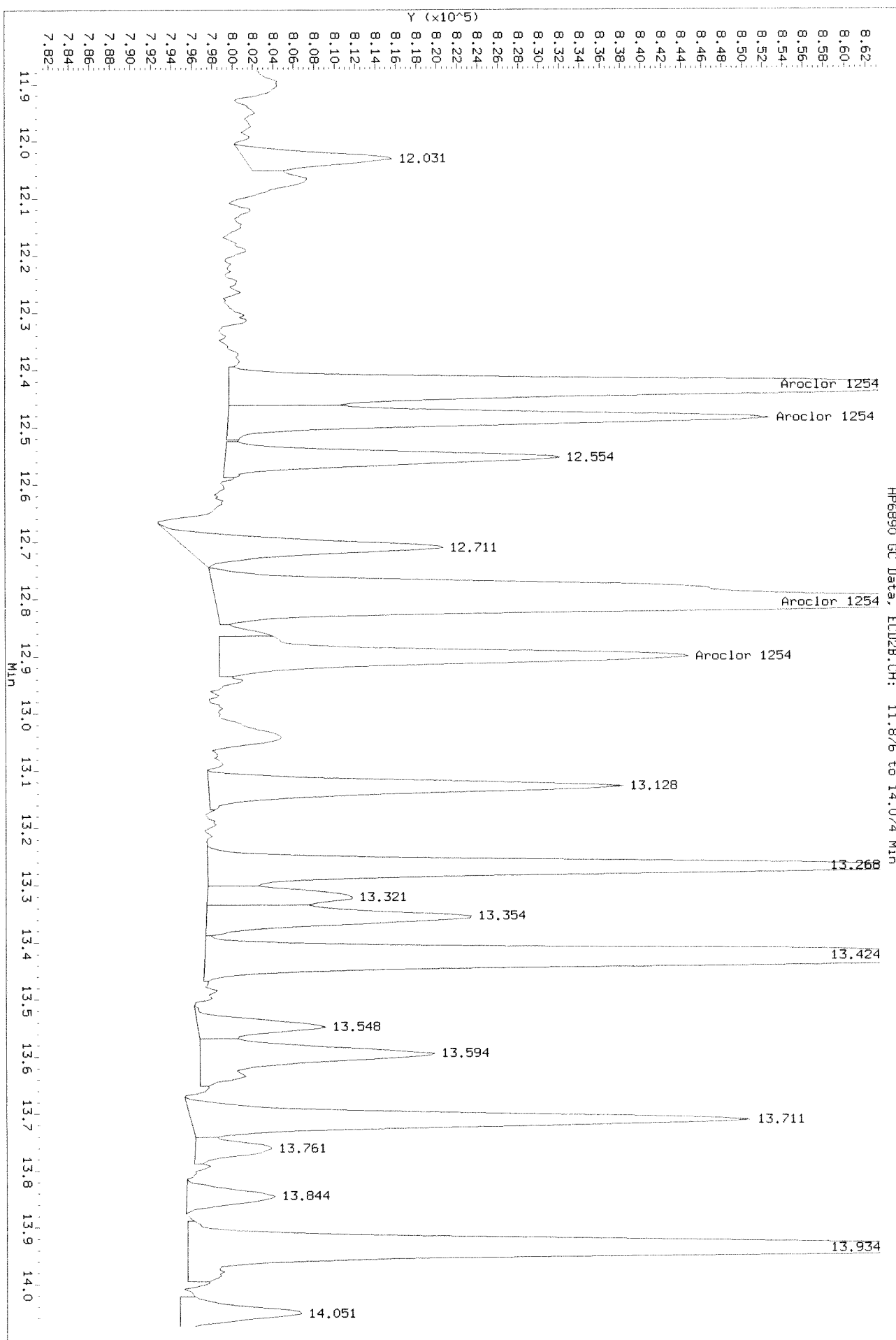
Data File: \\alkisw002\instdata\GC27\Data\090419ICAL.b\0904F015.D
Injection Date: 04-SEP-2019 23:48
Instrument: GC27.1
Client Sample ID:

After base line 9/11/19 A



Data File: \\alkisw002\instdata\GC27\Data\090419ICL_r.b\0904F015.D
Injection Date: 04-SEP-2019 23:48
Instrument: GC27.1
Client Sample ID:

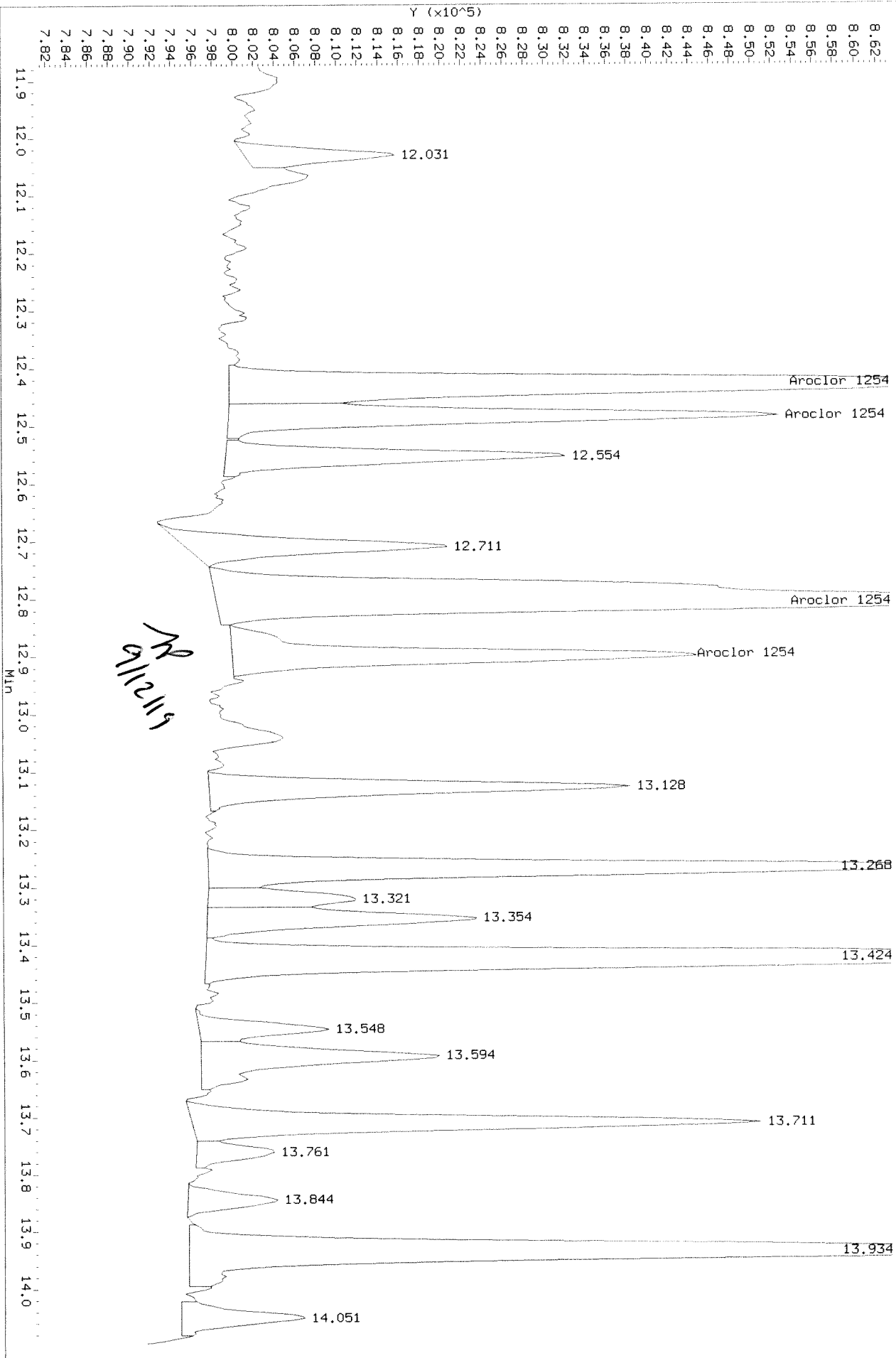
Before



Data File: \\alk1swe002\inetdata\GC27\Data\090419ICAL_r.b\0904F015.D
Injection Date: 04-SEP-2019 23:48
Instrument: GC27.1
Client Sample ID:

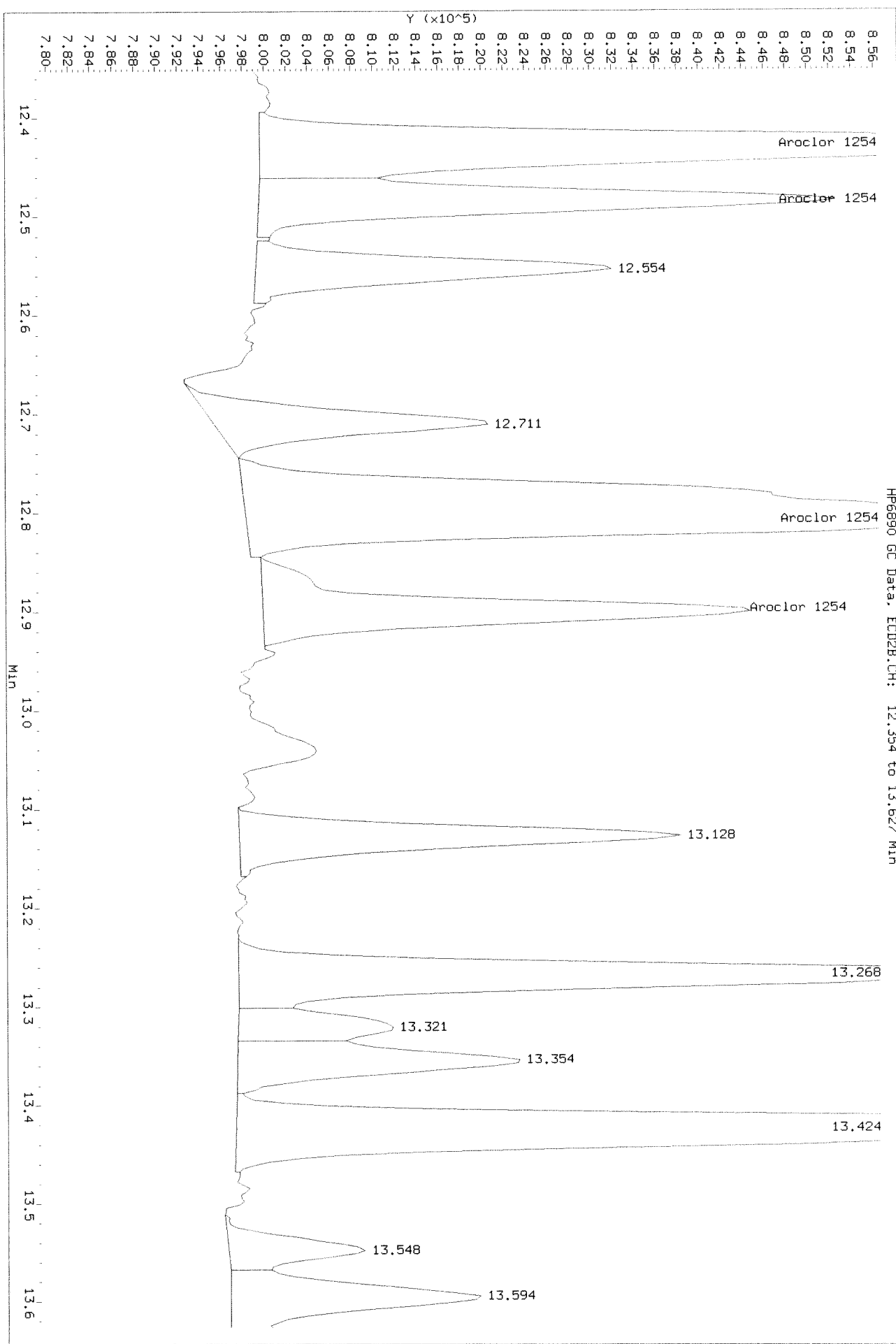
HP6890 GC Data, ECD2B.CH: 11.877 to 14.095 Min

After baseline 9/11/19 SA



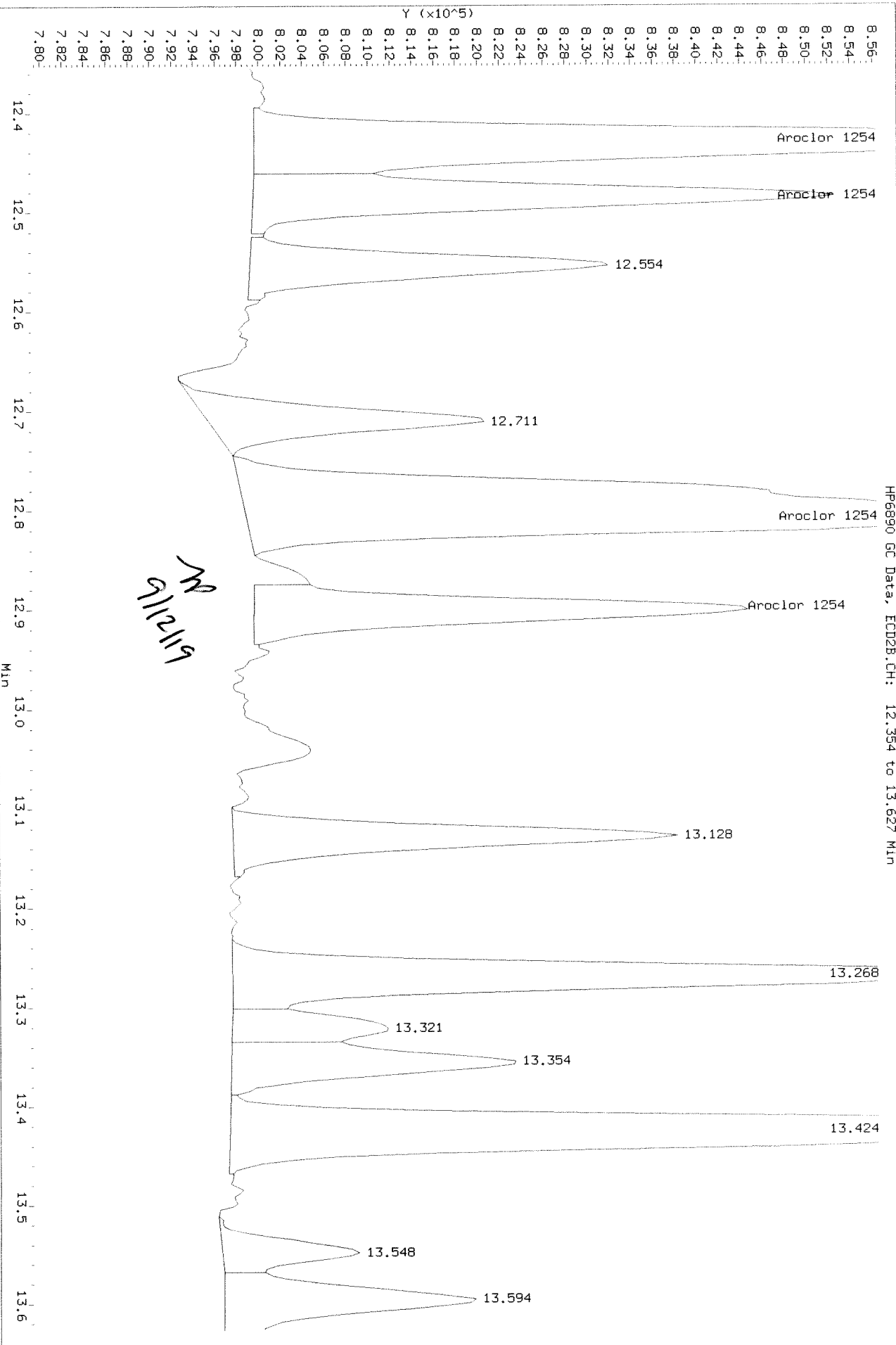
Data File: \\alklsws002\instdata\GC27\Data\090419ICALL_r.b\0904F015.D
Injection Date: 04-SEP-2019 23:48
Instrument: GC27.1
Client Sample ID:

Before



Data File: \\alklsws002\instdata\GC27\Data\090419ICL-r.b\0904F015.D
Injection Date: 04-SEP-2019 23:48
Instrument: GC27.1
Client Sample ID:

After Shoulder 9/11/19 A



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F016.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F016.D
Inj Date : 05-SEP-2019 00:20
Sample Info: PCB8-13D 2154 @ 10-20 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:37
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : 2154.sub
Sub List #2 : 2154.sub
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1221	7.657	8.824	490382	136448	21.3	21.0	80.00- 120.00	100.00
	7.894	8.981	309183	136520	21.1	21.2	50.93- 76.39	63.05
	8.057	9.168	1169089	560156	21.4	22.5	190.33- 285.49	238.40
	Average of Peak Amounts =				21.3	21.6		
Aroclor 1254	11.774	12.428	396281	372091	11.0	11.5	80.00- 120.00	100.00 (M)
	12.241	12.484	671346	195936	10.7	11.5	137.86- 206.79	169.41 (M)
	12.397	12.808	1334279	568132	10.8	11.5	268.82- 403.23	336.70 (M)
	12.741	12.901	807284	172519	11.1	11.2	164.76- 247.13	203.72 (M)
	13.304	14.374	503361	276693	11.0	11.4	106.40- 159.60	127.02 (M)
	Average of Peak Amounts =				10.9	11.4		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
W

Data File: \\a1k1sws002\instdata\GC27\Data\090419ICL.b\0904F016.D

Date : 05-SEP-2019 00:20

Client ID:

Sample Info: PCB8-13D 2154 @ 10-20 PPB

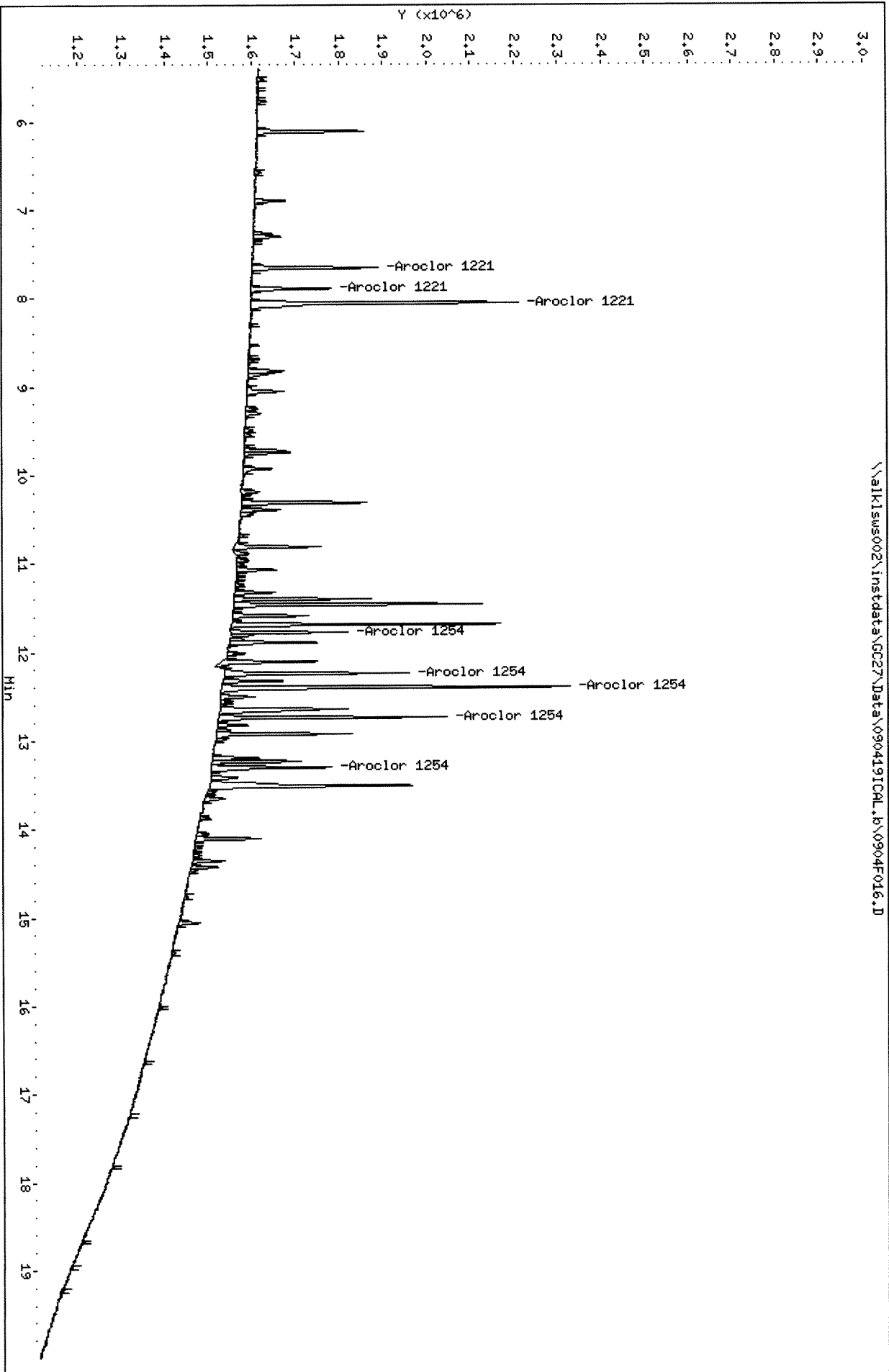
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\a1k1sws002\instdata\GC27\Data\090419ICL.b\0904F016.D



Data File: \\aik1s002\instdata\GC27\Data\090419ICL_r_b\0904F016.D
Date: 05-SEP-2019 00:20

Client ID:

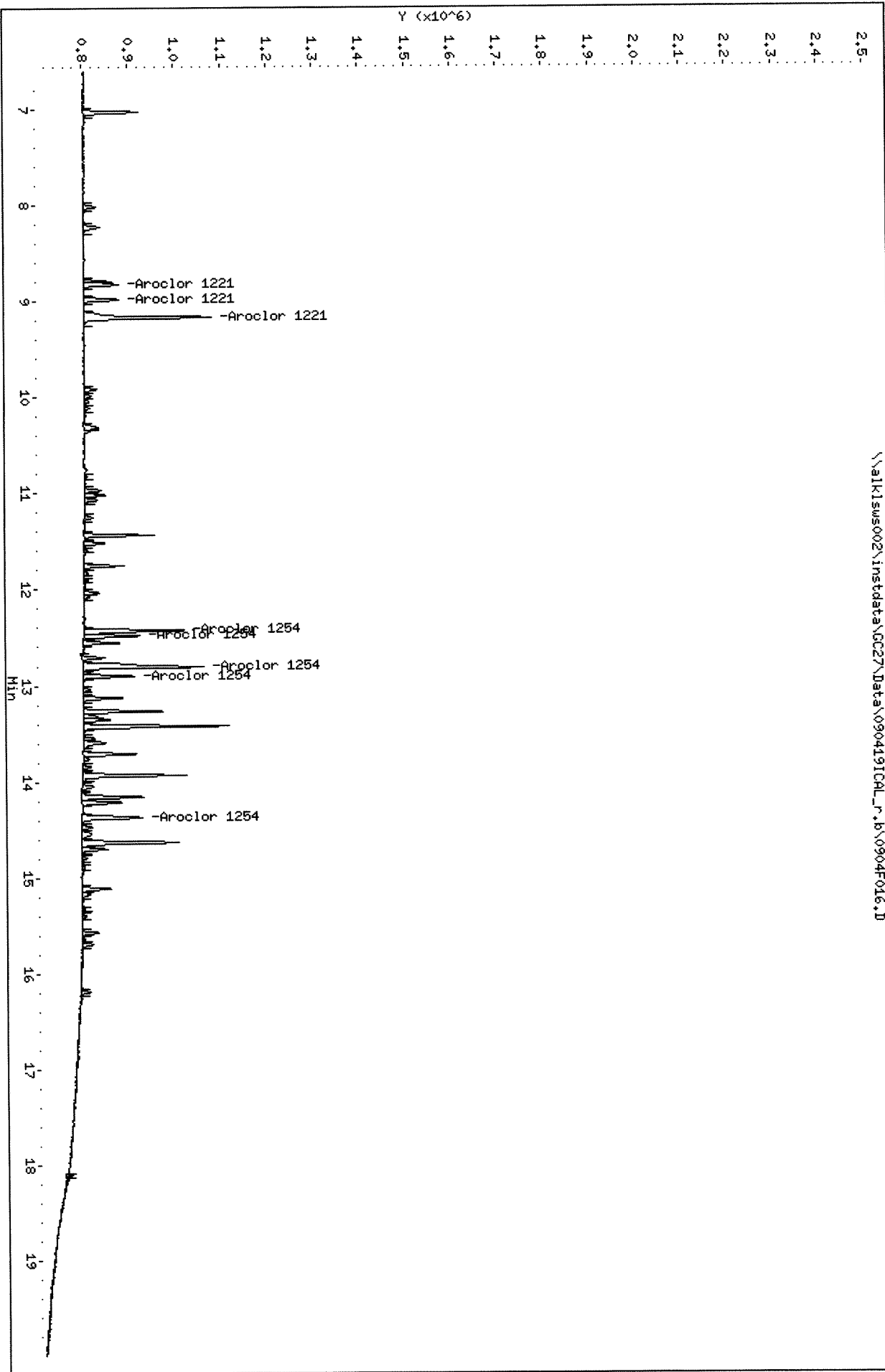
Sample Info: PCB8-13D 2154 @ 10-20 PPB

Column phase: DB-XLB

Instrument: GC27.i

Operator: SAH
Column diameter: 0.32

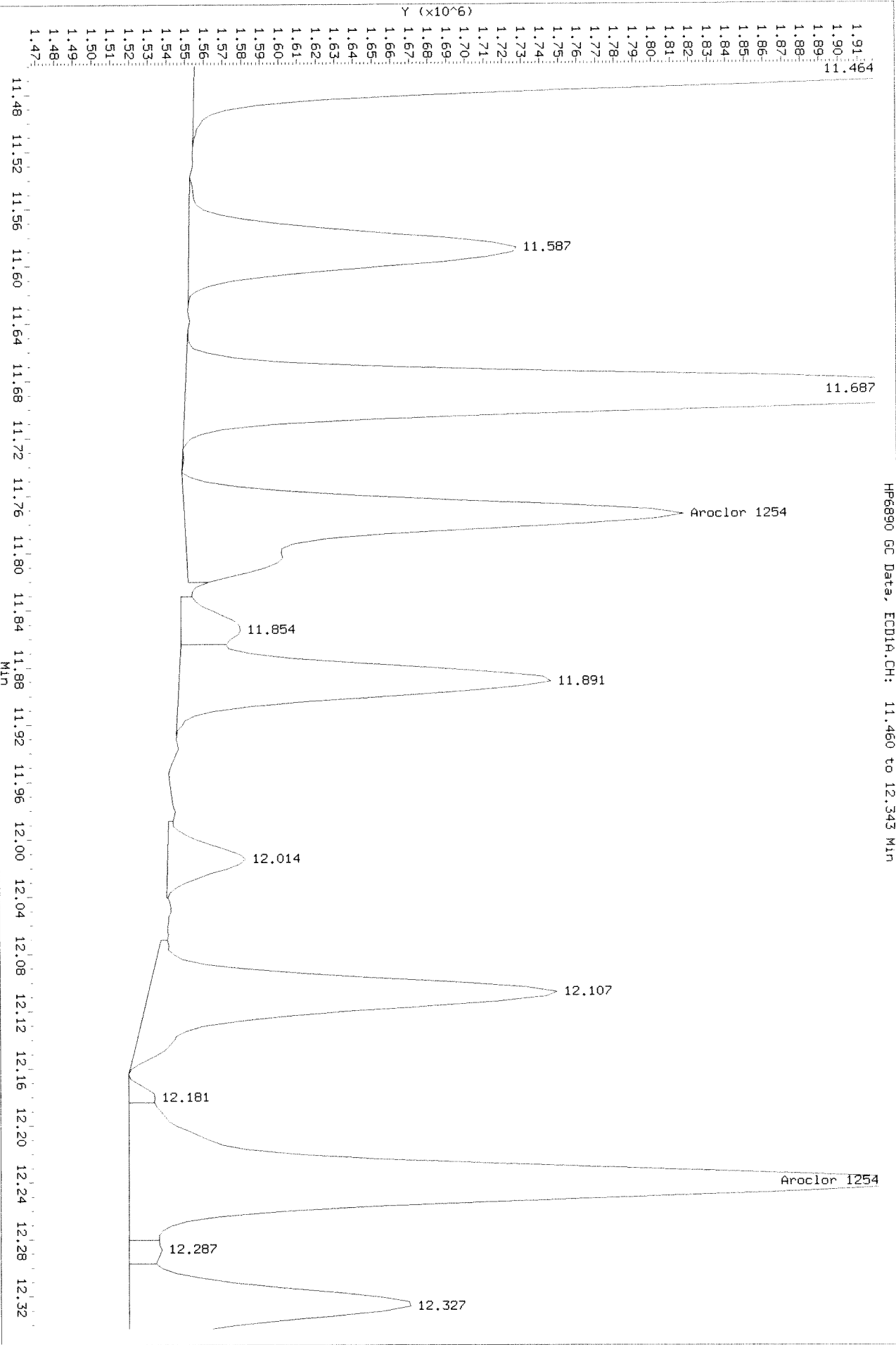
\\aik1s002\instdata\GC27\Data\090419ICL_r_b\0904F016.D



Data File: \\alklms002\instdata\GC27\Data\090419ICAL.P\0904F016.D
Injection Date: 05-SEP-2019 00:20
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 11.460 to 12.343 MIN

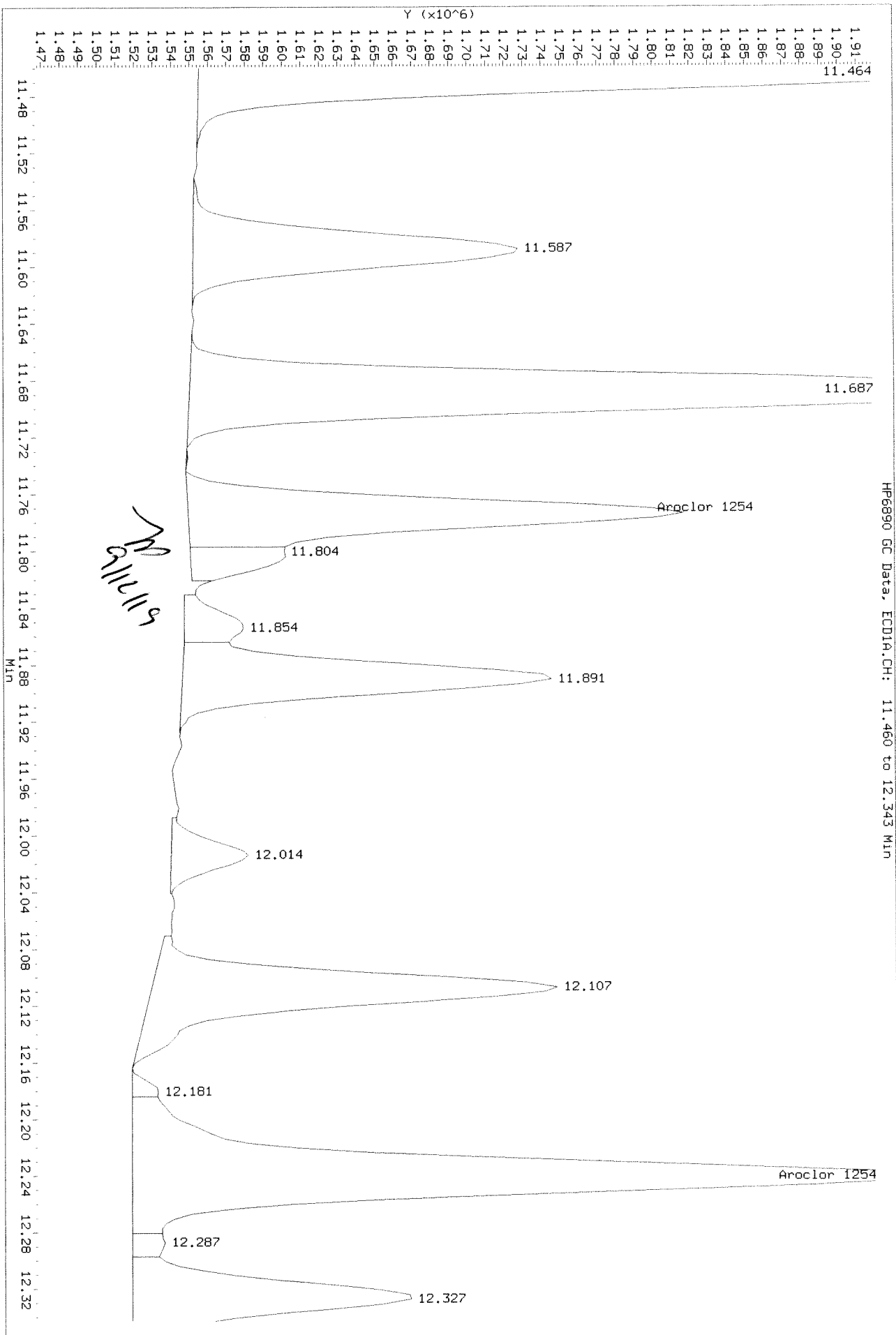
De fare 9/11/19 SA



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F016.D
Injection Date: 05-SEP-2019 00:20
Instrument: GC27.1
Client Sample ID:

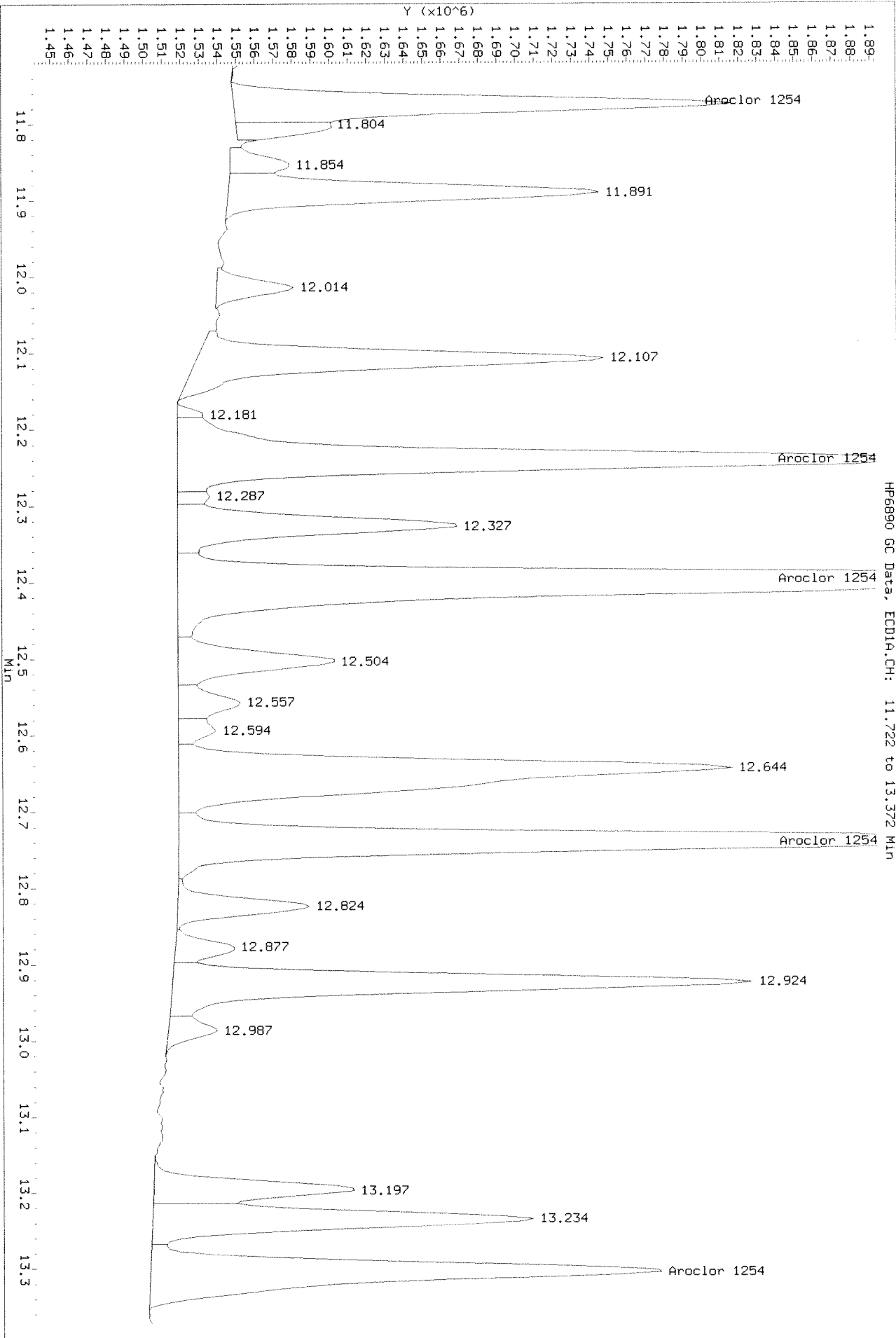
After Shaker 9/11/19 SA

HP6890 GC Data, ECD1A.CH: 11.460 to 12.343 MIN



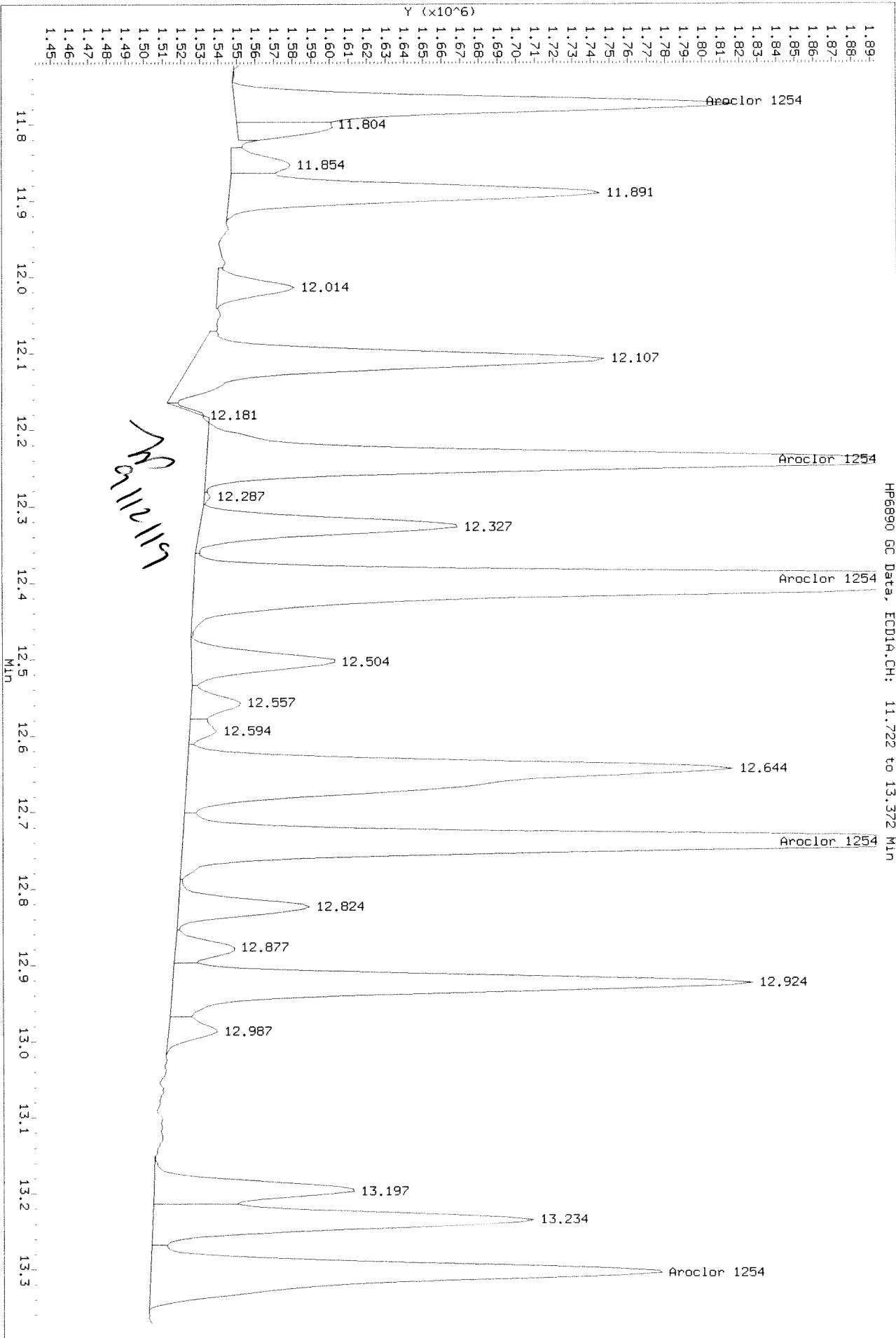
Data File: \\alkisw002\instdata\GC27\Data\090419ICAL.P\0904F016.D
Injection Date: 05-SEP-2019 00:20
Instrument: GC27.1
Client Sample ID:

Before 9/11/19 A



Data File: \\alklsws002\instdata\GC27\Data\090419ICDL.b\0904F016.D
Injection Date: 05-SEP-2019 00:20
Instrument: GC27.1
Client Sample ID:

After baseline 9/11/19



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F017.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F017.D
 Inj Date : 05-SEP-2019 00:51
 Sample Info: PCB7-91E 2154 @ 20-40 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 2154.sub
 Sub List #2 : 2154.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1221	7.656	8.826	885668	267185	38.4	41.1	80.00- 120.00	100.00 (M)
	7.892	8.979	569615	263336	38.9	40.8	50.93- 76.39	64.31 (M)
	8.056	9.166	2128430	1027367	38.9	41.3	190.33- 285.49	240.32 (M)
	Average of Peak Amounts =				38.7	41.1		
Aroclor 1254	11.776	12.429	690894	655289	19.1	20.3	80.00- 120.00	100.00 (M)
	12.242	12.482	1166368	357269	18.6	21.0	137.86- 206.79	168.82 (M)
	12.399	12.806	2298648	993369	18.6	20.1	268.82- 403.23	332.71 (M)
	12.739	12.899	1367151	309841	18.7	20.2	164.76- 247.13	197.88 (M)
	13.302	14.372	892892	468216	19.6	19.3	106.40- 159.60	129.24 (M)
Average of Peak Amounts =				18.9	20.2			

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
 W

Data File: \\alklsws002\instdata\GC27\Data\090419ICQL.b\0904F017.D
Date : 05-SEP-2019 00:51

Client ID:

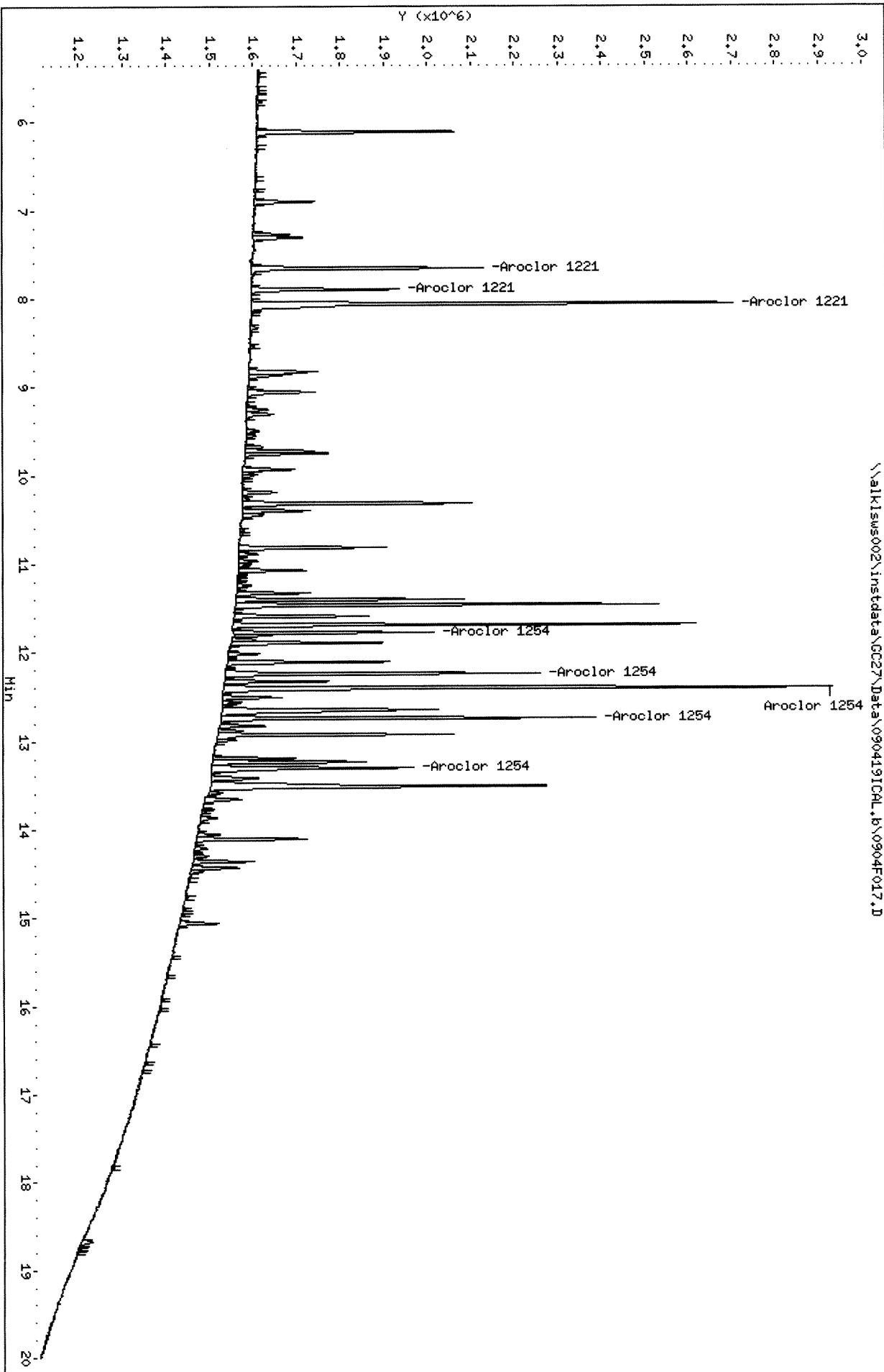
Sample Info: PCB7-91E 2154 @ 20-40 PPB

Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Data File: \\alkl1sus002\instdata\GC27\Data\090419ICQL_r.b\0904F017.D
Date : 05-SEP-2019 00:51

Client ID:

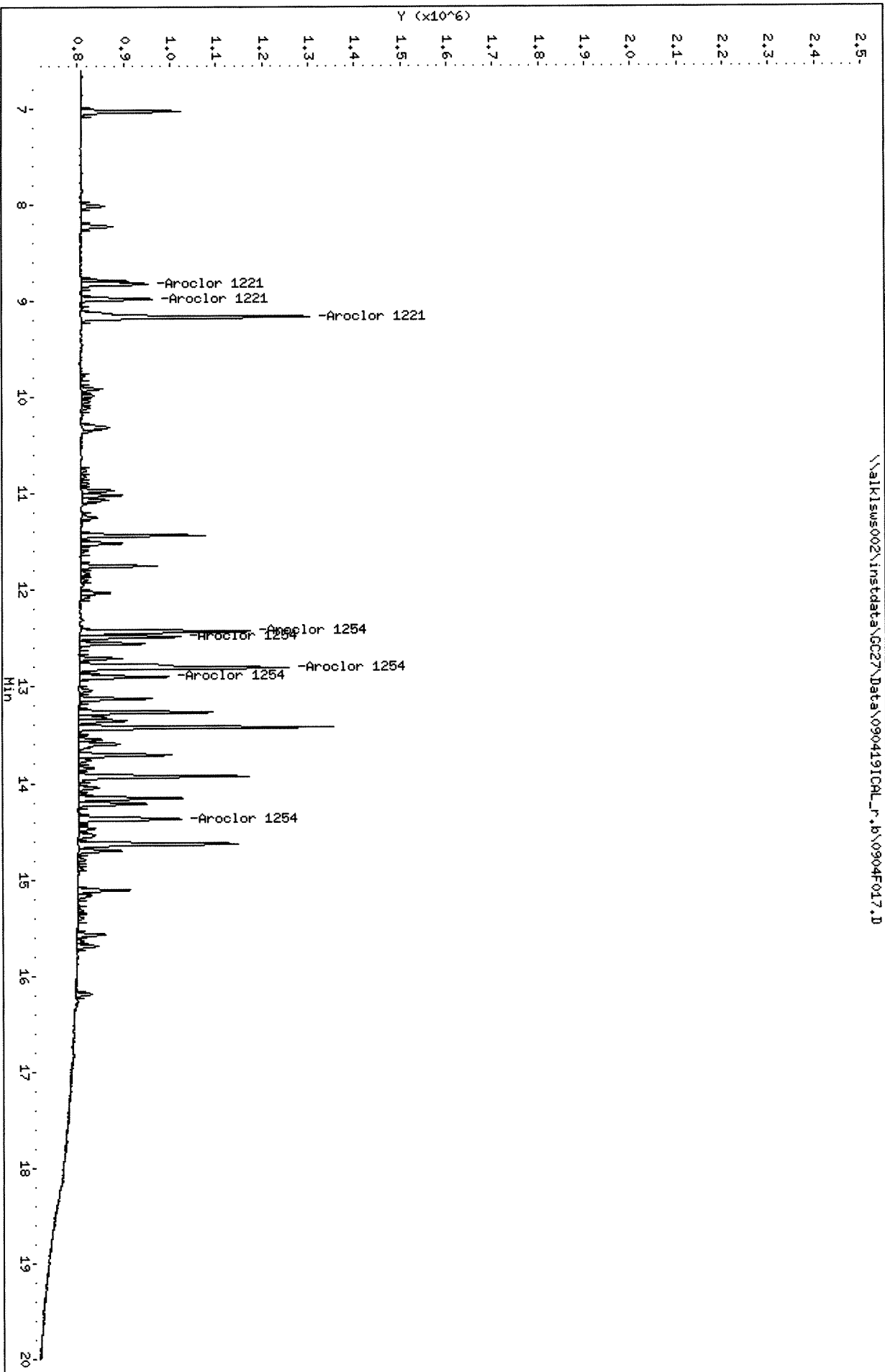
Sample Info: PCB7-91E 2154 @ 20-40 PPB

Column phase: DB-XLB

Instrument: GC27.i

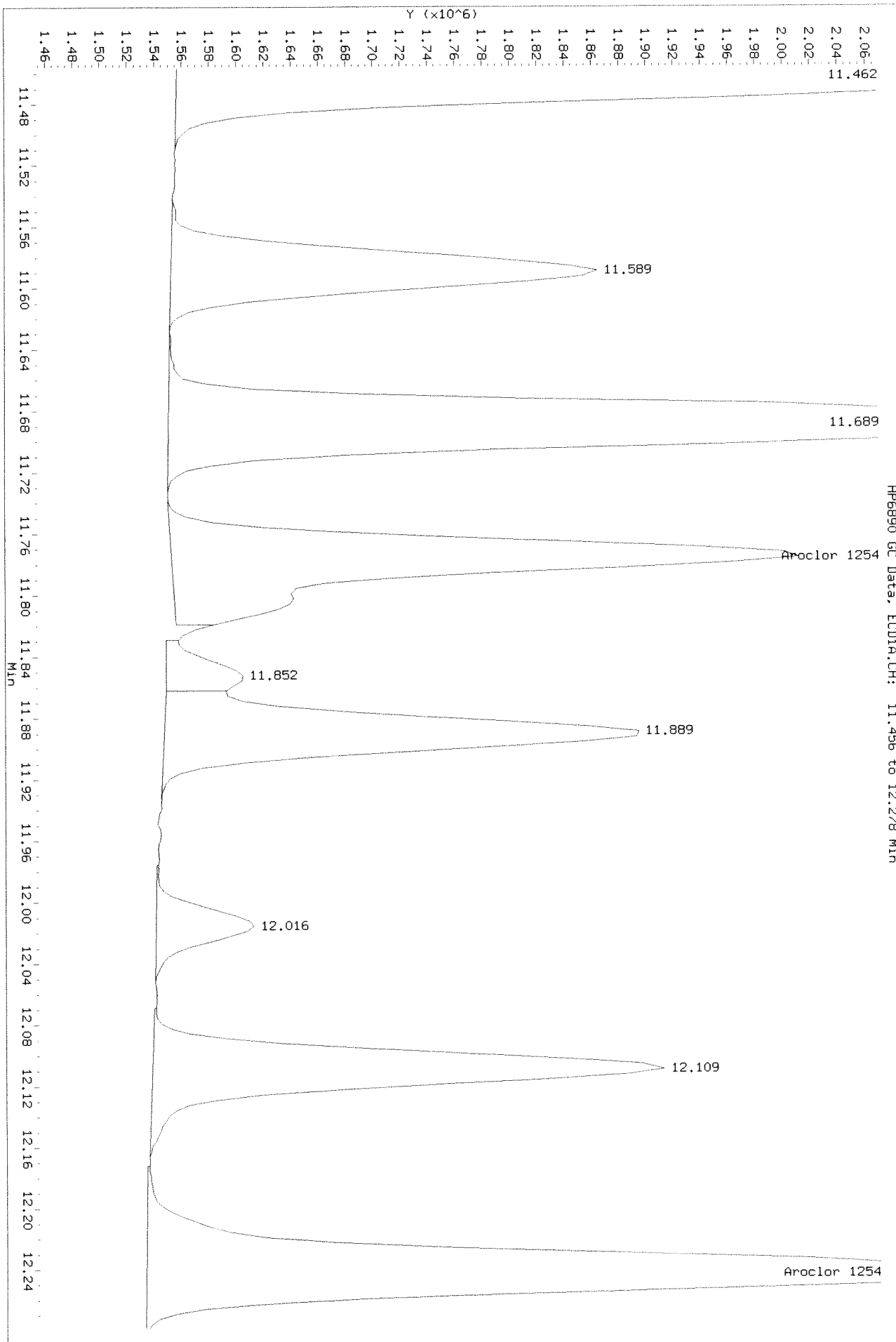
Operator: S99

Column diameter: 0.32



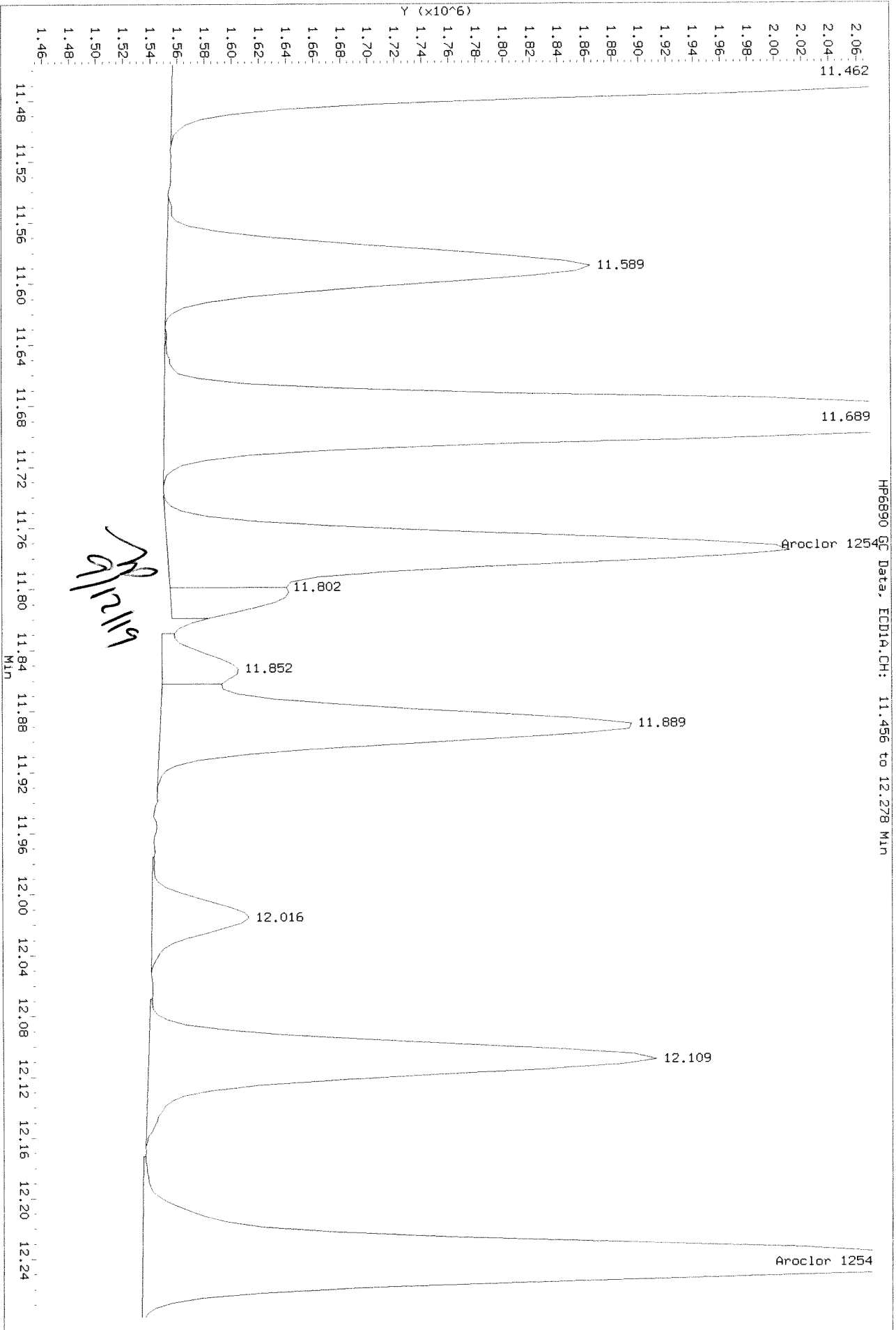
Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F017.D
Injection Date: 05-SEP-2019 00:51
Instrument: GC27.1
Client Sample ID:

Before



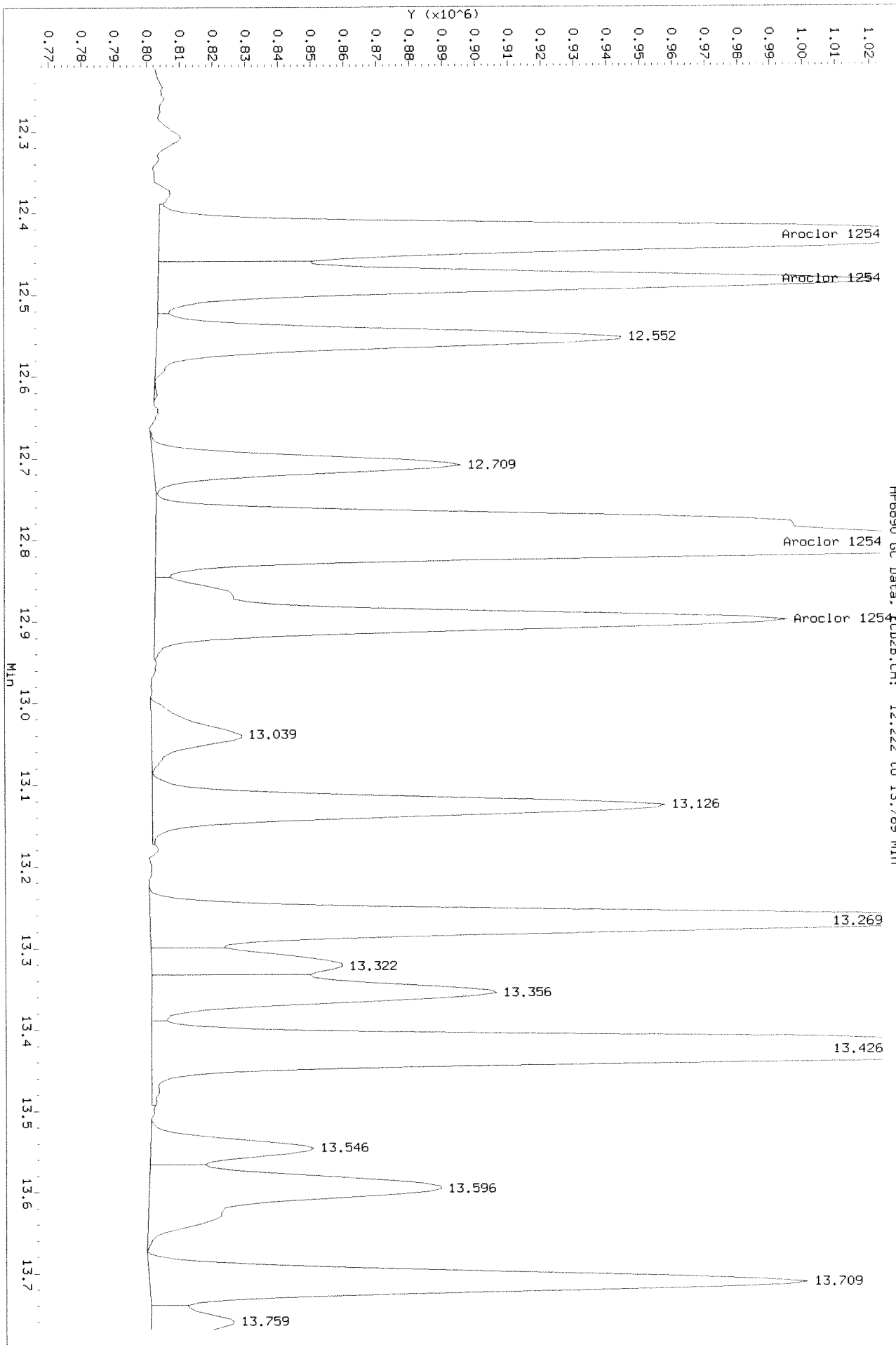
Data File: \\alk1sws002\instdata\GC27\Data\090419ICL.b\0904F017.D
Injection Date: 05-SEP-2019 00:51
Instrument: GC27.1
Client Sample ID:

After shoulder 9/11/19 SA



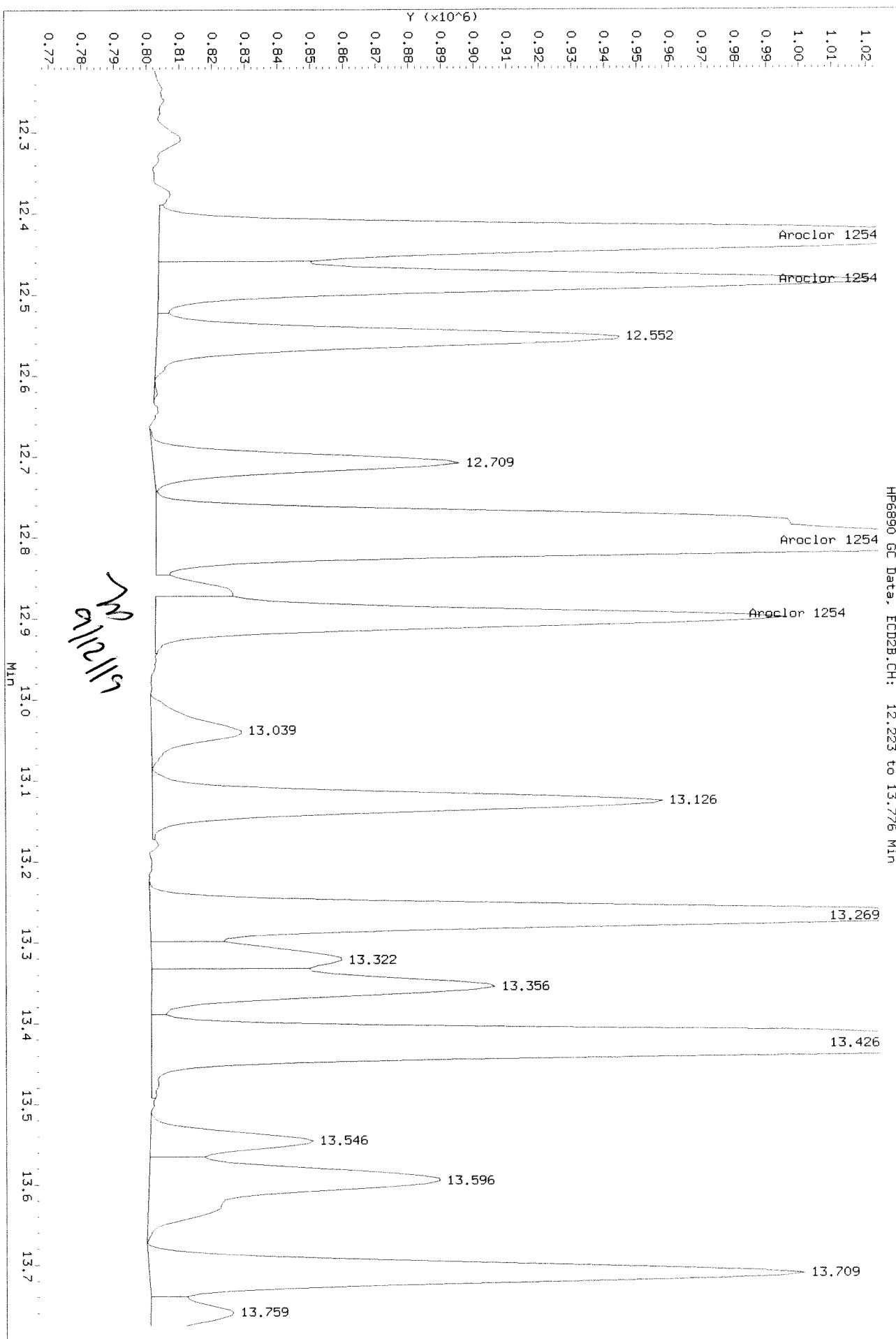
Data File: \\alklsws002\instdata\GC27\Data\090419ICL-r.b\09041017.D
Injection Date: 05-SEP-2019 00:51
Instrument: GC27.1
Client Sample ID:

Before



Data File: \\alk1sw002\instdata\GC27\Data\090419ICAL_r_b\0904F017.D
Injection Date: 05-SEP-2019 00:51
Instrument: GC27.1
Client Sample ID:

After shoulder 9/11/19 SA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F018.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F018.D
 Inj Date : 05-SEP-2019 01:23
 Sample Info: PCB7-91F 2154 @ 50-100 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 2154.sub
 Sub List #2 : 2154.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1221	7.654	8.824	2042183	626054	88.6	96.3	80.00- 120.00	100.00
	7.894	8.980	1299977	635399	88.9	98.5	50.93- 76.39	63.66
	8.057	9.167	4897439	2347785	89.5	94.4	190.33- 285.49	239.81
	Average of Peak Amounts =				89.0	96.4		
Aroclor 1254	11.774	12.430	1596832	1507562	44.2	46.7	80.00- 120.00	100.00
	12.240	12.484	2739541	842019	43.8	49.6	137.86- 206.79	171.56
	12.400	12.807	5318614	2250085	43.1	45.6	268.82- 403.23	333.07
	12.740	12.900	3226215	738225	44.2	48.0	164.76- 247.13	202.04
	13.300	14.374	2075750	1101617	45.5	45.4	106.40- 159.60	129.99
Average of Peak Amounts =				44.2	47.1			

SA 9/11/19
TR

Data File: \\alk1sus002\instdata\GC27\Data\090419ICAL.b\0904F018.D

Date : 05-SEP-2019 01:23

Client ID:

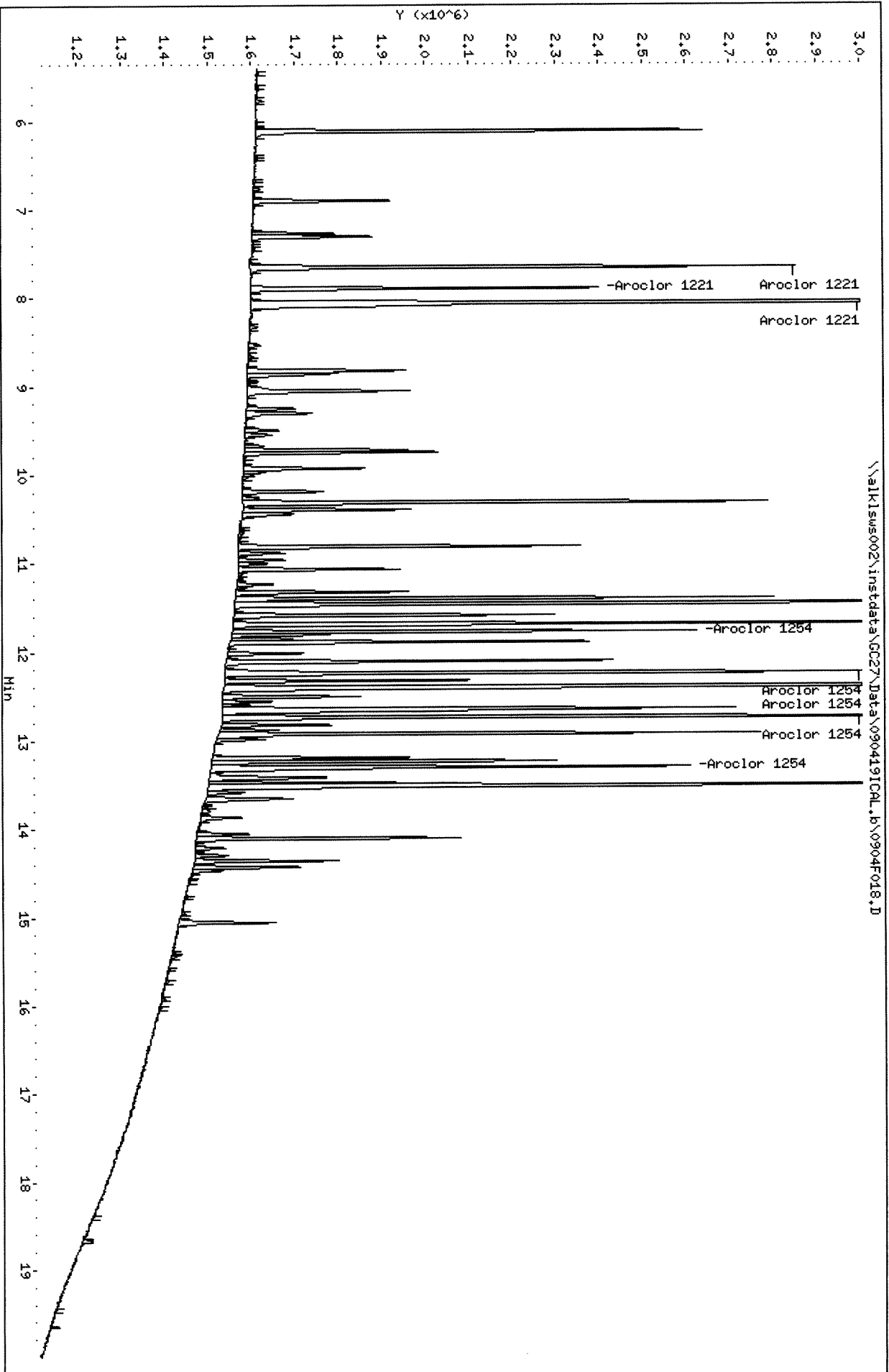
Sample Info: PCB7-9LF 2154 @ 50-100 PPS

Column phase: DB-35MS

Instrument: GC27.i

Operator: SPP

Column diameter: 0.32



Data File: \\alkisws002\instdata\GC27\Data\090419ICAL_r.b\0904F018.D

Date: 06-SEP-2019 01:23

Client ID:

Sample Info: PCB7-94F 2154 @ 50-100 PPB

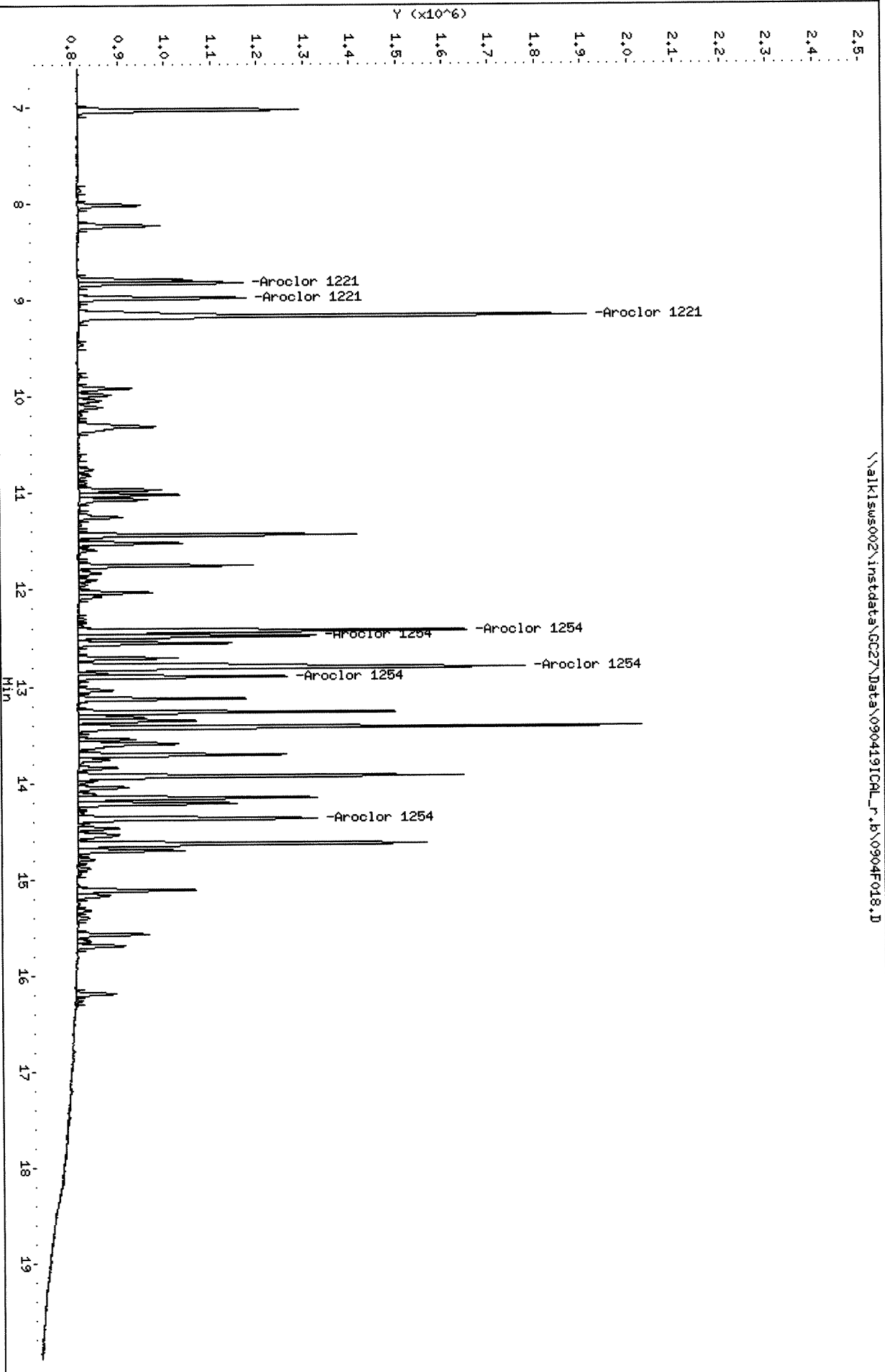
Column phase: DB-XLB

Instrument: GC27.i

Operator: SNA

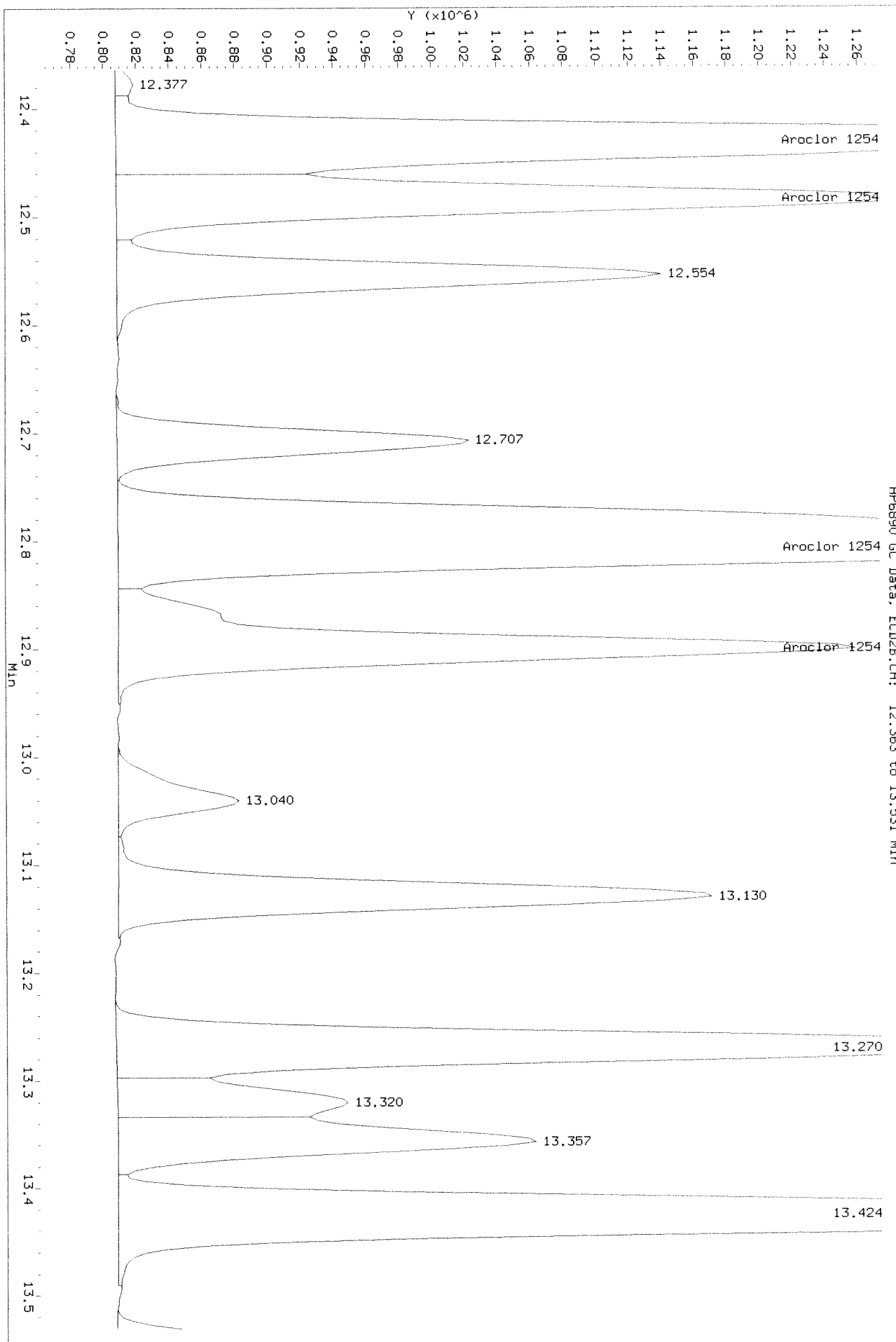
Column diameter: 0.32

\\alkisws002\instdata\GC27\Data\090419ICAL_r.b\0904F018.D



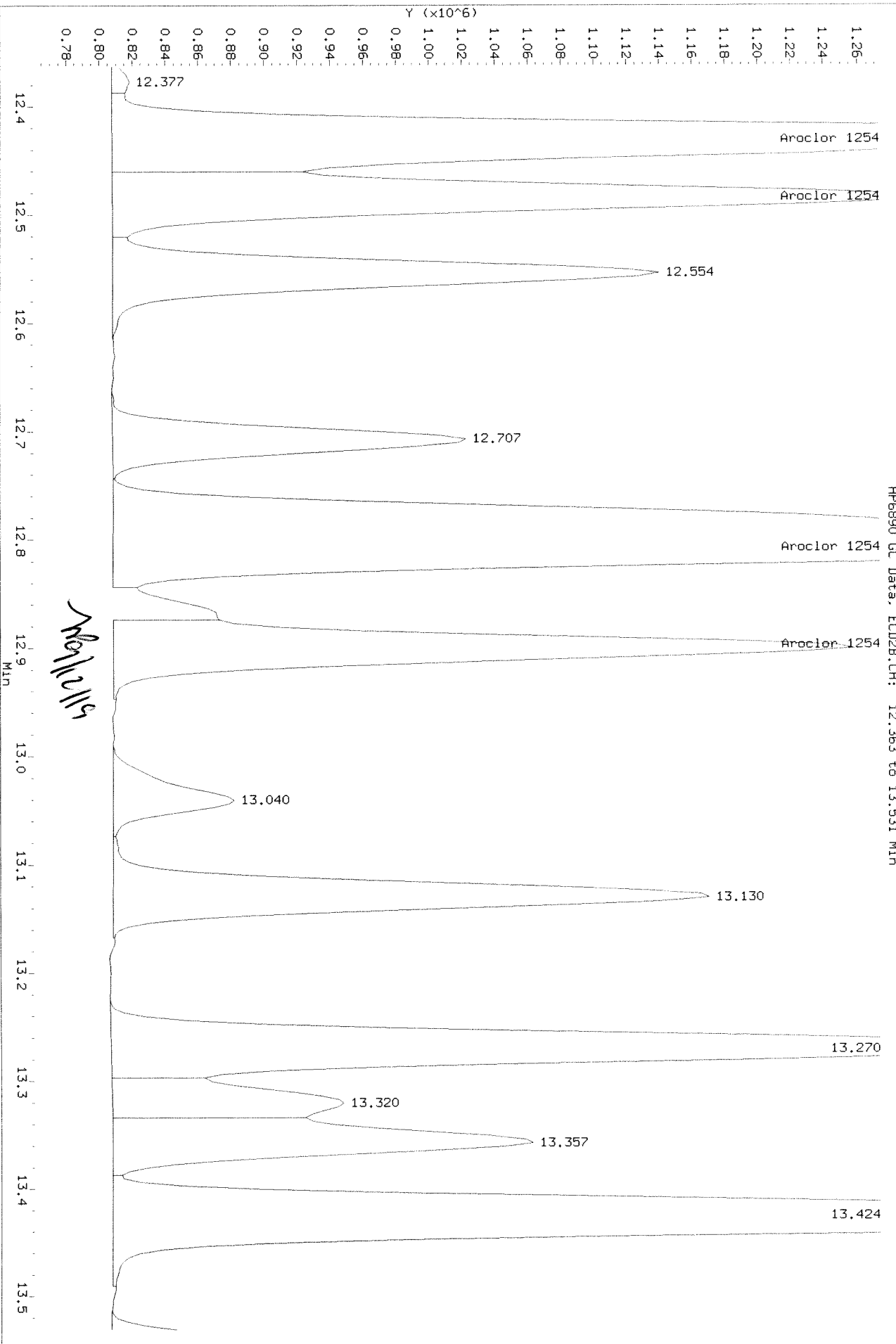
Data File: \\alkisw002\instdata\GC27\Data\090419ICL_r_b\0904F018.D
Injection Date: 05-SEP-2019 01:23
Instrument: GC27.1
Client Sample ID:

Before



Data File: \\alklsw002\instdata\GC27\Data\090419ICHL_r.b\0904F018.D
Injection Date: 05-SEP-2019 01:23
Instrument: GC27.1
Client Sample ID:

After shoulder 9/11/19 SA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F019.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F019.D
 Inj Date : 05-SEP-2019 01:55
 Sample Info: PCB7-91G 2154 @ 100-200 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 2154.sub
 Sub List #2 : 2154.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1221	7.657	8.827	3947072	1235917	171	190	80.00- 120.00	100.00
	7.897	8.981	2526036	1232962	173	191	50.93- 76.39	64.00
	8.061	9.167	9409159	4326639	172	174	190.33- 285.49	238.38
	Average of Peak Amounts =				172	185		
Aroclor 1254	11.774	12.431	3063510	2745460	84.8	85.0	80.00- 120.00	100.00
	12.244	12.484	5318310	1601662	85.0	94.3	137.86- 206.79	173.60
	12.401	12.807	10300444	4097118	83.5	83.0	268.82- 403.23	336.23
	12.741	12.901	6342526	1403165	86.9	91.3	164.76- 247.13	207.03
	13.304	14.374	4046984	2066908	88.8	85.1	106.40- 159.60	132.10
Average of Peak Amounts =				85.8	87.7			

SA 9/11/19
W

Data File: \\alkisws002\instdata\GC27\Data\090419ICL.b\0904F019.D

Date : 05-SEP-2019 01:55

Client ID:

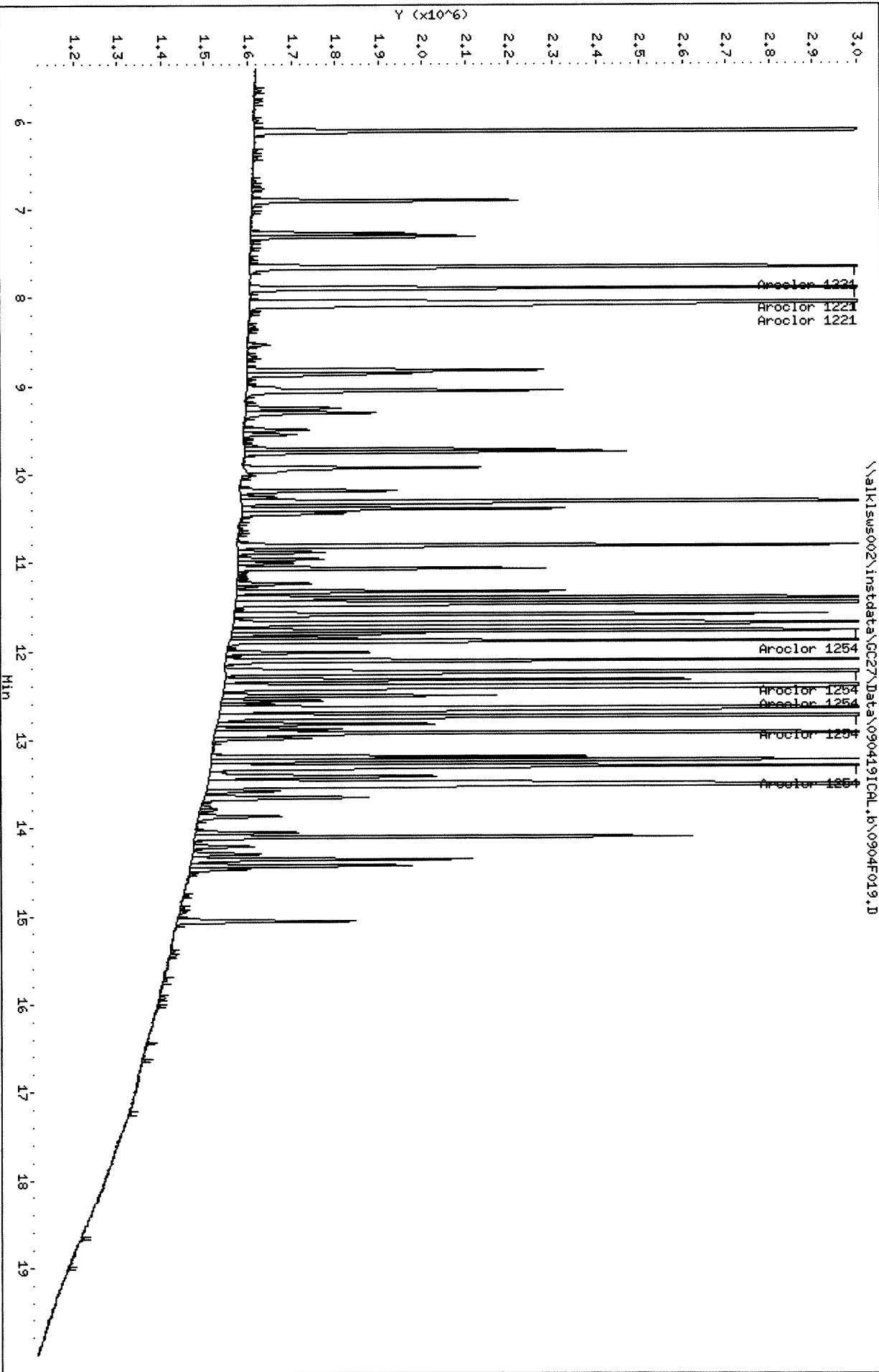
Sample Info: PCB7-91G 2154 @ 100-200 PPB

Column phase: DB-35MS

Instrument: GC27.i

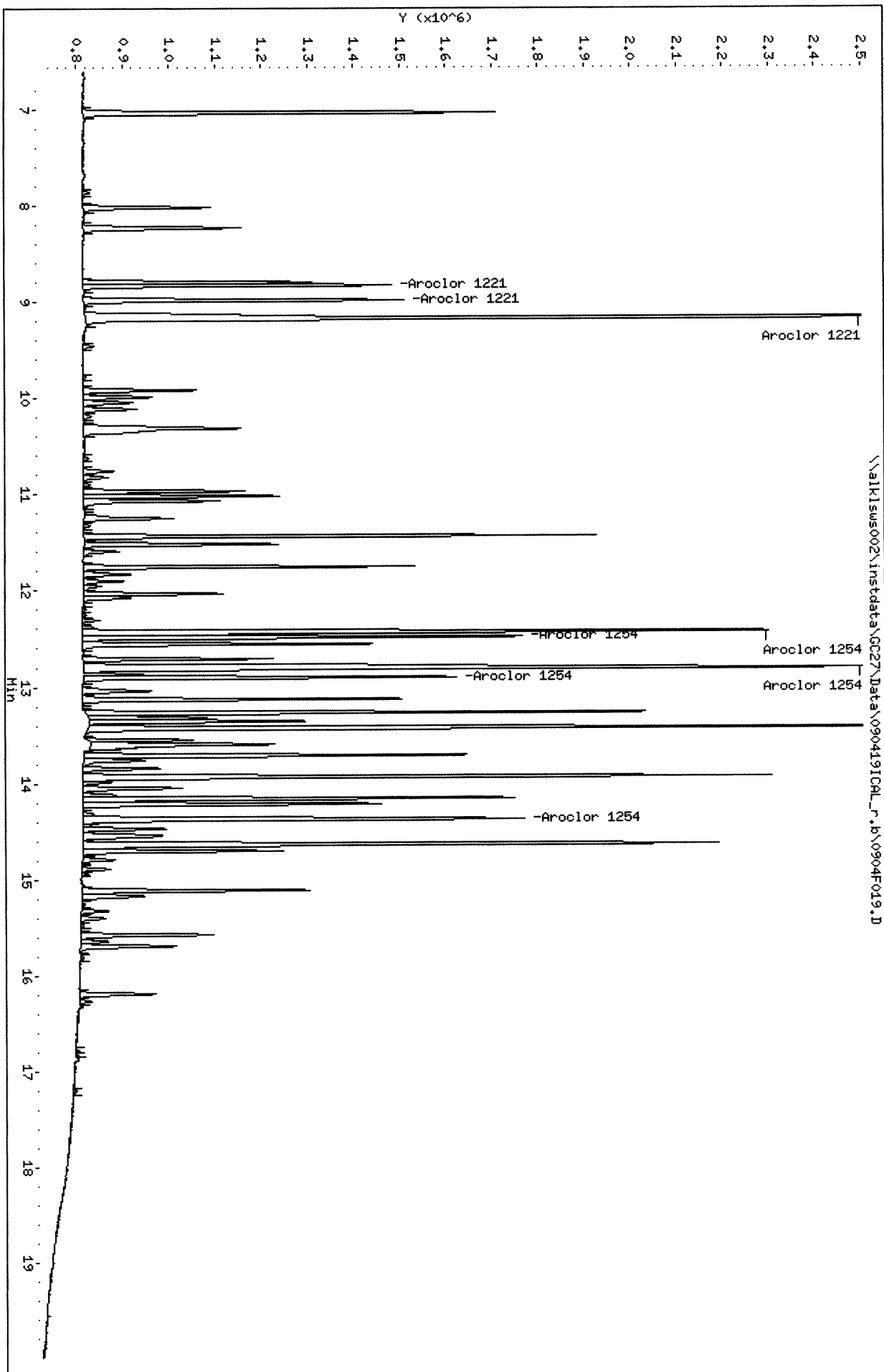
Operator: SAA

Column diameter: 0.32



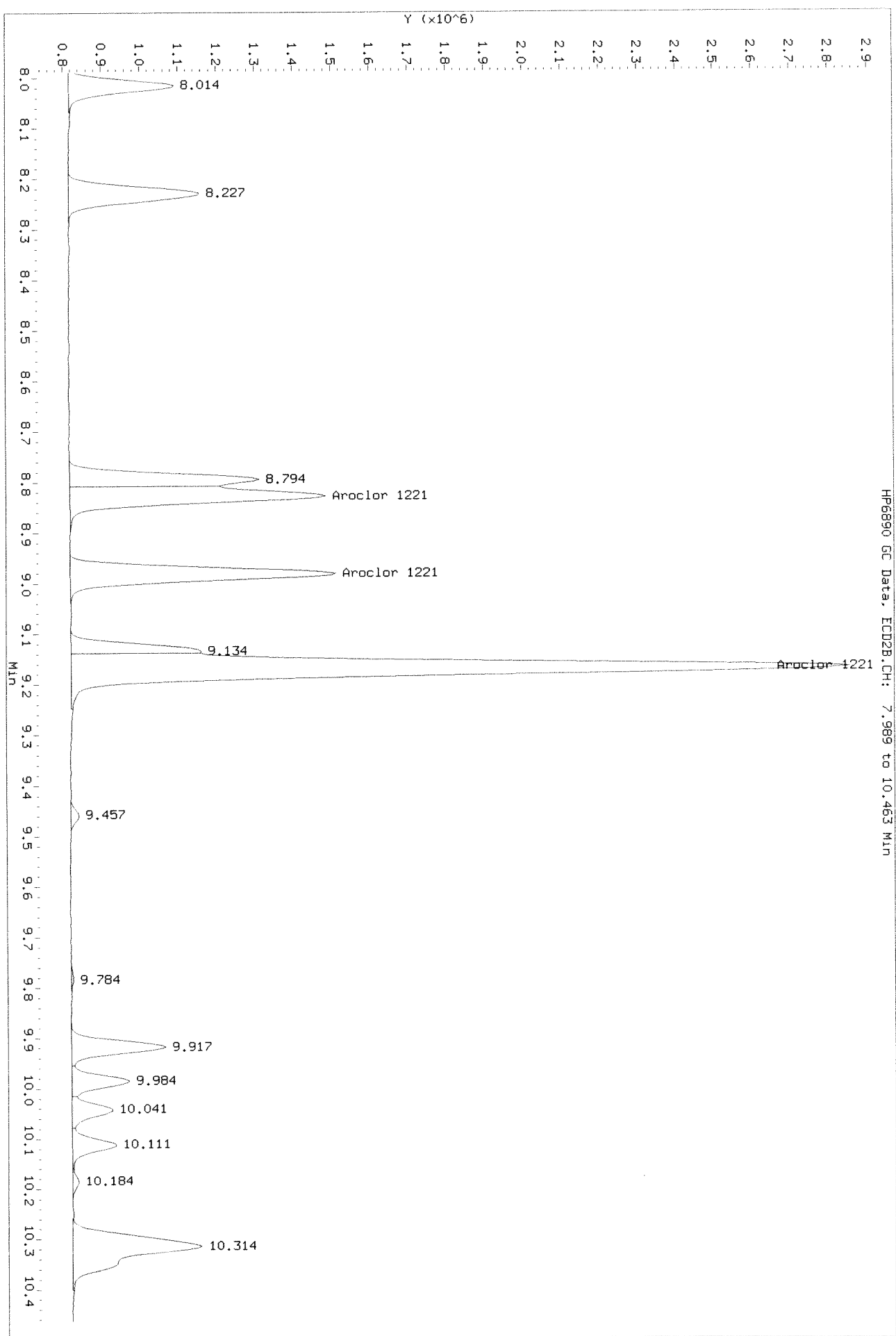
Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F019.D
Date: 05-SEP-2019 01:55
Client ID:
Sample Info: PCB7-91C 2154 @ 100-200 PPB
Column phase: DB-XLB

Instrument: GC27.i
Operator: SAA
Column diameter: 0.32



Data File: \\alkjsw002\instdata\GC27\Data\090419ICAL_r.b\0904F019.D
Injection Date: 05-SEP-2019 01:55
Instrument: GC27.1
Client Sample ID:

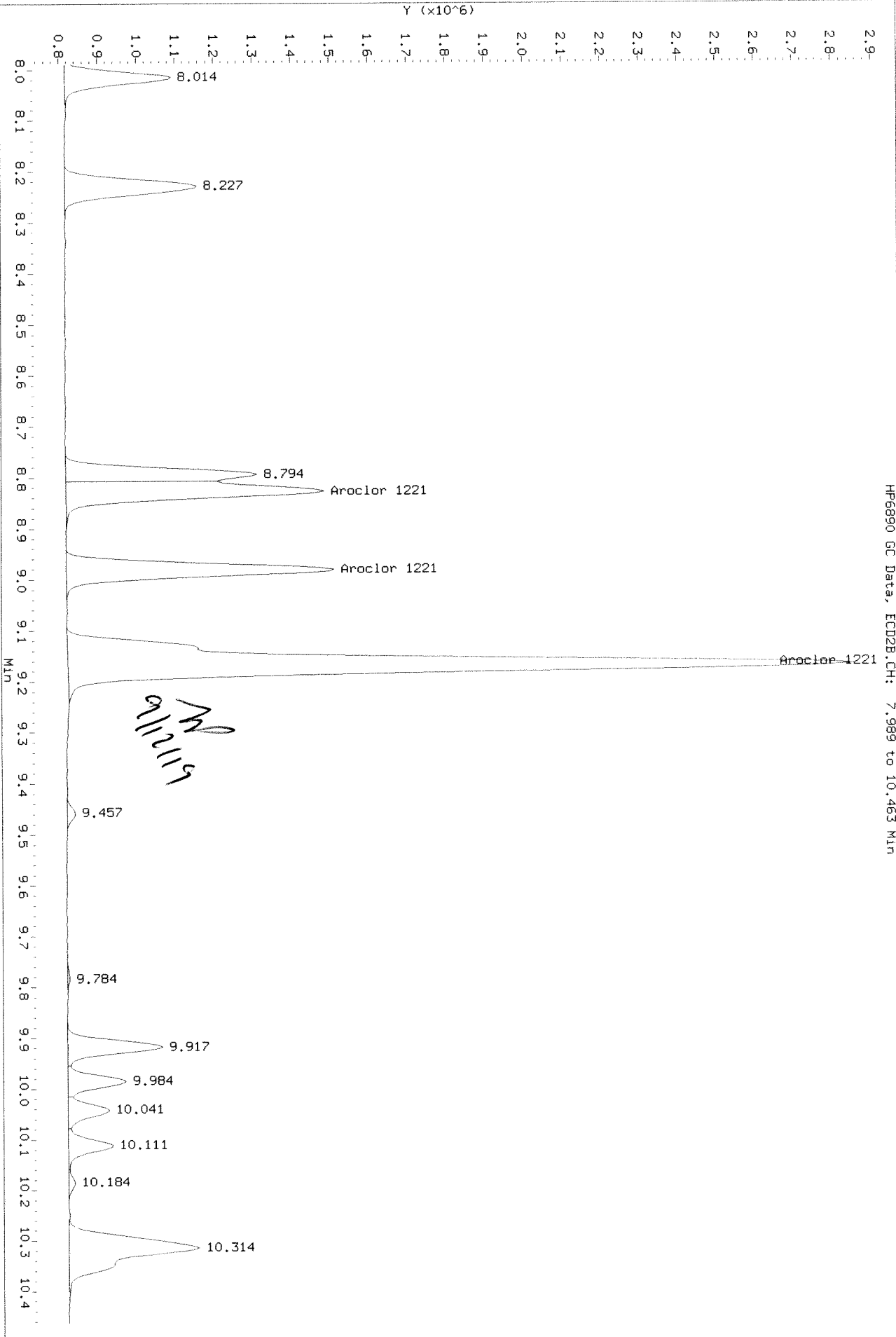
Refer



Data File: \\alkisw002\instdata\GC27\Data\090419ICLL_r.b\0904F019.D
Injection Date: 05-SEP-2019 01:55
Instrument: GC27.1
Client Sample ID:

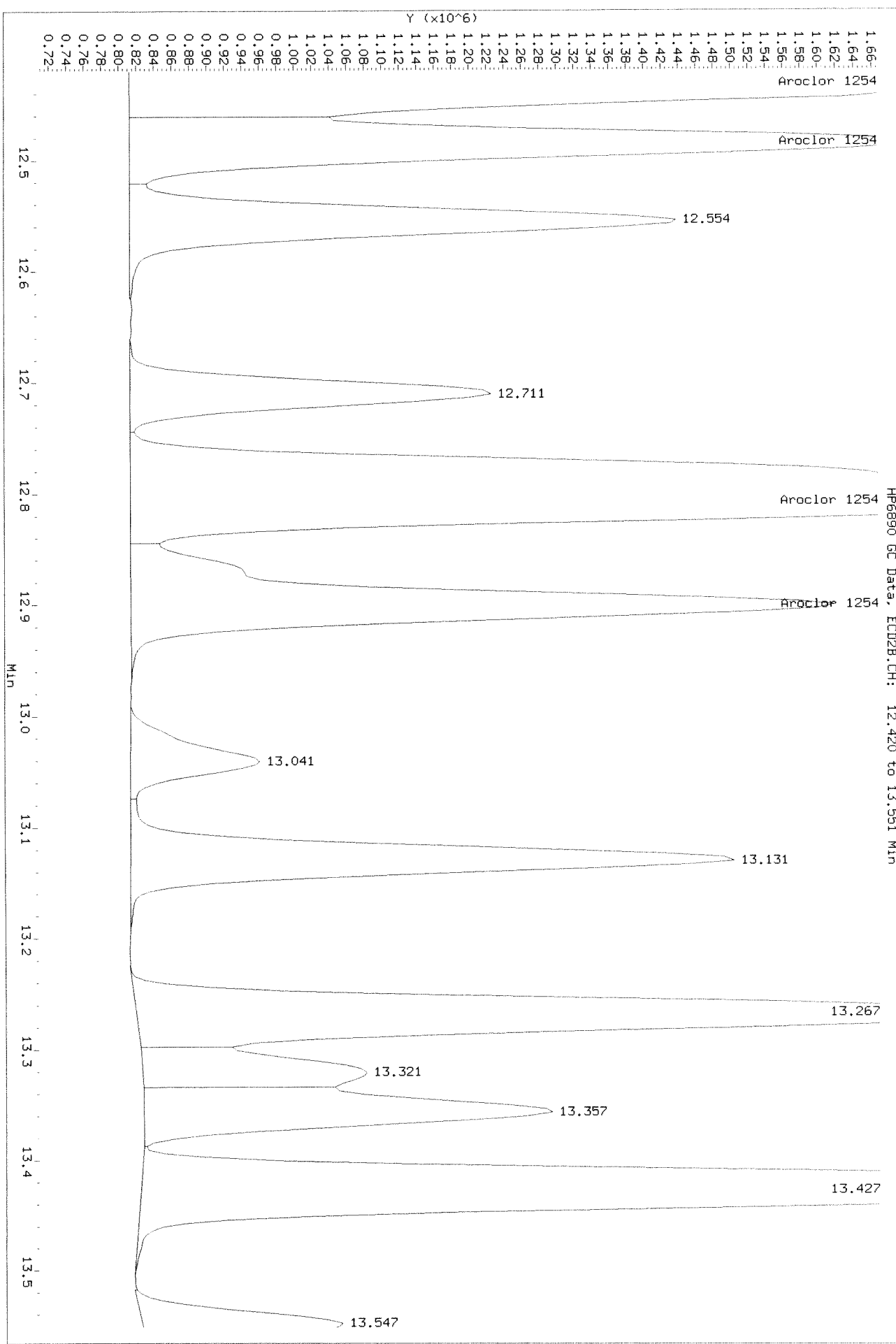
HP6890 GC Data, ECD2B.CH: 7.989 to 10.463 Min

After baseline 9/11/19 A



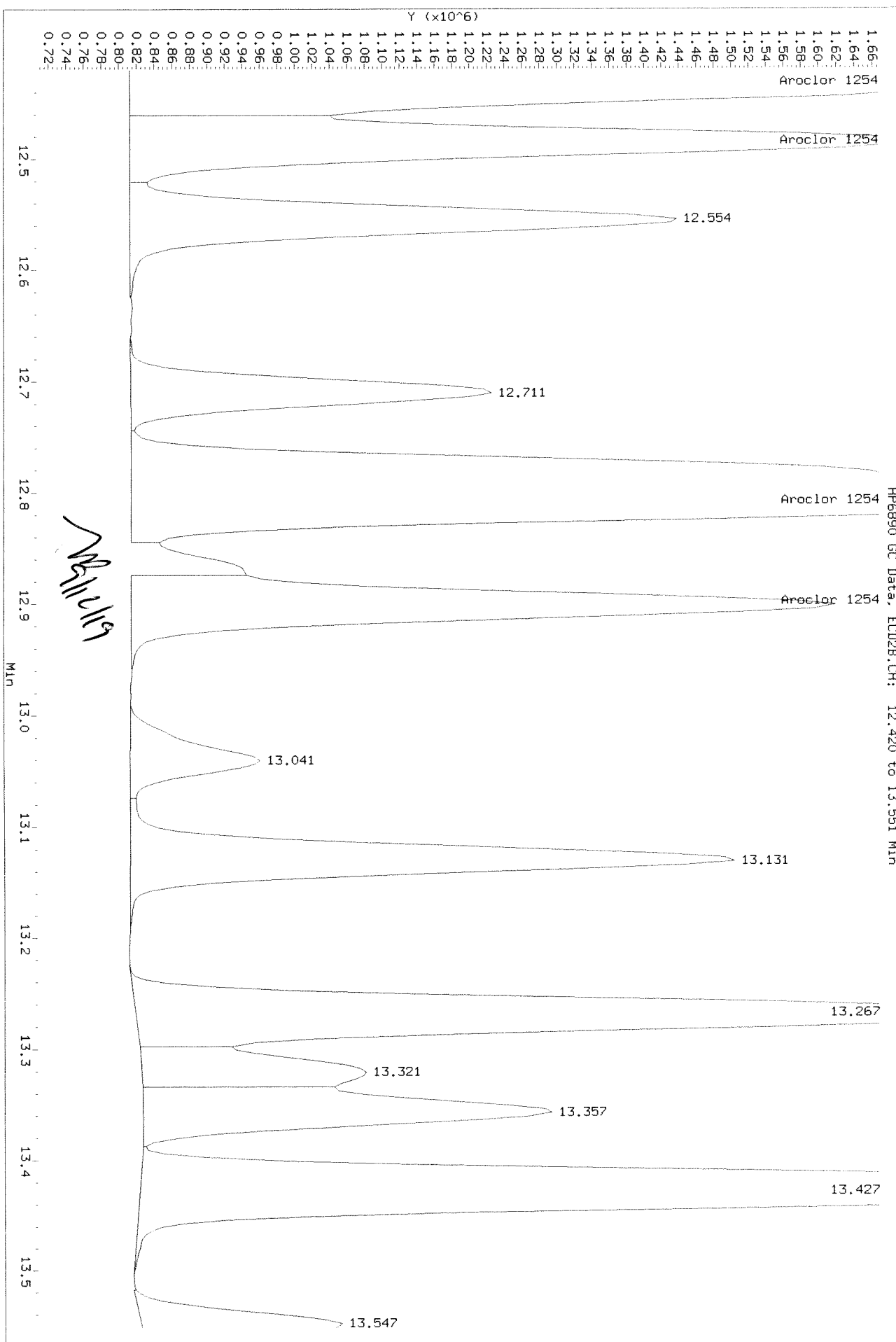
Data File: \\alklsws002\instdata\GC27\Data\090419ICALL_r.b\0904F019.D
Injection Date: 05-SEP-2019 01:55
Instrument: GC27.1
Client Sample ID:

Before



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F019.D
Injection Date: 05-SEP-2019 01:55
Instrument: GC27.1
Client Sample ID:

After Shoulder 9/11/19 SA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F020.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F020.D
 Inj Date : 05-SEP-2019 02:26
 Sample Info: PCB7-90H 2154 @ 200-400 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 2154.sub
 Sub List #2 : 2154.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1221	7.656	8.826	8501999	2590550	369	398	80.00- 120.00	100.00
	7.893	8.980	5412435	2563242	370	397	50.93- 76.39	63.66
	8.059	9.166	20227289	8997324	369	362	190.33- 285.49	237.91
	Average of Peak Amounts =				369	386		
Aroclor 1254	11.773	12.430	7140371	5914365	198	183	80.00- 120.00	100.00 (M)
	12.239	12.483	12304857	3342706	197	197	137.86- 206.79	172.33 (M)
	12.399	12.806	23993258	8738338	195	177	268.82- 403.23	336.02 (M)
	12.739	12.900	14705268	3043613	202	198	164.76- 247.13	205.95 (M)
	13.303	14.373	9496593	4515239	208	186	106.40- 159.60	133.00 (M)
	Average of Peak Amounts =				200	188		

QC Flag Legend

M - Compound response manually integrated.

SAA 9/11/19
W

Data File: \\alk1sws002\instdata\GC27\Data\090419ICL.b\0904F020.D

Date: 05-SEP-2019 02:26

Client ID:

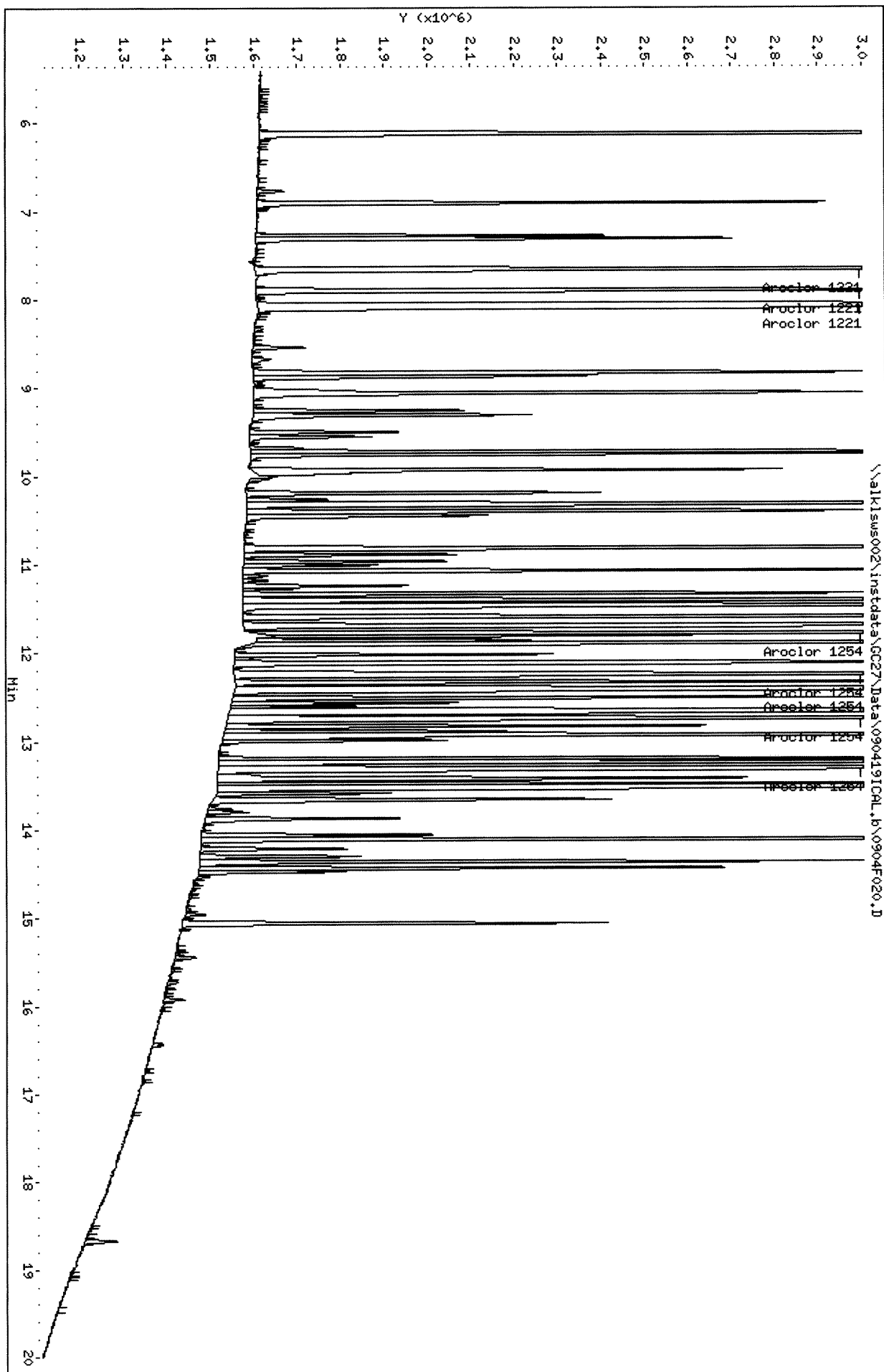
Sample Info: PCB7-90H 2154 @ 200-400 PPB

Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F020.D

Date: 05-SEP-2019 02:26

Client ID:

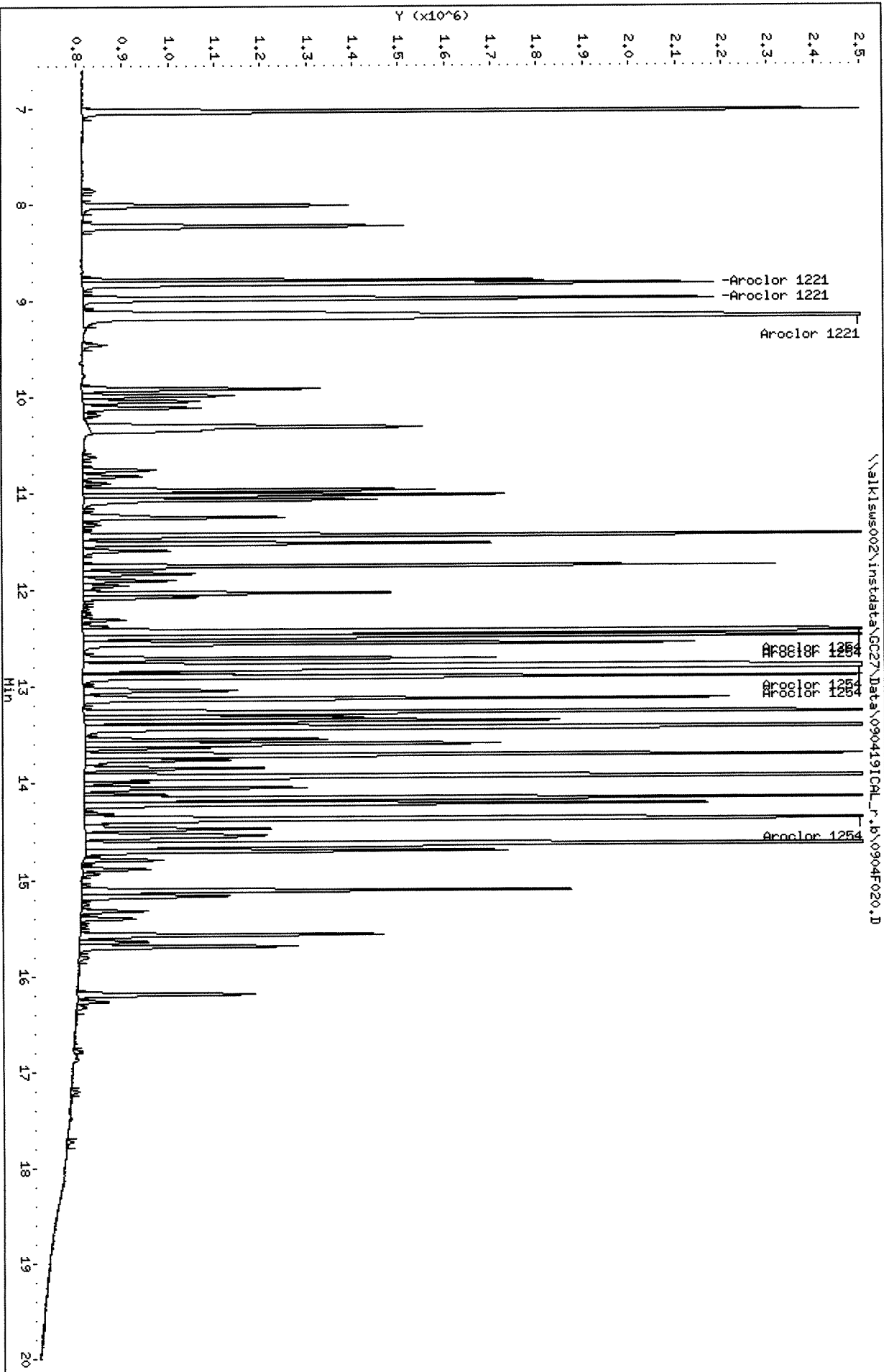
Sample Info: PCB7-90H 2154 @ 200-400 PPB

Column phase: DB-XLB

Instrument: GC27.i

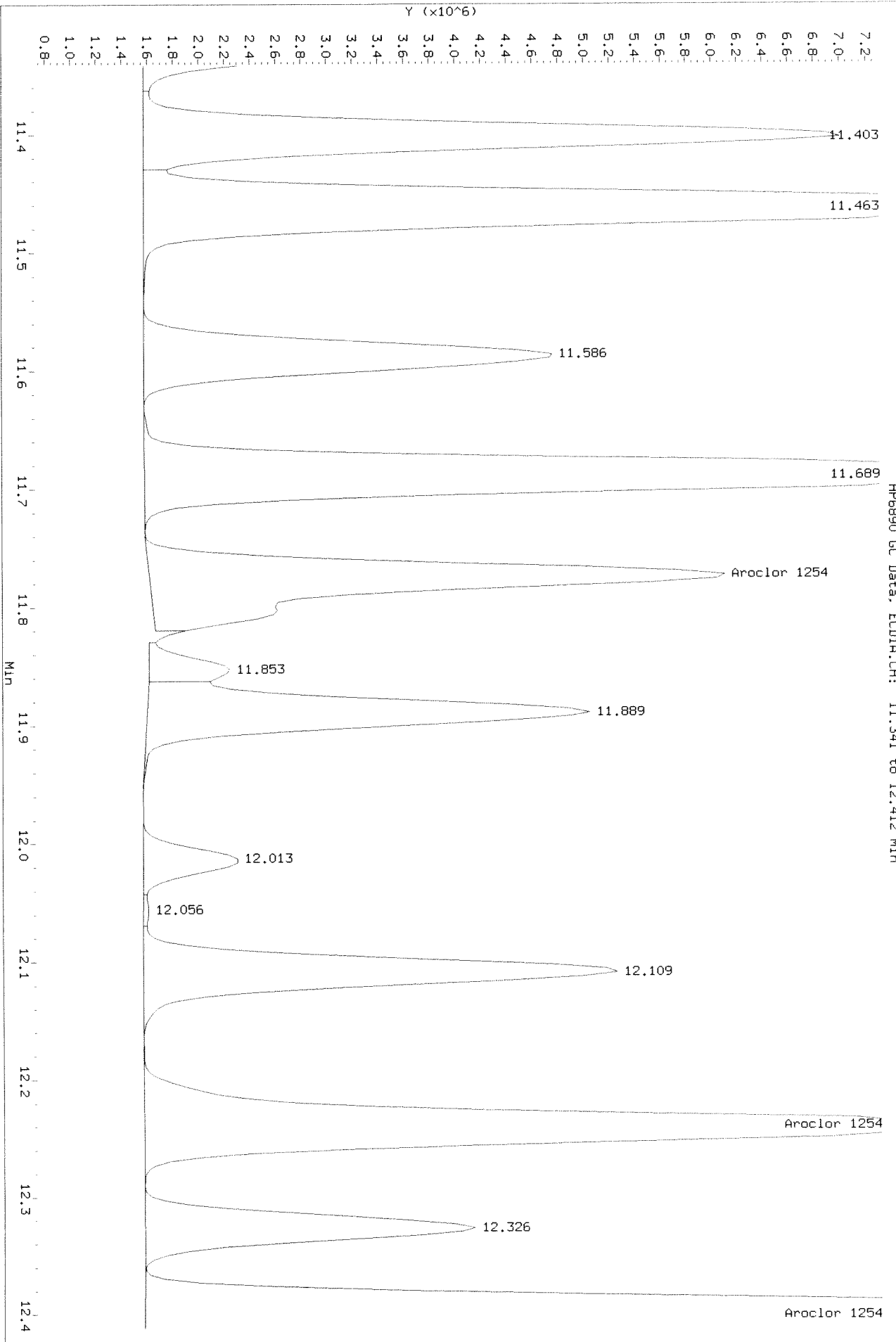
Operator: SAA

Column diameter: 0.32



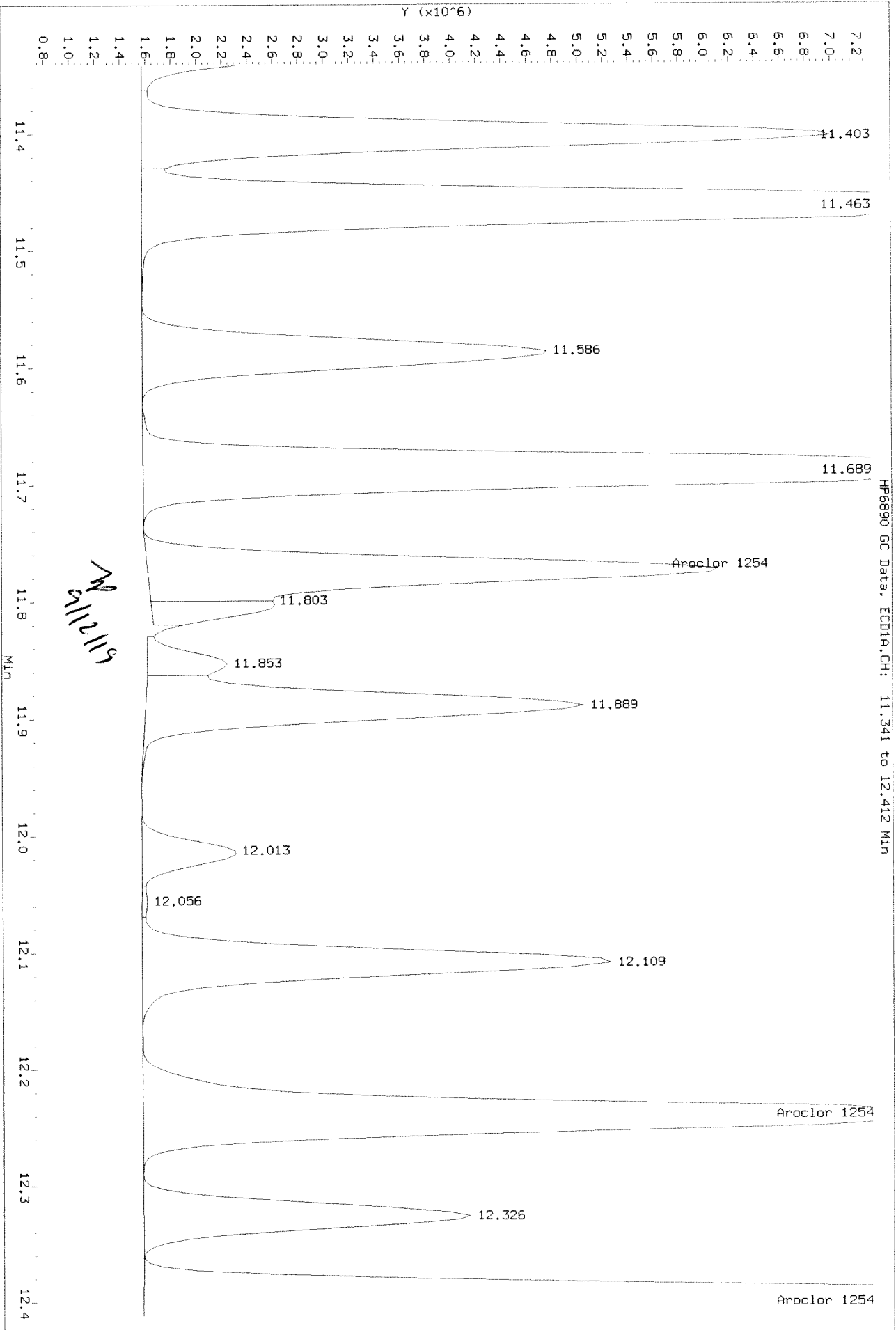
Data File: \\alkisw002\instdata\GC27\Data\090419ICL.B\0904F020.D
Injection Date: 05-SEP-2019 02:26
Instrument: GC27.1
Client Sample ID:

Before



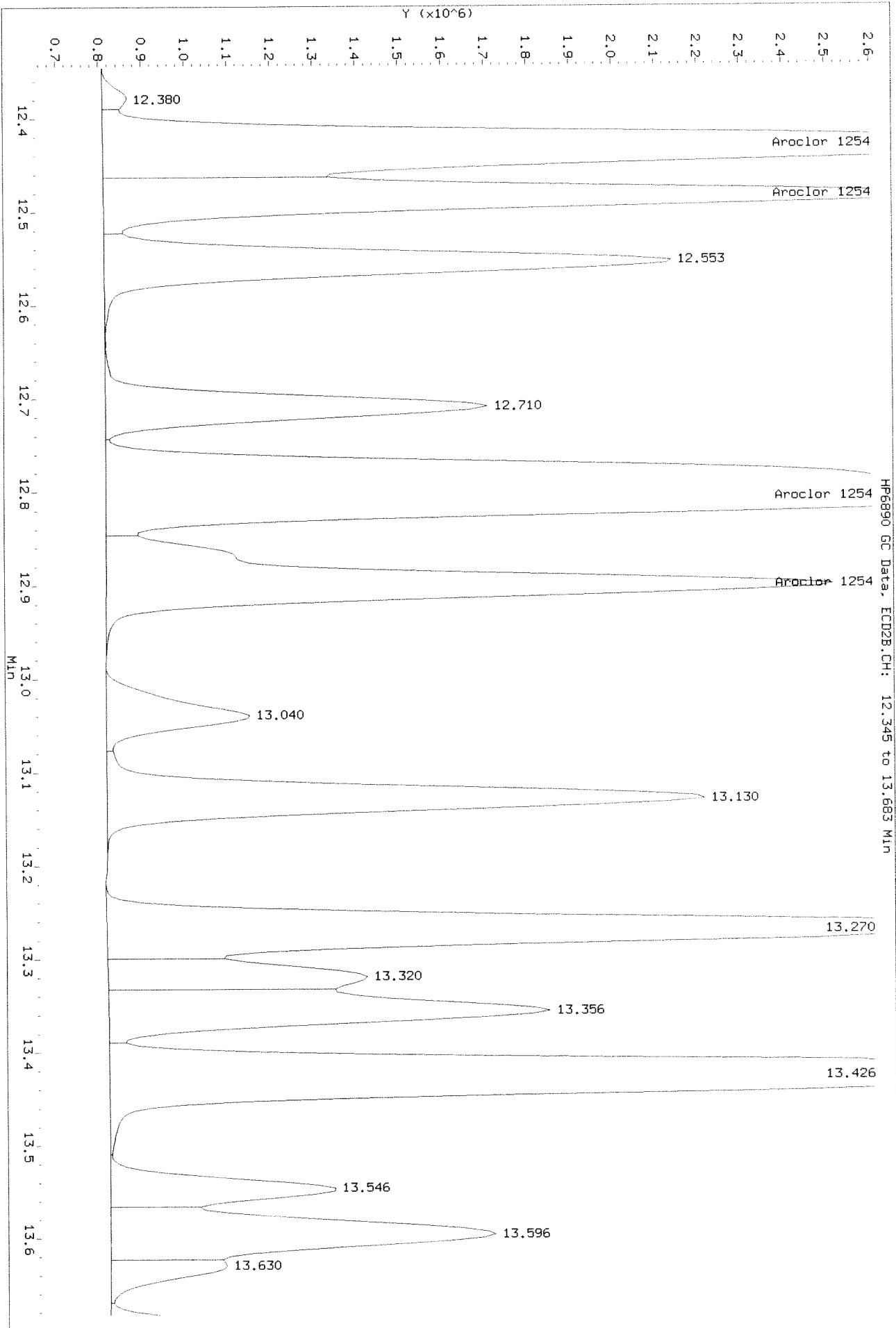
Data File: \\alk1sws002\instdata\GC27\Data\090419ICDL.b\0904F020.D
Injection Date: 05-SEP-2019 02:26
Instrument: GC27.1
Client Sample ID:

After Shoulder 9/11/19 ST



Data File: \\alkisw002\inst\data\GC27\Data\090419ICAL_r.b\0904F020.D
Injection Date: 05-SEP-2019 02:26
Instrument: GC27.1
Client Sample ID:

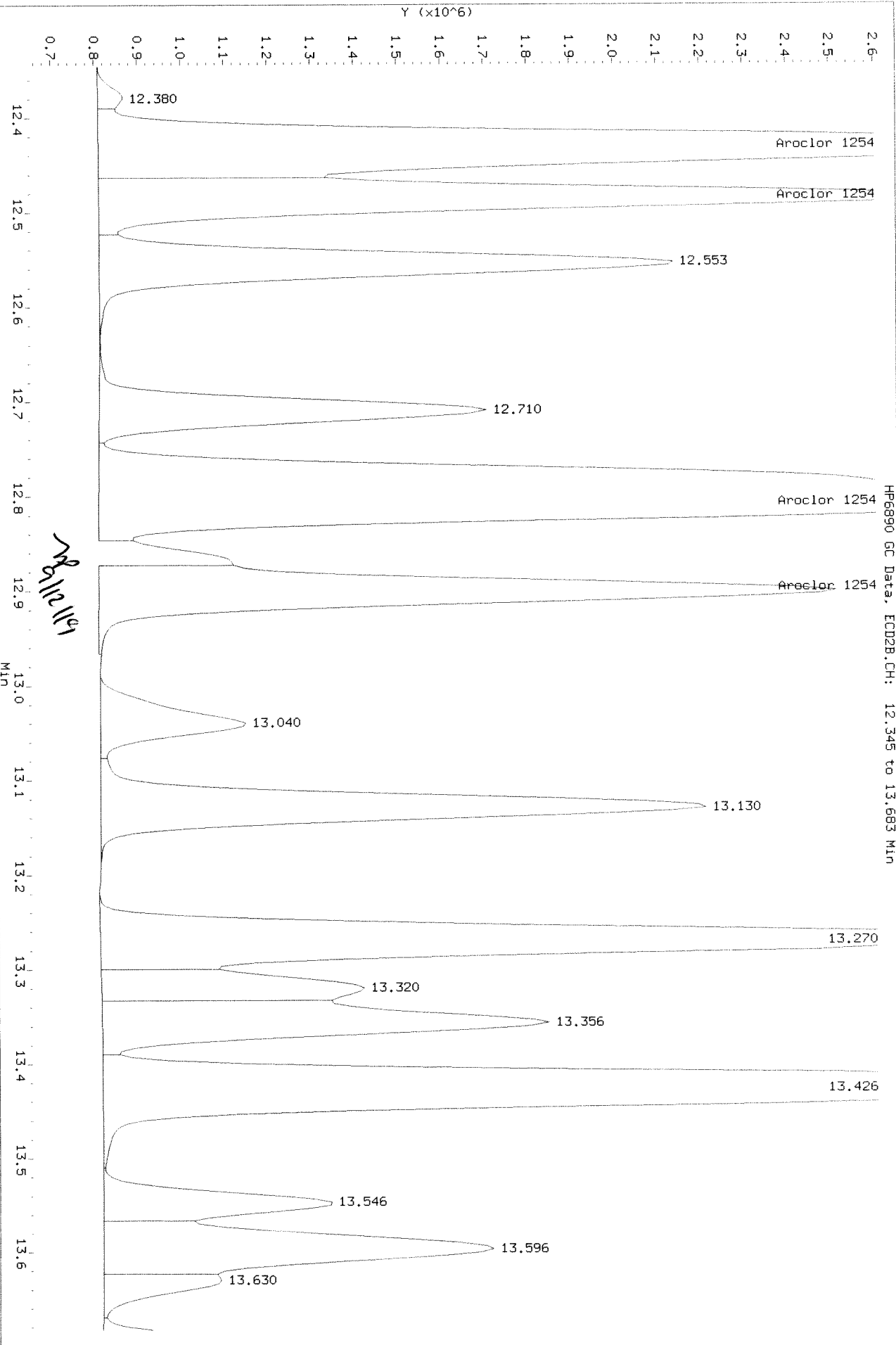
Before 9/11/19 SA



Data File: \\alk1swe002\instdata\GC27\Data\090419ICALL_r.b\0904F020.D
Injection Date: 05-SEP-2019 02:26
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 12.345 to 13.683 MIN

After shoulder 9M/19 SA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F021.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F021.D
 Inj Date : 05-SEP-2019 02:58
 Sample Info: PCB8-13E 3262 @ 1 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 3262.sub
 Sub List #2 : 3262.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1232	7.664	9.165	19213	16743	1.23	0.850	80.00- 120.00	100.00
	8.068	9.915	56739	12087	1.21	1.11	234.25- 351.38	295.32
	8.838	10.288	31107	6960	0.820	0.948	205.56- 308.34	161.91
	9.311	10.965	12043	13507	0.873	0.891	76.03- 114.04	62.68
	9.941	11.018	32879	16086	1.25	0.918	137.78- 206.67	171.13
	Average of Peak Amounts =				1.08	0.943		
Aroclor 1262	13.588	14.791	99950	48433	1.07	1.14	80.00- 120.00	100.00 (M)
	14.061	15.161	96868	36415	1.17	1.12	71.44- 107.17	96.92 (M)
	14.438	15.691	167071	76536	1.10	1.17	135.47- 203.20	167.15 (M)
	15.064	16.201	120058	50041	1.09	1.14	96.75- 145.12	120.12 (M)
	15.931	17.205	50324	24800	1.05	1.09	43.01- 64.52	50.35 (M)
	Average of Peak Amounts =				1.10	1.13		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
W

Data File: \\alk1sws002\instdata\GC27\Data\090419ICPL.b\0904F021.D

Date : 05-SEP-2019 02:58

Client ID:

Sample Info: PCB8-13E 3262 @ 1 PPB

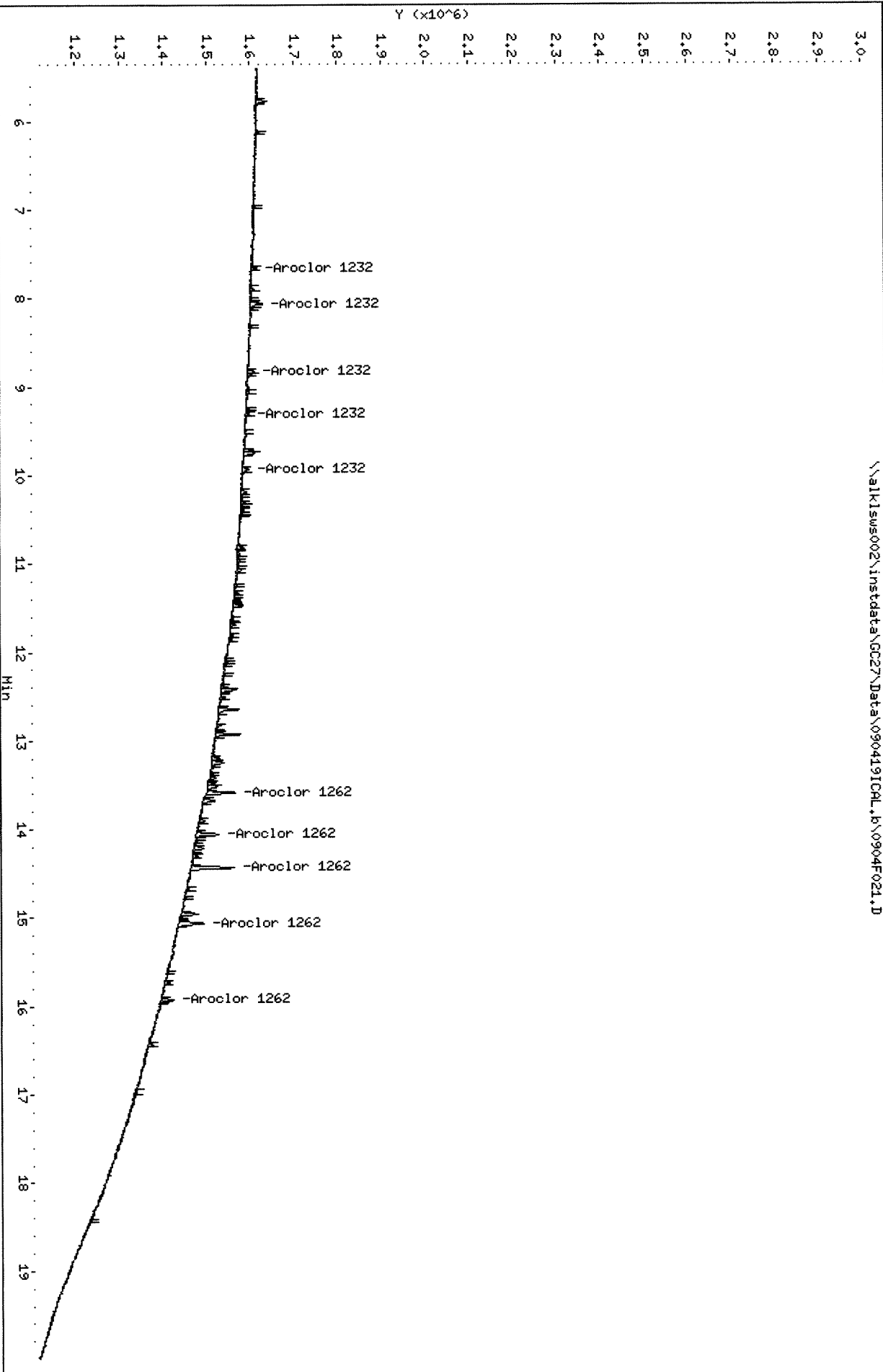
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alk1sws002\instdata\GC27\Data\090419ICPL.b\0904F021.D



Data File: \\alklsws002\instdata\GC27\Data\090419ICL_r.b\0904F021.D

Date : 05-SEP-2019 02:58

Client ID:

Sample Info: PCB8-13E 3262 @ 1 PPB

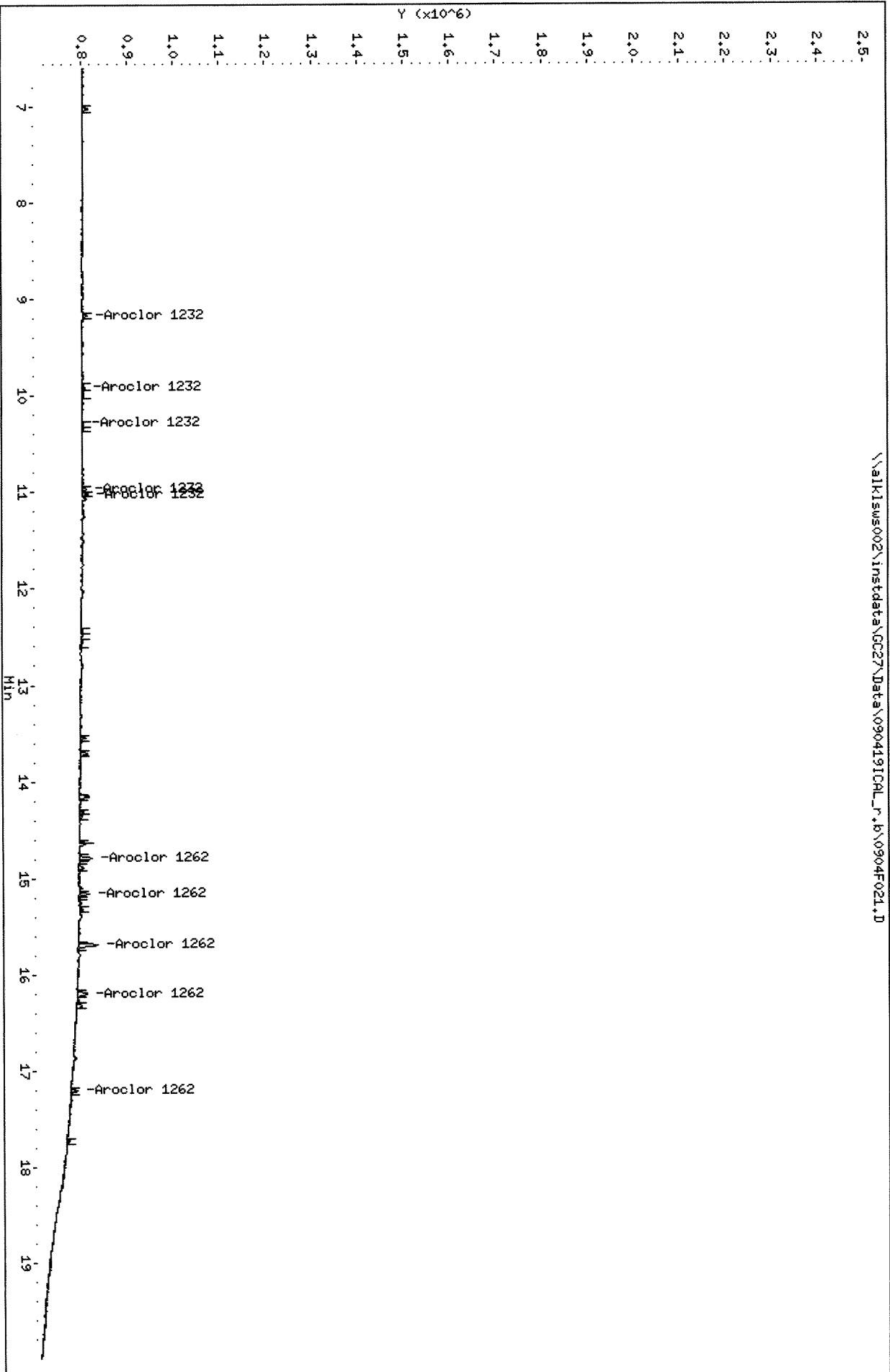
Column phase: DB-XLB

Instrument: GC27.i

Operator: SQA

Column diameter: 0.32

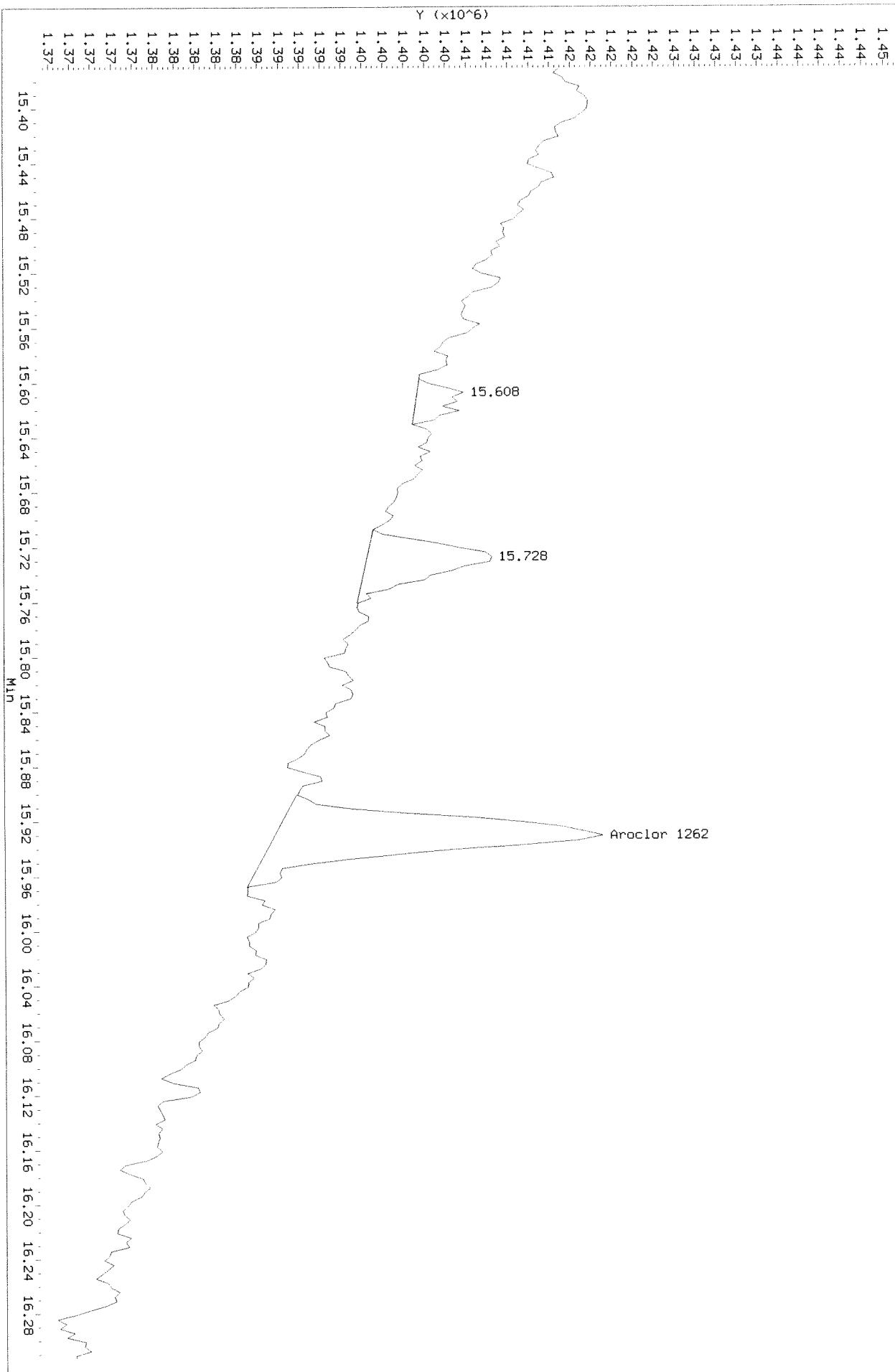
\\alklsws002\instdata\GC27\Data\090419ICL_r.b\0904F021.D



Data File: \\alk1sws002\instdata\GC27\Data\090419ICL.b\0904F021.D
Injection Date: 05-SEP-2019 02:58
Instrument: GC27.1
Client Sample ID:

Before

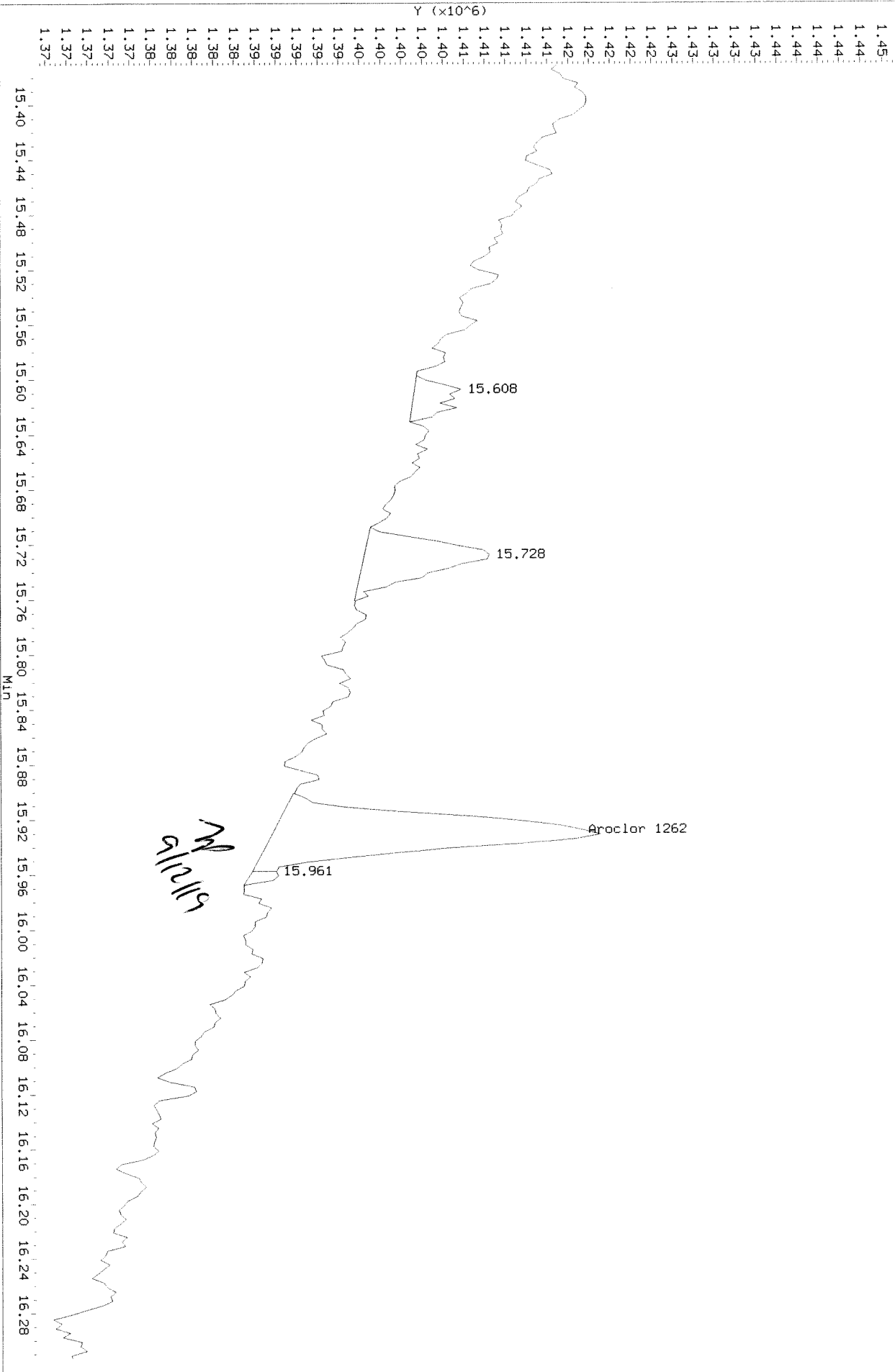
HP6890 GC Data, ECD1A.CH: 15.372 to 16.313 Min



Data File: \\alk1sws002\instdata\GC27\Data\090419ICAL.b\0904F021.D
Injection Date: 05-SEP-2019 02:58
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 15.372 to 16.313 MIN

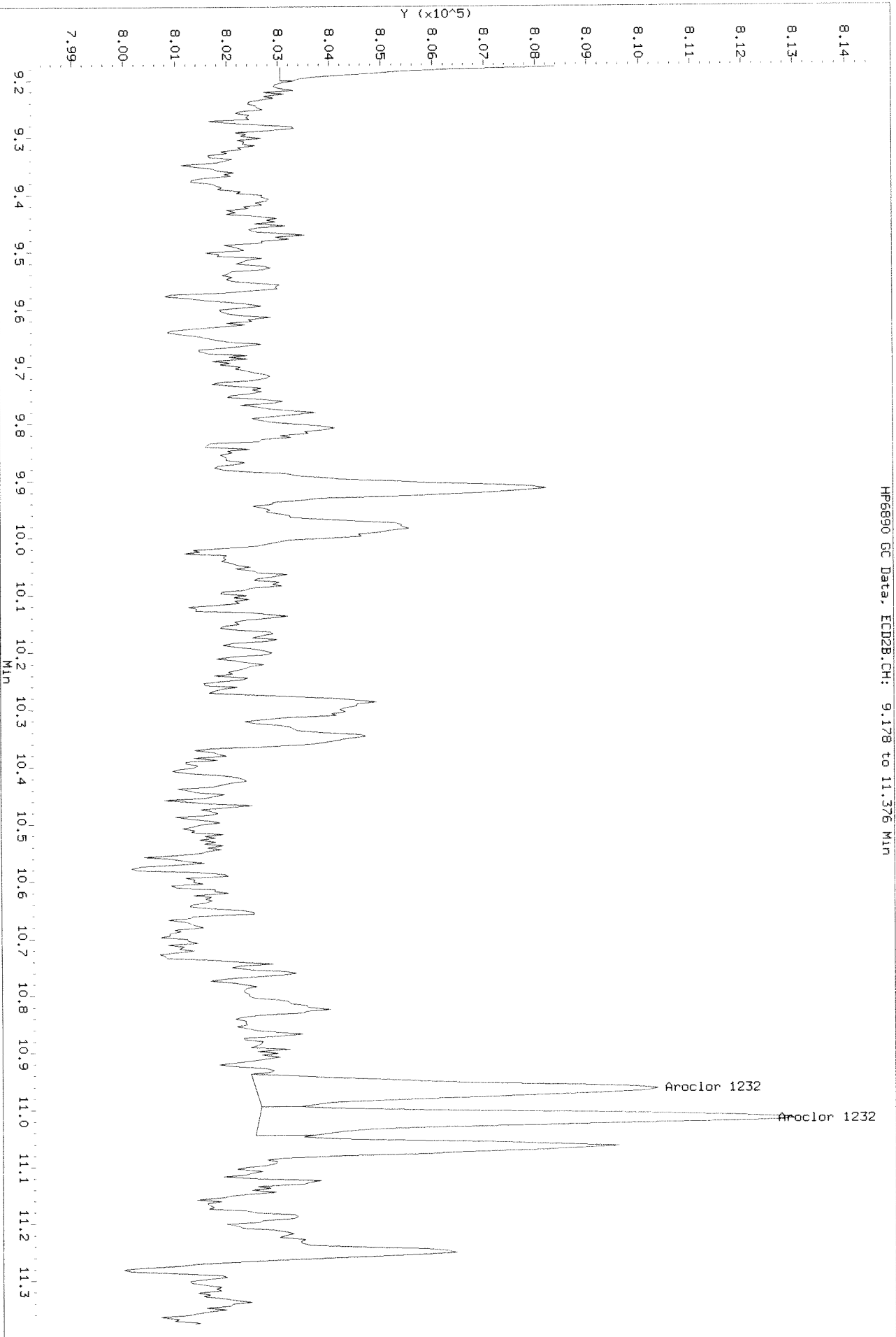
After Shoulder 9/11/19 A



Data File: \\alk1sws002\instdata\GC27\Data\090419ICAL_r.b\0904F021.D
Injection Date: 05-SEP-2019 02:58
Instrument: GC27.1
Client Sample ID:

Refer

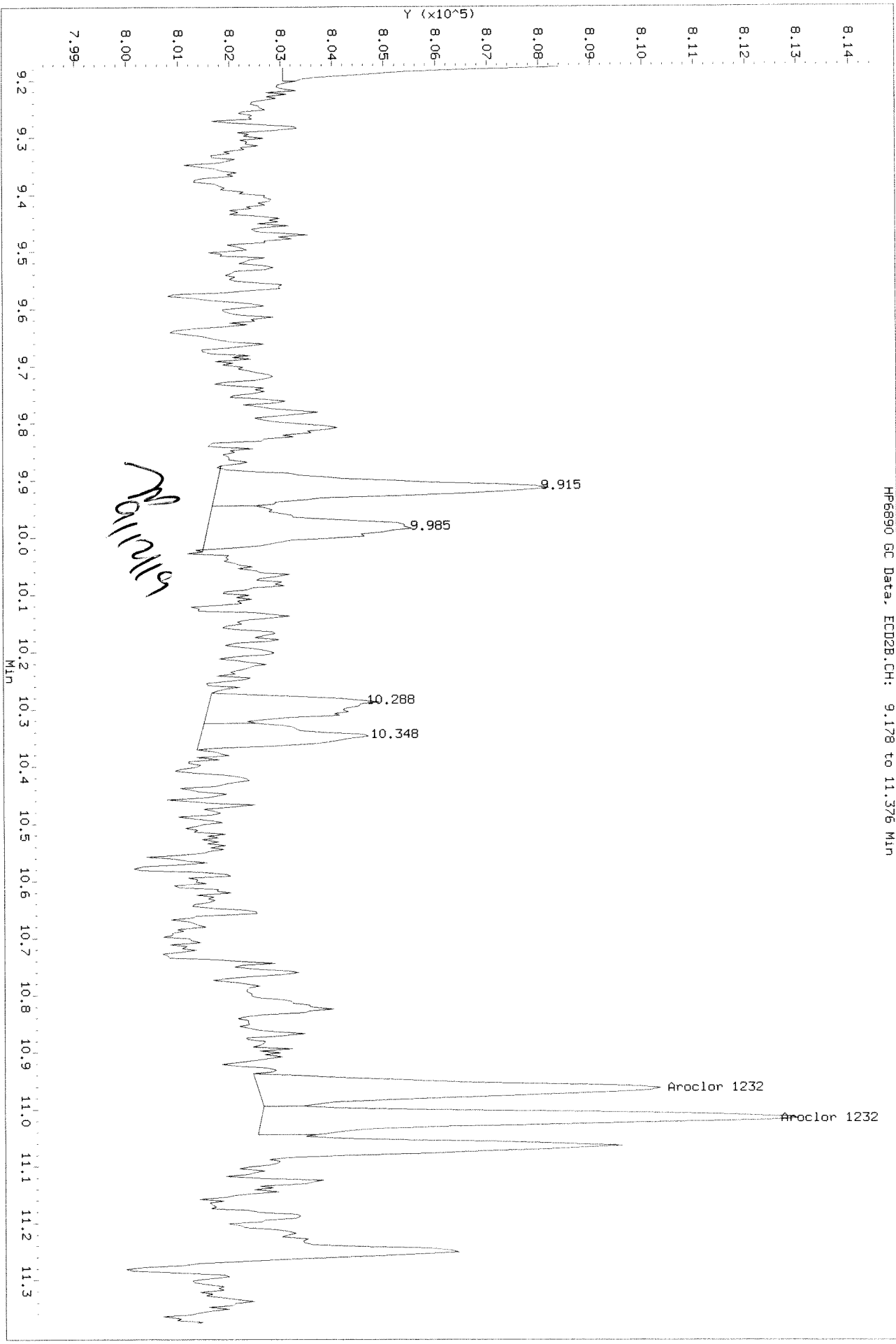
HP6890 GC Data: F021.D: 9.178 to 11.376 Min



Data File: \\alk1sws002\instdata\GC27\Data\090419ICDL_r.b\0904f021.D
Injection Date: 05-SEP-2019 02:58
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 9.178 to 11.376 Min

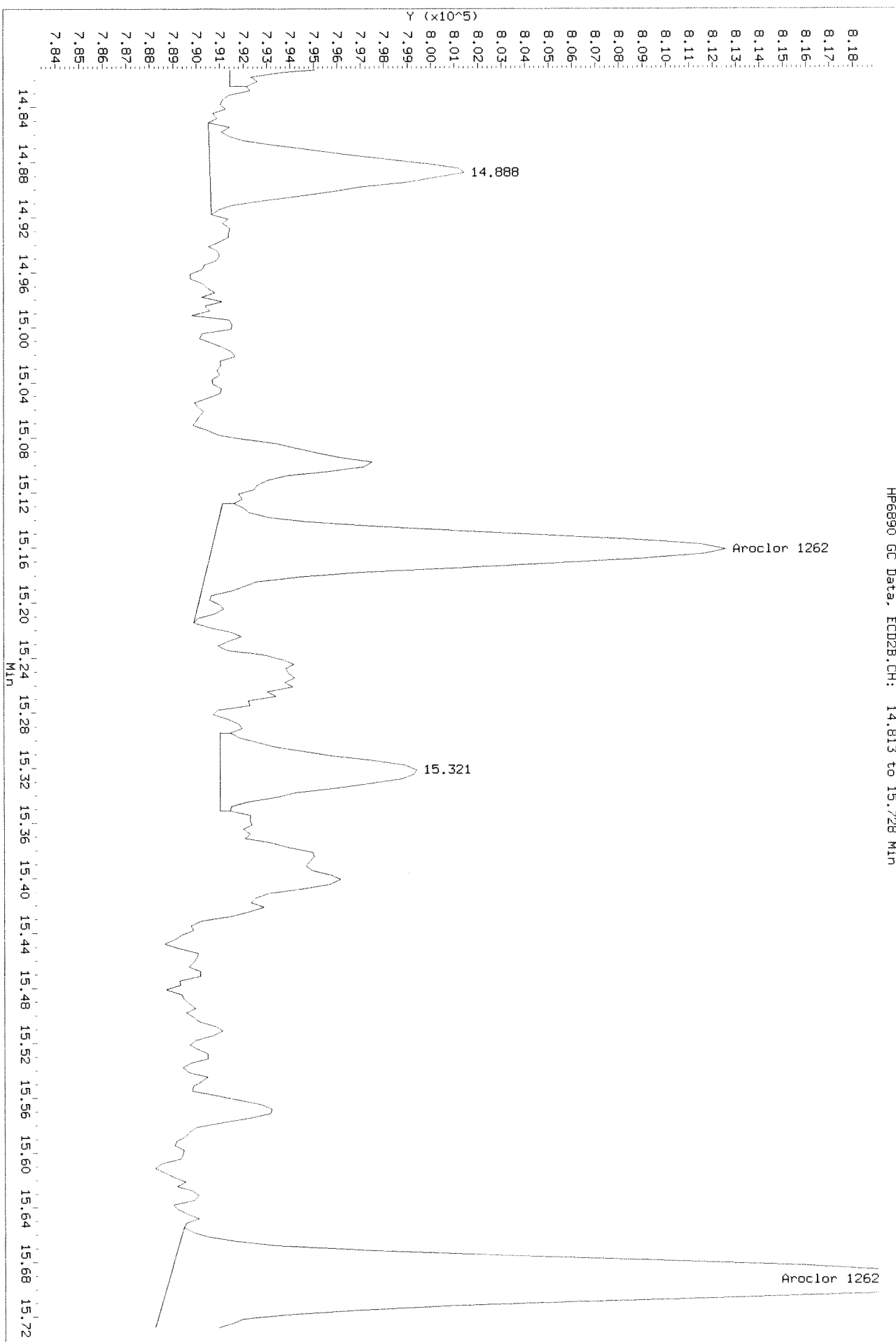
After missed peaks 11/19 A



Data File: \\alkisw002\instdata\GC27\Data\090419ICAL_r.b\0904F021.D
Injection Date: 05-SEP-2019 02:58
Instrument: GC27.1
Client Sample ID:

Before

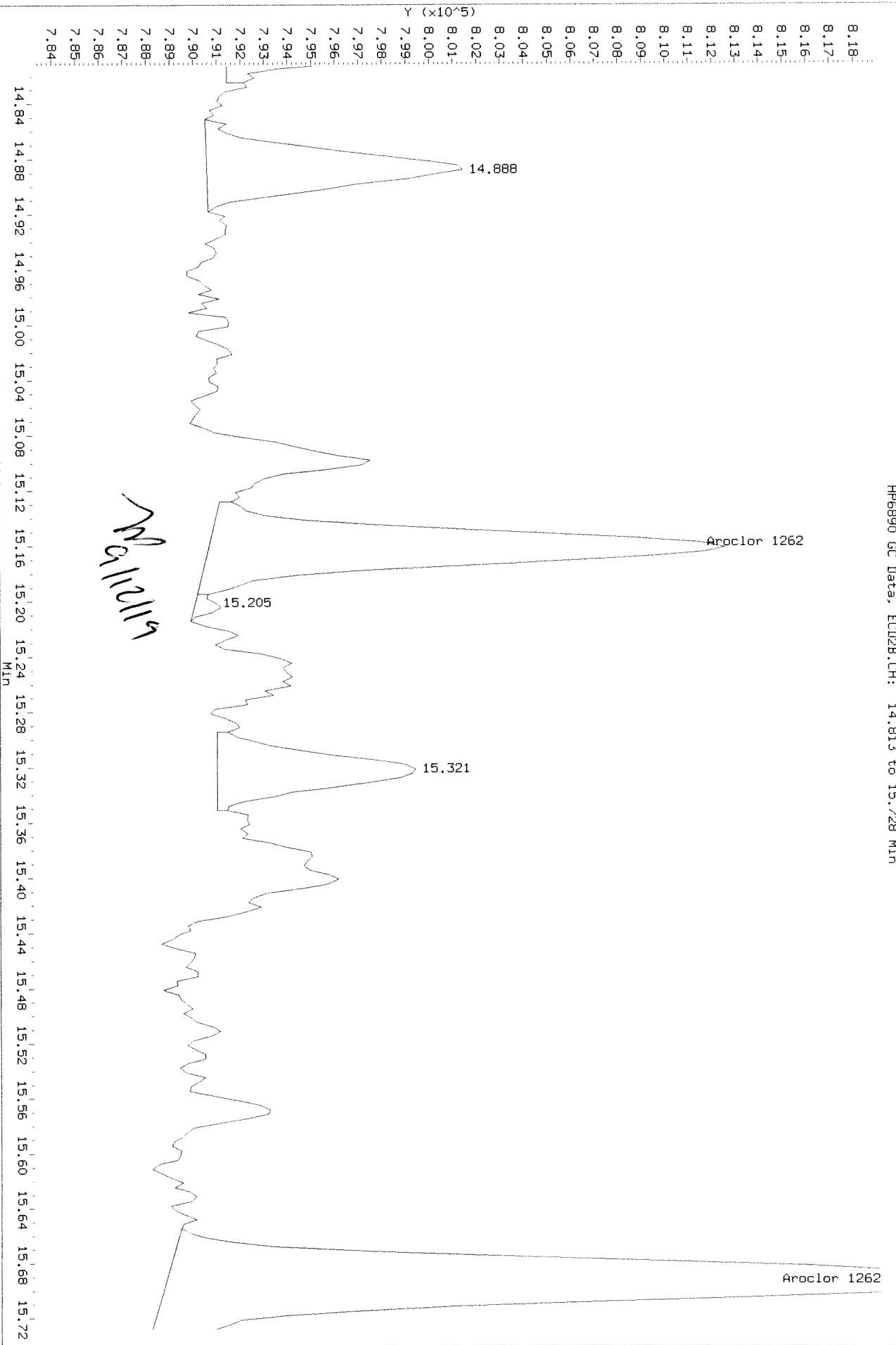
HP6890 GC Data, ECD2B.CH: 14.813 to 15.728 MIN



Data File: \\alklsw002\instdata\GC27\Data\090419ICAL_r.b\0904F021.D
Injection Date: 05-SEP-2019 02:58
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 14.813 to 15.728 Min

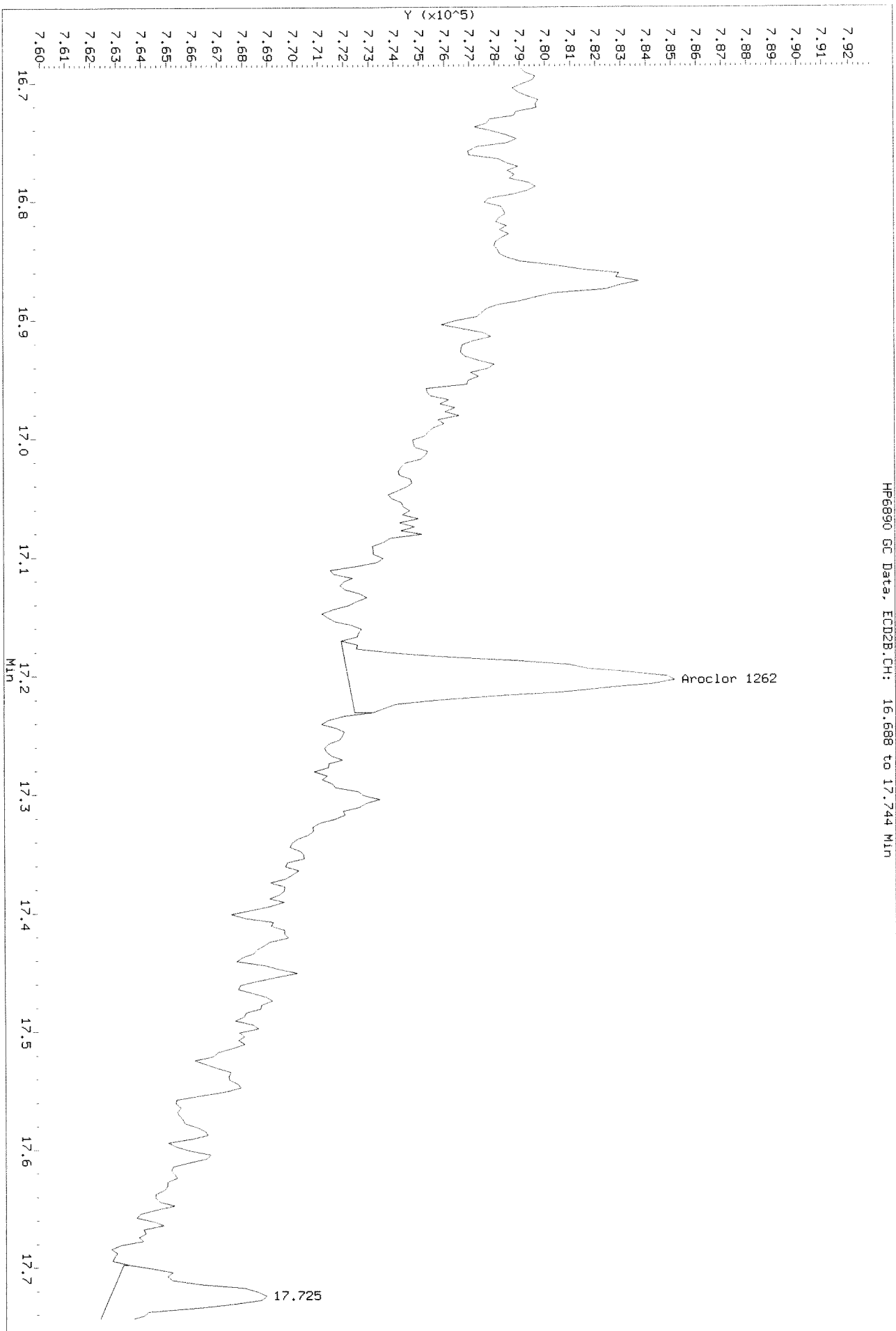
After shoulder 9/11/19 A



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F021.D
Injection Date: 05-SEP-2019 02:58
Instrument: GC27.1
Client Sample ID:

Before

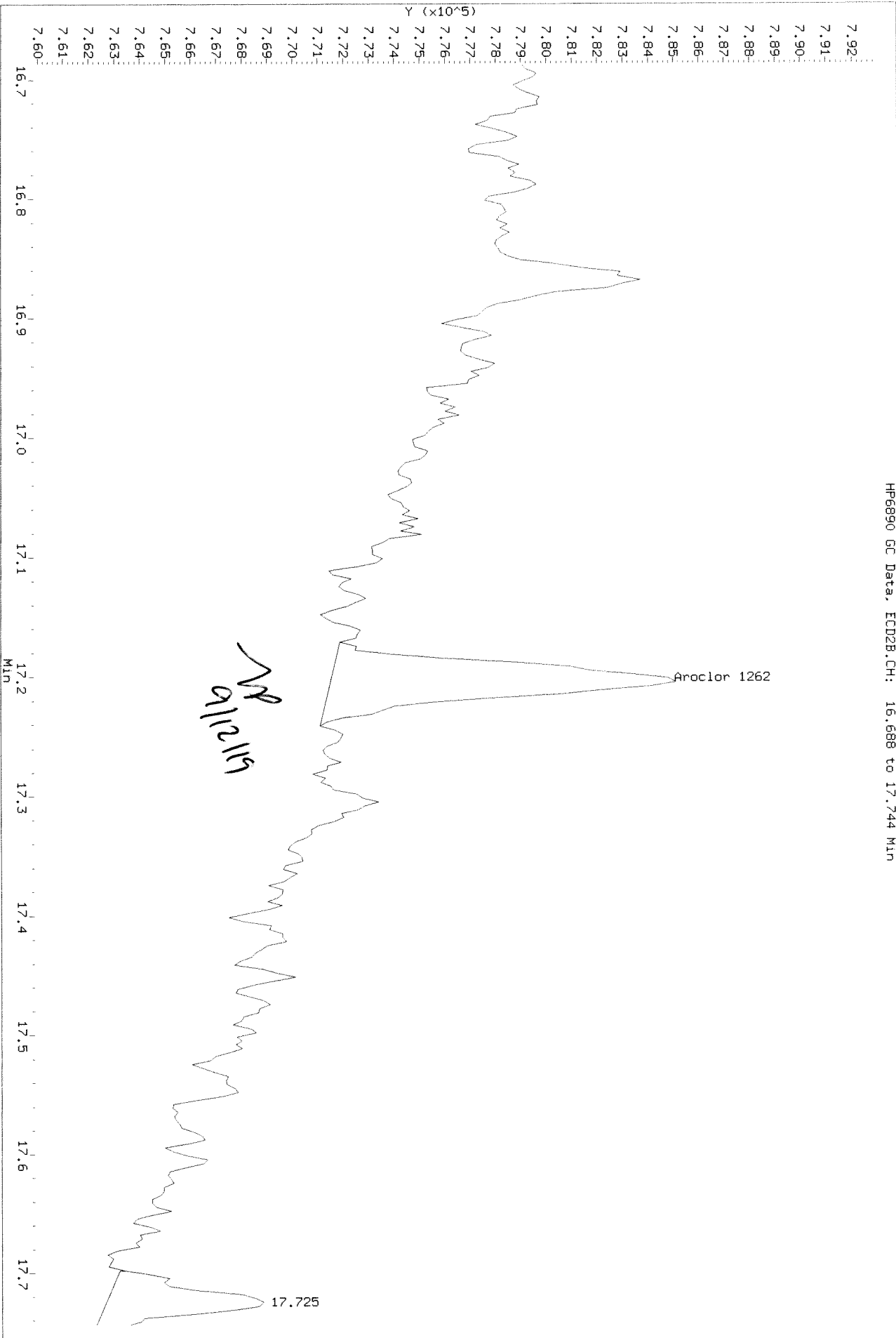
HP6890 GC Data, ECD2B.CH: 16.688 to 17.744 Min



Data File: \\alk1sws002\instdata\GC27\Data\090419ICALL_r.b\0904F021.D
Injection Date: 05-SEP-2019 02:58
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 16.688 to 17.744 Min

After baseline 9/11/19 ft



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F022.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F022.D
 Inj Date : 05-SEP-2019 03:29
 Sample Info: PCB8-13F 3262 @ 2 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 3262.sub
 Sub List #2 : 3262.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1232	7.660	9.164	33971	38512	2.18	1.96	80.00- 120.00	100.00 (M)
	8.060	9.910	96316	21534	2.05	1.97	234.25- 351.38	283.52 (M)
	8.827	10.294	85195	13097	2.24	1.78	205.56- 308.34	250.79 (M)
	9.307	10.964	30852	33040	2.24	2.18	76.03- 114.04	90.82 (M)
	9.930	11.014	57144	35059	2.17	2.00	137.78- 206.67	168.21 (M)
Average of Peak Amounts =					2.18	1.98		
Aroclor 1262	13.584	14.790	207877	95516	2.22	2.25	80.00- 120.00	100.00
	14.057	15.160	176258	74638	2.13	2.30	71.44- 107.17	84.79
	14.430	15.690	333532	154568	2.20	2.35	135.47- 203.20	160.45
	15.060	16.197	247752	96025	2.25	2.18	96.75- 145.12	119.18
	15.927	17.204	102888	53661	2.15	2.36	43.01- 64.52	49.49
Average of Peak Amounts =					2.19	2.29		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
W

Data File: \\aik1sus002\instdata\GC27\Data\090419ICL.b\0904F022.D

Date : 05-SEP-2019 03:29

Client ID:

Sample Info: PCB8-13F 3262 @ 2 PPB

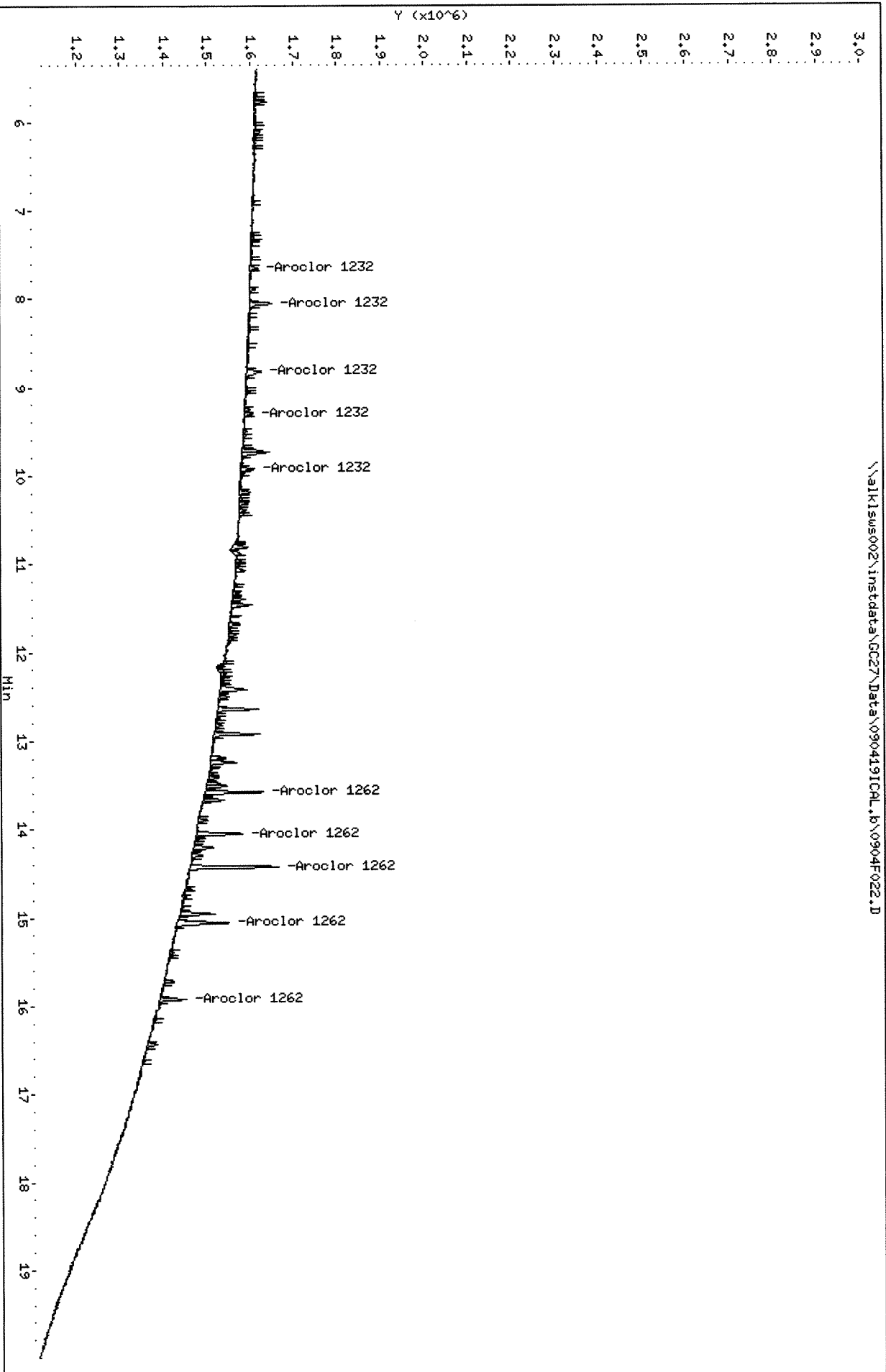
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\aik1sus002\instdata\GC27\Data\090419ICL.b\0904F022.D



Data File: \\alk1s002\instdata\GC27\Data\090419ICAL_r.b\0904F022.D

Date : 05-SEP-2019 03:29

Client ID:

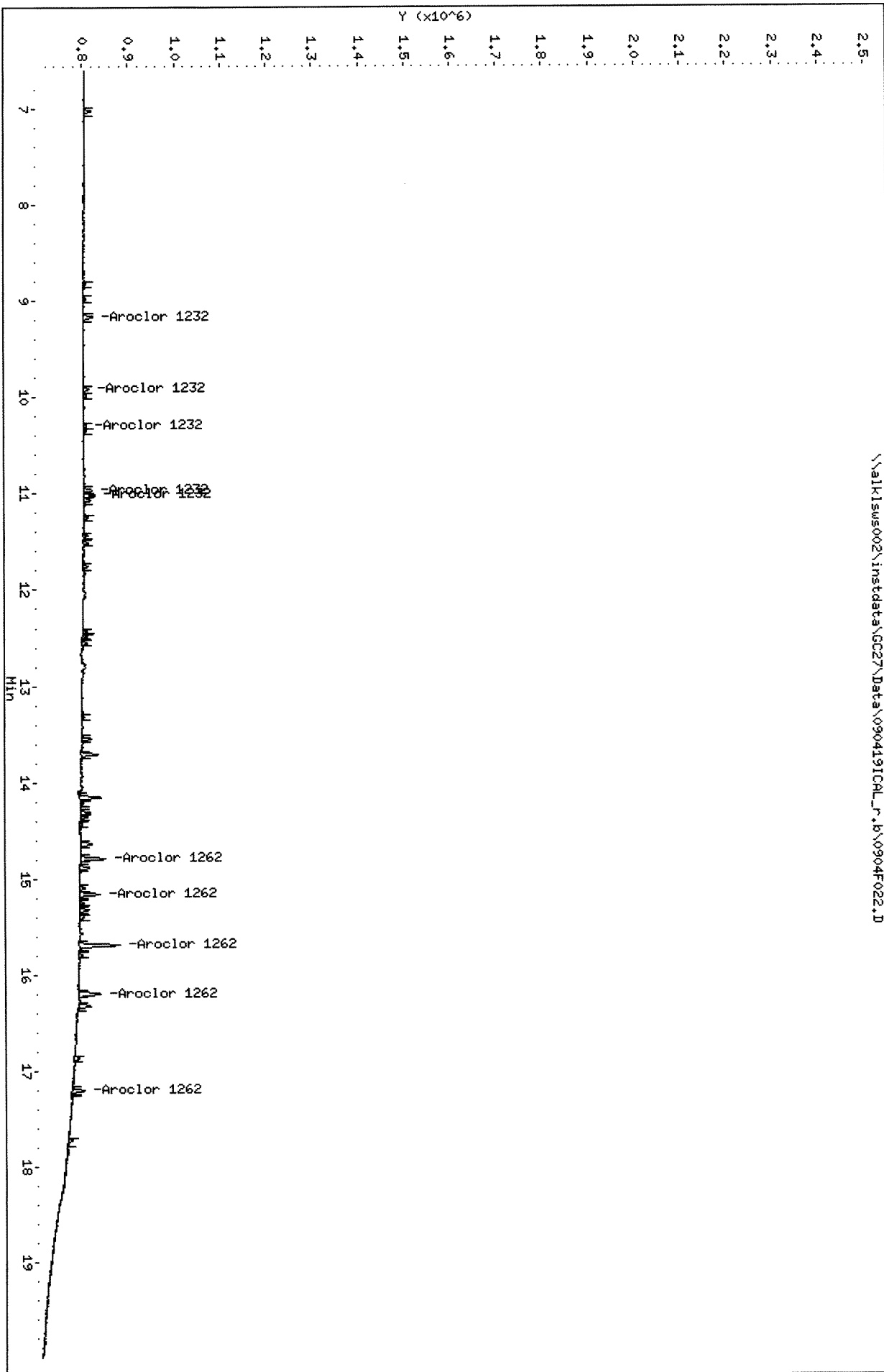
Sample Info: PCB8-13F 3262 @ 2 PPB

Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

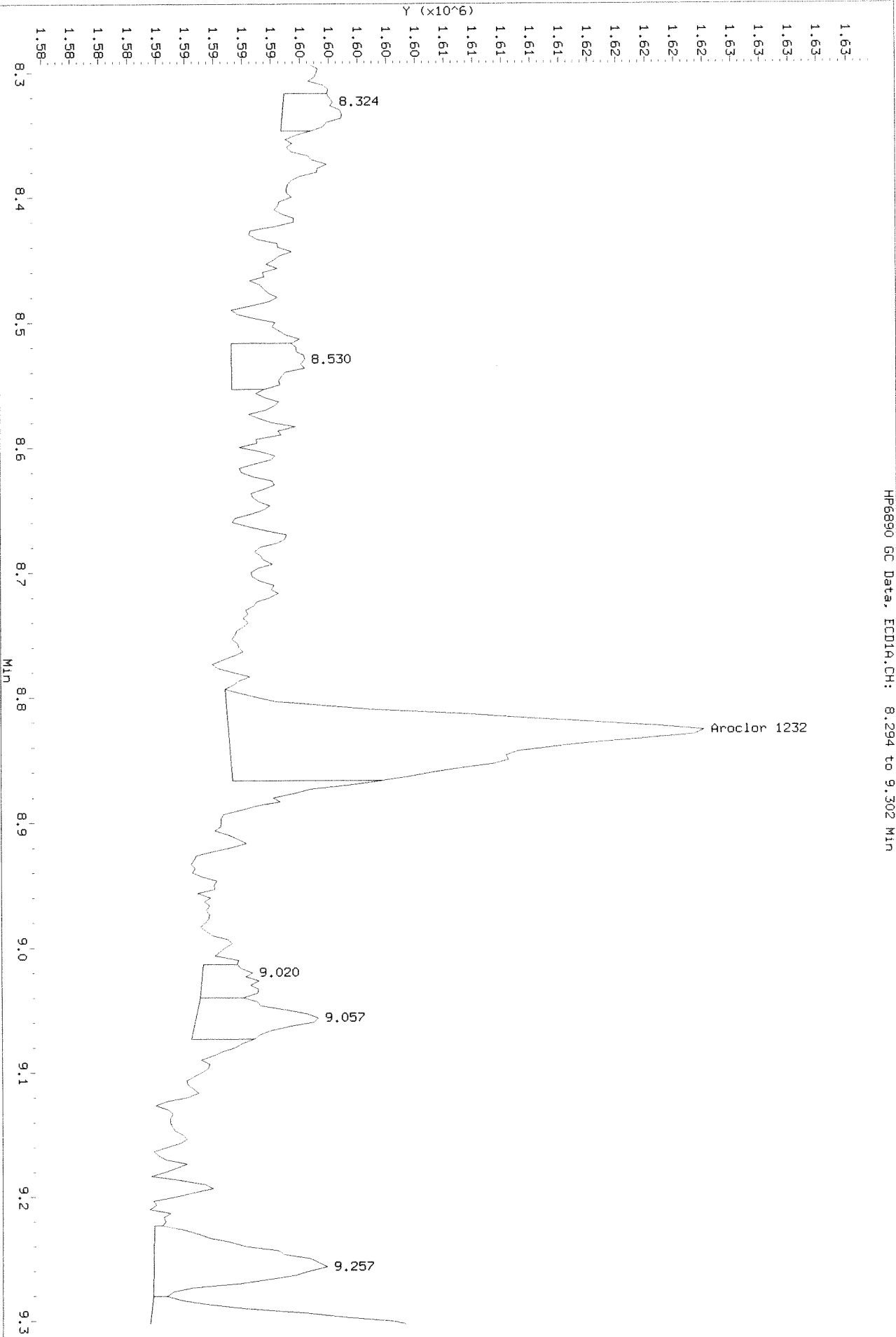
Column diameter: 0.32



Data File: \\alkjms002\instdata\GC27\Data\090419ICAL.P\0904F022.D
Injection Date: 05-SEP-2019 03:29
Instrument: GC27.1
Client Sample ID:

Before

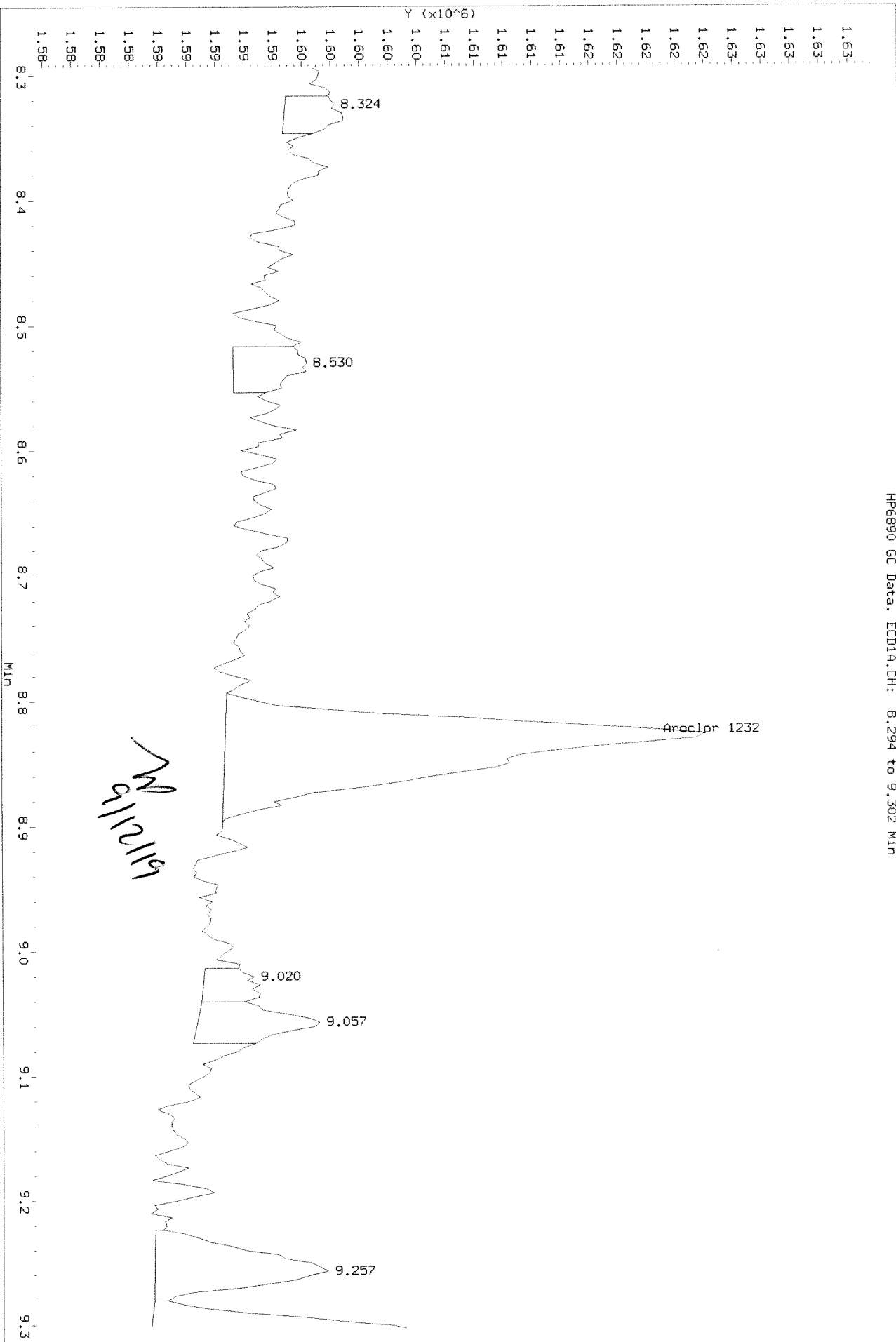
HP6890 GC Data, ECD1A.CH: 8.294 to 9.302 Min



Data File: \\alklsws002\instdata\GC27\Data\090419ICL.B\0904F022.D
Injection Date: 05-SEP-2019 03:29
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 8.294 to 9.302 MIN

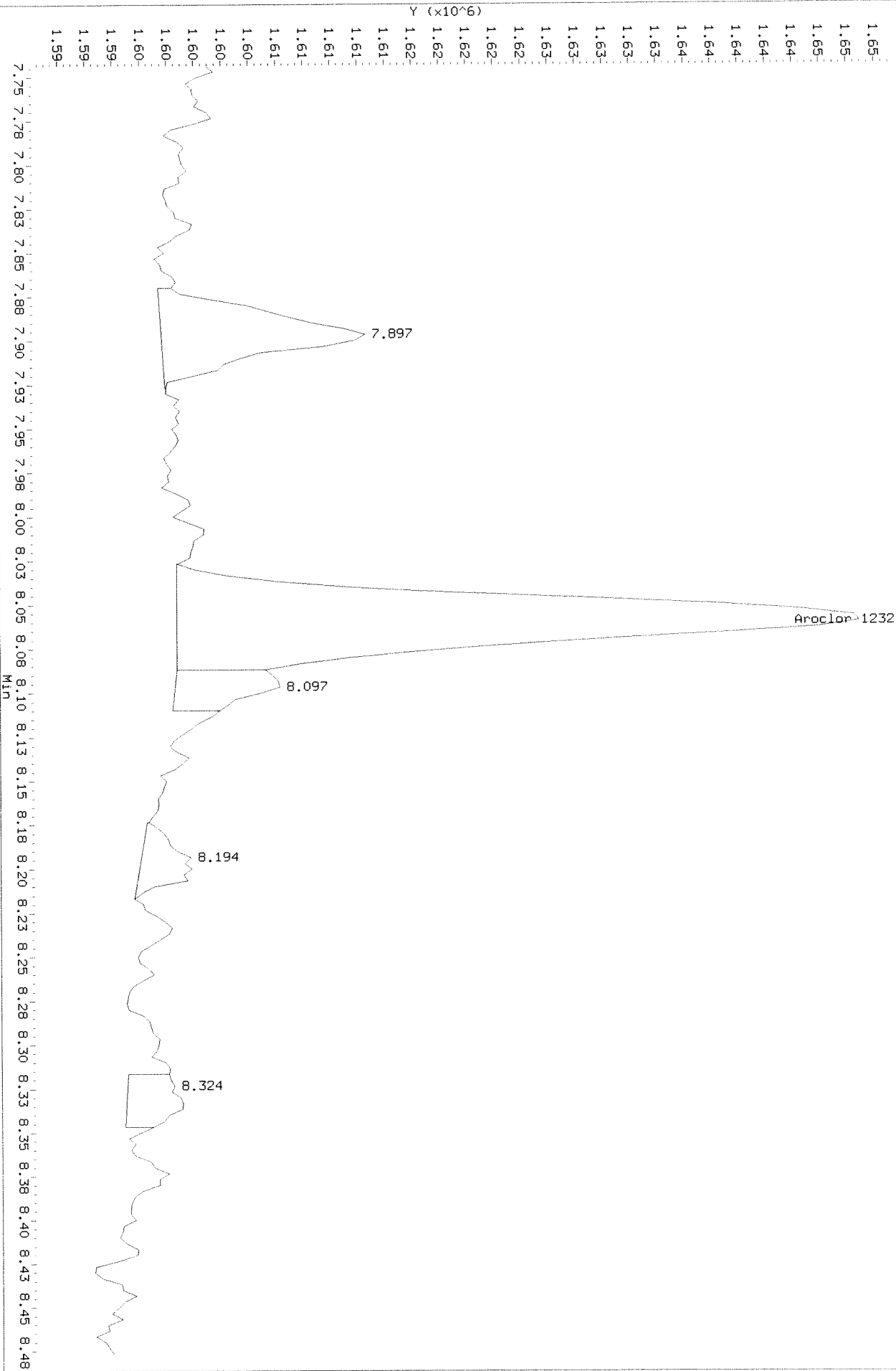
After baseline 9/11/19 A



Data File: \\alklms002\instdata\GC27\Data\090419ICHL.D\0904F022.D
Injection Date: 05-SEP-2019 03:29
Instrument: GC27.1
Client Sample ID:

Before

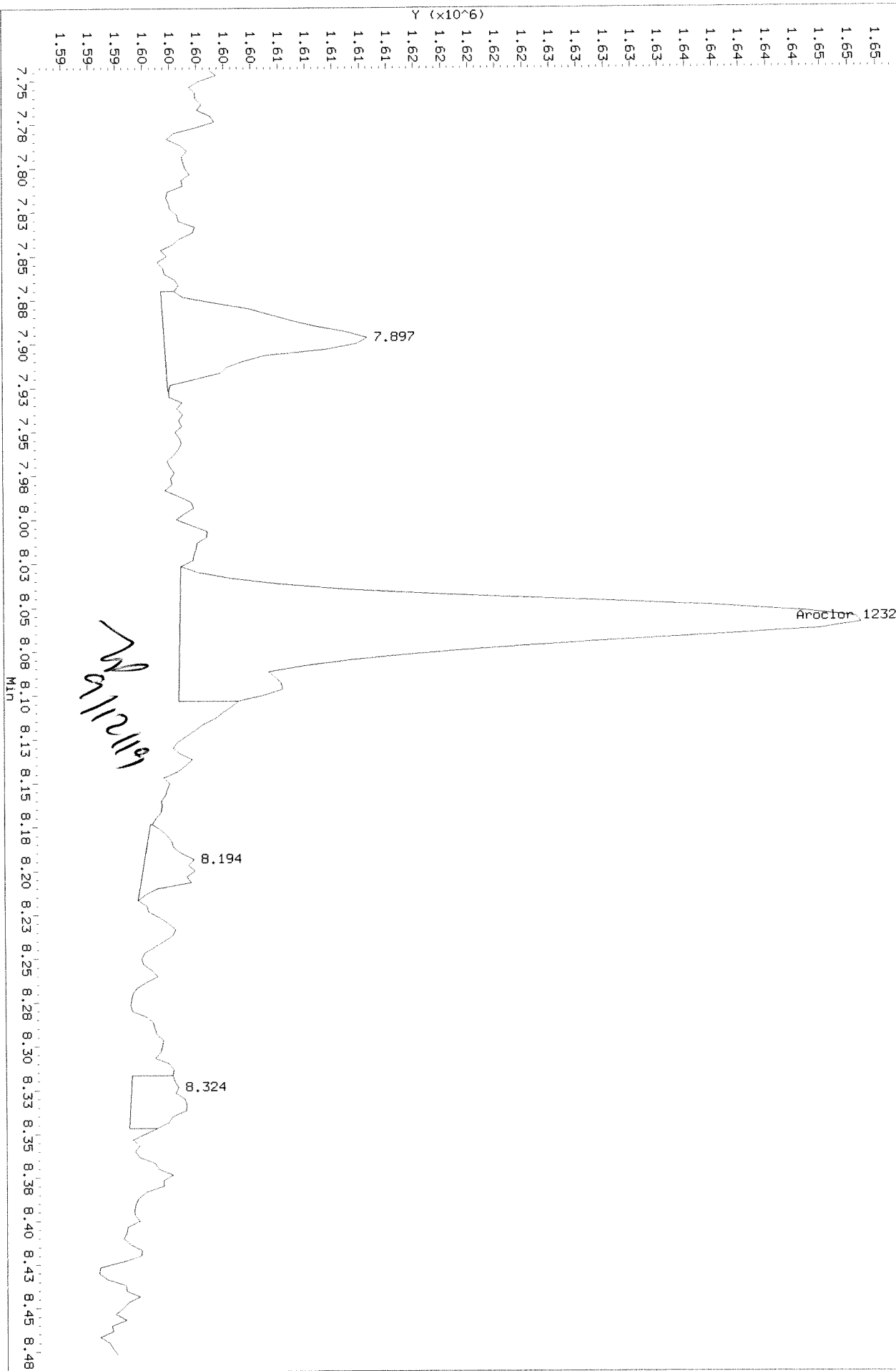
HP6890 GC Data, ECD1A.CH: 7.744 to 8.477 Min



Data File: \\alklsw002\inst\data\GC27\Data\090419ICAL.b\0904F022.D
Injection Date: 09-SEP-2019 03:29
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 7.744 to 8.477 Min

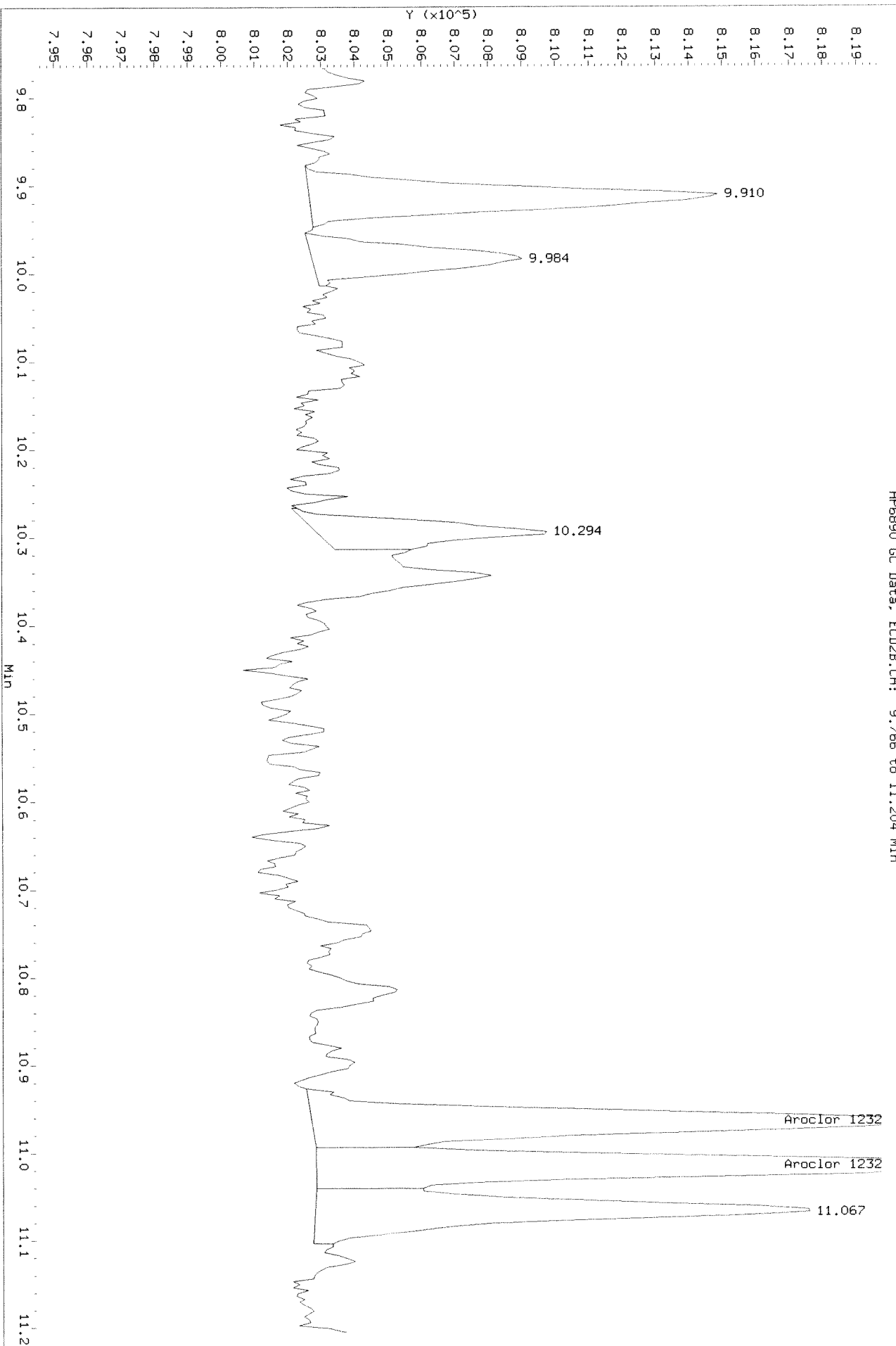
After baseline 9/11/19 *AF*



Data File: \\alkjsw002\instdata\GC27\Data\090419ICALL_r.b\0904F022.D
Injection Date: 05-SEP-2019 03:29
Instrument: GC27.1
Client Sample ID:

Before

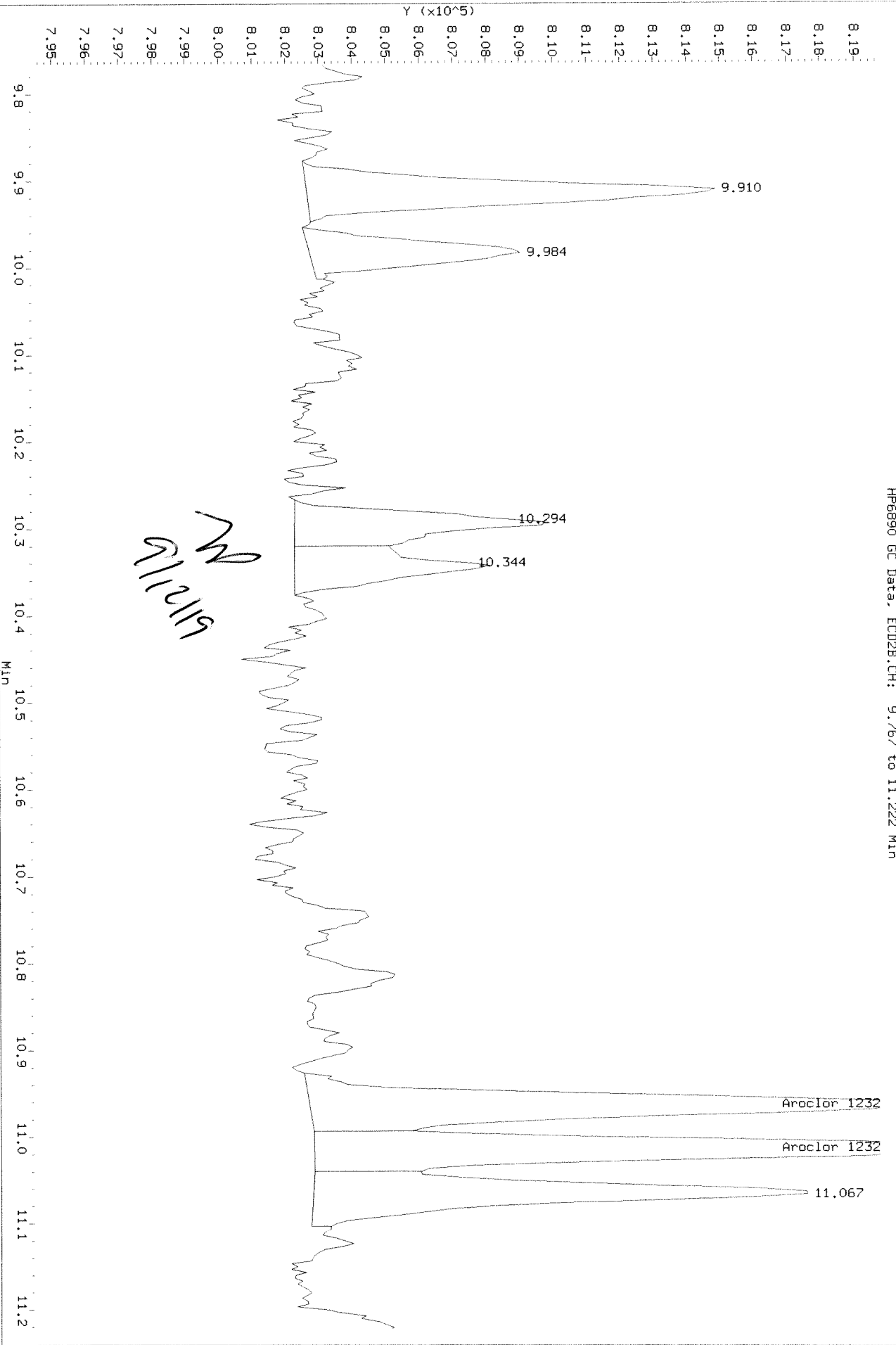
HP6890 GC Data, ECD28.CH: 9.766 to 11.204 Min



Data File: \\alkjsws002\instdata\GC27\Data\090419ICALL.r.b\0904F022.D
Injection Date: 05-SEP-2019 03:29
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECDDB.CH: 9.767 to 11.222 Min

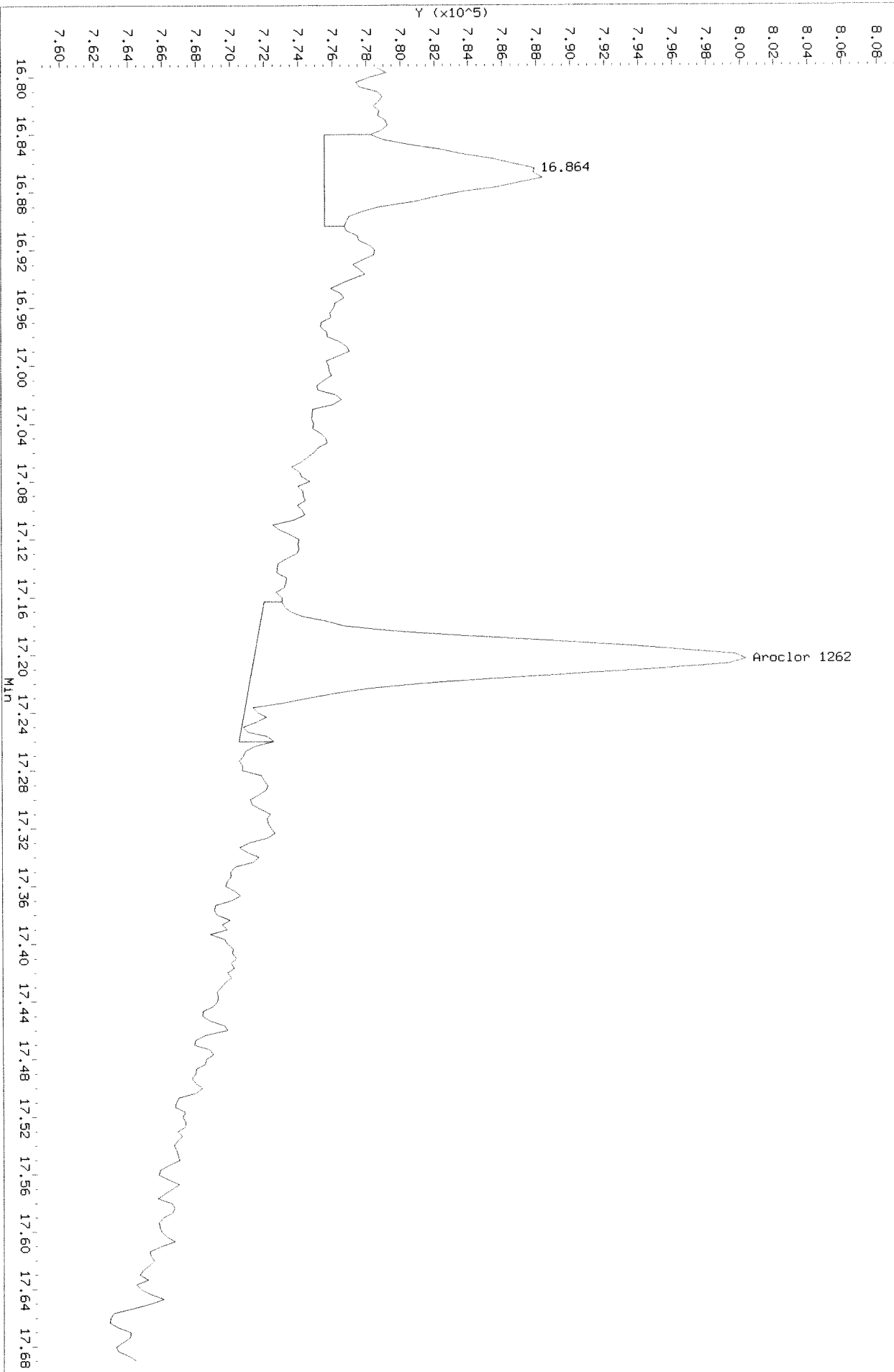
After baseline 7/11/19 ft



Data File: \\alklsws002\instdata\GC27\Data\090419ICALL.r\0904F022.D
Injection Date: 05-SEP-2019 03:29
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 16.794 to 17.690 Min

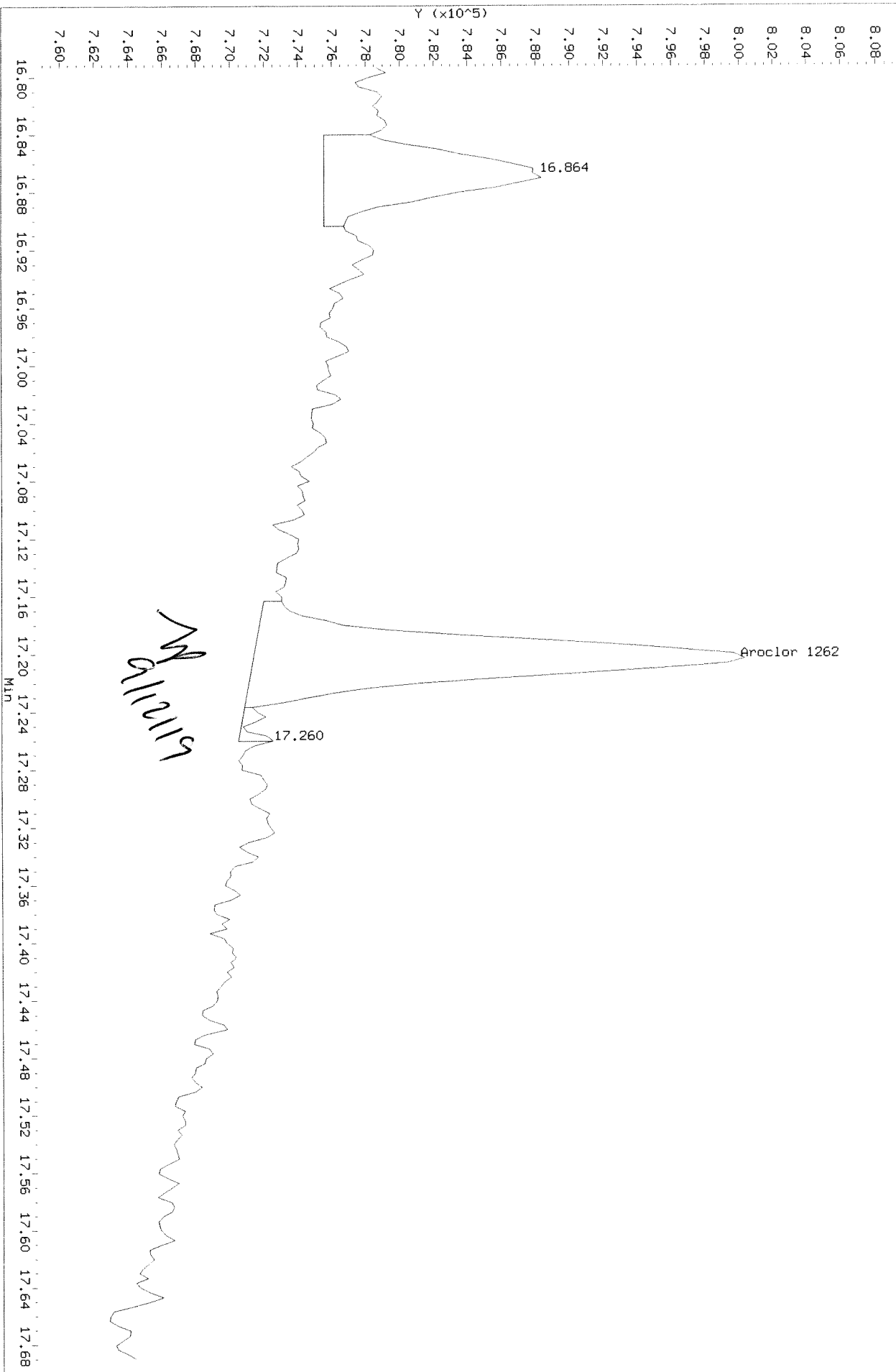
Before



Data File: \\alk1sww002\instdata\GC27\Data\090419ICAL_r.b\0904F022.D
Injection Date: 05-SEP-2019 03:29
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 16.794 to 17.690 MIN

After Shalby 9/11/19 AS



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F023.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F023.D
 Inj Date : 05-SEP-2019 04:01
 Sample Info: PCB8-13G 3262 @ 5 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 3262.sub
 Sub List #2 : 3262.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1232	7.659	9.166	78190	98378	5.01	5.00	80.00- 120.00	100.00 (M)
	8.059	9.916	253643	52191	5.41	4.78	234.25- 351.38	324.39 (M)
	8.829	10.293	199072	36278	5.24	4.94	205.56- 308.34	254.60 (M)
	9.306	10.966	73747	77270	5.34	5.10	76.03- 114.04	94.32 (M)
	9.932	11.016	131374	89548	4.98	5.11	137.78- 206.67	168.02 (M)
	Average of Peak Amounts =				5.20	4.99		
Aroclor 1262	13.582	14.793	503399	232359	5.38	5.47	80.00- 120.00	100.00
	14.052	15.163	426464	175690	5.14	5.42	71.44- 107.17	84.72
	14.429	15.689	787008	365455	5.19	5.57	135.47- 203.20	156.34
	15.059	16.199	574517	240089	5.21	5.46	96.75- 145.12	114.13
	15.926	17.203	247383	120962	5.17	5.32	43.01- 64.52	49.14
	Average of Peak Amounts =				5.22	5.45		

QC Flag Legend

M - Compound response manually integrated.

SAA 9/11/19
W

Data File: \\aik1s002\instdata\GC27\Data\090419ICL.b\0904F023.D

Date : 05-SEP-2019 04:01

Client ID:

Sample Info: PCB8-13G 3262 @ 5 PPB

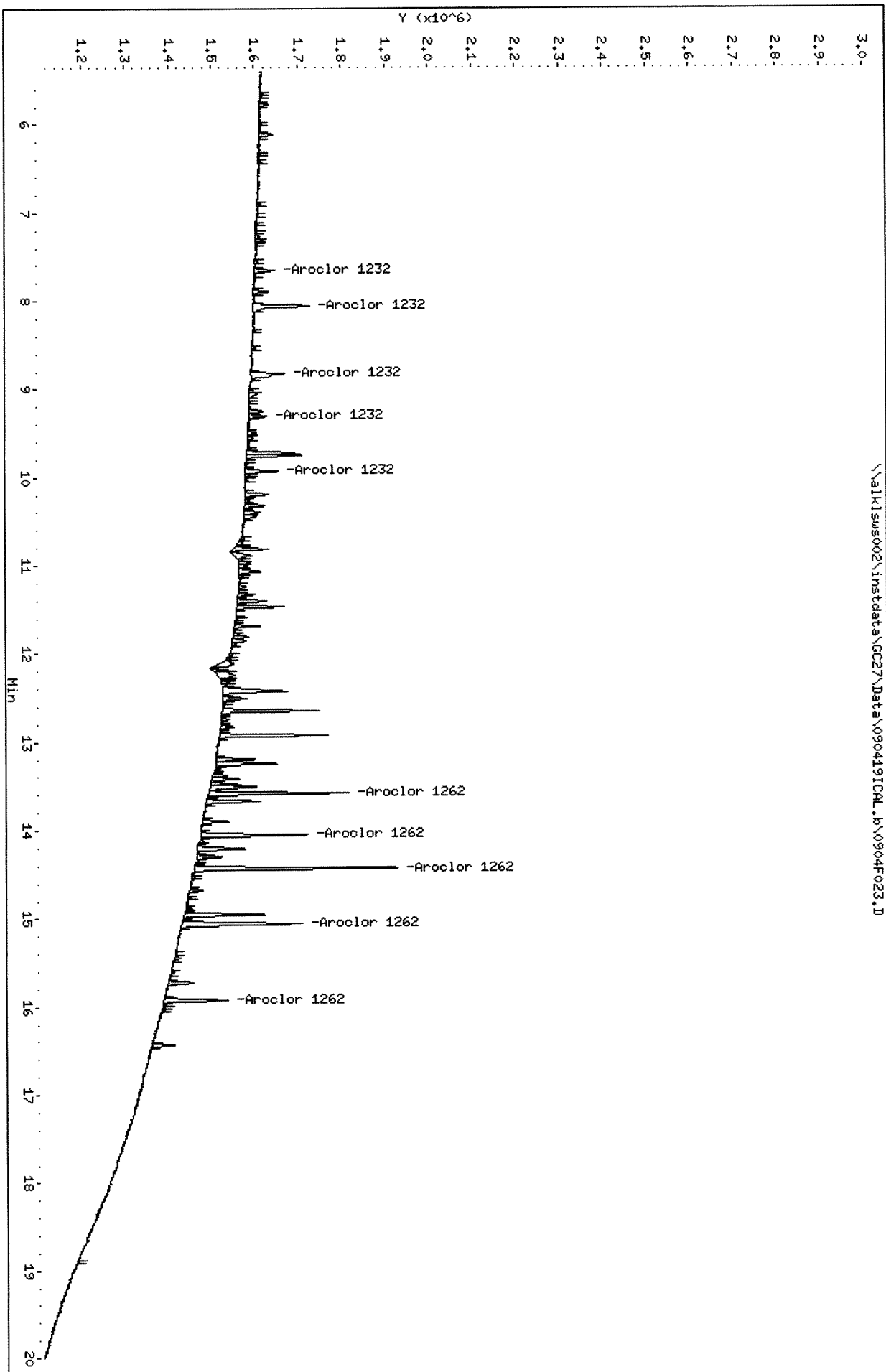
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\aik1s002\instdata\GC27\Data\090419ICL.b\0904F023.D



Data File: \\alk1sws002\instdata\GC27\Data\090419ICAL_r.b\0904F023.D
Date : 05-SEP-2019 04:01

Client ID:

Sample Info: PCB8-13G 3262 @ 5 PPB

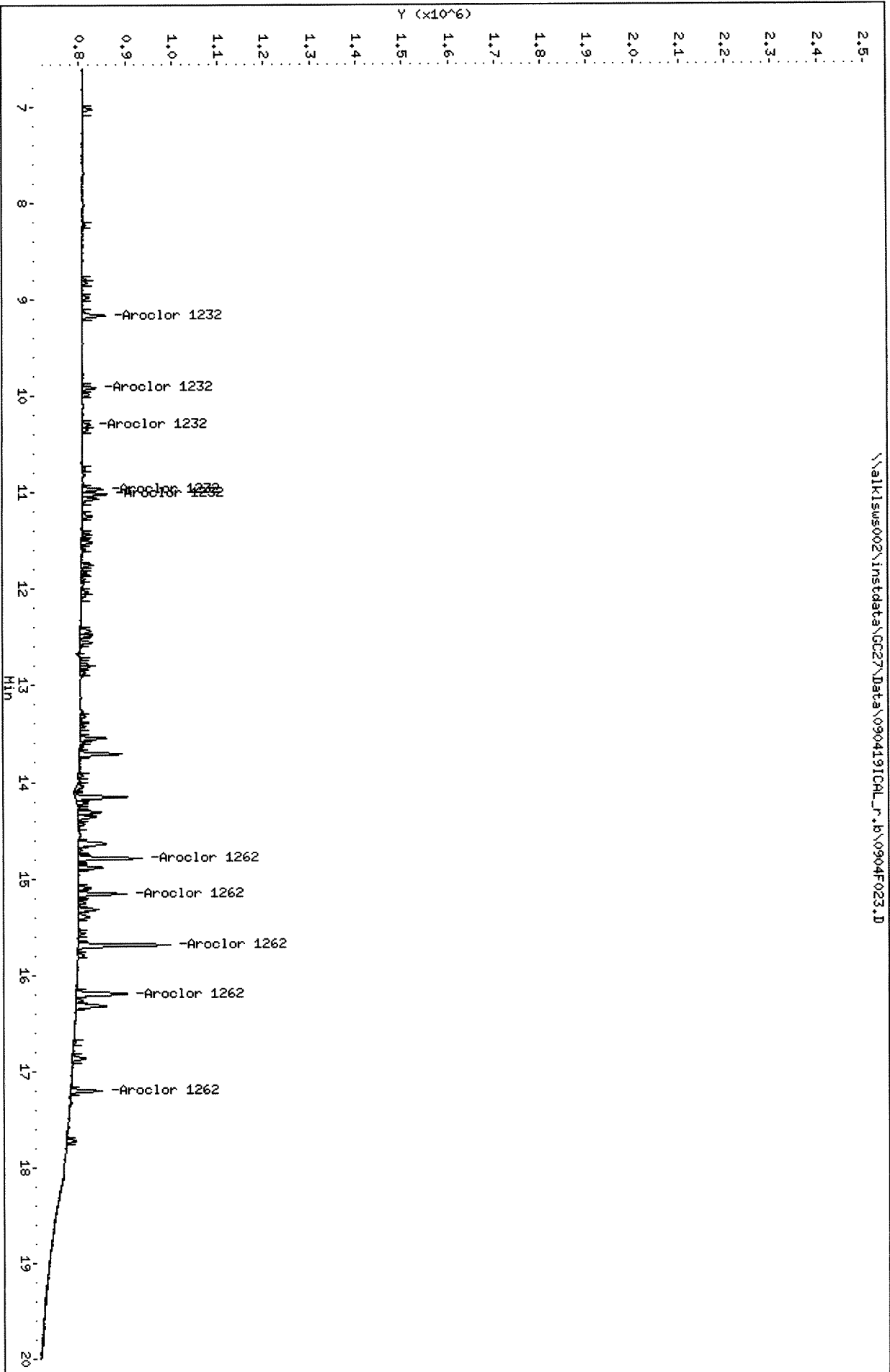
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

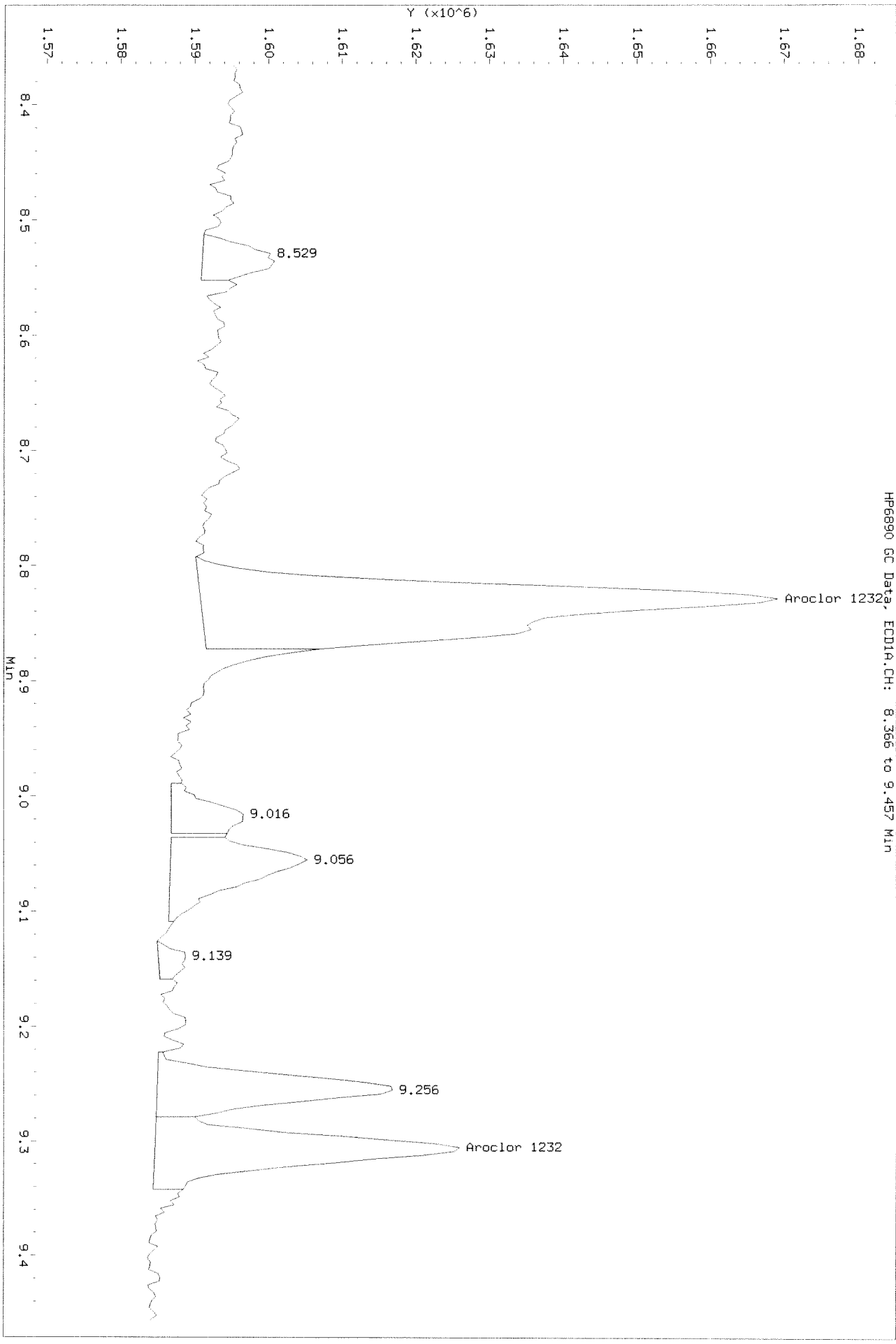
Column diameter: 0.32

\\alk1sws002\instdata\GC27\Data\090419ICAL_r.b\0904F023.D



Data File: \\alkjsws002\instdata\GC27\Data\090419ICAL.b\0904F023.D
Injection Date: 05-SEP-2019 04:01
Instrument: GC27.1
Client Sample ID:

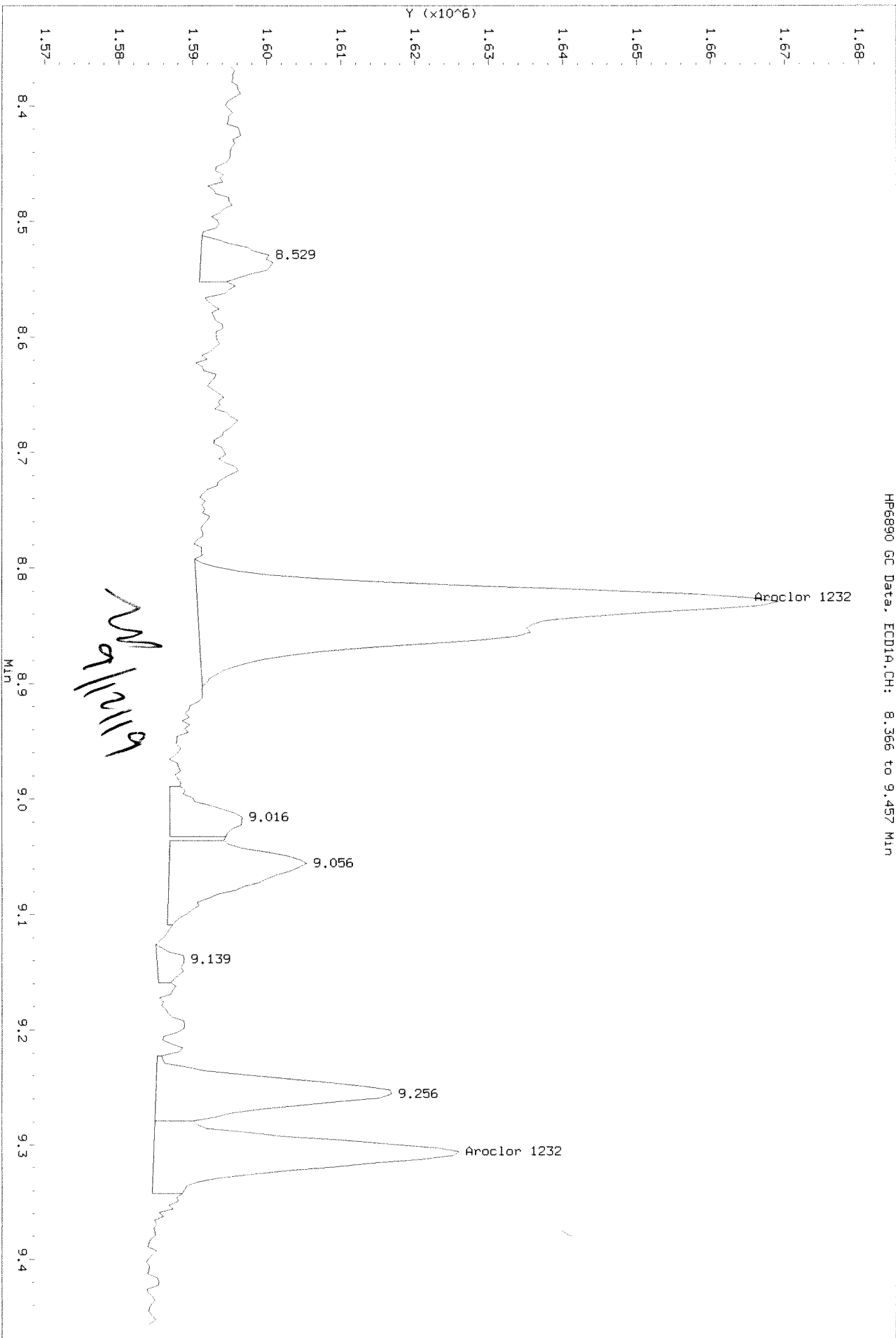
Before



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.B\0904F023.D
Injection Date: 05-SEP-2019 04:01
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 8.366 to 9.457 Min

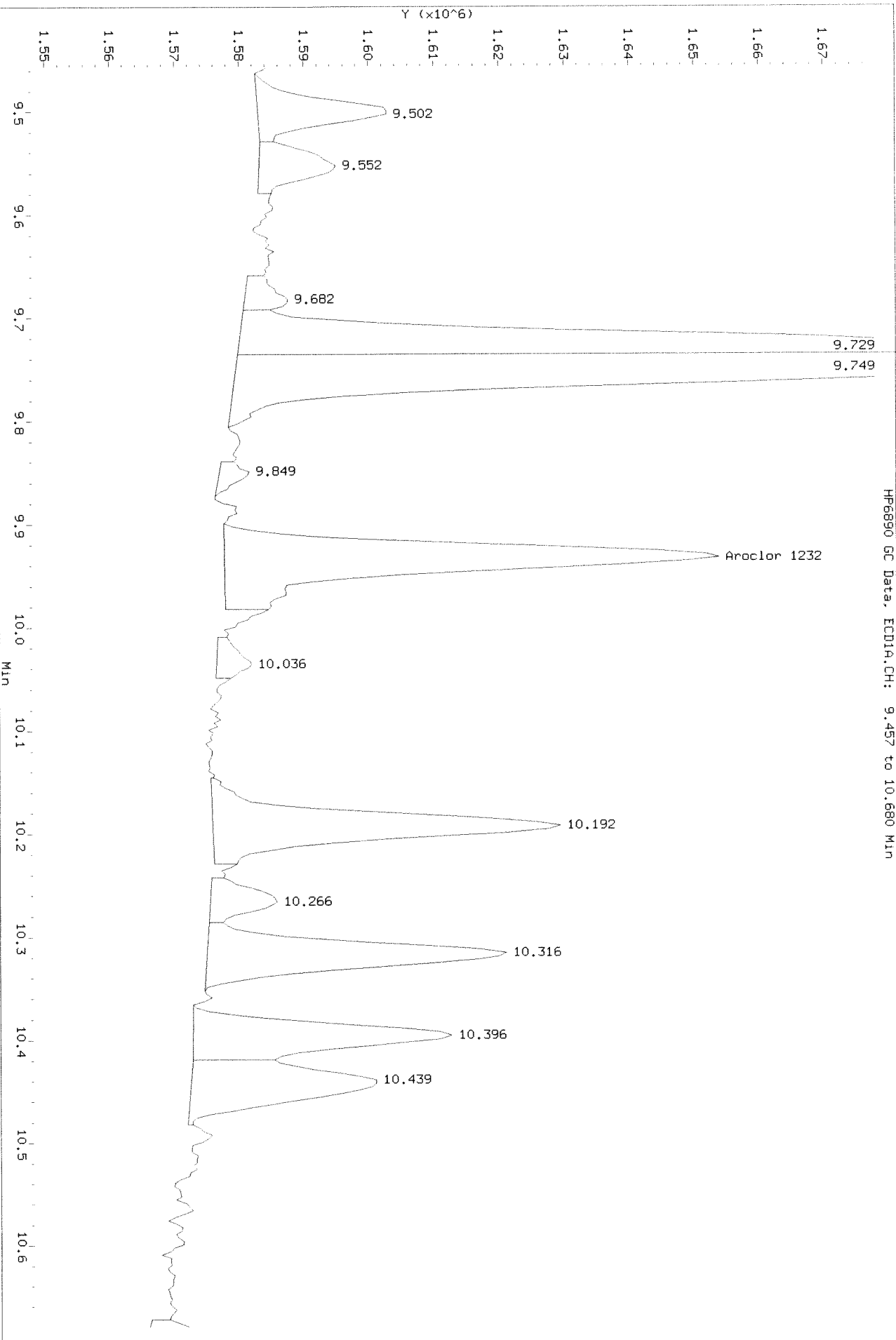
After baseline 9/11/19 A



Data File: \\alklms002\instdata\GC27\Data\090419ICAL.b\0904F023.D
Injection Date: 05-SEP-2019 04:01
Instrument: GC27.1
Client Sample ID:

Before

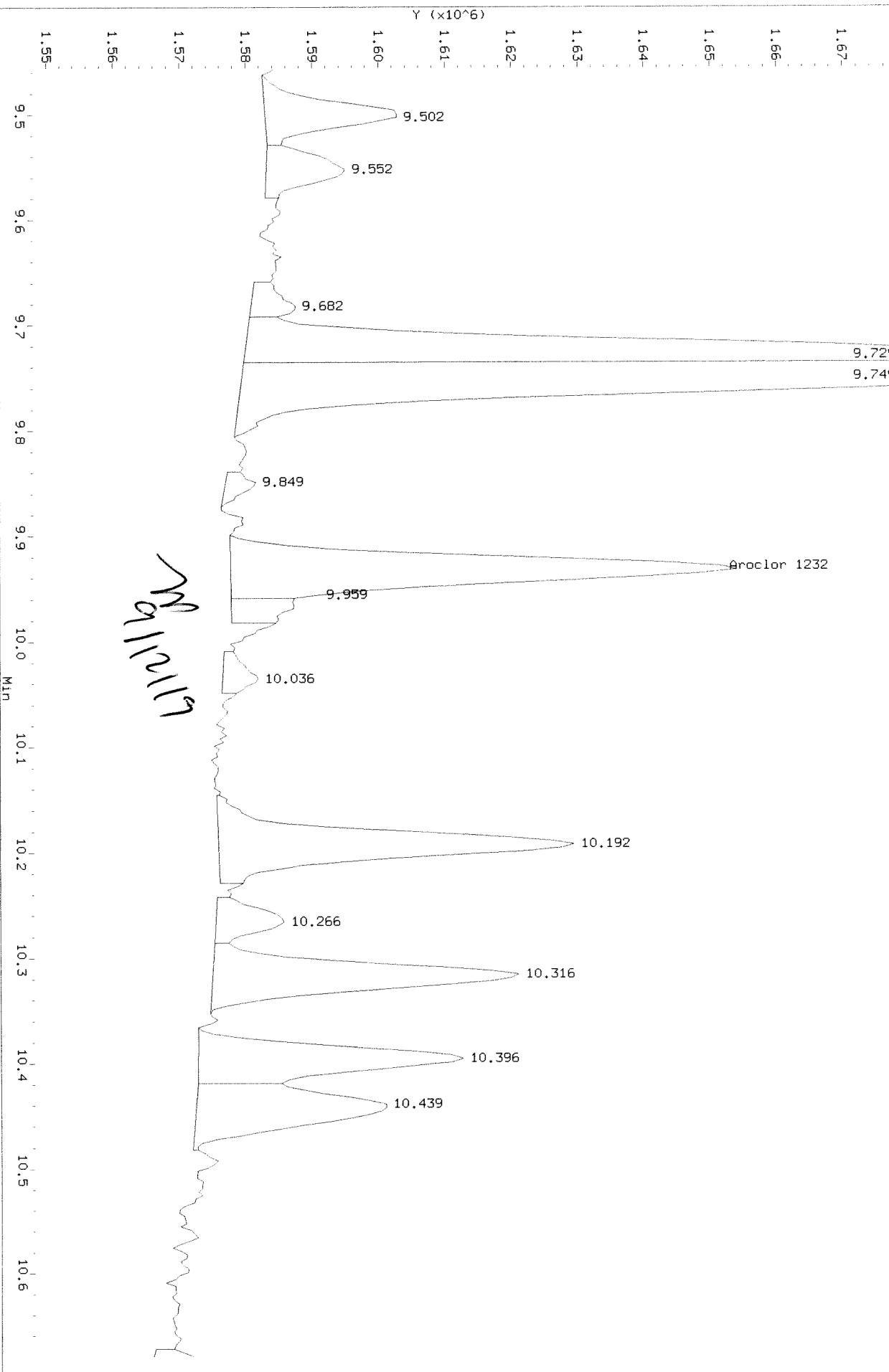
HP6890 GC Data: ECD1A.CH: 9.457 to 10.680 MIN



Data File: \\alk1sww002\instdata\GC27\Data\090419ICAL.b\0904F023.D
Injection Date: 05-SEP-2019 04:01
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 9.457 to 10.680 Min

After Shoulder 9/11/19 SA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F024.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F024.D
 Inj Date : 05-SEP-2019 04:32
 Sample Info: PCB8-13H 3262 @ 10 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 3262.sub
 Sub List #2 : 3262.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1232	7.656	9.166	163107	214876	10.5	10.9	80.00- 120.00	100.00 (M)
	8.056	9.916	509540	114653	10.9	10.5	234.25- 351.38	312.40 (M)
	8.826	10.296	421344	77243	11.1	10.5	205.56- 308.34	258.32 (M)
	9.302	10.966	148552	166685	10.8	11.0	76.03- 114.04	91.08 (M)
	9.929	11.016	276681	197514	10.5	11.3	137.78- 206.67	169.63 (M)
	Average of Peak Amounts =				10.8	10.8		
Aroclor 1262	13.579	14.793	1030827	492700	11.0	11.6	80.00- 120.00	100.00
	14.052	15.163	902216	372834	10.9	11.5	71.44- 107.17	87.52
	14.429	15.693	1646131	752262	10.9	11.5	135.47- 203.20	159.69
	15.056	16.199	1202229	510435	10.9	11.6	96.75- 145.12	116.63
	15.922	17.203	524390	254968	11.0	11.2	43.01- 64.52	50.87
	Average of Peak Amounts =				10.9	11.5		

QC Flag Legend

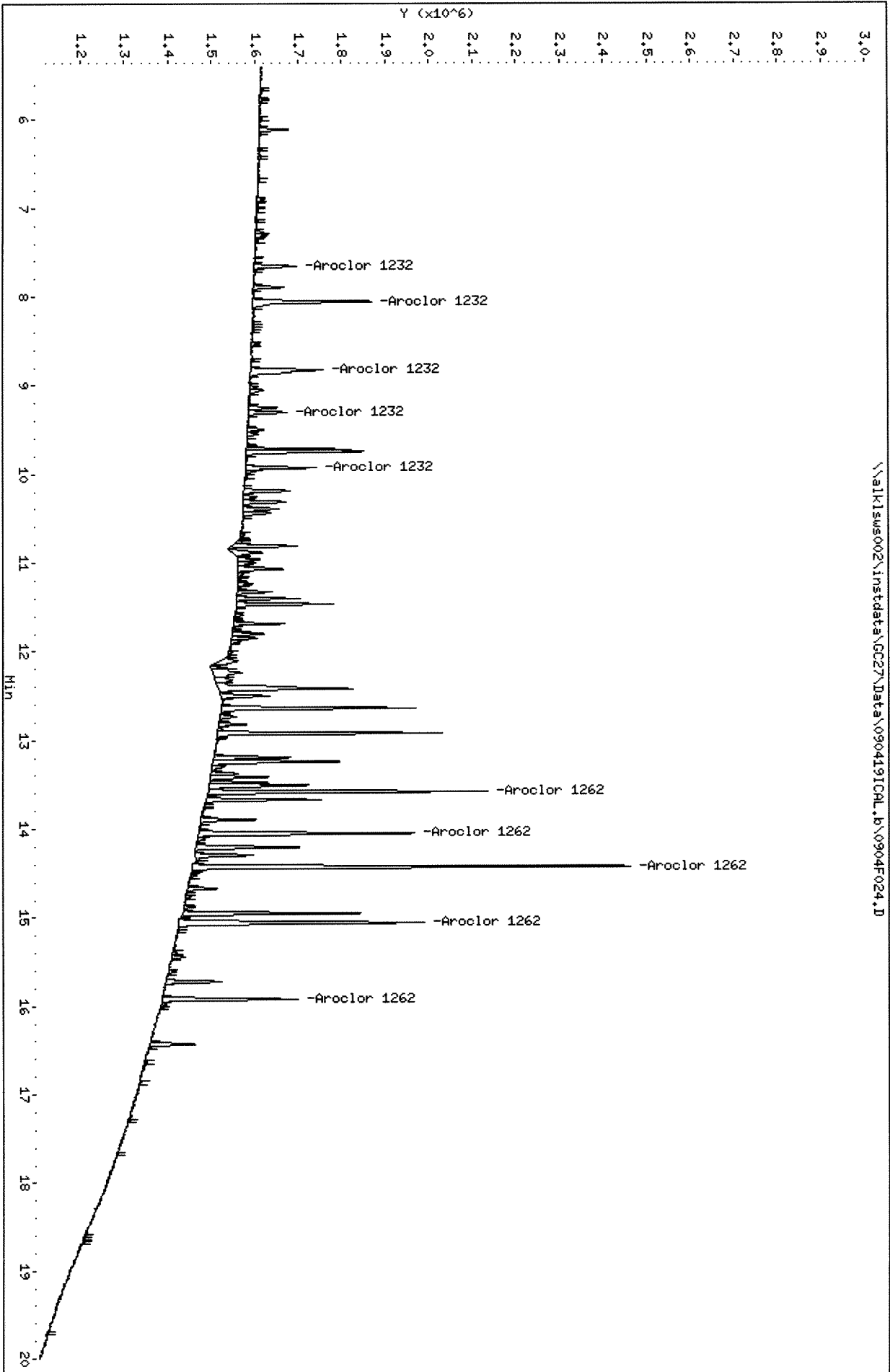
M - Compound response manually integrated.

SA 9/11/19
W

Data File: \\alk1sus002\instdata\GC27\Data\090419ICAL.b\0904f024.D
Date : 05-SEP-2019 04:32
Client ID:
Sample Info: PCB8-13H 3262 @ 10 PPB
Column phase: DB-35MS

Instrument: GC27.i
Operator: SAA
Column diameter: 0.32

\\alk1sus002\instdata\GC27\Data\090419ICAL.b\0904f024.D



Data File: \\alk1s002\instdata\GC27\Data\090419ICAL_r.b\0904F024.D

Date : 05-SEP-2019 04:32

Client ID:

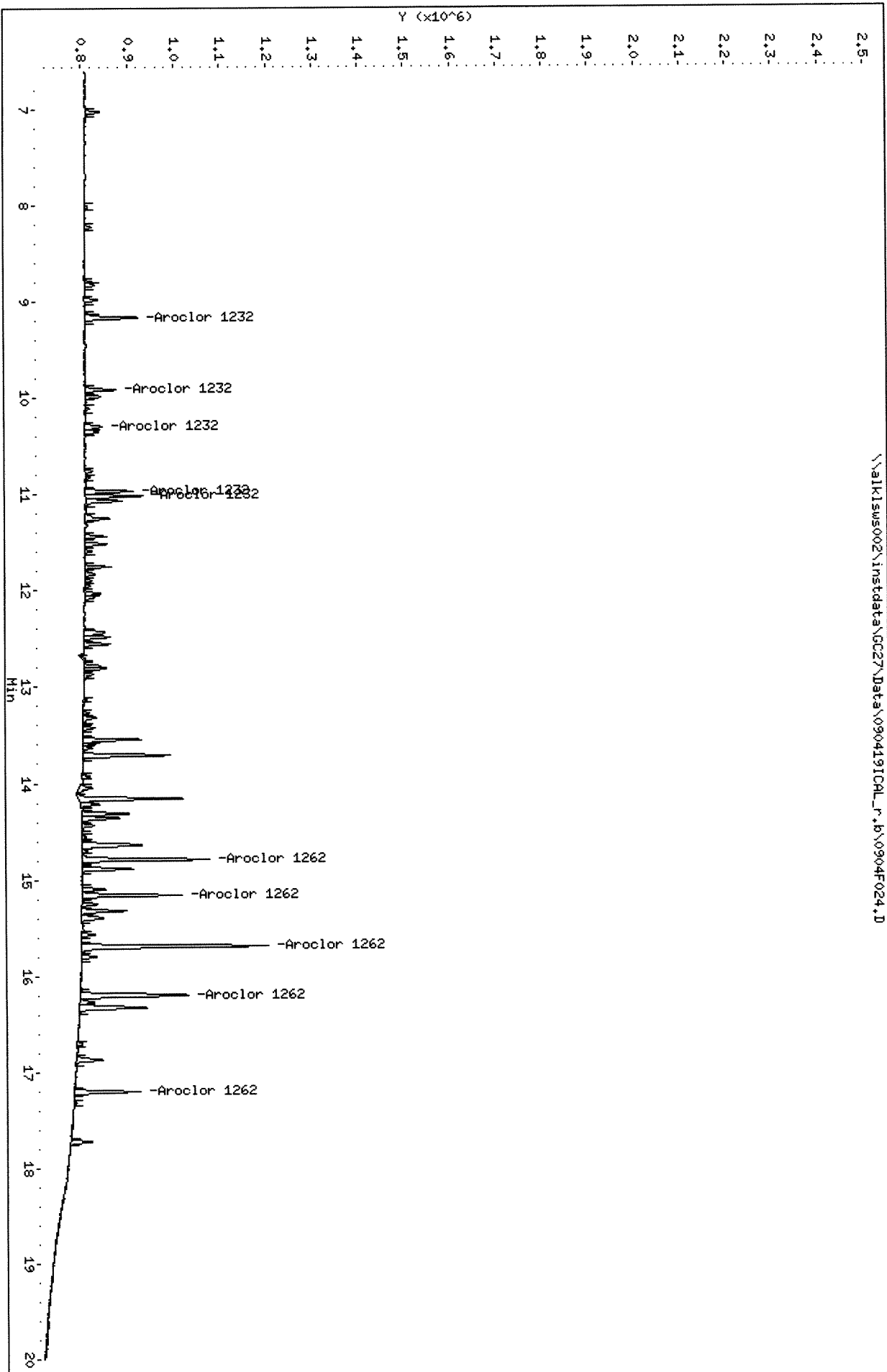
Sample Info: PCB8-13H 3262 @ 10 PPB

Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

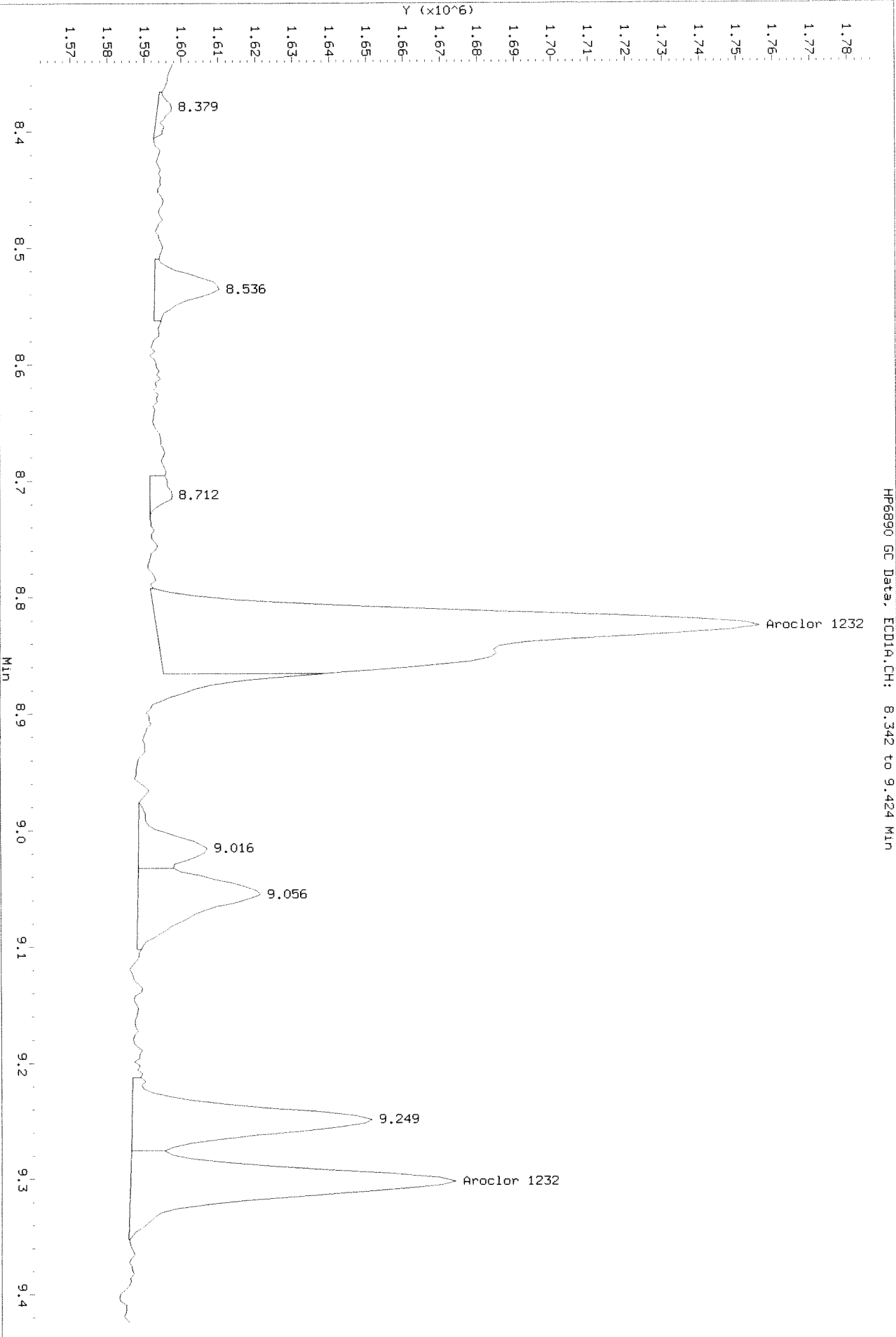
Column diameter: 0.32



Data File: \\alklsws002\jnst\data\GC27\Data\090419ICAL.P\0904F024.D
Injection Date: 05-SEP-2019 04:32
Instrument: GC27.1
Client Sample ID:

Before

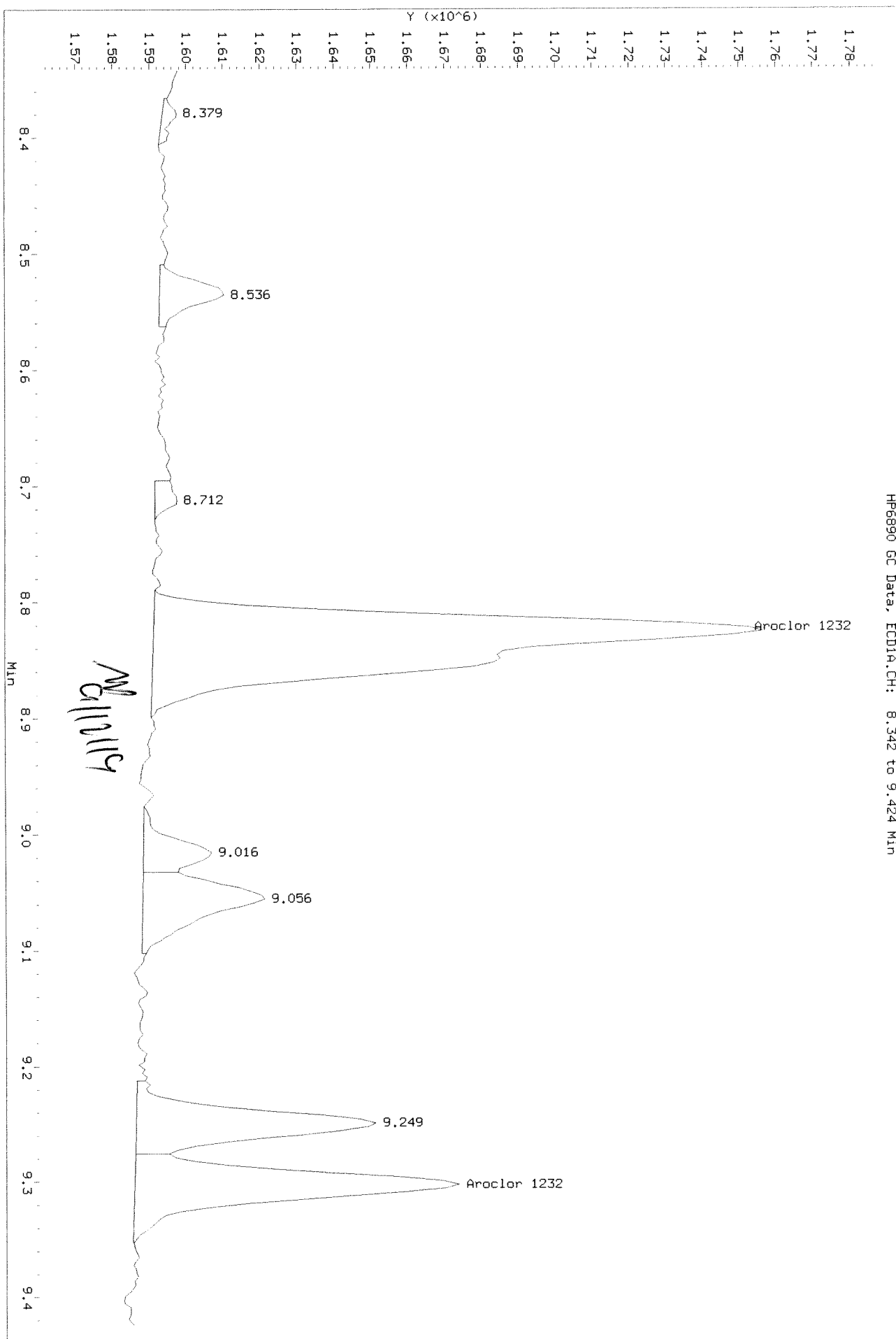
HP6890 GC Data, ECD1A.CH: 8.342 to 9.424 Min



Data File: \\alkisw002\instdata\GC27\Data\090419ICDL.p\0904F024.D
Injection Date: 05-SEP-2019 04:32
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 8.342 to 9.424 Min

After baseline 9/11/19 SA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F025.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F025.D
 Inj Date : 05-SEP-2019 05:04
 Sample Info: PCB7-91H 3262 @ 20 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 3262.sub
 Sub List #2 : 3262.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1232	7.655	9.166	297289	420033	19.1	21.3	80.00- 120.00	100.00 (M)
	8.055	9.916	887996	214617	18.9	19.6	234.25- 351.38	298.70 (M)
	8.825	10.296	801788	142064	21.1	19.4	205.56- 308.34	269.70 (M)
	9.302	10.966	276304	310237	20.0	20.5	76.03- 114.04	92.94 (M)
	9.929	11.016	489964	356114	18.6	20.3	137.78- 206.67	164.81 (M)
Average of Peak Amounts =					19.5	20.2		
Aroclor 1262	13.579	14.789	1759122	825713	18.8	19.4	80.00- 120.00	100.00 (M)
	14.049	15.159	1552466	627032	18.7	19.3	71.44- 107.17	88.25 (M)
	14.429	15.692	2809925	1244832	18.5	19.0	135.47- 203.20	159.73 (M)
	15.055	16.199	2056744	854558	18.7	19.4	96.75- 145.12	116.92 (M)
	15.922	17.202	901918	427554	18.9	18.8	43.01- 64.52	51.27 (M)
Average of Peak Amounts =					18.7	19.2		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
W

Data File: \\alklsws002\instdata\GC27\Data\090419ICL.b\0904F025.D

Date : 05-SEP-2019 05:04

Client ID:

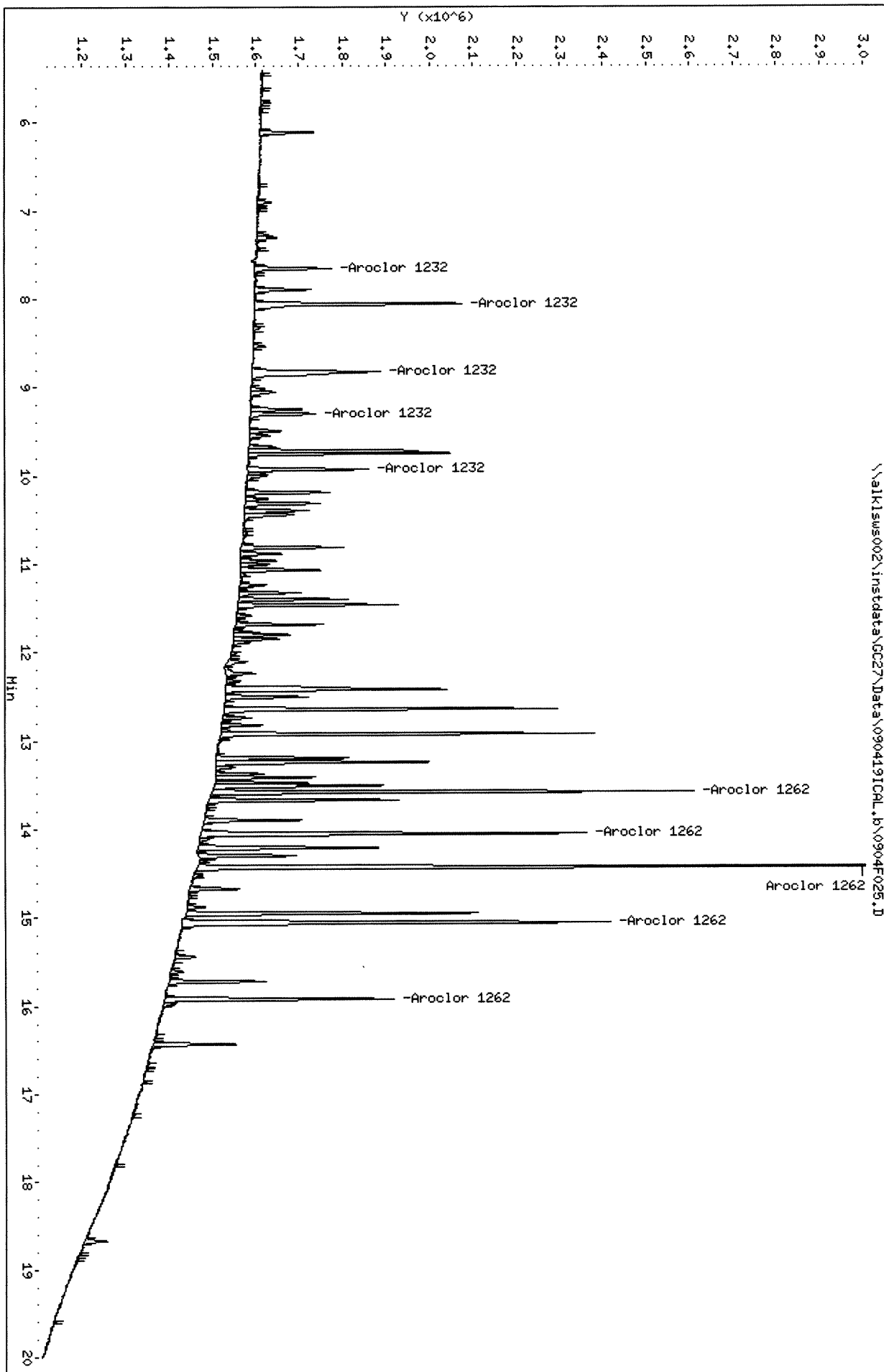
Sample Info: PCB7-91H 3262 @ 20 PPB

Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Data File: \\alkisws002\instdata\GC27\Data\090419ICL_r.b\0904F025.D
Date: 05-SEP-2019 05:04

Client ID:

Sample Info: PCB7-91H 3262 @ 20 PPS

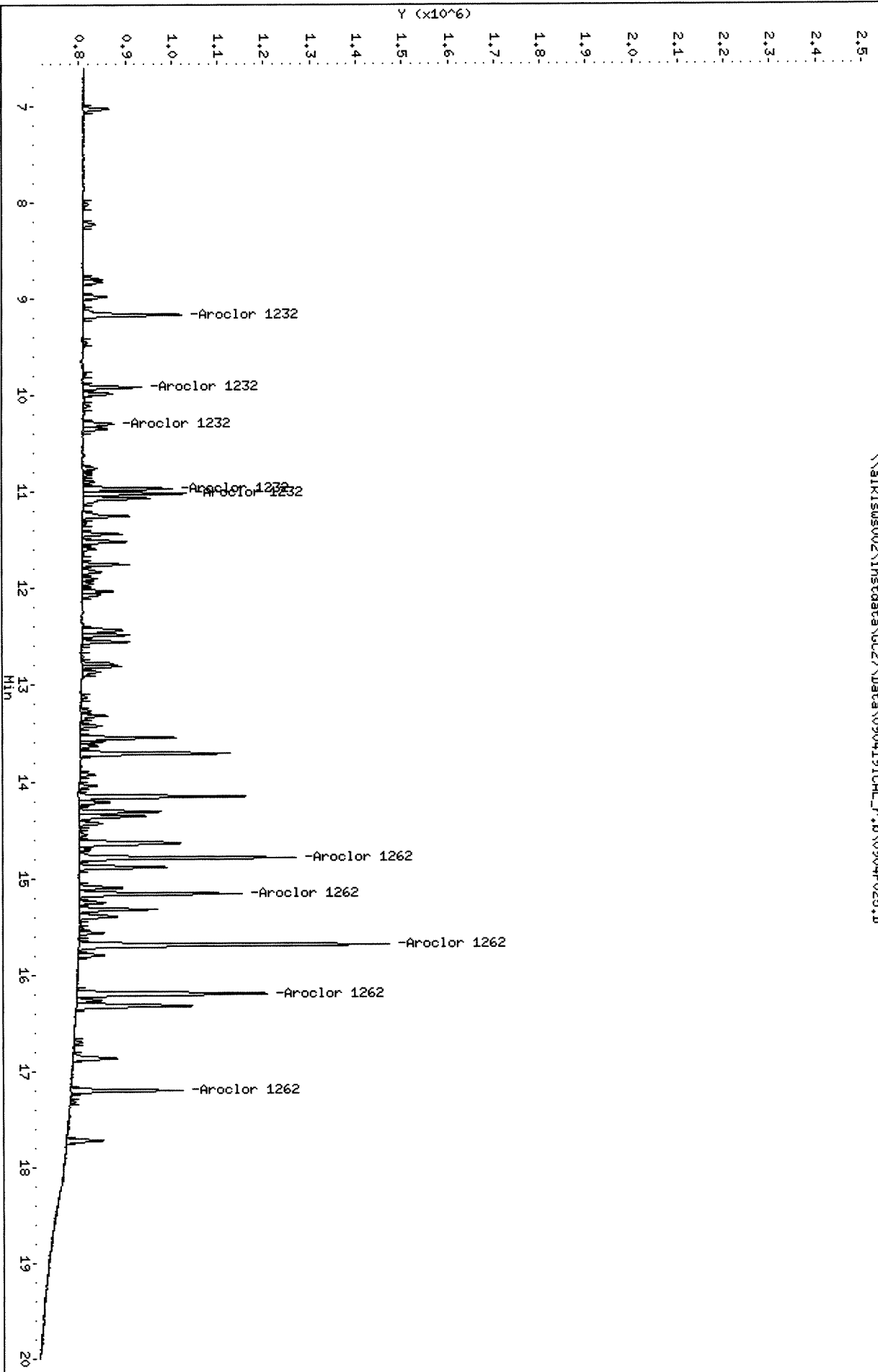
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alkisws002\instdata\GC27\Data\090419ICL_r.b\0904F025.D



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F026.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F026.D
 Inj Date : 05-SEP-2019 05:35
 Sample Info: PCB7-91I 3262 @ 50 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 3262.sub
 Sub List #2 : 3262.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1232	7.657	9.167	701344	1023218	44.9	52.0	80.00- 120.00	100.00
	8.057	9.914	2112082	547384	45.0	50.1	234.25- 351.38	301.15
	8.824	10.294	1836506	375941	48.4	51.2	205.56- 308.34	261.86
	9.304	10.967	663328	742806	48.1	49.0	76.03- 114.04	94.58
	9.927	11.017	1197355	879524	45.4	50.2	137.78- 206.67	170.72
	Average of Peak Amounts =				46.4	50.5		
Aroclor 1262	13.577	14.790	4200046	1883391	44.9	44.3	80.00- 120.00	100.00
	14.050	15.160	3729611	1446952	45.0	44.6	71.44- 107.17	88.80
	14.427	15.694	6761808	2804901	44.6	42.7	135.47- 203.20	160.99
	15.057	16.197	4911153	1969224	44.5	44.8	96.75- 145.12	116.93
	15.920	17.204	2189541	1023062	45.8	45.0	43.01- 64.52	52.13
	Average of Peak Amounts =				45.0	44.3		

CA 9/11/19


Data File: \\alkisw002\instdata\GC27\Data\090419ICL.b\0904F026.D

Date : 05-SEP-2019 05:35

Client ID:

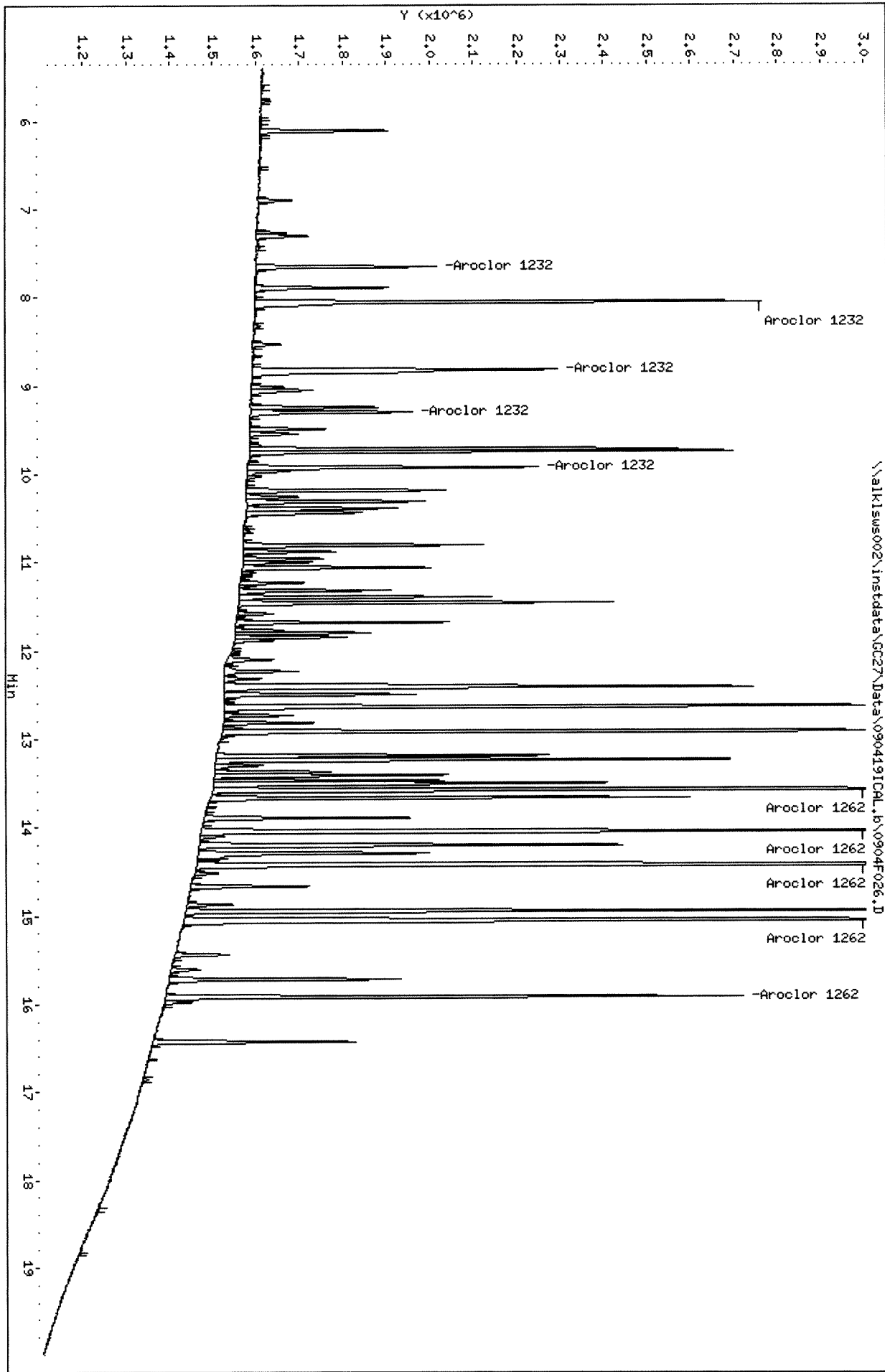
Sample Info: PCB7-911 3262 @ 50 PPB

Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F026.D

Date: 05-SEP-2019 05:35

Client ID:

Sample Info: PCB7-911 3262 @ 50 PPB

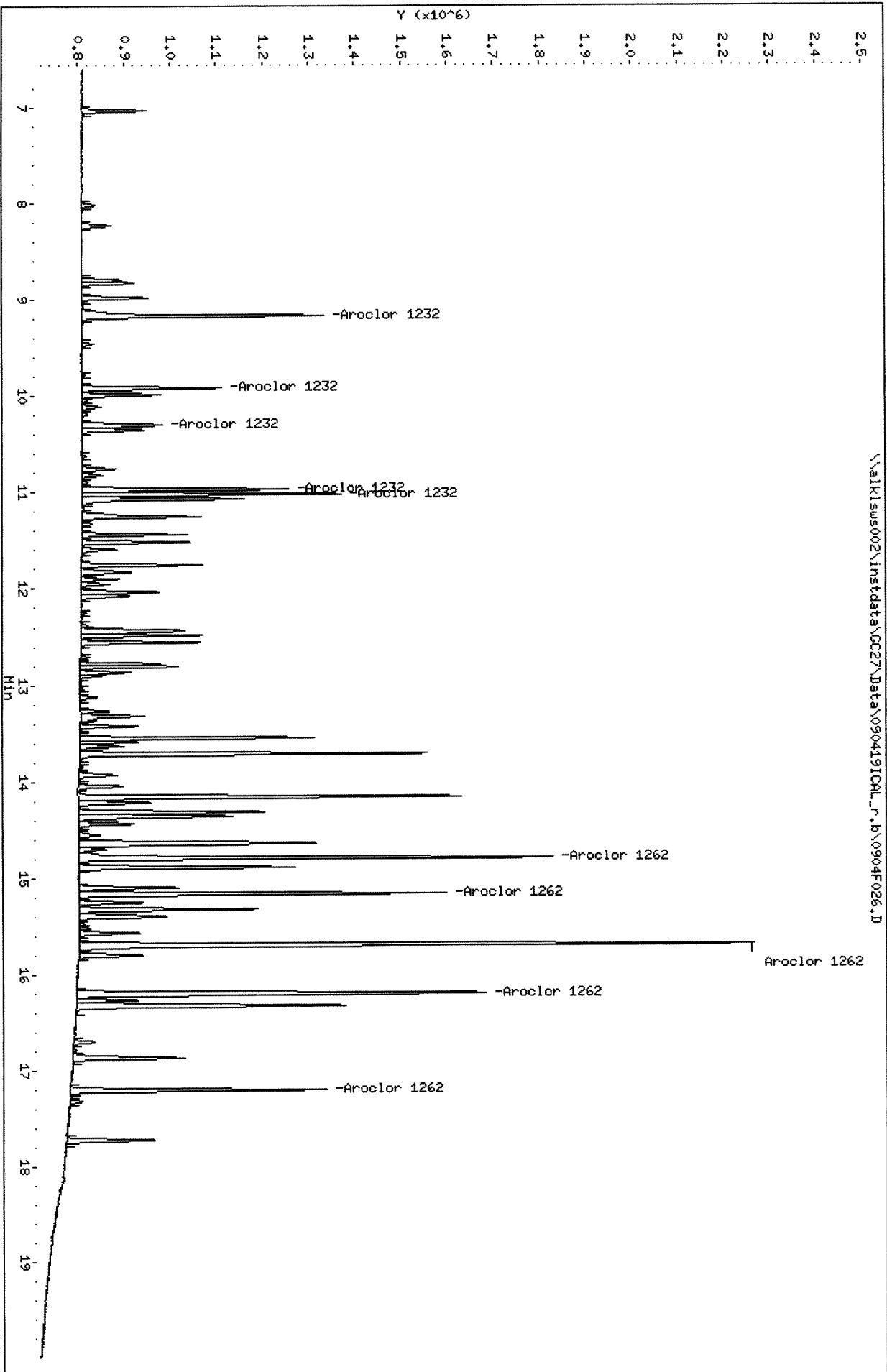
Column phase: DB-XLB

Instrument: GC27.1

Operator: SAA

Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F026.D



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F027.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F027.D
 Inj Date : 05-SEP-2019 06:07
 Sample Info: PCB7-91J 3262 @ 100 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 3262.sub
 Sub List #2 : 3262.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1232	7.654	9.167	1313305	1888357	84.2	95.9	80.00- 120.00	100.00 (M)
	8.054	9.917	3900991	1011678	83.2	92.6	234.25- 351.38	297.04 (M)
	8.824	10.297	3352398	731913	88.3	99.7	205.56- 308.34	255.26 (M)
	9.301	10.964	1231613	1381567	89.2	91.1	76.03- 114.04	93.78 (M)
	9.927	11.017	2200141	1610140	83.4	91.9	137.78- 206.67	167.53 (M)
	Average of Peak Amounts =				85.7	94.2		
Aroclor 1262	13.581	14.791	7762919	3299183	83.0	77.7	80.00- 120.00	100.00
	14.051	15.161	6906290	2544856	83.3	78.5	71.44- 107.17	88.97
	14.427	15.691	12744340	4987038	84.0	76.0	135.47- 203.20	164.17
	15.054	16.201	9178959	3463302	83.2	78.8	96.75- 145.12	118.24
	15.921	17.204	4106107	1841950	85.8	81.0	43.01- 64.52	52.89
	Average of Peak Amounts =				83.9	78.4		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
[Signature]

Data File: \\alkisw002\instdata\GC27\Data\090419ICL.b\0904F027.D

Date: 05-SEP-2019 06:07

Client ID:

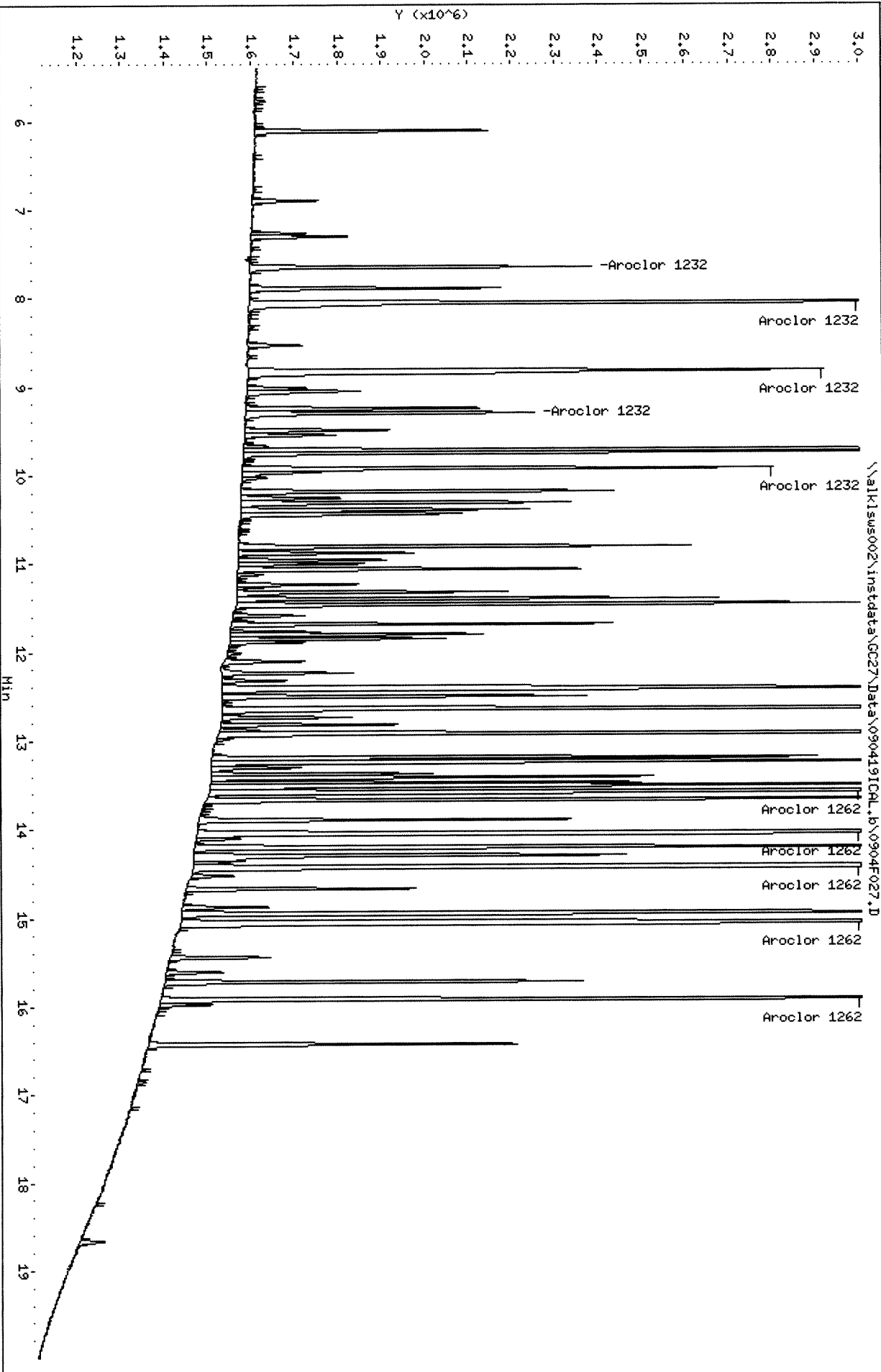
Sample Info: PCB-91J 3262 @ 100 PPB

Column phase: DB-35MS

Instrument: GC27.i

Operator: SQA

Column diameter: 0.32



Data File: \\aik1swo02\instdata\GC27\Data\090419ICDL_r.b\0904f027.D

Date : 05-SEP-2019 06:07

Client ID:

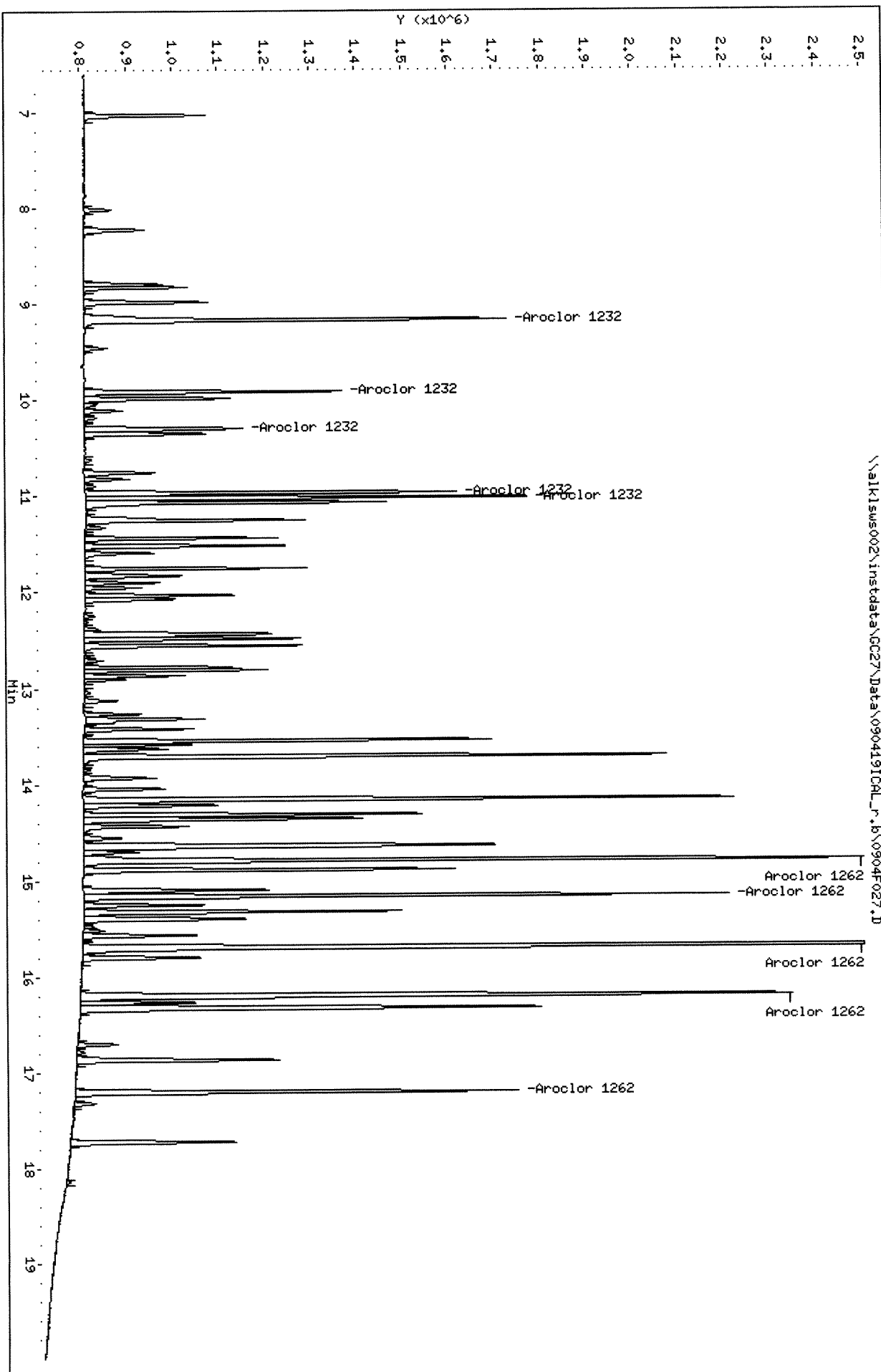
Sample Info: PCB7-91J 3362 @ 100 PPB

Column phase: DB-XLB

Instrument: GC27.i

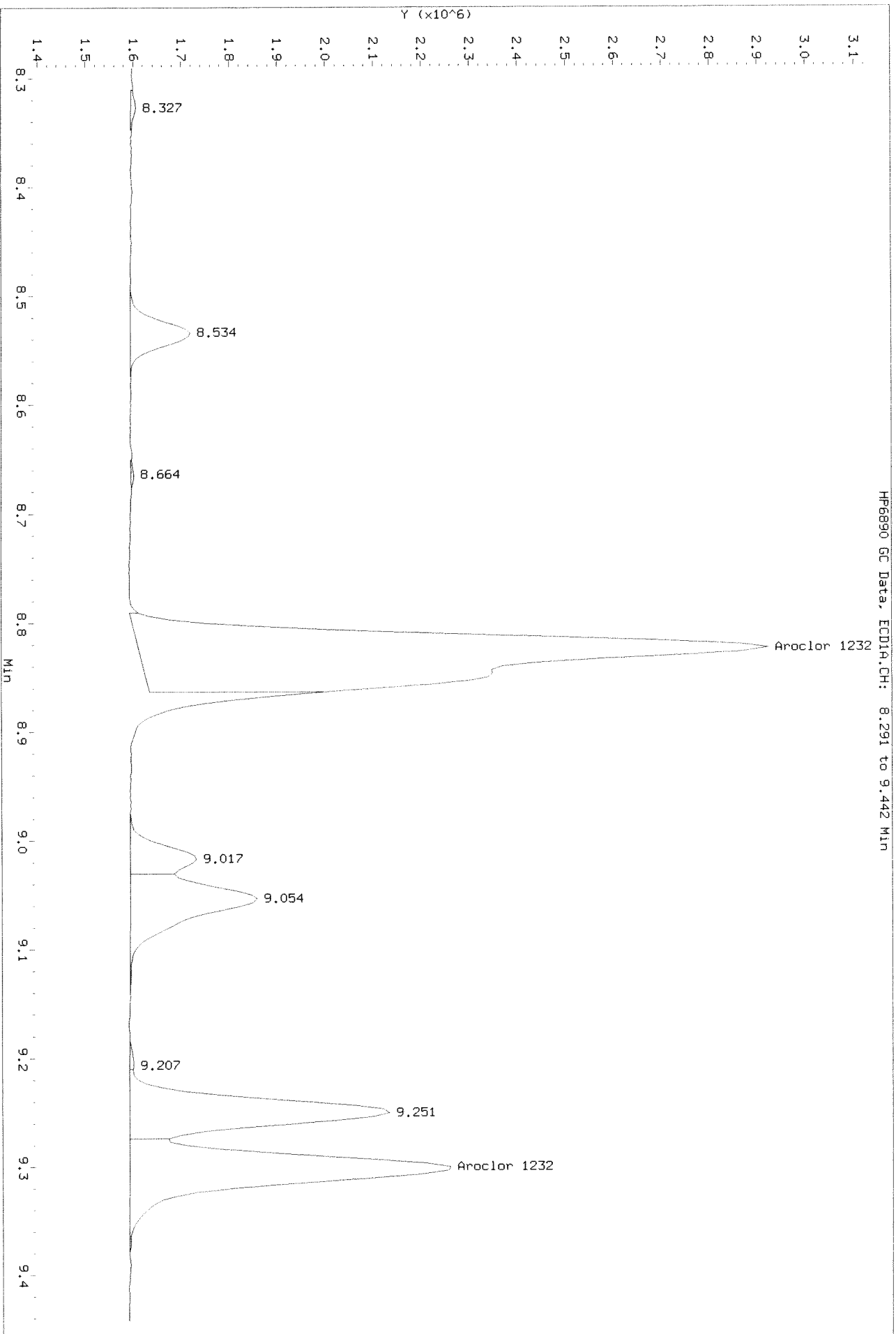
Operator: SAA

Column diameter: 0.32



Data File: \\alkjsws002\instdata\GC27\Data\090419ICAL.P\0904F027.D
Injection Date: 05-SEP-2019 06:07
Instrument: GC27.1
Client Sample ID:

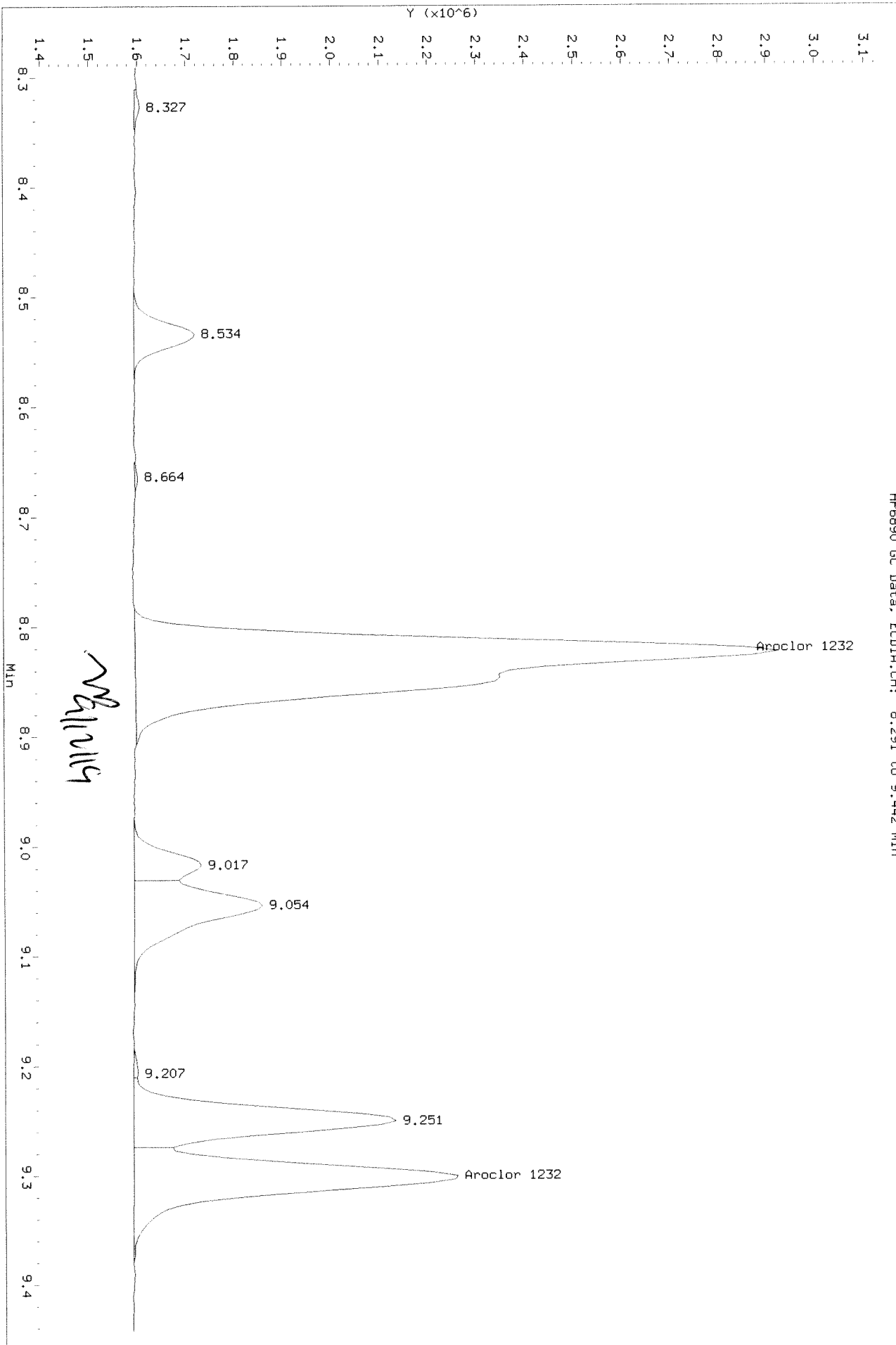
Before



Data File: \\alklsws002\instdata\GC27\Data\090419ICL.b\0904f027.D
Injection Date: 05-SEP-2019 06:07
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 8.291 to 9.442 Min

After baseline 9/11/19 A



ALS Environmental - Kelso


Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F028.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F028.D
 Inj Date : 05-SEP-2019 06:38
 Sample Info: PCB7-90I 3262 @ 200 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:38
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 3262.sub
 Sub List #2 : 3262.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1232	7.656	9.166	2931186	3998570	188	203	80.00- 120.00	100.00 (M)
	8.056	9.916	8583062	2174071	183	199	234.25- 351.38	292.82 (M)
	8.826	10.296	7531757	1660574	198	226	205.56- 308.34	256.95 (M)
	9.302	10.966	2785693	2988337	202	197	76.03- 114.04	95.04 (M)
	9.926	11.016	5048281	3466921	191	198	137.78- 206.67	172.23 (M)
	Average of Peak Amounts =				192	205		
Aroclor 1262	13.579	14.792	18234006	7172700	195	169	80.00- 120.00	100.00
	14.049	15.162	16284065	5513045	196	170	71.44- 107.17	89.31
	14.426	15.692	30876002	10949484	204	167	135.47- 203.20	169.33
	15.056	16.199	22051028	7552817	200	172	96.75- 145.12	120.93
	15.919	17.202	9803674	4056381	205	178	43.01- 64.52	53.77
	Average of Peak Amounts =				200	171		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19


Data File: \\alkisw002\instdata\GC27\Data\090419ICL.b\0904F028.D

Date : 05-SEP-2019 06:38

Client ID:

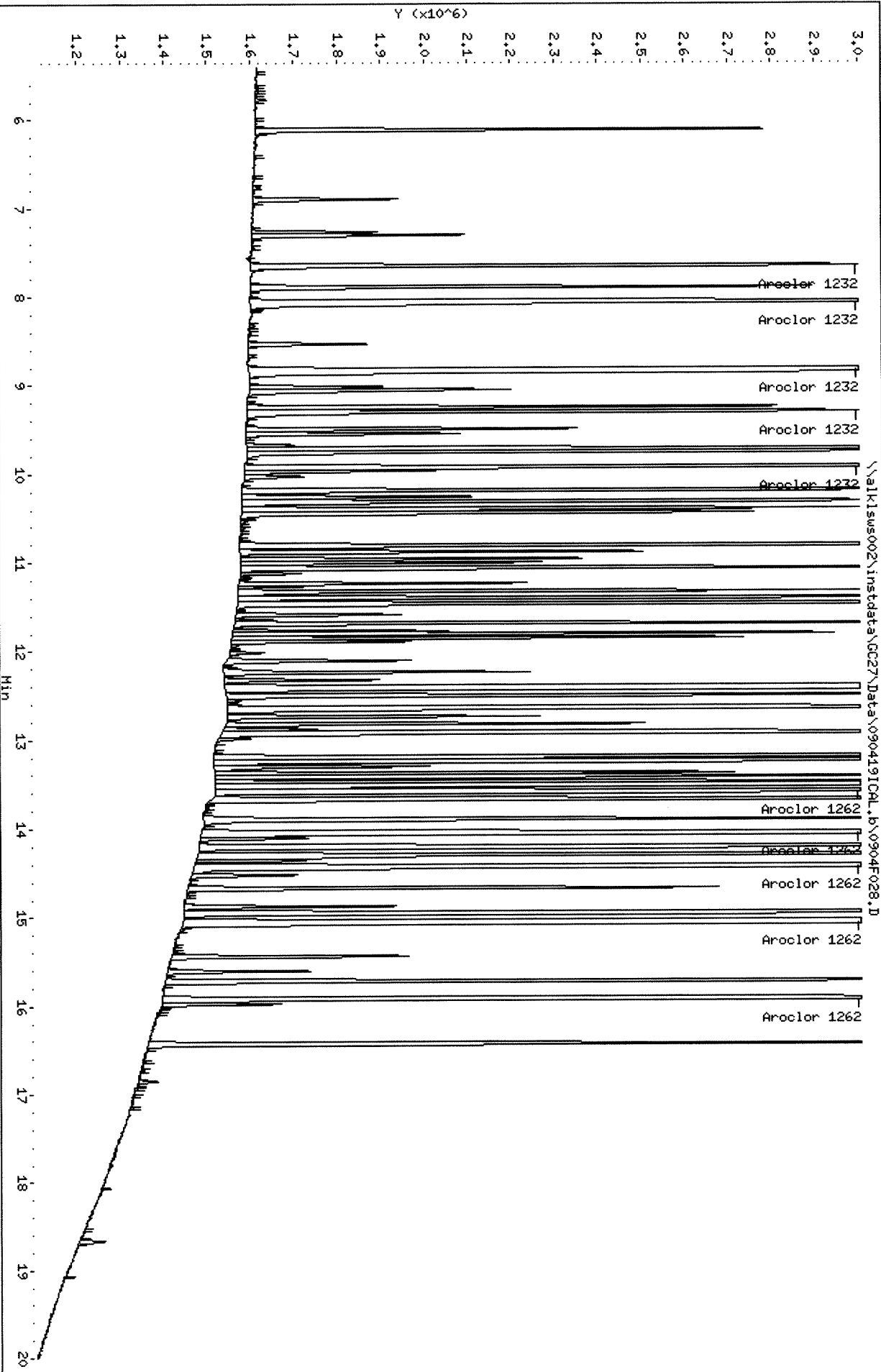
Sample Info: PCB7-901 3262 @ 200 PPB

Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Data File: \\alk1s002\instdata\GC27\Data\0904191CAL_r.jb\0904F028.D
Date : 05-SEP-2019 06:38

Client ID:

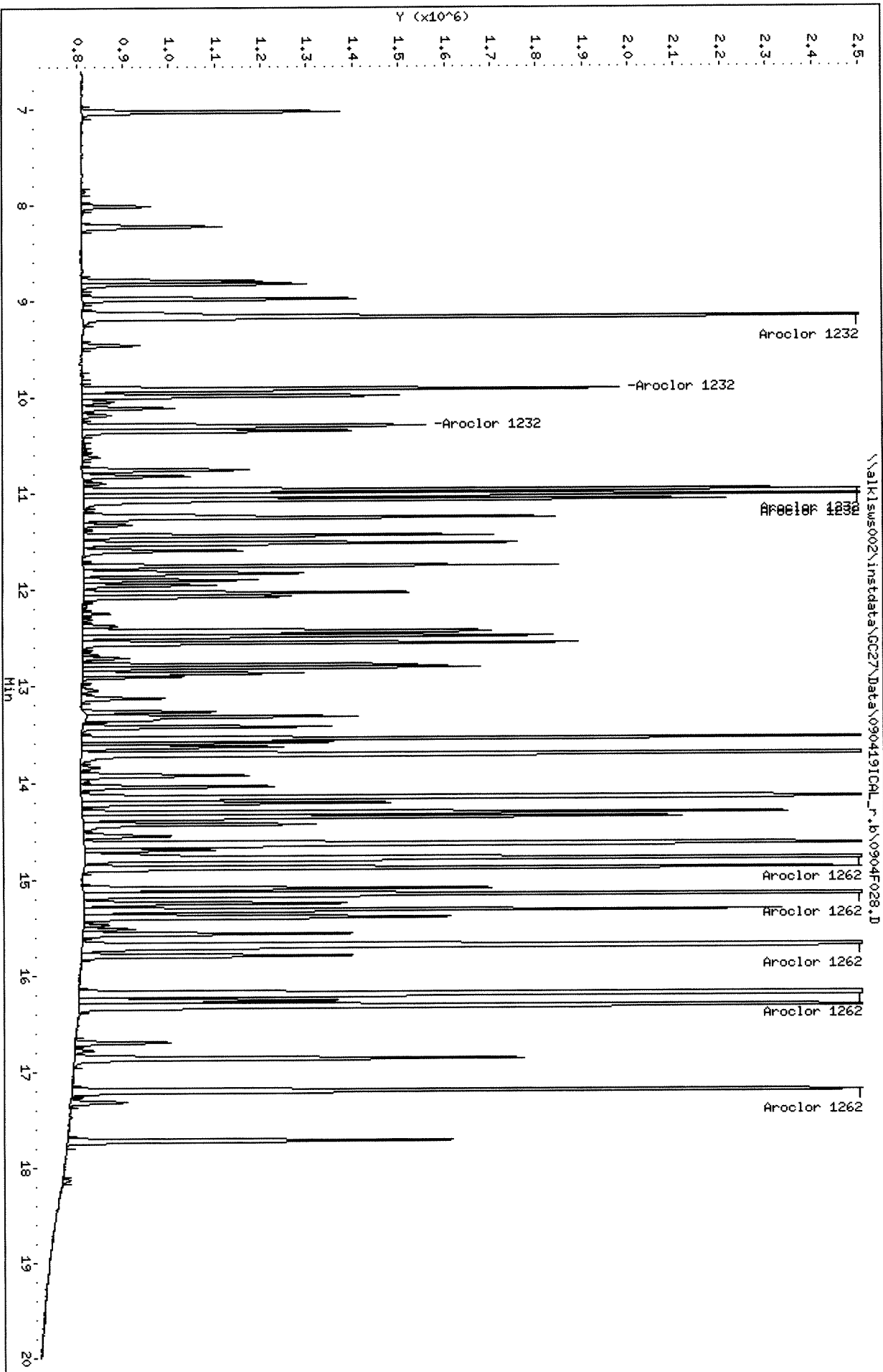
Sample Info: PCB7-901 3262 @ 200 PPB

Column phase: DB-XLB

Instrument: GC27.i

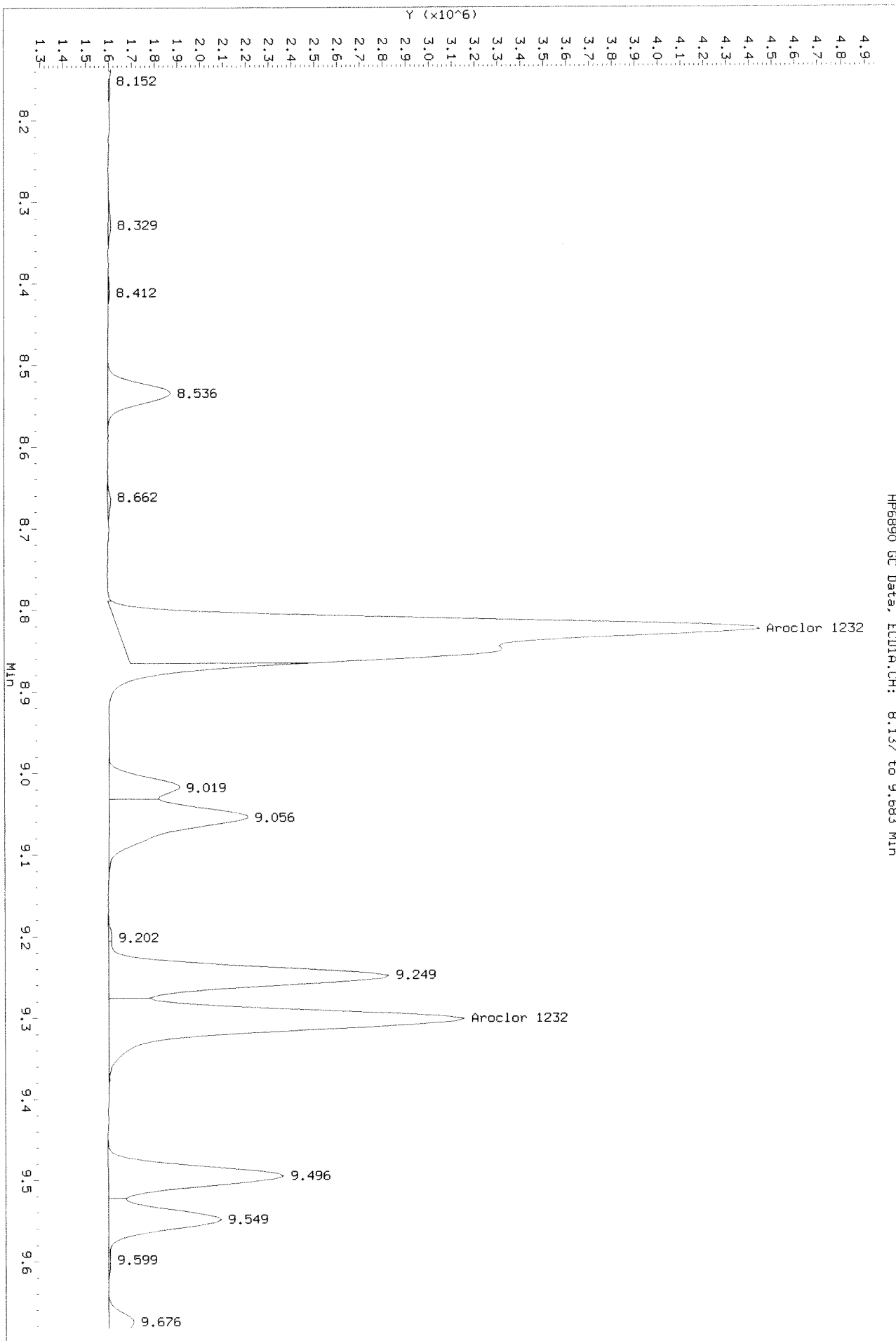
Operator: SAA

Column diameter: 0.32



Data File: \\alklsw002\instdata\GC27\Data\090419ICAL.P\0904F028.D
Injection Date: 05-SEP-2019 06:38
Instrument: GC27.1
Client Sample ID:

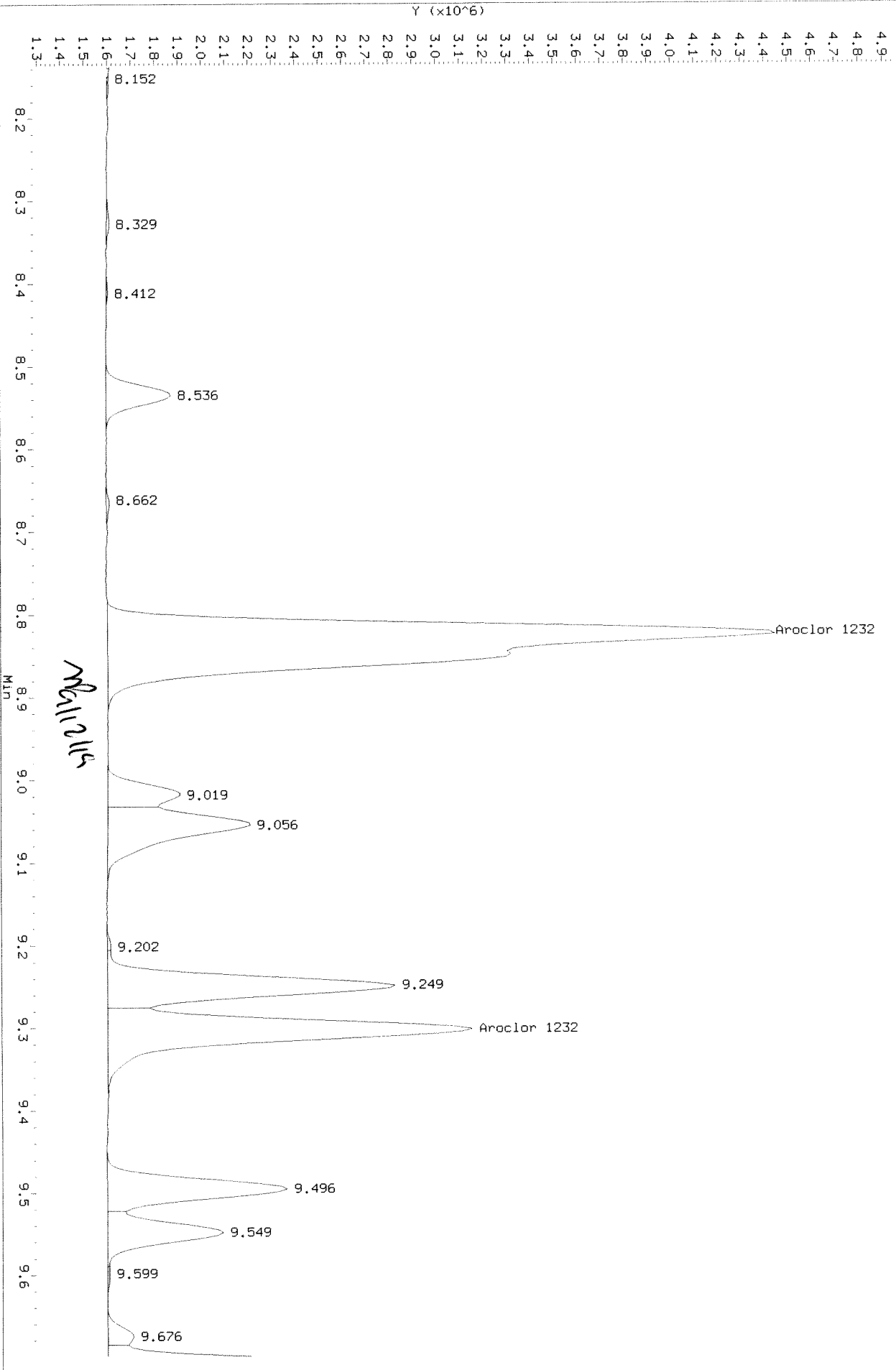
Before



Data File: \\alk1sww002\inst\data\GC27\Data\090419ICDL.B\0904F028.D
Injection Date: 05-SEP-2019 06:38
Instrument: GC27.1
Client Sample ID:

After baseline 9/11/19 A

HP6890 GC Data, ECD1A.CH: 8.137 to 9.699 Min



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F033.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F033.D
 Inj Date : 05-SEP-2019 09:16
 Sample Info: PCB8-4H 4268 @ 20 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:38
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 4268.sub
 Sub List #2 : 4268.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1242	8.053	9.163	590592	275289	19.9	21.5	80.00- 120.00	100.00 (M)
	9.300	9.913	453095	382310	20.0	21.0	63.88- 95.83	76.72 (M)
	9.743	10.963	1372584	537727	20.1	21.0	182.89- 274.33	232.41 (M)
	9.926	11.013	835947	619910	20.5	21.2	114.87- 172.30	141.54 (M)
	10.186	11.250	567577	329968	20.0	20.8	77.46- 116.19	96.10 (M)
	Average of Peak Amounts =				20.1	21.1		
Aroclor 1268	14.950	16.200	3232656	1460490	19.8	20.4	80.00- 120.00	100.00 (M)
	15.050	16.326	2881961	1282540	19.7	20.4	71.27- 106.90	89.15 (M)
	15.440	16.700	2480729	1110765	20.0	20.6	61.53- 92.30	76.74 (M)
	16.426	17.720	6897866	2901230	19.7	19.9	171.54- 257.31	213.38 (M)
	Average of Peak Amounts =				19.8	20.3		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19


Data File: \\alk1sws002\instdata\GC27\Data\090419ICPL.b\0904F033.D

Date : 05-SEP-2019 09:16

Client ID:

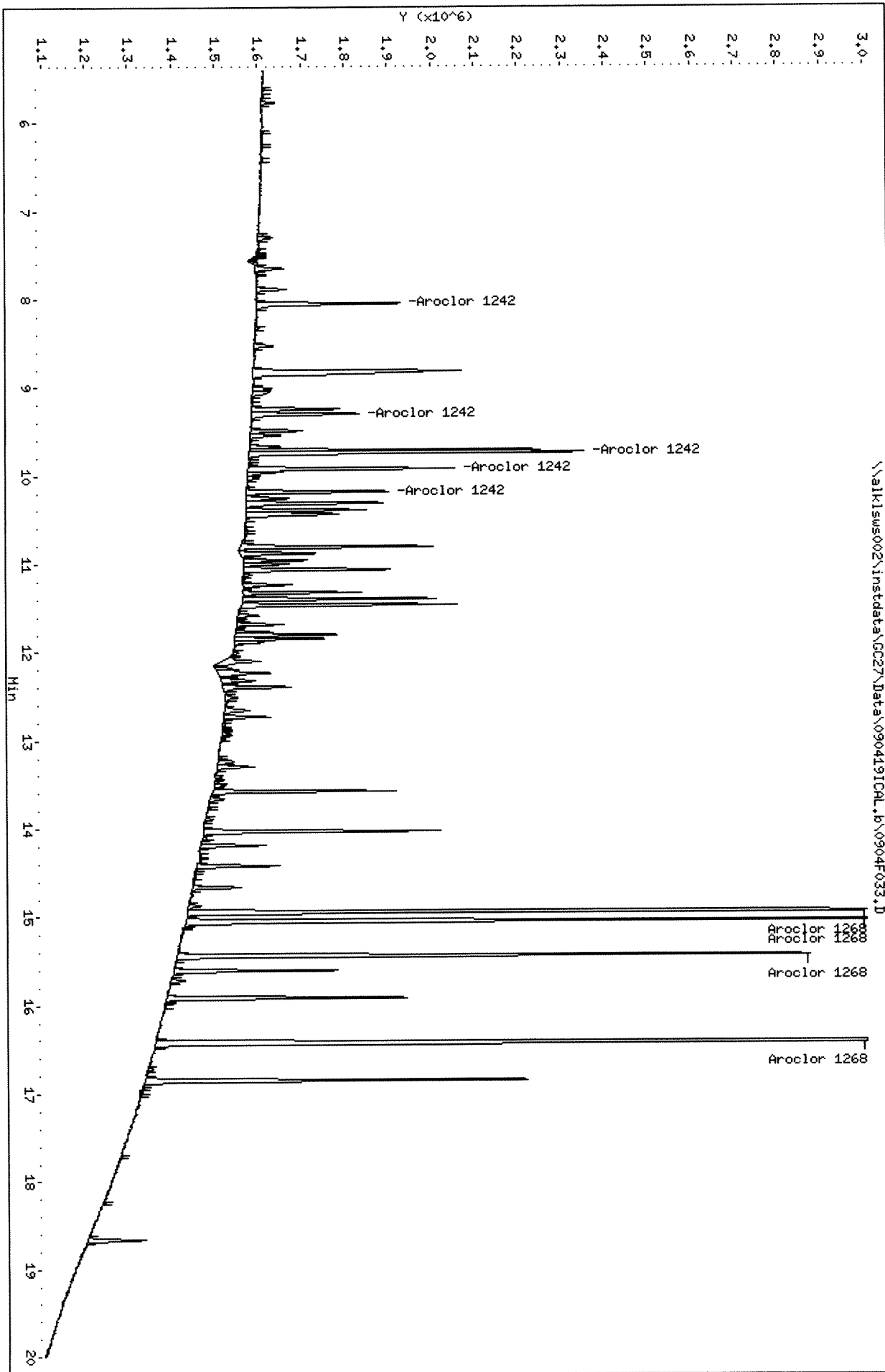
Sample Info: PCB8-4H 4268 @ 20 PPB

Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F033.D

Date: 05-SEP-2019 09:16

Client ID:

Sample Info: PCB8-4H 4268 @ 20 PPB

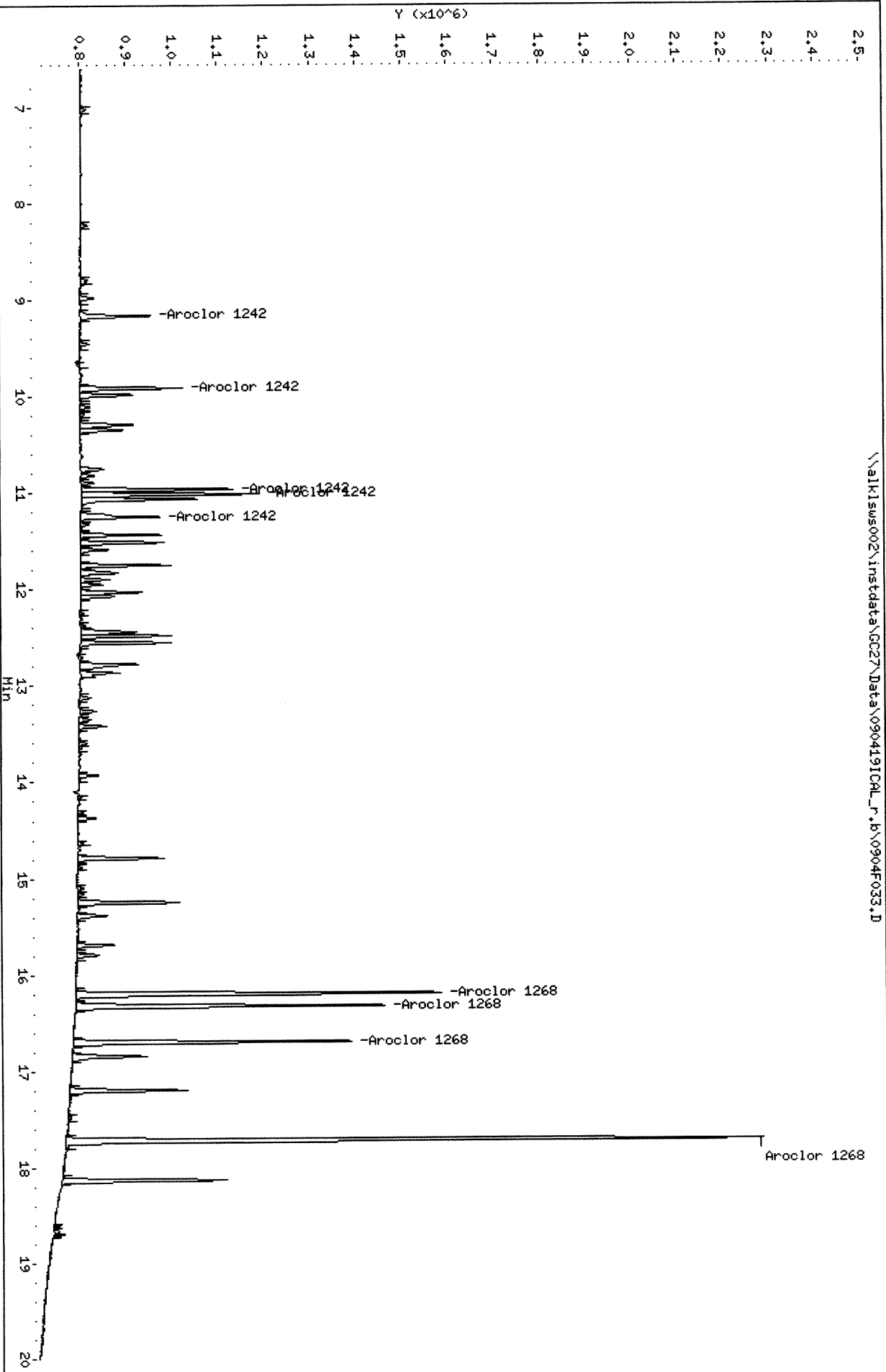
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F033.D



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F034.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F034.D
 Inj Date : 05-SEP-2019 09:48
 Sample Info: PCB8-4F 4268 @ 50 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:38
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 4268.sub
 Sub List #2 : 4268.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1242	8.056	9.166	1488496	730432	50.1	57.1	80.00- 120.00	100.00
	9.302	9.912	1175780	983401	52.0	54.1	63.88- 95.83	78.99
	9.746	10.966	3614612	1346176	52.9	52.5	182.89- 274.33	242.84
	9.926	11.016	2150620	1576207	52.6	53.8	114.87- 172.30	144.48
	10.189	11.249	1417772	884537	50.1	55.7	77.46- 116.19	95.25
	Average of Peak Amounts =				51.5	54.6		
Aroclor 1268	14.949	16.202	8197605	3420110	50.1	47.8	80.00- 120.00	100.00
	15.049	16.329	7395303	3056456	50.6	48.7	71.27- 106.90	90.21
	15.439	16.699	6298242	2655687	50.8	49.3	61.53- 92.30	76.83
	16.429	17.722	17834049	6860011	50.9	47.0	171.54- 257.31	217.55
		Average of Peak Amounts =				50.6	48.2	

SA 9/11/19
22

Data File: \\alkl1s002\instdata\GC27\Data\090419ICL.b\0904F034.D

Date : 05-SEP-2019 09:48

Client ID:

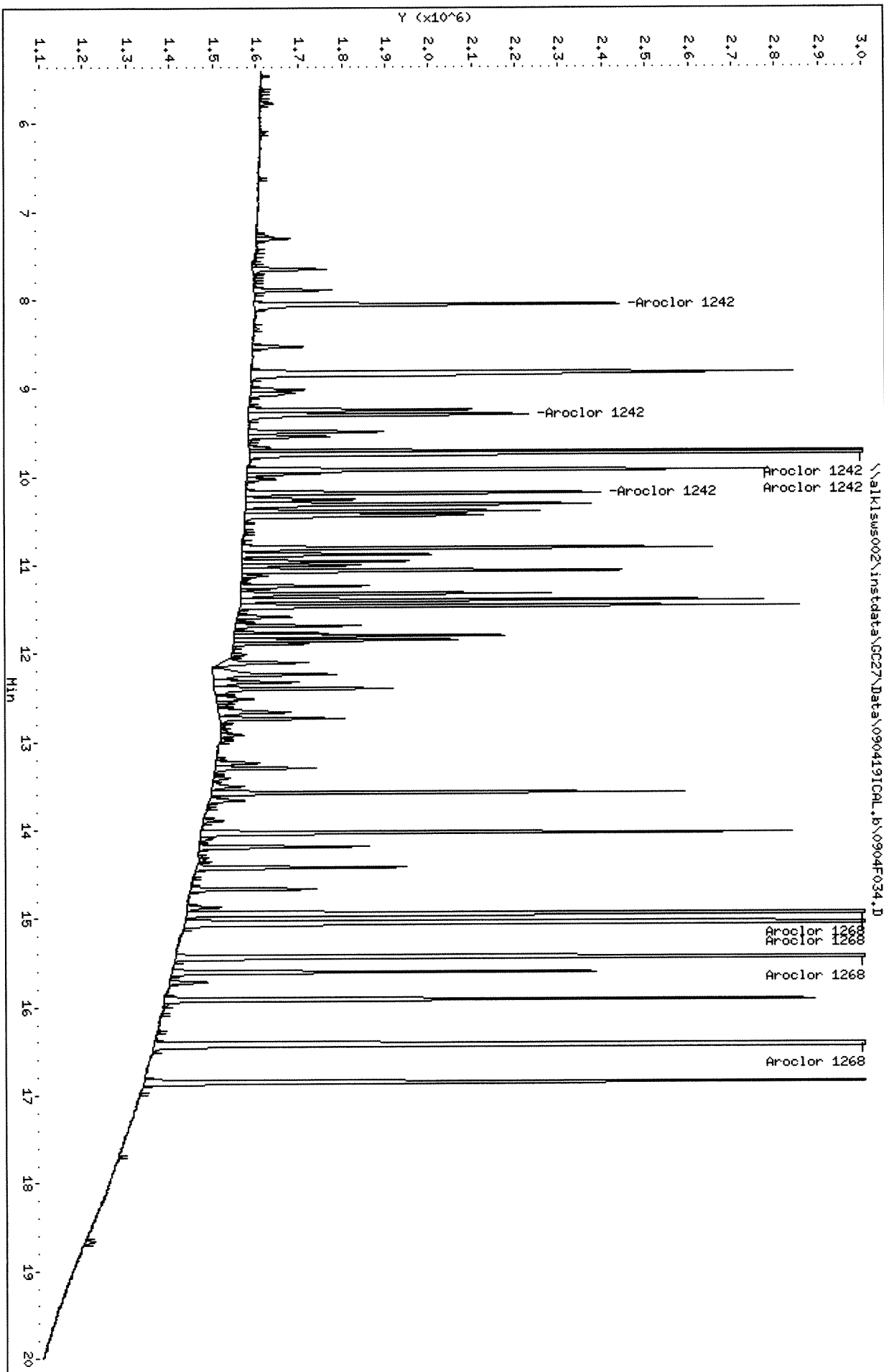
Sample Info: PCB8-4F 4268 @ 50 PPB

Column phase: DB-35HS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Data File: \\alkisws002\instdata\GC27\Data\090419ICAL_r.b\0904F034.D

Date: 05-SEP-2019 09:48

Client ID:

Sample Info: PCB8-4F 4268 @ 50 PPB

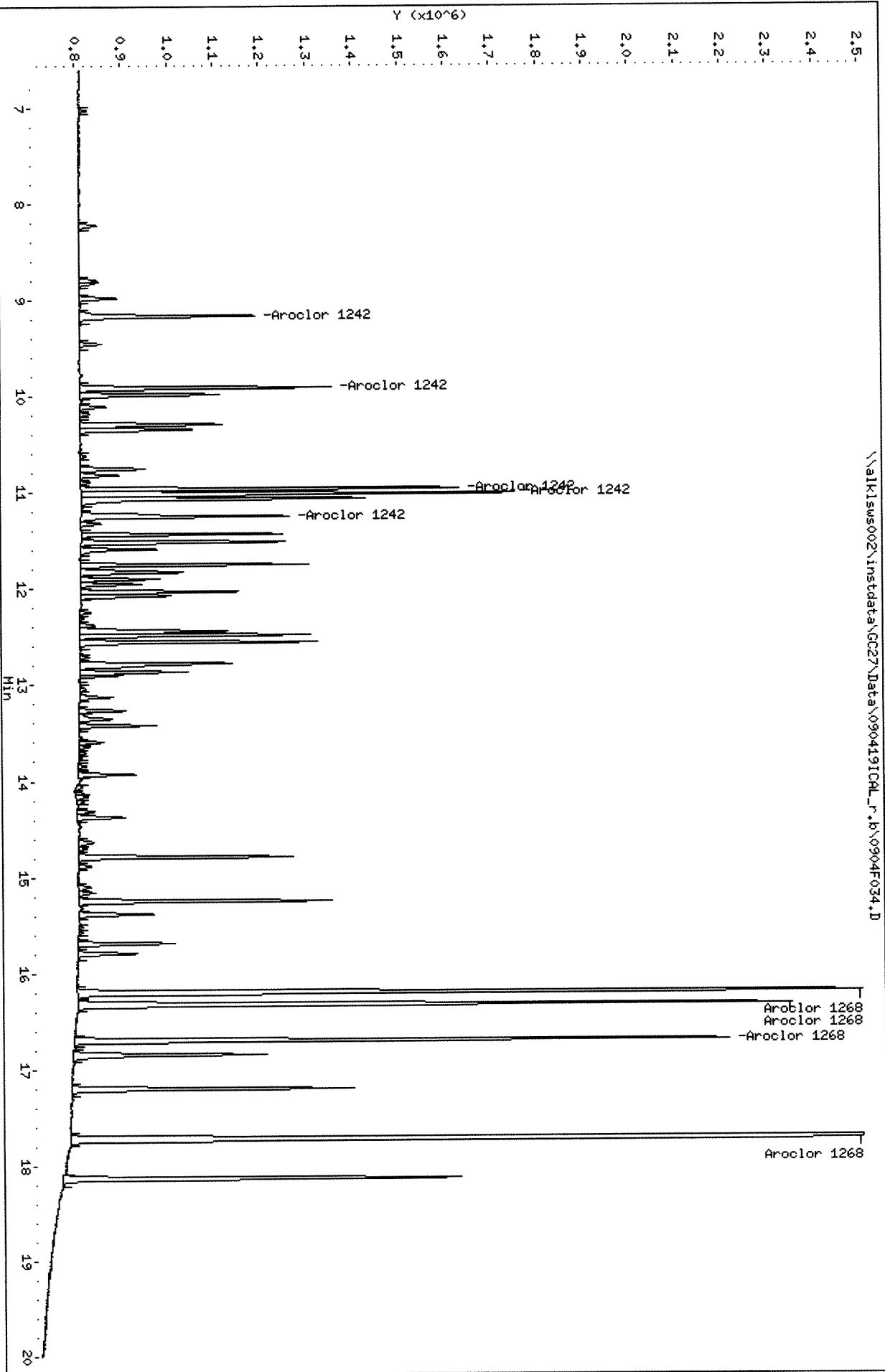
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alkisws002\instdata\GC27\Data\090419ICAL_r.b\0904F034.D




ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F035.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F035.D
 Inj Date : 05-SEP-2019 10:20
 Sample Info: PCB8-4G 4268 @ 100 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:38
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 4268.sub
 Sub List #2 : 4268.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
=====								
Aroclor 1242	8.056	9.166	2822778	1385501	95.0	108	80.00- 120.00	100.00
	9.303	9.916	2209463	1801434	97.8	99.1	63.88- 95.83	78.27
	9.746	10.966	6824568	2462464	99.8	95.9	182.89- 274.33	241.77
	9.926	11.013	4026786	2817911	98.5	96.2	114.87- 172.30	142.65
	10.189	11.246	2725015	1667425	96.2	105	77.46- 116.19	96.54
	Average of Peak Amounts =				97.5	101		
Aroclor 1268	14.949	16.200	15539973	6050128	95.0	84.6	80.00- 120.00	100.00
	15.049	16.326	14013592	5469923	95.9	87.2	71.27- 106.90	90.18
	15.439	16.700	11959803	4732505	96.4	87.9	61.53- 92.30	76.96
	16.429	17.720	34023316	12298100	97.1	84.3	171.54- 257.31	218.94
		Average of Peak Amounts =				96.1	86.0	

SA 9/11/19


Data File: \\alk1sus002\instdata\GC27\Data\090419ICAL.b\0904F035.D

Date : 05-SEP-2019 10:20

Client ID:

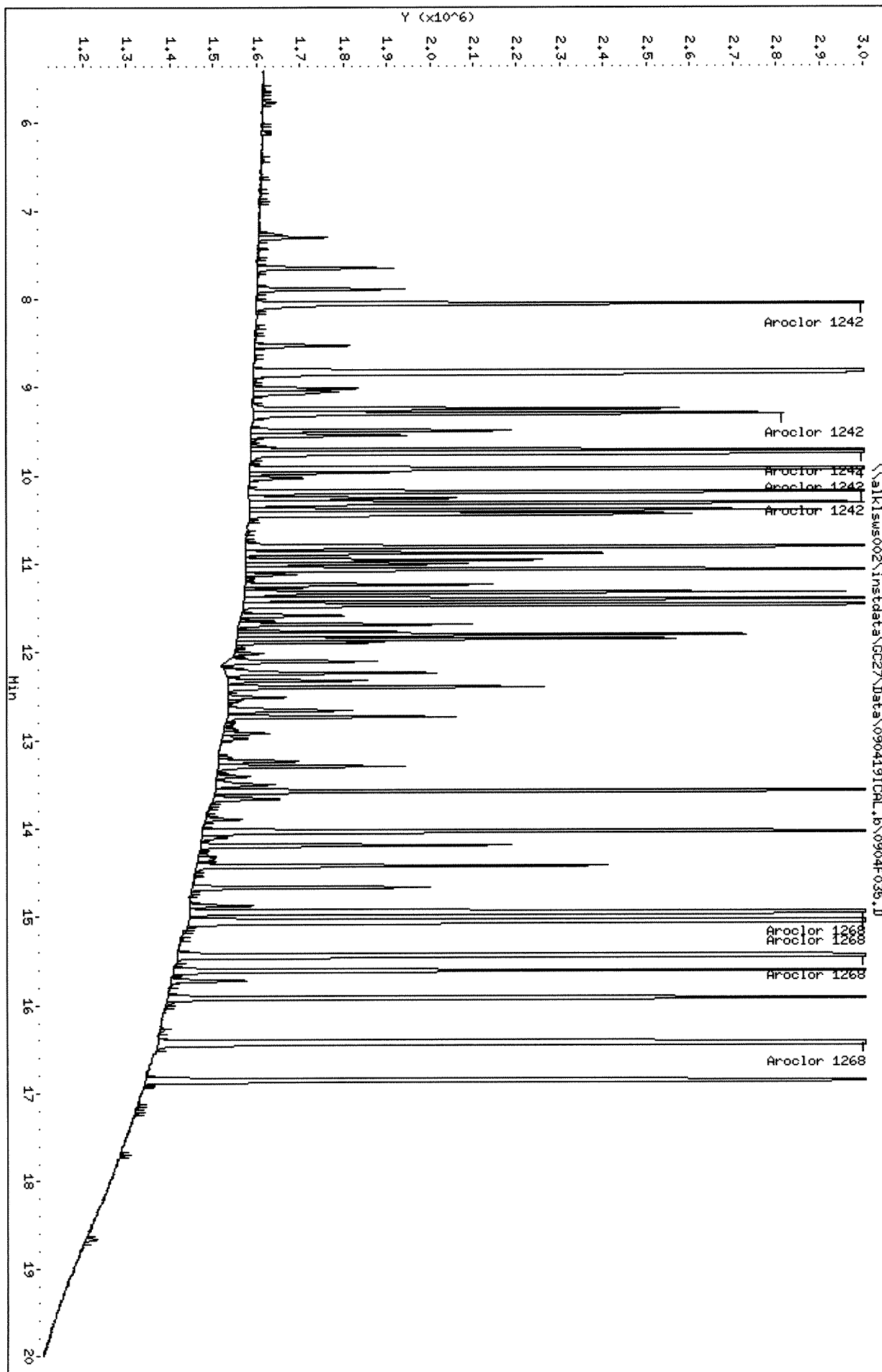
Sample Info: PCB8-4G 4268 @ 100 PPB

Column phase: DB-35MS

Instrument: GC27.1

Operator: SAA

Column diameter: 0.32



Data File: \\alk1sws002\instdata\GC27\Data\090419ICAL_r.b\0904F035.D

Date: 05-SEP-2019 10:20

Client ID:

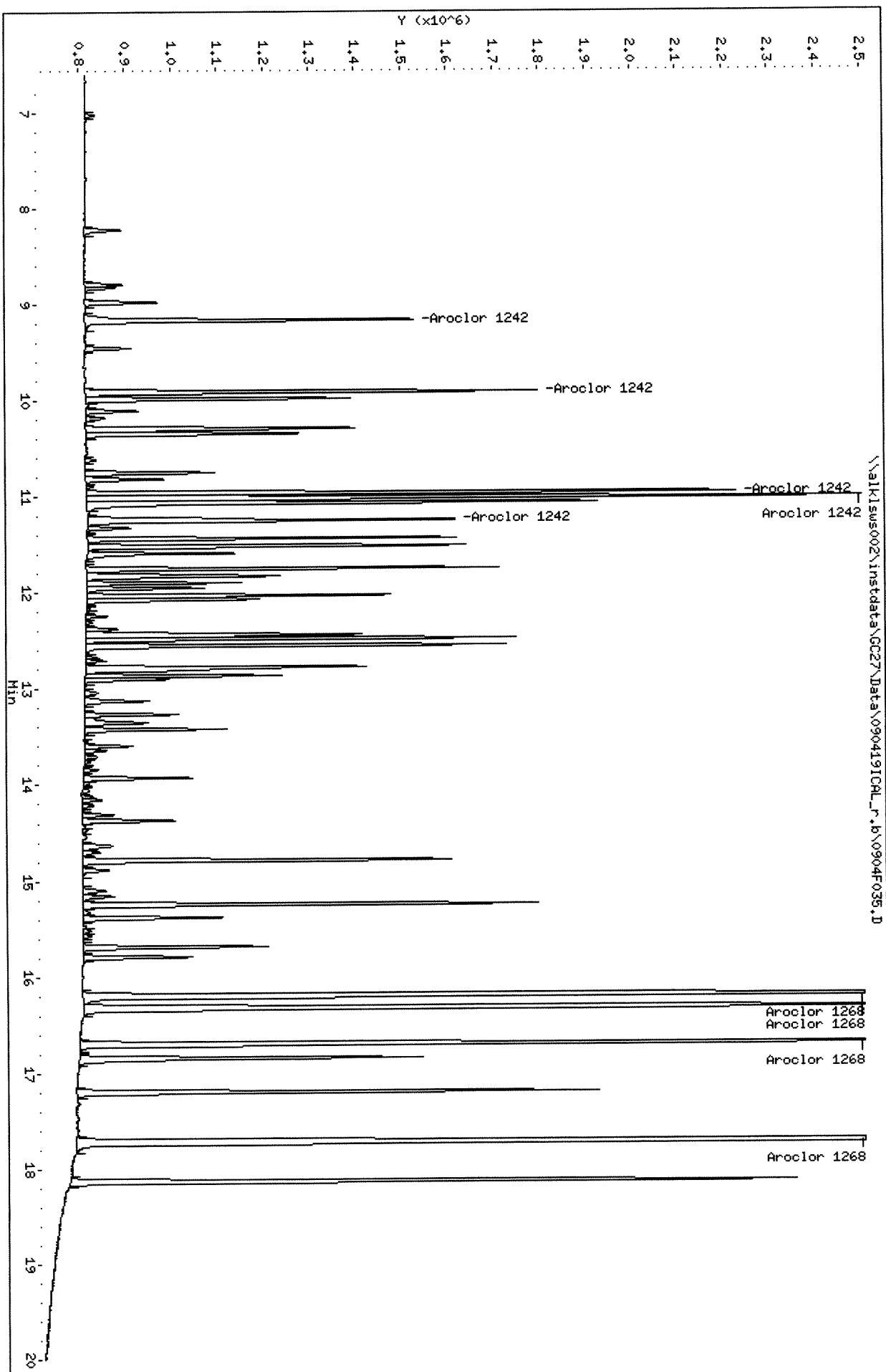
Sample Info: PCB8-4G 4268 @ 100 PPB

Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32




ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F036.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F036.D
 Inj Date : 05-SEP-2019 10:52
 Sample Info: PCB8-4E 4268 @ 200 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:38
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 4268.sub
 Sub List #2 : 4268.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1242	8.055	9.165	6111409	2865057	206	224	80.00- 120.00	100.00
	9.301	9.915	4834894	3718022	214	204	63.88- 95.83	79.11
	9.745	10.965	14224495	5137488	208	200	182.89- 274.33	232.75
	9.925	11.015	9067929	6099918	222	208	114.87- 172.30	148.38
	10.188	11.248	6149179	3555100	217	224	77.46- 116.19	100.62
	Average of Peak Amounts =				213	212		
Aroclor 1268	14.948	16.201	36406451	12956281	223	181	80.00- 120.00	100.00
	15.051	16.328	33173572	11752057	227	187	71.27- 106.90	91.12
	15.438	16.701	28153678	10140422	227	188	61.53- 92.30	77.33
	16.428	17.721	81576702	27201961	233	186	171.54- 257.31	224.07
		Average of Peak Amounts =				228	186	

SA 9/11/19


Data File: \\alklms002\instdata\GC27\Data\090419ICL.b\0904F036.D

Date : 05-SEP-2019 10:52

Client ID:

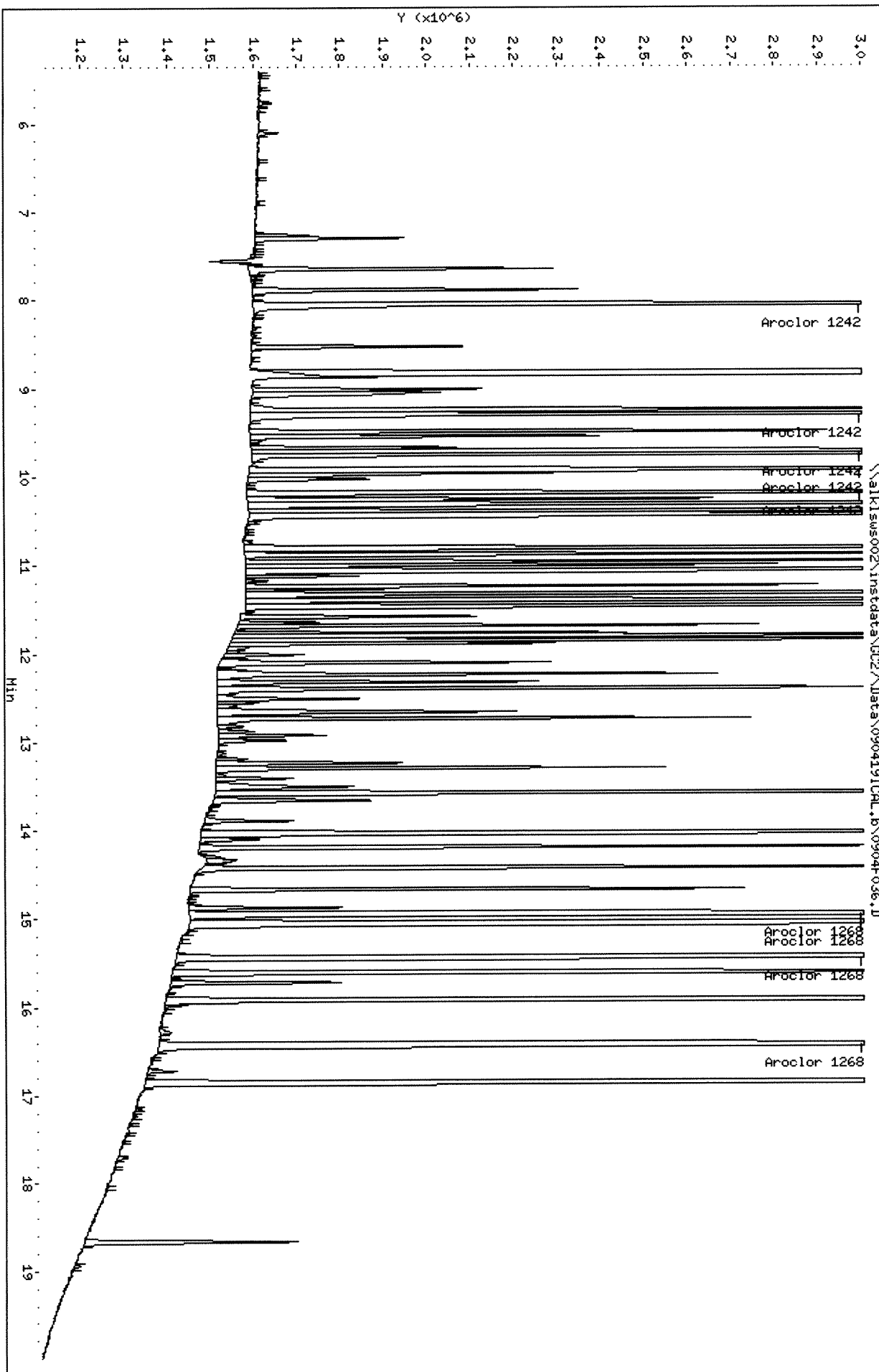
Sample Info: PCB8-4E 4268 @ 200 PPB

Column phase: DB-35MS

Instrument: GC27.1

Operator: SAA

Column diameter: 0.32



Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F036.D

Date: 05-SEP-2019 10:52

Client ID:

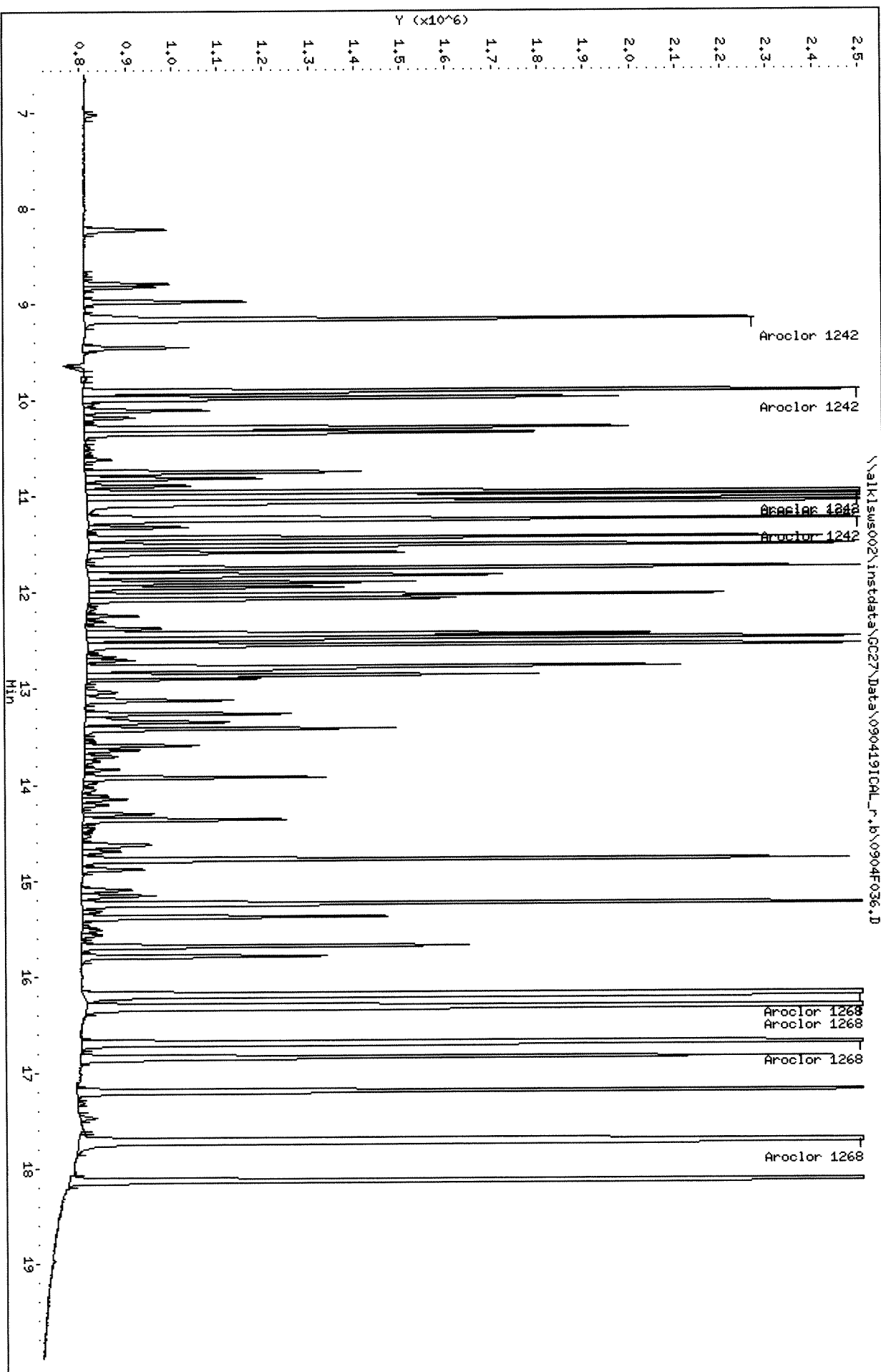
Sample Info: PCB8-4E 4268 @ 200 PPB

Column phase: DB-XLB

Instrument: GC27.1

Operator: SAA

Column diameter: 0.32



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F037.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F037.D
Inj Date : 05-SEP-2019 11:23
Sample Info: PCB8-13M 1248 @ 1 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : 48.SUB
Sub List #2 : 48.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1248	9.746	10.966	50810	19785	1.22	0.923	80.00- 120.00	100.00 (M)
	9.929	11.016	32701	16327	1.15	0.886	55.92- 83.88	64.36 (M)
	11.066	11.516	61351	26968	1.17	1.12	99.65- 149.47	120.75 (M)
	11.326	12.029	37952	20734	1.01	1.10	75.25- 112.88	74.69 (M)
	11.802	12.552	34640	28321	1.04	0.988	66.29- 99.44	68.18 (M)
	Average of Peak Amounts =				1.12	1.00		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
W

Data File: \\alk1sws002\instdata\GC27\Data\090419ICPL.b\0904F037.D

Date : 05-SEP-2019 11:23

Client ID:

Sample Info: PCB8-13H 1248 @ 1 PPB

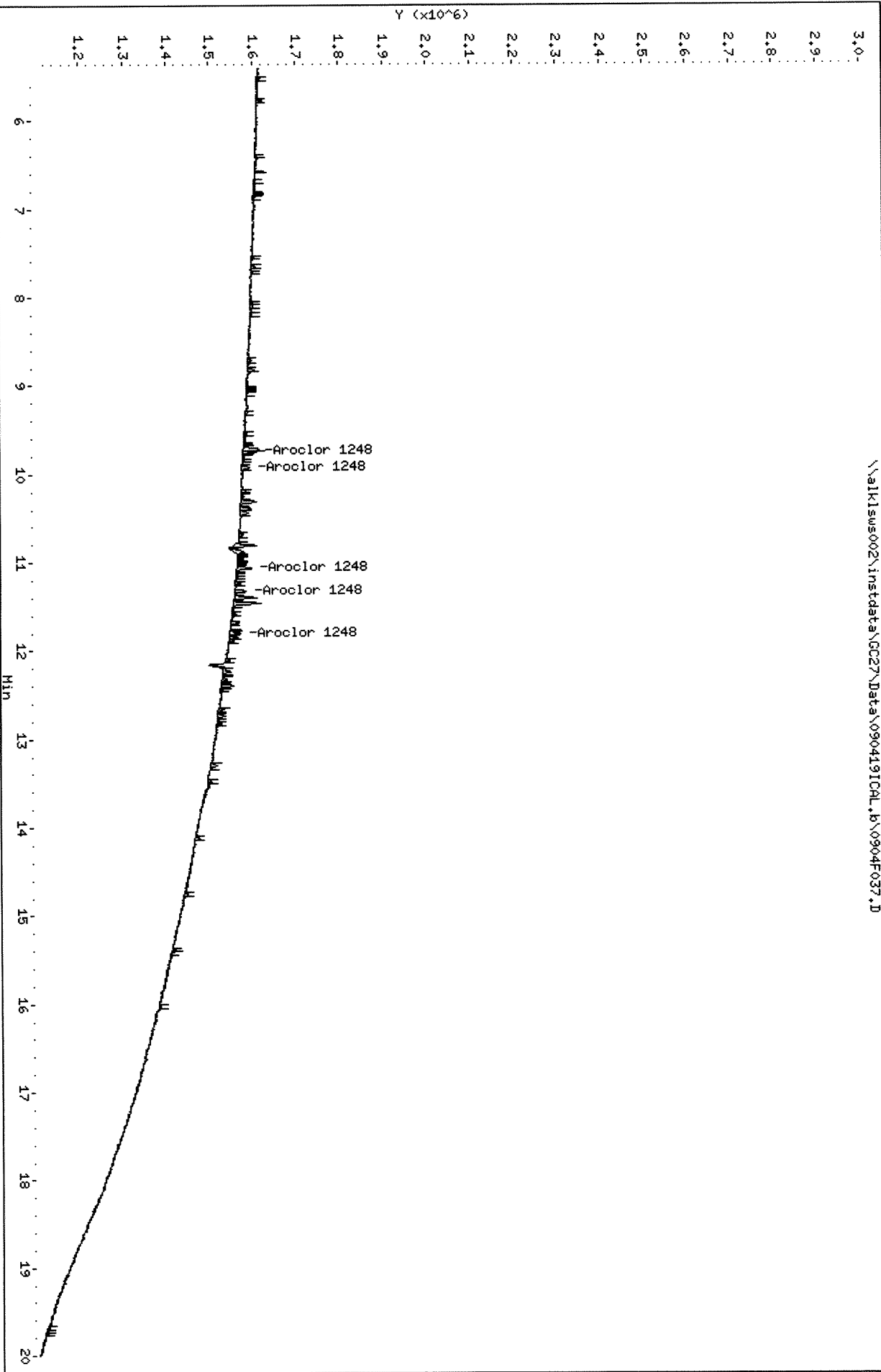
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alk1sws002\instdata\GC27\Data\090419ICPL.b\0904F037.D



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F037.D

Date : 05-SEP-2019 11:23

Client ID:

Sample Info: PCB8-13M 1248 @ 1 PPB

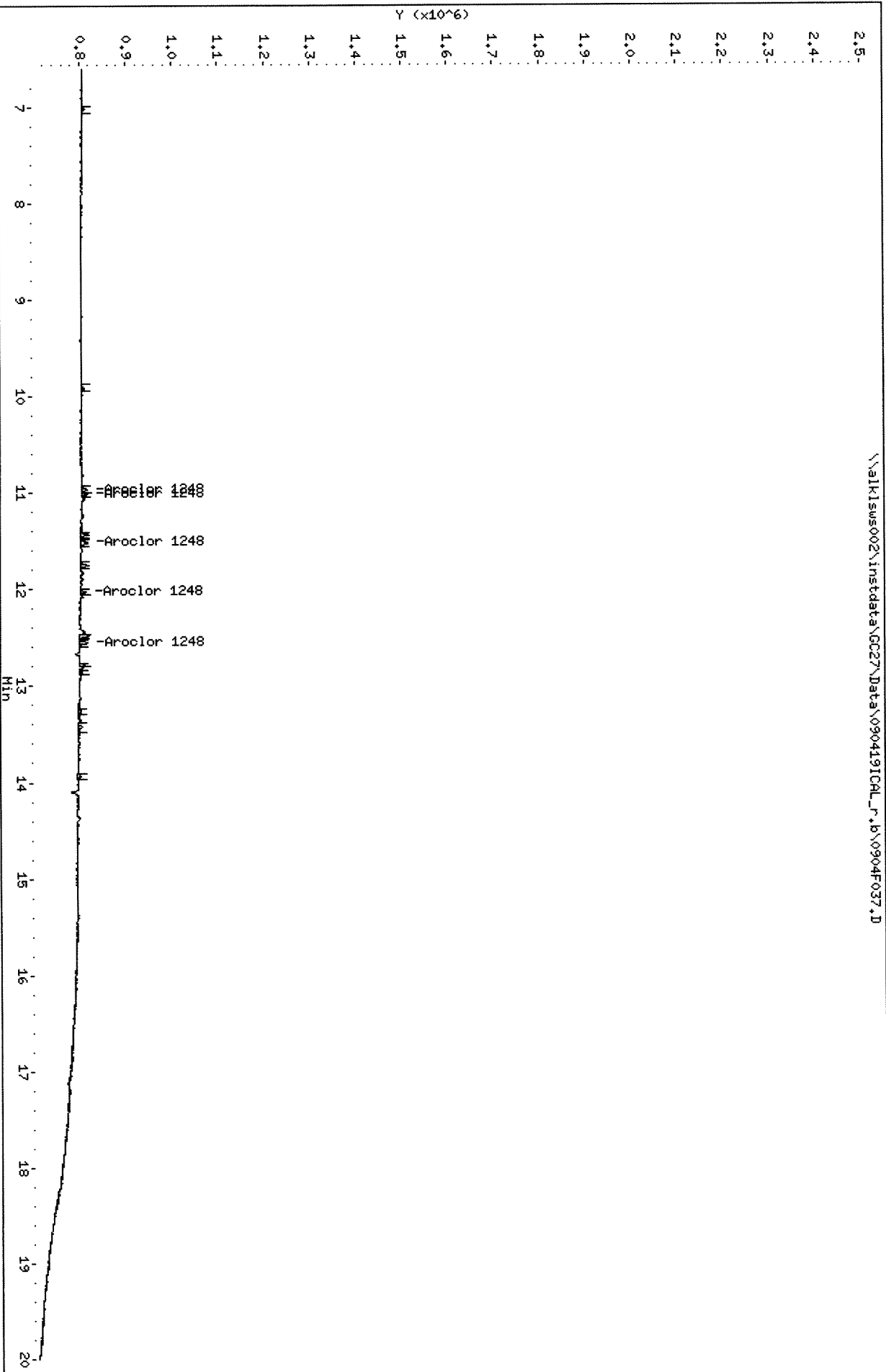
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

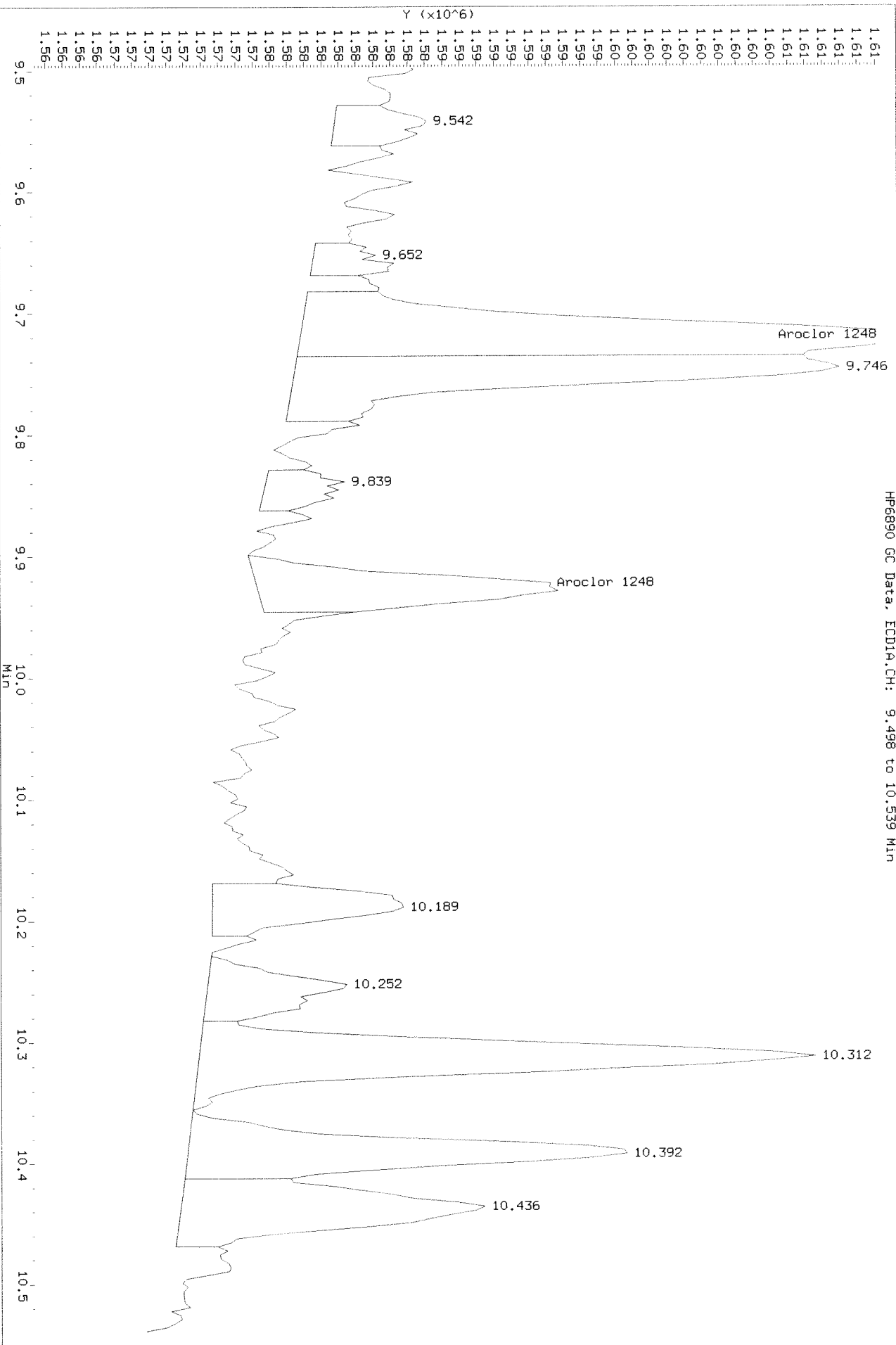
\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F037.D



Data File: \\alklsw002\instdata\GC27\Data\090419ICL.b\0904F037.D
Injection Date: 05-SEP-2019 11:23
Instrument: GC27.1
Client Sample ID:

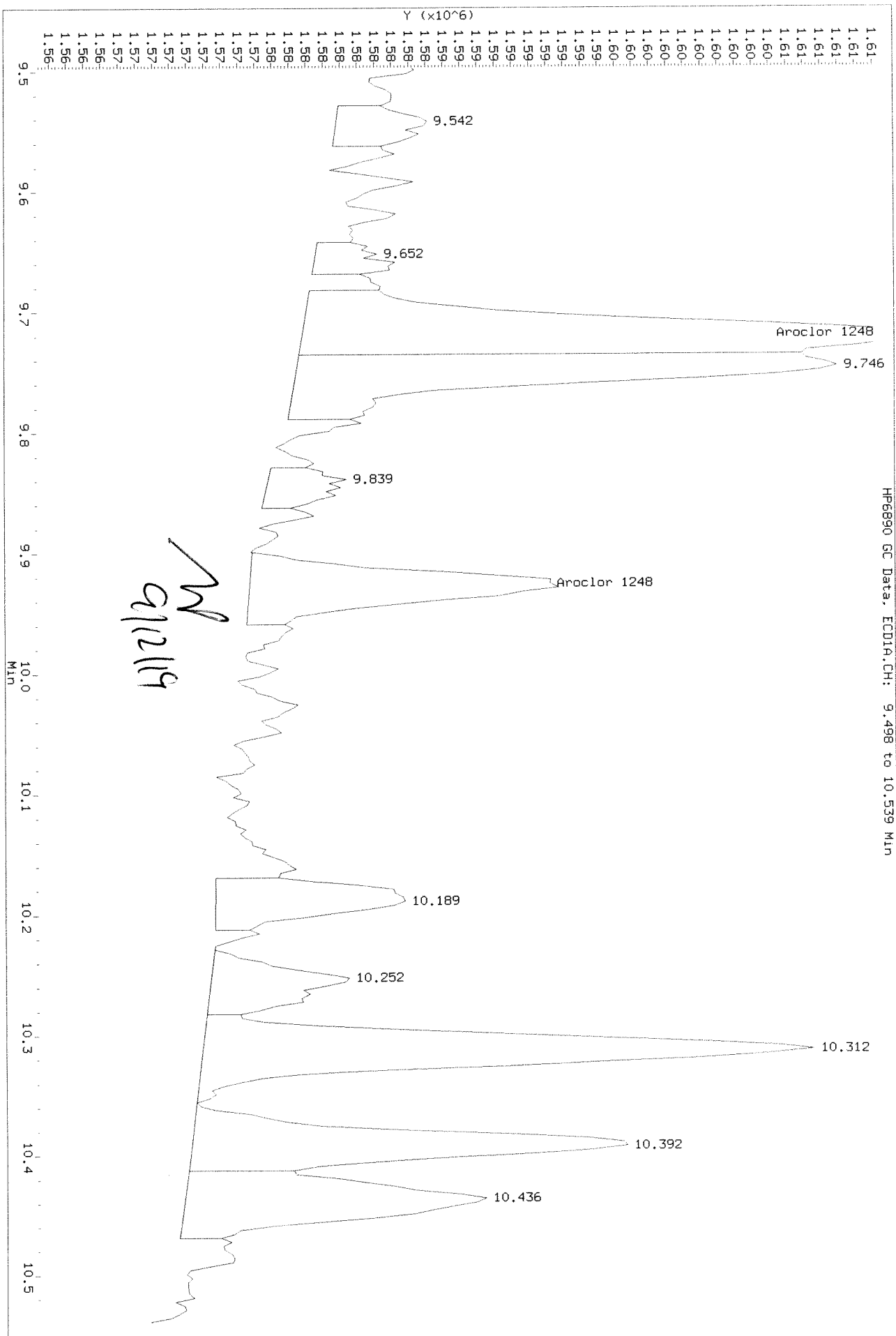
HP6890 GC Data, ECD1A.CH: 9.498 to 10.539 MIN

Before



Data File: \\alkjms002\instdata\GC27\Data\090419ICAL.b\0904F037.D
Injection Date: 05-SEP-2019 11:23
Instrument: GC27.1
Client Sample ID:

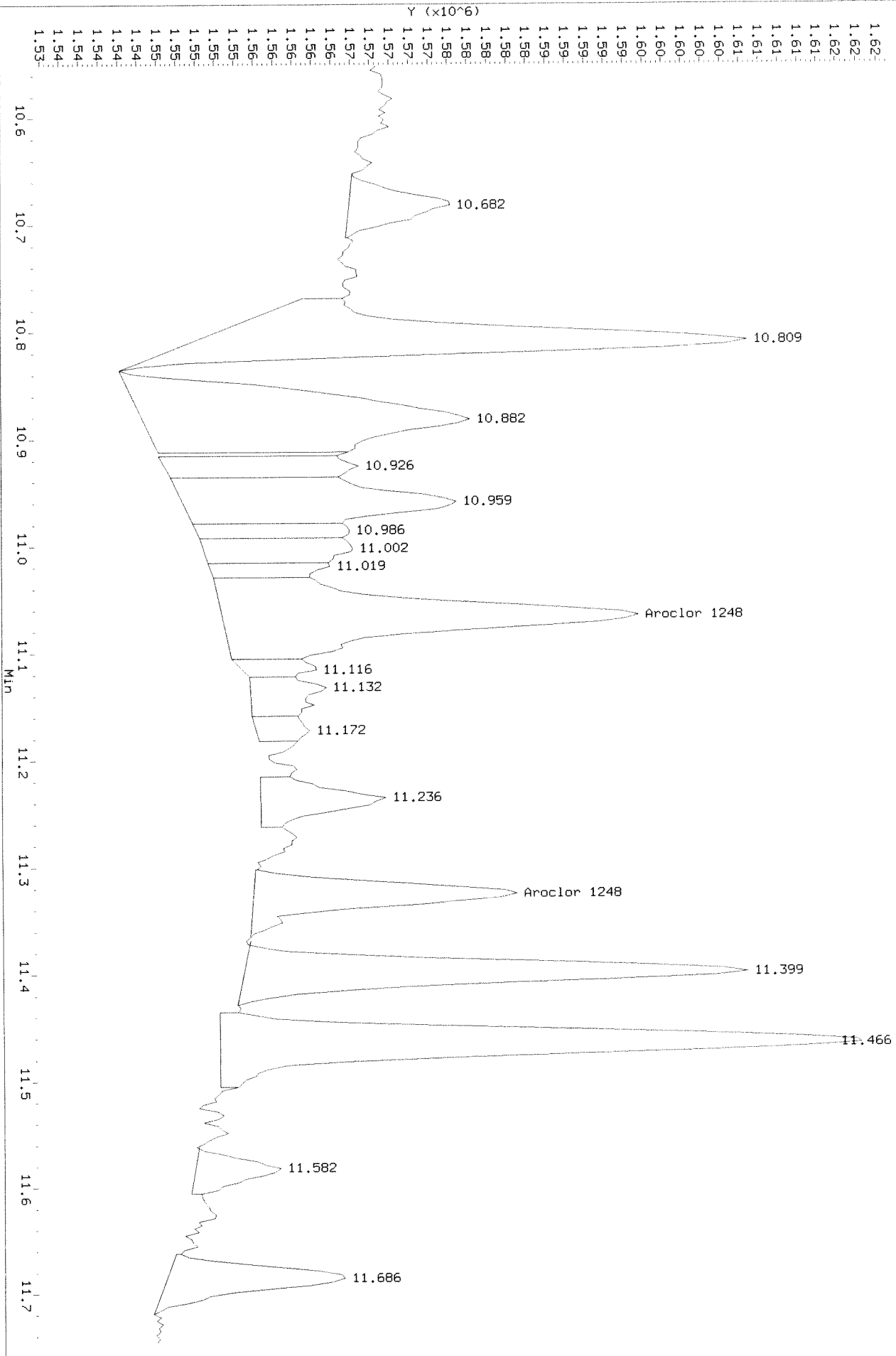
After baseline 9/11/19



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.B\0904F037.D
Injection Date: 05-SEP-2019 11:23
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 10.552 to 11.746 MIN

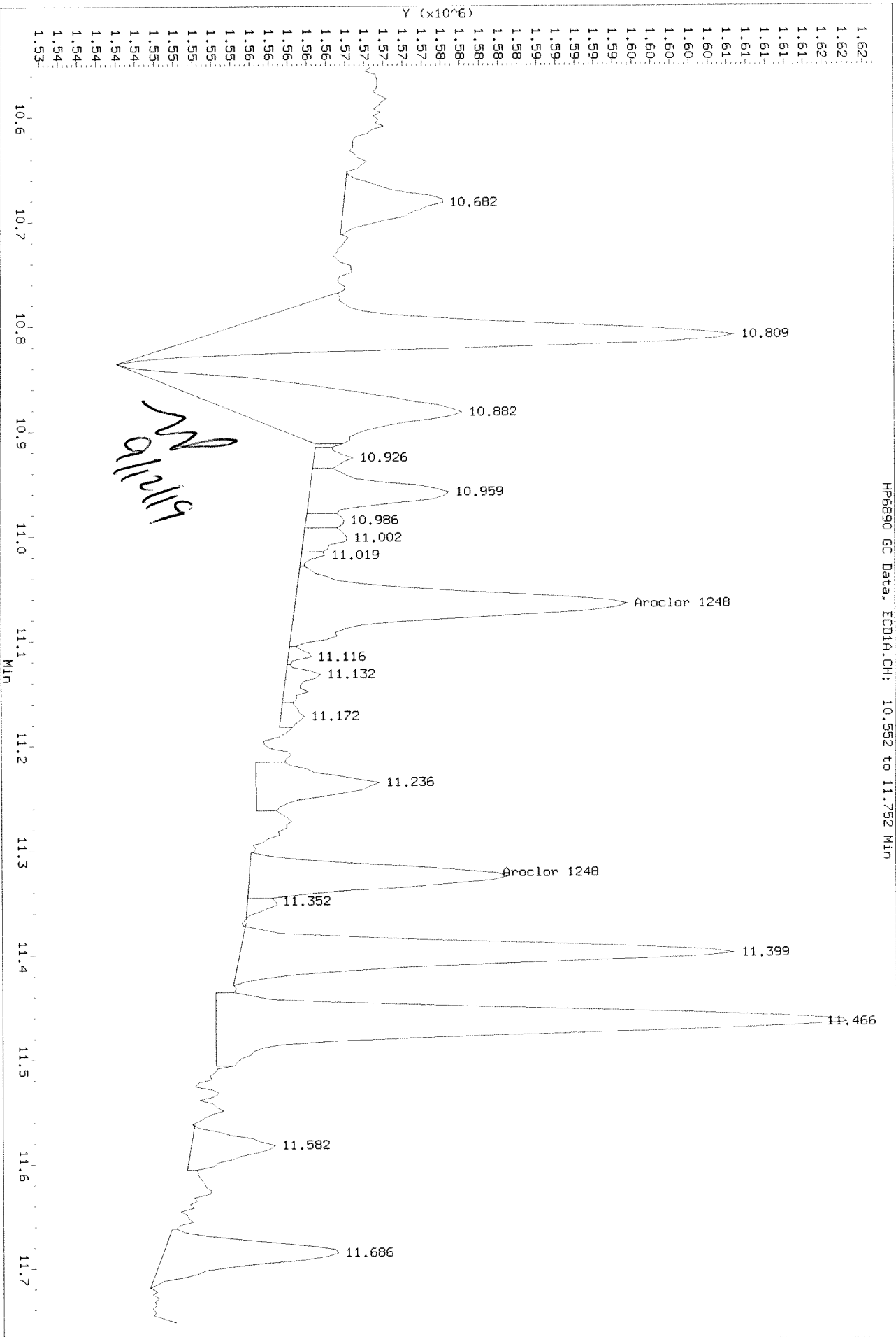
Before



Data File: \\alk1sws002\instdata\GC27\Data\090419ICL.b\0904F037.D
Injection Date: 05-SEP-2019 11:23
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 10.552 to 11.752 Min

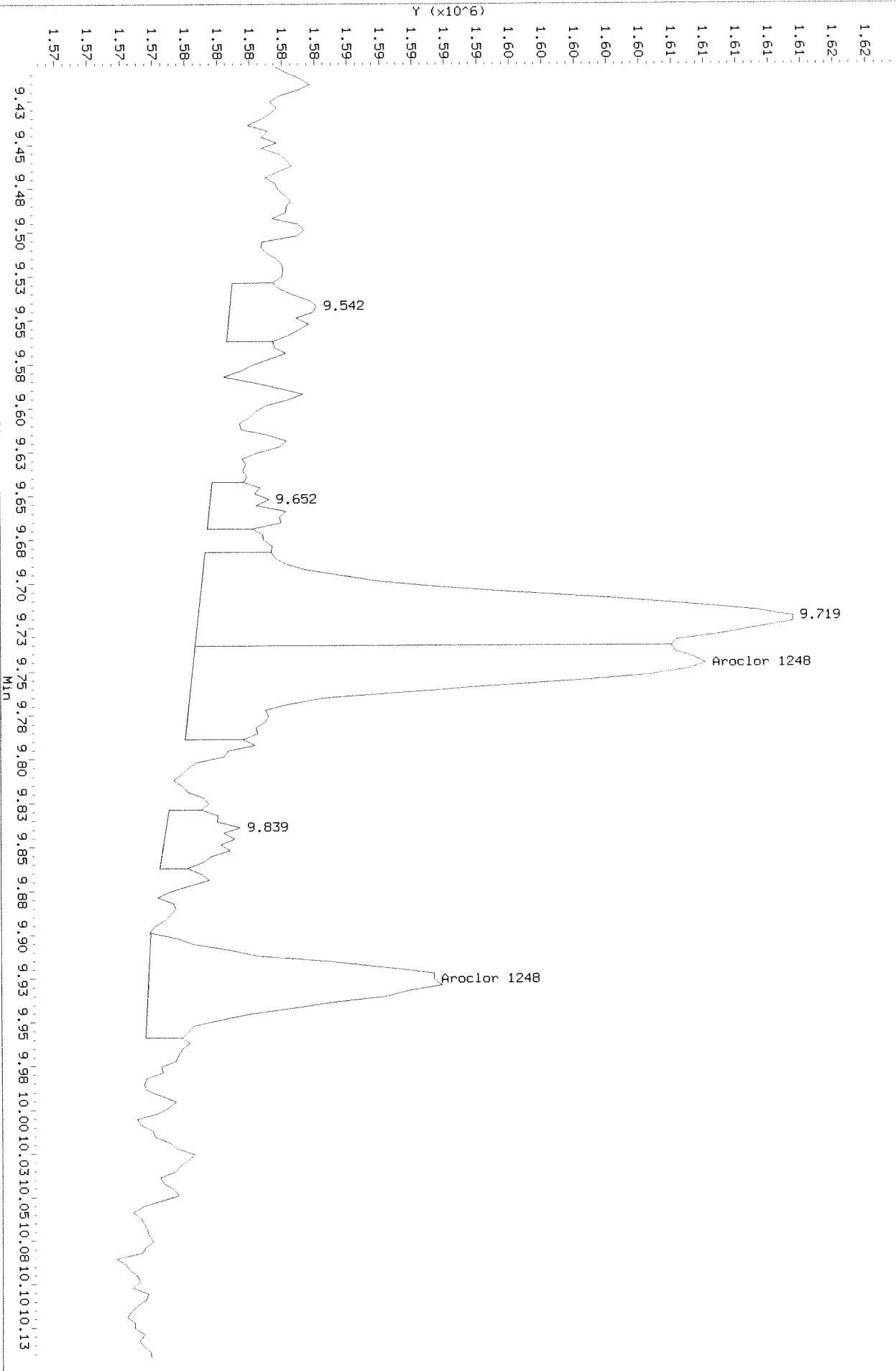
After base line 9/11/19 JT



Data File: \\alkjsws002\instdata\GC27\Data\090419ICDL.B\0904F037.D
Injection Date: 05-SEP-2019 11:23
Instrument: GC27.1
Client Sample ID:

Refer

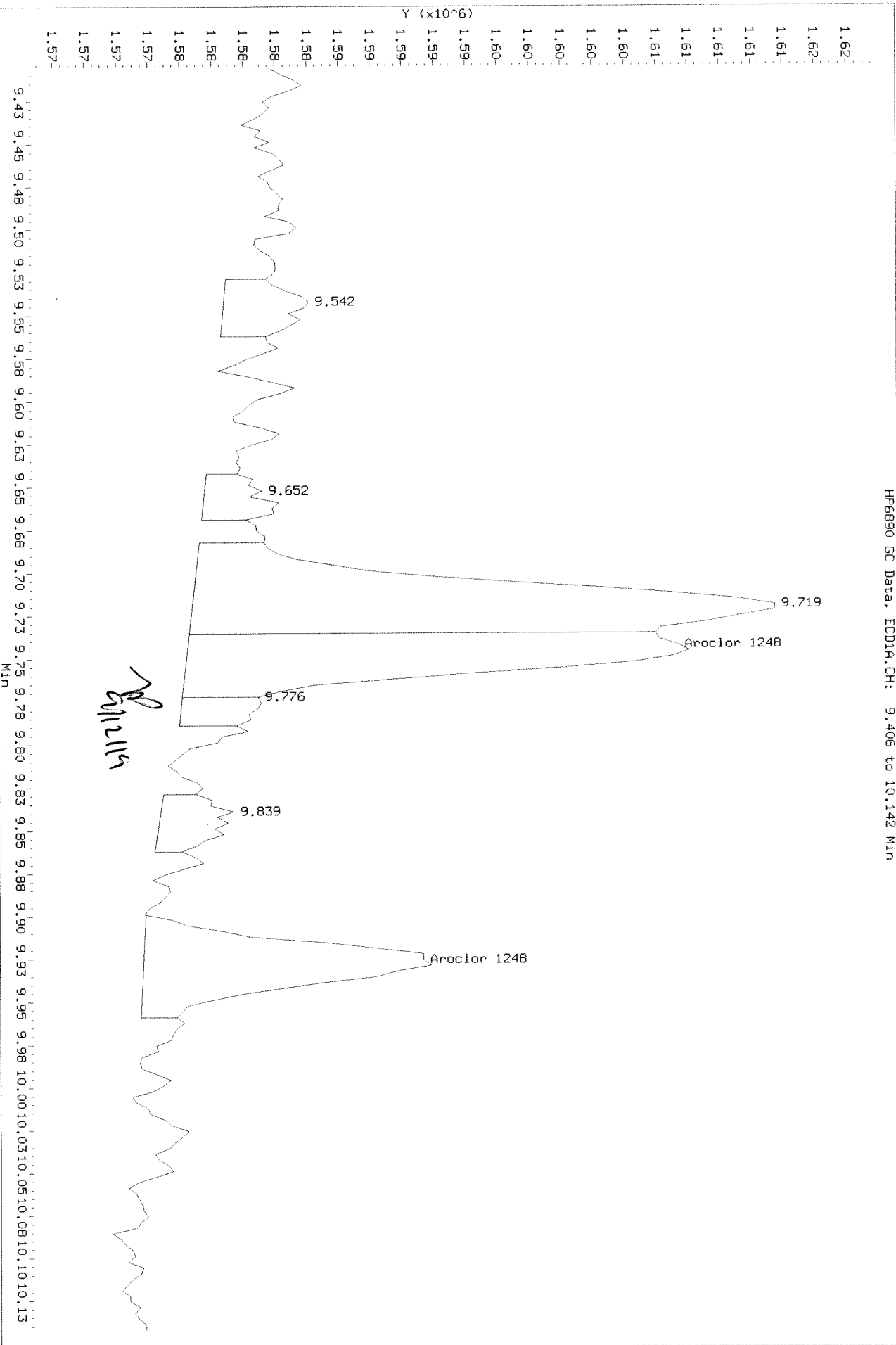
HP6890 GC Data, ECD1A.CH: 9.406 to 10.142 Min



Data File: \\alk1sws002\instdata\GC27\Data\090419ICDL.b\0904F037.D
Injection Date: 05-SEP-2019 11:23
Instrument: GC27.1
Client Sample ID:

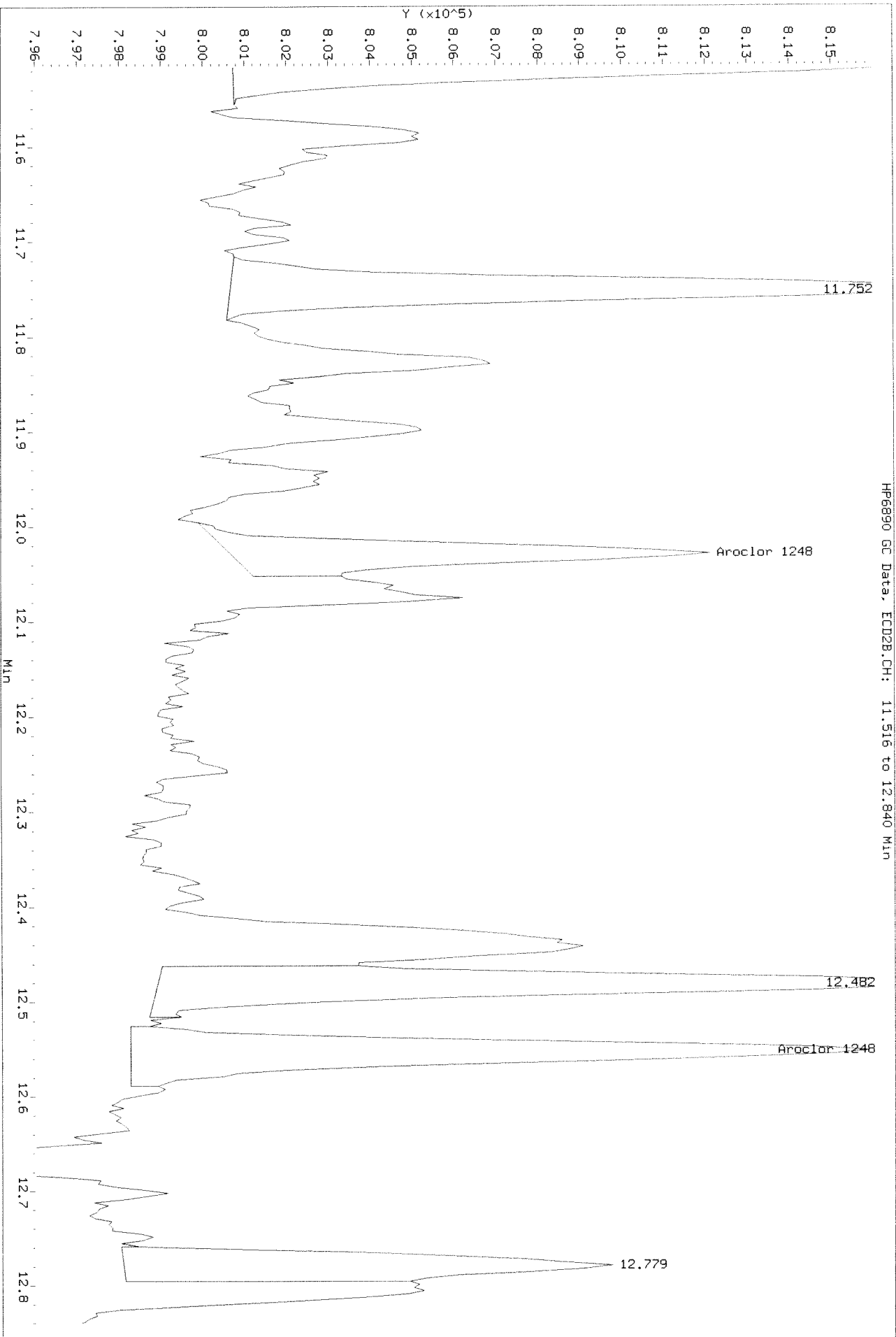
HP6890 GC Data, ECD1A.CH: 9.406 to 10.142 MIN

After Shoulder 9/11/19 SA



Data File: \\alk1sws002\instdata\GC27\Data\090419ICL-r.b\0904F037.D
Injection Date: 05-SEP-2019 11:23
Instrument: GC27.1
Client Sample ID:

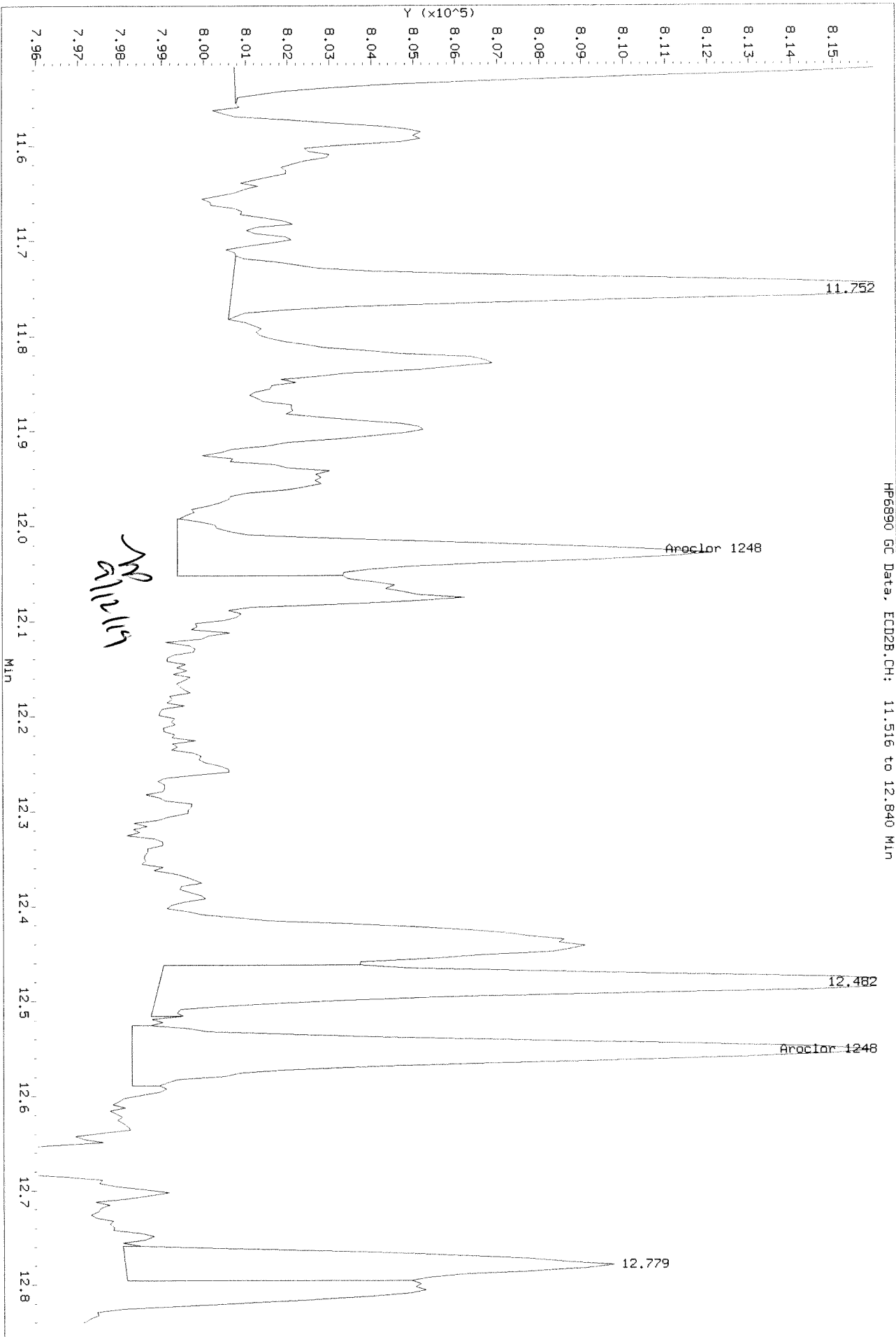
Before



Data File: \\alkisw002\instdata\GC27\Data\090419ICL.r.b\0904F037.D
Injection Date: 05-SEP-2019 11:23
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 11.516 to 12.840 MIN

After baseline 9/11/19



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F038.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F038.D
Inj Date : 05-SEP-2019 11:55
Sample Info: PCB8-13N 1248 @ 2 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

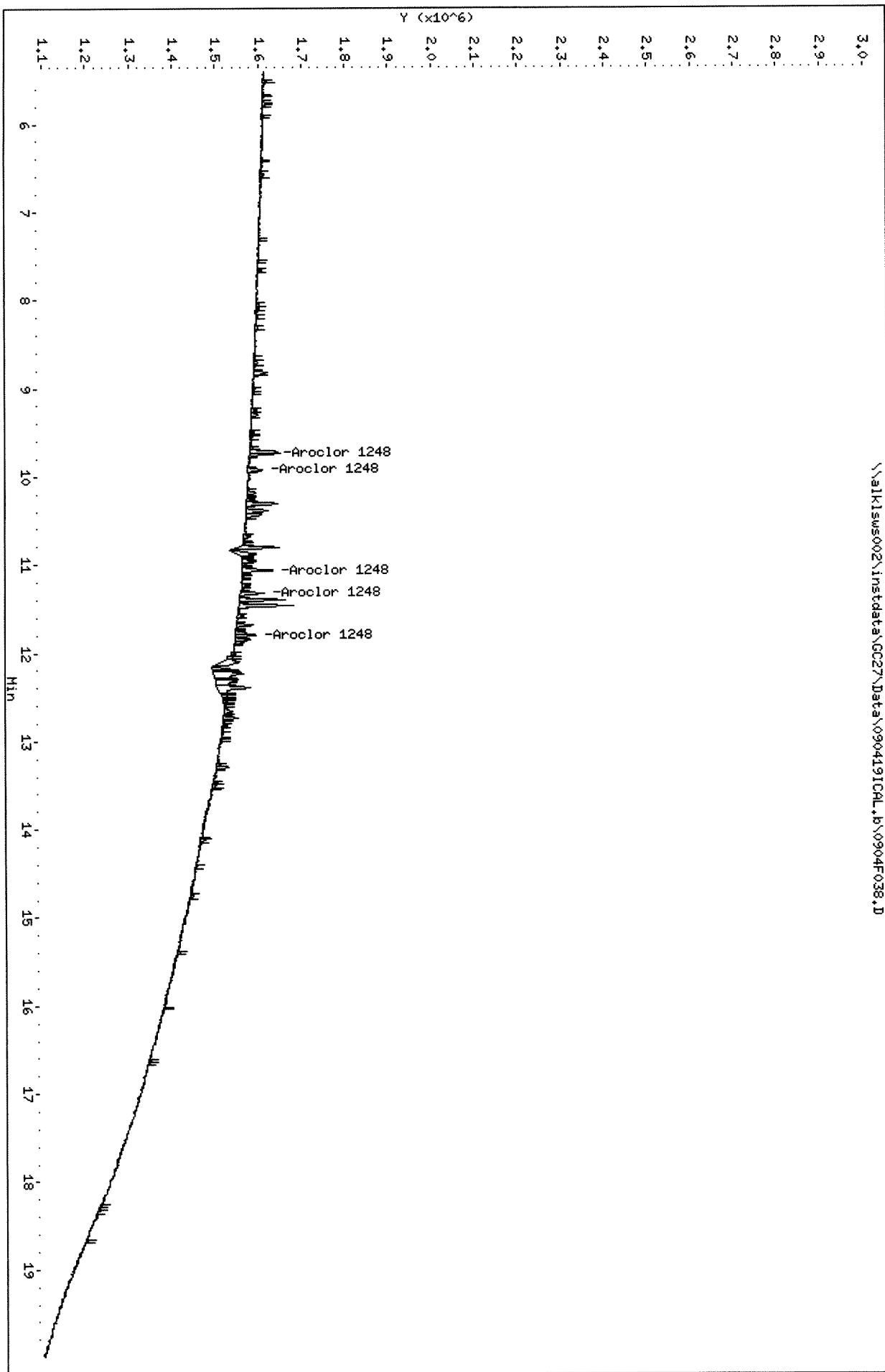
Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : 48.SUB
Sub List #2 : 48.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1248	9.744	10.965	90727	44474	2.17	2.07	80.00- 120.00	100.00
	9.928	11.015	62907	38368	2.21	2.08	55.92- 83.88	69.34
	11.068	11.515	124877	54748	2.38	2.27	99.65- 149.47	137.64
	11.324	12.031	84447	41585	2.24	2.21	75.25- 112.88	93.08
	11.801	12.551	72973	60077	2.20	2.10	66.29- 99.44	80.43
	Average of Peak Amounts =				2.24	2.15		

SA 9/11/19
W

Data File: \\alklsws002\instdata\GC27\Data\090419ICPL.b\0904F038.D
Date : 05-SEP-2019 11:55
Client ID:
Sample Info: PCB8-13N 1248 @ 2 PPB
Column phase: DB-35MS

Instrument: GC27.1
Operator: SAA
Column diameter: 0.32



Data File: \\alk1s002\instdata\GC27\Data\090419ICL_r.b\0904F038.D

Date : 05-SEP-2019 11:55

Client ID:

Sample Info: PCB8-13N 1248 @ 2 PPB

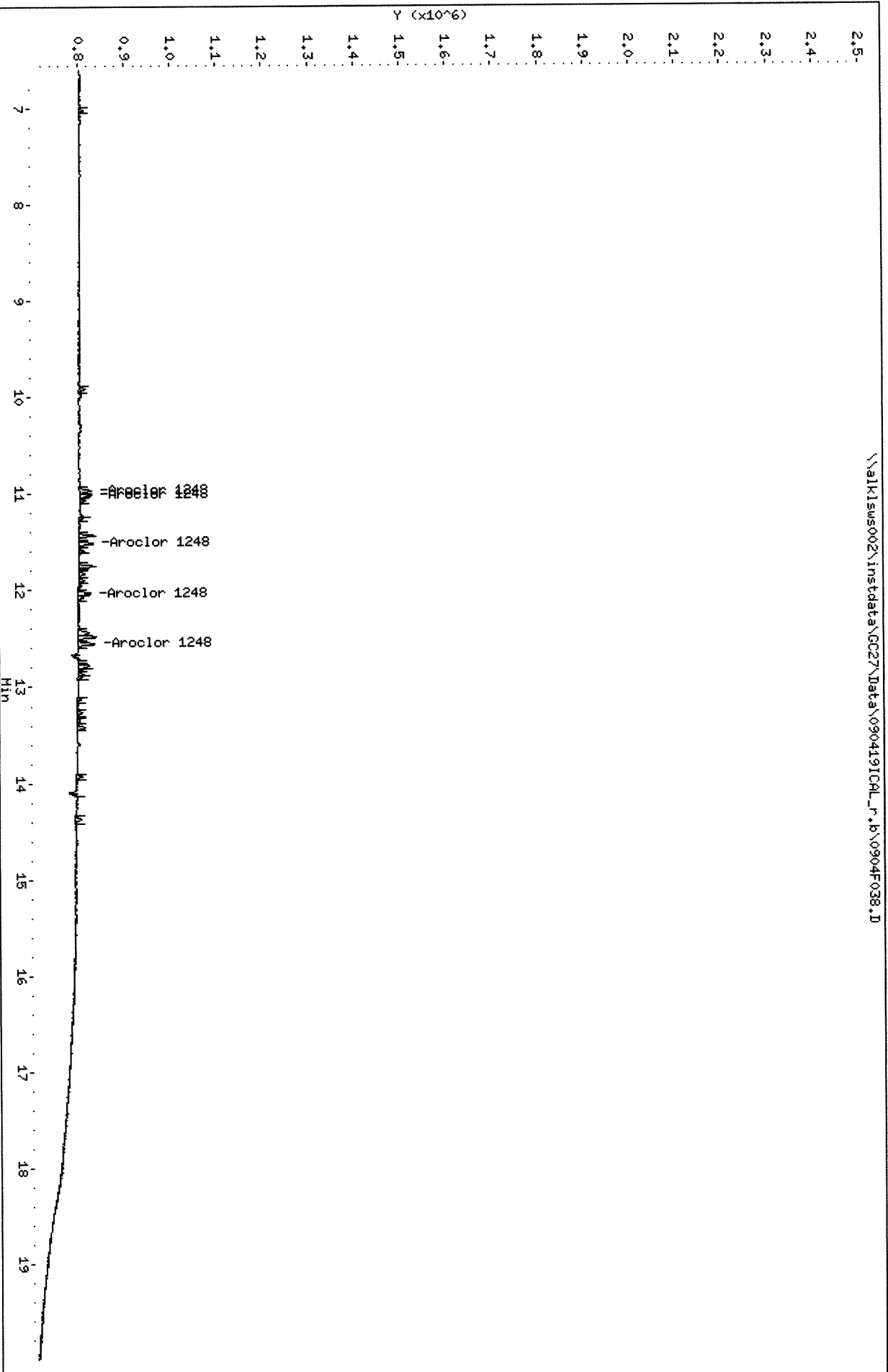
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

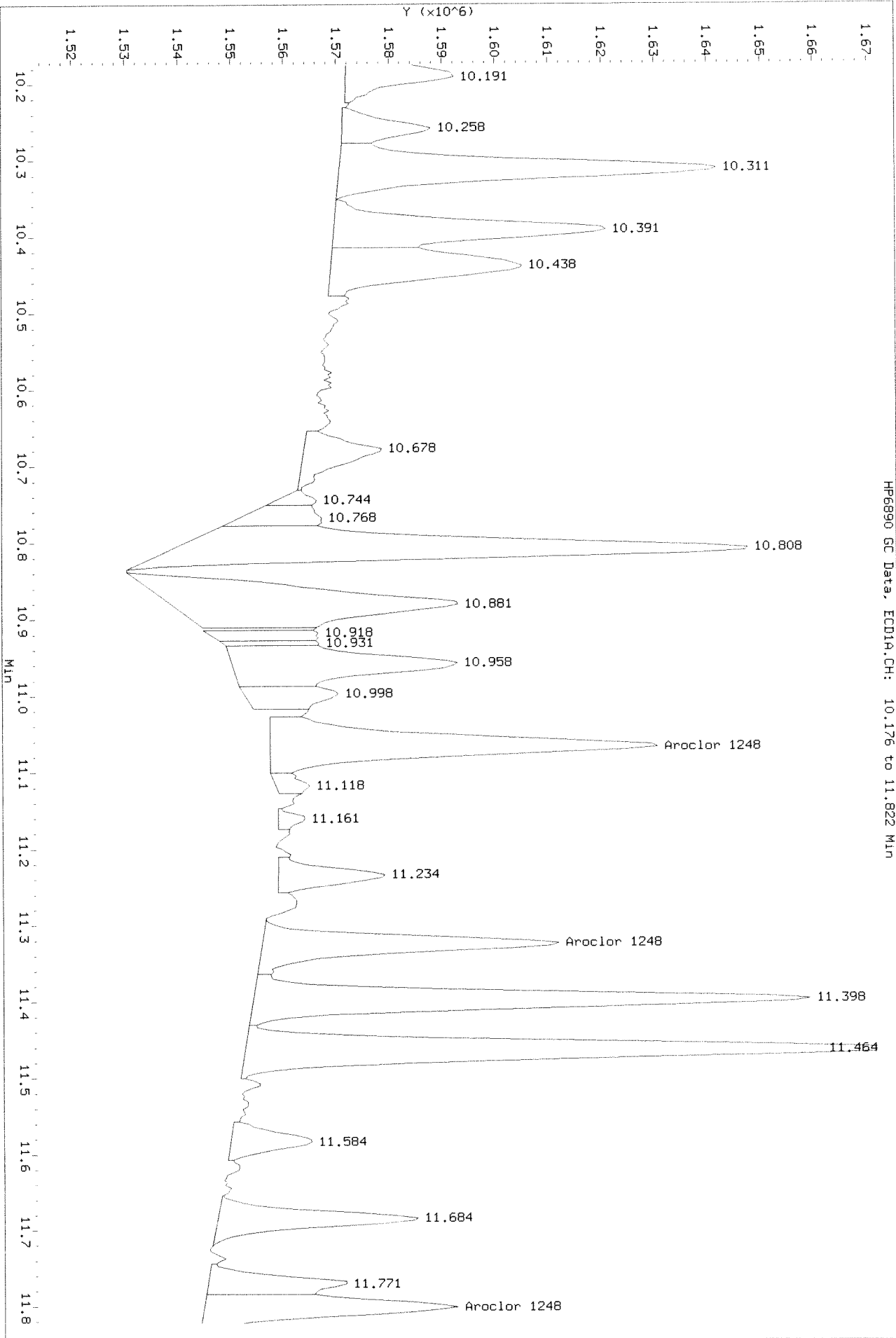
\\alk1s002\instdata\GC27\Data\090419ICL_r.b\0904F038.D



Data File: \\alklsw002\instdata\GC27\Data\090419ICL.b\0904F038.D
Injection Date: 05-SEP-2019 11:55
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 10.176 to 11.822 Min

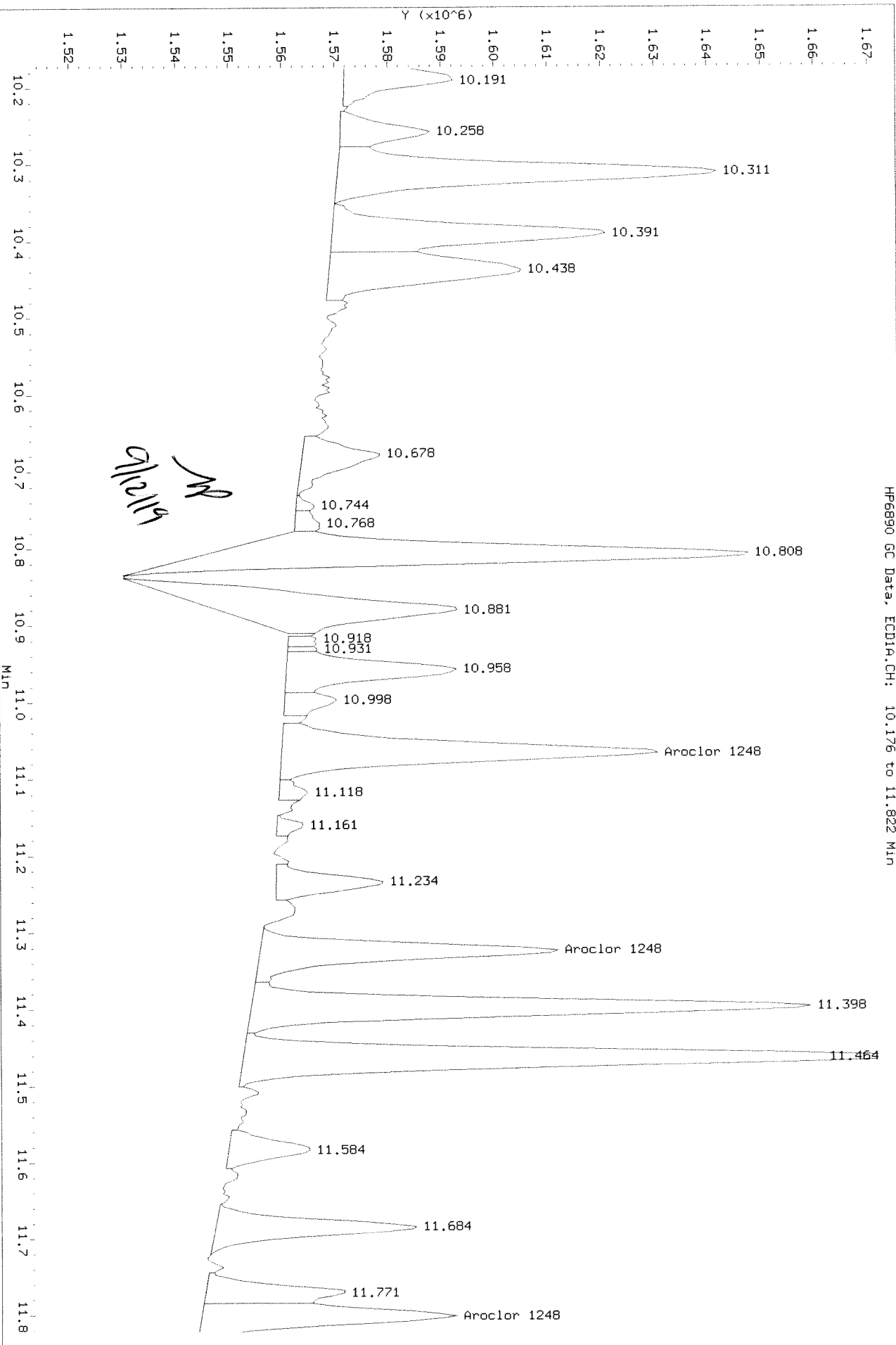
B.fern



Data File: \\alk1sew002\instdata\GC27\Data\090419ICAL.b\0904F038.D
Injection Date: 05-SEP-2019 11:55
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 10.176 to 11.822 Min

After baseline 9/11/19 A



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F039.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F039.D
Inj Date : 05-SEP-2019 12:26
Sample Info: PCB8-14A 1248 @ 5 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : 48.SUB
Sub List #2 : 48.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1248	9.744	10.964	231533	111969	5.54	5.22	80.00- 120.00	100.00
	9.924	11.014	143574	97316	5.05	5.28	55.92- 83.88	62.01
	11.067	11.514	276305	125912	5.26	5.23	99.65- 149.47	119.34
	11.324	12.028	204810	97945	5.44	5.21	75.25- 112.88	88.46
	11.801	12.551	186712	151878	5.63	5.30	66.29- 99.44	80.64
			Average of Peak Amounts =		5.38	5.25		

CA 9/11/19
W

Data File: \\alk1sws002\instdata\GC27\Data\090419ICPL.b\0904F039.D

Date : 05-SEP-2019 12:26

Client ID:

Sample Info: PCB8-14A 1248 @ 5 PPB

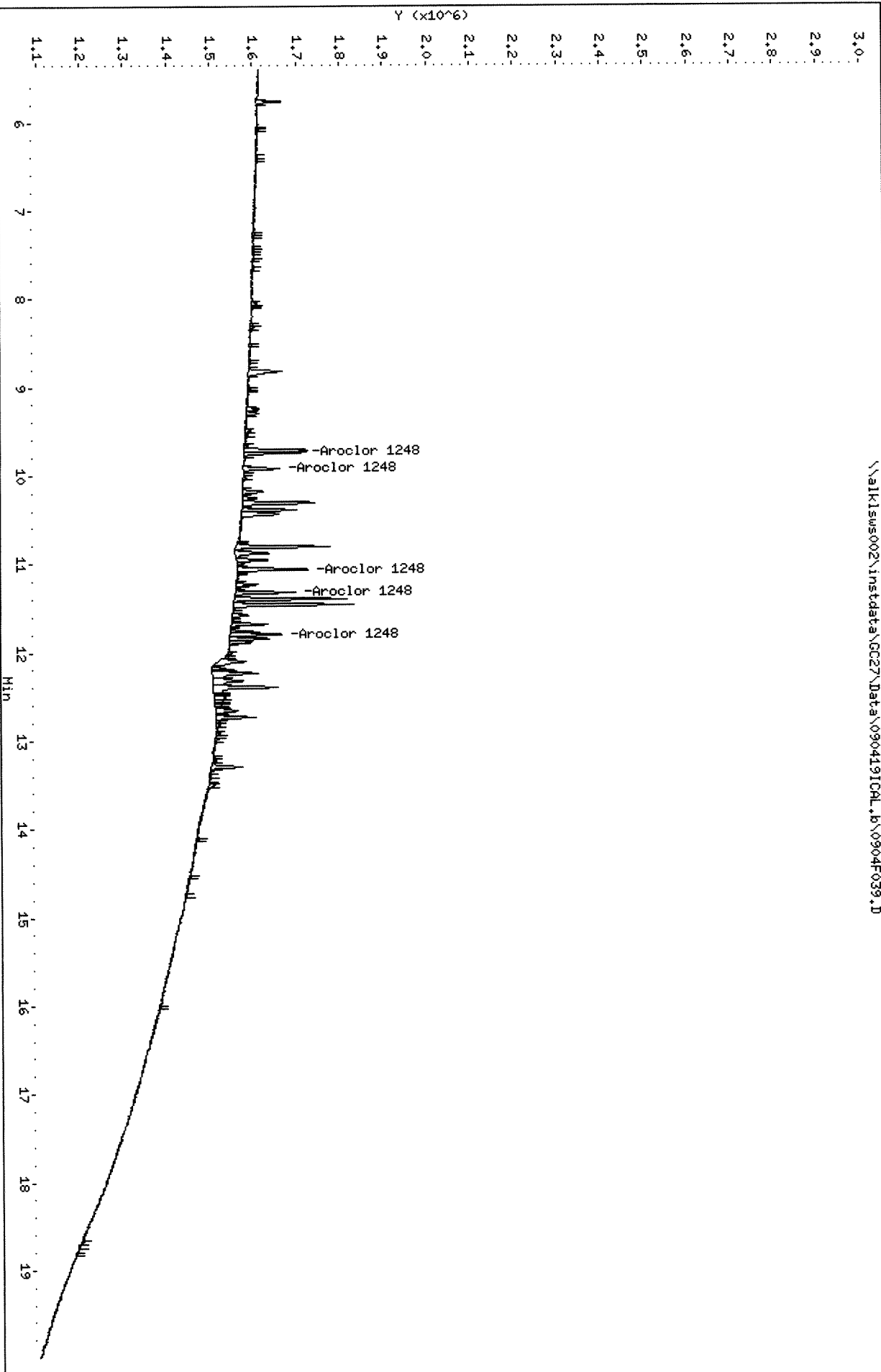
Column phase: DB-35MS

Instrument: GC27.1

Operator: SAA

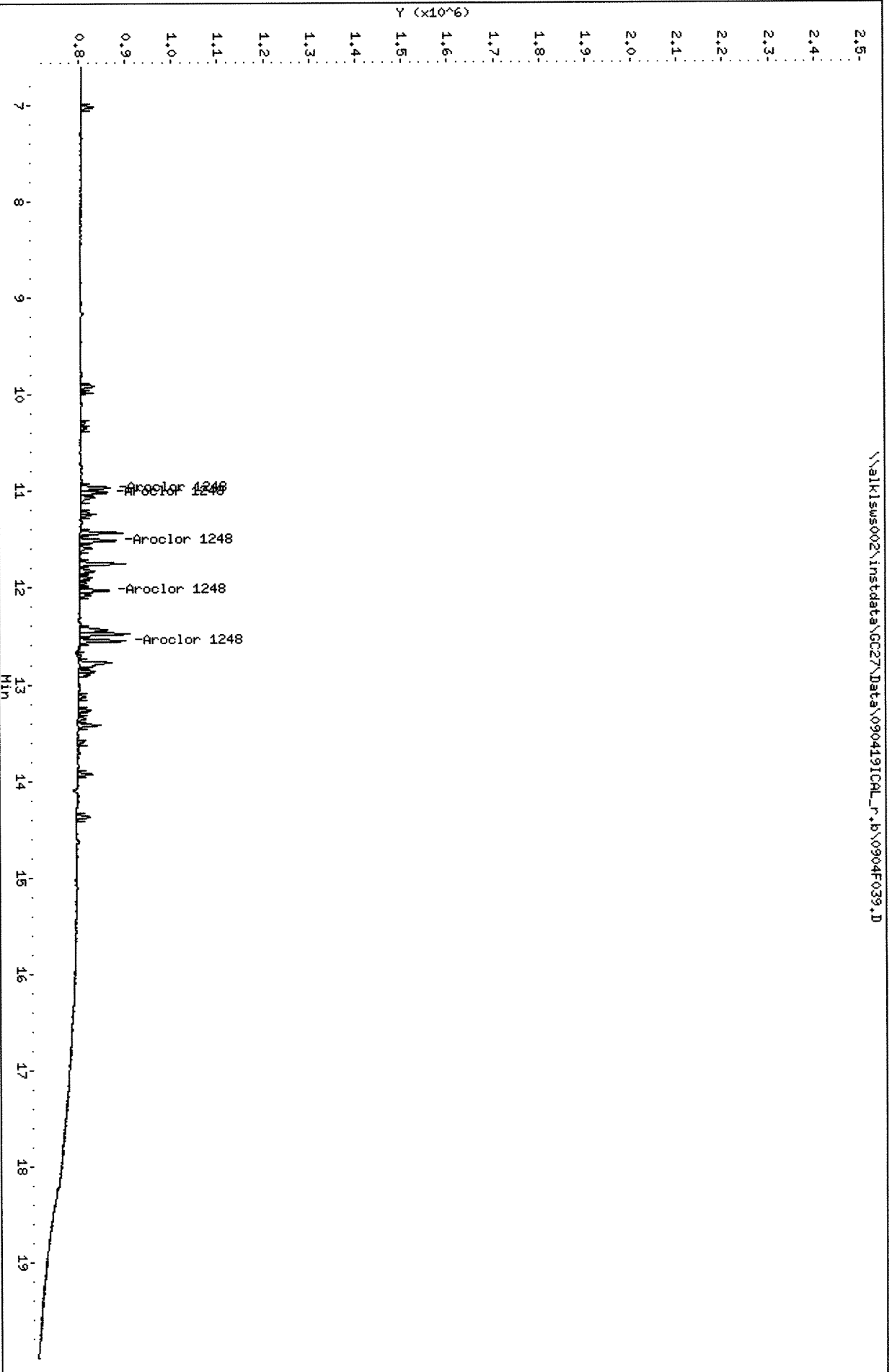
Column diameter: 0.32

\\alk1sws002\instdata\GC27\Data\090419ICPL.b\0904F039.D



Data File: \\alk1s002\instdata\GC27\Data\090419ICAL_r.b\0904F039.D
Date : 05-SEP-2019 12:26
Client ID:
Sample Info: PCB8-14A 1248 @ 5 PPB
Column phase: DB-XLB

Instrument: GC27.1
Operator: SAA
Column diameter: 0.32



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F040.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F040.D
Inj Date : 05-SEP-2019 12:58
Sample Info: PCB8-14B 1248 @ 10 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : 48.SUB
Sub List #2 : 48.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1248	9.745	10.965	424568	241098	10.2	11.2	80.00- 120.00	100.00
	9.928	11.015	307953	208834	10.8	11.3	55.92- 83.88	72.53
	11.068	11.515	548563	261609	10.4	10.9	99.65- 149.47	129.20
	11.325	12.028	401912	203088	10.7	10.8	75.25- 112.88	94.66
	11.801	12.552	362021	330054	10.9	11.5	66.29- 99.44	85.27
	Average of Peak Amounts =				10.6	11.1		

SA 9/11/19
W

Data File: \\alkisus002\instdata\GC27\Data\090419ICAL.b\0904F040.D

Date : 05-SEP-2019 12:58

Client ID:

Sample Info: PCB8-14B 1248 @ 10 PPB

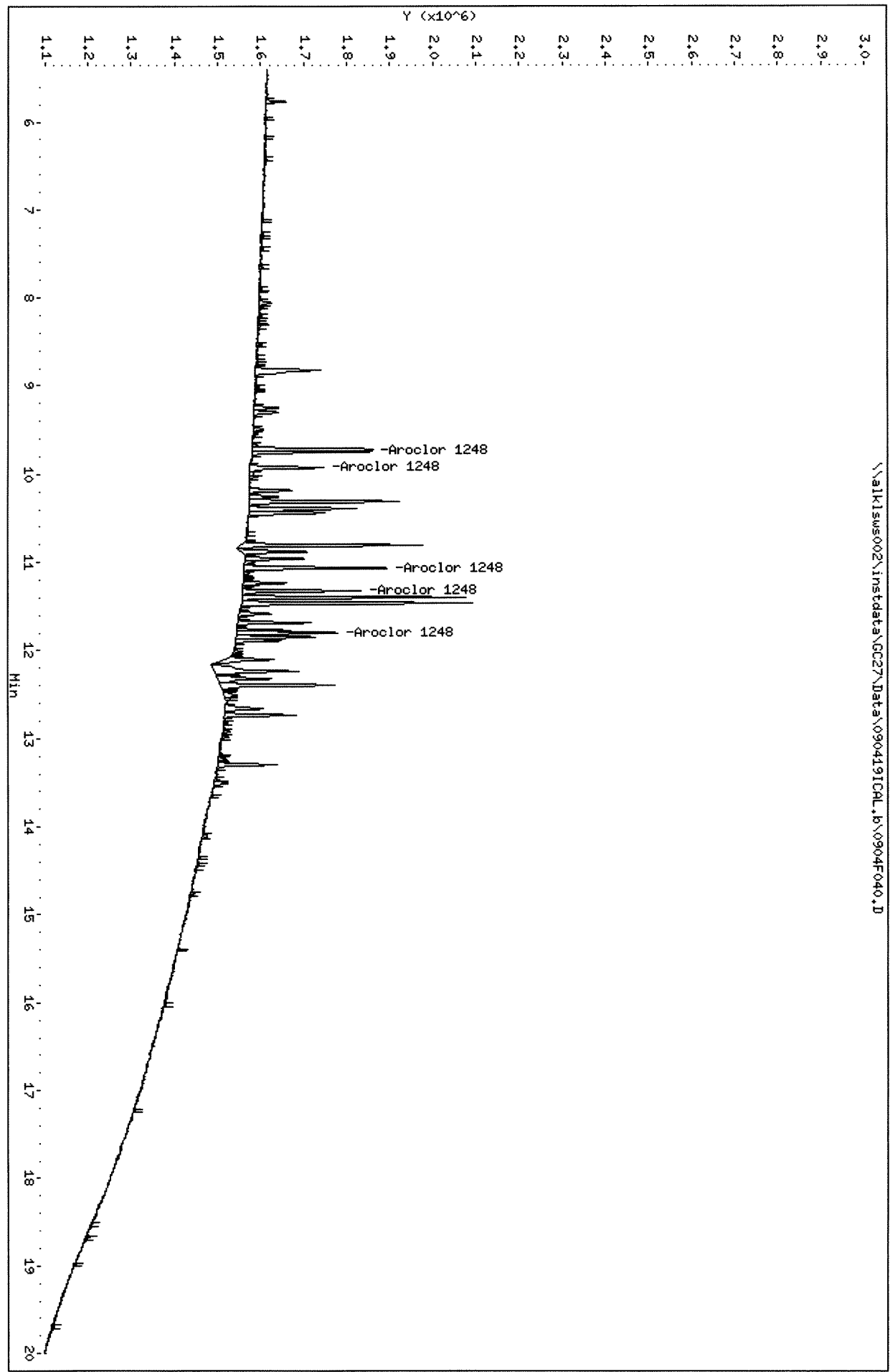
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

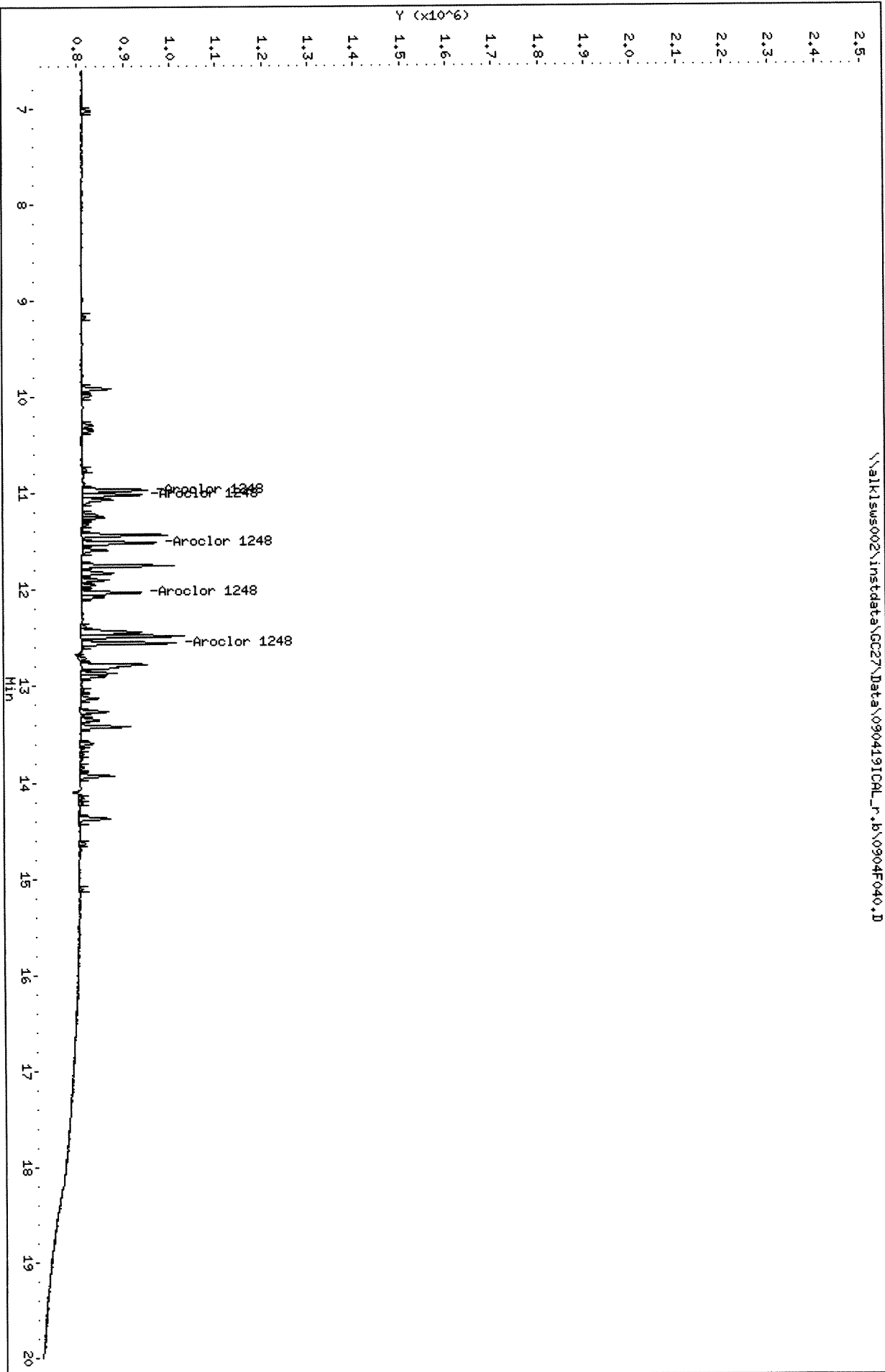
Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL.b\0904F040.D



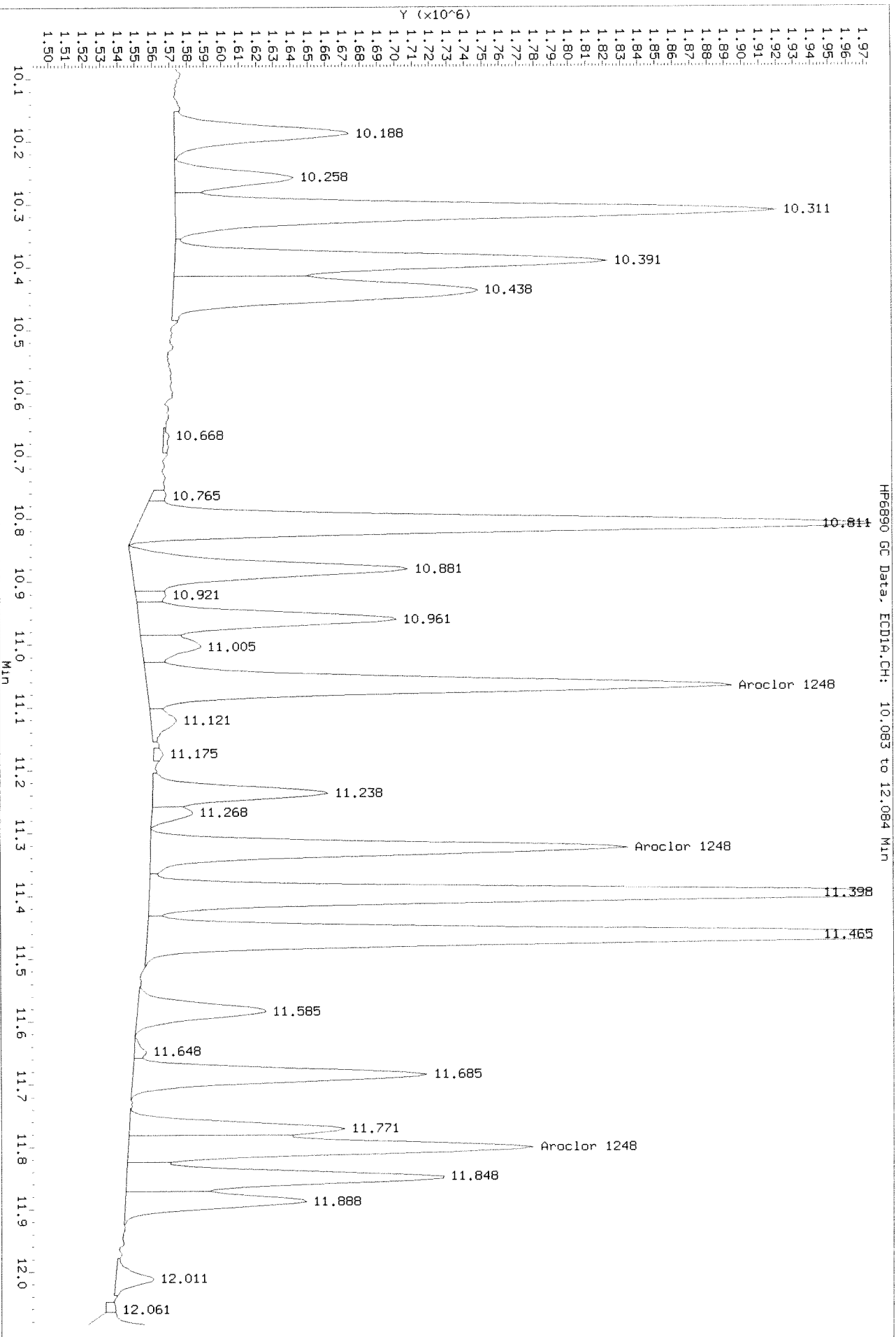
Data File: \\alkisus002\instdata\GC27\Data\090419ICDL_r.b\0904F040.D
Date : 05-SEP-2019 12:58
Client ID:
Sample Info: PCB8-14B 1248 @ 10 PPB
Column phase: DB-XLB

Instrument: GC27.i
Operator: SAA
Column diameter: 0.32



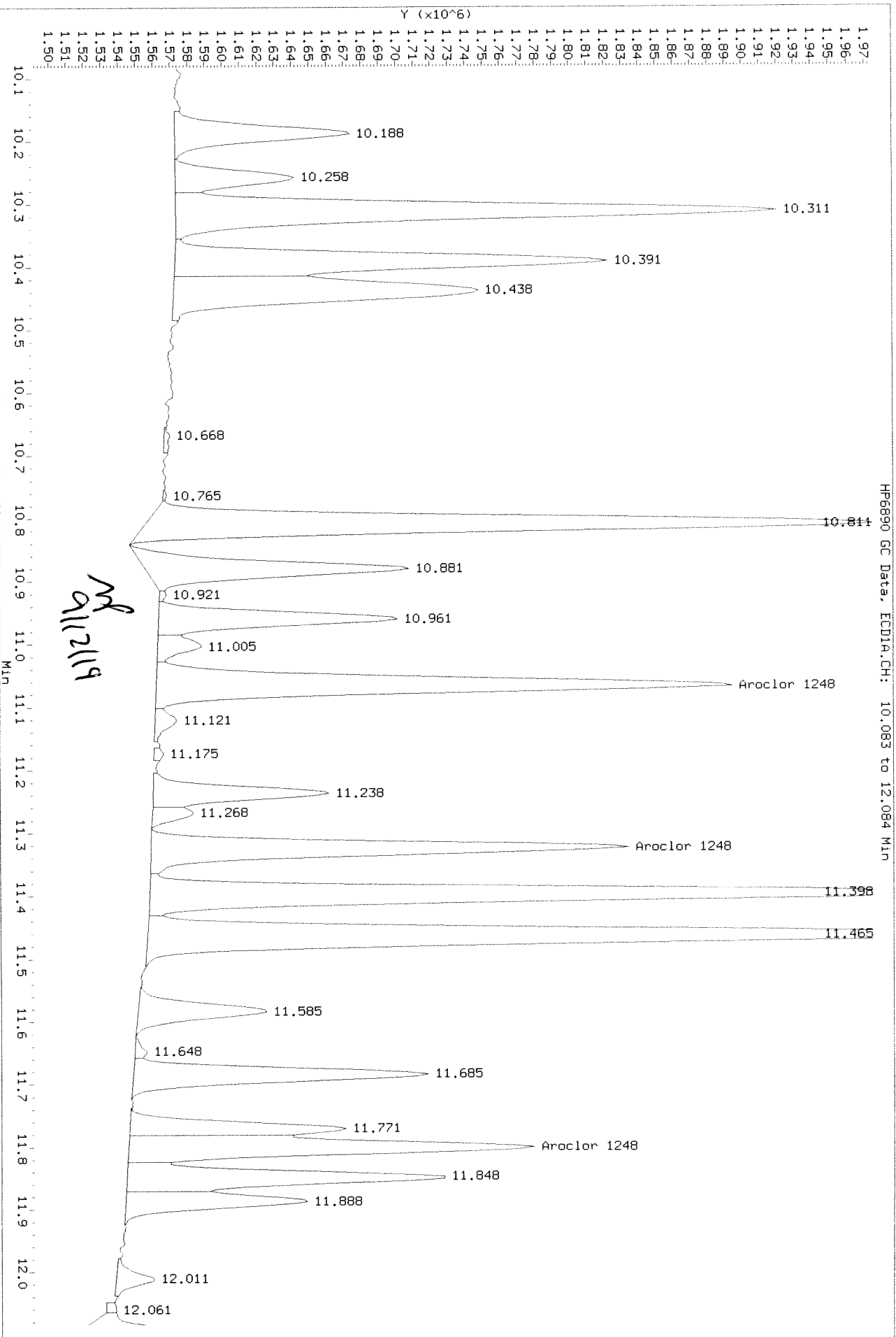
Data File: \\alklsw002\instdata\GC27\Data\090419ICL.b\0904F040.D
 Injection Date: 05-SEP-2019 12:58
 Instrument: GC27.1
 Client Sample ID:

Before



Data File: \\alklms002\instdata\GC27\Data\090419ICL.b\0904F040.D
 Injection Date: 05-SEP-2019 12:58
 Instrument: GC27.1
 Client Sample ID:

After baseline 9/11/19 A



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F041.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F041.D
Inj Date : 05-SEP-2019 13:30
Sample Info: PCB7-91N 1248 @ 20 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : 48.SUB
Sub List #2 : 48.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1248	9.745	10.965	766568	450464	18.3	21.0	80.00- 120.00	100.00 (M)
	9.928	11.015	509729	374054	17.9	20.3	55.92- 83.88	66.49 (M)
	11.068	11.515	980595	477212	18.7	19.8	99.65- 149.47	127.92 (M)
	11.325	12.032	723763	367769	19.2	19.6	75.25- 112.88	94.42 (M)
	11.802	12.555	611012	599845	18.4	20.9	66.29- 99.44	79.71 (M)
	Average of Peak Amounts =				18.5	20.3		

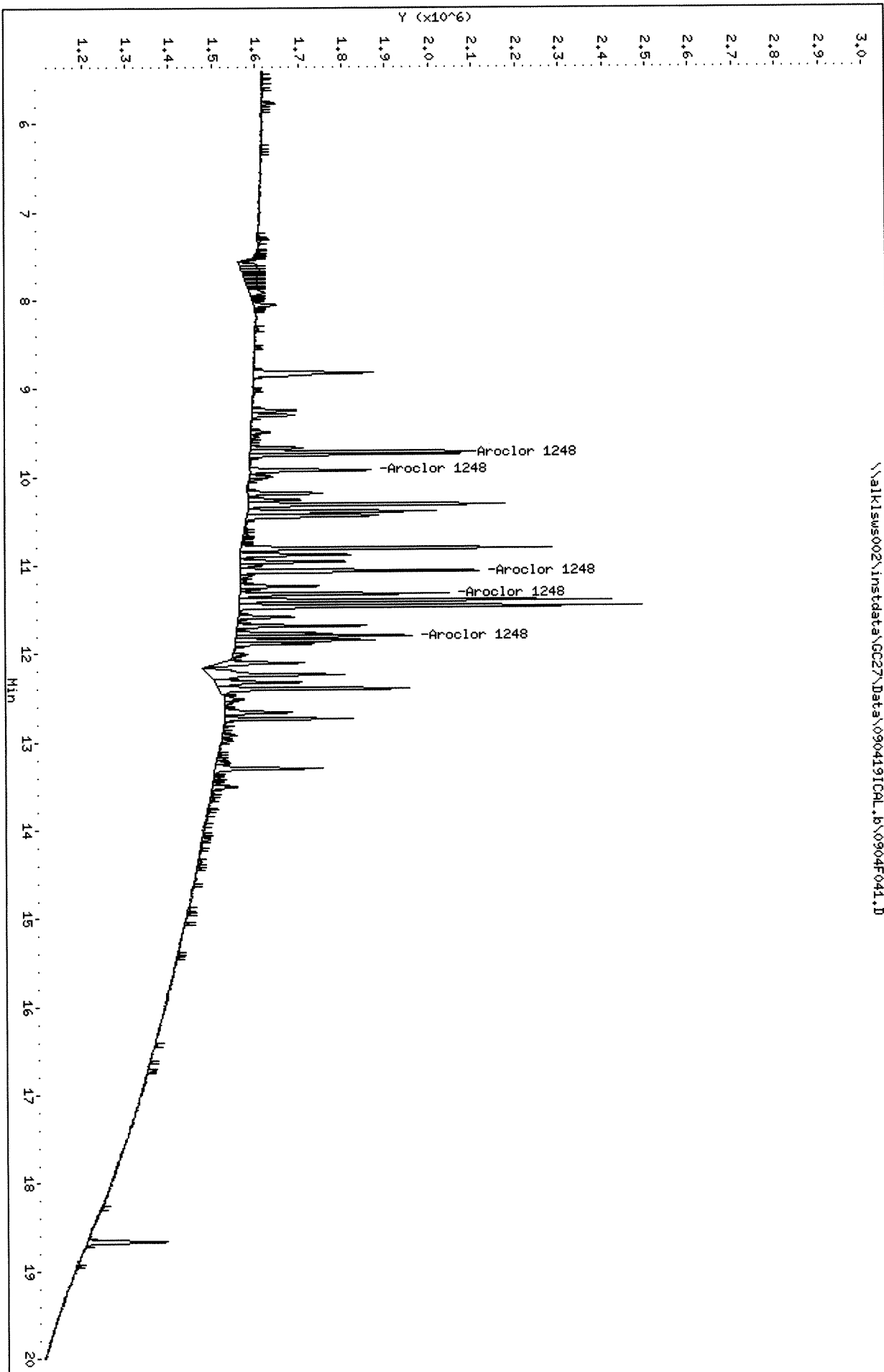
QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
W

Data File: \\alklsws002\instdata\GC27\Data\090419ICPL.b\0904F041.D
Date : 05-SEP-2019 13:30
Client ID:
Sample Info: PCB7-91N 1248 @ 20 PPB
Column phase: DB-35MS

Instrument: GC27.1
Operator: SAA
Column diameter: 0.32



Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F041.D

Date: 05-SEP-2019 13:30

Client ID:

Sample Info: PCB7-91N 1248 @ 20 PPB

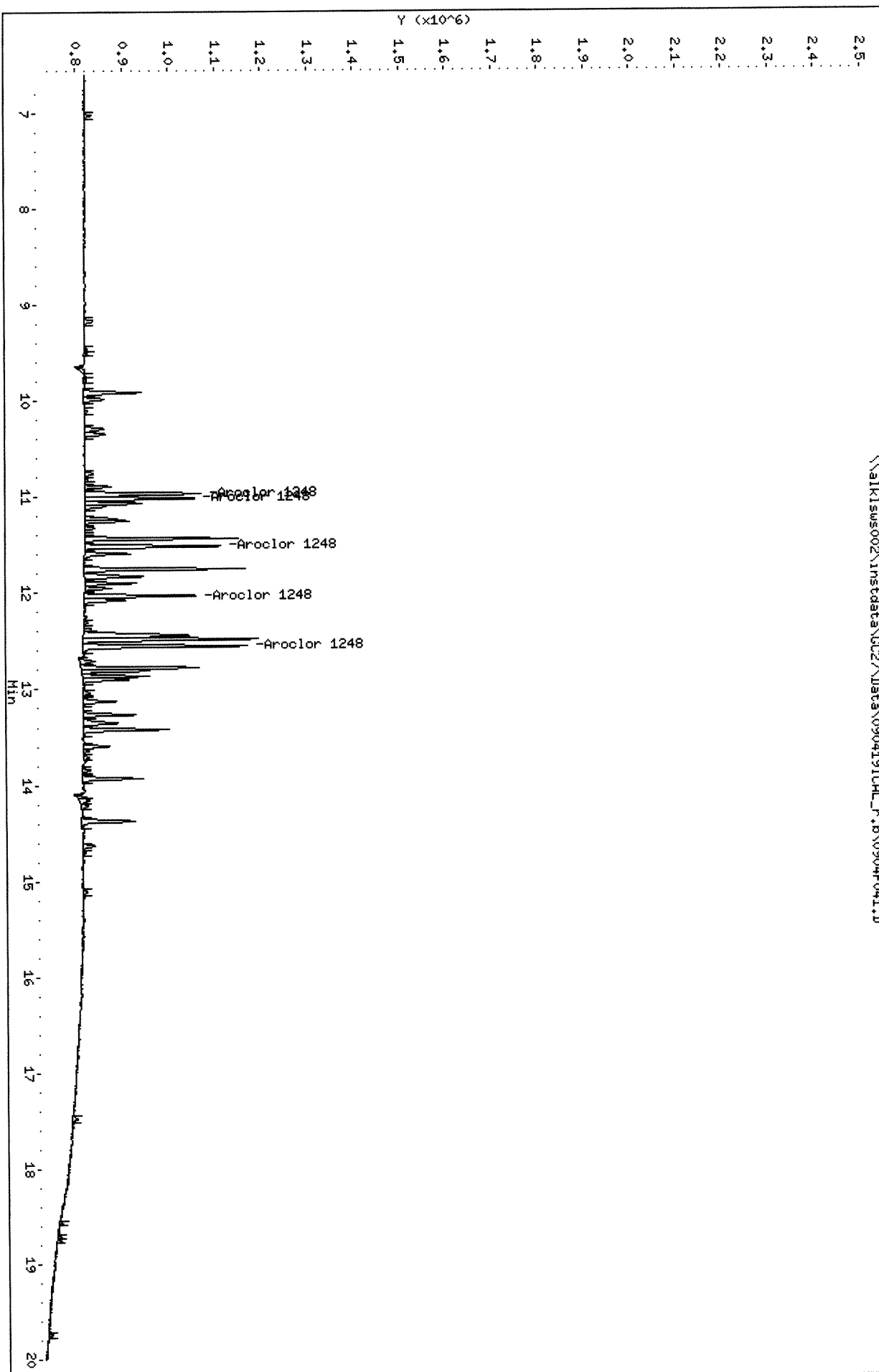
Column phase: DB-XLB

Instrument: GC27.1

Operator: SAA

Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F041.D



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F042.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F042.D
Inj Date : 05-SEP-2019 14:02
Sample Info: PCB7-910 1248 @ 50 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : 48.SUB
Sub List #2 : 48.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1248	9.745	10.965	1812027	1047787	43.4	48.9	80.00- 120.00	100.00
	9.928	11.015	1314513	926449	46.2	50.3	55.92- 83.88	72.54
	11.068	11.515	2283647	1111679	43.5	46.2	99.65- 149.47	126.03
	11.325	12.029	1719034	882846	45.7	47.0	75.25- 112.88	94.87
	11.802	12.552	1472562	1347375	44.4	47.0	66.29- 99.44	81.27
	Average of Peak Amounts =				44.6	47.9		

SA 9/11/19
W

Data File: \\alk1sws002\instdata\GC27\Data\090419ICPL.b\0904F042.D

Date : 05-SEP-2019 14:02

Client ID:

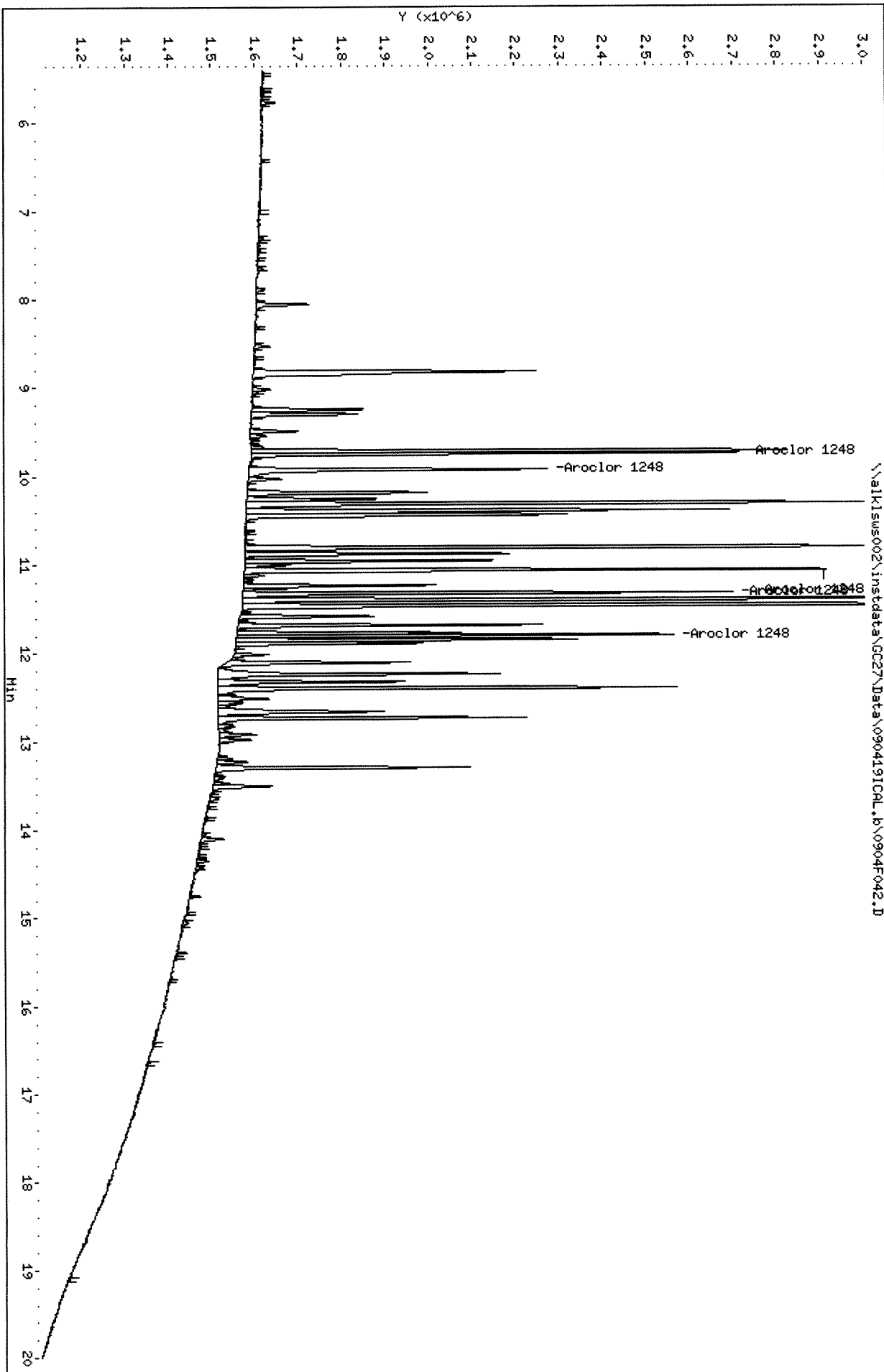
Sample Info: PCB7-910 1248 @ 50 PPB

Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Data File: \\alk1s002\instdata\GC27\Data\090419ICAL_r.b\0904F042.D

Date : 05-SEP-2019 14:02

Client ID:

Sample Info: PCB7-910 1248 @ 50 PPB

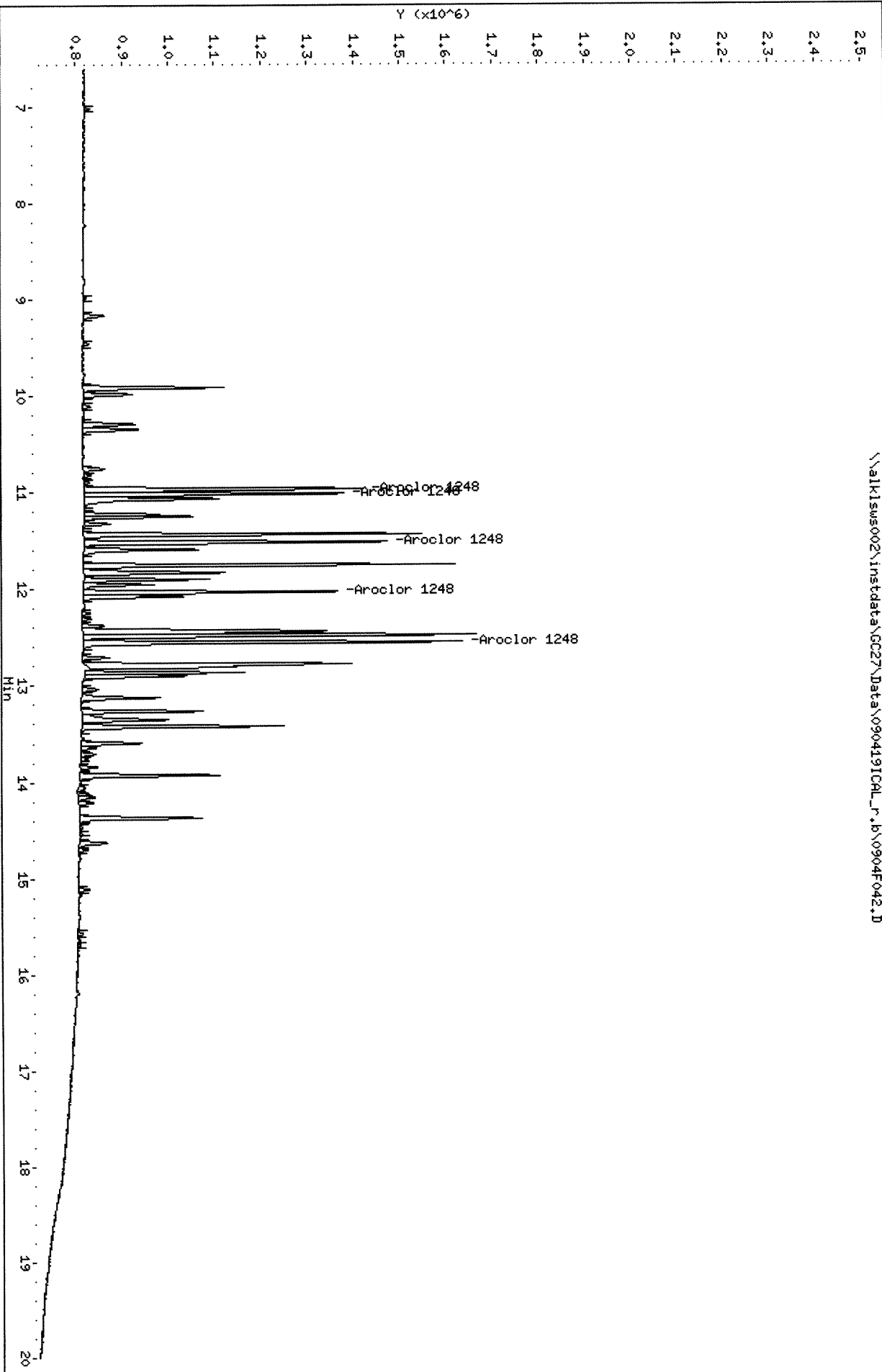
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alk1s002\instdata\GC27\Data\090419ICAL_r.b\0904F042.D



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F043.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F043.D
 Inj Date : 05-SEP-2019 14:33
 Sample Info: PCB7-92A 1248 @ 100 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:38
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

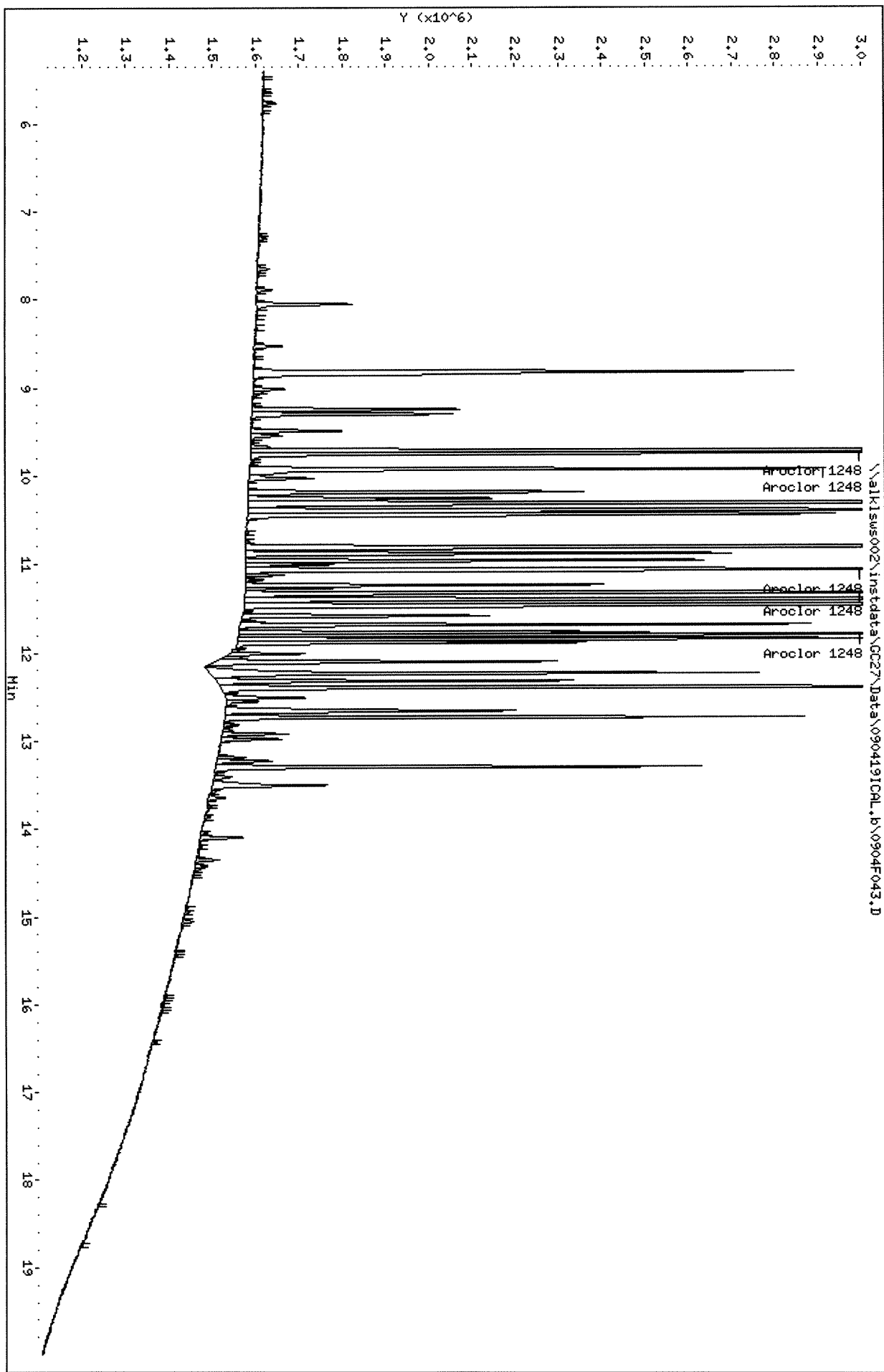
Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 48.SUB
 Sub List #2 : 48.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1248	9.744	10.964	3550142	1949389	85.0	90.9	80.00- 120.00	100.00
	9.928	11.014	2452217	1637198	86.3	88.8	55.92- 83.88	69.07
	11.068	11.514	4258464	1988037	81.1	82.6	99.65- 149.47	119.95
	11.324	12.031	3206351	1586846	85.2	84.5	75.25- 112.88	90.32
	11.801	12.554	2806012	2421338	84.6	84.5	66.29- 99.44	79.04
	Average of Peak Amounts =				84.4	86.3		

SA 9/11/19
 [Signature]

Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F043.D
Date : 05-SEP-2019 14:33
Client ID:
Sample Info: PCB7-92A 1248 @ 100 PPB
Column phase: DB-35MS

Instrument: GC27.i
Operator: SAA
Column diameter: 0.32



Data File: \\alk1sus002\instdata\GC27\Data\090419ICAL_r.b\0904F043.D

Date : 05-SEP-2019 14:33

Client ID:

Sample Info: PCB7-92A 1248 @ 100 PPB

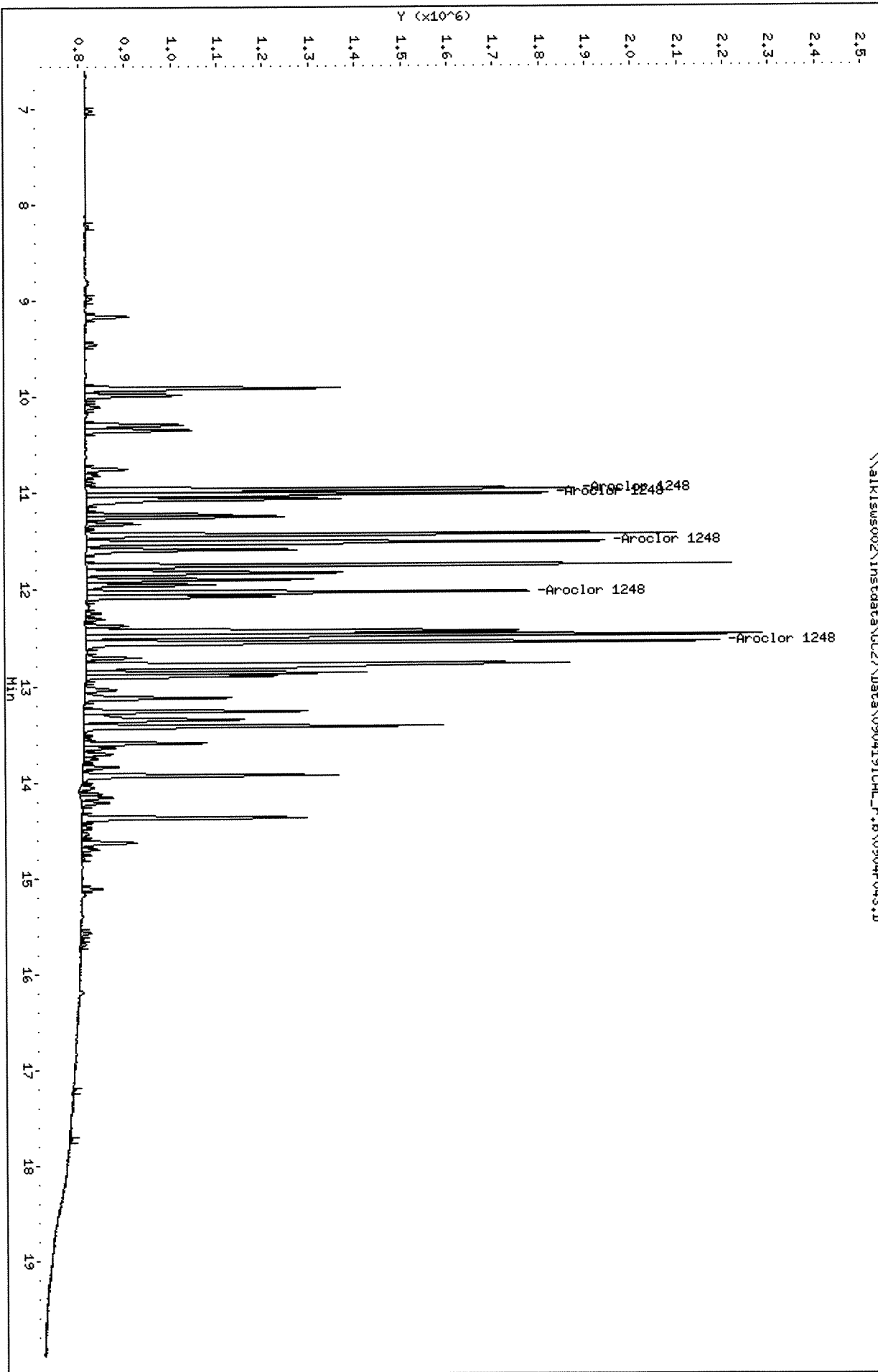
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alk1sus002\instdata\GC27\Data\090419ICAL_r.b\0904F043.D



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F044.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F044.D
Inj Date : 05-SEP-2019 15:05
Sample Info: PCB7-91A 1248 @ 200 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : 48.SUB
Sub List #2 : 48.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1248	9.744	10.964	7859624	3999503	188	187	80.00- 120.00	100.00
	9.927	11.014	5493676	3601096	193	195	55.92- 83.88	69.90
	11.067	11.514	9790019	4175992	186	174	99.65- 149.47	124.56
	11.324	12.028	7393201	3391310	197	181	75.25- 112.88	94.07
	11.801	12.551	6513002	5266045	196	184	66.29- 99.44	82.87
			Average of Peak Amounts =		192	184		

SA 9/11/19
BT

Data File: \\alk1sws002\instdata\GC27\Data\090419ICL.b\0904F044.D

Date: 05-SEP-2019 15:05

Client ID:

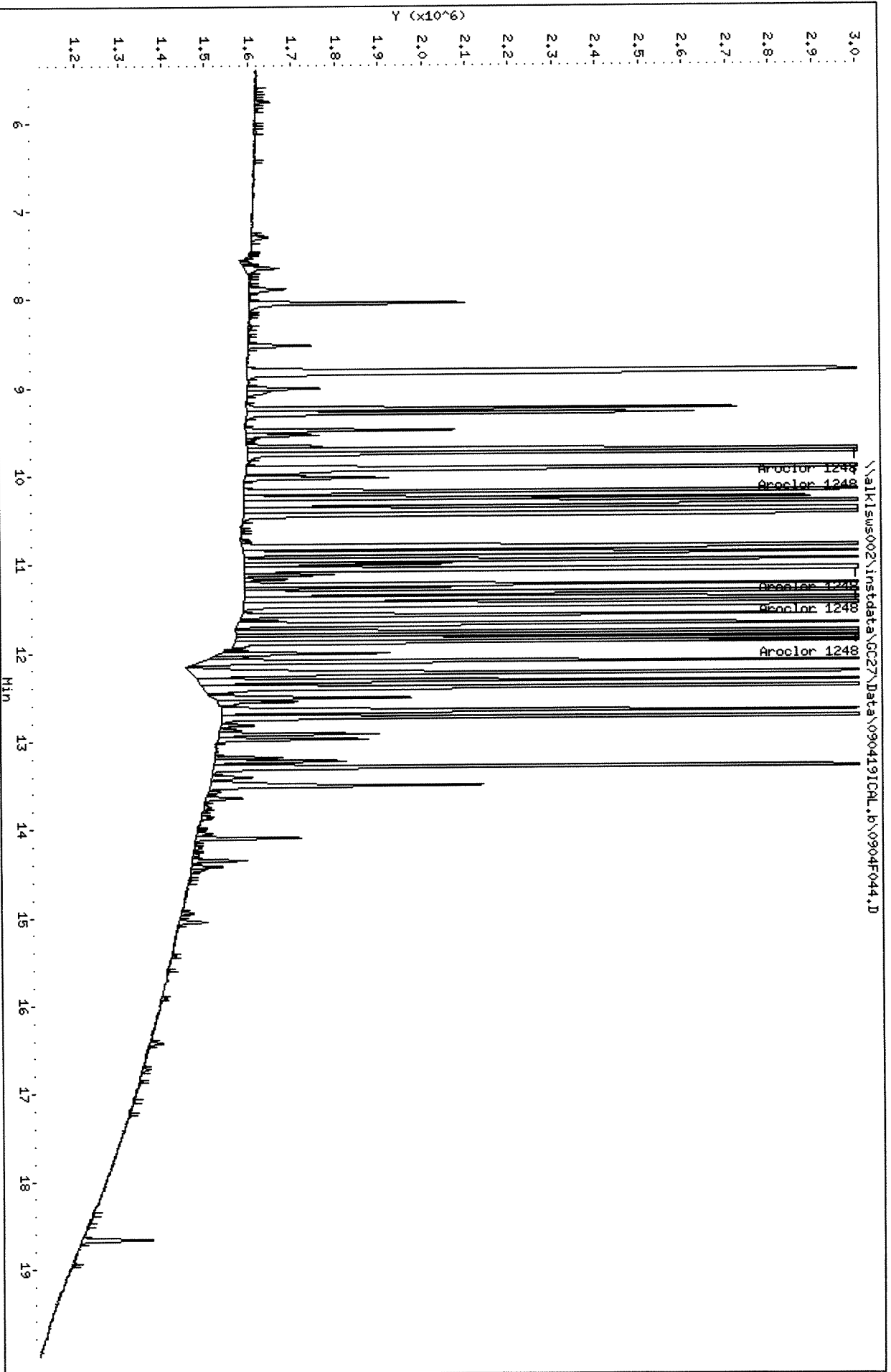
Sample Info: PCB7-91A 1248 @ 200 PPB

Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Data File: \\alk1sus002\instdata\GC27\Data\090419ICL_r.b\0904F044.D

Date: 05-SEP-2019 15:05

Client ID:

Sample Info: PCB7-91A 1248 @ 200 PPB

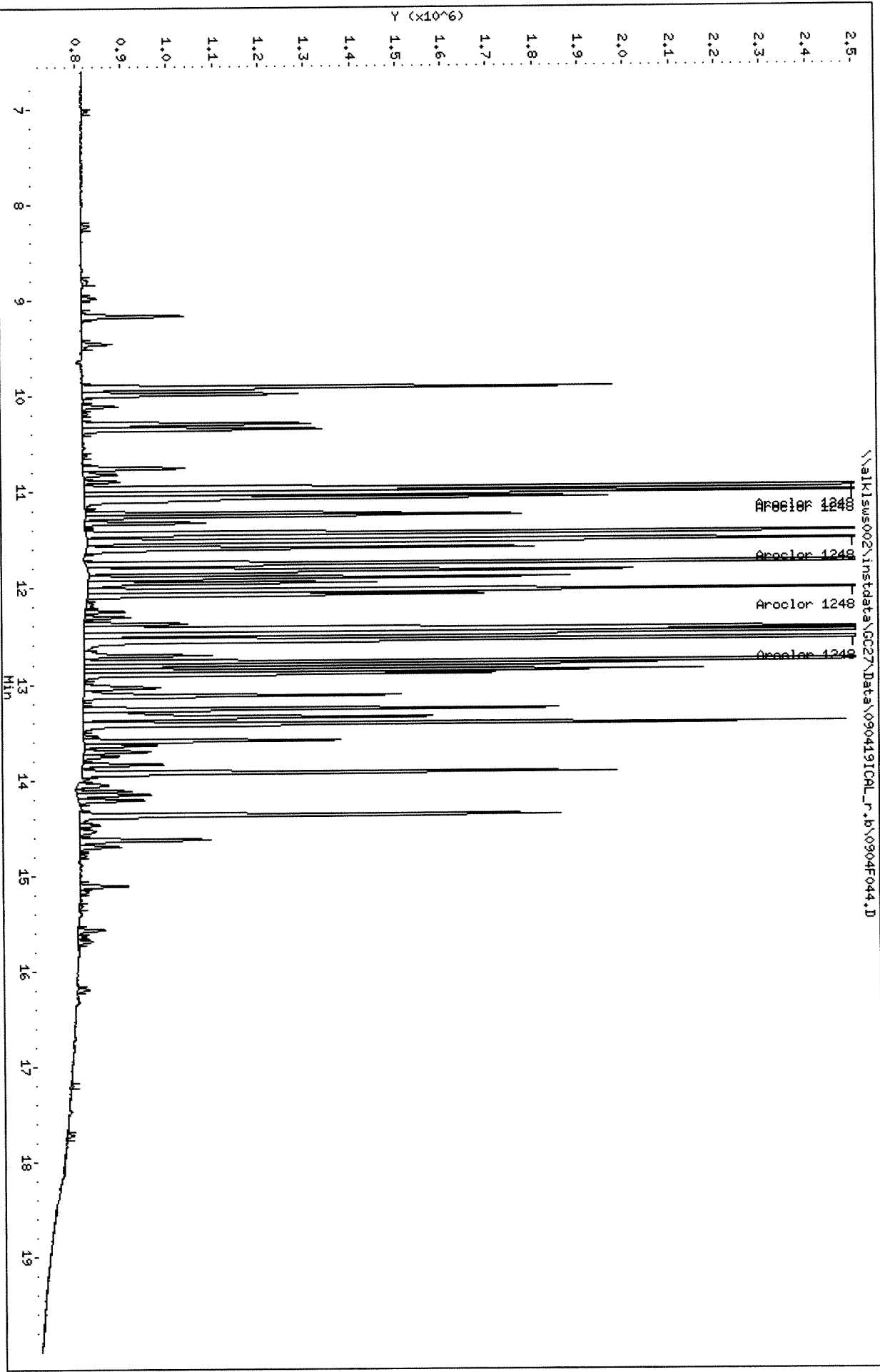
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alk1sus002\instdata\GC27\Data\090419ICL_r.b\0904F044.D



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F045.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F045.D
 Inj Date : 05-SEP-2019 15:37
 Sample Info: PCB8-14C 1016 ICV @ 20 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:38
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : AR1016.sub
 Sub List #2 : AR1016.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1016	8.054	9.164	667924	310366	19.6	20.6	80.00- 120.00	100.00
	9.304	9.914	512469	431887	18.3	19.6	66.06- 99.09	76.73
	9.747	11.064	1574315	483142	18.1	20.0	210.14- 315.22	235.70
	9.927	11.514	942012	340281	18.4	19.1	122.22- 183.34	141.04
	10.314	11.751	633823	336966	18.0	20.0	84.59- 126.89	94.89
	Average of Peak Amounts =				18.5	19.9		

SA 9/11/19
 W

Data File: \\alklisms002\instdata\GC27\Data\090419ICL.b\0904F045.D

Date : 05-SEP-2019 15:37

Client ID:

Sample Info: PCB8-14C 1016 ICV @ 20 PPB

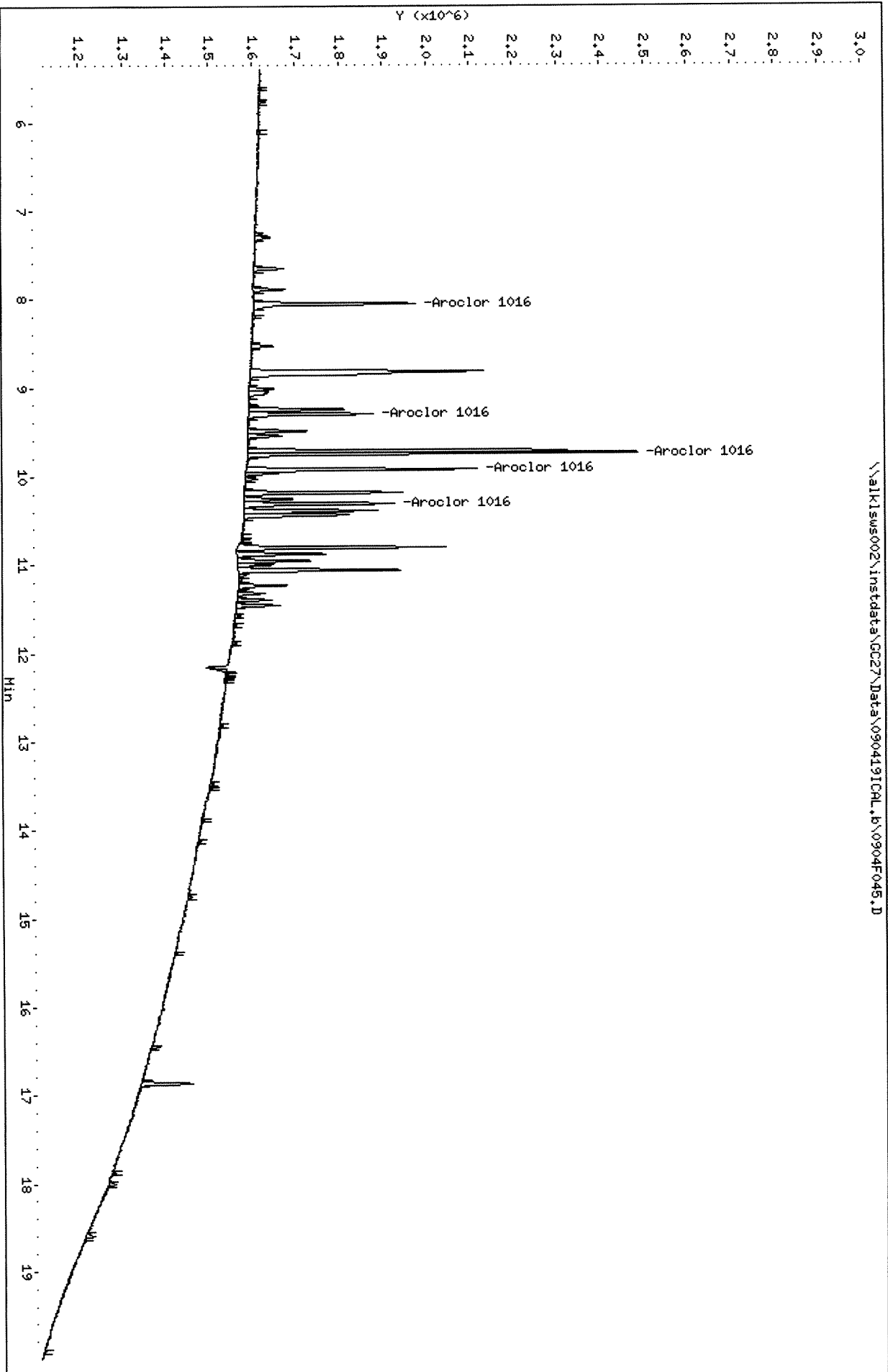
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alklisms002\instdata\GC27\Data\090419ICL.b\0904F045.D



Data File: \\alk1s002\instdata\GC27\Data\090419ICL_r.jb\0904F045.D

Date : 05-SEP-2019 15:37

Client ID:

Sample Info: PCB8-14C 1016 ICV @ 20 PPB

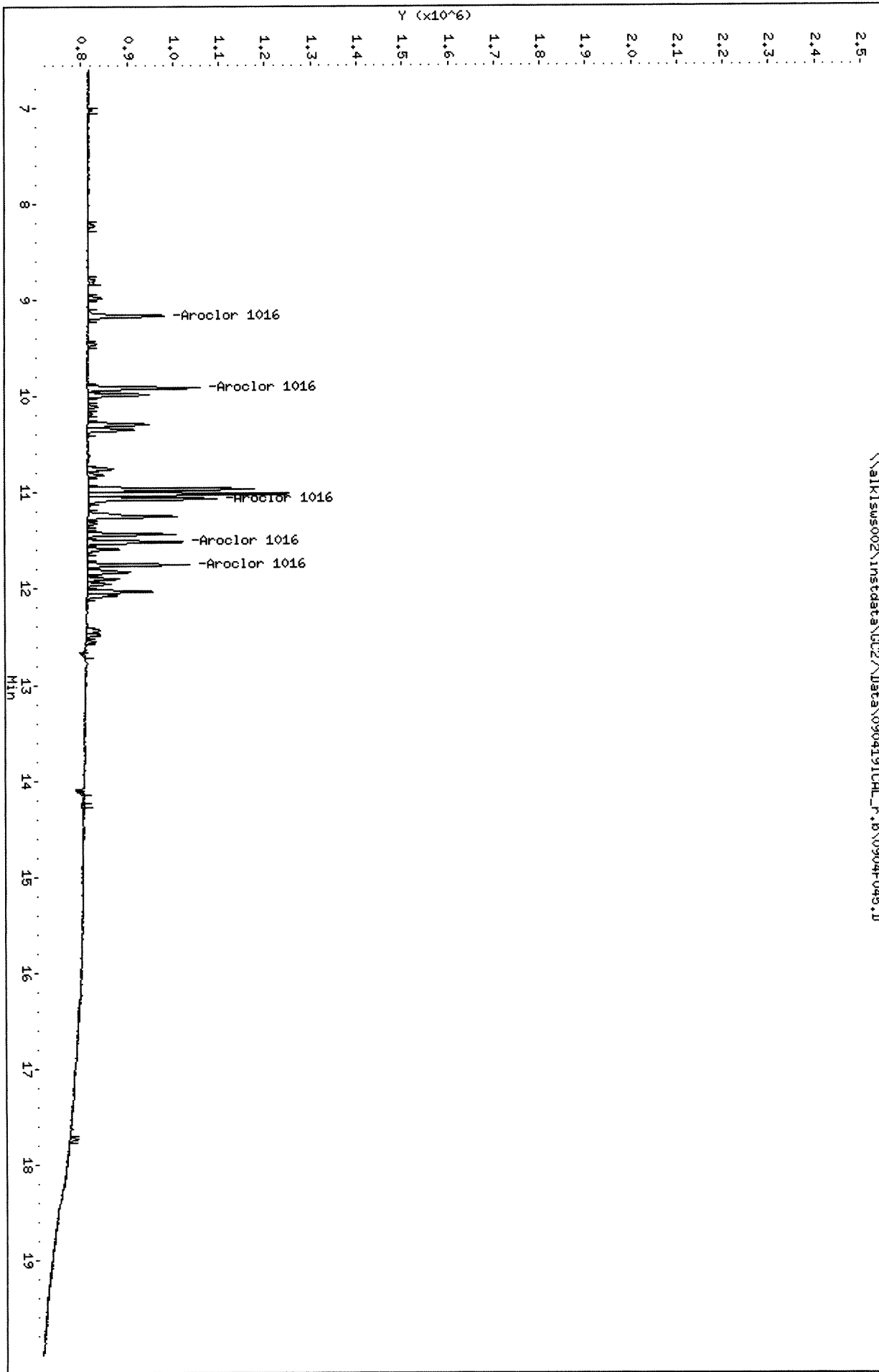
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alk1s002\instdata\GC27\Data\090419ICL_r.jb\0904F045.D



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F046.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F046.D
Inj Date : 05-SEP-2019 16:08
Sample Info: PCB8-14D 1221 ICV @ 20 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : AR1221.SUB
Sub List #2 : AR1221.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

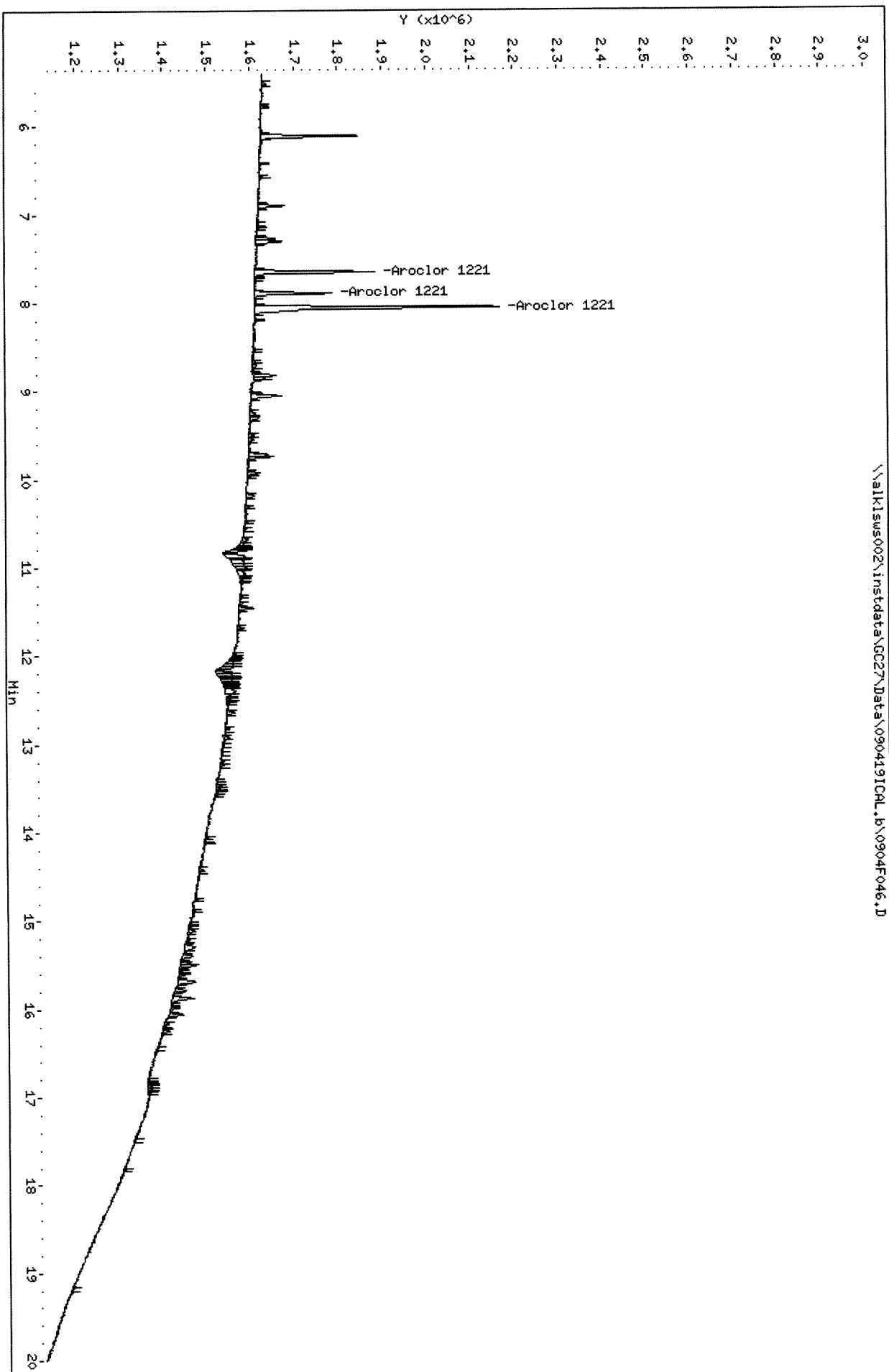
Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1221	7.655	8.825	451477	127589	19.6	19.6	80.00- 120.00	100.00
	7.892	8.979	287870	132945	19.7	20.6	50.93- 76.39	63.76
	8.055	9.165	1064560	517248	19.4	20.8	190.33- 285.49	235.79
	Average of Peak Amounts =				19.6	20.3		

SA 9/11/19
W

Data File: \\alkisw002\instdata\GC27\Data\090419ICL.b\0904F046.D
Date : 05-SEP-2019 16:08
Client ID:
Sample Info: PCB8-14D 1221 ICV @ 20 PPB
Column phase: DB-35MS

Instrument: GC27.1
Operator: SAA
Column diameter: 0.32

\\alkisw002\instdata\GC27\Data\090419ICL.b\0904F046.D



Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F046.D

Date : 05-SEP-2019 16:08

Client ID:

Sample Info: PCB8-14D 1221 ICV @ 20 PPB

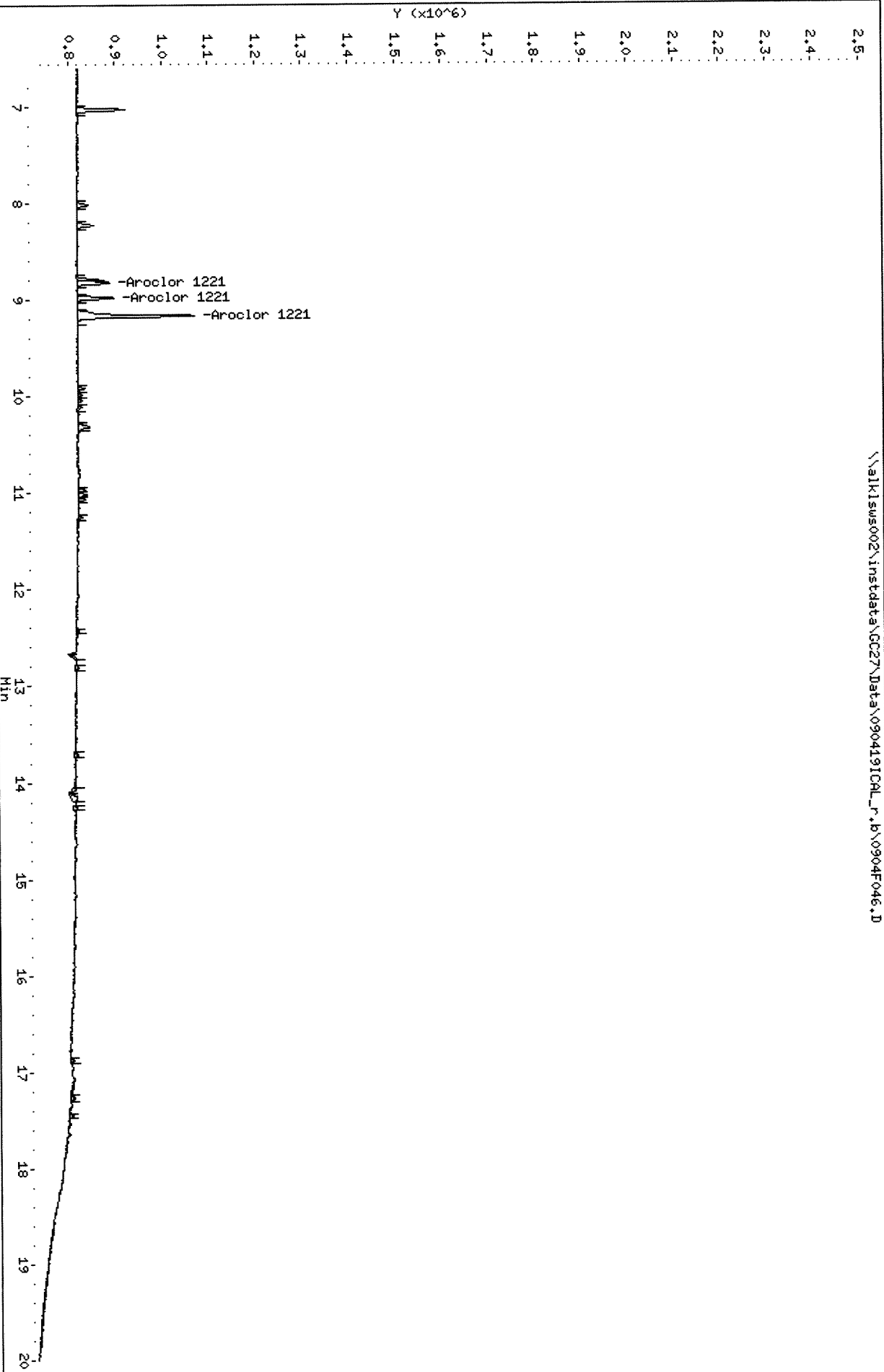
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F046.D



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F047.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F047.D
 Inj Date : 05-SEP-2019 16:40
 Sample Info: PCB8-14E 1232 ICV @ 20 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:38
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : AR1232.SUB
 Sub List #2 : AR1232.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1232	7.655	9.169	247910	379287	15.9	19.3	80.00- 120.00	100.00 (M)
	8.059	9.916	797692	216235	17.0	19.8	234.25- 351.38	321.77 (M)
	8.825	10.296	712888	143191	18.8	19.5	205.56- 308.34	287.56 (M)
	9.305	10.966	259047	301237	18.8	19.9	76.03- 114.04	104.49 (M)
	9.929	11.016	472927	346666	17.9	19.8	137.78- 206.67	190.77 (M)
	Average of Peak Amounts =				17.7	19.7		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
W

Data File: \\alkisus002\instdata\GC27\Data\090419ICAL.b\0904F047.D

Date: 05-SEP-2019 16:40

Client ID:

Sample Info: PCB8-14E 1232 ICV @ 20 PPB

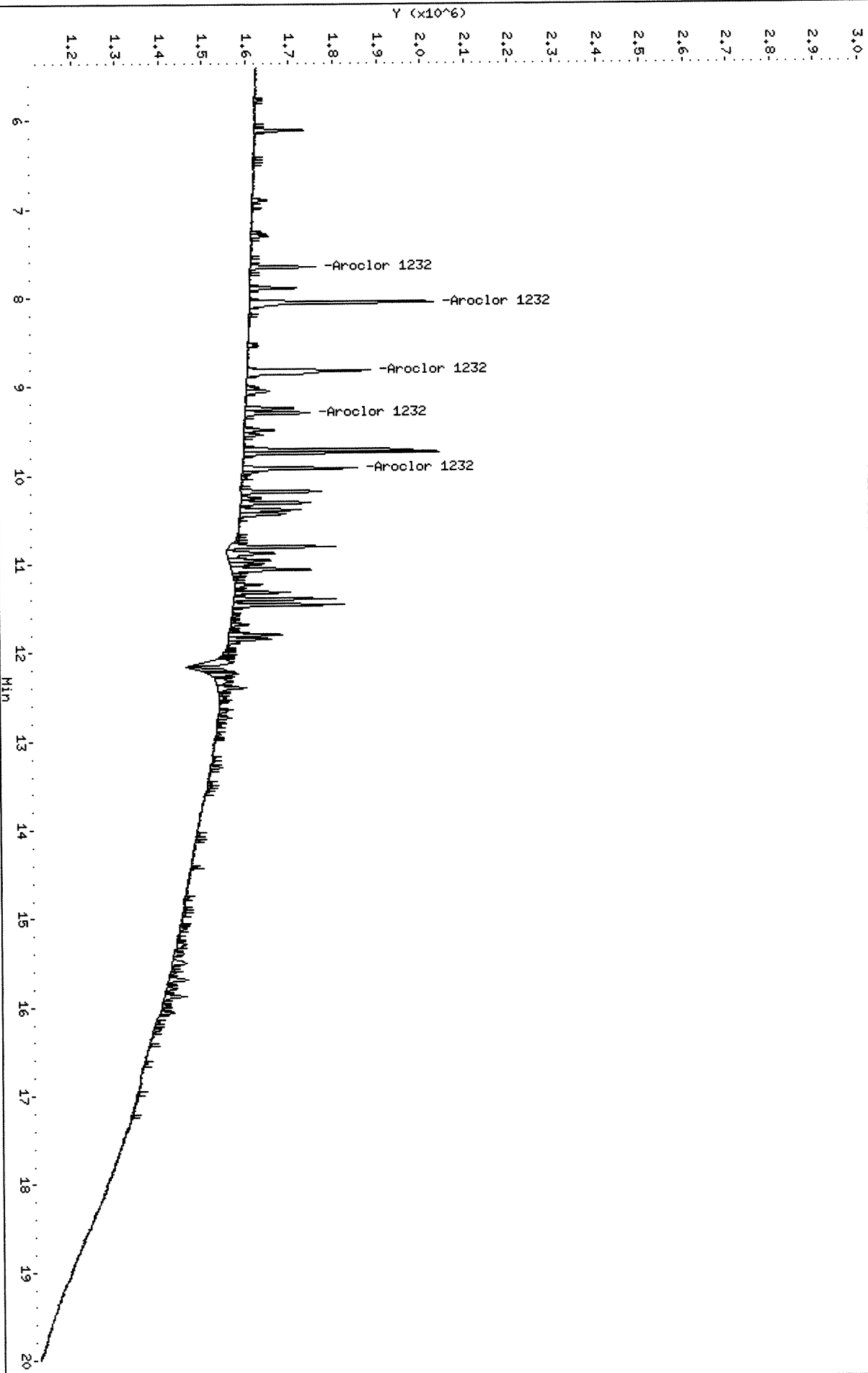
Column phase: DB-35MS

Instrument: GC27.1

Operator: SAA

Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL.b\0904F047.D



Data File: \\alkisus002\instdata\GC27\Data\090419ICL_r.b\0904F047.D
Date: 05-SEP-2019 16:40

Client ID:

Sample Info: PCB8-14E 1232 ICV @ 20 PPB

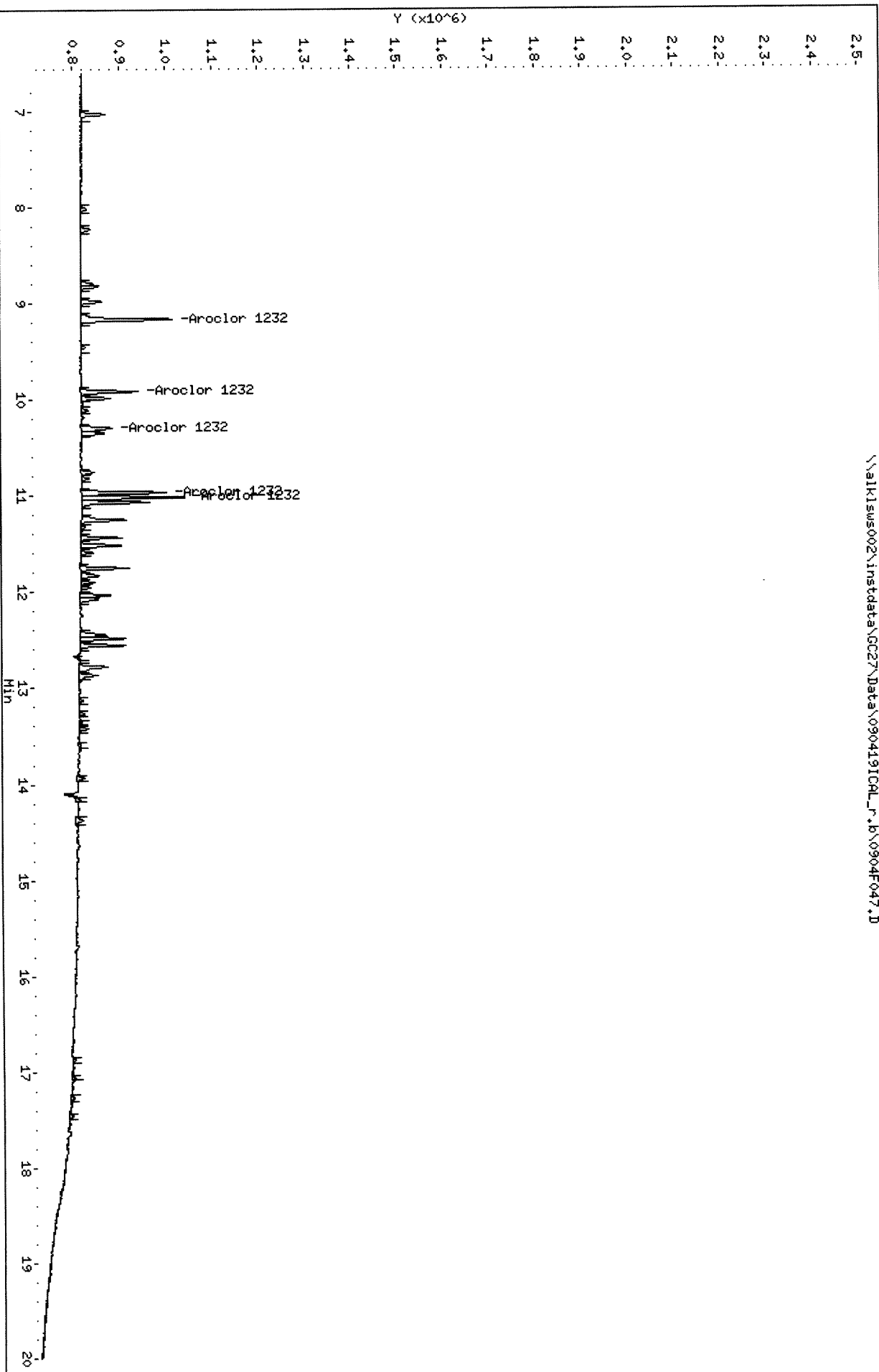
Column phase: DB-XLB

Instrument: GC27.1

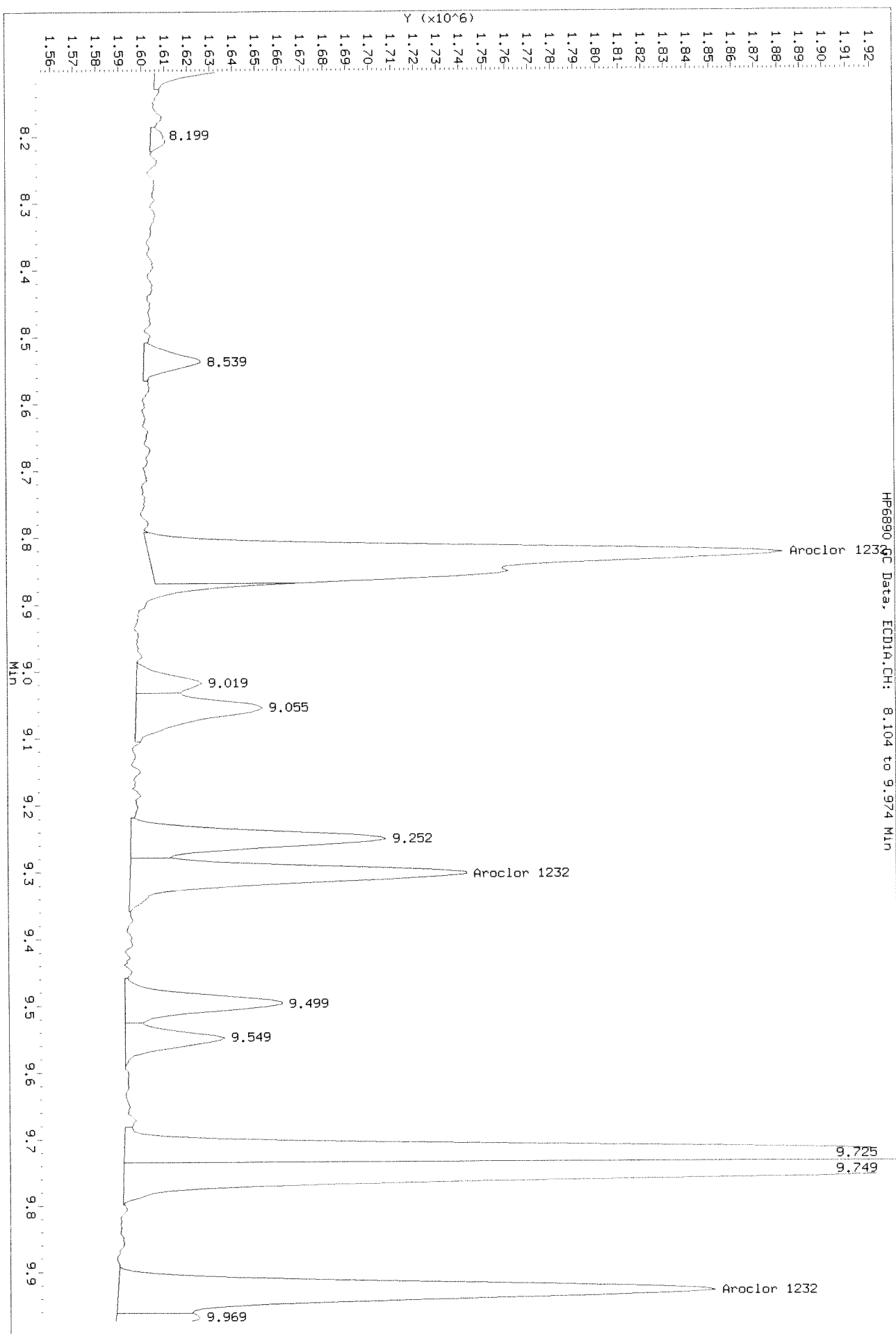
Operator: SAA

Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICL_r.b\0904F047.D



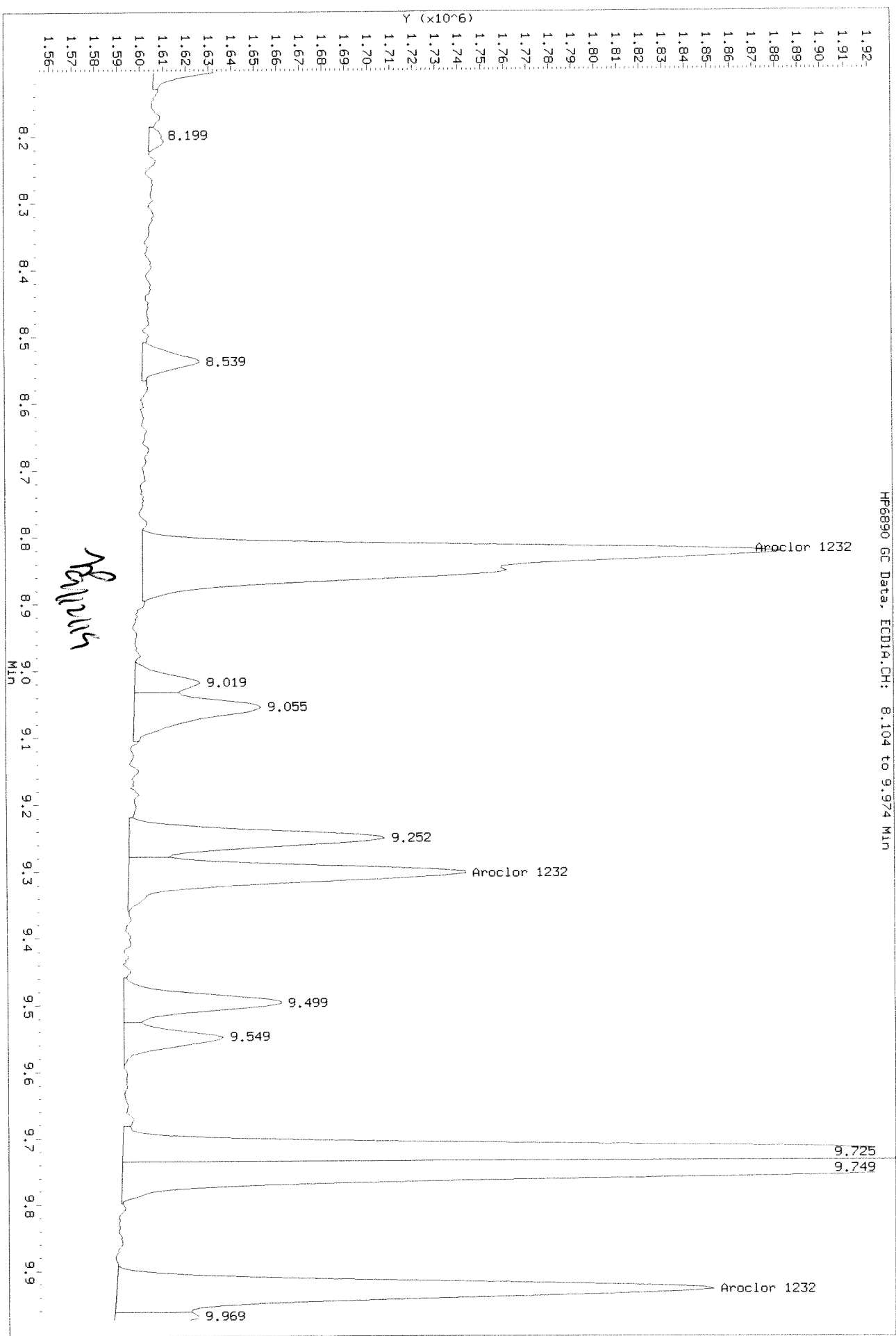
Before



Data File: \\alkisw002\jnetdata\GC27\Data\090419ICAL.b\0904F047.D
Injection Date: 05-SEP-2019 16:40
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data: ECD1A.CH: 8.104 to 9.974 MIN

After baseline 9/11/11 A



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F049.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F049.D
Inj Date : 05-SEP-2019 17:43
Sample Info: PCB8-14G 1248 ICV @ 20 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : 48.SUB
Sub List #2 : 48.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1248	9.745	10.966	742094	429972	17.8	20.1	80.00- 120.00	100.00 (M)
	9.929	11.016	530847	381747	18.7	20.7	55.92- 83.88	71.53 (M)
	11.065	11.516	907263	450327	17.3	18.7	99.65- 149.47	122.26 (M)
	11.325	12.029	646480	344458	17.2	18.3	75.25- 112.88	87.12 (M)
	11.802	12.552	559096	528325	16.9	18.4	66.29- 99.44	75.34 (M)
Average of Peak Amounts =					17.6	19.2		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
P

Data File: \\alkisus002\instdata\GC27\Data\090419ICAL.b\0904F049.D

Date: 05-SEP-2019 17:43

Client ID:

Sample Info: PCB8-140 1248 ICV @ 20 PPB

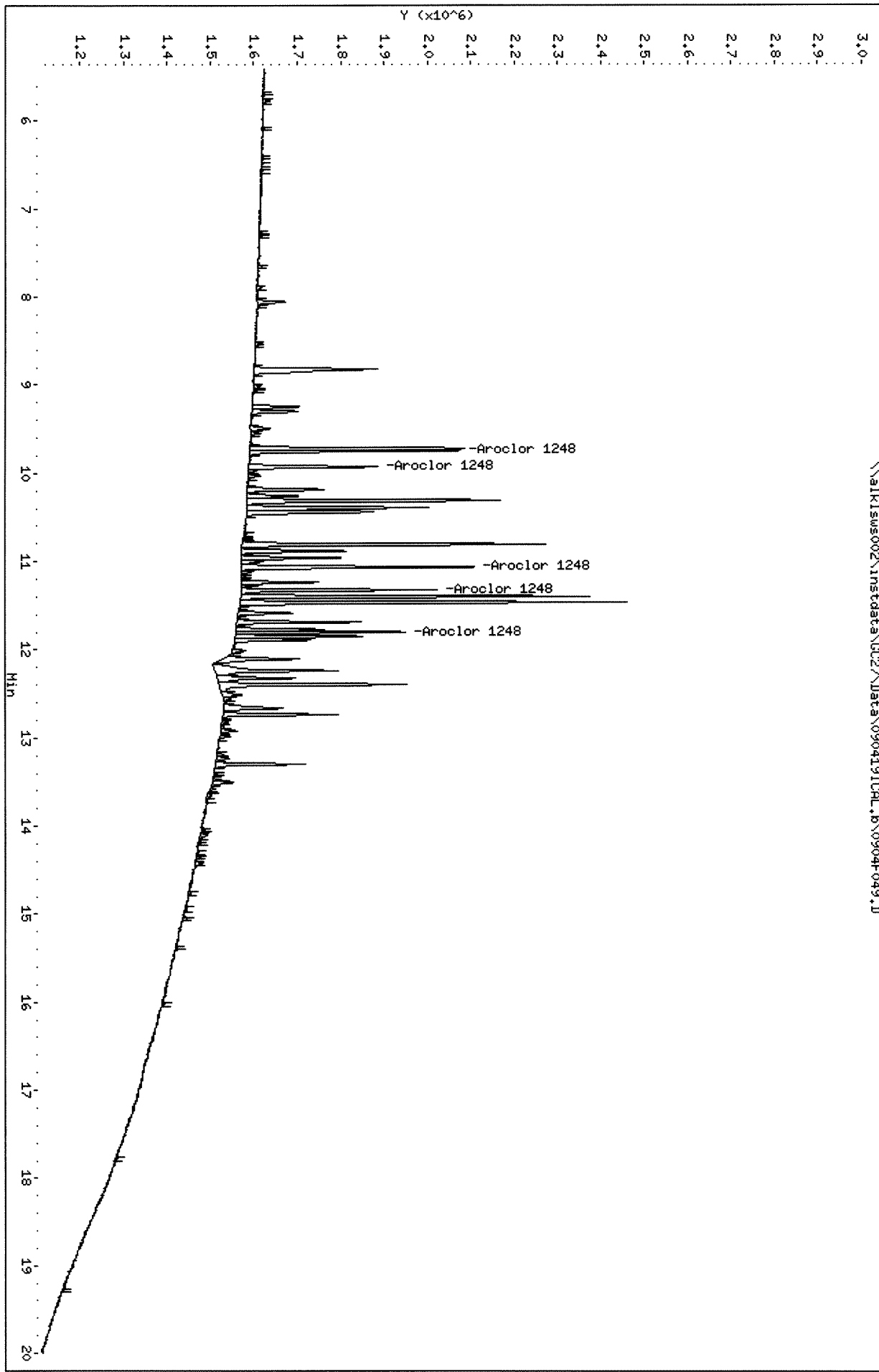
Column phase: DB-35MS

Instrument: GC27.1

Operator: SAA

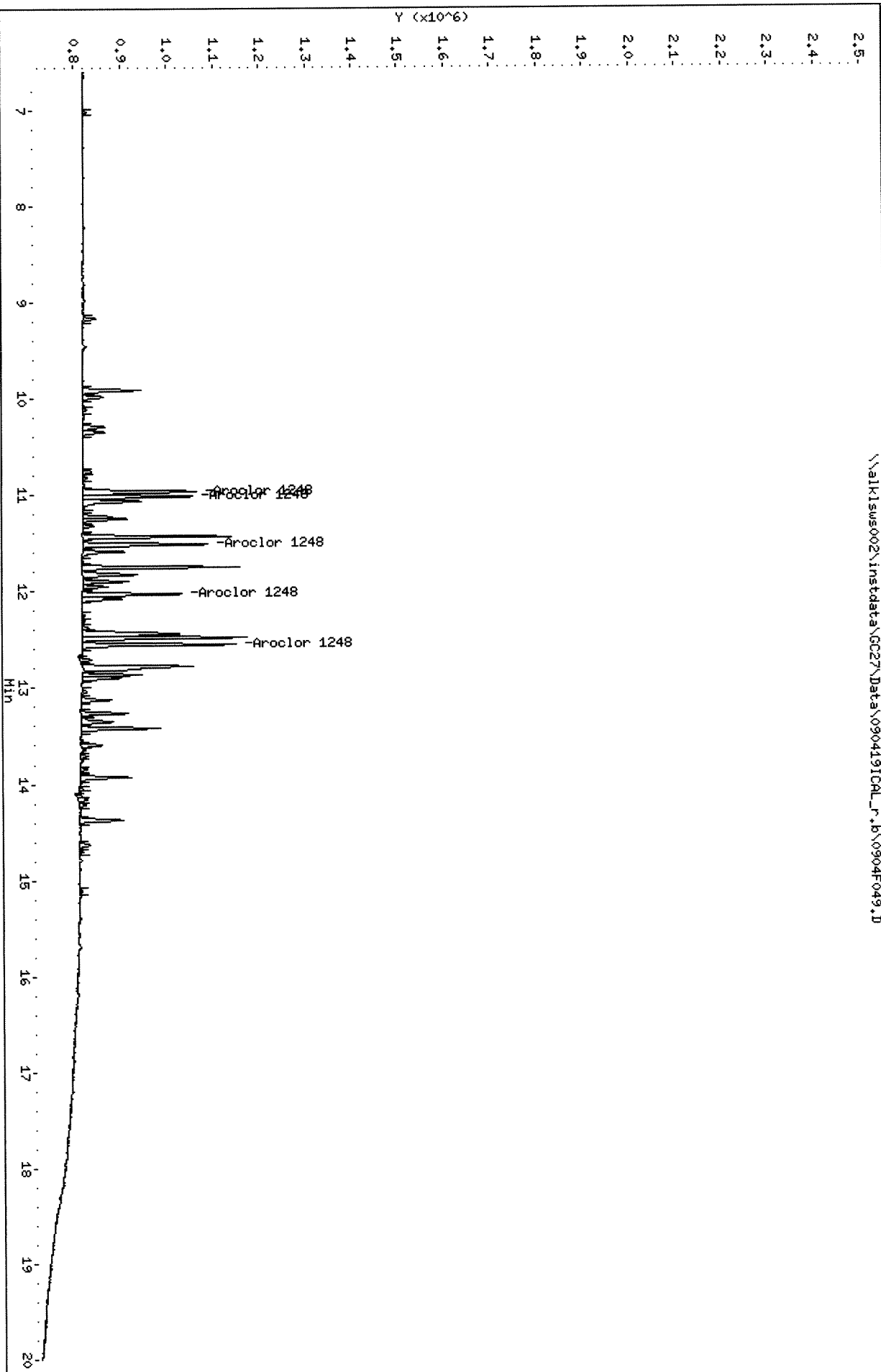
Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL.b\0904F049.D



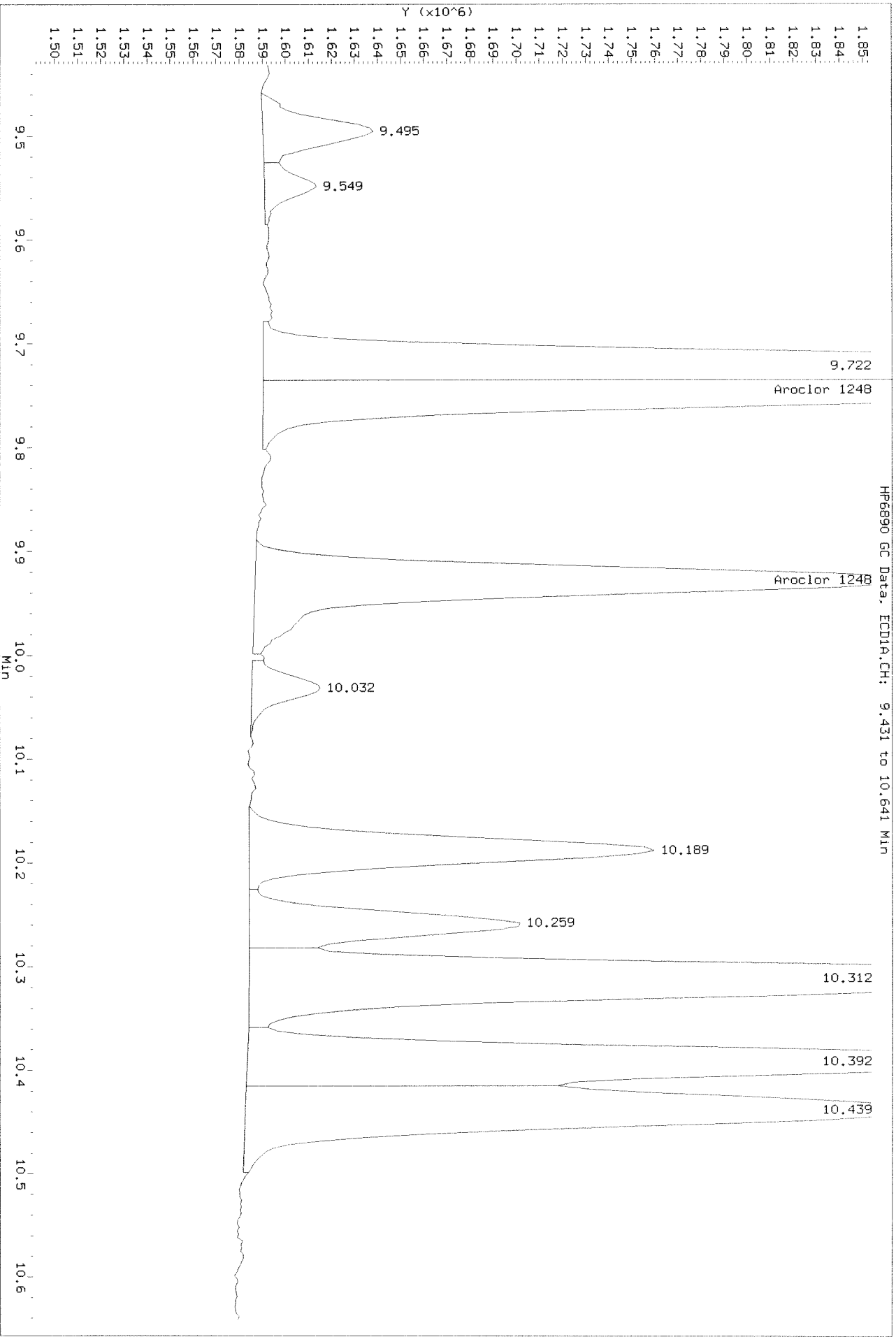
Data File: \\alk1sus002\instdata\GC27\Data\090419ICAL_r.b\0904F049.D
Date : 05-SEP-2019 17:43
Client ID:
Sample Info: PCB8-146 1248 ICV @ 20 PPB
Column phase: DB-XLB

Instrument: GC27.1
Operator: SAA
Column diameter: 0.32



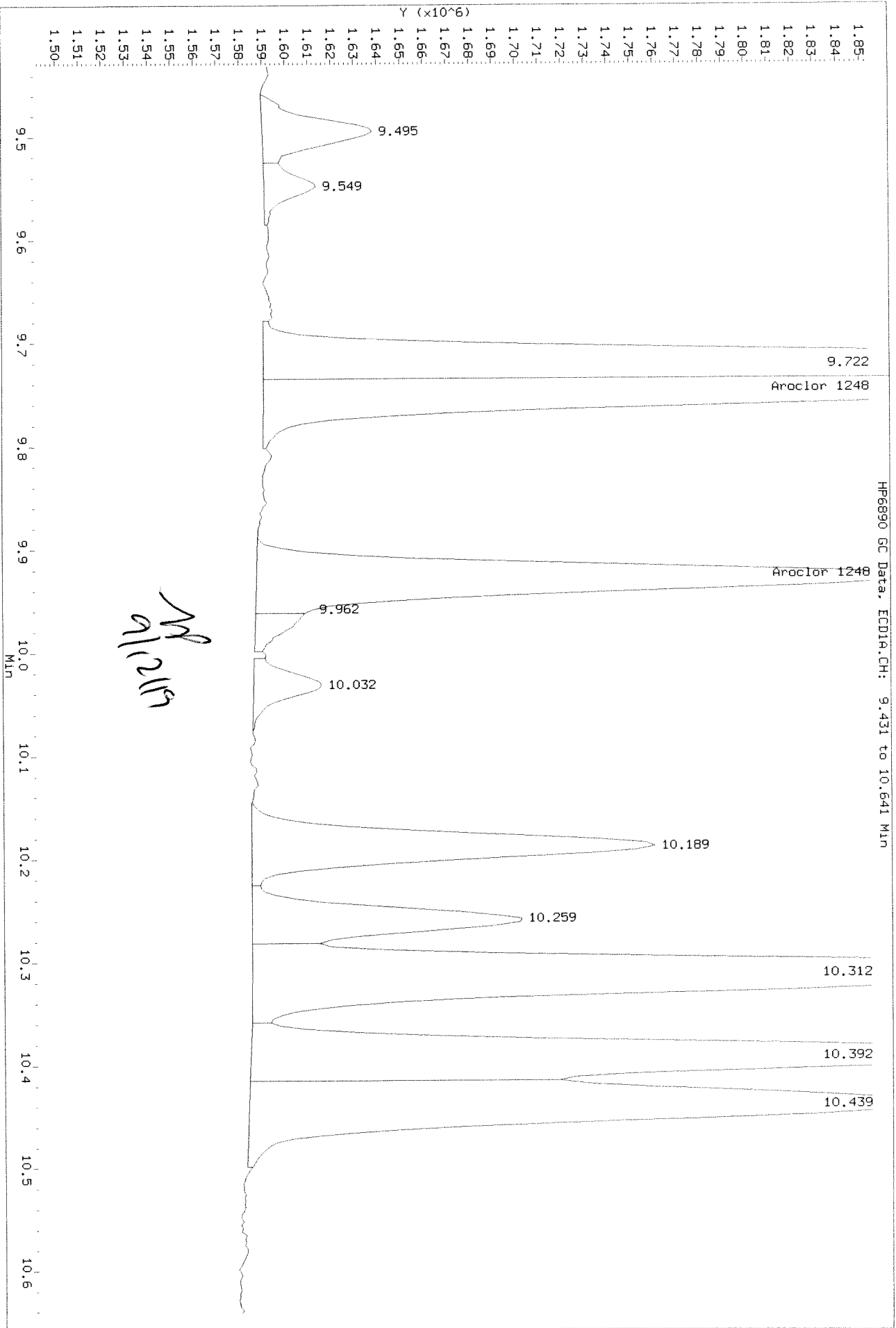
Data File: \\alklsws002\jnet\data\GC27\Data\090419ICAL.b\0904F049.D
Injection Date: 09-SEP-2019 17:43
Instrument: GC27.1
Client Sample ID:

Before



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.P\0904F049.D
Injection Date: 05-SEP-2019 17:43
Instrument: GC27.1
Client Sample ID:

After shoulder 9/11/19 SA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F050.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F050.D
Inj Date : 05-SEP-2019 18:15
Sample Info: PCB8-14H 1254 ICV @ 20 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : AR1254.SUB
Sub List #2 : AR1254.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1254	11.774	12.427	740022	631871	20.5	19.6	80.00- 120.00	100.00 (M)
	12.240	12.484	1352915	292177	21.6	17.2	137.86- 206.79	182.82 (M)
	12.397	12.807	2260556	968629	18.3	19.6	268.82- 403.23	305.47 (M)
	12.737	12.900	1390713	322886	19.1	21.0	164.76- 247.13	187.93 (M)
	13.300	14.374	861656	487038	18.9	20.1	106.40- 159.60	116.44 (M)
			Average of Peak Amounts =		19.7	19.5		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
W

Data File: \\aik1sws002\instdata\GC27\Data\090419ICAL.b\0904F050.D

Date : 05-SEP-2019 18:15

Client ID:

Sample Info: PCB8-14H 1254 ICV @ 20 PPB

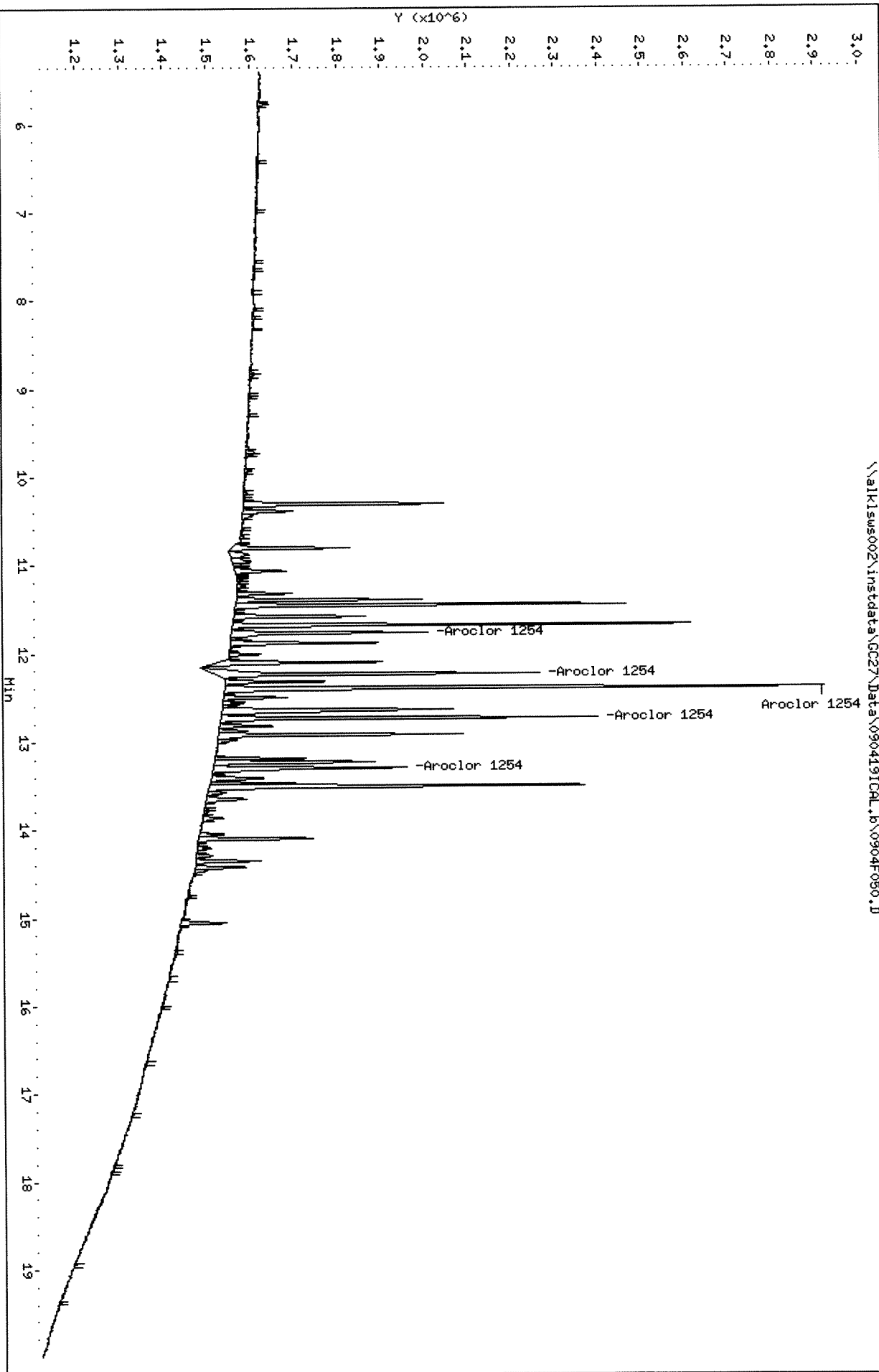
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\aik1sws002\instdata\GC27\Data\090419ICAL.b\0904F050.D



Data File: \\alk1sws002\instdata\GC27\Data\090419ICL_r.b\0904F050.D

Date : 05-SEP-2019 18:15

Client ID:

Sample Info: PCB8-14H 1254 ICV @ 20 PPB

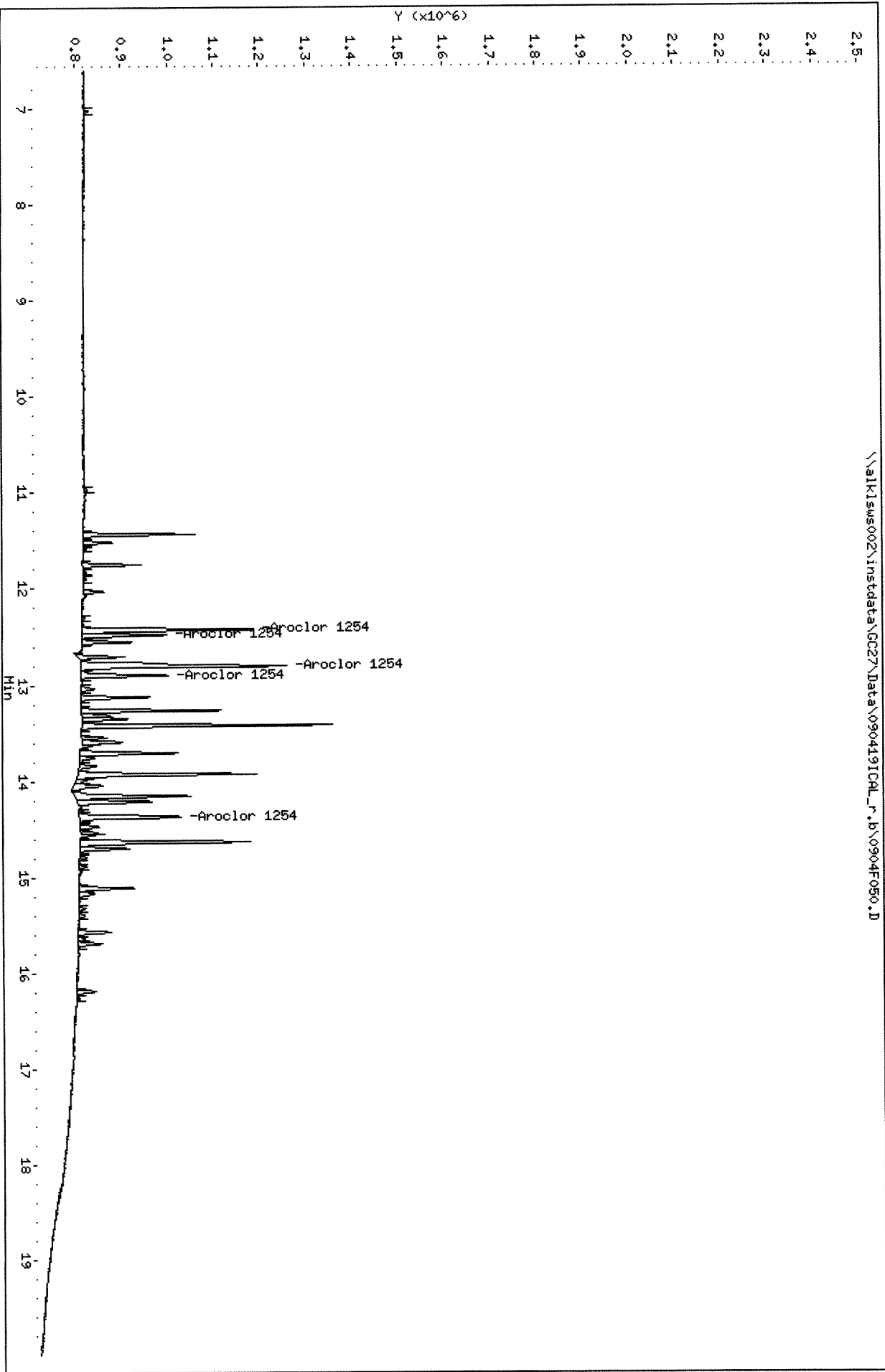
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

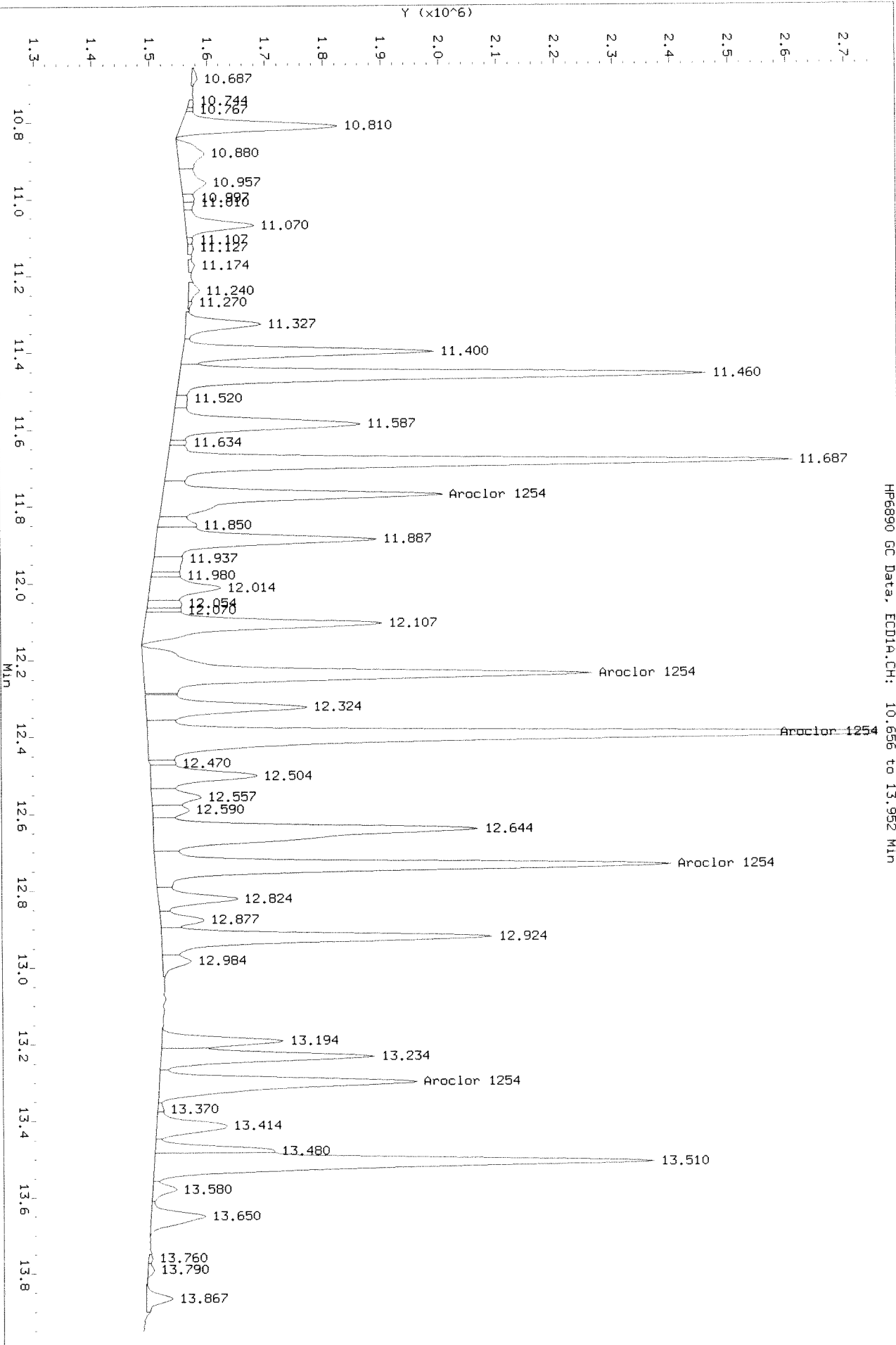
Column diameter: 0.32

\\alk1sws002\instdata\GC27\Data\090419ICL_r.b\0904F050.D



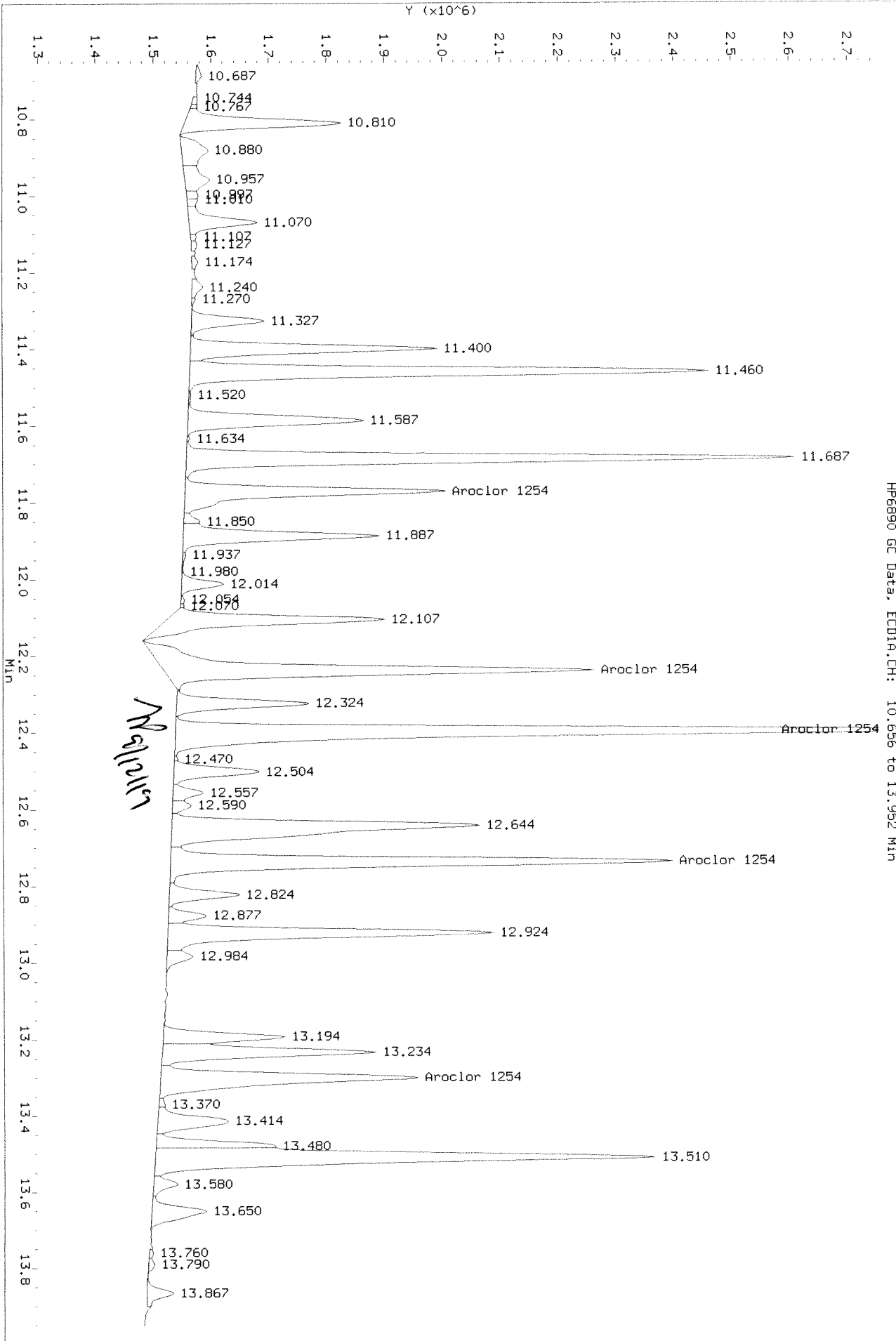
HP6890 GC Data, ECD1A.CH: 10.656 to 13.952 MIN

Before



HP6890 GC Data, ECD1A.CH: 10.656 to 13.952 MIN

After baseline 9/11/19 SA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F051.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F051.D
 Inj Date : 05-SEP-2019 18:47
 Sample Info: PCB8-14I 1260 ICV @ 20 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:38
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : AR1260.sub
 Sub List #2 : AR1260.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1260	13.192	13.546	577980	299994	17.2	21.1	80.00- 120.00	100.00
	13.579	14.793	1010369	492571	21.7	21.5	111.33- 167.00	174.81
	14.052	15.163	1024999	467240	20.4	20.8	117.15- 175.73	177.34
	14.426	15.689	2130039	973655	20.1	20.5	251.10- 376.65	368.53
	15.056	16.193	1535033	600740	19.3	20.4	184.28- 276.42	265.59
Average of Peak Amounts =					19.7	20.9		

SA 9/11/19
W

Data File: \\alk1s002\instdata\GC27\Data\090419ICL.b\0904F051.D
Date : 05-SEP-2019 18:47

Client ID:

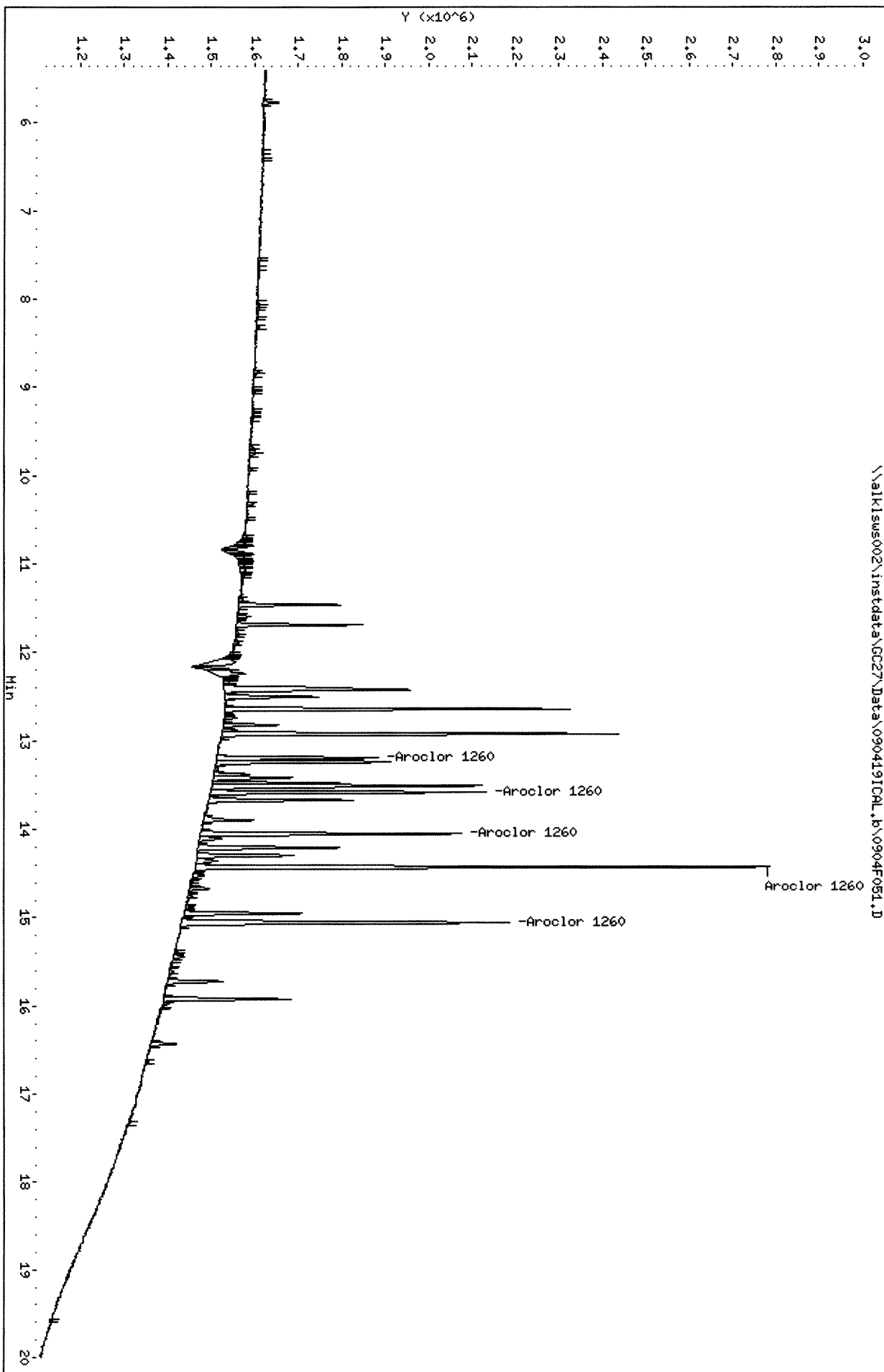
Sample Info: PCB8-141 1260 ICV @ 20 PPB

Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Data File: \\alkisus002\instdata\GC27\Data\090419ICL_r.b\0904F051.D

Date: 05-SEP-2019 18:47

Client ID:

Sample Info: PCB8-141 1260 ICV @ 20 PPB

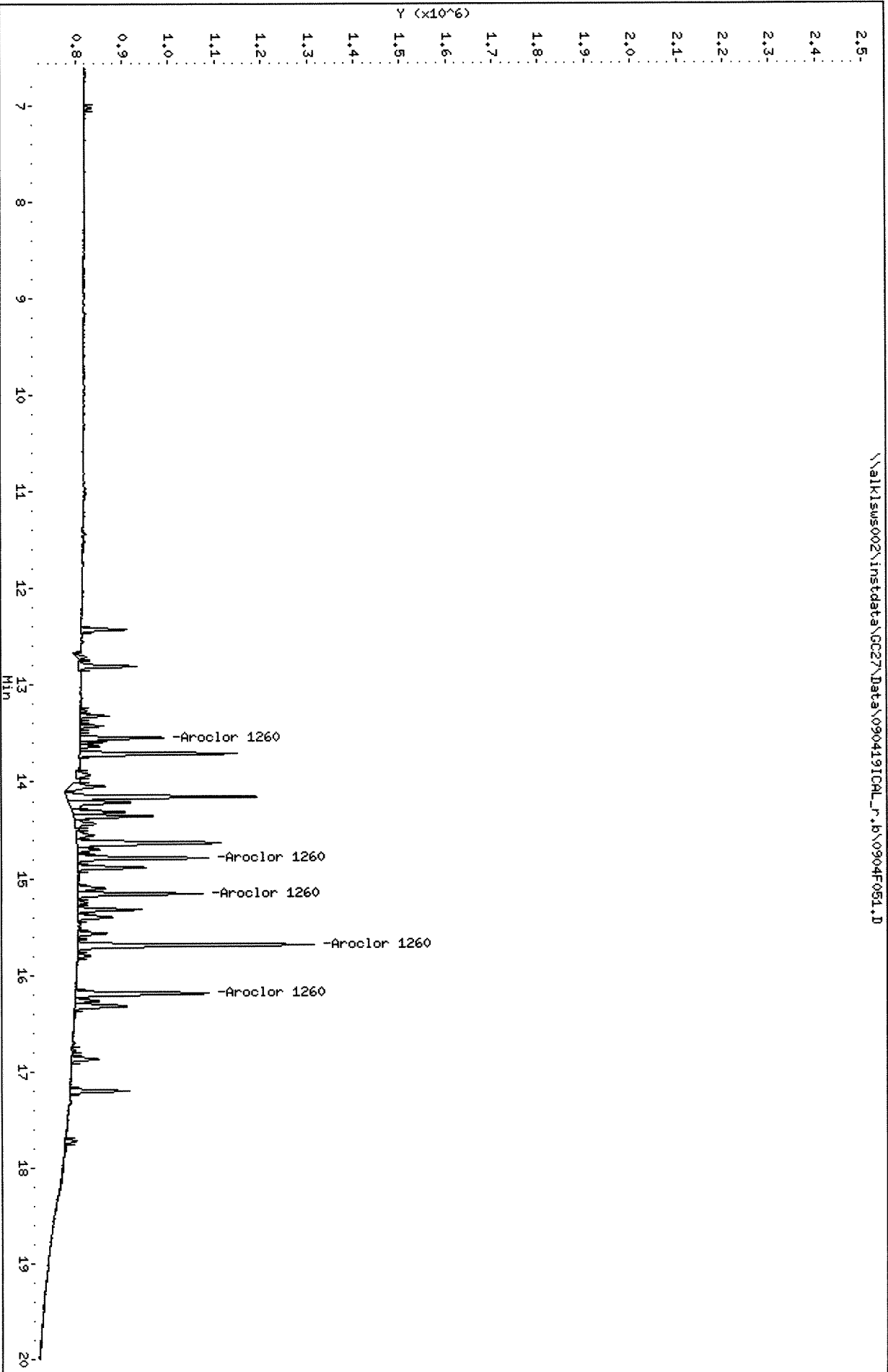
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAH

Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICL_r.b\0904F051.D



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F052.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F052.D
Inj Date : 05-SEP-2019 19:19
Sample Info: PCB8-14J 1262 ICV @ 20 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

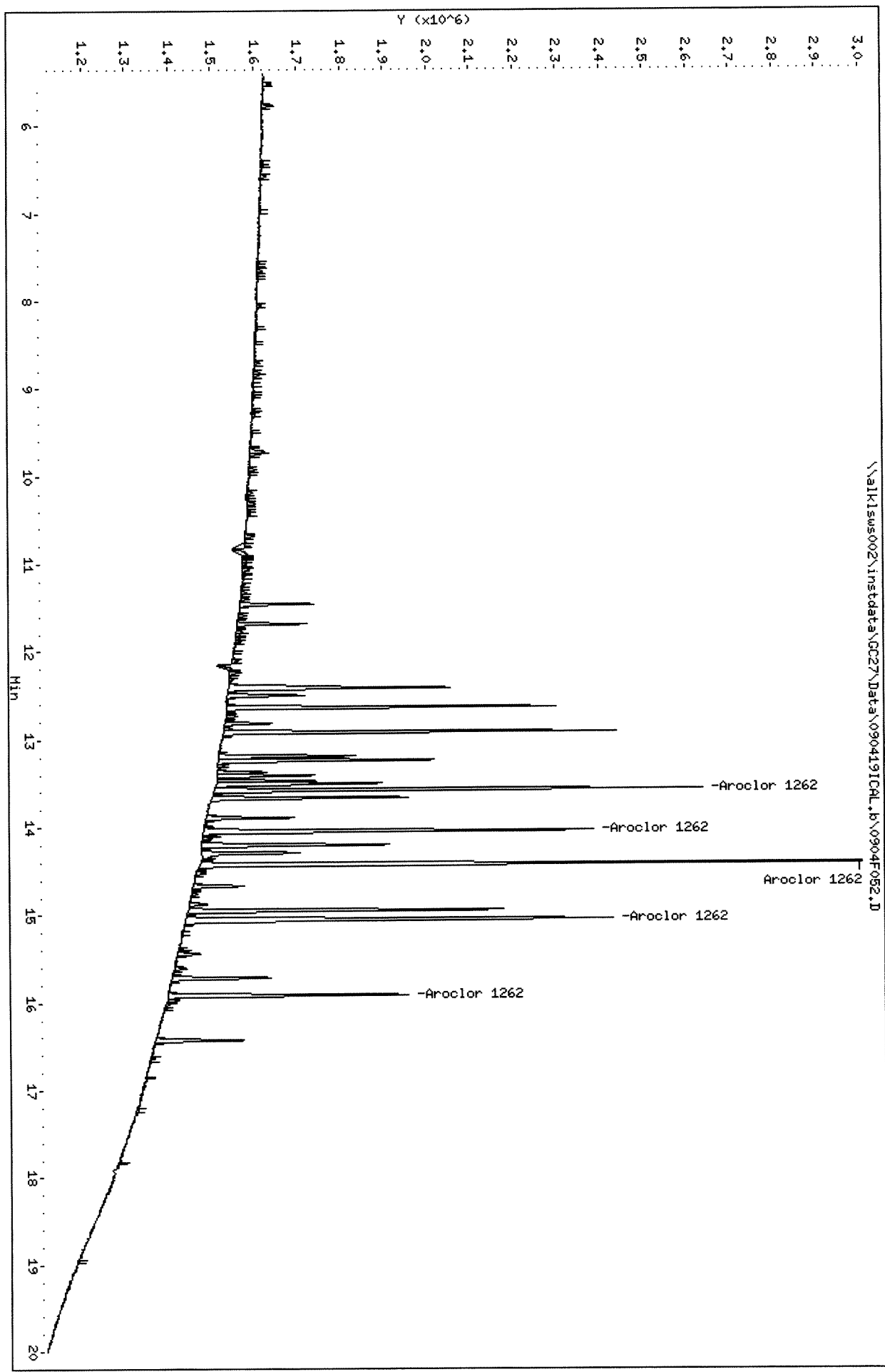
Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : AR1262.SUB
Sub List #2 : AR1262.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1262	13.579	14.789	1796454	837613	19.2	19.7	80.00- 120.00	100.00
	14.049	15.162	1611922	665696	19.4	20.5	71.44- 107.17	89.73
	14.425	15.692	2882581	1291238	19.0	19.7	135.47- 203.20	160.46
	15.052	16.199	2127617	901476	19.3	20.5	96.75- 145.12	118.43
	15.919	17.202	933006	450854	19.5	19.8	43.01- 64.52	51.94
			Average of Peak Amounts =		19.3	20.0		

SA 9/11/19
JP

Data File: \\alklsws002\instdata\GC27\Data\090419ICL.b\0904F052.D
Date : 05-SEP-2019 19:19
Client ID:
Sample Info: PCB8-14J 1262 ICV @ 20 PPB
Column phase: DB-35MS

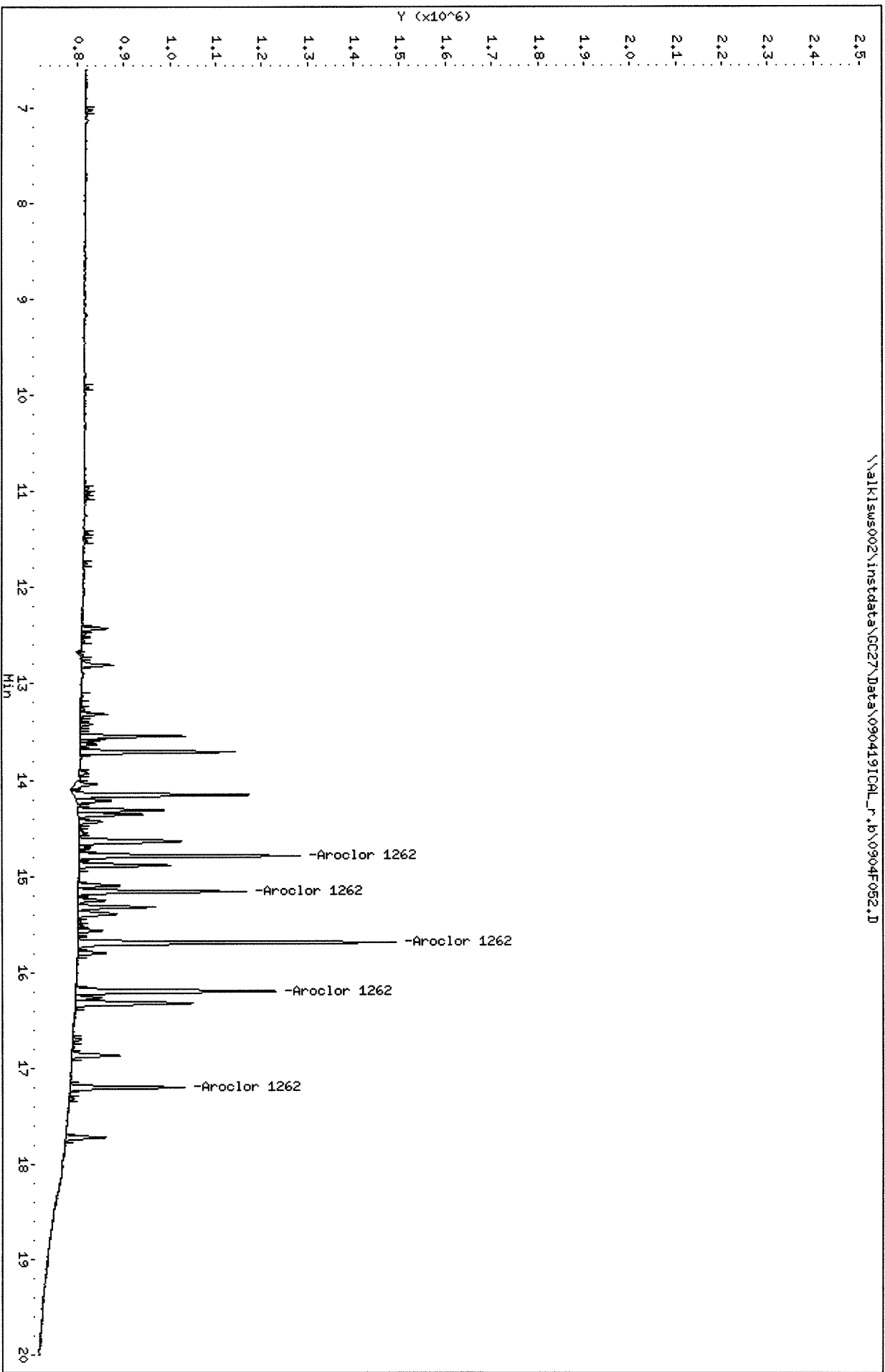
Instrument: GC27.i
Operator: SAA
Column diameter: 0.32



Data File: \\alk1sws002\instdata\GC27\Data\090419ICAL_r.b\0904F052.D
Date: 05-SEP-2019 19:19
Client ID:
Sample Info: PCB8-14J 1262 ICV @ 20 PPB
Column phase: DB-XLB

Instrument: GC27.i
Operator: SAA
Column diameter: 0.32

\\alk1sws002\instdata\GC27\Data\090419ICAL_r.b\0904F052.D



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F003.D
Report Date: 11-Sep-2019 09:54

ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F003.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F003.D
Inj Date : 09-SEP-2019 11:52
Sample Info: IB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : ALL.SUB
Sub List #2 : ALL.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.975	0.000	5506	0	0.00306	0.000		100.00 (R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ST 9/11/19
JK

Data File: \\alk1sus002\instdata\GC27\Data\090419ICAL.b\0909F003.D

Date : 09-SEP-2019 11:52

Client ID:

Sample Info: IB

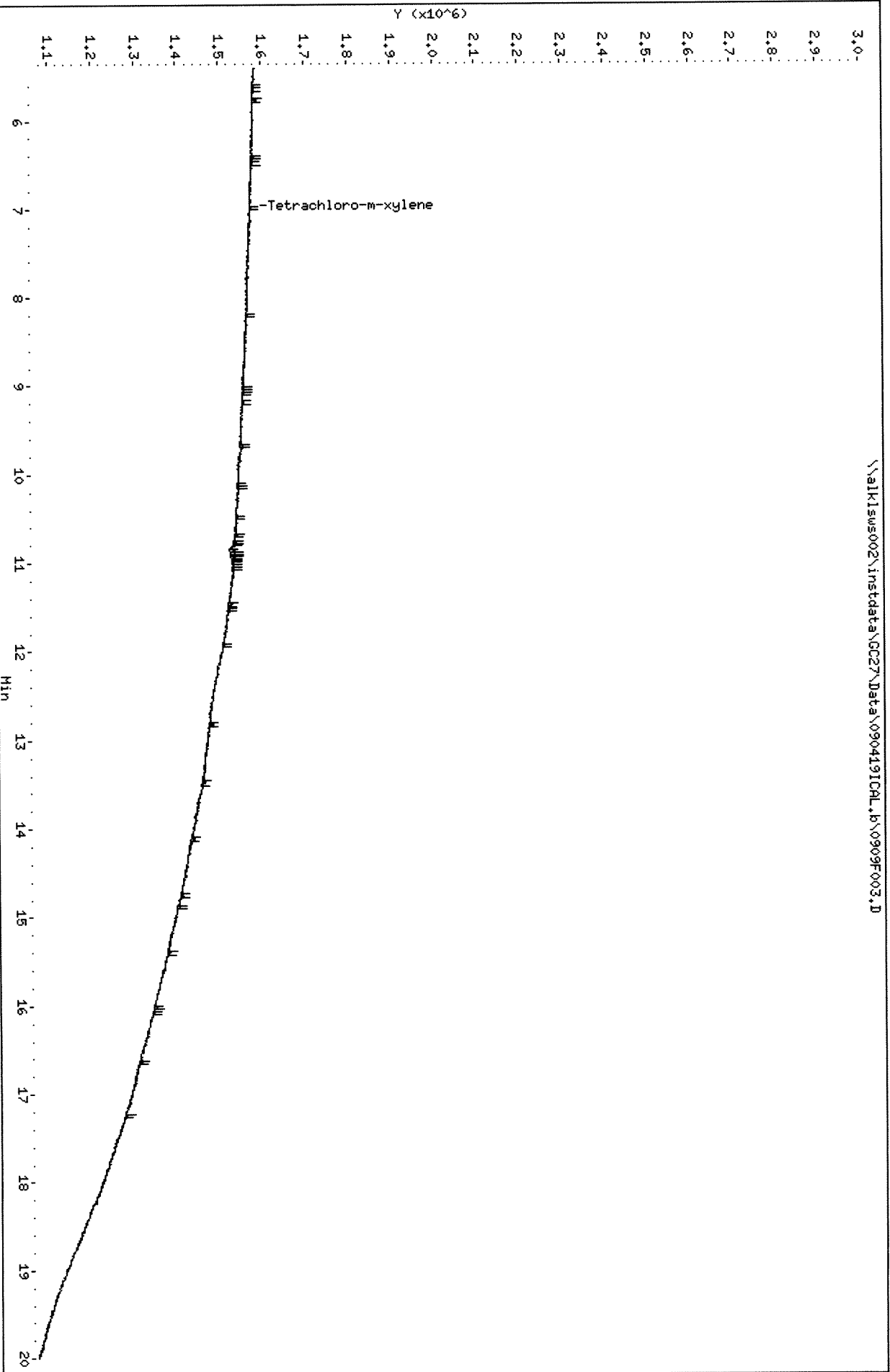
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAH

Column diameter: 0.32

\\alk1sus002\instdata\GC27\Data\090419ICAL.b\0909F003.D



Data File: \\alk1s02\instdata\GC27\Data\090419ICAL_r.b\0909F003.D

Date : 09-SEP-2019 11:52

Client ID:

Sample Info: IB

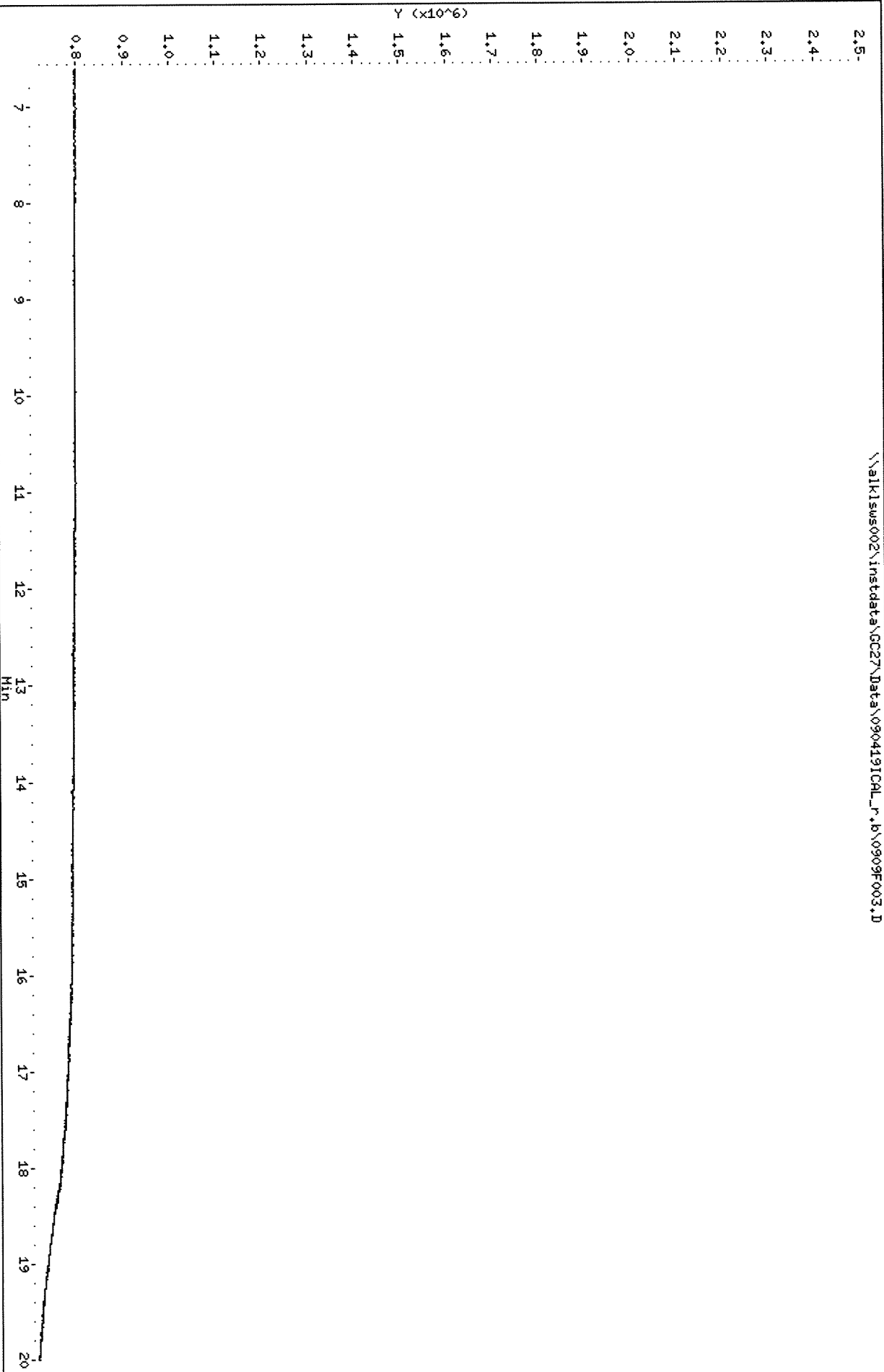
Column phase: IB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alk1s02\instdata\GC27\Data\090419ICAL_r.b\0909F003.D



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F009.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F009.D
 Inj Date : 09-SEP-2019 15:02
 Sample Info: PCB8-015H 4268 @ 1 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:38
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 4268.sub
 Sub List #2 : 4268.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1242	8.059	9.166	34993	11033	1.18	0.862	80.00- 120.00	100.00
	9.306	9.916	21742	19732	0.962	1.09	63.88- 95.83	62.13
	9.749	10.966	75132	27331	1.10	1.06	182.89- 274.33	214.71
	9.929	11.016	39369	29709	0.963	1.01	114.87- 172.30	112.51
	10.189	11.249	28378	15907	1.00	1.00	77.46- 116.19	81.10
	Average of Peak Amounts =				1.04	1.00		
Aroclor 1268	14.952	16.202	169676	78515	1.04	1.10	80.00- 120.00	100.00
	15.052	16.329	155852	68850	1.07	1.10	71.27- 106.90	91.85
	15.442	16.702	124219	58656	1.00	1.09	61.53- 92.30	73.21
	16.432	17.726	348997	161279	0.996	1.11	171.54- 257.31	205.68
	Average of Peak Amounts =				1.03	1.10		

SA 9/11/19
 W

Data File: \\alkisus002\instdata\GC27\Data\090419ICAL.b\0909F009.D
Date : 09-SEP-2019 15:02

Client ID:

Sample Info: PCB8-015H 4268 @ 1 PPB

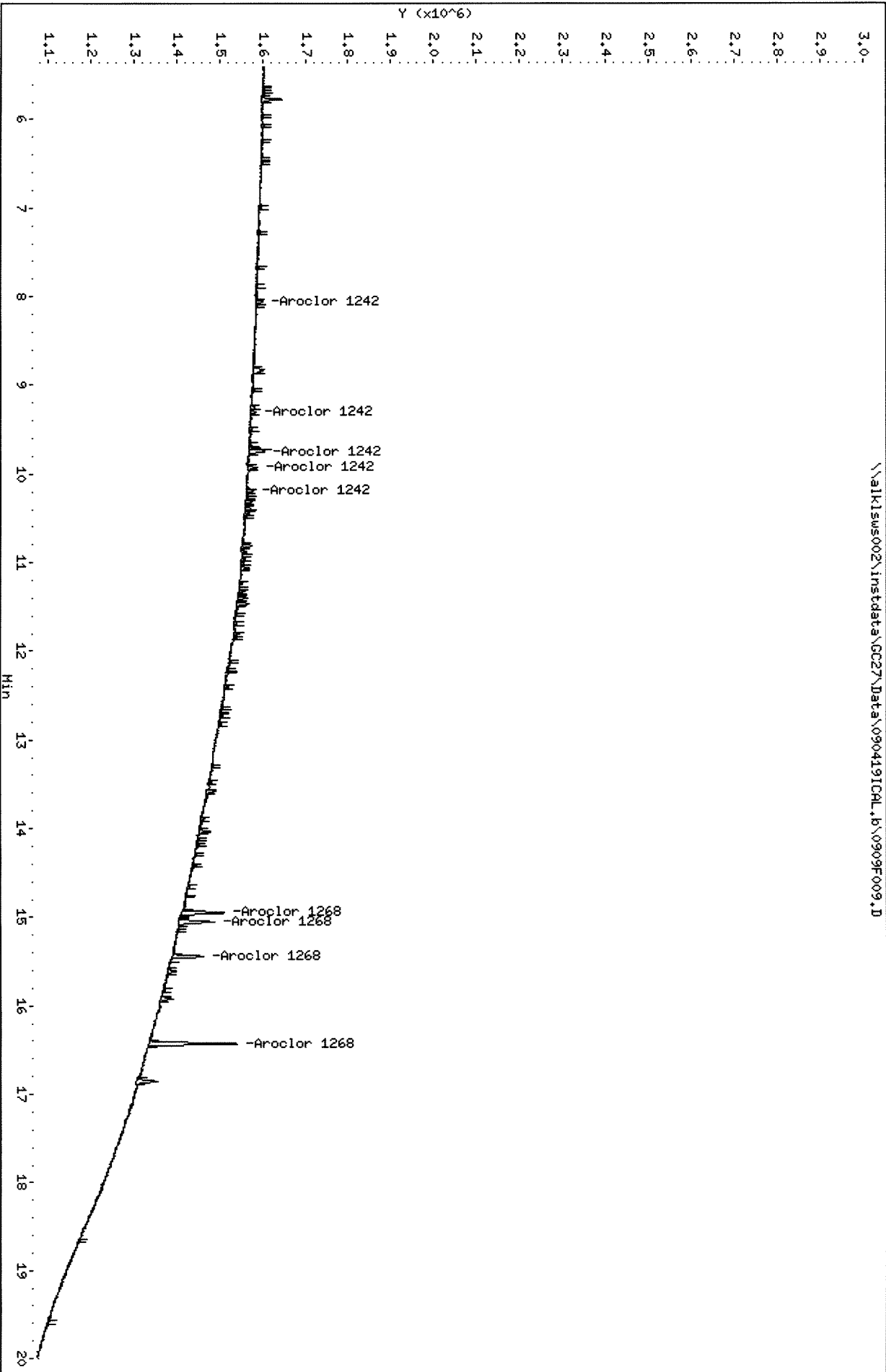
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL.b\0909F009.D



Data File: \\alk1s002\instdata\GC27\Data\090419ICAL_r.b\0909F009.D

Date : 09-SEP-2019 15:02

Client ID:

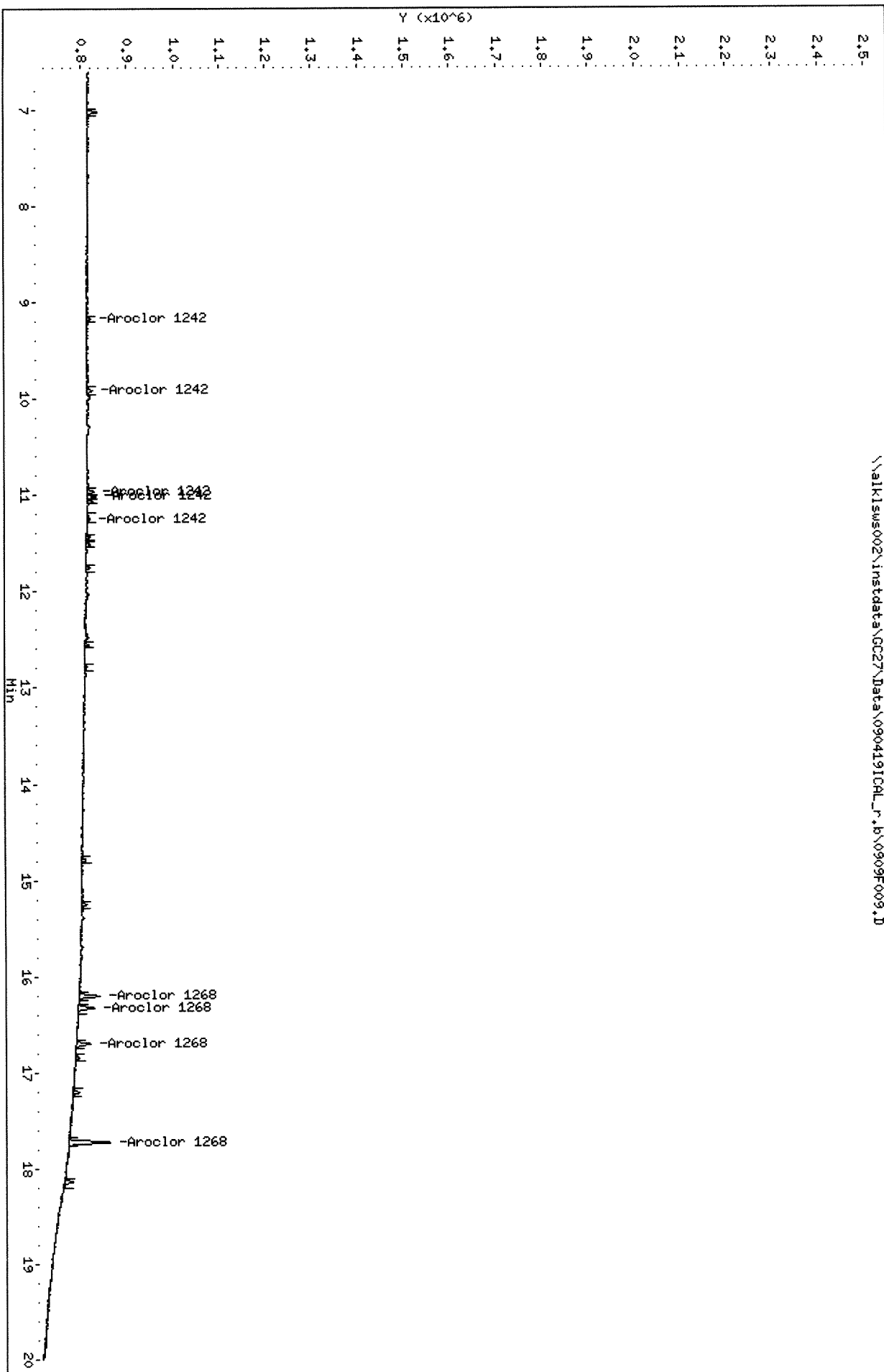
Sample Info: PCB8-015H 4268 @ 1 PPB

Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

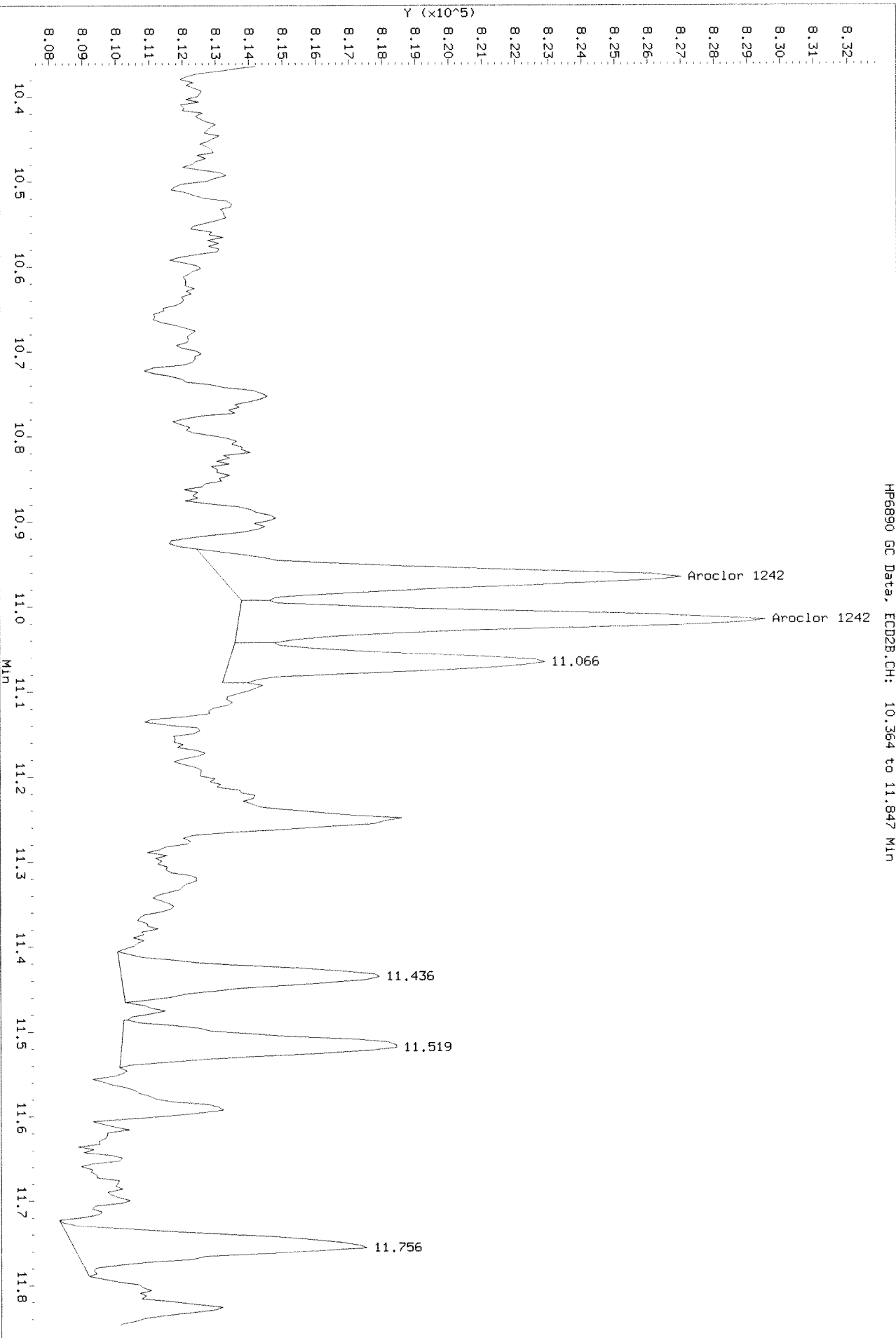
Column diameter: 0.32



Data File: \\alkisw002\instdata\GC27\Data\090419ICL_r.b\0909F009.D
Injection Date: 09-SEP-2019 15:02
Instrument: GC27.1
Client Sample ID:

Refer

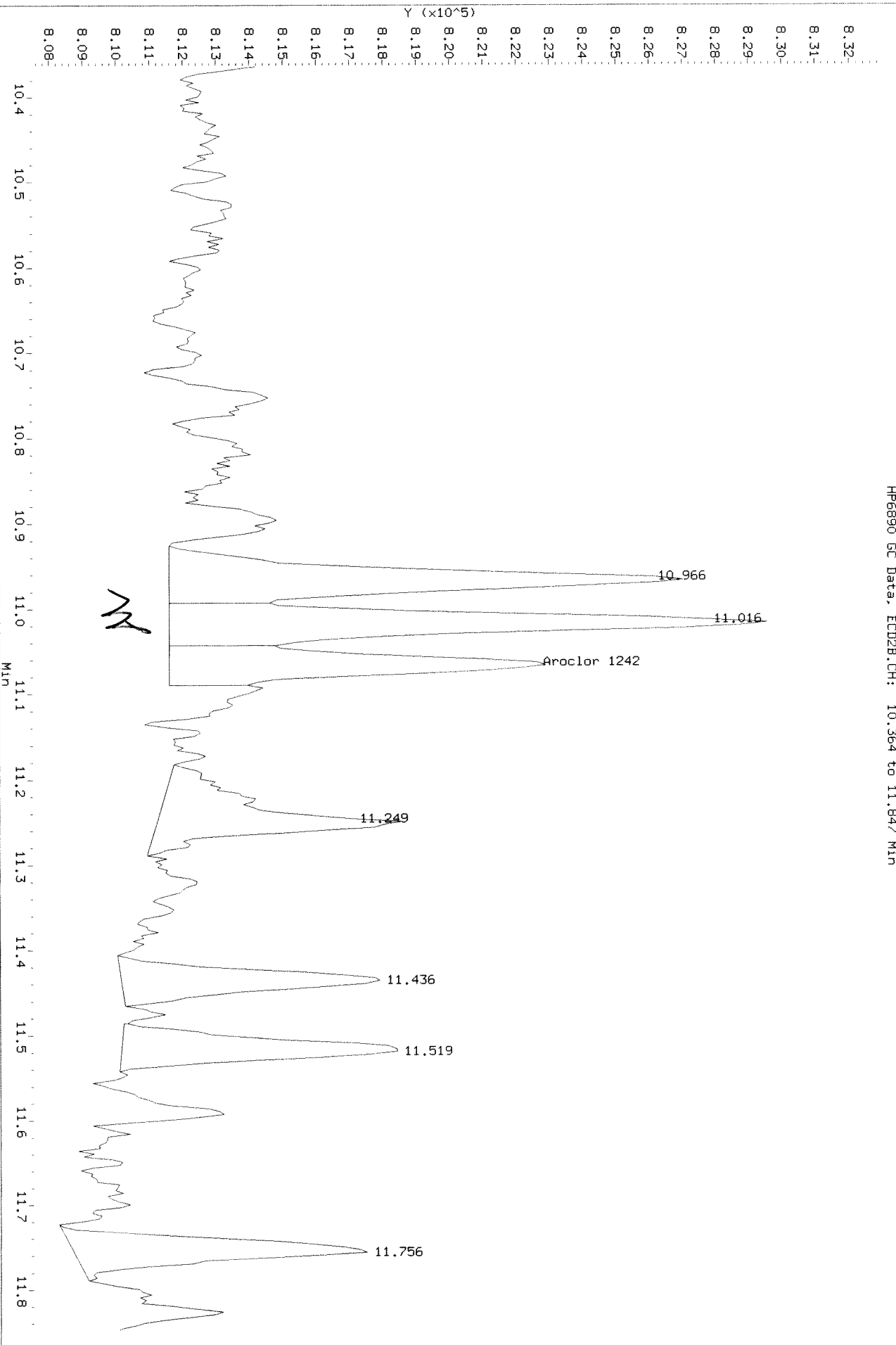
HP6890 GC Data, ECD2B.CH: 10.364 to 11.847 Min



Data File: \\alk1sws002\instdata\GC27\Data\090419ICL-L_r.b\0909F009.D
Injection Date: 09-SEP-2019 15:02
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 10.364 to 11.847 Min

After baseline 9/11/19 PA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F010.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F010.D
Inj Date : 09-SEP-2019 15:33
Sample Info: PCB8-015I 4268 @ 2 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

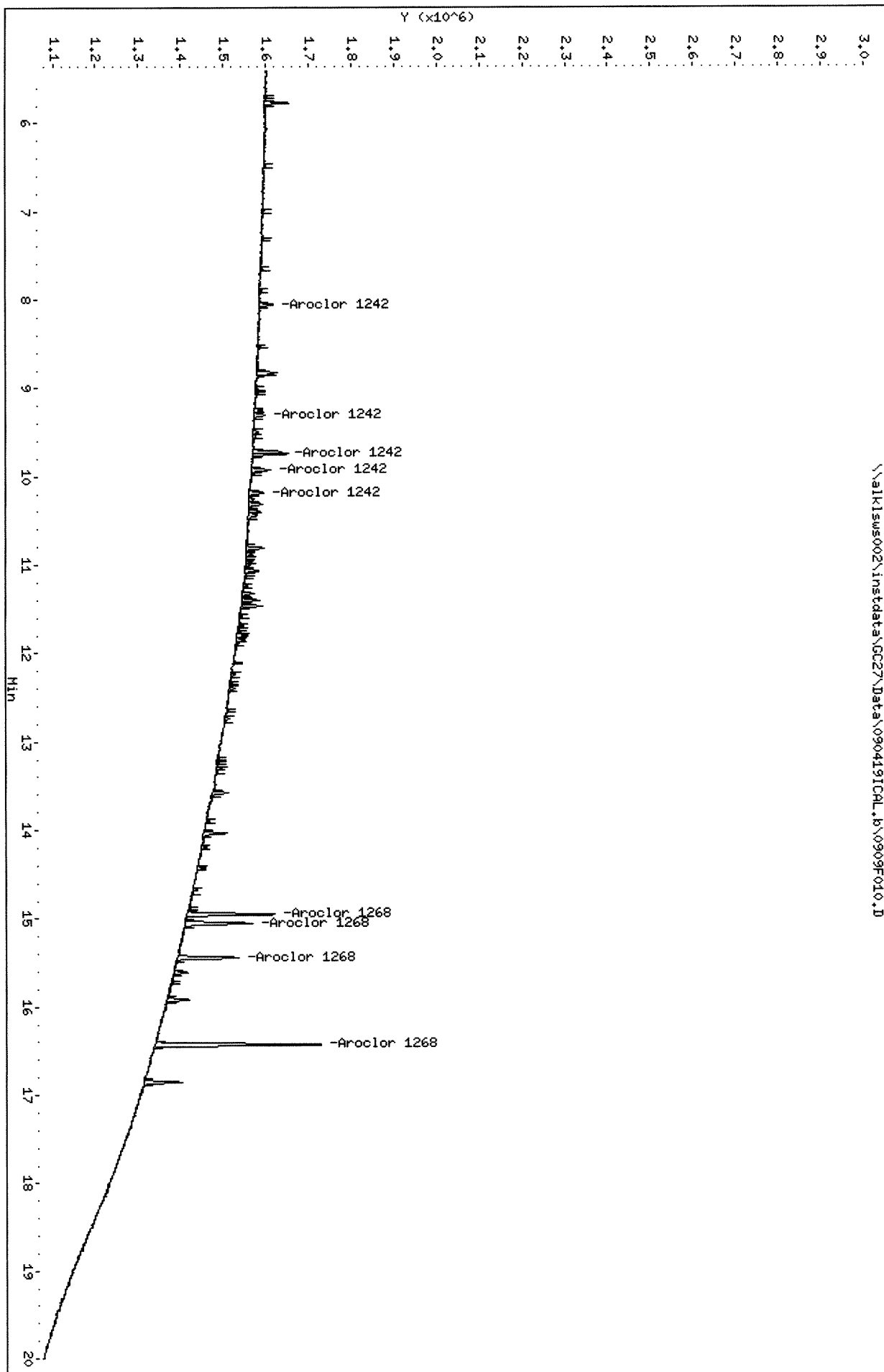
Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : 4268.sub
Sub List #2 : 4268.sub
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1242	8.056	9.166	61609	22089	2.07	1.73	80.00- 120.00	100.00
	9.303	9.913	48275	33553	2.14	1.85	63.88- 95.83	78.36
	9.746	10.966	134095	50518	1.96	1.97	182.89- 274.33	217.65
	9.929	11.016	77809	55843	1.90	1.91	114.87- 172.30	126.29
	10.189	11.250	60401	27730	2.13	1.75	77.46- 116.19	98.04
	Average of Peak Amounts =				2.04	1.84		
Aroclor 1268	14.953	16.203	334554	159216	2.05	2.23	80.00- 120.00	100.00
	15.053	16.330	283435	136606	1.94	2.18	71.27- 106.90	84.72
	15.443	16.703	240389	112852	1.94	2.10	61.53- 92.30	71.85
	16.429	17.723	693383	326632	1.98	2.24	171.54- 257.31	207.26
	Average of Peak Amounts =				1.98	2.19		

SA 9/11/19
W

Data File: \\alk1sus002\instdata\GC27\Data\090419ICPL.b\0909F010.D
Date : 09-SEP-2019 15:33
Client ID:
Sample Info: PCB8-0151 4268 @ 2 PPB
Column phase: DB-35MS

Instrument: GC27.i
Operator: SAA
Column diameter: 0.32



Data File: \\alk1s02\instdata\GC27\Data\090419ICAL_r.b\0909F010.D
Date: 09-SEP-2019 15:33

Client ID:

Sample Info: PCB8-0151 4268 @ 2 PPB

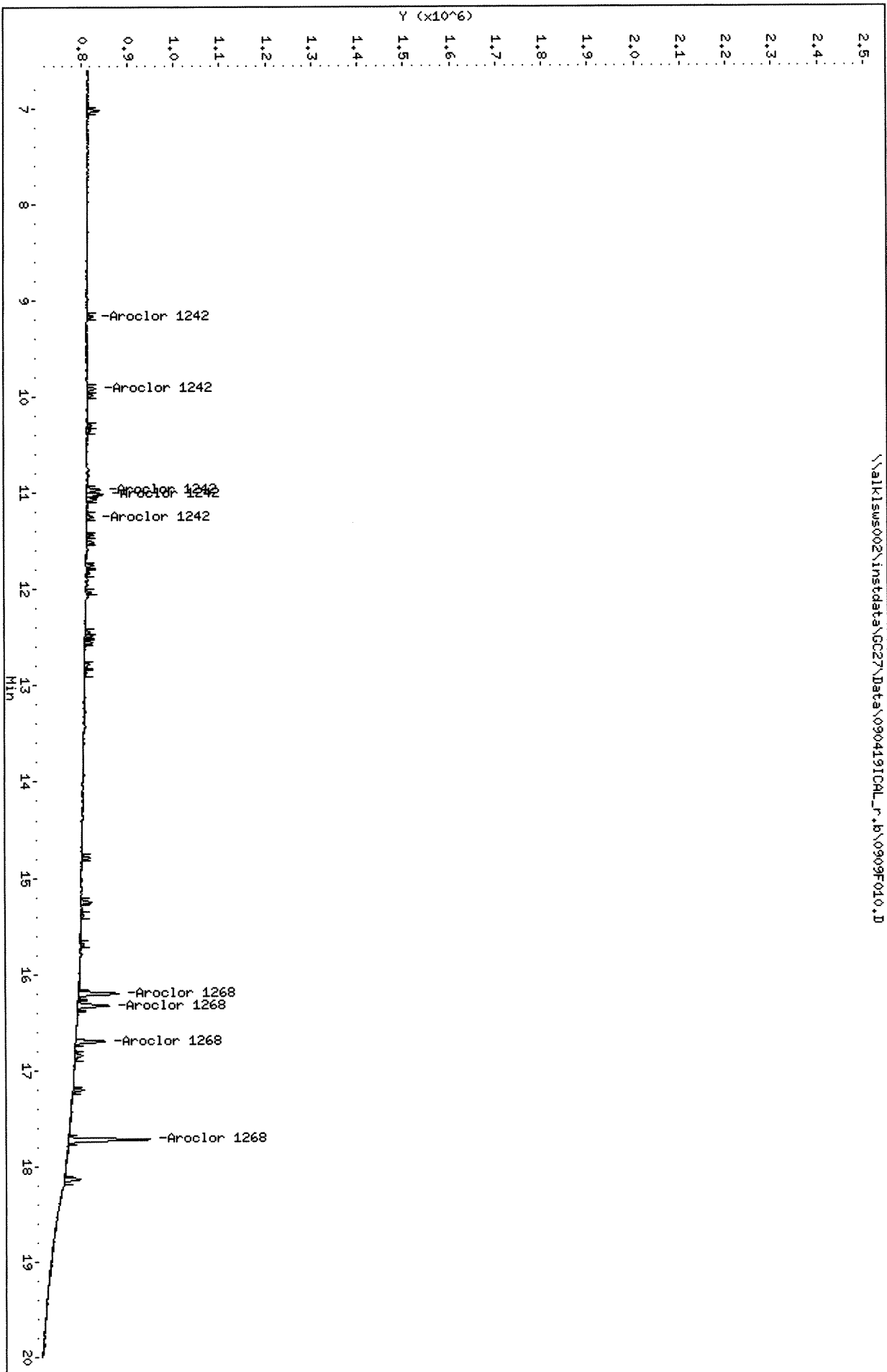
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

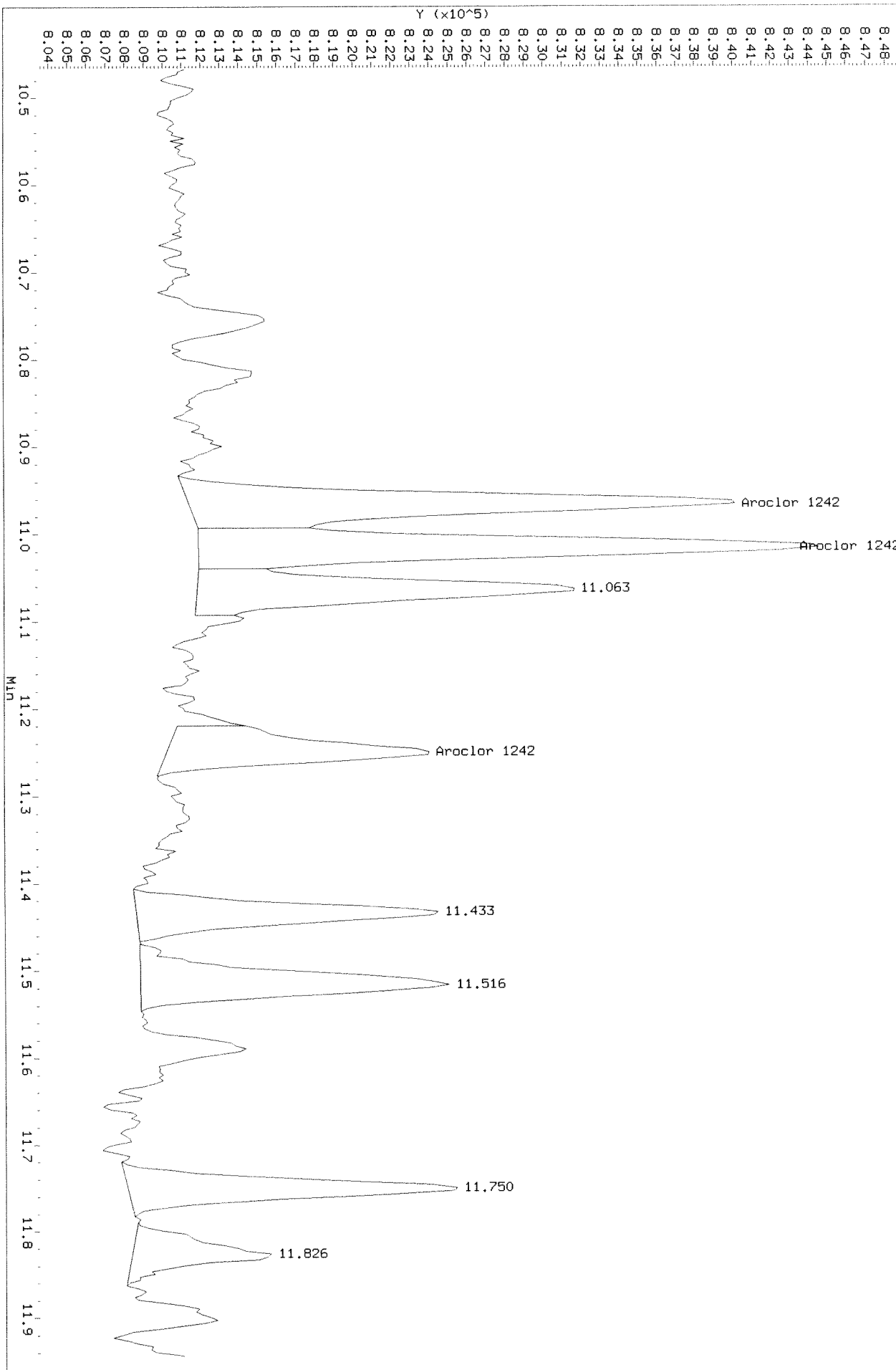
\\alk1s02\instdata\GC27\Data\090419ICAL_r.b\0909F010.D



Data File: \\alklsws002\instdata\GC27\Data\090419ICL-r.b\0909F010.D
Injection Date: 09-SEP-2019 15:33
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 10.467 to 11.944 Min

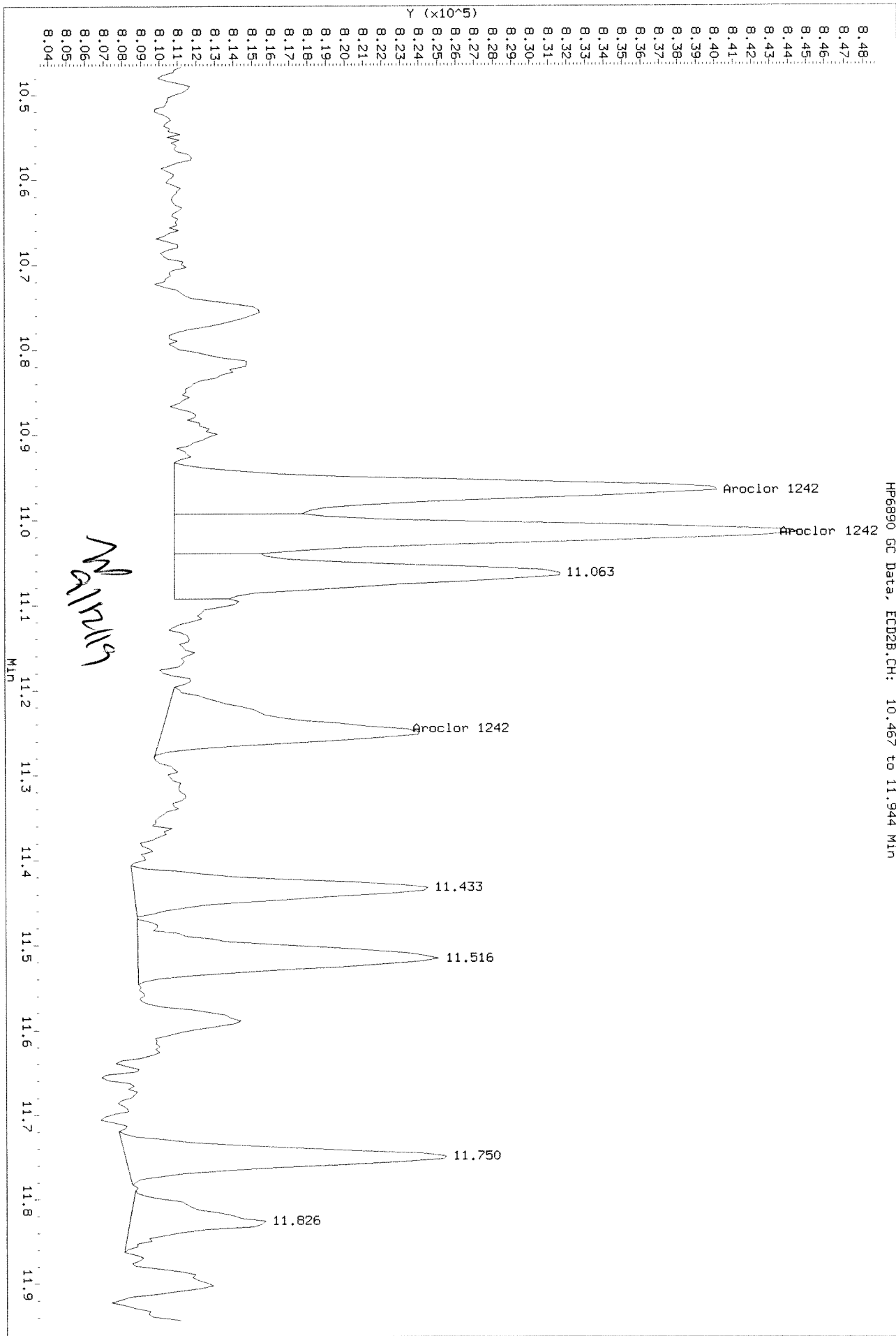
Before



Data File: \\alklsws002\instdata\GC27\Data\090419ICL_r.b\0909f010.D
Injection Date: 09-SEP-2019 15:33
Instrument: GC27.1
Client Sample ID:

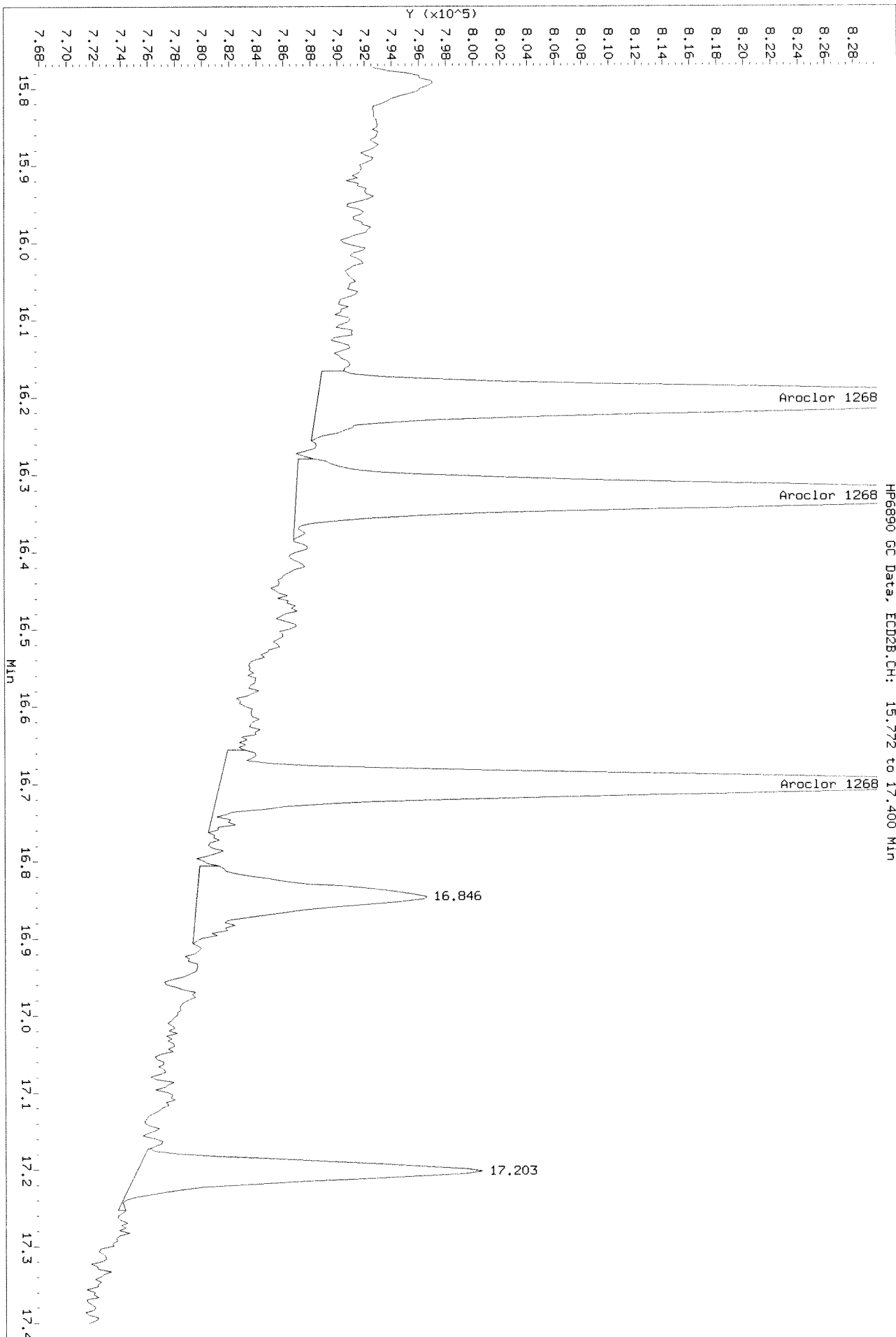
HP6890 GC Data, ECD2B.CH: 10.467 to 11.944 Min

After baseline 9/11/19 R



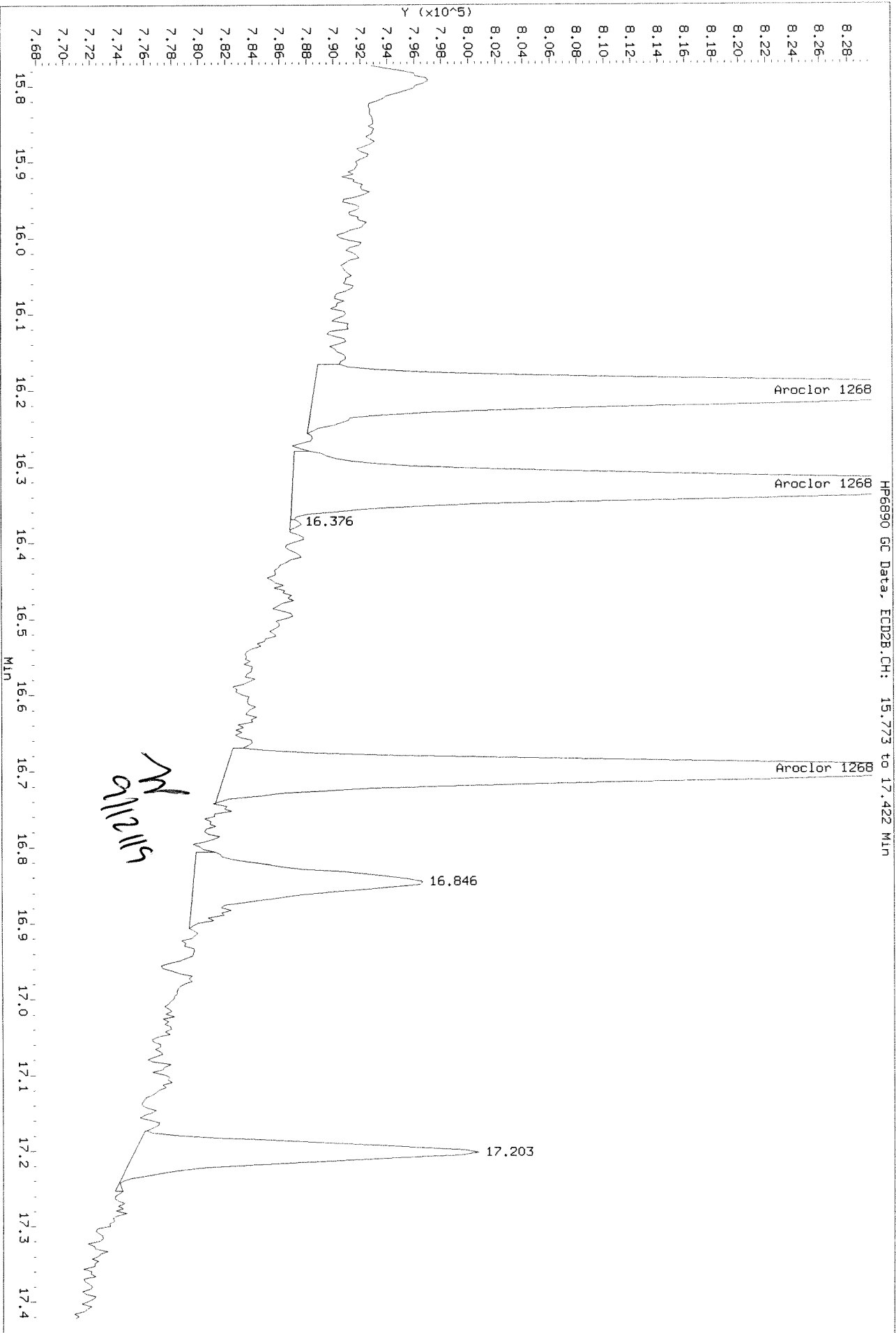
Data File: \\sal\kls002\instdata\GC27\Data\090419ICL-r.b\0909f010.D
Injection Date: 09-SEP-2019 15:33
Instrument: GC27.1
Client Sample ID:

Before



Data File: \\alkjsws002\jnsrdata\GC27\Data\090419ICAL_r.b\09090910.1.D
Injection Date: 09-SEP-2019 15:33
Instrument: GC27.1
Client Sample ID:

After baseline / shoulder 9/11/19 SA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F011.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F011.D
 Inj Date : 09-SEP-2019 16:05
 Sample Info: PCB8-015J 4268 @ 5 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:38
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 4268.sub
 Sub List #2 : 4268.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

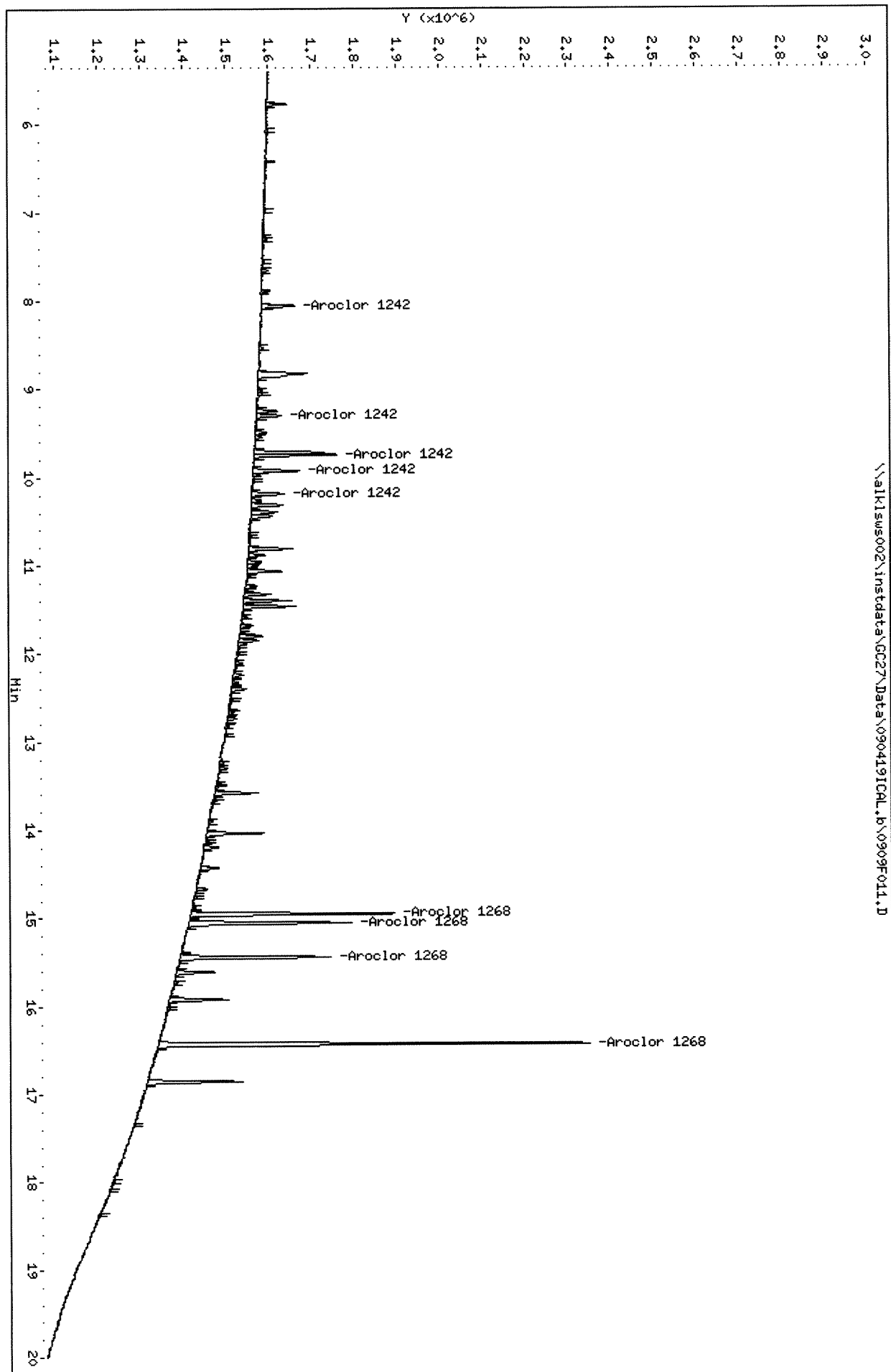
Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1242	8.055	9.165	134612	56676	4.53	4.43	80.00- 120.00	100.00
	9.305	9.915	104739	79936	4.63	4.40	63.88- 95.83	77.81
	9.748	10.965	314405	119177	4.60	4.64	182.89- 274.33	233.56
	9.928	11.015	197966	135357	4.84	4.62	114.87- 172.30	147.06
	10.188	11.249	135416	70359	4.78	4.43	77.46- 116.19	100.60
	Average of Peak Amounts =				4.68	4.50		
Aroclor 1268	14.952	16.205	777145	370699	4.75	5.19	80.00- 120.00	100.00
	15.052	16.329	684383	313347	4.68	4.99	71.27- 106.90	88.06
	15.442	16.702	600425	273531	4.84	5.08	61.53- 92.30	77.26
	16.432	17.722	1654705	767525	4.72	5.26	171.54- 257.31	212.92
	Average of Peak Amounts =				4.75	5.13		

SA 9/11/19
W

Data File: \\alklsws002\instdata\GC27\Data\090419ICL.b\0909F011.D
Date : 09-SEP-2019 16:05
Client ID:
Sample Info: PCB8-015J 4268 @ 5 PPB
Column phase: DB-35MS

Instrument: GC27.i
Operator: SAA
Column diameter: 0.32

\\alklsws002\instdata\GC27\Data\090419ICL.b\0909F011.D



Data File: \\alk1sws002\instdata\GC27\Data\090419ICAL_r.b\0909F011.D

Date : 09-SEP-2019 16:05

Client ID:

Sample Info: PCB8-015J 4268 @ 5 PPB

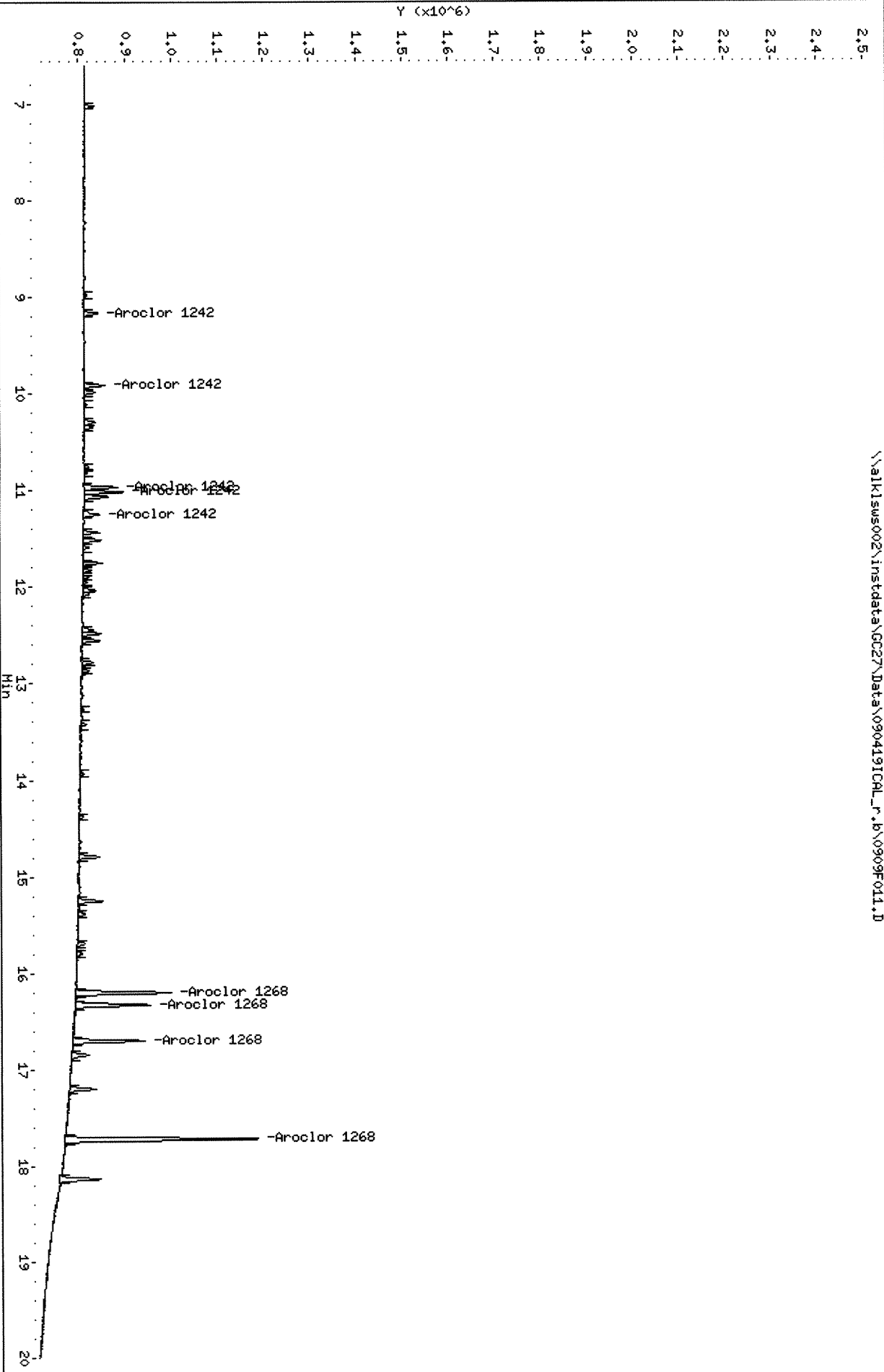
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

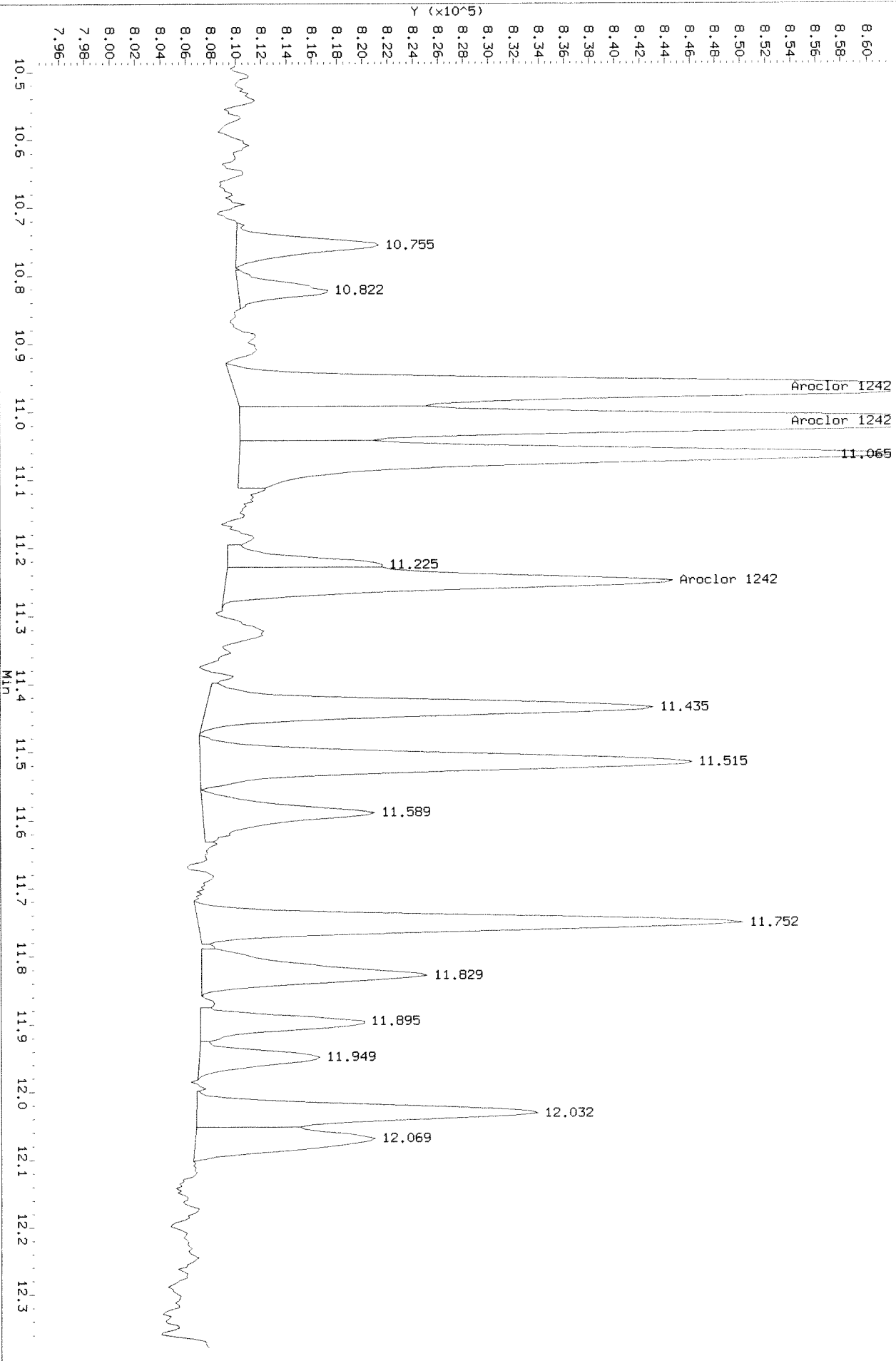
\\alk1sws002\instdata\GC27\Data\090419ICAL_r.b\0909F011.D



Data File: \\alk1sws002\instdata\GC27\Data\090419ICAL_r_b\0909F011.D
Injection Date: 09-SEP-2019 16:05
Instrument: GC27.1
Client Sample ID:

Before

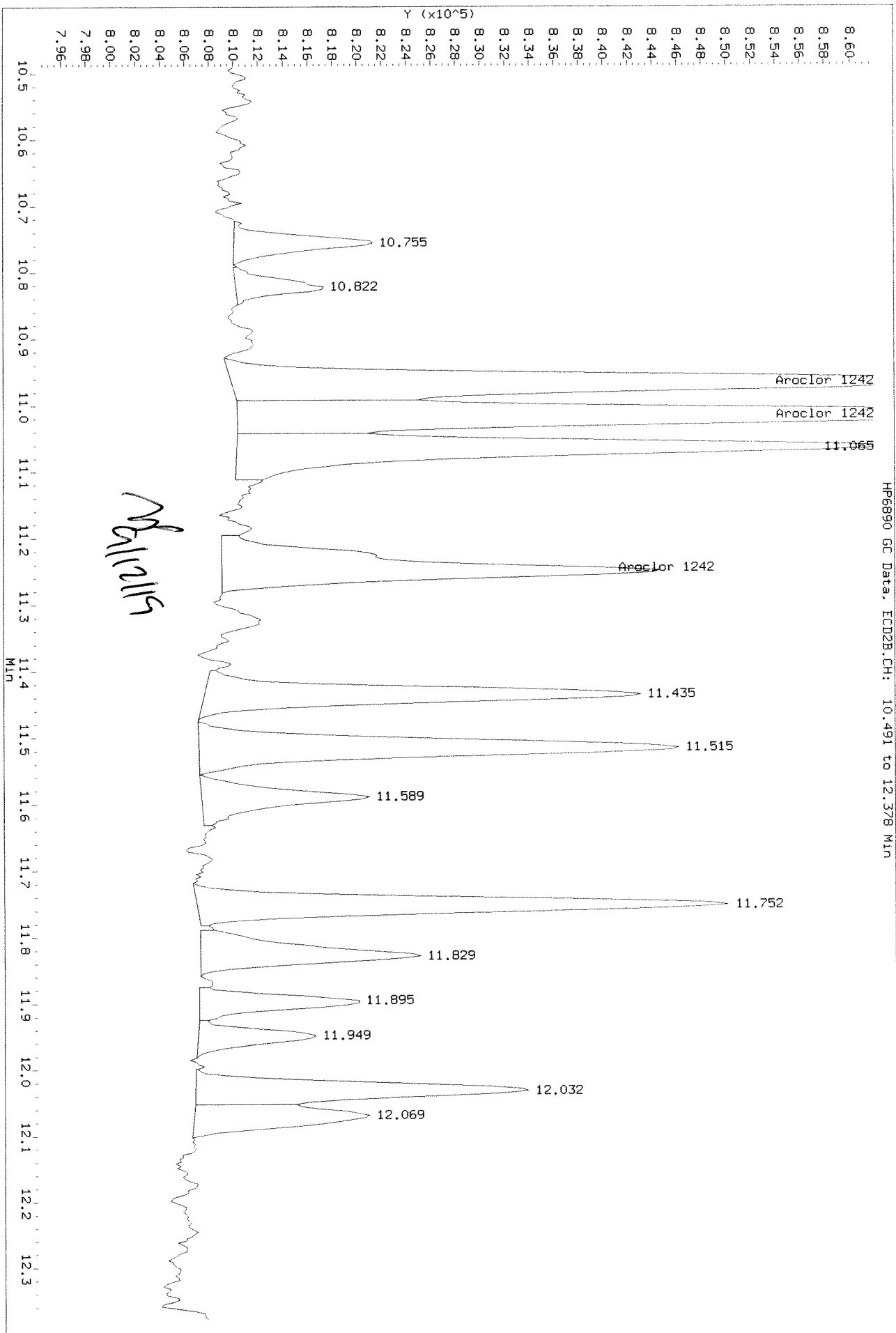
HP6890 GC Data, ECD2B.CH: 10.491 to 12.378 MIN



Data File: \\alklms002\instdata\GC27\Data\090419ICHL_r.b\0909F011.D
Injection Date: 09-SEP-2019 16:05
Instrument: GC27.1
Client Sample ID:

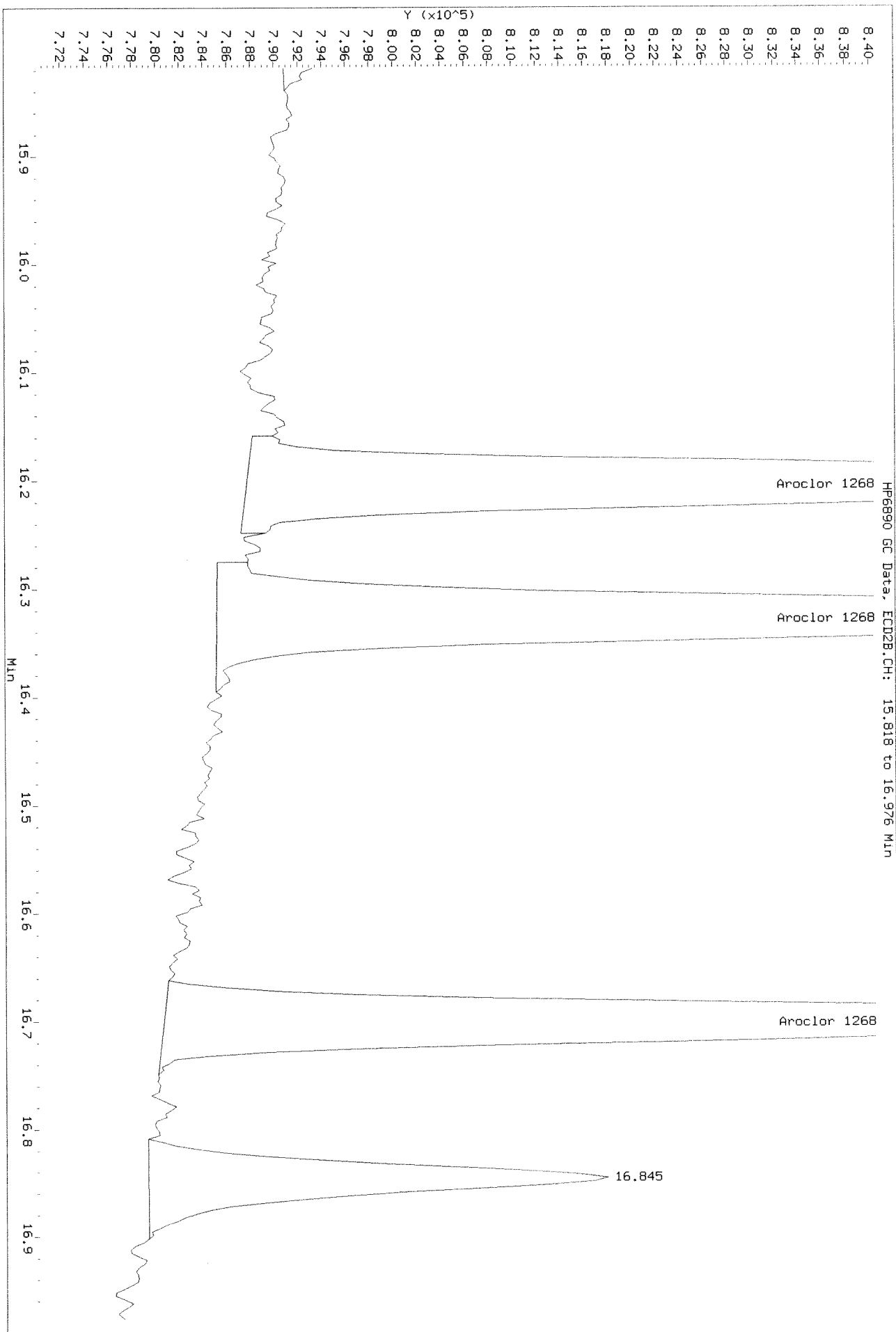
After baseline 9/11/19 A

HP6890 GC Data, ECD2B.CH: 10.491 to 12.378 MIN



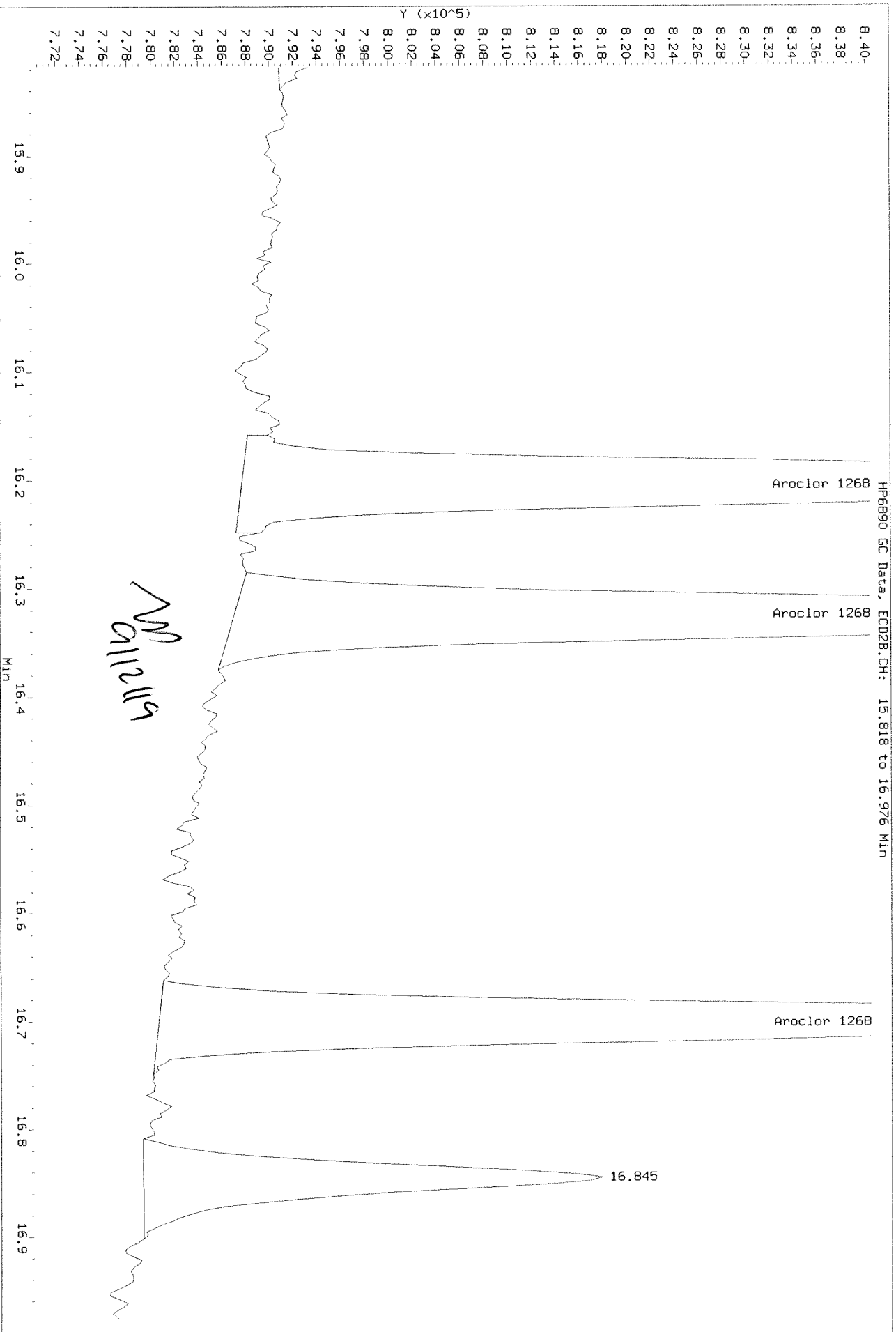
Data File: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F011.D
Injection Date: 09-SEP-2019 16:05
Instrument: GC27.1
Client Sample ID:

Before



Data File: \\alkisw002\instdata\GC27\Data\090419ICAL_r.b\0909F011.D
Injection Date: 09-SEP-2019 16:05
Instrument: GC27.1
Client Sample ID:

After baseline 9/11/19 SA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F012.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F012.D
 Inj Date : 09-SEP-2019 16:37
 Sample Info: PCB8-015K 4268 @ 10 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:38
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 4268.sub
 Sub List #2 : 4268.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1242	8.058	9.164	269704	124038	9.07	9.69	80.00- 120.00	100.00
	9.304	9.914	215373	175855	9.53	9.67	63.88- 95.83	79.86
	9.748	10.964	616568	247655	9.02	9.65	182.89- 274.33	228.61
	9.928	11.014	387256	284843	9.47	9.72	114.87- 172.30	143.59
	10.188	11.248	261144	145638	9.22	9.17	77.46- 116.19	96.83
	Average of Peak Amounts =				9.26	9.58		
Aroclor 1268	14.954	16.201	1530639	729336	9.36	10.2	80.00- 120.00	100.00
	15.054	16.328	1363550	633347	9.33	10.1	71.27- 106.90	89.08
	15.441	16.701	1177339	544651	9.49	10.1	61.53- 92.30	76.92
	16.431	17.724	3282073	1481136	9.36	10.1	171.54- 257.31	214.43
	Average of Peak Amounts =				9.39	10.1		

SA 9/11/19
W

Data File: \\alkisus002\instdata\GC27\Data\090419ICAL.b\0909F012.D
Date: 09-SEP-2019 16:37

Client ID:

Sample Info: PCB8-01SK 4268 @ 10 PPB

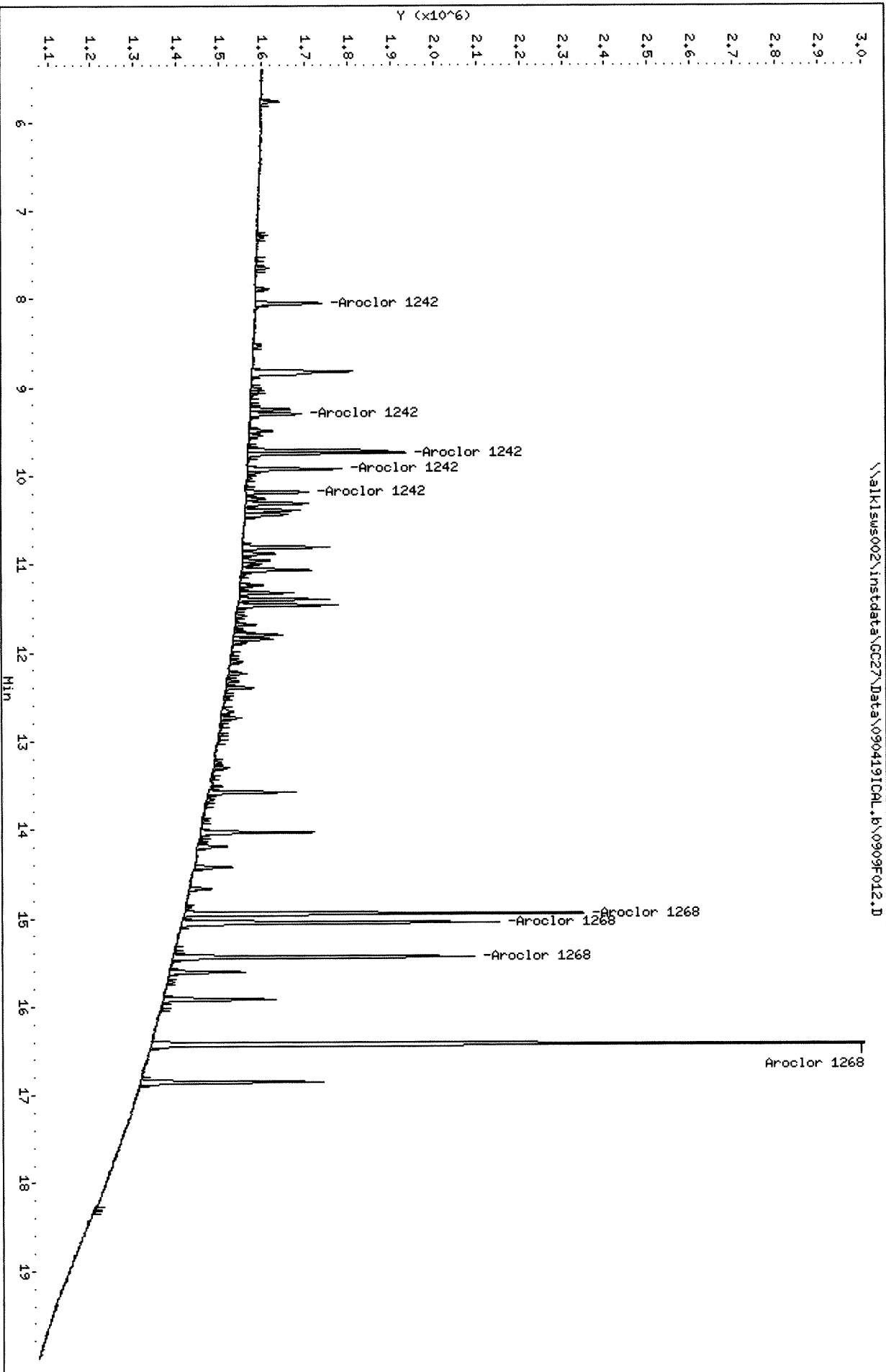
Column phase: DB-35MS

Instrument: GC27.i

Operator: SHH

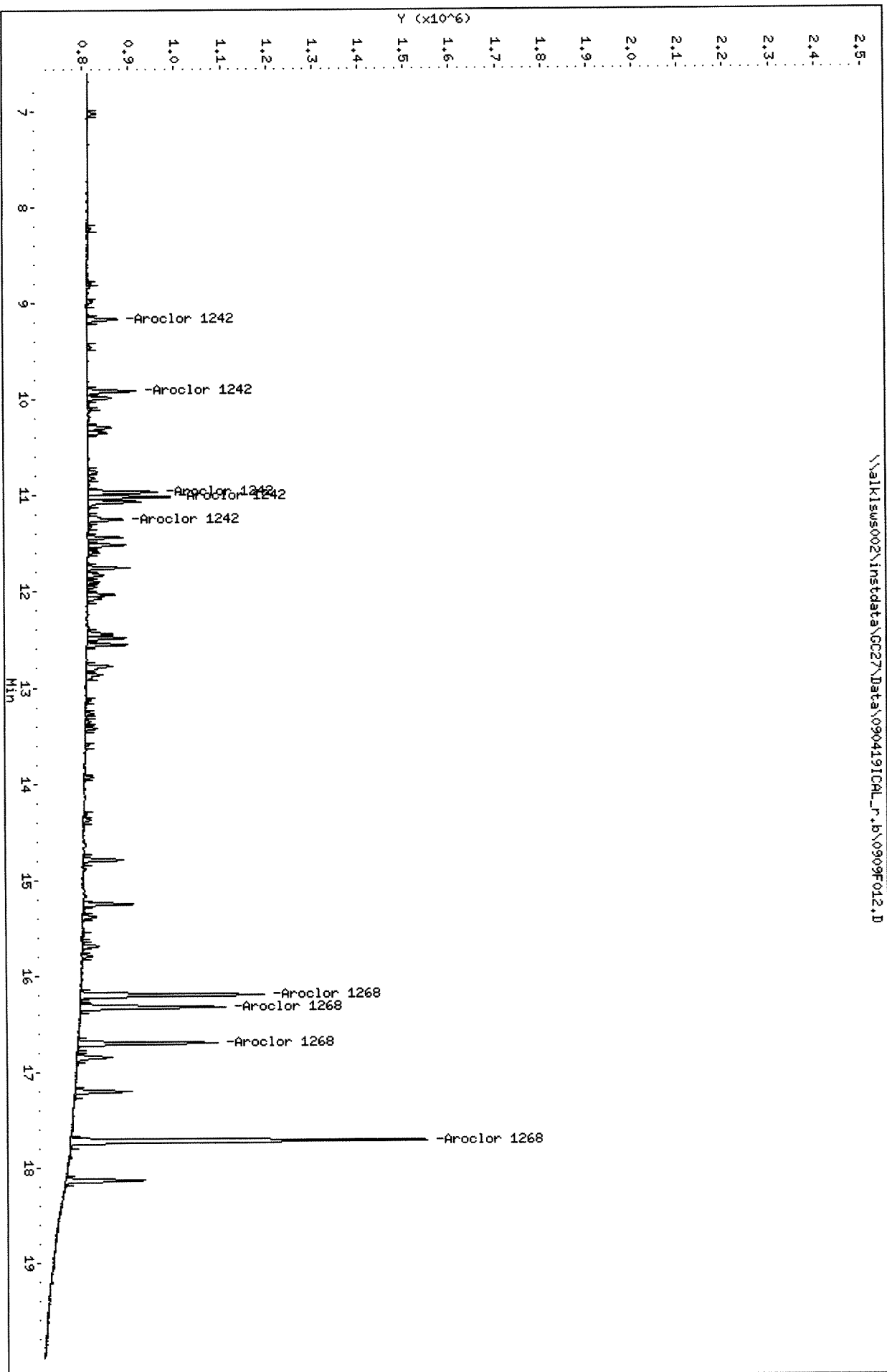
Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL.b\0909F012.D



Data File: \\alkisw002\instdata\GC27\Data\090419ICAL_r.b\0909F012.D
Date: 09-SEP-2019 16:37
Client ID:
Sample Info: PCB8-015K 4268 @ 10 PPB
Column phase: DB-XLB

Instrument: GC27.1
Operator: SHH
Column diameter: 0.32



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F013.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F013.D
 Inj Date : 09-SEP-2019 17:08
 Sample Info: PCB8-015E 1242 ICV @ 20 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:38
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : AR1242.SUB
 Sub List #2 : AR1242.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1242	8.057	9.167	621436	280551	20.9	21.9	80.00- 120.00	100.00
	9.304	9.914	470939	406391	20.8	22.3	63.88- 95.83	75.78
	9.747	10.964	1382870	571058	20.2	22.3	182.89- 274.33	222.53
	9.927	11.014	878544	653245	21.5	22.3	114.87- 172.30	141.37
	10.191	11.251	586339	353812	20.7	22.3	77.46- 116.19	94.35
Average of Peak Amounts =					20.8	22.2		

SA 9/11/19
W

Data File: \\alkisus002\instdata\GC27\Data\090419\CAL.b\0909F013.D
Date: 09-SEP-2019 17:08

Client ID:

Sample Info: PCB8-015E 1242 ICV @ 20 PPB

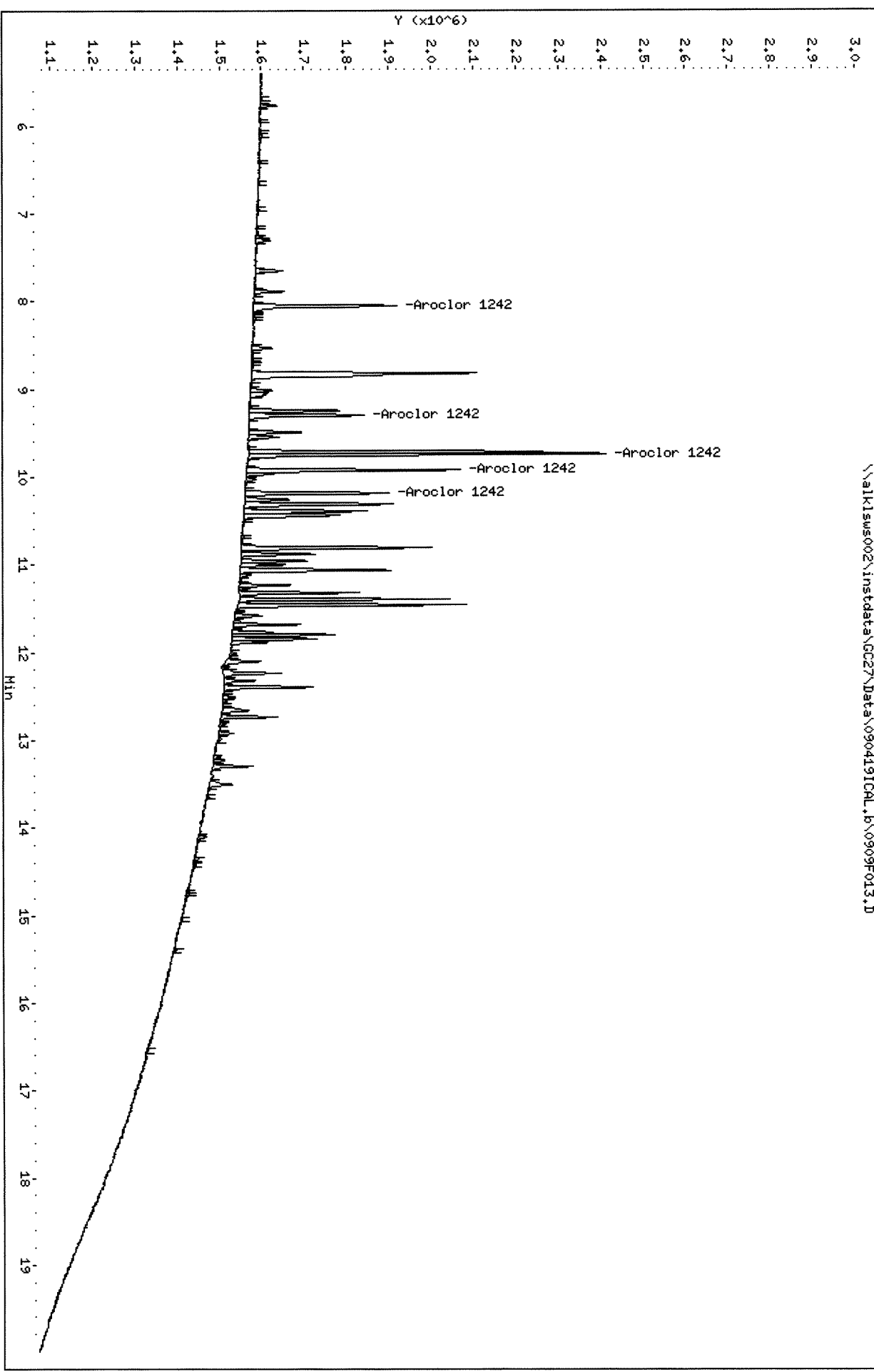
Column phase: DB-35MS

Instrument: GC27.i

Operator: SMA

Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419\CAL.b\0909F013.D



Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0909F013.D
Date: 09-SEP-2019 17:08

Client ID:

Sample Info: PCB8-01SE 1242 ICV @ 20 PPB

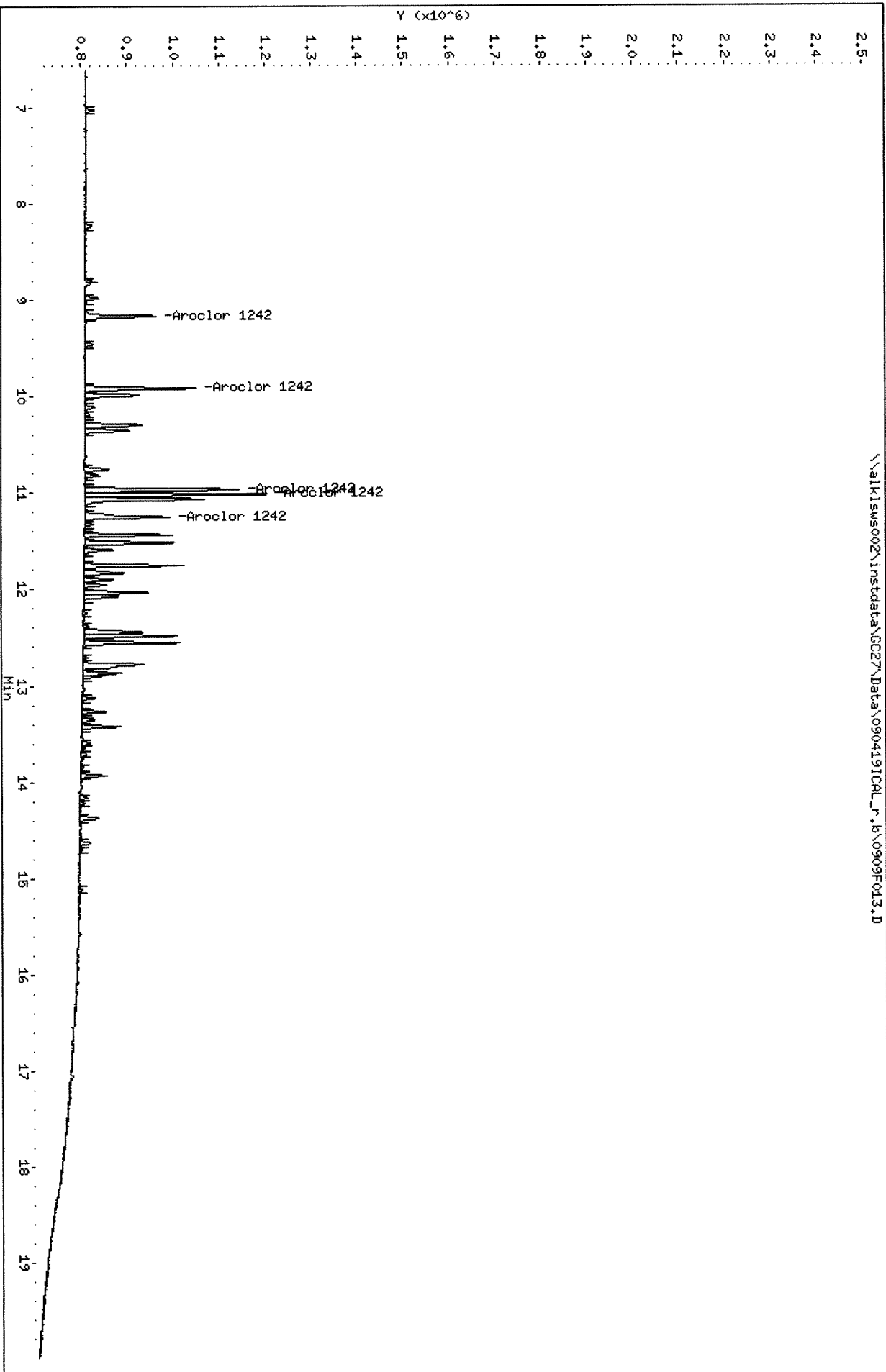
Column phase: DB-XLB

Instrument: GC27.1

Operator: SAA

Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0909F013.D



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F014.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F014.D
Inj Date : 09-SEP-2019 17:40
Sample Info: PCB8-015F 1268 ICV @ 20 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : AR1268.SUB
Sub List #2 : AR1268.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1268	14.951	16.201	3343051	1514696	20.4	21.2	80.00- 120.00	100.00
	15.054	16.328	3323205	1470780	22.7	23.4	71.27- 106.90	99.41
	15.441	16.701	2279185	1024654	18.4	19.0	61.53- 92.30	68.18
	16.431	17.721	6118947	2609351	17.5	17.9	171.54- 257.31	183.03
	Average of Peak Amounts =				19.8	20.4		

SA 9/11/19
W

Data File: \\alkl1s02\instdata\GC27\Data\090419ICAL.b\0909F014.D
Date: 09-SEP-2019 17:40

Client ID:

Sample Info: PCB8-01SF 1268 ICV @ 20 PPB

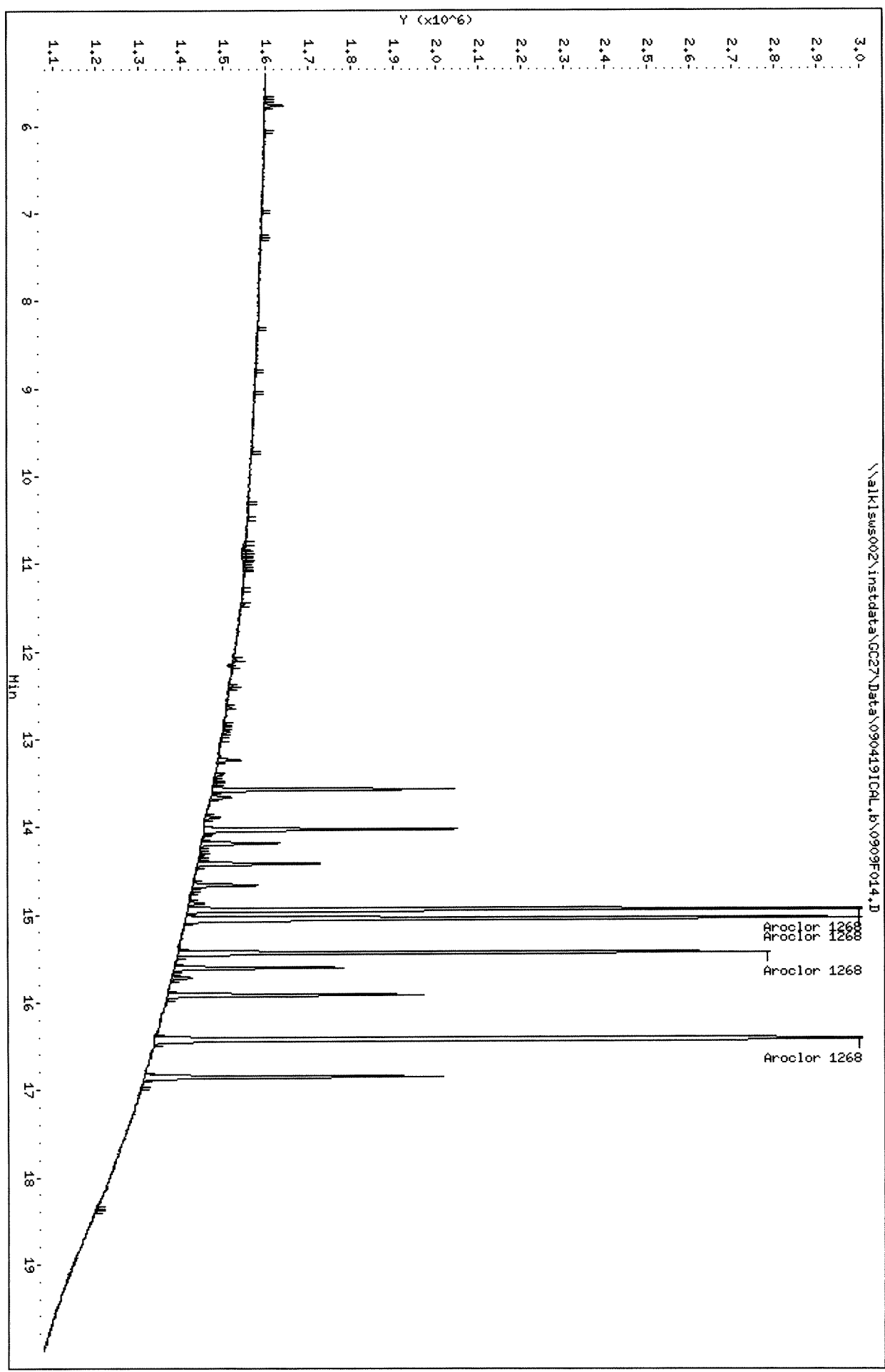
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alkl1s02\instdata\GC27\Data\090419ICAL.b\0909F014.D



Data File: \\alkisw002\instdata\GC27\Data\090419ICAL_r.b\0909F014.D
Date: 09-SEP-2019 17:40

Client ID:

Sample Info: PCB8-015F 1268 ICV @ 20 PPB

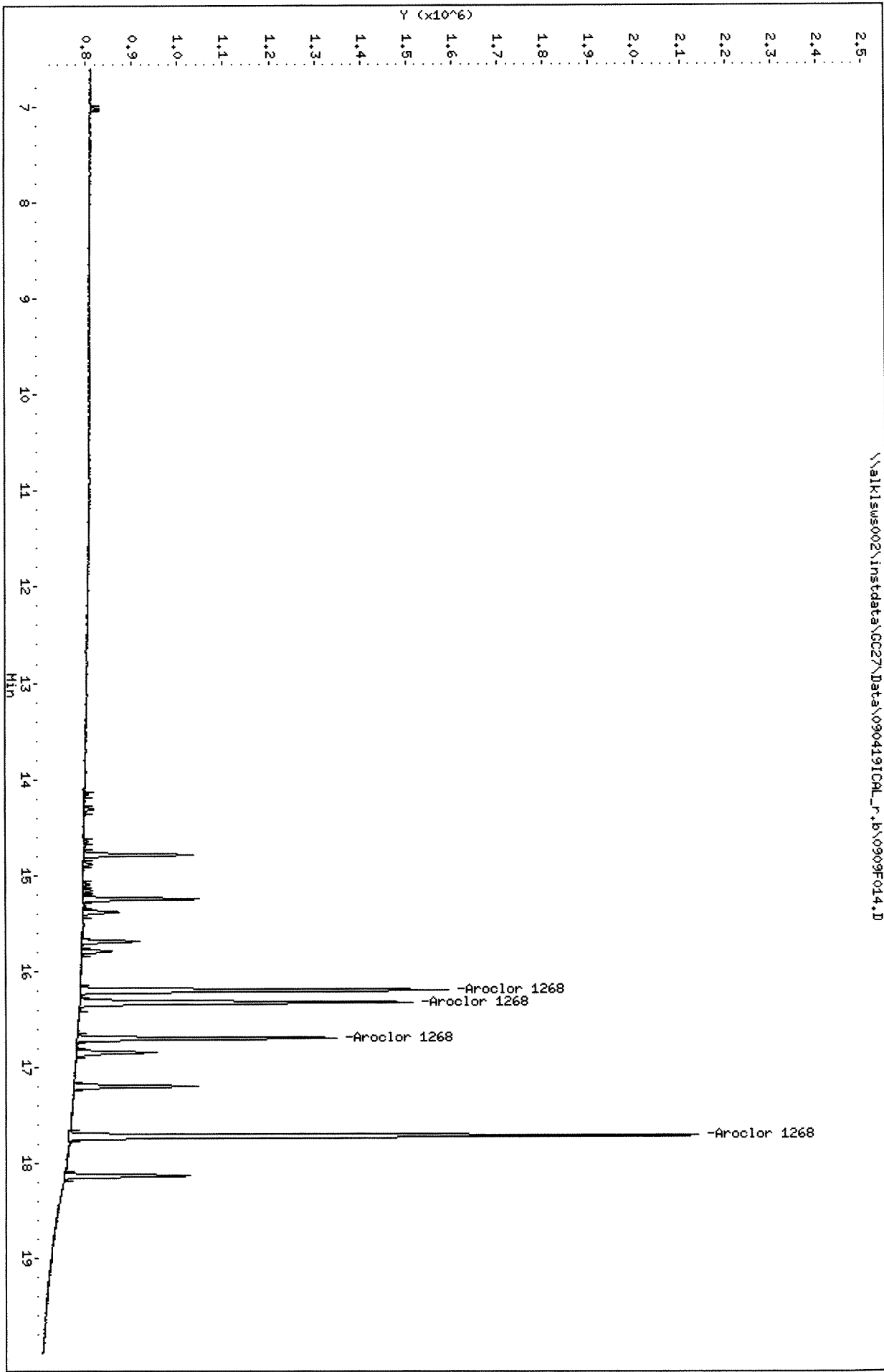
Column phase: DB-XLB

Instrument: GC27.1

Operator: SAA

Column diameter: 0.32

\\alkisw002\instdata\GC27\Data\090419ICAL_r.b\0909F014.D



Preparation Information

Group ID: KWG1904504	Prep Method: EPA 3541	Prep Date: 10/17/19 11:06
Department: Semivoa GC		

Lab Code	Client ID	Product	Matrix	Amt. Ext.	Final Vol.	Solids
K1909649-004	Landfill Ash 5-13-19	8082A PCB	SOIL	2.0920g	8mL	75.1
KWG1904504-1	Matrix Spike	8082A PCB	SOIL	2.0230g	8mL	75.1
KWG1904504-2	Duplicate Matrix Spike	8082A PCB	SOIL	2.0120g	8mL	75.1
KWG1904504-3	Lab Control Sample	8082A PCB	SOIL	2.0000g	8mL	
KWG1904504-4	Method Blank	8082A PCB	SOIL	2.0920g	8mL	

Lab Code	Parent Lab Code	Comments
KWG1904504-1	K1909649-004	KQ1915154-01
KWG1904504-2	K1909649-004	KQ1915154-02
KWG1904504-3		KQ1915154-03
KWG1904504-4		KQ1915154-04

Lab Code	Prep Event ID	Surrogate Solution ID	Amount Added	Spike Solution ID	Amount Added	Witness
K1909649-004	1737160					
KWG1904504-1	1737161					
KWG1904504-2	1737162					
KWG1904504-3	1737163					
KWG1904504-4	1737164					

Comments: _____

Started By: SDANIELS Assisted By: _____ Training
Yes No
 Completed By: CWilliam Assisted By: _____ Yes No
 Reviewed By: [Signature] Date: 10/18/19 Storage: _____

Chain of Custody

Relinquished By: <u>[Signature]</u>	Date: <u>10-18-19</u>	Extracts Examined
Received By: <u>[Signature]</u>	Date: <u>10/18/19</u>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Preparation Information

Due 10-22 10/28
 cul by 10/19

Group ID: KWG1904504 Prep Method: EPA 3541 3546 Prep Date: 10/17/19 11:06
 Department: Semivoa GC

#	Lab Code	Client ID	B#	✓	Product	Matrix	Amt. Ext.	pH	Int. Vol. ml	Final Vol. ml	Surr. Added ml	Spike Added ml
1	K1909649-004	Landfill Ash 5-13-19	.01	✓	8082A PCB	SOIL	2.092	1	20	8	50	-
2	KWG1904504-1	Matrix Spike 9649-4	.01	✓	8082A PCB	SOIL	2.023		20	8	50	400
3	KWG1904504-2	Duplicate Matrix Spike I	.01	✓	8082A PCB	SOIL	2.012		20	8	50	400
4	KWG1904504-3	Lab Control Sample	-	-	8082A PCB	SOIL	2.000		20	8	50	400
5	KWG1904504-4	Method Blank	-	-	8082A PCB	SOIL	2.092		20	8	50	-

Comments:

prep run # 346802

Surrogate ID: PCB8-12I 0.8 ppm 50 µl xp 2/29/20 ep
 Spike ID: PCB8-6P 1 ppm 400 µl xp 1/29/20 syringe
 Witness: J. Daniels 10-17-19
 Started By: SDANIELS Assisted By: _____
 Completed By: Carlham Assisted By: _____

Additional Prep Information for EPA 3541
Pest/PCB/Con in Soil

Service Request # K1909649 Work Group # Pest: —
 PCB: KWG 1904504
 Weighed (time/date/initial): 11:17 10/17/19 SD Balance ID: K-Bal-03 Calibration Verified
 Storage Location (if not extracted same day): —
 DCM Lot # DWB18 Sulfate Lot # 2019010772 Matrix Lot # 081717 Glass Wool Lot # 21317999
 Soxtherm Start (time/date/initial): 11:43 10/17/19 SD
 Soxtherm Stop (time/date/initial): 13:53 10/17/19 SD
 Pipette (5 mL) Lot # 22918647
 N-Evap (time/date/initial): 09:17 10-18-19 CW N-Evap Thermometer ID: X-SUM-004
 Temp as measured: 20 °C Correction factor: 0.0 °C Adjusted temp: 20 °C
 Solvent Exchange to Hexane (time/date/initial): 09:52 10-18-19 CW Hexane Lot # 223809
 S-Evap (time/date/initial): — S-Evap Thermometer ID: —
 Temp as measured: — °C Correction factor: — °C Adjusted temp: — °C
 N-Evap (time/date/initial): — N-Evap Thermometer ID: —
 Temp as measured: — °C Correction factor: — °C Adjusted temp: — °C
 Carbon Clean-up (Ext-Car) (time/date/initial): — Carbon Lot # —
 Hexane 1:1 DCM Lot # —
 N-Evap (time/date/initial): — N-Evap Thermometer ID: —
 Temp as measured: — °C Correction factor: — °C Adjusted temp: — °C
 Florisil Clean-up (Ext-Flor)(time/date/initial): — Florisil Lot # —
 Hexane 1:1 Acetone Lot # — Hexane 9:1 Acetone Lot # —
 N-Evap (time/date/initial): — N-Evap Thermometer ID: —
 Temp as measured: — °C Correction factor: — °C Adjusted temp: — °C
 Sulfuric Acid Clean-up (3665)(time/date/initial): 11:10 10-18-19 CW Acid Lot # 54344
 Other Clean-up: — all samples some samples: —
 Pipette (2 mL) Lot # 16418646 Pipette (1 mL) Lot # —
 Pest Vial: — Vial Storage: —
 PCB Vial: Green Vial Storage: Mucky PIDS
 Archived Extract Storage: Lisette

Additional Comments:

Bench Sheet Review Check List	
<input checked="" type="checkbox"/>	Hold times met: if no, reason: _____
<input checked="" type="checkbox"/>	Prep date, time, method, department, product code correct
<input checked="" type="checkbox"/>	Spike information and Q.C. correct (insufficient volume or mass recorded if no Q.C.)
<input checked="" type="checkbox"/>	Weights/Volumes and units correct on raw and final bench sheets
<input checked="" type="checkbox"/>	Sample IDs have been checked - bottle numbers appended if required
<input checked="" type="checkbox"/>	Names present for: started by, completed by, relinquished by, and witnessed by
<input checked="" type="checkbox"/>	Extract storage recorded
<input checked="" type="checkbox"/>	Additional prep sheet completely filled out (NA or line out blanks)
<input checked="" type="checkbox"/>	All clean-ups have been noted on additional prep sheet

ALS Environmental

Extraction Analyst Notes

Service Request: K1909649 Prep Group: 346802

Topic	Notes	Initials/Date
No Anomalies: <input type="checkbox"/>		
Sample Anomalies: <input type="checkbox"/>		
Organics Present (sticks, leaves, bugs): <input type="checkbox"/>		
Fuel Odors: <input type="checkbox"/>		
Sulfur Odors, Precipitate: <input type="checkbox"/>		
General Notes:	<p>Sample was pulled from prep run 346730 because of issues w/ microwave extraction. Sample & QC were weighed out on K-Bal-03 by manually.</p>	<p>SD 10/17/19</p>

Comment: Ultra Low Level PCB Aroclors by EPA 8082A
Operator: SAA
Data Path: C:\GC27\DATA\090419ICAL\
Pre-Seq Cmd:
Post-Seq Cmd:

CAL 16/27

Method Sections To Run On A Barcode Mismatch
(X) Full Method (X) Inject Anyway
() Reprocessing Only () Don't Inject

Line Type	Vial	DataFile	Method	Sample Name
1 SOLV	100	0904F001	ULSPLT	PRIMER
2 SOLV	100	0904F002	ULSPLT	PRIMER
3 SOLV	1	0904F003	ULSPLT	DDX MARKER
4 IB	2	0904F004	ULSPLT	IB
5 ICAL	3	0904F005	ULSPLT	PCB8-12K 1660 @ 0.1-1 PPB
6 ICAL	4	0904F006	ULSPLT	PCB8-12L 1660 @ 0.2-2 PPB
7 ICAL	5	0904F007	ULSPLT	PCB8-12M 1660 @ 0.5-5 PPB
8 ICAL	6	0904F008	ULSPLT	PCB8-12N 1660 @ 1-10 PPB
9 ICAL	7	0904F009	ULSPLT	PCB7-91B 1660 @ 2-20 PPB
10 ICAL	8	0904F010	ULSPLT	PCB7-91C 1660 @ 5-50 PPB
11 ICAL	9	0904F011	ULSPLT	PCB7-91D 1660 @ 10-100 PPB
12 ICAL	10	0904F012	ULSPLT	PCB8-11K1660 @ 20-200 PPB
13 ICAL	11	0904F013	ULSPLT	PCB8-13A 2154 @ 1-2 PPB
14 ICAL	12	0904F014	ULSPLT	PCB8-13B 2154 @ 2-4 PPB
15 ICAL	13	0904F015	ULSPLT	PCB8-13C 2154 @ 5-10 PPB
16 ICAL	14	0904F016	ULSPLT	PCB8-13D 2154 @ 10-20 PPB
17 ICAL	15	0904F017	ULSPLT	PCB7-91E 2154 @ 20-40 PPB
18 ICAL	16	0904F018	ULSPLT	PCB7-91F 2154 @ 50-100 PPB
19 ICAL	17	0904F019	ULSPLT	PCB7-91G 2154 @ 100-200 PPB
20 ICAL	18	0904F020	ULSPLT	PCB7-90H 2154 @ 200-400 PPB
21 ICAL	19	0904F021	ULSPLT	PCB8-13E 3262 @ 1 PPB
22 ICAL	20	0904F022	ULSPLT	PCB8-13F 3262 @ 2 PPB
23 ICAL	21	0904F023	ULSPLT	PCB8-13G 3262 @ 5 PPB
24 ICAL	22	0904F024	ULSPLT	PCB8-13H 3262 @ 10 PPB
25 ICAL	23	0904F025	ULSPLT	PCB7-91H 3262 @ 20 PPB
26 ICAL	24	0904F026	ULSPLT	PCB7-91I 3262 @ 50 PPB
27 ICAL	25	0904F027	ULSPLT	PCB7-91J 3262 @ 100 PPB
28 ICAL	26	0904F028	ULSPLT	PCB7-90I 3262 @ 200 PPB
29 ICAL	27	0904F029	ULSPLT	PCB8-13I 4268 @ 1 PPB
30 ICAL	28	0904F030	ULSPLT	PCB8-13J 4268 @ 2 PPB
31 ICAL	29	0904F031	ULSPLT	PCB8-13K 4268 @ 5 PPB
32 ICAL	30	0904F032	ULSPLT	PCB8-13L 4268 @ 10 PPB
33 ICAL	31	0904F033	ULSPLT	PCB8-4H 4268 @ 20 PPB
34 ICAL	32	0904F034	ULSPLT	PCB8-4F 4268 @ 50 PPB
35 ICAL	33	0904F035	ULSPLT	PCB8-4G 4268 @ 100 PPB
36 ICAL	34	0904F036	ULSPLT	PCB8-4E 4268 @ 200 PPB
37 ICAL	35	0904F037	ULSPLT	PCB8-13M 1248 @ 1 PPB
38 ICAL	36	0904F038	ULSPLT	PCB8-13N 1248 @ 2 PPB
39 ICAL	37	0904F039	ULSPLT	PCB8-14A 1248 @ 5 PPB
40 ICAL	38	0904F040	ULSPLT	PCB8-14B 1248 @ 10 PPB
41 ICAL	39	0904F041	ULSPLT	PCB7-91N 1248 @ 20 PPB
42 ICAL	40	0904F042	ULSPLT	PCB7-91O 1248 @ 50 PPB
43 ICAL	41	0904F043	ULSPLT	PCB7-92A 1248 @ 100 PPB

Line Type	Vial	DataFile	Method	Sample Name
44 ICAL	42	0904F044	ULSPLT	PCB7-91A 1248 @ 200 PPB
45 ICV	43	0904F045	ULSPLT	PCB8-14C 1016 ICV @ 20 PPB
46 ICV	44	0904F046	ULSPLT	PCB8-14D 1221 ICV @ 20 PPB
47 ICV	45	0904F047	ULSPLT	PCB8-14E 1232 ICV @ 20 PPB
48 ICV	46	0904F048	ULSPLT	PCB8-14F 1242 ICV @ 20 PPB
49 ICV	47	0904F049	ULSPLT	PCB8-14G 1248 ICV @ 20 PPB
50 ICV	48	0904F050	ULSPLT	PCB8-14H 1254 ICV @ 20 PPB
51 ICV	49	0904F051	ULSPLT	PCB8-14I 1260 ICV @ 20 PPB
52 ICV	50	0904F052	ULSPLT	PCB8-14J 1262 ICV @ 20 PPB
53 ICV	51	0904F053	ULSPLT	PCB8-14K 1268 ICV @ 20 PPB

Injection Log

Directory: j:\GC27\Data\090919

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	100	0909F001.D	1.	PRIMER		09/09/22019 10:49:0
2	100	0909F002.D	1.	PRIMER		09/09/22019 11:20:3
3	1	0909F003.D	1.	IB		09/09/22019 11:52:0
4	2	0909F004.D	1.	PCB8-015A 4268 @ 1 PPB		09/09/22019 12:23:4
5	3	0909F005.D	1.	PCB8-015B 4268 @ 2 PPB		09/09/22019 12:55:2
6	4	0909F006.D	1.	PCB8-015C 4268 @ 5 PPB		09/09/22019 1:27:1
7	5	0909F007.D	1.	PCB8-015D 4268 @ 10 PPB		09/09/22019 1:58:4
8	6	0909F008.D	1.	PCB8-015E 1242 ICV @ 20 PPB		09/09/22019 2:30:2
9	7	0909F009.D	1.	PCB8-015H 4268 @ 1 PPB		09/09/22019 3:02:1
10	8	0909F010.D	1.	PCB8-015I 4268 @ 2 PPB		09/09/22019 3:33:5
11	9	0909F011.D	1.	PCB8-015J 4268 @ 5 PPB		09/09/22019 4:05:3
12	10	0909F012.D	1.	PCB8-015K 4268 @ 10 PPB		09/09/22019 4:37:0
13	11	0909F013.D	1.	PCB8-015E 1242 ICV @ 20 PPB		09/09/22019 5:08:4
14	12	0909F014.D	1.	PCB8-015F 1268 ICV @ 20 PPB		09/09/22019 5:40:1

ALS-Kelso
Initial Calibration Checklist GC

Method: 8082A PCB
ICAL ID or Date: CAL16127
Instrument: GC 27

Primary Secondary

- The new ICAL is saved with a unique ID.
- ICAL was performed continuously (i.e. not interrupted by maintenance event).
- All analytes in blank are $< \frac{1}{2}$ MRL.
- ICAL contains minimum number of concentrations.
- No internal levels excluded for any analytes.
- Retention times updated using a midpoint of the calibration. Secondary reviewer double check peak IDs.
- Calibration files quantitated with new method.
- Check integrations. Primary reviewer must check all integrations electronically. Secondary reviewer will check low point and high point electronically.
- ICAL files added to calibration table.
- The average RF or COD meets method criteria for all analytes.
- ICV is quantitated against new ICAL.
- ICV meets method criteria.
- Linked in Stealth to an appropriate method. An appropriate method will be one that contains all analytes that were analyzed.
- All calibration reports included: ICAL SUMMARY, ICAL DETAILED, ICV SUMMARY.
- Enviroquant/Target responses match those in Stealth.
- All quant reports and manual integrations initialed and dated.

Data packet should be in the following order: Sequence log, Calibration Review, Stealth ICAL reports, and quant reports.

Primary: SA

Date: 9/11/19

Secondary: [Signature]

Date: 9/12/19

Initial Calibration - Summary Report

Calibration ID: CAL16127
Method ID: MJ706

Instrument ID: GC27.i
Column Name: DB-35MS

Parameter Name	Type	Curve Fit	Min RF	Mean RF	Max %RSD	%RSD	Min COD	COD	MRL Check	Conc ½ Low pt.
Aroclor 1221 {1}	MULTI	AverageRF		2.3E+4	20	10.7			OK	
Aroclor 1221 {2}	MULTI	AverageRF		1.5E+4	20	10.9			OK	
Aroclor 1221 {3}	MULTI	AverageRF		5.5E+4	20	10.1			OK	
Aroclor 1232 {1}	MULTI	AverageRF		1.6E+4	20	12.2			OK	
Aroclor 1232 {2}	MULTI	AverageRF		4.7E+4	20	12.4			OK	
Aroclor 1232 {3}	MULTI	AverageRF		3.8E+4	20	10.7			OK	
Aroclor 1232 {4}	MULTI	AverageRF		1.4E+4	20	8.8			OK	
Aroclor 1232 {5}	MULTI	AverageRF		2.6E+4	20	12.7			OK	
Aroclor 1242 {1}	MULTI	AverageRF		3.0E+4	20	8.7			OK	
Aroclor 1242 {2}	MULTI	AverageRF		2.3E+4	20	5.4			OK	
Aroclor 1242 {3}	MULTI	AverageRF		6.8E+4	20	6.7			OK	
Aroclor 1242 {4}	MULTI	AverageRF		4.1E+4	20	5.7			OK	
Aroclor 1242 {5}	MULTI	AverageRF		2.8E+4	20	5.5			OK	
Aroclor 1248 {1}	MULTI	AverageRF		4.2E+4	20	12.9			OK	
Aroclor 1248 {2}	MULTI	AverageRF		2.8E+4	20	10.5			OK	
Aroclor 1248 {3}	MULTI	AverageRF		5.3E+4	20	13.7			OK	
Aroclor 1248 {4}	MULTI	AverageRF		3.8E+4	20	9.2			OK	
Aroclor 1248 {5}	MULTI	AverageRF		3.3E+4	20	10.6			OK	
Aroclor 1254 {1}	MULTI	AverageRF		3.6E+4	20	10.1			OK	
Aroclor 1254 {2}	MULTI	AverageRF		6.3E+4	20	10.8			OK	
Aroclor 1254 {3}	MULTI	AverageRF		1.2E+5	20	11.8			OK	
Aroclor 1254 {4}	MULTI	AverageRF		7.3E+4	20	9.6			OK	
Aroclor 1254 {5}	MULTI	AverageRF		4.6E+4	20	8.2			OK	
Aroclor 1262 {1}	MULTI	AverageRF		9.4E+4	20	10.5			OK	
Aroclor 1262 {2}	MULTI	AverageRF		8.3E+4	20	10.9			OK	
Aroclor 1262 {3}	MULTI	AverageRF		1.5E+5	20	10.1			OK	
Aroclor 1262 {4}	MULTI	AverageRF		1.1E+5	20	10.5			OK	
Aroclor 1262 {5}	MULTI	AverageRF		4.8E+4	20	8.4			OK	
Aroclor 1268 {1}	MULTI	AverageRF		1.6E+5	20	5.8			OK	
Aroclor 1268 {2}	MULTI	AverageRF		1.5E+5	20	7.0			OK	
Aroclor 1268 {3}	MULTI	AverageRF		1.2E+5	20	5.9			OK	
Aroclor 1268 {4}	MULTI	AverageRF		3.5E+5	20	7.1			OK	
Tetrachloro-m-xylene	SURR	AverageRF		1.8E+6	20	3.7			NA	
Decachlorobiphenyl	SURR	AverageRF		1.1E+6	20	8.4			NA	
Aroclor 1016 {1}	MULTI	AverageRF		3.4E+4	20	8.5			OK	
Aroclor 1016 {2}	MULTI	AverageRF		2.8E+4	20	7.5			OK	
Aroclor 1016 {3}	MULTI	AverageRF		8.7E+4	20	7.2			OK	
Aroclor 1016 {4}	MULTI	AverageRF		5.1E+4	20	5.8			OK	
Aroclor 1016 {5}	MULTI	AverageRF		3.5E+4	20	5.1			OK	
Aroclor 1260 {1}	MULTI	AverageRF		3.4E+4	20	4.9			OK	
Aroclor 1260 {2}	MULTI	AverageRF		4.7E+4	20	4.6			OK	
Aroclor 1260 {3}	MULTI	AverageRF		5.0E+4	20	5.3			OK	
Aroclor 1260 {4}	MULTI	AverageRF		1.1E+5	20	6.7			OK	
Aroclor 1260 {5}	MULTI	AverageRF		7.9E+4	20	6.9			OK	

Initial Calibration - Summary Report

Calibration ID: CAL16127
Method ID: MJ706

Instrument ID: GC27.i
Column Name: DB-XLB

Parameter Name	Type	Curve Fit	Min RF	Mean RF	Max %RSD	%RSD	Min COD	COD	MRL Check	Conc ½ Low pt.
Aroclor 1221 {1}	MULTI	AverageRF		6.5E+3	20	7.8			OK	
Aroclor 1221 {2}	MULTI	AverageRF		6.5E+3	20	4.5			OK	
Aroclor 1221 {3}	MULTI	AverageRF		2.5E+4	20	8.6			OK	
Aroclor 1232 {1}	MULTI	AverageRF		2.0E+4	20	7.5			OK	
Aroclor 1232 {2}	MULTI	AverageRF		1.1E+4	20	5.6			OK	
Aroclor 1232 {3}	MULTI	AverageRF		7.3E+3	20	7.2			OK	
Aroclor 1232 {4}	MULTI	AverageRF		1.5E+4	20	7.5			OK	
Aroclor 1232 {5}	MULTI	AverageRF		1.8E+4	20	6.6			OK	
Aroclor 1242 {1}	MULTI	AverageRF		1.3E+4	20	11.9			OK	
Aroclor 1242 {2}	MULTI	AverageRF		1.8E+4	20	7.4			OK	
Aroclor 1242 {3}	MULTI	AverageRF		2.6E+4	20	4.9			OK	
Aroclor 1242 {4}	MULTI	AverageRF		2.9E+4	20	5.5			OK	
Aroclor 1242 {5}	MULTI	AverageRF		1.6E+4	20	9.8			OK	
Aroclor 1248 {1}	MULTI	AverageRF		2.1E+4	20	7.6			OK	
Aroclor 1248 {2}	MULTI	AverageRF		1.8E+4	20	8.3			OK	
Aroclor 1248 {3}	MULTI	AverageRF		2.4E+4	20	11.8			OK	
Aroclor 1248 {4}	MULTI	AverageRF		1.9E+4	20	9.9			OK	
Aroclor 1248 {5}	MULTI	AverageRF		2.9E+4	20	9.7			OK	
Aroclor 1254 {1}	MULTI	AverageRF		3.2E+4	20	9.6			OK	
Aroclor 1254 {2}	MULTI	AverageRF		1.7E+4	20	7.2			OK	
Aroclor 1254 {3}	MULTI	AverageRF		4.9E+4	20	11.2			OK	
Aroclor 1254 {4}	MULTI	AverageRF		1.5E+4	20	9.1			OK	
Aroclor 1254 {5}	MULTI	AverageRF		2.4E+4	20	10.5			OK	
Aroclor 1262 {1}	MULTI	AverageRF		4.2E+4	20	15.0			OK	
Aroclor 1262 {2}	MULTI	AverageRF		3.2E+4	20	14.6			OK	
Aroclor 1262 {3}	MULTI	AverageRF		6.6E+4	20	17.0			OK	
Aroclor 1262 {4}	MULTI	AverageRF		4.4E+4	20	14.1			OK	
Aroclor 1262 {5}	MULTI	AverageRF		2.3E+4	20	13.1			OK	
Aroclor 1268 {1}	MULTI	AverageRF		7.1E+4	20	9.2			OK	
Aroclor 1268 {2}	MULTI	AverageRF		6.3E+4	20	7.5			OK	
Aroclor 1268 {3}	MULTI	AverageRF		5.4E+4	20	6.5			OK	
Aroclor 1268 {4}	MULTI	AverageRF		1.5E+5	20	9.3			OK	
Tetrachloro-m-xylene	SURR	AverageRF		8.3E+5	20	7.2			NA	
Decachlorobiphenyl	SURR	AverageRF		4.5E+5	20	11.3			NA	
Aroclor 1016 {1}	MULTI	AverageRF		1.5E+4	20	6.8			OK	
Aroclor 1016 {2}	MULTI	AverageRF		2.2E+4	20	7.8			OK	
Aroclor 1016 {3}	MULTI	AverageRF		2.4E+4	20	7.8			OK	
Aroclor 1016 {4}	MULTI	AverageRF		1.8E+4	20	9.0			OK	
Aroclor 1016 {5}	MULTI	AverageRF		1.7E+4	20	7.5			OK	
Aroclor 1260 {1}	MULTI	AverageRF		1.4E+4	20	7.1			OK	
Aroclor 1260 {2}	MULTI	AverageRF		2.3E+4	20	15.6			OK	
Aroclor 1260 {3}	MULTI	AverageRF		2.2E+4	20	12.1			OK	
Aroclor 1260 {4}	MULTI	AverageRF		4.8E+4	20	14.2			OK	
Aroclor 1260 {5}	MULTI	AverageRF		2.9E+4	20	9.8			OK	

Initial Calibration - Detailed Report

Calibration ID: CAL16127
Method ID: MJ706

Instrument ID: GC27.i
Column Name: DB-35MS
Calibration Fit: AverageRF

#	FileID	File Location	Acquisition Date	Quantitation Date	Last Updated
1	289595	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F005.D	09/04/2019 18:32	09/11/2019 09:52	09/11/2019 13:26
2	289597	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F006.D	09/04/2019 19:04	09/11/2019 09:52	09/11/2019 13:26
3	289599	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F007.D	09/04/2019 19:35	09/11/2019 09:52	09/11/2019 13:26
4	289601	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F008.D	09/04/2019 20:07	09/11/2019 09:52	09/11/2019 13:26
5	289603	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F009.D	09/04/2019 20:39	09/11/2019 09:52	09/11/2019 13:26
6	289605	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F010.D	09/04/2019 21:10	09/11/2019 09:52	09/11/2019 13:26
7	289607	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F011.D	09/04/2019 21:42	09/11/2019 09:52	09/11/2019 13:26
8	289609	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F012.D	09/04/2019 22:13	09/11/2019 09:52	09/11/2019 13:26
9	289611	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F013.D	09/04/2019 22:45	09/11/2019 09:52	09/11/2019 13:26
10	289613	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F014.D	09/04/2019 23:17	09/11/2019 09:52	09/11/2019 13:26
11	289615	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F015.D	09/04/2019 23:48	09/11/2019 09:53	09/11/2019 13:26
12	289617	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F016.D	09/05/2019 00:20	09/11/2019 09:53	09/11/2019 13:26
13	289619	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F017.D	09/05/2019 00:51	09/11/2019 09:53	09/11/2019 13:26
14	289621	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F018.D	09/05/2019 01:23	09/11/2019 09:53	09/11/2019 13:26
15	289623	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F019.D	09/05/2019 01:55	09/11/2019 09:53	09/11/2019 13:26
16	289625	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F020.D	09/05/2019 02:26	09/11/2019 09:53	09/11/2019 13:26
17	289627	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F021.D	09/05/2019 02:58	09/11/2019 09:53	09/11/2019 13:26
18	289629	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F022.D	09/05/2019 03:29	09/11/2019 09:53	09/11/2019 13:26
19	289631	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F023.D	09/05/2019 04:01	09/11/2019 09:53	09/11/2019 13:26
20	289633	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F024.D	09/05/2019 04:32	09/11/2019 09:53	09/11/2019 13:26
21	289635	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F025.D	09/05/2019 05:04	09/11/2019 09:53	09/11/2019 13:26
22	289637	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F026.D	09/05/2019 05:35	09/11/2019 09:53	09/11/2019 13:26
23	289639	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F027.D	09/05/2019 06:07	09/11/2019 09:53	09/11/2019 13:26
24	289641	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F028.D	09/05/2019 06:38	09/11/2019 09:53	09/11/2019 13:27
25	289643	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F033.D	09/05/2019 09:16	09/11/2019 09:53	09/11/2019 13:27
26	289645	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F034.D	09/05/2019 09:48	09/11/2019 09:53	09/11/2019 13:27
27	289647	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F035.D	09/05/2019 10:20	09/11/2019 09:53	09/11/2019 13:27
28	289649	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F036.D	09/05/2019 10:52	09/11/2019 09:53	09/11/2019 13:27
29	289651	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F037.D	09/05/2019 11:23	09/11/2019 09:53	09/11/2019 13:27
30	289653	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F038.D	09/05/2019 11:55	09/11/2019 09:53	09/11/2019 13:27
31	289655	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F039.D	09/05/2019 12:26	09/11/2019 09:53	09/11/2019 13:27
32	289657	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F040.D	09/05/2019 12:58	09/11/2019 09:53	09/11/2019 13:27
33	289659	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F041.D	09/05/2019 13:30	09/11/2019 09:53	09/11/2019 13:27
34	289661	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F042.D	09/05/2019 14:02	09/11/2019 09:53	09/11/2019 13:27
35	289663	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F043.D	09/05/2019 14:33	09/11/2019 09:53	09/11/2019 13:27
36	289665	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F044.D	09/05/2019 15:05	09/11/2019 09:53	09/11/2019 13:27
37	289681	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F009.D	09/09/2019 15:02	09/11/2019 09:54	09/11/2019 13:27
38	289683	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F010.D	09/09/2019 15:33	09/11/2019 09:54	09/11/2019 13:27
39	289685	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F011.D	09/09/2019 16:05	09/11/2019 09:54	09/11/2019 13:27
40	289687	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F012.D	09/09/2019 16:37	09/11/2019 09:54	09/11/2019 13:27

Parameter Name	# RF		# RF		# RF		# RF		# RF		Mean RF	%RSD		
	#	RF	#	RF	#	RF	#	RF	#	RF				
Tetrachloro-m-xylene	1	1.9E+6	2	1.9E+6	3	1.7E+6	4	1.8E+6	5	1.9E+6	6	1.8E+6	1.8E+6	3.7
	7	1.7E+6	8	1.7E+6										
Decachlorobiphenyl	1	1.2E+6	2	1.2E+6	3	1.1E+6	4	1.1E+6	5	1.1E+6	6	1.0E+6	1.1E+6	8.4
	7	9.8E+5	8	9.5E+5										
Aroclor 1016 {1}	1	3.9E+4	2	3.5E+4	3	3.3E+4	4	3.5E+4	5	3.6E+4	6	3.3E+4	3.4E+4	8.5
	7	3.1E+4	8	3.0E+4										

Initial Calibration - Detailed Report

Initial Calibration - Detailed Report

Calibration ID: CAL16127
Method ID: MJ706

Instrument ID: GC27.i
Column Name: DB-35MS
Calibration Fit: AverageRF

Parameter Name	#	RF	#	RF	#	RF	#	RF	#	RF	#	RF	Mean RF	%RSD
Aroclor 1016 {2}	1	3.2E+4	2	2.9E+4	3	2.7E+4	4	2.8E+4	5	2.9E+4	6	2.8E+4	2.8E+4	7.5
	7	2.6E+4	8	2.5E+4										
Aroclor 1016 {3}	1	9.3E+4	2	9.8E+4	3	8.4E+4	4	8.5E+4	5	9.0E+4	6	8.6E+4	8.7E+4	7.2
	7	8.0E+4	8	8.0E+4										
Aroclor 1016 {4}	1	5.1E+4	2	5.3E+4	3	5.3E+4	4	5.3E+4	5	5.5E+4	6	5.1E+4	5.1E+4	5.8
	7	4.8E+4	8	4.6E+4										
Aroclor 1016 {5}	1	3.6E+4	2	3.5E+4	3	3.6E+4	4	3.7E+4	5	3.8E+4	6	3.5E+4	3.5E+4	5.1
	7	3.3E+4	8	3.2E+4										
Aroclor 1221 {1}					9	2.5E+4	10	2.6E+4	11	2.5E+4	12	2.5E+4	2.3E+4	10.7
	13	2.2E+4	14	2.0E+4	15	2.0E+4	16	2.1E+4						
Aroclor 1221 {2}					9	1.7E+4	10	1.6E+4	11	1.5E+4	12	1.5E+4	1.5E+4	10.9
	13	1.4E+4	14	1.3E+4	15	1.3E+4	16	1.4E+4						
Aroclor 1221 {3}					9	6.0E+4	10	6.2E+4	11	5.8E+4	12	5.8E+4	5.5E+4	10.1
	13	5.3E+4	14	4.9E+4	15	4.7E+4	16	5.1E+4						
Aroclor 1232 {1}									17	1.9E+4	18	1.7E+4	1.6E+4	12.2
	19	1.6E+4	20	1.6E+4	21	1.5E+4	22	1.4E+4	23	1.3E+4	24	1.5E+4		
Aroclor 1232 {2}									17	5.7E+4	18	4.8E+4	4.7E+4	12.4
	19	5.1E+4	20	5.1E+4	21	4.4E+4	22	4.2E+4	23	3.9E+4	24	4.3E+4		
Aroclor 1232 {3}									17	3.1E+4	18	4.3E+4	3.8E+4	10.7
	19	4.0E+4	20	4.2E+4	21	4.0E+4	22	3.7E+4	23	3.4E+4	24	3.8E+4		
Aroclor 1232 {4}									17	1.2E+4	18	1.5E+4	1.4E+4	8.8
	19	1.5E+4	20	1.5E+4	21	1.4E+4	22	1.3E+4	23	1.2E+4	24	1.4E+4		
Aroclor 1232 {5}									17	3.3E+4	18	2.9E+4	2.6E+4	12.7
	19	2.6E+4	20	2.8E+4	21	2.4E+4	22	2.4E+4	23	2.2E+4	24	2.5E+4		
Aroclor 1242 {1}					25	3.0E+4	26	3.0E+4	27	2.8E+4	28	3.1E+4	3.0E+4	8.7
					37	3.5E+4	38	3.1E+4	39	2.7E+4	40	2.7E+4		
Aroclor 1242 {2}					25	2.3E+4	26	2.4E+4	27	2.2E+4	28	2.4E+4	2.3E+4	5.4
					37	2.2E+4	38	2.4E+4	39	2.1E+4	40	2.2E+4		
Aroclor 1242 {3}					25	6.9E+4	26	7.2E+4	27	6.8E+4	28	7.1E+4	6.8E+4	6.7
					37	7.5E+4	38	6.7E+4	39	6.3E+4	40	6.2E+4		
Aroclor 1242 {4}					25	4.2E+4	26	4.3E+4	27	4.0E+4	28	4.5E+4	4.1E+4	5.7
					37	3.9E+4	38	3.9E+4	39	4.0E+4	40	3.9E+4		
Aroclor 1242 {5}					25	2.8E+4	26	2.8E+4	27	2.7E+4	28	3.1E+4	2.8E+4	5.5
					37	2.8E+4	38	3.0E+4	39	2.7E+4	40	2.6E+4		
Aroclor 1248 {1}									29	5.1E+4	30	4.5E+4	4.2E+4	12.9
	31	4.6E+4	32	4.2E+4	33	3.8E+4	34	3.6E+4	35	3.6E+4	36	3.9E+4		
Aroclor 1248 {2}									29	3.3E+4	30	3.1E+4	2.8E+4	10.5
	31	2.9E+4	32	3.1E+4	33	2.5E+4	34	2.6E+4	35	2.5E+4	36	2.7E+4		
Aroclor 1248 {3}									29	6.1E+4	30	6.2E+4	5.3E+4	13.7
	31	5.5E+4	32	5.5E+4	33	4.9E+4	34	4.6E+4	35	4.3E+4	36	4.9E+4		
Aroclor 1248 {4}									29	3.8E+4	30	4.2E+4	3.8E+4	9.2
	31	4.1E+4	32	4.0E+4	33	3.6E+4	34	3.4E+4	35	3.2E+4	36	3.7E+4		
Aroclor 1248 {5}									29	3.5E+4	30	3.6E+4	3.3E+4	10.6
	31	3.7E+4	32	3.6E+4	33	3.1E+4	34	2.9E+4	35	2.8E+4	36	3.3E+4		
Aroclor 1254 {1}					9	4.0E+4	10	4.0E+4	11	3.7E+4	12	4.0E+4	3.6E+4	10.1
	13	3.5E+4	14	3.2E+4	15	3.1E+4	16	3.6E+4						
Aroclor 1254 {2}					9	7.1E+4	10	7.0E+4	11	6.4E+4	12	6.7E+4	6.3E+4	10.8
	13	5.8E+4	14	5.5E+4	15	5.3E+4	16	6.2E+4						

Initial Calibration - Detailed Report

Calibration ID:	CAL16127	Instrument ID:	GC27.i
Method ID:	MJ706	Column Name:	DB-35MS
		Calibration Fit:	AverageRF

Parameter Name	#	RF	#	RF	#	RF	#	RF	#	RF	#	RF	Mean RF	%RSD
Aroclor 1254 {3}			9	1.4E+5	10	1.4E+5	11	1.3E+5	12	1.3E+5			1.2E+5	11.8
	13	1.1E+5	14	1.1E+5	15	1.0E+5	16	1.2E+5						
Aroclor 1254 {4}			9	7.5E+4	10	8.2E+4	11	7.6E+4	12	8.1E+4			7.3E+4	9.6
	13	6.8E+4	14	6.5E+4	15	6.3E+4	16	7.4E+4						
Aroclor 1254 {5}			9	4.3E+4	10	4.9E+4	11	4.9E+4	12	5.0E+4			4.6E+4	8.2
	13	4.5E+4	14	4.2E+4	15	4.0E+4	16	4.7E+4						
Aroclor 1260 {1}	1	3.5E+4	2	3.5E+4	3	3.2E+4	4	3.4E+4	5	3.5E+4	6	3.3E+4	3.4E+4	4.9
	7	3.2E+4	8	3.2E+4										
Aroclor 1260 {2}	1	4.8E+4	2	4.6E+4	3	4.5E+4	4	4.7E+4	5	5.0E+4	6	4.7E+4	4.7E+4	4.6
	7	4.5E+4	8	4.4E+4										
Aroclor 1260 {3}	1	5.4E+4	2	5.0E+4	3	4.9E+4	4	5.2E+4	5	5.3E+4	6	5.0E+4	5.0E+4	5.3
	7	4.7E+4	8	4.6E+4										
Aroclor 1260 {4}	1	1.2E+5	2	1.1E+5	3	1.0E+5	4	1.1E+5	5	1.1E+5	6	1.0E+5	1.1E+5	6.7
	7	9.9E+4	8	9.9E+4										
Aroclor 1260 {5}	1	9.0E+4	2	8.2E+4	3	7.8E+4	4	8.1E+4	5	8.1E+4	6	7.7E+4	7.9E+4	6.9
	7	7.3E+4	8	7.3E+4										
Aroclor 1262 {1}									17	1.0E+5	18	1.0E+5	9.4E+4	10.5
	19	1.0E+5	20	1.0E+5	21	8.8E+4	22	8.4E+4	23	7.8E+4	24	9.1E+4		
Aroclor 1262 {2}									17	9.7E+4	18	8.8E+4	8.3E+4	10.9
	19	8.5E+4	20	9.0E+4	21	7.8E+4	22	7.5E+4	23	6.9E+4	24	8.1E+4		
Aroclor 1262 {3}									17	1.7E+5	18	1.7E+5	1.5E+5	10.1
	19	1.6E+5	20	1.6E+5	21	1.4E+5	22	1.4E+5	23	1.3E+5	24	1.5E+5		
Aroclor 1262 {4}									17	1.2E+5	18	1.2E+5	1.1E+5	10.5
	19	1.1E+5	20	1.2E+5	21	1.0E+5	22	9.8E+4	23	9.2E+4	24	1.1E+5		
Aroclor 1262 {5}									17	5.0E+4	18	5.1E+4	4.8E+4	8.4
	19	4.9E+4	20	5.2E+4	21	4.5E+4	22	4.4E+4	23	4.1E+4	24	4.9E+4		
Aroclor 1268 {1}	25	1.6E+5	26	1.6E+5	27	1.6E+5	28	1.8E+5					1.6E+5	5.8
	37	1.7E+5	38	1.7E+5	39	1.6E+5	40	1.5E+5						
Aroclor 1268 {2}	25	1.4E+5	26	1.5E+5	27	1.4E+5	28	1.7E+5					1.5E+5	7.0
	37	1.6E+5	38	1.4E+5	39	1.4E+5	40	1.4E+5						
Aroclor 1268 {3}	25	1.2E+5	26	1.3E+5	27	1.2E+5	28	1.4E+5					1.2E+5	5.9
	37	1.2E+5	38	1.2E+5	39	1.2E+5	40	1.2E+5						
Aroclor 1268 {4}	25	3.4E+5	26	3.6E+5	27	3.4E+5	28	4.1E+5					3.5E+5	7.1
	37	3.5E+5	38	3.5E+5	39	3.3E+5	40	3.3E+5						

Initial Calibration - Detailed Report

Calibration ID: CAL16127
Method ID: MJ706

Instrument ID: GC27.i
Column Name: DB-35MS

#	FileID	File Location	Acquisition Date	Quantitation Date	Last Updated
1	289595	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F005.D	09/04/2019 18:32	09/11/2019 09:52	09/11/2019 13:26
2	289597	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F006.D	09/04/2019 19:04	09/11/2019 09:52	09/11/2019 13:26
3	289599	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F007.D	09/04/2019 19:35	09/11/2019 09:52	09/11/2019 13:26
4	289601	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F008.D	09/04/2019 20:07	09/11/2019 09:52	09/11/2019 13:26
5	289603	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F009.D	09/04/2019 20:39	09/11/2019 09:52	09/11/2019 13:26
6	289605	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F010.D	09/04/2019 21:10	09/11/2019 09:52	09/11/2019 13:26
7	289607	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F011.D	09/04/2019 21:42	09/11/2019 09:52	09/11/2019 13:26
8	289609	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F012.D	09/04/2019 22:13	09/11/2019 09:52	09/11/2019 13:26
9	289611	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F013.D	09/04/2019 22:45	09/11/2019 09:52	09/11/2019 13:26
10	289613	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F014.D	09/04/2019 23:17	09/11/2019 09:52	09/11/2019 13:26
11	289615	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F015.D	09/04/2019 23:48	09/11/2019 09:53	09/11/2019 13:26
12	289617	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F016.D	09/05/2019 00:20	09/11/2019 09:53	09/11/2019 13:26
13	289619	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F017.D	09/05/2019 00:51	09/11/2019 09:53	09/11/2019 13:26
14	289621	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F018.D	09/05/2019 01:23	09/11/2019 09:53	09/11/2019 13:26
15	289623	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F019.D	09/05/2019 01:55	09/11/2019 09:53	09/11/2019 13:26
16	289625	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F020.D	09/05/2019 02:26	09/11/2019 09:53	09/11/2019 13:26
17	289627	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F021.D	09/05/2019 02:58	09/11/2019 09:53	09/11/2019 13:26
18	289629	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F022.D	09/05/2019 03:29	09/11/2019 09:53	09/11/2019 13:26
19	289631	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F023.D	09/05/2019 04:01	09/11/2019 09:53	09/11/2019 13:26
20	289633	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F024.D	09/05/2019 04:32	09/11/2019 09:53	09/11/2019 13:26
21	289635	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F025.D	09/05/2019 05:04	09/11/2019 09:53	09/11/2019 13:26
22	289637	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F026.D	09/05/2019 05:35	09/11/2019 09:53	09/11/2019 13:26
23	289639	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F027.D	09/05/2019 06:07	09/11/2019 09:53	09/11/2019 13:26
24	289641	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F028.D	09/05/2019 06:38	09/11/2019 09:53	09/11/2019 13:27
25	289643	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F033.D	09/05/2019 09:16	09/11/2019 09:53	09/11/2019 13:27
26	289645	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F034.D	09/05/2019 09:48	09/11/2019 09:53	09/11/2019 13:27
27	289647	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F035.D	09/05/2019 10:20	09/11/2019 09:53	09/11/2019 13:27
28	289649	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F036.D	09/05/2019 10:52	09/11/2019 09:53	09/11/2019 13:27
29	289651	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F037.D	09/05/2019 11:23	09/11/2019 09:53	09/11/2019 13:27
30	289653	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F038.D	09/05/2019 11:55	09/11/2019 09:53	09/11/2019 13:27
31	289655	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F039.D	09/05/2019 12:26	09/11/2019 09:53	09/11/2019 13:27
32	289657	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F040.D	09/05/2019 12:58	09/11/2019 09:53	09/11/2019 13:27
33	289659	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F041.D	09/05/2019 13:30	09/11/2019 09:53	09/11/2019 13:27
34	289661	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F042.D	09/05/2019 14:02	09/11/2019 09:53	09/11/2019 13:27
35	289663	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F043.D	09/05/2019 14:33	09/11/2019 09:53	09/11/2019 13:27
36	289665	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F044.D	09/05/2019 15:05	09/11/2019 09:53	09/11/2019 13:27
37	289681	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F009.D	09/09/2019 15:02	09/11/2019 09:54	09/11/2019 13:27
38	289683	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F010.D	09/09/2019 15:33	09/11/2019 09:54	09/11/2019 13:27
39	289685	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F011.D	09/09/2019 16:05	09/11/2019 09:54	09/11/2019 13:27
40	289687	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F012.D	09/09/2019 16:37	09/11/2019 09:54	09/11/2019 13:27

Parameter Name	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D
Tetrachloro-m-xylene	1	0.1	0.1059	5.9	2	0.2	0.2063	3.2	3	0.5	0.4839	-3.2
	4	1	0.9930	-0.7	5	2	2.064	3.2	6	5	4.940	-1.2
	7	10	9.640	-3.6	8	20	19.28	-3.6				

Initial Calibration - Detailed Report

Calibration ID: CAL16127	Instrument ID: GC27.i
Method ID: MJ706	Column Name: DB-35MS

Parameter Name	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D
Decachlorobiphenyl	1	0.1	0.1124	12.4	2	0.2	0.2138	6.9	3	0.5	0.5063	1.3
	4	1	1.018	1.8	5	2	2.085	4.3	6	5	4.794	-4.1
	7	10	9.023	-9.8	8	20	17.46	-12.7				
Aroclor 1016 {1}	1	1	1.155	15.5	2	2	2.079	4.0	3	5	4.767	-4.7
	4	10	10.33	3.3	5	20	20.94	4.7	6	50	48.25	-3.5
	7	100	91.87	-8.1	8	200	177.8	-11.1				
Aroclor 1016 {2}	1	1	1.132	13.2	2	2	2.083	4.2	3	5	4.803	-3.9
	4	10	10.12	1.2	5	20	20.91	4.5	6	50	49.11	-1.8
	7	100	93.26	-6.7	8	200	178.8	-10.6				
Aroclor 1016 {3}	1	1	1.067	6.7	2	2	2.251	12.6	3	5	4.820	-3.6
	4	10	9.783	-2.2	5	20	20.71	3.6	6	50	49.60	-0.8
	7	100	92.10	-7.9	8	200	183.3	-8.3				
Aroclor 1016 {4}	1	1	1.000	0.0	2	2	2.081	4.0	3	5	5.122	2.4
	4	10	10.40	4.0	5	20	21.40	7.0	6	50	49.71	-0.6
	7	100	92.70	-7.3	8	200	180.7	-9.7				
Aroclor 1016 {5}	1	1	1.024	2.4	2	2	1.985	-0.8	3	5	5.067	1.3
	4	10	10.45	4.5	5	20	21.38	6.9	6	50	49.89	-0.2
	7	100	94.52	-5.5	8	200	182.5	-8.7				
Aroclor 1221 {1}									9	2	2.199	9.9
	10	4	4.536	13.4	11	10	10.80	8.0	12	20	21.27	6.3
	13	40	38.41	-4.0	14	100	88.56	-11.4	15	200	171.2	-14.4
	16	400	368.7	-7.8								
Aroclor 1221 {2}									9	2	2.353	17.7
	10	4	4.421	10.5	11	10	10.11	1.1	12	20	21.14	5.7
	13	40	38.94	-2.7	14	100	88.87	-11.1	15	200	172.7	-13.7
	16	400	370.0	-7.5								
Aroclor 1221 {3}									9	2	2.198	9.9
	10	4	4.518	13.0	11	10	10.55	5.5	12	20	21.35	6.8
	13	40	38.88	-2.8	14	100	89.45	-10.5	15	200	171.9	-14.1
	16	400	369.5	-7.6								
Aroclor 1232 {1}					17	1	1.231	23.1	18	2	2.177	8.9
	19	5	5.011	0.2	20	10	10.45	4.5	21	20	19.05	-4.7
	22	50	44.95	-10.1	23	100	84.17	-15.8	24	200	187.9	-6.1
Aroclor 1232 {2}					17	1	1.210	21.0	18	2	2.054	2.7
	19	5	5.409	8.2	20	10	10.87	8.7	21	20	18.94	-5.3
	22	50	45.04	-9.9	23	100	83.19	-16.8	24	200	183.0	-8.5
Aroclor 1232 {3}					17	1	0.8195	-18.0	18	2	2.245	12.2
	19	5	5.245	4.9	20	10	11.10	11.0	21	20	21.12	5.6
	22	50	48.38	-3.2	23	100	88.32	-11.7	24	200	198.4	-0.8

Initial Calibration - Detailed Report

Calibration ID: CAL16127
Method ID: MJ706

Instrument ID: GC27.i
Column Name: DB-35MS

Parameter Name	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D
Aroclor 1232 {4}												
					17	1	0.8727	-12.7	18	2	2.236	11.8
	19	5	5.344	6.9	20	10	10.76	7.6	21	20	20.02	0.1
	22	50	48.07	-3.9	23	100	89.25	-10.8	24	200	201.9	0.9
Aroclor 1232 {5}												
					17	1	1.246	24.6	18	2	2.166	8.3
	19	5	4.979	-0.4	20	10	10.49	4.9	21	20	18.57	-7.2
	22	50	45.38	-9.2	23	100	83.39	-16.6	24	200	191.3	-4.3
Aroclor 1242 {1}												
	25	20	19.87	-0.6	26	50	50.08	0.2	27	100	94.97	-5.0
	28	200	205.6	2.8								
	37	1	1.177	17.7	38	2	2.073	3.6	39	5	4.529	-9.4
	40	10	9.074	-9.3								
Aroclor 1242 {2}												
	25	20	20.05	0.2	26	50	52.02	4.0	27	100	97.76	-2.2
	28	200	213.9	7.0								
	37	1	0.9620	-3.8	38	2	2.136	6.8	39	5	4.634	-7.3
	40	10	9.530	-4.7								
Aroclor 1242 {3}												
	25	20	20.07	0.4	26	50	52.86	5.7	27	100	99.81	-0.2
	28	200	208.0	4.0								
	37	1	1.099	9.9	38	2	1.961	-1.9	39	5	4.598	-8.0
	40	10	9.017	-9.8								
Aroclor 1242 {4}												
	25	20	20.45	2.3	26	50	52.61	5.2	27	100	98.51	-1.5
	28	200	221.8	10.9								
	37	1	0.9631	-3.7	38	2	1.904	-4.8	39	5	4.843	-3.1
	40	10	9.474	-5.3								
Aroclor 1242 {5}												
	25	20	20.05	0.2	26	50	50.07	0.1	27	100	96.25	-3.8
	28	200	217.2	8.6								
	37	1	1.002	0.2	38	2	2.133	6.7	39	5	4.783	-4.3
	40	10	9.223	-7.8								
Aroclor 1248 {1}												
					29	1	1.216	21.6	30	2	2.171	8.6
	31	5	5.541	10.8	32	10	10.16	1.6	33	20	18.34	-8.3
	34	50	43.36	-13.3	35	100	84.96	-15.0	36	200	188.1	-6.0
Aroclor 1248 {2}												
					29	1	1.150	15.0	30	2	2.213	10.6
	31	5	5.050	1.0	32	10	10.83	8.3	33	20	17.93	-10.4
	34	50	46.24	-7.5	35	100	86.26	-13.7	36	200	193.2	-3.4
Aroclor 1248 {3}												
					29	1	1.168	16.8	30	2	2.378	18.9
	31	5	5.261	5.2	32	10	10.45	4.5	33	20	18.67	-6.6
	34	50	43.48	-13.0	35	100	81.09	-18.9	36	200	186.4	-6.8
Aroclor 1248 {4}												
					29	1	1.009	0.9	30	2	2.245	12.2
	31	5	5.445	8.9	32	10	10.68	6.8	33	20	19.24	-3.8
	34	50	45.70	-8.6	35	100	85.24	-14.8	36	200	196.5	-1.7
Aroclor 1248 {5}												
					29	1	1.045	4.5	30	2	2.200	10.0
	31	5	5.630	12.6	32	10	10.92	9.2	33	20	18.42	-7.9
	34	50	44.40	-11.2	35	100	84.61	-15.4	36	200	196.4	-1.8

Initial Calibration - Detailed Report

Calibration ID: CAL16127	Instrument ID: GC27.i
Method ID: MJ706	Column Name: DB-35MS

Parameter Name	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D
Aroclor 1254 {1}									9	1	1.094	9.4
	10	2	2.237	11.8	11	5	5.072	1.4	12	10	10.97	9.7
	13	20	19.13	-4.4	14	50	44.20	-11.6	15	100	84.80	-15.2
	16	200	197.7	-1.2								
Aroclor 1254 {2}									9	1	1.136	13.6
	10	2	2.245	12.3	11	5	5.125	2.5	12	10	10.73	7.3
	13	20	18.65	-6.8	14	50	43.80	-12.4	15	100	85.04	-15.0
	16	200	196.8	-1.6								
Aroclor 1254 {3}									9	1	1.147	14.7
	10	2	2.258	12.9	11	5	5.193	3.9	12	10	10.82	8.2
	13	20	18.64	-6.8	14	50	43.13	-13.7	15	100	83.53	-16.5
	16	200	194.6	-2.7								
Aroclor 1254 {4}									9	1	1.034	3.4
	10	2	2.253	12.7	11	5	5.178	3.6	12	10	11.06	10.6
	13	20	18.74	-6.3	14	50	44.21	-11.6	15	100	86.92	-13.1
	16	200	201.5	0.8								
Aroclor 1254 {5}									9	1	0.9372	-6.3
	10	2	2.145	7.3	11	5	5.334	6.7	12	10	11.04	10.4
	13	20	19.59	-2.1	14	50	45.53	-8.9	15	100	88.77	-11.2
	16	200	208.3	4.2								
Aroclor 1260 {1}	1	1	1.056	5.6	2	2	2.115	5.8	3	5	4.756	-4.9
	4	10	10.13	1.3	5	20	20.85	4.3	6	50	49.11	-1.8
	7	100	95.48	-4.5	8	200	188.5	-5.8				
Aroclor 1260 {2}	1	1	1.040	4.0	2	2	1.973	-1.4	3	5	4.792	-4.2
	4	10	10.15	1.5	5	20	21.56	7.8	6	50	50.79	1.6
	7	100	96.33	-3.7	8	200	188.6	-5.7				
Aroclor 1260 {3}	1	1	1.078	7.8	2	2	2.011	0.5	3	5	4.902	-2.0
	4	10	10.31	3.1	5	20	21.03	5.1	6	50	49.45	-1.1
	7	100	94.24	-5.8	8	200	184.4	-7.8				
Aroclor 1260 {4}	1	1	1.139	13.9	2	2	2.012	0.6	3	5	4.832	-3.4
	4	10	10.12	1.2	5	20	20.74	3.7	6	50	48.56	-2.9
	7	100	93.46	-6.5	8	200	186.8	-6.6				
Aroclor 1260 {5}	1	1	1.131	13.1	2	2	2.062	3.1	3	5	4.909	-1.8
	4	10	10.21	2.1	5	20	20.48	2.4	6	50	48.47	-3.1
	7	100	92.58	-7.4	8	200	183.3	-8.4				
Aroclor 1262 {1}					17	1	1.068	6.8	18	2	2.222	11.1
	19	5	5.381	7.6	20	10	11.02	10.2	21	20	18.80	-6.0
	22	50	44.90	-10.2	23	100	82.98	-17.0	24	200	194.9	-2.5
Aroclor 1262 {2}					17	1	1.168	16.8	18	2	2.126	6.3
	19	5	5.144	2.9	20	10	10.88	8.8	21	20	18.73	-6.4
	22	50	44.99	-10.0	23	100	83.31	-16.7	24	200	196.4	-1.8

Initial Calibration - Detailed Report

Calibration ID: CAL16127
Method ID: MJ706

Instrument ID: GC27.i
Column Name: DB-35MS

Parameter Name	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D
Aroclor 1262 {3}					17	1	1.101	10.1	18	2	2.199	9.9
	19	5	5.189	3.8	20	10	10.85	8.5	21	20	18.53	-7.4
	22	50	44.58	-10.8	23	100	84.02	-16.0	24	200	203.6	1.8
Aroclor 1262 {4}					17	1	1.089	8.9	18	2	2.247	12.3
	19	5	5.210	4.2	20	10	10.90	9.0	21	20	18.65	-6.7
	22	50	44.54	-10.9	23	100	83.24	-16.8	24	200	200.0	0.0
Aroclor 1262 {5}					17	1	1.052	5.2	18	2	2.151	7.6
	19	5	5.172	3.4	20	10	10.96	9.6	21	20	18.86	-5.7
	22	50	45.78	-8.4	23	100	85.85	-14.2	24	200	205.0	2.5
Aroclor 1268 {1}	25	20	19.76	-1.2	26	50	50.12	0.2	27	100	95.01	-5.0
	28	200	222.6	11.3								
	37	1	1.037	3.7	38	2	2.045	2.3	39	5	4.751	-5.0
	40	10	9.358	-6.4								
Aroclor 1268 {2}	25	20	19.73	-1.4	26	50	50.62	1.2	27	100	95.92	-4.1
	28	200	227.1	13.5								
	37	1	1.067	6.7	38	2	1.940	-3.0	39	5	4.684	-6.3
	40	10	9.333	-6.7								
Aroclor 1268 {3}	25	20	19.99	0.0	26	50	50.76	1.5	27	100	96.39	-3.6
	28	200	226.9	13.5								
	37	1	1.001	0.1	38	2	1.937	-3.1	39	5	4.839	-3.2
	40	10	9.489	-5.1								
Aroclor 1268 {4}	25	20	19.68	-1.6	26	50	50.87	1.7	27	100	97.05	-2.9
	28	200	232.7	16.4								
	37	1	0.9955	-0.4	38	2	1.978	-1.1	39	5	4.720	-5.6
	40	10	9.362	-6.4								

Calibration ID:	CAL16127	Instrument ID:	GC27.i
Method ID:	MJ706	Column Name:	DB-XLB
		Calibration Fit:	AverageRF

#	FileID	File Location	Acquisition Date	Quantitation Date	Last Updated
1	289596	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F005.D	09/04/2019 18:32	09/11/2019 09:54	09/11/2019 13:26
2	289598	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F006.D	09/04/2019 19:04	09/11/2019 09:54	09/11/2019 13:26
3	289600	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F007.D	09/04/2019 19:35	09/11/2019 09:54	09/11/2019 13:26
4	289602	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F008.D	09/04/2019 20:07	09/11/2019 09:54	09/11/2019 13:26
5	289604	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F009.D	09/04/2019 20:39	09/11/2019 09:54	09/11/2019 13:26
6	289606	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F010.D	09/04/2019 21:10	09/11/2019 09:54	09/11/2019 13:26
7	289608	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F011.D	09/04/2019 21:42	09/11/2019 09:54	09/11/2019 13:26
8	289610	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F012.D	09/04/2019 22:13	09/11/2019 09:54	09/11/2019 13:26
9	289612	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F013.D	09/04/2019 22:45	09/11/2019 09:54	09/11/2019 13:26
10	289614	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F014.D	09/04/2019 23:17	09/11/2019 09:54	09/11/2019 13:26
11	289616	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F015.D	09/04/2019 23:48	09/11/2019 09:54	09/11/2019 13:26
12	289618	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F016.D	09/05/2019 00:20	09/11/2019 09:54	09/11/2019 13:26
13	289620	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F017.D	09/05/2019 00:51	09/11/2019 09:54	09/11/2019 13:26
14	289622	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F018.D	09/05/2019 01:23	09/11/2019 09:54	09/11/2019 13:26
15	289624	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F019.D	09/05/2019 01:55	09/11/2019 09:54	09/11/2019 13:26
16	289626	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F020.D	09/05/2019 02:26	09/11/2019 09:54	09/11/2019 13:26
17	289628	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F021.D	09/05/2019 02:58	09/11/2019 09:54	09/11/2019 13:26
18	289630	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F022.D	09/05/2019 03:29	09/11/2019 09:54	09/11/2019 13:26
19	289632	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F023.D	09/05/2019 04:01	09/11/2019 09:54	09/11/2019 13:26
20	289634	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F024.D	09/05/2019 04:32	09/11/2019 09:54	09/11/2019 13:26
21	289636	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F025.D	09/05/2019 05:04	09/11/2019 09:54	09/11/2019 13:26
22	289638	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F026.D	09/05/2019 05:35	09/11/2019 09:54	09/11/2019 13:26
23	289640	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F027.D	09/05/2019 06:07	09/11/2019 09:54	09/11/2019 13:27
24	289642	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F028.D	09/05/2019 06:38	09/11/2019 09:54	09/11/2019 13:27
25	289644	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F033.D	09/05/2019 09:16	09/11/2019 09:54	09/11/2019 13:27
26	289646	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F034.D	09/05/2019 09:48	09/11/2019 09:54	09/11/2019 13:27
27	289648	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F035.D	09/05/2019 10:20	09/11/2019 09:55	09/11/2019 13:27
28	289650	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F036.D	09/05/2019 10:52	09/11/2019 09:55	09/11/2019 13:27
29	289652	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F037.D	09/05/2019 11:23	09/11/2019 09:55	09/11/2019 13:27
30	289654	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F038.D	09/05/2019 11:55	09/11/2019 09:55	09/11/2019 13:27
31	289656	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F039.D	09/05/2019 12:26	09/11/2019 09:55	09/11/2019 13:27
32	289658	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F040.D	09/05/2019 12:58	09/11/2019 09:55	09/11/2019 13:27
33	289660	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F041.D	09/05/2019 13:30	09/11/2019 09:55	09/11/2019 13:27
34	289662	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F042.D	09/05/2019 14:02	09/11/2019 09:55	09/11/2019 13:27
35	289664	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F043.D	09/05/2019 14:33	09/11/2019 09:55	09/11/2019 13:27
36	289666	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F044.D	09/05/2019 15:05	09/11/2019 09:55	09/11/2019 13:27
37	289682	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F009.D	09/09/2019 15:02	09/11/2019 09:55	09/11/2019 13:27
38	289684	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F010.D	09/09/2019 15:33	09/11/2019 09:55	09/11/2019 13:27
39	289686	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F011.D	09/09/2019 16:05	09/11/2019 09:55	09/11/2019 13:27
40	289688	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F012.D	09/09/2019 16:37	09/11/2019 09:55	09/11/2019 13:27

Parameter Name	# RF		# RF		# RF		# RF		# RF		Mean RF	%RSD		
	#	RF	#	RF	#	RF	#	RF	#	RF				
Tetrachloro-m-xylene	1	8.5E+5	2	8.6E+5	3	8.5E+5	4	8.9E+5	5	9.0E+5	6	8.0E+5	8.3E+5	7.2
	7	7.5E+5	8	7.4E+5										
Decachlorobiphenyl	1	4.6E+5	2	5.0E+5	3	4.5E+5	4	4.8E+5	5	5.0E+5	6	4.3E+5	4.5E+5	11.3
	7	3.9E+5	8	3.6E+5										
Aroclor 1016 {1}	1	1.6E+4	2	1.4E+4	3	1.4E+4	4	1.5E+4	5	1.7E+4	6	1.6E+4	1.5E+4	6.8
	7	1.5E+4	8	1.4E+4										

Initial Calibration - Detailed Report

Calibration ID:	CAL16127	Instrument ID:	GC27.i
Method ID:	MJ706	Column Name:	DB-XLB
		Calibration Fit:	AverageRF

Parameter Name	#	RF	#	RF	#	RF	#	RF	#	RF	#	RF	Mean RF	%RSD	
Aroclor 1016 {2}	1	2.4E+4	2	2.2E+4	3	2.1E+4	4	2.3E+4	5	2.4E+4	6	2.2E+4	2.2E+4	7.8	
	7	2.1E+4	8	1.9E+4											
Aroclor 1016 {3}	1	2.2E+4	2	2.4E+4	3	2.4E+4	4	2.6E+4	5	2.7E+4	6	2.5E+4	2.4E+4	7.8	
	7	2.3E+4	8	2.2E+4											
Aroclor 1016 {4}	1	2.0E+4	2	1.8E+4	3	1.7E+4	4	1.8E+4	5	1.9E+4	6	1.8E+4	1.8E+4	9.0	
	7	1.6E+4	8	1.5E+4											
Aroclor 1016 {5}	1	1.8E+4	2	1.6E+4	3	1.6E+4	4	1.7E+4	5	1.9E+4	6	1.7E+4	1.7E+4	7.5	
	7	1.6E+4	8	1.5E+4											
Aroclor 1221 {1}					9	7.5E+3	10	6.0E+3	11	6.0E+3	12	6.8E+3	6.5E+3	7.8	
					13	6.7E+3	14	6.3E+3	15	6.2E+3	16	6.5E+3			
Aroclor 1221 {2}					9	6.0E+3	10	6.8E+3	11	6.5E+3	12	6.8E+3	6.5E+3	4.5	
					13	6.6E+3	14	6.4E+3	15	6.2E+3	16	6.4E+3			
Aroclor 1221 {3}					9	2.6E+4	10	2.6E+4	11	2.5E+4	12	2.8E+4	2.5E+4	8.6	
					13	2.6E+4	14	2.3E+4	15	2.2E+4	16	2.2E+4			
Aroclor 1232 {1}									17	1.7E+4	18	1.9E+4	2.0E+4	7.5	
					19	2.0E+4	20	2.1E+4	21	2.1E+4	22	2.0E+4	23	1.9E+4	24
Aroclor 1232 {2}									17	1.2E+4	18	1.1E+4	1.1E+4	5.6	
					19	1.0E+4	20	1.1E+4	21	1.1E+4	22	1.1E+4	23	1.0E+4	24
Aroclor 1232 {3}									17	7.0E+3	18	6.5E+3	7.3E+3	7.2	
					19	7.3E+3	20	7.7E+3	21	7.1E+3	22	7.5E+3	23	7.3E+3	24
Aroclor 1232 {4}									17	1.4E+4	18	1.7E+4	1.5E+4	7.5	
					19	1.5E+4	20	1.7E+4	21	1.6E+4	22	1.5E+4	23	1.4E+4	24
Aroclor 1232 {5}									17	1.6E+4	18	1.8E+4	1.8E+4	6.6	
					19	1.8E+4	20	2.0E+4	21	1.8E+4	22	1.8E+4	23	1.6E+4	24
Aroclor 1242 {1}					25	1.4E+4	26	1.5E+4	27	1.4E+4	28	1.4E+4	1.3E+4	11.9	
					37	1.1E+4	38	1.1E+4	39	1.1E+4	40	1.2E+4			
Aroclor 1242 {2}					25	1.9E+4	26	2.0E+4	27	1.8E+4	28	1.9E+4	1.8E+4	7.4	
					37	2.0E+4	38	1.7E+4	39	1.6E+4	40	1.8E+4			
Aroclor 1242 {3}					25	2.7E+4	26	2.7E+4	27	2.5E+4	28	2.6E+4	2.6E+4	4.9	
					37	2.7E+4	38	2.5E+4	39	2.4E+4	40	2.5E+4			
Aroclor 1242 {4}					25	3.1E+4	26	3.2E+4	27	2.8E+4	28	3.0E+4	2.9E+4	5.5	
					37	3.0E+4	38	2.8E+4	39	2.7E+4	40	2.8E+4			
Aroclor 1242 {5}					25	1.6E+4	26	1.8E+4	27	1.7E+4	28	1.8E+4	1.6E+4	9.8	
					37	1.6E+4	38	1.4E+4	39	1.4E+4	40	1.5E+4			
Aroclor 1248 {1}									29	2.0E+4	30	2.2E+4	2.1E+4	7.6	
					31	2.2E+4	32	2.4E+4	33	2.3E+4	34	2.1E+4	35	1.9E+4	36
Aroclor 1248 {2}									29	1.6E+4	30	1.9E+4	1.8E+4	8.3	
					31	1.9E+4	32	2.1E+4	33	1.9E+4	34	1.9E+4	35	1.6E+4	36
Aroclor 1248 {3}									29	2.7E+4	30	2.7E+4	2.4E+4	11.8	
					31	2.5E+4	32	2.6E+4	33	2.4E+4	34	2.2E+4	35	2.0E+4	36
Aroclor 1248 {4}									29	2.1E+4	30	2.1E+4	1.9E+4	9.9	
					31	2.0E+4	32	2.0E+4	33	1.8E+4	34	1.8E+4	35	1.6E+4	36
Aroclor 1248 {5}									29	2.8E+4	30	3.0E+4	2.9E+4	9.7	
					31	3.0E+4	32	3.3E+4	33	3.0E+4	34	2.7E+4	35	2.4E+4	36
Aroclor 1254 {1}					9	3.4E+4	10	3.3E+4	11	3.4E+4	12	3.7E+4	3.2E+4	9.6	
					13	3.3E+4	14	3.0E+4	15	2.7E+4	16	3.0E+4			
Aroclor 1254 {2}					9	1.6E+4	10	1.6E+4	11	1.7E+4	12	2.0E+4	1.7E+4	7.2	
					13	1.8E+4	14	1.7E+4	15	1.6E+4	16	1.7E+4			

Initial Calibration - Detailed Report

Calibration ID: CAL16127	Instrument ID: GC27.i
Method ID: MJ706	Column Name: DB-XLB
	Calibration Fit: AverageRF

Parameter Name	#	RF	#	RF	#	RF	#	RF	#	RF	#	RF	Mean RF	%RSD
Aroclor 1254 {3}			9	5.3E+4	10	5.4E+4	11	5.2E+4	12	5.7E+4			4.9E+4	11.2
	13	5.0E+4	14	4.5E+4	15	4.1E+4	16	4.4E+4						
Aroclor 1254 {4}			9	1.8E+4	10	1.4E+4	11	1.5E+4	12	1.7E+4			1.5E+4	9.1
	13	1.5E+4	14	1.5E+4	15	1.4E+4	16	1.5E+4						
Aroclor 1254 {5}			9	2.5E+4	10	2.8E+4	11	2.5E+4	12	2.8E+4			2.4E+4	10.5
	13	2.3E+4	14	2.2E+4	15	2.1E+4	16	2.3E+4						
Aroclor 1260 {1}	1	1.3E+4	2	1.3E+4	3	1.4E+4	4	1.5E+4	5	1.6E+4	6	1.5E+4	1.4E+4	7.1
	7	1.4E+4	8	1.3E+4										
Aroclor 1260 {2}	1	2.9E+4	2	2.7E+4	3	2.2E+4	4	2.3E+4	5	2.3E+4	6	2.1E+4	2.3E+4	15.6
	7	1.9E+4	8	1.9E+4										
Aroclor 1260 {3}	1	2.7E+4	2	2.4E+4	3	2.3E+4	4	2.3E+4	5	2.4E+4	6	2.2E+4	2.2E+4	12.1
	7	1.9E+4	8	1.8E+4										
Aroclor 1260 {4}	1	5.7E+4	2	5.2E+4	3	5.0E+4	4	5.0E+4	5	5.0E+4	6	4.4E+4	4.8E+4	14.2
	7	4.0E+4	8	3.7E+4										
Aroclor 1260 {5}	1	3.1E+4	2	2.8E+4	3	3.1E+4	4	3.2E+4	5	3.3E+4	6	3.0E+4	2.9E+4	9.8
	7	2.7E+4	8	2.5E+4										
Aroclor 1262 {1}			17	4.8E+4	18	4.8E+4							4.2E+4	15.0
	19	4.6E+4	20	4.9E+4	21	4.1E+4	22	3.8E+4	23	3.3E+4	24	3.6E+4		
Aroclor 1262 {2}			17	3.6E+4	18	3.7E+4							3.2E+4	14.6
	19	3.5E+4	20	3.7E+4	21	3.1E+4	22	2.9E+4	23	2.5E+4	24	2.8E+4		
Aroclor 1262 {3}			17	7.7E+4	18	7.7E+4							6.6E+4	17.0
	19	7.3E+4	20	7.5E+4	21	6.2E+4	22	5.6E+4	23	5.0E+4	24	5.5E+4		
Aroclor 1262 {4}			17	5.0E+4	18	4.8E+4							4.4E+4	14.1
	19	4.8E+4	20	5.1E+4	21	4.3E+4	22	3.9E+4	23	3.5E+4	24	3.8E+4		
Aroclor 1262 {5}			17	2.5E+4	18	2.7E+4							2.3E+4	13.1
	19	2.4E+4	20	2.5E+4	21	2.1E+4	22	2.0E+4	23	1.8E+4	24	2.0E+4		
Aroclor 1268 {1}	25	7.3E+4	26	6.8E+4	27	6.1E+4	28	6.5E+4					7.1E+4	9.2
	37	7.9E+4	38	8.0E+4	39	7.4E+4	40	7.3E+4						
Aroclor 1268 {2}	25	6.4E+4	26	6.1E+4	27	5.5E+4	28	5.9E+4					6.3E+4	7.5
	37	6.9E+4	38	6.8E+4	39	6.3E+4	40	6.3E+4						
Aroclor 1268 {3}	25	5.6E+4	26	5.3E+4	27	4.7E+4	28	5.1E+4					5.4E+4	6.5
	37	5.9E+4	38	5.6E+4	39	5.5E+4	40	5.4E+4						
Aroclor 1268 {4}	25	1.5E+5	26	1.4E+5	27	1.2E+5	28	1.4E+5					1.5E+5	9.3
	37	1.6E+5	38	1.6E+5	39	1.5E+5	40	1.5E+5						

Initial Calibration - Detailed Report

Calibration ID: CAL16127	Instrument ID: GC27.i
Method ID: MJ706	Column Name: DB-XLB

#	FileID	File Location	Acquisition Date	Quantitation Date	Last Updated
1	289596	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F005.D	09/04/2019 18:32	09/11/2019 09:54	09/11/2019 13:26
2	289598	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F006.D	09/04/2019 19:04	09/11/2019 09:54	09/11/2019 13:26
3	289600	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F007.D	09/04/2019 19:35	09/11/2019 09:54	09/11/2019 13:26
4	289602	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F008.D	09/04/2019 20:07	09/11/2019 09:54	09/11/2019 13:26
5	289604	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F009.D	09/04/2019 20:39	09/11/2019 09:54	09/11/2019 13:26
6	289606	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F010.D	09/04/2019 21:10	09/11/2019 09:54	09/11/2019 13:26
7	289608	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F011.D	09/04/2019 21:42	09/11/2019 09:54	09/11/2019 13:26
8	289610	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F012.D	09/04/2019 22:13	09/11/2019 09:54	09/11/2019 13:26
9	289612	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F013.D	09/04/2019 22:45	09/11/2019 09:54	09/11/2019 13:26
10	289614	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F014.D	09/04/2019 23:17	09/11/2019 09:54	09/11/2019 13:26
11	289616	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F015.D	09/04/2019 23:48	09/11/2019 09:54	09/11/2019 13:26
12	289618	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F016.D	09/05/2019 00:20	09/11/2019 09:54	09/11/2019 13:26
13	289620	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F017.D	09/05/2019 00:51	09/11/2019 09:54	09/11/2019 13:26
14	289622	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F018.D	09/05/2019 01:23	09/11/2019 09:54	09/11/2019 13:26
15	289624	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F019.D	09/05/2019 01:55	09/11/2019 09:54	09/11/2019 13:26
16	289626	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F020.D	09/05/2019 02:26	09/11/2019 09:54	09/11/2019 13:26
17	289628	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F021.D	09/05/2019 02:58	09/11/2019 09:54	09/11/2019 13:26
18	289630	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F022.D	09/05/2019 03:29	09/11/2019 09:54	09/11/2019 13:26
19	289632	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F023.D	09/05/2019 04:01	09/11/2019 09:54	09/11/2019 13:26
20	289634	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F024.D	09/05/2019 04:32	09/11/2019 09:54	09/11/2019 13:26
21	289636	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F025.D	09/05/2019 05:04	09/11/2019 09:54	09/11/2019 13:26
22	289638	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F026.D	09/05/2019 05:35	09/11/2019 09:54	09/11/2019 13:26
23	289640	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F027.D	09/05/2019 06:07	09/11/2019 09:54	09/11/2019 13:27
24	289642	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F028.D	09/05/2019 06:38	09/11/2019 09:54	09/11/2019 13:27
25	289644	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F033.D	09/05/2019 09:16	09/11/2019 09:54	09/11/2019 13:27
26	289646	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F034.D	09/05/2019 09:48	09/11/2019 09:54	09/11/2019 13:27
27	289648	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F035.D	09/05/2019 10:20	09/11/2019 09:55	09/11/2019 13:27
28	289650	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F036.D	09/05/2019 10:52	09/11/2019 09:55	09/11/2019 13:27
29	289652	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F037.D	09/05/2019 11:23	09/11/2019 09:55	09/11/2019 13:27
30	289654	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F038.D	09/05/2019 11:55	09/11/2019 09:55	09/11/2019 13:27
31	289656	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F039.D	09/05/2019 12:26	09/11/2019 09:55	09/11/2019 13:27
32	289658	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F040.D	09/05/2019 12:58	09/11/2019 09:55	09/11/2019 13:27
33	289660	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F041.D	09/05/2019 13:30	09/11/2019 09:55	09/11/2019 13:27
34	289662	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F042.D	09/05/2019 14:02	09/11/2019 09:55	09/11/2019 13:27
35	289664	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F043.D	09/05/2019 14:33	09/11/2019 09:55	09/11/2019 13:27
36	289666	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F044.D	09/05/2019 15:05	09/11/2019 09:55	09/11/2019 13:27
37	289682	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F009.D	09/09/2019 15:02	09/11/2019 09:55	09/11/2019 13:27
38	289684	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F010.D	09/09/2019 15:33	09/11/2019 09:55	09/11/2019 13:27
39	289686	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F011.D	09/09/2019 16:05	09/11/2019 09:55	09/11/2019 13:27
40	289688	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F012.D	09/09/2019 16:37	09/11/2019 09:55	09/11/2019 13:27

Parameter Name	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D
Tetrachloro-m-xylene	1	0.1	0.1019	1.9	2	0.2	0.2060	3.0	3	0.5	0.5140	2.8
	4	1	1.074	7.4	5	2	2.170	8.5	6	5	4.841	-3.2
	7	10	9.062	-9.4	8	20	17.81	-11.0				

Initial Calibration - Detailed Report

Calibration ID: CAL16127
Method ID: MJ706

Instrument ID: GC27.i
Column Name: DB-XLB

Parameter Name	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D
Decachlorobiphenyl	1	0.1	0.1035	3.5	2	0.2	0.2225	11.3	3	0.5	0.5079	1.6
	4	1	1.084	8.4	5	2	2.221	11.1	6	5	4.828	-3.4
	7	10	8.713	-12.9	8	20	16.11	-19.5				
Aroclor 1016 {1}	1	1	1.069	6.9	2	2	1.888	-5.6	3	5	4.595	-8.1
	4	10	9.731	-2.7	5	20	22.10	10.5	6	50	52.61	5.2
	7	100	99.61	-0.4	8	200	188.3	-5.9				
Aroclor 1016 {2}	1	1	1.078	7.8	2	2	2.012	0.6	3	5	4.770	-4.6
	4	10	10.36	3.6	5	20	22.12	10.6	6	50	50.85	1.7
	7	100	93.13	-6.9	8	200	174.4	-12.8				
Aroclor 1016 {3}	1	1	0.9173	-8.3	2	2	1.965	-1.8	3	5	4.907	-1.9
	4	10	10.71	7.1	5	20	22.59	13.0	6	50	52.72	5.4
	7	100	95.50	-4.5	8	200	181.8	-9.1				
Aroclor 1016 {4}	1	1	1.148	14.8	2	2	2.046	2.3	3	5	4.722	-5.6
	4	10	9.977	-0.2	5	20	21.76	8.8	6	50	50.31	0.6
	7	100	92.59	-7.4	8	200	173.4	-13.3				
Aroclor 1016 {5}	1	1	1.089	8.9	2	2	1.898	-5.1	3	5	4.838	-3.2
	4	10	10.37	3.7	5	20	22.05	10.3	6	50	51.10	2.2
	7	100	94.20	-5.8	8	200	178.2	-10.9				
Aroclor 1221 {1}									9	2	2.318	15.9
	10	4	3.704	-7.4	11	10	9.292	-7.1	12	20	20.99	4.9
	13	40	41.09	2.7	14	100	96.29	-3.7	15	200	190.1	-5.0
	16	400	398.4	-0.4								
Aroclor 1221 {2}									9	2	1.848	-7.6
	10	4	4.192	4.8	11	10	10.15	1.5	12	20	21.16	5.8
	13	40	40.82	2.1	14	100	98.51	-1.5	15	200	191.1	-4.4
	16	400	397.4	-0.7								
Aroclor 1221 {3}									9	2	2.123	6.2
	10	4	4.166	4.2	11	10	10.20	2.0	12	20	22.52	12.6
	13	40	41.31	3.3	14	100	94.40	-5.6	15	200	174.0	-13.0
	16	400	361.8	-9.6								
Aroclor 1232 {1}					17	1	0.8504	-15.0	18	2	1.956	-2.2
	19	5	4.997	-0.1	20	10	10.91	9.1	21	20	21.33	6.7
	22	50	51.97	3.9	23	100	95.91	-4.1	24	200	203.1	1.5
Aroclor 1232 {2}					17	1	1.106	10.6	18	2	1.971	-1.5
	19	5	4.776	-4.5	20	10	10.49	4.9	21	20	19.64	-1.8
	22	50	50.09	0.2	23	100	92.58	-7.4	24	200	198.9	-0.5
Aroclor 1232 {3}					17	1	0.9480	-5.2	18	2	1.784	-10.8
	19	5	4.941	-1.2	20	10	10.52	5.2	21	20	19.35	-3.2
	22	50	51.21	2.4	23	100	99.69	-0.3	24	200	226.2	13.1

Initial Calibration - Detailed Report

Calibration ID: CAL16127
Method ID: MJ706

Instrument ID: GC27.i
Column Name: DB-XLB

Parameter Name	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D
Aroclor 1232 {4}					17	1	0.8910	-10.9	18	2	2.180	9.0
	19	5	5.097	1.9	20	10	11.00	10.0	21	20	20.47	2.3
	22	50	49.00	-2.0	23	100	91.14	-8.9	24	200	197.1	-1.4
Aroclor 1232 {5}					17	1	0.9185	-8.2	18	2	2.002	0.1
	19	5	5.113	2.3	20	10	11.28	12.8	21	20	20.33	1.7
	22	50	50.22	0.4	23	100	91.94	-8.1	24	200	198.0	-1.0
Aroclor 1242 {1}	25	20	21.51	7.6	26	50	57.08	14.2	27	100	108.3	8.3
	28	200	223.9	11.9								
	37	1	0.8622	-13.8	38	2	1.726	-13.7	39	5	4.429	-11.4
	40	10	9.693	-3.1								
Aroclor 1242 {2}	25	20	21.02	5.1	26	50	54.08	8.2	27	100	99.07	-0.9
	28	200	204.5	2.2								
	37	1	1.085	8.5	38	2	1.845	-7.7	39	5	4.396	-12.1
	40	10	9.671	-3.3								
Aroclor 1242 {3}	25	20	20.95	4.8	26	50	52.45	4.9	27	100	95.95	-4.1
	28	200	200.2	0.1								
	37	1	1.065	6.5	38	2	1.968	-1.6	39	5	4.644	-7.1
	40	10	9.650	-3.5								
Aroclor 1242 {4}	25	20	21.16	5.8	26	50	53.80	7.6	27	100	96.18	-3.8
	28	200	208.2	4.1								
	37	1	1.014	1.4	38	2	1.906	-4.7	39	5	4.620	-7.6
	40	10	9.722	-2.8								
Aroclor 1242 {5}	25	20	20.78	3.9	26	50	55.70	11.4	27	100	105.0	5.0
	28	200	223.9	11.9								
	37	1	1.002	0.2	38	2	1.746	-12.7	39	5	4.430	-11.4
	40	10	9.171	-8.3								
Aroclor 1248 {1}					29	1	0.9229	-7.7	30	2	2.075	3.7
	31	5	5.223	4.5	32	10	11.25	12.5	33	20	21.01	5.1
	34	50	48.88	-2.2	35	100	90.94	-9.1	36	200	186.6	-6.7
Aroclor 1248 {2}					29	1	0.8857	-11.4	30	2	2.081	4.1
	31	5	5.279	5.6	32	10	11.33	13.3	33	20	20.29	1.5
	34	50	50.26	0.5	35	100	88.82	-11.2	36	200	195.4	-2.3
Aroclor 1248 {3}					29	1	1.121	12.1	30	2	2.275	13.7
	31	5	5.232	4.6	32	10	10.87	8.7	33	20	19.83	-0.9
	34	50	46.19	-7.6	35	100	82.60	-17.4	36	200	173.5	-13.2
Aroclor 1248 {4}					29	1	1.104	10.4	30	2	2.214	10.7
	31	5	5.213	4.3	32	10	10.81	8.1	33	20	19.58	-2.1
	34	50	46.99	-6.0	35	100	84.47	-15.5	36	200	180.5	-9.7
Aroclor 1248 {5}					29	1	0.9884	-1.2	30	2	2.097	4.8
	31	5	5.301	6.0	32	10	11.52	15.2	33	20	20.93	4.7
	34	50	47.02	-6.0	35	100	84.51	-15.5	36	200	183.8	-8.1

Initial Calibration - Detailed Report

Calibration ID:	CAL16127	Instrument ID:	GC27.i
Method ID:	MJ706	Column Name:	DB-XLB

Parameter Name	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D
Aroclor 1254 {1}					9	1	1.043	4.3				
	10	2	2.069	3.5	11	5	5.292	5.8	12	10	11.52	15.2
	13	20	20.28	1.4	14	50	46.66	-6.7	15	100	84.98	-15.0
	16	200	183.1	-8.5								
Aroclor 1254 {2}					9	1	0.9497	-5.0				
	10	2	1.871	-6.5	11	5	4.966	-0.7	12	10	11.53	15.3
	13	20	21.03	5.1	14	50	49.55	-0.9	15	100	94.26	-5.7
	16	200	196.7	-1.6								
Aroclor 1254 {3}					9	1	1.068	6.8				
	10	2	2.178	8.9	11	5	5.283	5.7	12	10	11.52	15.2
	13	20	20.13	0.7	14	50	45.61	-8.8	15	100	83.04	-17.0
	16	200	177.1	-11.4								
Aroclor 1254 {4}					9	1	1.145	14.5				
	10	2	1.786	-10.7	11	5	4.841	-3.2	12	10	11.22	12.2
	13	20	20.16	0.8	14	50	48.03	-3.9	15	100	91.30	-8.7
	16	200	198.0	-1.0								
Aroclor 1254 {5}					9	1	1.036	3.6				
	10	2	2.268	13.4	11	5	5.187	3.7	12	10	11.40	14.0
	13	20	19.29	-3.6	14	50	45.38	-9.2	15	100	85.14	-14.9
	16	200	186.0	-7.0								
Aroclor 1260 {1}	1	1	0.9276	-7.2	2	2	1.894	-5.3	3	5	4.943	-1.1
	4	10	10.66	6.6	5	20	22.22	11.1	6	50	53.28	6.6
	7	100	96.85	-3.2	8	200	185.2	-7.4				
Aroclor 1260 {2}	1	1	1.272	27.2	2	2	2.330	16.5	3	5	4.905	-1.9
	4	10	9.916	-0.8	5	20	20.37	1.8	6	50	46.32	-7.4
	7	100	83.74	-16.3	8	200	161.6	-19.2				
Aroclor 1260 {3}	1	1	1.189	18.9	2	2	2.170	8.5	3	5	5.085	1.7
	4	10	10.29	2.9	5	20	20.95	4.8	6	50	47.90	-4.2
	7	100	86.67	-13.3	8	200	161.5	-19.2				
Aroclor 1260 {4}	1	1	1.202	20.2	2	2	2.183	9.1	3	5	5.237	4.7
	4	10	10.58	5.8	5	20	21.22	6.1	6	50	46.55	-6.9
	7	100	83.24	-16.8	8	200	155.4	-22.3				
Aroclor 1260 {5}	1	1	1.050	5.0	2	2	1.890	-5.5	3	5	5.228	4.6
	4	10	10.96	9.6	5	20	22.41	12.0	6	50	50.12	0.2
	7	100	90.71	-9.3	8	200	166.7	-16.7				
Aroclor 1262 {1}					17	1	1.140	14.0	18	2	2.249	12.5
	19	5	5.471	9.4	20	10	11.60	16.0	21	20	19.44	-2.8
	22	50	44.35	-11.3	23	100	77.69	-22.3	24	200	168.9	-15.6
Aroclor 1262 {2}					17	1	1.123	12.3	18	2	2.301	15.1
	19	5	5.417	8.3	20	10	11.50	15.0	21	20	19.33	-3.3
	22	50	44.61	-10.8	23	100	78.47	-21.5	24	200	170.0	-15.0

Initial Calibration - Detailed Report

Calibration ID: CAL16127	Instrument ID: GC27.i
Method ID: MJ706	Column Name: DB-XLB

Parameter Name	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D
Aroclor 1262 {3}												
					17	1	1.166	16.6	18	2	2.355	17.7
	19	5	5.568	11.4	20	10	11.46	14.6	21	20	18.97	-5.2
	22	50	42.73	-14.5	23	100	75.98	-24.0	24	200	166.8	-16.6
Aroclor 1262 {4}												
					17	1	1.139	13.9	18	2	2.185	9.2
	19	5	5.462	9.2	20	10	11.61	16.1	21	20	19.44	-2.8
	22	50	44.80	-10.4	23	100	78.80	-21.2	24	200	171.8	-14.1
Aroclor 1262 {5}												
					17	1	1.091	9.1	18	2	2.361	18.0
	19	5	5.321	6.4	20	10	11.22	12.2	21	20	18.81	-6.0
	22	50	45.00	-10.0	23	100	81.03	-19.0	24	200	178.4	-10.8
Aroclor 1268 {1}												
	25	20	20.43	2.1	26	50	47.84	-4.3	27	100	84.63	-15.4
	28	200	181.2	-9.4								
	37	1	1.098	9.8	38	2	2.227	11.4	39	5	5.185	3.7
	40	10	10.20	2.0								
Aroclor 1268 {2}												
	25	20	20.44	2.2	26	50	48.72	-2.6	27	100	87.19	-12.8
	28	200	187.3	-6.3								
	37	1	1.097	9.7	38	2	2.178	8.9	39	5	4.995	-0.1
	40	10	10.10	1.0								
Aroclor 1268 {3}												
	25	20	20.62	3.1	26	50	49.30	-1.4	27	100	87.86	-12.1
	28	200	188.3	-5.9								
	37	1	1.089	8.9	38	2	2.095	4.8	39	5	5.078	1.6
	40	10	10.11	1.1								
Aroclor 1268 {4}												
	25	20	19.88	-0.6	26	50	47.01	-6.0	27	100	84.27	-15.7
	28	200	186.4	-6.8								
	37	1	1.105	10.5	38	2	2.238	11.9	39	5	5.259	5.2
	40	10	10.15	1.5								

Second Source Calibration Verification Summary

CalibrationID: CAL16127 Units: ppb
Method ID: MJ706 Column: DB-35MS
DataFile Location: \\ALKLSWS002\INSTDATA\GC27\DATA\090419ICAL.B\0904F

Parameter Name	File ID	Curve Fit	Method Criteria	AveRF	SSV RF	% Diff	True Value	Sol'n Conc	% Drift
Aroclor 1016	289667	NA	20				20.00	18.5	-7.6
Aroclor 1016 {1}	289667	AverageRF	100	3.4E+4	3.3E+4	-2.1	20.00	19.6	
Aroclor 1016 {2}	289667	AverageRF	100	2.8E+4	2.6E+4	-8.5	20.00	18.3	
Aroclor 1016 {3}	289667	AverageRF	100	8.7E+4	7.9E+4	-9.4	20.00	18.1	
Aroclor 1016 {4}	289667	AverageRF	100	5.1E+4	4.7E+4	-8.2	20.00	18.4	
Aroclor 1016 {5}	289667	AverageRF	100	3.5E+4	3.2E+4	-9.8	20.00	18.0	
Aroclor 1221	289669	NA	20				20.00	19.6	-2.2
Aroclor 1221 {1}	289669	AverageRF	100	2.3E+4	2.3E+4	-2.1	20.00	19.6	
Aroclor 1221 {2}	289669	AverageRF	100	1.5E+4	1.4E+4	-1.6	20.00	19.7	
Aroclor 1221 {3}	289669	AverageRF	100	5.5E+4	5.3E+4	-2.8	20.00	19.4	
Aroclor 1232	289671	NA	20				20.00	17.7	-11.6
Aroclor 1232 {1}	289671	AverageRF	100	1.6E+4	1.2E+4	-20.6	20.00	15.9	
Aroclor 1232 {2}	289671	AverageRF	100	4.7E+4	4.0E+4	-14.9	20.00	17.0	
Aroclor 1232 {3}	289671	AverageRF	100	3.8E+4	3.6E+4	-6.1	20.00	18.8	
Aroclor 1232 {4}	289671	AverageRF	100	1.4E+4	1.3E+4	-6.1	20.00	18.8	
Aroclor 1232 {5}	289671	AverageRF	100	2.6E+4	2.4E+4	-10.4	20.00	17.9	
Aroclor 1242	289689	NA	20				20.00	20.8	4.2
Aroclor 1242 {1}	289689	AverageRF	100	3.0E+4	3.1E+4	4.5	20.00	20.9	
Aroclor 1242 {2}	289689	AverageRF	100	2.3E+4	2.4E+4	4.2	20.00	20.8	
Aroclor 1242 {3}	289689	AverageRF	100	6.8E+4	6.9E+4	1.1	20.00	20.2	
Aroclor 1242 {4}	289689	AverageRF	100	4.1E+4	4.4E+4	7.5	20.00	21.5	
Aroclor 1242 {5}	289689	AverageRF	100	2.8E+4	2.9E+4	3.5	20.00	20.7	
Aroclor 1248	289673	NA	20				20.00	17.6	-12.2
Aroclor 1248 {1}	289673	AverageRF	100	4.2E+4	3.7E+4	-11.2	20.00	17.8	
Aroclor 1248 {2}	289673	AverageRF	100	2.8E+4	2.7E+4	-6.6	20.00	18.7	
Aroclor 1248 {3}	289673	AverageRF	100	5.3E+4	4.5E+4	-13.6	20.00	17.3	
Aroclor 1248 {4}	289673	AverageRF	100	3.8E+4	3.2E+4	-14.1	20.00	17.2	
Aroclor 1248 {5}	289673	AverageRF	100	3.3E+4	2.8E+4	-15.7	20.00	16.9	
Aroclor 1254	289675	NA	20				20.00	19.7	-1.6
Aroclor 1254 {1}	289675	AverageRF	100	3.6E+4	3.7E+4	2.4	20.00	20.5	
Aroclor 1254 {2}	289675	AverageRF	100	6.3E+4	6.8E+4	8.2	20.00	21.6	
Aroclor 1254 {3}	289675	AverageRF	100	1.2E+5	1.1E+5	-8.3	20.00	18.3	
Aroclor 1254 {4}	289675	AverageRF	100	7.3E+4	7.0E+4	-4.7	20.00	19.1	
Aroclor 1254 {5}	289675	AverageRF	100	4.6E+4	4.3E+4	-5.5	20.00	18.9	
Aroclor 1260	289677	NA	20				20.00	19.8	-1.2
Aroclor 1260 {1}	289677	AverageRF	100	3.4E+4	2.9E+4	-13.8	20.00	17.2	
Aroclor 1260 {2}	289677	AverageRF	100	4.7E+4	5.1E+4	8.4	20.00	21.7	
Aroclor 1260 {3}	289677	AverageRF	100	5.0E+4	5.1E+4	2.2	20.00	20.4	
Aroclor 1260 {4}	289677	AverageRF	100	1.1E+5	1.1E+5	0.3	20.00	20.1	
Aroclor 1260 {5}	289677	AverageRF	100	7.9E+4	7.7E+4	-3.3	20.00	19.3	
Aroclor 1262	289679	NA	20				20.00	19.3	-3.5
Aroclor 1262 {1}	289679	AverageRF	100	9.4E+4	9.0E+4	-4.0	20.00	19.2	
Aroclor 1262 {2}	289679	AverageRF	100	8.3E+4	8.1E+4	-2.8	20.00	19.4	
Aroclor 1262 {3}	289679	AverageRF	100	1.5E+5	1.4E+5	-5.0	20.00	19.0	
Aroclor 1262 {4}	289679	AverageRF	100	1.1E+5	1.1E+5	-3.5	20.00	19.3	
Aroclor 1262 {5}	289679	AverageRF	100	4.8E+4	4.7E+4	-2.5	20.00	19.5	
Aroclor 1268	289691	NA	20				20.00	19.8	-1.2

Second Source Calibration Verification Summary

CalibrationID: CAL16127

Units: ppb

Method ID: MJ706

Column: DB-35MS

DataFile Location: \\ALKLSWS002\INSTDATA\GC27\DATA\090419\CAL.B\0909F

Parameter Name	File ID	Curve Fit	Method Criteria	AveRF	SSV RF	% Diff	True Value	Sol'n Conc	% Drift
Aroclor 1268 {1}	289691	AverageRF	100	1.6E+5	1.7E+5	2.2	20.00	20.4	
Aroclor 1268 {2}	289691	AverageRF	100	1.5E+5	1.7E+5	13.7	20.00	22.7	
Aroclor 1268 {3}	289691	AverageRF	100	1.2E+5	1.1E+5	-8.2	20.00	18.4	
Aroclor 1268 {4}	289691	AverageRF	100	3.5E+5	3.1E+5	-12.7	20.00	17.5	

Second Source Calibration Verification Summary

CalibrationID: CAL16127

Units: ppb

Method ID: MJ706

Column: DB-XLB

DataFile Location: \\ALKLSWS002\INSTDATA\GC27\DATA\090419ICAL_R.B\090

Parameter Name	File ID	Curve Fit	Method Criteria	AveRF	SSV RF	% Diff	True Value	Sol'n Conc	% Drift
Aroclor 1016	289668	NA	20				20.00	19.9	-0.7
Aroclor 1016 {1}	289668	AverageRF	100	1.5E+4	1.6E+4	3.1	20.00	20.6	
Aroclor 1016 {2}	289668	AverageRF	100	2.2E+4	2.2E+4	-2.2	20.00	19.6	
Aroclor 1016 {3}	289668	AverageRF	100	2.4E+4	2.4E+4	0.2	20.00	20.0	
Aroclor 1016 {4}	289668	AverageRF	100	1.8E+4	1.7E+4	-4.5	20.00	19.1	
Aroclor 1016 {5}	289668	AverageRF	100	1.7E+4	1.7E+4	0.0	20.00	20.0	
Aroclor 1221	289670	NA	20				20.00	20.3	1.7
Aroclor 1221 {1}	289670	AverageRF	100	6.5E+3	6.4E+3	-1.9	20.00	19.6	
Aroclor 1221 {2}	289670	AverageRF	100	6.5E+3	6.6E+3	3.1	20.00	20.6	
Aroclor 1221 {3}	289670	AverageRF	100	2.5E+4	2.6E+4	4.0	20.00	20.8	
Aroclor 1232	289672	NA	20				20.00	19.6	-1.8
Aroclor 1232 {1}	289672	AverageRF	100	2.0E+4	1.9E+4	-3.7	20.00	19.3	
Aroclor 1232 {2}	289672	AverageRF	100	1.1E+4	1.1E+4	-1.1	20.00	19.8	
Aroclor 1232 {3}	289672	AverageRF	100	7.3E+3	7.2E+3	-2.5	20.00	19.5	
Aroclor 1232 {4}	289672	AverageRF	100	1.5E+4	1.5E+4	-0.6	20.00	19.9	
Aroclor 1232 {5}	289672	AverageRF	100	1.8E+4	1.7E+4	-1.0	20.00	19.8	
Aroclor 1242	289690	NA	20				20.00	22.2	11.1
Aroclor 1242 {1}	289690	AverageRF	100	1.3E+4	1.4E+4	9.6	20.00	21.9	
Aroclor 1242 {2}	289690	AverageRF	100	1.8E+4	2.0E+4	11.7	20.00	22.3	
Aroclor 1242 {3}	289690	AverageRF	100	2.6E+4	2.9E+4	11.3	20.00	22.3	
Aroclor 1242 {4}	289690	AverageRF	100	2.9E+4	3.3E+4	11.5	20.00	22.3	
Aroclor 1242 {5}	289690	AverageRF	100	1.6E+4	1.8E+4	11.4	20.00	22.3	
Aroclor 1248	289674	NA	20				20.00	19.3	-3.7
Aroclor 1248 {1}	289674	AverageRF	100	2.1E+4	2.1E+4	0.3	20.00	20.1	
Aroclor 1248 {2}	289674	AverageRF	100	1.8E+4	1.9E+4	3.5	20.00	20.7	
Aroclor 1248 {3}	289674	AverageRF	100	2.4E+4	2.3E+4	-6.4	20.00	18.7	
Aroclor 1248 {4}	289674	AverageRF	100	1.9E+4	1.7E+4	-8.3	20.00	18.3	
Aroclor 1248 {5}	289674	AverageRF	100	2.9E+4	2.6E+4	-7.8	20.00	18.4	
Aroclor 1254	289676	NA	20				20.00	19.5	-2.5
Aroclor 1254 {1}	289676	AverageRF	100	3.2E+4	3.2E+4	-2.2	20.00	19.6	
Aroclor 1254 {2}	289676	AverageRF	100	1.7E+4	1.5E+4	-14.0	20.00	17.2	
Aroclor 1254 {3}	289676	AverageRF	100	4.9E+4	4.8E+4	-1.8	20.00	19.6	
Aroclor 1254 {4}	289676	AverageRF	100	1.5E+4	1.6E+4	5.0	20.00	21.0	
Aroclor 1254 {5}	289676	AverageRF	100	2.4E+4	2.4E+4	0.3	20.00	20.1	
Aroclor 1260	289678	NA	20				20.00	20.9	4.3
Aroclor 1260 {1}	289678	AverageRF	100	1.4E+4	1.5E+4	5.7	20.00	21.1	
Aroclor 1260 {2}	289678	AverageRF	100	2.3E+4	2.5E+4	7.4	20.00	21.5	
Aroclor 1260 {3}	289678	AverageRF	100	2.2E+4	2.3E+4	3.8	20.00	20.8	
Aroclor 1260 {4}	289678	AverageRF	100	4.8E+4	4.9E+4	2.4	20.00	20.5	
Aroclor 1260 {5}	289678	AverageRF	100	2.9E+4	3.0E+4	2.0	20.00	20.4	
Aroclor 1262	289680	NA	20				20.00	20.1	0.3
Aroclor 1262 {1}	289680	AverageRF	100	4.2E+4	4.2E+4	-1.4	20.00	19.7	
Aroclor 1262 {2}	289680	AverageRF	100	3.2E+4	3.3E+4	2.6	20.00	20.5	
Aroclor 1262 {3}	289680	AverageRF	100	6.6E+4	6.5E+4	-1.6	20.00	19.7	
Aroclor 1262 {4}	289680	AverageRF	100	4.4E+4	4.5E+4	2.5	20.00	20.5	
Aroclor 1262 {5}	289680	AverageRF	100	2.3E+4	2.3E+4	-0.8	20.00	19.8	
Aroclor 1268	289692	NA	20				20.00	20.4	1.9

Second Source Calibration Verification Summary

CalibrationID: CAL16127

Units: ppb

Method ID: MJ706

Column: DB-XLB

DataFile Location: \\ALKLSWS002\INSTDATA\GC27\DATA\090419\CAL_R.B\090

Parameter Name	File ID	Curve Fit	Method Criteria	AveRF	SSV RF	% Diff	True Value	Sol'n Conc	% Drift
Aroclor 1268 {1}	289692	AverageRF	100	7.1E+4	7.6E+4	5.9	20.00	21.2	
Aroclor 1268 {2}	289692	AverageRF	100	6.3E+4	7.4E+4	17.2	20.00	23.4	
Aroclor 1268 {3}	289692	AverageRF	100	5.4E+4	5.1E+4	-4.9	20.00	19.0	
Aroclor 1268 {4}	289692	AverageRF	100	1.5E+5	1.3E+5	-10.6	20.00	17.9	

ALS Environmental - Kelso
 INITIAL CALIBRATION DATA

Start Cal Date : 04-SEP-2019 18:32
 End Cal Date : 09-SEP-2019 16:37
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 4.04
 Integrator : Falcon
 Method file : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Cal Date : 11-Sep-2019 09:38 stephenie.andrews
 Curve Type : Average

Calibration File Names:

Level 1: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F037.D
 Level 2: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F038.D
 Level 3: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F039.D
 Level 4: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F040.D
 Level 5: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F041.D
 Level 6: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F042.D
 Level 7: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F043.D
 Level 8: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F044.D

Compound	1.000	2.000	5.000	10.000	20.000	50.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	100.000	200.000						
	Level 7	Level 8						
2 Aroclor 1016 (1)	39400 31352	35481 30335	32536	35243	35735	32935	34127	8.543
(2)	31706 26126	29178 25049	26907	28336	29286	27515	28013	7.456
(3)	92717 80056	97851 79685	83798	85035	90017	86236	86924	7.223
(4)	51318 47553	53369 46346	52545	53358	54893	50996	51297	5.785
(5)	36002 33217	34881 32076	35617	36727	37567	35068	35144	5.106
3 Aroclor 1221 (1)	25348 19735	26146 21255	24903	24519	22142	20422	23059	10.673
(2)	17213 12630	16168 13531	14788	15459	14240	13000	14629	10.889
(3)	60161 47046	61843 50568	57737	58454	53211	48974	54749	10.118

ALS Environmental - Kelso
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 Cal Date : 11-Sep-2019 09:38 stephenie.andrews
 Curve Type : Average

Compound	1.000	2.000	5.000	10.000	20.000	50.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	100.000	200.000						
	Level 7	Level 8						
4 Aroclor 1232 (1)	19213	16986	15638	16311	14864	14027		
	13133	14656					15603	12.226
(2)	56739	48158	50729	50954	44400	42242		
	39010	42915					46893	12.371
(3)	31107	42598	39814	42134	40089	36730		
	33524	37659					37957	10.685
(4)	12043	15426	14749	14855	13815	13267		
	12316	13928					13800	8.768
(5)	32879	28572	26275	27668	24498	23947		
	22001	25241					26385	12.703
5 Aroclor 1242 (1)	34993	30805	26922	26970	29530	29770		
	28228	30557					29722	8.749
(2)	21742	24138	20948	21537	22655	23516		
	22095	24174					22601	5.428
(3)	75132	67048	62881	61657	68629	72292		
	68246	71122					68376	6.673
(4)	39369	38905	39593	38726	41797	43012		
	40268	45340					40876	5.710
(5)	28378	30201	27083	26114	28379	28355		
	27250	30746					28313	5.499

ALS Environmental - Kelso

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 Cal Date : 11-Sep-2019 09:38 stephenie.andrews
 Curve Type : Average

Compound	1.000	2.000	5.000	10.000	20.000	50.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	100.000	200.000						
	Level 7	Level 8						
6 Aroclor 1248(1)	50810	45364	46307	42457	38328	36241		
	35501	39298					41788	12.903
(2)	32701	31454	28715	30795	25486	26290		
	24522	27468					28429	10.510
(3)	61351	62439	55261	54856	49030	45673		
	42585	48950					52518	13.652
(4)	37952	42224	40962	40191	36188	34381		
	32064	36966					37616	9.150
(5)	34640	36487	37342	36202	30551	29451		
	28060	32565					33162	10.627
7 Aroclor 1254(1)	39510	40398	36641	39628	34545	31937		
	30635	35702					36124	10.069
(2)	71048	70214	64108	67135	58318	54791		
	53183	61524					62540	10.833
(3)	141481	139215	128062	133428	114932	106372		
	103004	119966					123308	11.827
(4)	75413	82203	75558	80728	68358	64524		
	63425	73526					72967	9.581
(5)	42724	48901	48630	50336	44645	41515		
	40470	47483					45588	8.218

ALS Environmental - Kelso

INITIAL CALIBRATION DATA

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 Method file : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Cal Date : 11-Sep-2019 09:38 stephenie.andrews
 Curve Type : Average

Compound	1.000	2.000	5.000	10.000	20.000	50.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	100.000	200.000						
	Level 7	Level 8						
8 Aroclor 1260(1)	35380	35440	31871	33943	34938	32910		
	31991	31579					33506	4.856
(2)	48458	45971	44666	47320	50243	47343		
	44896	43946					46605	4.579
(3)	54080	50431	49169	51725	52732	49608		
	47266	46243					50157	5.302
(4)	120908	106796	102574	107419	110051	103085		
	99207	99118					106145	6.708
(5)	89767	81841	77927	81033	81276	76945		
	73487	72740					79377	6.853
9 Aroclor 1262(1)	99950	103939	100680	103083	87956	84001		
	77629	91170					93551	10.475
(2)	96868	88129	85293	90222	77623	74592		
	69063	81420					82901	10.907
(3)	167071	166766	157402	164613	140496	135236		
	127443	154380					151676	10.136
(4)	120058	123876	114903	120223	102837	98223		
	91790	110255					110271	10.528
(5)	50324	51444	49477	52439	45096	43791		
	41061	49018					47831	8.447

ALS Environmental - Kelso
INITIAL CALIBRATION DATA

Start Cal Date : 04-SEP-2019 18:32
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 Target Version : 4.04
 Integrator : Falcon
 Method file : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Cal Date : 11-Sep-2019 09:38 stephenie.andrews
 Curve Type : Average

Compound	1.000	2.000	5.000	10.000	20.000	50.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	100.000	200.000						
	Level 7	Level 8						
10 Aroclor 1268(1)	169676	167277	155429	153064	161633	163952		
	155400	182032					163558	5.842
(2)	155852	141718	136877	136355	144098	147906		
	140136	165868					146101	6.980
(3)	124219	120195	120085	117734	124036	125965		
	119598	140768					124075	5.887
(4)	348997	346692	330941	328207	344893	356681		
	340233	407884					350566	7.122
M 75 Aroclors, Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
\$ 1 Tetrachloro-m-xylene	1907640	1858185	1743106	1788482	1858760	1779238		
	1736100	1736606					1801015	3.654
\$ 11 Decachlorobiphenyl	1225750	1165365	1103794	1109360	1136485	1045118		
	983592	951410					1090109	8.449

ALS Environmental - Kelso

INITIAL CALIBRATION DATA

Start Cal Date : 04-SEP-2019 18:32
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 Target Version : 4.04
 Integrator : Falcon
 Method file : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Cal Date : 11-Sep-2019 09:50 stephenie.andrews
 Curve Type : Average

Calibration File Names:

Level 1: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F037.D
 Level 2: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F038.D
 Level 3: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F039.D
 Level 4: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F040.D
 Level 5: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F041.D
 Level 6: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F042.D
 Level 7: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F043.D
 Level 8: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F044.D

Compound	1.000	2.000	5.000	10.000	20.000	50.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	100.000	200.000						
	Level 7	Level 8						
=====	=====	=====	=====	=====	=====	=====	=====	=====
2 Aroclor 1016(1)	16102 14998	14211 14176	13838	14653	16638	15844	15058	6.809
(2)	23810 20566	22211 19251	21066	22872	24429	22456	22083	7.772
(3)	22120 23028	23688 21914	23664	25829	27236	25427	24113	7.805
(4)	20451 16495	18221 15447	16824	17773	19384	17925	17815	8.981
(5)	18348 15871	15991 15011	16302	17464	18577	17220	16848	7.480
3 Aroclor 1221(1)	7535 6180	6022 6476	6042	6822	6680	6261	6502	7.814
(2)	5961 6165	6760 6408	6546	6826	6583	6354	6450	4.523
(3)	26403 21633	25905 22493	25359	28008	25684	23478	24870	8.628

ALS Environmental - Kelso

INITIAL CALIBRATION DATA

Start Cal Date : 04-SEP-2019 18:32
 End Cal Date : 09-SEP-2019 16:37
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 4.04
 Integrator : Falcon
 Method file : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Cal Date : 11-Sep-2019 09:50 stephenie.andrews
 Curve Type : Average

Compound	1.000	2.000	5.000	10.000	20.000	50.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	100.000	200.000						
	Level 7	Level 8						
4 Aroclor 1232 (1)	16743	19256	19676	21488	21002	20464		
	18884	19993					19688	7.476
(2)	12087	10767	10438	11465	10731	10948		
	10117	10870					10928	5.575
(3)	6960	6549	7256	7724	7103	7519		
	7319	8303					7342	7.173
(4)	13507	16520	15454	16669	15512	14856		
	13816	14942					15159	7.486
(5)	16086	17530	17910	19751	17806	17590		
	16101	17335					17514	6.589
5 Aroclor 1242 (1)	11033	11045	11335	12404	13764	14609		
	13855	14325					12796	11.869
(2)	19732	16777	15987	17586	19116	19668		
	18014	18590					18184	7.444
(3)	27331	25259	23835	24766	26886	26924		
	24625	25687					25664	4.941
(4)	29709	27922	27071	28484	30996	31524		
	28179	30500					29298	5.506
(5)	15907	13865	14072	14564	16498	17691		
	16674	17776					15881	9.798

ALS Environmental - Kelso
 INITIAL CALIBRATION DATA

Start Cal Date : 04-SEP-2019 18:32
 End Cal Date : 09-SEP-2019 16:37
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 4.04
 Integrator : Falcon
 Method file : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Cal Date : 11-Sep-2019 09:50 stephenie.andrews
 Curve Type : Average

Compound	1.000	2.000	5.000	10.000	20.000	50.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	100.000	200.000						
	Level 7	Level 8						
6 Aroclor 1248(1)	19785	22237	22394	24110	22523	20956		
	19494	19998					21437	7.622
(2)	16327	19184	19463	20883	18703	18529		
	16372	18005					18433	8.348
(3)	26968	27374	25182	26161	23861	22234		
	19880	20880					24067	11.759
(4)	20734	20793	19589	20309	18388	17657		
	15868	16957					18787	9.872
(5)	28321	30039	30376	33005	29992	26948		
	24213	26330					28653	9.671
7 Aroclor 1254(1)	33696	33428	34197	37209	32764	30151		
	27455	29572					32309	9.552
(2)	16138	15893	16877	19594	17863	16840		
	16017	16714					16992	7.219
(3)	52699	53720	52131	56813	49668	45002		
	40971	43692					49337	11.232
(4)	17591	13724	14882	17252	15492	14765		
	14032	15218					15369	9.075
(5)	25148	27531	25184	27669	23411	22032		
	20669	22576					24278	10.487

ALS Environmental - Kelso

INITIAL CALIBRATION DATA

Start Cal Date : 04-SEP-2019 18:32
 End Cal Date : 09-SEP-2019 16:37
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 4.04
 Integrator : Falcon
 Method file : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Cal Date : 11-Sep-2019 09:50 stephenie.andrews
 Curve Type : Average

Compound	1.000	2.000	5.000	10.000	20.000	50.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	100.000	200.000						
	Level 7	Level 8						
8 Aroclor 1260 (1)	13166	13446	14031	15125	15770	15124		
	13747	13145					14194	7.125
(2)	29181	26714	22497	22739	23356	21245		
	19204	18526					22933	15.628
(3)	26758	24407	22884	23156	23569	21553		
	19499	18170					22500	12.129
(4)	57128	51872	49776	50288	50419	44250		
	39561	36924					47527	14.198
(5)	30924	27829	30792	32278	32995	29520		
	26713	24540					29449	9.839
9 Aroclor 1262 (1)	48433	47758	46472	49270	41286	37668		
	32992	35864					42468	14.991
(2)	36415	37319	35138	37283	31352	28939		
	25449	27565					32432	14.576
(3)	76536	77284	73091	75226	62242	56098		
	49870	54747					65637	17.001
(4)	50041	48013	48018	51044	42728	39384		
	34633	37764					43953	14.074
(5)	24800	26831	24192	25497	21378	20461		
	18420	20282					22733	13.138

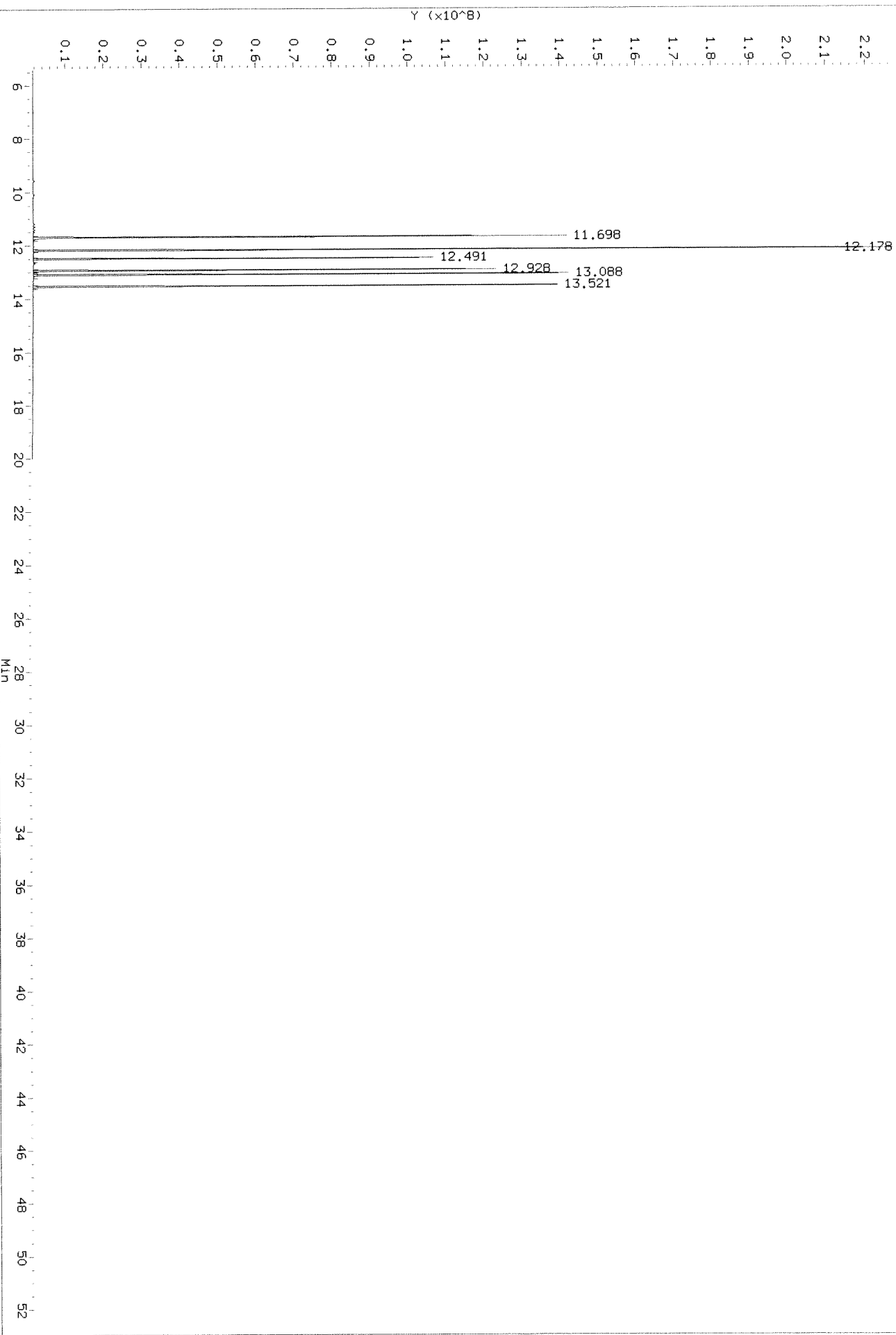
ALS Environmental - Kelso
 INITIAL CALIBRATION DATA

Start Cal Date : 04-SEP-2019 18:32
 End Cal Date : 09-SEP-2019 16:37
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 4.04
 Integrator : Falcon
 Method file : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Cal Date : 11-Sep-2019 09:50 stephenie.andrews
 Curve Type : Average

Compound	1.000	2.000	5.000	10.000	20.000	50.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	100.000	200.000						
	Level 7	Level 8						
10 Aroclor 1268(1)	78515 60501	79608 64781	74140	72934	73025	68402	71488	9.188
(2)	68850 54699	68303 58760	62669	63335	64127	61129	62734	7.468
(3)	58656 47325	56426 50702	54706	54465	55538	53114	53867	6.534
(4)	161279 122981	163316 136010	153505	148114	145062	137200	145933	9.346
M 75 Aroclors, Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
\$ 1 Tetrachloro-m-xylene	846440 752891	855870 739701	854112	891940	901415	804378	830843	7.223
\$ 11 Decachlorobiphenyl	462000 388952	496710 359578	453428	483785	495841	431051	446418	11.277

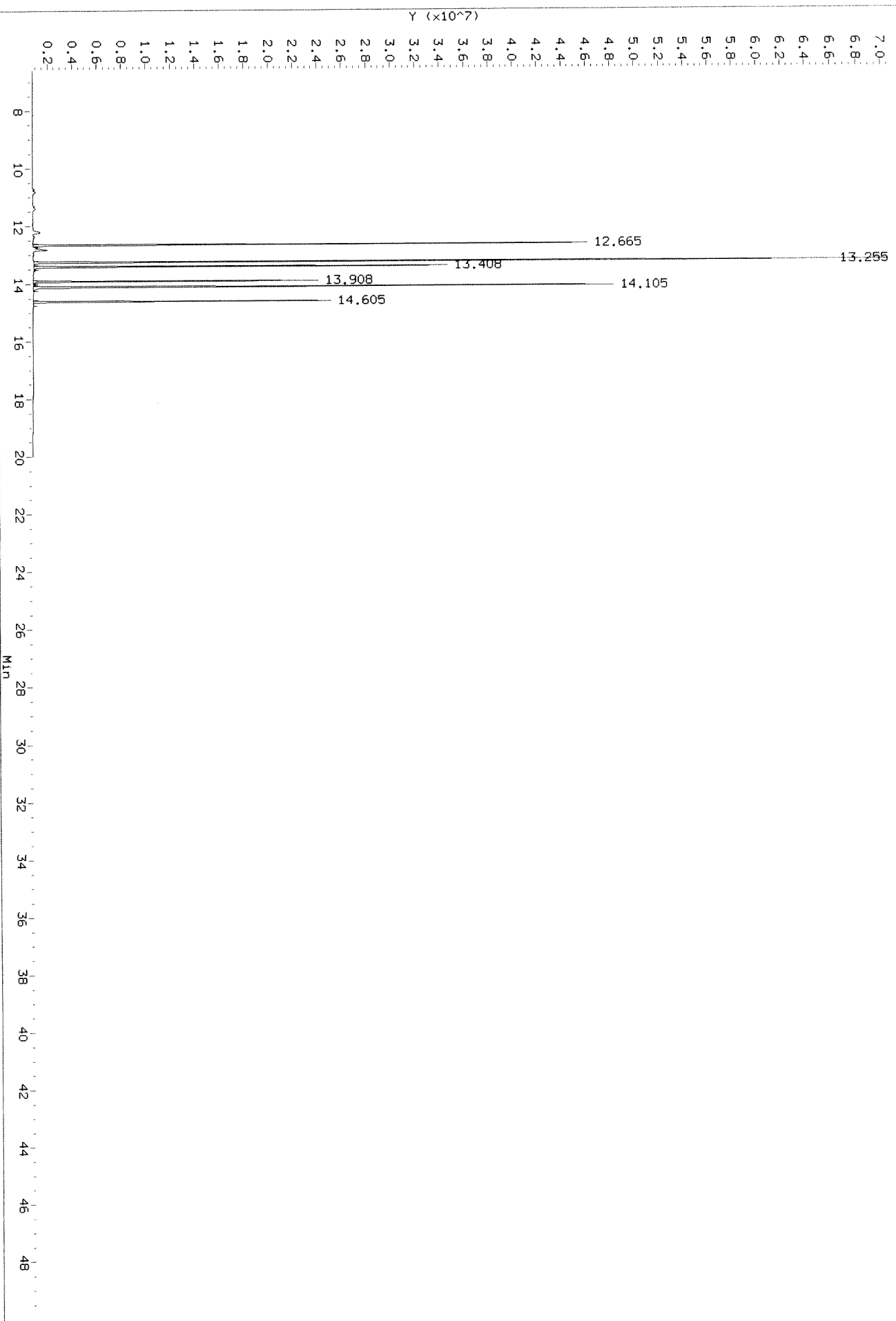
Front	TCMX	1016	1221	1232	1242	1248	1254	1260	1262	1268 DCB	2,4'4,4'-DDX
	6.969	8.056	7.656	7.655	8.053	9.722	11.776	13.196	13.579	14.950	16.859
		9.306	7.892	8.055	9.300	9.928	12.242	13.583	14.049	15.050	12.178
		9.749	8.056	8.825	9.743	11.058	12.399	14.053	14.429	15.440	12.481
		9.929	9.302	9.302	9.926	11.325	12.739	14.429	15.055	16.426	12.928
		10.316	9.929	9.929	10.186	11.802	13.302	15.059	15.922		13.088
											13.521
Rear	TCMX	1016	1221	1232	1242	1248	1254	1260	1262	1268 DCB	2,4'4,4'-DDX
	8.436	9.166	8.826	9.166	9.163	10.965	12.429	13.546	14.789	16.200	18.136
		9.916	8.979	9.916	9.913	11.015	12.482	14.793	15.159	16.326	13.255
		11.066	9.166	10.296	10.963	11.515	12.806	15.163	15.692	16.700	13.408
		11.516		10.966	11.013	12.032	12.899	15.693	16.199	17.720	13.908
		11.753		11.016	11.250	12.555	14.372	16.196	17.202		14.105
											14.605

HP6890 GC Data, ECD1A.CH: 5.401 to 52.351 Min



Data File: \\alk1sww002\Instdata\GC27\Data\090419ICAL_r.b\0904F003.D
Injection Date: 04-SEP-2019 17:29

HP6890 GC Data, ECD2B.CH: 6.601 to 49.689 Min



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F003.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F003.D
Inj Date : 04-SEP-2019 17:29
Sample Info: DDX MARKER
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : ALL.SUB
Sub List #2 : ALL.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.998	0.000	191494	0	0.106	0.000		100.00 (R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

SA 9/11/19
W

Data File: \\alkisus002\instdata\GC27\Data\090419ICAL.p\0904F003.D

Date: 04-SEP-2019 17:29

Client ID:

Sample Info: DDV MARKER

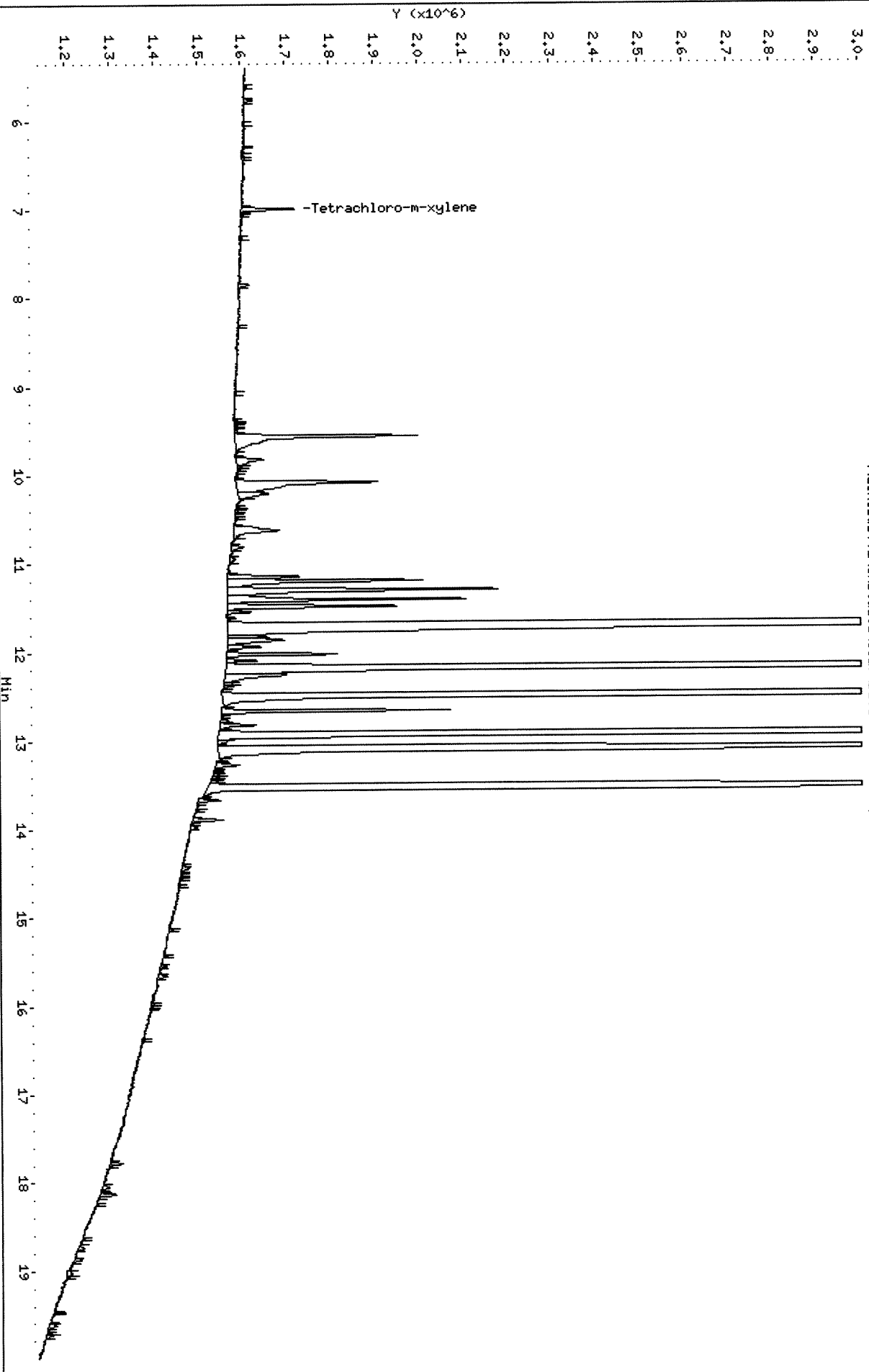
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL.p\0904F003.D



Data File: \\alkisw5002\instdata\GC27\Data\090419ICAL_r.b\0904F003.D

Date: 04-SEP-2019 17:29

Client ID:

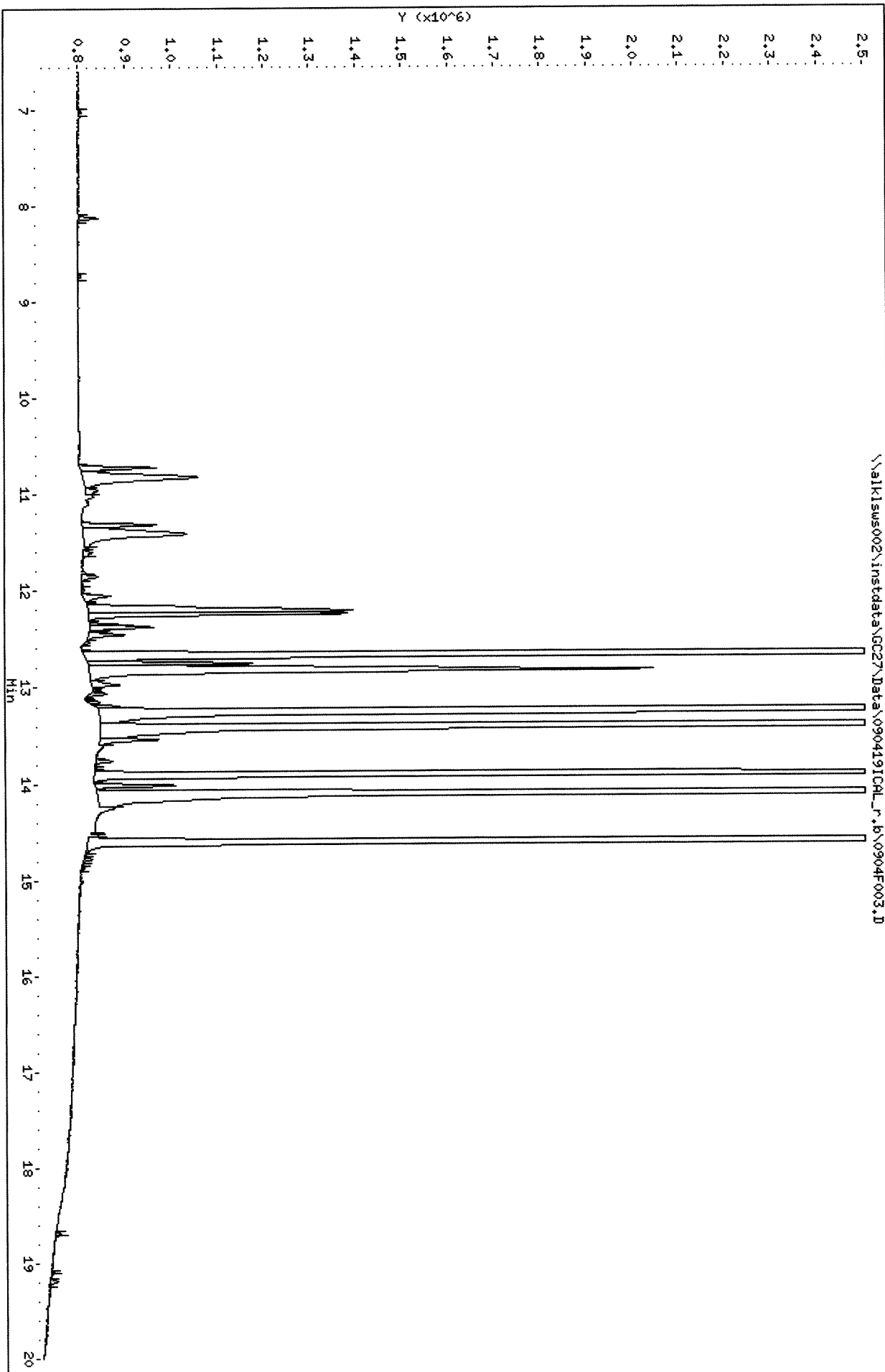
Sample Info: DDV MARKER

Column phase: DB-ALB

Instrument: GC27.i

Operator: SMA

Column diameter: 0.32



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F004.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F004.D
Inj Date : 04-SEP-2019 18:00
Sample Info: IB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : ALL.SUB
Sub List #2 : ALL.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
----------	------	------	--------	--------	--------	--------	--------------	-------

=====

SA 9/11/19
W

Data File: \\alk1sus002\instdata\GC27\Data\090419ICAL.b\0904F004.D

Date : 04-SEP-2019 18:00

Client ID:

Sample Info: IB

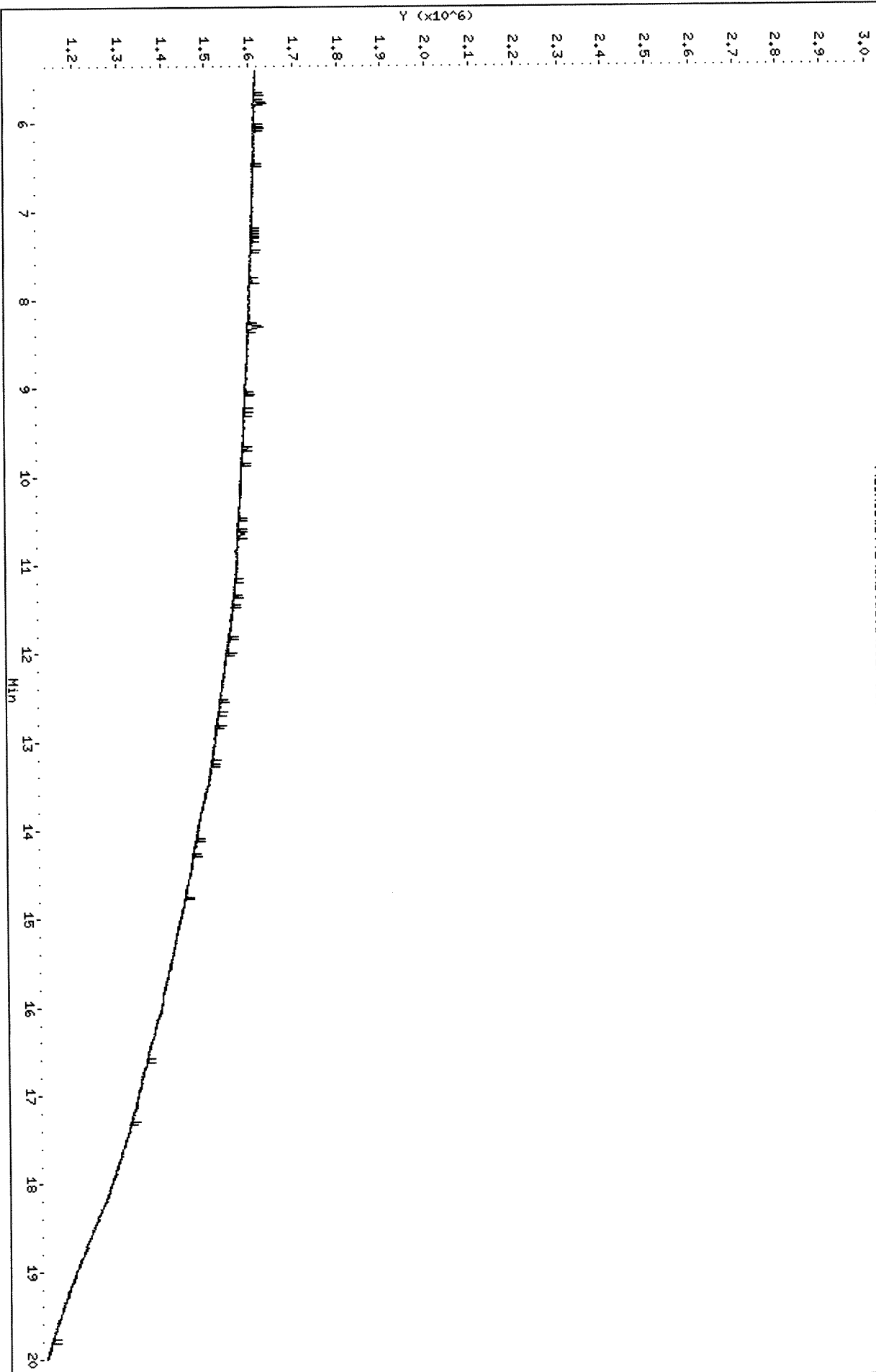
Instrument: GC27.1

Operator: SAA

Column diameter: 0.32

Column phase: DB-35MS

\\alk1sus002\instdata\GC27\Data\090419ICAL.b\0904F004.D



Data File: \\alkisw5002\instdata\GC27\Data\090419ICL_r.b\0904F004.D

Date: 04-SEP-2019 18:00

Client ID:

Sample Info: IB

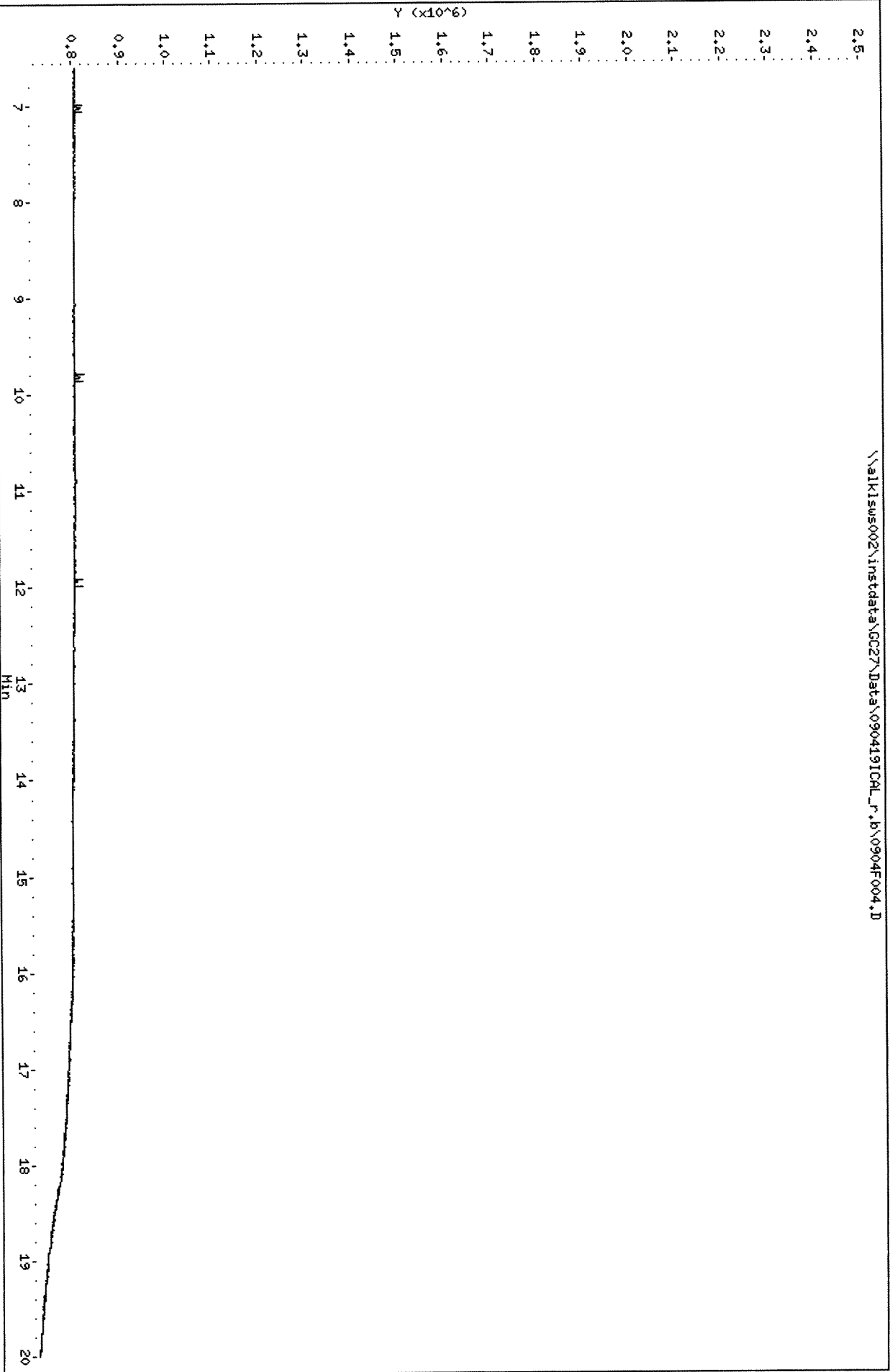
Column phase: DB-XLB

Instrument: GC27.1

Operator: SAA

Column diameter: 0.32

\\alkisw5002\instdata\GC27\Data\090419ICL_r.b\0904F004.D



ALS Environmental - Kelso


Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F005.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F005.D
 Inj Date : 04-SEP-2019 18:32
 Sample Info: PCB8-12K 1660 @ 0.1-1 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 1660.SUB
 Sub List #2 : 1660.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.969	8.436	190764	84644	0.106	0.102		100.00
Aroclor 1016	8.059	9.166	39400	16102	1.15	1.07	80.00- 120.00	100.00 (M)
	9.306	9.912	31706	23810	1.13	1.08	66.06- 99.09	80.47 (M)
	9.749	11.062	92717	22120	1.07	0.917	210.14- 315.22	235.32 (M)
	9.932	11.516	51318	20451	1.00	1.15	122.22- 183.34	130.25 (M)
	10.316	11.752	36002	18348	1.02	1.09	84.59- 126.89	91.38 (M)
	Average of Peak Amounts =				1.07	1.06		
Aroclor 1260	13.202	13.546	35380	13166	1.06	0.928	80.00- 120.00	100.00 (M)
	13.589	14.792	48458	29181	1.04	1.27	111.33- 167.00	136.96 (M)
	14.062	15.159	54080	26758	1.08	1.19	117.15- 175.73	152.85 (M)
	14.439	15.689	120908	57128	1.14	1.20	251.10- 376.65	341.74 (M)
	15.069	16.192	89767	30924	1.13	1.05	184.28- 276.42	253.72 (M)
	Average of Peak Amounts =				1.09	1.13		
Decachlorobiphenyl	16.869	18.136	122575	46200	0.112	0.103		100.00

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19


Data File: \\alkisus002\instdata\GC27\Data\090419ICAL.b\0904F005.D

Date: 04-SEP-2019 18:32

Client ID:

Sample Info: PCB8-12K 1660 @ 0.1-1 PPB

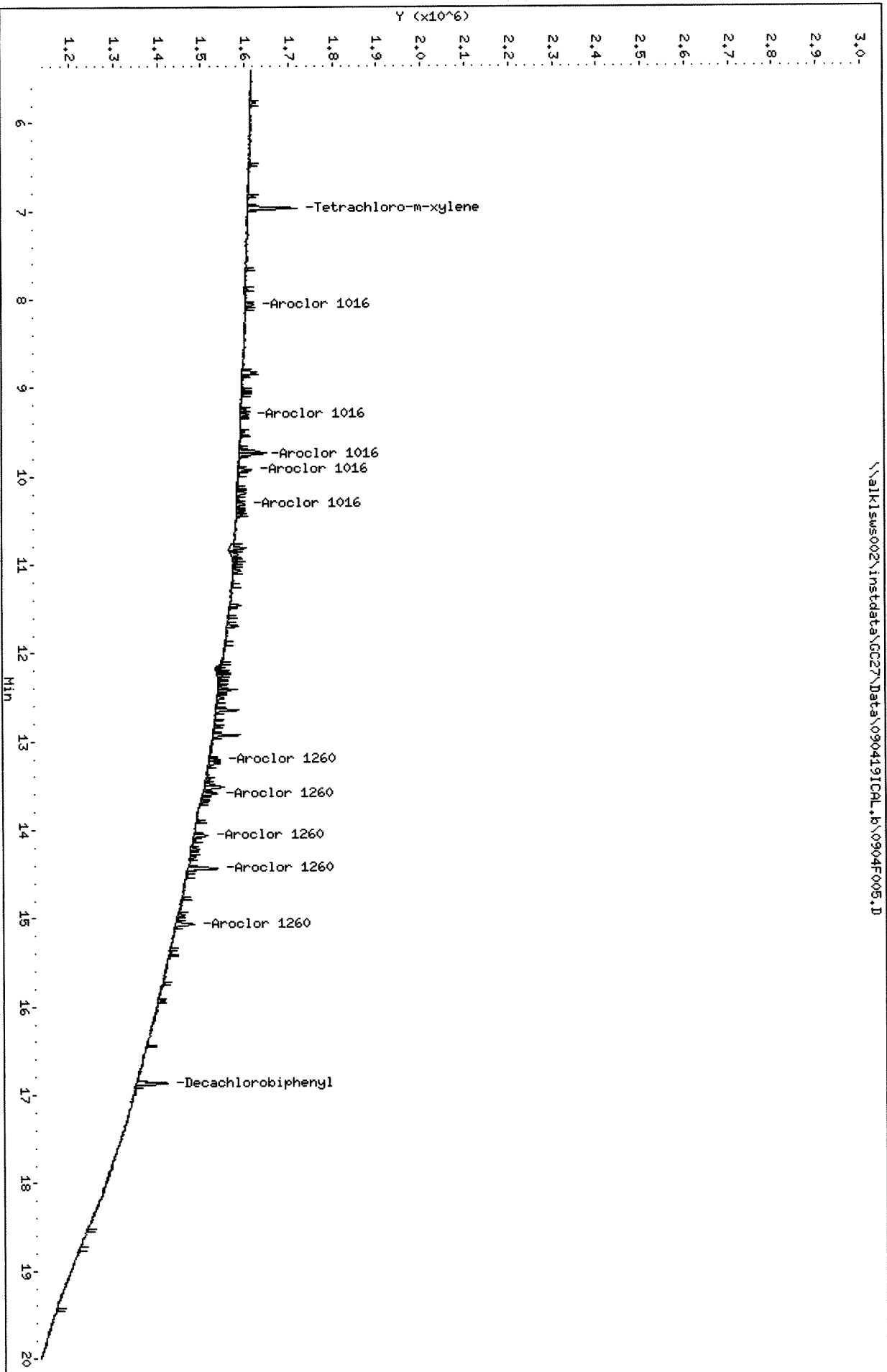
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

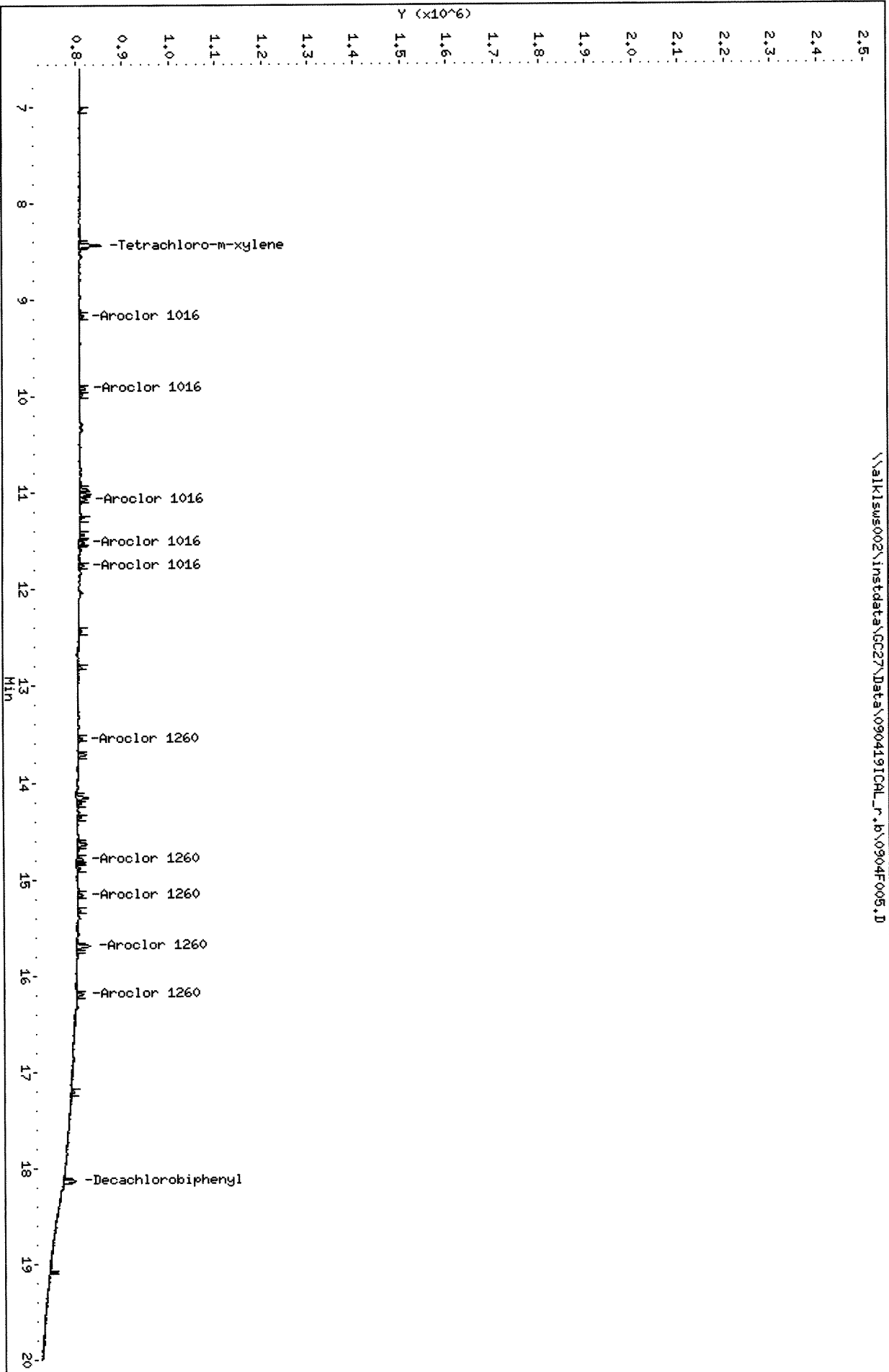
\\alkisus002\instdata\GC27\Data\090419ICAL.b\0904F005.D



Data File: \\alk1sws002\instdata\GC27\Data\090419ICAL_r.b\0904F005.D
Date: 04-SEP-2019 18:32
Client ID:
Sample Info: PCB8-12K 1660 @ 0.1-1 PPS
Column phase: DB-XLB

Instrument: GC27.i
Operator: SAA
Column diameter: 0.32

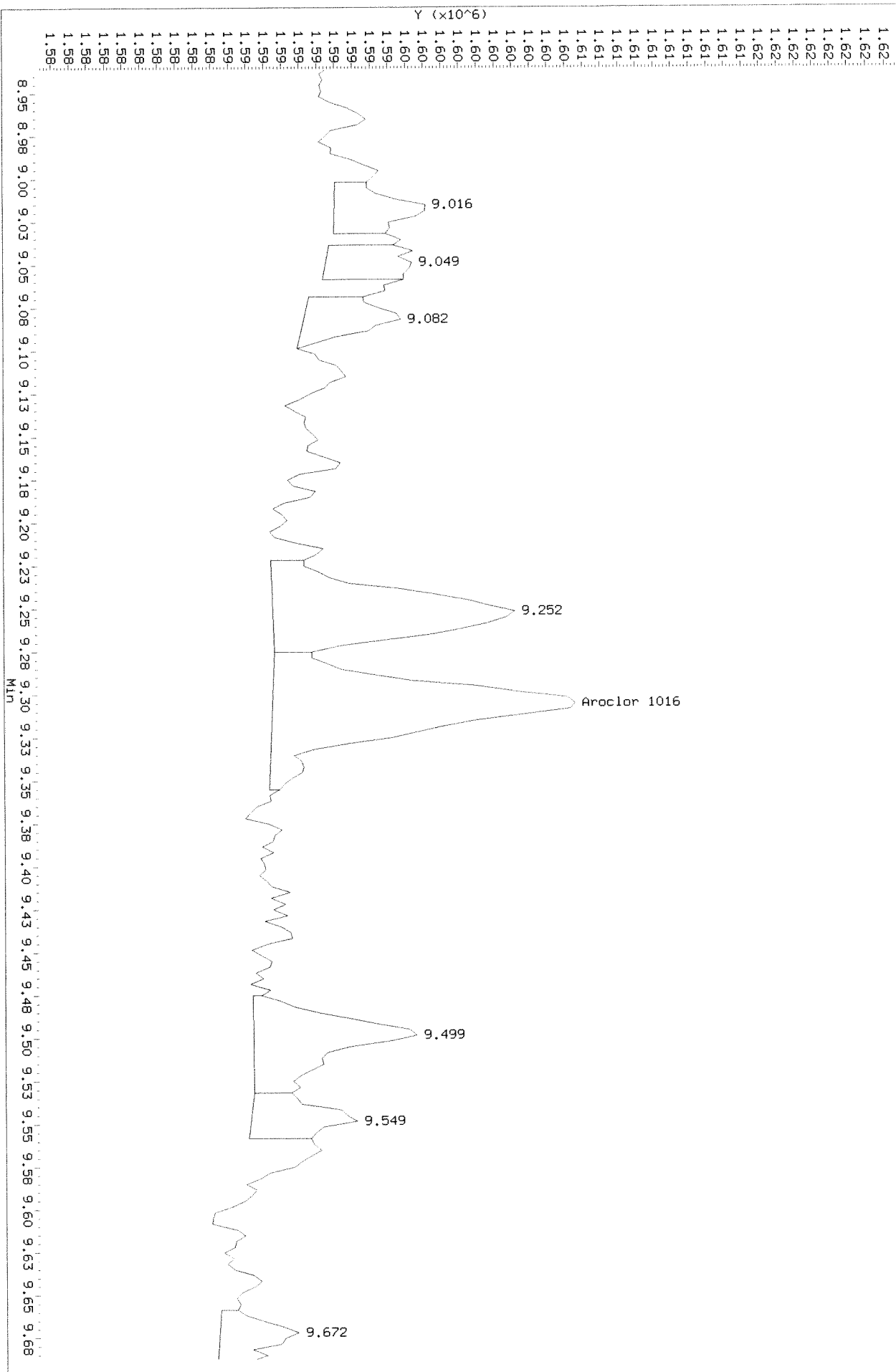
\\alk1sws002\instdata\GC27\Data\090419ICAL_r.b\0904F005.D



Data File: \\alk1sww002\instdata\GC27\Data\090419ICAL.b\0904F005.D
Injection Date: 04-SEP-2019 18:32
Instrument: GC27.1
Client Sample ID:

Before

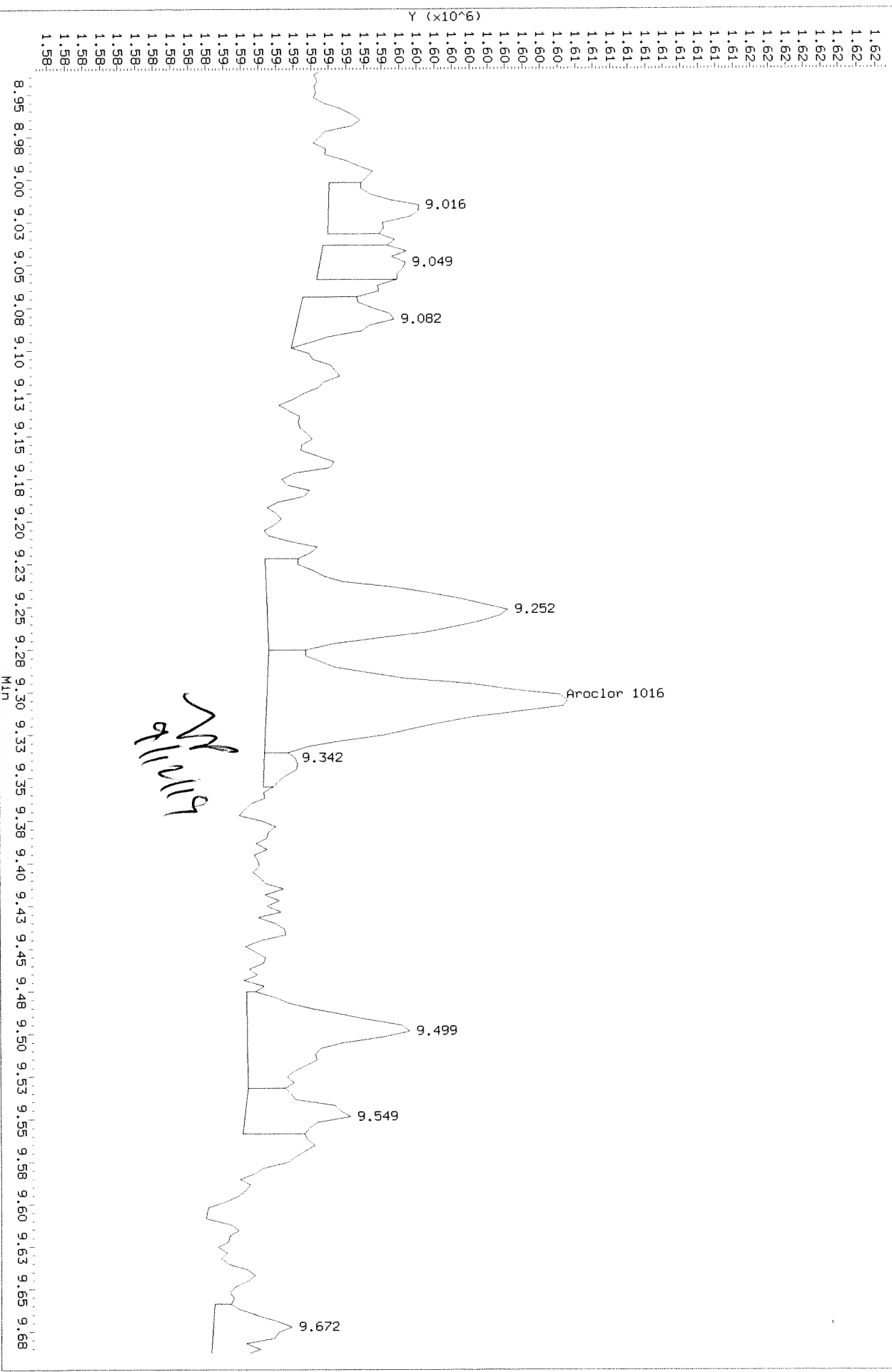
HP6890 GC Data, ECD1A.CH: 8.937 to 9.688 MIN



Data File: \\alk1sww002\instdata\GC27\Data\090419ICAL.B\0904F005.D
Injection Date: 04-SEP-2019 18:32
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 8.937 to 9.688 MIN

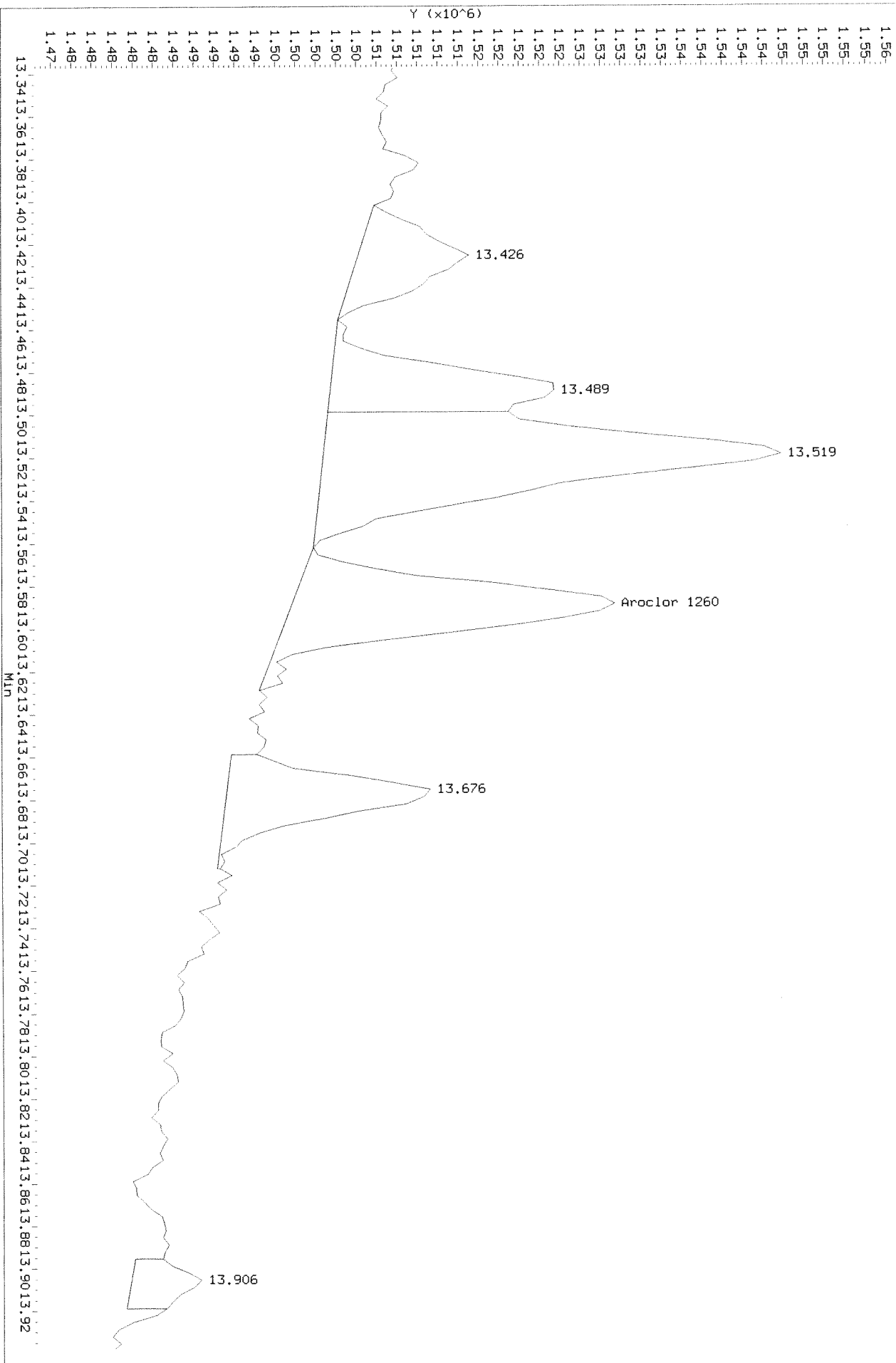
After shoulder 9/11/19 SA



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F005.D
Injection Date: 04-SEP-2019 18:32
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 13.338 to 13.938 Min

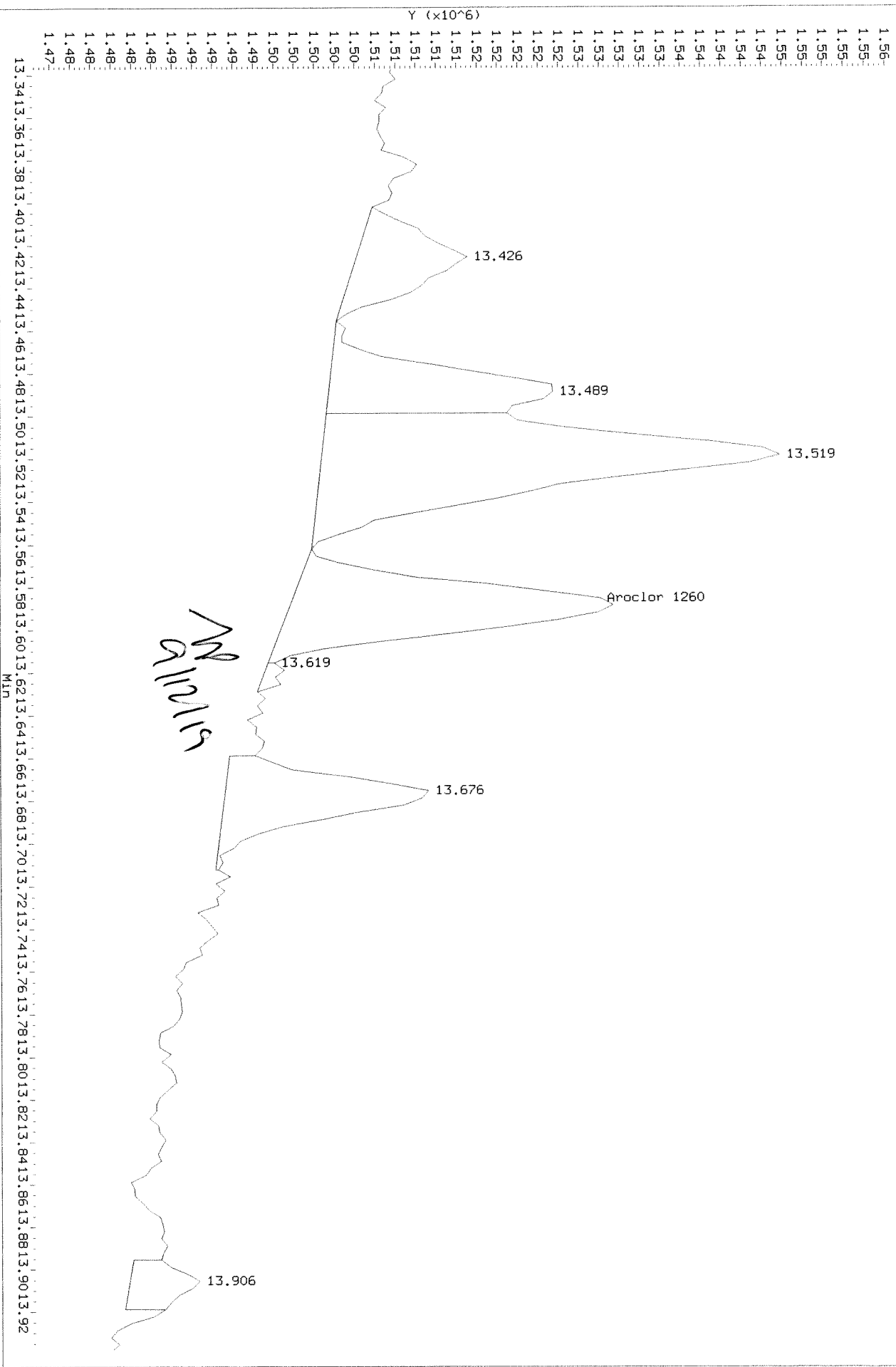
Before



Data File: \\alk1sws002\instdata\GC27\Data\090419ICL.R\0904F005.D
Injection Date: 04-SEP-2019 18:32
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 13.338 to 13.938 MIN

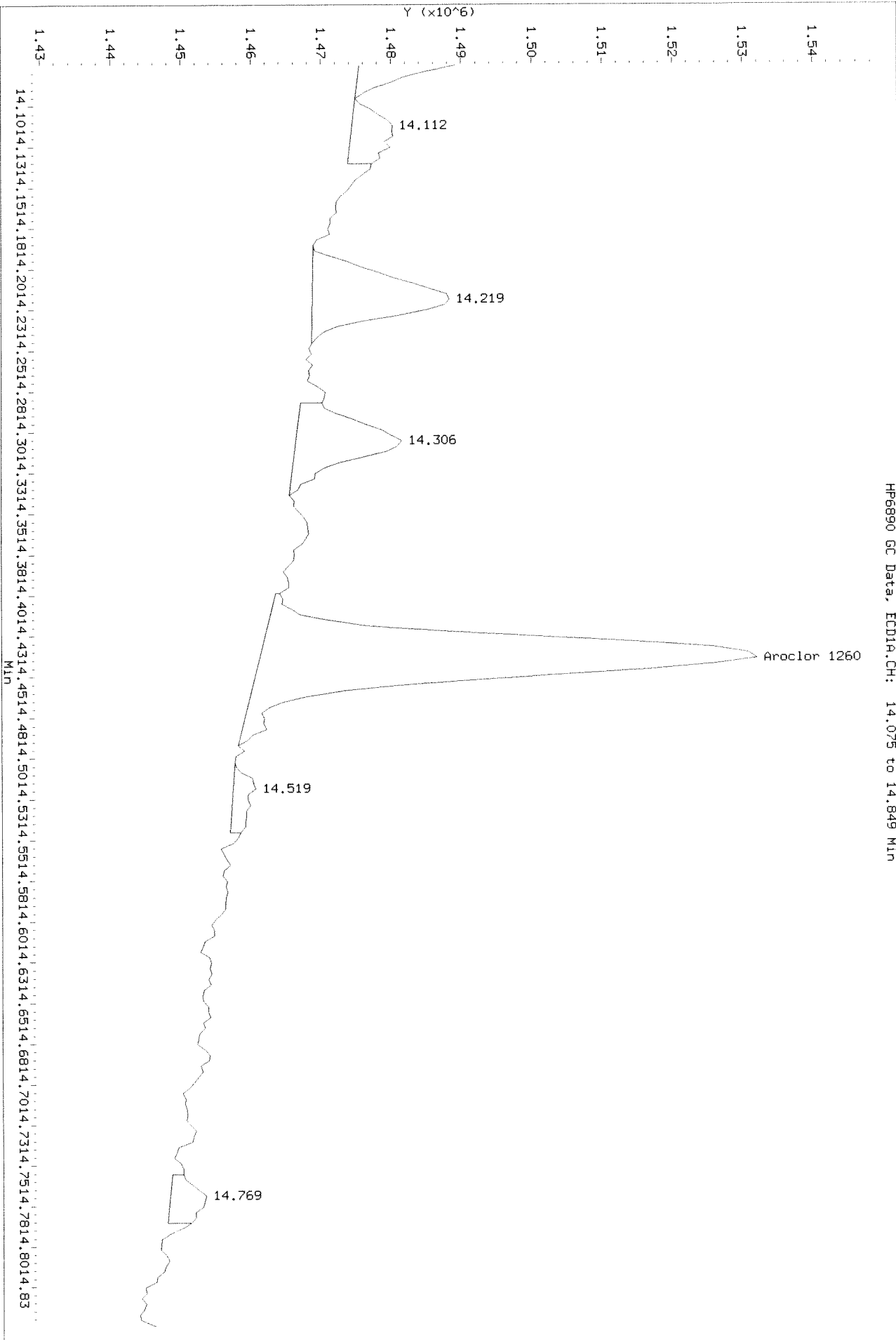
After Shoulder 9/11/19 SA



Data File: \\alk1sws002\instdata\GC27\Data\090419ICAL.B\0904F005.D
Injection Date: 04-SEP-2019 18:32
Instrument: GC27.1
Client Sample ID:

Before

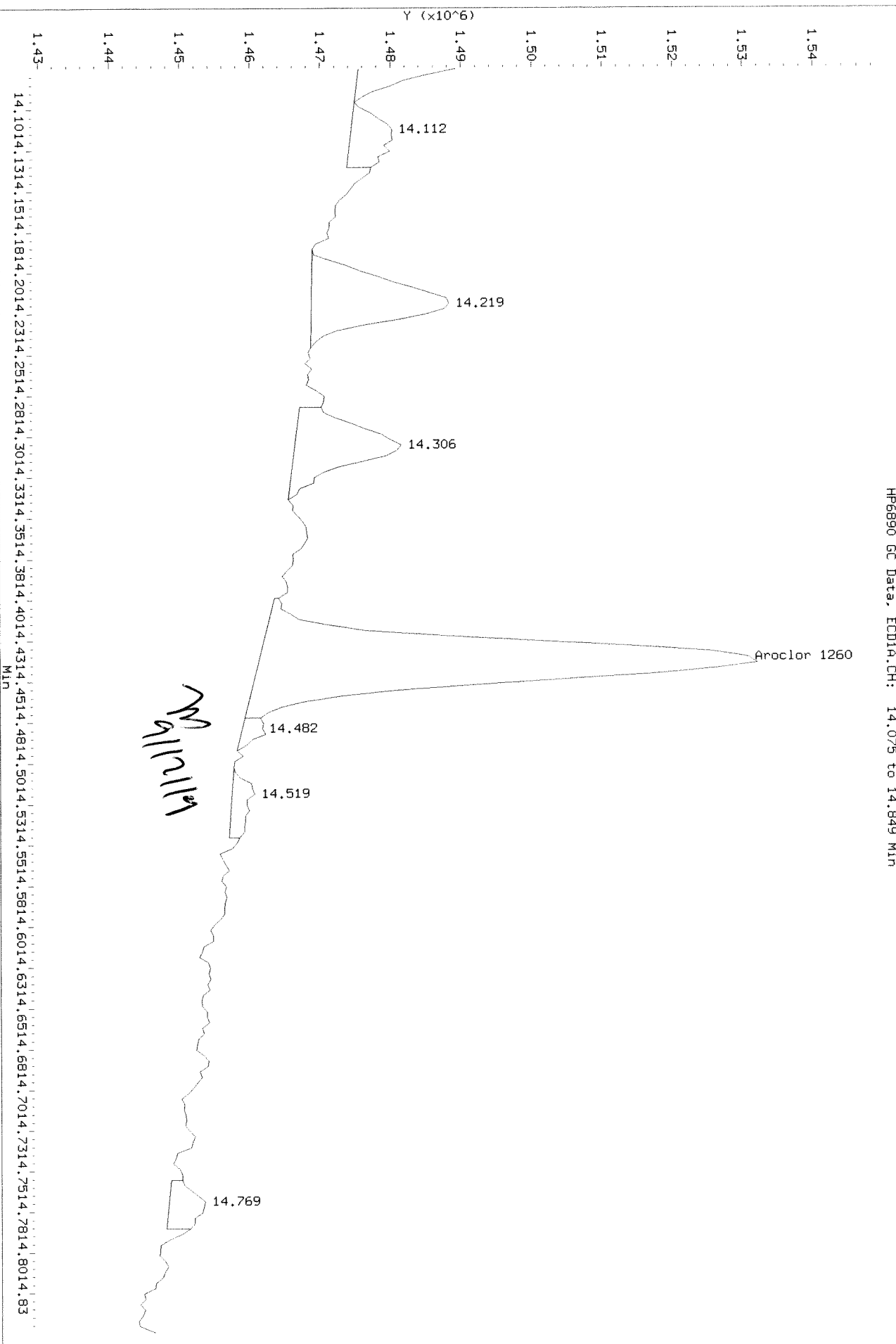
HP6890 GC Data, ECD1A.CH: 14.075 to 14.849 MIN



Data File: \\alk1swws002\instdata\GC27\Data\090419\FAL.b\0904F005.D
Injection Date: 04-SEP-2019 18:32
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 14.075 to 14.849 MIN

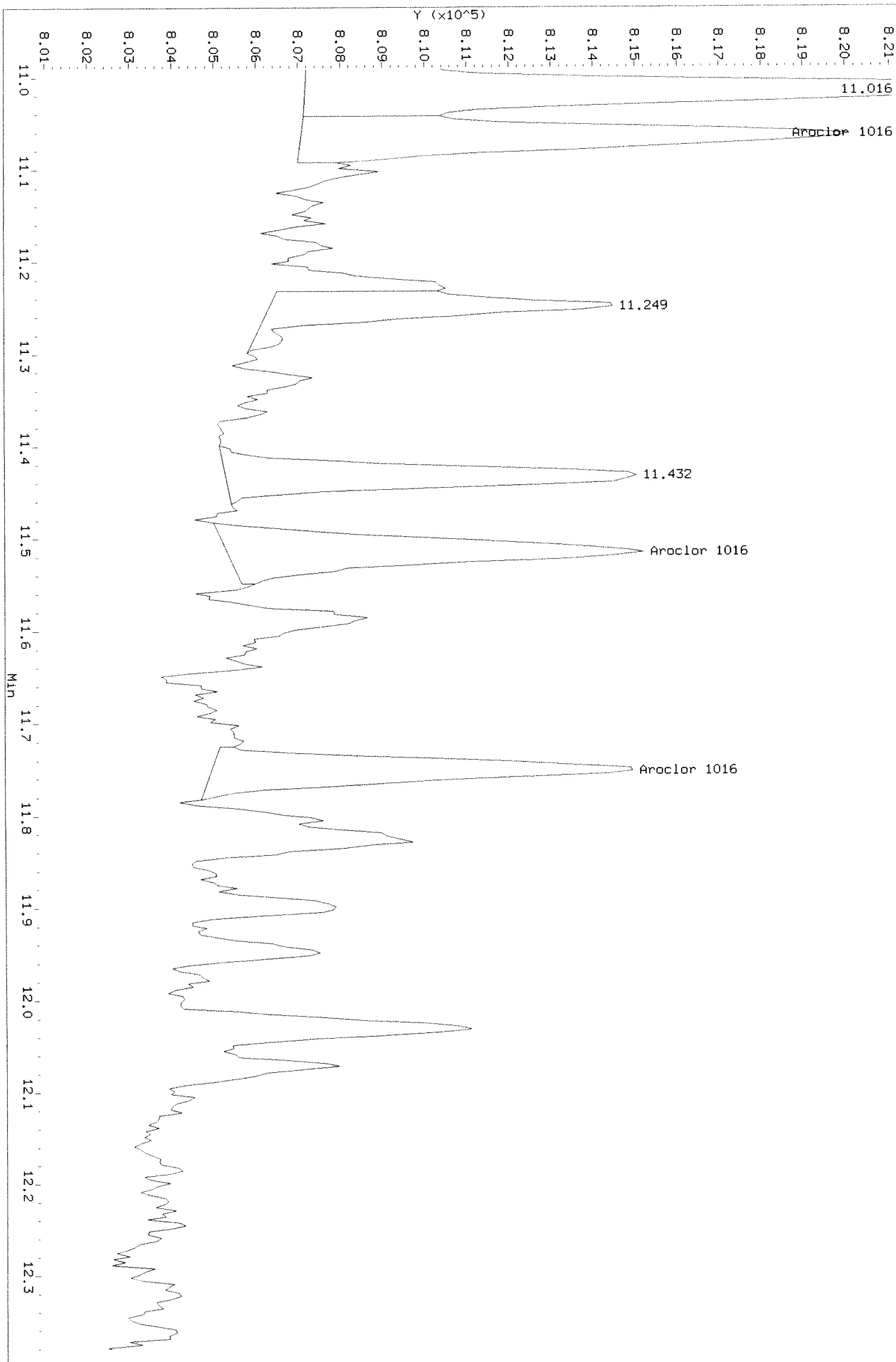
After Sharber 9/11/19 SA



Data File: \\alklms002\instdata\GC27\Data\090419ICHL_r.b\0904F005.D
Injection Date: 04-SEP-2019 18:32
Instrument: GC27.1
Client Sample ID:

Refer

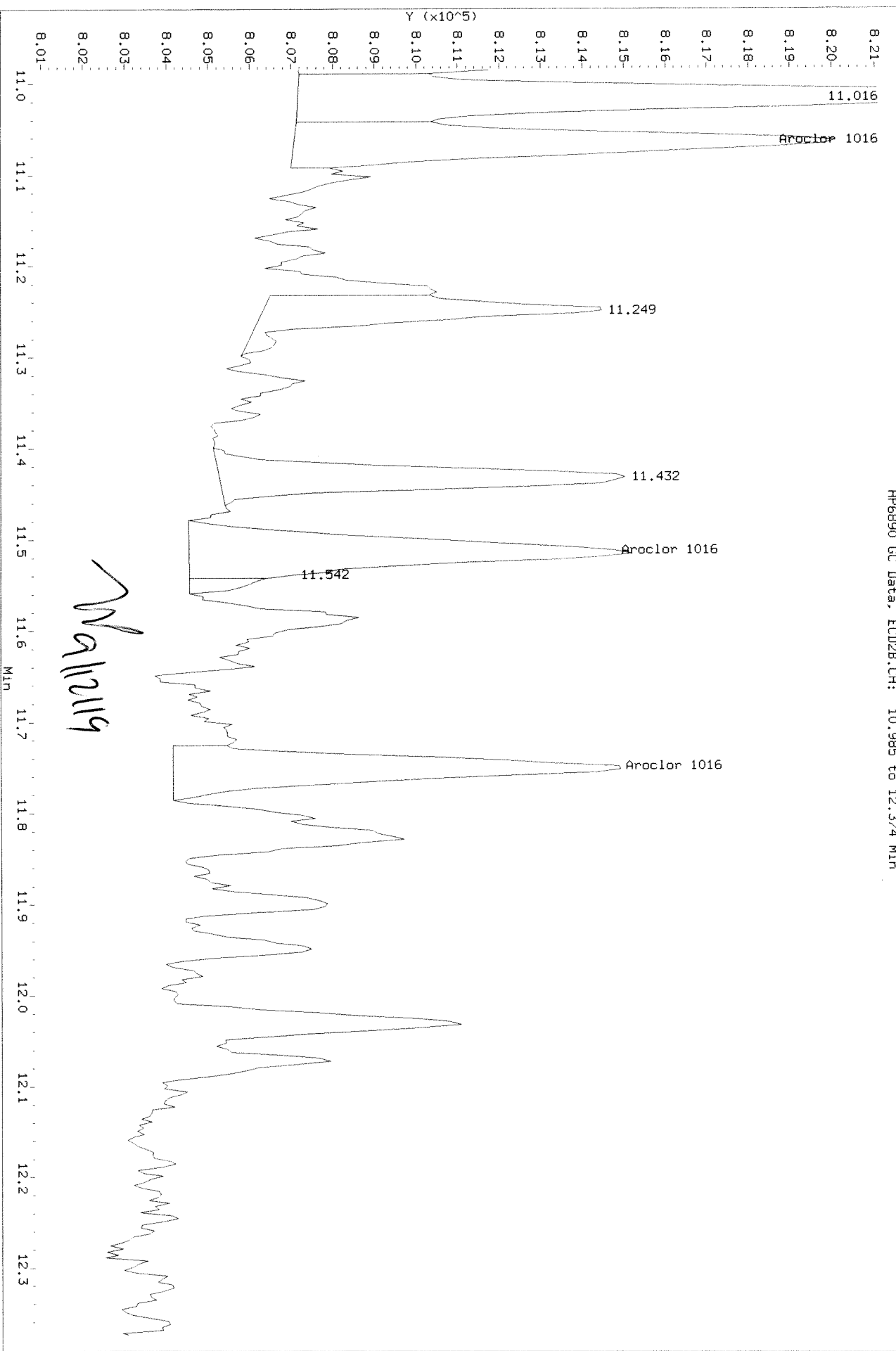
HP6890 GC Data, ECD2B.CH: 10.991 to 12.380 MIN



Data File: \\valkissw002\instdata\GC27\Data\090419ICAL.r.b\0904F005.D
Injection Date: 04-SEP-2019 18:32
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 10.985 to 12.374 Min

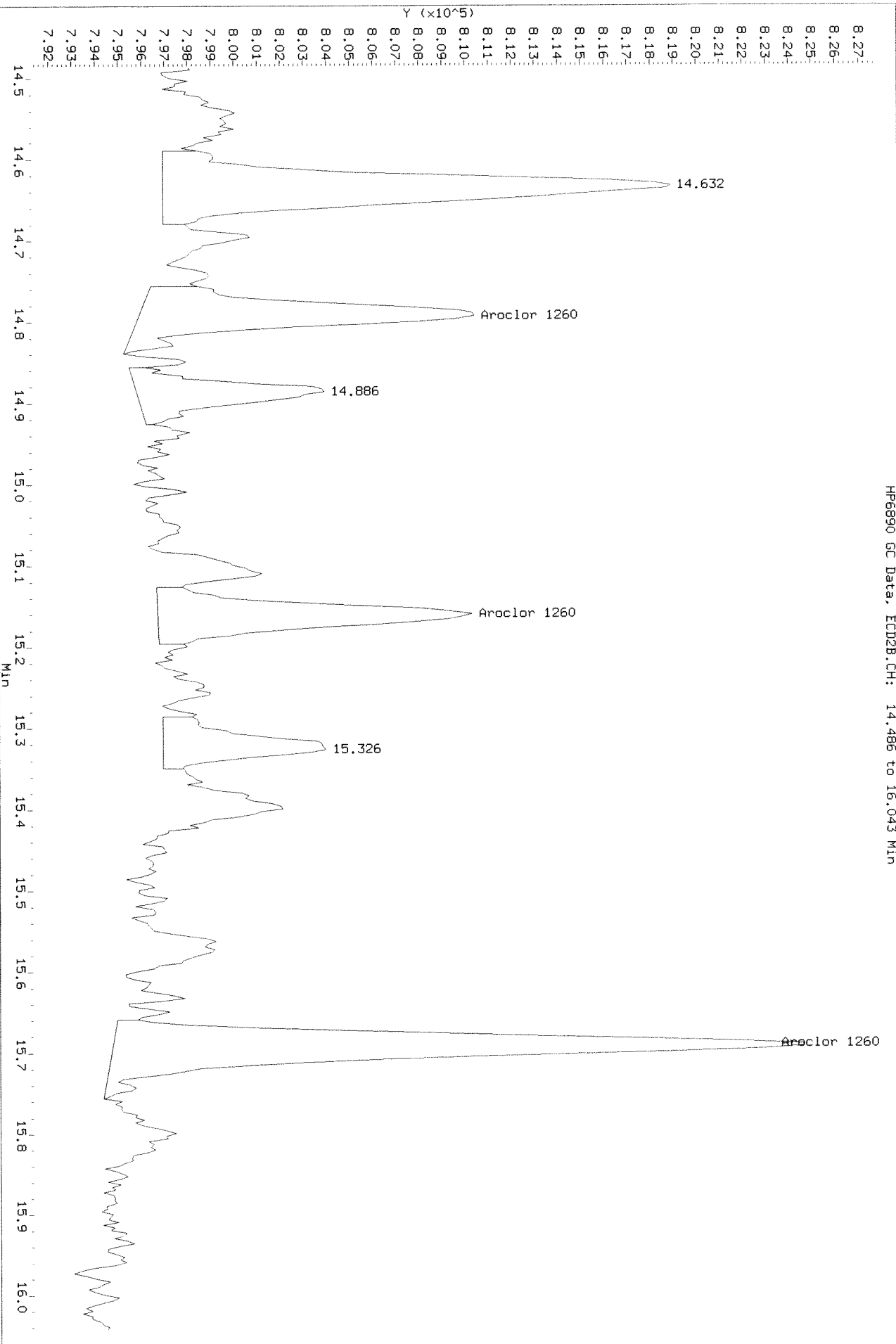
After baseline shoulder 9/11/19 A



Data File: \\alklms002\instdata\GC27\Data\090419ICAL_r.b\0904F005.D
Injection Date: 04-SEP-2019 18:32
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 14.486 to 16.043 Min

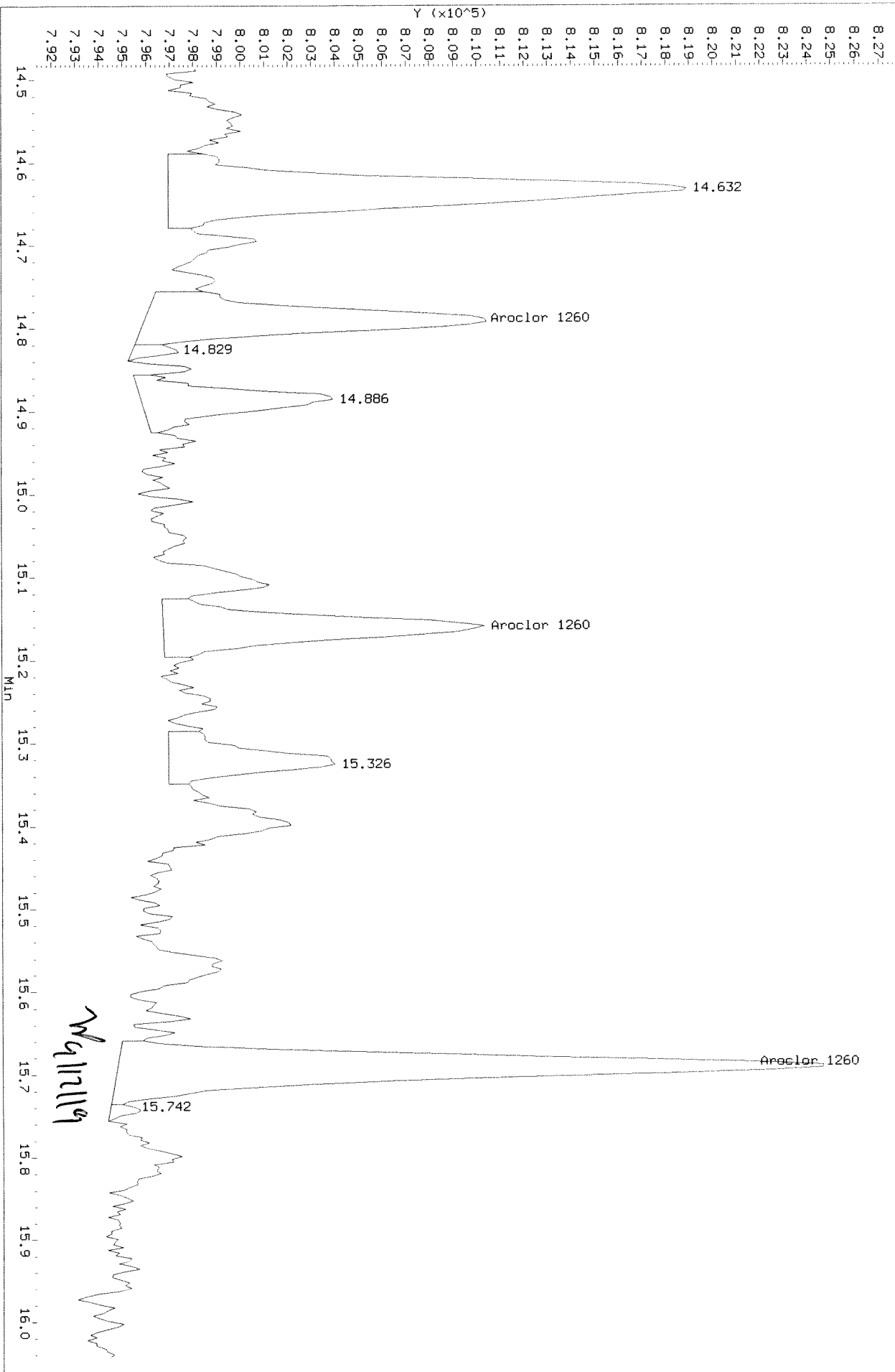
Before



Data File: \\alklms002\instdata\GC27\Data\090419ICAL_r.b\0904F005.D
Injection Date: 04-SEP-2019 18:32
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 14.486 to 16.043 MIN

After shoulder 9/11/19 SA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F006.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F006.D
 Inj Date : 04-SEP-2019 19:04
 Sample Info: PCB8-12L 1660 @ 0.2-2 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 1660.SUB
 Sub List #2 : 1660.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.971	8.438	371637	171174	0.206	0.206		100.00
Aroclor 1016	8.057	9.168	70961	28422	2.08	1.89	80.00- 120.00	100.00 (M)
	9.304	9.918	58355	44421	2.08	2.01	66.06- 99.09	82.24 (M)
	9.747	11.064	195701	47375	2.25	1.96	210.14- 315.22	275.79 (M)
	9.931	11.518	106737	36442	2.08	2.05	122.22- 183.34	150.42 (M)
	10.314	11.754	69761	31982	1.98	1.90	84.59- 126.89	98.31 (M)
	Average of Peak Amounts =				2.09	1.96		
Aroclor 1260	13.197	13.548	70879	26891	2.12	1.89	80.00- 120.00	100.00
	13.581	14.791	91941	53427	1.97	2.33	111.33- 167.00	129.72
	14.051	15.164	100862	48814	2.01	2.17	117.15- 175.73	142.30
	14.427	15.691	213592	103743	2.01	2.18	251.10- 376.65	301.35
	15.061	16.194	163681	55657	2.06	1.89	184.28- 276.42	230.93
	Average of Peak Amounts =				2.03	2.09		
Decachlorobiphenyl	16.857	18.134	233073	99342	0.214	0.223		100.00

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
 W

Data File: \\alkisws002\instdata\GC27\Data\090419ICAL.b\0904F006.D

Date: 04-SEP-2019 19:04

Client ID:

Sample Info: PCB8-12L 1660 @ 0.2-2 PPB

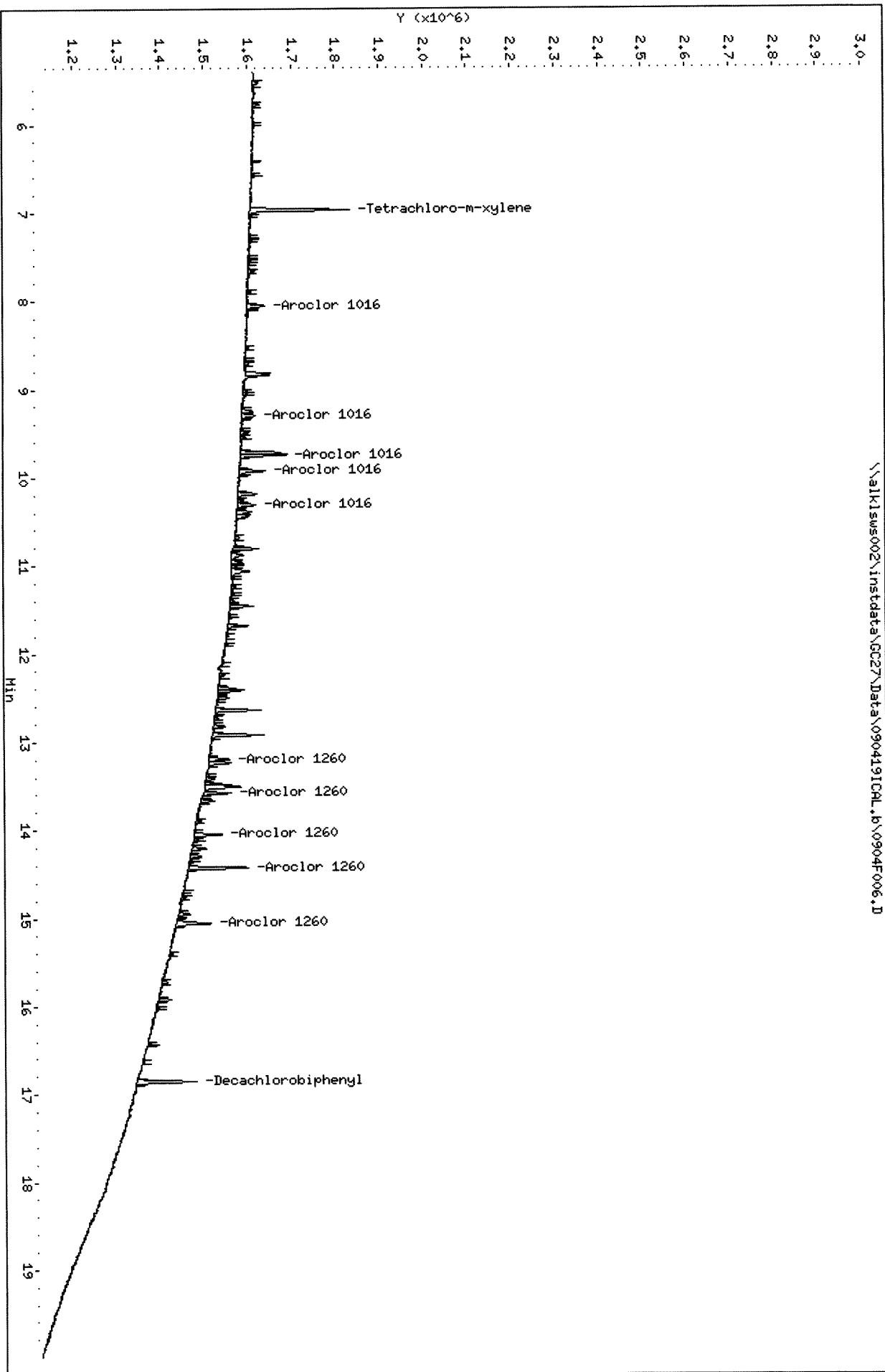
Column phase: DB-35MS

Instrument: GC27.1

Operator: SAH

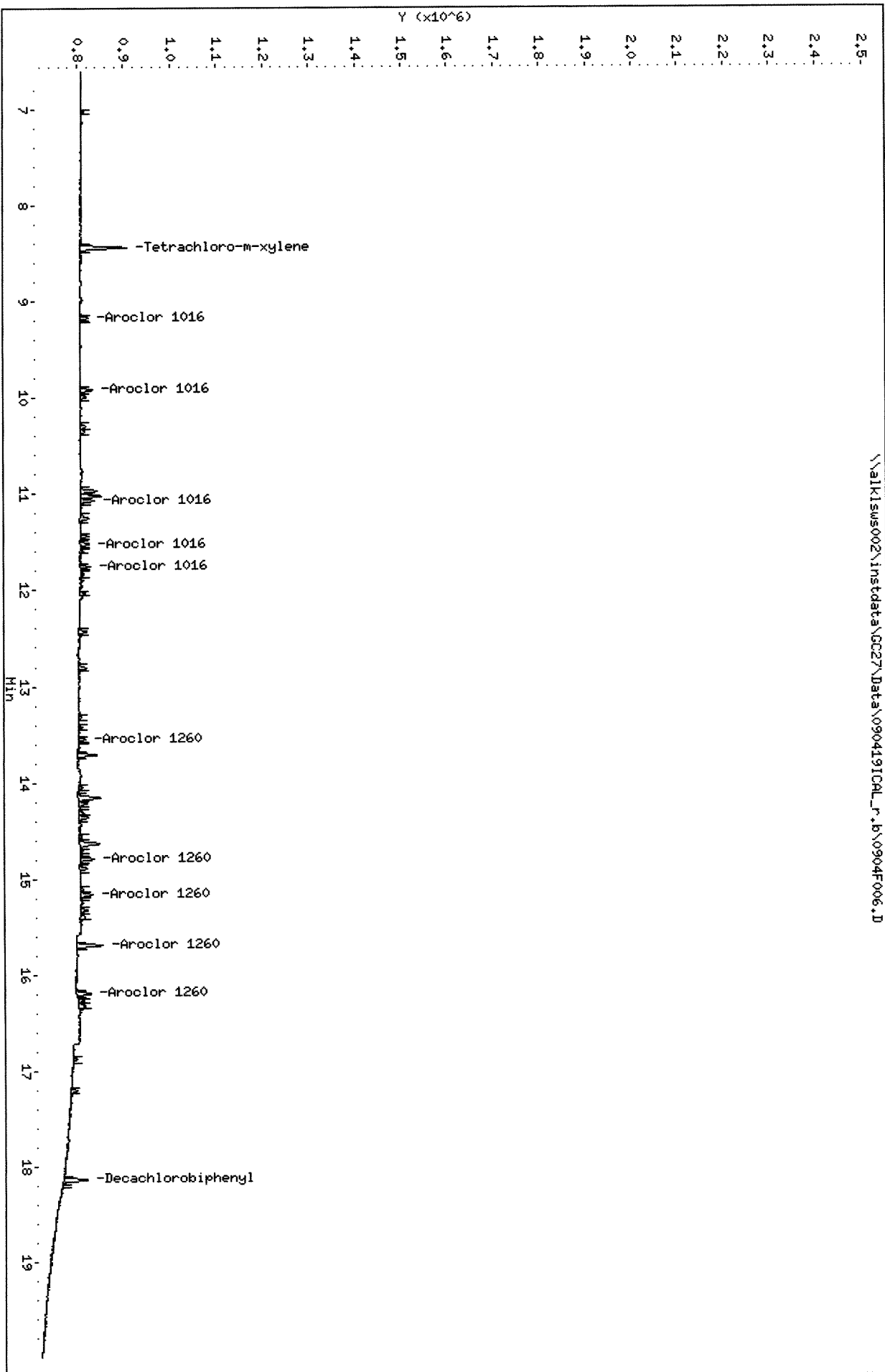
Column diameter: 0.32

\\alkisws002\instdata\GC27\Data\090419ICAL.b\0904F006.D



Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904f006.D
Date: 04-SEP-2019 19:04
Client ID:
Sample Info: PCB8-12L 1660 @ 0.2-2 PPB
Column phase: DB-XLB

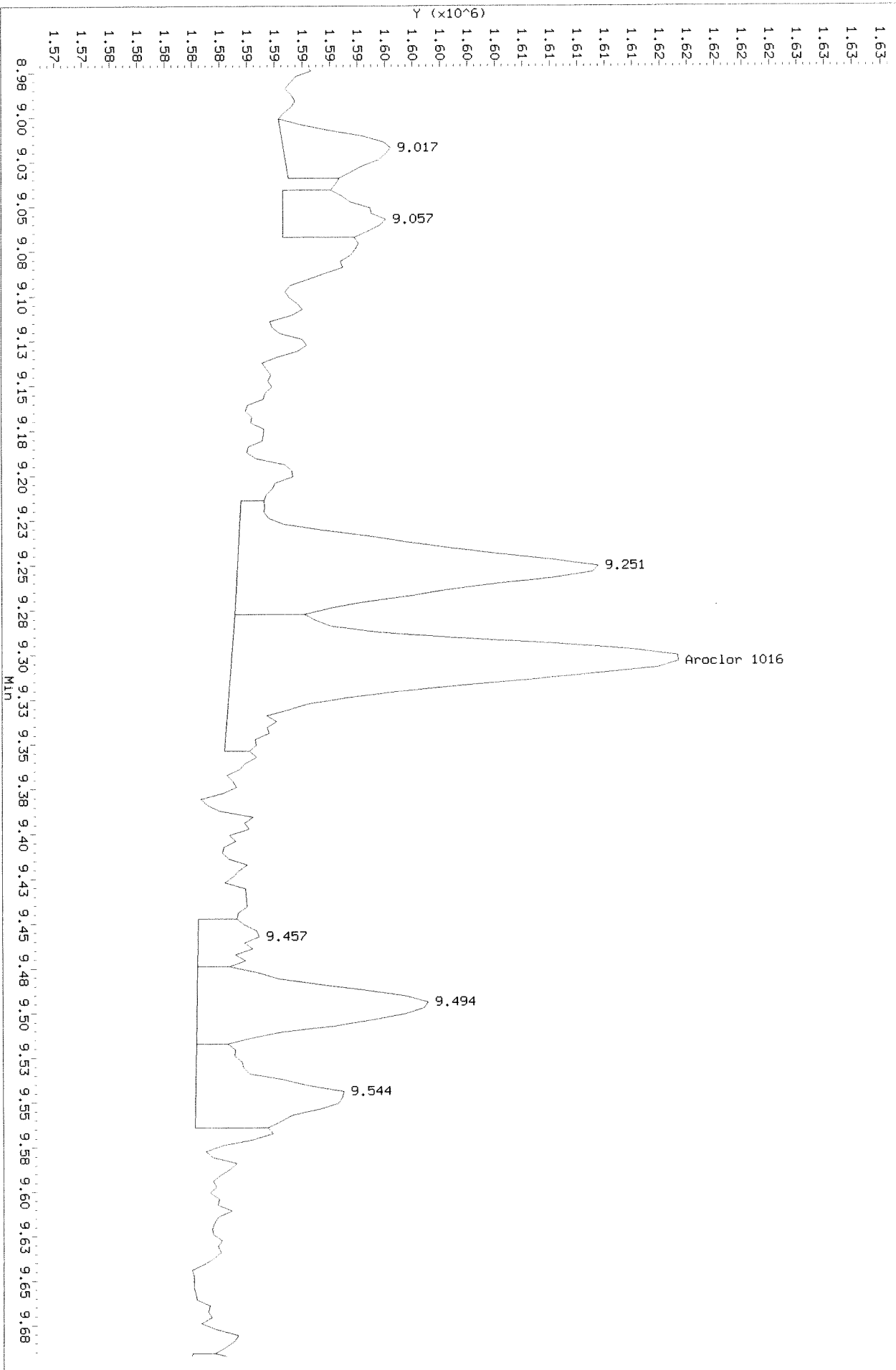
Instrument: GC27.i
Operator: SAA
Column diameter: 0.32



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904f006.D
Injection Date: 04-SEP-2019 19:04
Instrument: GC27.1
Client Sample ID:

Before

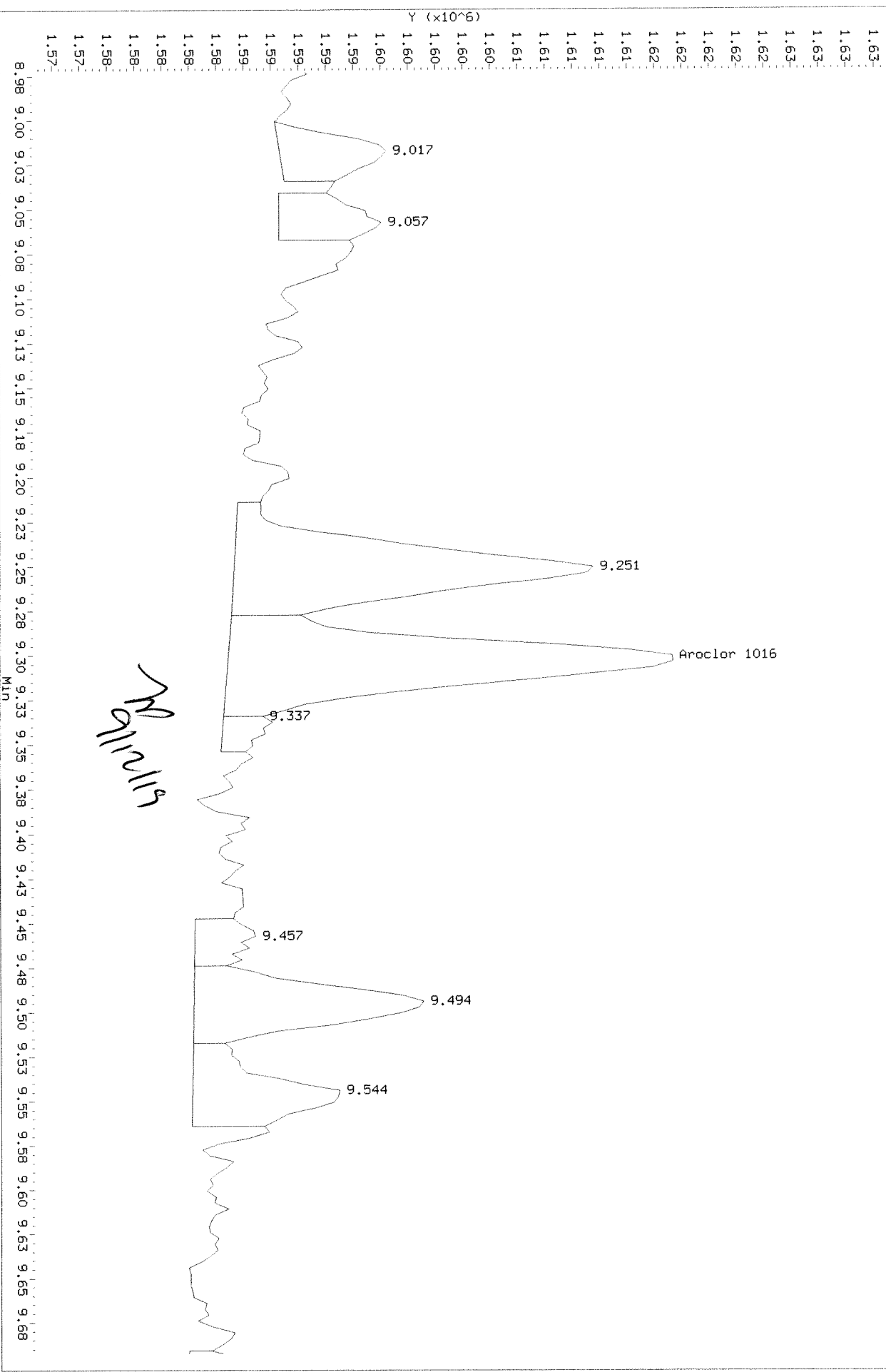
HP6890 GC Data, ECD1A.CH: 8.973 to 9.692 Min



Data File: \\alk1sww002\instdata\GC27\Data\090419ICAL.B\0904F006.D
Injection Date: 04-SEP-2019 19:04
Instrument: GC27.1
Client Sample ID:

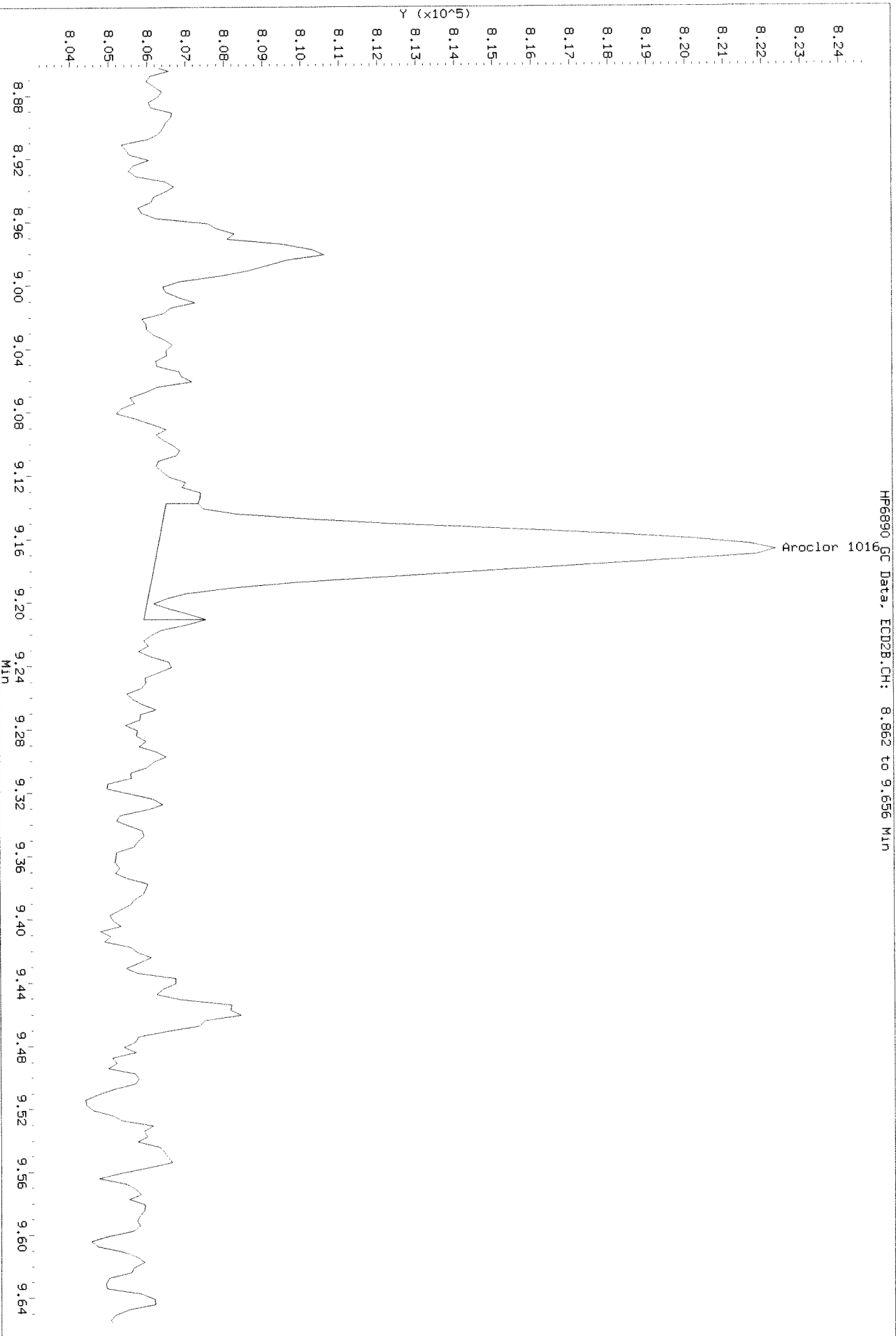
HP6890 GC Data, ECD1A.CH: 8.973 to 9.692 Min

After shoulder 9/11/19 SA



Data File: \\alklsws002\instdata\GC27\Data\090419ICM_r.b\0904F006.D
Injection Date: 04-SEP-2019 19:04
Instrument: GC27.1
Client Sample ID:

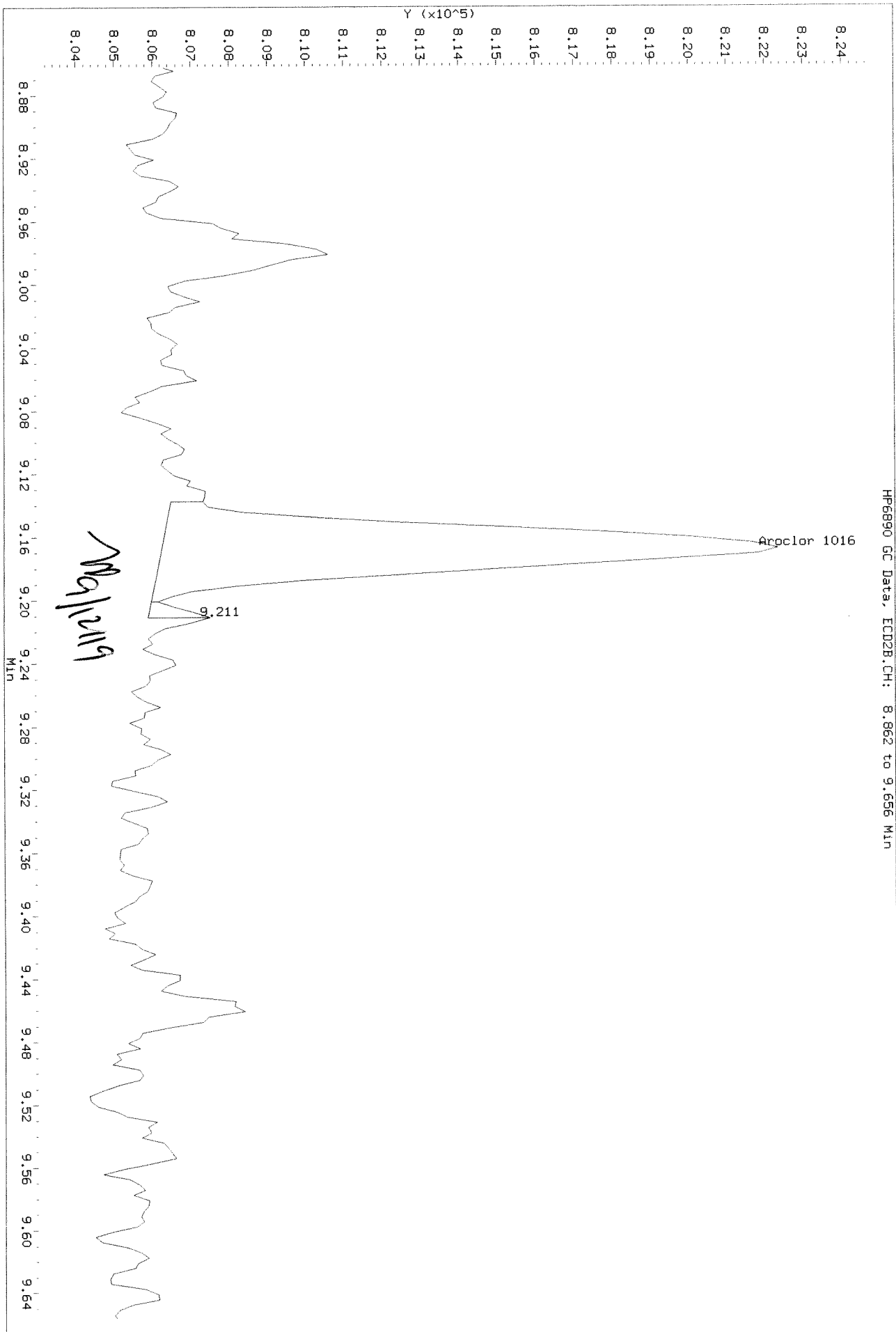
Refer



Data File: \\alklsws002\instdata\GC27\Data\090419ICALL_r.b\0904F006.D
Injection Date: 04-SEP-2019 19:04
Instrument: GC27.1
Client Sample ID:

After shoulder 9/11/19 SA

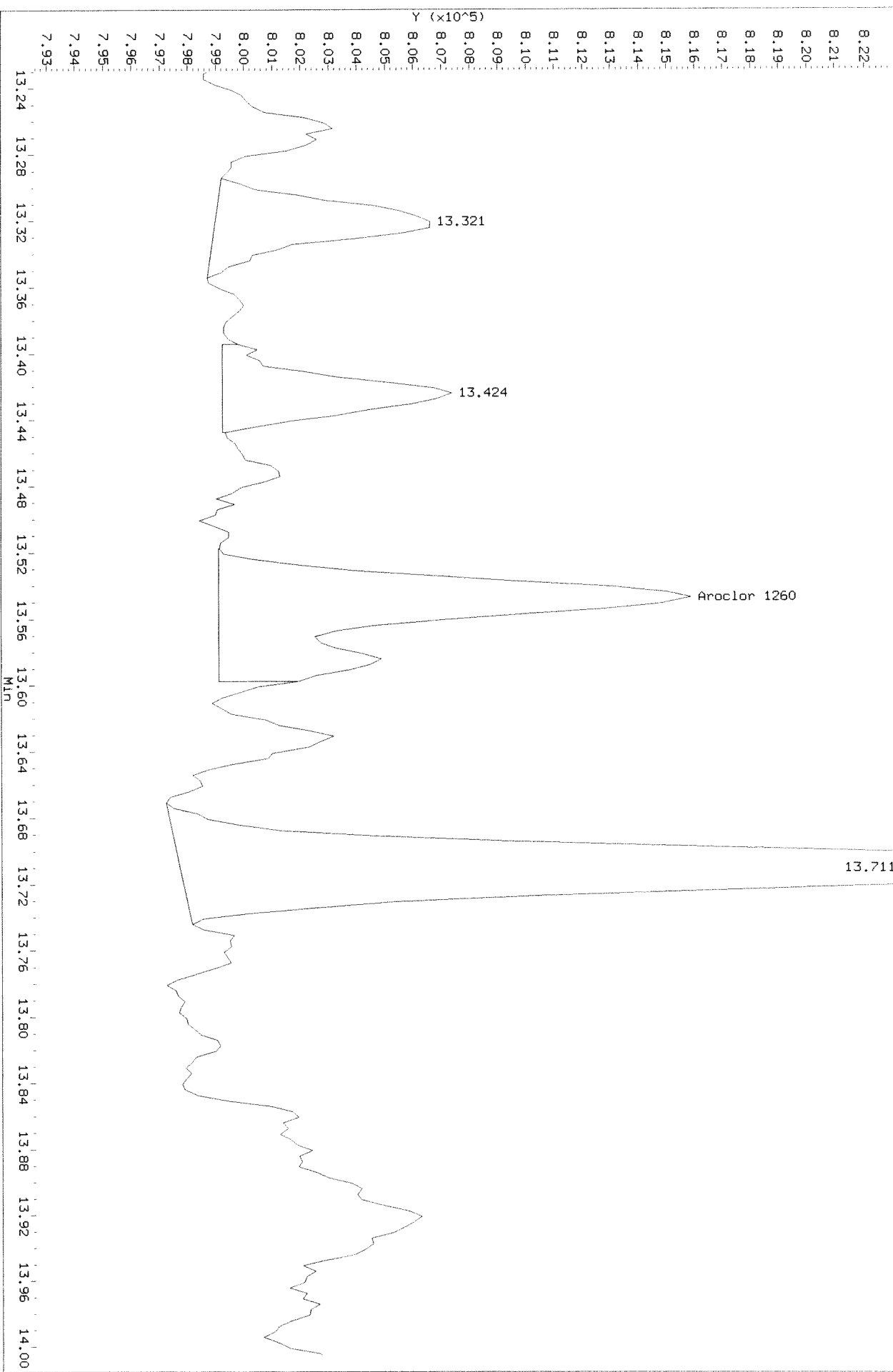
HP6890 GC Data: ECD2B.CH: 8.862 to 9.656 MIN



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F006.D
Injection Date: 04-SEP-2019 19:04
Instrument: GC27.1
Client Sample ID:

Bellevue

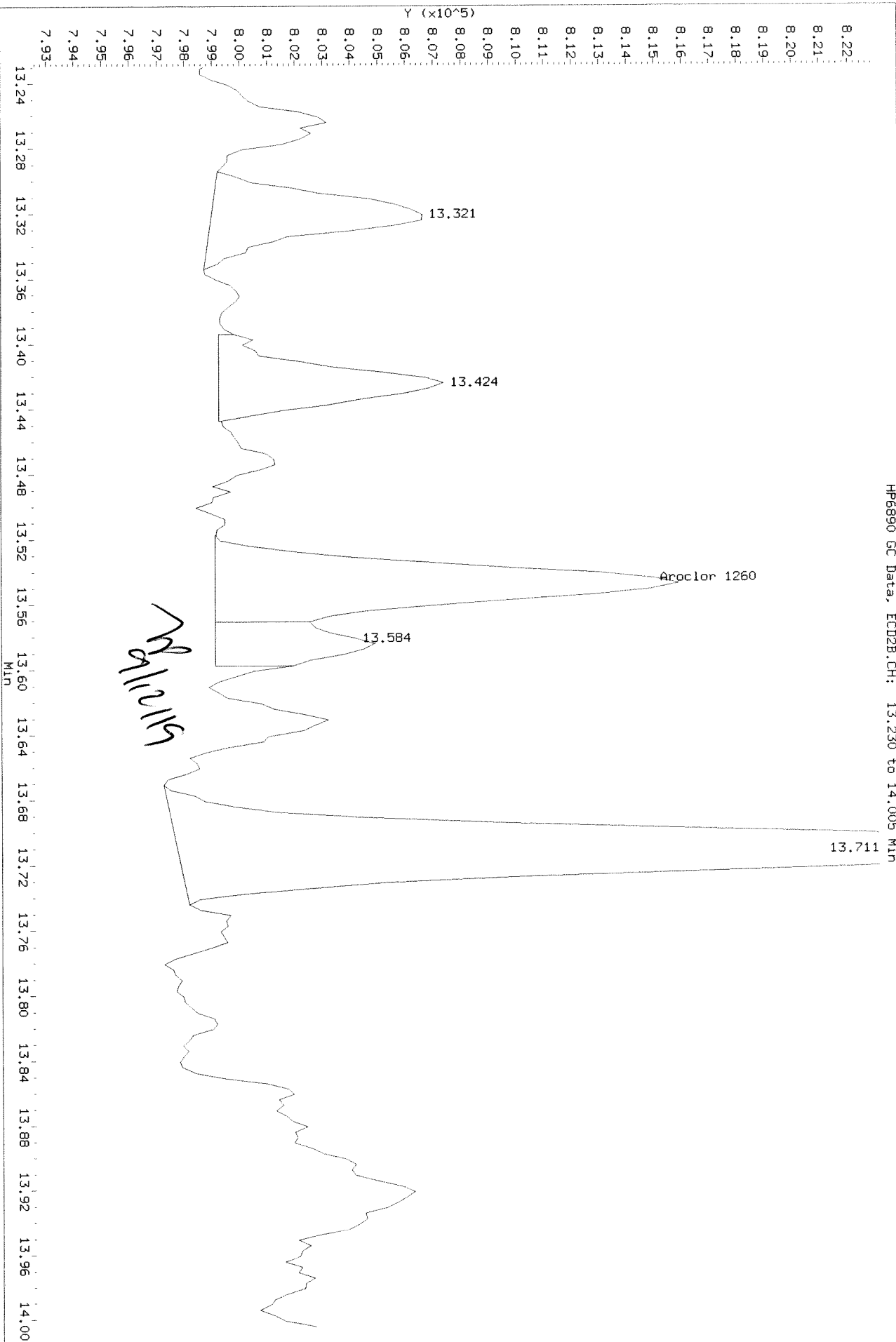
HP6890 GC Data, ECD2B.CH: 13.230 to 14.005 Min



Data File: \\alk1sws002\instdata\GC27\Data\090419ICAL_r.b\0904F006.D
Injection Date: 04-SEP-2019 19:04
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 13.230 to 14.005 Min

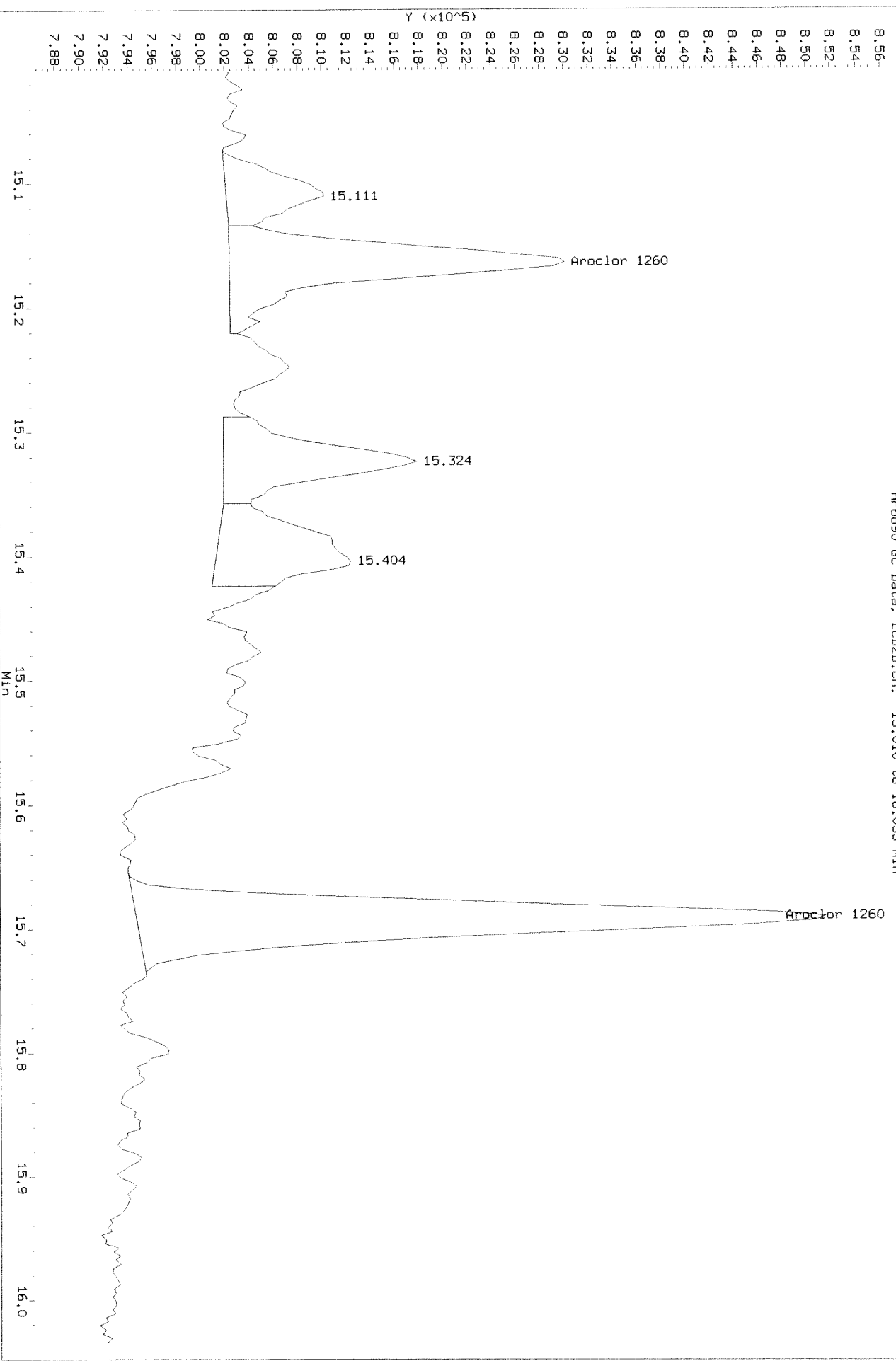
After shoulder 9/11/19



Data File: \\alk1sww002\inetdata\GC27\Data\090419ICAL_r.b\0904F006.D
Injection Date: 04-SEP-2019 19:04
Instrument: GC27.1
Client Sample ID:

Refer

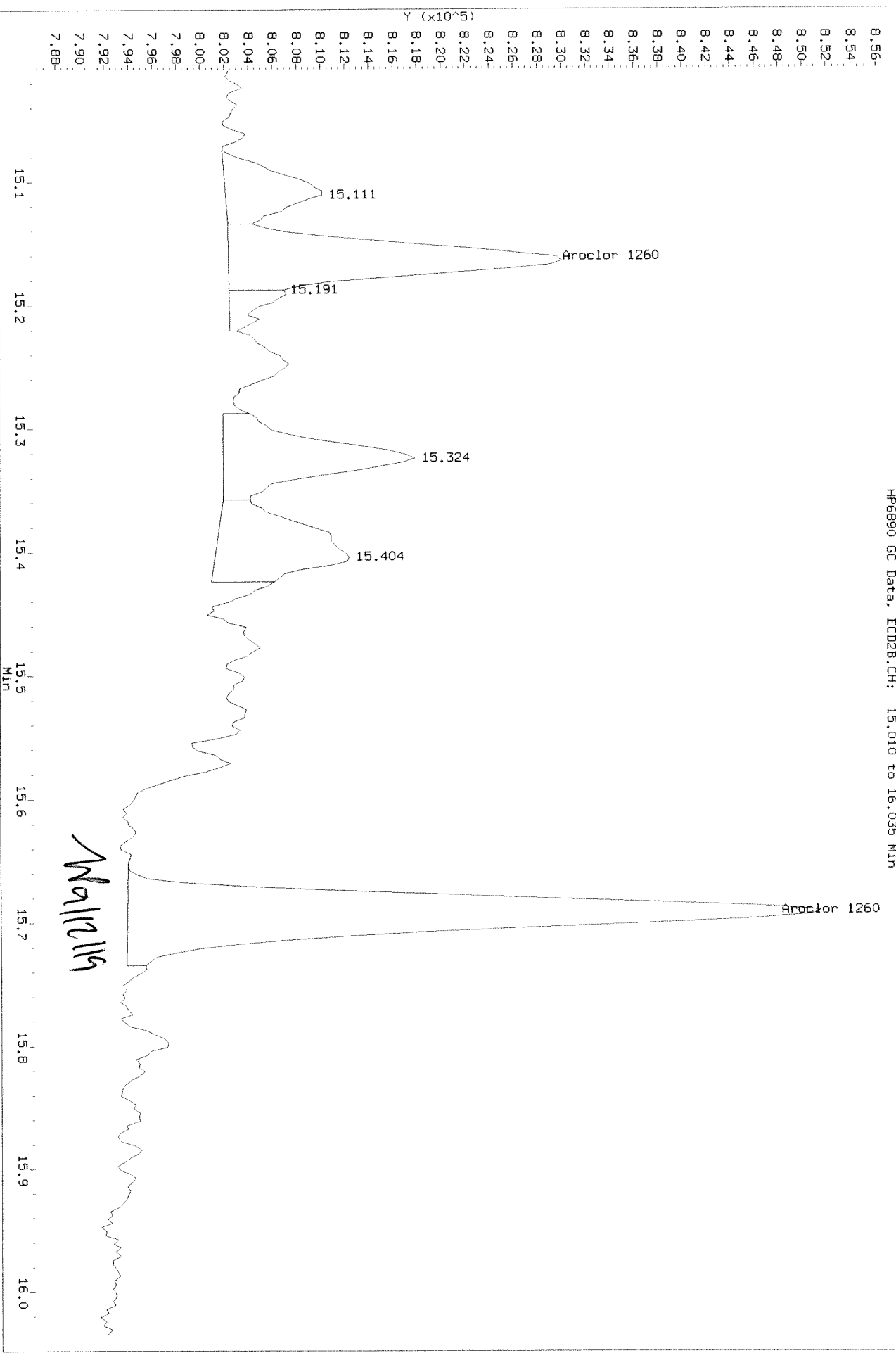
HP6890 GC Data, ECD2B.CH: 15.010 to 16.035 Min



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F006.D
Injection Date: 04-SEP-2019 19:04
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 15.010 to 16.035 MIN

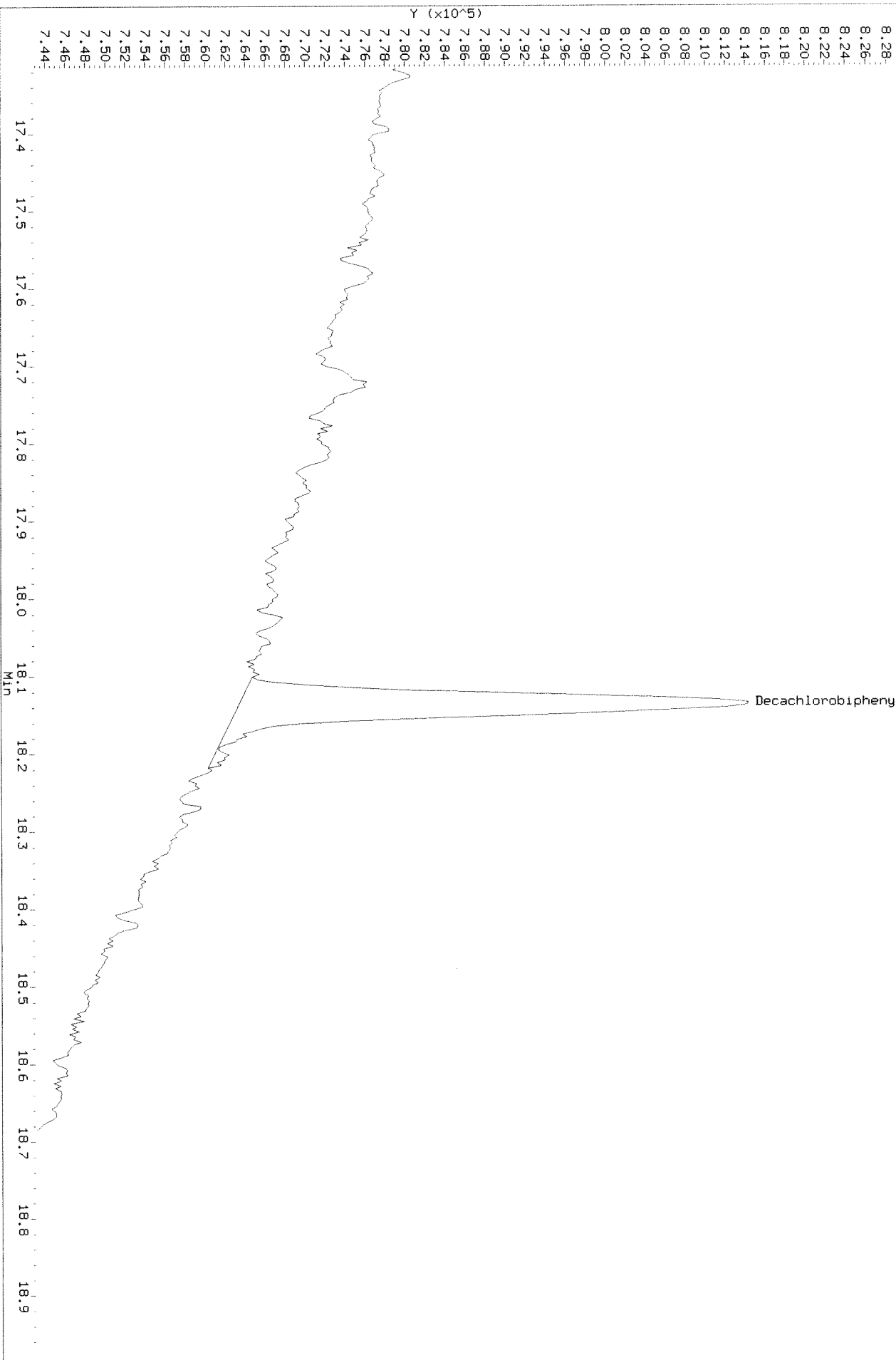
After baseline/shoulder 9/11/19 SA



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.r.b\0904F006.D
Injection Date: 04-SEP-2019 19:04
Instrument: GC27.1
Client Sample ID:

Refer

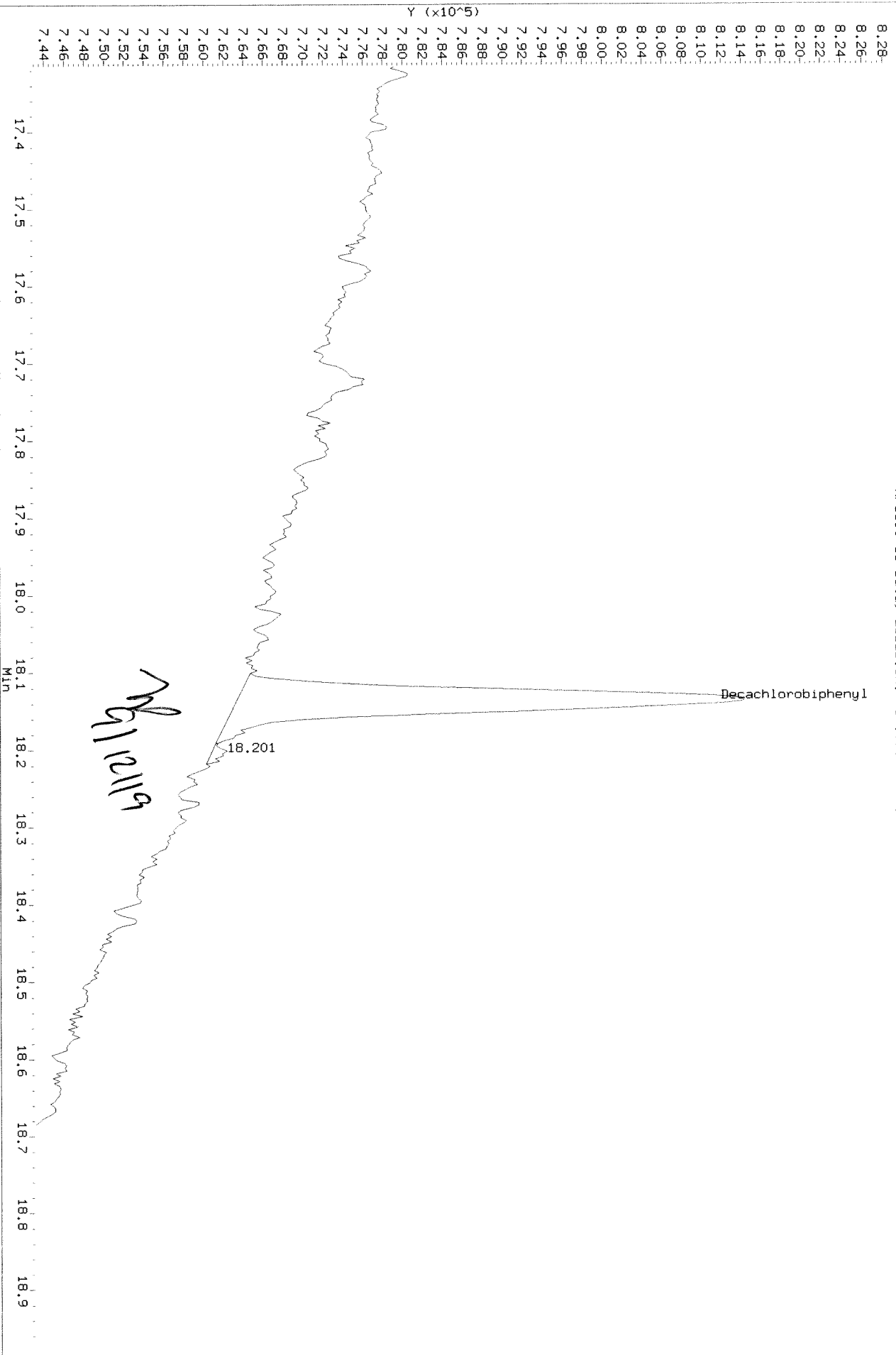
HP6890 GC Data, ECD2B.CH: 17.315 to 18.967 Min



Data File: \\alklsws002\instdata\GC27\Data\090419ICALL_r.b\0904F006.D
Injection Date: 04-SEP-2019 19:04
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 17.315 to 18.967 MIN

After shoulder 9/11/19 A



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F007.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F007.D
 Inj Date : 04-SEP-2019 19:35
 Sample Info: PCB8-12M 1660 @ 0.5-5 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 1660.SUB
 Sub List #2 : 1660.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.968	8.438	871553	427056	0.484	0.514		100.00
Aroclor 1016	8.058	9.171	162681	69188	4.77	4.59	80.00- 120.00	100.00 (M)
	9.304	9.918	134537	105330	4.80	4.77	66.06- 99.09	82.70 (M)
	9.748	11.068	418990	118320	4.82	4.91	210.14- 315.22	257.55 (M)
	9.931	11.518	262724	84122	5.12	4.72	122.22- 183.34	161.50 (M)
	10.314	11.754	178085	81510	5.07	4.84	84.59- 126.89	109.47 (M)
	Average of Peak Amounts =				4.92	4.77		
Aroclor 1260	13.194	13.548	159357	70156	4.76	4.94	80.00- 120.00	100.00
	13.581	14.791	223328	112486	4.79	4.91	111.33- 167.00	140.14
	14.054	15.164	245847	114421	4.90	5.09	117.15- 175.73	154.27
	14.428	15.694	512869	248882	4.83	5.24	251.10- 376.65	321.84
	15.061	16.198	389635	153959	4.91	5.23	184.28- 276.42	244.50
	Average of Peak Amounts =				4.84	5.08		
Decachlorobiphenyl	16.858	18.138	551897	226714	0.506	0.508		100.00

QC Flag Legend

M - Compound response manually integrated.

SAA 9/11/19
W

Data File: \\alkisus002\instdata\GC27\Data\090419ICAL.b\0904F007.D

Date: 04-SEP-2019 19:35

Client ID:

Sample Info: PCB8-12H 1660 @ 0.5-5 PPB

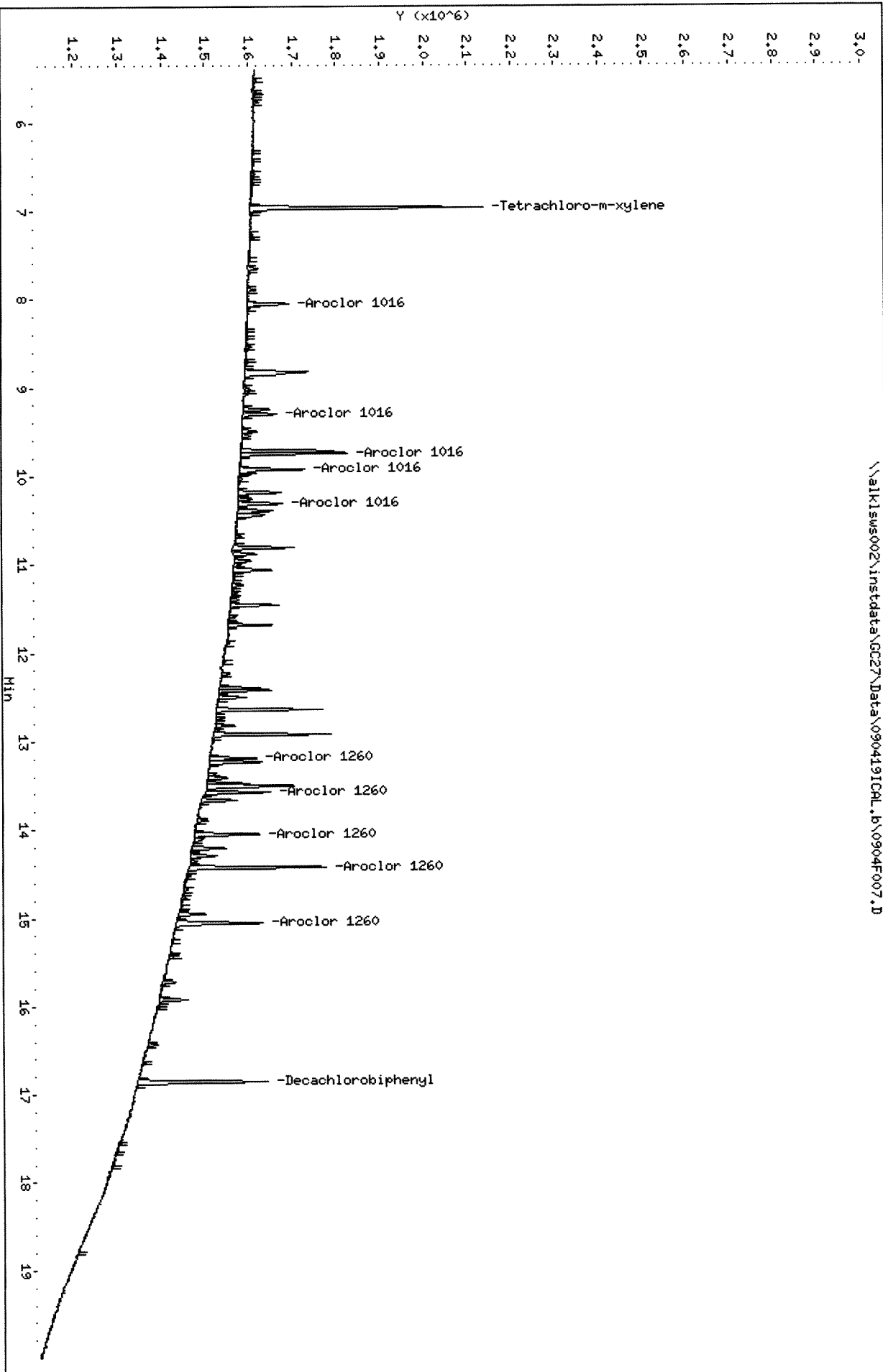
Column phase: DB-35MS

Instrument: GC27.1

Operator: SAA

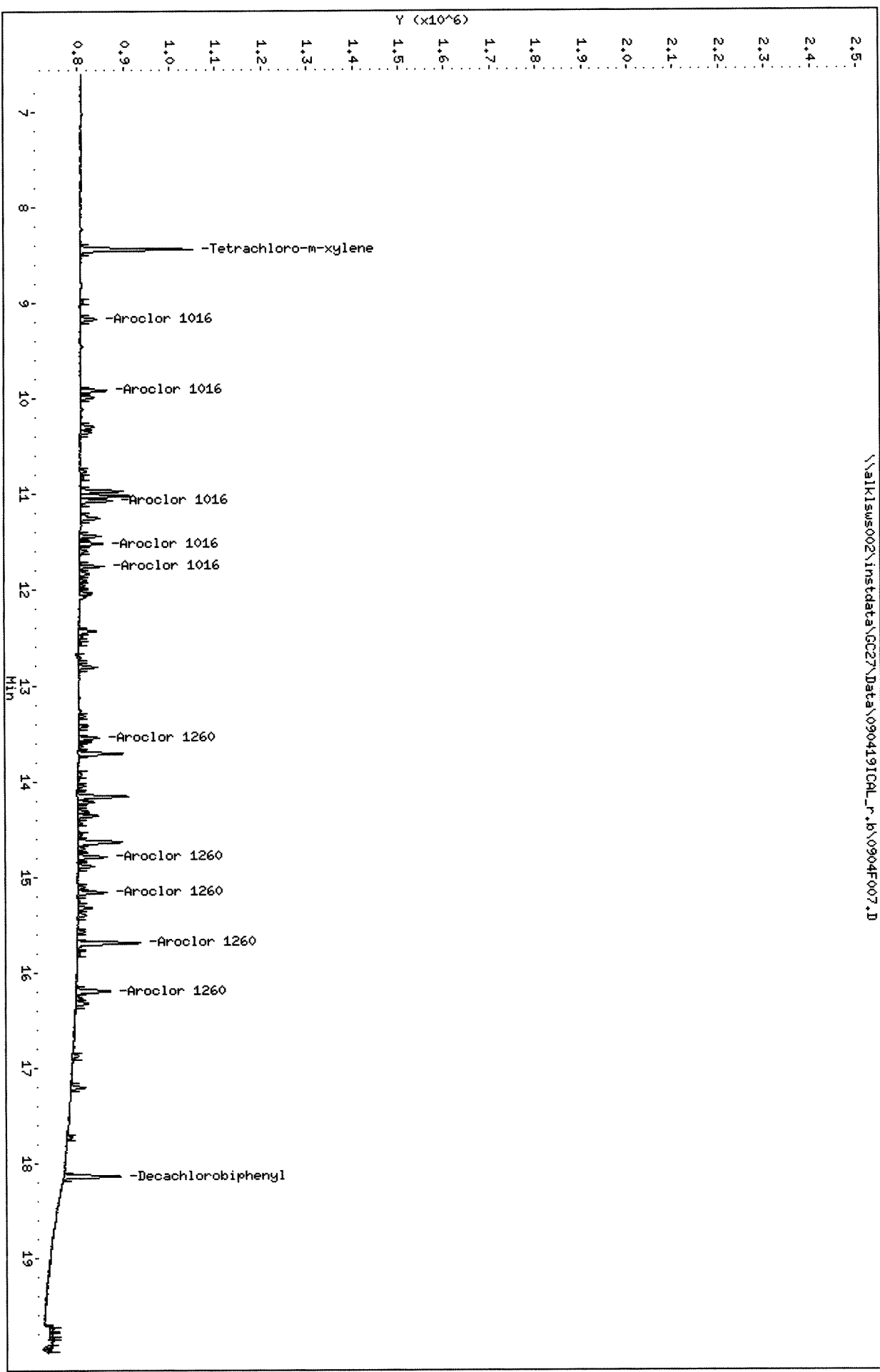
Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL.b\0904F007.D



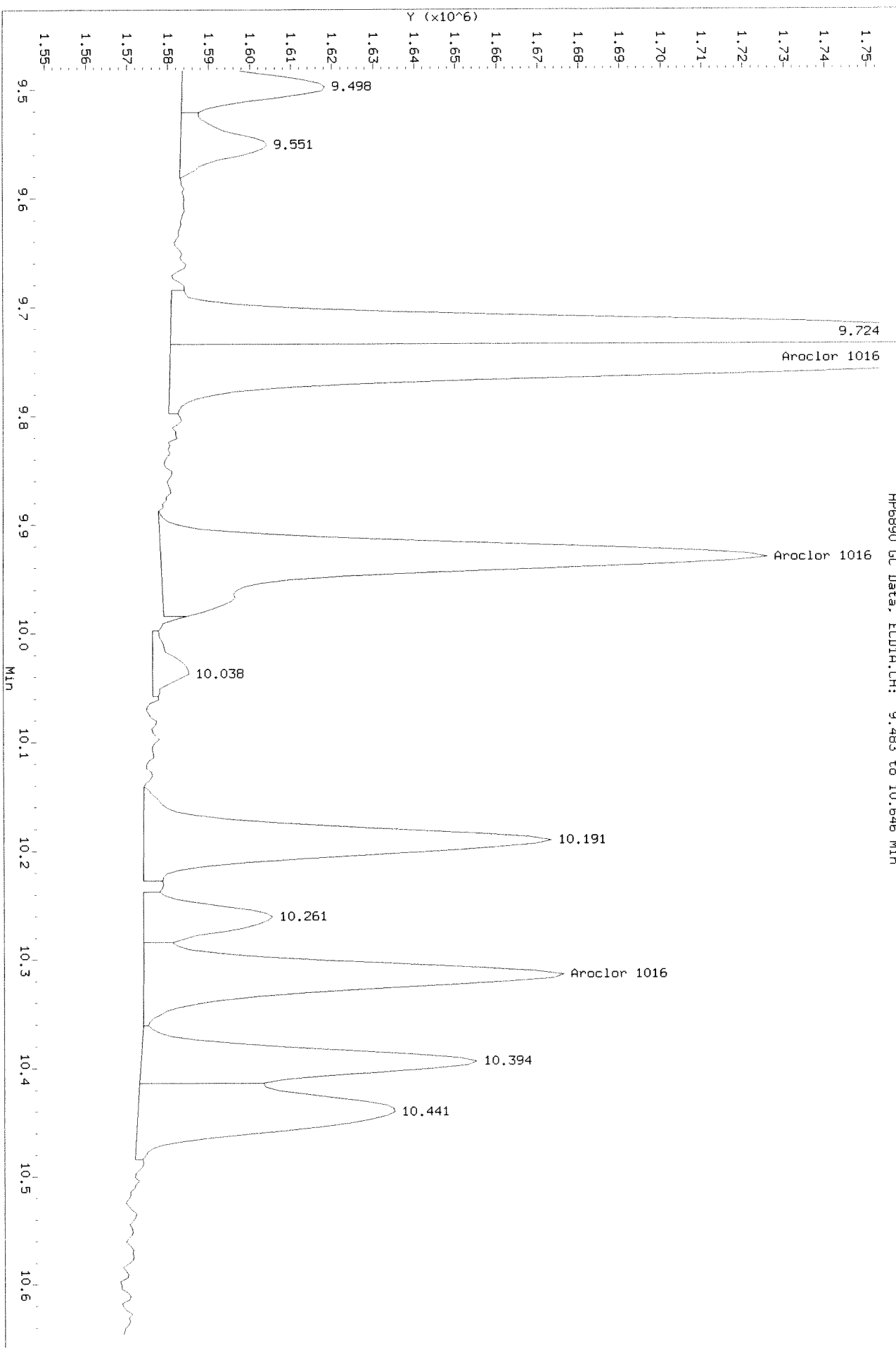
Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F007.D
Date: 04-SEP-2019 19:35
Client ID:
Sample Info: PCB8-12M 1660 @ 0.5-5 PPB
Column phase: DB-XLB

Instrument: GC27.1
Operator: SAA
Column diameter: 0.32



Data File: \\alklsm002\instdata\GC27\Data\090419ICAL.b\0904F007.D
Injection Date: 04-SEP-2019 19:35
Instrument: GC27.1
Client Sample ID:

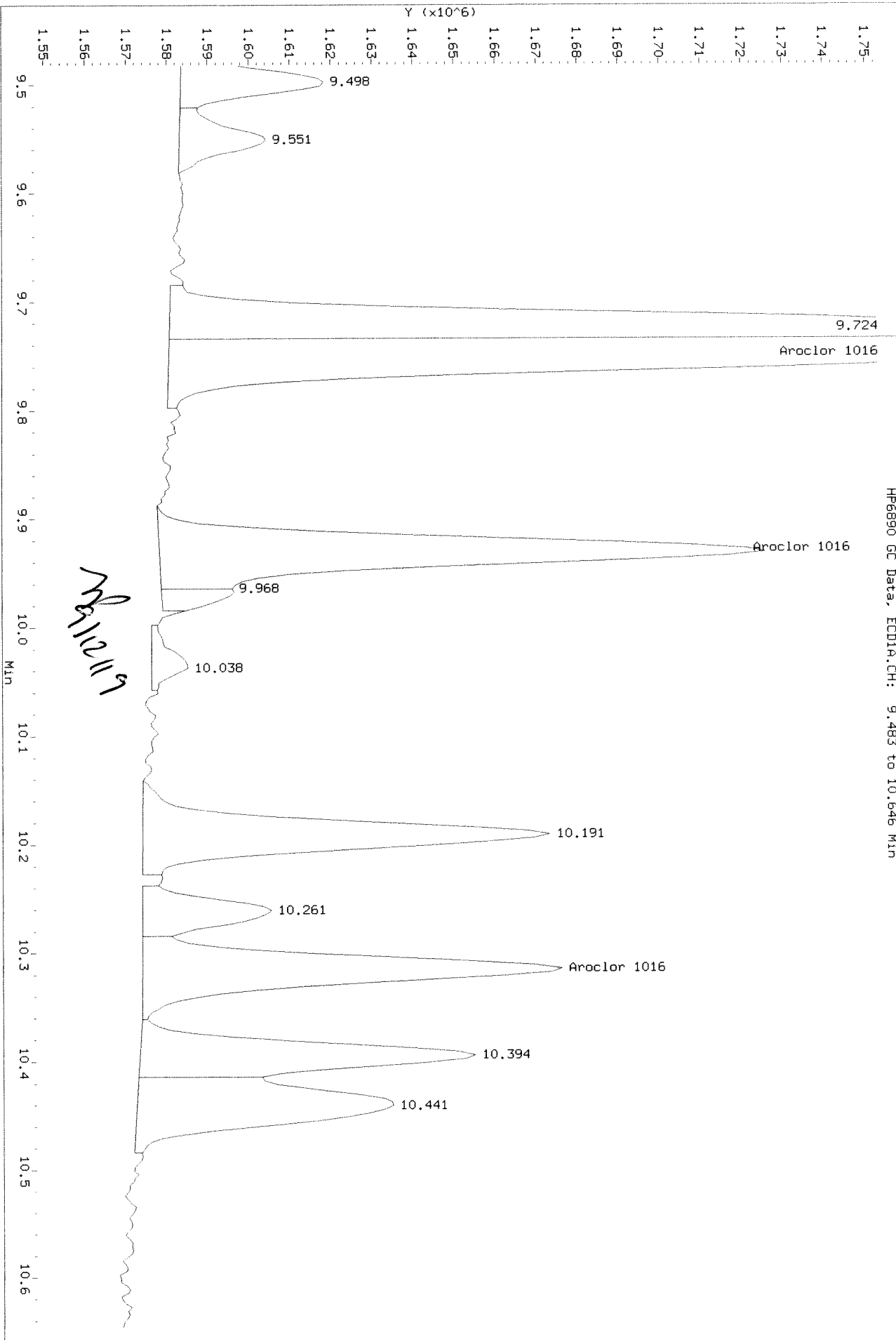
Before



Data File: \\alklsws002\instdata\GC27\Data\090419ICM.L\0904F007.D
Injection Date: 04-SEP-2019 19:35
Instrument: GC27.1
Client Sample ID:

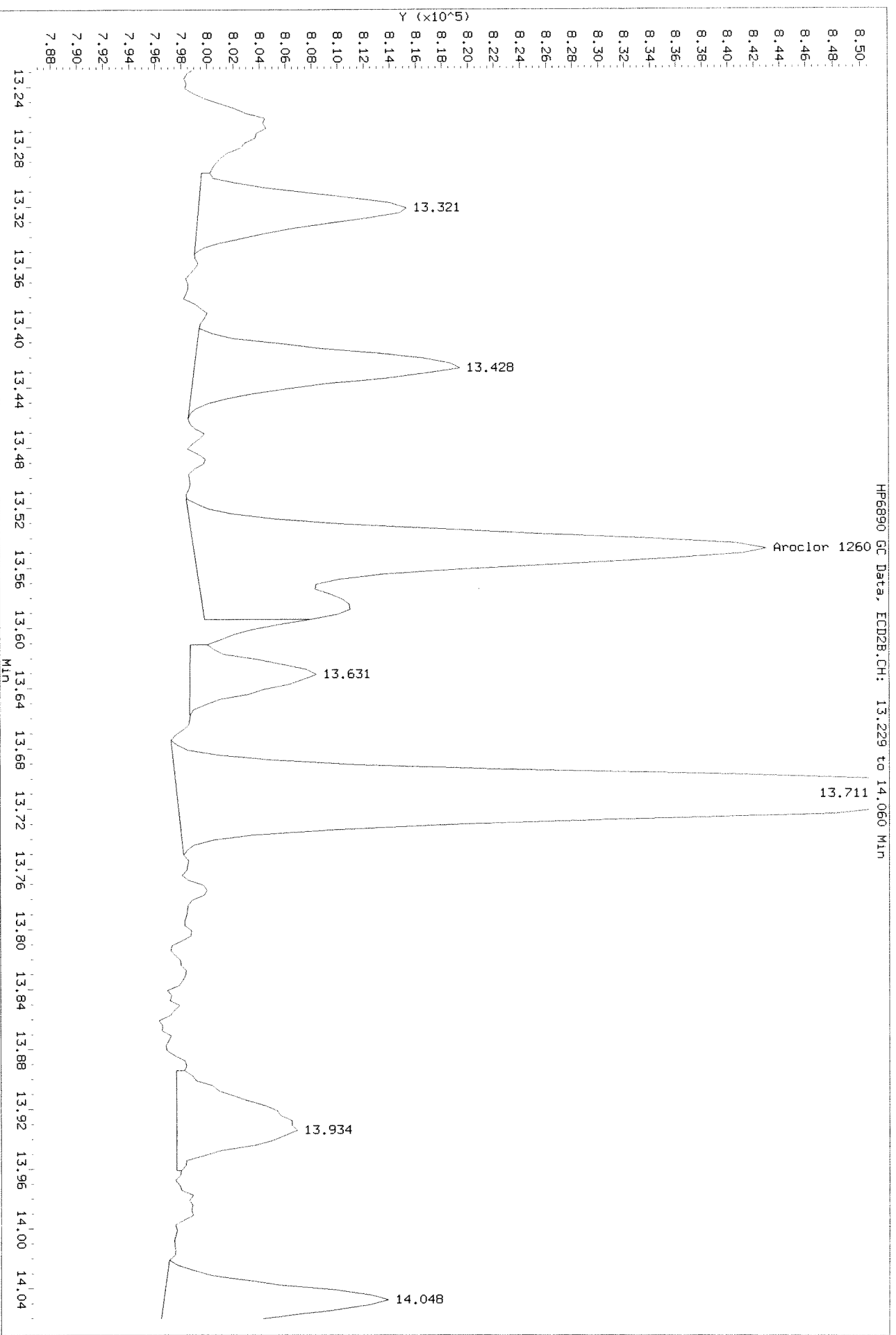
HP6890 GC Data, ECD1A.CH: 9.483 to 10.646 Min

After shoulder 9/11/19



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F007.D
Injection Date: 04-SEP-2019 19:35
Instrument: GC27.1
Client Sample ID:

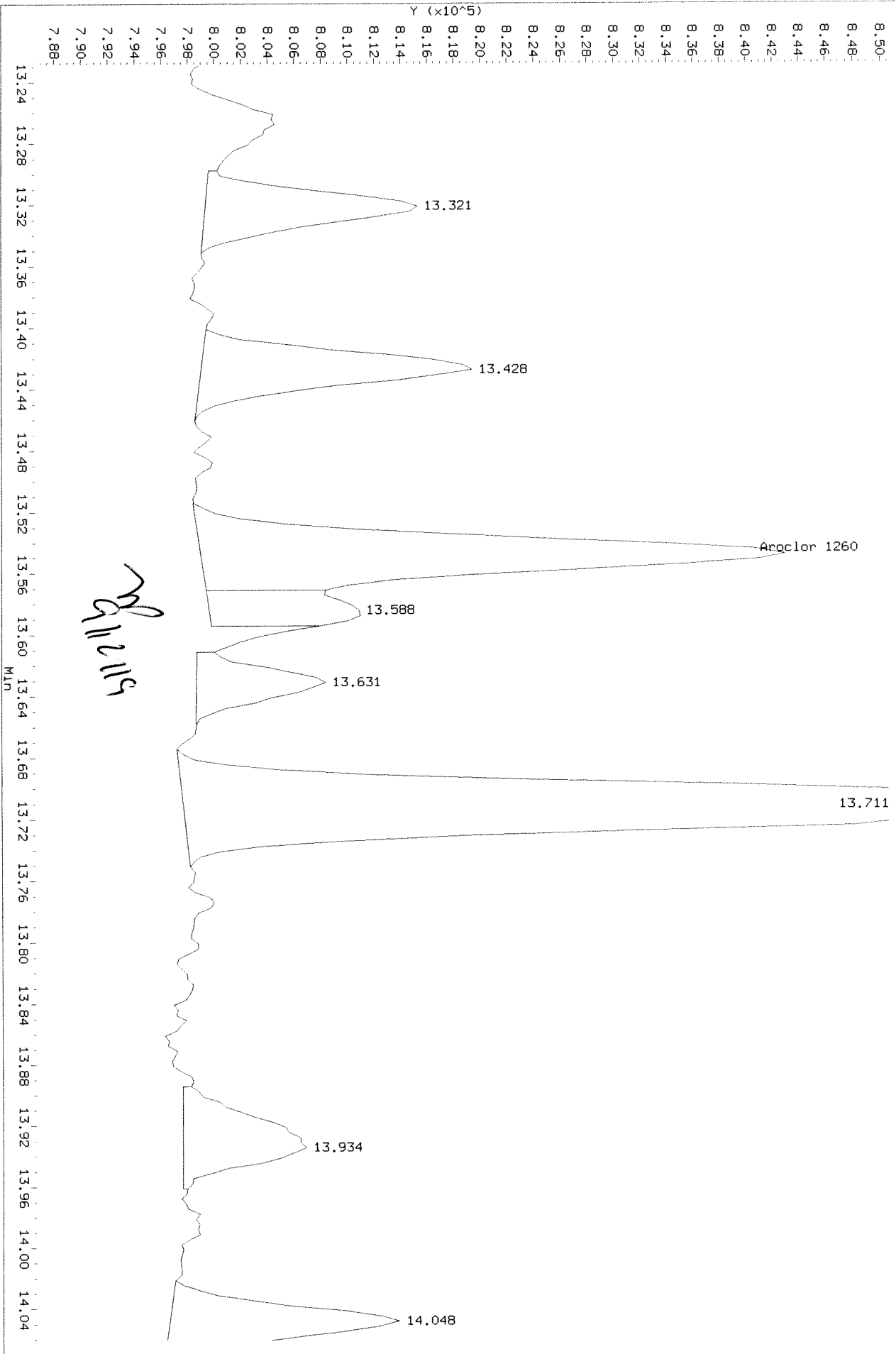
Refer



Data File: \\alkisw002\instdata\GC27\Data\090419ICL_r.b\0904F007.D
Injection Date: 04-SEP-2019 19:35
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 13.229 to 14.060 MIN

After should be 9/11/19 SA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F008.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F008.D
 Inj Date : 04-SEP-2019 20:07
 Sample Info: PCB8-12N 1660 @ 1-10 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 1660.SUB
 Sub List #2 : 1660.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.970	8.437	1788482	891940	0.993	1.07		100.00
Aroclor 1016	8.057	9.167	352429	146530	10.3	9.73	80.00- 120.00	100.00 (M)
	9.304	9.917	283357	228723	10.1	10.4	66.06- 99.09	80.40 (M)
	9.747	11.067	850350	258289	9.78	10.7	210.14- 315.22	241.28 (M)
	9.930	11.517	533581	177734	10.4	9.98	122.22- 183.34	151.40 (M)
	10.314	11.754	367268	174636	10.5	10.4	84.59- 126.89	104.21 (M)
	Average of Peak Amounts =				10.2	10.2		
Aroclor 1260	13.194	13.547	339434	151253	10.1	10.7	80.00- 120.00	100.00
	13.580	14.794	473199	227394	10.2	9.92	111.33- 167.00	139.41
	14.054	15.164	517253	231555	10.3	10.3	117.15- 175.73	152.39
	14.427	15.694	1074187	502884	10.1	10.6	251.10- 376.65	316.46
	15.060	16.194	810326	322776	10.2	11.0	184.28- 276.42	238.73
	Average of Peak Amounts =				10.2	10.5		
Decachlorobiphenyl	16.857	18.137	1109360	483785	1.02	1.08		100.00

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
 TX

Data File: \\aik1s02\instdata\GC27\Data\090419ICL.b\0904F008.D

Date: 04-SEP-2019 20:07

Client ID:

Sample Info: PCB8-12N 1660 @ 1-10 PPB

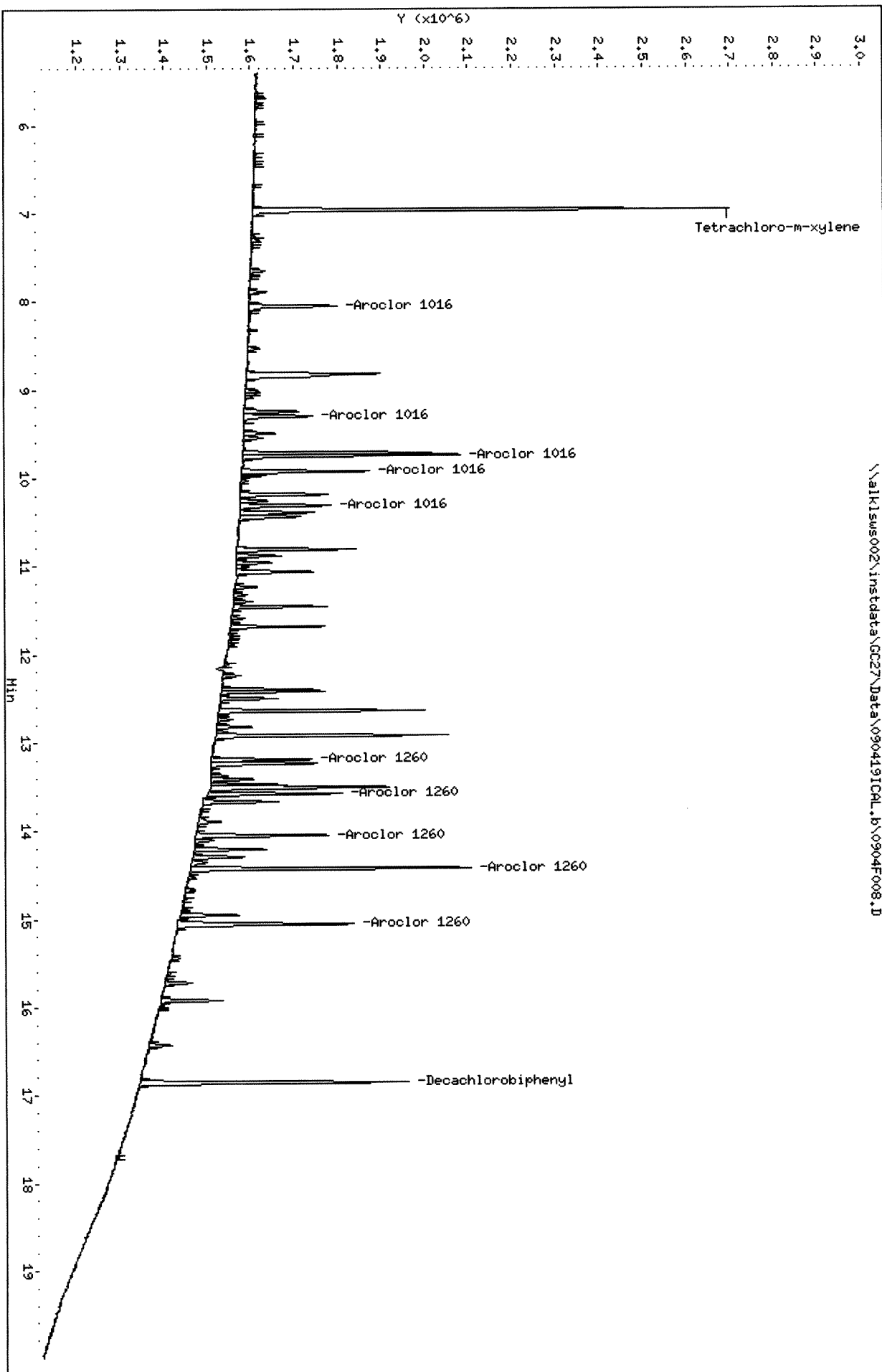
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

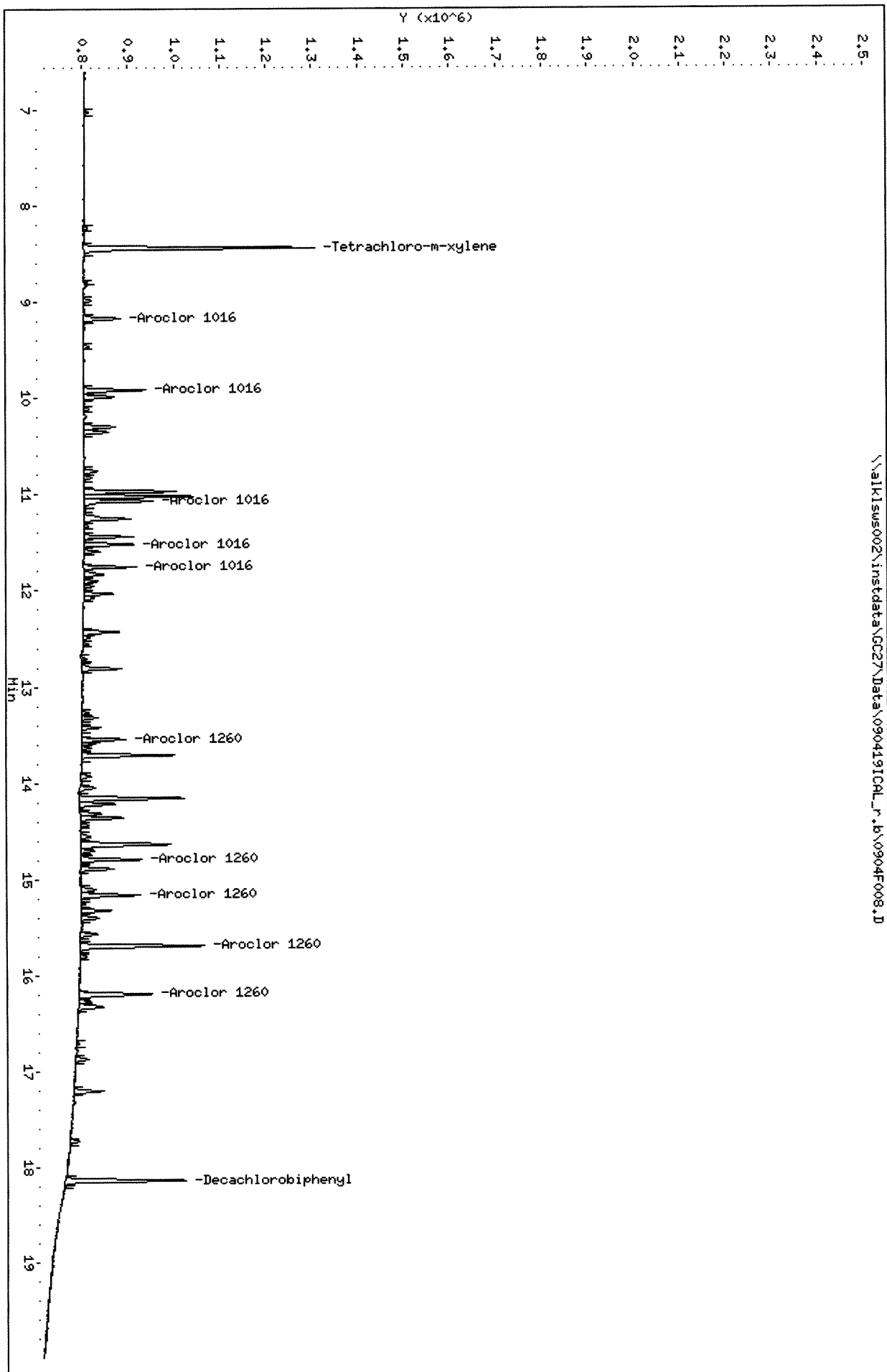
\\aik1s02\instdata\GC27\Data\090419ICL.b\0904F008.D



Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F008.D
Date: 04-SEP-2019 20:07
Client ID:
Sample Info: PCB8-12N 1660 @ 1-10 PPB
Column phase: DB-XLB

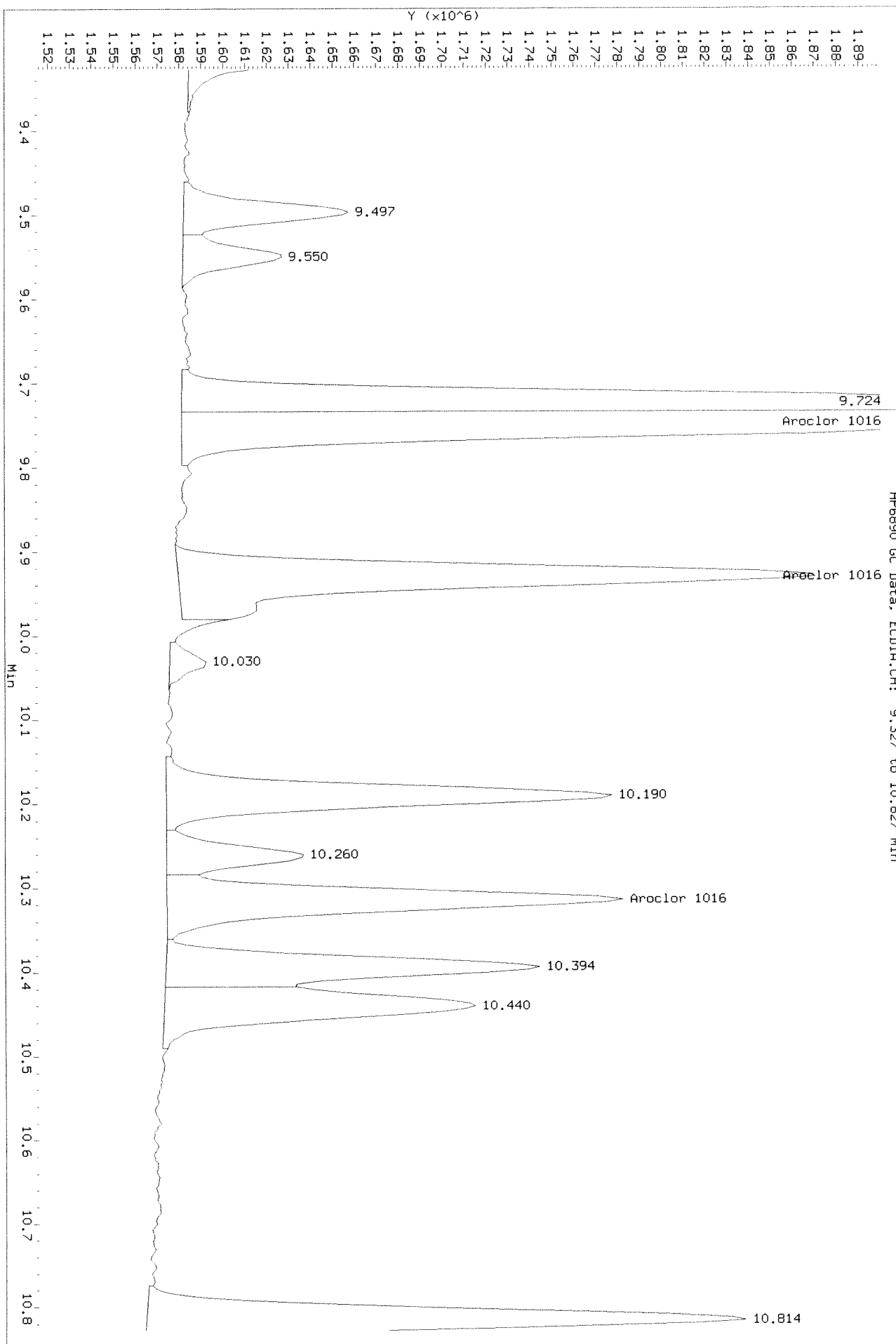
Instrument: GC27.i
Operator: SAA
Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F008.D



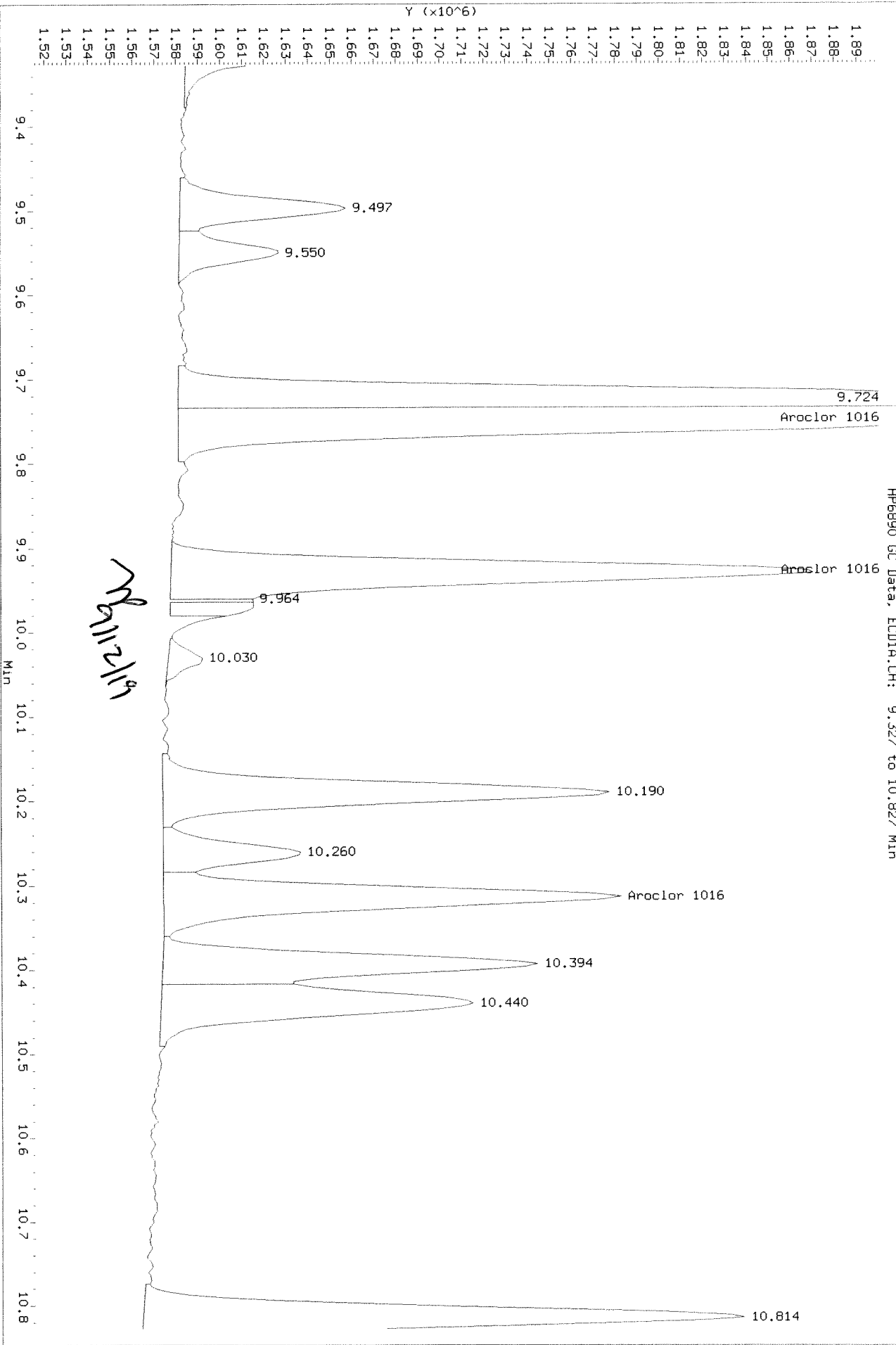
Data File: \\alkjsws002\instdata\GC27\Data\090419ICAL.b\0904F008.D
Injection Date: 04-SEP-2019 20:07
Instrument: GC27.1
Client Sample ID:

Refer



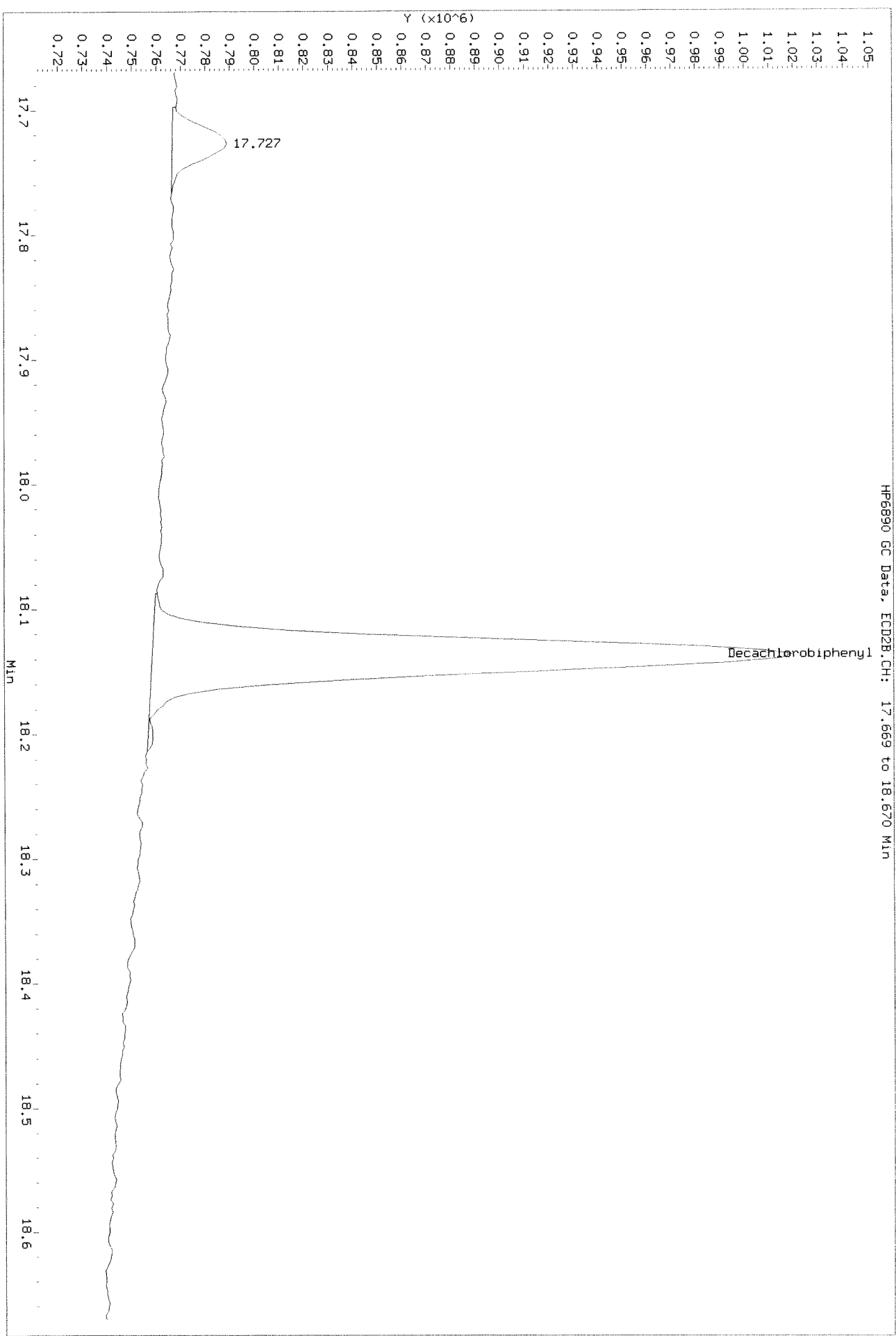
Data File: \\alkjsws002\instdata\GC27\Data\090419ICAL.b\0904F008.D
Injection Date: 04-SEP-2019 20:07
Instrument: GC27.1
Client Sample ID:

After Shaulker 9/11/19



Data File: \\alklms002\instdata\GC27\Data\090419ICALL_r.b\0904F008.D
Injection Date: 04-SEP-2019 20:07
Instrument: GC27.1
Client Sample ID:

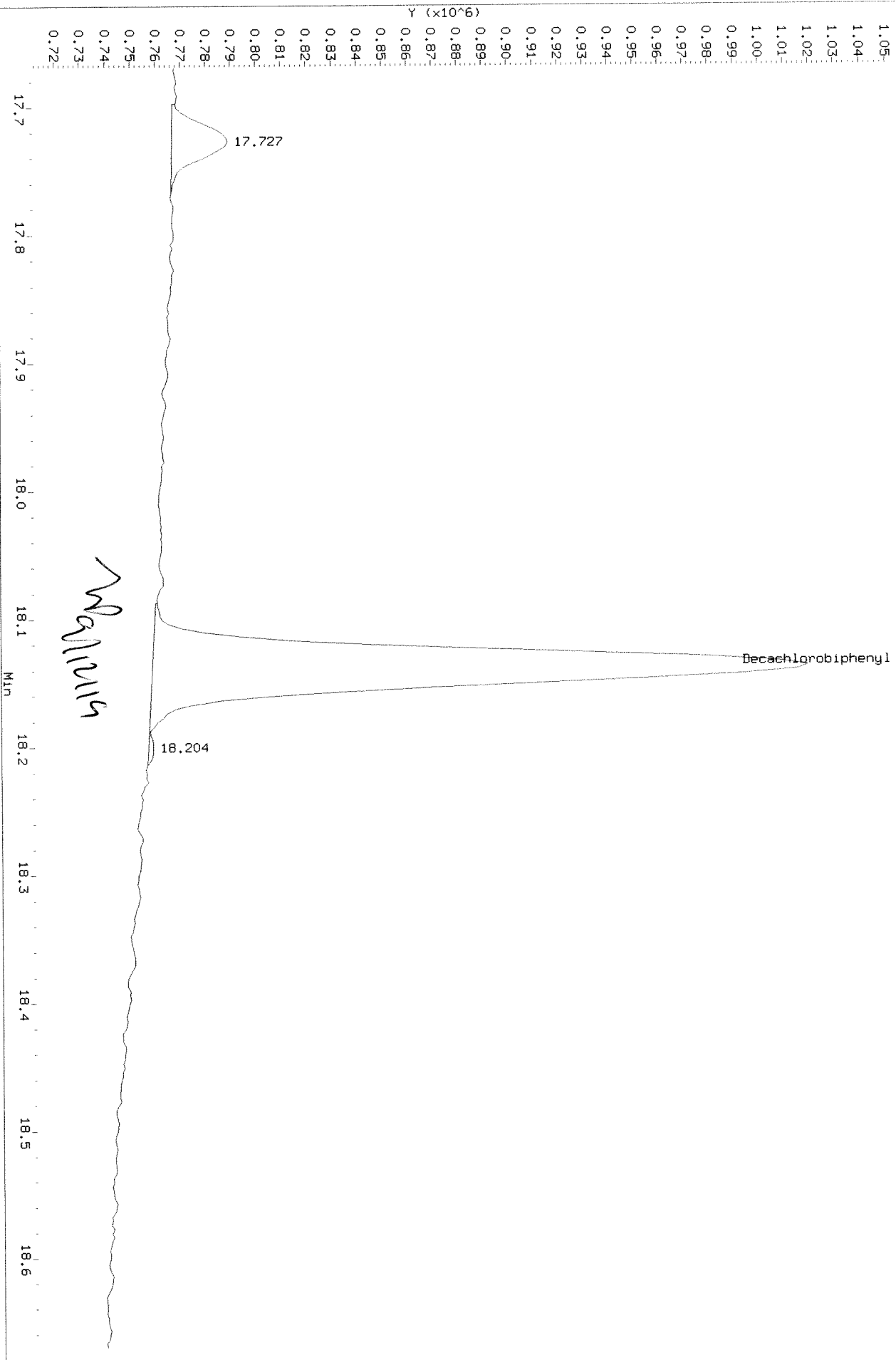
Before



Data File: \\alk1sww002\inetdata\GC27\Data\090419ICALL_r.b\0904F008.D
Injection Date: 04-SEP-2019 20:07
Instrument: GC27.1
Client Sample ID:

After Shoulder 9/11/19 SA

HP6890 GC Data, ECD2B.CH: 17.669 to 18.670 MIN



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F009.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F009.D
 Inj Date : 04-SEP-2019 20:39
 Sample Info: PCB7-91B 1660 @ 2-20 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 1660.SUB
 Sub List #2 : 1660.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.969	8.436	3717520	1802829	2.06	2.17		100.00
Aroclor 1016	8.056	9.166	714691	332767	20.9	22.1	80.00- 120.00	100.00 (M)
	9.306	9.916	585721	488572	20.9	22.1	66.06- 99.09	81.95 (M)
	9.749	11.066	1800343	544729	20.7	22.6	210.14- 315.22	251.91 (M)
	9.929	11.516	1097854	387672	21.4	21.8	122.22- 183.34	153.61 (M)
	10.316	11.753	751336	371543	21.4	22.1	84.59- 126.89	105.13 (M)
	Average of Peak Amounts =				21.1	22.1		
Aroclor 1260	13.196	13.546	698763	315400	20.9	22.2	80.00- 120.00	100.00 (M)
	13.583	14.793	1004858	467119	21.6	20.4	111.33- 167.00	143.81 (M)
	14.053	15.163	1054649	471379	21.0	21.0	117.15- 175.73	150.93 (M)
	14.429	15.693	2201022	1008384	20.7	21.2	251.10- 376.65	314.99 (M)
	15.059	16.196	1625528	659897	20.5	22.4	184.28- 276.42	232.63 (M)
	Average of Peak Amounts =				20.9	21.4		
Decachlorobiphenyl	16.859	18.136	2272969	991682	2.09	2.22		100.00

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
W

Data File: \\alkisw002\instdata\GC27\Data\090419ICL.b\0904F009.D

Date : 04-SEP-2019 20:39

Client ID:

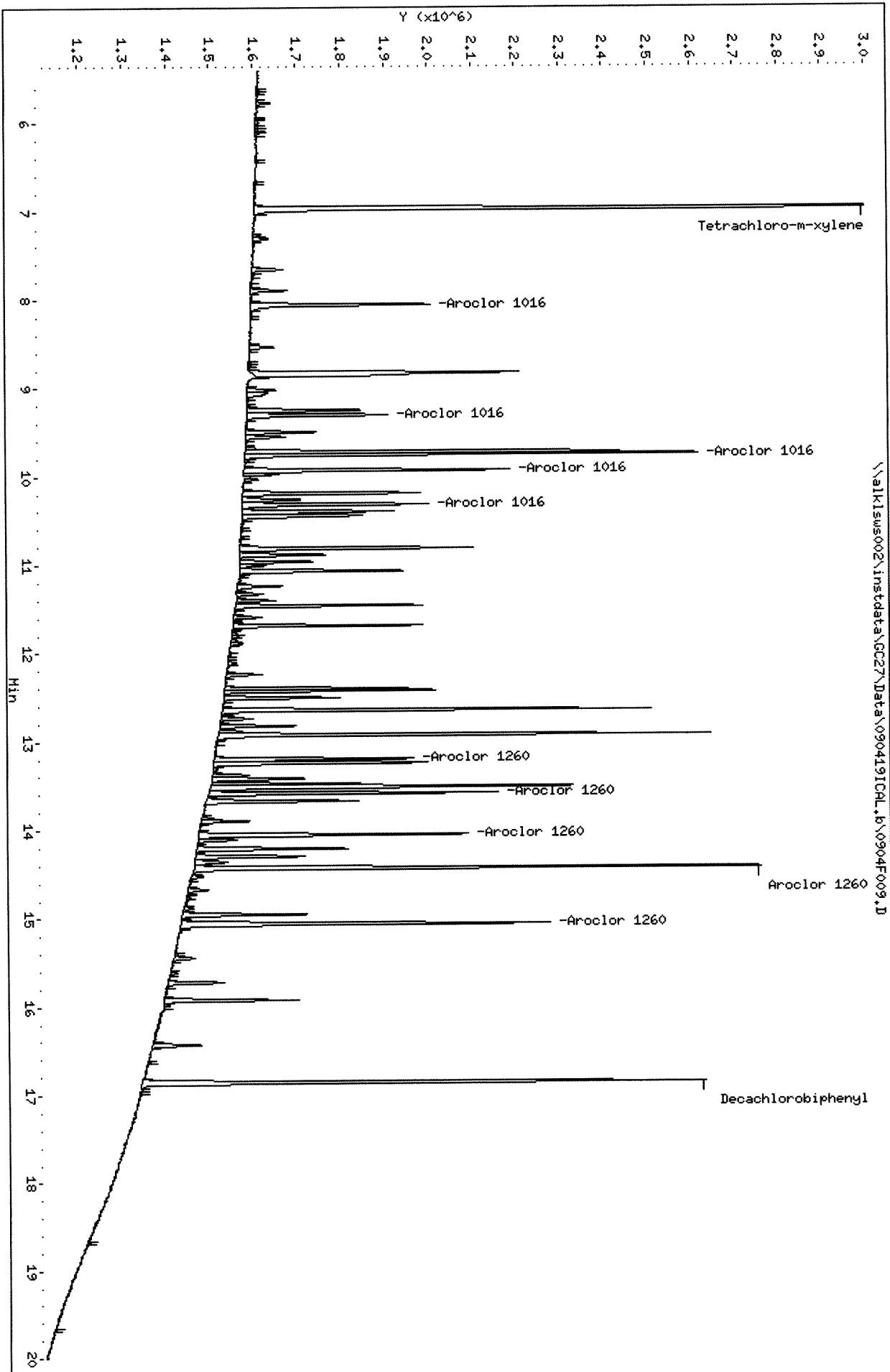
Sample Info: PCB7-91B 1660 @ 2-20 PPB

Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Data File: \\AIK1sus002\instdata\GC27\Data\090419ICAL_r.b\0904F009.D

Date : 04-SEP-2019 20:39

Client ID:

Sample Info: PCB7-91B 1660 @ 2-20 PPB

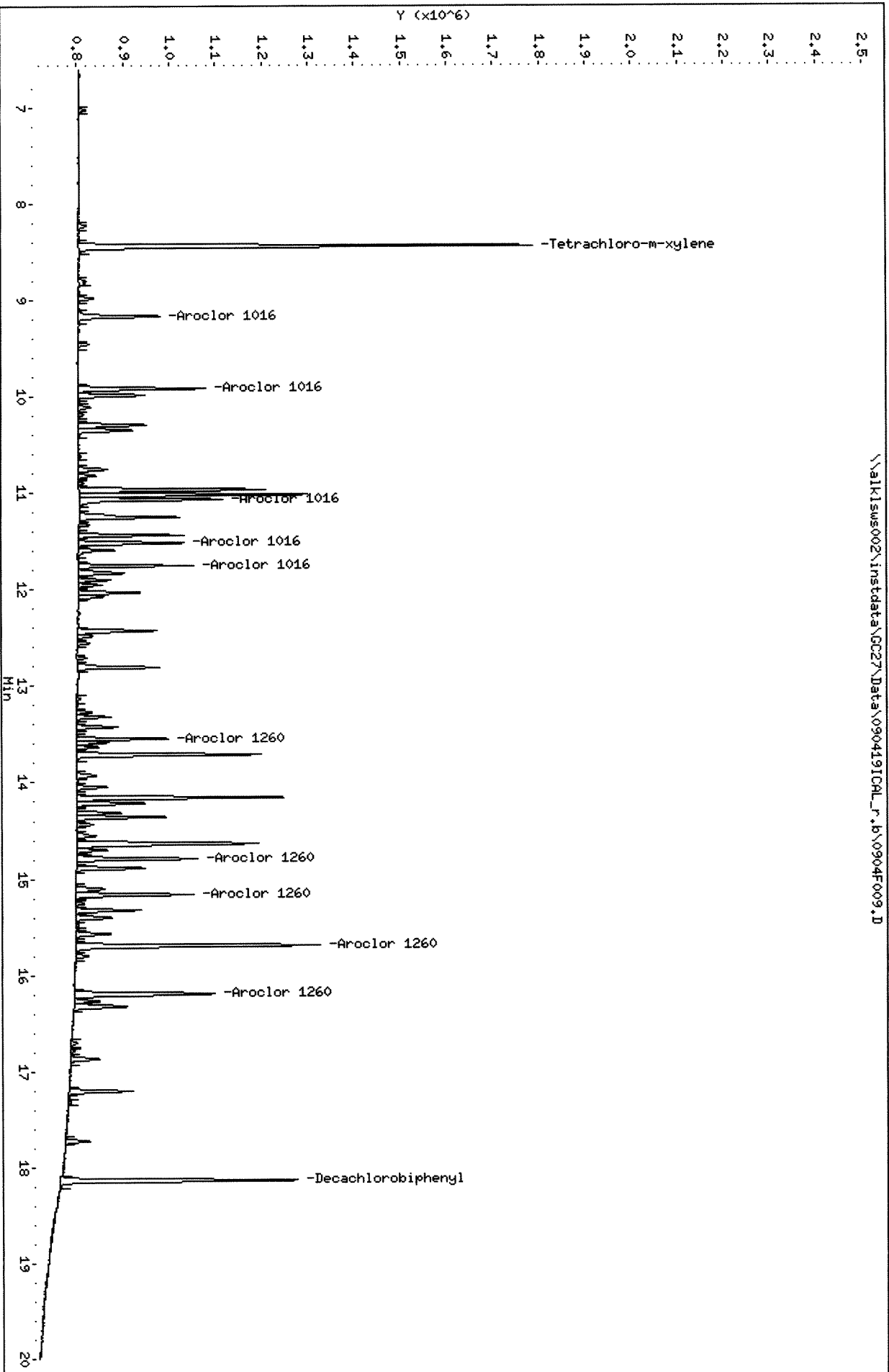
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

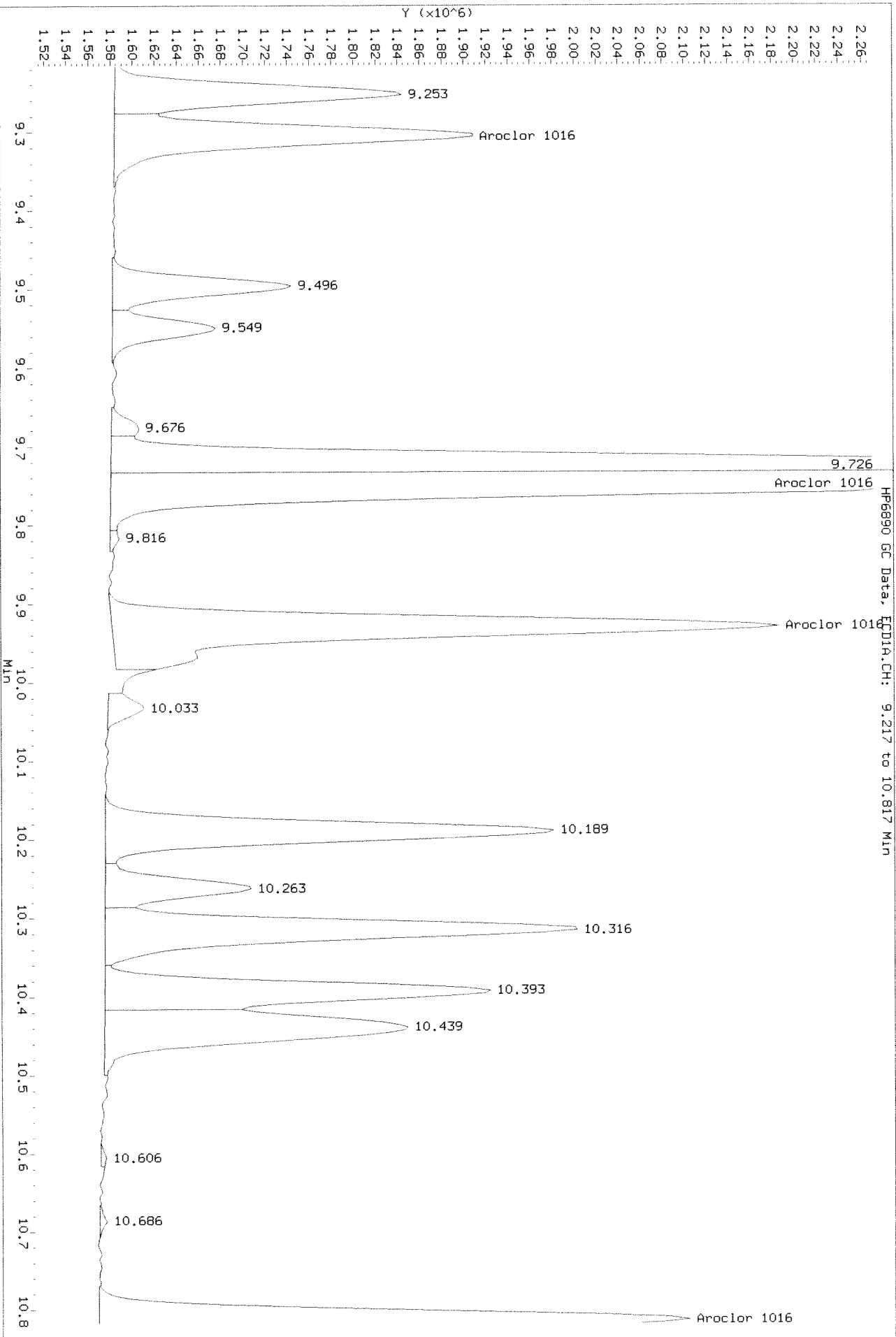
Column diameter: 0.32

\\AIK1sus002\instdata\GC27\Data\090419ICAL_r.b\0904F009.D



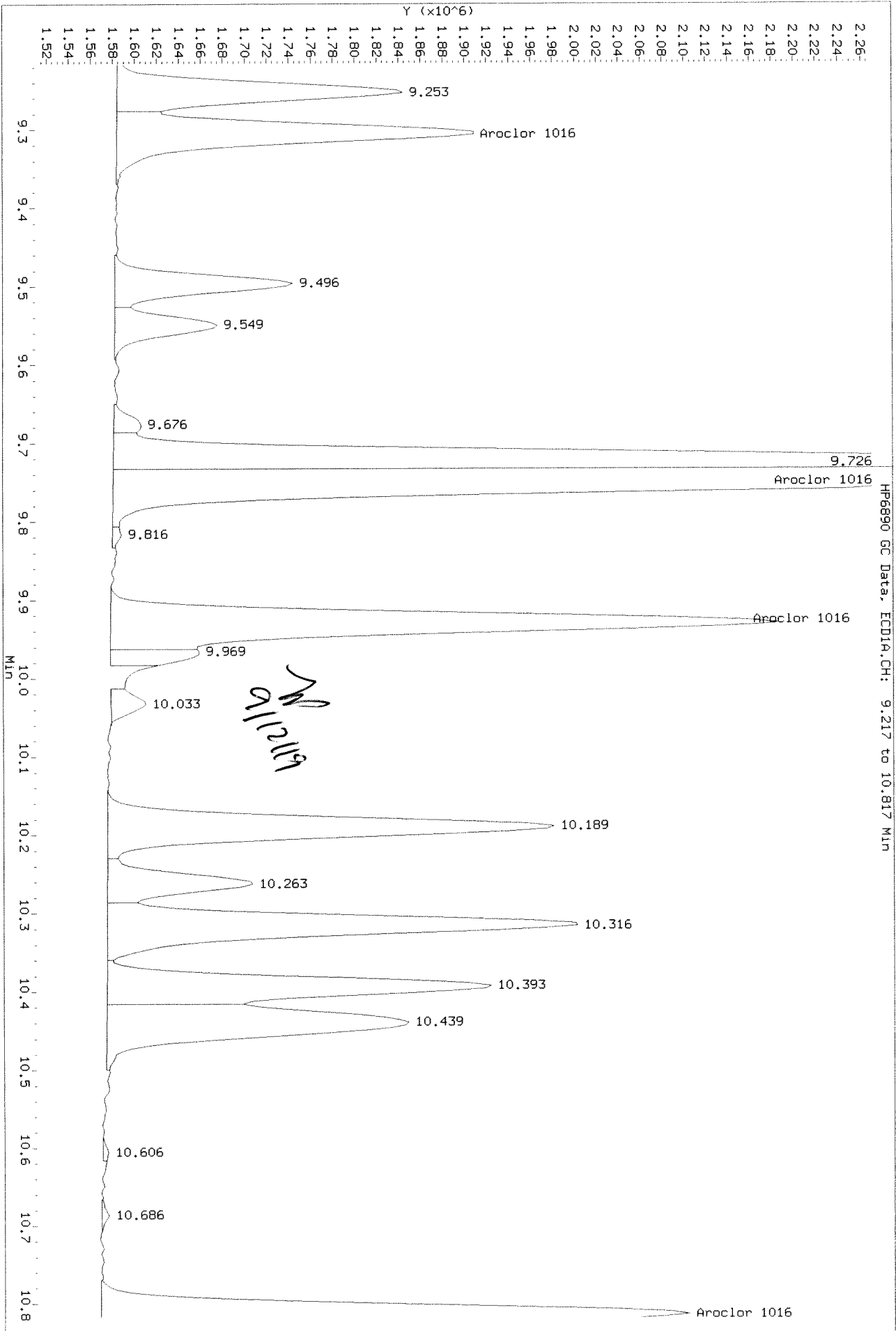
Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F009.D
Injection Date: 04-SEP-2019 20:39
Instrument: GC27.1
Client Sample ID:

Before



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F009.D
Injection Date: 04-SEP-2019 20:39
Instrument: GC27.1
Client Sample ID:

After shoulder 9/11/19 ST



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F010.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F010.D
 Inj Date : 04-SEP-2019 21:10
 Sample Info: PCB7-91C 1660 @ 5-50 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 1660.SUB
 Sub List #2 : 1660.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.969	8.435	8896188	4021888	4.94	4.84		100.00
Aroclor 1016	8.055	9.165	1646734	792222	48.3	52.6	80.00- 120.00	100.00
	9.305	9.915	1375755	1122809	49.1	50.8	66.06- 99.09	83.54
	9.749	11.065	4311819	1271332	49.6	52.7	210.14- 315.22	261.84
	9.929	11.515	2549815	896272	49.7	50.3	122.22- 183.34	154.84
	10.315	11.752	1753417	860990	49.9	51.1	84.59- 126.89	106.48
	Average of Peak Amounts =				49.3	51.5		
Aroclor 1260	13.195	13.549	1645507	756220	49.1	53.3	80.00- 120.00	100.00
	13.582	14.792	2367135	1062267	50.8	46.3	111.33- 167.00	143.85
	14.052	15.162	2480383	1077657	49.5	47.9	117.15- 175.73	150.74
	14.429	15.692	5154268	2212493	48.6	46.6	251.10- 376.65	313.23
	15.059	16.195	3847249	1475984	48.5	50.1	184.28- 276.42	233.80
	Average of Peak Amounts =				49.3	48.8		
Decachlorobiphenyl	16.855	18.135	5225592	2155257	4.79	4.83		100.00

SA 9/11/19
 JP

Data File: \\alk1sws002\instdata\GC27\Data\090419ICL.b\0904F010.D

Date: 04-SEP-2019 21:10

Client ID:

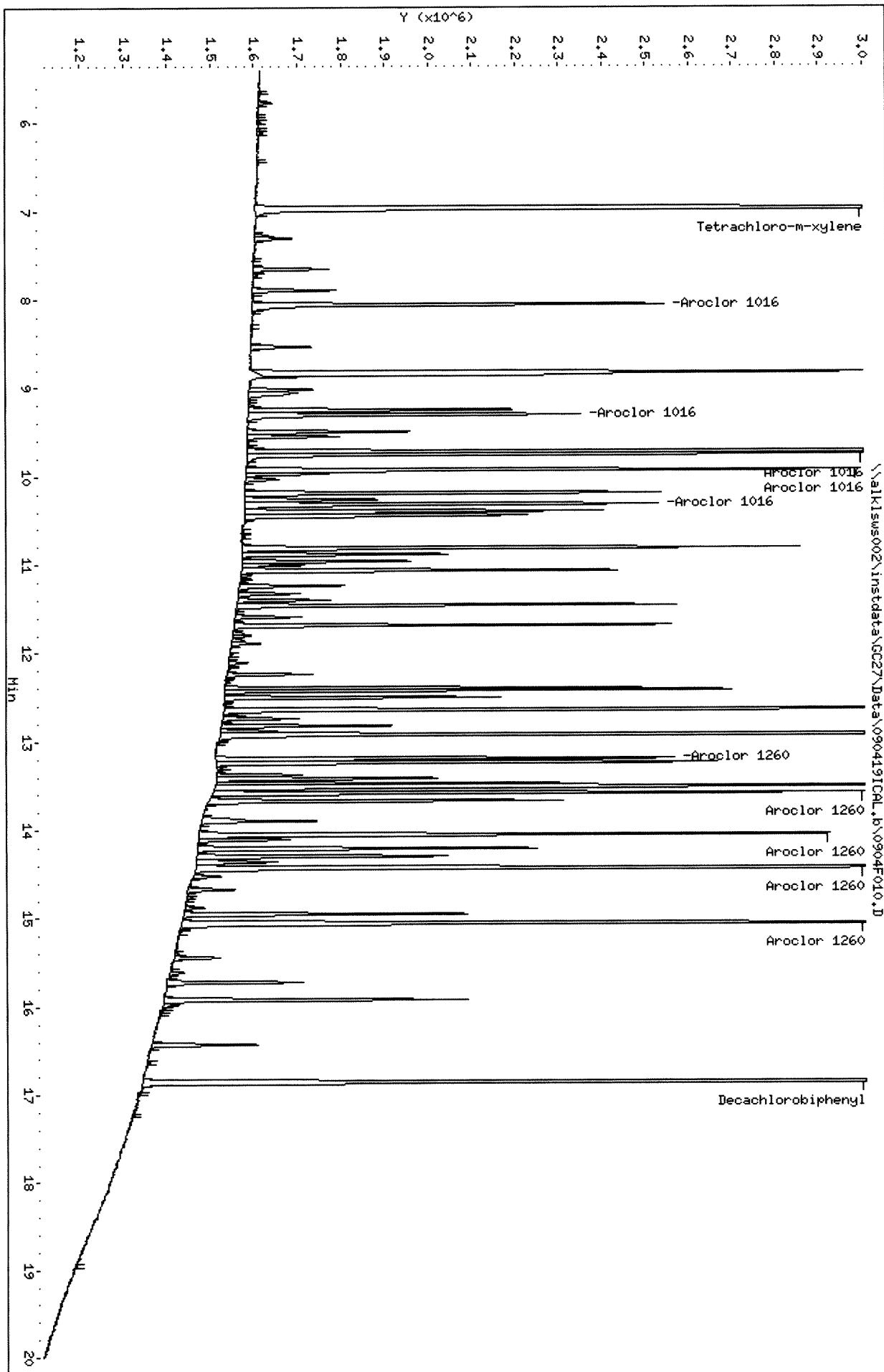
Sample Info: PCB7-91C 1660 @ 5-50 PPB

Column phase: DB-35MS

Instrument: GC27.i

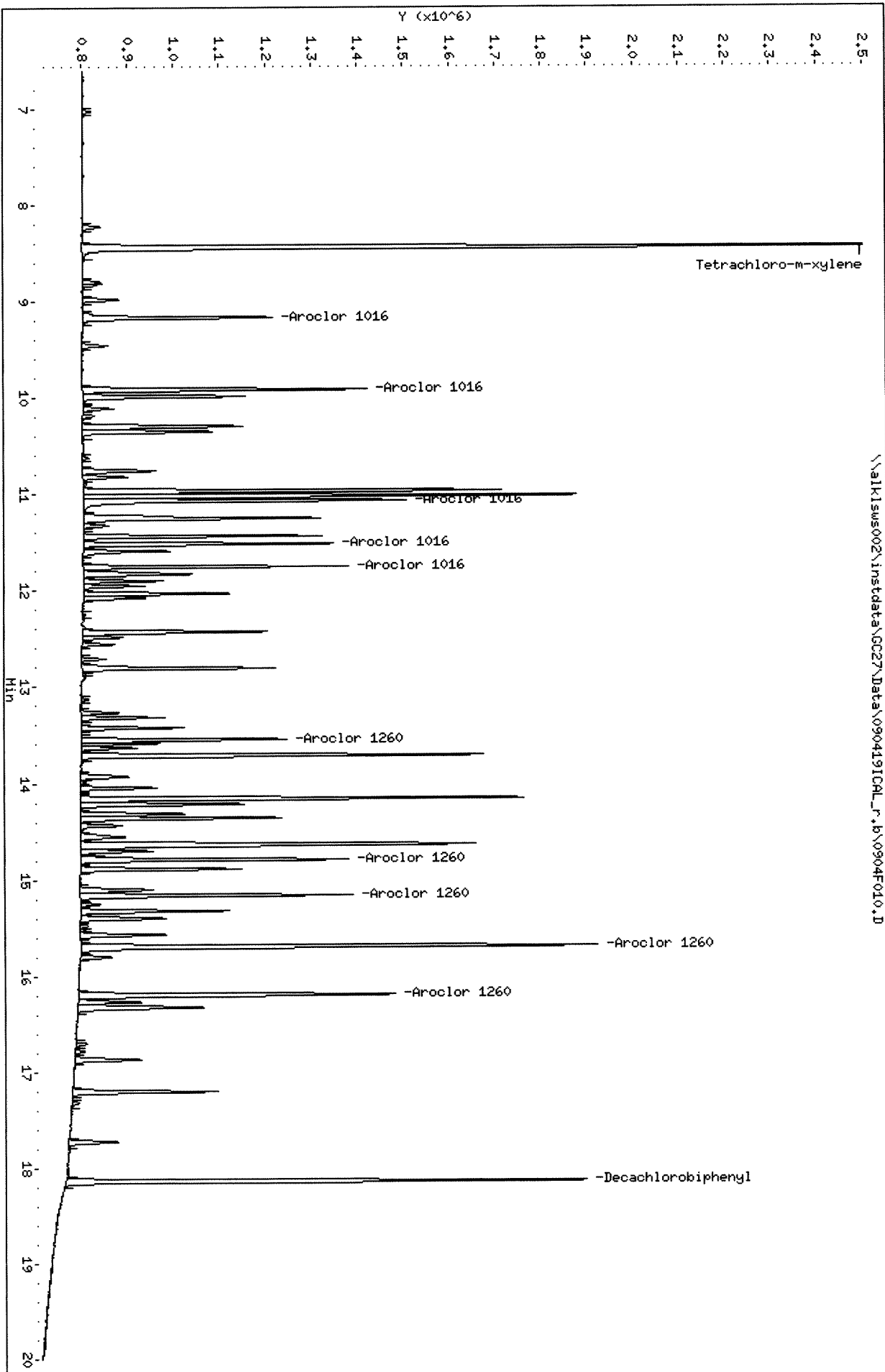
Operator: SAA

Column diameter: 0.32



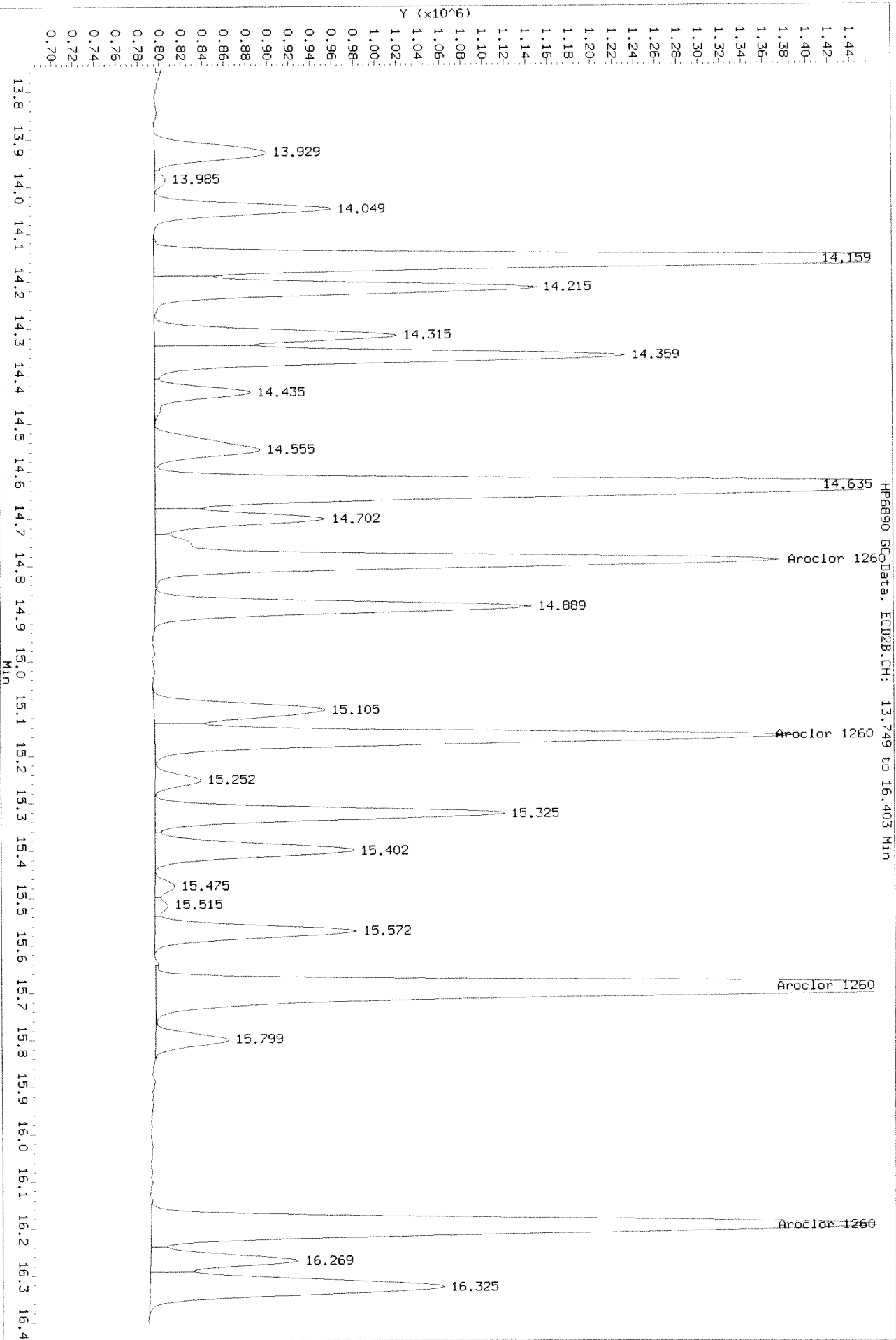
Data File: \\alkisws002\instdata\GC27\Data\090419ICAL_r.b\0904F010.D
Date: 04-SEP-2019 21:10
Client ID:
Sample Info: PCB7-91C 1660 e 5-50 PPB
Column phase: DB-XLB

Instrument: GC27.i
Operator: SMA
Column diameter: 0.32



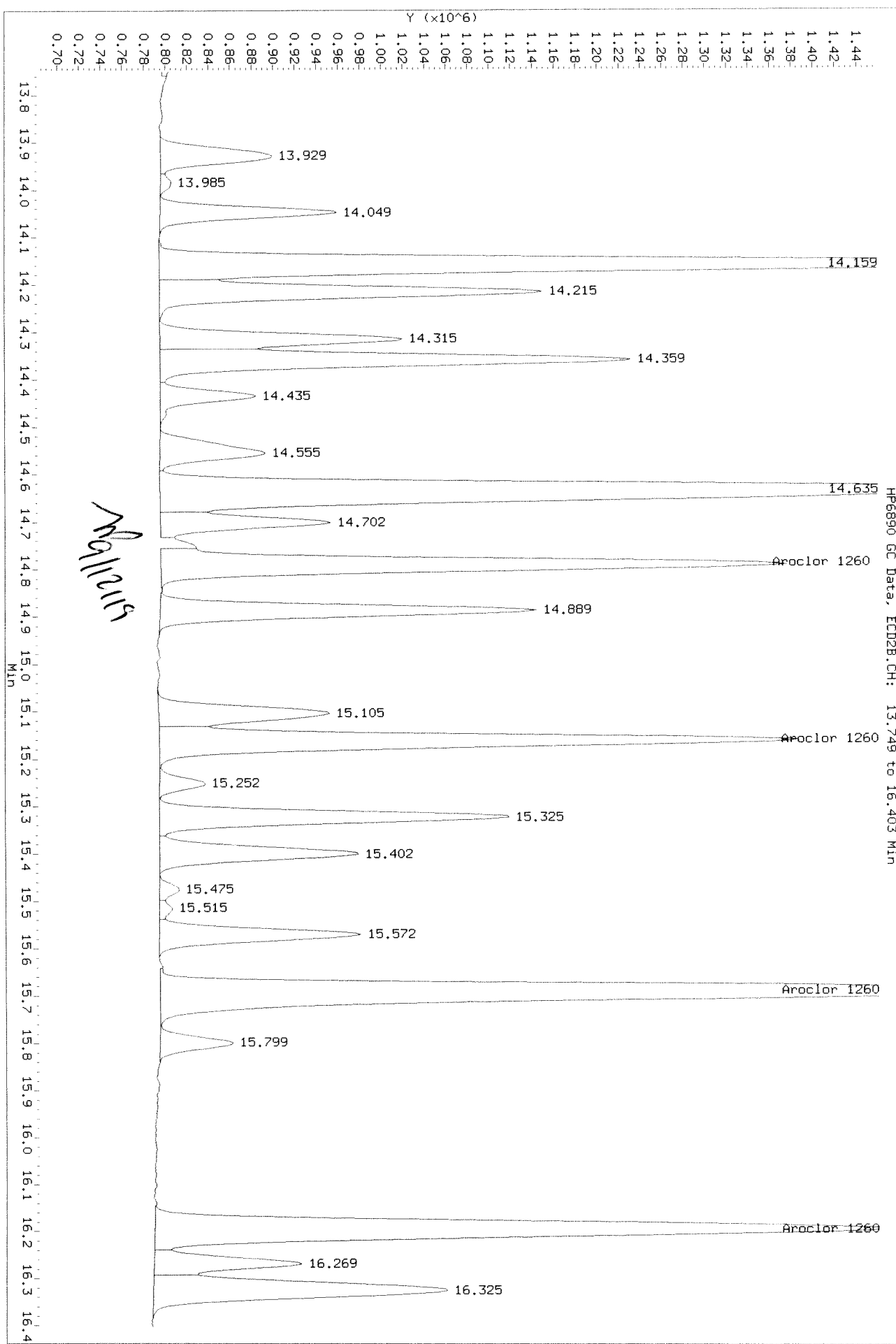
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Injection Date: 04-SEP-2019 21:10
Instrument: GC27.1
Client Sample ID:

Refer



Data File: \\alk1sws002\instdata\GC27\Data\090419ICAL_r.b\0904F010.D
Injection Date: 04-SEP-2019 21:10
Instrument: GC27.1
Client Sample ID:

After shoulder 9/11/19 SA




ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F011.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F011.D
 Inj Date : 04-SEP-2019 21:42
 Sample Info: PCB7-91D 1660 @ 10-100 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 1660.SUB
 Sub List #2 : 1660.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.968	8.435	17360995	7528908	9.64	9.06		100.00
Aroclor 1016	8.054	9.165	3135184	1499817	91.9	99.6	80.00- 120.00	100.00
	9.301	9.915	2612611	2056550	93.3	93.1	66.06- 99.09	83.33
	9.748	11.065	8005581	2302843	92.1	95.5	210.14- 315.22	255.35
	9.928	11.515	4755316	1649457	92.7	92.6	122.22- 183.34	151.68
	10.314	11.751	3321662	1587142	94.5	94.2	84.59- 126.89	105.95
	Average of Peak Amounts =				92.9	95.0		
Aroclor 1260	13.194	13.545	3199075	1374717	95.5	96.8	80.00- 120.00	100.00
	13.578	14.791	4489559	1920441	96.3	83.7	111.33- 167.00	140.34
	14.051	15.161	4726617	1949941	94.2	86.7	117.15- 175.73	147.75
	14.424	15.691	9920670	3956077	93.5	83.2	251.10- 376.65	310.11
	15.058	16.191	7348705	2671256	92.6	90.7	184.28- 276.42	229.71
	Average of Peak Amounts =				94.4	88.2		
Decachlorobiphenyl	16.858	18.135	9835921	3889522	9.02	8.71		100.00

SA 9/11/19


Data File: \\aik1s002\instdata\GC27\Data\090419ICL.b\0904F011.D

Date: 04-SEP-2019 21:42

Client ID:

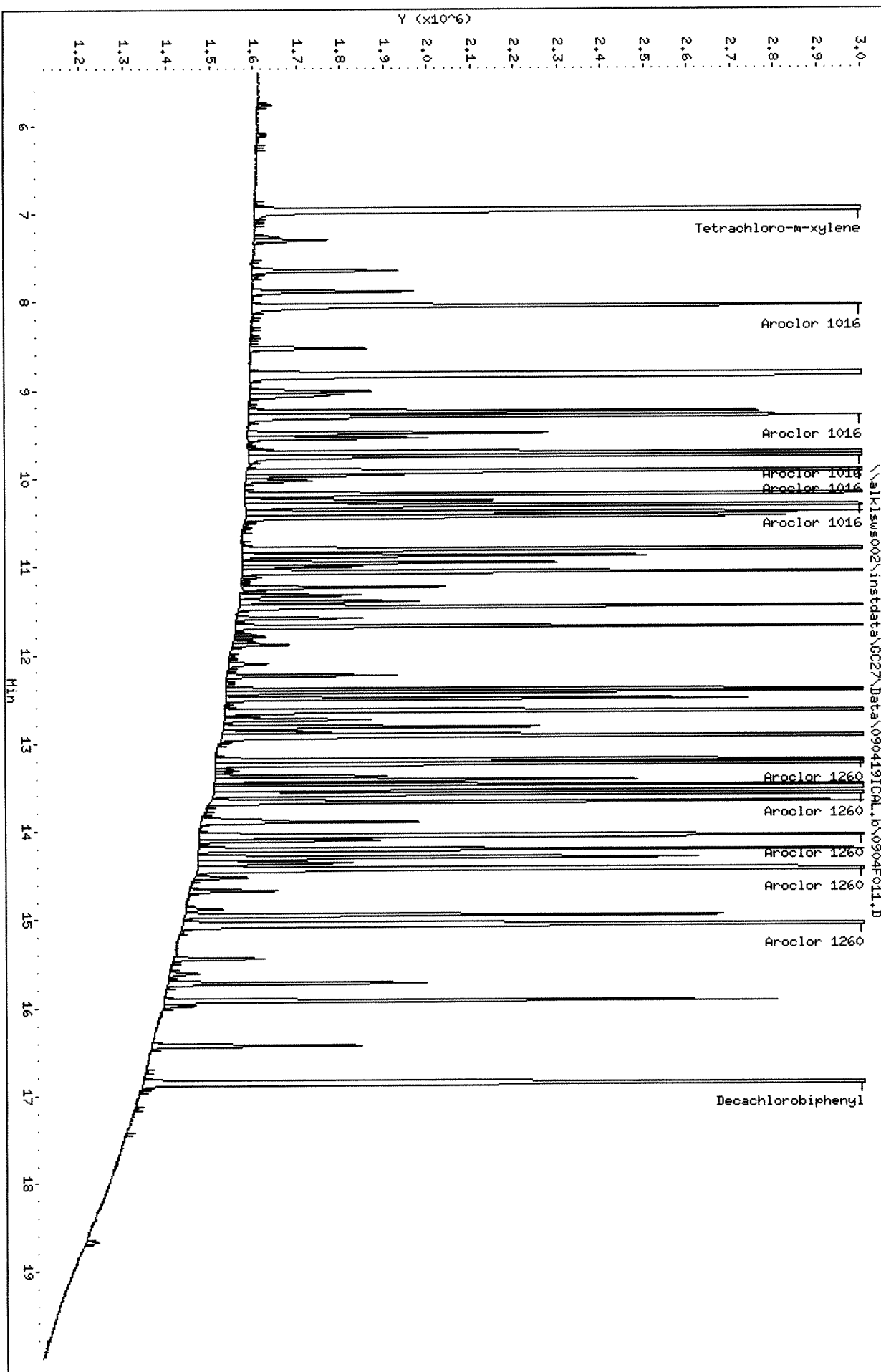
Sample Info: PCB7-91D 1660 @ 10-100 PPS

Column phase: DB-35MS

Instrument: GC27.1

Operator: SAA

Column diameter: 0.32



Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F011.D

Date: 04-SEP-2019 21:42

Client ID:

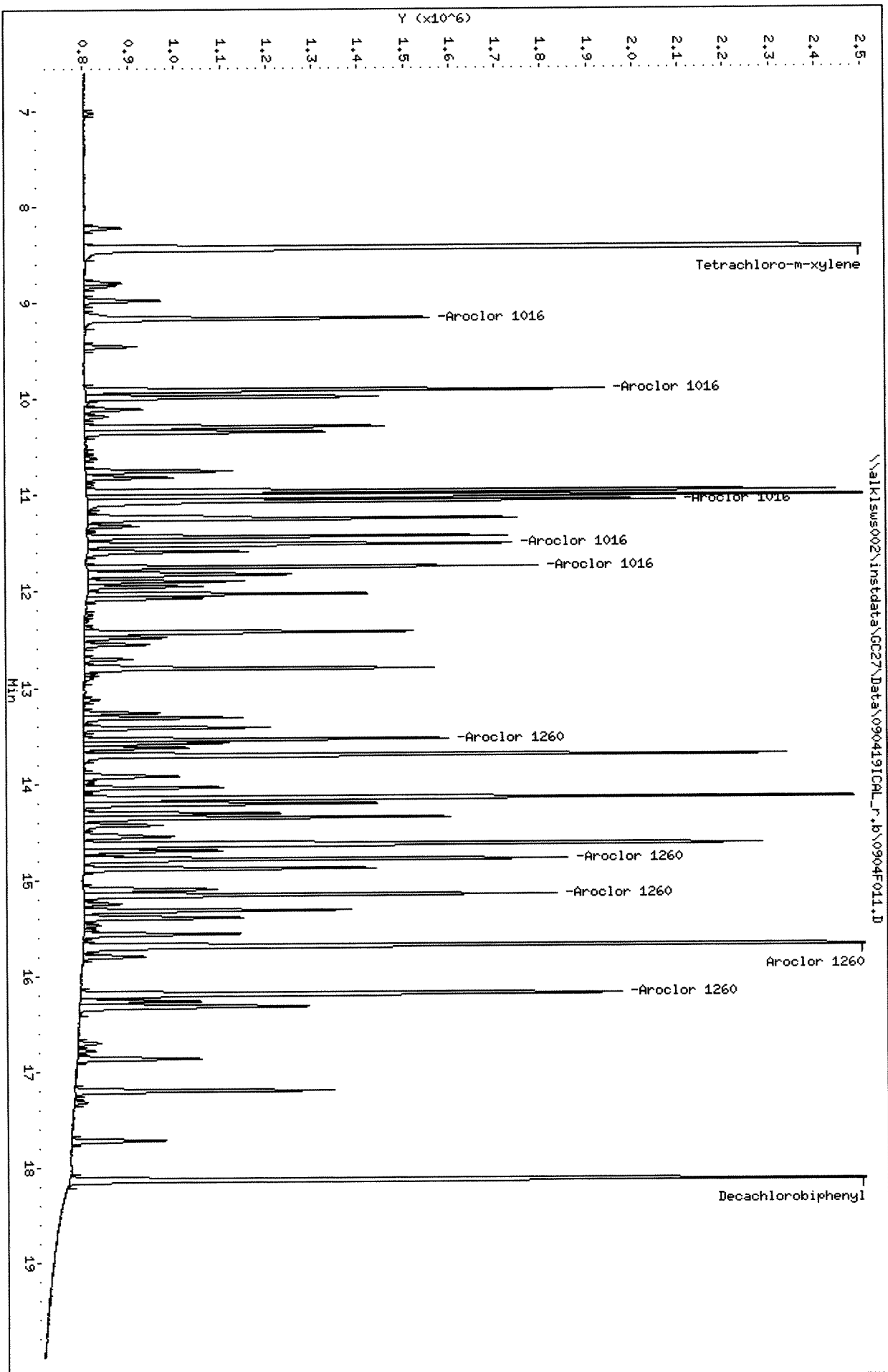
Sample Info: PCB7-91D 1660 @ 10-100 PPB

Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F012.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F012.D
 Inj Date : 04-SEP-2019 22:13
 Sample Info: PCB8-11K1660 @ 20-200 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 1660.SUB
 Sub List #2 : 1660.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.968	8.439	34732123	14794010	19.3	17.8		100.00
Aroclor 1016	8.055	9.169	6067021	2835151	178	188	80.00- 120.00	100.00
	9.305	9.915	5009784	3850240	179	174	66.06- 99.09	82.57
	9.748	11.065	15936918	4382709	183	182	210.14- 315.22	262.68
	9.928	11.515	9269177	3089452	181	173	122.22- 183.34	152.78
	10.315	11.752	6415173	3002232	183	178	84.59- 126.89	105.74
	Average of Peak Amounts =				181	179		
Aroclor 1260	13.195	13.549	6315706	2628978	188	185	80.00- 120.00	100.00
	13.582	14.792	8789170	3705205	189	162	111.33- 167.00	139.16
	14.052	15.162	9248597	3634060	184	162	117.15- 175.73	146.44
	14.428	15.692	19823684	7384751	187	155	251.10- 376.65	313.88
	15.058	16.195	14548081	4907991	183	167	184.28- 276.42	230.35
	Average of Peak Amounts =				186	166		
Decachlorobiphenyl	16.858	18.135	19028191	7191566	17.5	16.1		100.00

SA 9/11/19
 W

Data File: \\aik1s002\instdata\GC27\Data\090419ICL.b\0904F012.D

Date : 04-SEP-2019 22:13

Client ID:

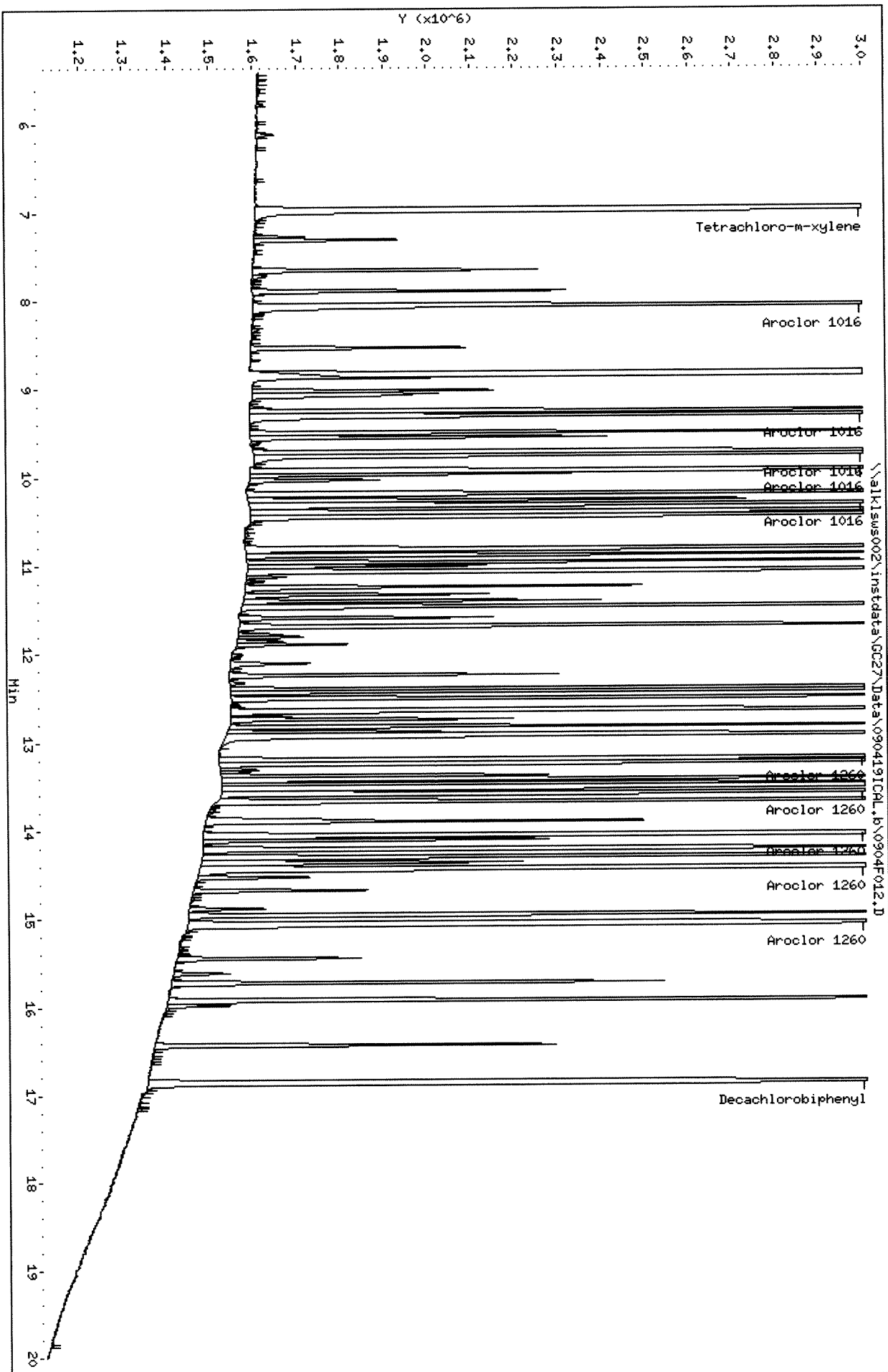
Sample Info: PCB8-14K1660 @ 20-200 PPB

Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F012.D
Date: 04-SEP-2019 22:13

Client ID:

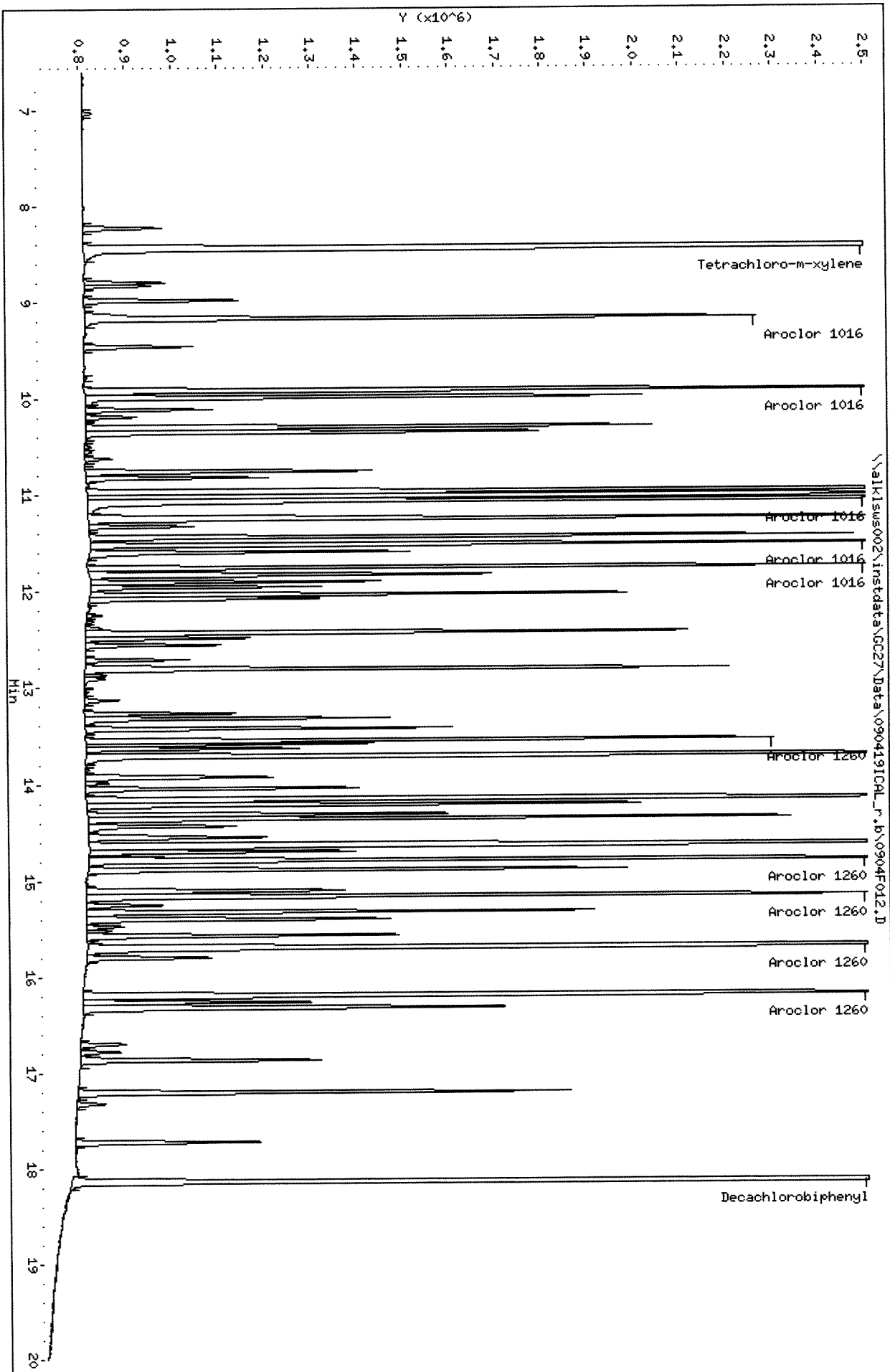
Sample Info: PCB8-11K1660 @ 20-200 PPB

Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F013.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F013.D
 Inj Date : 04-SEP-2019 22:45
 Sample Info: PCB8-13A 2154 @ 1-2 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 2154.sub
 Sub List #2 : 2154.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1221	7.657	8.827	50695	15070	2.20	2.32	80.00- 120.00	100.00 (M)
	7.893	8.980	34425	11922	2.35	1.85	50.93- 76.39	67.91 (M)
	8.060	9.167	120321	52805	2.20	2.12	190.33- 285.49	237.34 (M)
	Average of Peak Amounts =				2.25	2.10		
Aroclor 1254	11.773	12.430	39510	33696	1.09	1.04	80.00- 120.00	100.00 (M)
	12.243	12.483	71048	16138	1.14	0.950	137.86- 206.79	179.82 (M)
	12.400	12.810	141481	52699	1.15	1.07	268.82- 403.23	358.09 (M)
	12.740	12.903	75413	17591	1.03	1.14	164.76- 247.13	190.87 (M)
	13.307	14.377	42724	25148	0.937	1.04	106.40- 159.60	108.13 (M)
	Average of Peak Amounts =				1.07	1.05		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
 wp

Data File: \\alkisw002\instdata\GC27\Data\090419ICL.b\0904F013.D

Date: 04-SEP-2019 22:45

Client ID:

Sample Info: PCB8-138 2154 @ 1-2 PPB

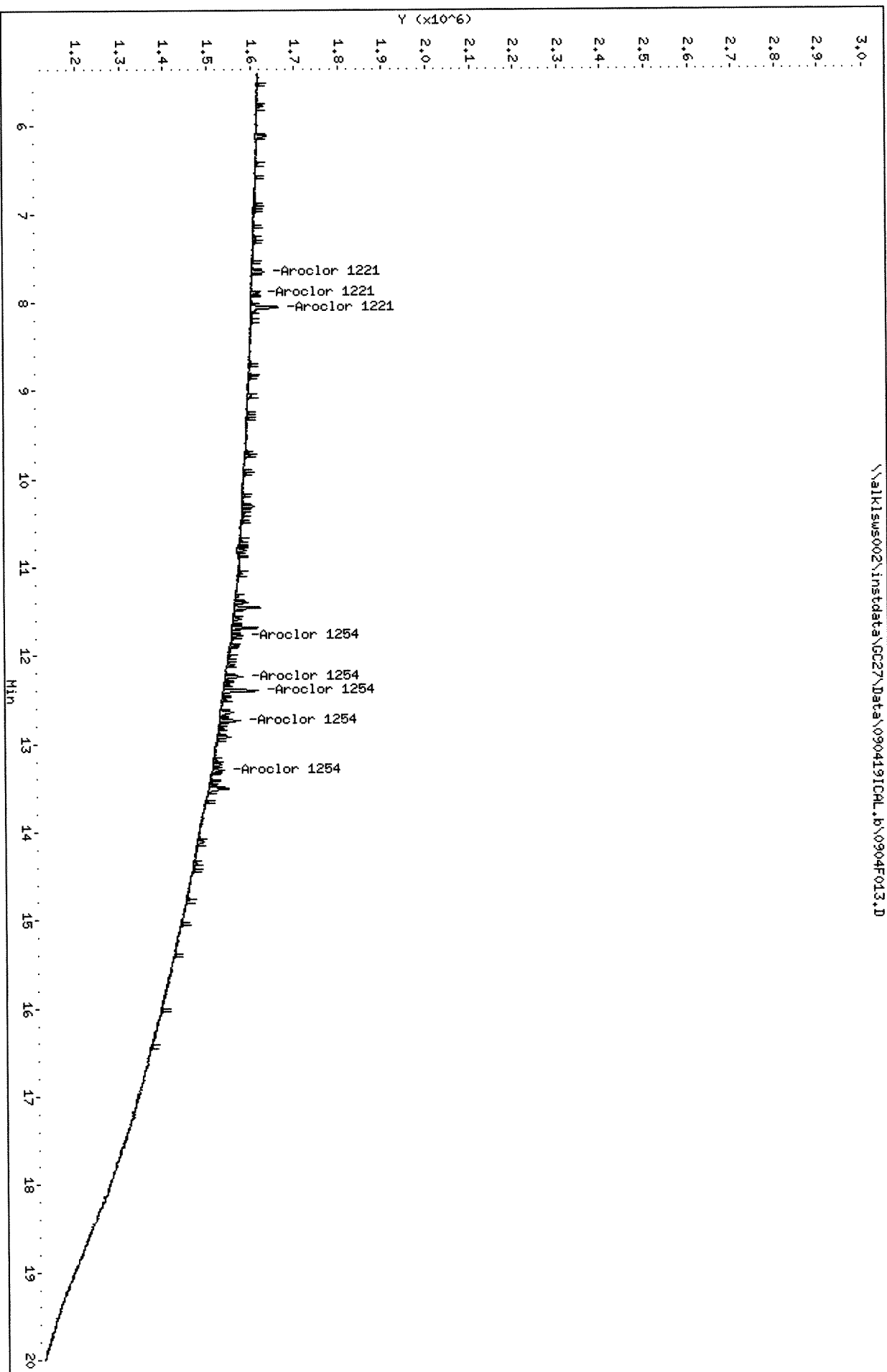
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alkisw002\instdata\GC27\Data\090419ICL.b\0904F013.D



Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F013.D

Date: 04-SEP-2019 22:45

Client ID:

Sample Info: PCB8-13A 2154 @ 1-2 PPB

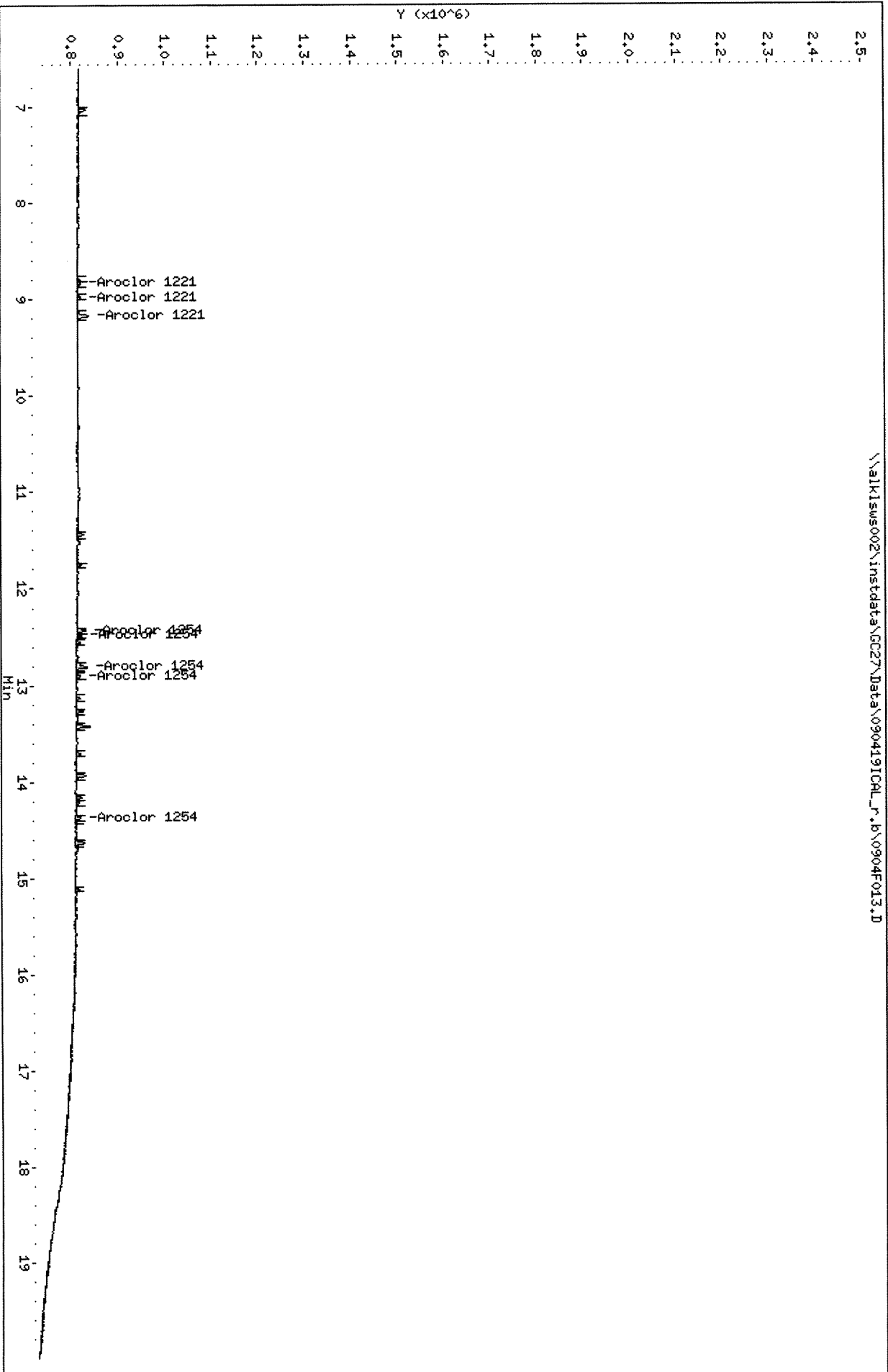
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

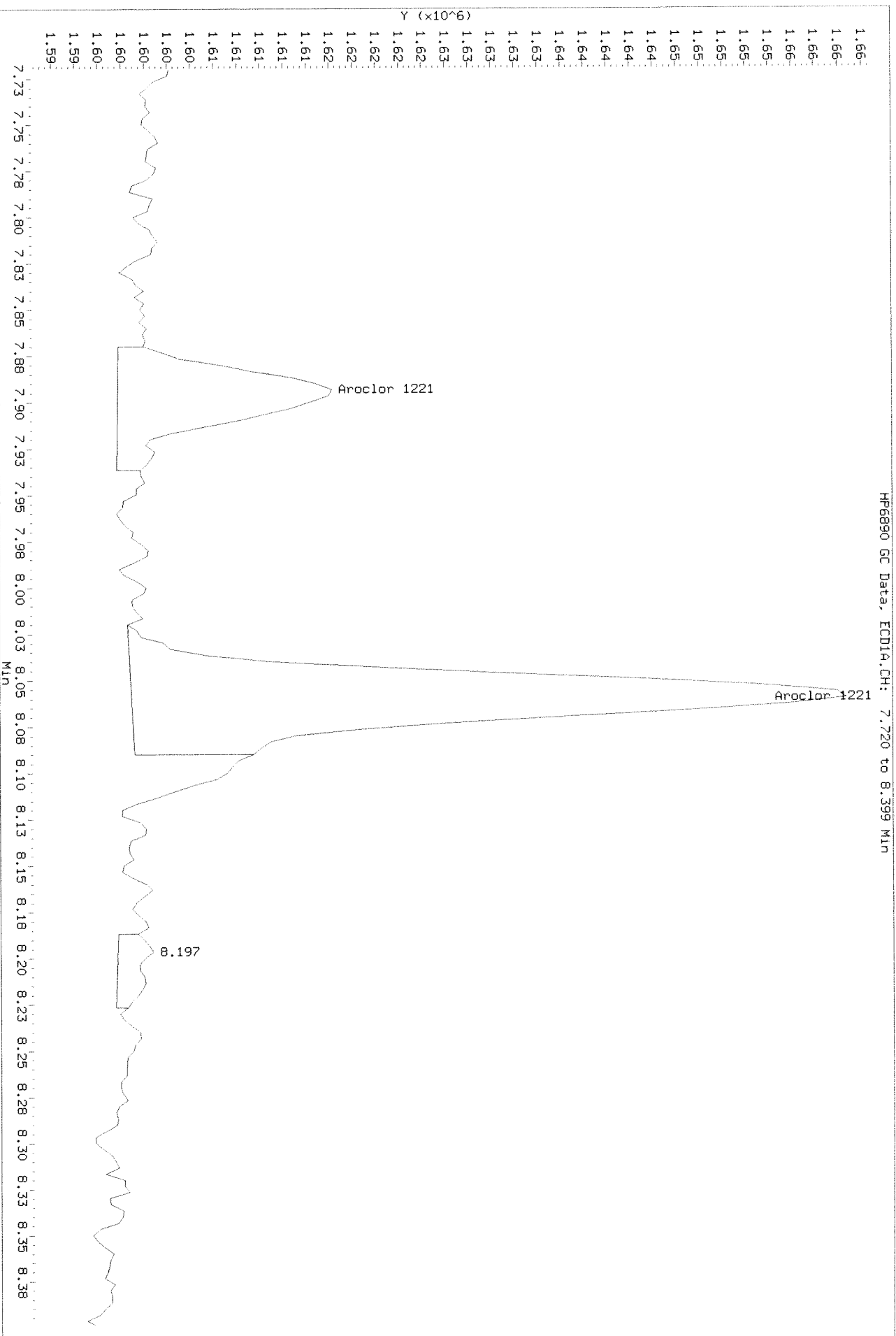
Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F013.D



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.B\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

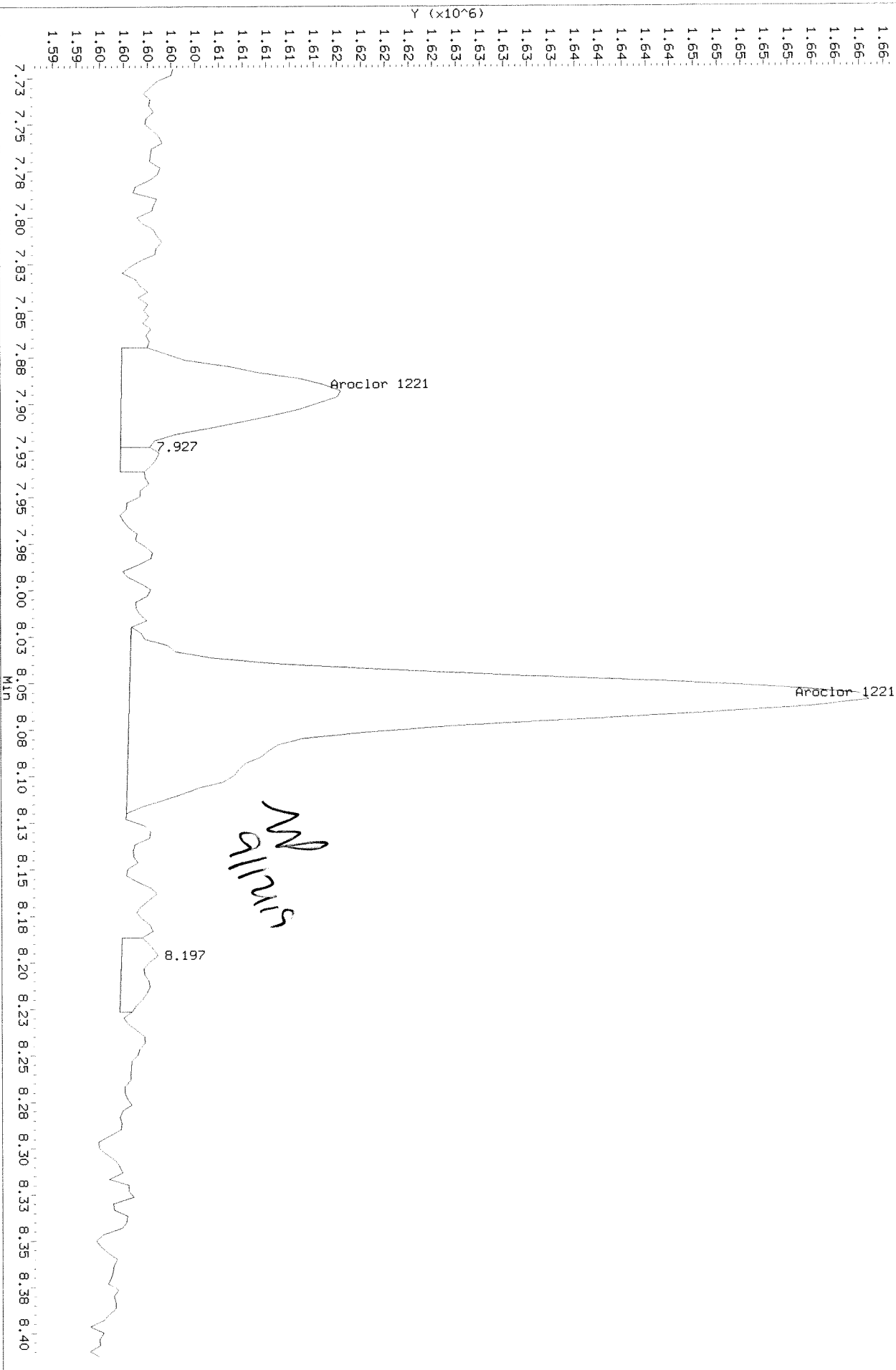
Before



Data File: \\alkisws002\instdata\GC27\Data\090419ICAL.B\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data: ECD1A.CH: 7.720 to 8.413 Min

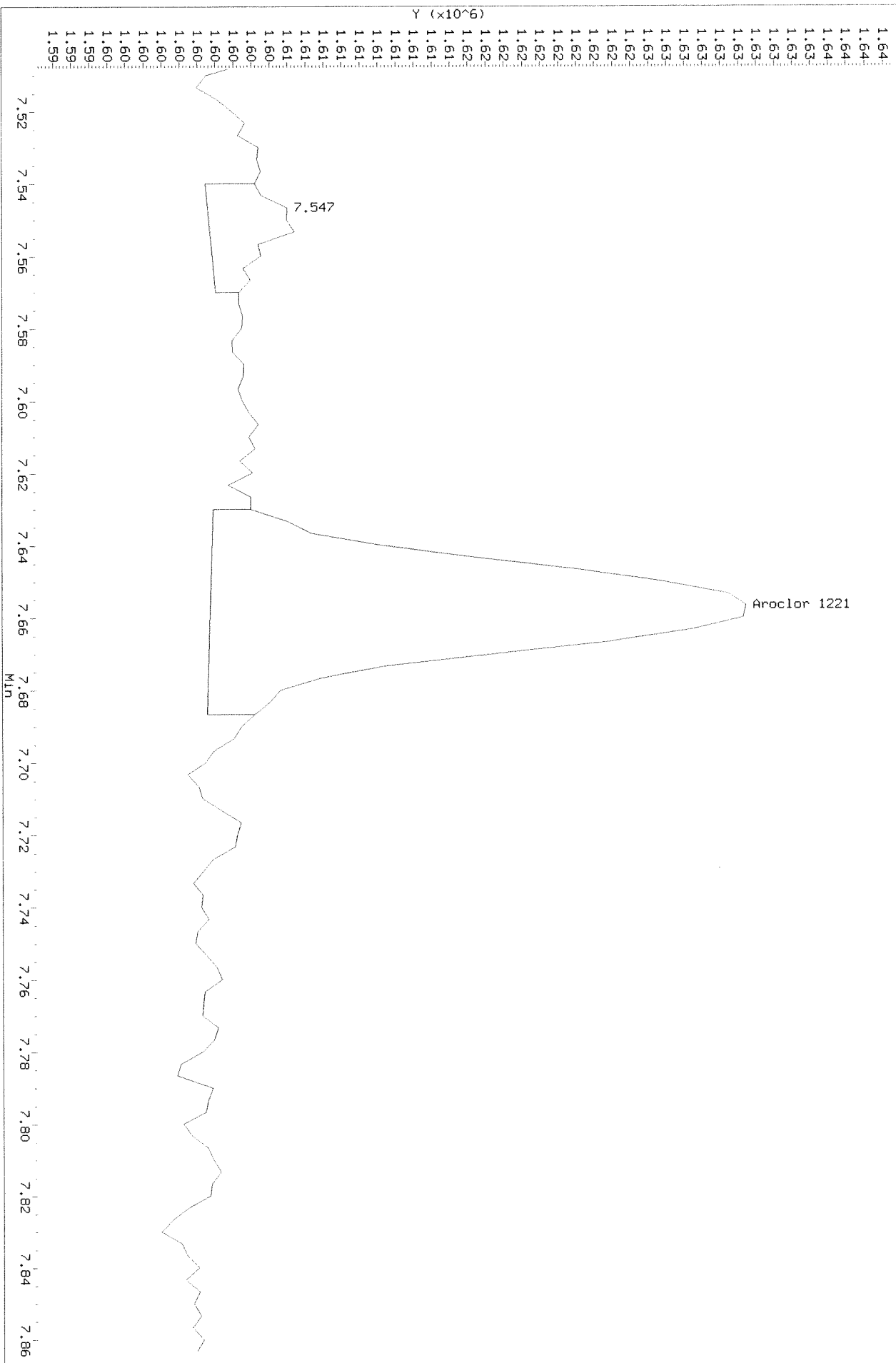
After baseline 9/11/19 A



Data File: \\alkjsws002\inst\data\GC27\Data\090419ICL.b\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 7.508 to 7.863 Min

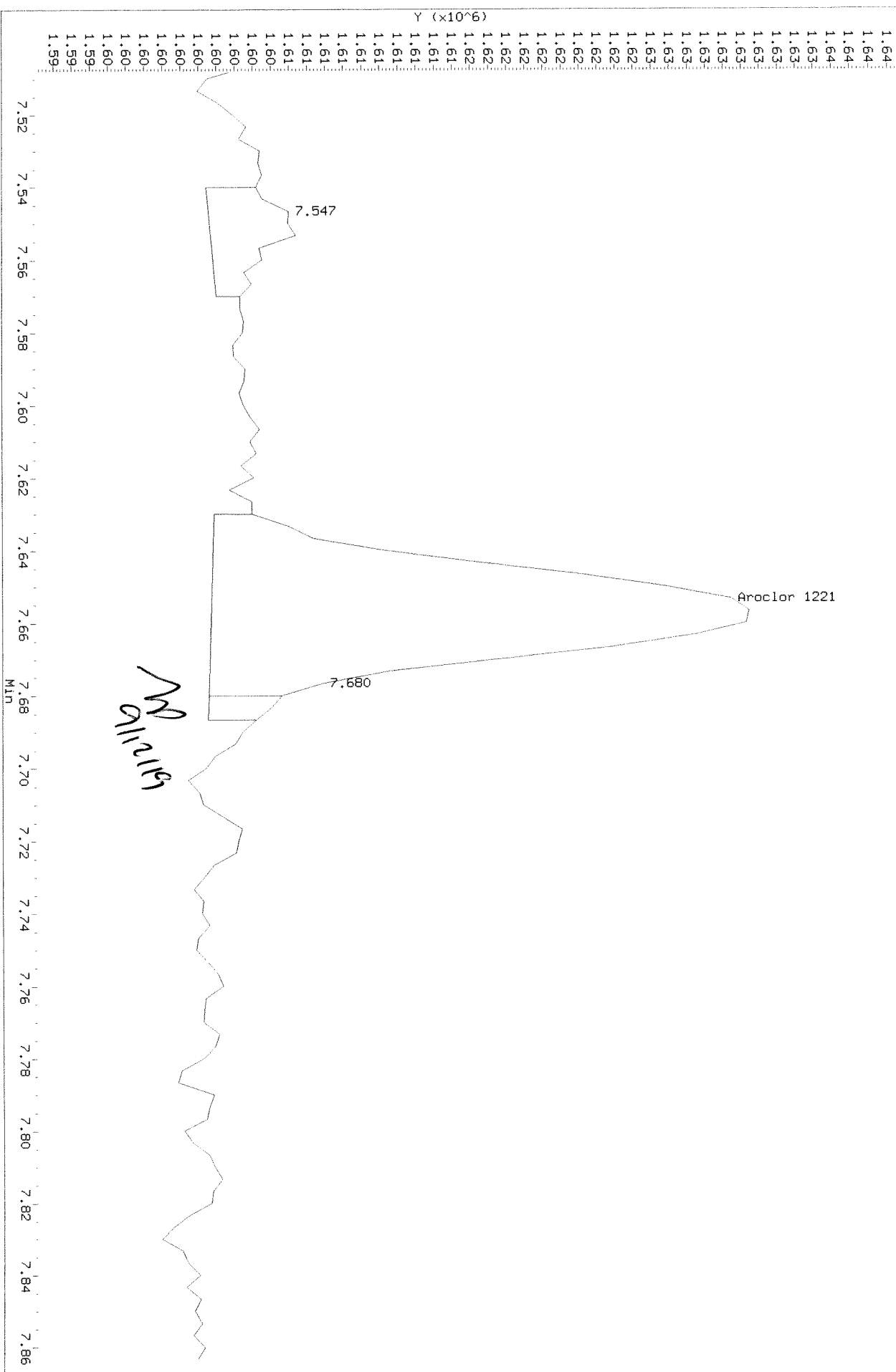
Before



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.H\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

After Shoulder 9/11/19 SA

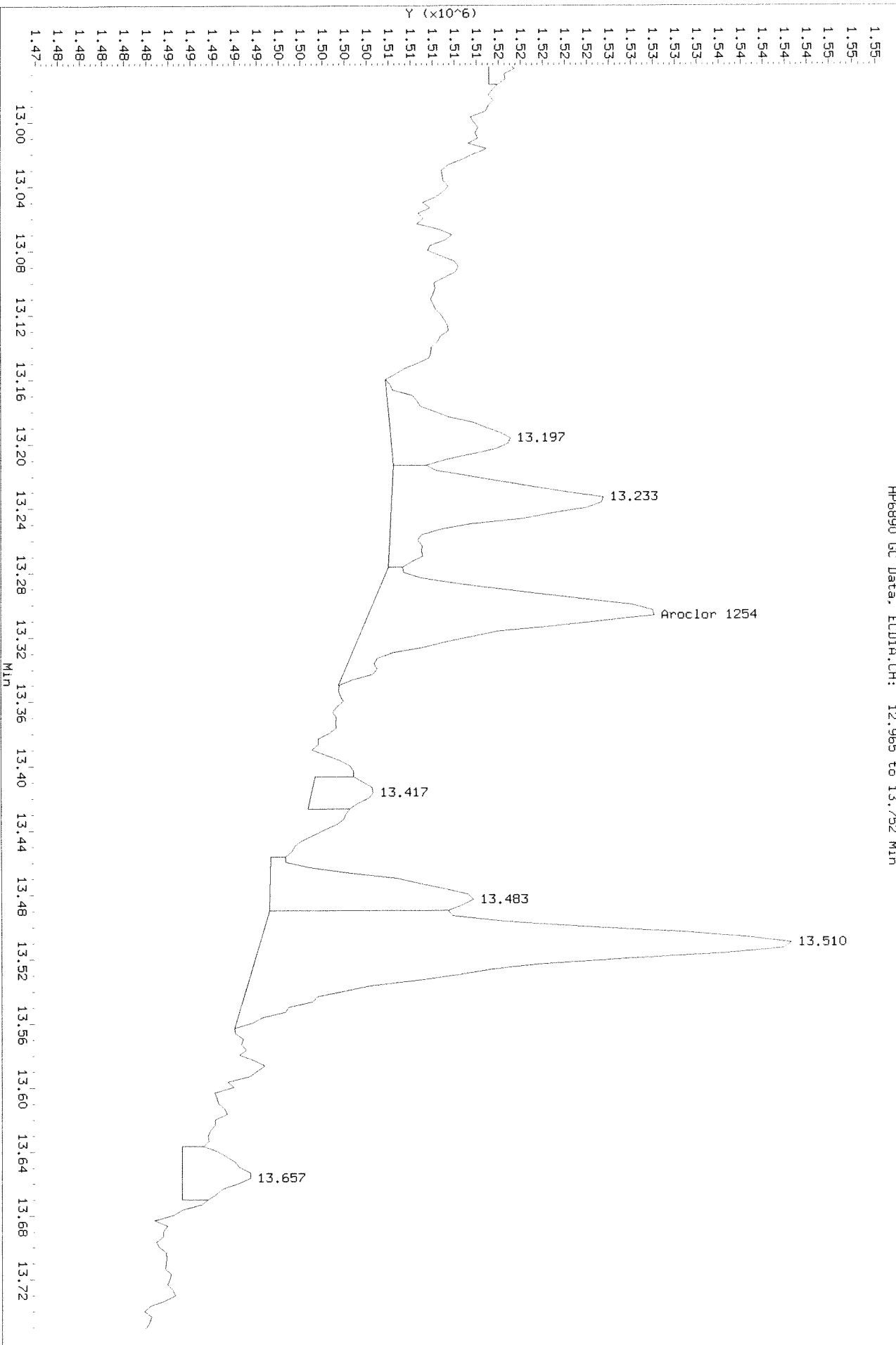
HP6890 GC Data, ECD1A.CH: 7.508 to 7.863 MIN



Data File: \\alkisw002\instdata\GC27\Data\090419ICL.b\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 12.965 to 13.752 Min

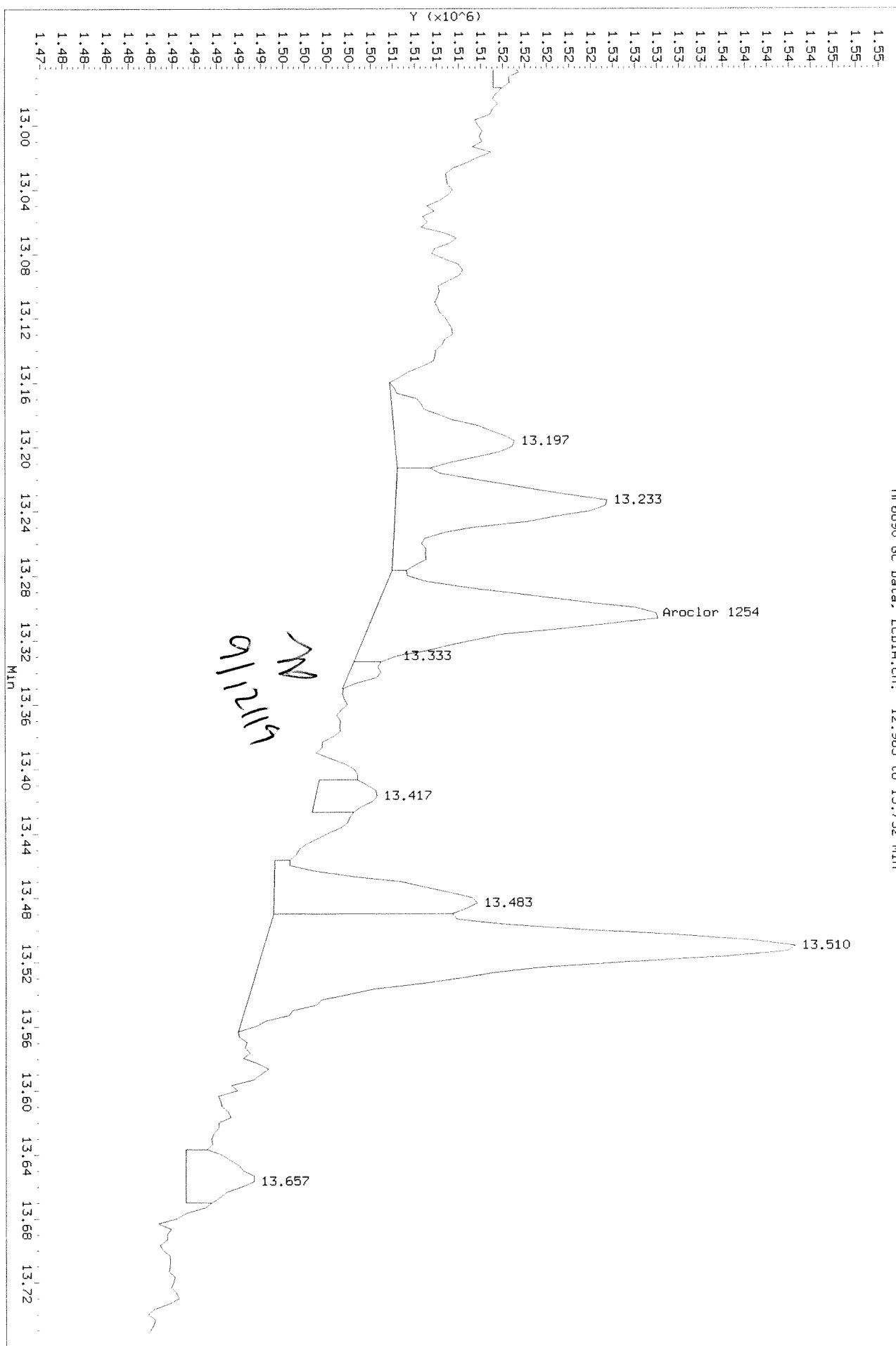
Before



Data File: \\alklsw002\instdata\GC27\Data\090419ICL.b\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

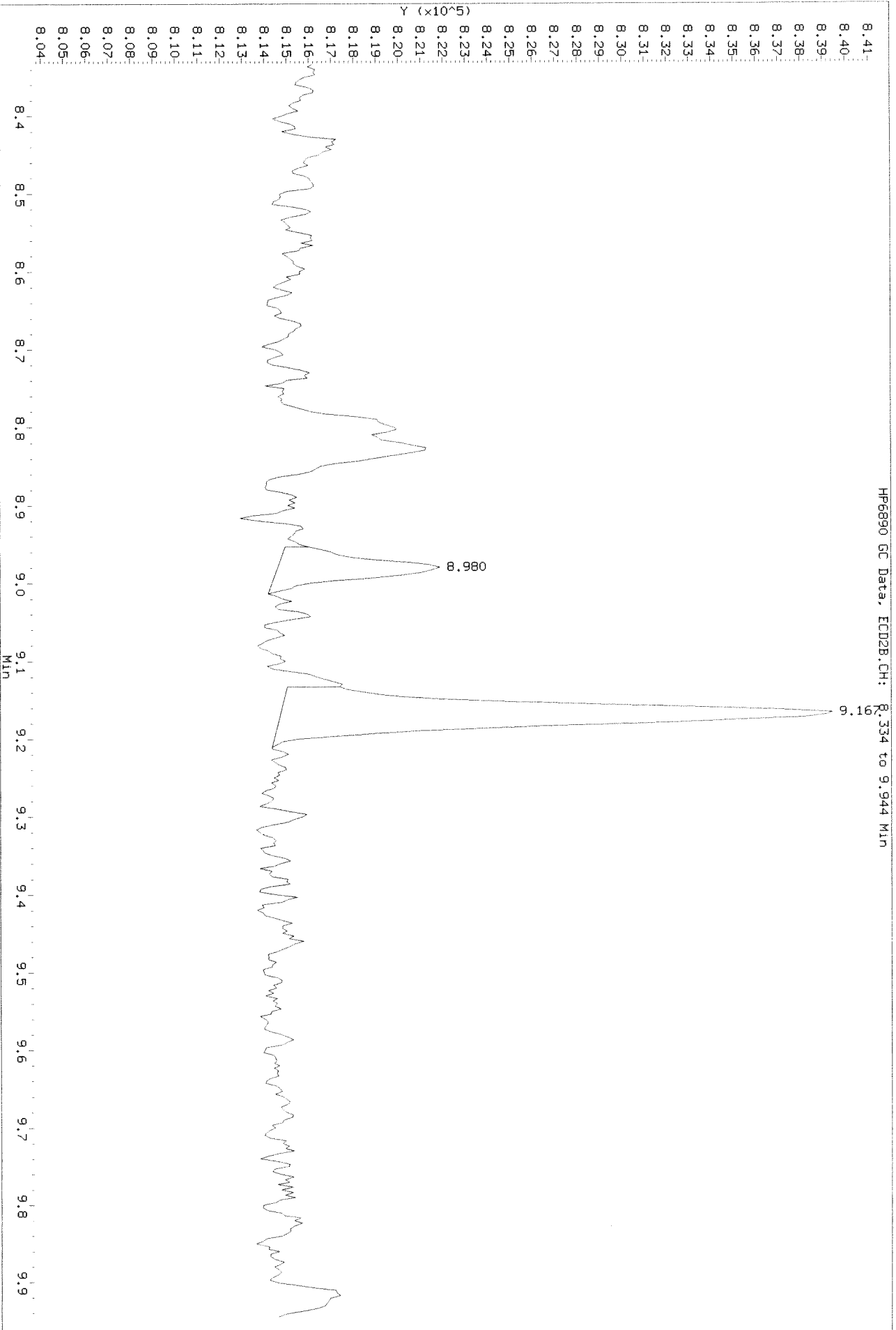
After Shoulder 9/11/19

HP6890 GC Data, ECD1A.CH: 12.965 to 13.752 Min



Data File: \\alk1sws002\instdata\GC27\Data\090419ICL_r.b\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

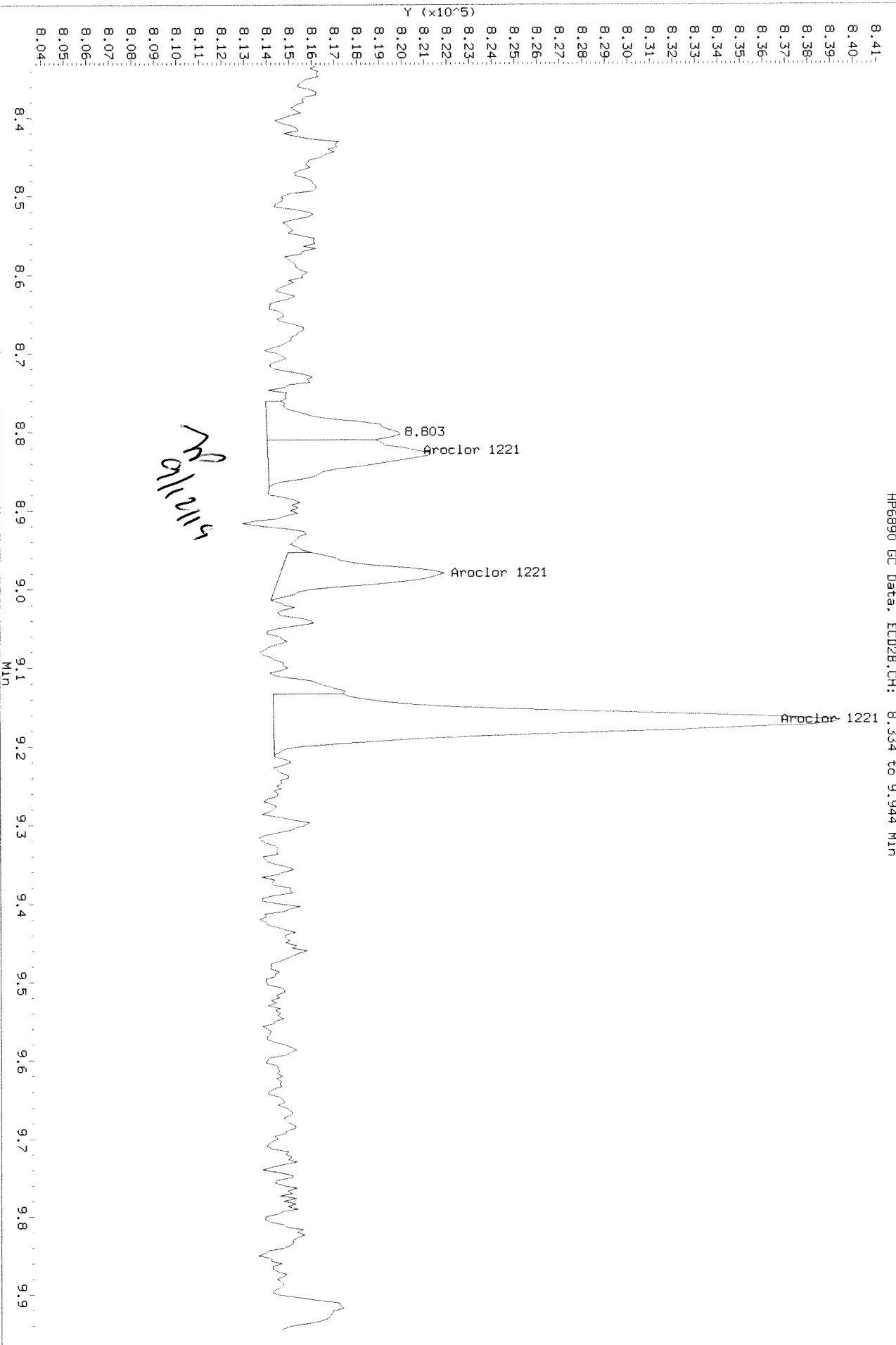
Before



Data File: \\alk1sws002\instdata\GC27\Data\090419ICL_r_b\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 8.334 to 9.944 Min

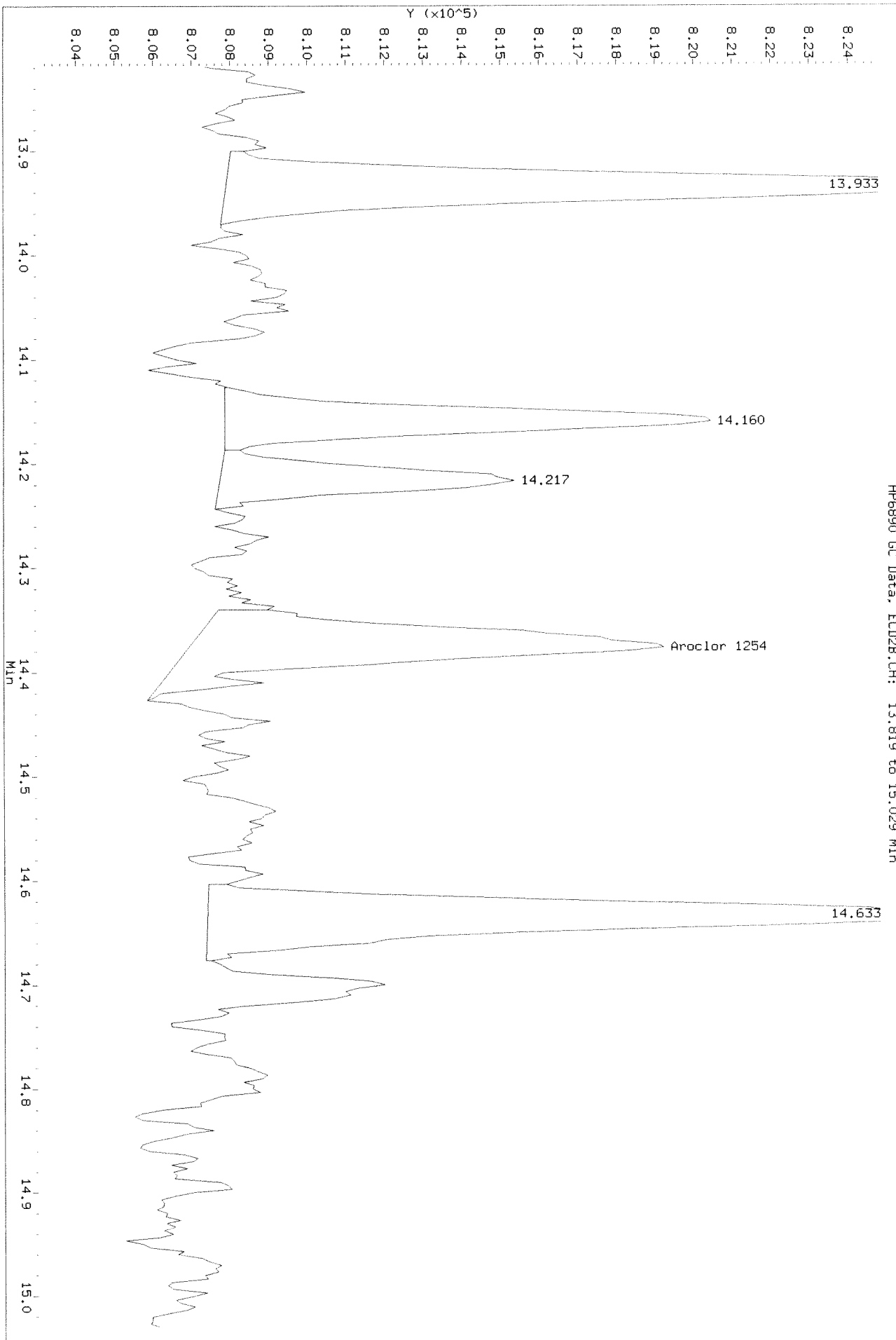
After missed peak 9/11/19 SA



Data File: \\alkisws002\instdata\GC27\Data\090419\ICL-r.b\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

Refer

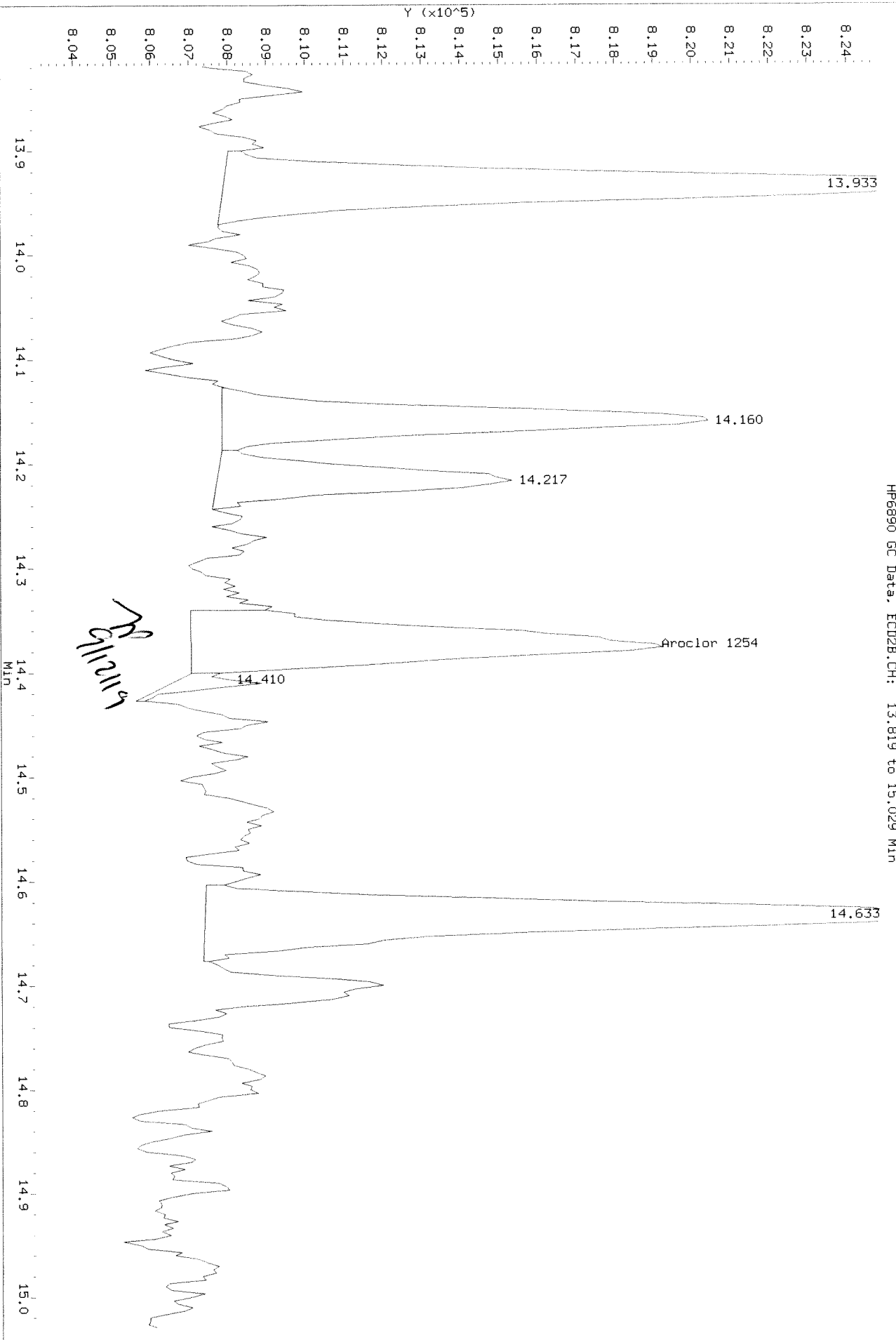
HP6890 GC Data, ECD28.CH: 13.819 to 15.029 Min



Data File: \\alkisw002\instdata\GC27\Data\090419ICALL_r.b\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 13.819 to 15.029 MIN

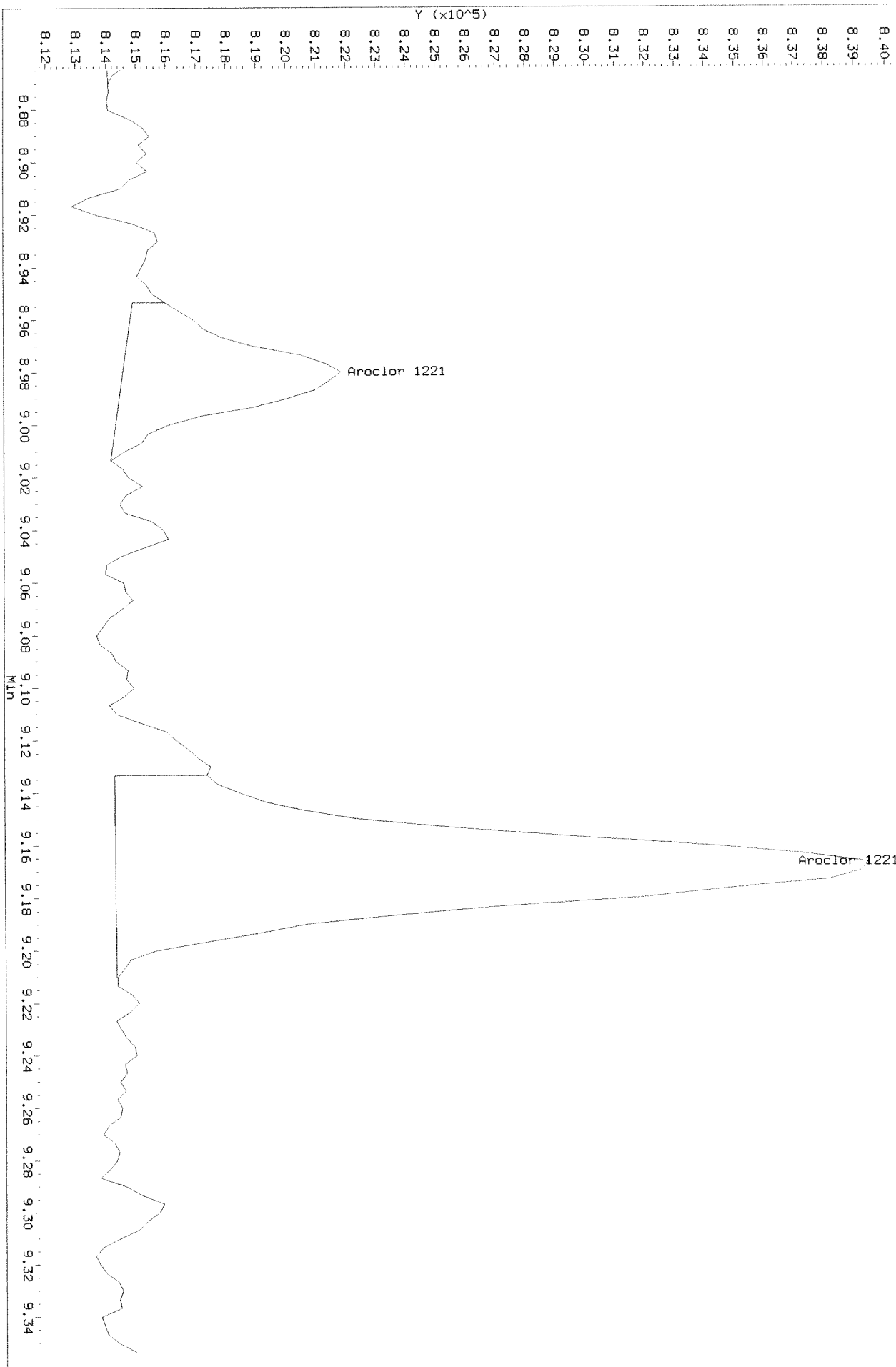
After Shell bar 1/11/19 SA



Data File: \\alkisw002\instdata\GC27\Data\090419ICALL_r.b\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

Before

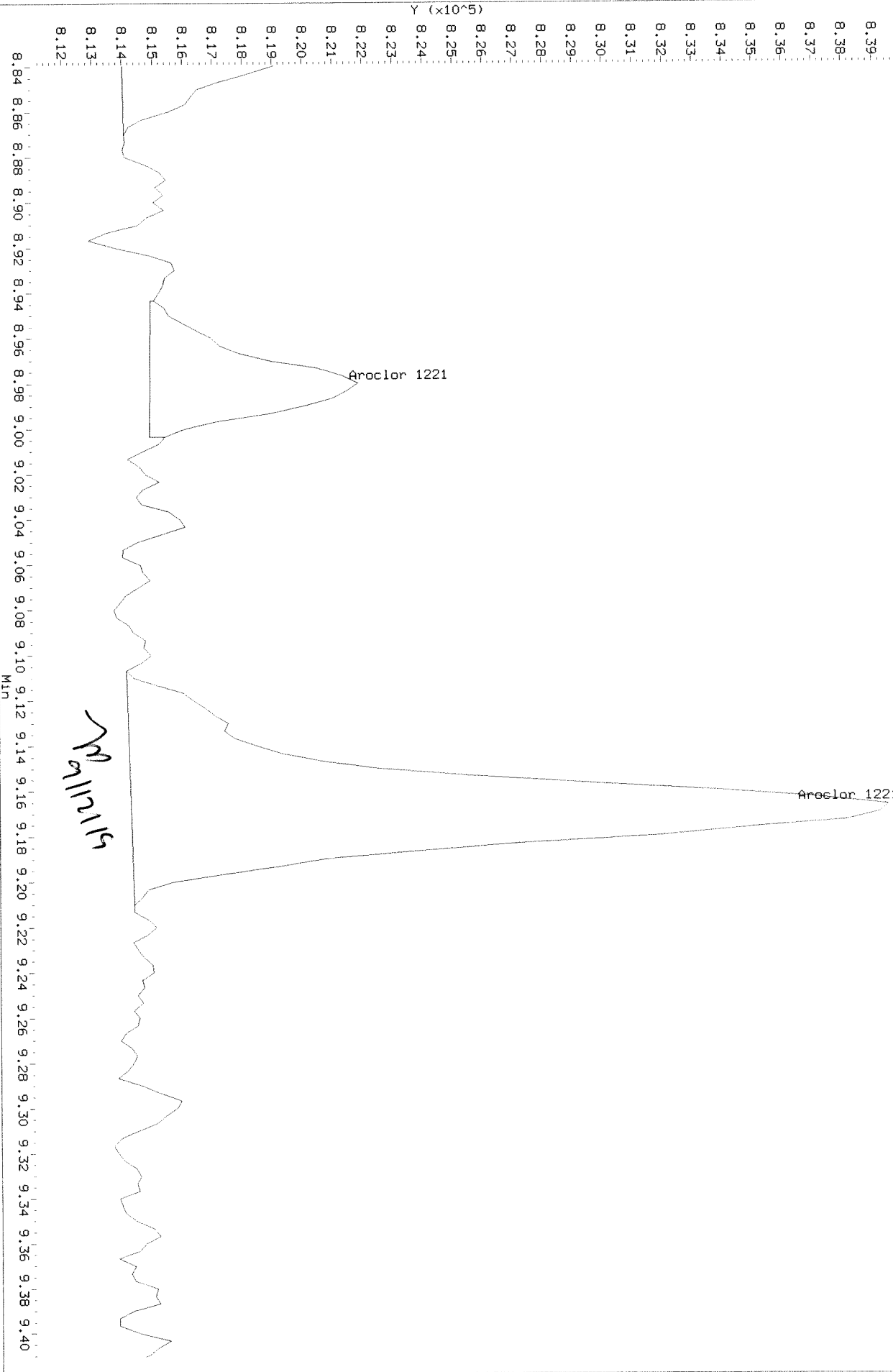
HP6890 GC Data, ECD2B.CH: 8.865 to 9.354 MIN



Data File: \\alkisw002\instdata\GC27\Data\090419ICALL_r.b\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 8.840 to 9.410 MIN

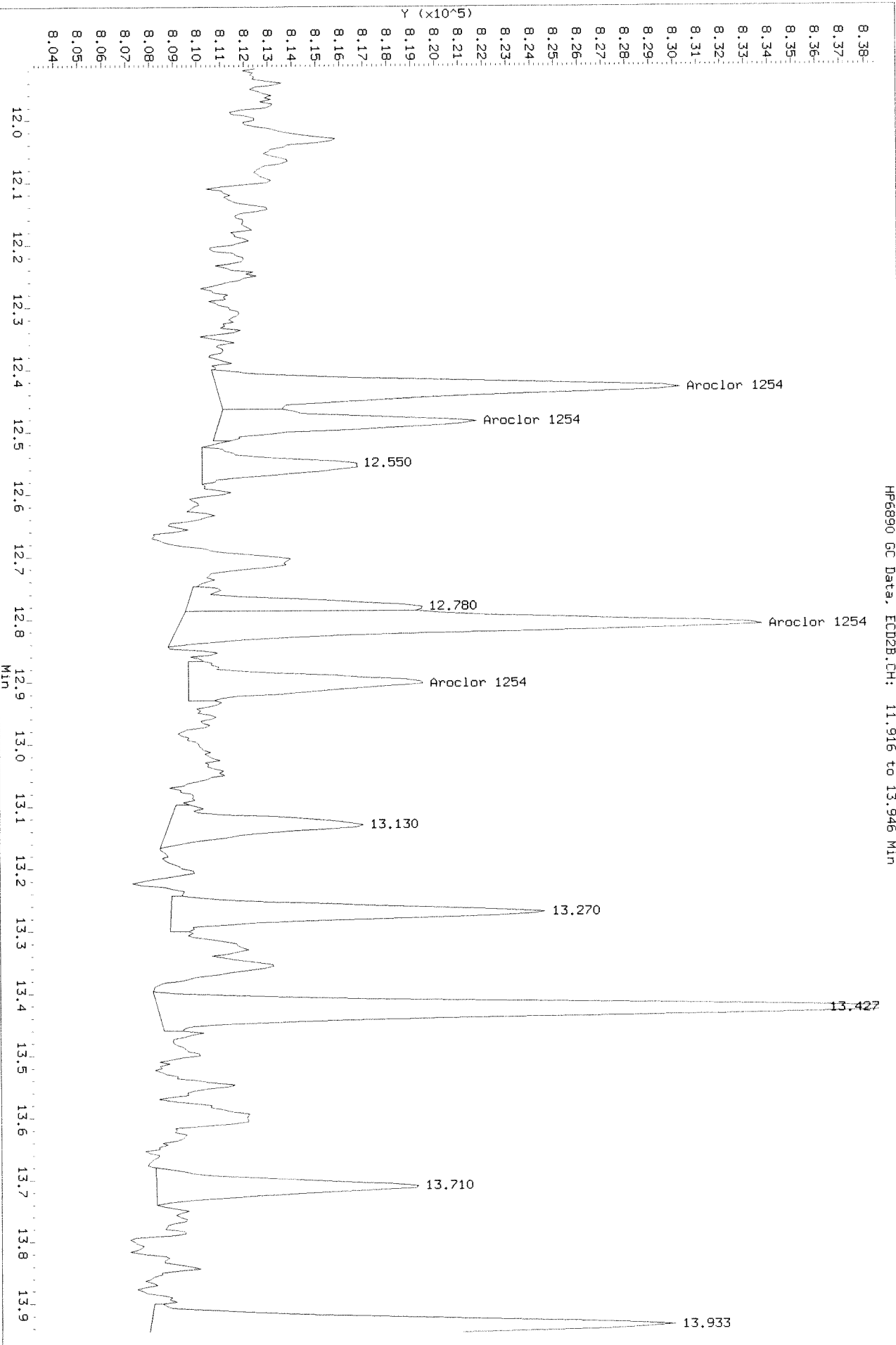
After baseline 9/11/19



Data File: \\alkisw002\instdata\GC27\Data\090419ICAL_r.b\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

Before

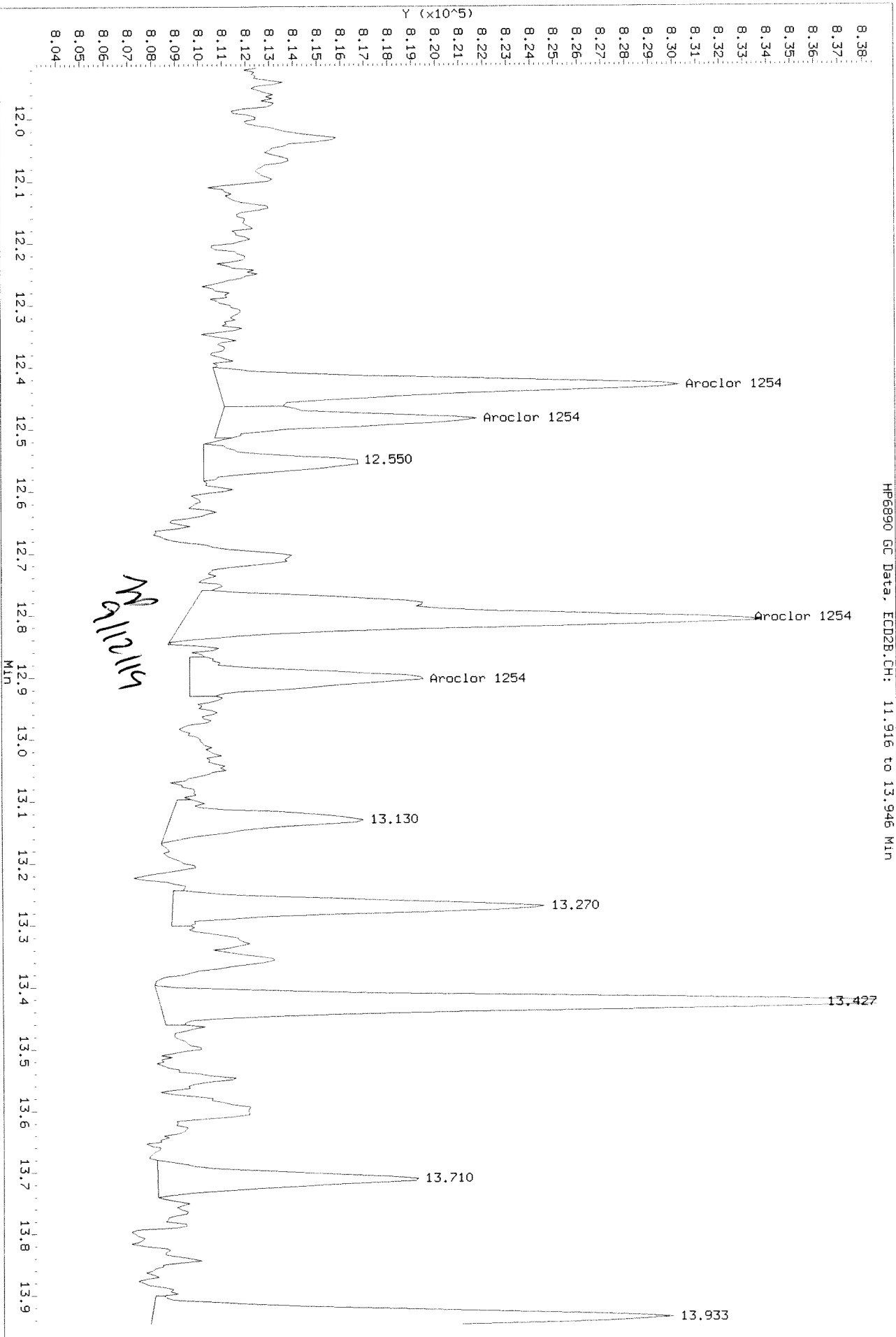
HP6890 GC Data, ECD2B.CH: 11.916 to 13.946 MIN



Data File: \\alklsws002\inst\data\GC27\Data\090419ICL-r.b\09041013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.Ch: 11.916 to 13.946 Min

After baseline 9/11/19 RA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F014.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F014.D
 Inj Date : 04-SEP-2019 23:17
 Sample Info: PCB8-13B 2154 @ 2-4 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 2154.sub
 Sub List #2 : 2154.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
=====								
Aroclor 1221	7.655	8.825	104585	24086	4.54	3.70	80.00- 120.00	100.00 (M)
	7.895	8.981	64670	27039	4.42	4.19	50.93- 76.39	61.83 (M)
	8.058	9.168	247372	103619	4.52	4.17	190.33- 285.49	236.53 (M)
	Average of Peak Amounts =				4.49	4.02		
Aroclor 1254	11.771	12.428	80796	66855	2.24	2.07	80.00- 120.00	100.00 (M)
	12.241	12.485	140427	31785	2.25	1.87	137.86- 206.79	173.80 (M)
	12.398	12.808	278429	107440	2.26	2.18	268.82- 403.23	344.61 (M)
	12.738	12.901	164406	27448	2.25	1.79	164.76- 247.13	203.48 (M)
	13.305	14.375	97801	55061	2.15	2.27	106.40- 159.60	121.05 (M)
	Average of Peak Amounts =				2.23	2.04		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
 TR

Data File: \\alk1sws002\instdata\GC27\Data\090419ICAL.b\0904F014.D

Date : 04-SEP-2019 23:17

Client ID:

Sample Info: PCB8-13B 2154 @ 2-4 PPB

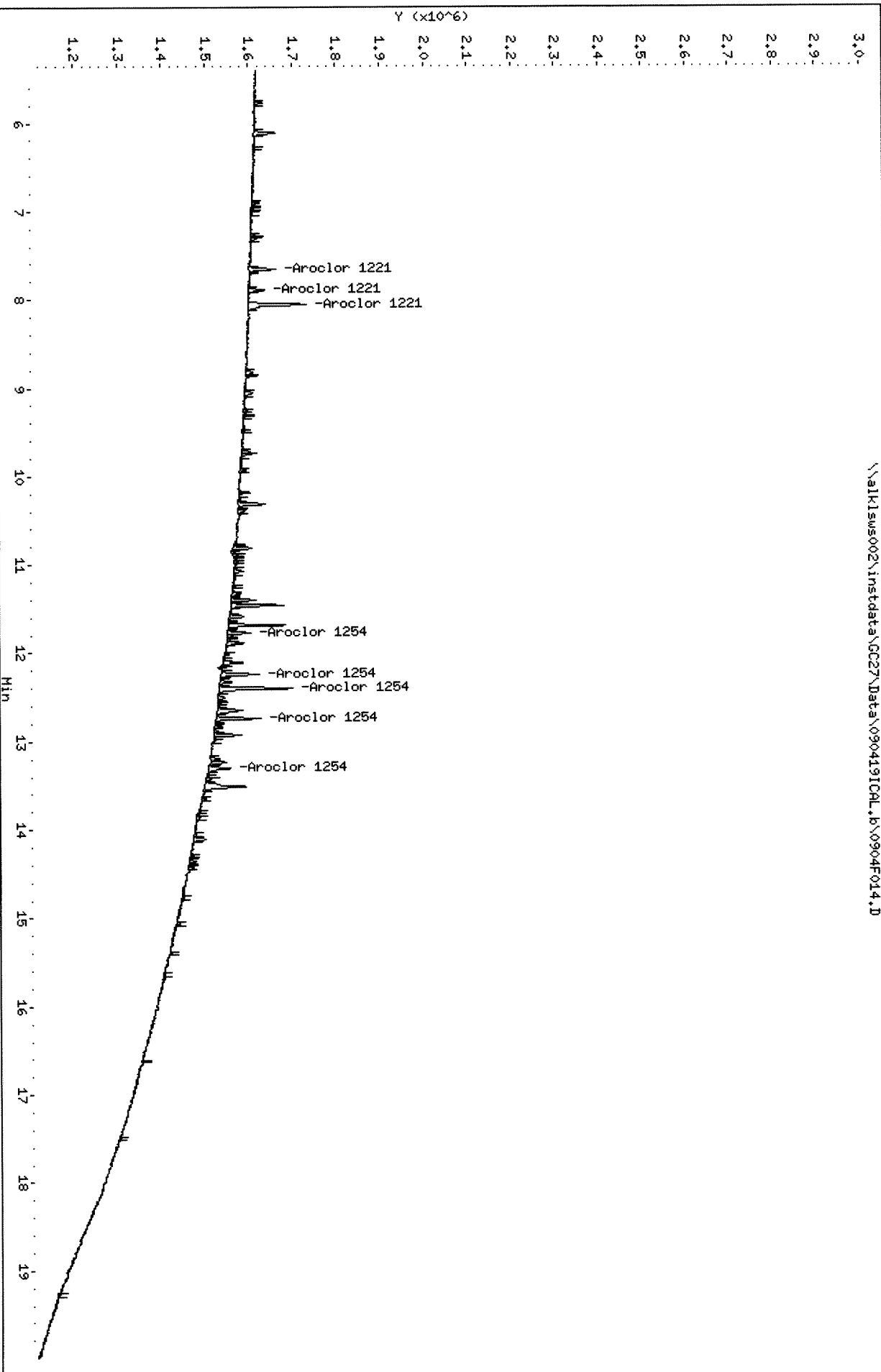
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alk1sws002\instdata\GC27\Data\090419ICAL.b\0904F014.D



Data File: \\alkl1s002\instdata\GC27\Data\090419ICAL_r.b\0904F014.D
Date : 04-SEP-2019 23:17

Client ID:

Sample Info: PCB8-13B 2154 @ 2-4 PBB

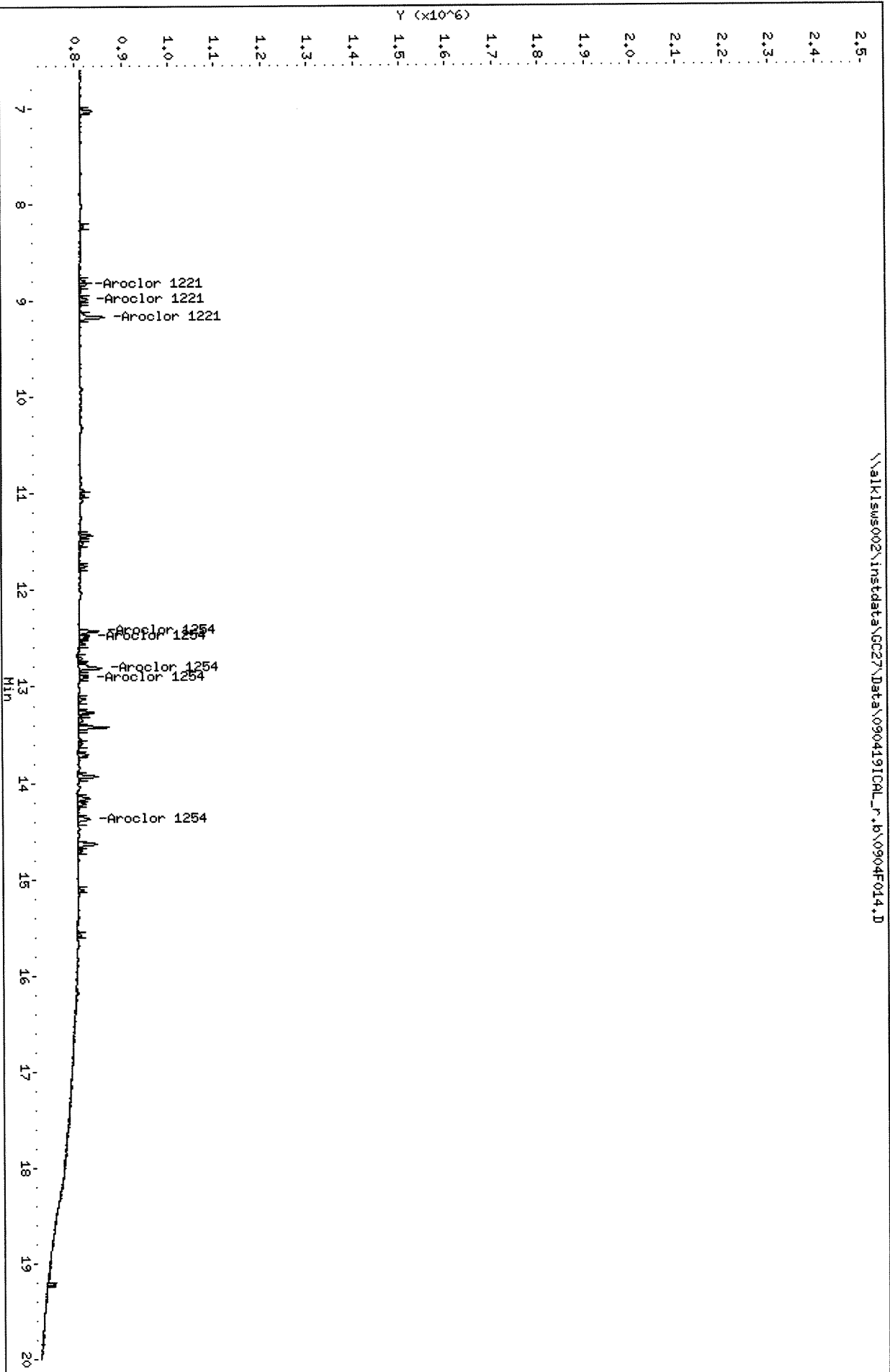
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

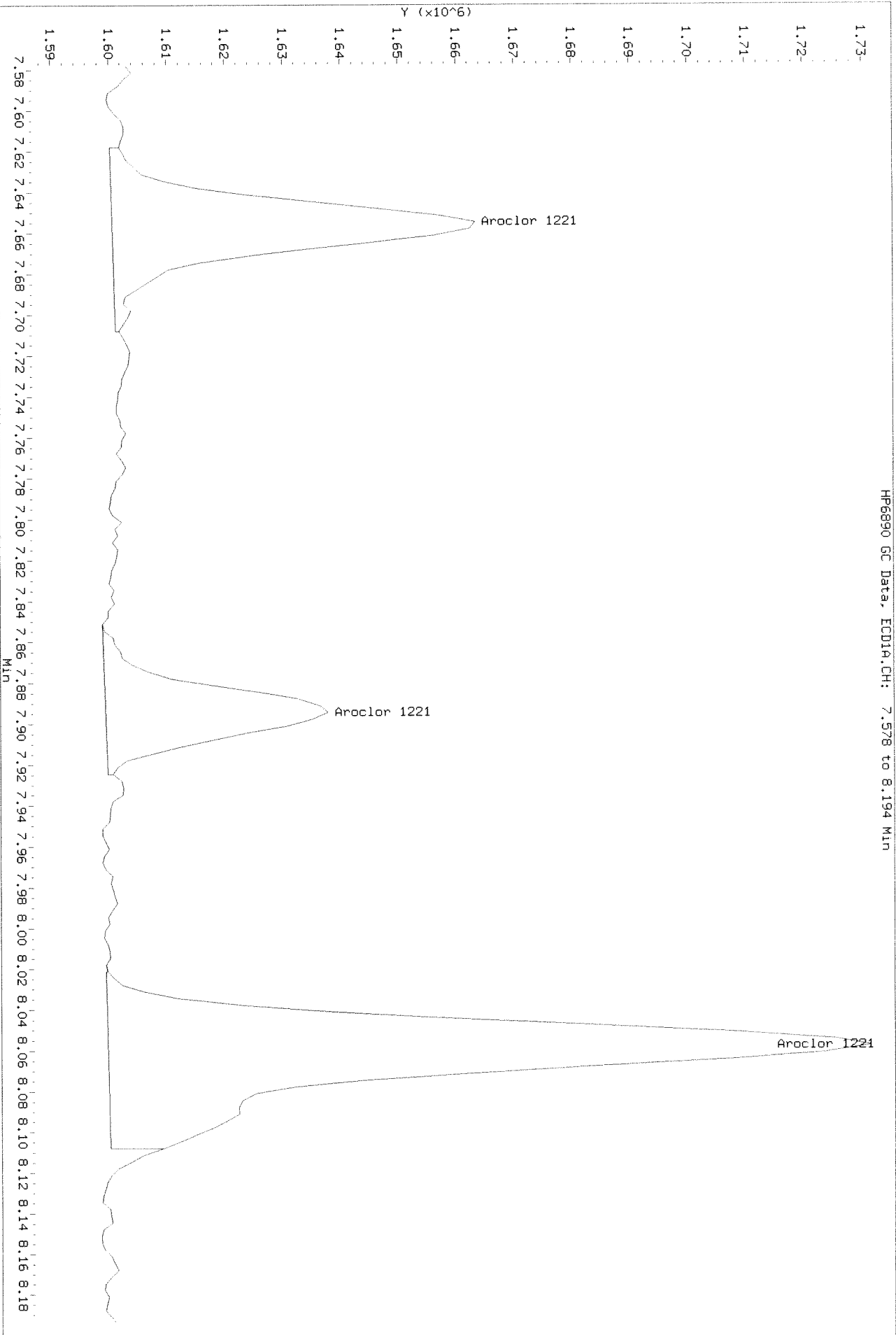
\\alkl1s002\instdata\GC27\Data\090419ICAL_r.b\0904F014.D



Data File: \\alk1sew002\instdata\GC27\Data\090419ICDL.b\0904F014.D
Injection Date: 04-SEP-2019 23:17
Instrument: GC27.1
Client Sample ID:

Before

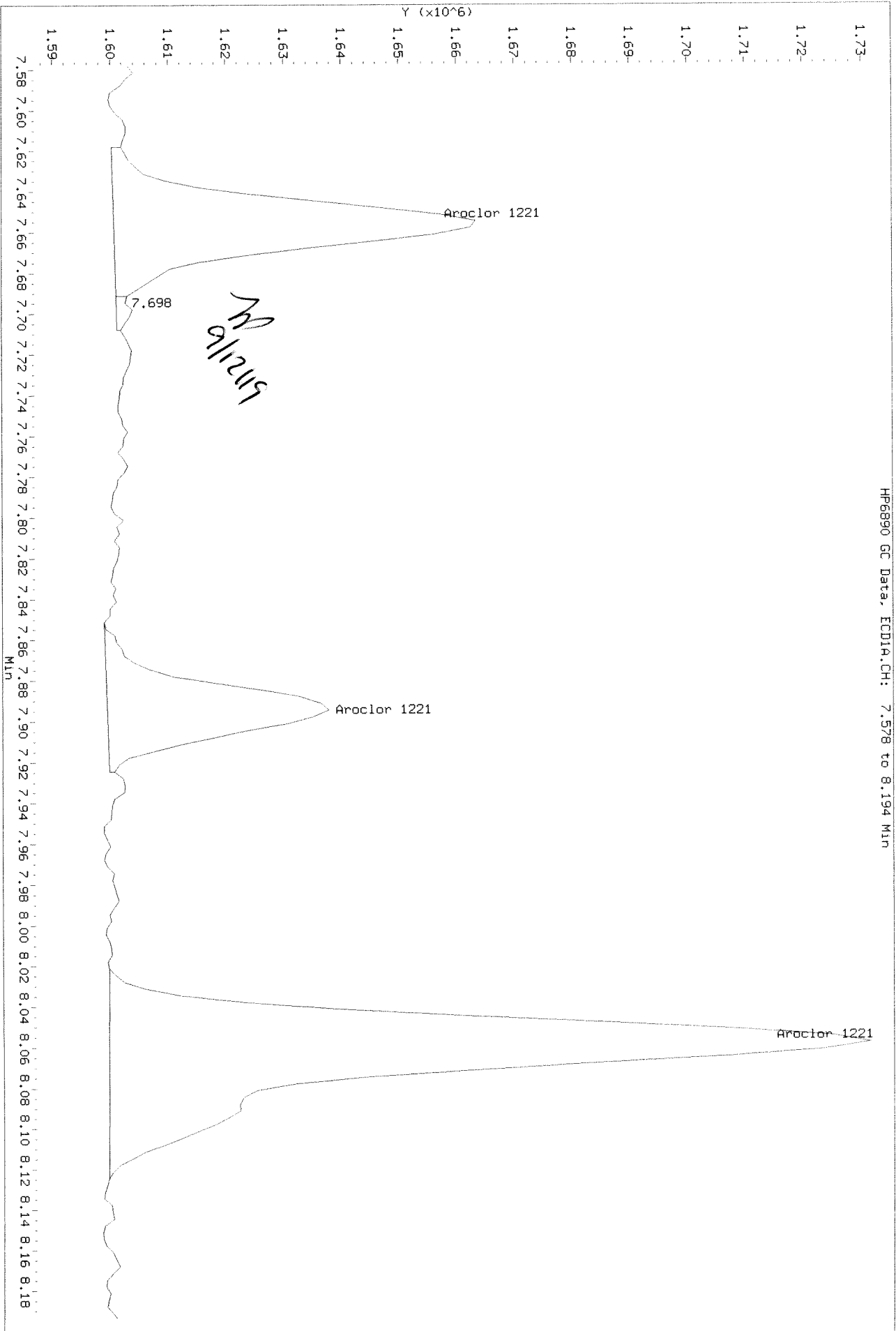
HP6890 GC Data, ECD1A.CH: 7.578 to 8.194 Min



Data File: \\alkjms002\instdata\GC27\Data\090419ICAL.b\0904F014.D
Injection Date: 04-SEP-2019 23:17
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 7.578 to 8.194 Min

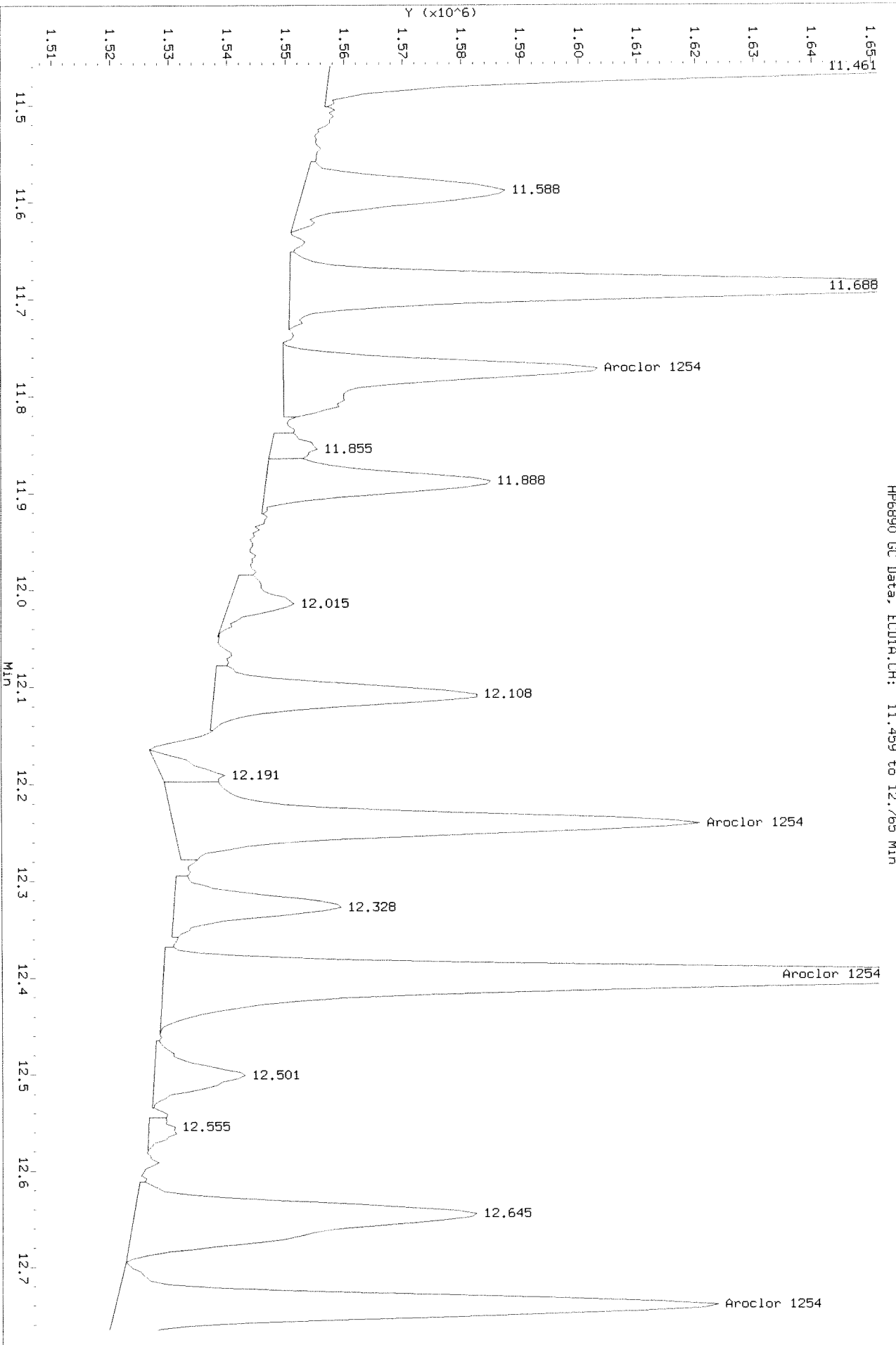
After Gasline/Shoulder 9/11/19 SA



Data File: \\alkjsws002\inst\data\GC27\Data\090419ICL.b\0904F014.D
Injection Date: 04-SEP-2019 23:17
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 11.459 to 12.765 Min

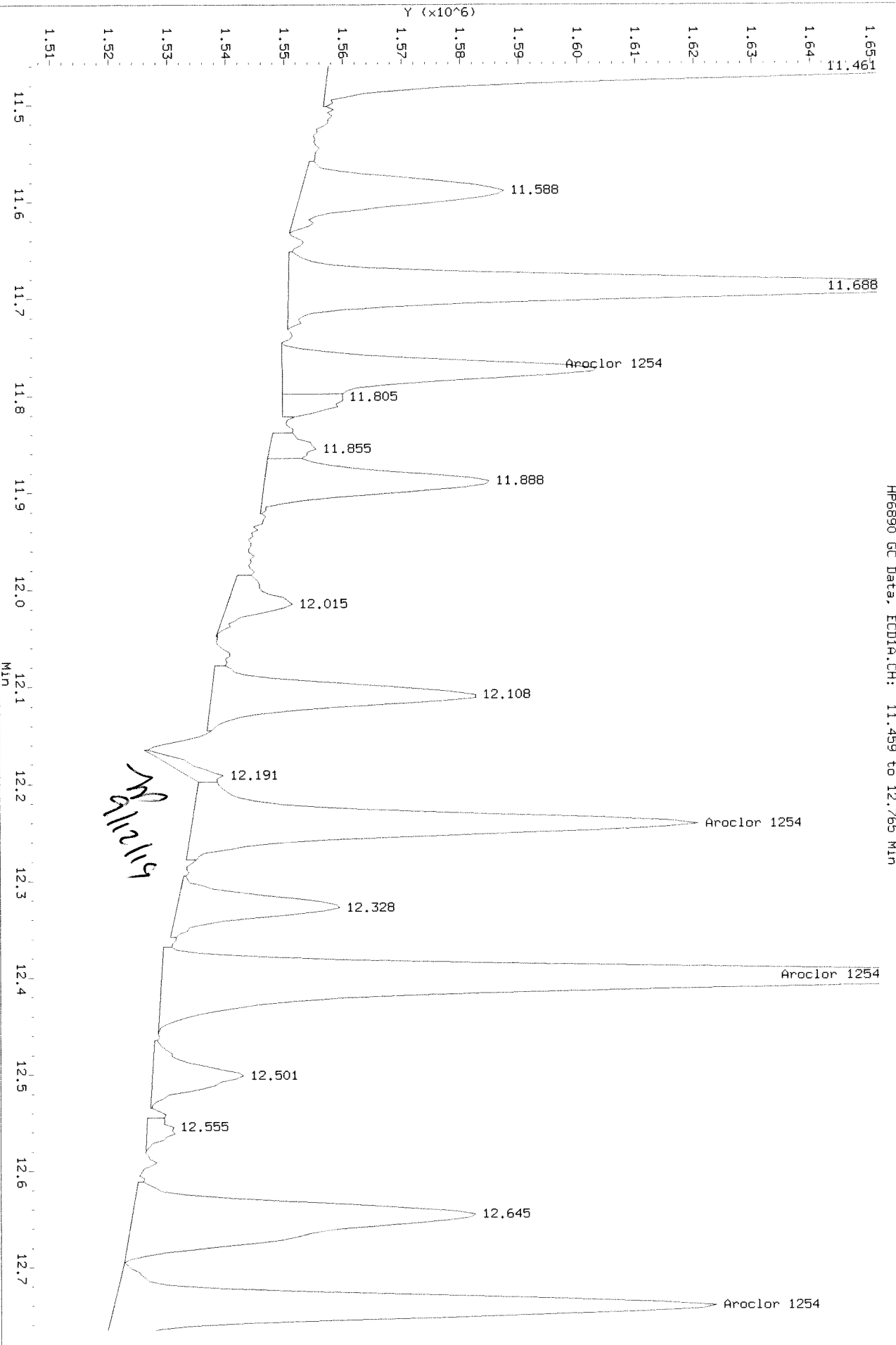
Refer 9/11/19 GA



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F014.D
Injection Date: 04-SEP-2019 23:17
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 11.459 to 12.765 Min

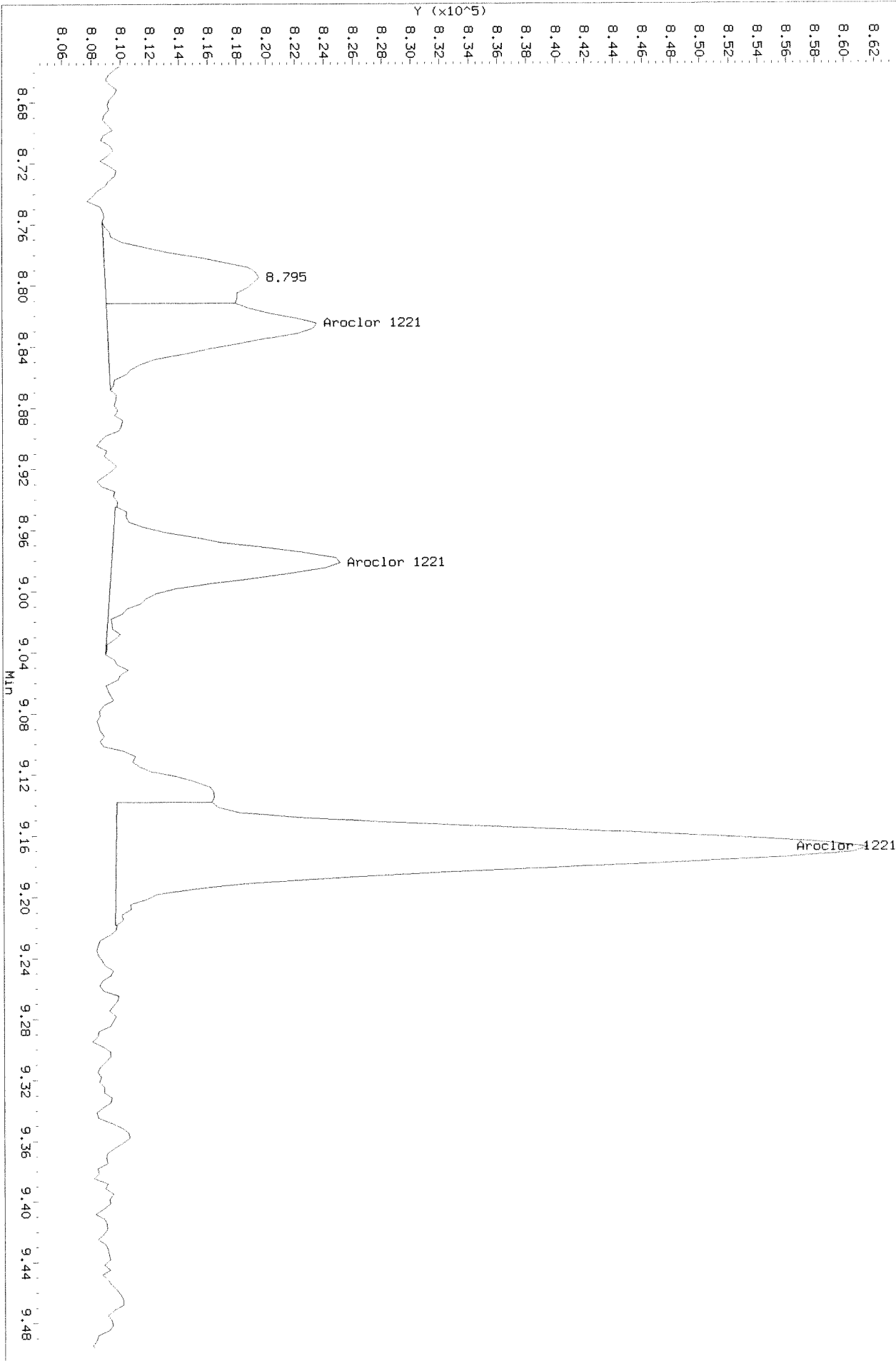
After shoulder 9/11/19



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F014.D
Injection Date: 04-SEP-2019 23:17
Instrument: GC27.1
Client Sample ID:

Before

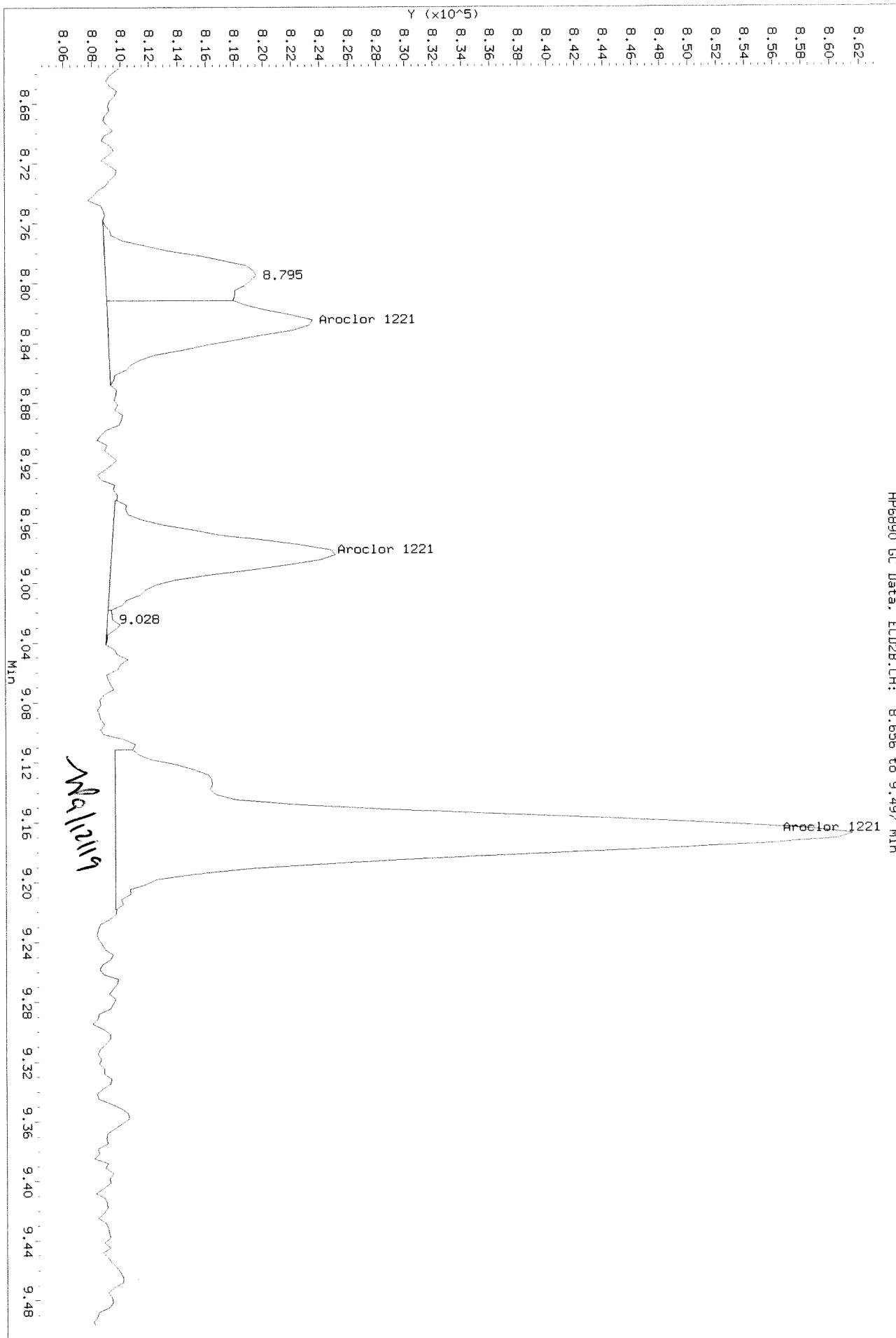
HP6890 GC Data, ECD2B.CH: 8.656 to 9.497 MIN



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F014.D
Injection Date: 04-SEP-2019 23:17
Instrument: GC27.1
Client Sample ID:

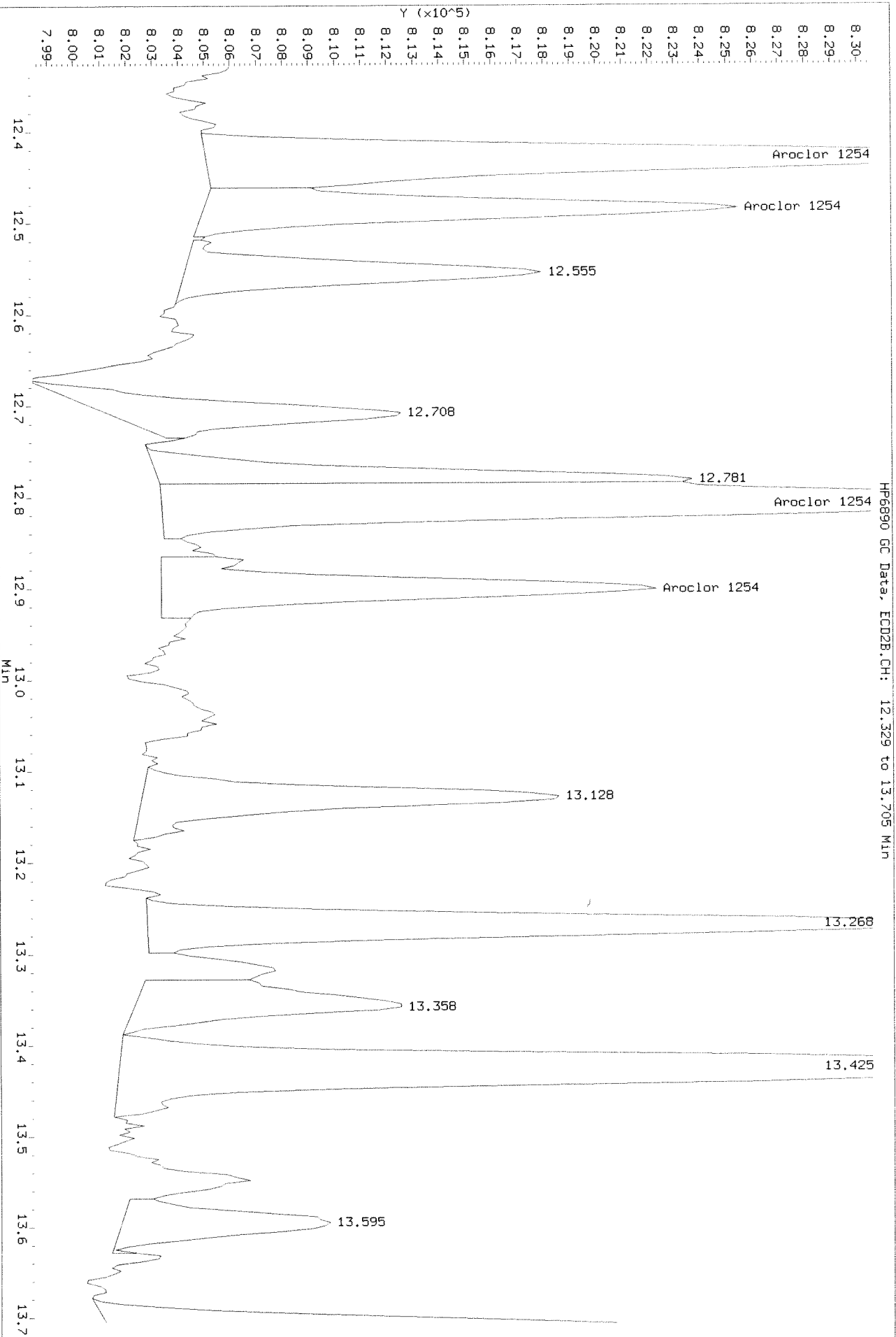
HP6890 GC Data, ECD2B.CH: 8.656 to 9.497 MIN

After base line shoulder 9/11/19 SA



Data File: \\alklsws002\jnetdata\GC27\Data\090419ICAL_r.b\0904F014.D
Injection Date: 04-SEP-2019 23:17
Instrument: GC27.1
Client Sample ID:

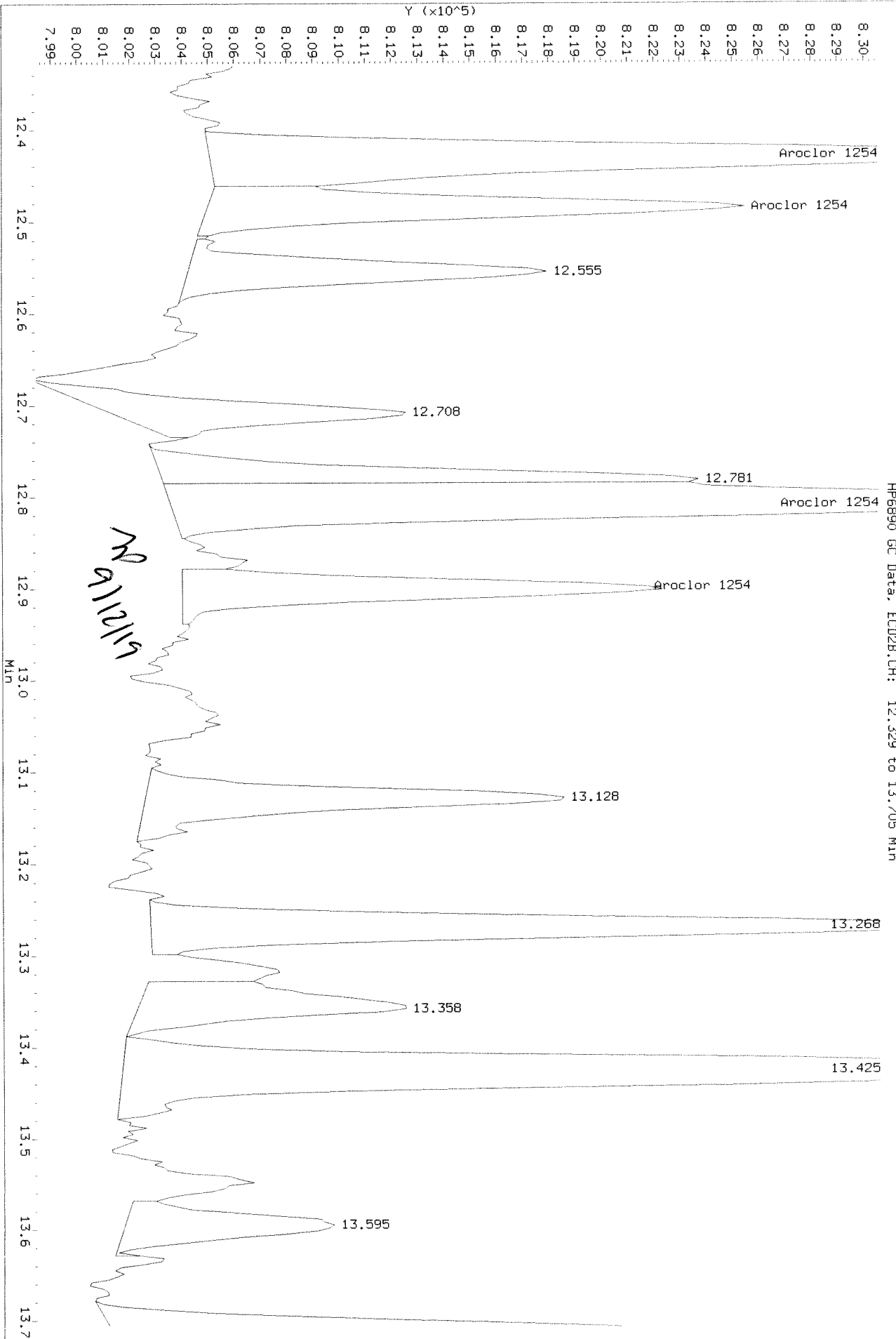
Before



Data File: \\alkisw002\instdata\GC27\Data\090419ICALL_r_b\0904F014.D
Injection Date: 04-SEP-2019 23:17
Instrument: GC27.1
Client Sample ID:

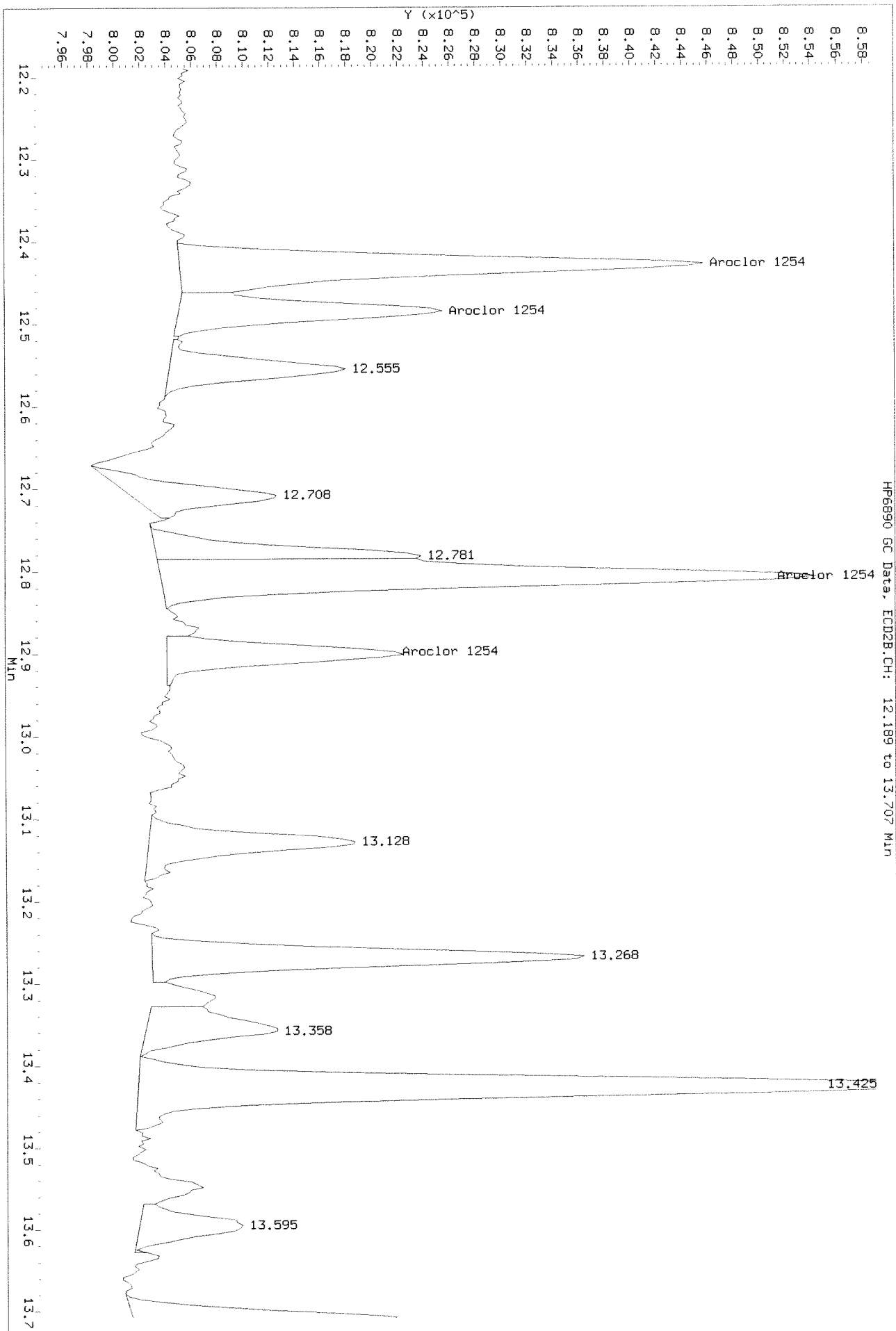
HP6890 GC Data, ECD2B.CH: 12.329 to 13.705 MIN

After shoulder 9/11/19 SA



Data File: \\alklsws002\instdata\GC27\Data\090419ICL-r.b\0904F014.D
Injection Date: 04-SEP-2019 23:17
Instrument: GC27.1
Client Sample ID:

Before



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F015.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F015.D
Inj Date : 04-SEP-2019 23:48
Sample Info: PCB8-13C 2154 @ 5-10 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:37
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : 2154.sub
Sub List #2 : 2154.sub
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1221	7.658	8.824	249026	60415	10.8	9.29	80.00- 120.00	100.00
	7.894	8.981	147882	65463	10.1	10.1	50.93- 76.39	59.38
	8.058	9.168	577373	253591	10.5	10.2	190.33- 285.49	231.85
	Average of Peak Amounts =				10.5	9.86		
Aroclor 1254	11.774	12.428	183207	170987	5.07	5.29	80.00- 120.00	100.00 (M)
	12.241	12.484	320540	84384	5.13	4.97	137.86- 206.79	174.96 (M)
	12.401	12.808	640312	260656	5.19	5.28	268.82- 403.23	349.50 (M)
	12.741	12.901	377788	74408	5.18	4.84	164.76- 247.13	206.21 (M)
	13.301	14.374	243150	125921	5.33	5.19	106.40- 159.60	132.72 (M)
	Average of Peak Amounts =				5.18	5.11		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
W

Data File: \\alklsws002\instdata\GC27\Data\090419ICRL.b\0904F015.D

Date : 04-SEP-2019 23:48

Client ID:

Sample Info: PCB8-13C 2154 @ 5-10 PPB

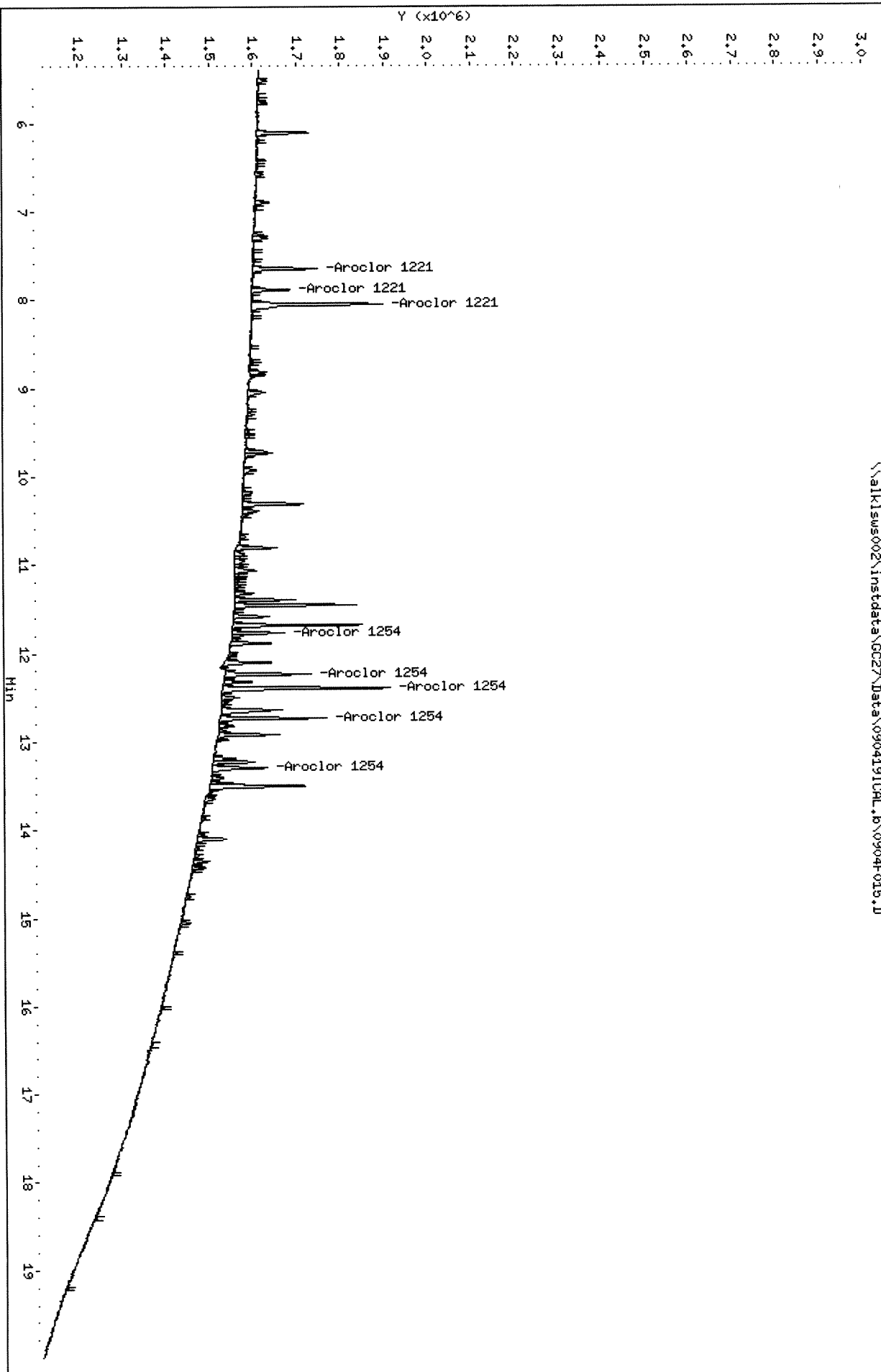
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alklsws002\instdata\GC27\Data\090419ICRL.b\0904F015.D



Data File: \\alkisus002\inst\data\GC27\Data\090419ICAL_r.b\0904F015.D

Date: 04-SEP-2019 23:48

Client ID:

Sample Info: PCB8-13C 2154 @ 5-10 PPB

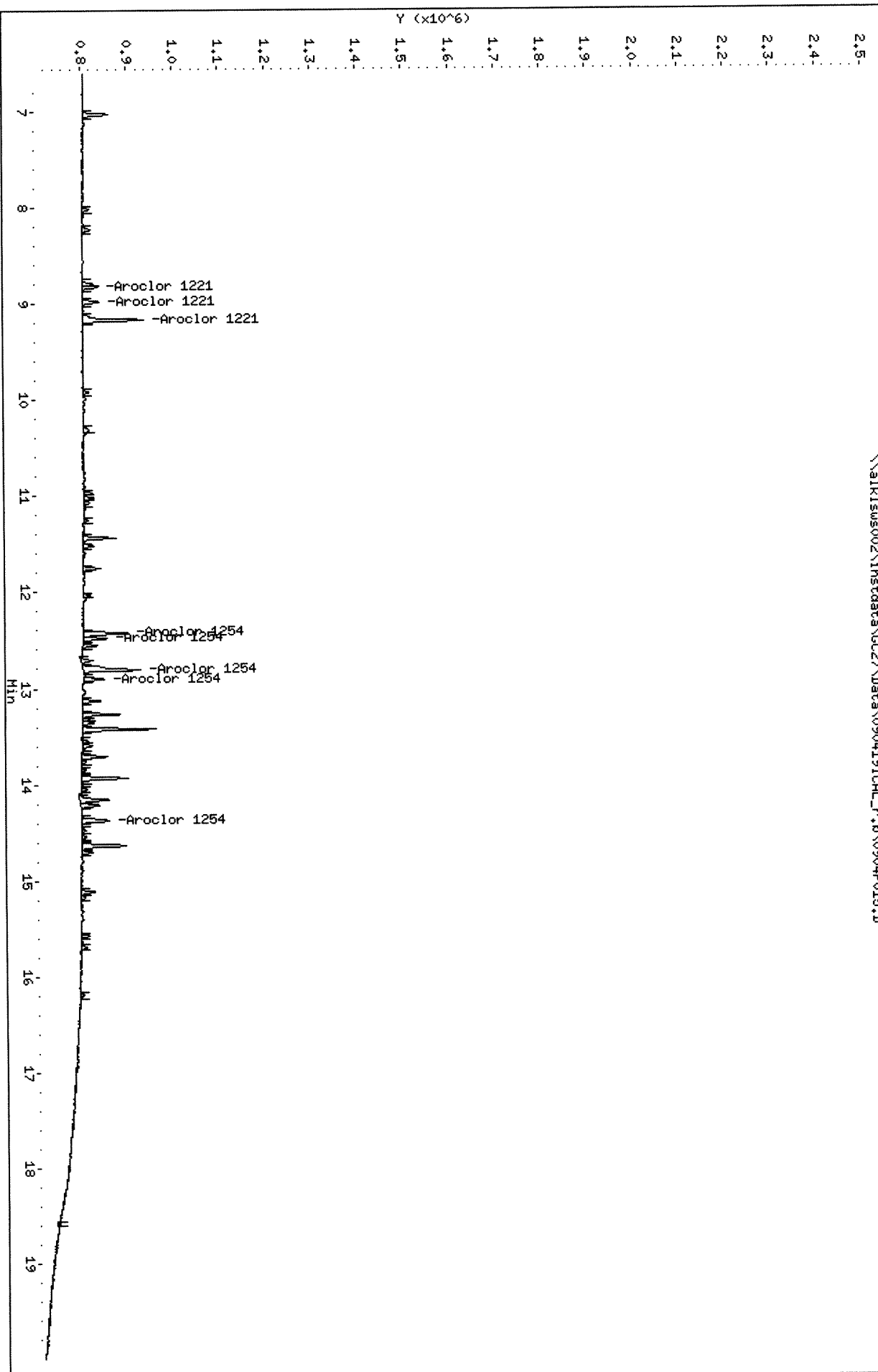
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

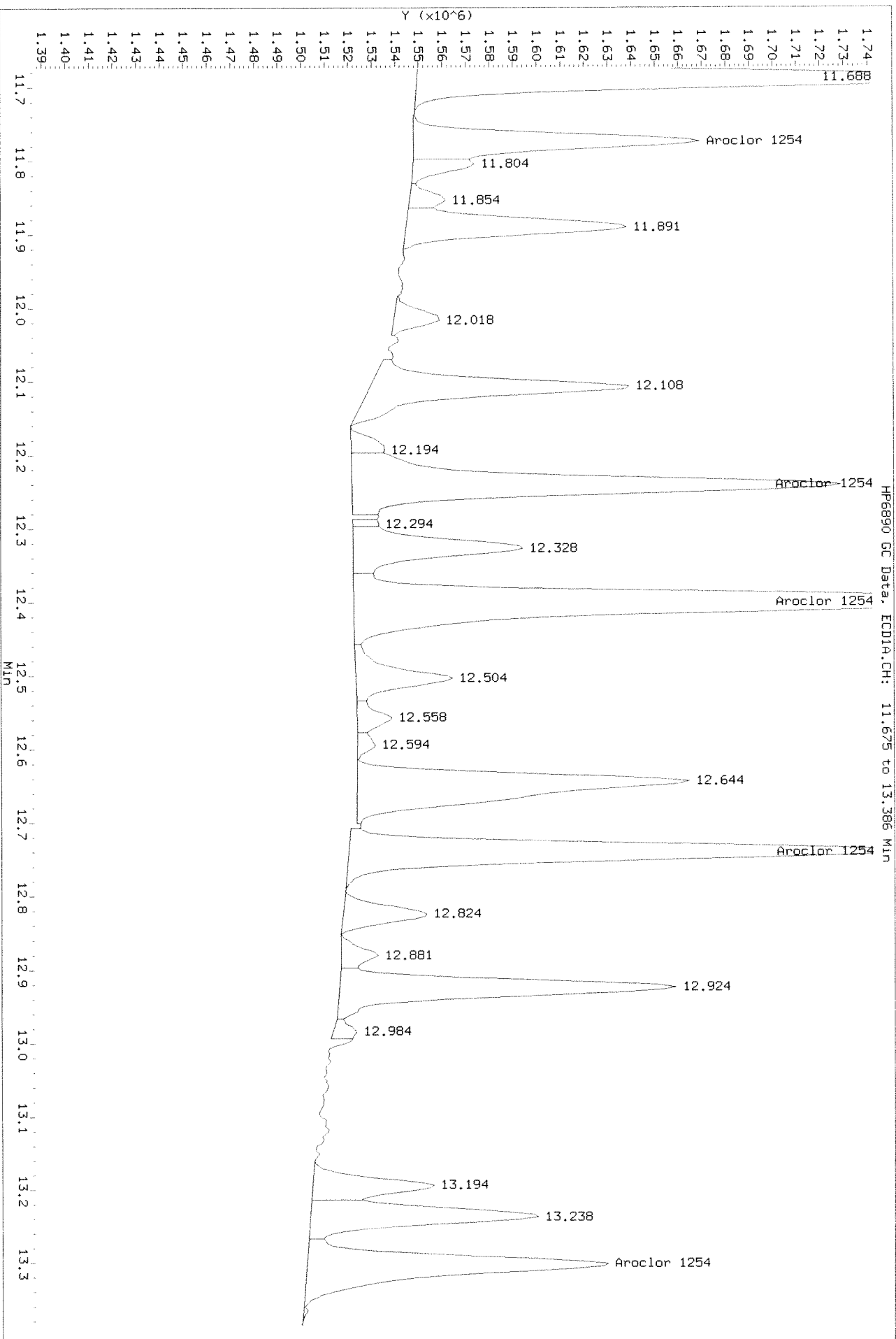
Column diameter: 0.32

\\alkisus002\inst\data\GC27\Data\090419ICAL_r.b\0904F015.D



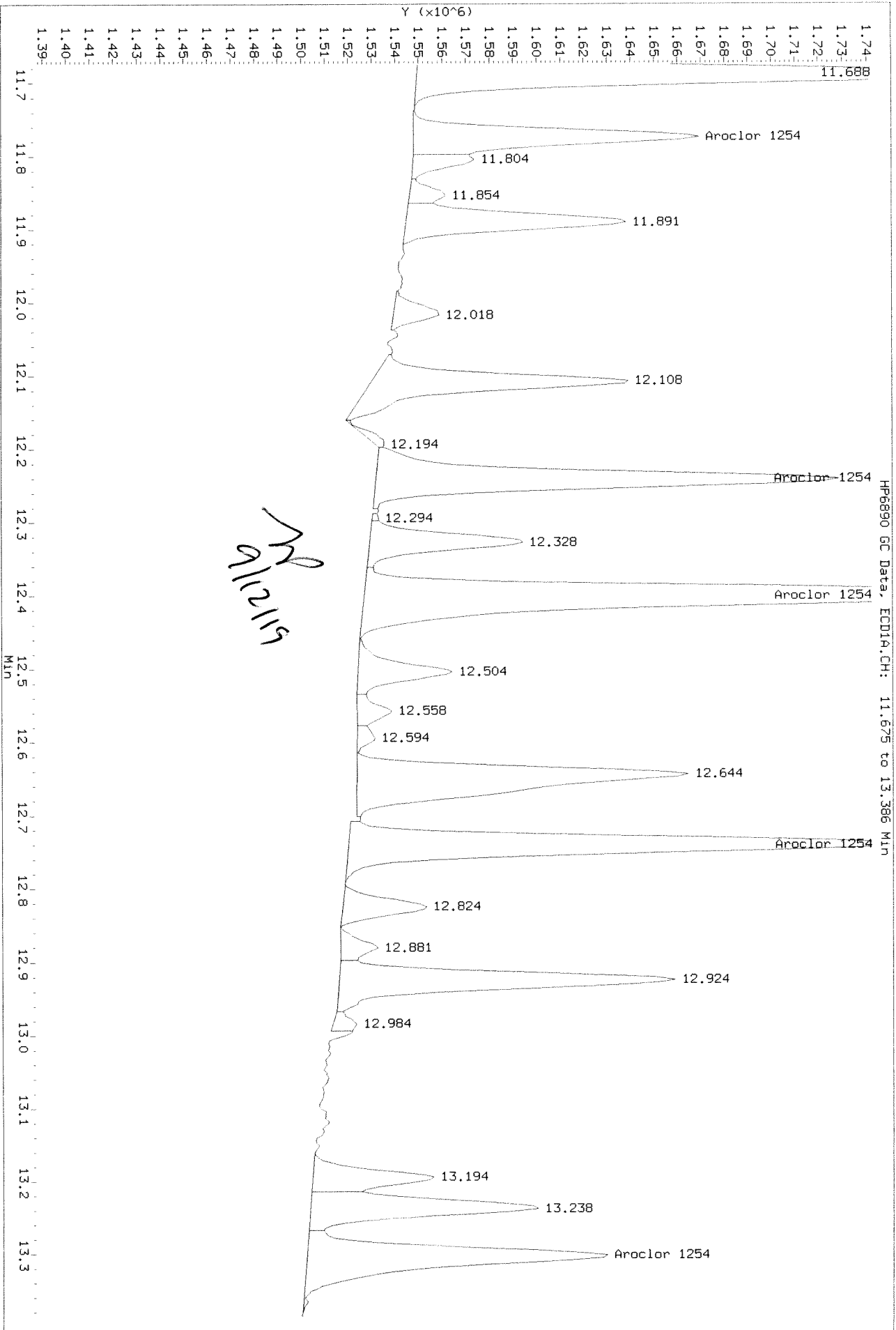
Data File: \\alklms002\instdata\GC27\Data\090419ICAL.P\0904F015.D
Injection Date: 04-SEP-2019 23:48
Instrument: GC27.1
Client Sample ID:

Before



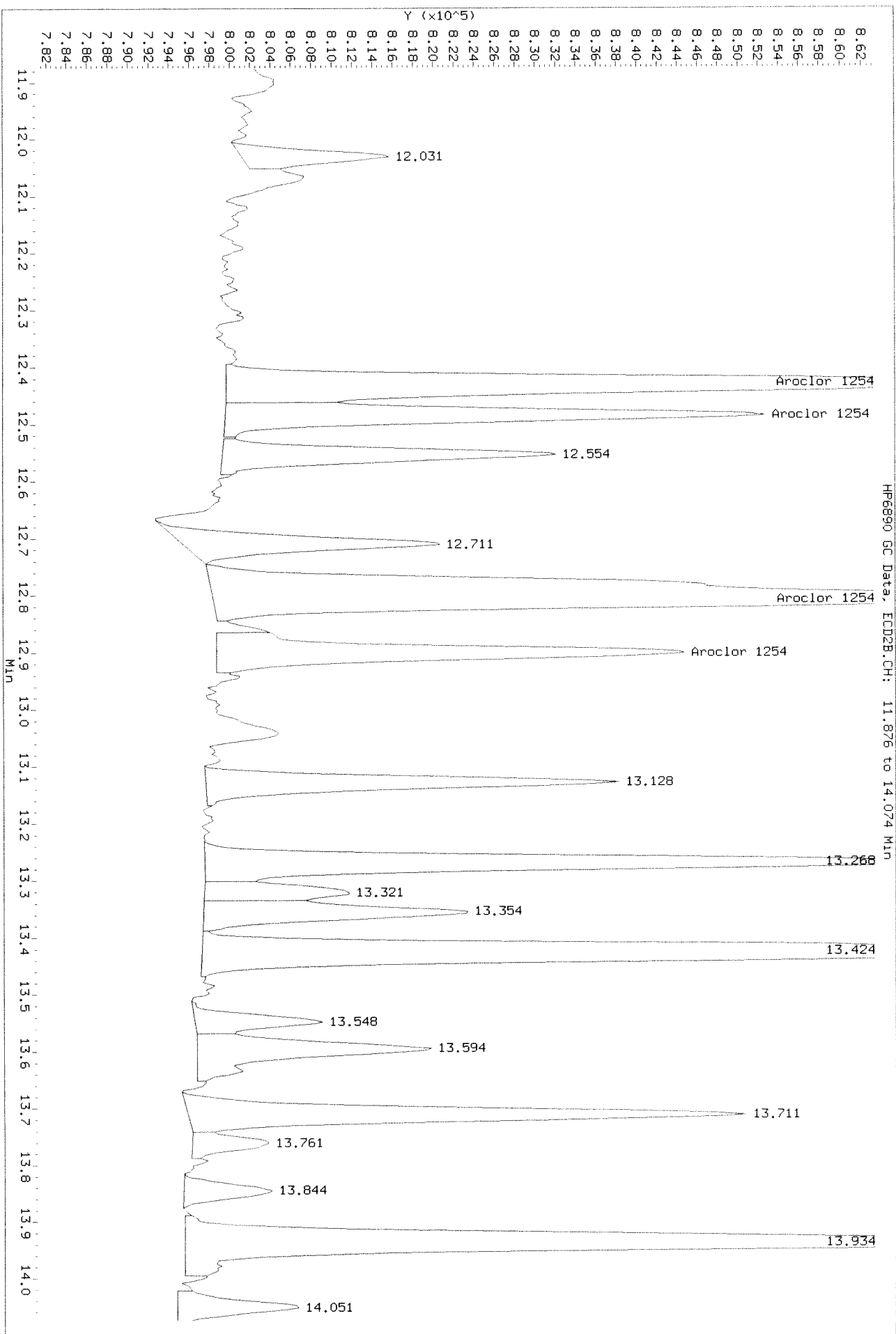
Data File: \\alkisw002\instdata\GC27\Data\090419ICAL.b\0904F015.D
Injection Date: 04-SEP-2019 23:48
Instrument: GC27.1
Client Sample ID:

After base line 9/11/19 A



Data File: \\alkisw002\instdata\GC27\Data\090419ICL_r.b\0904F015.D
Injection Date: 04-SEP-2019 23:48
Instrument: GC27.1
Client Sample ID:

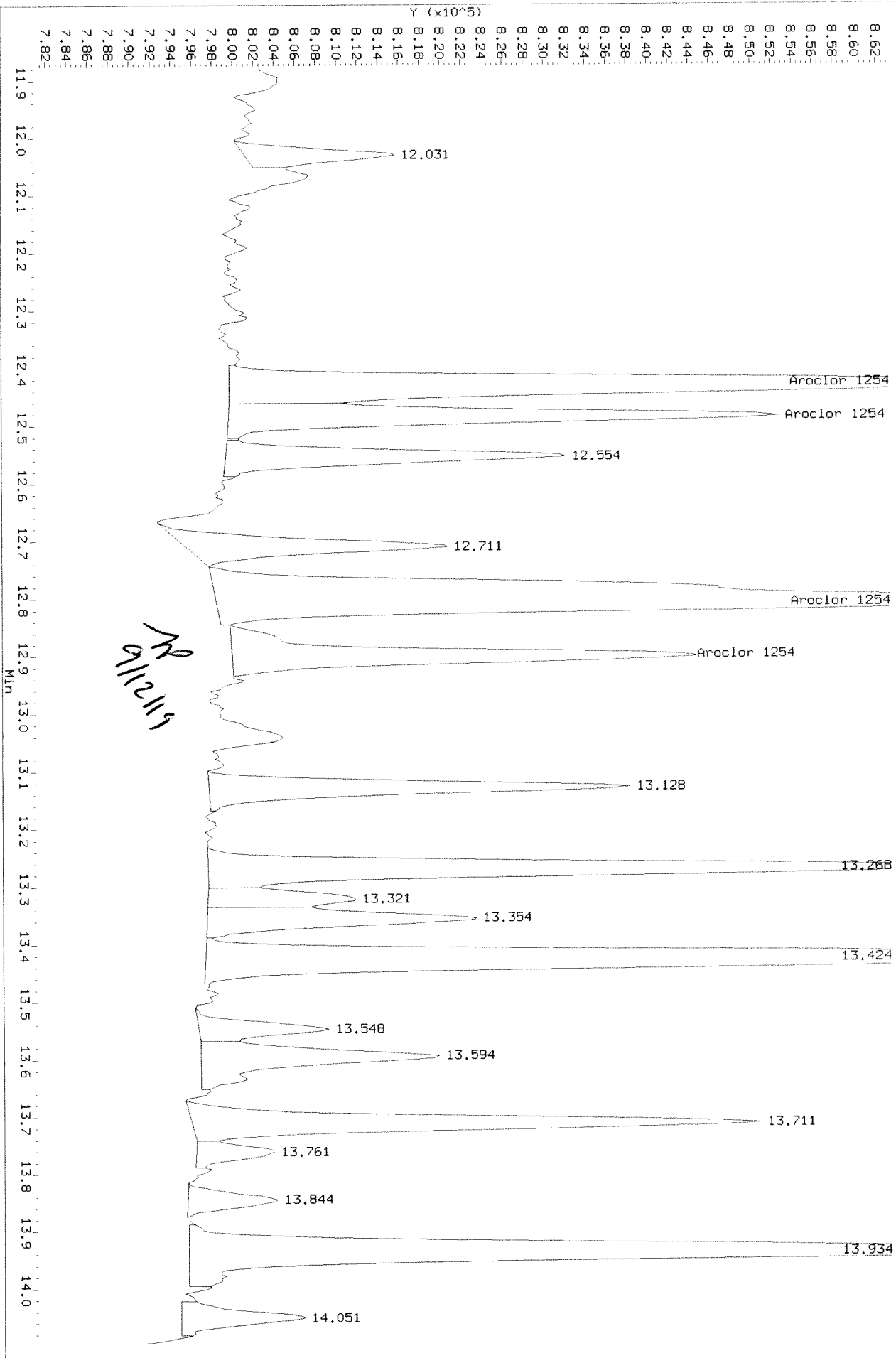
Before



Data File: \\alk1swe002\inetdata\GC27\Data\090419ICAL_r.b\0904F015.D
Injection Date: 04-SEP-2019 23:48
Instrument: GC27.1
Client Sample ID:

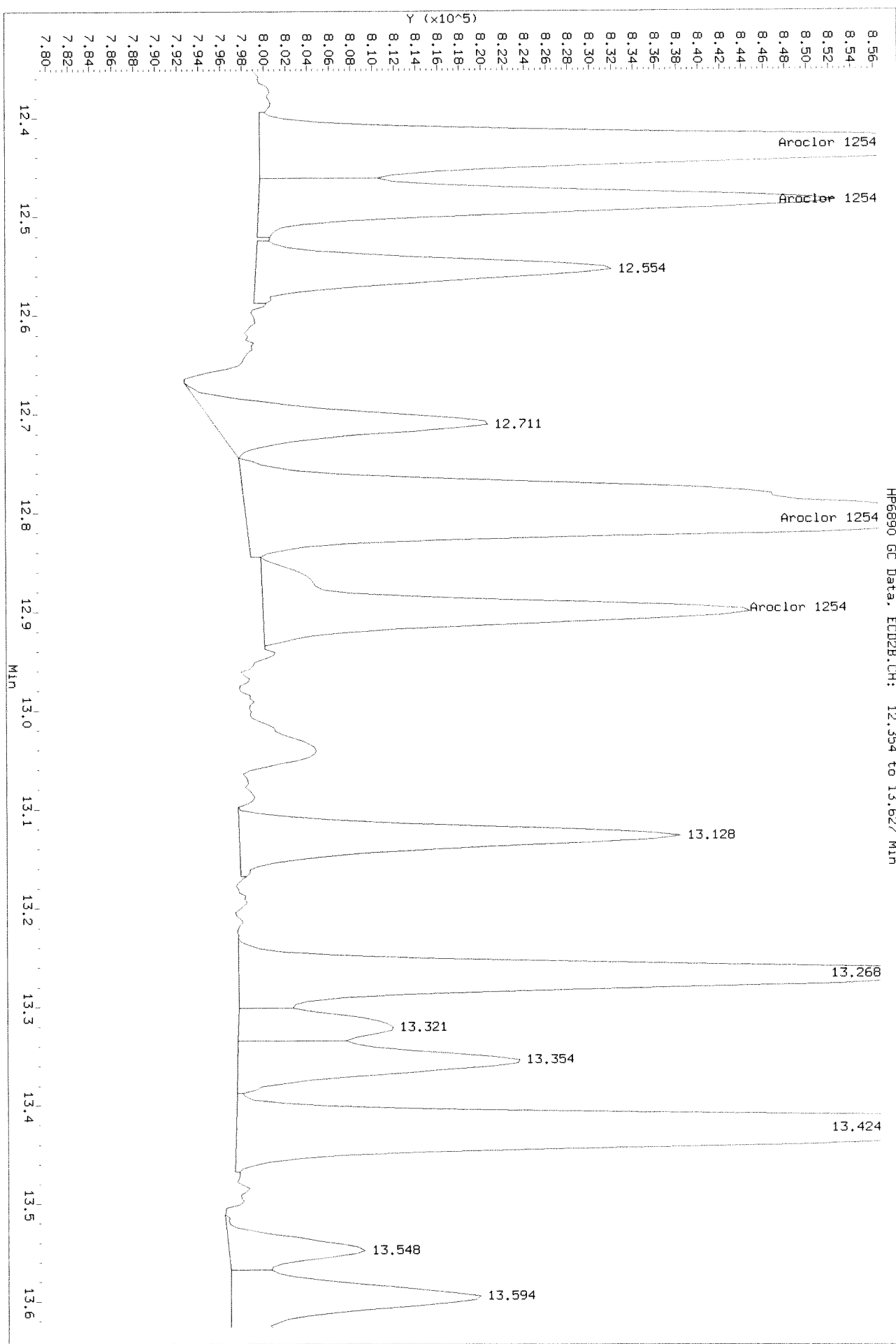
HP6890 GC Data, ECD2B.CH: 11.877 to 14.095 MIN

After baseline 9/11/19 SA



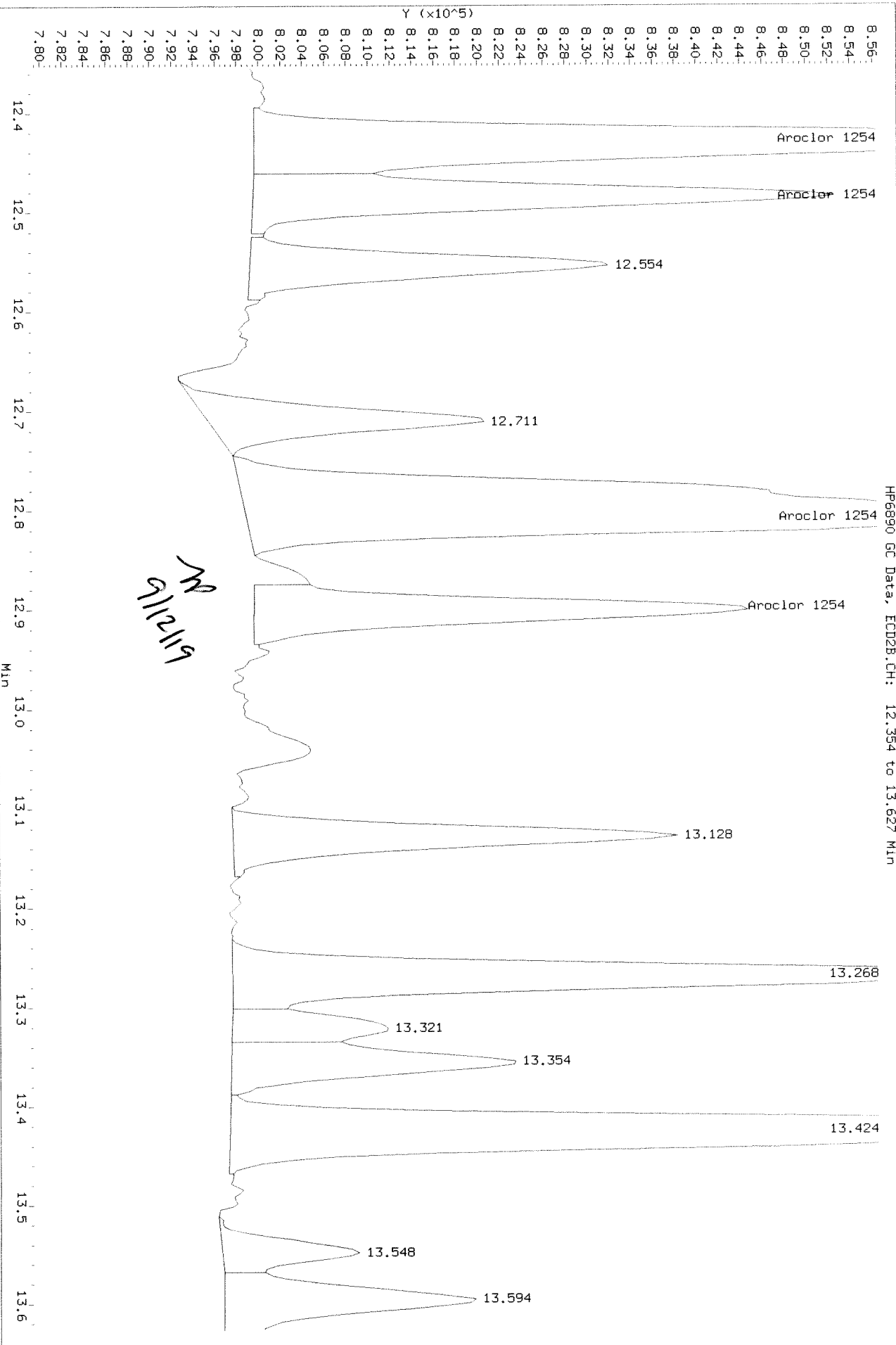
Data File: \\alklsws002\instdata\GC27\Data\090419ICALL_r.b\0904F015.D
Injection Date: 04-SEP-2019 23:48
Instrument: GC27.1
Client Sample ID:

Before



Data File: \\alklsws002\instdata\GC27\Data\090419ICL-r.b\0904F015.D
Injection Date: 04-SEP-2019 23:48
Instrument: GC27.1
Client Sample ID:

After Shoulder 9/11/19 A



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F016.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F016.D
Inj Date : 05-SEP-2019 00:20
Sample Info: PCB8-13D 2154 @ 10-20 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:37
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : 2154.sub
Sub List #2 : 2154.sub
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1221	7.657	8.824	490382	136448	21.3	21.0	80.00- 120.00	100.00
	7.894	8.981	309183	136520	21.1	21.2	50.93- 76.39	63.05
	8.057	9.168	1169089	560156	21.4	22.5	190.33- 285.49	238.40
	Average of Peak Amounts =				21.3	21.6		
Aroclor 1254	11.774	12.428	396281	372091	11.0	11.5	80.00- 120.00	100.00 (M)
	12.241	12.484	671346	195936	10.7	11.5	137.86- 206.79	169.41 (M)
	12.397	12.808	1334279	568132	10.8	11.5	268.82- 403.23	336.70 (M)
	12.741	12.901	807284	172519	11.1	11.2	164.76- 247.13	203.72 (M)
	13.304	14.374	503361	276693	11.0	11.4	106.40- 159.60	127.02 (M)
	Average of Peak Amounts =				10.9	11.4		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
W

Data File: \\a1k1sws002\instdata\GC27\Data\090419ICL.b\0904F016.D

Date : 05-SEP-2019 00:20

Client ID:

Sample Info: PCB8-13D 2154 @ 10-20 PPB

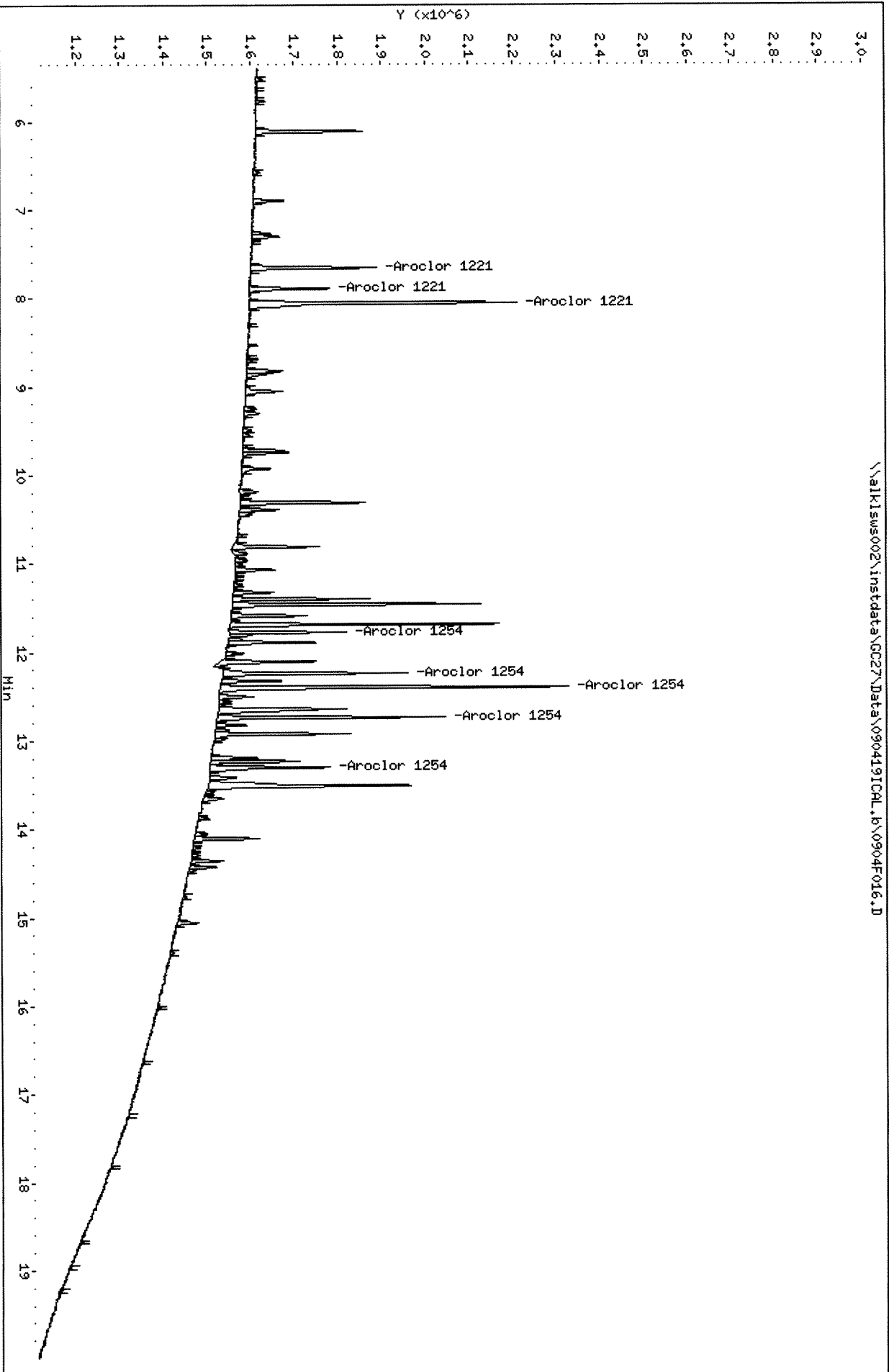
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\a1k1sws002\instdata\GC27\Data\090419ICL.b\0904F016.D



Data File: \\aik1s002\instdata\GC27\Data\090419ICL_R.b\0904F016.D
Date: 05-SEP-2019 00:20

Client ID:

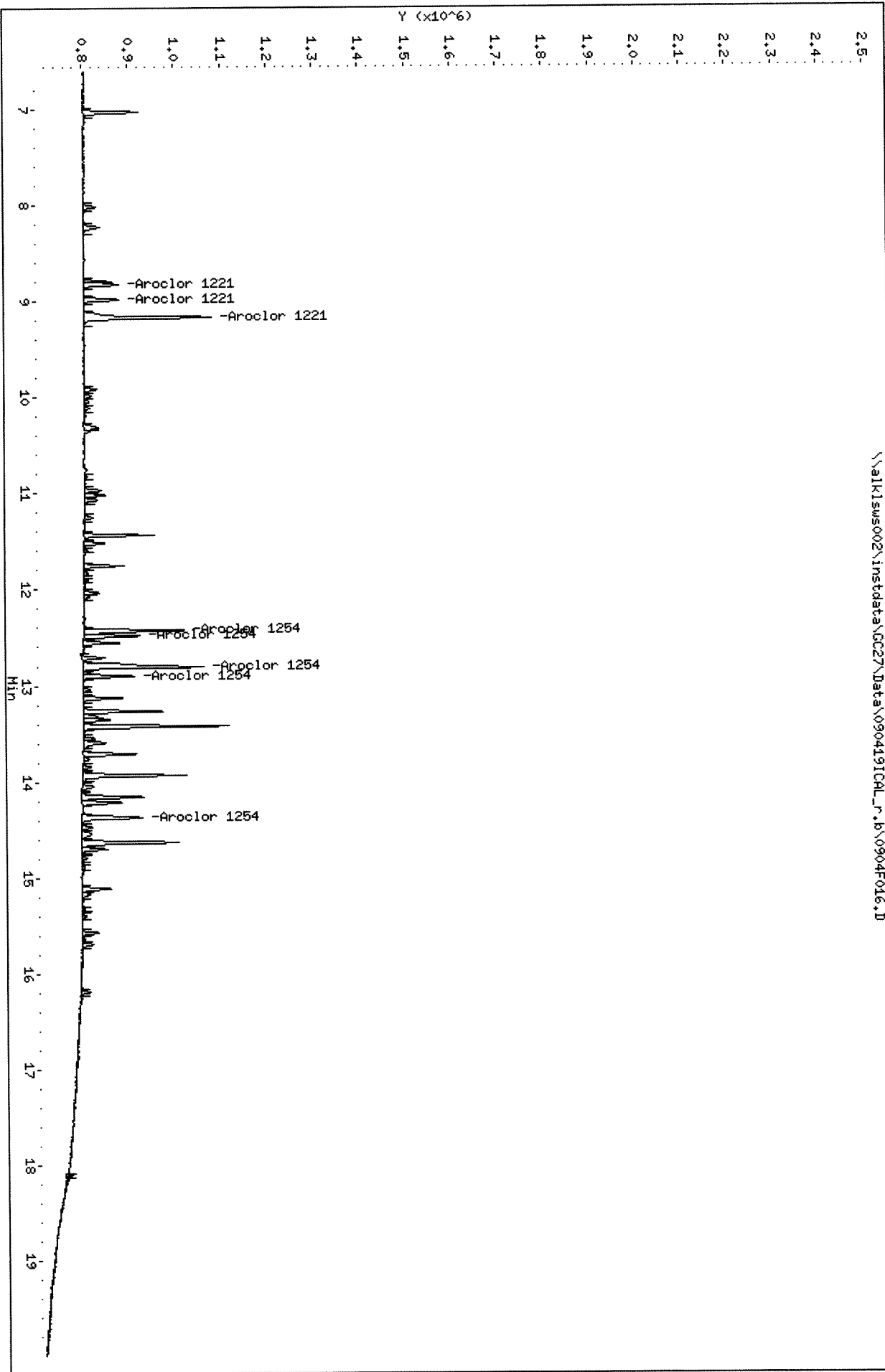
Sample Info: PCB8-13D 2154 @ 10-20 PPB

Column phase: DB-XLB

Instrument: GC27.i

Operator: SAH
Column diameter: 0.32

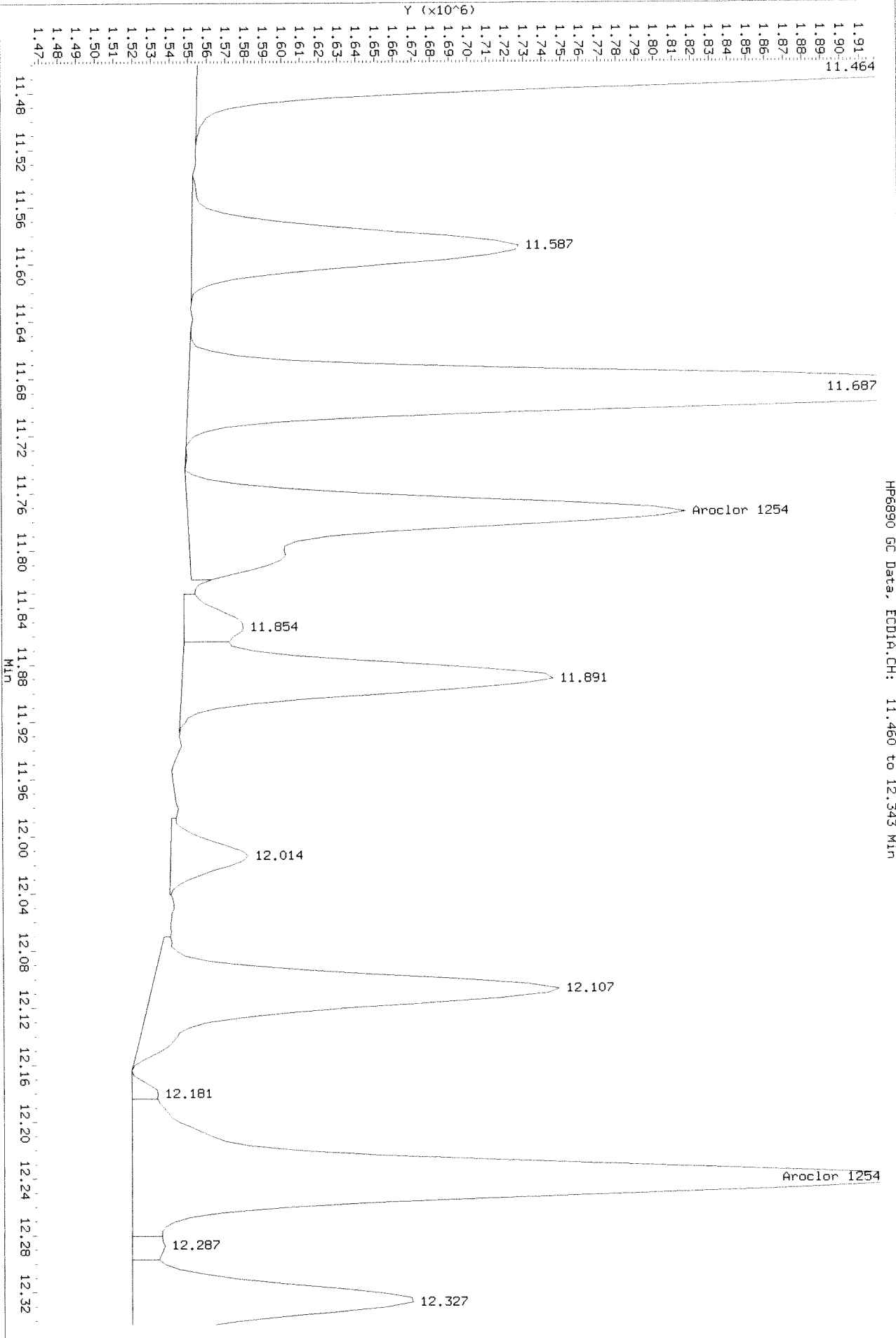
\\aik1s002\instdata\GC27\Data\090419ICL_R.b\0904F016.D



Data File: \\alklms002\instdata\GC27\Data\090419ICAL.P\0904F016.D
Injection Date: 05-SEP-2019 00:20
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 11.460 to 12.343 MIN

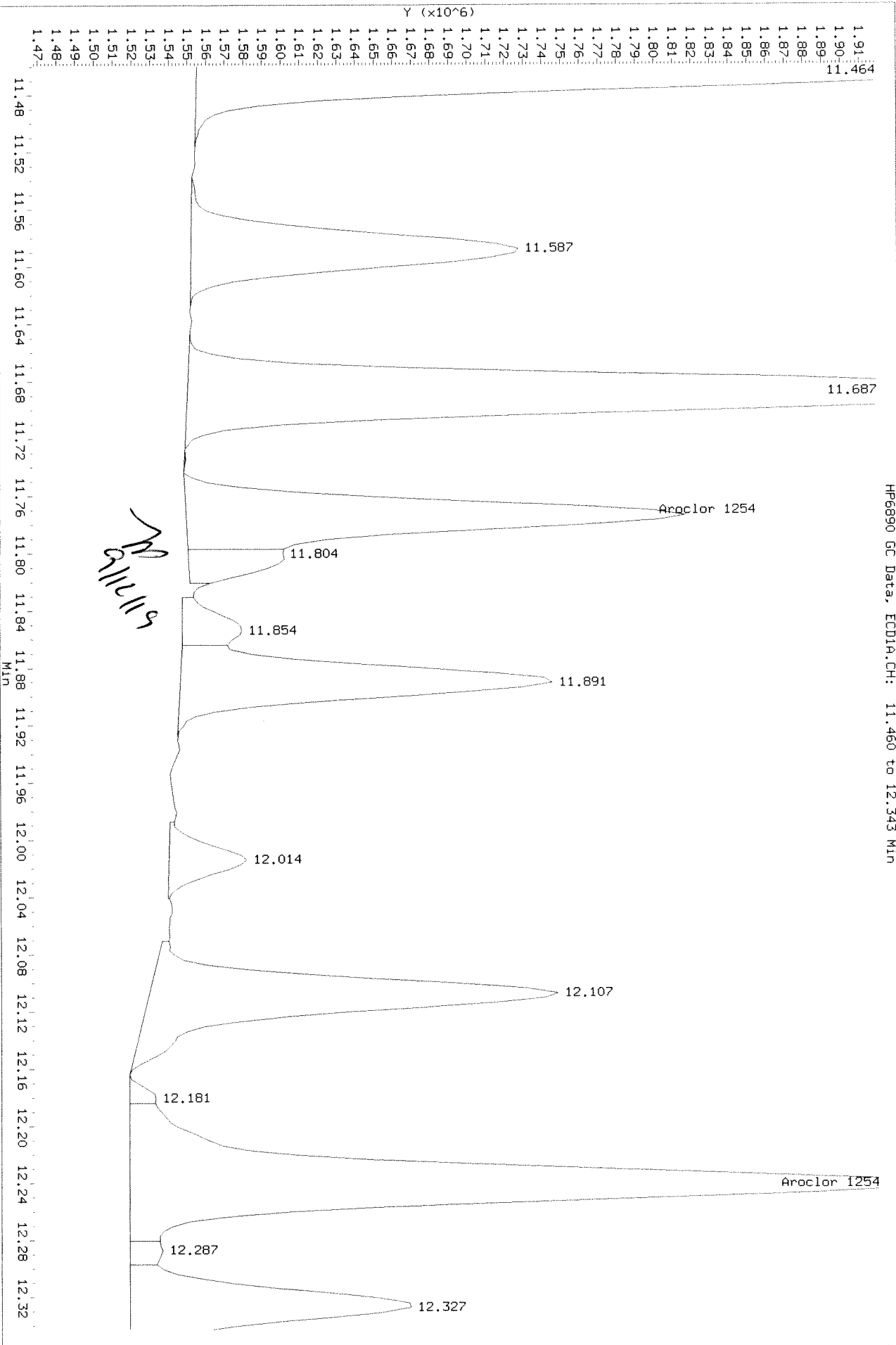
De fare 9/11/19 SA



Data File: \\alklsws002\inetdata\GC27\Data\090419ICDL.b\0904F016.D
Injection Date: 05-SEP-2019 00:20
Instrument: GC27.1
Client Sample ID:

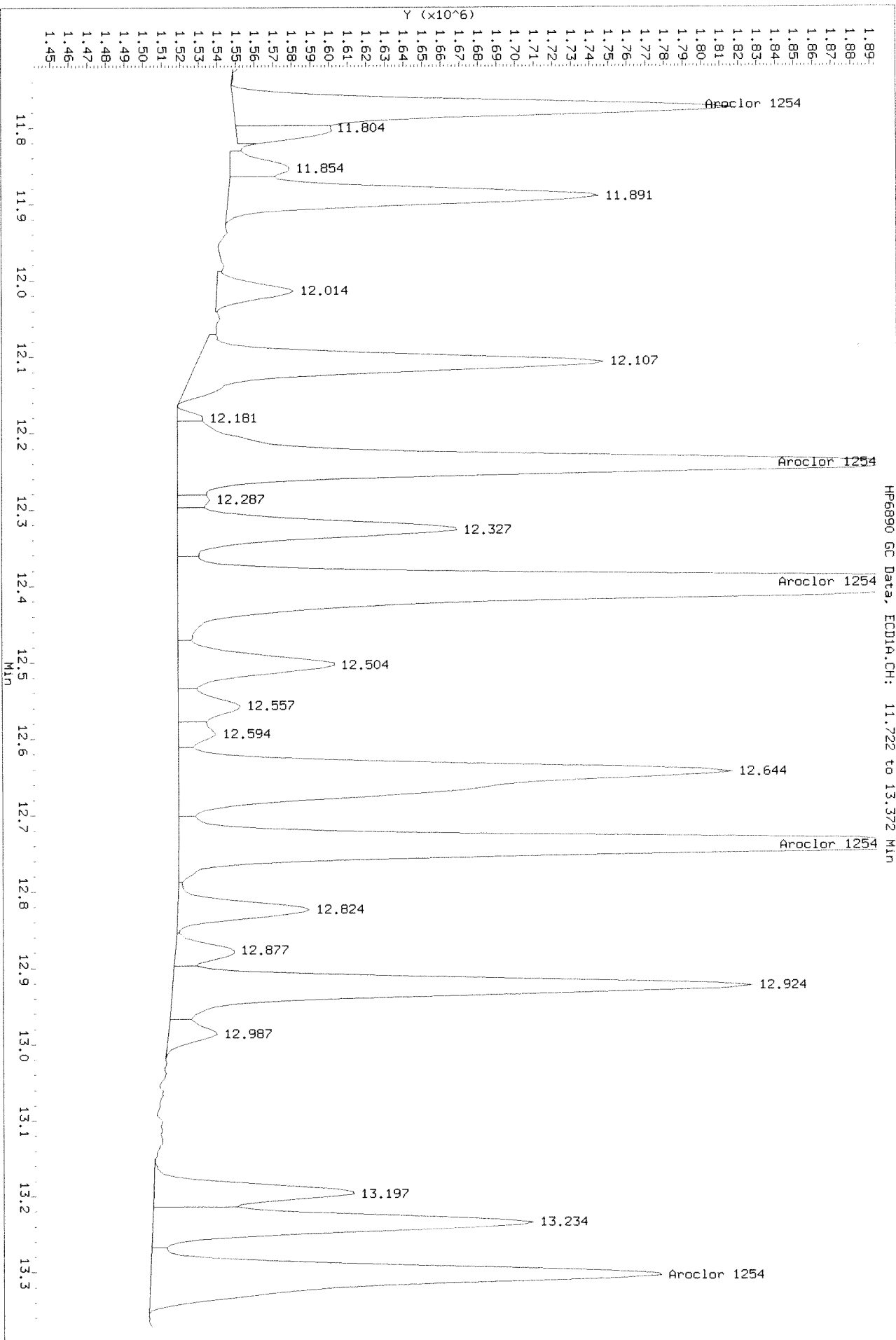
HP6890 GC Data, ECD1A.CH: 11.460 to 12.343 MIN

After Shaker 9/11/19 SA



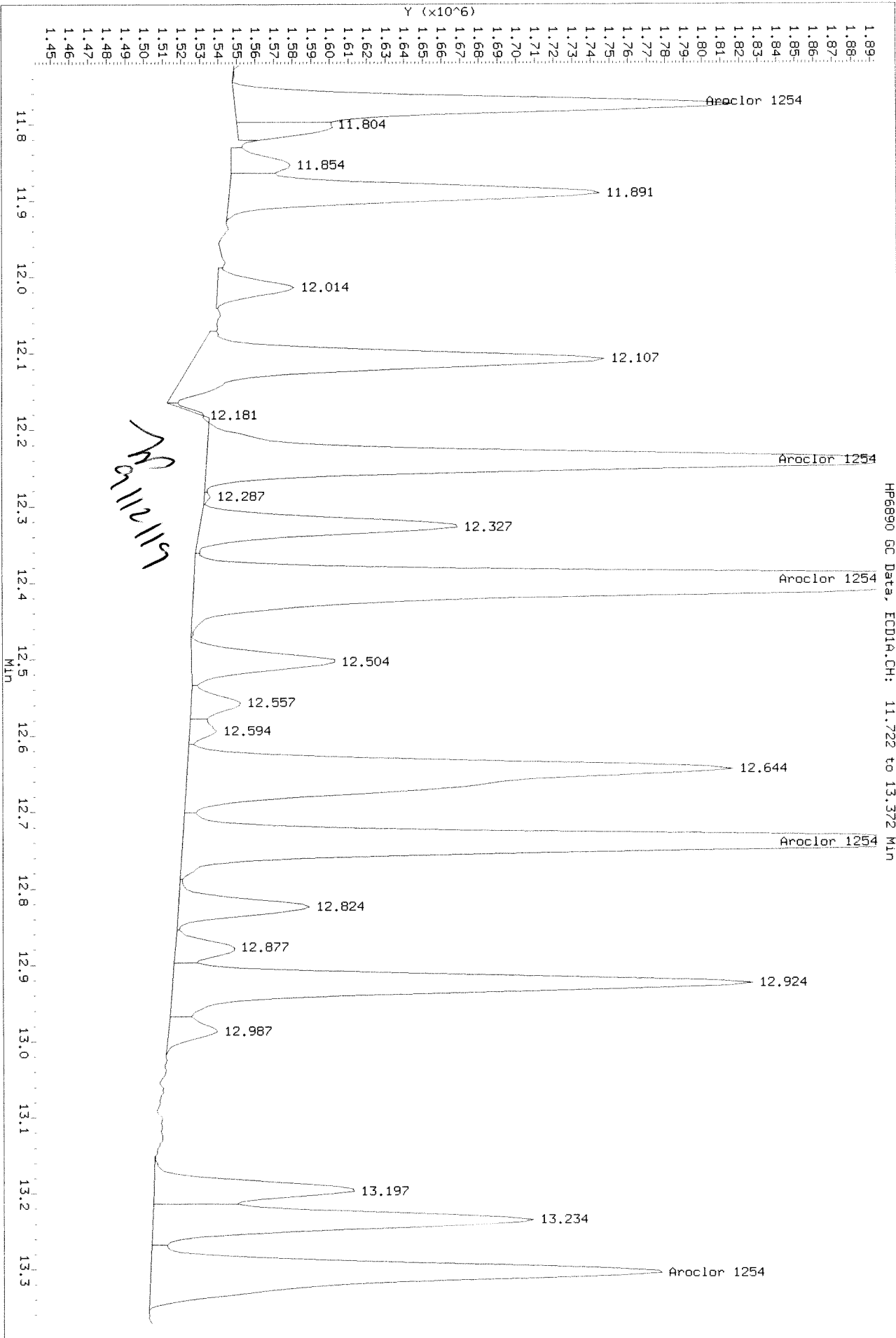
Data File: \\alkisw002\instdata\GC27\Data\090419ICAL.b\0904F016.D
Injection Date: 05-SEP-2019 00:20
Instrument: GC27.1
Client Sample ID:

Before 9/11/19 A



Data File: \\alklsws002\instdata\GC27\Data\090419ICDL.b\0904F016.D
Injection Date: 05-SEP-2019 00:20
Instrument: GC27.1
Client Sample ID:

After baseline 9/11/19



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F017.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F017.D
Inj Date : 05-SEP-2019 00:51
Sample Info: PCB7-91E 2154 @ 20-40 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:37
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : 2154.sub
Sub List #2 : 2154.sub
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1221	7.656	8.826	885668	267185	38.4	41.1	80.00- 120.00	100.00 (M)
	7.892	8.979	569615	263336	38.9	40.8	50.93- 76.39	64.31 (M)
	8.056	9.166	2128430	1027367	38.9	41.3	190.33- 285.49	240.32 (M)
	Average of Peak Amounts =				38.7	41.1		
Aroclor 1254	11.776	12.429	690894	655289	19.1	20.3	80.00- 120.00	100.00 (M)
	12.242	12.482	1166368	357269	18.6	21.0	137.86- 206.79	168.82 (M)
	12.399	12.806	2298648	993369	18.6	20.1	268.82- 403.23	332.71 (M)
	12.739	12.899	1367151	309841	18.7	20.2	164.76- 247.13	197.88 (M)
	13.302	14.372	892892	468216	19.6	19.3	106.40- 159.60	129.24 (M)
Average of Peak Amounts =				18.9	20.2			

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
W

Data File: \\alklsws002\instdata\GC27\Data\090419ICPL.b\0904F017.D
Date : 05-SEP-2019 00:51

Client ID:

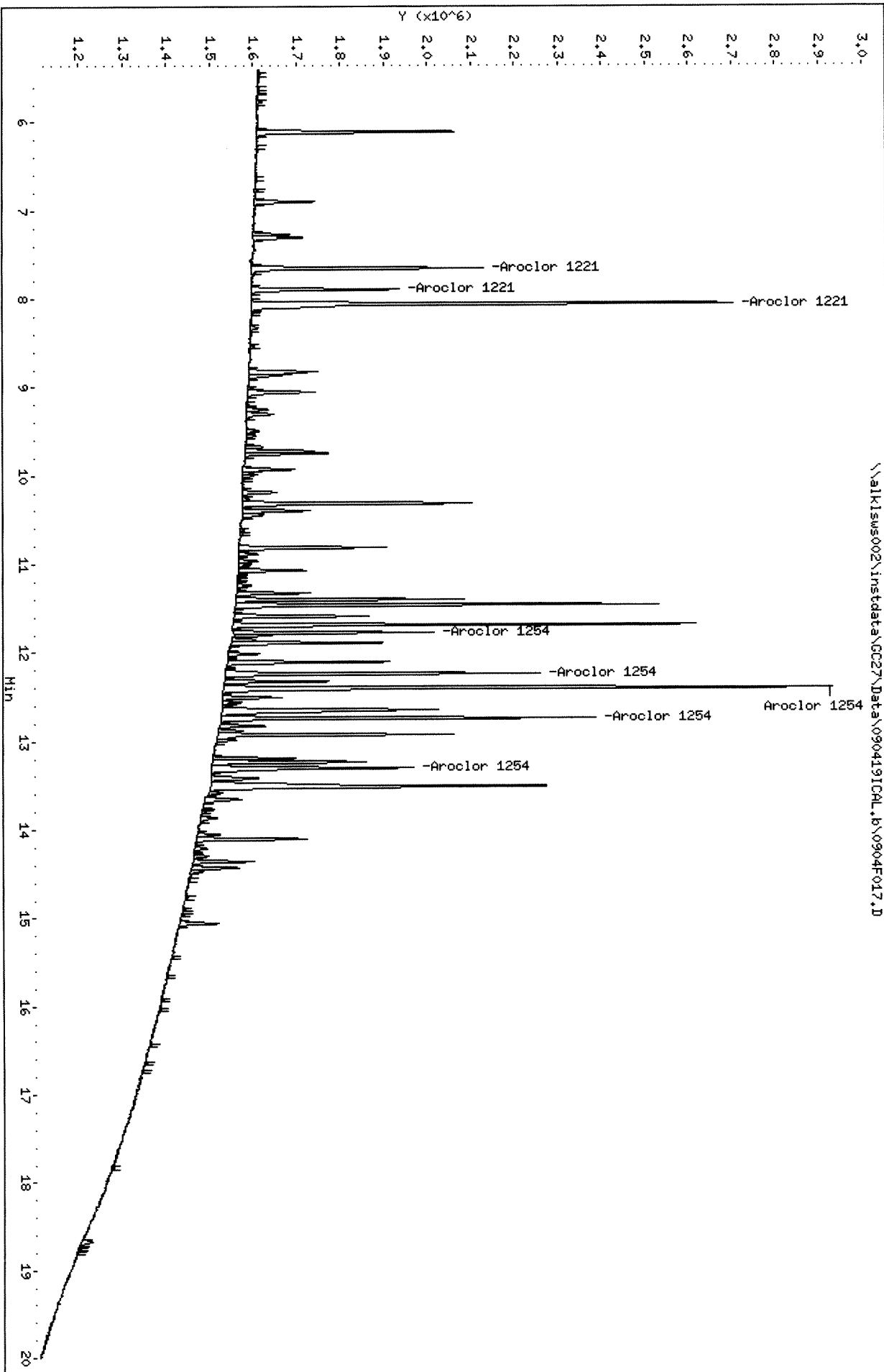
Sample Info: PCB7-91E 2154 @ 20-40 PPB

Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Data File: \\alkl1sus002\instdata\GC27\Data\090419ICL_r.b\0904F017.D
Date : 05-SEP-2019 00:51

Client ID:

Sample Info: PCB7-91E 2154 @ 20-40 PPB

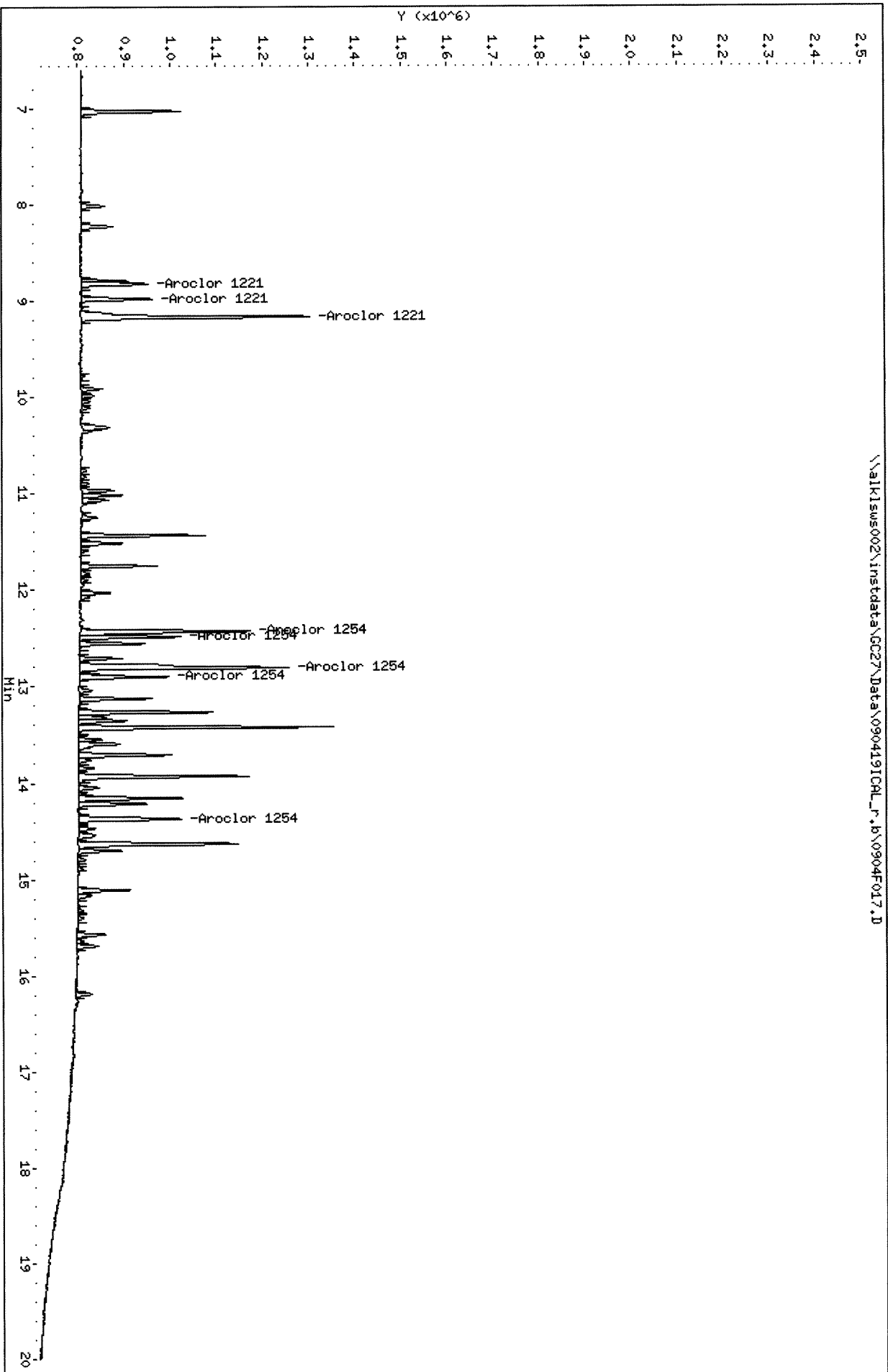
Column phase: DB-XLB

Instrument: GC27.i

Operator: S99

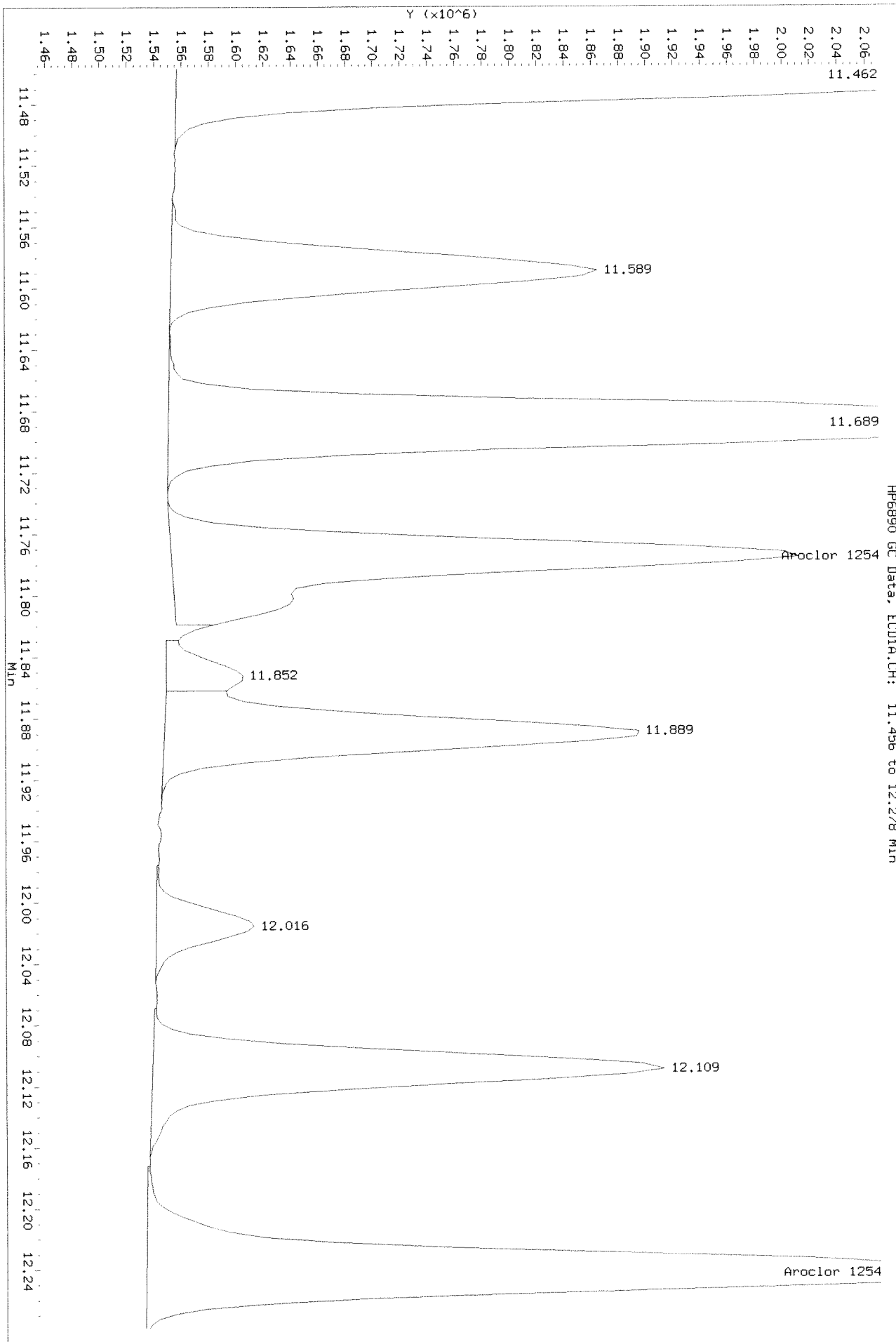
Column diameter: 0.32

\\alkl1sus002\instdata\GC27\Data\090419ICL_r.b\0904F017.D



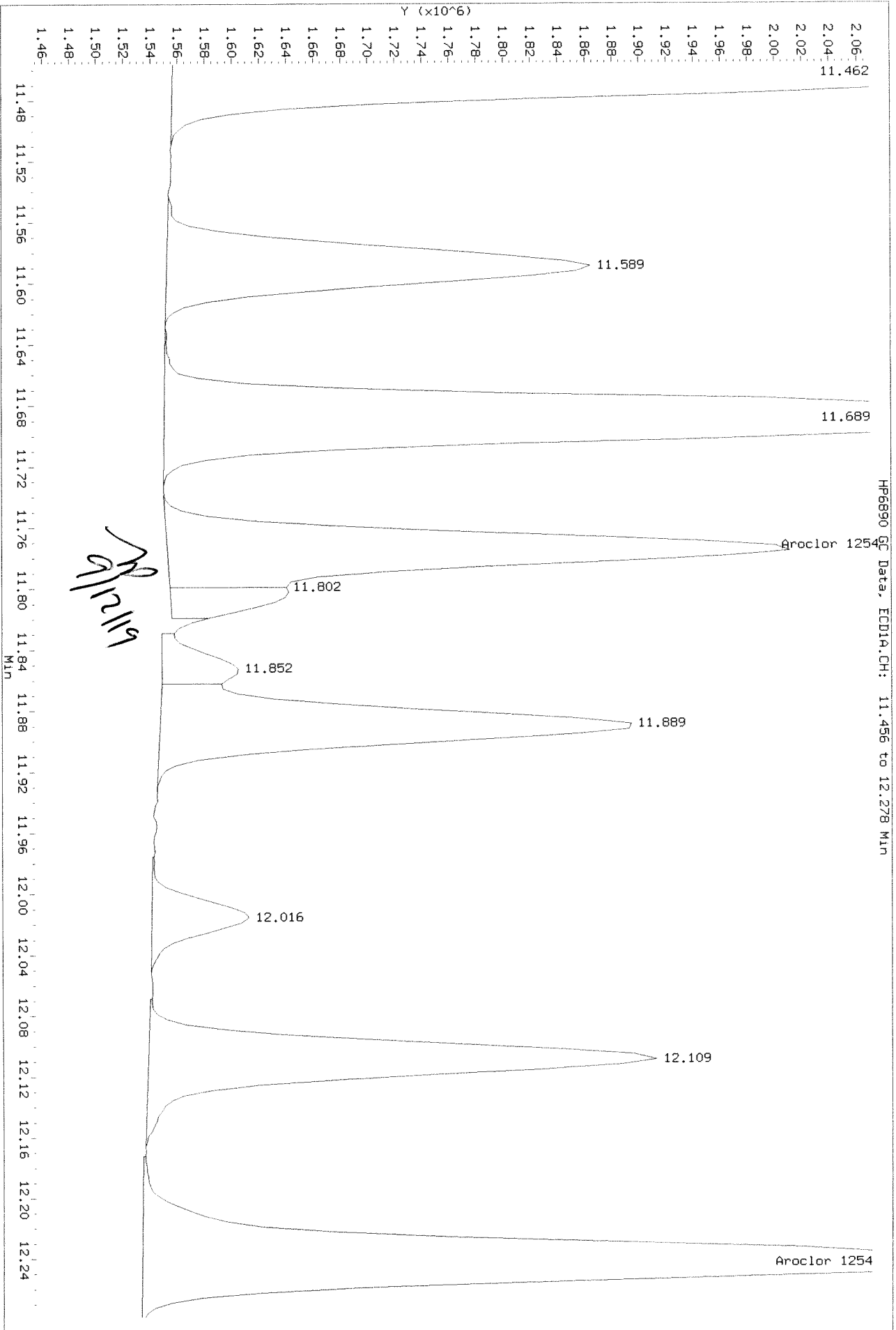
Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F017.D
Injection Date: 05-SEP-2019 00:51
Instrument: GC27.1
Client Sample ID:

Before



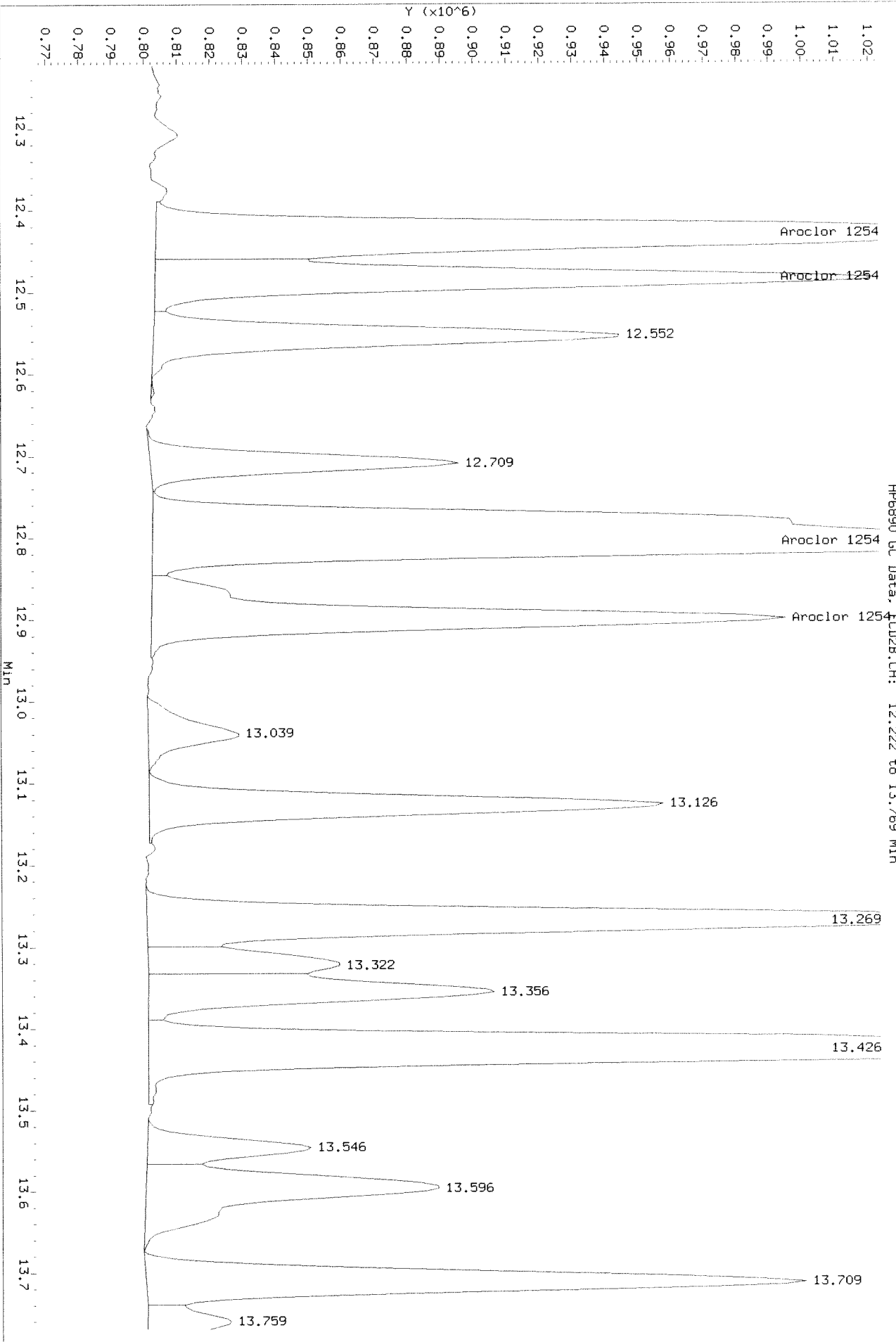
Data File: \\alk1sws002\instdata\GC27\Data\090419ICDL.b\0904F017.D
Injection Date: 05-SEP-2019 00:51
Instrument: GC27.1
Client Sample ID:

After shoulder 9/11/19 SA



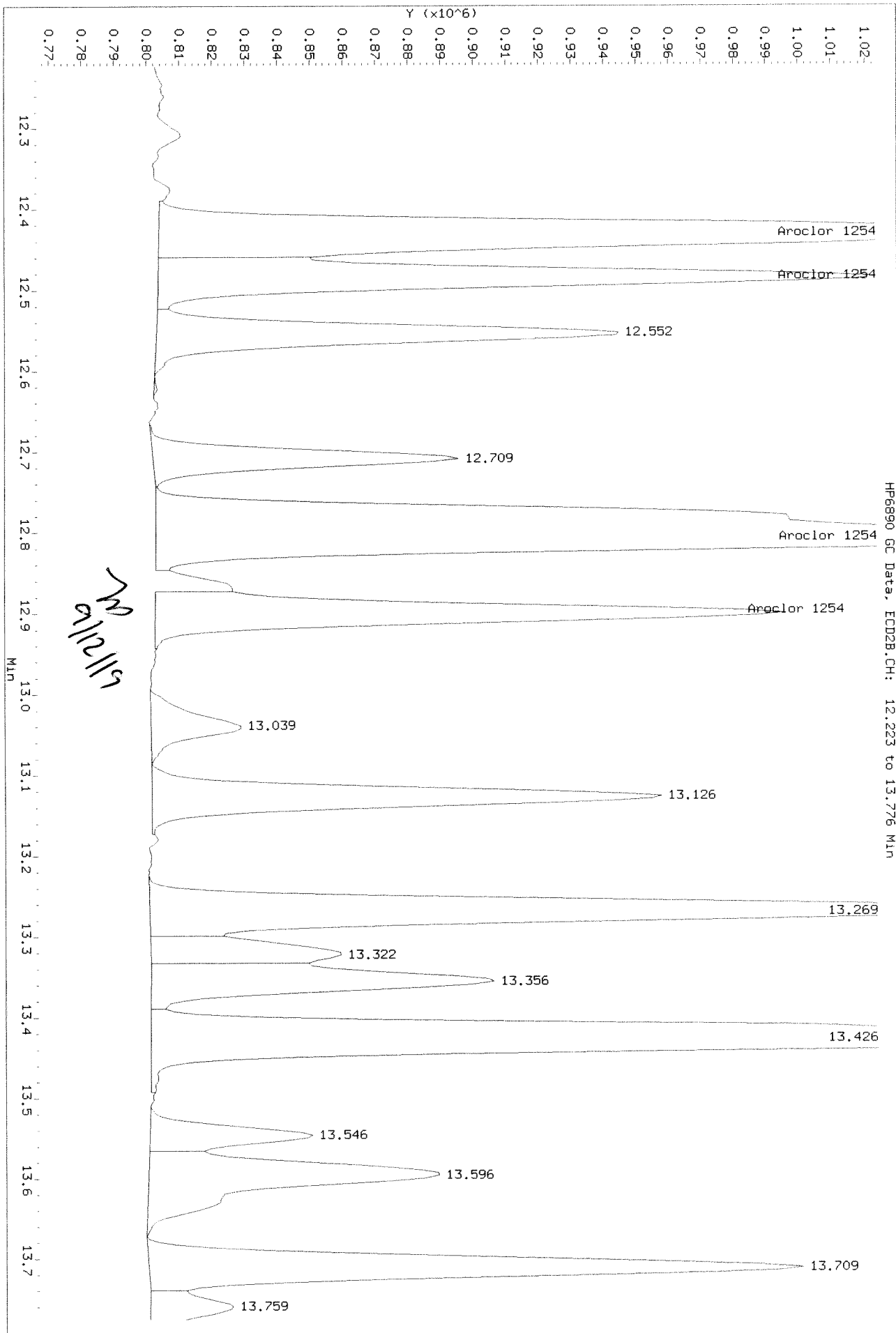
Data File: \\alklsws002\instdata\GC27\Data\090419ICL-r.b\09041017.D
Injection Date: 05-SEP-2019 00:51
Instrument: GC27.1
Client Sample ID:

Before



Data File: \\alk1sws002\instdata\GC27\Data\090419ICAL_r_b\0904F017.D
Injection Date: 05-SEP-2019 00:51
Instrument: GC27.1
Client Sample ID:

After shoulder 9/11/19 SA



9/11/19

ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F018.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F018.D
 Inj Date : 05-SEP-2019 01:23
 Sample Info: PCB7-91F 2154 @ 50-100 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 2154.sub
 Sub List #2 : 2154.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1221	7.654	8.824	2042183	626054	88.6	96.3	80.00- 120.00	100.00
	7.894	8.980	1299977	635399	88.9	98.5	50.93- 76.39	63.66
	8.057	9.167	4897439	2347785	89.5	94.4	190.33- 285.49	239.81
	Average of Peak Amounts =				89.0	96.4		
Aroclor 1254	11.774	12.430	1596832	1507562	44.2	46.7	80.00- 120.00	100.00
	12.240	12.484	2739541	842019	43.8	49.6	137.86- 206.79	171.56
	12.400	12.807	5318614	2250085	43.1	45.6	268.82- 403.23	333.07
	12.740	12.900	3226215	738225	44.2	48.0	164.76- 247.13	202.04
	13.300	14.374	2075750	1101617	45.5	45.4	106.40- 159.60	129.99
Average of Peak Amounts =				44.2	47.1			

SA 9/11/19
 [Signature]

Data File: \\alk1sus002\instdata\GC27\Data\090419ICAL.b\0904F018.D

Date : 05-SEP-2019 01:23

Client ID:

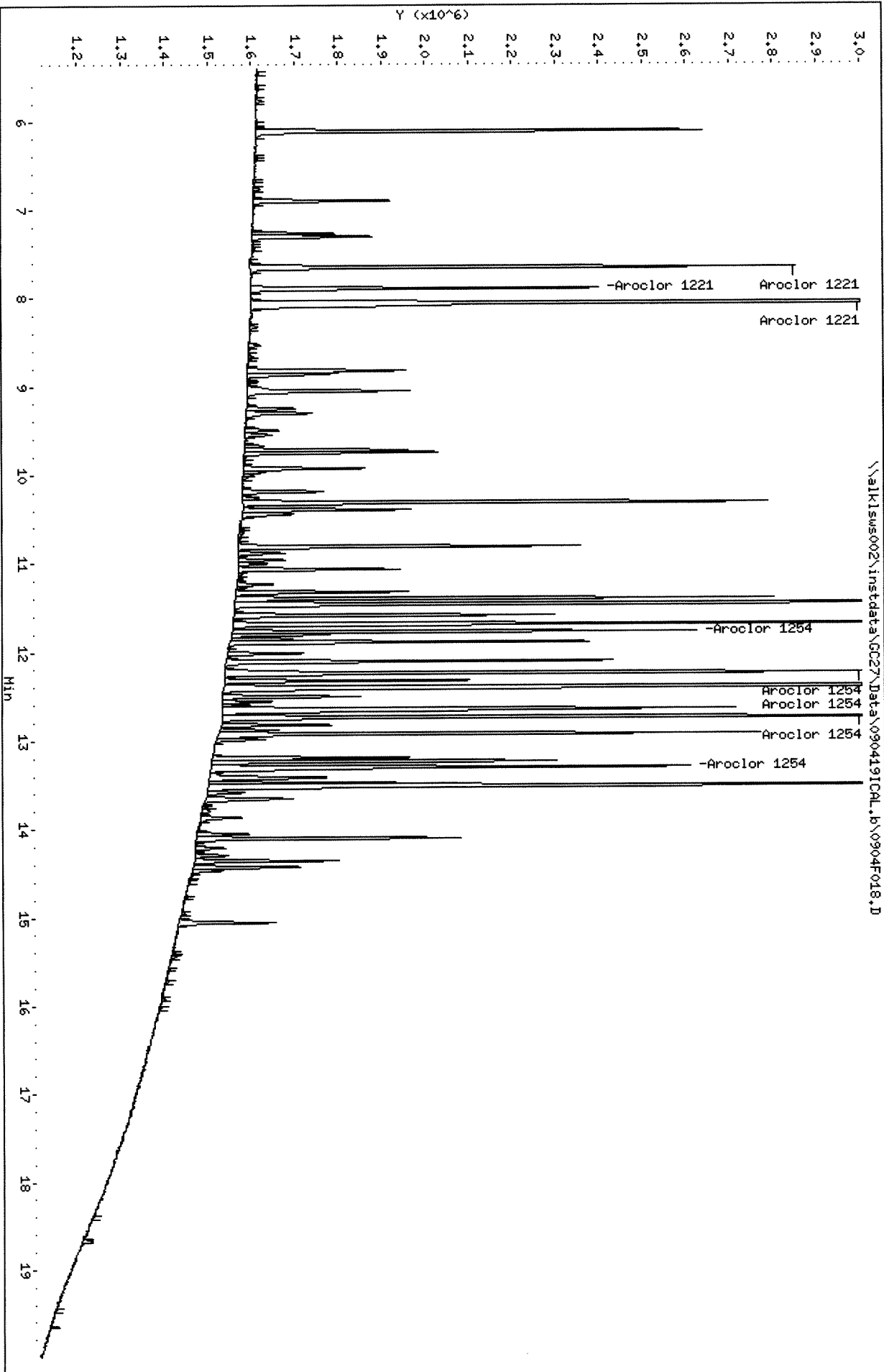
Sample Info: PCB7-9LF 2154 @ 50-100 PPS

Column phase: DB-35MS

Instrument: GC27.i

Operator: SPP

Column diameter: 0.32



Data File: \\alkisws002\instdata\GC27\Data\090419ICAL_r.b\0904F018.D

Date: 06-SEP-2019 01:23

Client ID:

Sample Info: PCB7-94F 2154 @ 50-100 PPB

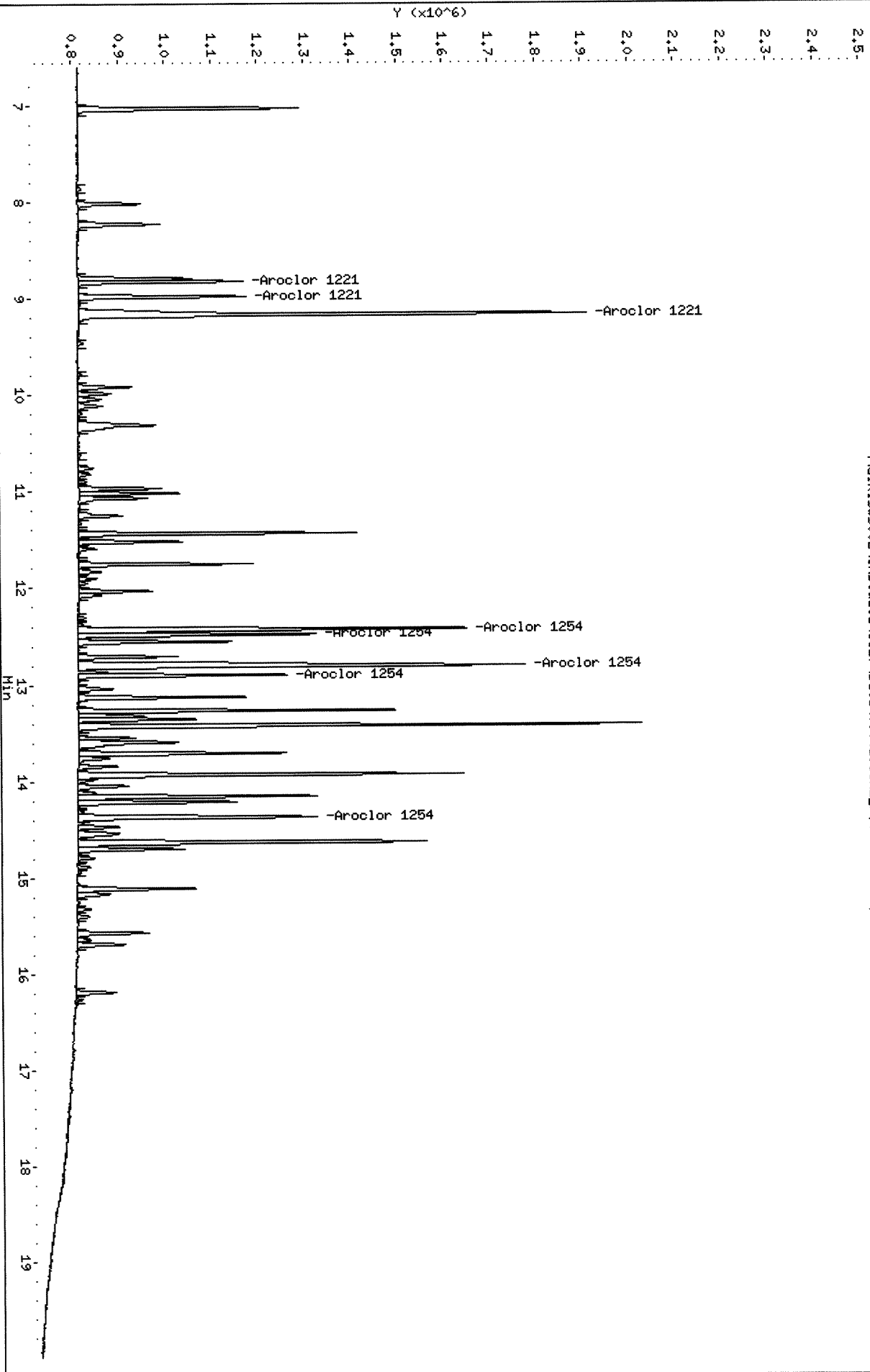
Column phase: DB-XLB

Instrument: GC27.i

Operator: SNA

Column diameter: 0.32

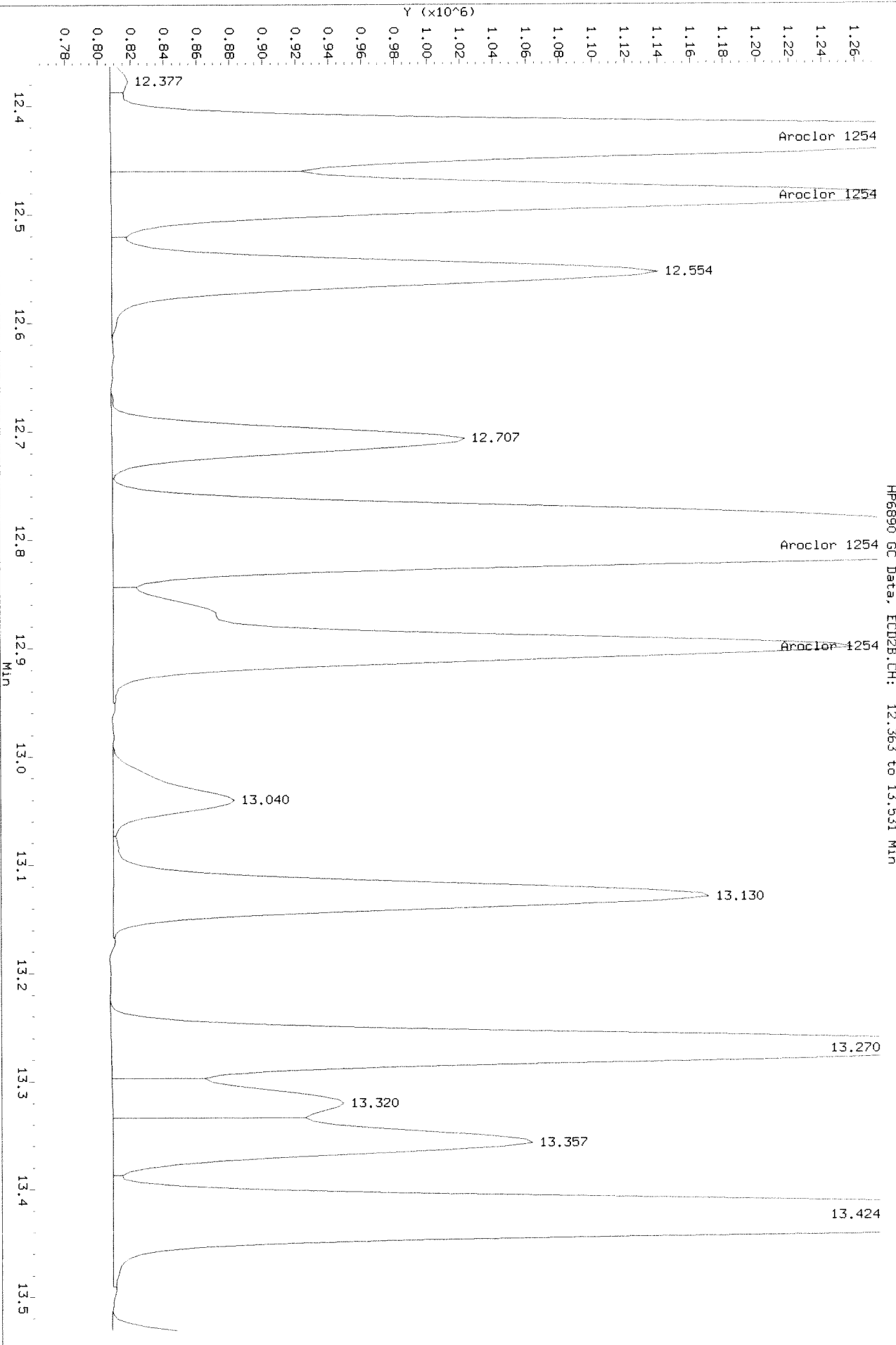
\\alkisws002\instdata\GC27\Data\090419ICAL_r.b\0904F018.D



Data File: \\alkisw002\instdata\GC27\Data\090419ICALL_r.b\0904F018.D
Injection Date: 05-SEP-2019 01:23
Instrument: GC27.1
Client Sample ID:

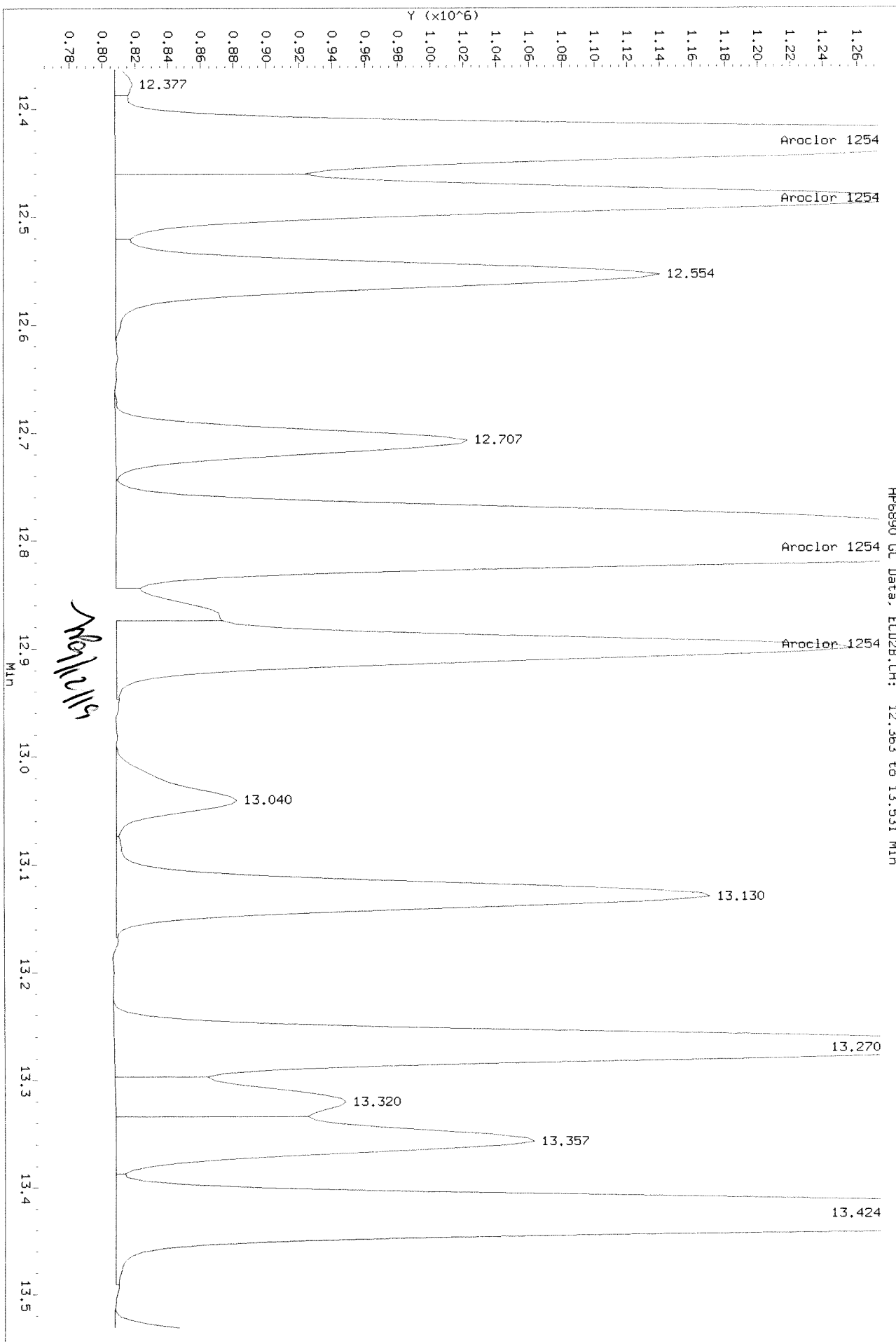
HP6890 GC Data, ECD2B.CH: 12.363 to 13.531 Min

Before



Data File: \\alklsw002\instdata\GC27\Data\090419ICHL_r.b\0904F018.D
Injection Date: 05-SEP-2019 01:23
Instrument: GC27.1
Client Sample ID:

After shoulder 9/11/19 SA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F019.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F019.D
Inj Date : 05-SEP-2019 01:55
Sample Info: PCB7-91G 2154 @ 100-200 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:37
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : 2154.sub
Sub List #2 : 2154.sub
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1221	7.657	8.827	3947072	1235917	171	190	80.00- 120.00	100.00
	7.897	8.981	2526036	1232962	173	191	50.93- 76.39	64.00
	8.061	9.167	9409159	4326639	172	174	190.33- 285.49	238.38
	Average of Peak Amounts =				172	185		
Aroclor 1254	11.774	12.431	3063510	2745460	84.8	85.0	80.00- 120.00	100.00
	12.244	12.484	5318310	1601662	85.0	94.3	137.86- 206.79	173.60
	12.401	12.807	10300444	4097118	83.5	83.0	268.82- 403.23	336.23
	12.741	12.901	6342526	1403165	86.9	91.3	164.76- 247.13	207.03
	13.304	14.374	4046984	2066908	88.8	85.1	106.40- 159.60	132.10
Average of Peak Amounts =				85.8	87.7			

SA 9/11/19
W

Data File: \\alkisws002\instdata\GC27\Data\090419ICL.b\0904F019.D

Date : 05-SEP-2019 01:55

Client ID:

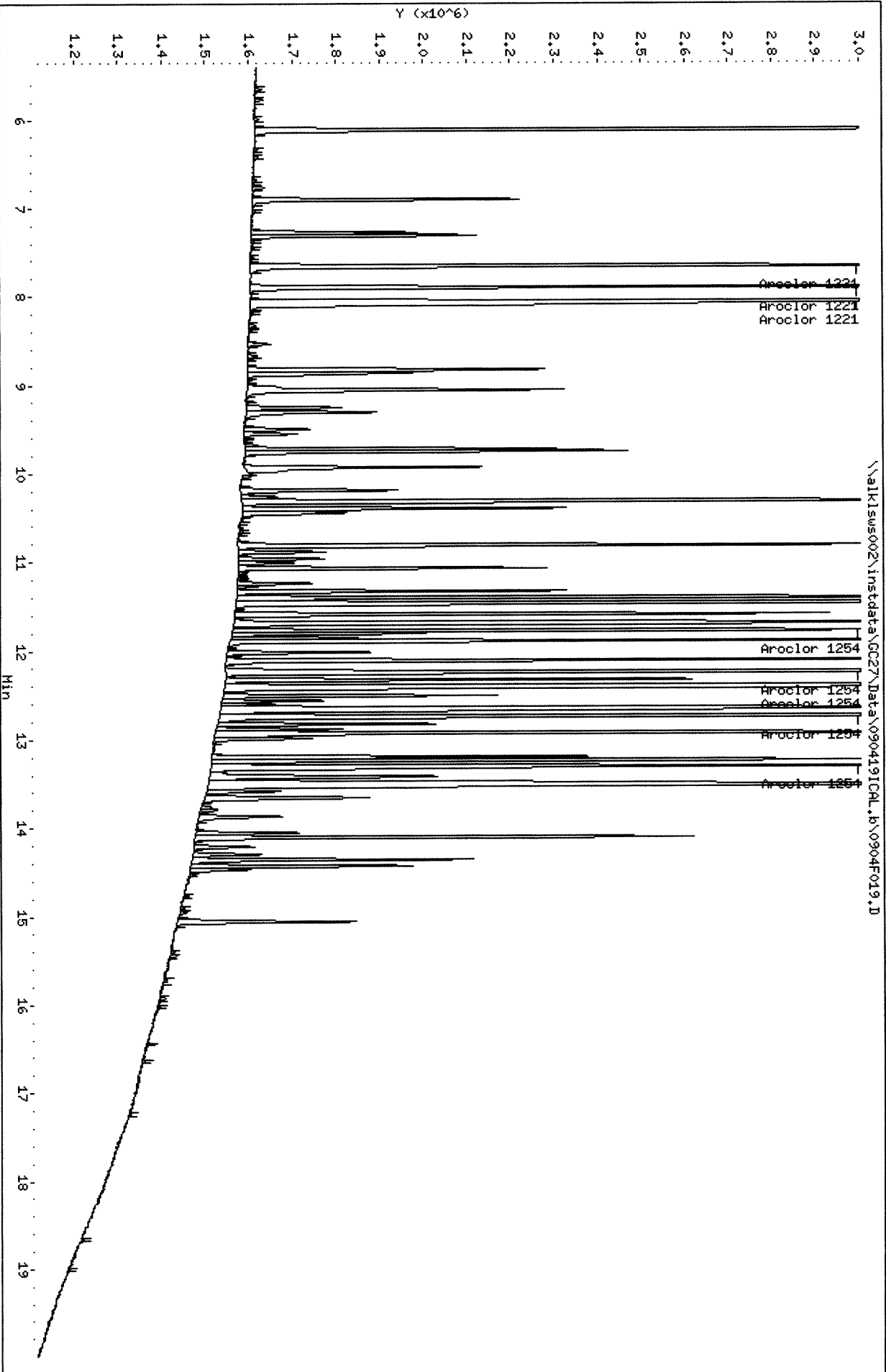
Sample Info: PCB7-91G 2154 @ 100-200 PPB

Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F019.D

Date: 05-SEP-2019 01:55

Client ID:

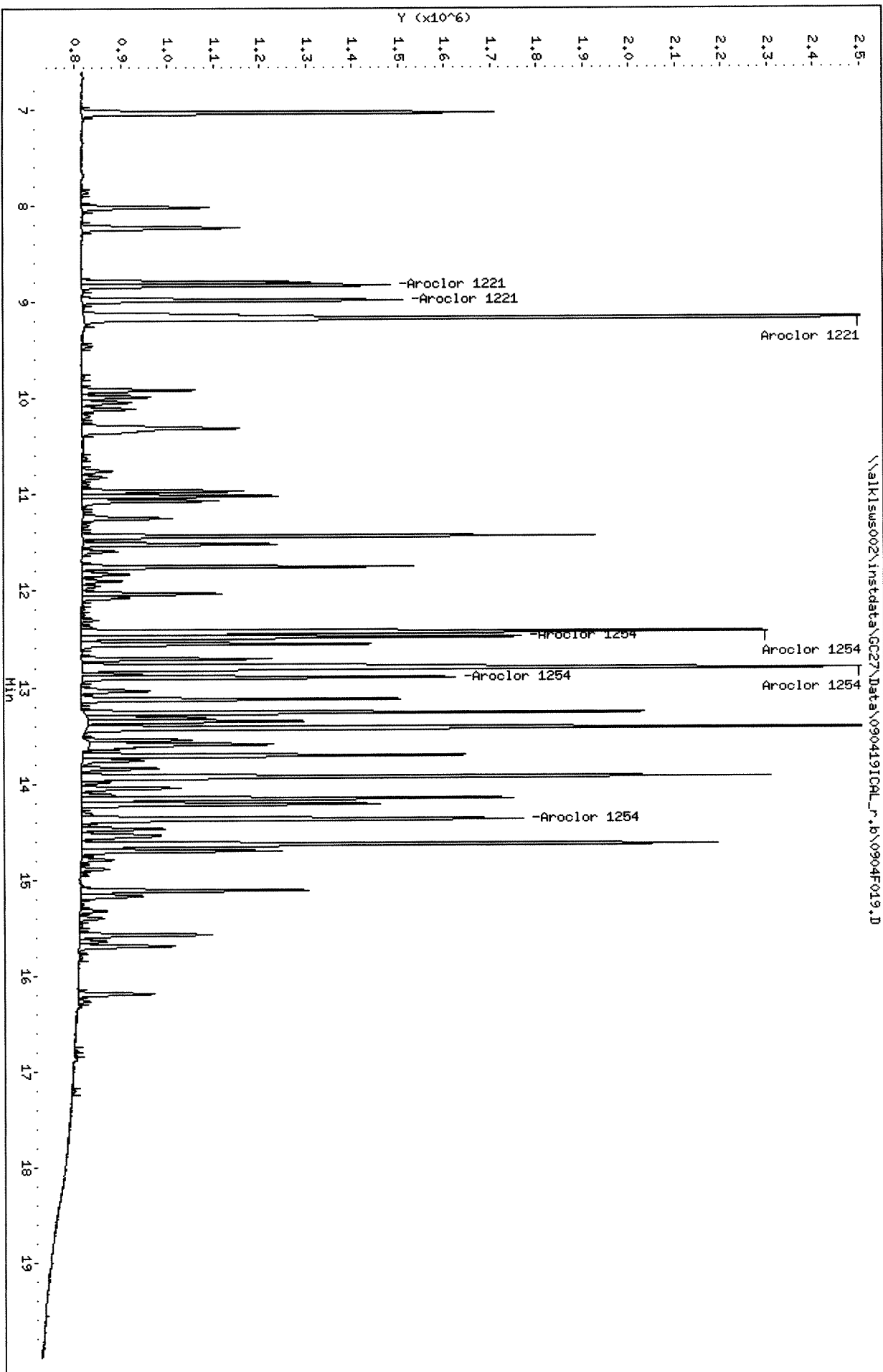
Sample Info: PCB7-91C 2154 @ 100-200 PPB

Column phase: DB-XLB

Instrument: GC27.i

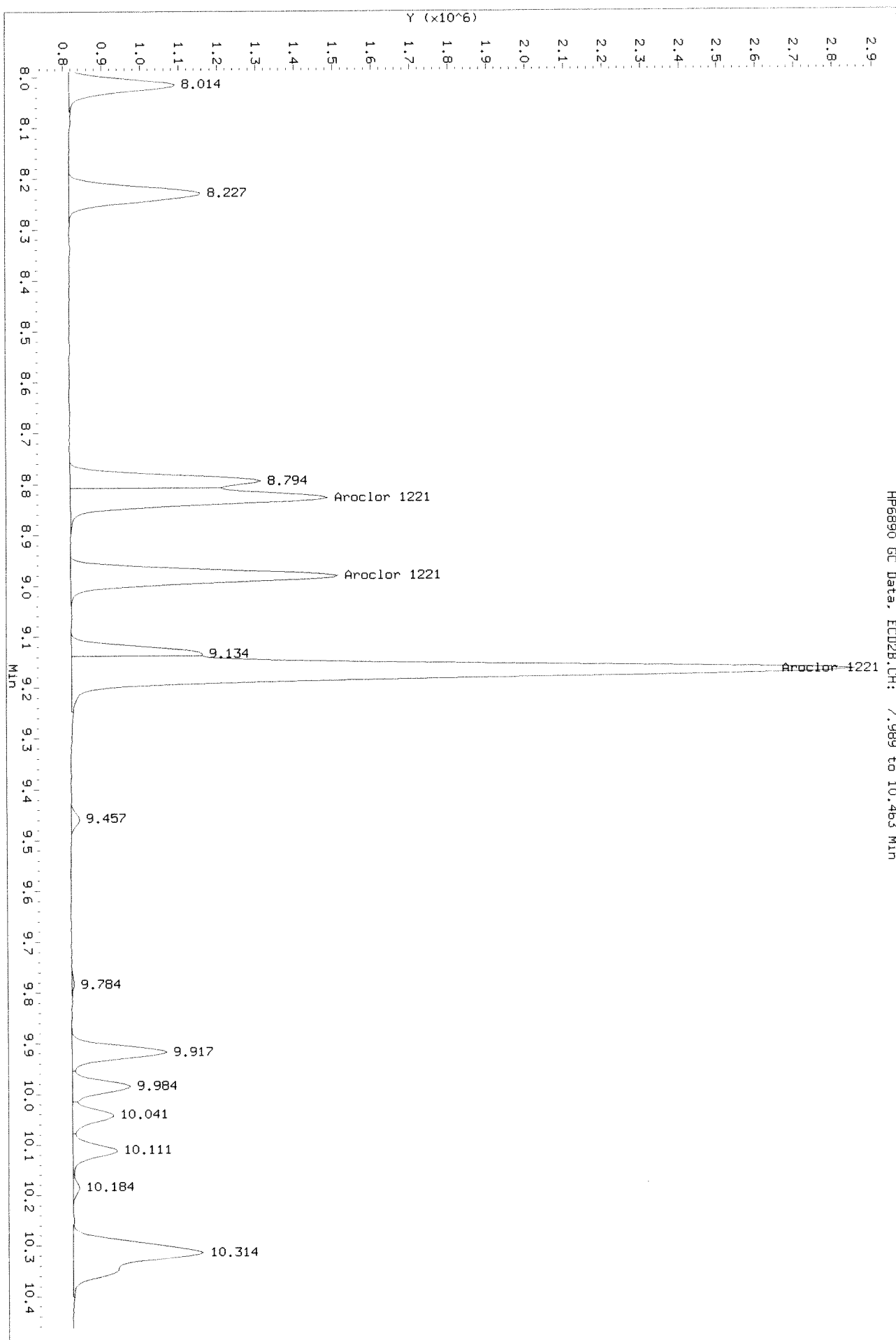
Operator: SAA

Column diameter: 0.32



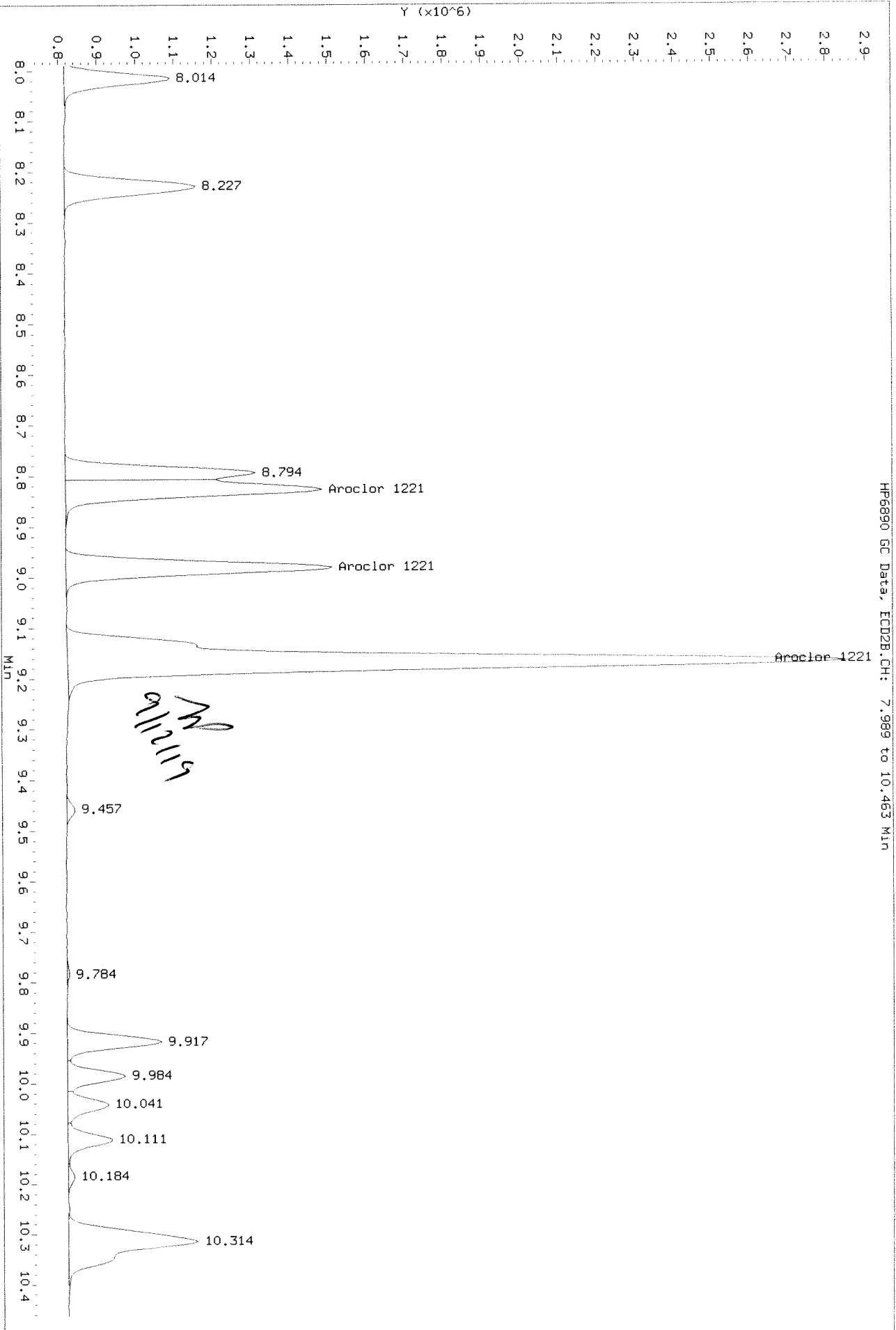
Data File: \\alkjms002\instdata\GC27\Data\090419ICAL_r.b\0904F019.D
Injection Date: 05-SEP-2019 01:55
Instrument: GC27.1
Client Sample ID:

Refer



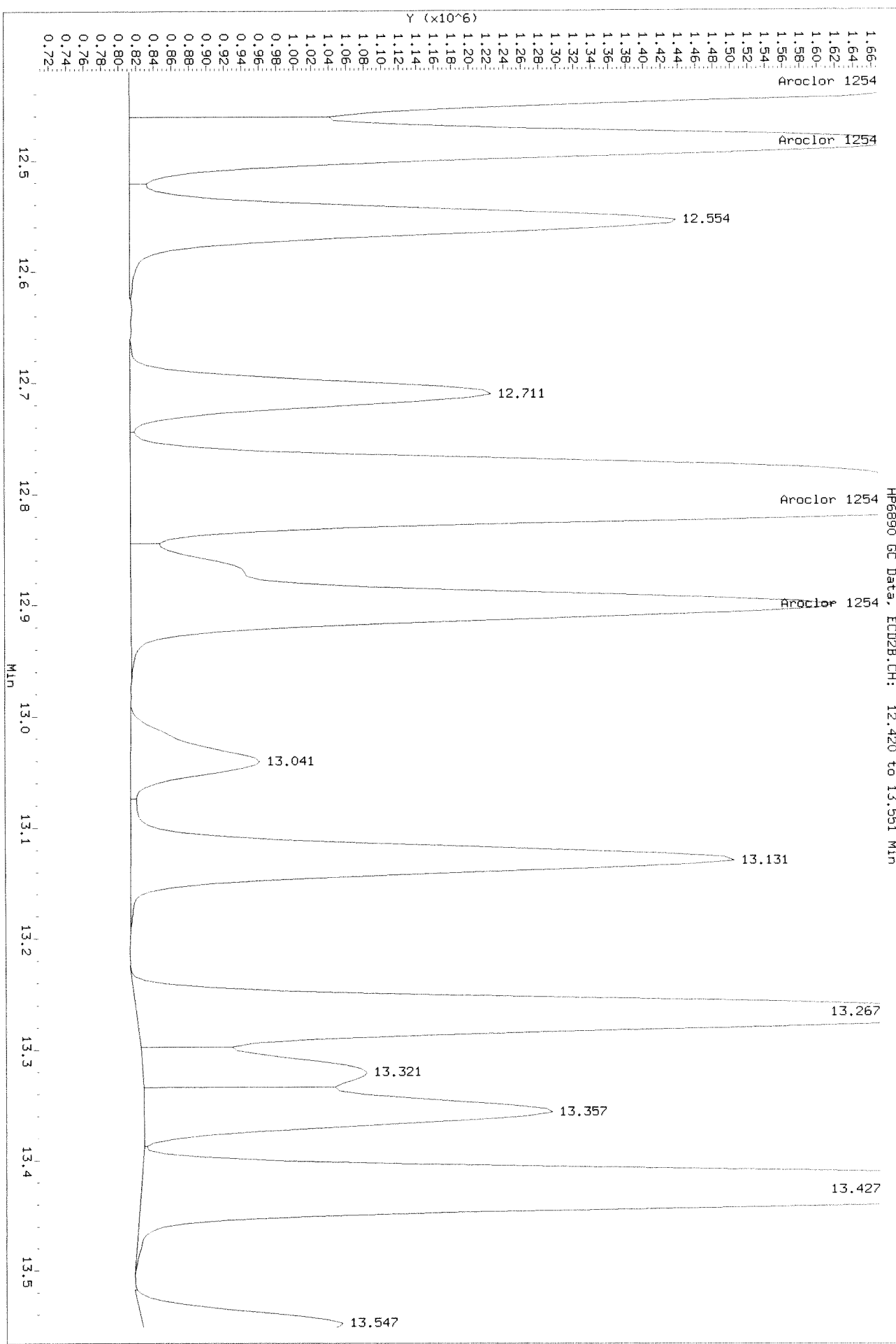
Data File: \\alkisw002\instdata\GC27\Data\090419ICLL_r.b\0904F019.D
Injection Date: 05-SEP-2019 01:55
Instrument: GC27.1
Client Sample ID:

After baseline 9/11/19 A



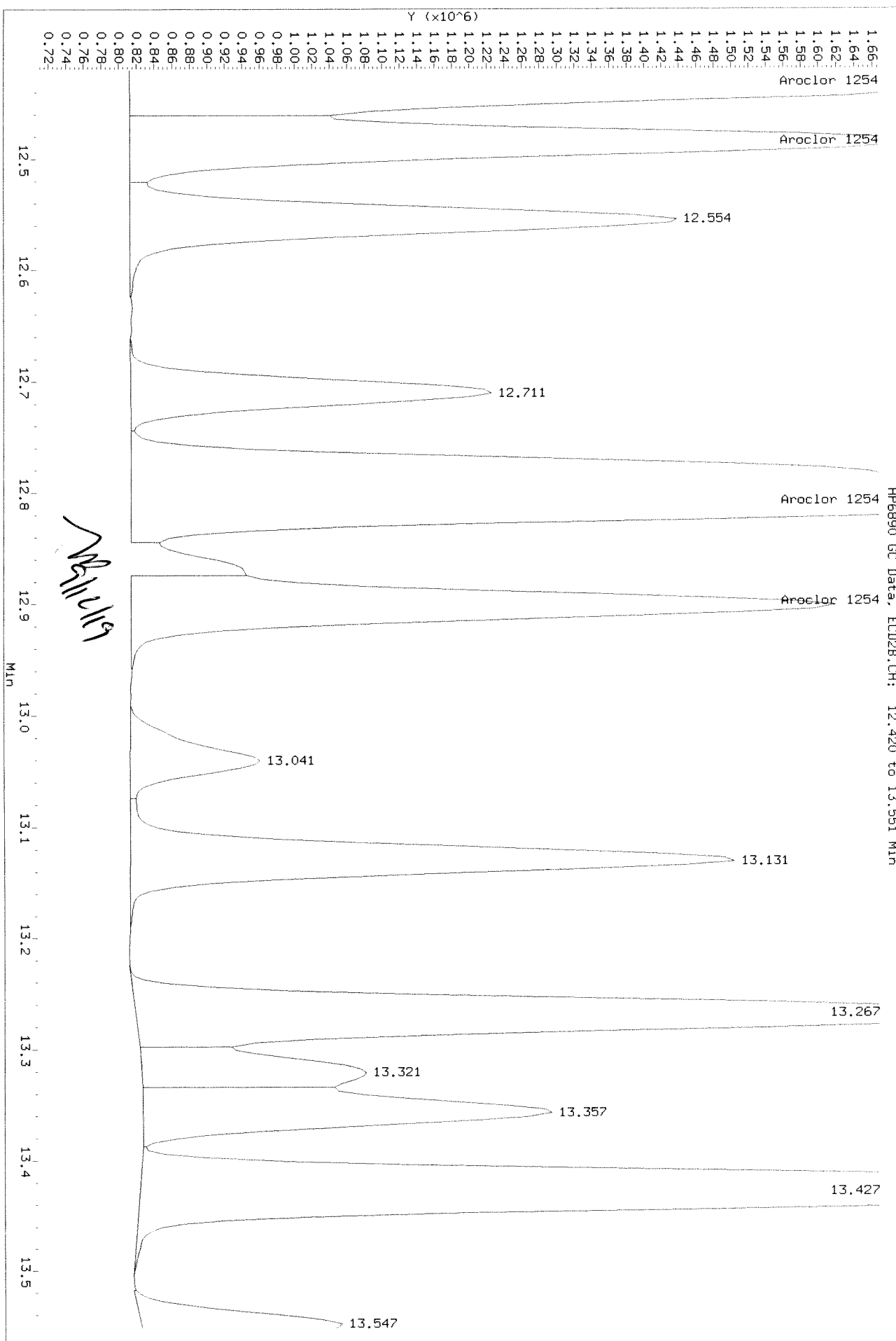
Data File: \\alklsws002\instdata\GC27\Data\090419ICALL_r.b\0904F019.D
Injection Date: 05-SEP-2019 01:55
Instrument: GC27.1
Client Sample ID:

Before



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F019.D
Injection Date: 05-SEP-2019 01:55
Instrument: GC27.1
Client Sample ID:

After Shoulder 9/11/19 SA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F020.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F020.D
 Inj Date : 05-SEP-2019 02:26
 Sample Info: PCB7-90H 2154 @ 200-400 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 2154.sub
 Sub List #2 : 2154.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1221	7.656	8.826	8501999	2590550	369	398	80.00- 120.00	100.00
	7.893	8.980	5412435	2563242	370	397	50.93- 76.39	63.66
	8.059	9.166	20227289	8997324	369	362	190.33- 285.49	237.91
	Average of Peak Amounts =				369	386		
Aroclor 1254	11.773	12.430	7140371	5914365	198	183	80.00- 120.00	100.00 (M)
	12.239	12.483	12304857	3342706	197	197	137.86- 206.79	172.33 (M)
	12.399	12.806	23993258	8738338	195	177	268.82- 403.23	336.02 (M)
	12.739	12.900	14705268	3043613	202	198	164.76- 247.13	205.95 (M)
	13.303	14.373	9496593	4515239	208	186	106.40- 159.60	133.00 (M)
	Average of Peak Amounts =				200	188		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
W

Data File: \\alkisw002\instdata\GC27\Data\090419ICL.b\0904F020.D

Date: 05-SEP-2019 02:26

Client ID:

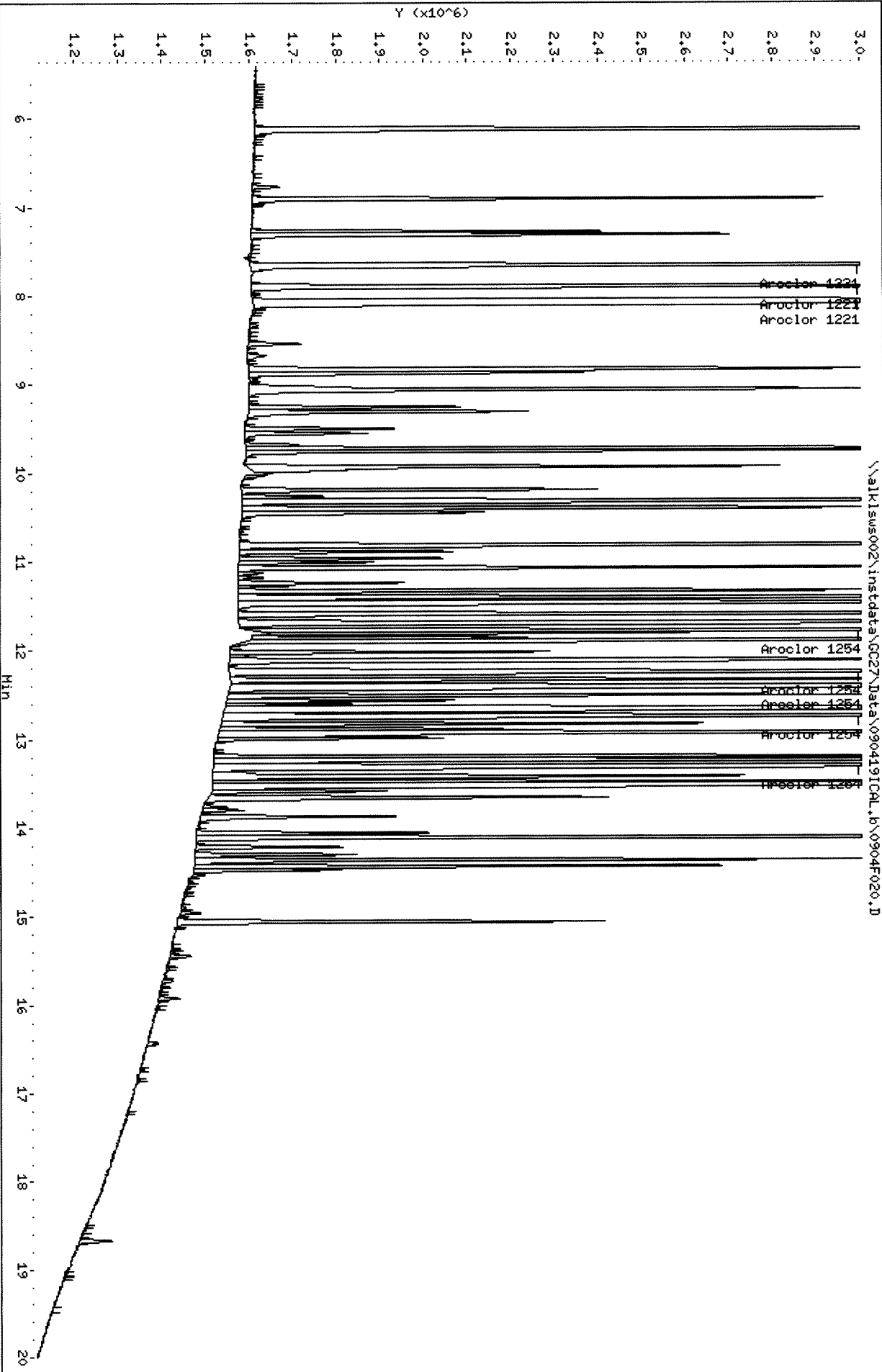
Sample Info: PCB7-90H 2154 @ 200-400 PPB

Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F020.D

Date: 05-SEP-2019 02:26

Client ID:

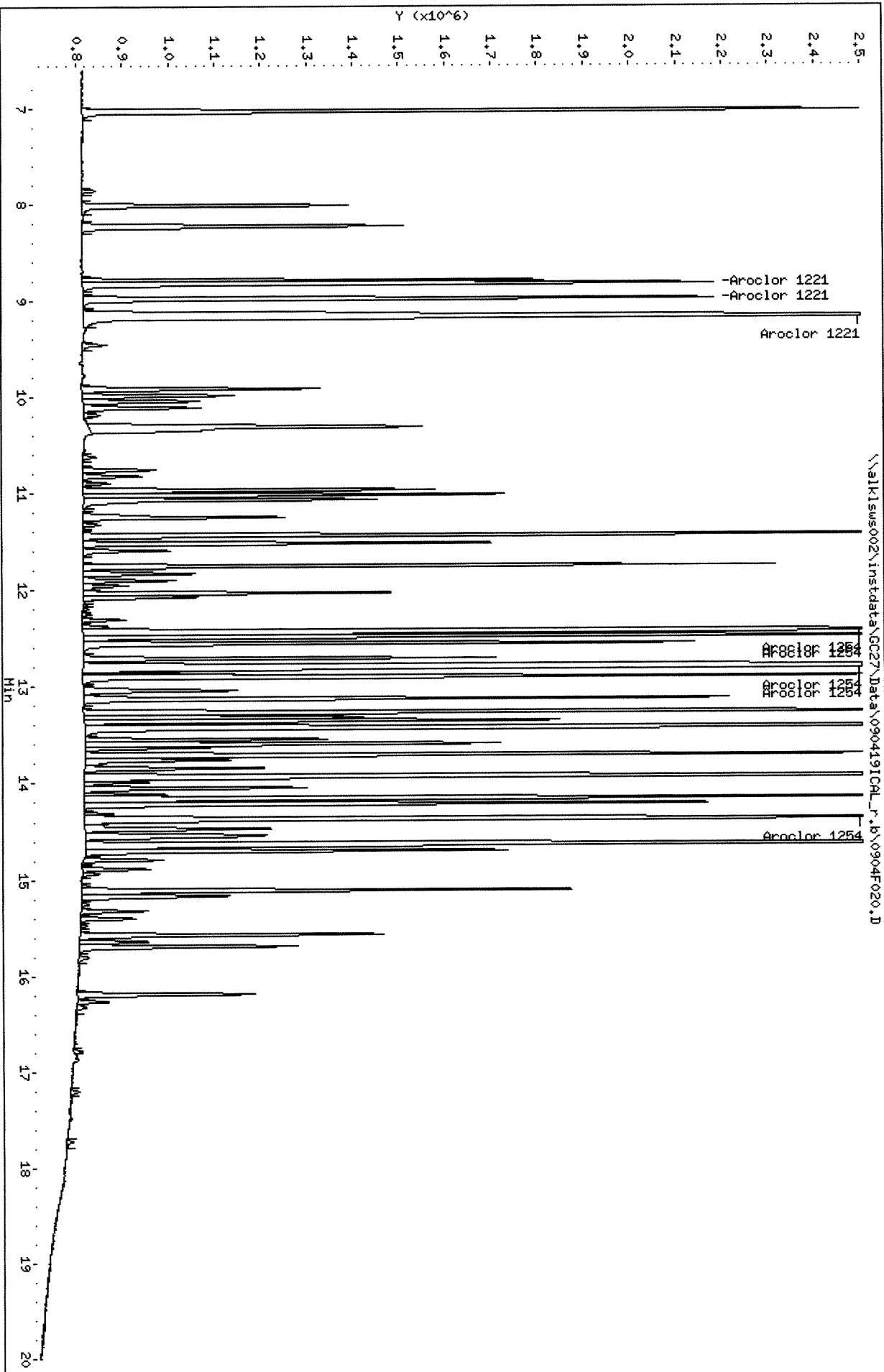
Sample Info: PCB7-90H 2154 @ 200-400 PPB

Column phase: DB-XLB

Instrument: GC27.i

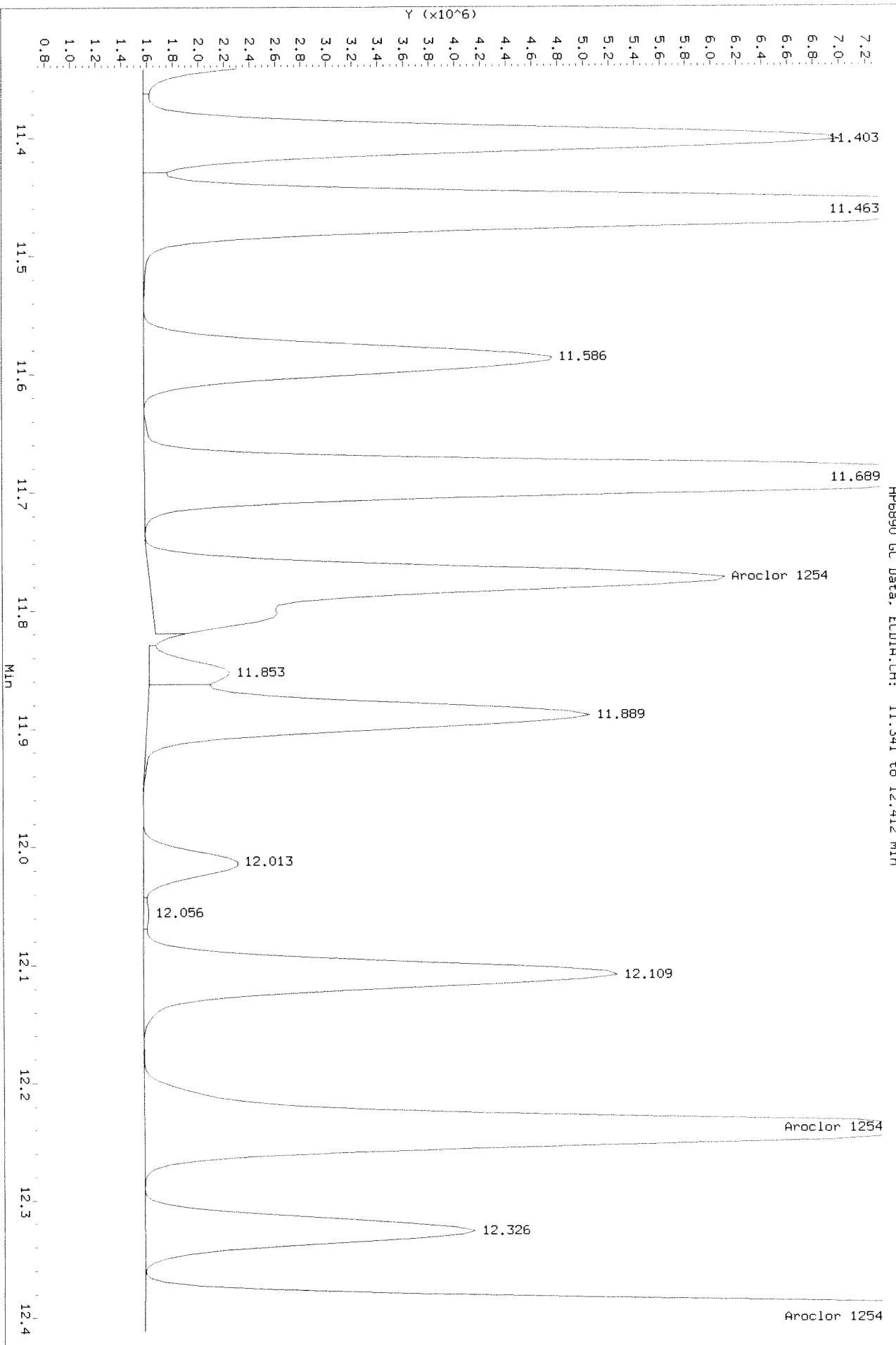
Operator: SAA

Column diameter: 0.32



Data File: \\alk\sws002\inst\data\GC27\Data\090419ICL.B\0904F020.D
Injection Date: 05-SEP-2019 02:26
Instrument: GC27.1
Client Sample ID:

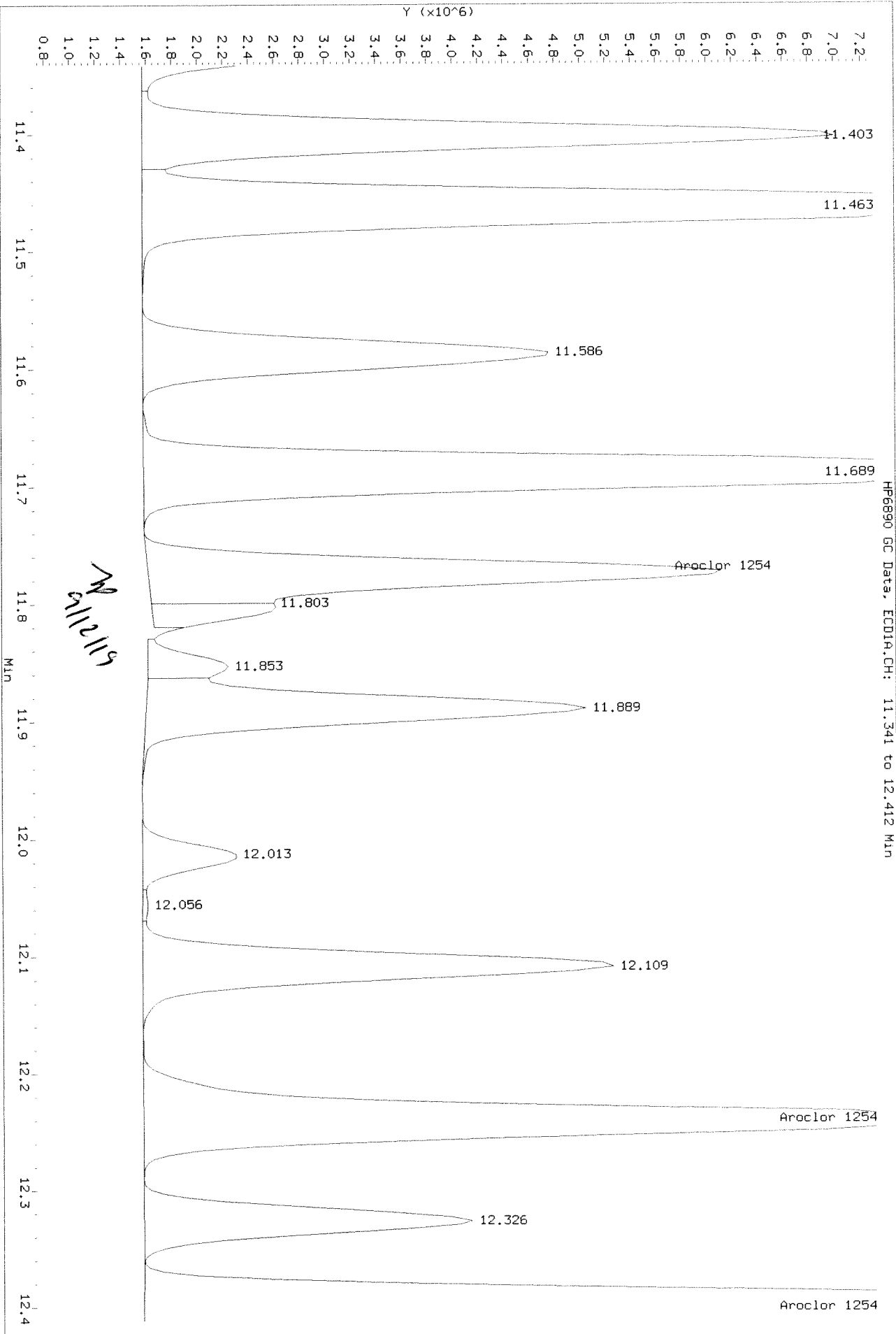
Before



Data File: \\alk1sws002\instdata\GC27\Data\090419ICDL.b\0904F020.D
Injection Date: 05-SEP-2019 02:26
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 11.341 to 12.412 Min

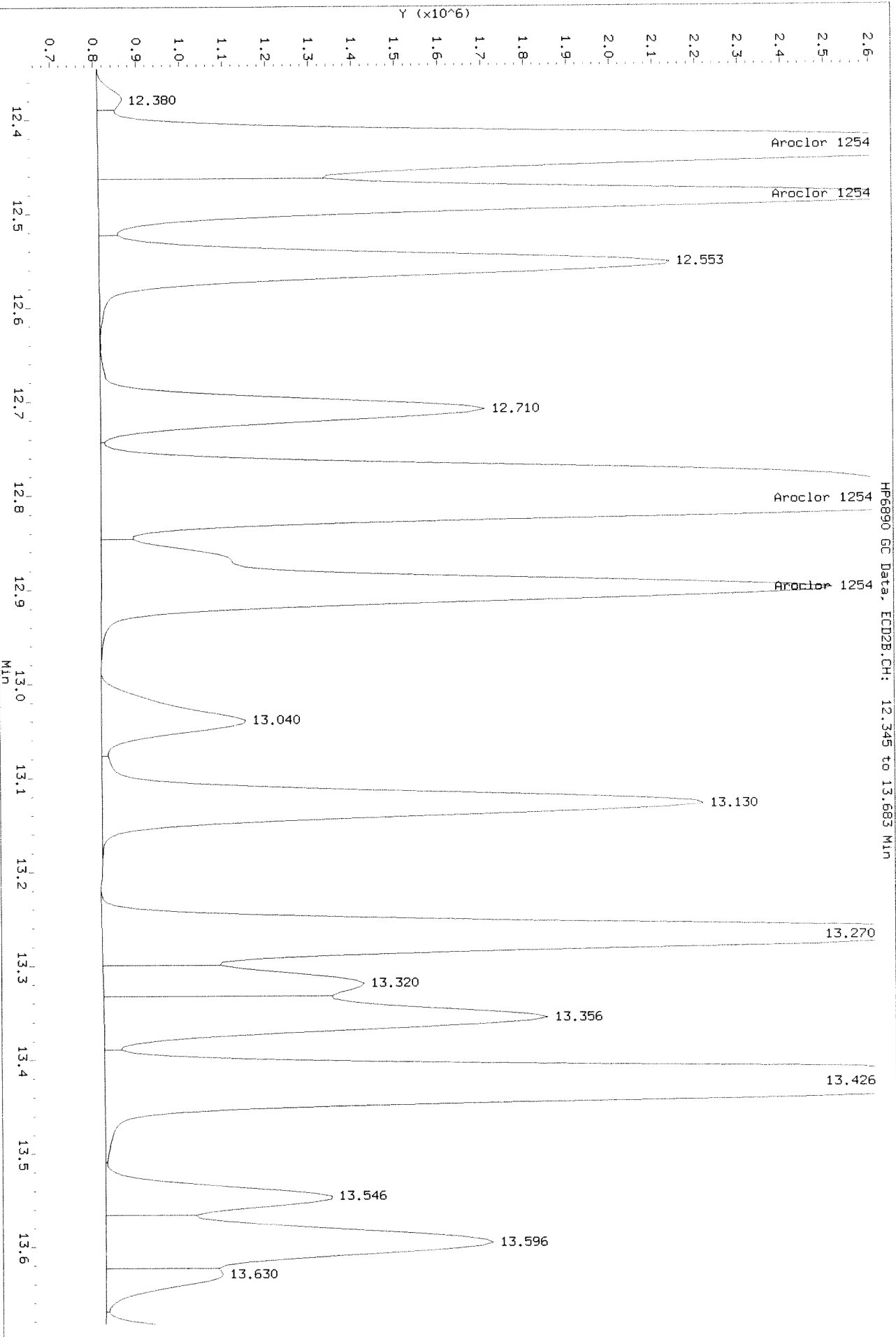
After Shoulder 9/11/19 ST



Data File: \\alkisw002\inst\data\GC27\Data\090419ICAL_r.b\0904F020.D
Injection Date: 05-SEP-2019 02:26
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 12.345 to 13.683 Min

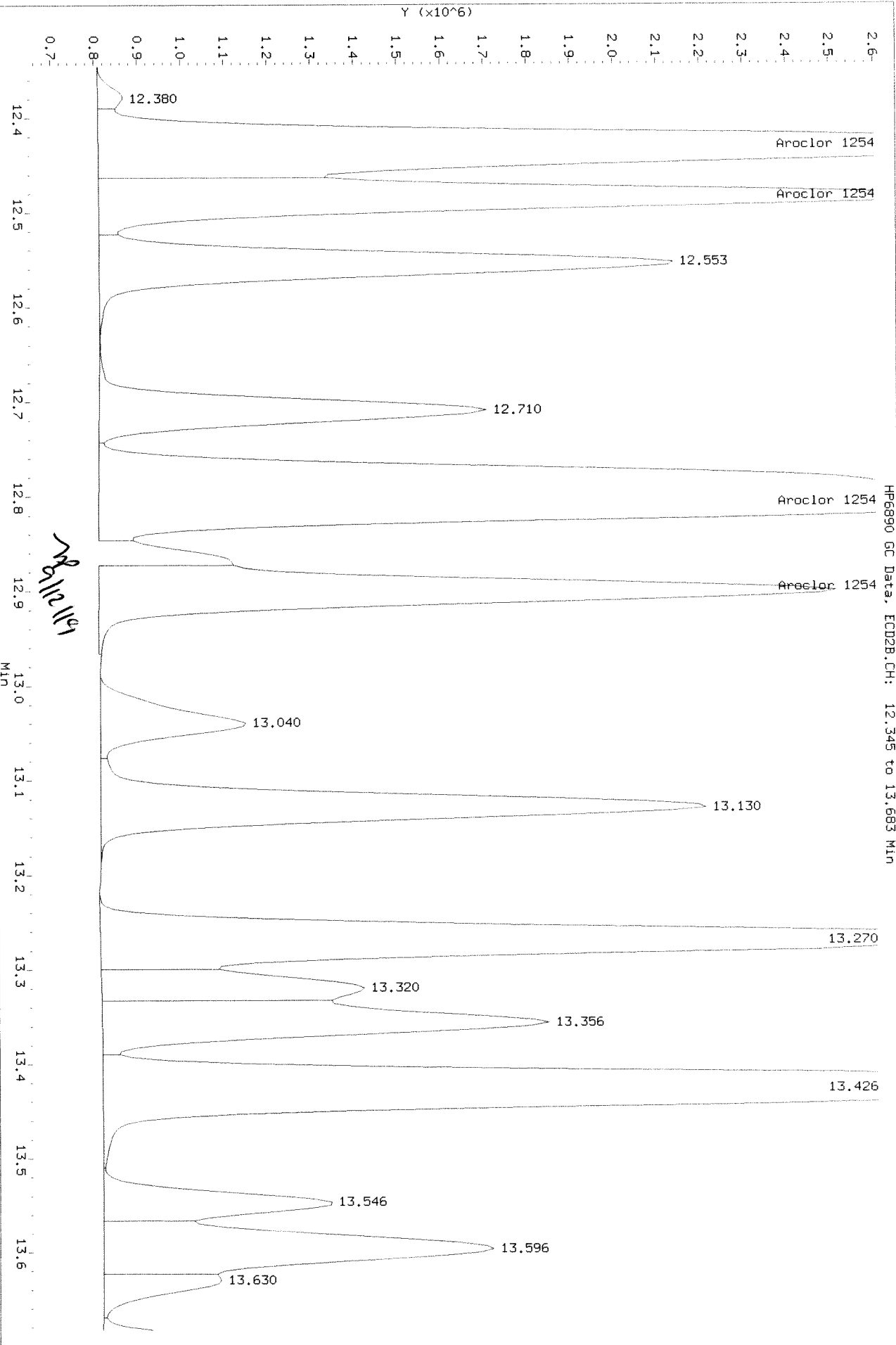
Before 9/11/19 SA



Data File: \\alk1swe002\instdata\GC27\Data\090419ICDL_r.b\0904F020.D
Injection Date: 05-SEP-2019 02:26
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 12.345 to 13.683 MIN

After shoulder 9M/19 SA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F021.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F021.D
 Inj Date : 05-SEP-2019 02:58
 Sample Info: PCB8-13E 3262 @ 1 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 3262.sub
 Sub List #2 : 3262.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1232	7.664	9.165	19213	16743	1.23	0.850	80.00- 120.00	100.00
	8.068	9.915	56739	12087	1.21	1.11	234.25- 351.38	295.32
	8.838	10.288	31107	6960	0.820	0.948	205.56- 308.34	161.91
	9.311	10.965	12043	13507	0.873	0.891	76.03- 114.04	62.68
	9.941	11.018	32879	16086	1.25	0.918	137.78- 206.67	171.13
	Average of Peak Amounts =				1.08	0.943		
Aroclor 1262	13.588	14.791	99950	48433	1.07	1.14	80.00- 120.00	100.00 (M)
	14.061	15.161	96868	36415	1.17	1.12	71.44- 107.17	96.92 (M)
	14.438	15.691	167071	76536	1.10	1.17	135.47- 203.20	167.15 (M)
	15.064	16.201	120058	50041	1.09	1.14	96.75- 145.12	120.12 (M)
	15.931	17.205	50324	24800	1.05	1.09	43.01- 64.52	50.35 (M)
	Average of Peak Amounts =				1.10	1.13		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
W

Data File: \\alk1sws002\instdata\GC27\Data\090419ICL.b\0904F021.D

Date : 05-SEP-2019 02:58

Client ID:

Sample Info: PCB8-13E 3262 @ 1 PPB

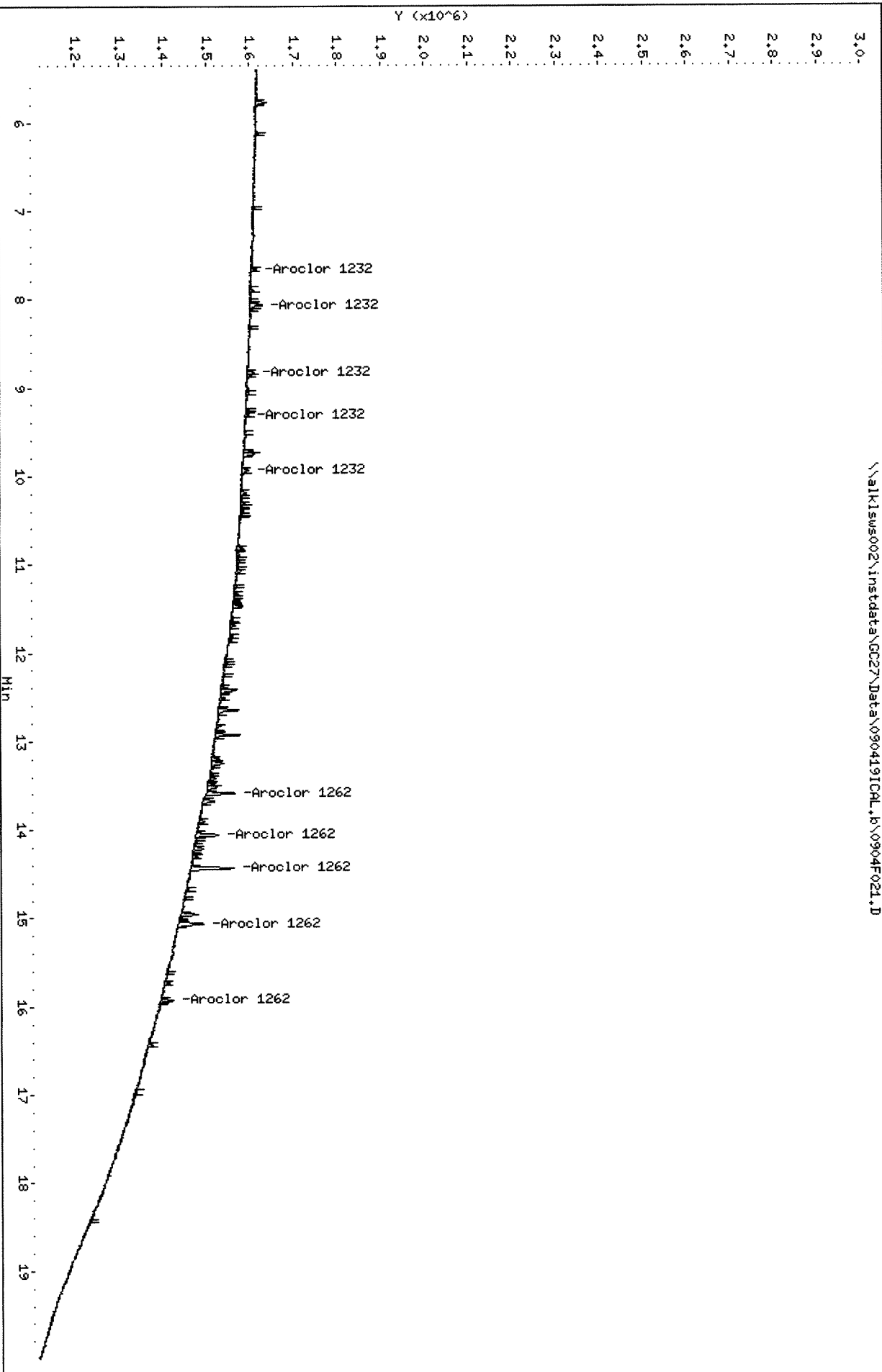
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alk1sws002\instdata\GC27\Data\090419ICL.b\0904F021.D



Data File: \\alklsws002\instdata\GC27\Data\090419ICL_r.b\0904F021.D

Date : 05-SEP-2019 02:58

Client ID:

Sample Info: PCB8-13E 3262 @ 1 PPB

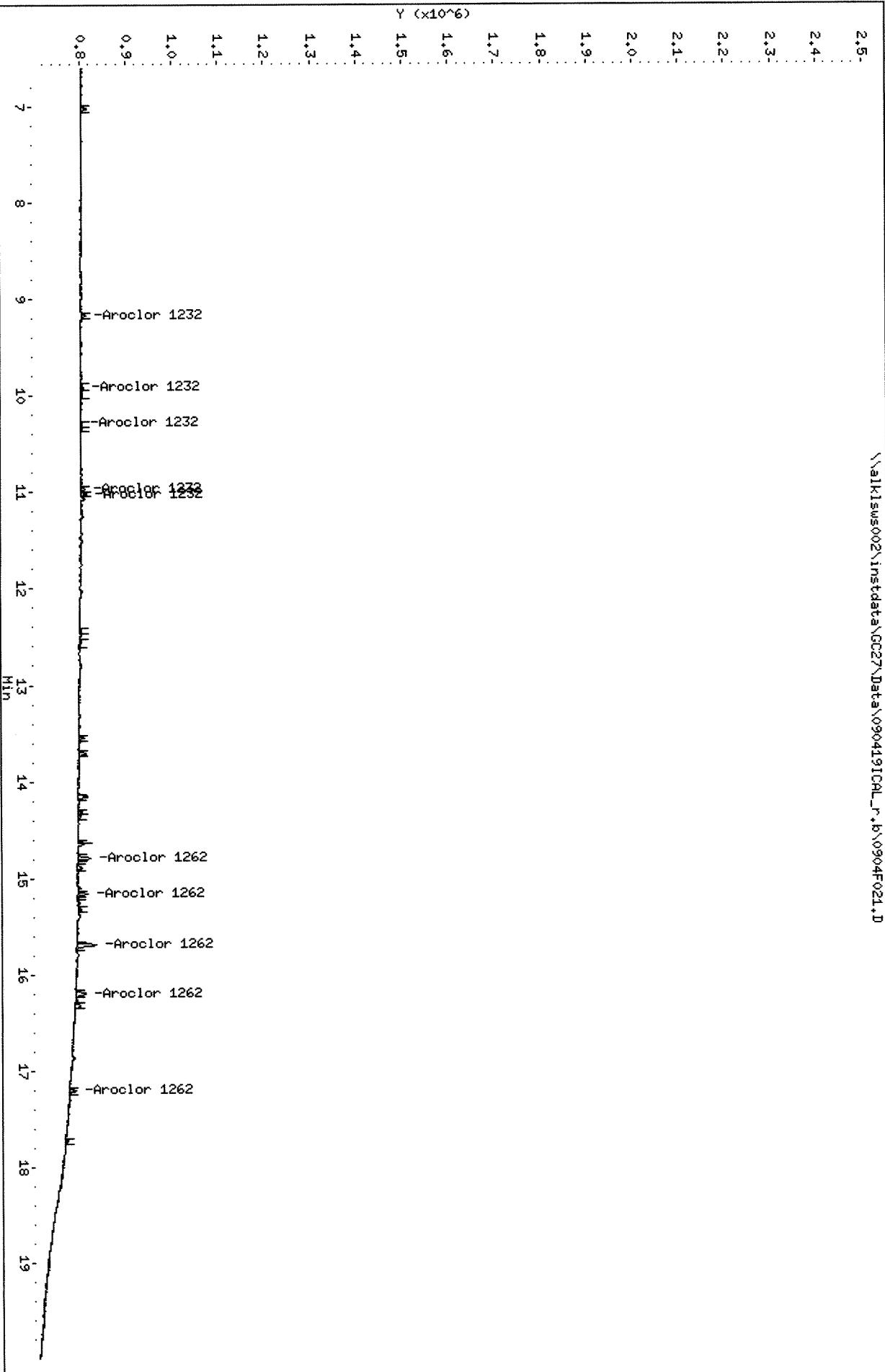
Column phase: DB-XLB

Instrument: GC27.i

Operator: SQA

Column diameter: 0.32

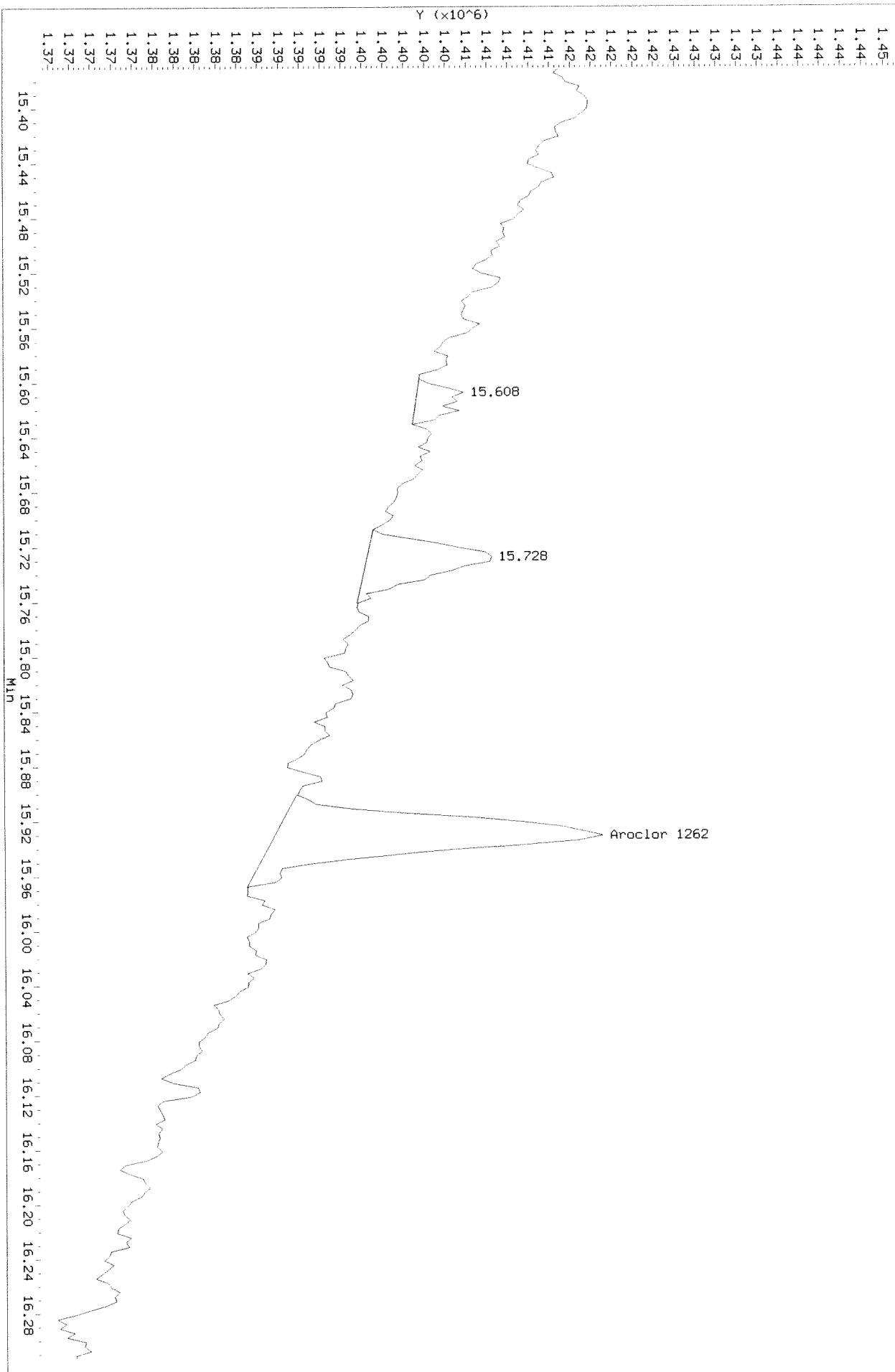
\\alklsws002\instdata\GC27\Data\090419ICL_r.b\0904F021.D



Data File: \\alk1sws002\instdata\GC27\Data\090419ICL.b\0904F021.D
Injection Date: 05-SEP-2019 02:58
Instrument: GC27.1
Client Sample ID:

Before

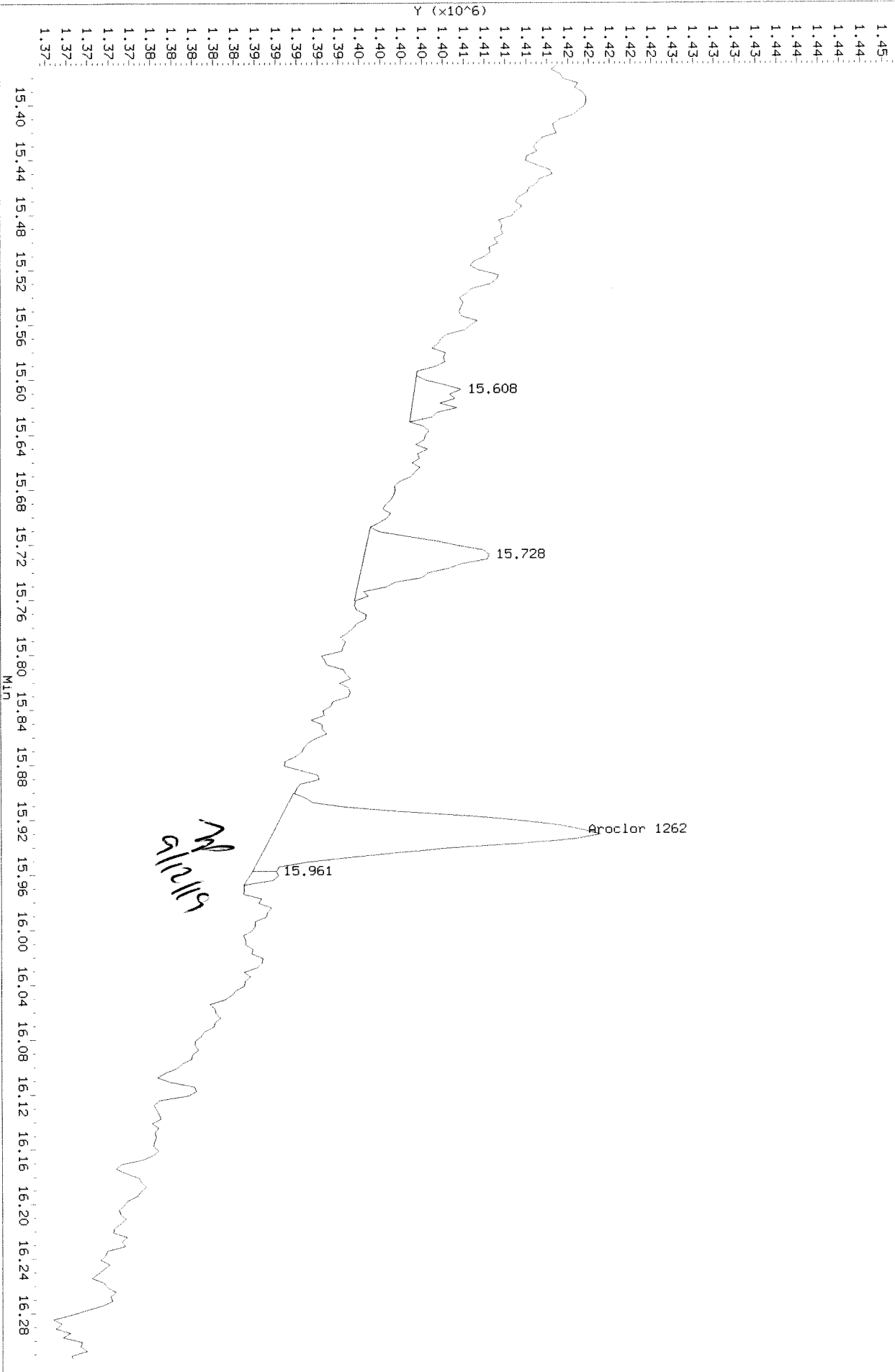
HP6890 GC Data, ECD1A.CH: 15.372 to 16.313 Min



Data File: \\alk1sws002\instdata\GC27\Data\090419ICAL.b\0904F021.D
Injection Date: 05-SEP-2019 02:58
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 15.372 to 16.313 MIN

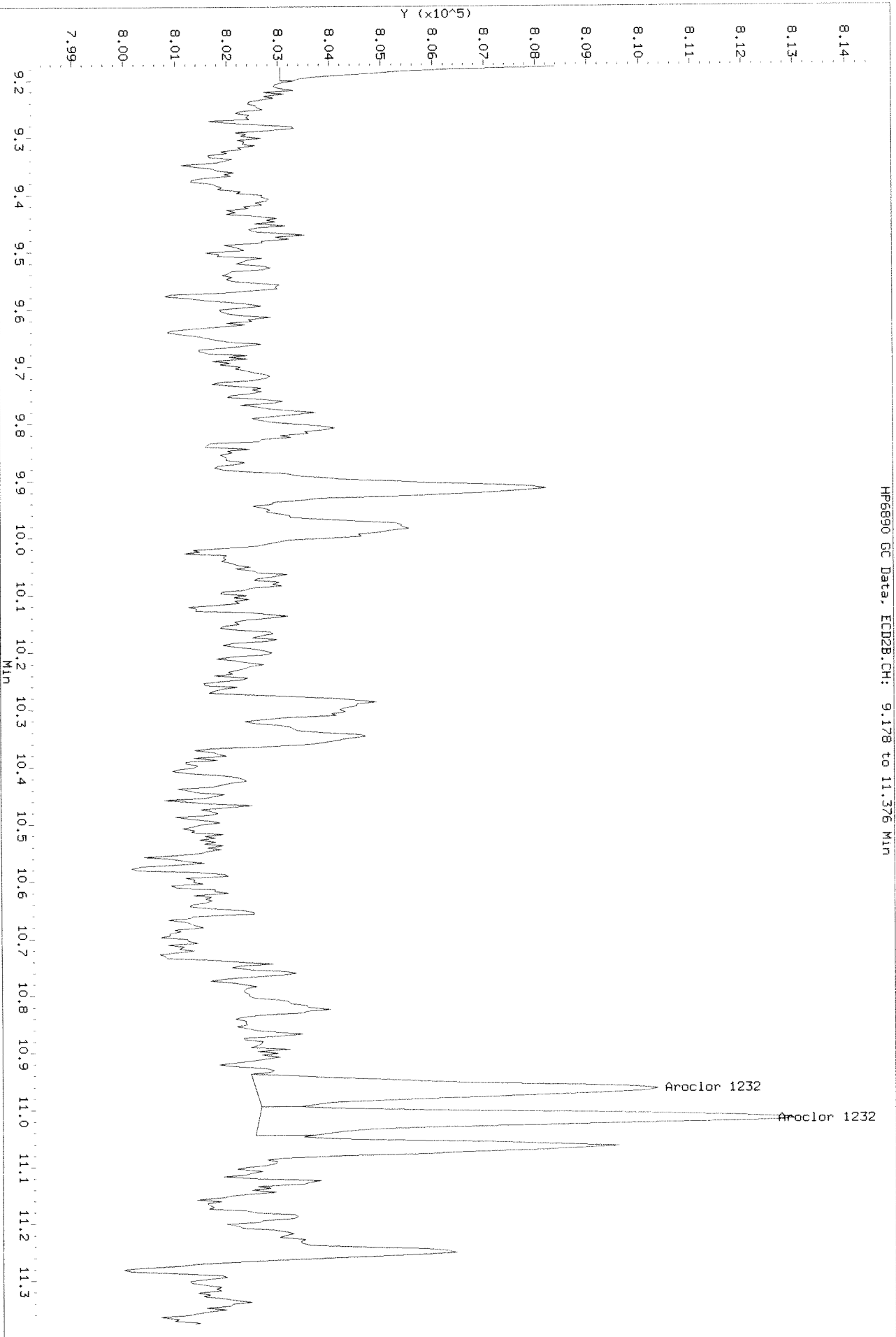
After Shoulder 9/11/19 A



Data File: \\alk1sws002\instdata\GC27\Data\090419ICAL_r.b\0904F021.D
Injection Date: 05-SEP-2019 02:58
Instrument: GC27.1
Client Sample ID:

Refer

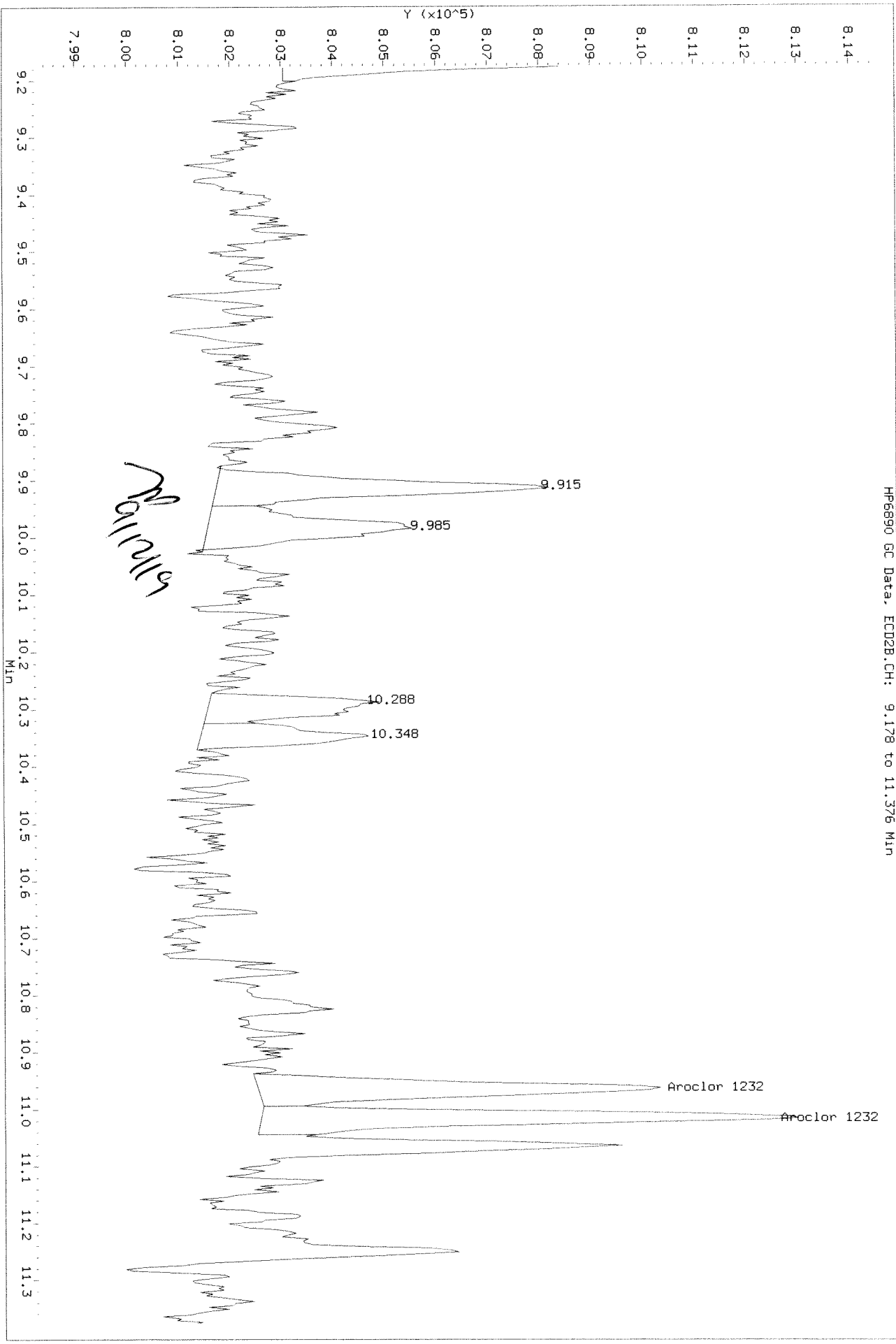
HP6890 GC Data: F021.D:CH: 9.178 to 11.376 Min



Data File: \\alk1sws002\instdata\GC27\Data\090419ICDL_r.b\0904f021.D
Injection Date: 05-SEP-2019 02:58
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 9.178 to 11.376 Min

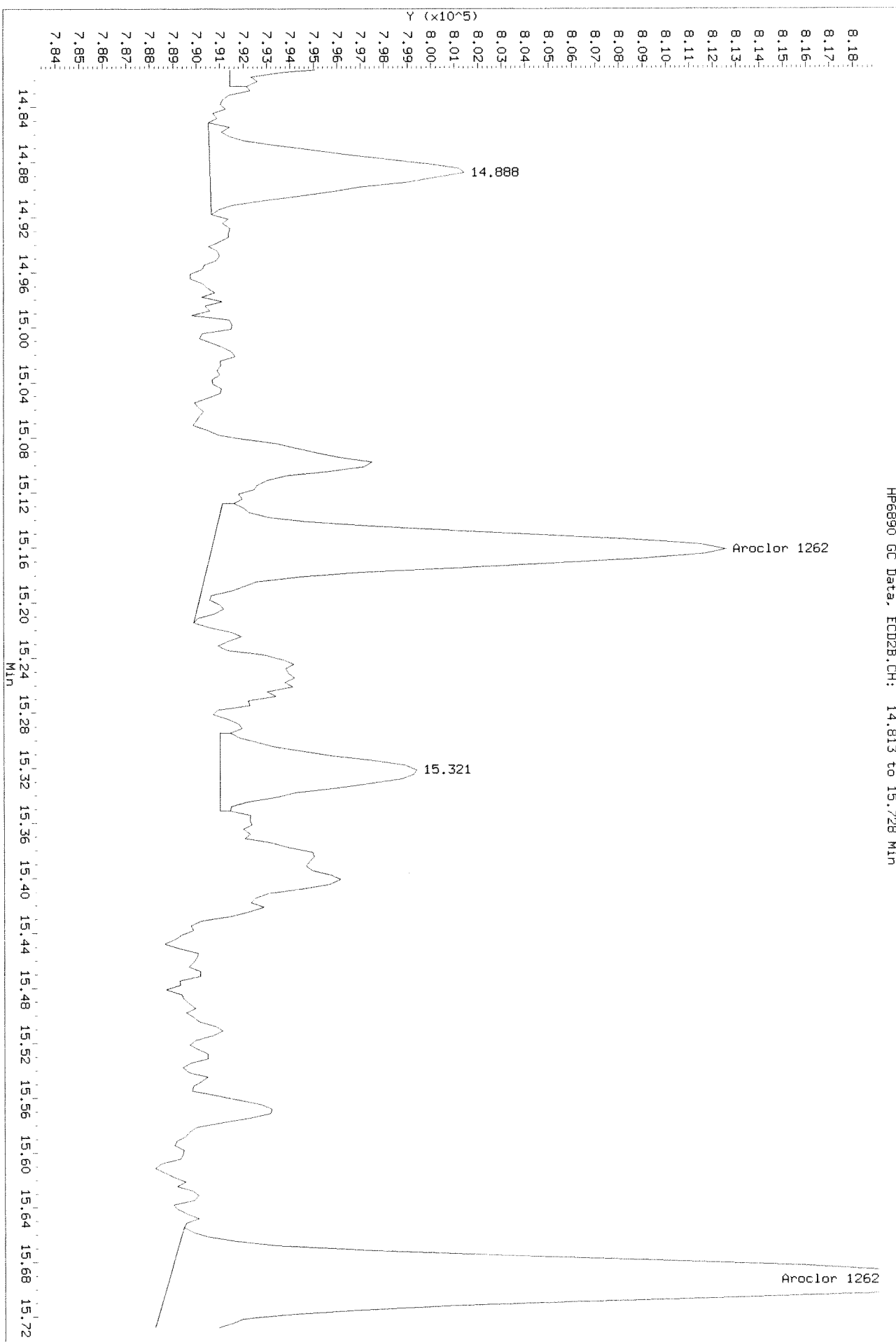
After missed peaks 11/19 A



Data File: \\alkisw002\instdata\GC27\Data\090419ICAL_r.b\0904F021.D
Injection Date: 05-SEP-2019 02:58
Instrument: GC27.1
Client Sample ID:

Before

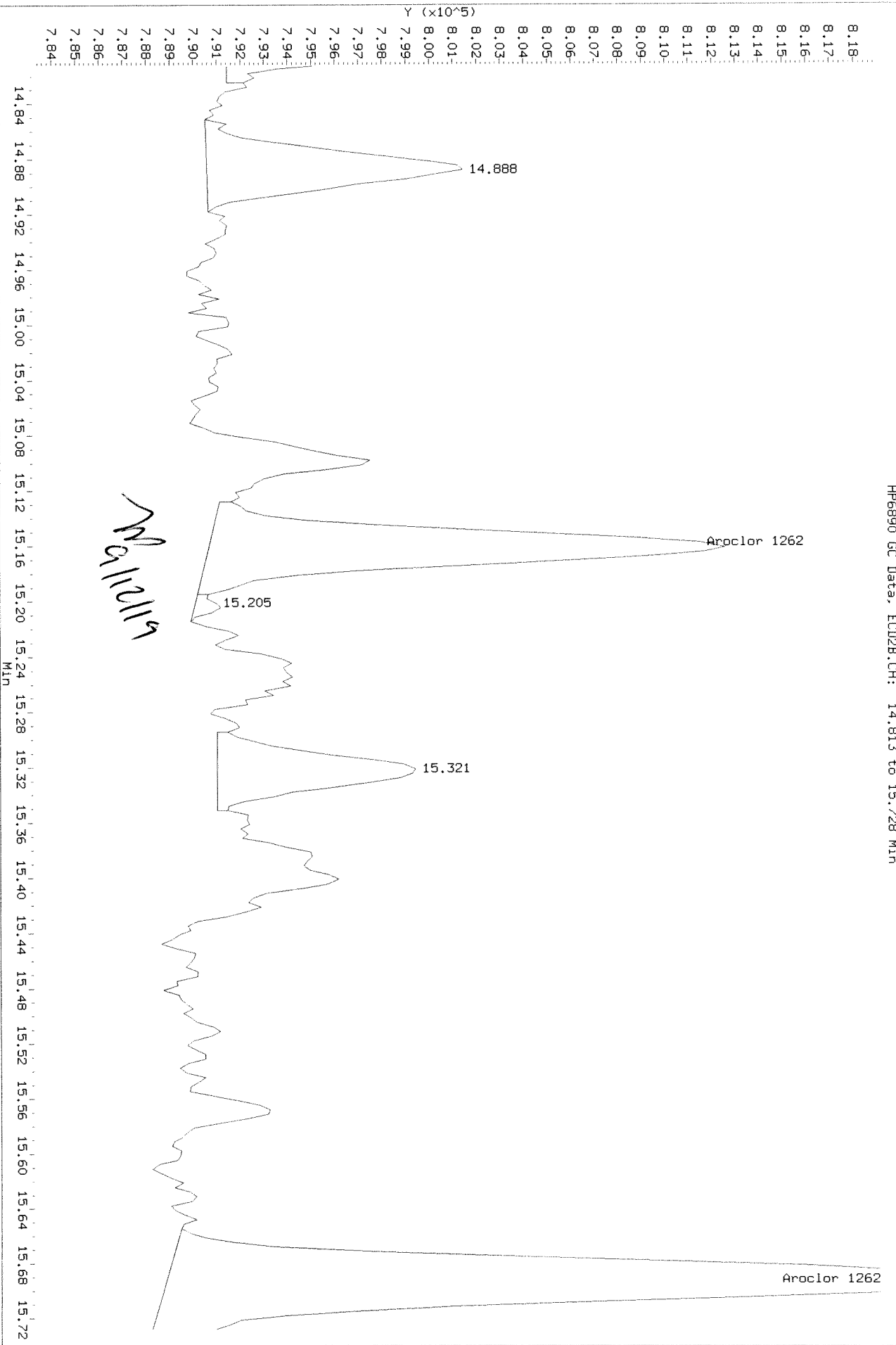
HP6890 GC Data, ECD2B.CH: 14.813 to 15.728 MIN



Data File: \\alklsw002\instdata\GC27\Data\090419ICALL_r.b\0904F021.D
Injection Date: 05-SEP-2019 02:58
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 14.813 to 15.728 Min

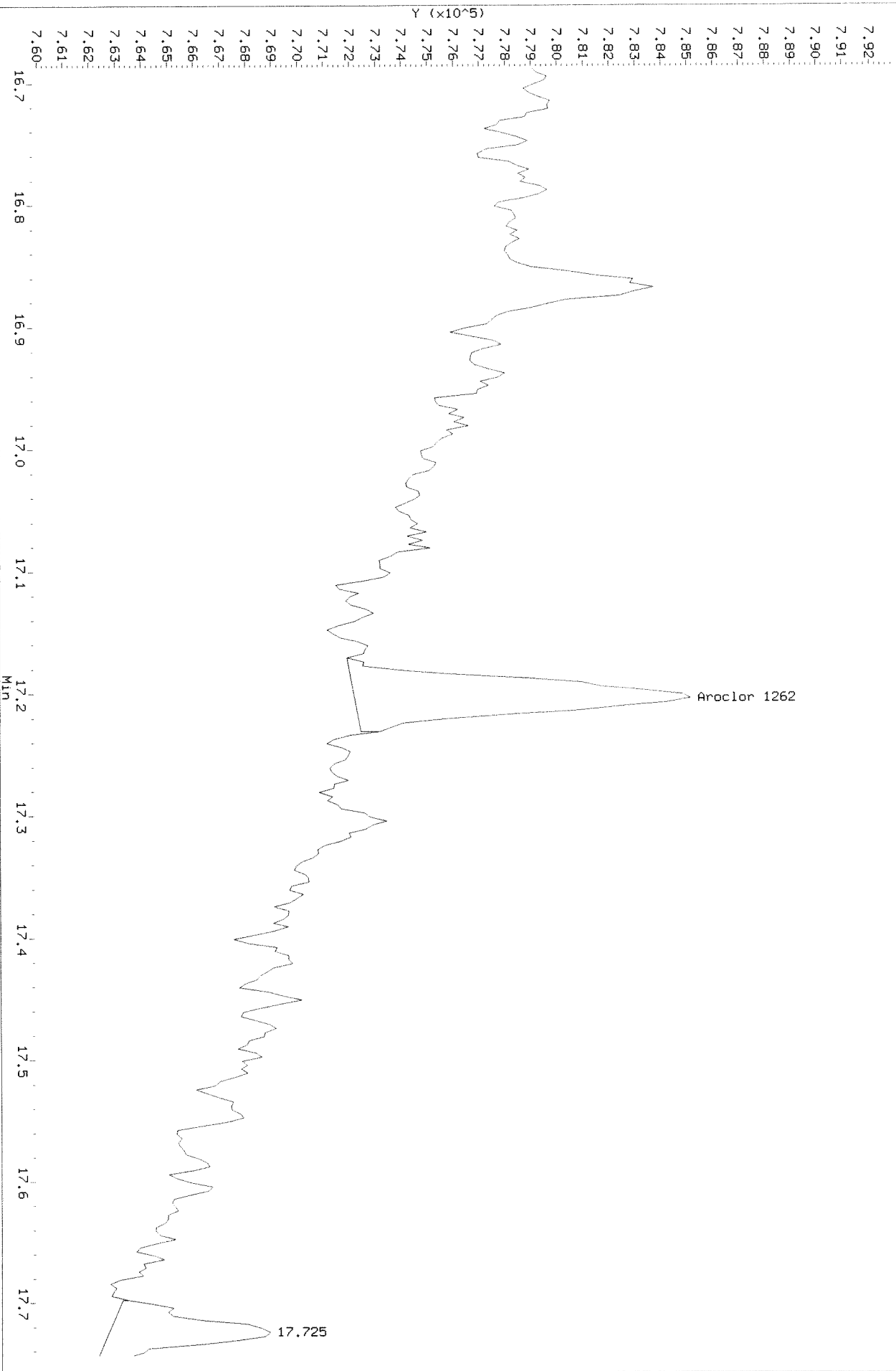
After shoulder 9/11/19 A



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F021.D
Injection Date: 05-SEP-2019 02:58
Instrument: GC27.1
Client Sample ID:

Before

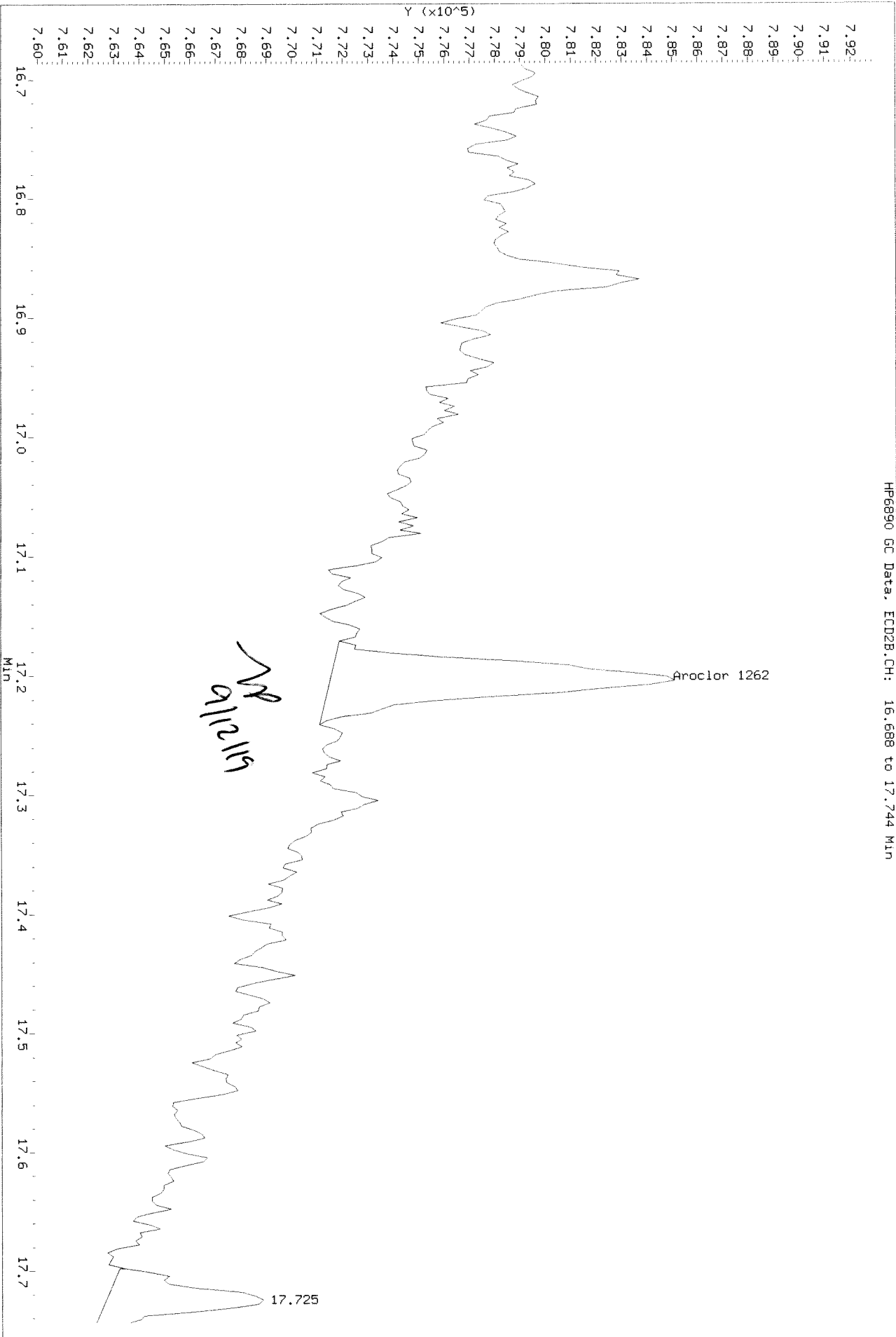
HP6890 GC Data, ECD2B.CH: 16.688 to 17.744 Min



Data File: \\alk1sws002\inetdata\GC27\Data\090419ICALL_r.b\0904F021.D
Injection Date: 05-SEP-2019 02:58
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 16.688 to 17.744 Min

After baseline 9/11/19 ft



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F022.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F022.D
 Inj Date : 05-SEP-2019 03:29
 Sample Info: PCB8-13F 3262 @ 2 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 3262.sub
 Sub List #2 : 3262.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1232	7.660	9.164	33971	38512	2.18	1.96	80.00- 120.00	100.00 (M)
	8.060	9.910	96316	21534	2.05	1.97	234.25- 351.38	283.52 (M)
	8.827	10.294	85195	13097	2.24	1.78	205.56- 308.34	250.79 (M)
	9.307	10.964	30852	33040	2.24	2.18	76.03- 114.04	90.82 (M)
	9.930	11.014	57144	35059	2.17	2.00	137.78- 206.67	168.21 (M)
Average of Peak Amounts =					2.18	1.98		
Aroclor 1262	13.584	14.790	207877	95516	2.22	2.25	80.00- 120.00	100.00
	14.057	15.160	176258	74638	2.13	2.30	71.44- 107.17	84.79
	14.430	15.690	333532	154568	2.20	2.35	135.47- 203.20	160.45
	15.060	16.197	247752	96025	2.25	2.18	96.75- 145.12	119.18
	15.927	17.204	102888	53661	2.15	2.36	43.01- 64.52	49.49
Average of Peak Amounts =					2.19	2.29		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
W

Data File: \\aik1sus002\instdata\GC27\Data\090419ICL.b\0904F022.D

Date : 05-SEP-2019 03:29

Client ID:

Sample Info: PCB8-13F 3262 @ 2 PPB

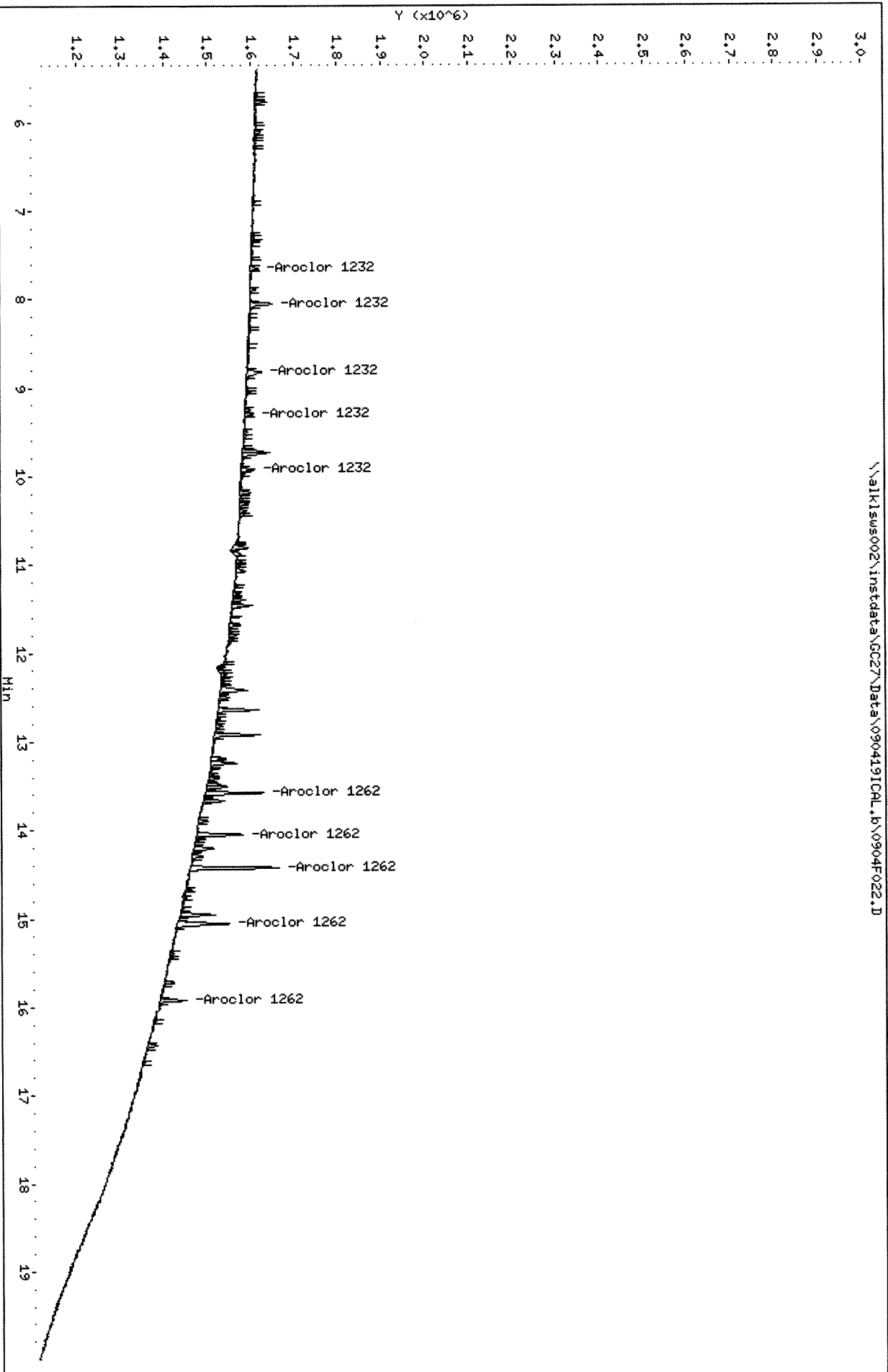
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\aik1sus002\instdata\GC27\Data\090419ICL.b\0904F022.D



Data File: \\alk1s002\instdata\GC27\Data\090419ICAL_r.b\0904F022.D

Date : 05-SEP-2019 03:29

Client ID:

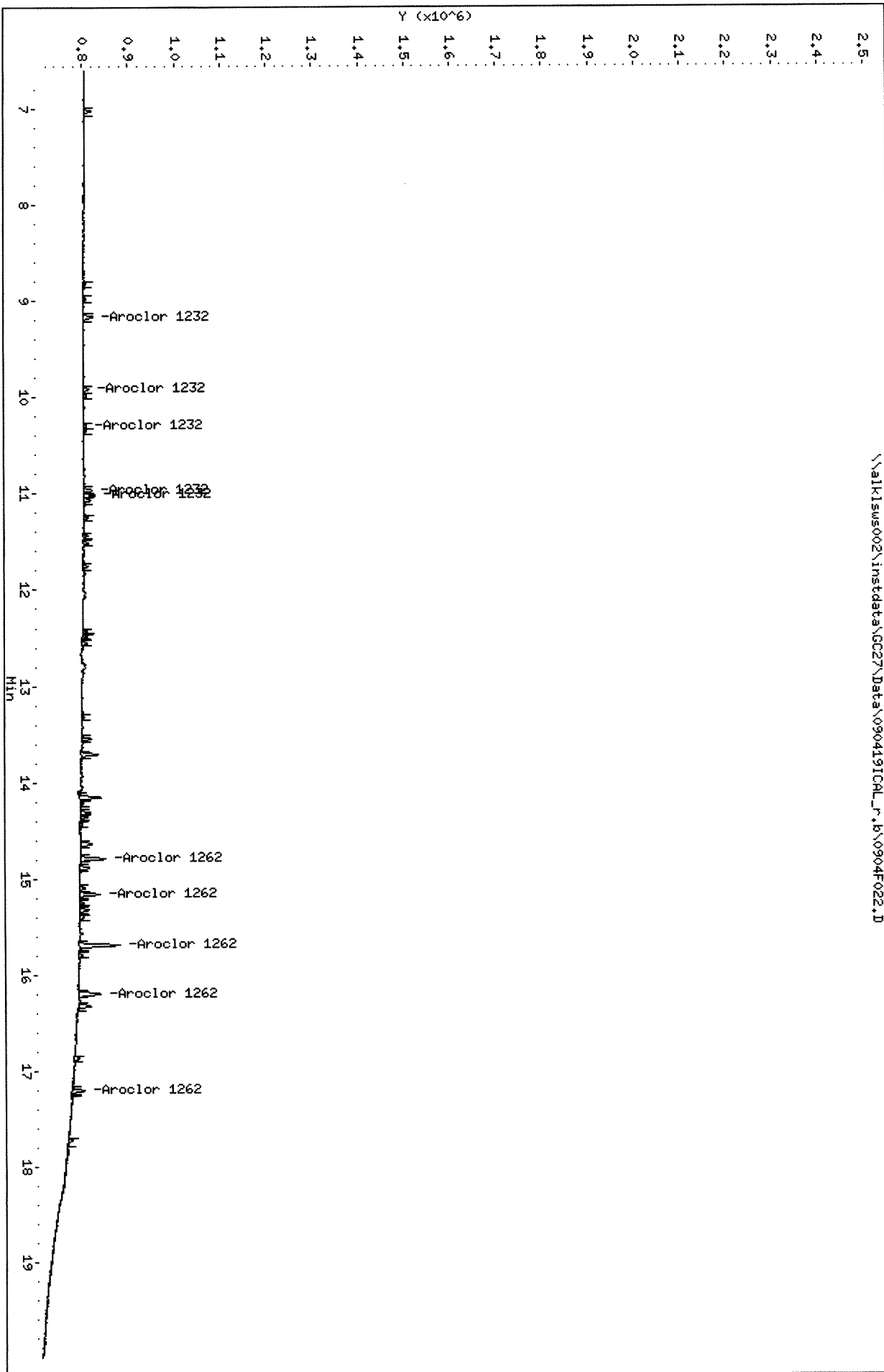
Sample Info: PCB8-13F 3262 @ 2 PPB

Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

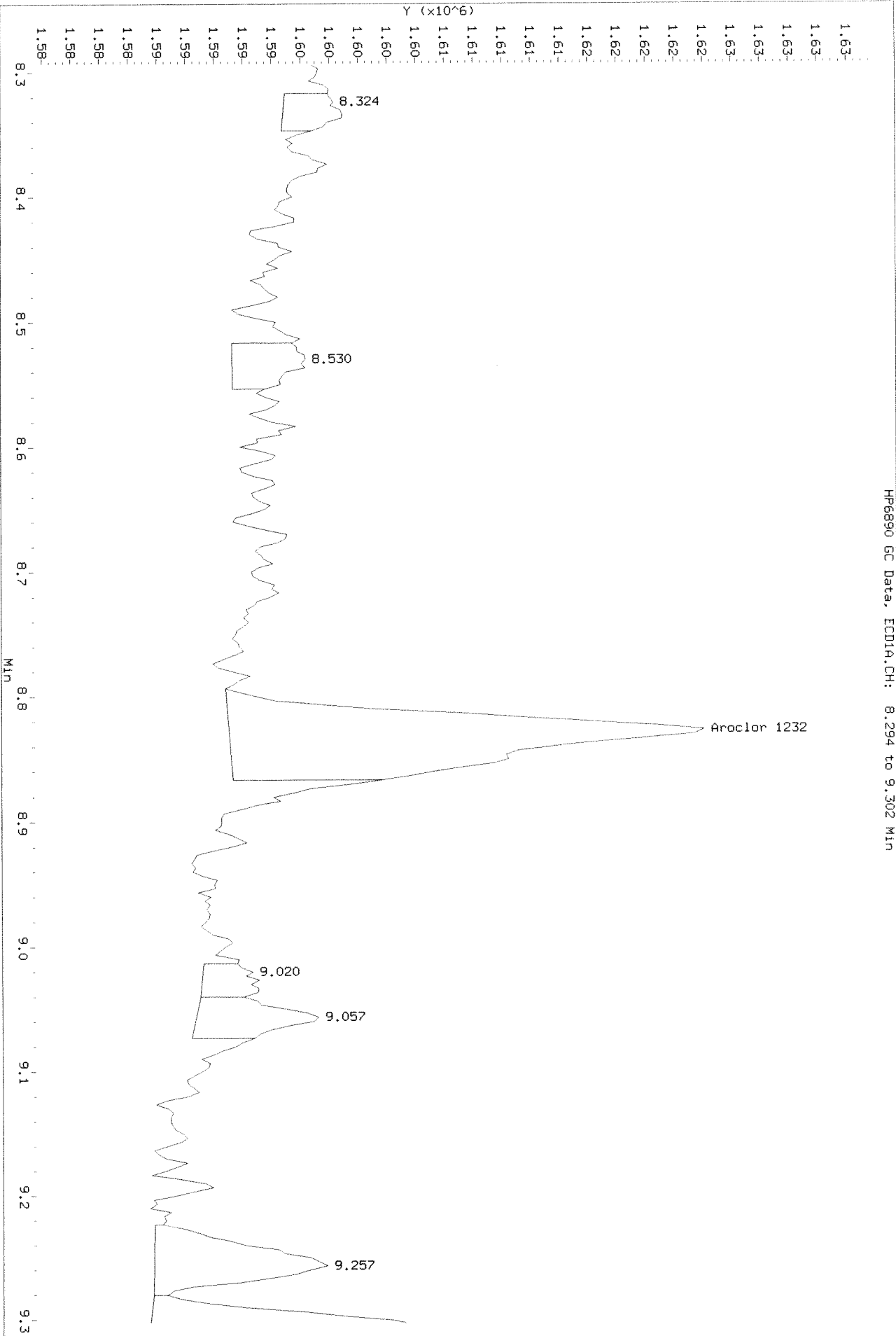
Column diameter: 0.32



Data File: \\alkjms002\instdata\GC27\Data\090419ICAL.P\0904F022.D
Injection Date: 05-SEP-2019 03:29
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 8.294 to 9.302 Min

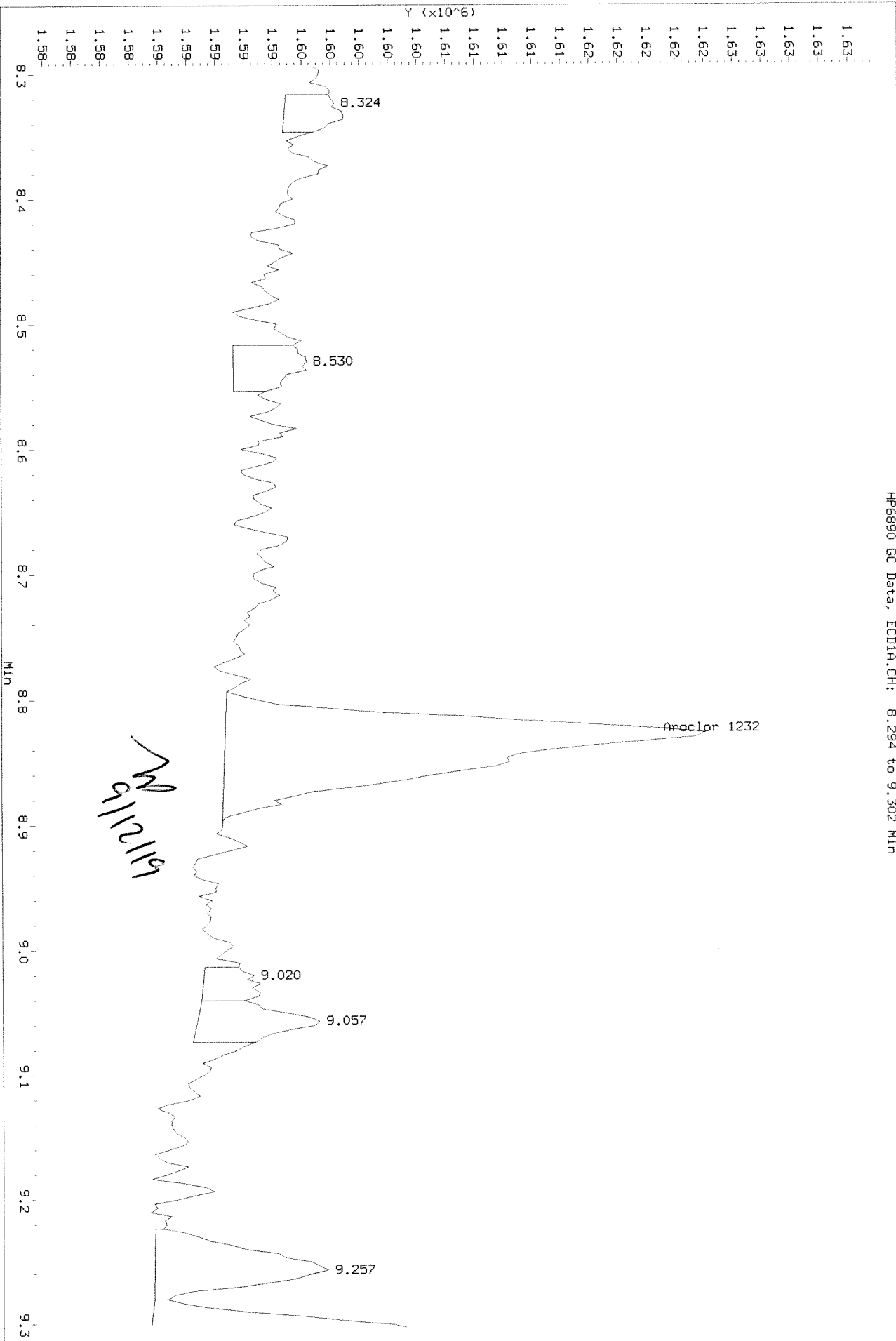
Before



Data File: \\alklsws002\instdata\GC27\Data\090419ICL.B\0904F022.D
Injection Date: 05-SEP-2019 03:29
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 8.294 to 9.302 MIN

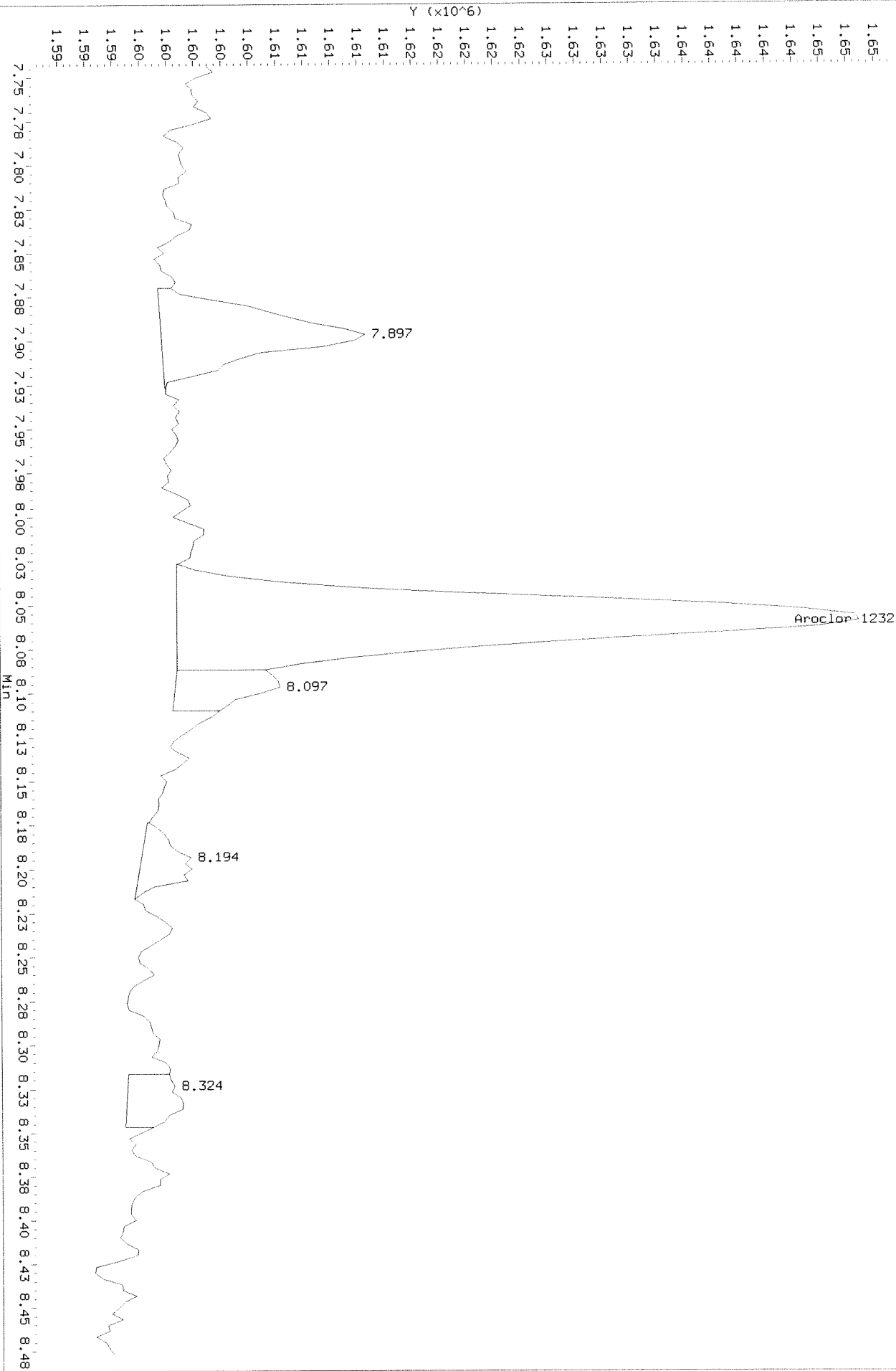
After baseline 9/11/19 A



Data File: \\alklms002\instdata\GC27\Data\090419ICHL.B\0904F022.D
Injection Date: 05-SEP-2019 03:29
Instrument: GC27.1
Client Sample ID:

Before

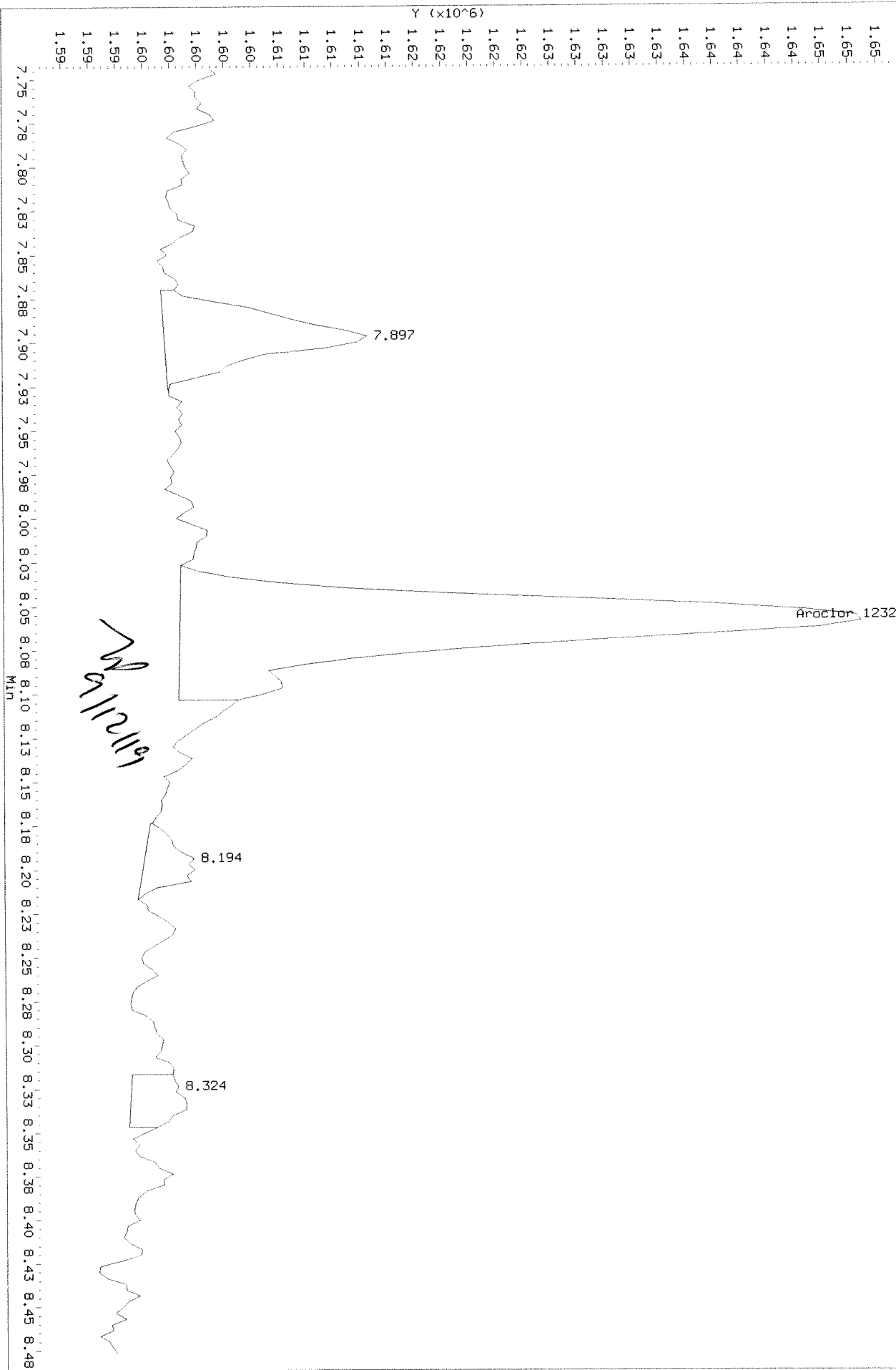
HP6890 GC Data, ECD1A.CH: 7.744 to 8.477 Min



Data File: \\alklsw002\inst\data\GC27\Data\090419ICAL.b\0904f022.D
Injection Date: 09-SEP-2019 03:29
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 7.744 to 8.477 Min

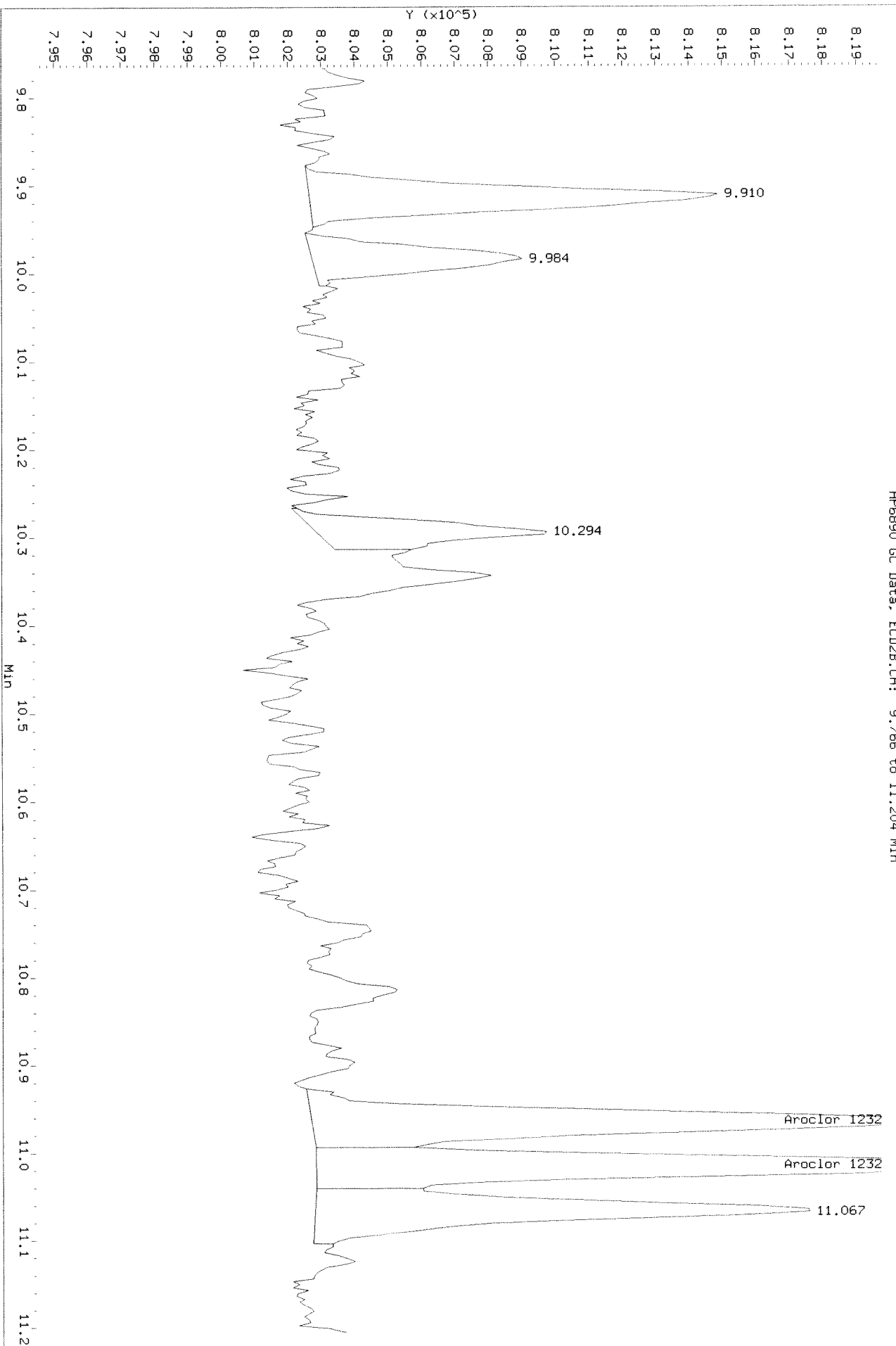
After baseline 9/11/19 *AF*



Data File: \\alkjsw002\instdata\GC27\Data\090419ICALL_r.b\0904F022.D
Injection Date: 05-SEP-2019 03:29
Instrument: GC27.1
Client Sample ID:

Before

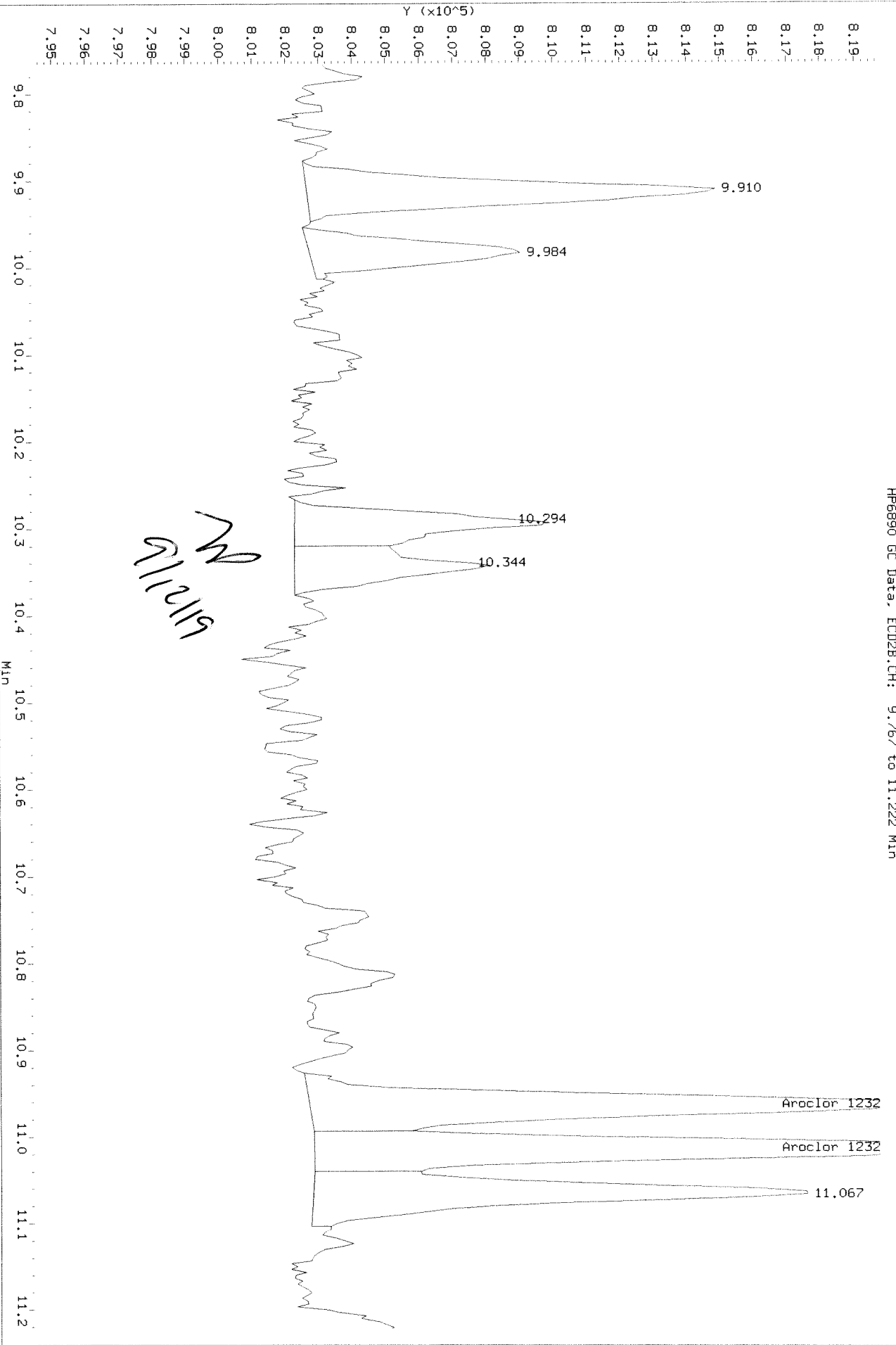
HP6890 GC Data, ECD28.CH: 9.766 to 11.204 Min



Data File: \\alkjsws002\instdata\GC27\Data\090419ICALL.r.b\0904F022.D
Injection Date: 05-SEP-2019 03:29
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECDDB.CH: 9.767 to 11.222 Min

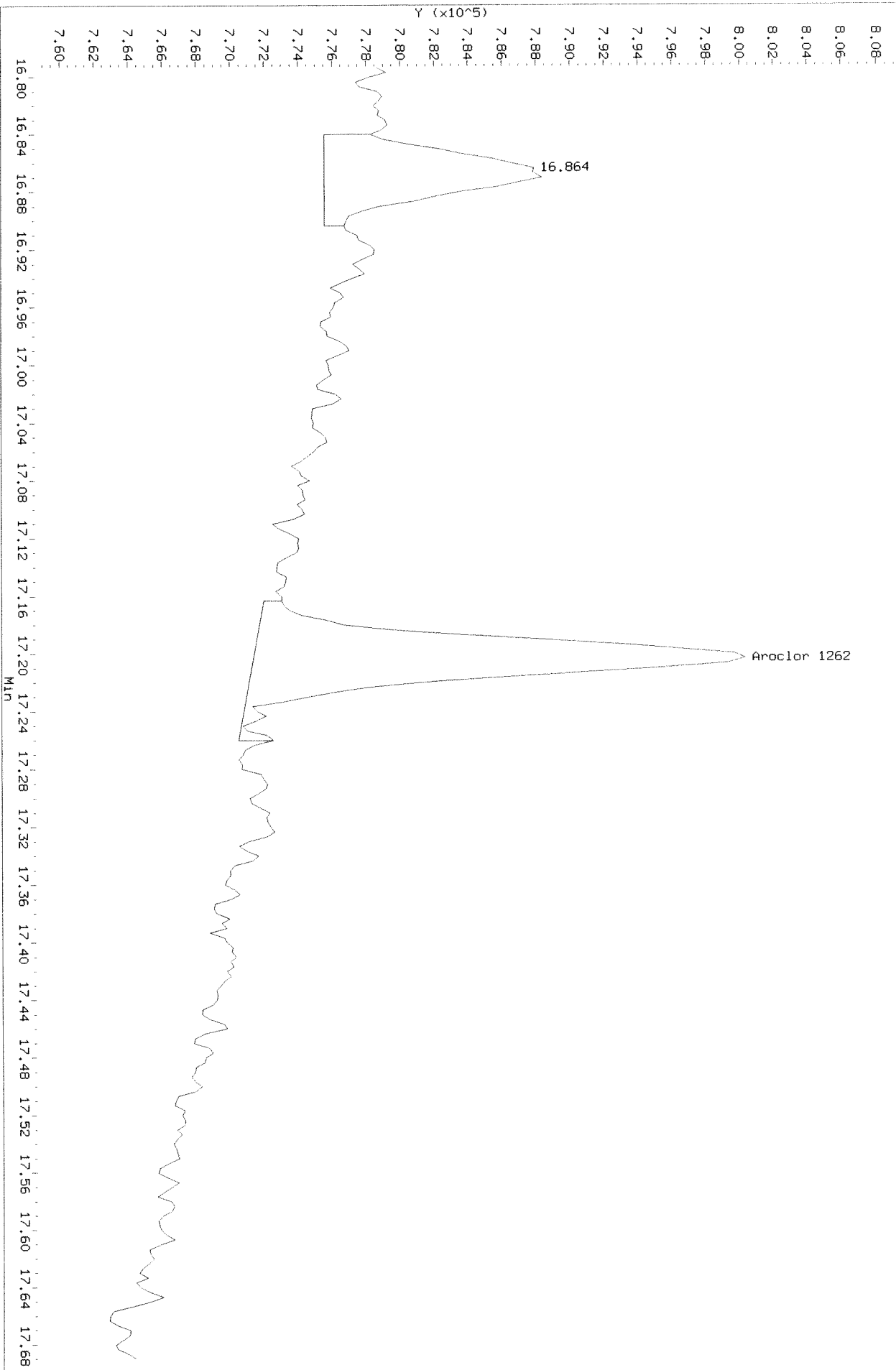
After baseline 7/11/19 ft



Data File: \\alk1sws002\instdata\GC27\Data\090419ICALL_r.b\0904F022.D
Injection Date: 05-SEP-2019 03:29
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 16.794 to 17.690 Min

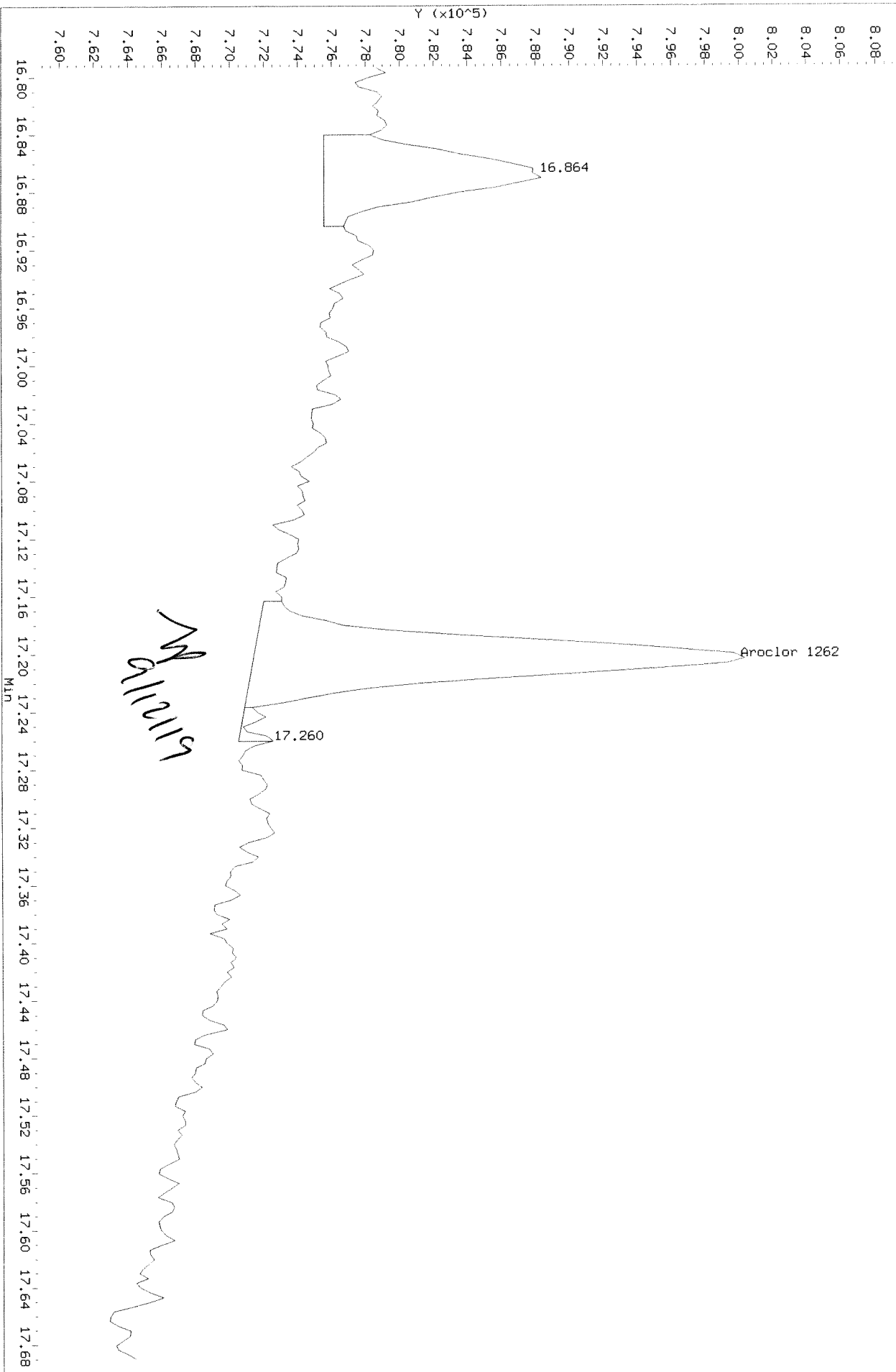
Before



Data File: \\alk1sww002\instdata\GC27\Data\090419ICAL_r.b\0904F022.D
Injection Date: 05-SEP-2019 03:29
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 16.794 to 17.690 MIN

After Shalby 9/11/19 A



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F023.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F023.D
 Inj Date : 05-SEP-2019 04:01
 Sample Info: PCB8-13G 3262 @ 5 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 3262.sub
 Sub List #2 : 3262.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1232	7.659	9.166	78190	98378	5.01	5.00	80.00- 120.00	100.00 (M)
	8.059	9.916	253643	52191	5.41	4.78	234.25- 351.38	324.39 (M)
	8.829	10.293	199072	36278	5.24	4.94	205.56- 308.34	254.60 (M)
	9.306	10.966	73747	77270	5.34	5.10	76.03- 114.04	94.32 (M)
	9.932	11.016	131374	89548	4.98	5.11	137.78- 206.67	168.02 (M)
	Average of Peak Amounts =				5.20	4.99		
Aroclor 1262	13.582	14.793	503399	232359	5.38	5.47	80.00- 120.00	100.00
	14.052	15.163	426464	175690	5.14	5.42	71.44- 107.17	84.72
	14.429	15.689	787008	365455	5.19	5.57	135.47- 203.20	156.34
	15.059	16.199	574517	240089	5.21	5.46	96.75- 145.12	114.13
	15.926	17.203	247383	120962	5.17	5.32	43.01- 64.52	49.14
	Average of Peak Amounts =				5.22	5.45		

QC Flag Legend

M - Compound response manually integrated.

SAA 9/11/19
W

Data File: \\aik1s002\instdata\CC27\Data\090419ICL.b\0904F023.D

Date : 05-SEP-2019 04:01

Client ID:

Sample Info: PCB8-13G 3262 @ 5 PPB

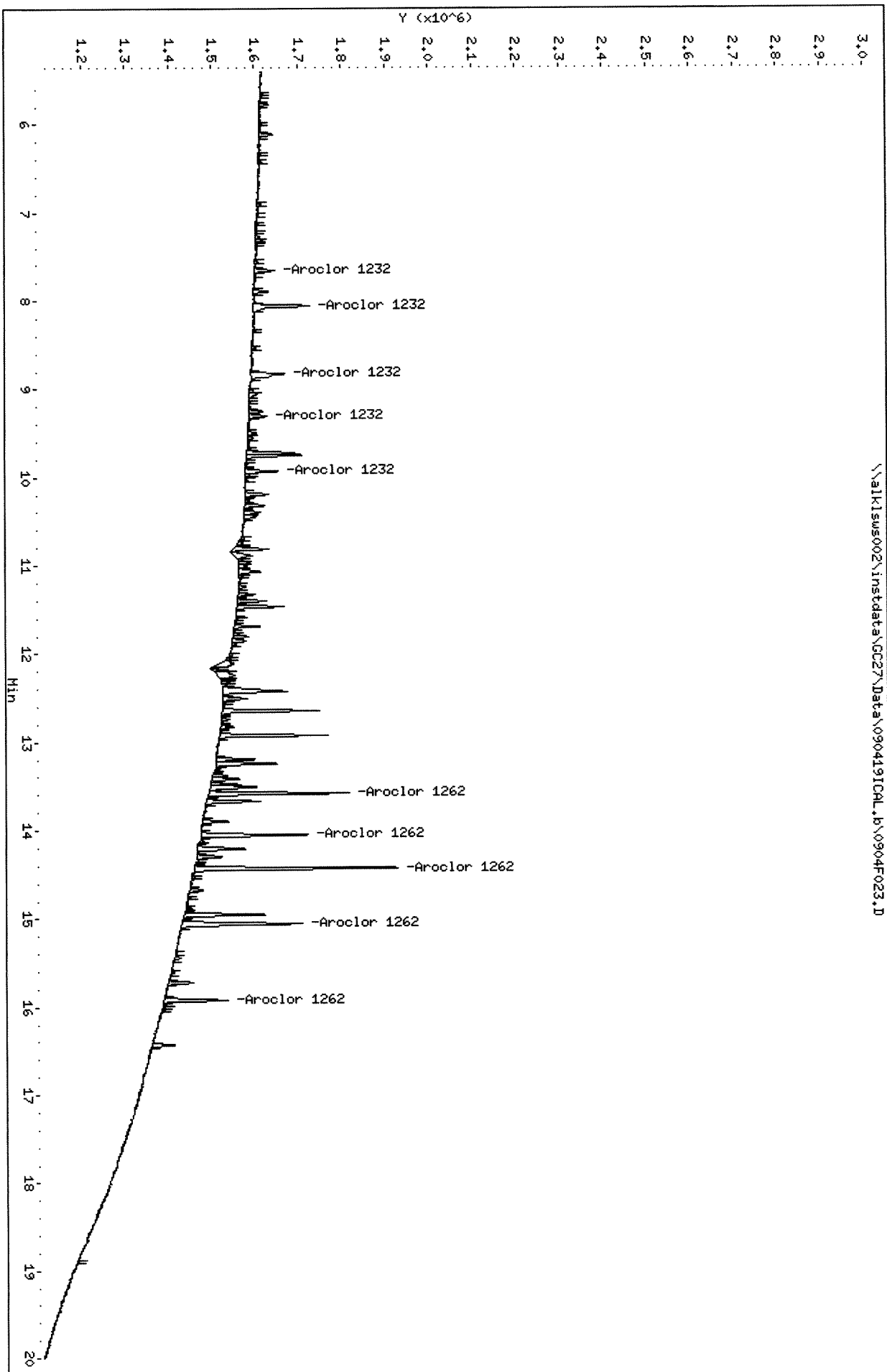
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\aik1s002\instdata\CC27\Data\090419ICL.b\0904F023.D



Data File: \\alk1sws002\instdata\GC27\Data\090419ICAL_r.b\0904F023.D
Date : 05-SEP-2019 04:01

Client ID:

Sample Info: PCB8-13G 3262 @ 5 PPB

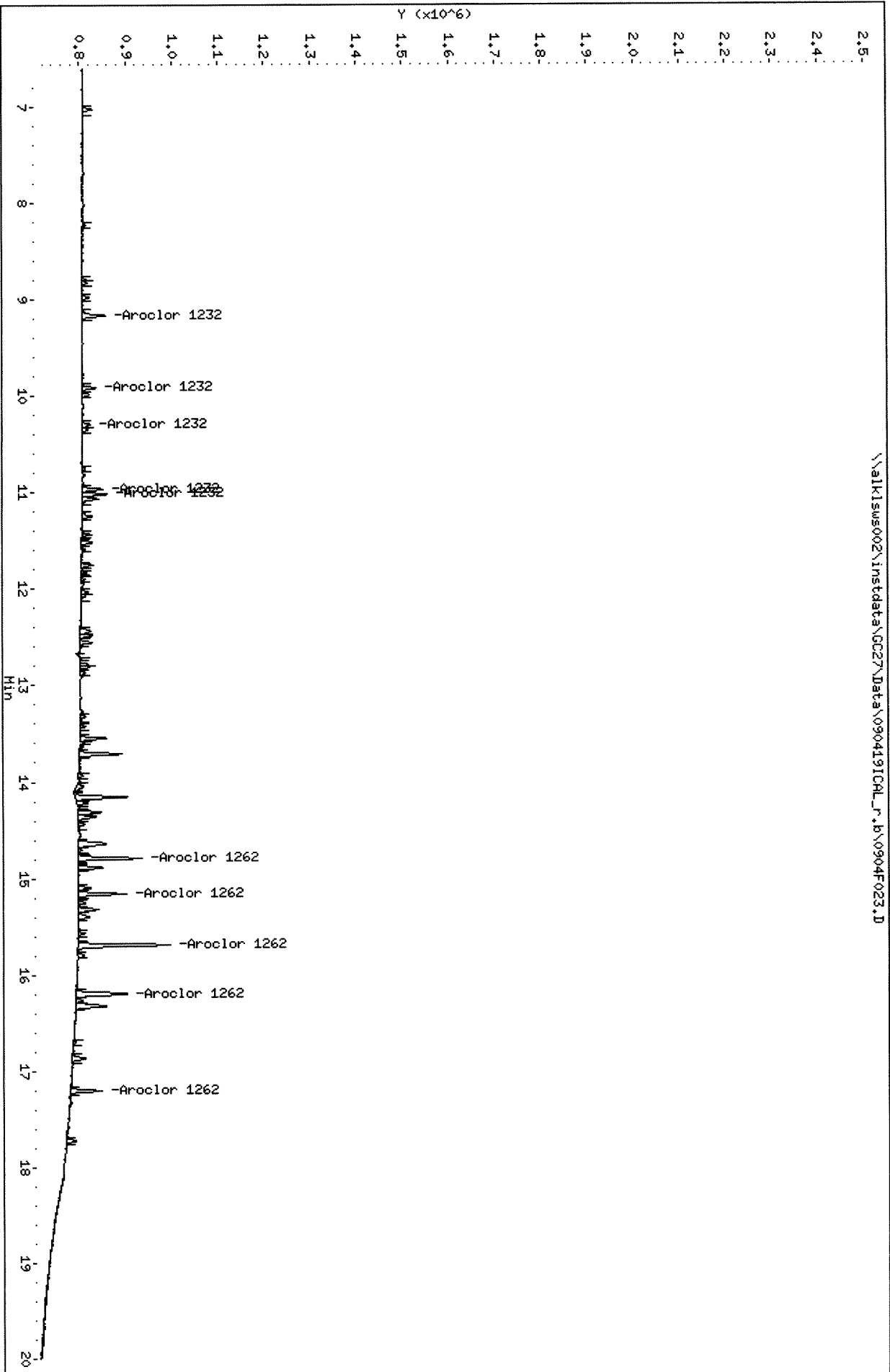
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

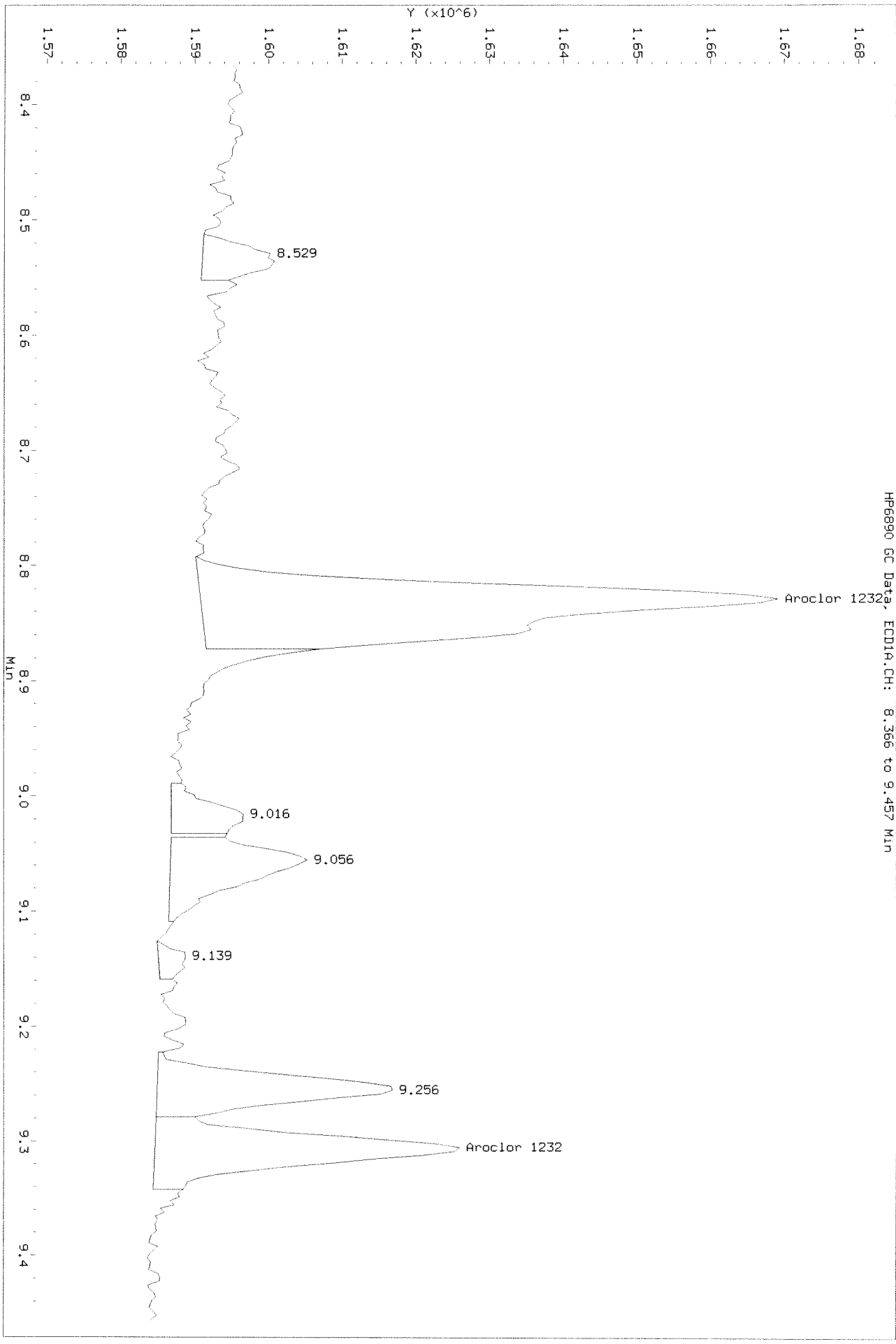
Column diameter: 0.32

\\alk1sws002\instdata\GC27\Data\090419ICAL_r.b\0904F023.D



Data File: \\alkjsws002\instdata\GC27\Data\090419ICAL.b\0904F023.D
Injection Date: 05-SEP-2019 04:01
Instrument: GC27.1
Client Sample ID:

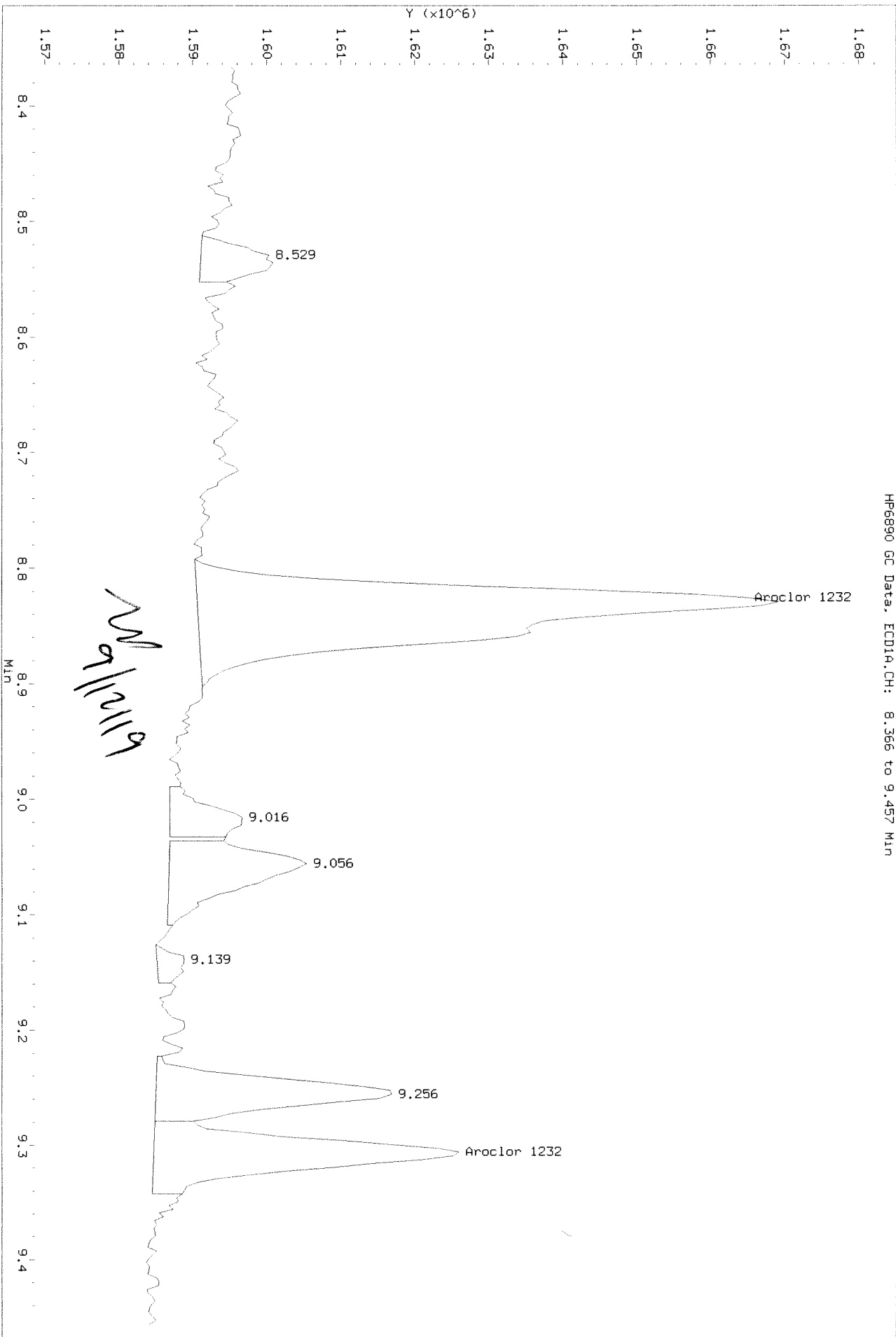
Before



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.B\0904F023.D
Injection Date: 05-SEP-2019 04:01
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 8.366 to 9.457 Min

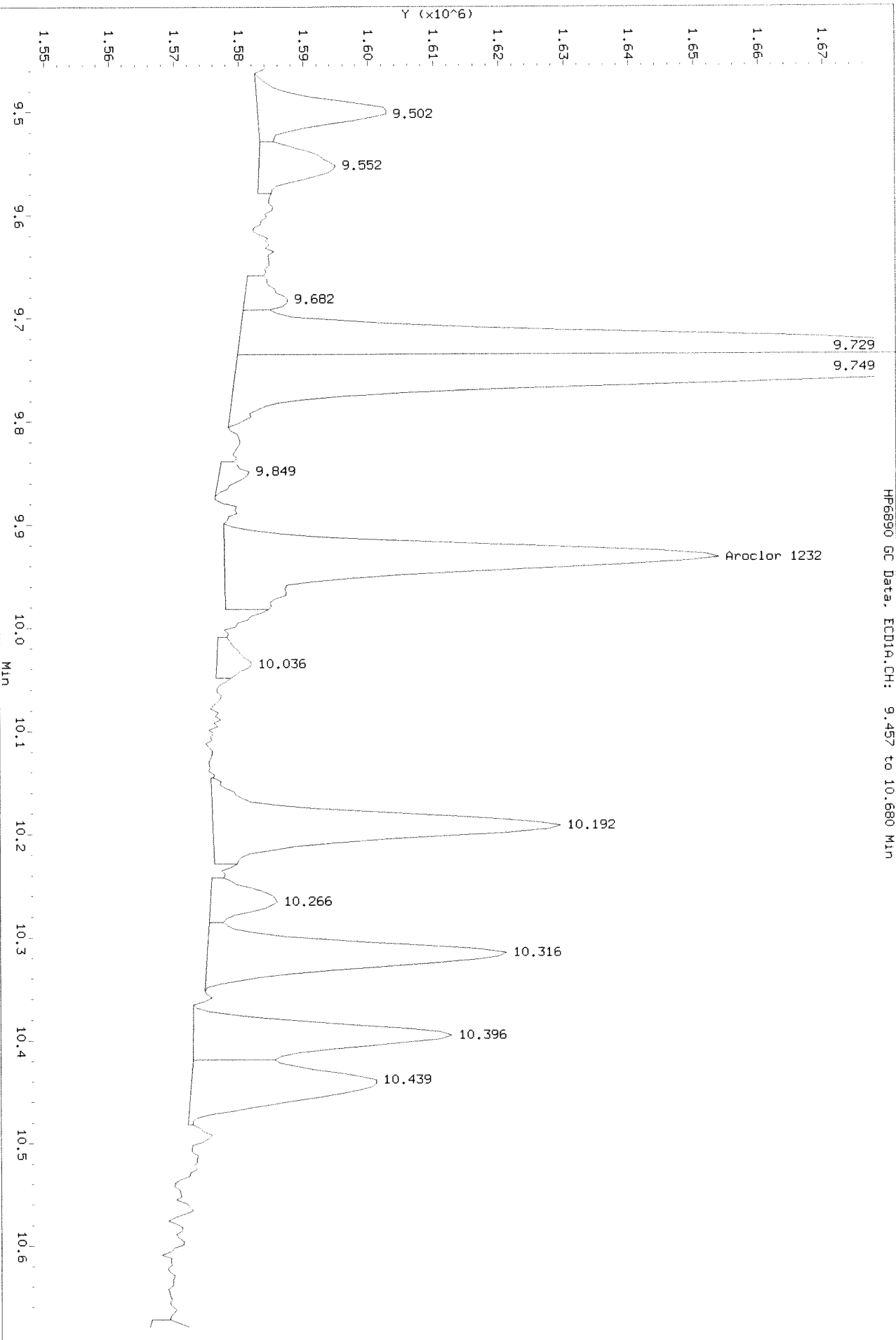
After baseline 9/11/19 A



Data File: \\alklms002\instdata\GC27\Data\090419ICAL.b\0904F023.D
Injection Date: 05-SEP-2019 04:01
Instrument: GC27.1
Client Sample ID:

Before

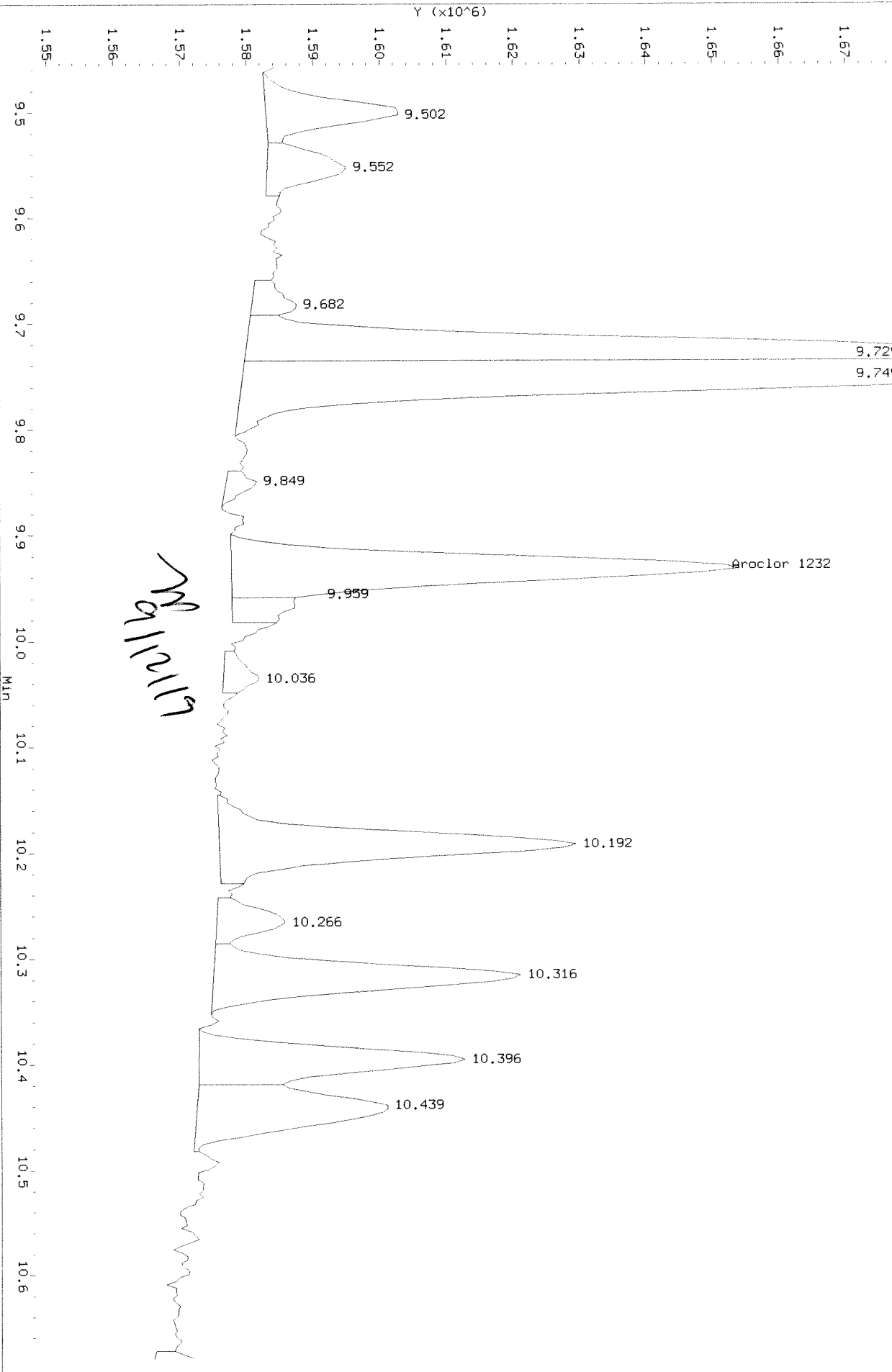
HP6890 GC Data: ECD1A.CH: 9.457 to 10.680 Min



Data File: \\alk1sww002\instdata\GC27\Data\090419ICAL.b\0904F023.D
Injection Date: 05-SEP-2019 04:01
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 9.457 to 10.680 Min

After Shoulder 9/11/19 SA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F024.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F024.D
 Inj Date : 05-SEP-2019 04:32
 Sample Info: PCB8-13H 3262 @ 10 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 3262.sub
 Sub List #2 : 3262.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1232	7.656	9.166	163107	214876	10.5	10.9	80.00- 120.00	100.00 (M)
	8.056	9.916	509540	114653	10.9	10.5	234.25- 351.38	312.40 (M)
	8.826	10.296	421344	77243	11.1	10.5	205.56- 308.34	258.32 (M)
	9.302	10.966	148552	166685	10.8	11.0	76.03- 114.04	91.08 (M)
	9.929	11.016	276681	197514	10.5	11.3	137.78- 206.67	169.63 (M)
	Average of Peak Amounts =				10.8	10.8		
Aroclor 1262	13.579	14.793	1030827	492700	11.0	11.6	80.00- 120.00	100.00
	14.052	15.163	902216	372834	10.9	11.5	71.44- 107.17	87.52
	14.429	15.693	1646131	752262	10.9	11.5	135.47- 203.20	159.69
	15.056	16.199	1202229	510435	10.9	11.6	96.75- 145.12	116.63
	15.922	17.203	524390	254968	11.0	11.2	43.01- 64.52	50.87
	Average of Peak Amounts =				10.9	11.5		

QC Flag Legend

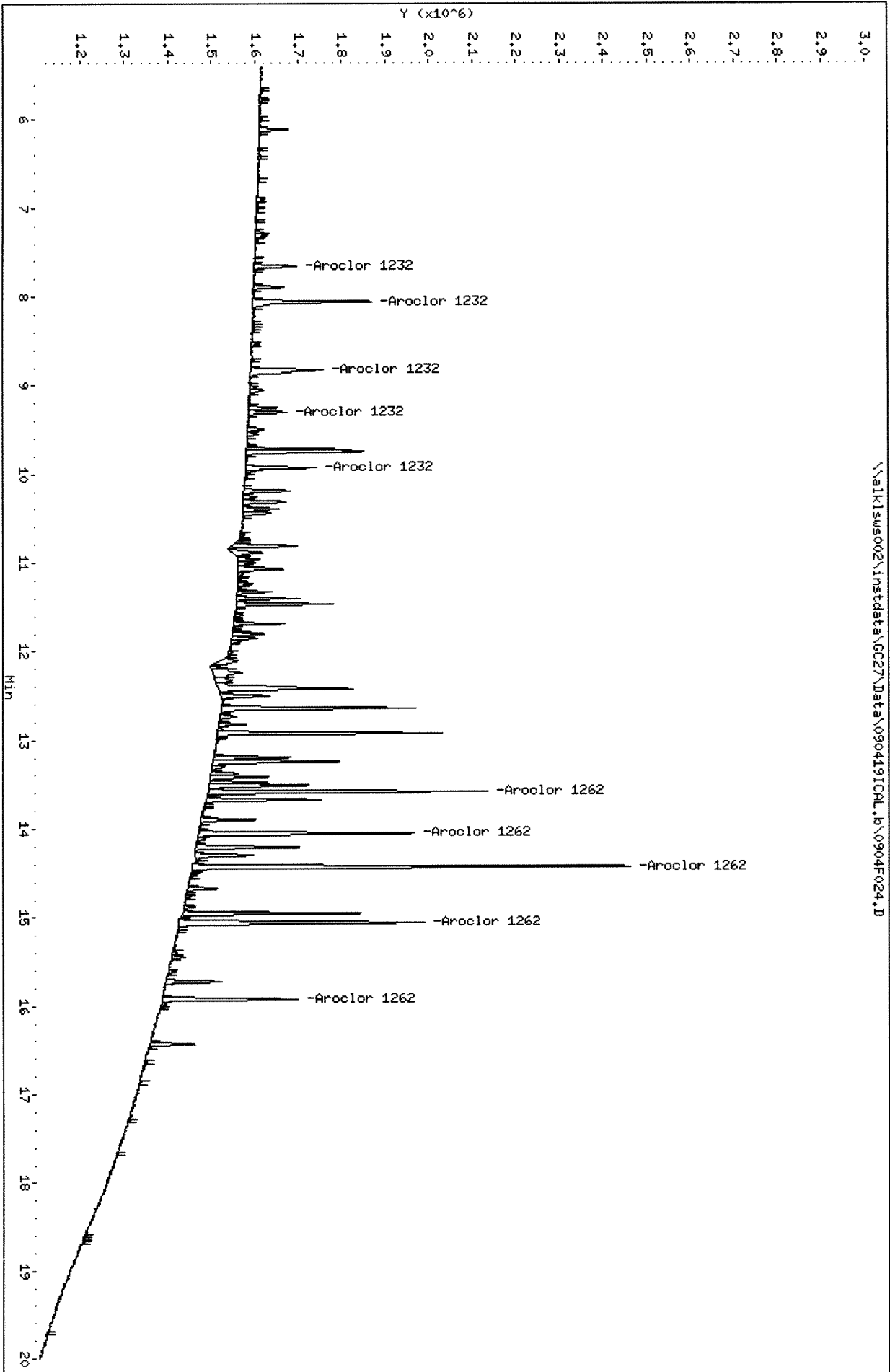
M - Compound response manually integrated.

SA 9/11/19
W

Data File: \\alk1sus002\instdata\GC27\Data\090419ICAL.b\0904f024.D
Date : 05-SEP-2019 04:32
Client ID:
Sample Info: PCB8-13H 3262 @ 10 PPB
Column phase: DB-35MS

Instrument: GC27.i
Operator: SAA
Column diameter: 0.32

\\alk1sus002\instdata\GC27\Data\090419ICAL.b\0904f024.D



Data File: \\alk1s002\instdata\GC27\Data\090419ICAL_r.b\0904F024.D

Date : 05-SEP-2019 04:32

Client ID:

Sample Info: PCB8-13H 3262 @ 10 PPB

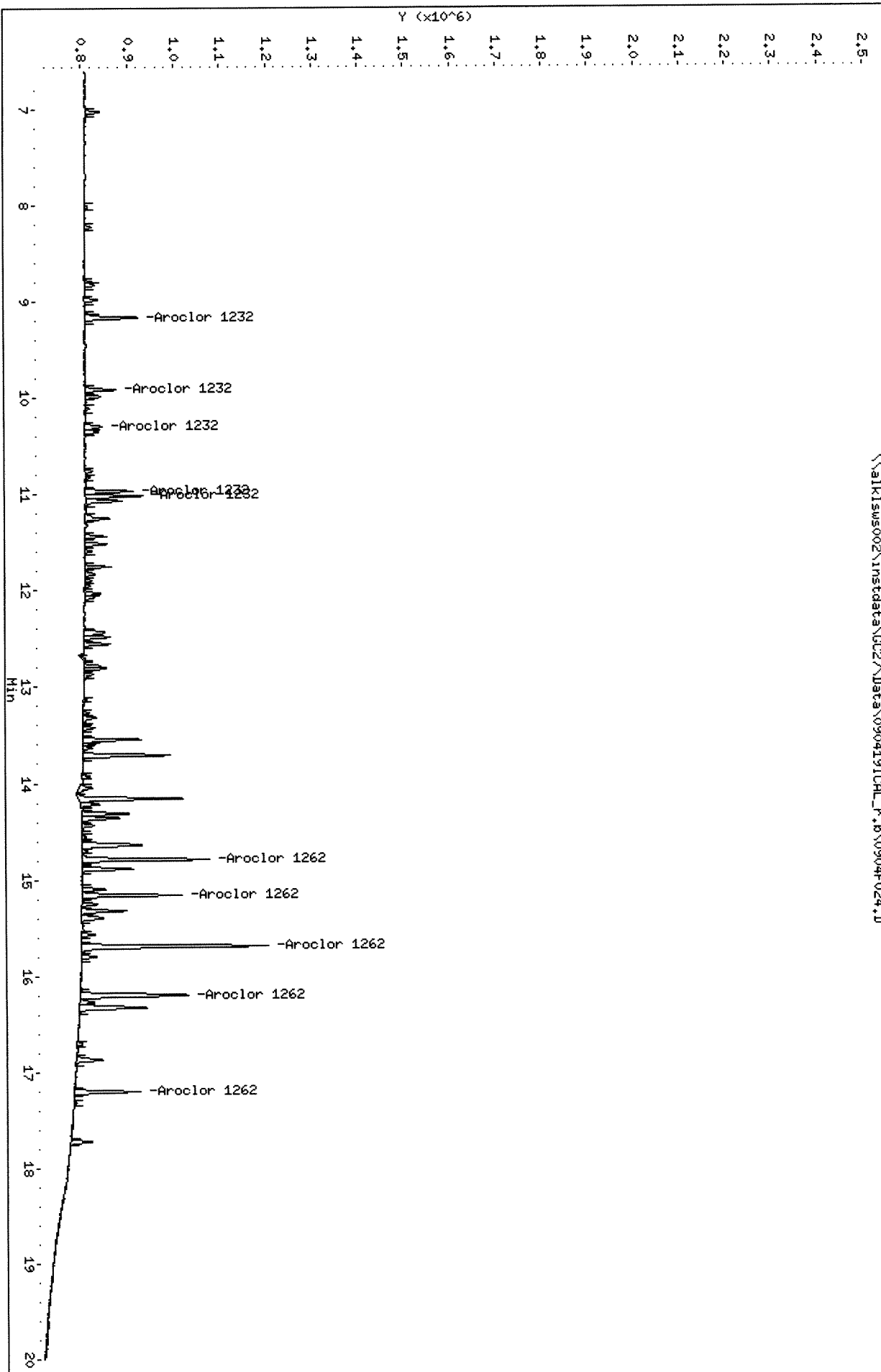
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

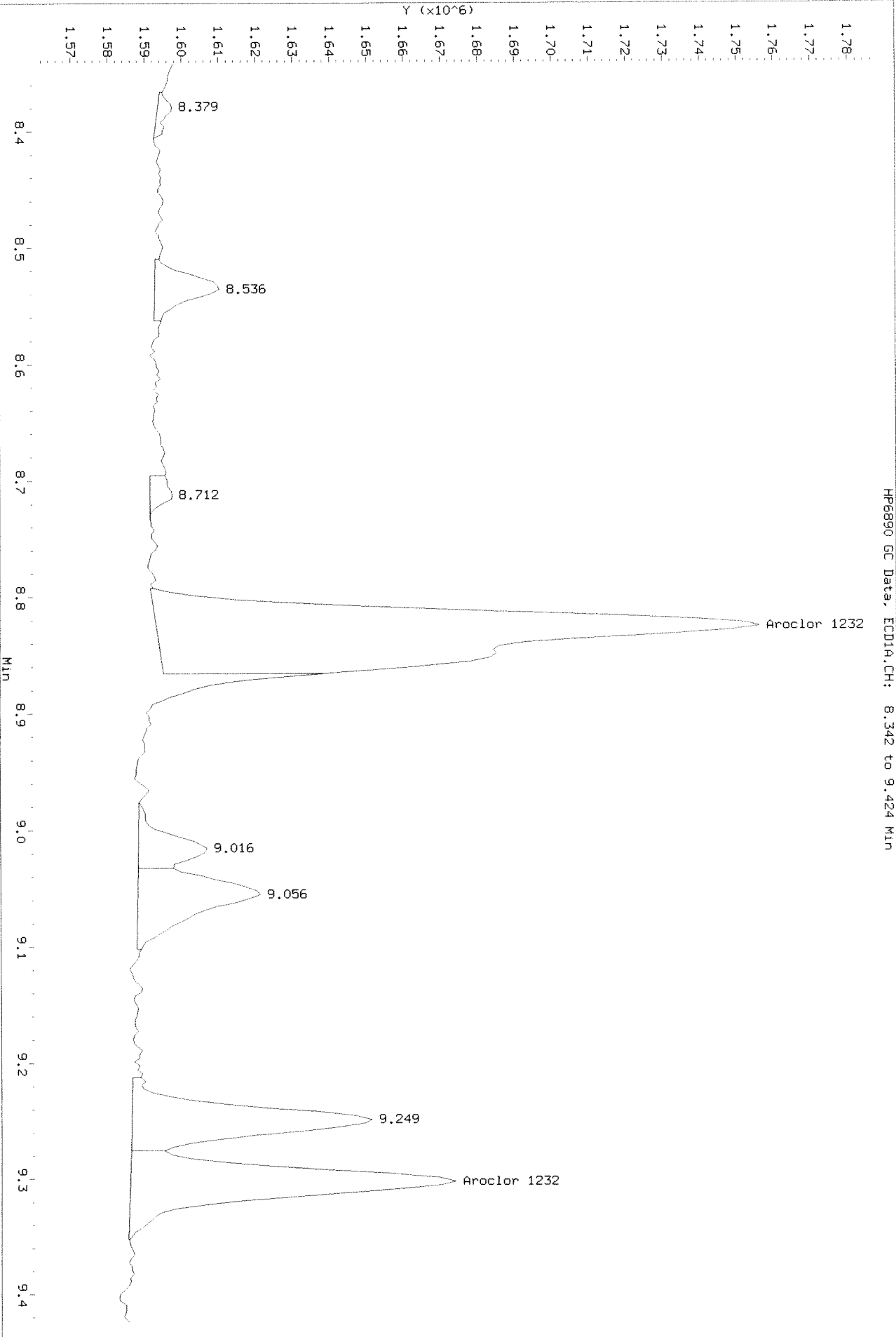
\\alk1s002\instdata\GC27\Data\090419ICAL_r.b\0904F024.D



Data File: \\alklsws002\jnst\data\GC27\Data\090419ICAL.B\0904F024.D
Injection Date: 05-SEP-2019 04:32
Instrument: GC27.1
Client Sample ID:

Before

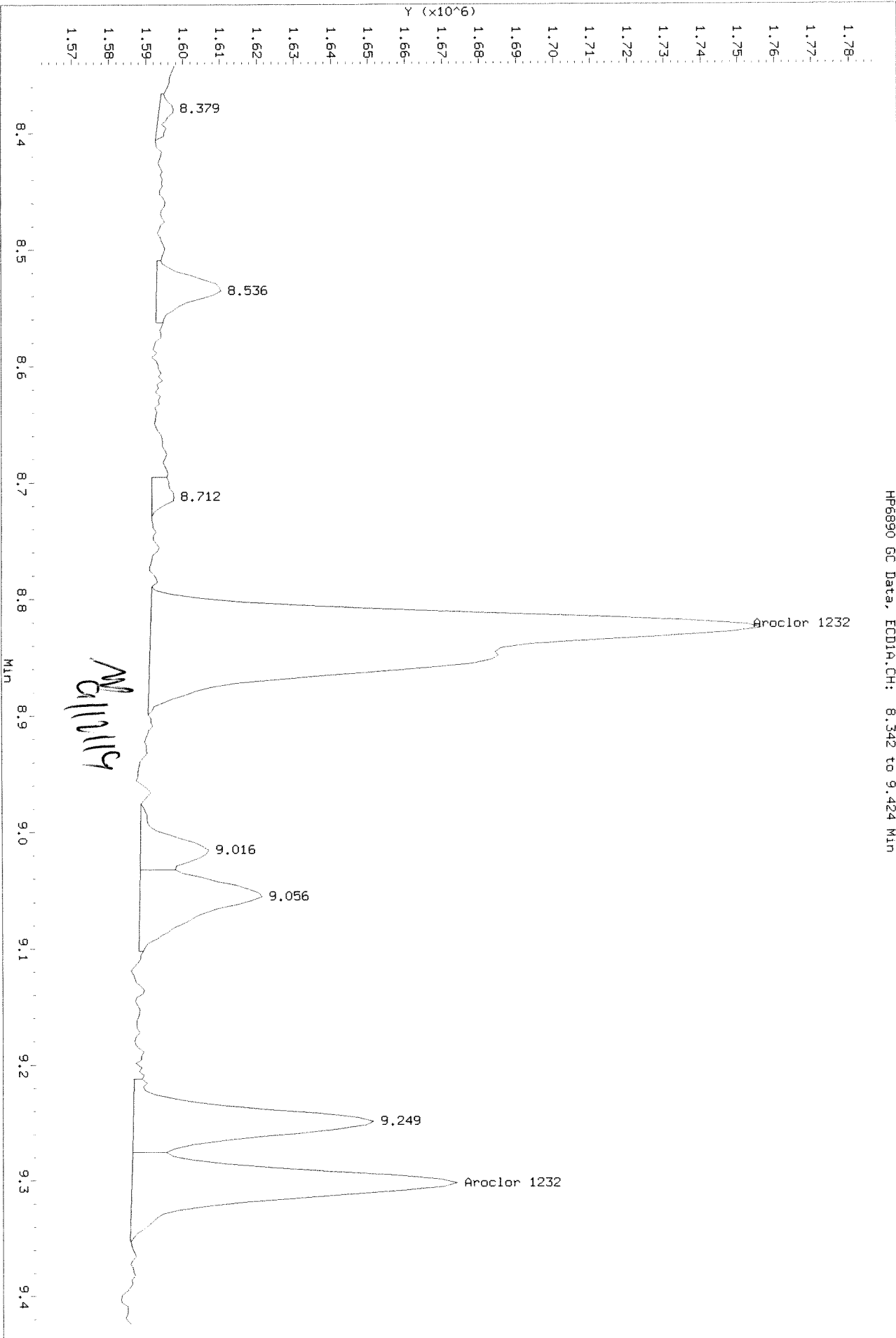
HP6890 GC Data, ECD1A.CH: 8.342 to 9.424 Min



Data File: \\alkisw002\instdata\GC27\Data\090419ICDL.p\0904F024.D
Injection Date: 05-SEP-2019 04:32
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 8.342 to 9.424 Min

After baseline 9/11/19 SA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F025.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F025.D
 Inj Date : 05-SEP-2019 05:04
 Sample Info: PCB7-91H 3262 @ 20 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 3262.sub
 Sub List #2 : 3262.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1232	7.655	9.166	297289	420033	19.1	21.3	80.00- 120.00	100.00 (M)
	8.055	9.916	887996	214617	18.9	19.6	234.25- 351.38	298.70 (M)
	8.825	10.296	801788	142064	21.1	19.4	205.56- 308.34	269.70 (M)
	9.302	10.966	276304	310237	20.0	20.5	76.03- 114.04	92.94 (M)
	9.929	11.016	489964	356114	18.6	20.3	137.78- 206.67	164.81 (M)
Average of Peak Amounts =					19.5	20.2		
Aroclor 1262	13.579	14.789	1759122	825713	18.8	19.4	80.00- 120.00	100.00 (M)
	14.049	15.159	1552466	627032	18.7	19.3	71.44- 107.17	88.25 (M)
	14.429	15.692	2809925	1244832	18.5	19.0	135.47- 203.20	159.73 (M)
	15.055	16.199	2056744	854558	18.7	19.4	96.75- 145.12	116.92 (M)
	15.922	17.202	901918	427554	18.9	18.8	43.01- 64.52	51.27 (M)
Average of Peak Amounts =					18.7	19.2		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
W

Data File: \\alklsws002\instdata\GC27\Data\090419ICL.b\0904F025.D

Date : 05-SEP-2019 05:04

Client ID:

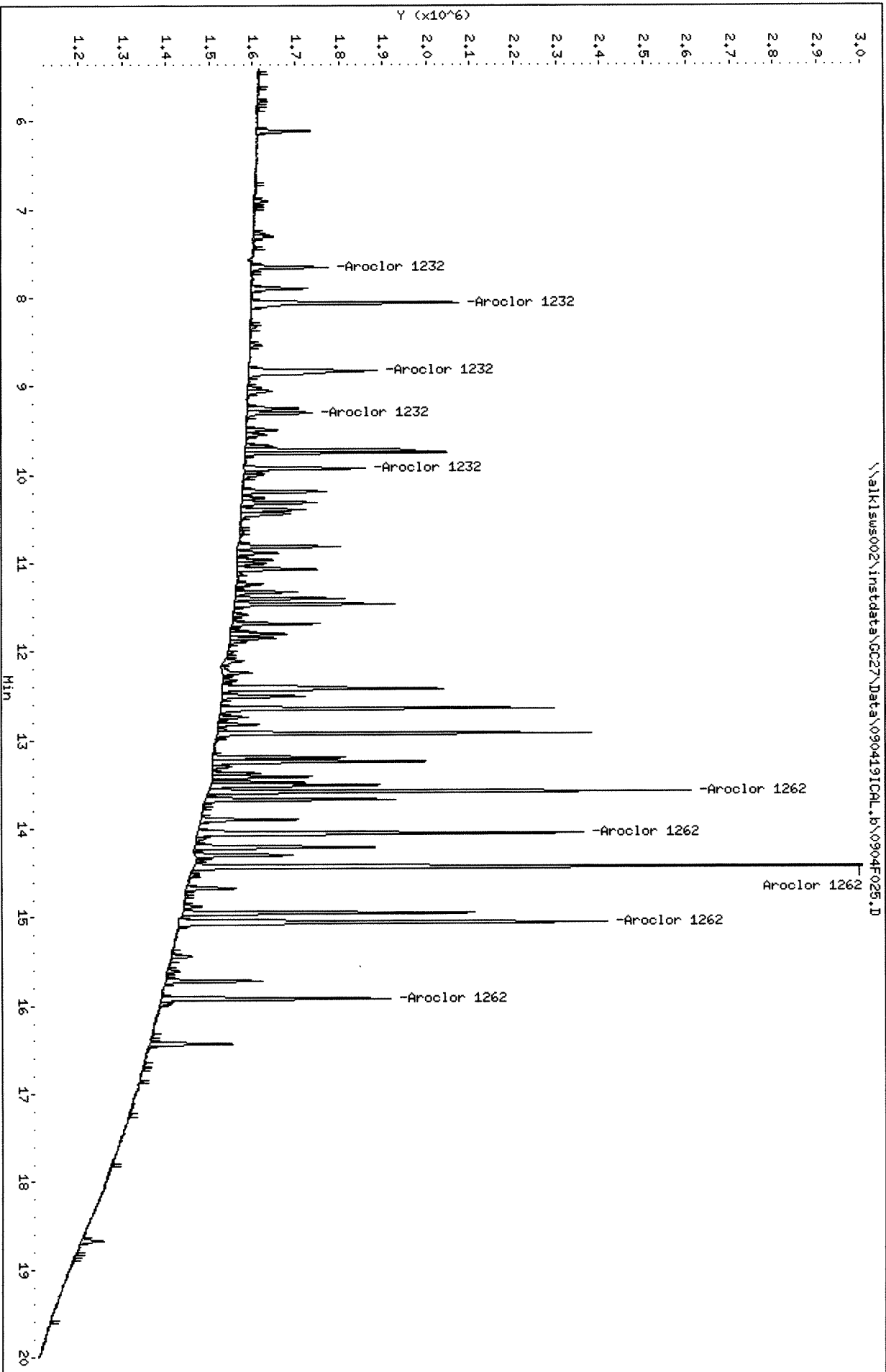
Sample Info: PCB7-91H 3262 @ 20 PPB

Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Data File: \\alkisws002\instdata\GC27\Data\090419ICL_r.b\0904F025.D
Date: 05-SEP-2019 05:04

Client ID:

Sample Info: PCB7-91H 3262 @ 20 PPS

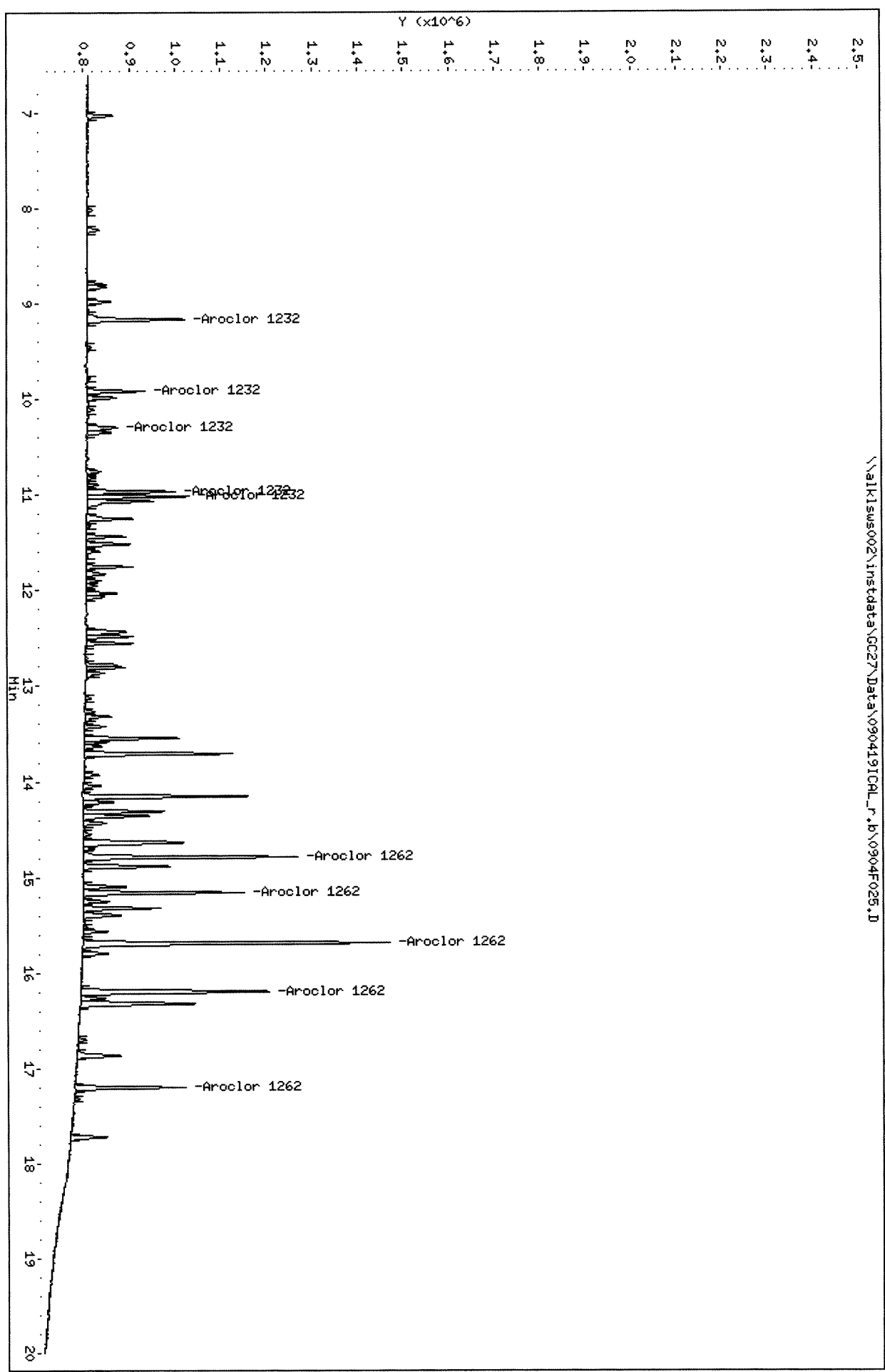
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alkisws002\instdata\GC27\Data\090419ICL_r.b\0904F025.D




ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F026.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F026.D
 Inj Date : 05-SEP-2019 05:35
 Sample Info: PCB7-91I 3262 @ 50 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 3262.sub
 Sub List #2 : 3262.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1232	7.657	9.167	701344	1023218	44.9	52.0	80.00- 120.00	100.00
	8.057	9.914	2112082	547384	45.0	50.1	234.25- 351.38	301.15
	8.824	10.294	1836506	375941	48.4	51.2	205.56- 308.34	261.86
	9.304	10.967	663328	742806	48.1	49.0	76.03- 114.04	94.58
	9.927	11.017	1197355	879524	45.4	50.2	137.78- 206.67	170.72
	Average of Peak Amounts =				46.4	50.5		
Aroclor 1262	13.577	14.790	4200046	1883391	44.9	44.3	80.00- 120.00	100.00
	14.050	15.160	3729611	1446952	45.0	44.6	71.44- 107.17	88.80
	14.427	15.694	6761808	2804901	44.6	42.7	135.47- 203.20	160.99
	15.057	16.197	4911153	1969224	44.5	44.8	96.75- 145.12	116.93
	15.920	17.204	2189541	1023062	45.8	45.0	43.01- 64.52	52.13
	Average of Peak Amounts =				45.0	44.3		

CA 9/11/19


Data File: \\alkisw002\instdata\GC27\Data\090419ICL.b\0904F026.D

Date : 05-SEP-2019 05:35

Client ID:

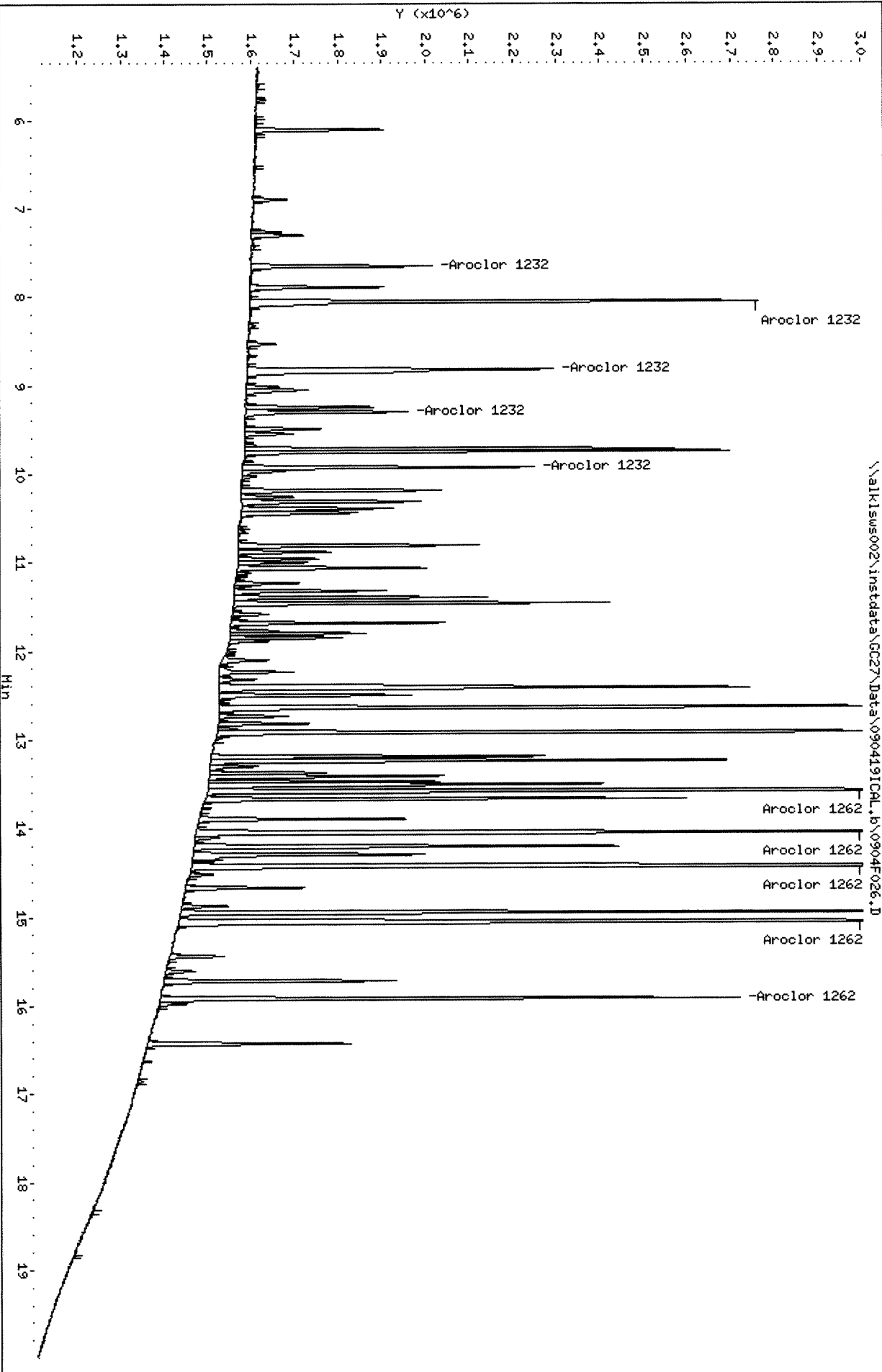
Sample Info: PCB7-911 3262 @ 50 PPB

Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Data File: \\alkisw002\instdata\GC27\Data\090419ICAL_r.b\0904F026.D

Date: 05-SEP-2019 05:35

Client ID:

Sample Info: PCB7-911 3262 @ 50 PPB

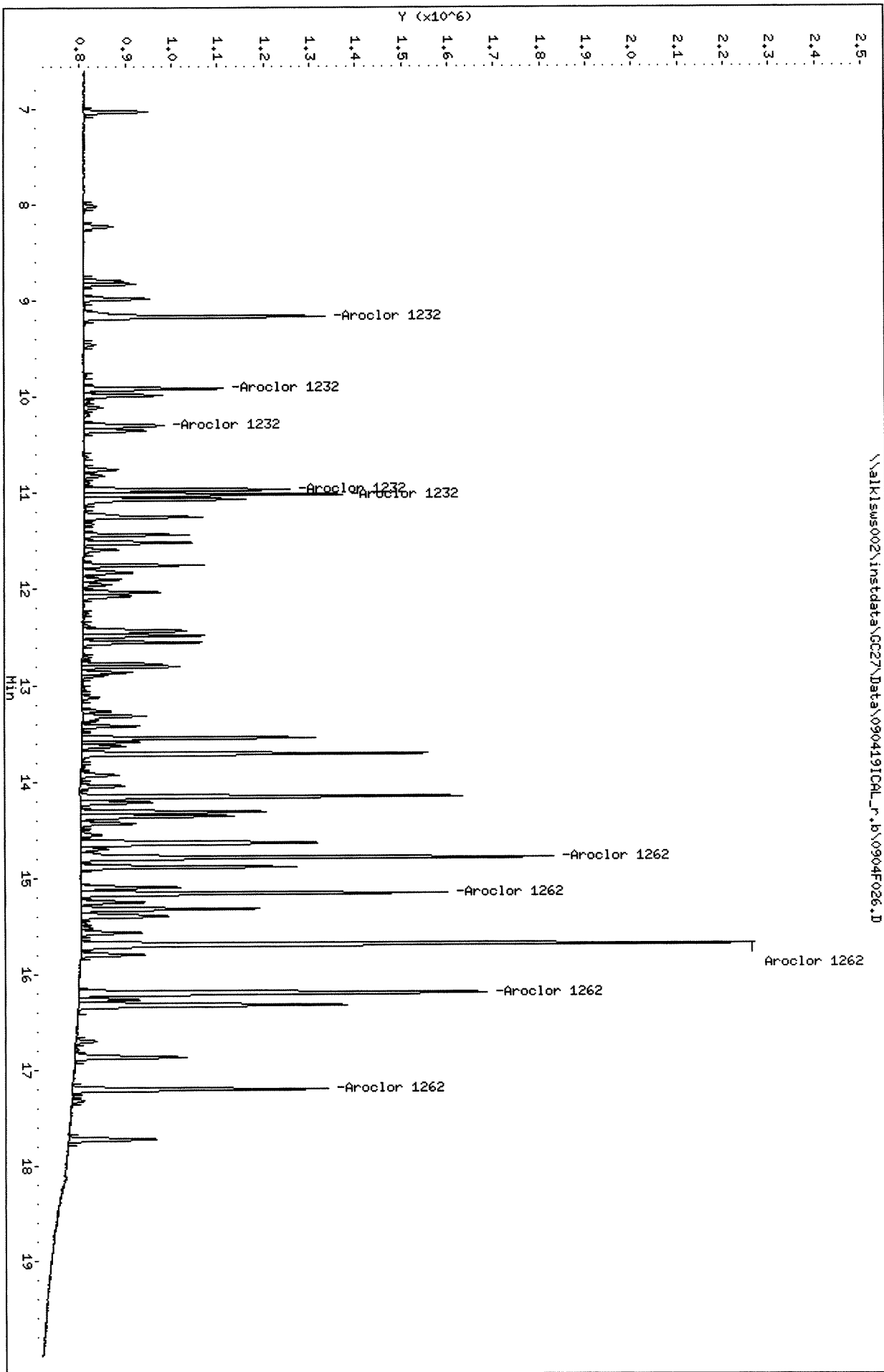
Column phase: DB-XLB

Instrument: GC27.1

Operator: SAA

Column diameter: 0.32

\\alkisw002\instdata\GC27\Data\090419ICAL_r.b\0904F026.D



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F027.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F027.D
 Inj Date : 05-SEP-2019 06:07
 Sample Info: PCB7-91J 3262 @ 100 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 3262.sub
 Sub List #2 : 3262.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1232	7.654	9.167	1313305	1888357	84.2	95.9	80.00- 120.00	100.00 (M)
	8.054	9.917	3900991	1011678	83.2	92.6	234.25- 351.38	297.04 (M)
	8.824	10.297	3352398	731913	88.3	99.7	205.56- 308.34	255.26 (M)
	9.301	10.964	1231613	1381567	89.2	91.1	76.03- 114.04	93.78 (M)
	9.927	11.017	2200141	1610140	83.4	91.9	137.78- 206.67	167.53 (M)
	Average of Peak Amounts =				85.7	94.2		
Aroclor 1262	13.581	14.791	7762919	3299183	83.0	77.7	80.00- 120.00	100.00
	14.051	15.161	6906290	2544856	83.3	78.5	71.44- 107.17	88.97
	14.427	15.691	12744340	4987038	84.0	76.0	135.47- 203.20	164.17
	15.054	16.201	9178959	3463302	83.2	78.8	96.75- 145.12	118.24
	15.921	17.204	4106107	1841950	85.8	81.0	43.01- 64.52	52.89
	Average of Peak Amounts =				83.9	78.4		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
[Signature]

Data File: \\alkisw002\instdata\GC27\Data\090419ICL.b\0904F027.D

Date: 05-SEP-2019 06:07

Client ID:

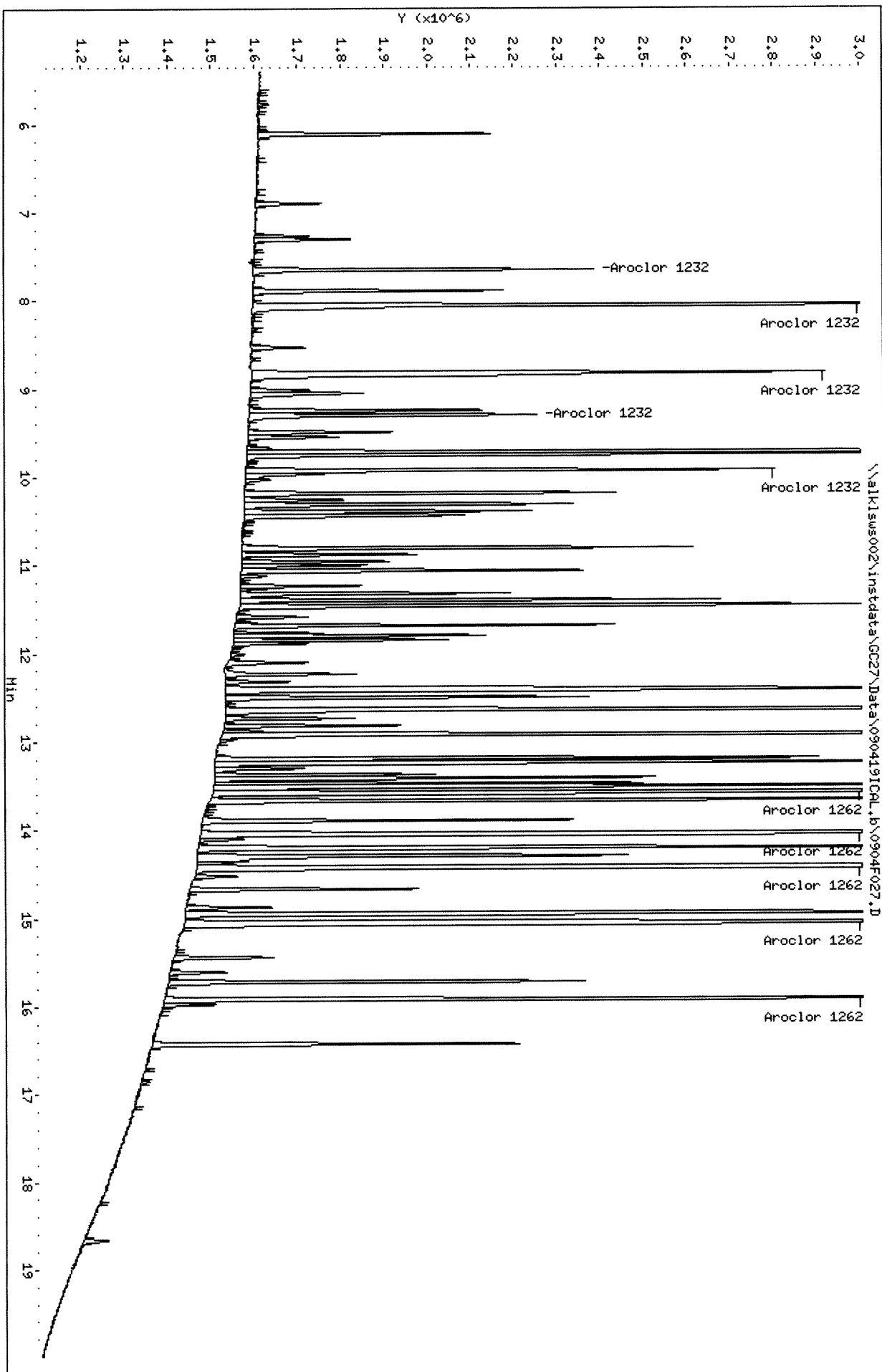
Sample Info: PCB7-91J 3262 @ 100 PPB

Column phase: DB-35MS

Instrument: GC27.i

Operator: SQA

Column diameter: 0.32



Data File: \\aik1swo02\instdata\GC27\Data\090419ICDL_r.b\0904f027.D

Date : 05-SEP-2019 06:07

Client ID:

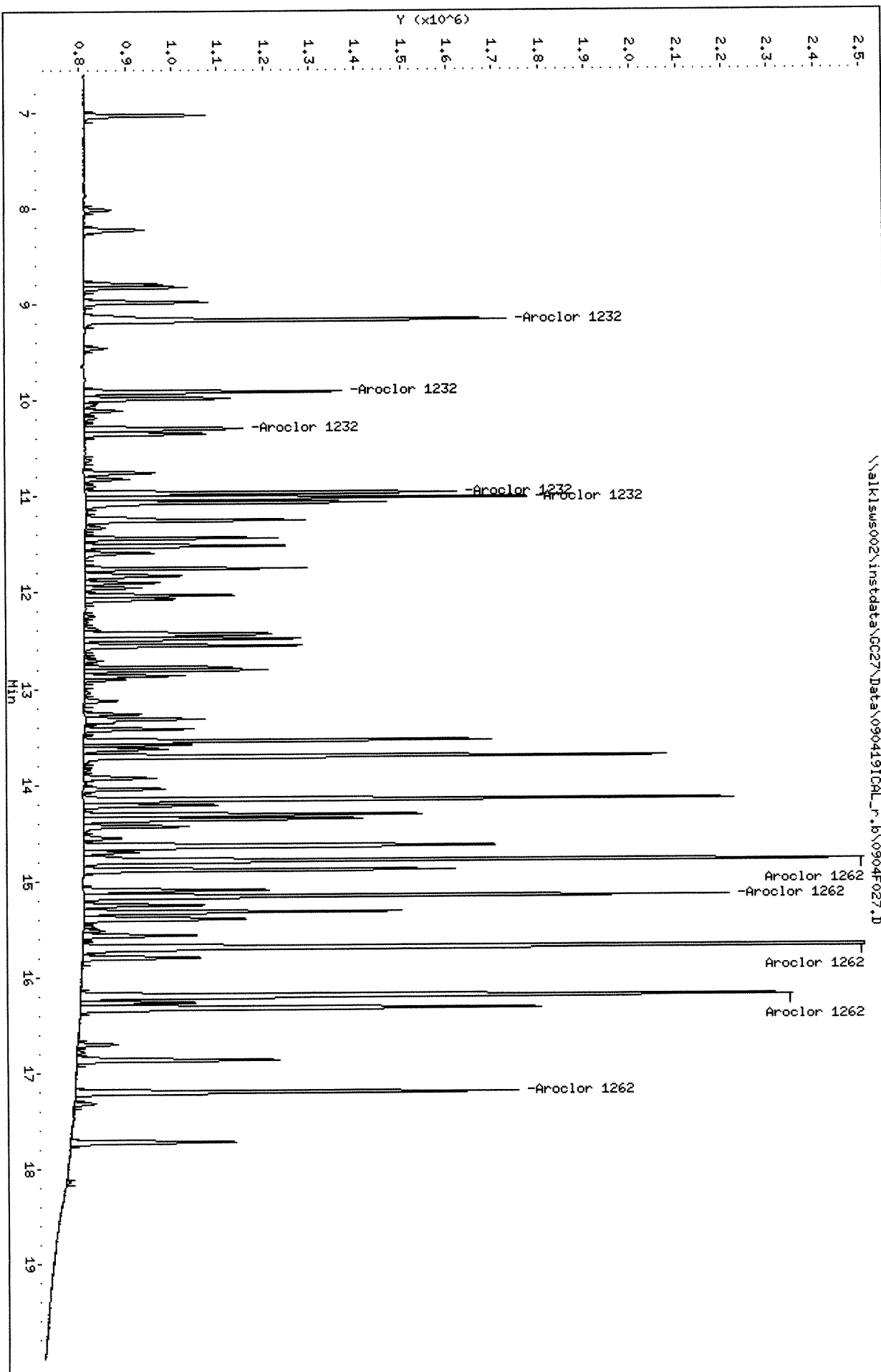
Sample Info: PCB7-91J 3362 @ 100 PPB

Column phase: DB-XLB

Instrument: GC27.i

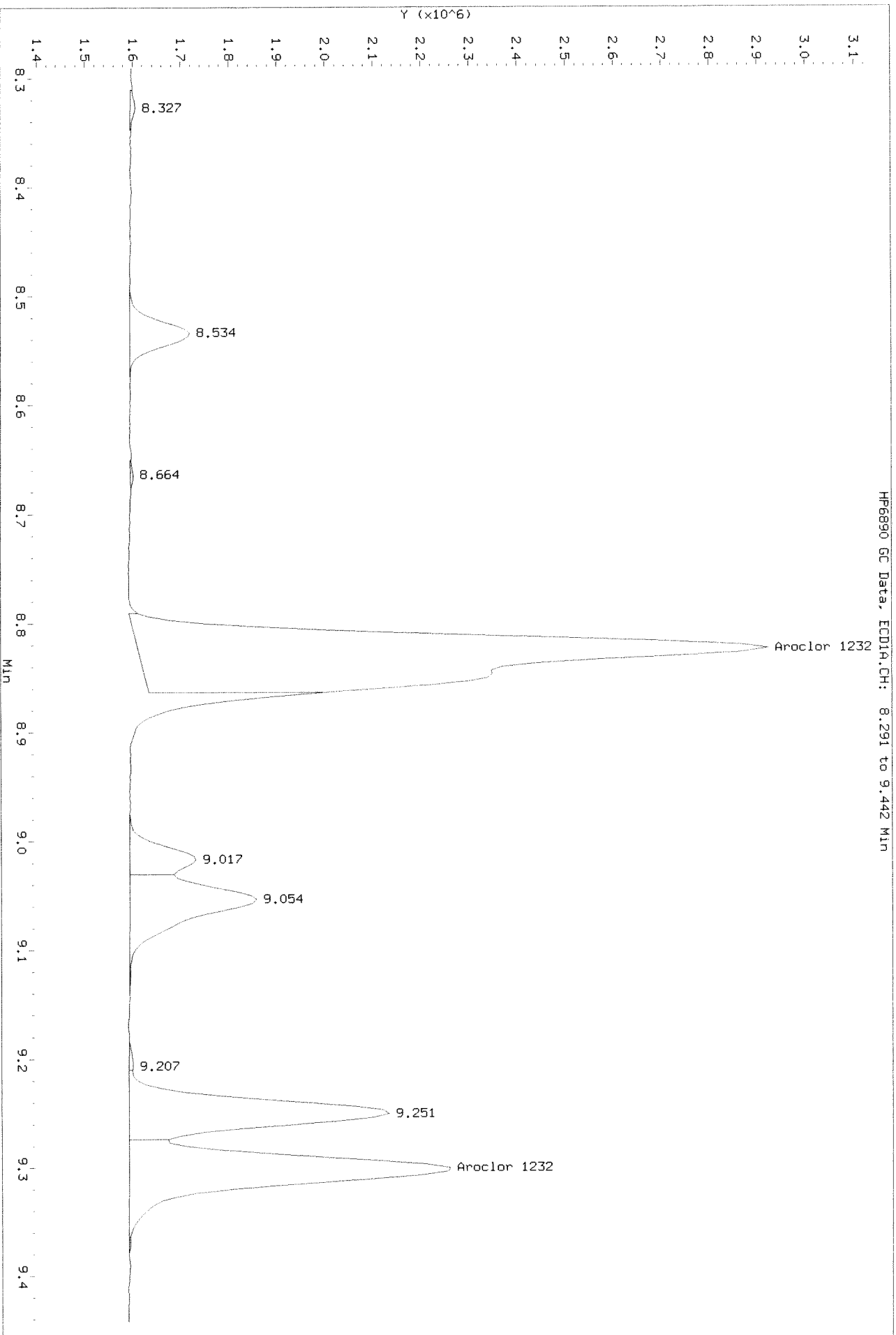
Operator: SAA

Column diameter: 0.32



Data File: \\alkjsws002\instdata\GC27\Data\090419ICAL.P\0904F027.D
Injection Date: 05-SEP-2019 06:07
Instrument: GC27.1
Client Sample ID:

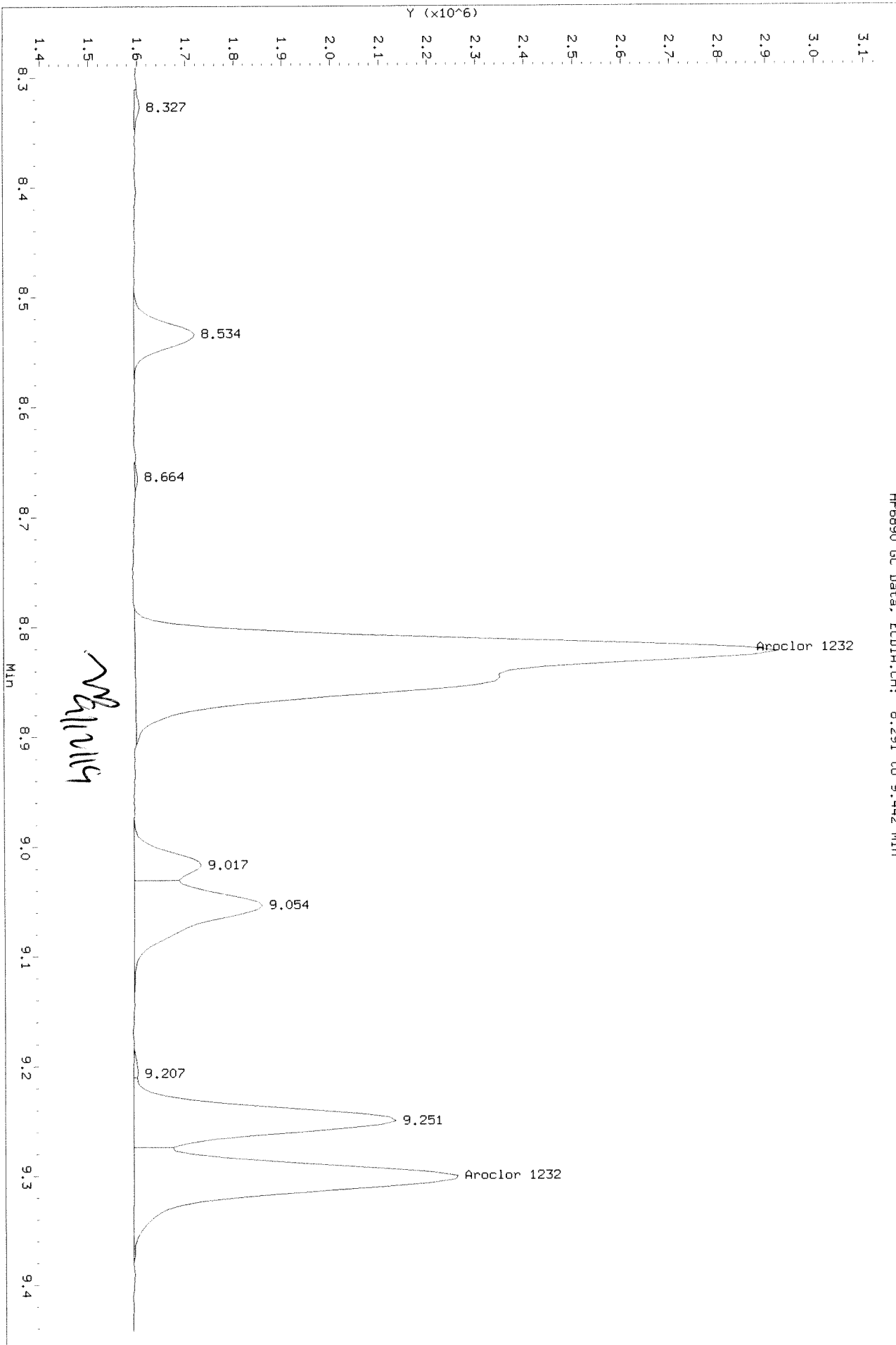
Before



Data File: \\alklsws002\instdata\GC27\Data\090419ICL.b\0904f027.D
Injection Date: 05-SEP-2019 06:07
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 8.291 to 9.442 Min

After baseline 9/11/19 A



ALS Environmental - Kelso


Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F028.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F028.D
 Inj Date : 05-SEP-2019 06:38
 Sample Info: PCB7-90I 3262 @ 200 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:38
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 3262.sub
 Sub List #2 : 3262.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1232	7.656	9.166	2931186	3998570	188	203	80.00- 120.00	100.00 (M)
	8.056	9.916	8583062	2174071	183	199	234.25- 351.38	292.82 (M)
	8.826	10.296	7531757	1660574	198	226	205.56- 308.34	256.95 (M)
	9.302	10.966	2785693	2988337	202	197	76.03- 114.04	95.04 (M)
	9.926	11.016	5048281	3466921	191	198	137.78- 206.67	172.23 (M)
	Average of Peak Amounts =				192	205		
Aroclor 1262	13.579	14.792	18234006	7172700	195	169	80.00- 120.00	100.00
	14.049	15.162	16284065	5513045	196	170	71.44- 107.17	89.31
	14.426	15.692	30876002	10949484	204	167	135.47- 203.20	169.33
	15.056	16.199	22051028	7552817	200	172	96.75- 145.12	120.93
	15.919	17.202	9803674	4056381	205	178	43.01- 64.52	53.77
	Average of Peak Amounts =				200	171		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19


Data File: \\alkisw002\instdata\GC27\Data\090419ICL.b\0904F028.D

Date : 05-SEP-2019 06:38

Client ID:

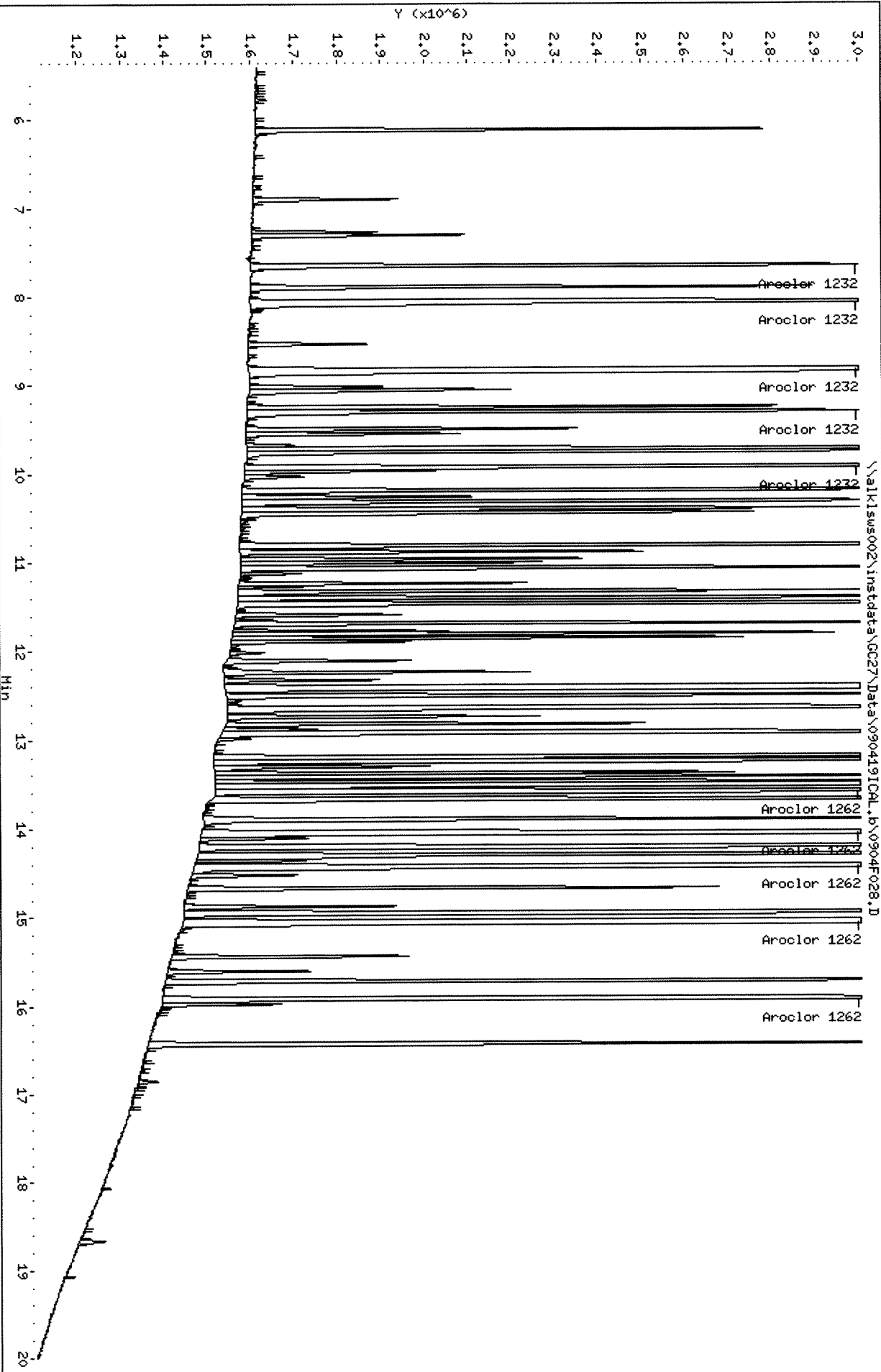
Sample Info: PCB7-901 3262 @ 200 PPB

Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Data File: \\alk1s002\instdata\GC27\Data\090419ICL_r.jb\0904f028.D
Date : 05-SEP-2019 06:38

Client ID:

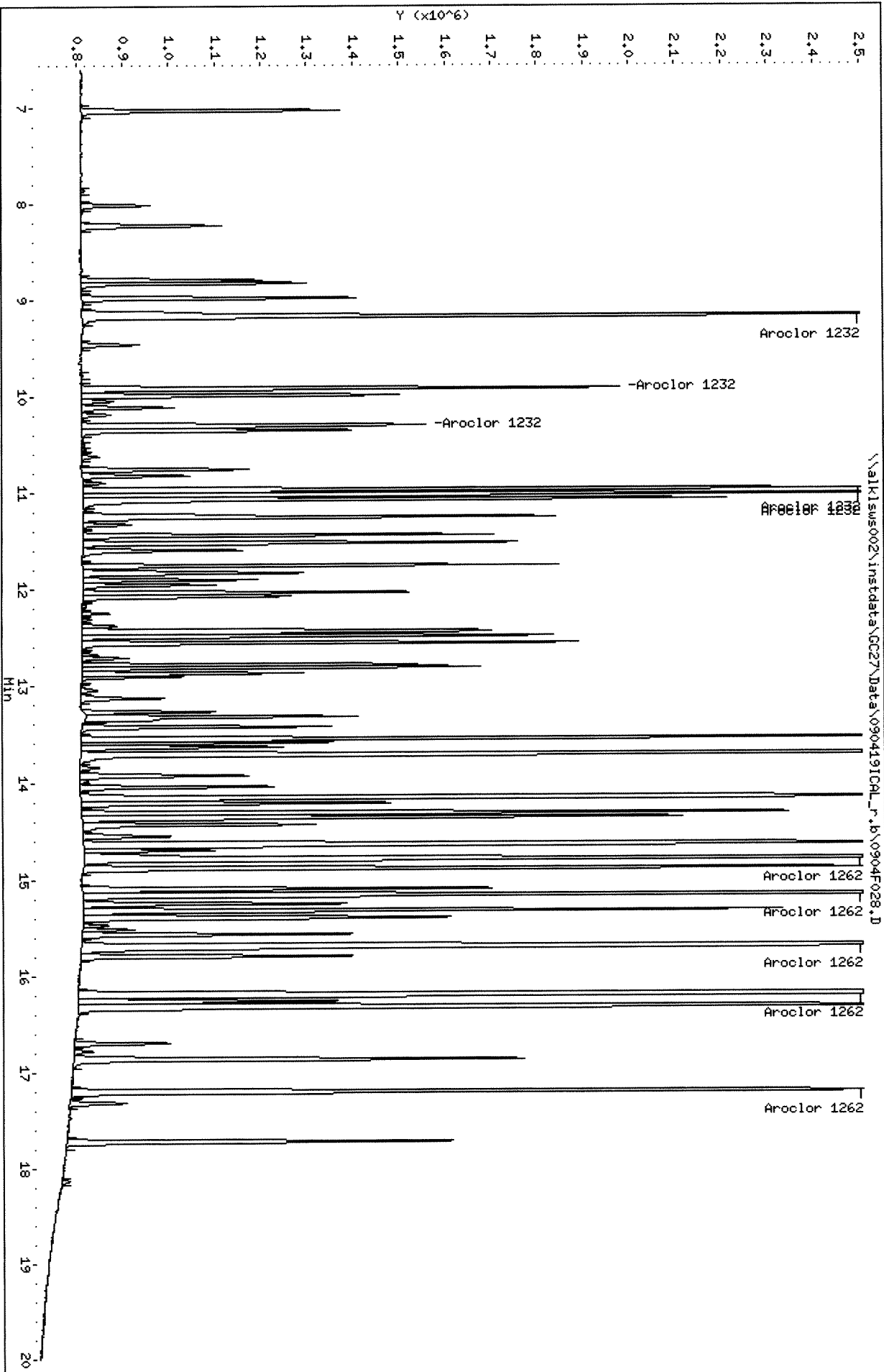
Sample Info: PCB7-901 3262 @ 200 PPB

Column phase: DB-XLB

Instrument: GC27.i

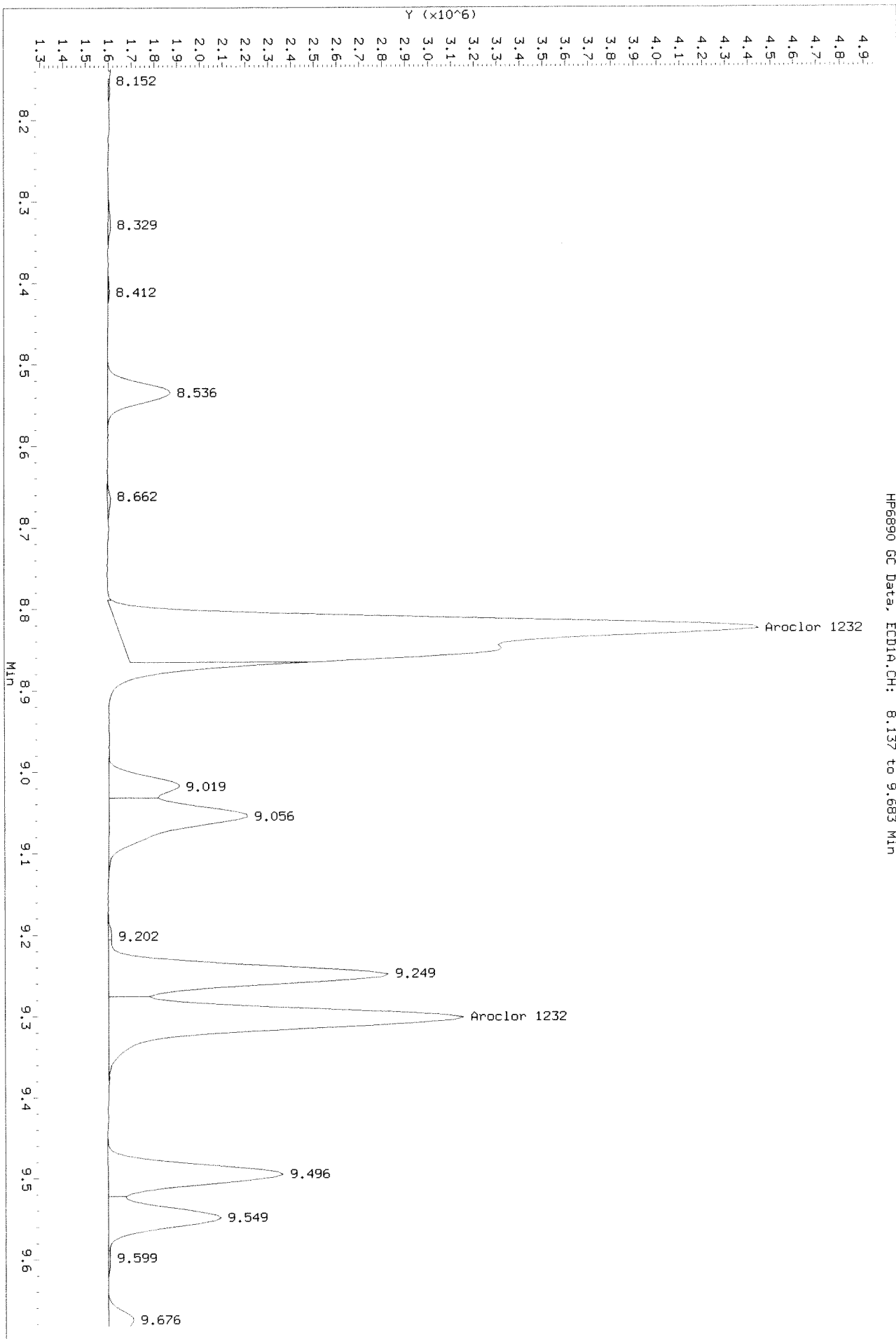
Operator: SAA

Column diameter: 0.32



Data File: \\alklsw002\instdata\GC27\Data\090419ICAL.P\0904F028.D
Injection Date: 05-SEP-2019 06:38
Instrument: GC27.1
Client Sample ID:

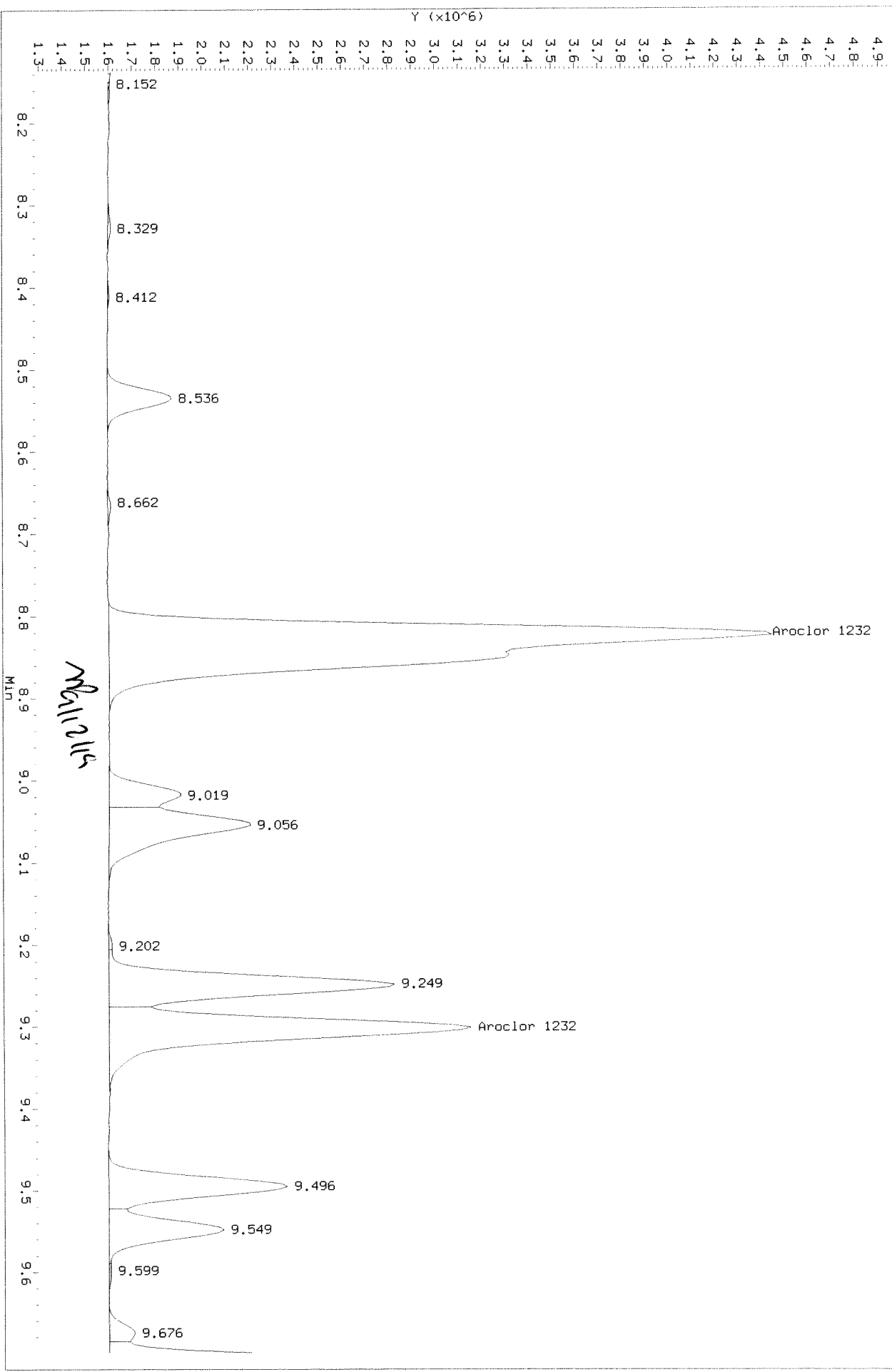
Before



Data File: \\alk1sww002\inst\data\GC27\Data\090419ICDL.B\0904F028.D
Injection Date: 05-SEP-2019 06:38
Instrument: GC27.1
Client Sample ID:

After baseline 9/11/19 A

HP6890 GC Data, ECD1A.CH: 8.137 to 9.699 Min



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F033.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F033.D
 Inj Date : 05-SEP-2019 09:16
 Sample Info: PCB8-4H 4268 @ 20 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:38
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 4268.sub
 Sub List #2 : 4268.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1242	8.053	9.163	590592	275289	19.9	21.5	80.00- 120.00	100.00 (M)
	9.300	9.913	453095	382310	20.0	21.0	63.88- 95.83	76.72 (M)
	9.743	10.963	1372584	537727	20.1	21.0	182.89- 274.33	232.41 (M)
	9.926	11.013	835947	619910	20.5	21.2	114.87- 172.30	141.54 (M)
	10.186	11.250	567577	329968	20.0	20.8	77.46- 116.19	96.10 (M)
	Average of Peak Amounts =				20.1	21.1		
Aroclor 1268	14.950	16.200	3232656	1460490	19.8	20.4	80.00- 120.00	100.00 (M)
	15.050	16.326	2881961	1282540	19.7	20.4	71.27- 106.90	89.15 (M)
	15.440	16.700	2480729	1110765	20.0	20.6	61.53- 92.30	76.74 (M)
	16.426	17.720	6897866	2901230	19.7	19.9	171.54- 257.31	213.38 (M)
	Average of Peak Amounts =				19.8	20.3		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19


Data File: \\alk1sws002\instdata\GC27\Data\090419ICPL.b\0904F033.D

Date : 05-SEP-2019 09:16

Client ID:

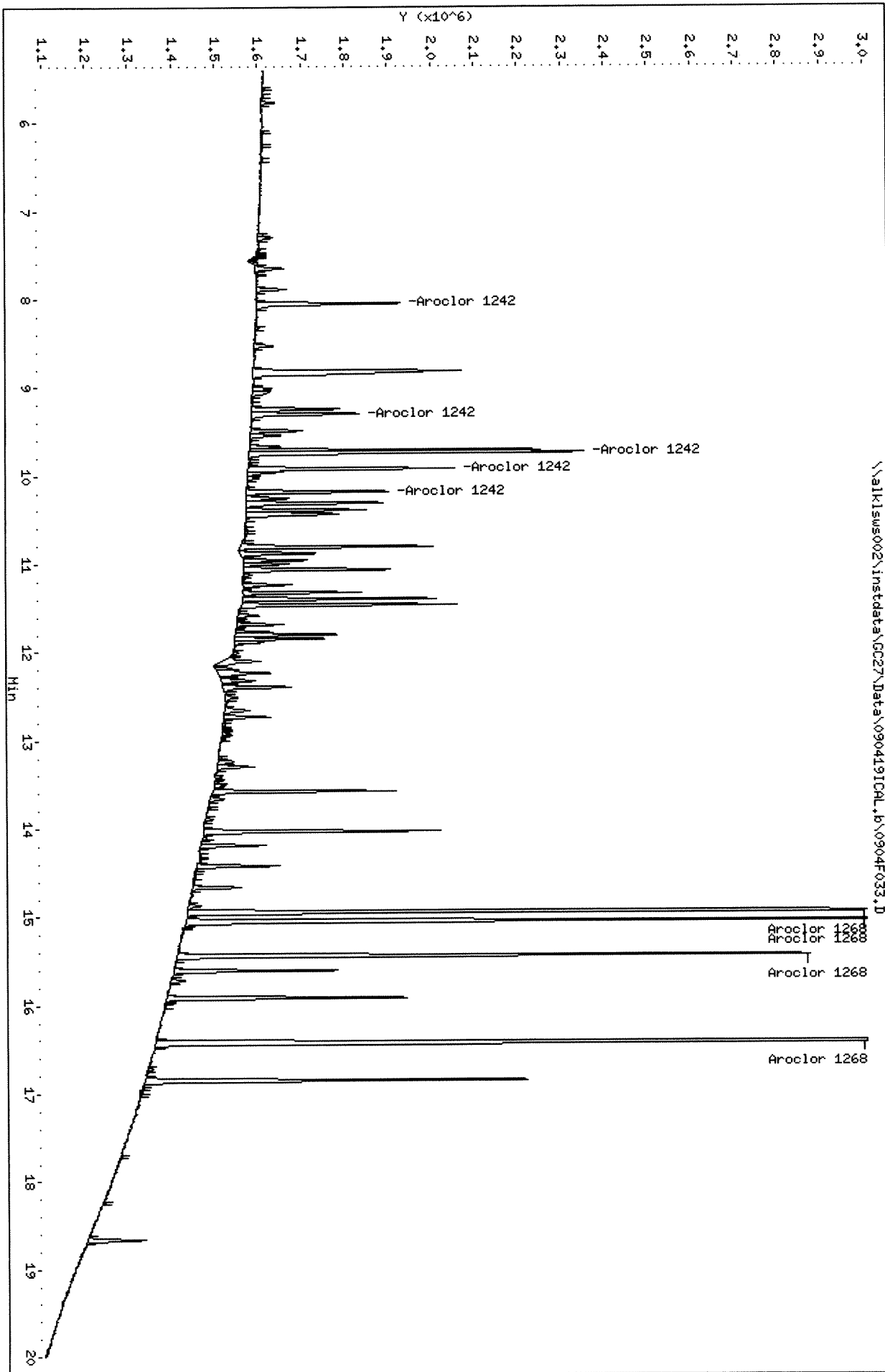
Sample Info: PCB8-4H 4268 @ 20 PPB

Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F033.D

Date: 05-SEP-2019 09:16

Client ID:

Sample Info: PCB8-4H 4268 @ 20 PPB

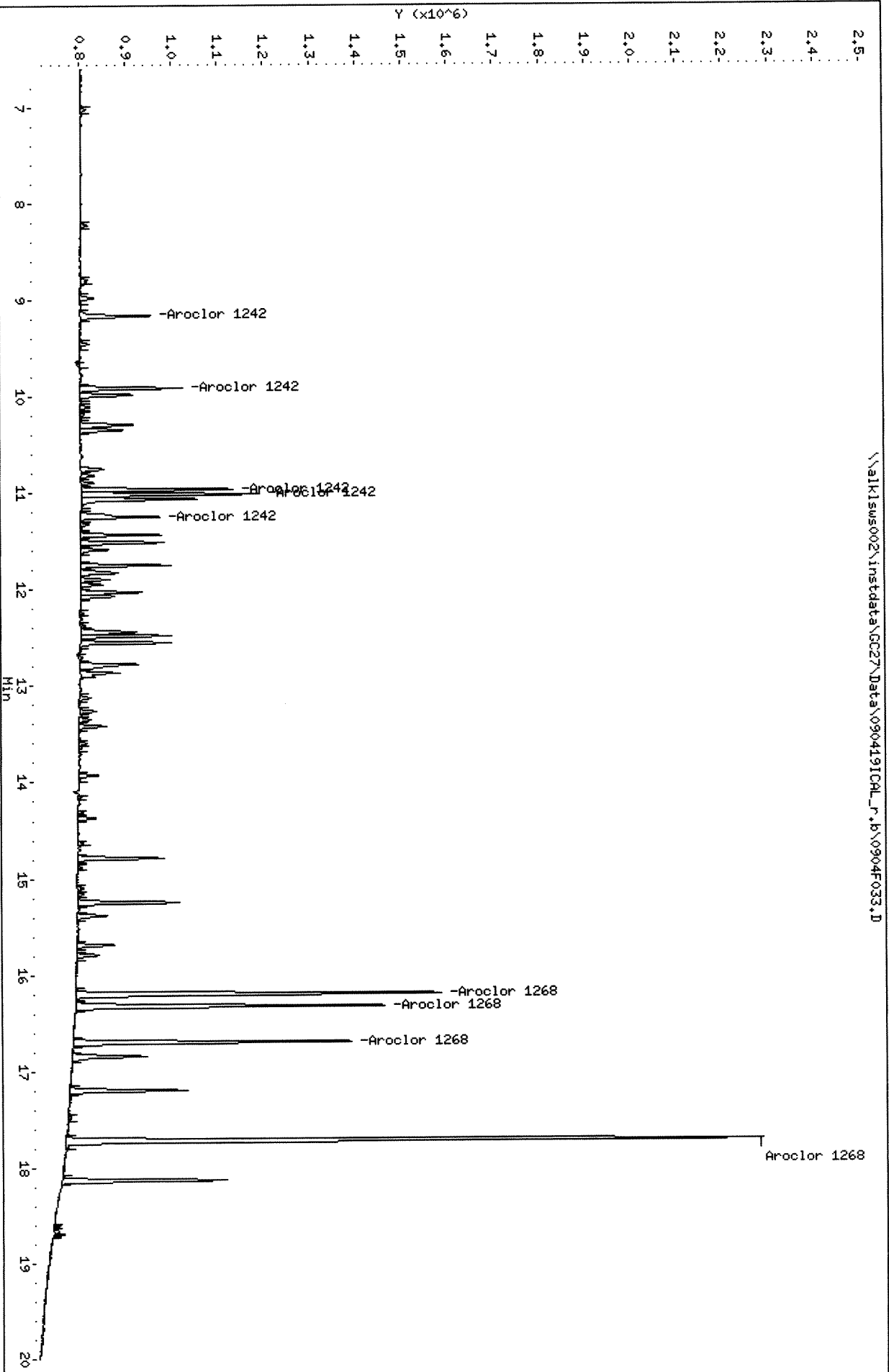
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F033.D



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F034.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F034.D
 Inj Date : 05-SEP-2019 09:48
 Sample Info: PCB8-4F 4268 @ 50 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:38
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 4268.sub
 Sub List #2 : 4268.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1242	8.056	9.166	1488496	730432	50.1	57.1	80.00- 120.00	100.00
	9.302	9.912	1175780	983401	52.0	54.1	63.88- 95.83	78.99
	9.746	10.966	3614612	1346176	52.9	52.5	182.89- 274.33	242.84
	9.926	11.016	2150620	1576207	52.6	53.8	114.87- 172.30	144.48
	10.189	11.249	1417772	884537	50.1	55.7	77.46- 116.19	95.25
	Average of Peak Amounts =				51.5	54.6		
Aroclor 1268	14.949	16.202	8197605	3420110	50.1	47.8	80.00- 120.00	100.00
	15.049	16.329	7395303	3056456	50.6	48.7	71.27- 106.90	90.21
	15.439	16.699	6298242	2655687	50.8	49.3	61.53- 92.30	76.83
	16.429	17.722	17834049	6860011	50.9	47.0	171.54- 257.31	217.55
	Average of Peak Amounts =				50.6	48.2		

SA 9/11/19
22

Data File: \\alk1s002\instdata\GC27\Data\090419ICL.b\0904F034.D

Date : 05-SEP-2019 09:48

Client ID:

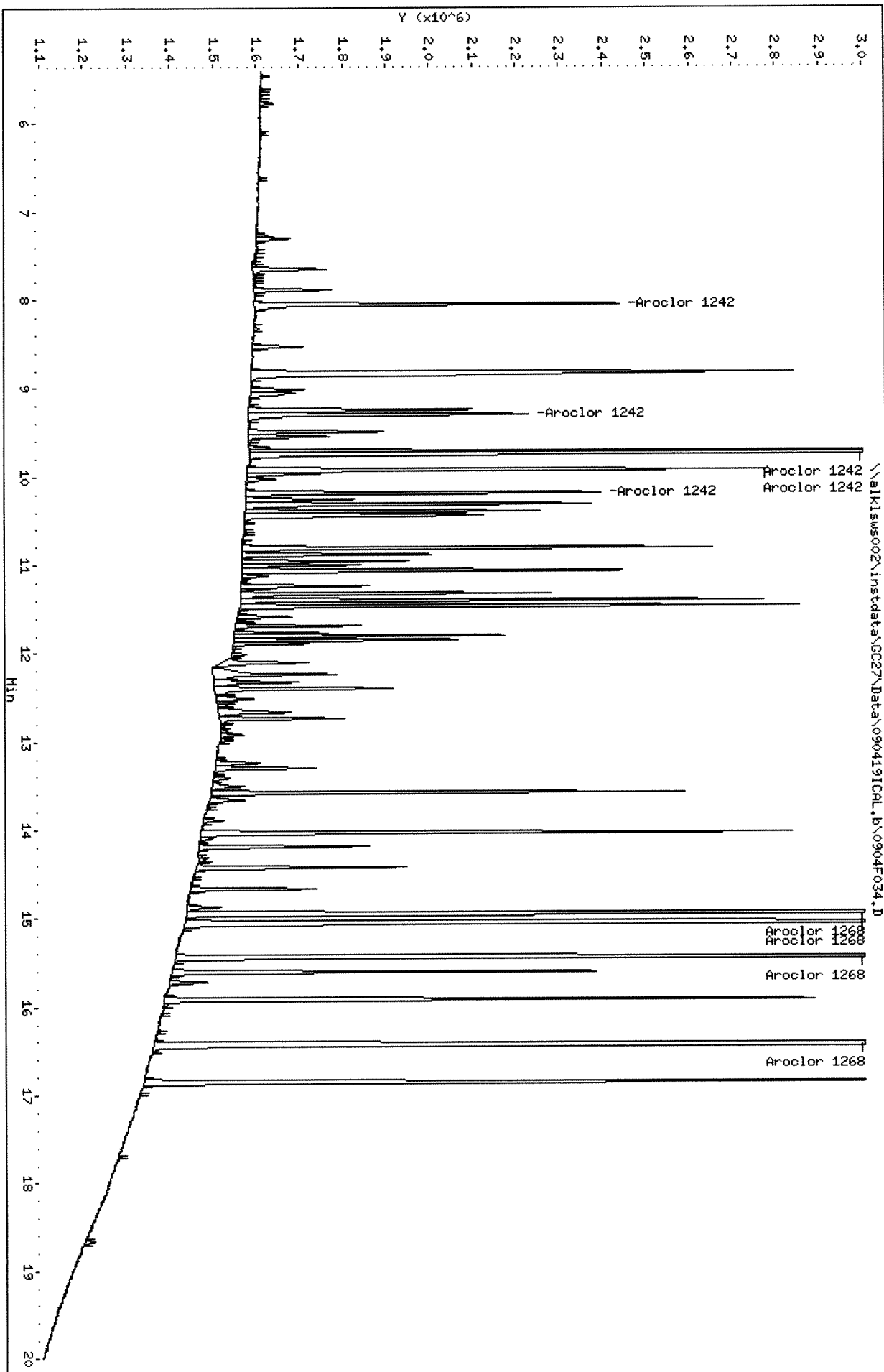
Sample Info: PCB8-4F 4268 @ 50 PPB

Column phase: DB-35HS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Data File: \\alkisws002\instdata\GC27\Data\090419ICAL_r.b\0904F034.D

Date: 05-SEP-2019 09:48

Client ID:

Sample Info: PCB8-4F 4268 @ 50 PPB

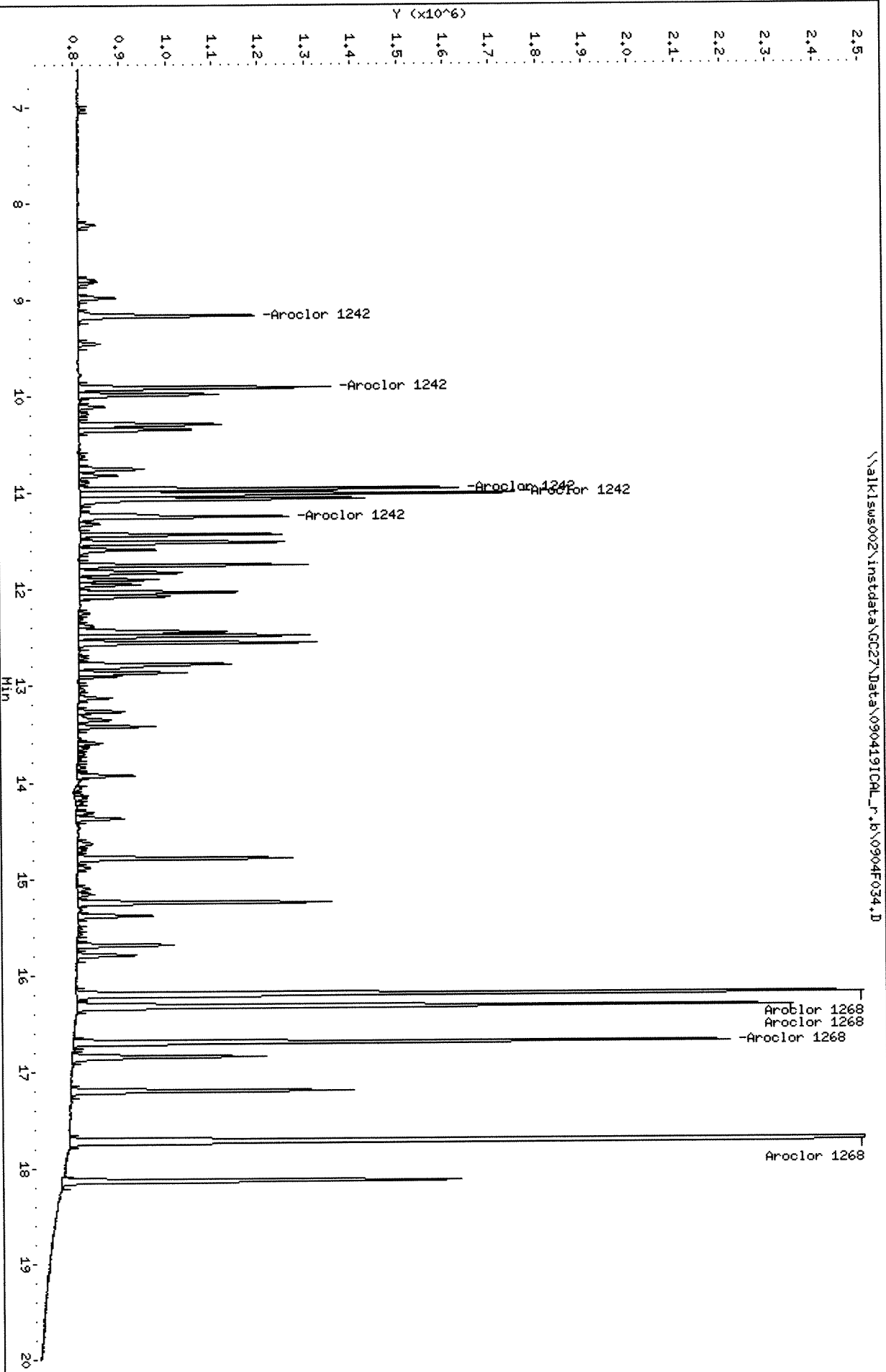
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alkisws002\instdata\GC27\Data\090419ICAL_r.b\0904F034.D



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F035.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F035.D
Inj Date : 05-SEP-2019 10:20
Sample Info: PCB8-4G 4268 @ 100 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : 4268.sub
Sub List #2 : 4268.sub
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1242	8.056	9.166	2822778	1385501	95.0	108	80.00- 120.00	100.00
	9.303	9.916	2209463	1801434	97.8	99.1	63.88- 95.83	78.27
	9.746	10.966	6824568	2462464	99.8	95.9	182.89- 274.33	241.77
	9.926	11.013	4026786	2817911	98.5	96.2	114.87- 172.30	142.65
	10.189	11.246	2725015	1667425	96.2	105	77.46- 116.19	96.54
	Average of Peak Amounts =				97.5	101		
Aroclor 1268	14.949	16.200	15539973	6050128	95.0	84.6	80.00- 120.00	100.00
	15.049	16.326	14013592	5469923	95.9	87.2	71.27- 106.90	90.18
	15.439	16.700	11959803	4732505	96.4	87.9	61.53- 92.30	76.96
	16.429	17.720	34023316	12298100	97.1	84.3	171.54- 257.31	218.94
	Average of Peak Amounts =				96.1	86.0		

SA 9/11/19
R

Data File: \\alk1sus002\instdata\GC27\Data\090419ICAL.b\0904F035.D

Date : 05-SEP-2019 10:20

Client ID:

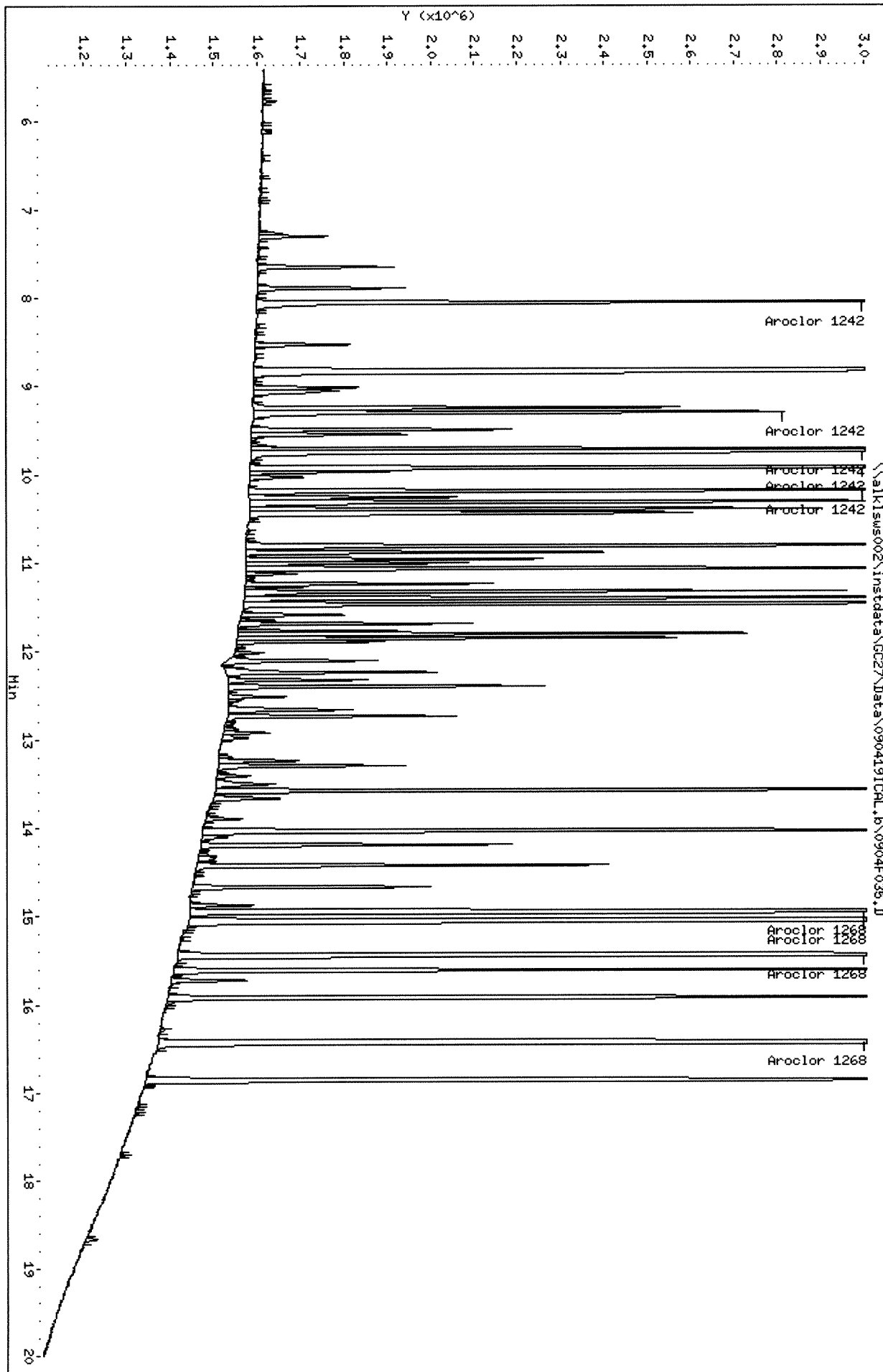
Sample Info: PCB8-4G 4268 @ 100 PPB

Column phase: DB-35MS

Instrument: GC27.1

Operator: SAA

Column diameter: 0.32



Data File: \\alklsws002\instdata\GC27\Data\090419ICL_r.b\0904F035.D

Date: 05-SEP-2019 10:20

Client ID:

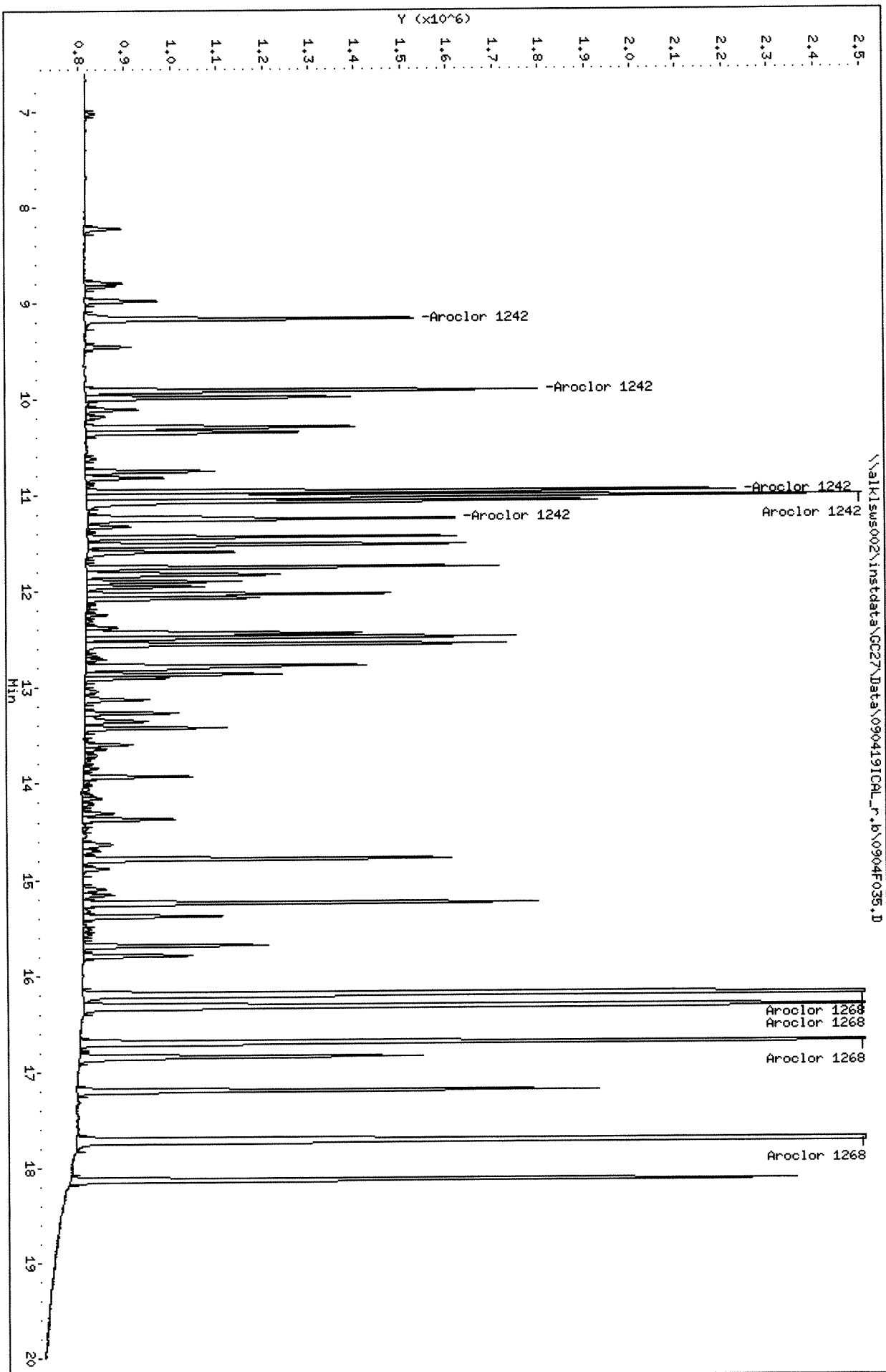
Sample Info: PCB8-4G 4268 @ 100 PPB

Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F036.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F036.D
 Inj Date : 05-SEP-2019 10:52
 Sample Info: PCB8-4E 4268 @ 200 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:38
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

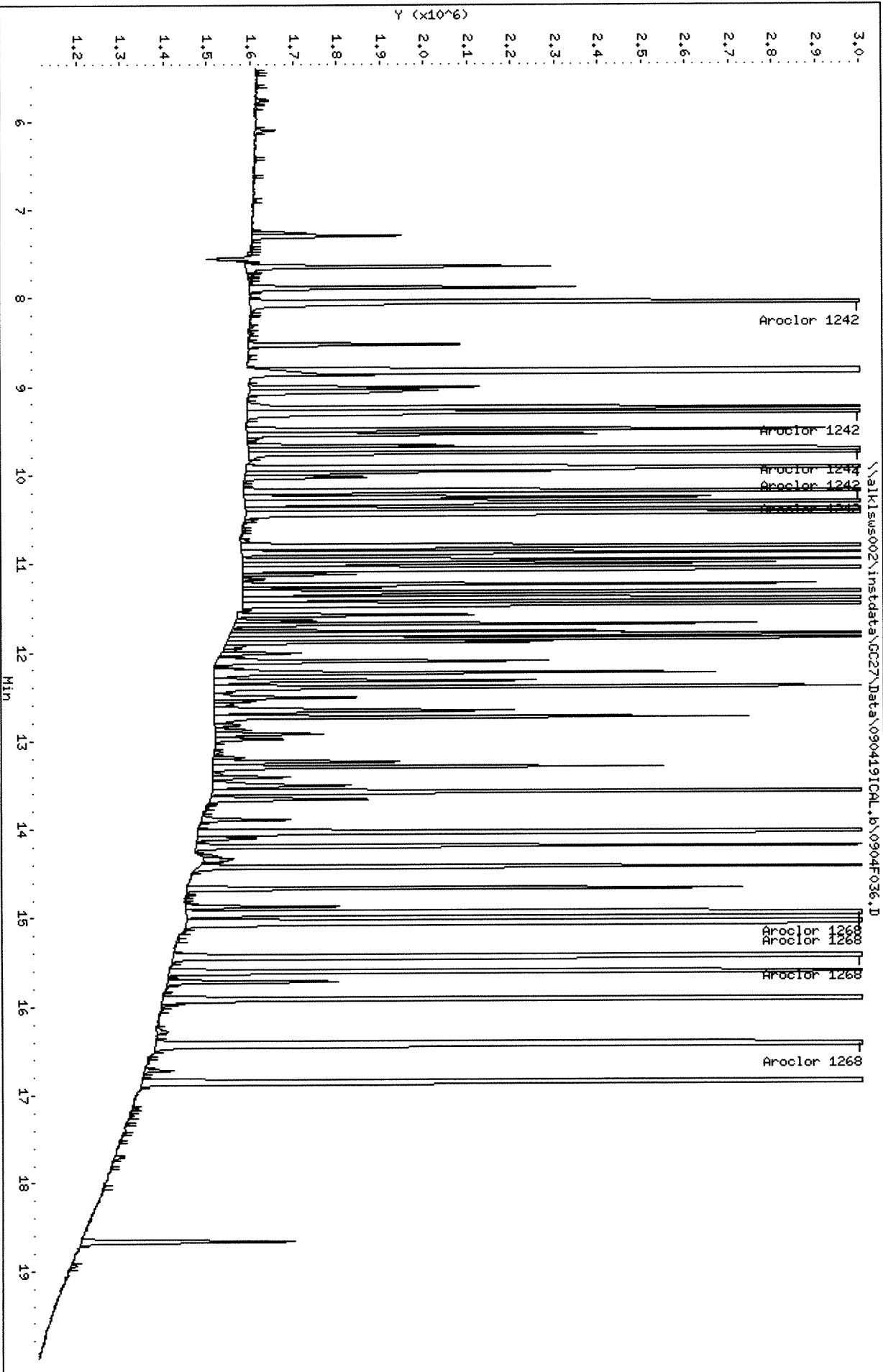
Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 4268.sub
 Sub List #2 : 4268.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1242	8.055	9.165	6111409	2865057	206	224	80.00- 120.00	100.00
	9.301	9.915	4834894	3718022	214	204	63.88- 95.83	79.11
	9.745	10.965	14224495	5137488	208	200	182.89- 274.33	232.75
	9.925	11.015	9067929	6099918	222	208	114.87- 172.30	148.38
	10.188	11.248	6149179	3555100	217	224	77.46- 116.19	100.62
	Average of Peak Amounts =				213	212		
Aroclor 1268	14.948	16.201	36406451	12956281	223	181	80.00- 120.00	100.00
	15.051	16.328	33173572	11752057	227	187	71.27- 106.90	91.12
	15.438	16.701	28153678	10140422	227	188	61.53- 92.30	77.33
	16.428	17.721	81576702	27201961	233	186	171.54- 257.31	224.07
		Average of Peak Amounts =				228	186	

SA 9/11/19
 [Signature]

Data File: \\alklms002\instdata\GC27\Data\090419ICL.b\0904F036.D
Date : 05-SEP-2019 10:52
Client ID:
Sample Info: PCB8-4E 4268 @ 200 PPB
Column phase: DB-35MS

Instrument: GC27.1
Operator: SAA
Column diameter: 0.32



Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F036.D

Date: 05-SEP-2019 10:52

Client ID:

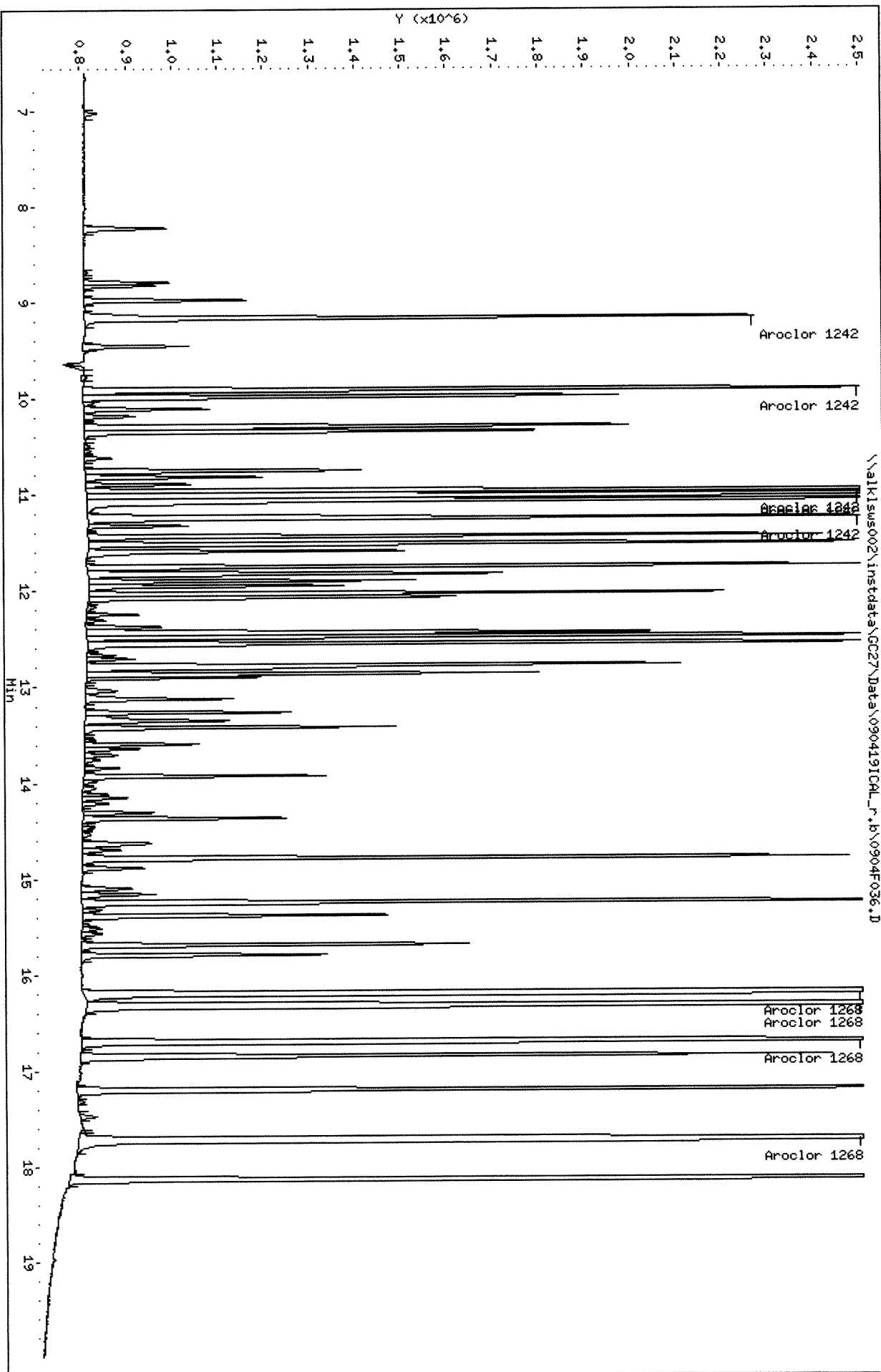
Sample Info: PCB8-4E 4268 @ 200 PPB

Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F037.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F037.D
Inj Date : 05-SEP-2019 11:23
Sample Info: PCB8-13M 1248 @ 1 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : 48.SUB
Sub List #2 : 48.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1248	9.746	10.966	50810	19785	1.22	0.923	80.00- 120.00	100.00 (M)
	9.929	11.016	32701	16327	1.15	0.886	55.92- 83.88	64.36 (M)
	11.066	11.516	61351	26968	1.17	1.12	99.65- 149.47	120.75 (M)
	11.326	12.029	37952	20734	1.01	1.10	75.25- 112.88	74.69 (M)
	11.802	12.552	34640	28321	1.04	0.988	66.29- 99.44	68.18 (M)
	Average of Peak Amounts =				1.12	1.00		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
W

Data File: \\alk1sws002\instdata\GC27\Data\090419ICPL.b\0904F037.D

Date : 05-SEP-2019 11:23

Client ID:

Sample Info: PCB8-13H 1248 @ 1 PPB

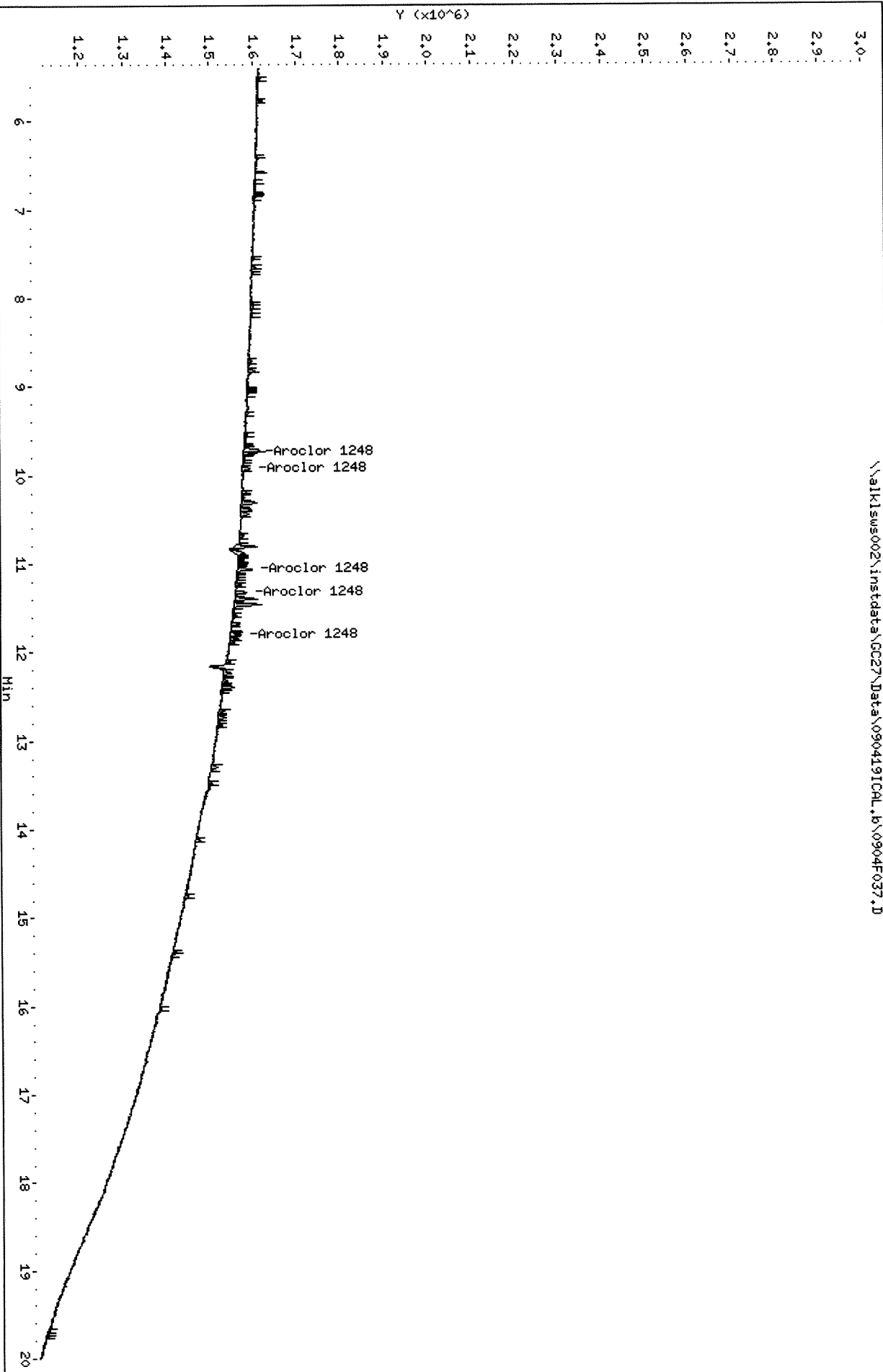
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alk1sws002\instdata\GC27\Data\090419ICPL.b\0904F037.D



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F037.D

Date : 05-SEP-2019 11:23

Client ID:

Sample Info: PCB8-13M 1248 @ 1 PPB

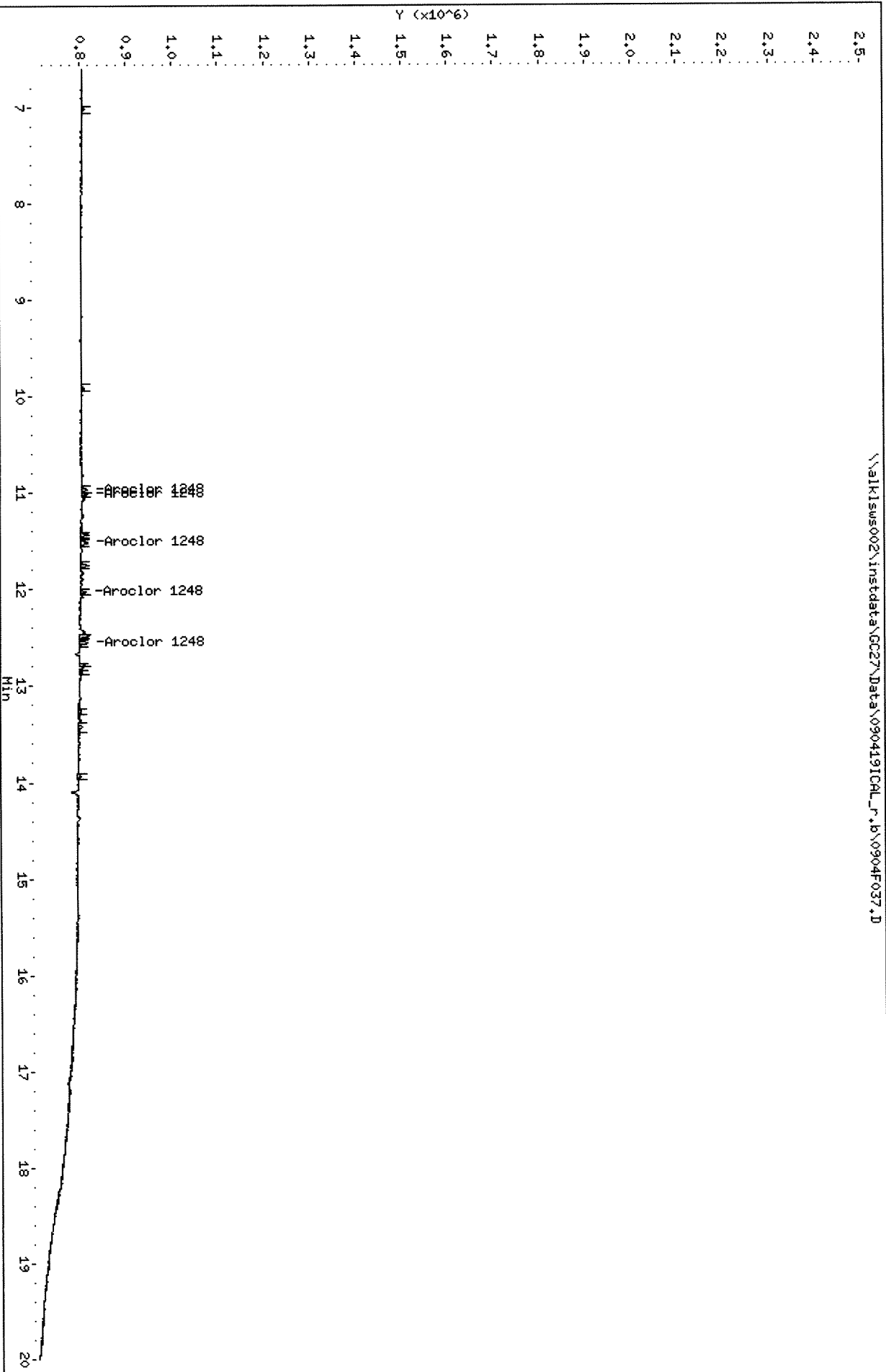
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

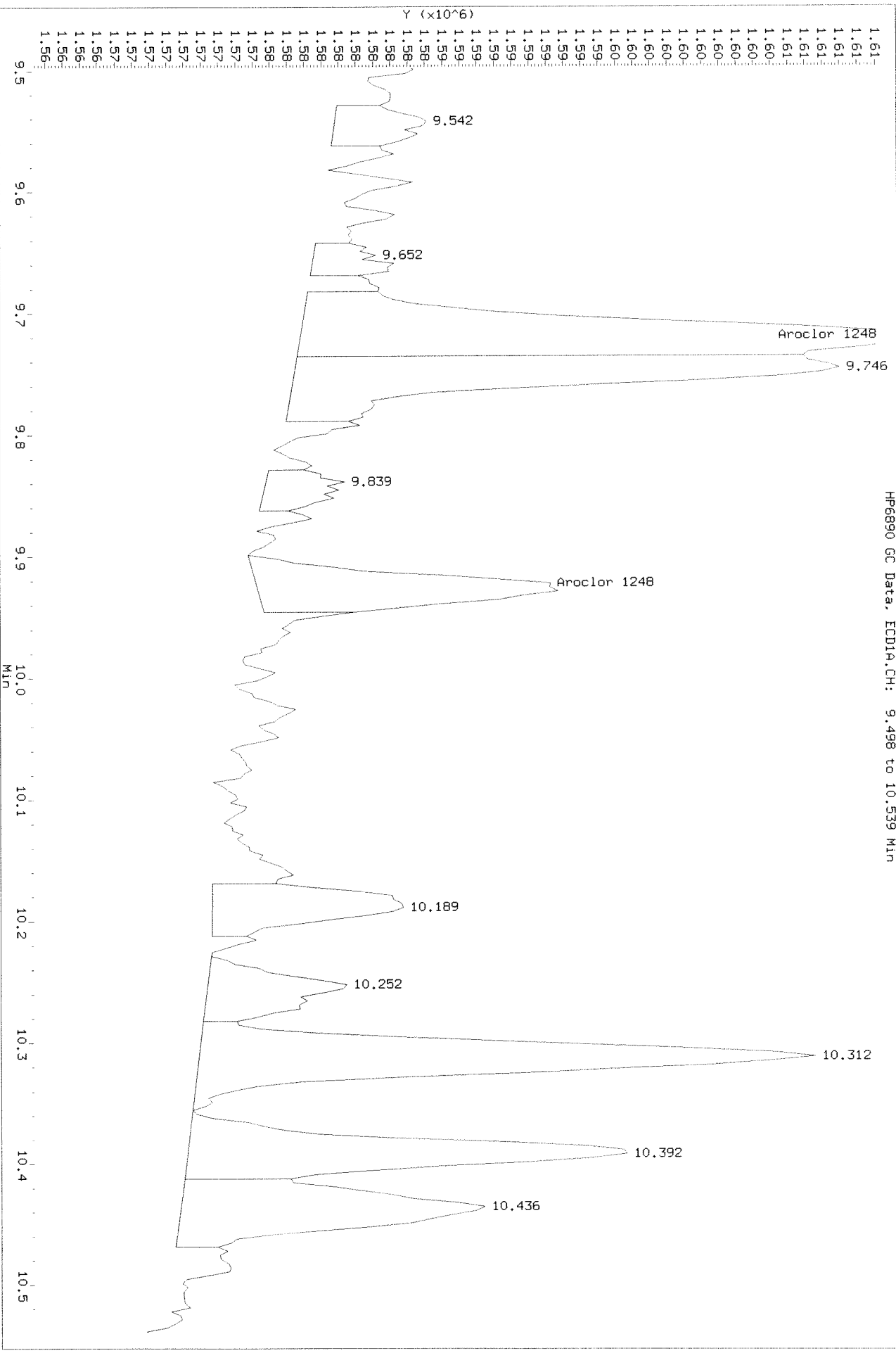
\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F037.D



Data File: \\alklsw002\instdata\GC27\Data\090419ICL.b\0904F037.D
Injection Date: 05-SEP-2019 11:23
Instrument: GC27.1
Client Sample ID:

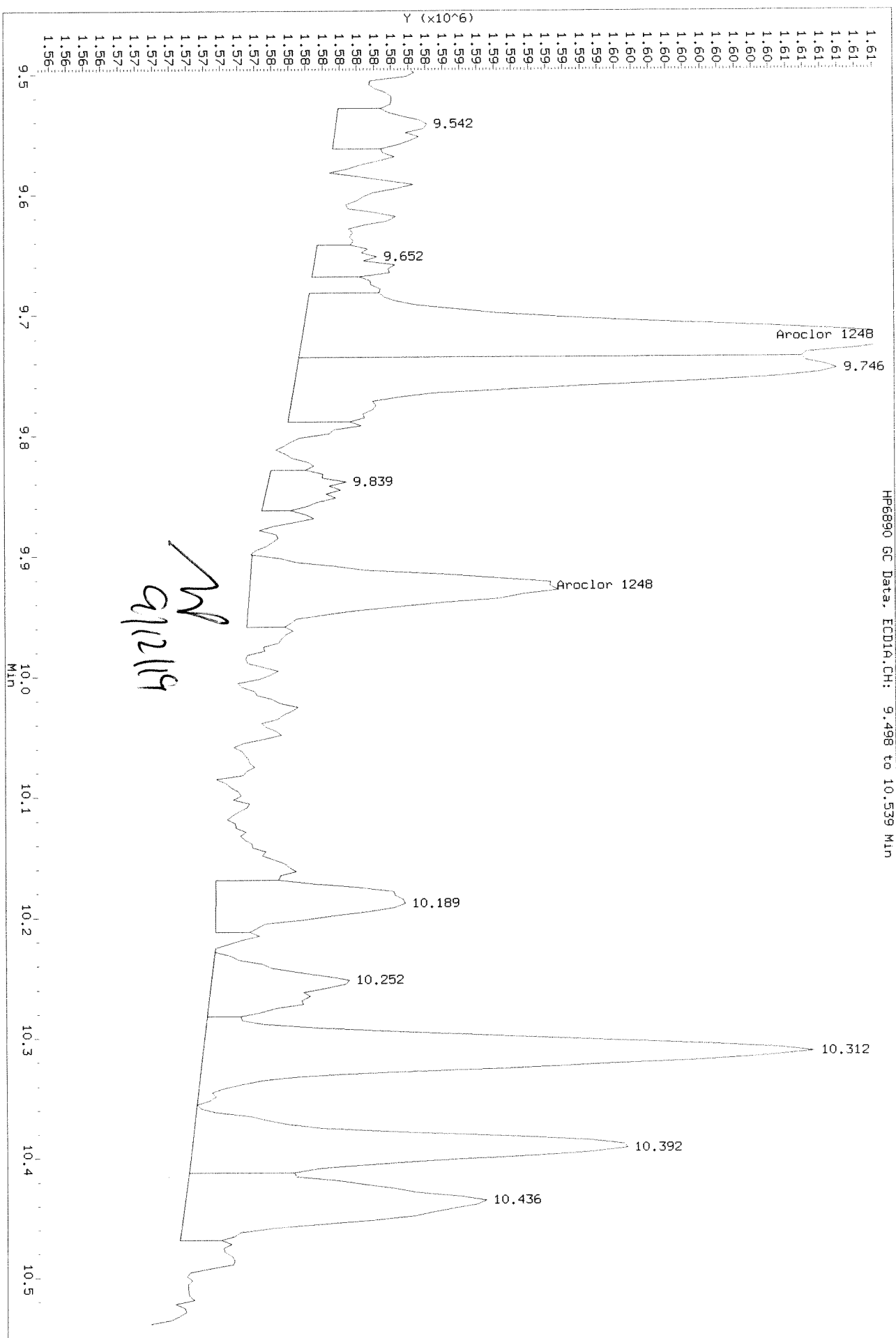
HP6890 GC Data, ECD1A.CH: 9.498 to 10.539 MIN

Before



Data File: \\alkjms002\instdata\GC27\Data\090419ICAL.b\0904F037.D
Injection Date: 05-SEP-2019 11:23
Instrument: GC27.1
Client Sample ID:

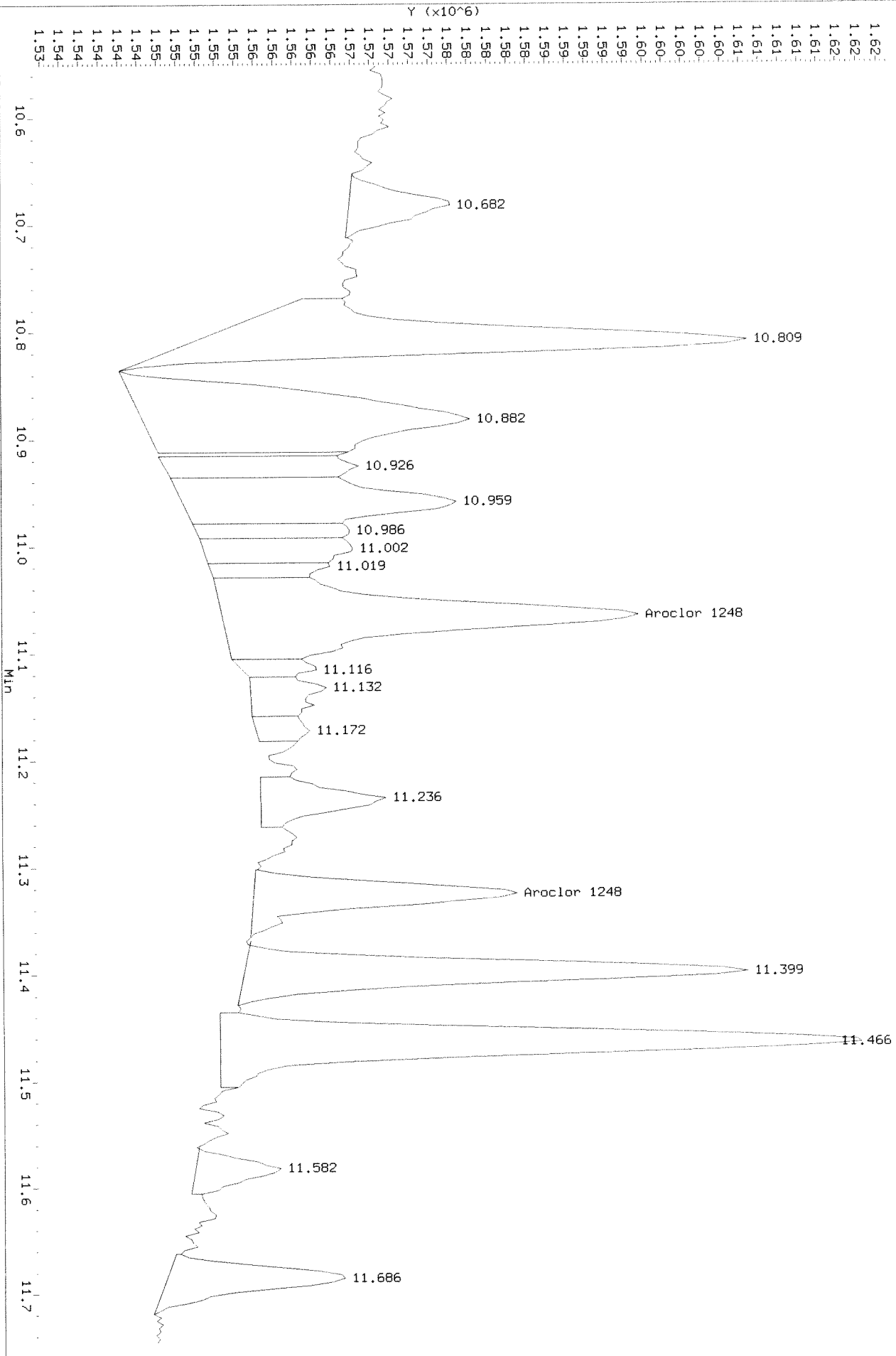
After baseline 9/11/19



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.B\0904F037.D
Injection Date: 05-SEP-2019 11:23
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 10.552 to 11.746 MIN

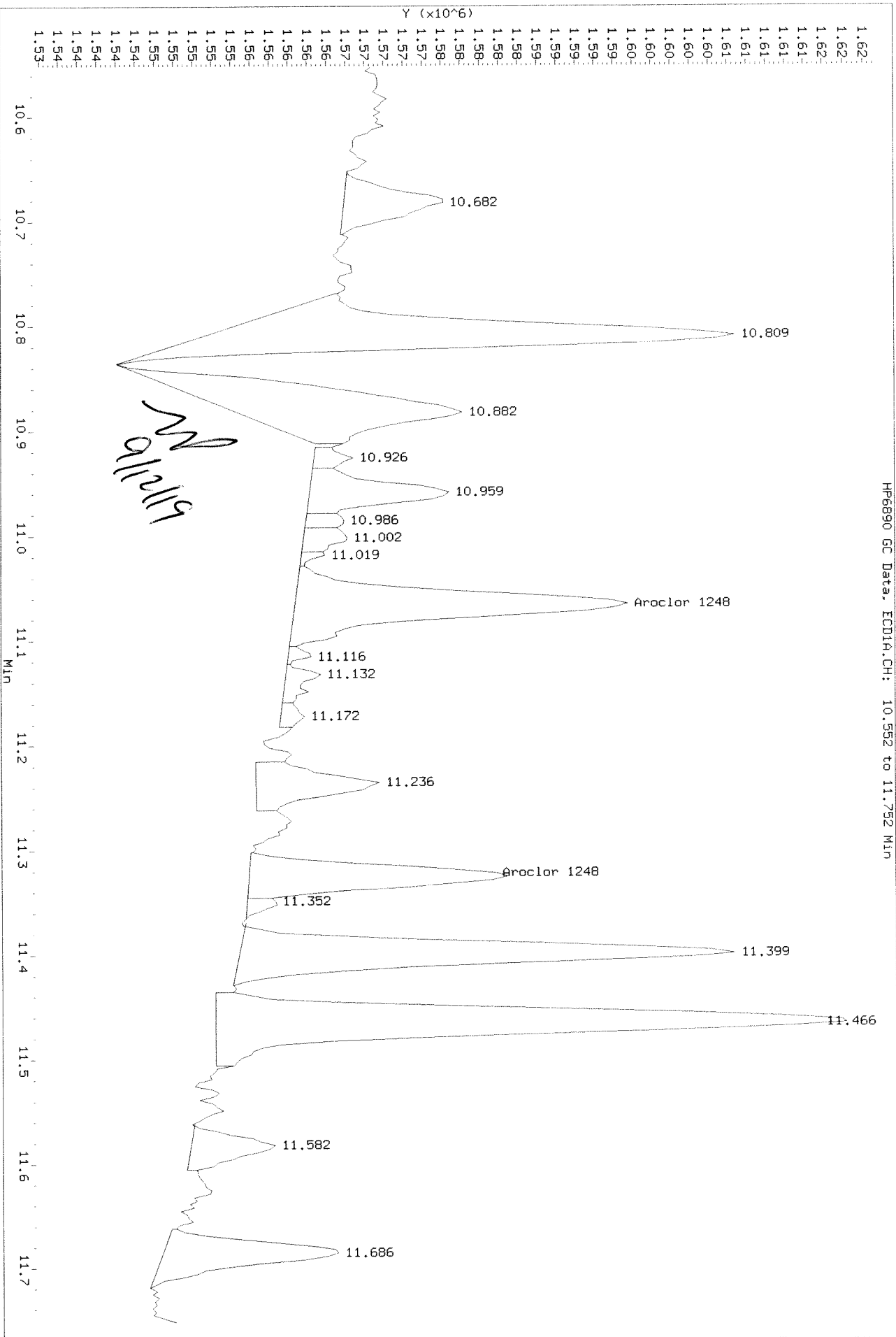
Before



Data File: \\alk1sws002\instdata\GC27\Data\090419ICL.b\0904F037.D
Injection Date: 05-SEP-2019 11:23
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 10.552 to 11.752 Min

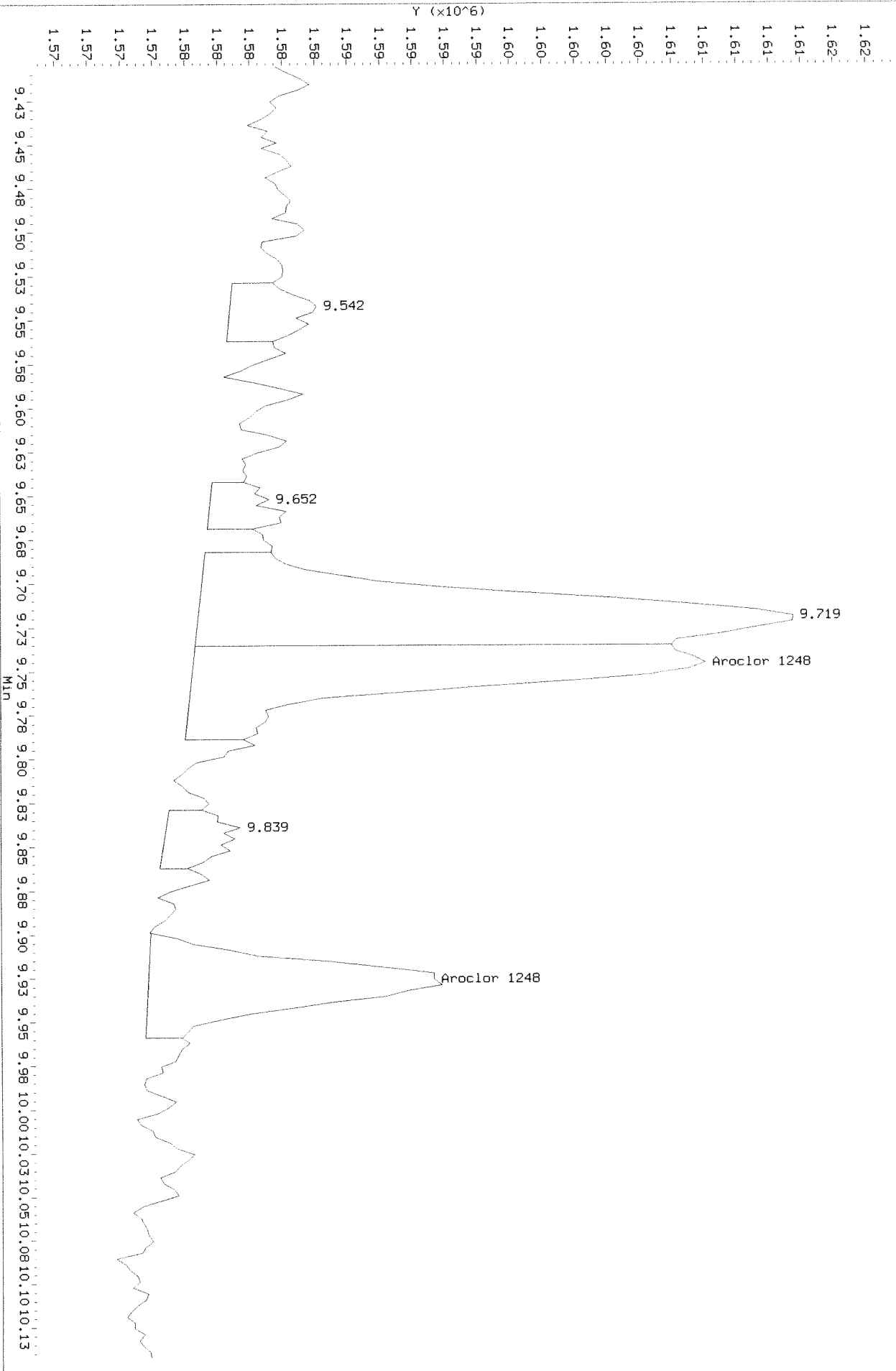
After base line 9/11/19 JT



Data File: \\alkjsws002\instdata\GC27\Data\090419ICEL.B\0904F037.D
Injection Date: 05-SEP-2019 11:23
Instrument: GC27.1
Client Sample ID:

Refer

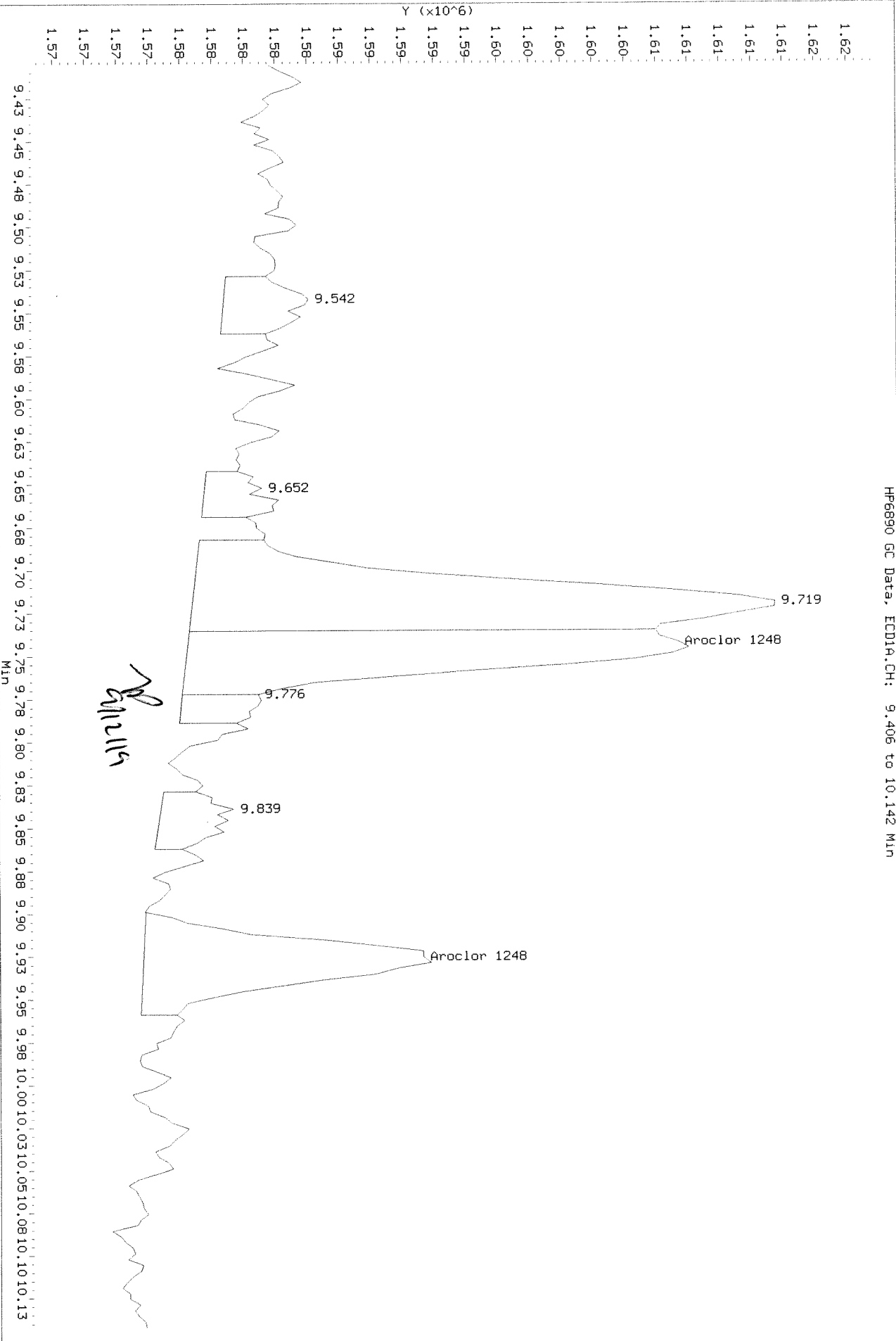
HP6890 GC Data, ECD1A.CH: 9.406 to 10.142 Min



Data File: \\alk1sws002\instdata\GC27\Data\090419ICDL.b\0904F037.D
Injection Date: 05-SEP-2019 11:23
Instrument: GC27.1
Client Sample ID:

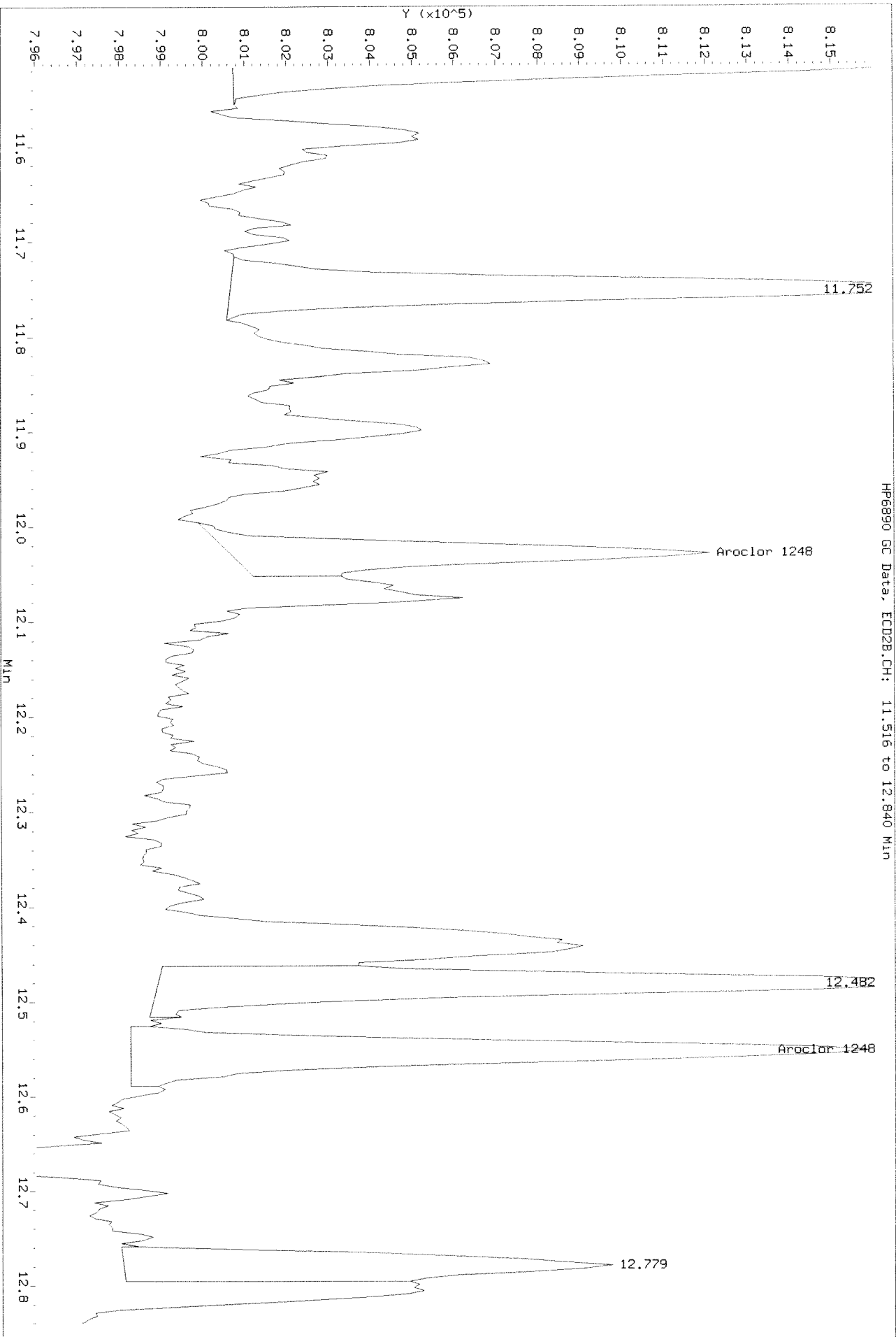
HP6890 GC Data, ECD1A.CH: 9.406 to 10.142 MIN

After Shoulder 9/11/19 SA



Data File: \\alk1sws002\instdata\GC27\Data\090419ICL-r.b\0904F037.D
Injection Date: 05-SEP-2019 11:23
Instrument: GC27.1
Client Sample ID:

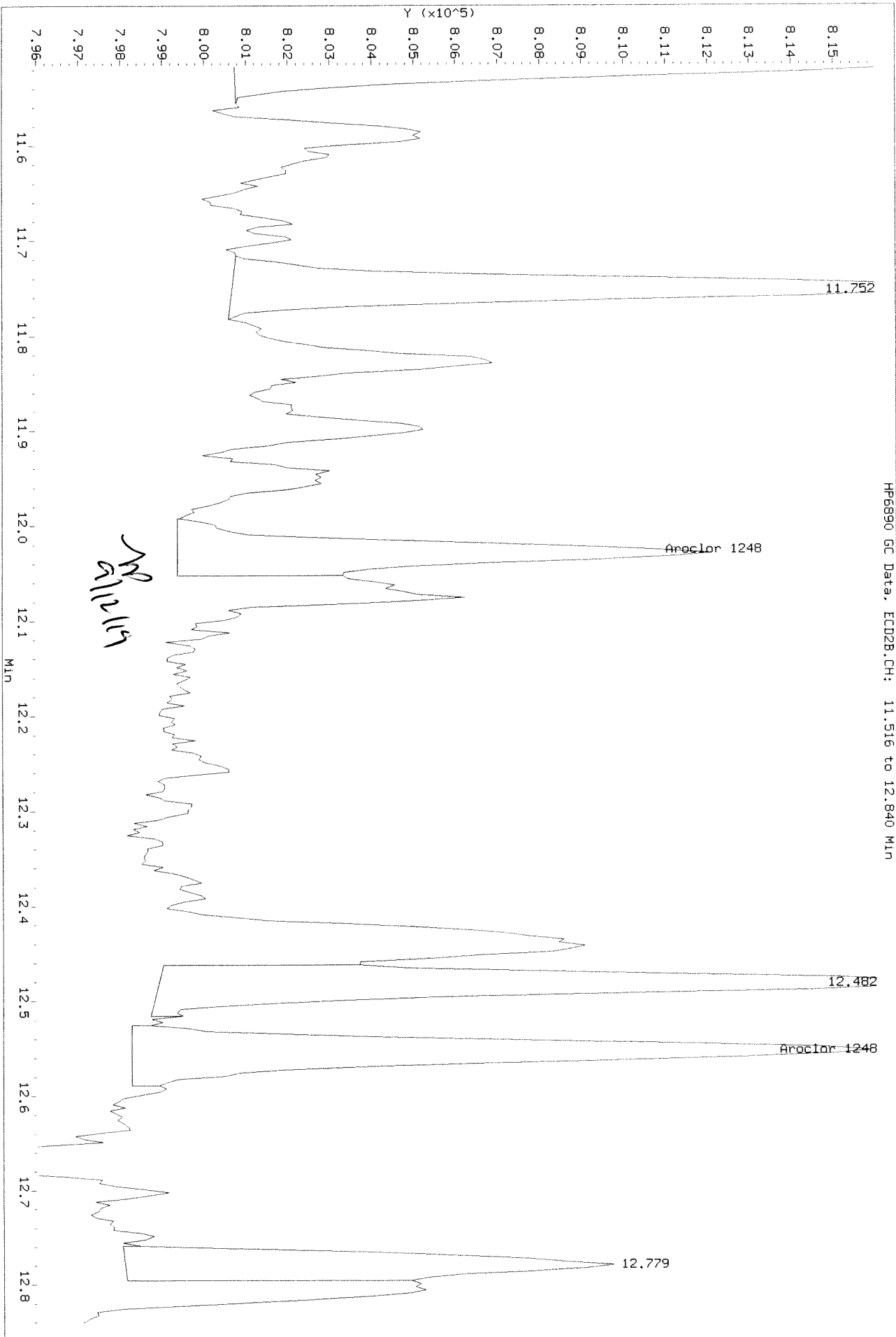
Before



Data File: \\alkisw002\instdata\GC27\Data\090419ICL.r.b\0904F037.D
Injection Date: 05-SEP-2019 11:23
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 11.516 to 12.840 MIN

After baseline 9/11/19



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F038.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F038.D
Inj Date : 05-SEP-2019 11:55
Sample Info: PCB8-13N 1248 @ 2 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

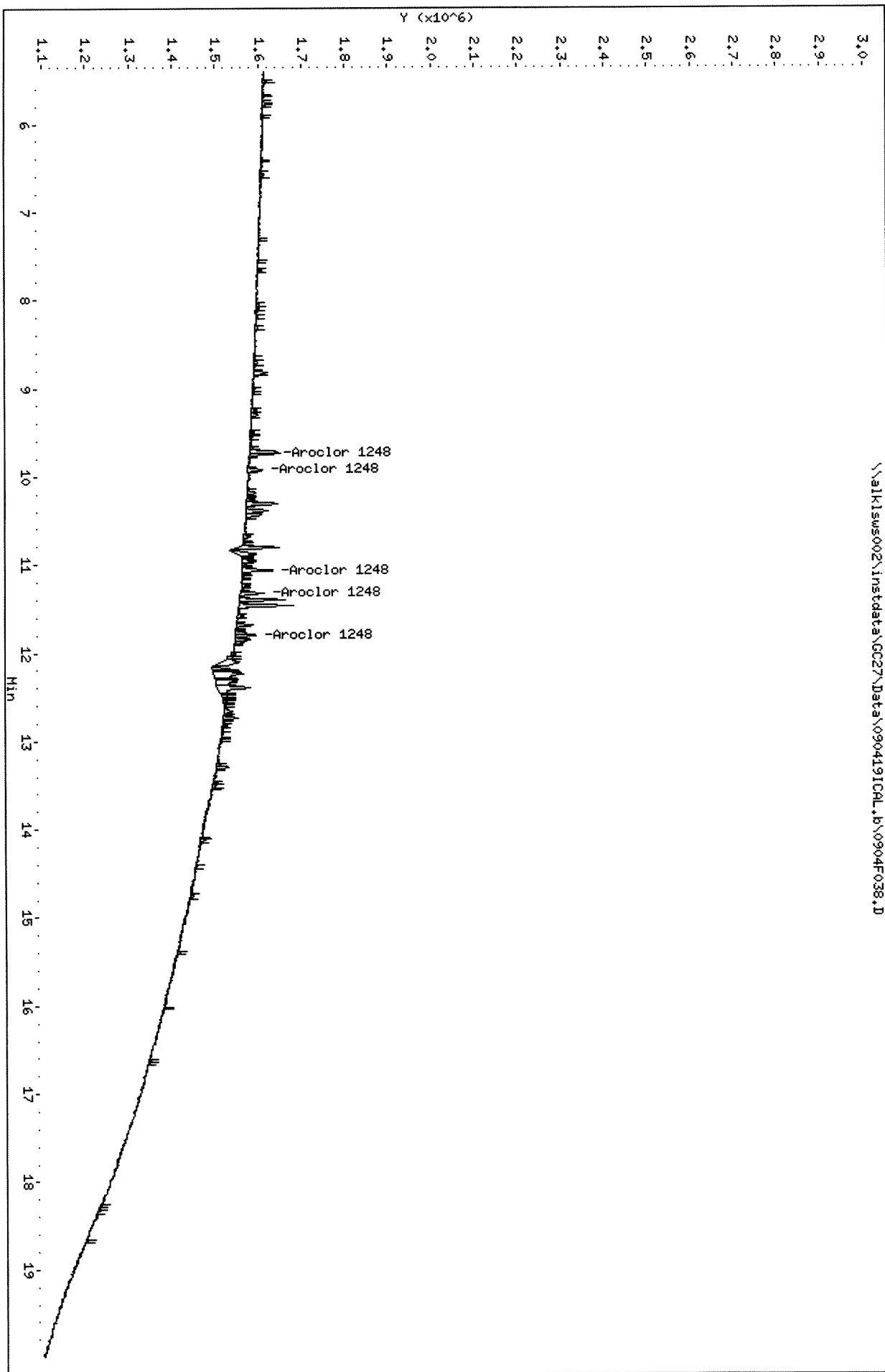
Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : 48.SUB
Sub List #2 : 48.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1248	9.744	10.965	90727	44474	2.17	2.07	80.00- 120.00	100.00
	9.928	11.015	62907	38368	2.21	2.08	55.92- 83.88	69.34
	11.068	11.515	124877	54748	2.38	2.27	99.65- 149.47	137.64
	11.324	12.031	84447	41585	2.24	2.21	75.25- 112.88	93.08
	11.801	12.551	72973	60077	2.20	2.10	66.29- 99.44	80.43
	Average of Peak Amounts =				2.24	2.15		

SA 9/11/19
W

Data File: \\alk1sws002\instdata\GC27\Data\090419ICPL.b\0904F038.D
Date : 05-SEP-2019 11:55
Client ID:
Sample Info: PCB8-13N 1248 @ 2 PPB
Column phase: DB-35MS

Instrument: GC27.1
Operator: SAA
Column diameter: 0.32



Data File: \\aik1s002\instdata\GC27\Data\090419ICL_r.b\0904F038.D

Date : 05-SEP-2019 11:55

Client ID:

Sample Info: PCB8-13N 1248 @ 2 PPB

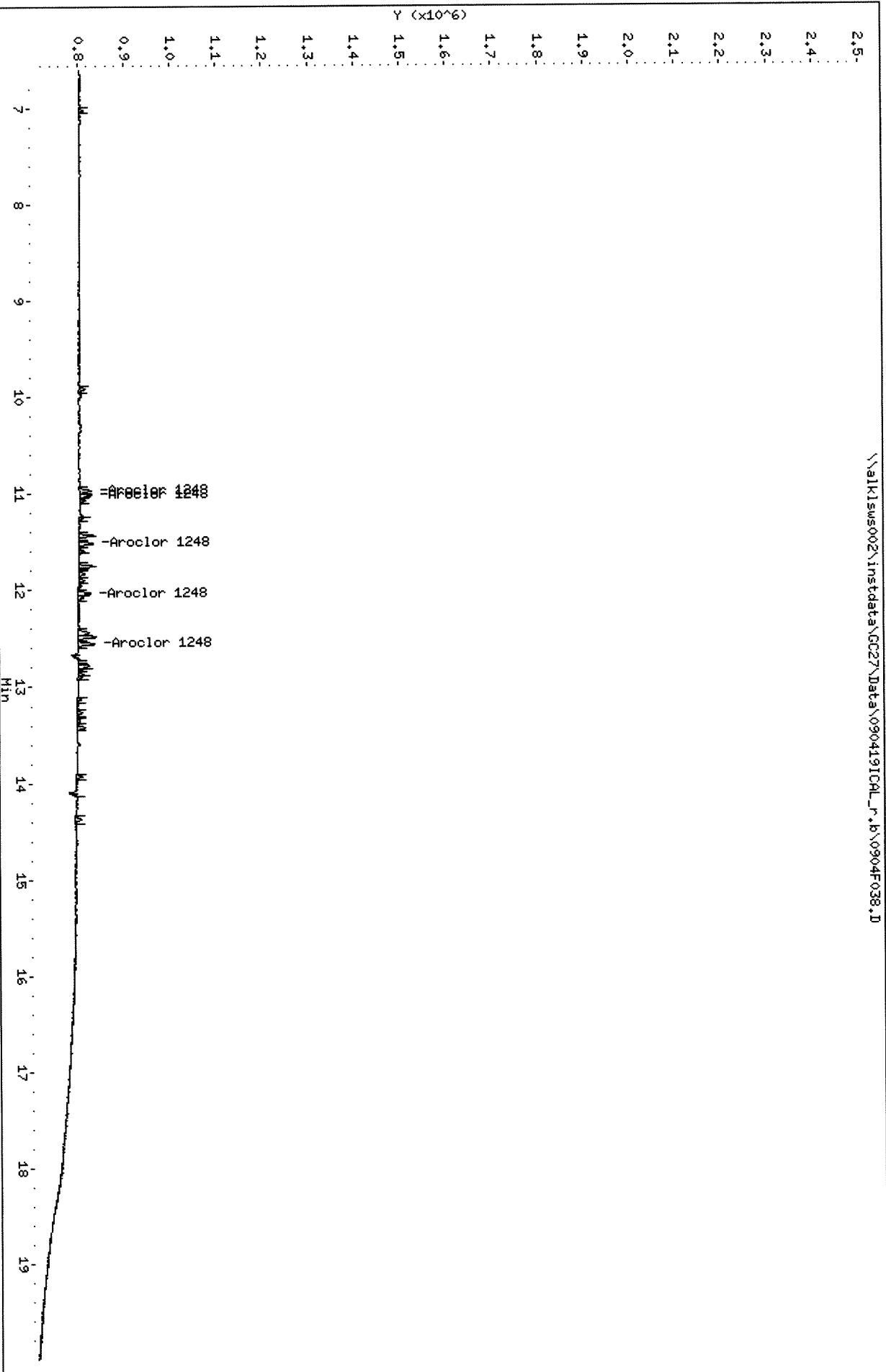
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

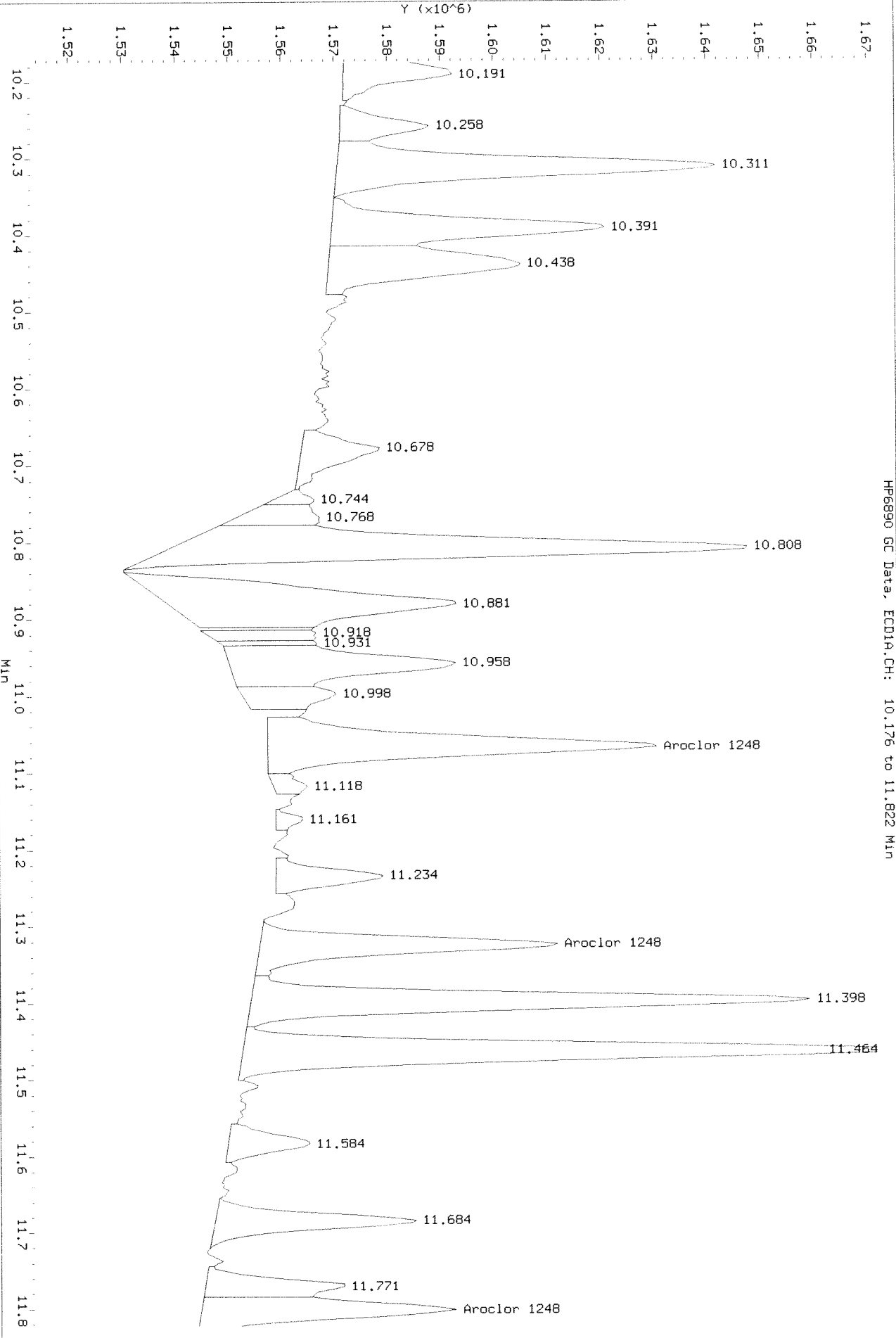
\\aik1s002\instdata\GC27\Data\090419ICL_r.b\0904F038.D



Data File: \\alklsw002\instdata\GC27\Data\090419ICL.b\0904F038.D
Injection Date: 05-SEP-2019 11:55
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 10.176 to 11.822 Min

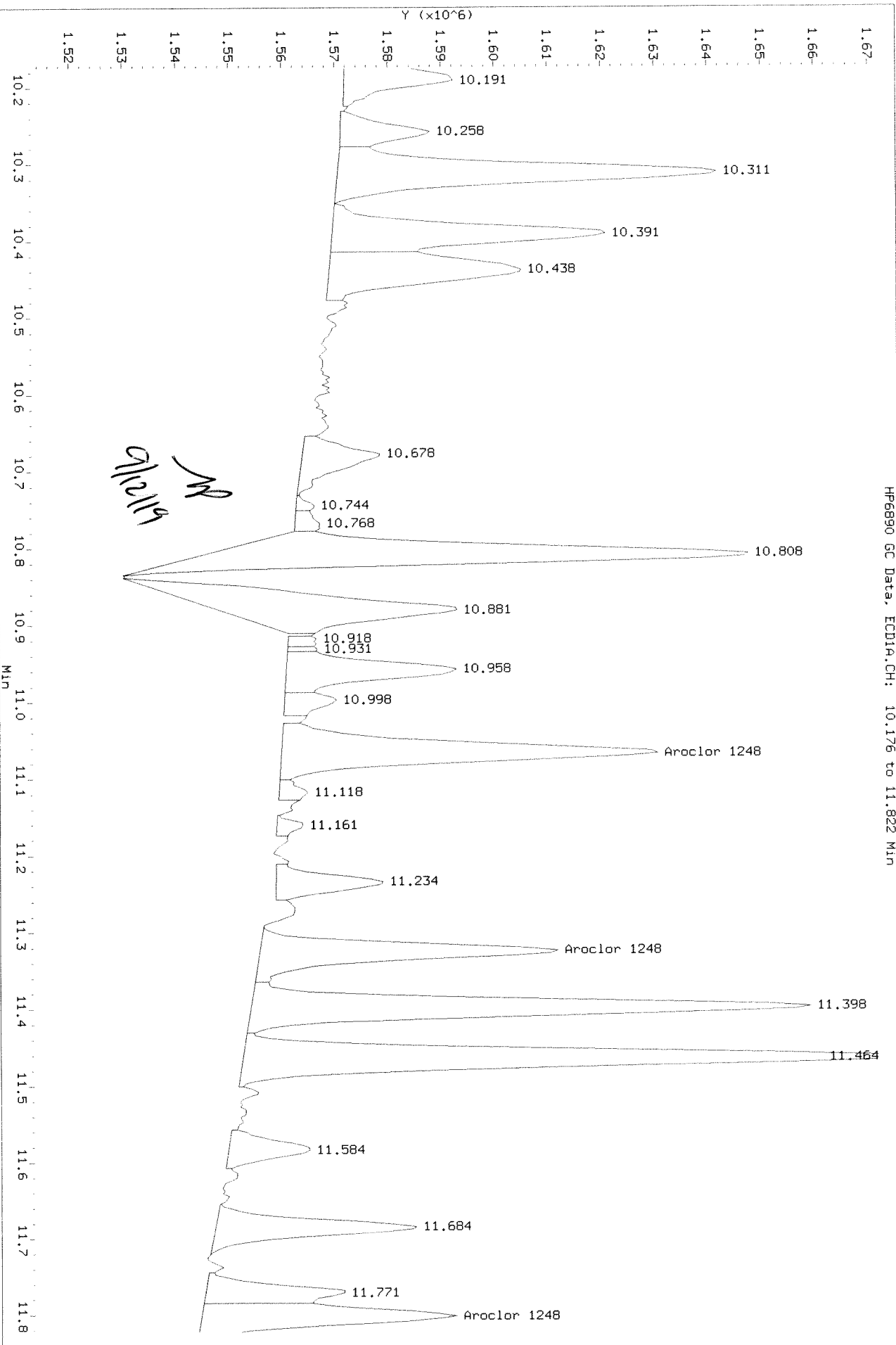
Blere



Data File: \\alk1sew002\instdata\GC27\Data\090419ICAL.b\0904F038.D
Injection Date: 05-SEP-2019 11:55
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 10.176 to 11.822 Min

After baseline 9/11/19 A



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F039.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F039.D
Inj Date : 05-SEP-2019 12:26
Sample Info: PCB8-14A 1248 @ 5 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : 48.SUB
Sub List #2 : 48.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1248	9.744	10.964	231533	111969	5.54	5.22	80.00- 120.00	100.00
	9.924	11.014	143574	97316	5.05	5.28	55.92- 83.88	62.01
	11.067	11.514	276305	125912	5.26	5.23	99.65- 149.47	119.34
	11.324	12.028	204810	97945	5.44	5.21	75.25- 112.88	88.46
	11.801	12.551	186712	151878	5.63	5.30	66.29- 99.44	80.64
			Average of Peak Amounts =		5.38	5.25		

CA 9/11/19
W

Data File: \\alkl1sws002\instdata\GC27\Data\090419ICPL.b\0904F039.D

Date : 05-SEP-2019 12:26

Client ID:

Sample Info: PCB8-14A 1248 @ 5 PPB

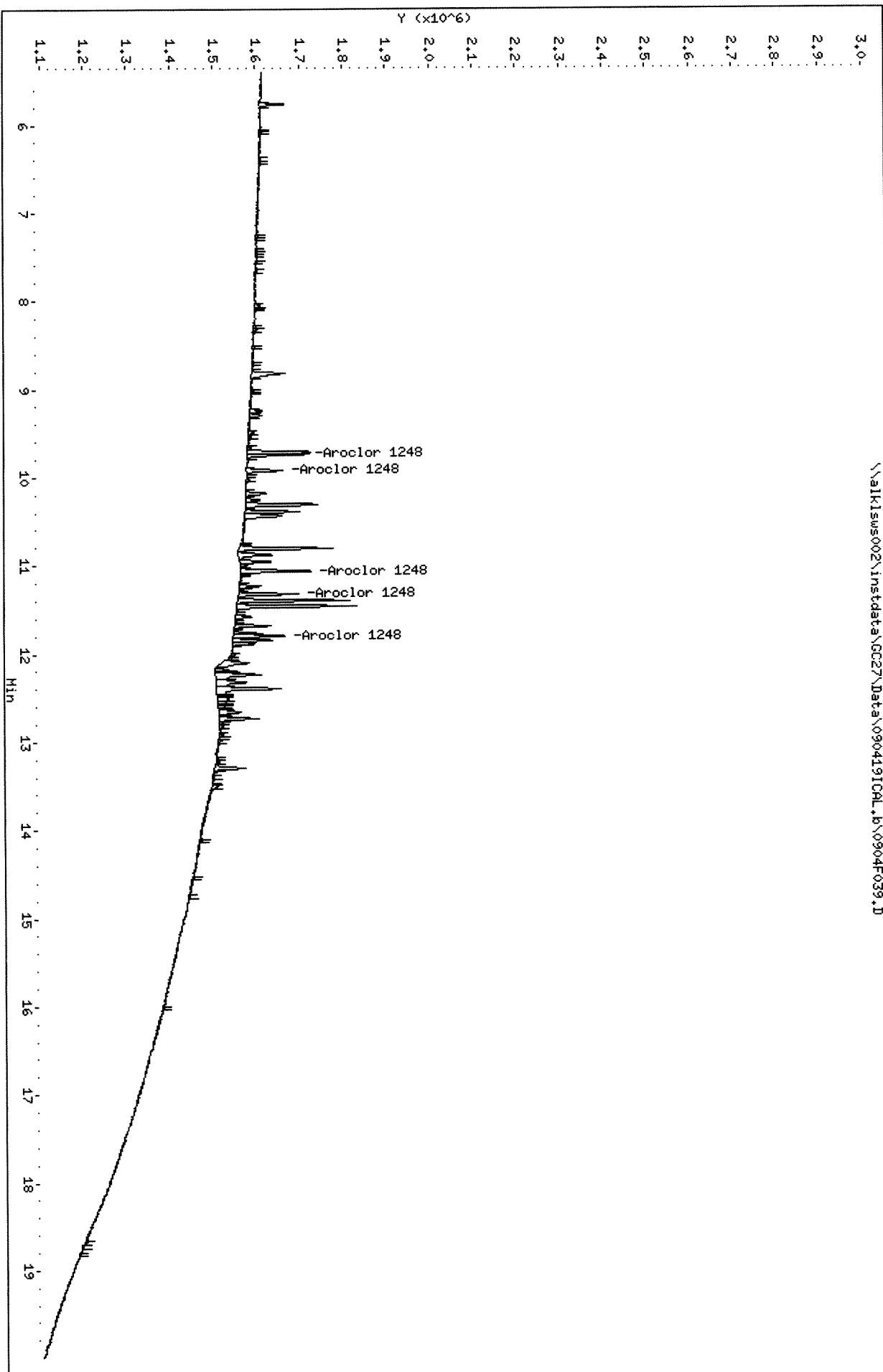
Column phase: DB-35MS

Instrument: GC27.1

Operator: SAA

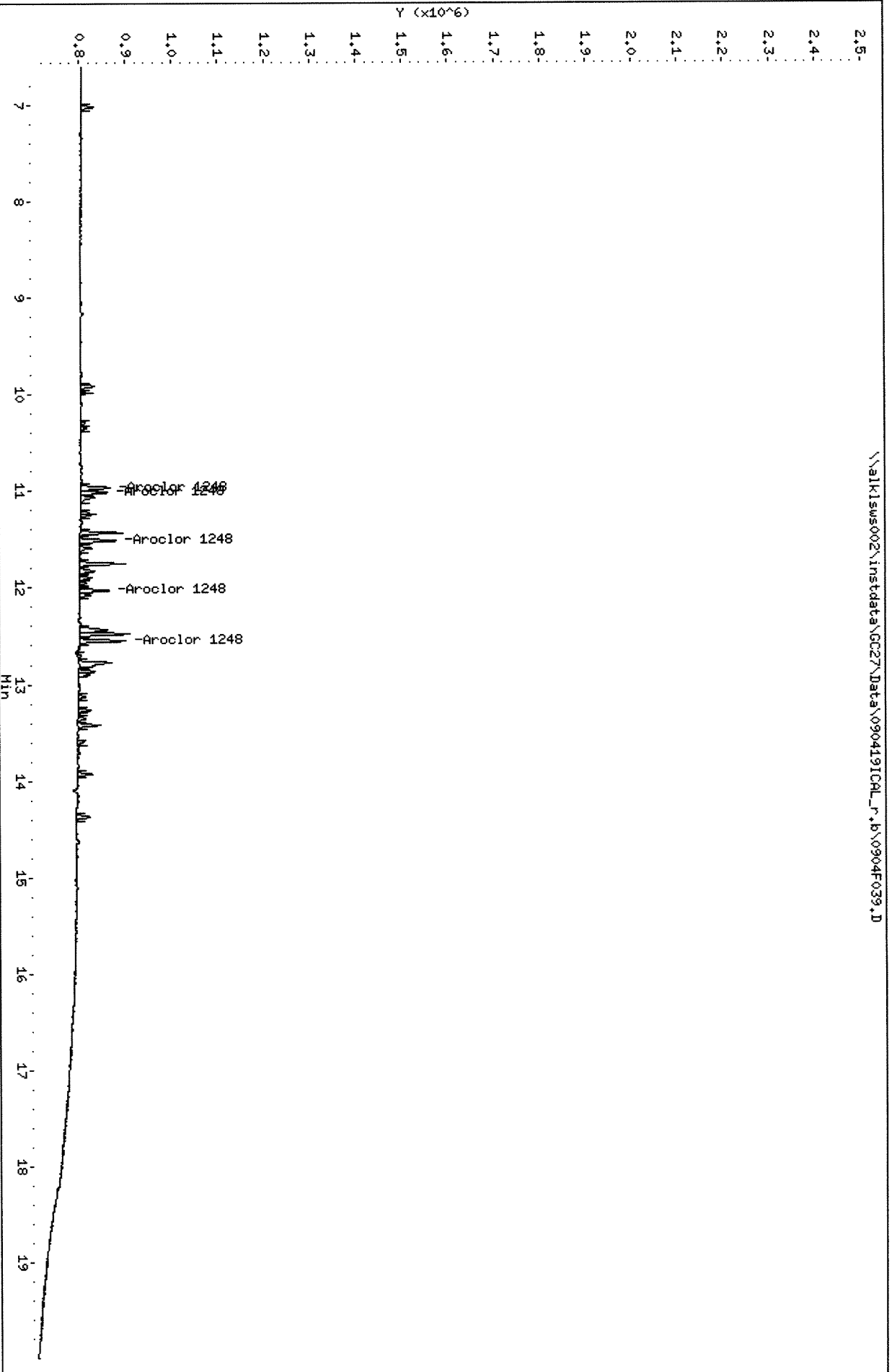
Column diameter: 0.32

\\alkl1sws002\instdata\GC27\Data\090419ICPL.b\0904F039.D



Data File: \\alk1s002\instdata\GC27\Data\0904191CAL_r.b\0904F039.D
Date : 05-SEP-2019 12:26
Client ID:
Sample Info: PCB8-14A 1248 @ 5 PPB
Column phase: DB-XLB

Instrument: GC27.1
Operator: SAA
Column diameter: 0.32



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F040.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F040.D
Inj Date : 05-SEP-2019 12:58
Sample Info: PCB8-14B 1248 @ 10 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : 48.SUB
Sub List #2 : 48.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1248	9.745	10.965	424568	241098	10.2	11.2	80.00- 120.00	100.00
	9.928	11.015	307953	208834	10.8	11.3	55.92- 83.88	72.53
	11.068	11.515	548563	261609	10.4	10.9	99.65- 149.47	129.20
	11.325	12.028	401912	203088	10.7	10.8	75.25- 112.88	94.66
	11.801	12.552	362021	330054	10.9	11.5	66.29- 99.44	85.27
	Average of Peak Amounts =				10.6	11.1		

SA 9/11/19
W

Data File: \\alkisus002\instdata\GC27\Data\090419ICAL.b\0904F040.D

Date : 05-SEP-2019 12:58

Client ID:

Sample Info: PCB8-14B 1248 @ 10 PPB

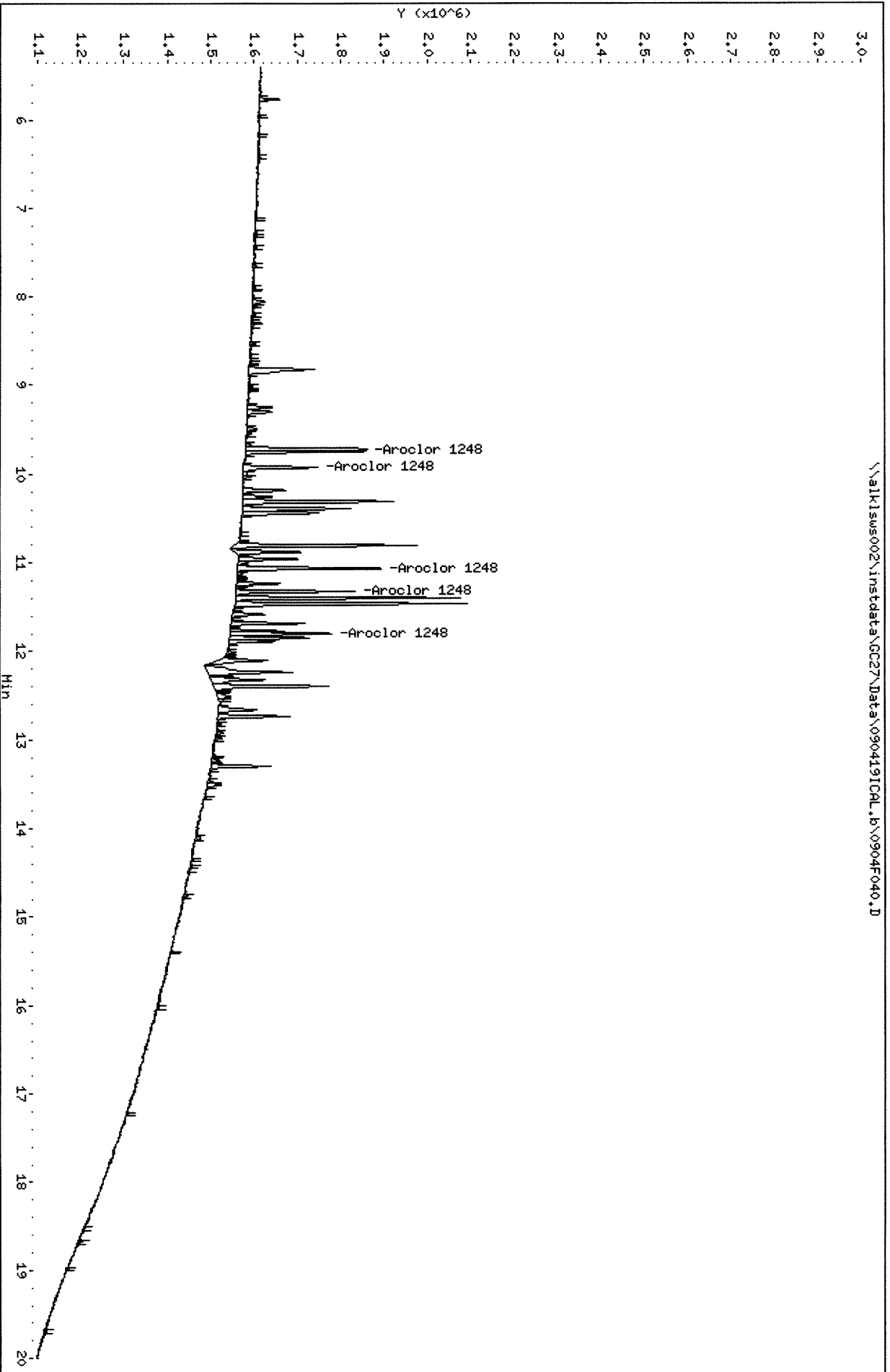
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

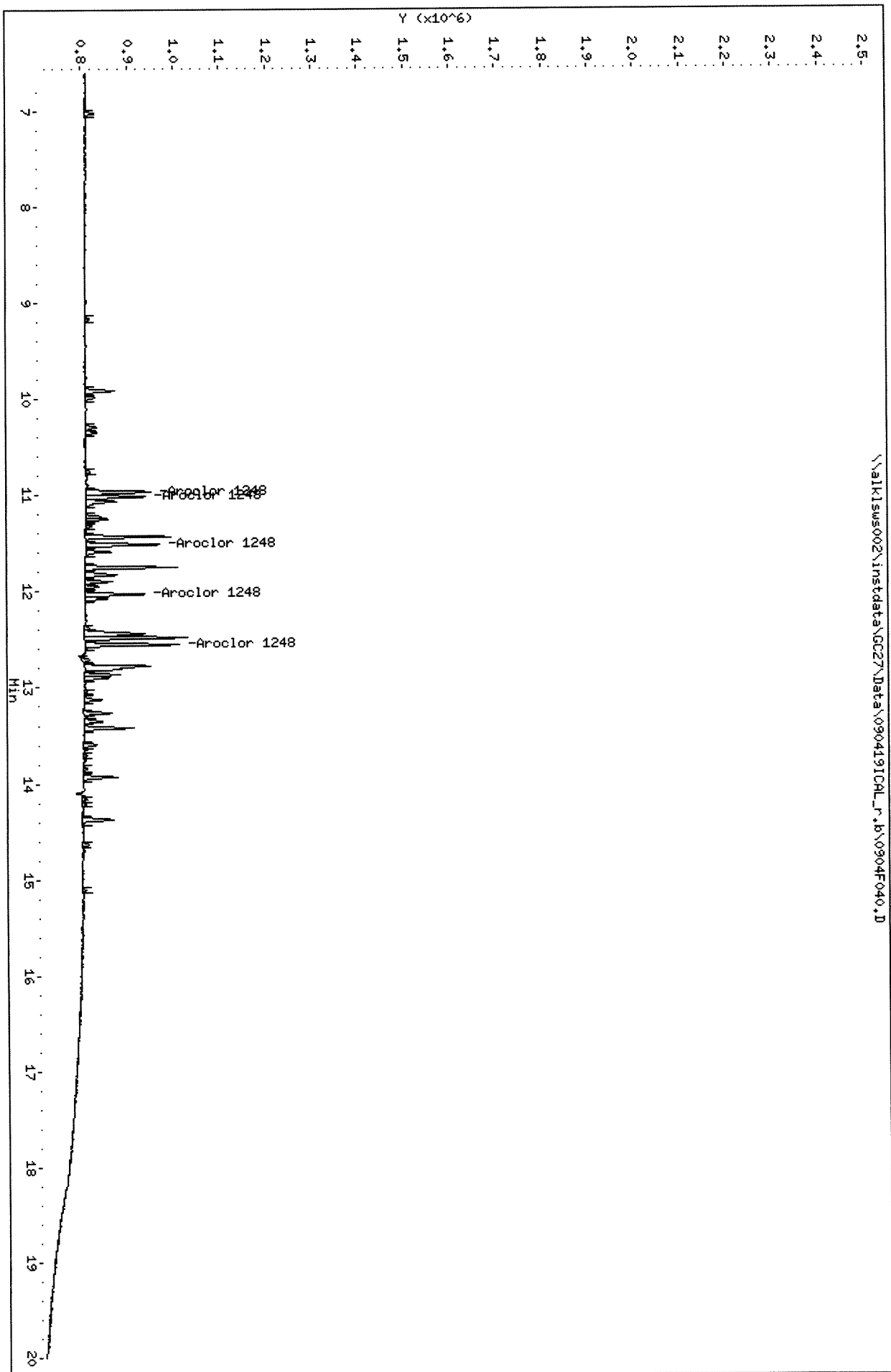
\\alkisus002\instdata\GC27\Data\090419ICAL.b\0904F040.D



Data File: \\alkisus002\instdata\GC27\Data\090419ICDL_r.b\0904F040.D
Date : 05-SEP-2019 12:58
Client ID:
Sample Info: PCB8-14B 1248 @ 10 PPB
Column phase: DB-XLB

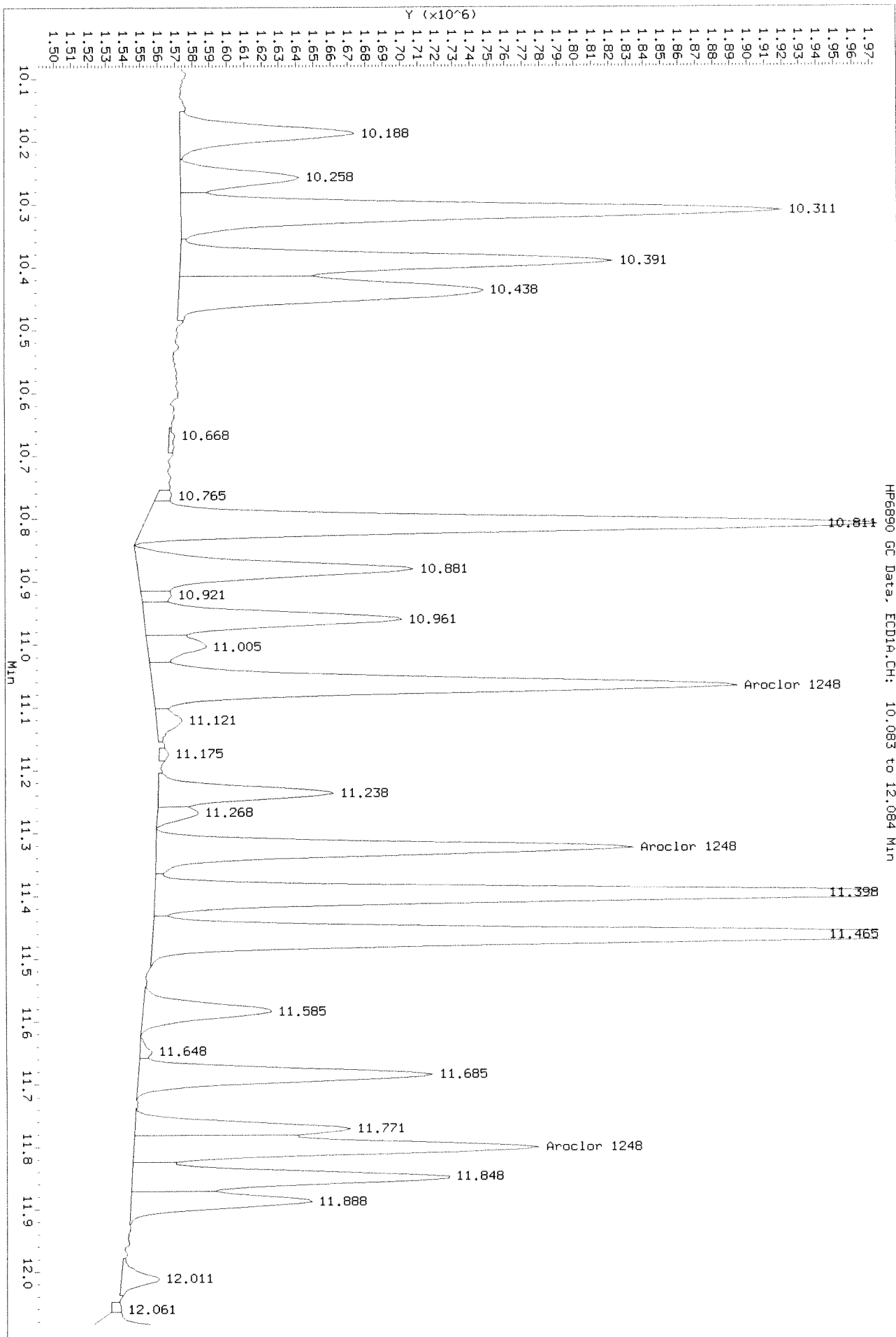
Instrument: GC27.i
Operator: SAA
Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICDL_r.b\0904F040.D



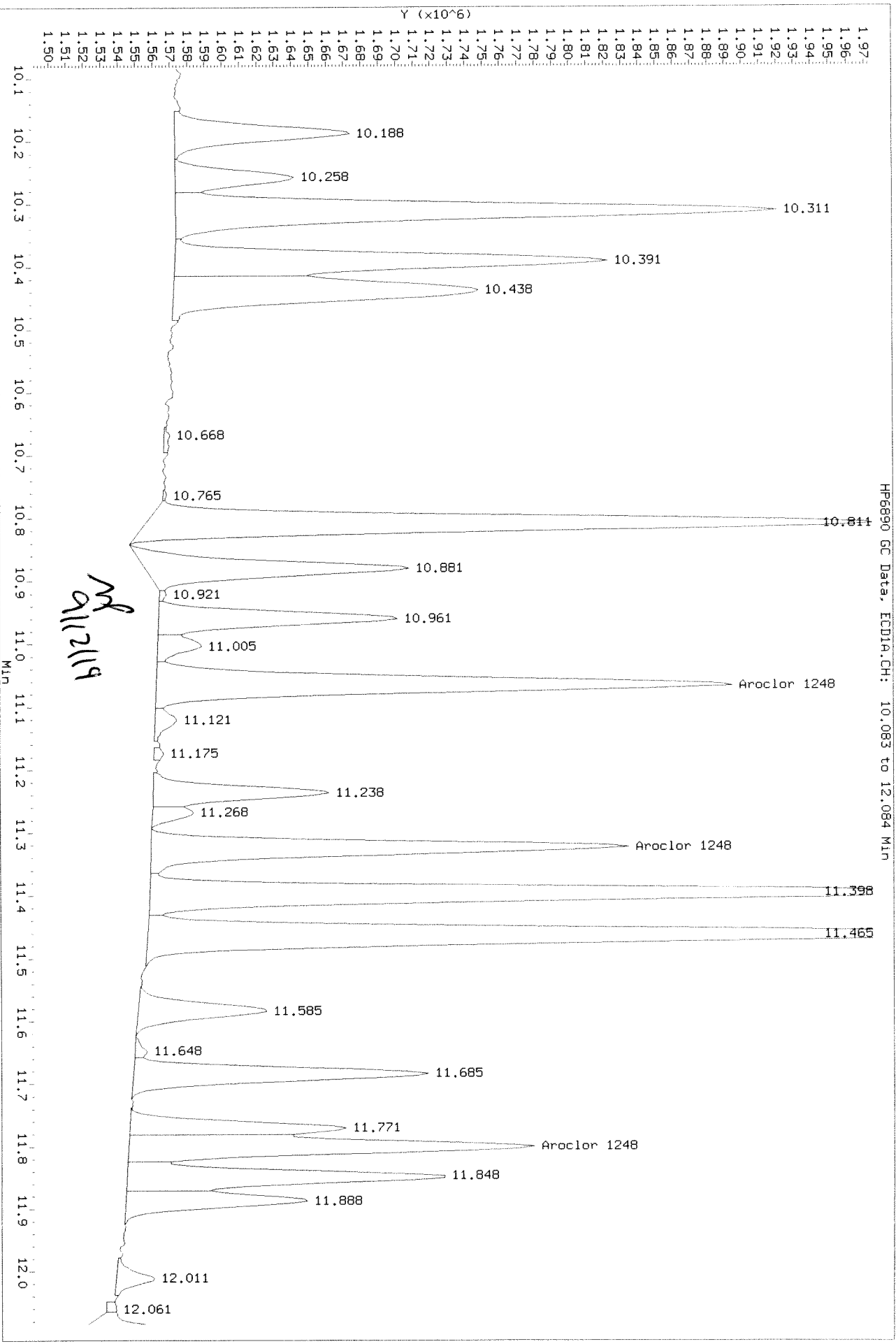
Data File: \\alklsws002\instdata\GC27\Data\090419ICL.b\0904F040.D
Injection Date: 05-SEP-2019 12:58
Instrument: GC27.1
Client Sample ID:

Before



Data File: \\alklms002\instdata\GC27\Data\090419ICL.b\0904F040.D
 Injection Date: 05-SEP-2019 12:58
 Instrument: GC27.1
 Client Sample ID:

After baseline 9/11/19 A



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F041.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F041.D
Inj Date : 05-SEP-2019 13:30
Sample Info: PCB7-91N 1248 @ 20 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : 48.SUB
Sub List #2 : 48.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1248	9.745	10.965	766568	450464	18.3	21.0	80.00- 120.00	100.00 (M)
	9.928	11.015	509729	374054	17.9	20.3	55.92- 83.88	66.49 (M)
	11.068	11.515	980595	477212	18.7	19.8	99.65- 149.47	127.92 (M)
	11.325	12.032	723763	367769	19.2	19.6	75.25- 112.88	94.42 (M)
	11.802	12.555	611012	599845	18.4	20.9	66.29- 99.44	79.71 (M)
	Average of Peak Amounts =				18.5	20.3		

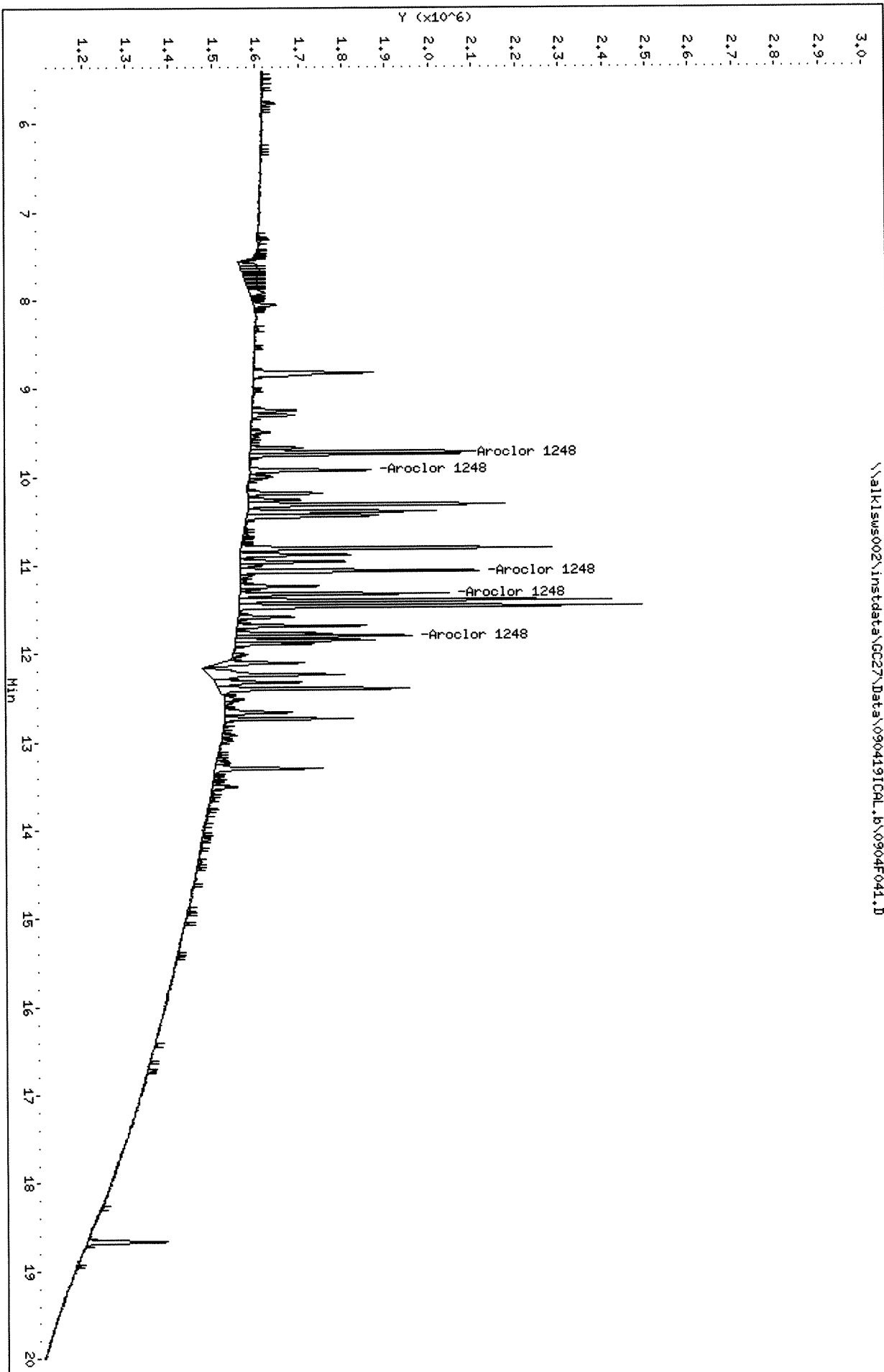
QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
W

Data File: \\alklsws002\instdata\GC27\Data\090419ICPL.b\0904F041.D
Date : 05-SEP-2019 13:30
Client ID:
Sample Info: PCB7-91N 1248 @ 20 PPB
Column phase: DB-35MS

Instrument: GC27.1
Operator: SAA
Column diameter: 0.32



Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F041.D

Date: 05-SEP-2019 13:30

Client ID:

Sample Info: PCB7-91N 1248 @ 20 PPB

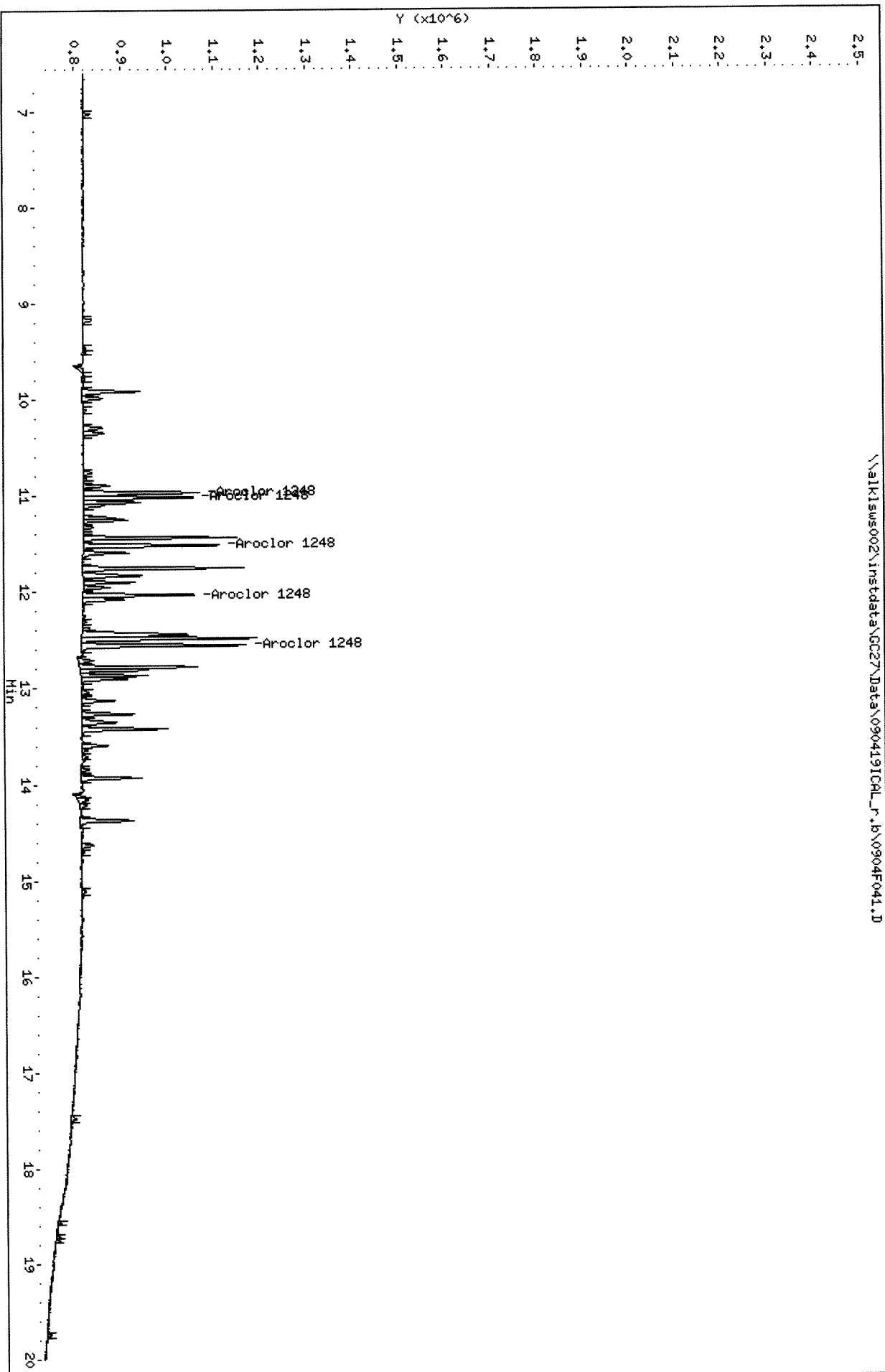
Column phase: DB-XLB

Instrument: GC27.1

Operator: SAA

Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F041.D



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F042.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F042.D
Inj Date : 05-SEP-2019 14:02
Sample Info: PCB7-910 1248 @ 50 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : 48.SUB
Sub List #2 : 48.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1248	9.745	10.965	1812027	1047787	43.4	48.9	80.00- 120.00	100.00
	9.928	11.015	1314513	926449	46.2	50.3	55.92- 83.88	72.54
	11.068	11.515	2283647	1111679	43.5	46.2	99.65- 149.47	126.03
	11.325	12.029	1719034	882846	45.7	47.0	75.25- 112.88	94.87
	11.802	12.552	1472562	1347375	44.4	47.0	66.29- 99.44	81.27
	Average of Peak Amounts =				44.6	47.9		

SA 9/11/19
W

Data File: \\alk1sws002\instdata\GC27\Data\090419ICPL.b\0904F042.D

Date : 05-SEP-2019 14:02

Client ID:

Sample Info: PCB7-910 1248 @ 50 PPB

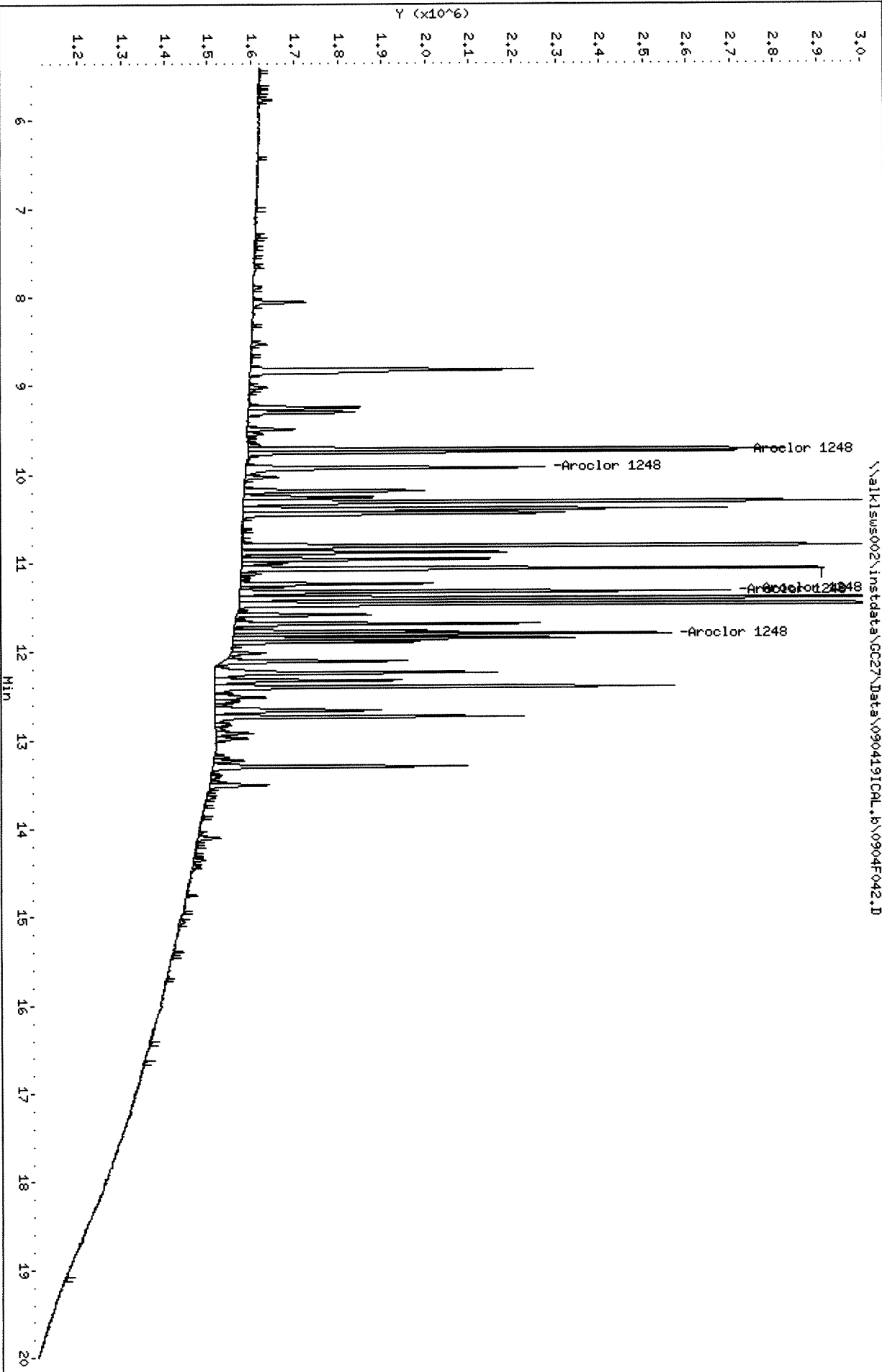
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alk1sws002\instdata\GC27\Data\090419ICPL.b\0904F042.D



Data File: \\alk1s002\instdata\GC27\Data\090419ICAL_r.b\0904F042.D

Date : 05-SEP-2019 14:02

Client ID:

Sample Info: PCB7-910 1248 @ 50 PPB

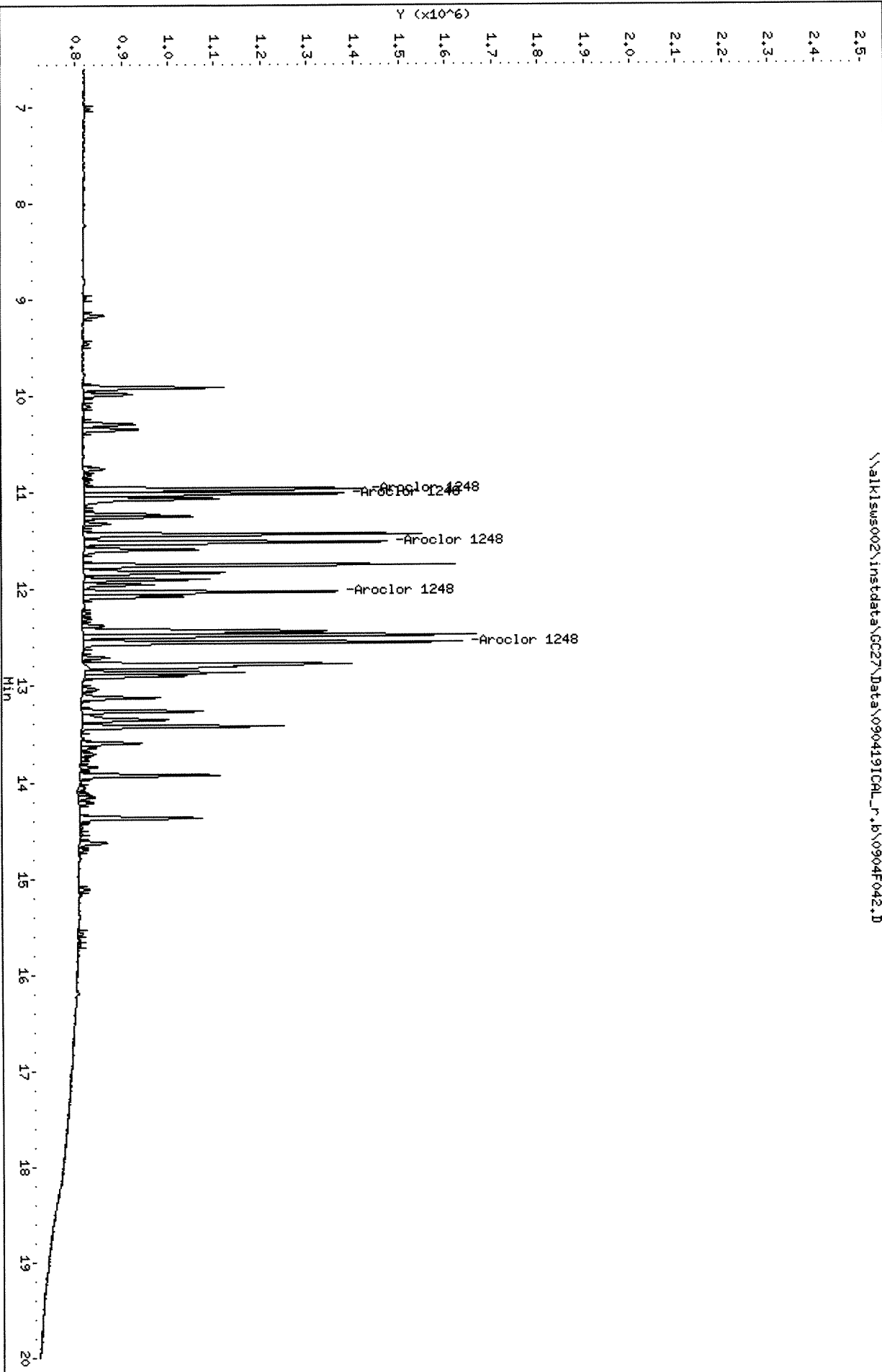
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alk1s002\instdata\GC27\Data\090419ICAL_r.b\0904F042.D



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F043.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F043.D
Inj Date : 05-SEP-2019 14:33
Sample Info: PCB7-92A 1248 @ 100 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

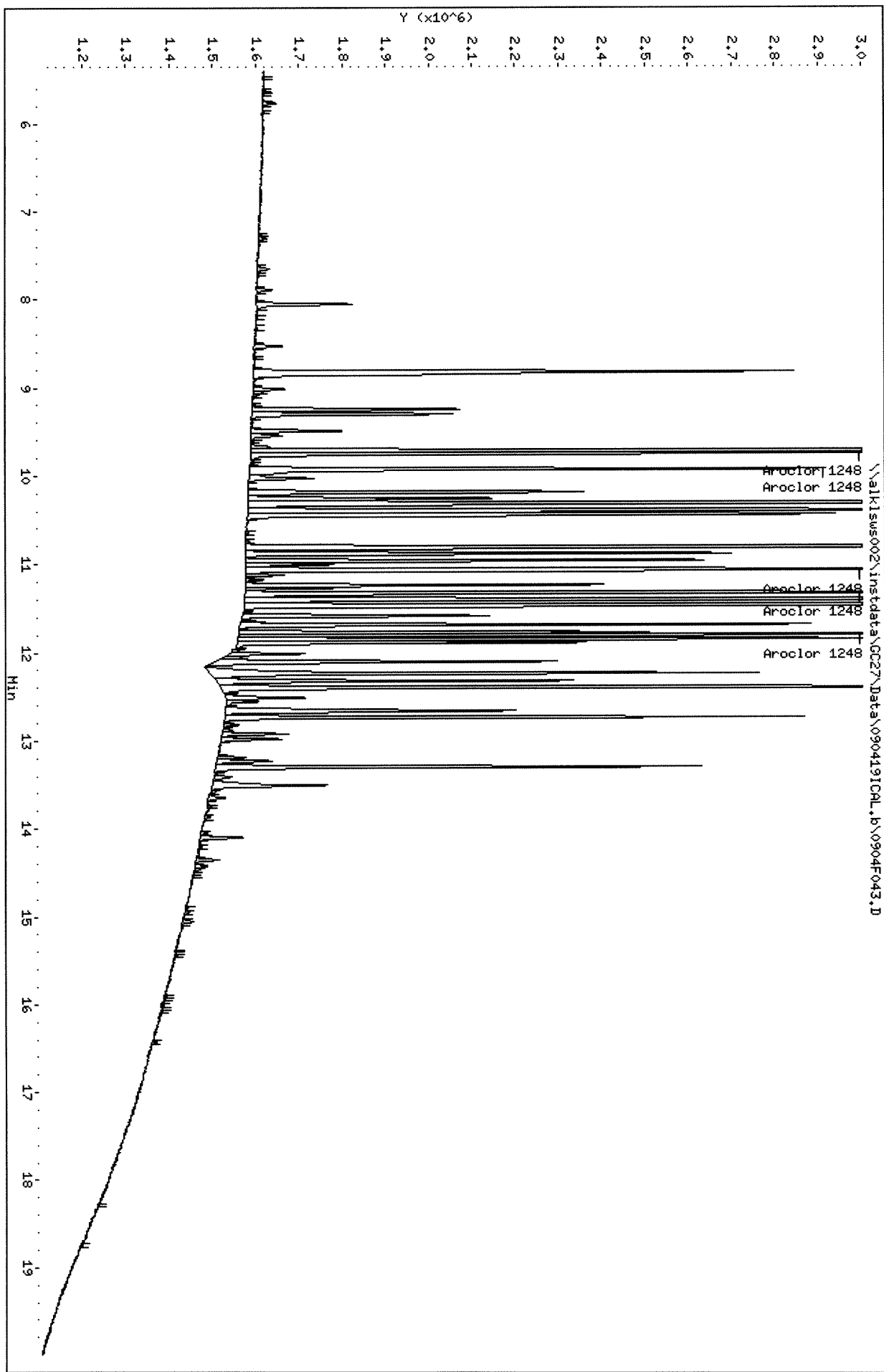
Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : 48.SUB
Sub List #2 : 48.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1248	9.744	10.964	3550142	1949389	85.0	90.9	80.00- 120.00	100.00
	9.928	11.014	2452217	1637198	86.3	88.8	55.92- 83.88	69.07
	11.068	11.514	4258464	1988037	81.1	82.6	99.65- 149.47	119.95
	11.324	12.031	3206351	1586846	85.2	84.5	75.25- 112.88	90.32
	11.801	12.554	2806012	2421338	84.6	84.5	66.29- 99.44	79.04
	Average of Peak Amounts =				84.4	86.3		

SA 9/11/19
W

Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F043.D
Date : 05-SEP-2019 14:33
Client ID:
Sample Info: PCB7-92A 1248 @ 100 PPB
Column phase: DB-35MS

Instrument: GC27.i
Operator: SAA
Column diameter: 0.32



Data File: \\alk1sus002\instdata\GC27\Data\090419ICAL_r.b\0904F043.D

Date : 05-SEP-2019 14:33

Client ID:

Sample Info: PCB7-92A 1248 @ 100 PPB

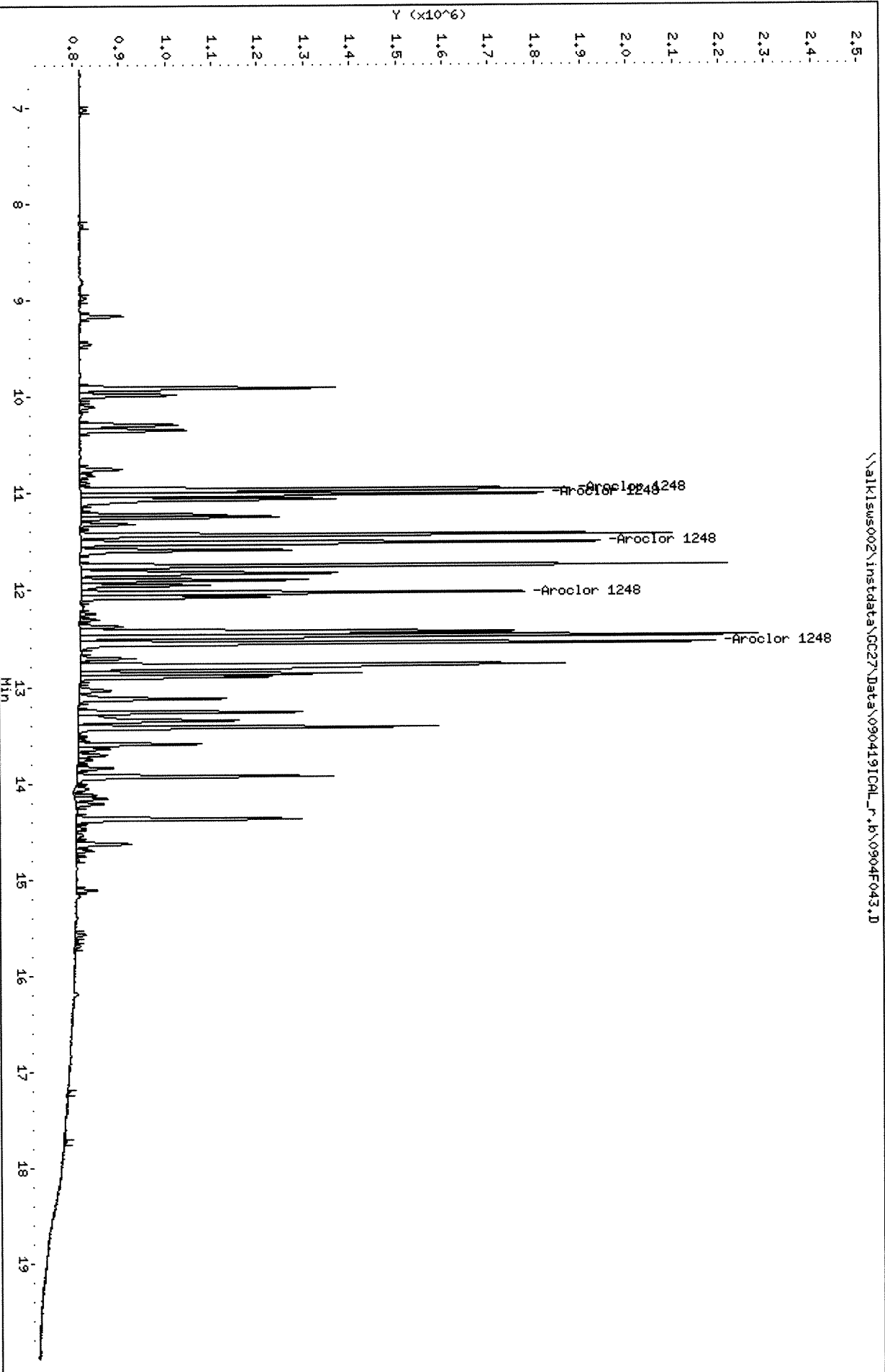
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alk1sus002\instdata\GC27\Data\090419ICAL_r.b\0904F043.D



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F044.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F044.D
Inj Date : 05-SEP-2019 15:05
Sample Info: PCB7-91A 1248 @ 200 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : 48.SUB
Sub List #2 : 48.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1248	9.744	10.964	7859624	3999503	188	187	80.00- 120.00	100.00
	9.927	11.014	5493676	3601096	193	195	55.92- 83.88	69.90
	11.067	11.514	9790019	4175992	186	174	99.65- 149.47	124.56
	11.324	12.028	7393201	3391310	197	181	75.25- 112.88	94.07
	11.801	12.551	6513002	5266045	196	184	66.29- 99.44	82.87
			Average of Peak Amounts =		192	184		

SA 9/11/19
BT

Data File: \\alk1sws002\instdata\GC27\Data\090419ICL.b\0904F044.D

Date: 05-SEP-2019 15:05

Client ID:

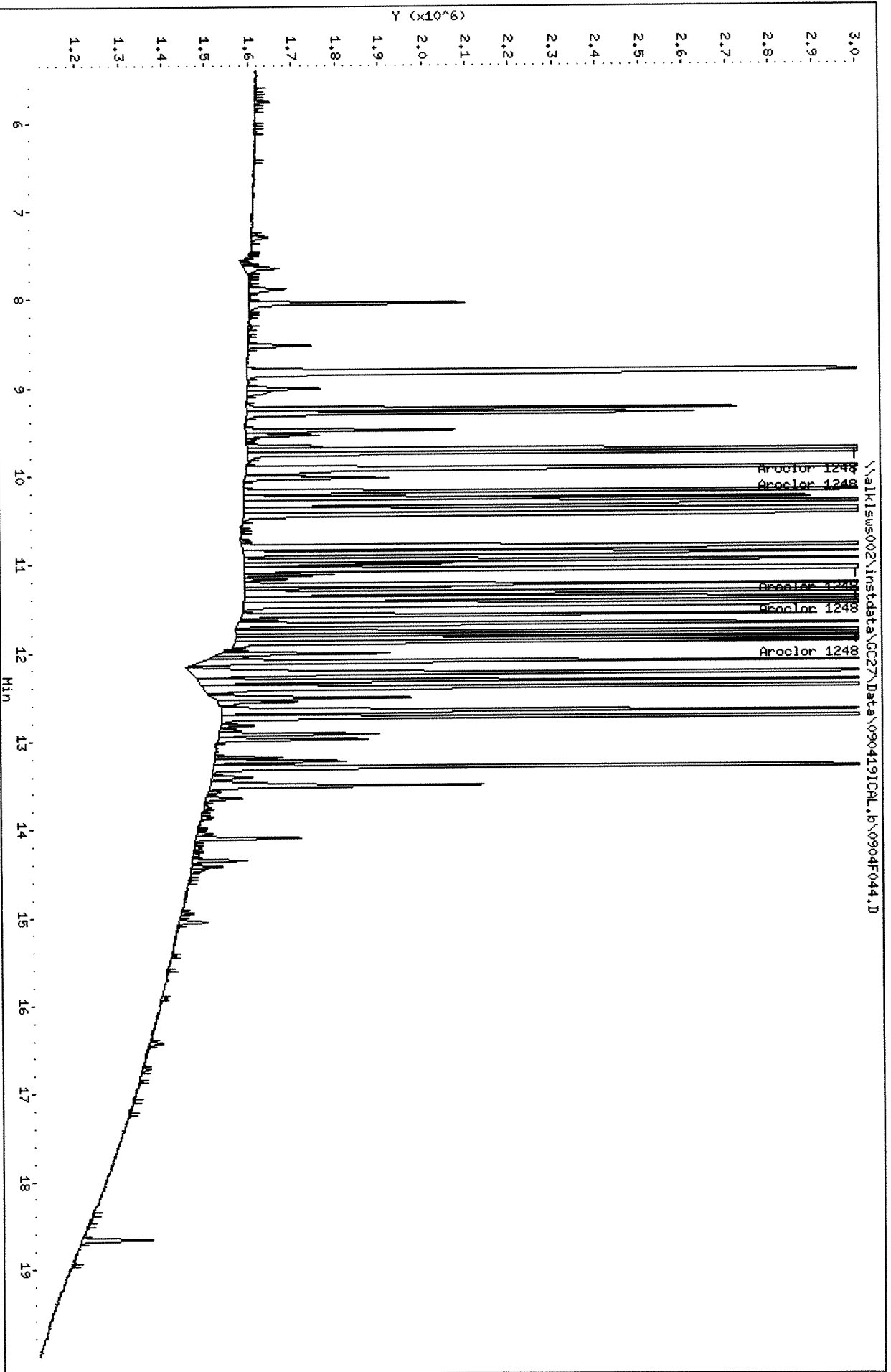
Sample Info: PCB7-91A 1248 @ 200 PPB

Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Data File: \\alk1sus002\instdata\GC27\Data\090419ICL_r.b\0904F044.D

Date: 05-SEP-2019 15:05

Client ID:

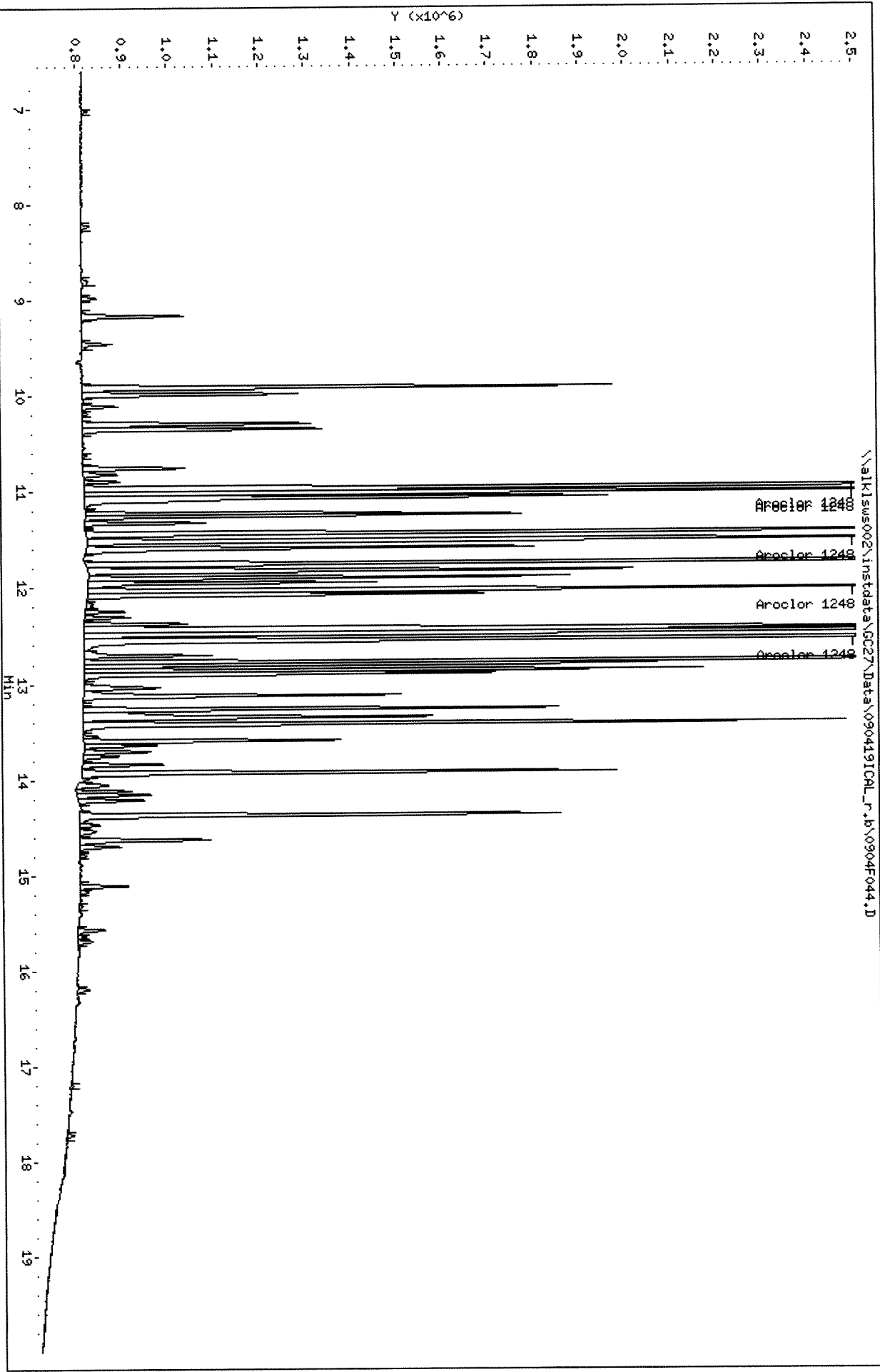
Sample Info: PCB7-91A 1248 @ 200 PPB

Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F045.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F045.D
 Inj Date : 05-SEP-2019 15:37
 Sample Info: PCB8-14C 1016 ICV @ 20 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:38
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : AR1016.sub
 Sub List #2 : AR1016.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1016	8.054	9.164	667924	310366	19.6	20.6	80.00- 120.00	100.00
	9.304	9.914	512469	431887	18.3	19.6	66.06- 99.09	76.73
	9.747	11.064	1574315	483142	18.1	20.0	210.14- 315.22	235.70
	9.927	11.514	942012	340281	18.4	19.1	122.22- 183.34	141.04
	10.314	11.751	633823	336966	18.0	20.0	84.59- 126.89	94.89
	Average of Peak Amounts =				18.5	19.9		

SA 9/11/19
 W

Data File: \\alklisms002\instdata\GC27\Data\090419ICL.b\0904F045.D

Date : 05-SEP-2019 15:37

Client ID:

Sample Info: PCB8-14C 1016 ICV @ 20 PPB

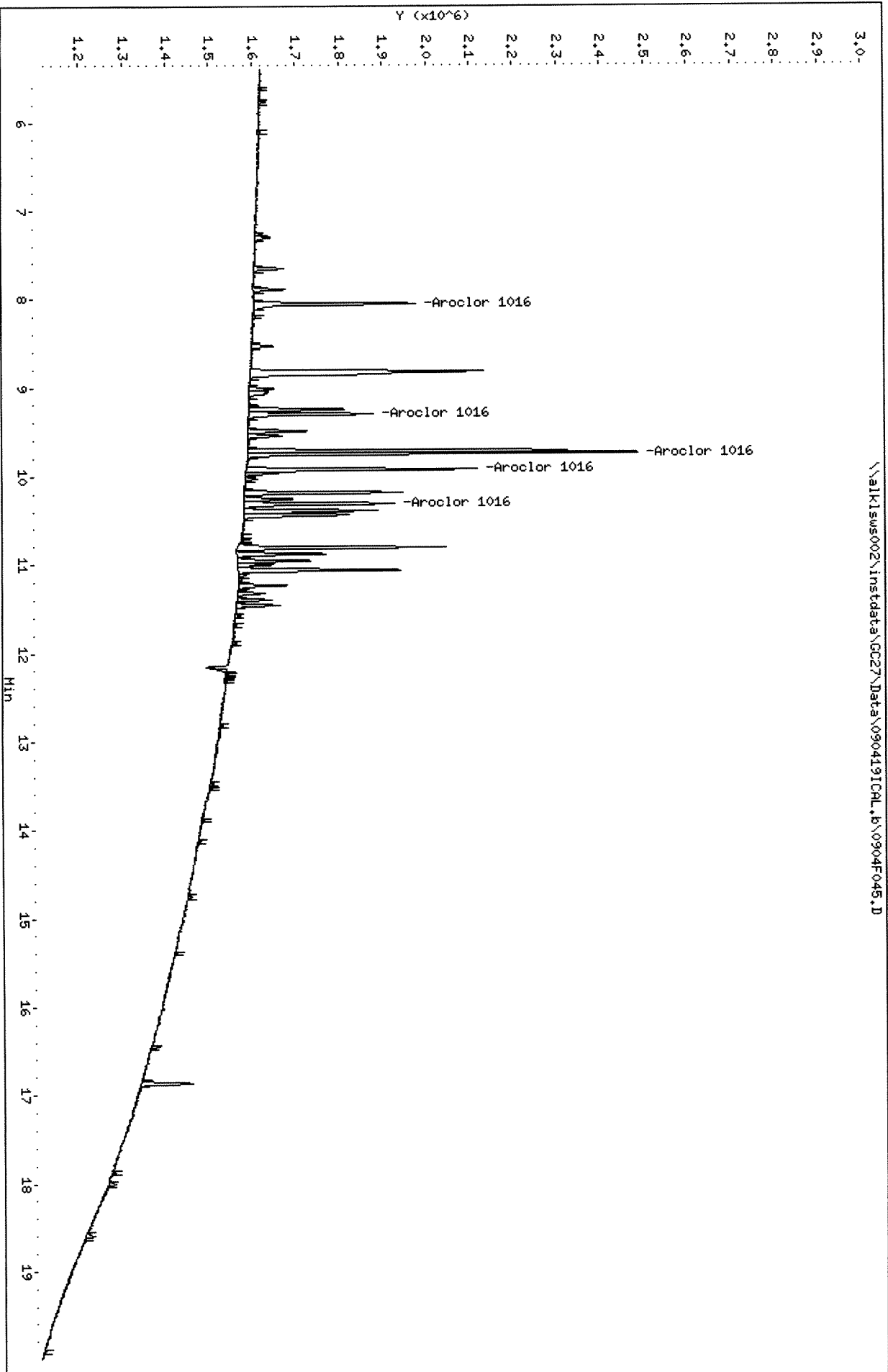
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alklisms002\instdata\GC27\Data\090419ICL.b\0904F045.D



Data File: \\alk1s002\instdata\GC27\Data\090419ICL_r.b\0904F045.D

Date : 05-SEP-2019 15:37

Client ID:

Sample Info: PCB8-14C 1016 ICV @ 20 PPB

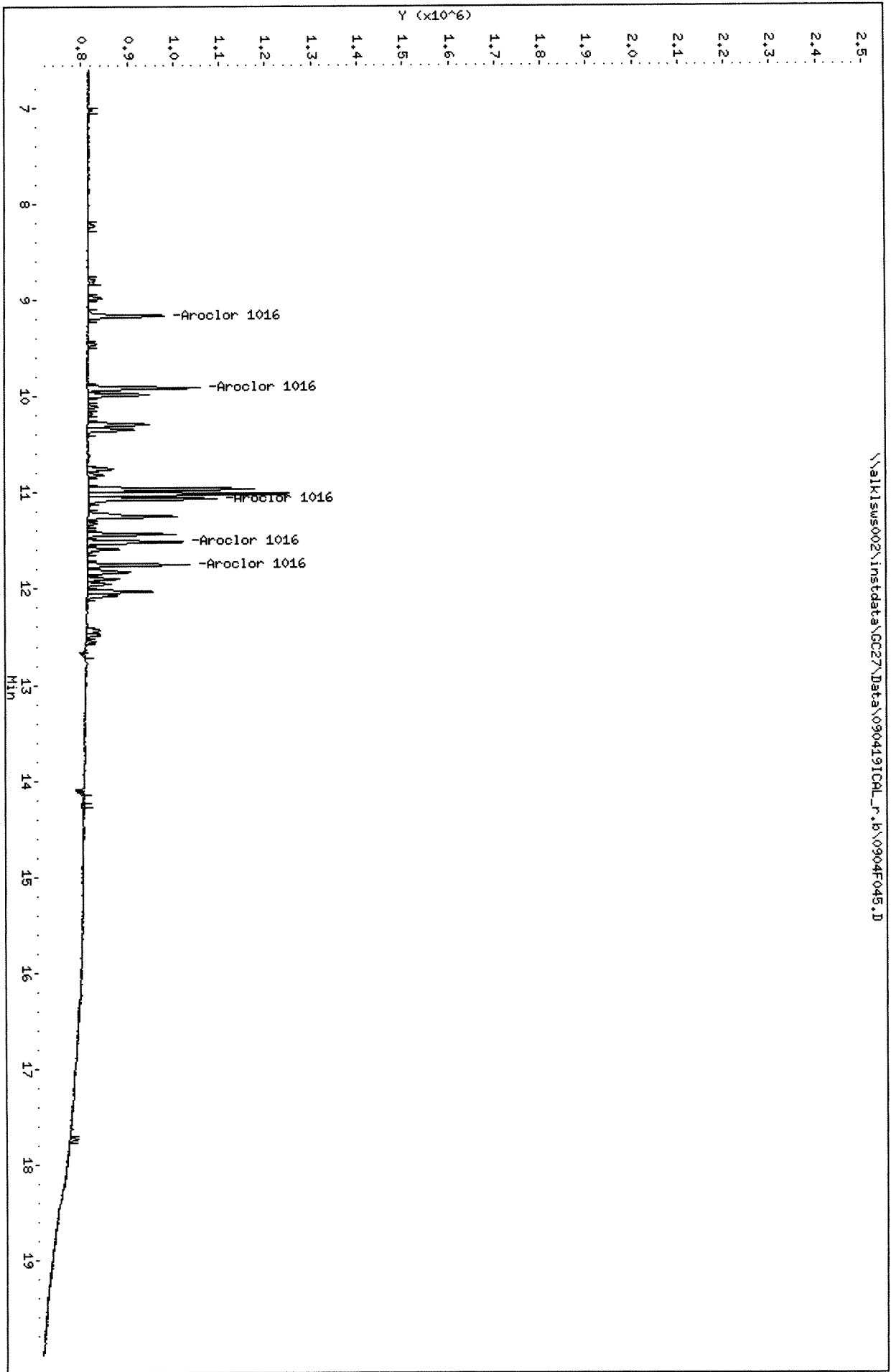
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alk1s002\instdata\GC27\Data\090419ICL_r.b\0904F045.D



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F046.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F046.D
Inj Date : 05-SEP-2019 16:08
Sample Info: PCB8-14D 1221 ICV @ 20 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

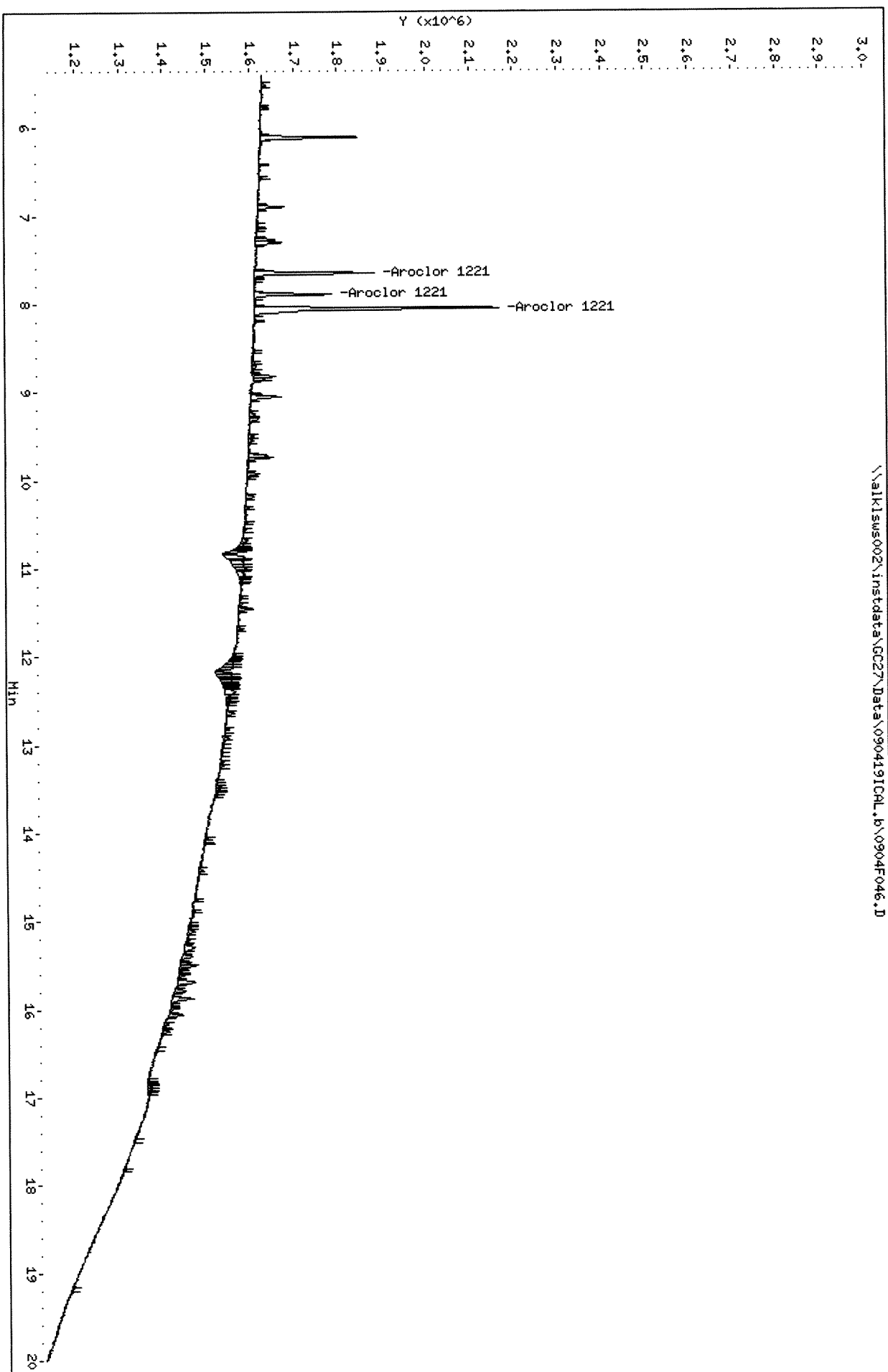
Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : AR1221.SUB
Sub List #2 : AR1221.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1221	7.655	8.825	451477	127589	19.6	19.6	80.00- 120.00	100.00
	7.892	8.979	287870	132945	19.7	20.6	50.93- 76.39	63.76
	8.055	9.165	1064560	517248	19.4	20.8	190.33- 285.49	235.79
	Average of Peak Amounts =				19.6	20.3		

SA 9/11/19
W

Data File: \\alkisw002\instdata\GC27\Data\090419ICL.b\0904F046.D
Date : 05-SEP-2019 16:08
Client ID:
Sample Info: PCB8-14D 1221 ICV @ 20 PPB
Column phase: DB-35MS

Instrument: GC27.1
Operator: SAA
Column diameter: 0.32



Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F046.D
Date : 05-SEP-2019 16:08

Client ID:

Sample Info: PCB8-14D 1221 ICV @ 20 PPB

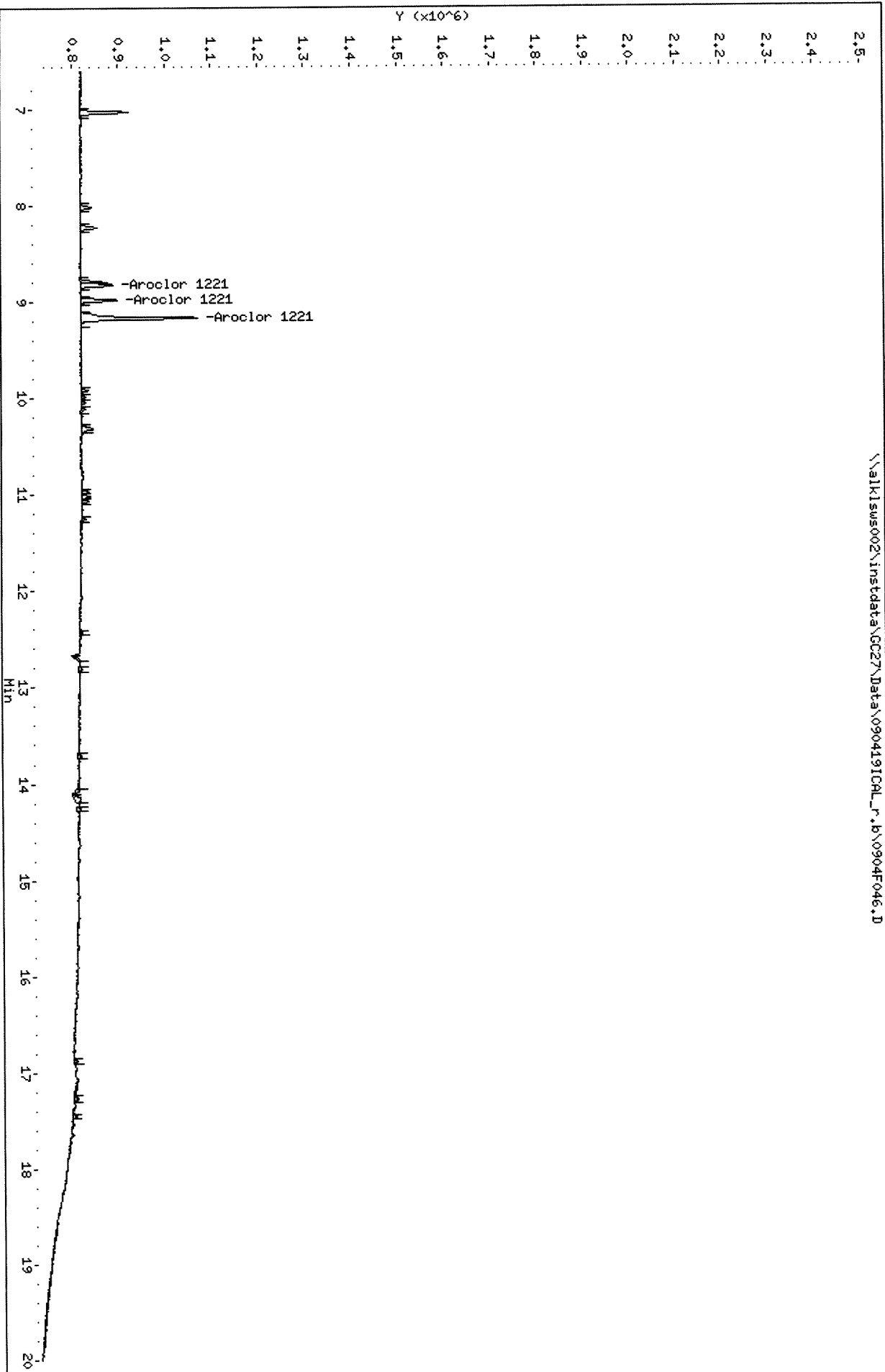
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F046.D



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F047.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F047.D
Inj Date : 05-SEP-2019 16:40
Sample Info: PCB8-14E 1232 ICV @ 20 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : AR1232.SUB
Sub List #2 : AR1232.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1232	7.655	9.169	247910	379287	15.9	19.3	80.00- 120.00	100.00 (M)
	8.059	9.916	797692	216235	17.0	19.8	234.25- 351.38	321.77 (M)
	8.825	10.296	712888	143191	18.8	19.5	205.56- 308.34	287.56 (M)
	9.305	10.966	259047	301237	18.8	19.9	76.03- 114.04	104.49 (M)
	9.929	11.016	472927	346666	17.9	19.8	137.78- 206.67	190.77 (M)
	Average of Peak Amounts =				17.7	19.7		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
W

Data File: \\alkisus002\instdata\GC27\Data\090419ICAL.b\0904F047.D

Date: 05-SEP-2019 16:40

Client ID:

Sample Info: PCB8-14E 1232 ICV @ 20 PPB

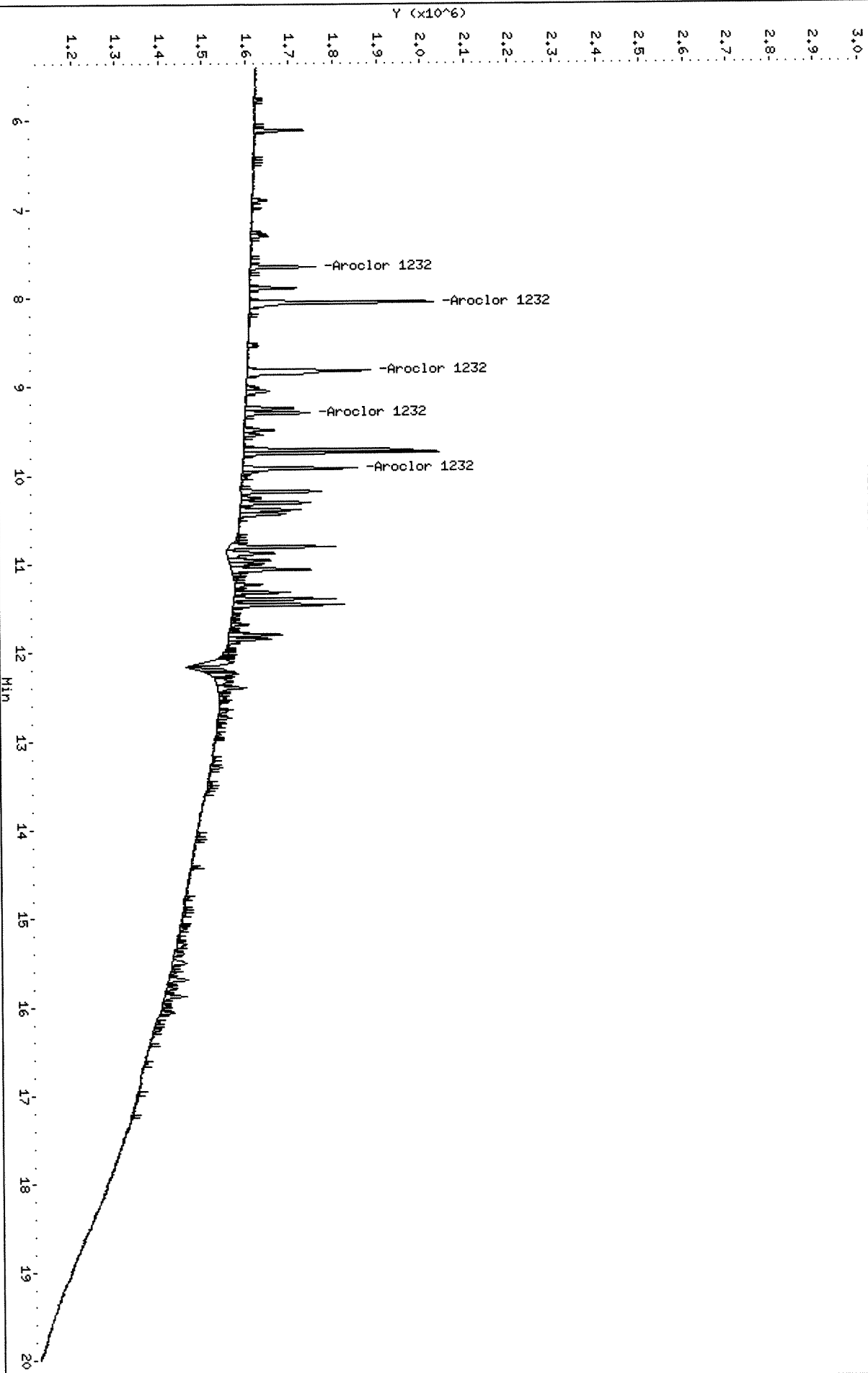
Column phase: DB-35MS

Instrument: GC27.1

Operator: SAA

Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL.b\0904F047.D



Data File: \\alkisw002\instdata\GC27\Data\090419ICL_r.b\0904f047.D
Date: 05-SEP-2019 16:40

Client ID:

Sample Info: PCB8-14E 1232 ICV @ 20 PPB

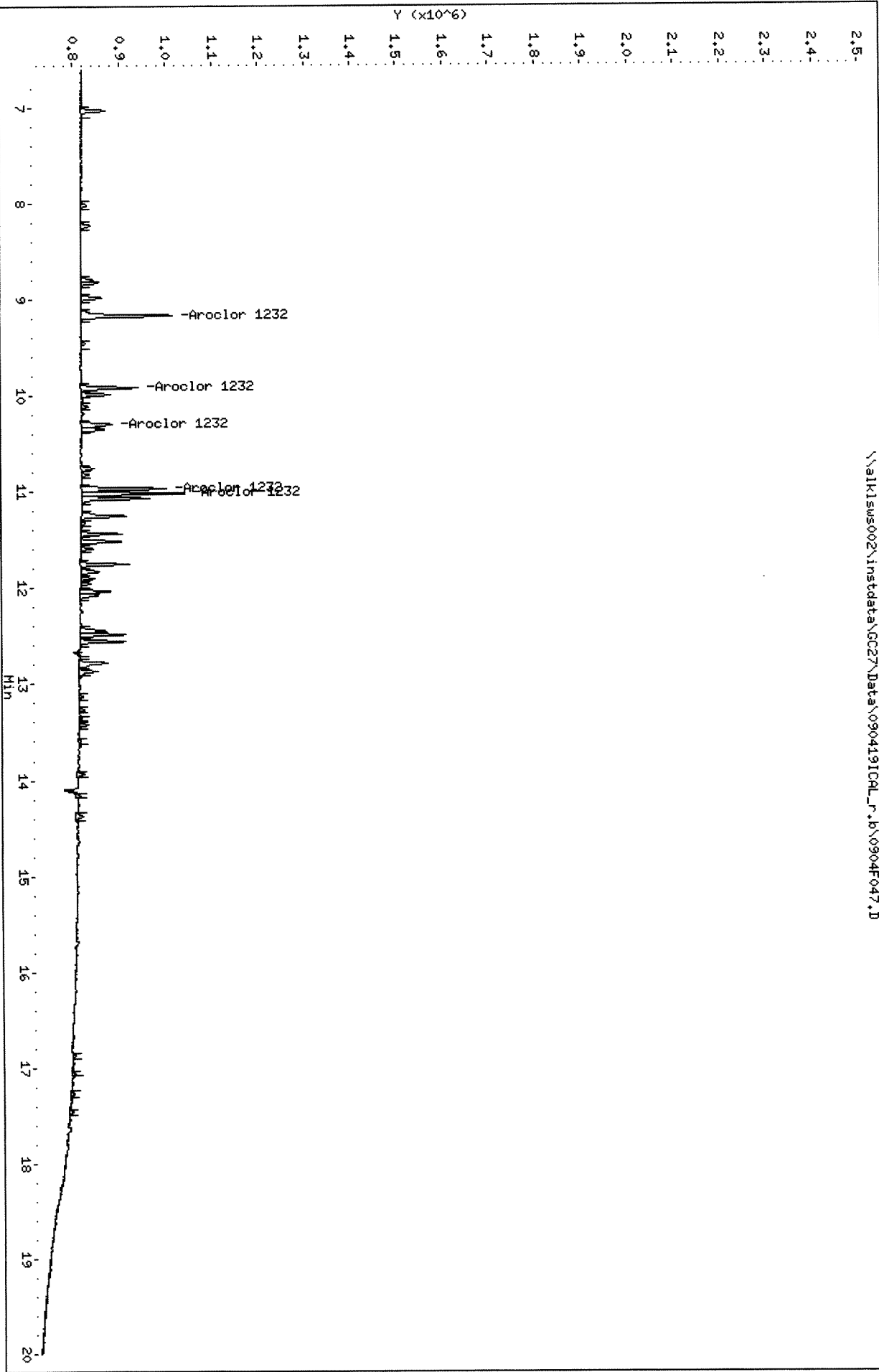
Column phase: DB-XLB

Instrument: GC27.1

Operator: SAA

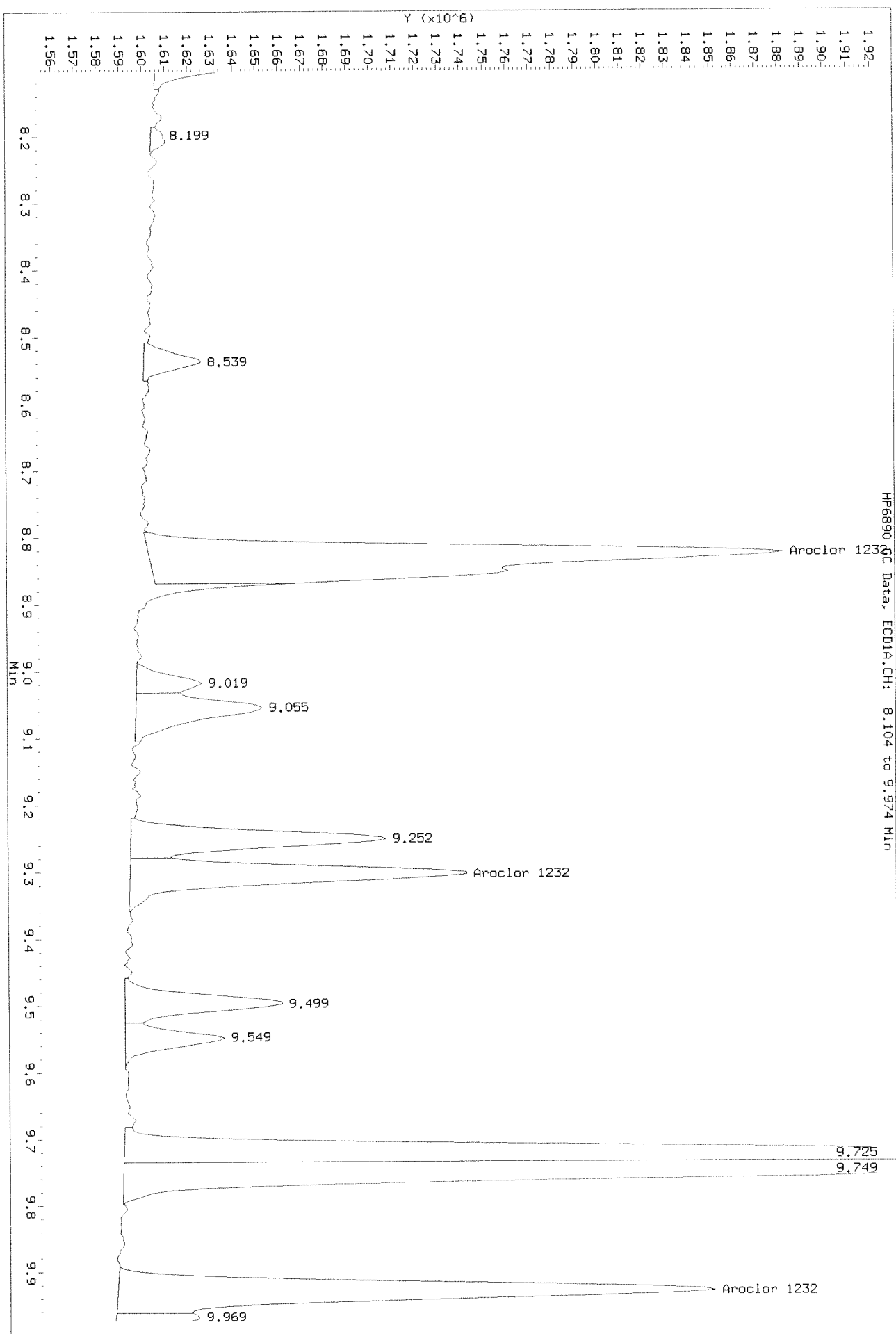
Column diameter: 0.32

\\alkisw002\instdata\GC27\Data\090419ICL_r.b\0904f047.D



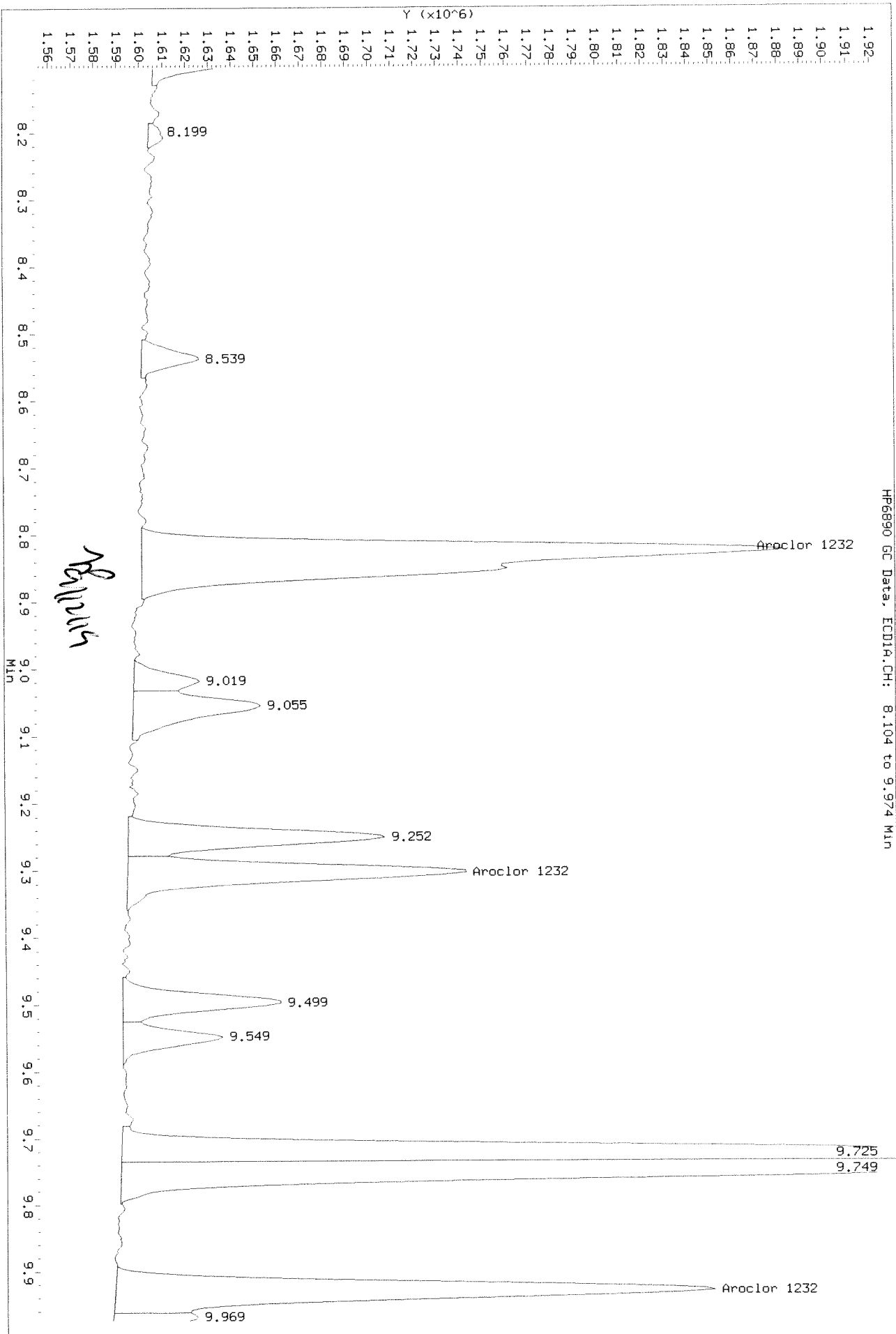
Data File: \\alkisw002\instdata\GC27\Data\090419ICAL.b\0904F047.D
Injection Date: 05-SEP-2019 16:40
Instrument: GC27.1
Client Sample ID:

Before



Data File: \\alkisw002\jnetdata\GC27\Data\090419ICAL.b\0904F047.D
Injection Date: 05-SEP-2019 16:40
Instrument: GC27.1
Client Sample ID:

After baseline 9/11/11 A



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F049.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F049.D
Inj Date : 05-SEP-2019 17:43
Sample Info: PCB8-14G 1248 ICV @ 20 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : 48.SUB
Sub List #2 : 48.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1248	9.745	10.966	742094	429972	17.8	20.1	80.00- 120.00	100.00 (M)
	9.929	11.016	530847	381747	18.7	20.7	55.92- 83.88	71.53 (M)
	11.065	11.516	907263	450327	17.3	18.7	99.65- 149.47	122.26 (M)
	11.325	12.029	646480	344458	17.2	18.3	75.25- 112.88	87.12 (M)
	11.802	12.552	559096	528325	16.9	18.4	66.29- 99.44	75.34 (M)
	Average of Peak Amounts =				17.6	19.2		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
P

Data File: \\alkisus002\instdata\GC27\Data\090419ICAL.b\0904F049.D

Date: 05-SEP-2019 17:43

Client ID:

Sample Info: PCB8-140 1248 ICV @ 20 PPB

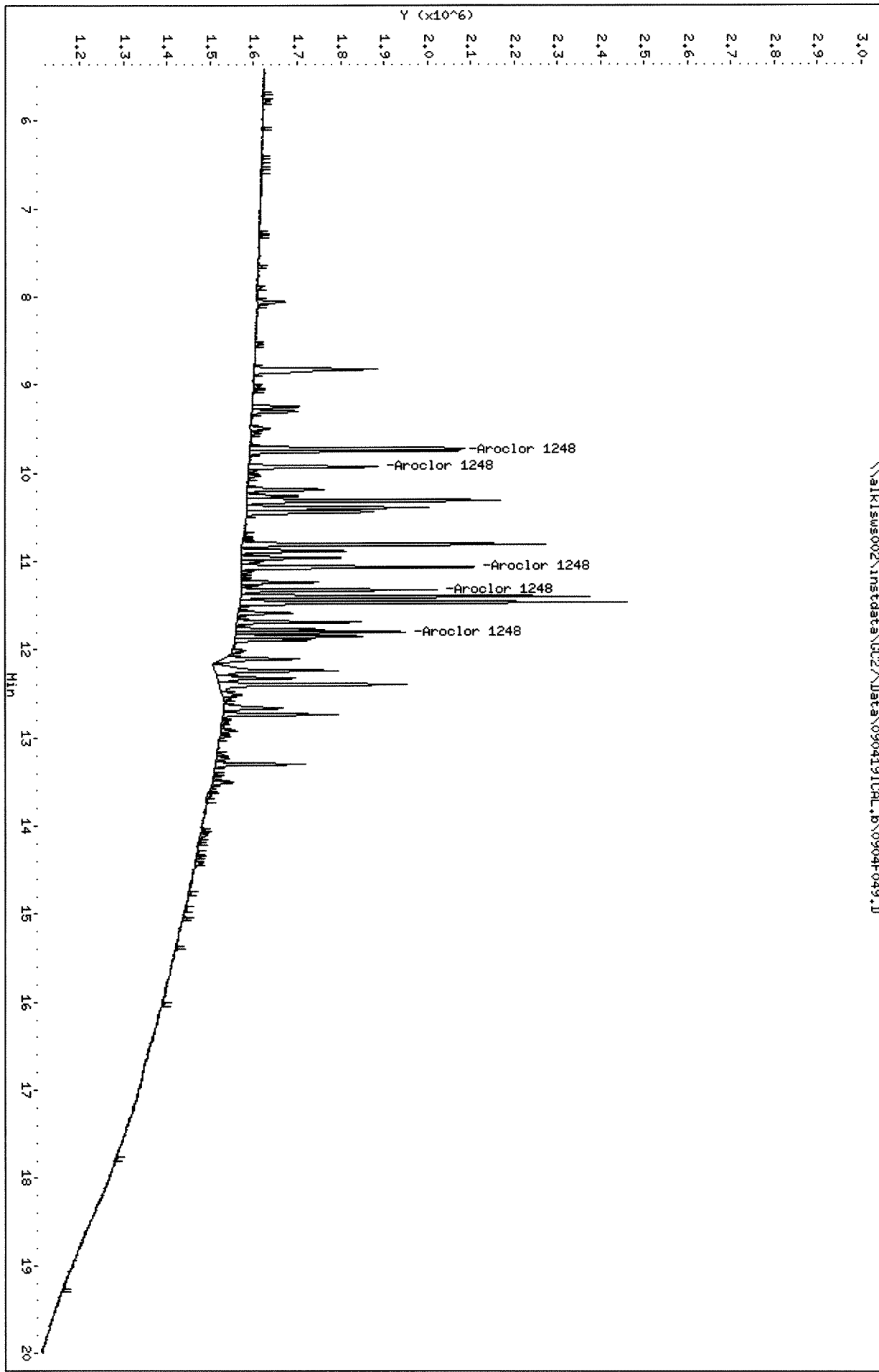
Column phase: DB-35MS

Instrument: GC27.1

Operator: SAA

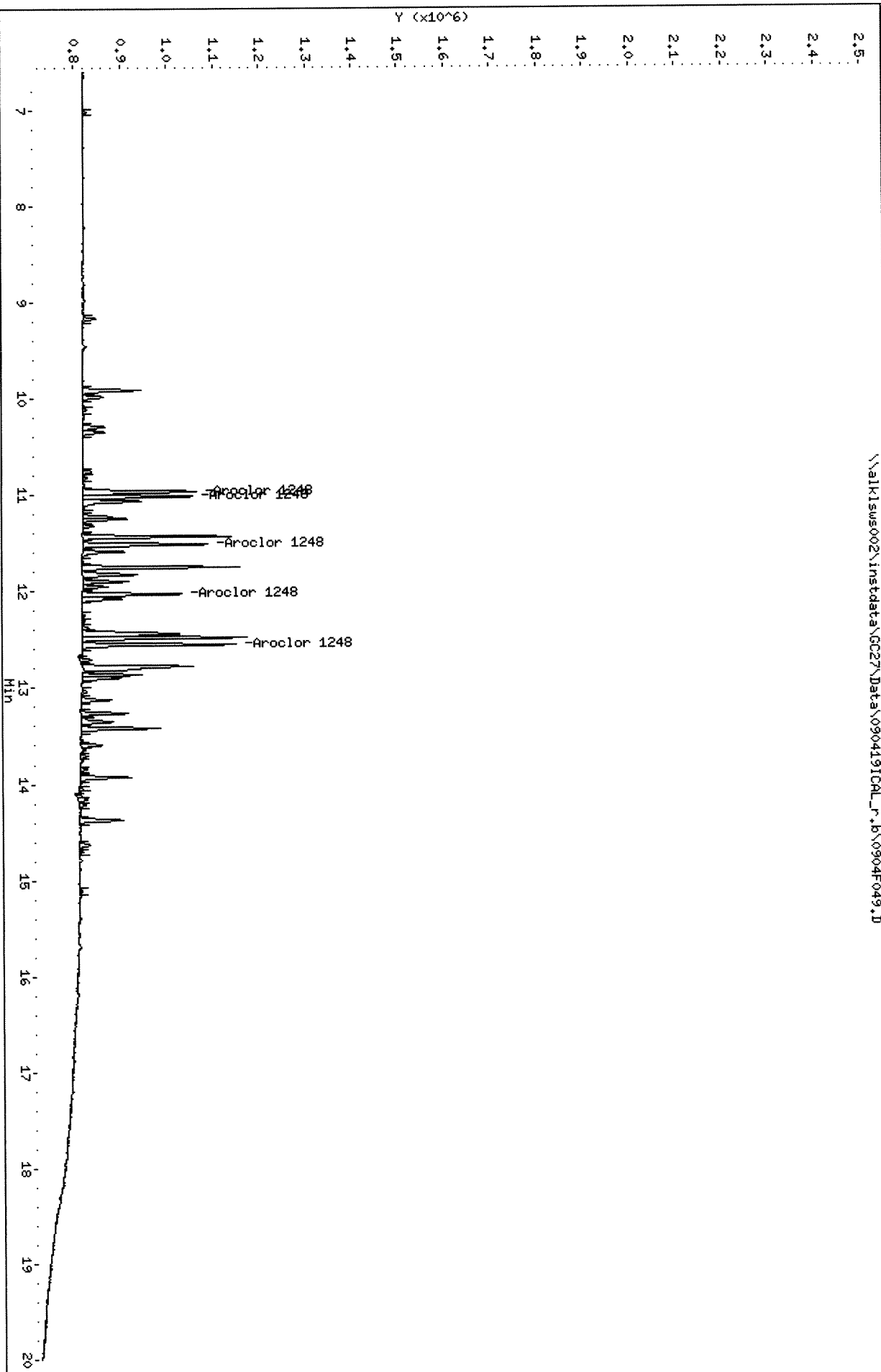
Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL.b\0904F049.D



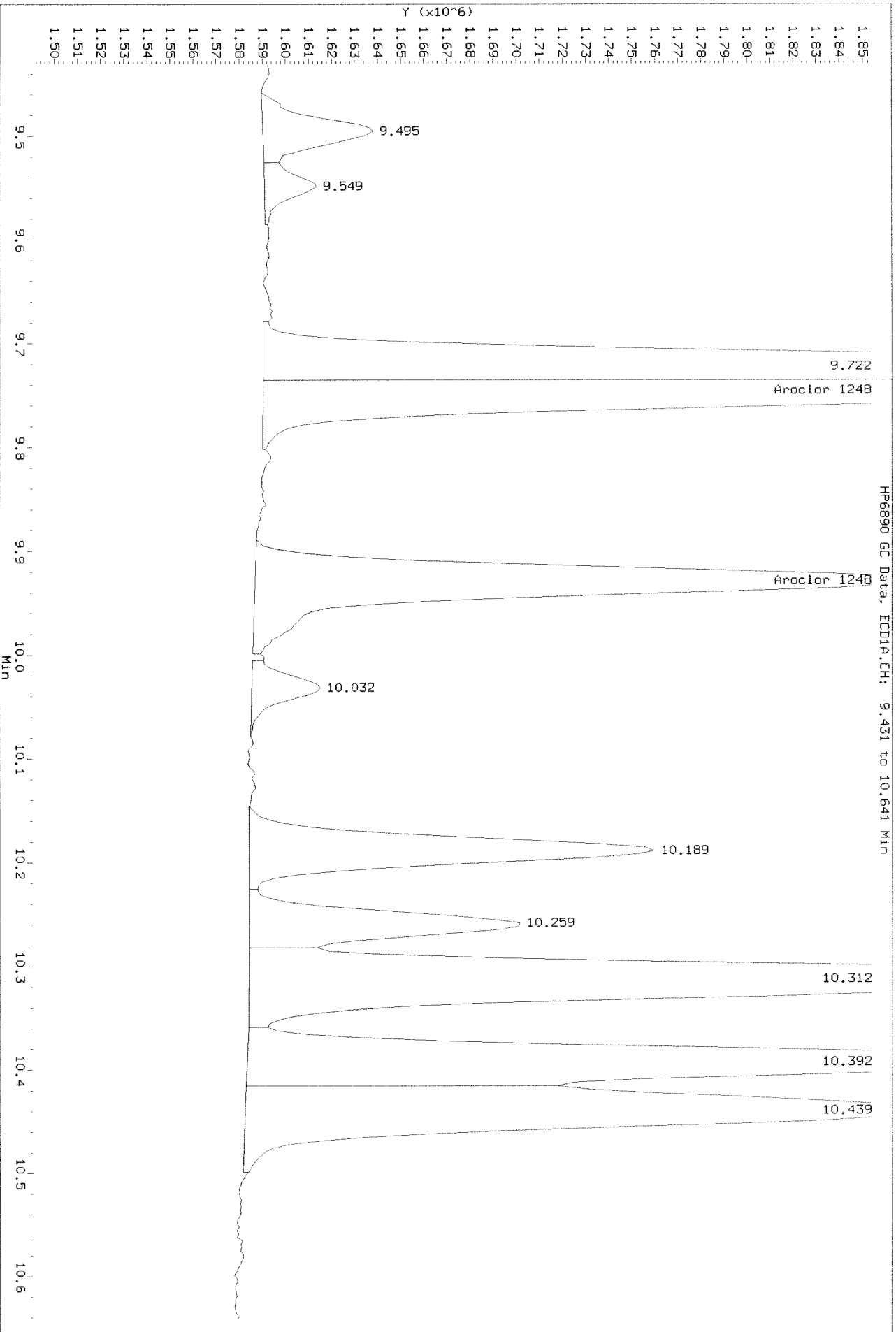
Data File: \\alk1sus002\instdata\GC27\Data\090419ICAL_r.b\0904F049.D
Date : 05-SEP-2019 17:43
Client ID:
Sample Info: PCB8-146 1248 ICV @ 20 PPB
Column phase: DB-XLB

Instrument: GC27.1
Operator: SAA
Column diameter: 0.32



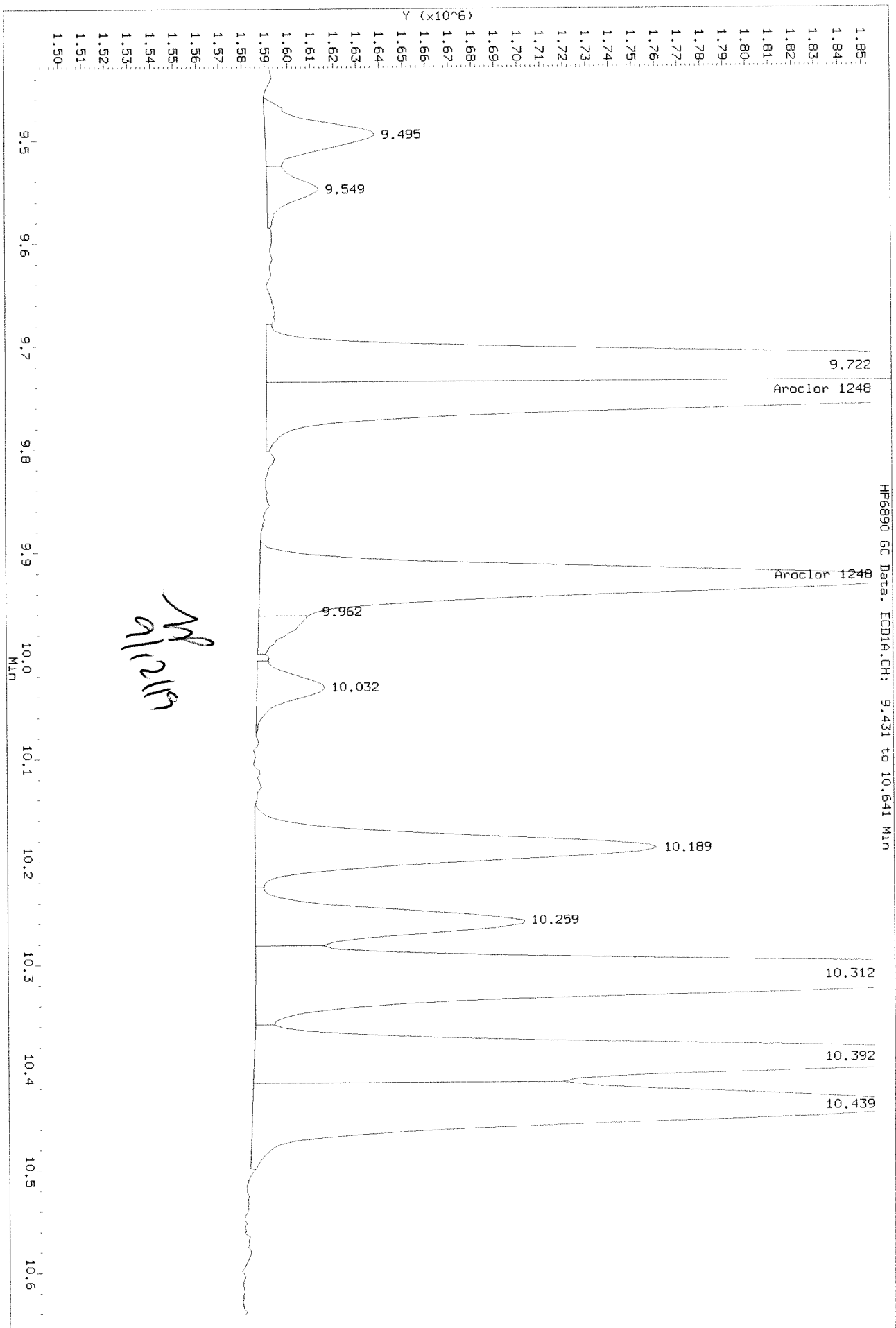
Data File: \\alklsws002\jnet\data\GC27\Data\090419ICAL.b\0904F049.D
Injection Date: 09-SEP-2019 17:43
Instrument: GC27.1
Client Sample ID:

Before



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.P\0904F049.D
Injection Date: 05-SEP-2019 17:43
Instrument: GC27.1
Client Sample ID:

After shoulder 9/11/19 SA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F050.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F050.D
Inj Date : 05-SEP-2019 18:15
Sample Info: PCB8-14H 1254 ICV @ 20 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : AR1254.SUB
Sub List #2 : AR1254.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1254	11.774	12.427	740022	631871	20.5	19.6	80.00- 120.00	100.00 (M)
	12.240	12.484	1352915	292177	21.6	17.2	137.86- 206.79	182.82 (M)
	12.397	12.807	2260556	968629	18.3	19.6	268.82- 403.23	305.47 (M)
	12.737	12.900	1390713	322886	19.1	21.0	164.76- 247.13	187.93 (M)
	13.300	14.374	861656	487038	18.9	20.1	106.40- 159.60	116.44 (M)
			Average of Peak Amounts =		19.7	19.5		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
W

Data File: \\aik1sws002\instdata\GC27\Data\090419ICAL.b\0904F050.D

Date : 05-SEP-2019 18:15

Client ID:

Sample Info: PCB8-14H 1254 ICV @ 20 PPB

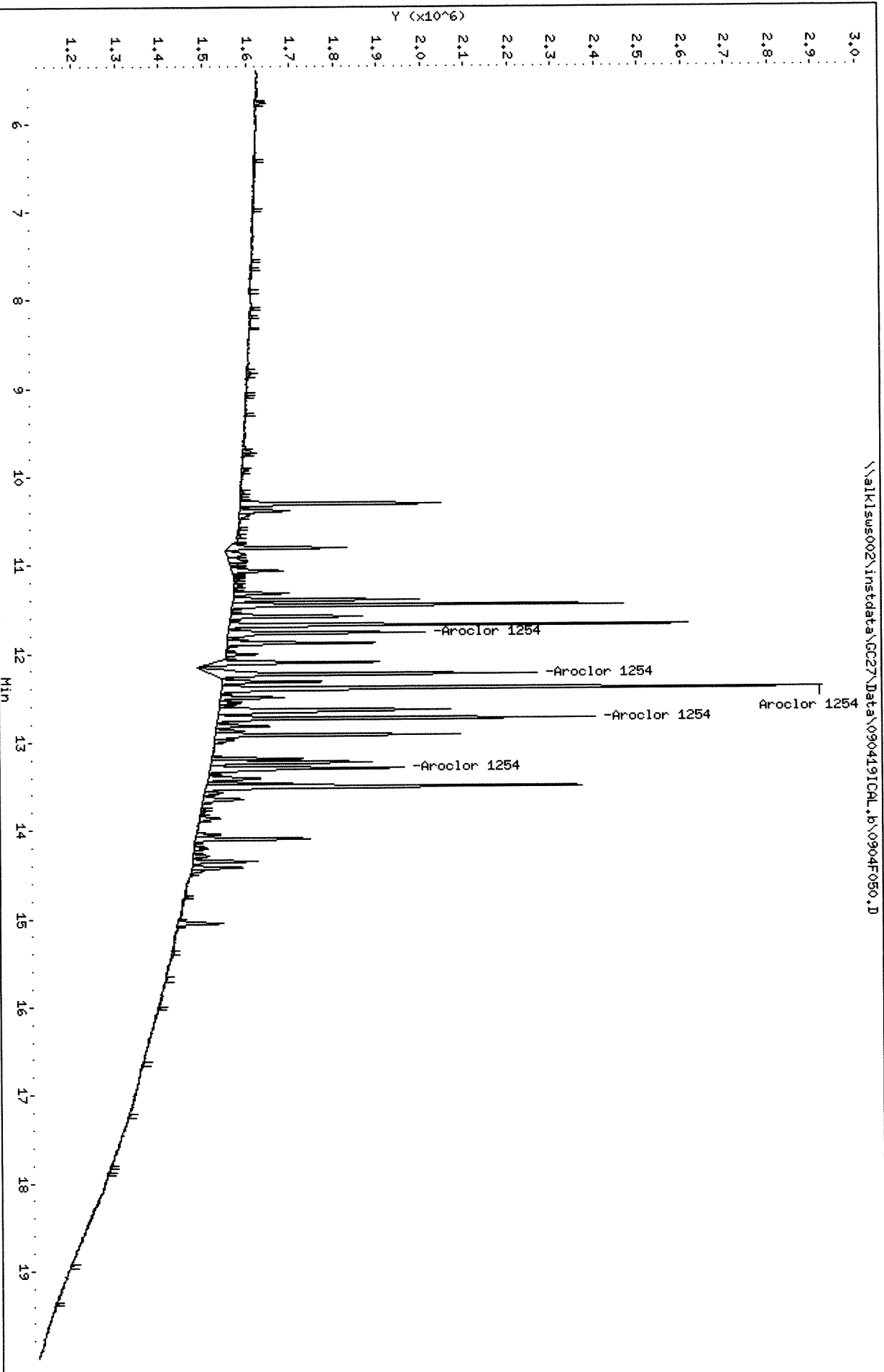
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\aik1sws002\instdata\GC27\Data\090419ICAL.b\0904F050.D



Data File: \\alk1sws002\inst\data\GC27\Data\090419ICL_r.b\0904F050.D

Date: 05-SEP-2019 18:15

Client ID:

Sample Info: PCB8-14H 1254 ICV @ 20 PPB

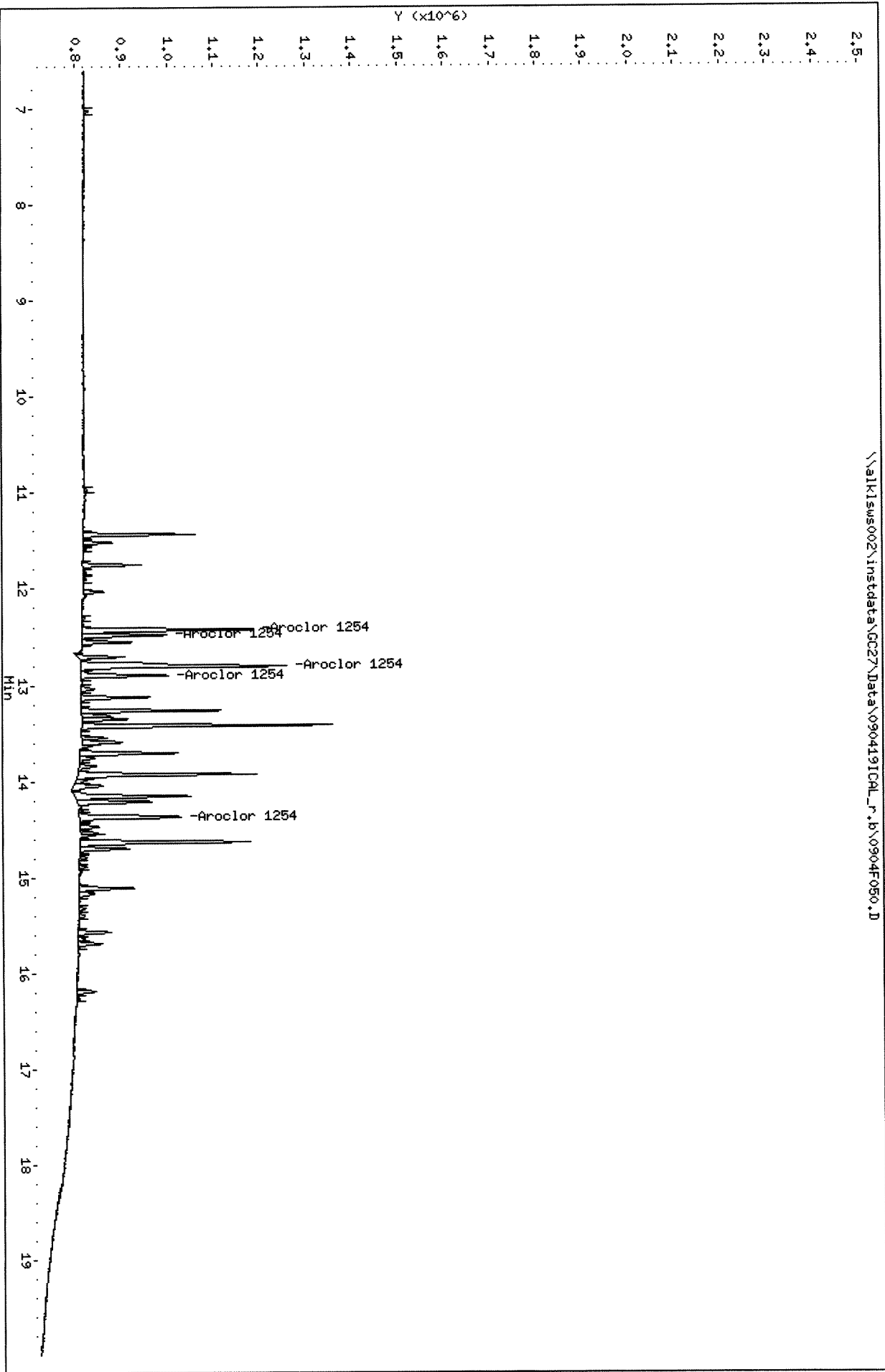
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

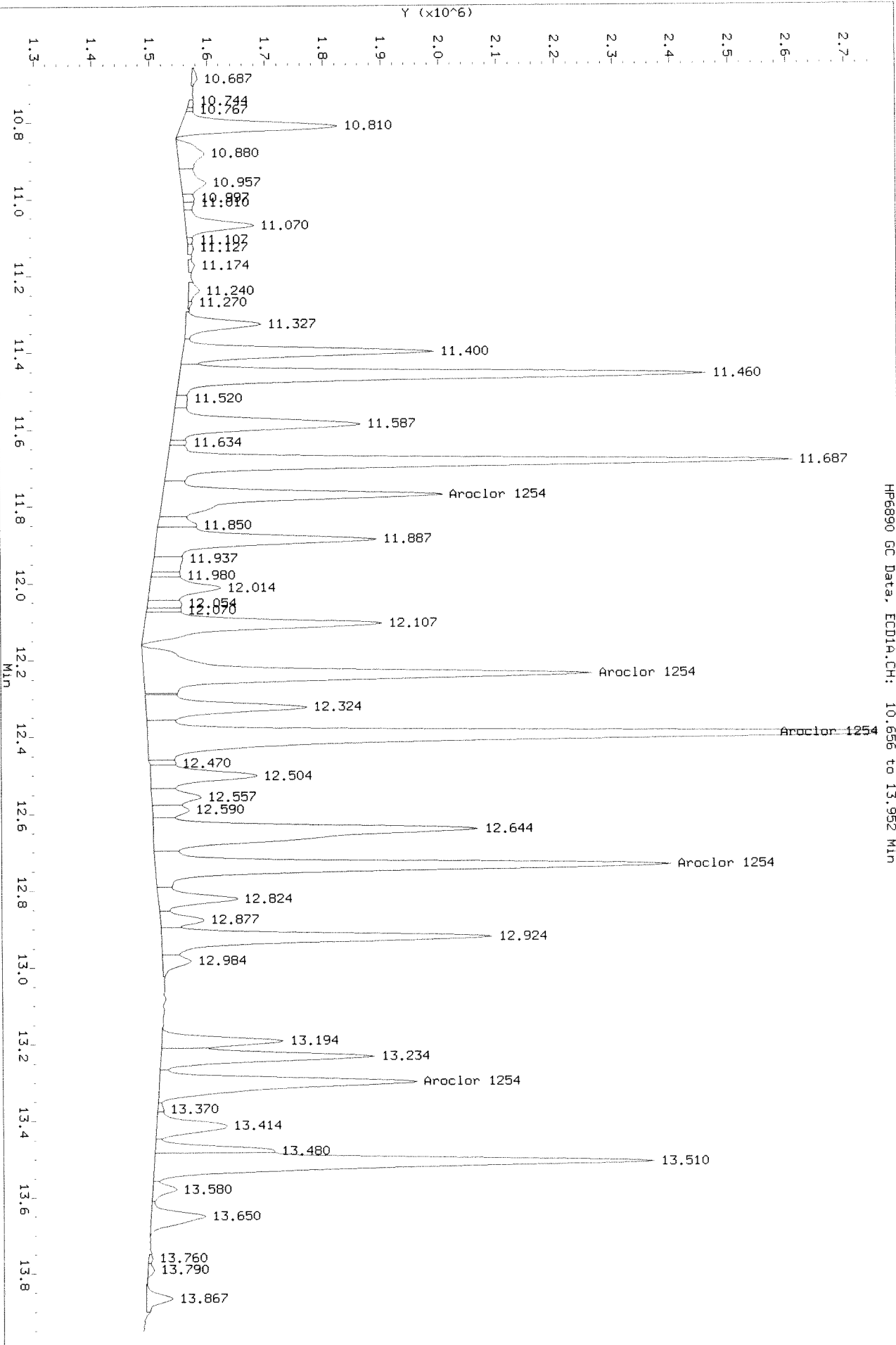
\\alk1sws002\inst\data\GC27\Data\090419ICL_r.b\0904F050.D



Data File: \\alkjsws002\instdata\GC27\Data\090419ICAL.P\0904F050.D
Injection Date: 05-SEP-2019 18:15
Instrument: GC27.1
Client Sample ID:

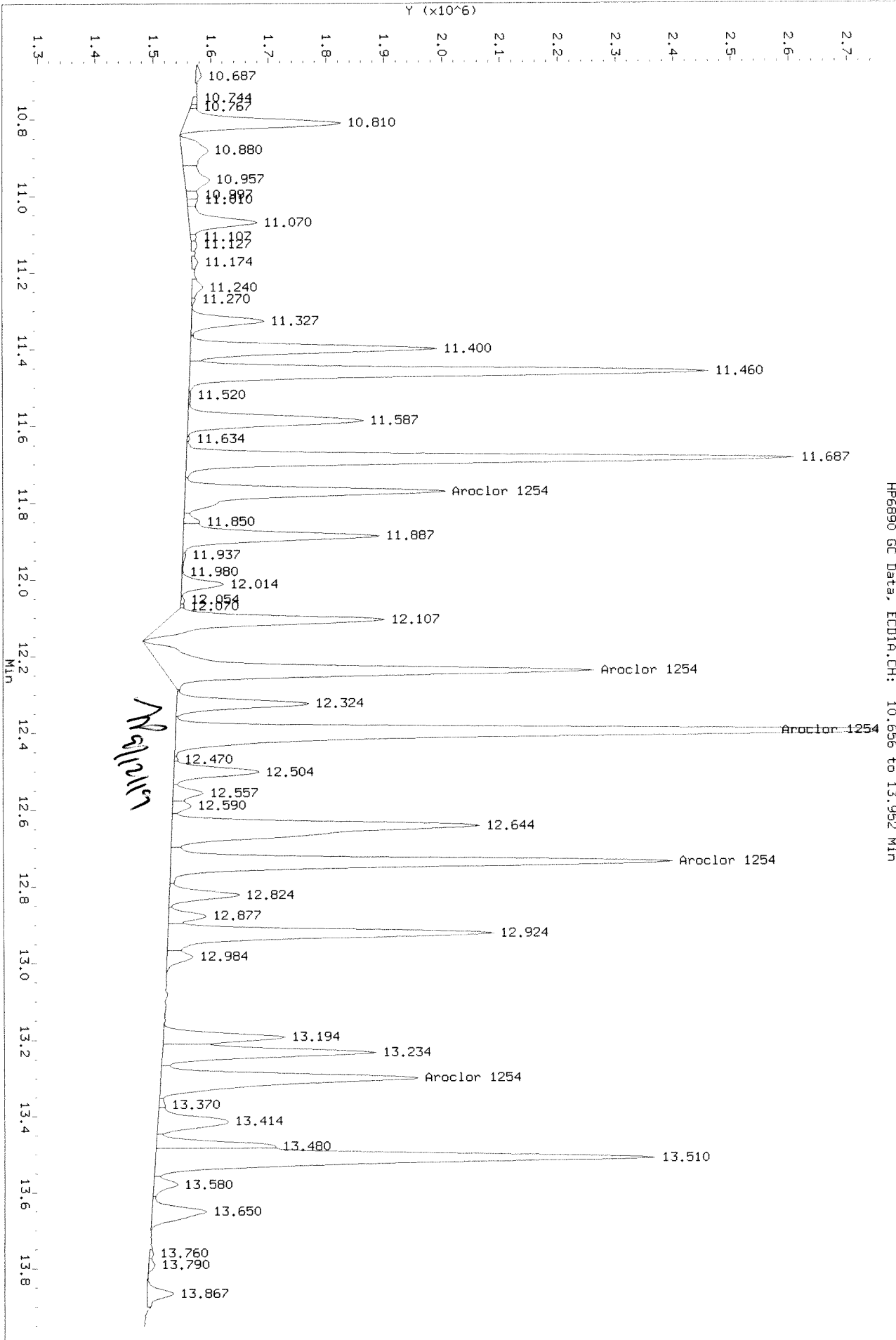
HP6890 GC Data, ECD1A.CH: 10.656 to 13.952 MIN

Before



HP6890 GC Data, ECD1A.CH: 10.656 to 13.952 MIN

After baseline 9/11/19 SA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F051.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F051.D
Inj Date : 05-SEP-2019 18:47
Sample Info: PCB8-14I 1260 ICV @ 20 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : AR1260.sub
Sub List #2 : AR1260.sub
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1260	13.192	13.546	577980	299994	17.2	21.1	80.00- 120.00	100.00
	13.579	14.793	1010369	492571	21.7	21.5	111.33- 167.00	174.81
	14.052	15.163	1024999	467240	20.4	20.8	117.15- 175.73	177.34
	14.426	15.689	2130039	973655	20.1	20.5	251.10- 376.65	368.53
	15.056	16.193	1535033	600740	19.3	20.4	184.28- 276.42	265.59
Average of Peak Amounts =					19.7	20.9		

SA 9/11/19
W

Data File: \\alk1sws002\instdata\GC27\Data\090419ICL.b\0904F051.D
Date : 05-SEP-2019 18:47

Client ID:

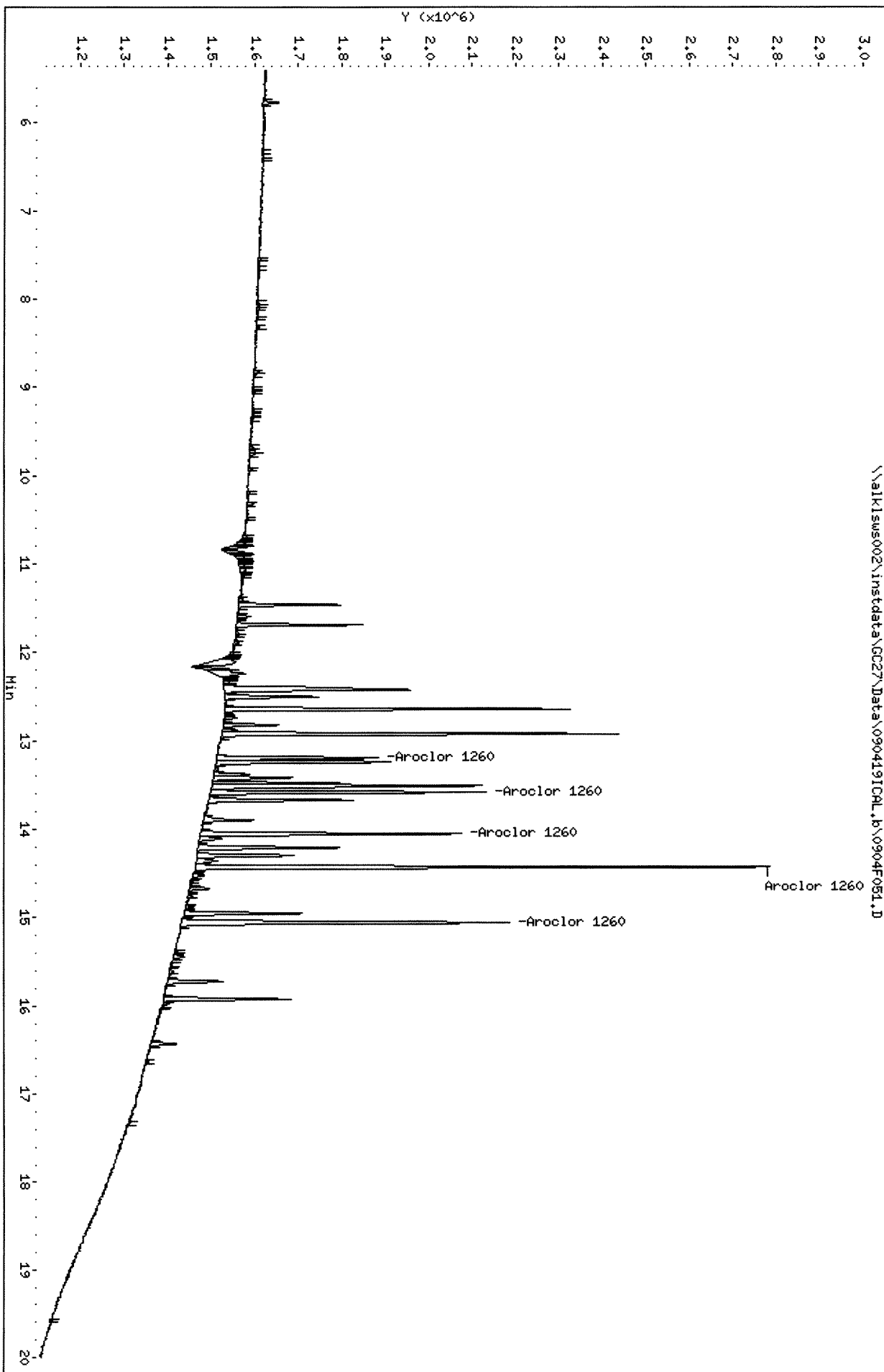
Sample Info: PCB8-141 1260 ICV @ 20 PPB

Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F051.D

Date: 05-SEP-2019 18:47

Client ID:

Sample Info: PCB8-141 1260 ICV @ 20 PPB

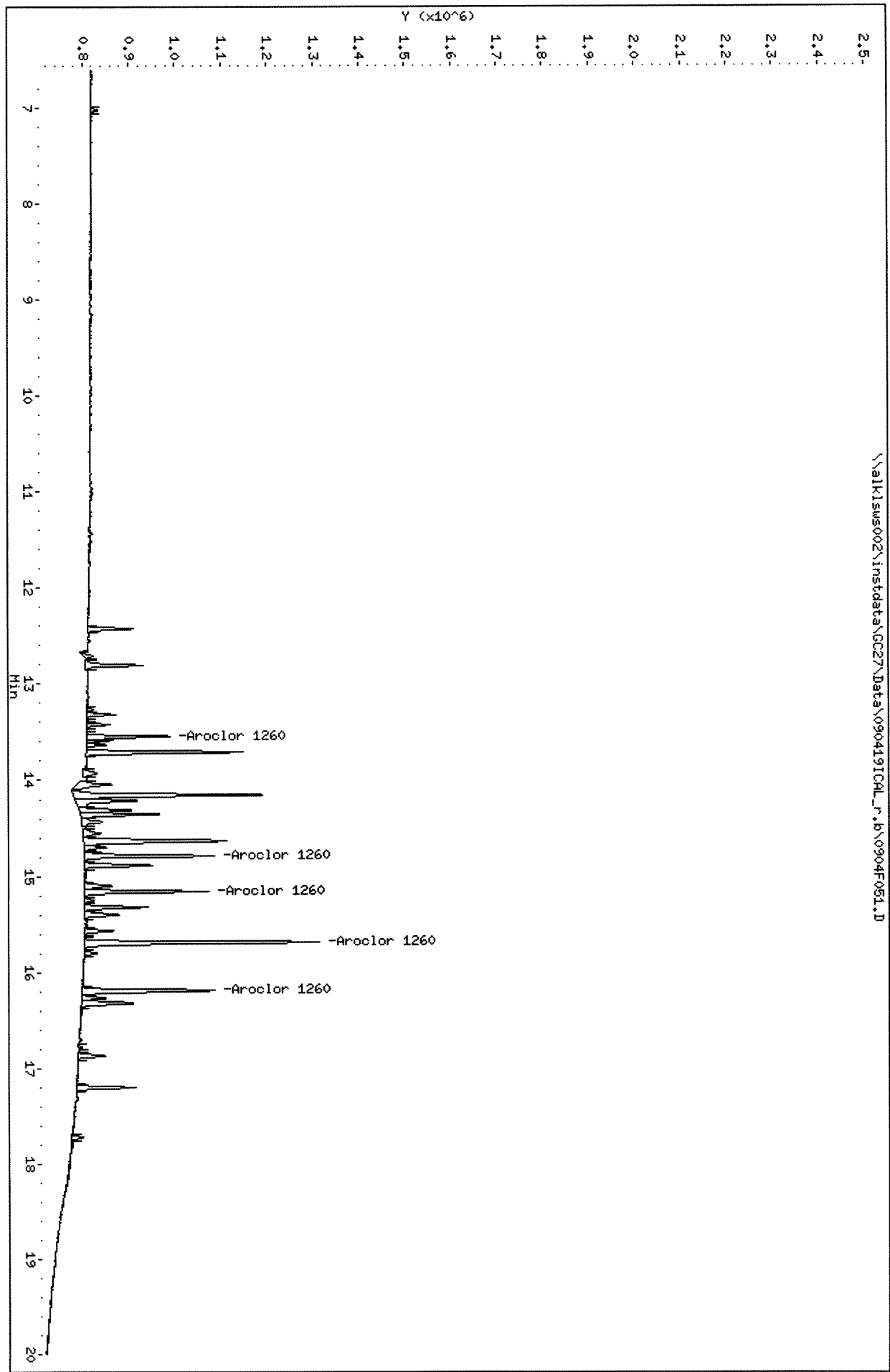
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAH

Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F051.D



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F052.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F052.D
Inj Date : 05-SEP-2019 19:19
Sample Info: PCB8-14J 1262 ICV @ 20 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : AR1262.SUB
Sub List #2 : AR1262.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1262	13.579	14.789	1796454	837613	19.2	19.7	80.00- 120.00	100.00
	14.049	15.162	1611922	665696	19.4	20.5	71.44- 107.17	89.73
	14.425	15.692	2882581	1291238	19.0	19.7	135.47- 203.20	160.46
	15.052	16.199	2127617	901476	19.3	20.5	96.75- 145.12	118.43
	15.919	17.202	933006	450854	19.5	19.8	43.01- 64.52	51.94
			Average of Peak Amounts =		19.3	20.0		

SA 9/11/19
JP

Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F052.D

Date : 05-SEP-2019 19:19

Client ID:

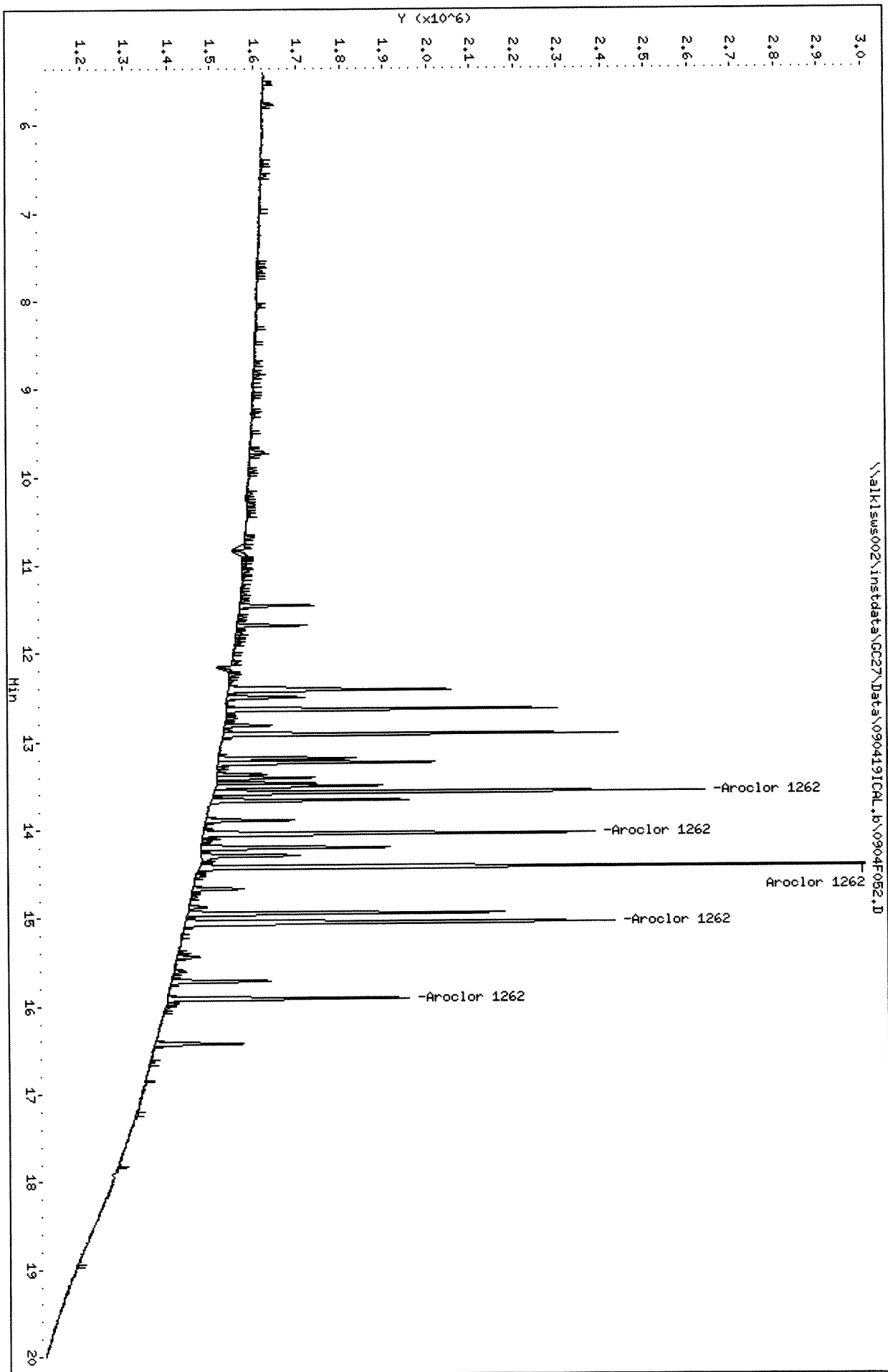
Sample Info: PCB8-14J 1262 ICV @ 20 PPB

Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

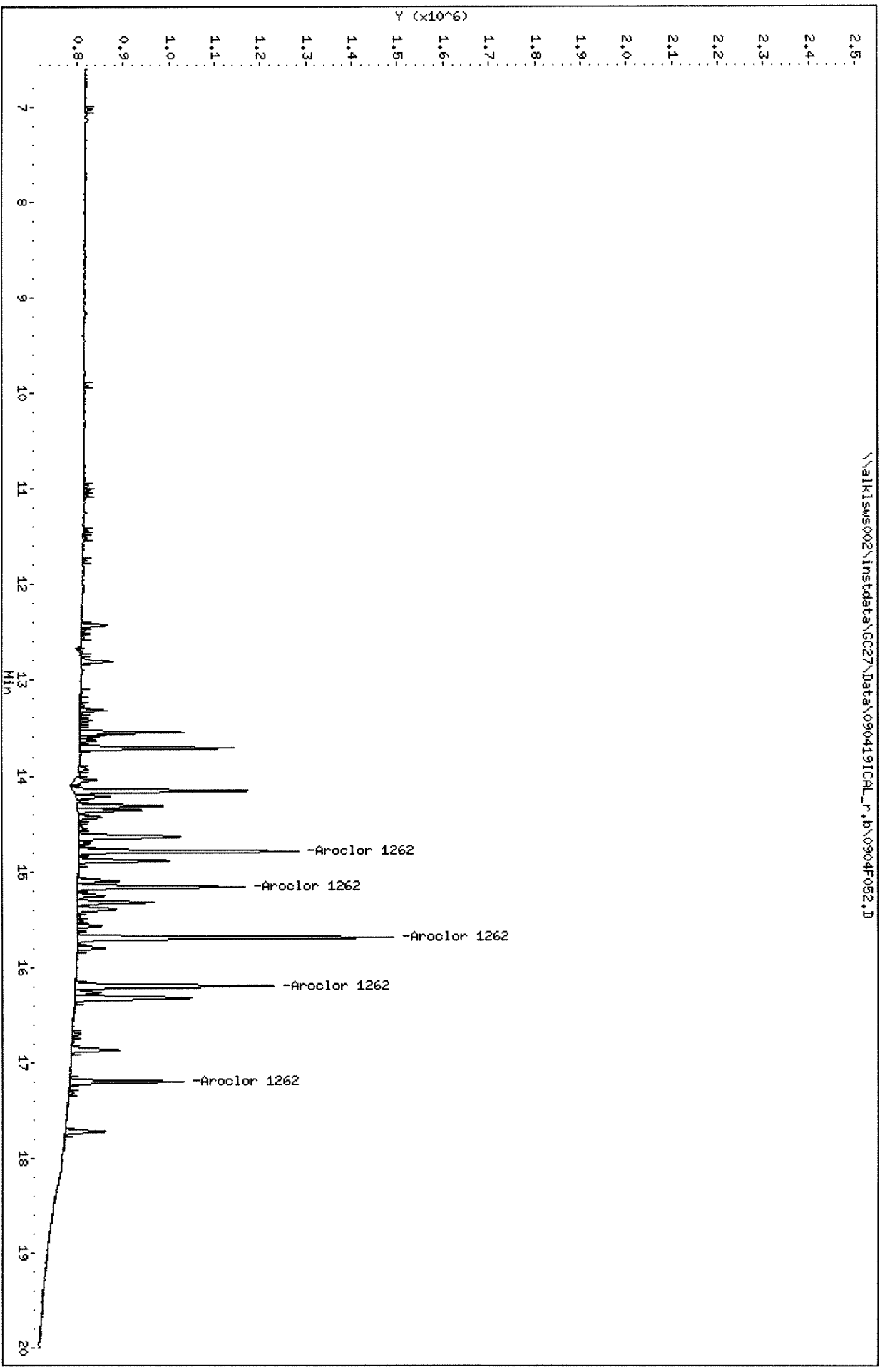
Column diameter: 0.32



Data File: \\alk1sws002\instdata\GC27\Data\090419ICL_r.b\0904F052.D
Date: 05-SEP-2019 19:19
Client ID:
Sample Info: PCB8-14J 1262 ICV @ 20 PPB
Column phase: DB-XLB

Instrument: GC27.i
Operator: SAA
Column diameter: 0.32

\\alk1sws002\instdata\GC27\Data\090419ICL_r.b\0904F052.D



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F003.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F003.D
Inj Date : 09-SEP-2019 11:52
Sample Info: IB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : ALL.SUB
Sub List #2 : ALL.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.975	0.000	5506	0	0.00306	0.000		100.00 (R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ST 9/11/19
JK

Data File: \\alk1sus002\instdata\GC27\Data\090419ICAL.b\0909F003.D

Date : 09-SEP-2019 11:52

Client ID:

Sample Info: IB

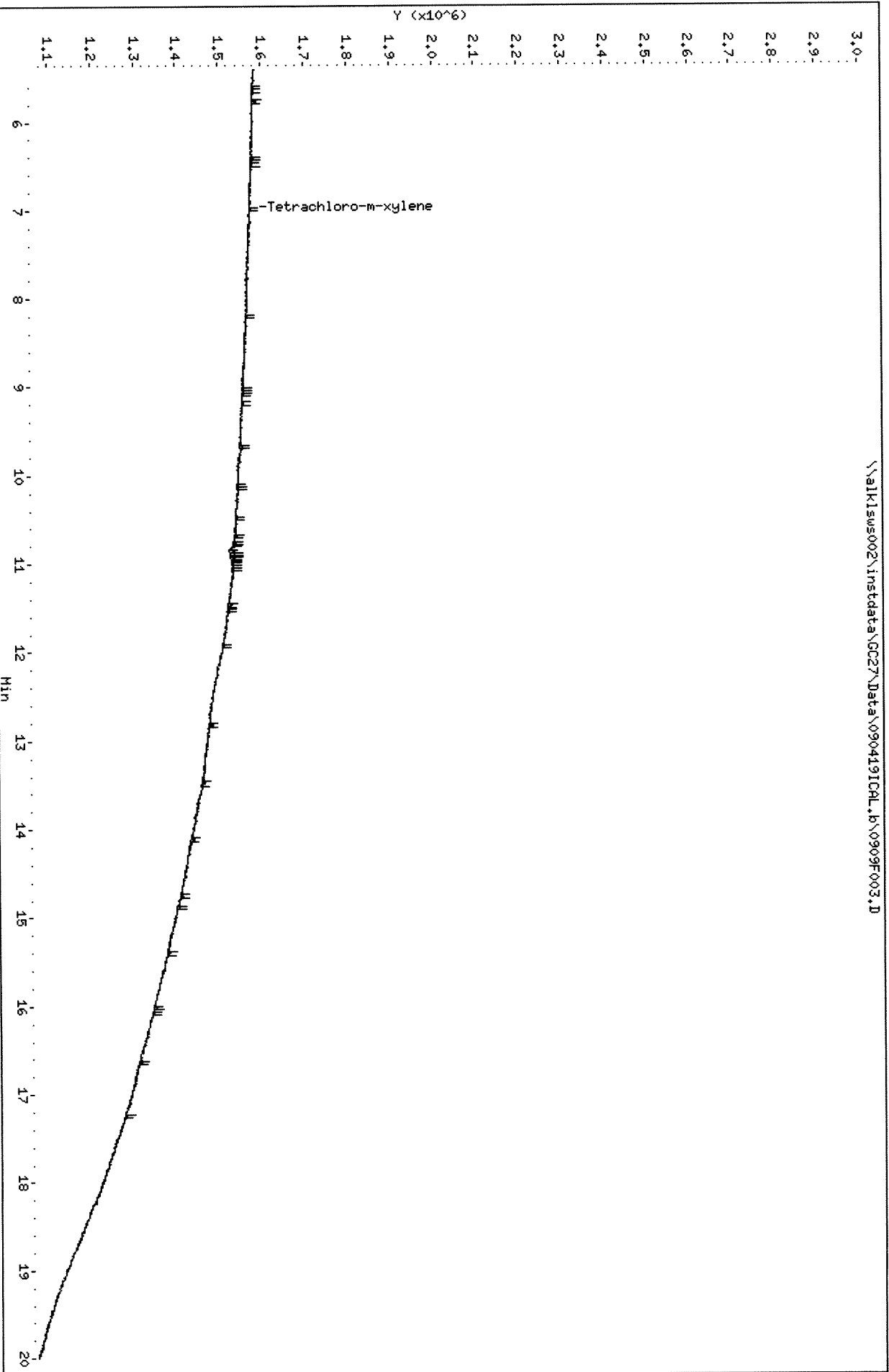
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAH

Column diameter: 0.32

\\alk1sus002\instdata\GC27\Data\090419ICAL.b\0909F003.D



Data File: \\alk1s02\instdata\GC27\Data\090419ICAL_r.b\0909F003.D

Date : 09-SEP-2019 11:52

Client ID:

Sample Info: IB

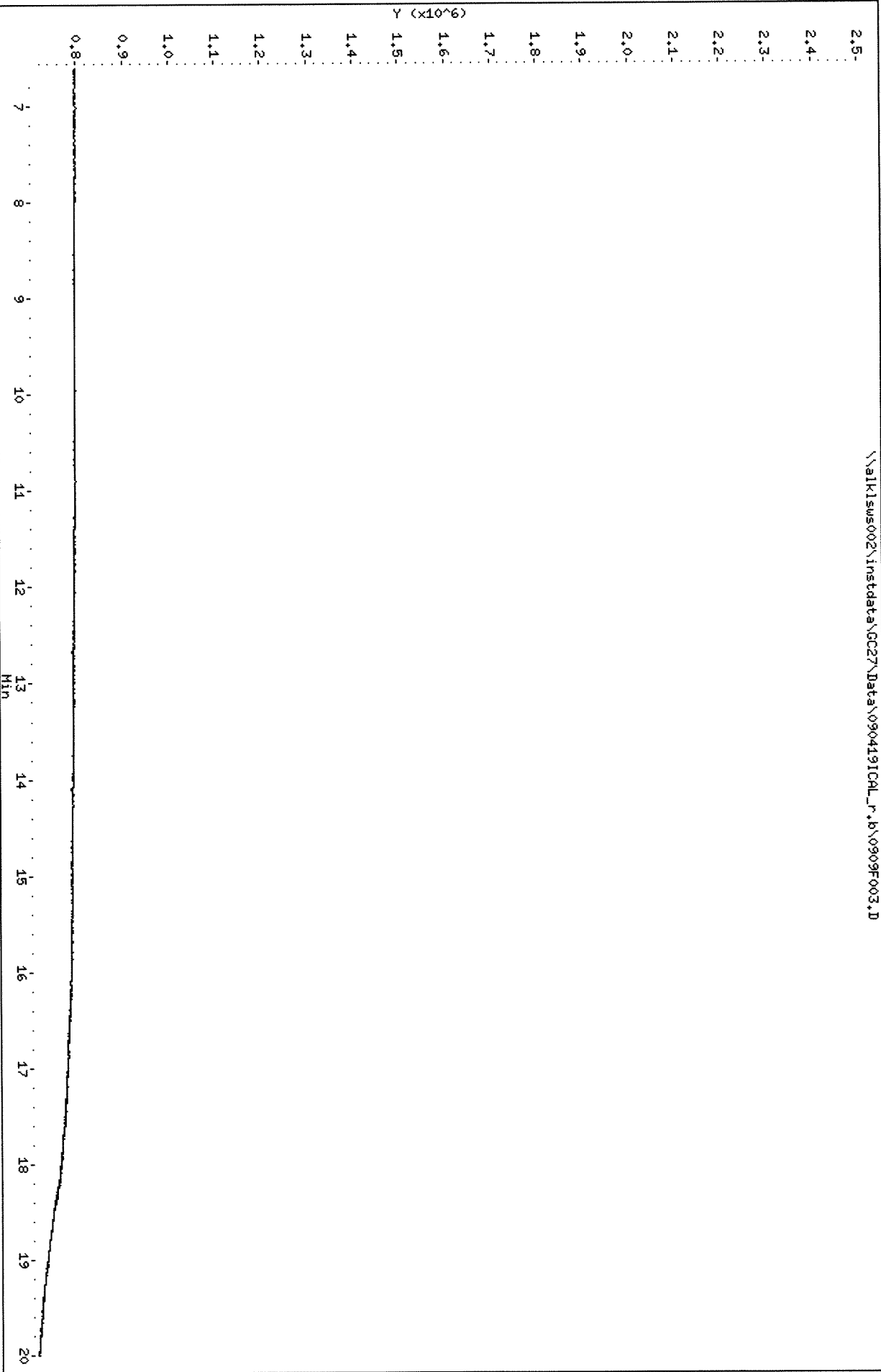
Column phase: IB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alk1s02\instdata\GC27\Data\090419ICAL_r.b\0909F003.D



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F009.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F009.D
 Inj Date : 09-SEP-2019 15:02
 Sample Info: PCB8-015H 4268 @ 1 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:38
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 4268.sub
 Sub List #2 : 4268.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1242	8.059	9.166	34993	11033	1.18	0.862	80.00- 120.00	100.00
	9.306	9.916	21742	19732	0.962	1.09	63.88- 95.83	62.13
	9.749	10.966	75132	27331	1.10	1.06	182.89- 274.33	214.71
	9.929	11.016	39369	29709	0.963	1.01	114.87- 172.30	112.51
	10.189	11.249	28378	15907	1.00	1.00	77.46- 116.19	81.10
	Average of Peak Amounts =				1.04	1.00		
Aroclor 1268	14.952	16.202	169676	78515	1.04	1.10	80.00- 120.00	100.00
	15.052	16.329	155852	68850	1.07	1.10	71.27- 106.90	91.85
	15.442	16.702	124219	58656	1.00	1.09	61.53- 92.30	73.21
	16.432	17.726	348997	161279	0.996	1.11	171.54- 257.31	205.68
	Average of Peak Amounts =				1.03	1.10		

SA 9/11/19
W

Data File: \\alkisus002\instdata\GC27\Data\090419ICAL.b\0909F009.D
Date : 09-SEP-2019 15:02

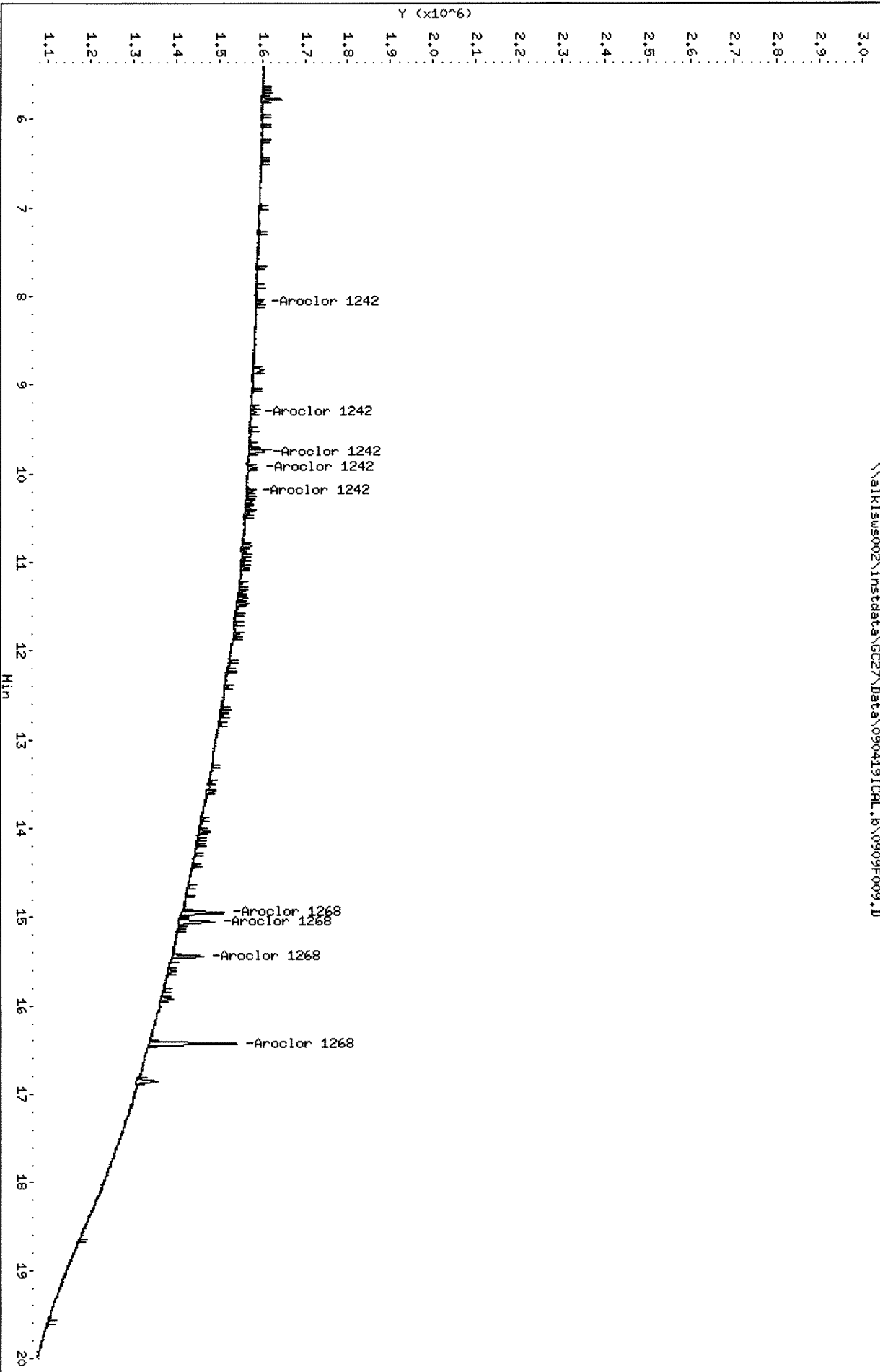
Client ID:
Sample Info: PCB8-015H 4268 @ 1 PPB

Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA
Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL.b\0909F009.D



Data File: \\alk1s002\instdata\GC27\Data\090419ICAL_r.b\0909F009.D

Date : 09-SEP-2019 15:02

Client ID:

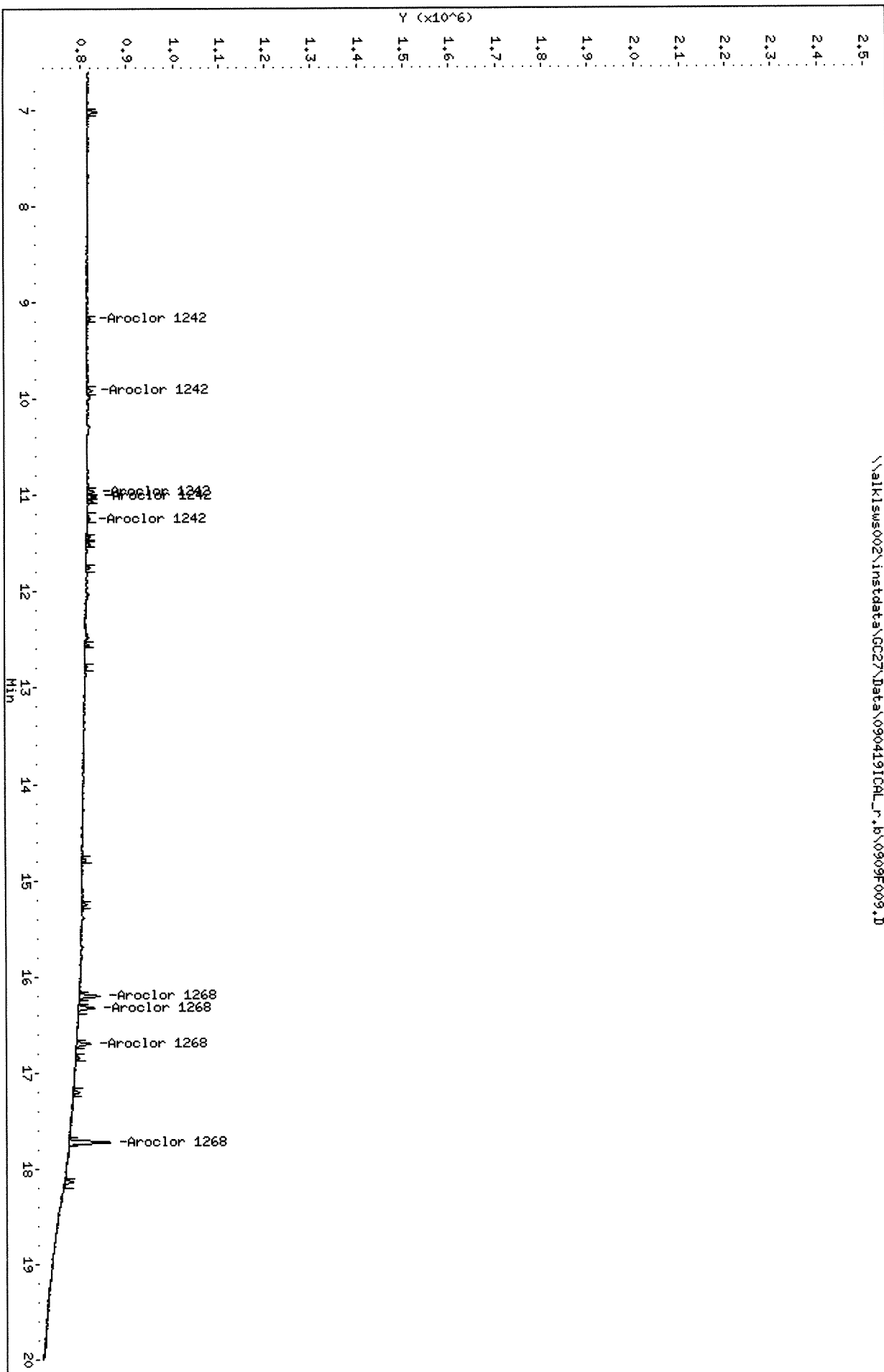
Sample Info: PCB8-015H 4268 @ 1 PPB

Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

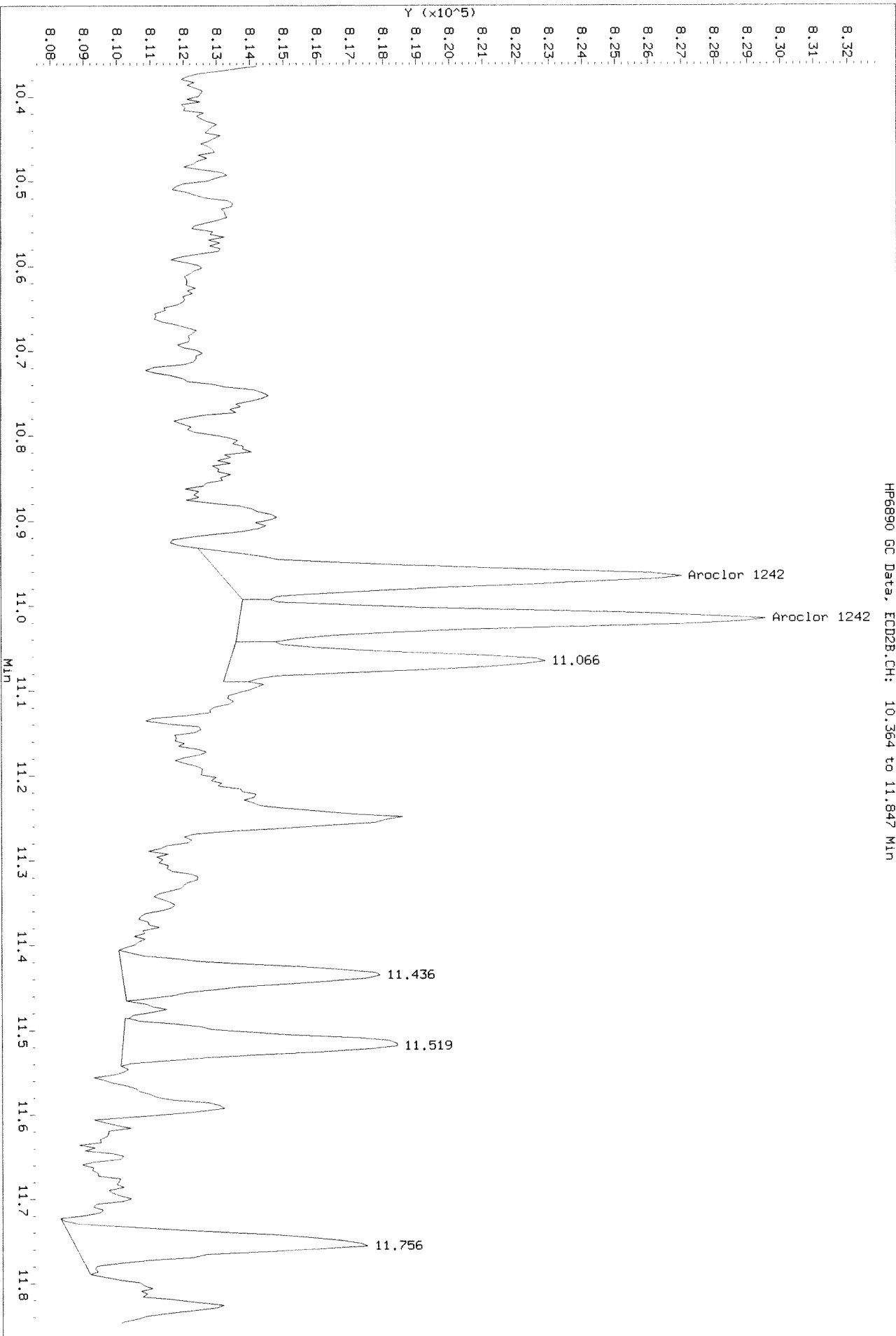
Column diameter: 0.32



Data File: \\alklsws002\instdata\GC27\Data\090419ICL_r.b\0909F009.D
Injection Date: 09-SEP-2019 15:02
Instrument: GC27.1
Client Sample ID:

Refer

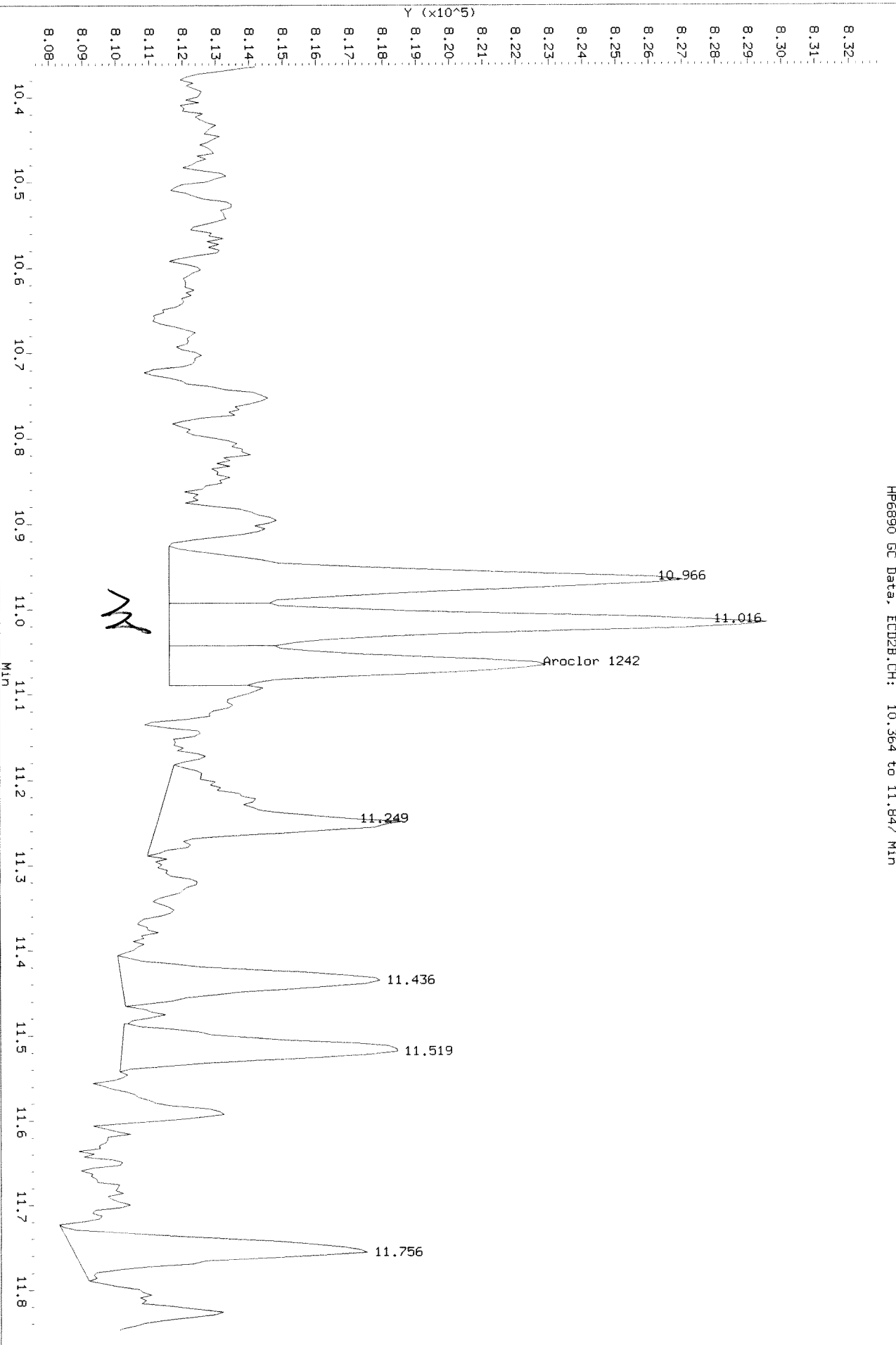
HP6890 GC Data, ECD2B.CH: 10.364 to 11.847 Min



Data File: \\alk1sws002\instdata\GC27\Data\090419ICL-L.R.\0909F009.D
Injection Date: 09-SEP-2019 15:02
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 10.364 to 11.847 Min

After baseline 9/11/19 PA




ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F010.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F010.D
 Inj Date : 09-SEP-2019 15:33
 Sample Info: PCB8-015I 4268 @ 2 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:38
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

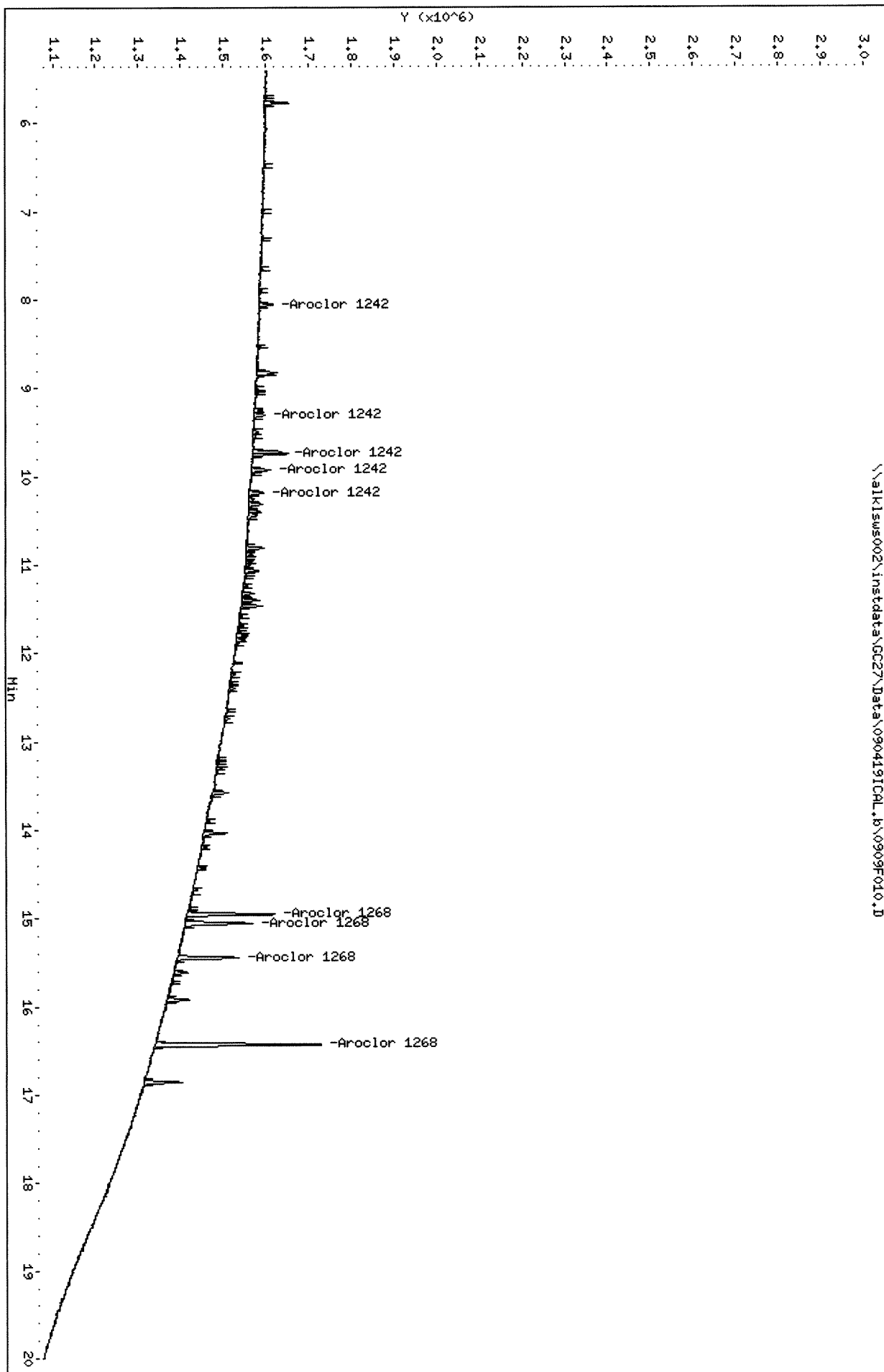
Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 4268.sub
 Sub List #2 : 4268.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1242	8.056	9.166	61609	22089	2.07	1.73	80.00- 120.00	100.00
	9.303	9.913	48275	33553	2.14	1.85	63.88- 95.83	78.36
	9.746	10.966	134095	50518	1.96	1.97	182.89- 274.33	217.65
	9.929	11.016	77809	55843	1.90	1.91	114.87- 172.30	126.29
	10.189	11.250	60401	27730	2.13	1.75	77.46- 116.19	98.04
	Average of Peak Amounts =				2.04	1.84		
Aroclor 1268	14.953	16.203	334554	159216	2.05	2.23	80.00- 120.00	100.00
	15.053	16.330	283435	136606	1.94	2.18	71.27- 106.90	84.72
	15.443	16.703	240389	112852	1.94	2.10	61.53- 92.30	71.85
	16.429	17.723	693383	326632	1.98	2.24	171.54- 257.31	207.26
	Average of Peak Amounts =				1.98	2.19		

SA 9/11/19


Data File: \\alk1sus002\instdata\GC27\Data\090419ICPL.b\0909F010.D
Date : 09-SEP-2019 15:33
Client ID:
Sample Info: PCB8-0151 4268 @ 2 PPB
Column phase: DB-35MS

Instrument: GC27.i
Operator: SAA
Column diameter: 0.32



Data File: \\alk1s02\instdata\GC27\Data\090419ICAL_r.b\0909F010.D
Date: 09-SEP-2019 15:33

Client ID:

Sample Info: PCB8-0151 4268 @ 2 PPB

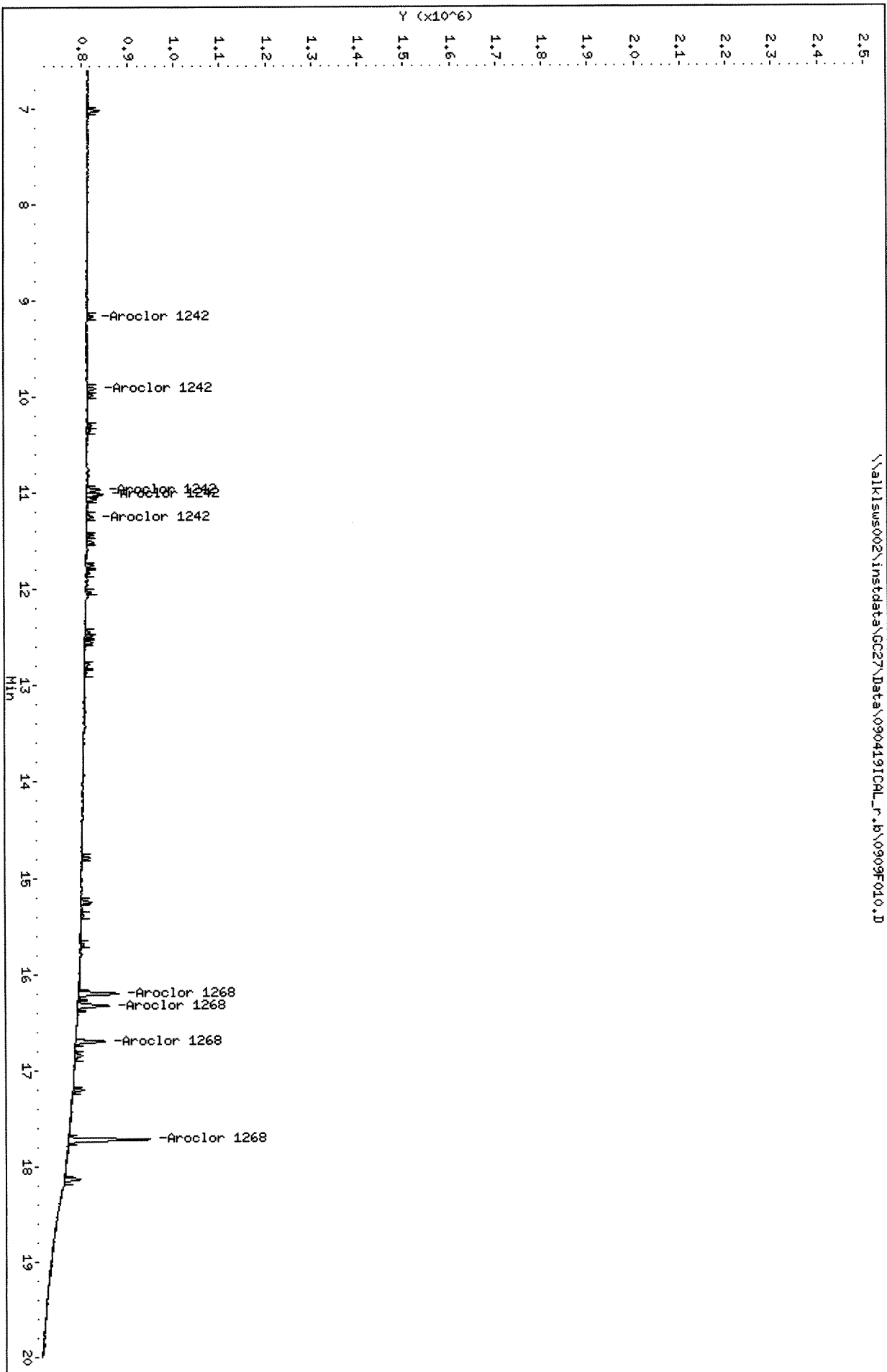
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

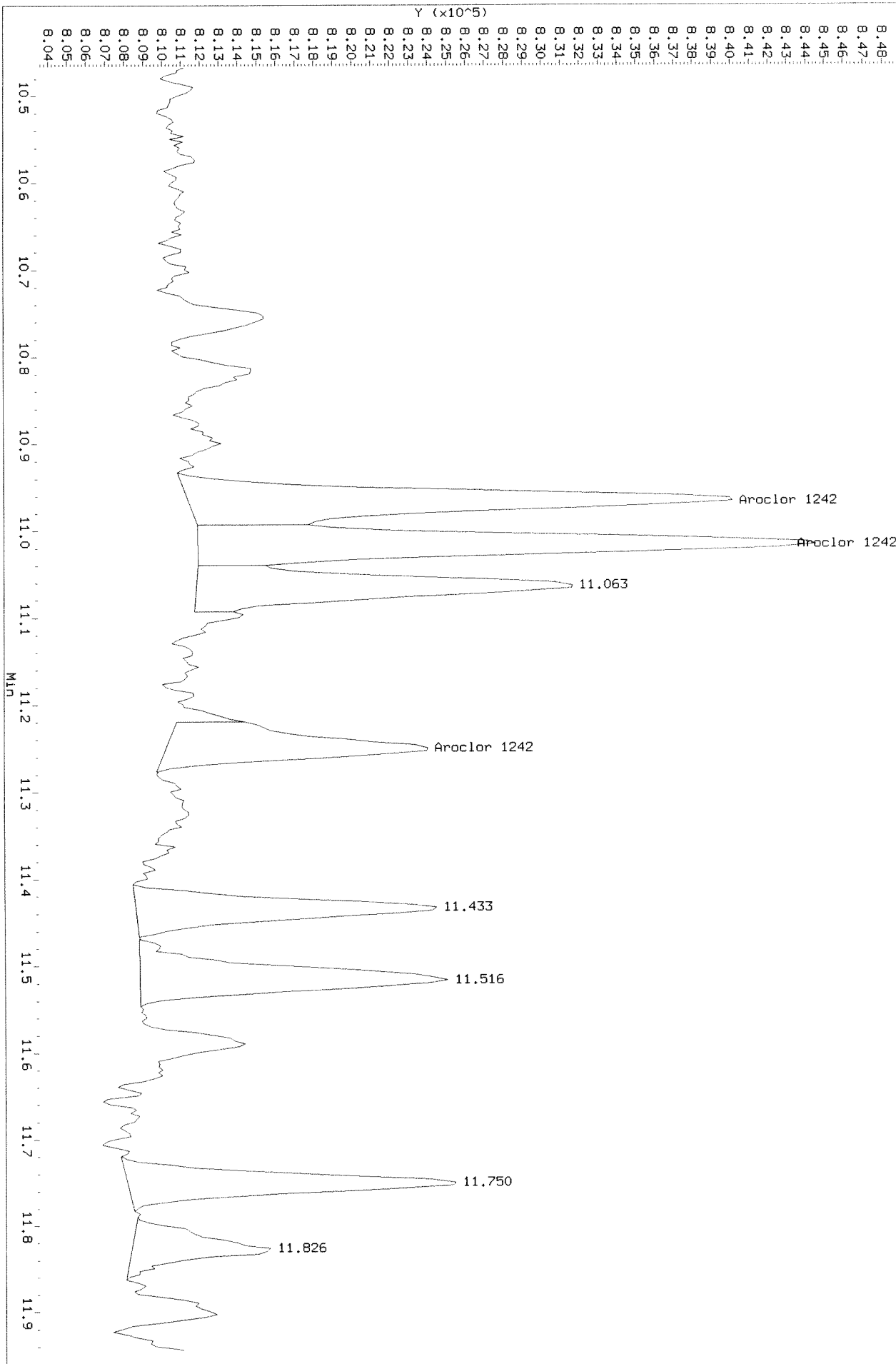
\\alk1s02\instdata\GC27\Data\090419ICAL_r.b\0909F010.D



Data File: \\alklsws002\instdata\GC27\Data\090419ICL-r.b\0909F010.D
Injection Date: 09-SEP-2019 15:33
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 10.467 to 11.944 Min

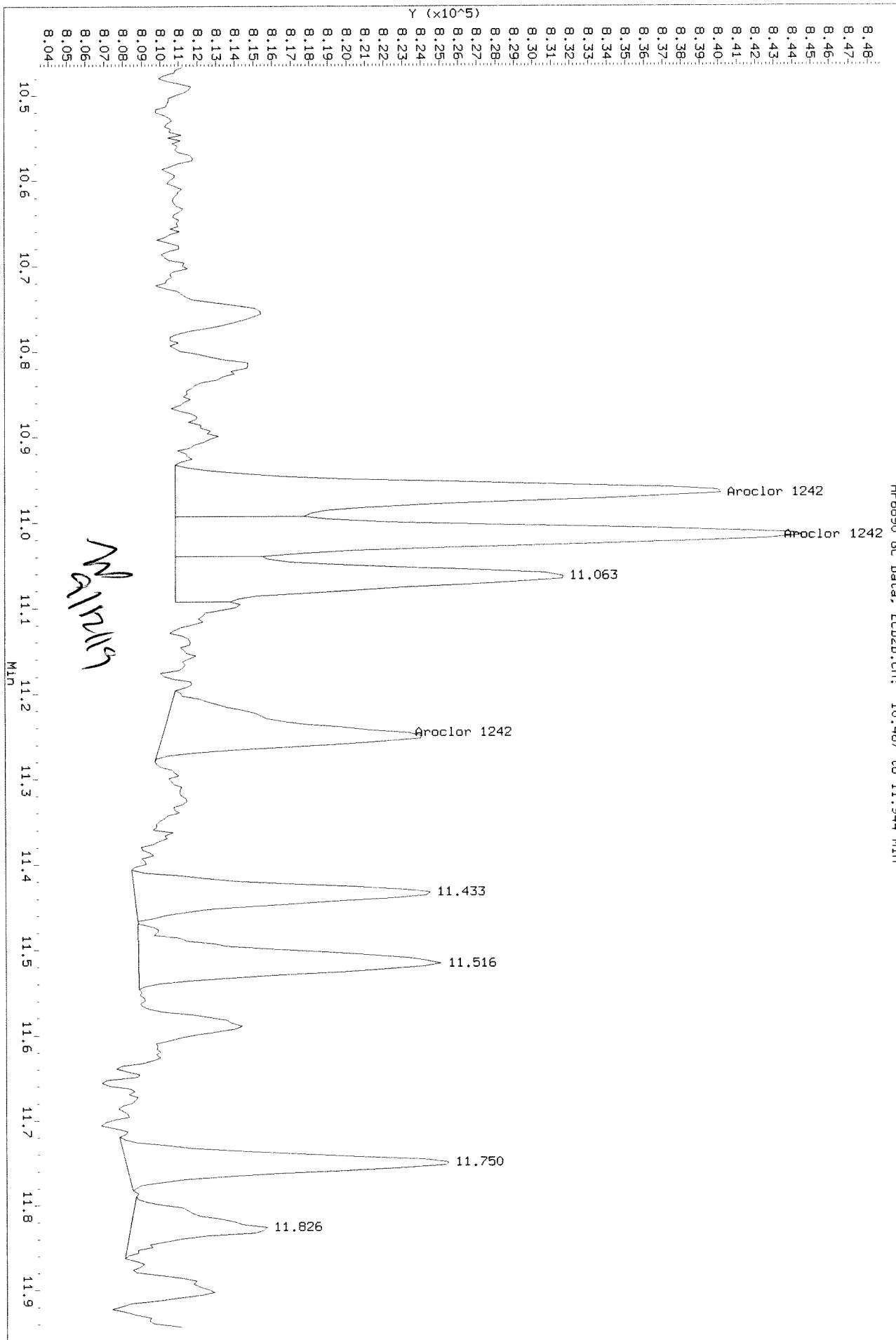
Before



Data File: \\alklsws002\instdata\GC27\Data\090419ICL_r_b\0909f010.D
Injection Date: 09-SEP-2019 15:33
Instrument: GC27.1
Client Sample ID:

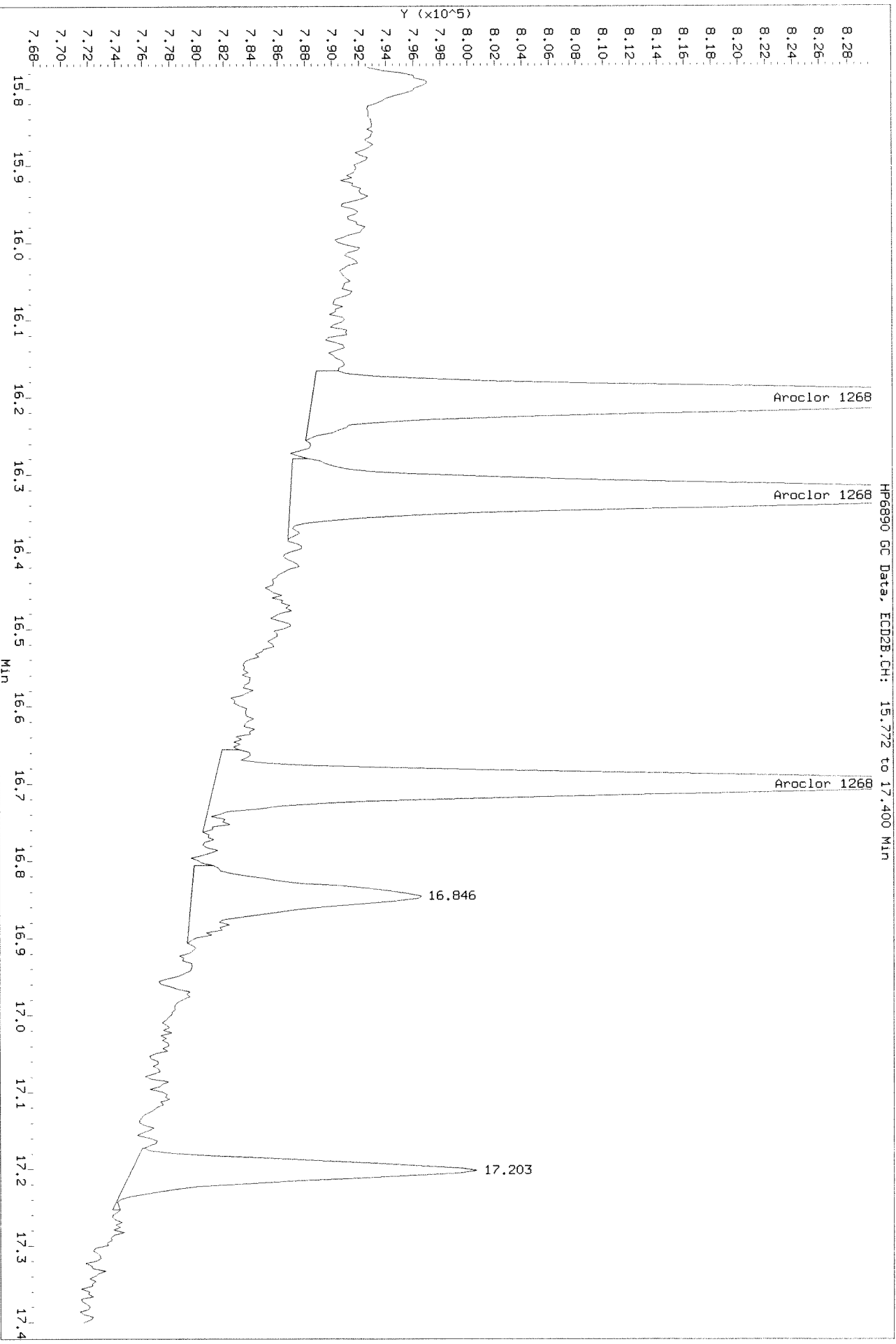
HP6890 GC Data, ECD2B.CH: 10.467 to 11.944 Min

After baseline 9/11/19 R



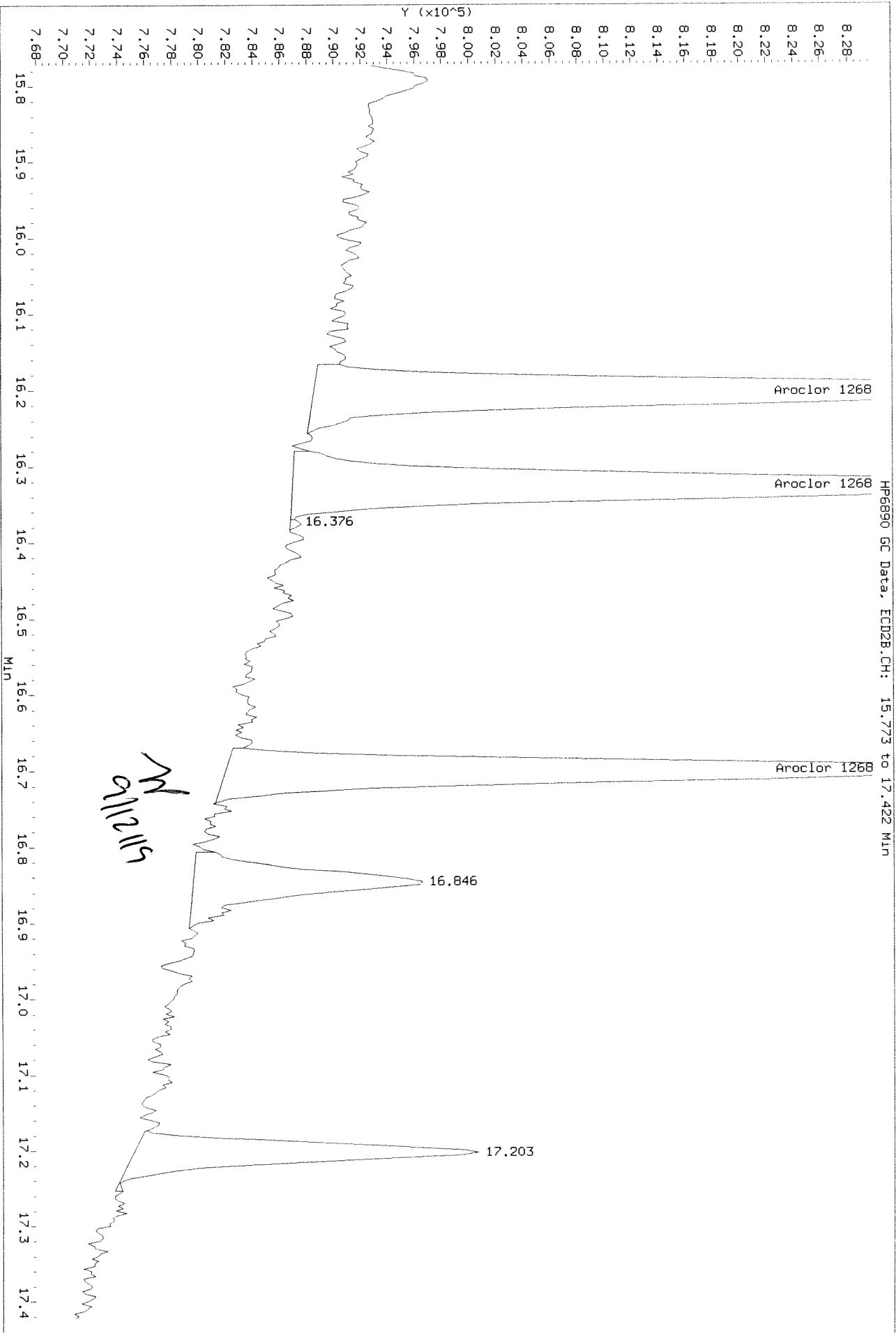
Data File: \\sal\kls002\instdata\GC27\Data\090419ICL-r.b\0909f010.D
Injection Date: 09-SEP-2019 15:33
Instrument: GC27.1
Client Sample ID:

Before



Data File: \\alkjsws002\jnsrdata\GC27\Data\090419ICAL_r.b\090901010.D
Injection Date: 09-SEP-2019 15:33
Instrument: GC27.1
Client Sample ID:

After baseline / shoulder 9/11/19 SA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F011.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F011.D
 Inj Date : 09-SEP-2019 16:05
 Sample Info: PCB8-015J 4268 @ 5 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:38
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 4268.sub
 Sub List #2 : 4268.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

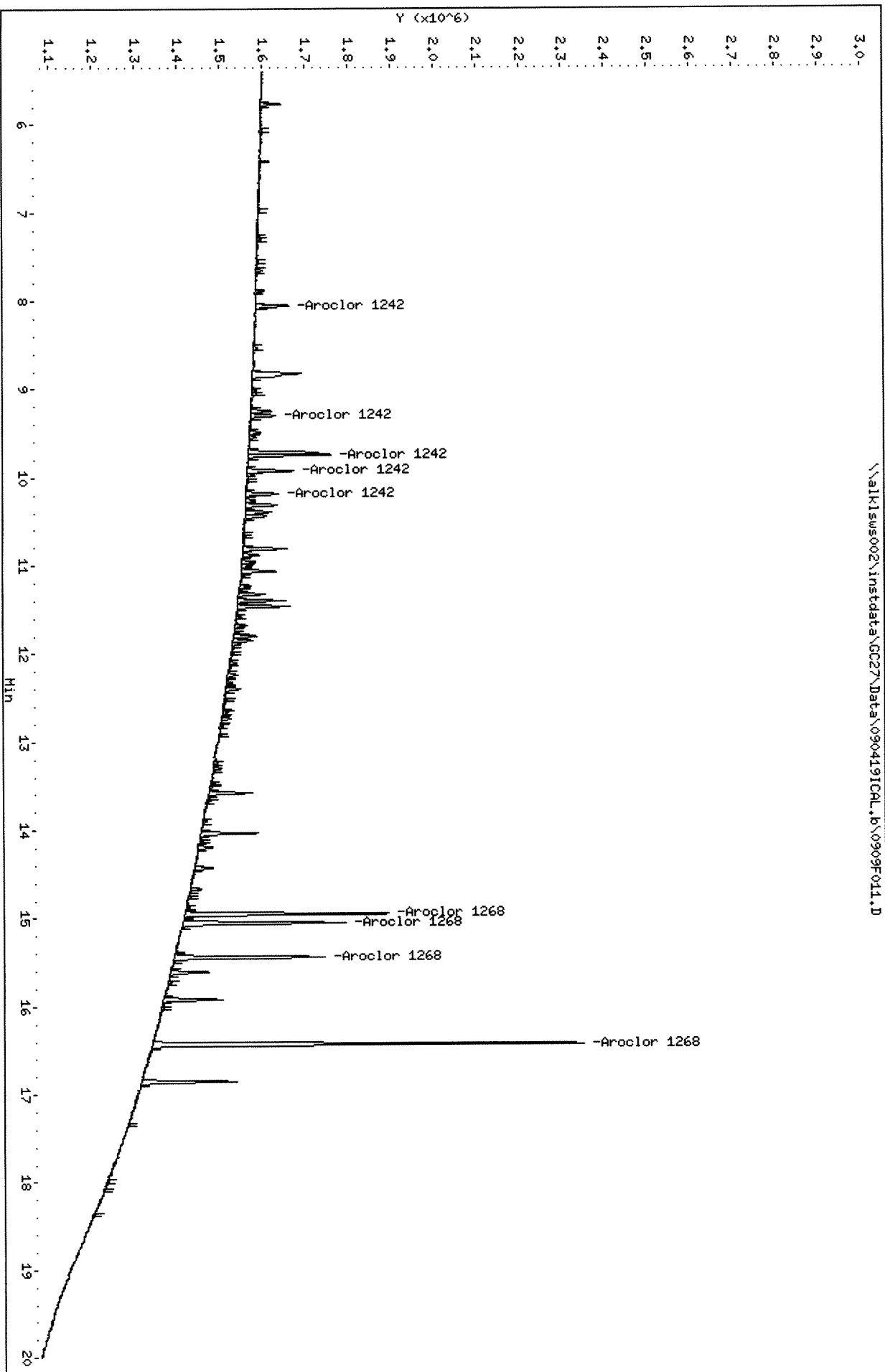
Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1242	8.055	9.165	134612	56676	4.53	4.43	80.00- 120.00	100.00
	9.305	9.915	104739	79936	4.63	4.40	63.88- 95.83	77.81
	9.748	10.965	314405	119177	4.60	4.64	182.89- 274.33	233.56
	9.928	11.015	197966	135357	4.84	4.62	114.87- 172.30	147.06
	10.188	11.249	135416	70359	4.78	4.43	77.46- 116.19	100.60
	Average of Peak Amounts =				4.68	4.50		
Aroclor 1268	14.952	16.205	777145	370699	4.75	5.19	80.00- 120.00	100.00
	15.052	16.329	684383	313347	4.68	4.99	71.27- 106.90	88.06
	15.442	16.702	600425	273531	4.84	5.08	61.53- 92.30	77.26
	16.432	17.722	1654705	767525	4.72	5.26	171.54- 257.31	212.92
	Average of Peak Amounts =				4.75	5.13		

SA 9/11/19
W

Data File: \\alklsws002\instdata\GC27\Data\090419ICL.b\0909F011.D
Date : 09-SEP-2019 16:05
Client ID:
Sample Info: PCB8-015J 4268 @ 5 PPB
Column phase: DB-35MS

Instrument: GC27.i
Operator: SAA
Column diameter: 0.32

\\alklsws002\instdata\GC27\Data\090419ICL.b\0909F011.D



Data File: \\alk1sws002\instdata\GC27\Data\090419ICAL_r.b\0909F011.D

Date : 09-SEP-2019 16:05

Client ID:

Sample Info: PCB8-015J 4268 @ 5 PPB

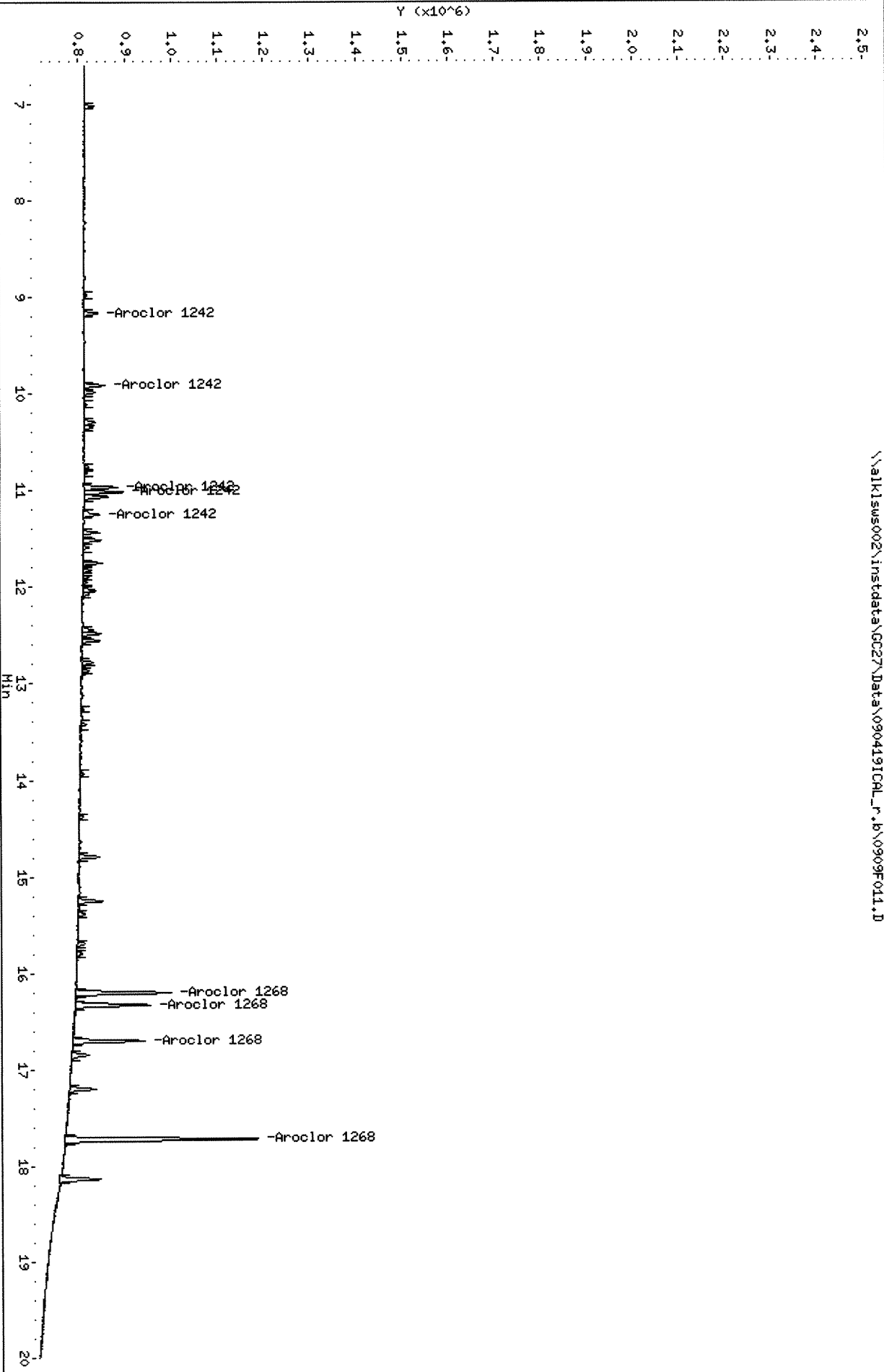
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

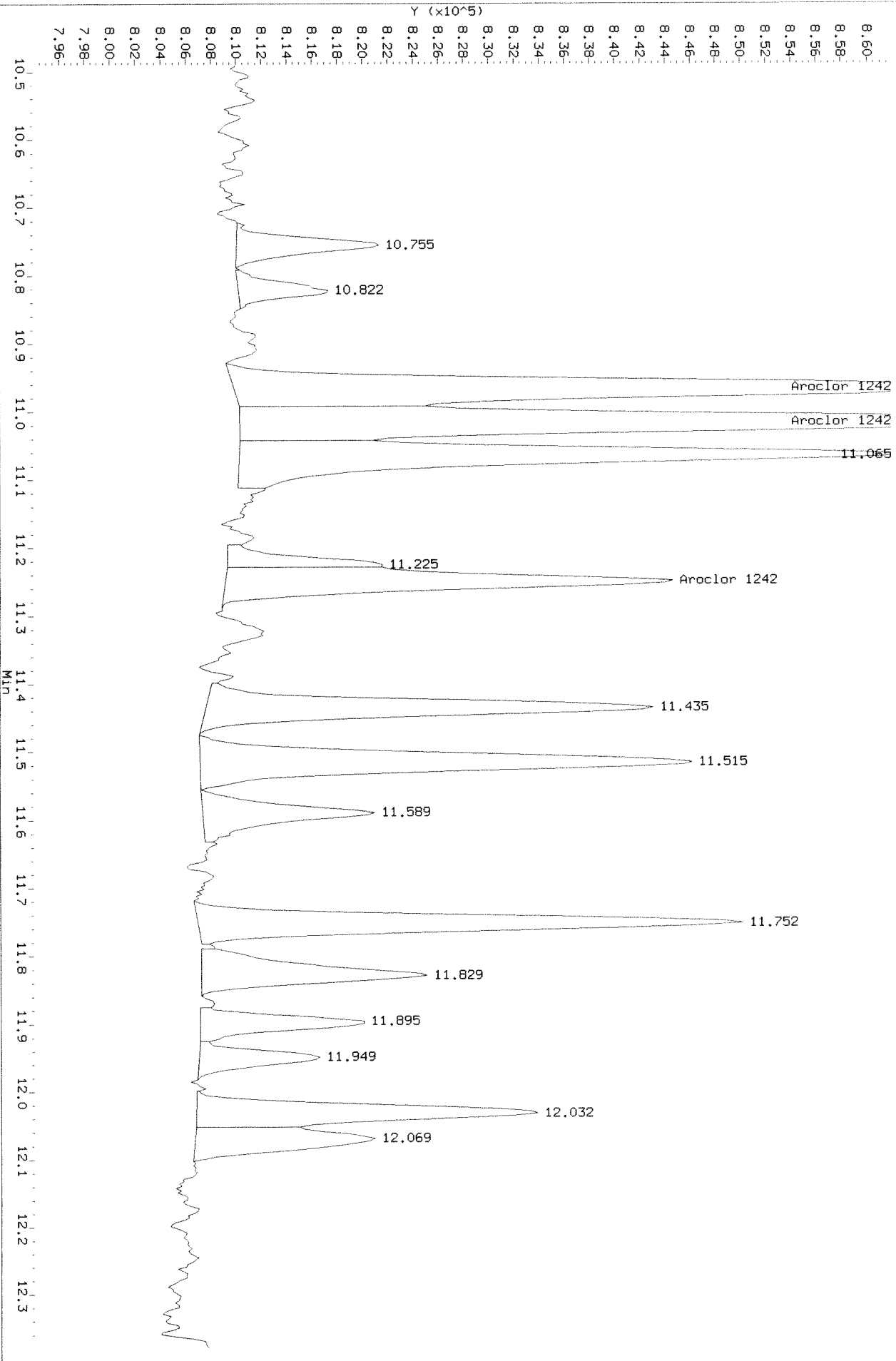
\\alk1sws002\instdata\GC27\Data\090419ICAL_r.b\0909F011.D



Data File: \\alk1sws002\instdata\GC27\Data\090419ICAL_r_b\0909F011.D
Injection Date: 09-SEP-2019 16:05
Instrument: GC27.1
Client Sample ID:

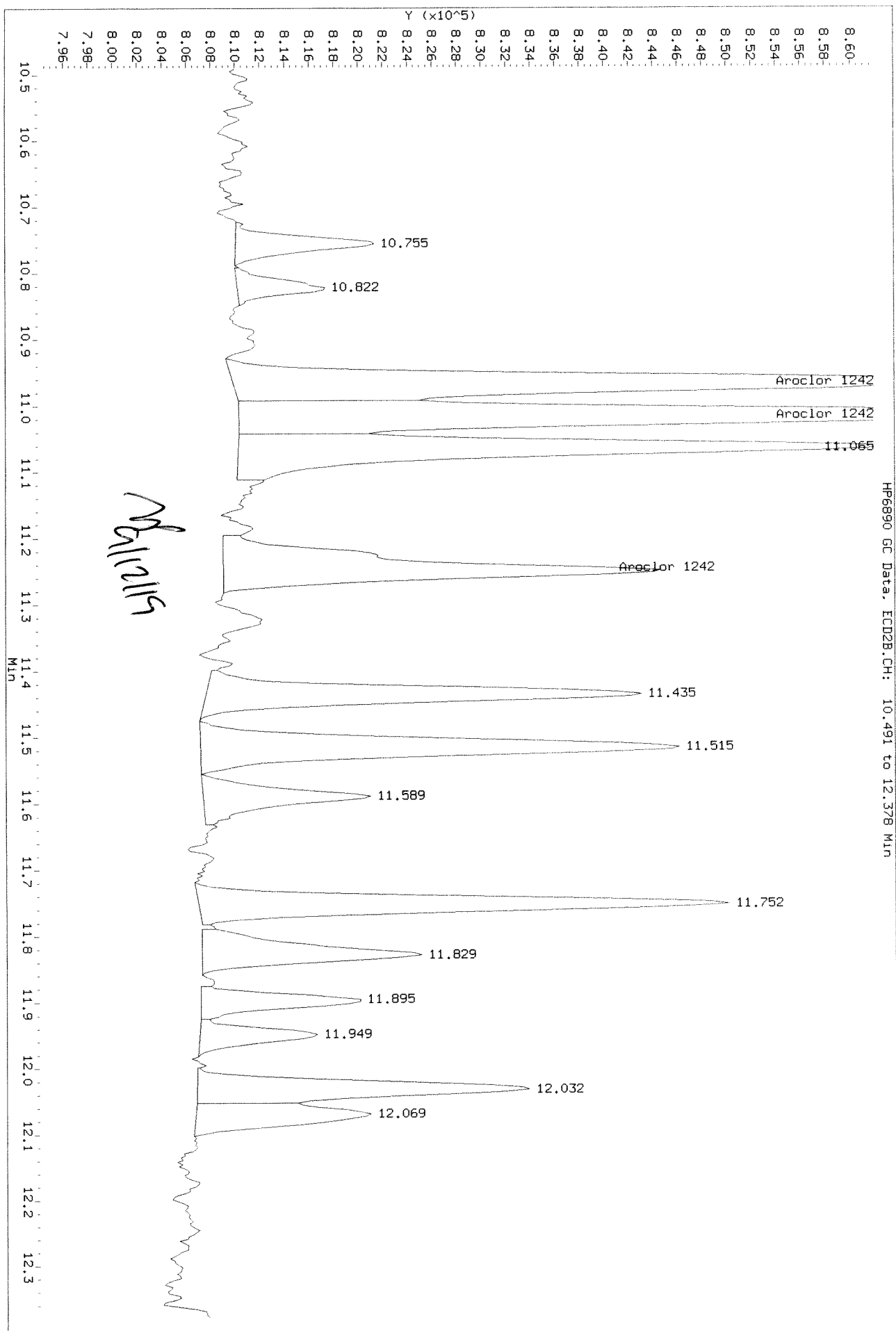
Before

HP6890 GC Data, ECD2B.CH: 10.491 to 12.378 MIN



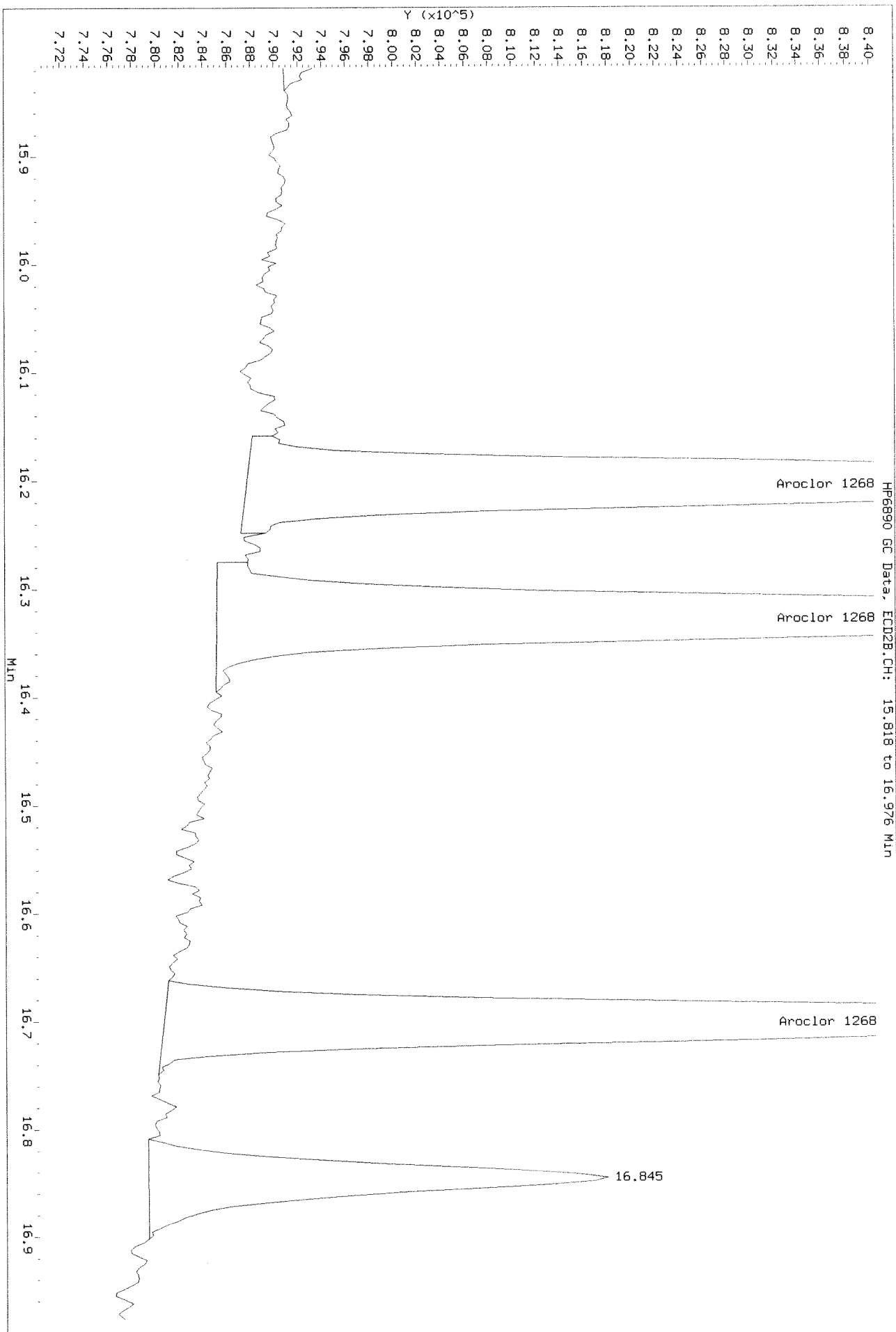
Data File: \\alklms002\instdata\GC27\Data\090419ICHL_r_b\0909F011.D
Injection Date: 09-SEP-2019 16:05
Instrument: GC27.1
Client Sample ID:

After baseline 9/11/19 A



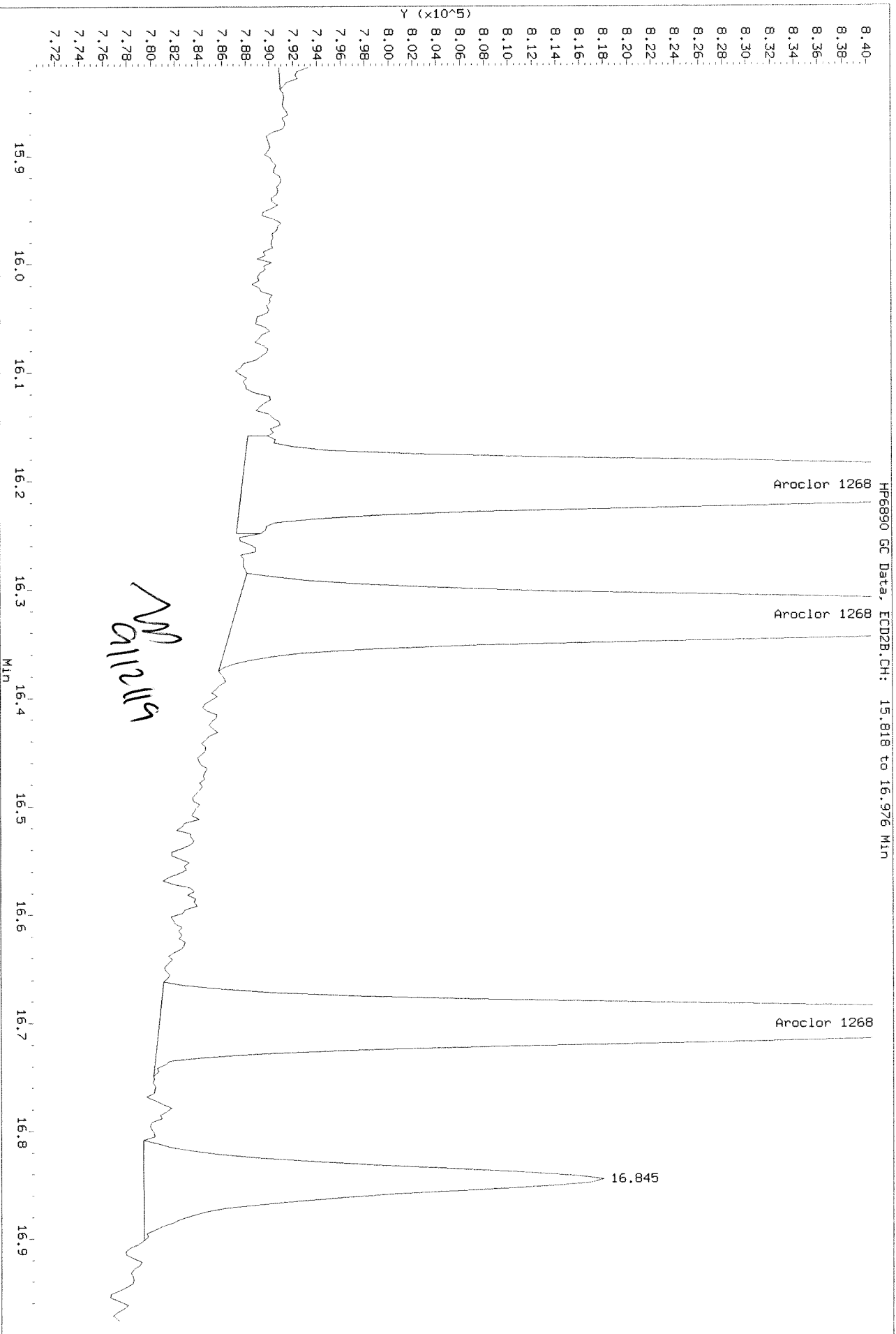
Data File: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F011.D
Injection Date: 09-SEP-2019 16:05
Instrument: GC27.1
Client Sample ID:

Before



Data File: \\alkisw002\instdata\GC27\Data\090419ICAL_r.b\0909F011.D
Injection Date: 09-SEP-2019 16:05
Instrument: GC27.1
Client Sample ID:

After baseline 9/11/19 SA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F012.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F012.D
 Inj Date : 09-SEP-2019 16:37
 Sample Info: PCB8-015K 4268 @ 10 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:38
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 4268.sub
 Sub List #2 : 4268.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1242	8.058	9.164	269704	124038	9.07	9.69	80.00- 120.00	100.00
	9.304	9.914	215373	175855	9.53	9.67	63.88- 95.83	79.86
	9.748	10.964	616568	247655	9.02	9.65	182.89- 274.33	228.61
	9.928	11.014	387256	284843	9.47	9.72	114.87- 172.30	143.59
	10.188	11.248	261144	145638	9.22	9.17	77.46- 116.19	96.83
	Average of Peak Amounts =				9.26	9.58		
Aroclor 1268	14.954	16.201	1530639	729336	9.36	10.2	80.00- 120.00	100.00
	15.054	16.328	1363550	633347	9.33	10.1	71.27- 106.90	89.08
	15.441	16.701	1177339	544651	9.49	10.1	61.53- 92.30	76.92
	16.431	17.724	3282073	1481136	9.36	10.1	171.54- 257.31	214.43
	Average of Peak Amounts =				9.39	10.1		

SA 9/11/19
W

Data File: \\alkisus002\instdata\GC27\Data\090419ICAL.b\0909F012.D

Date: 09-SEP-2019 16:37

Client ID:

Sample Info: PCB8-01SK 4268 @ 10 PPB

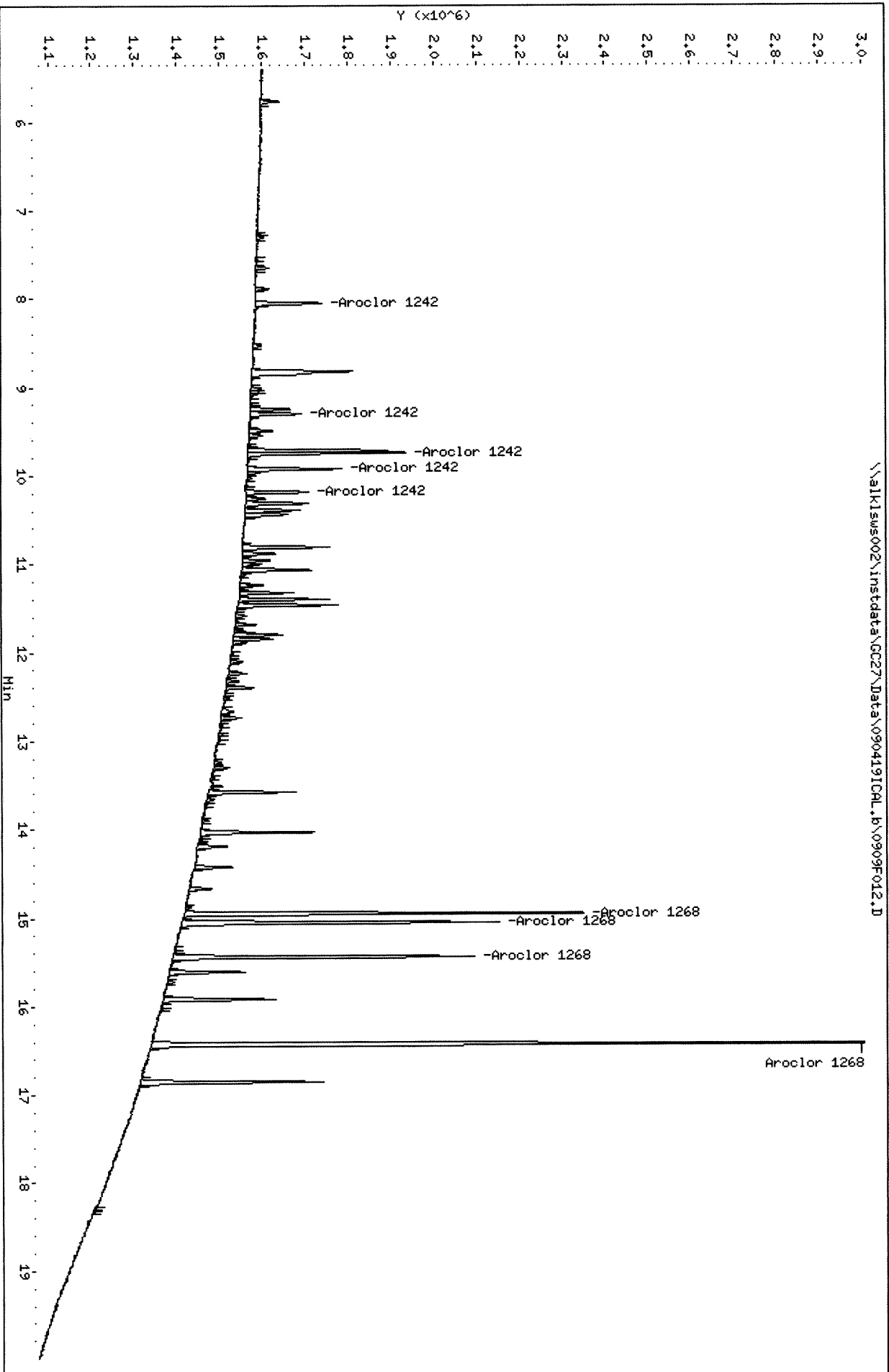
Column phase: DB-35MS

Instrument: GC27.i

Operator: SHH

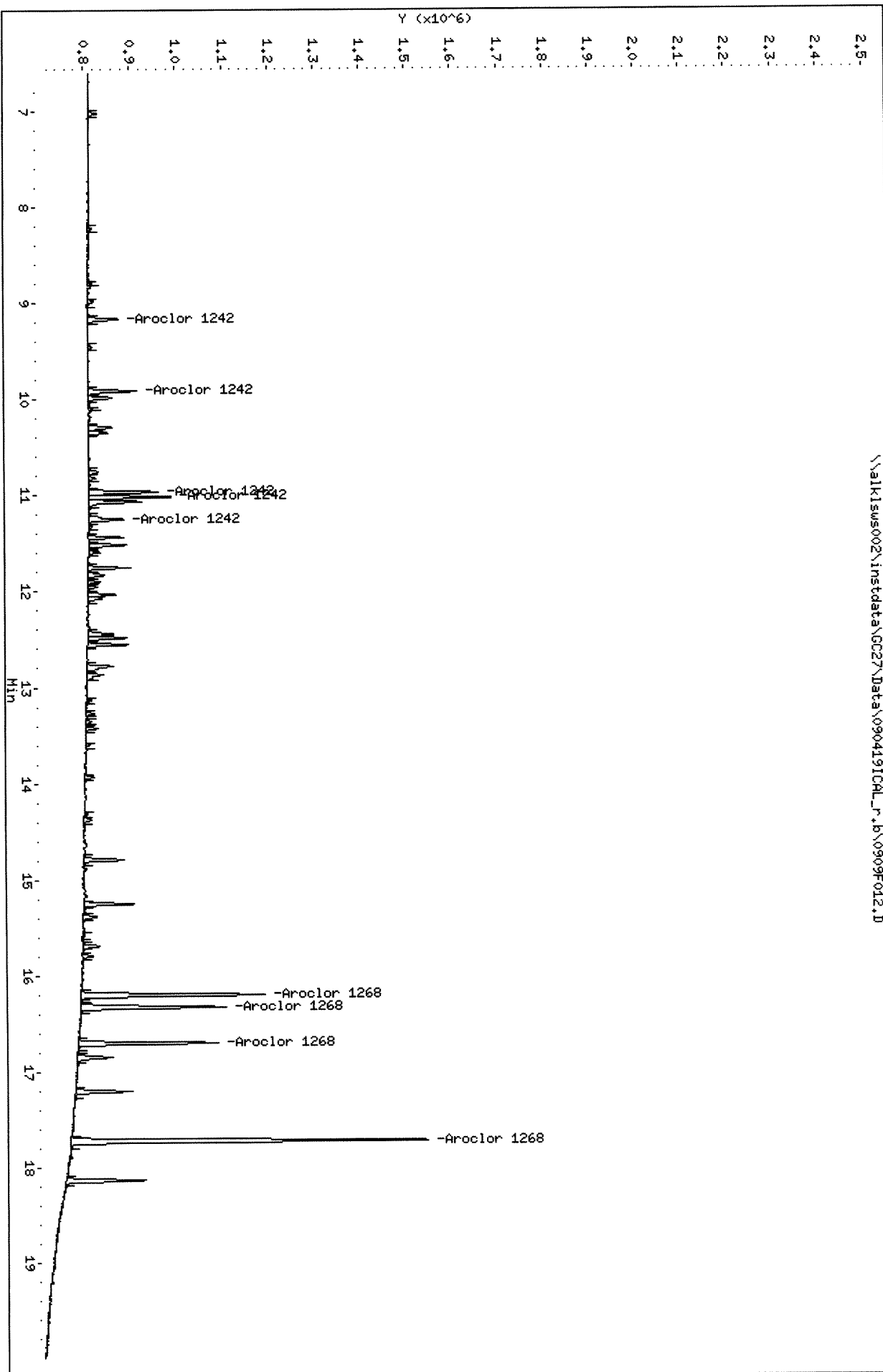
Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL.b\0909F012.D



Data File: \\alkisw002\instdata\GC27\Data\090419ICAL_r.b\0909F012.D
Date: 09-SEP-2019 16:37
Client ID:
Sample Info: PCB8-015K 4268 @ 10 PPB
Column phase: DB-XLB

Instrument: GC27.1
Operator: SHH
Column diameter: 0.32



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F013.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F013.D
Inj Date : 09-SEP-2019 17:08
Sample Info: PCB8-015E 1242 ICV @ 20 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : AR1242.SUB
Sub List #2 : AR1242.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1242	8.057	9.167	621436	280551	20.9	21.9	80.00- 120.00	100.00
	9.304	9.914	470939	406391	20.8	22.3	63.88- 95.83	75.78
	9.747	10.964	1382870	571058	20.2	22.3	182.89- 274.33	222.53
	9.927	11.014	878544	653245	21.5	22.3	114.87- 172.30	141.37
	10.191	11.251	586339	353812	20.7	22.3	77.46- 116.19	94.35
	Average of Peak Amounts =				20.8	22.2		

SA 9/11/19
W

Data File: \\alkisus002\instdata\GC27\Data\090419\CAL.b\0909F013.D

Date: 09-SEP-2019 17:08

Client ID:

Sample Info: PCB8-015E 1242 ICV @ 20 PPB

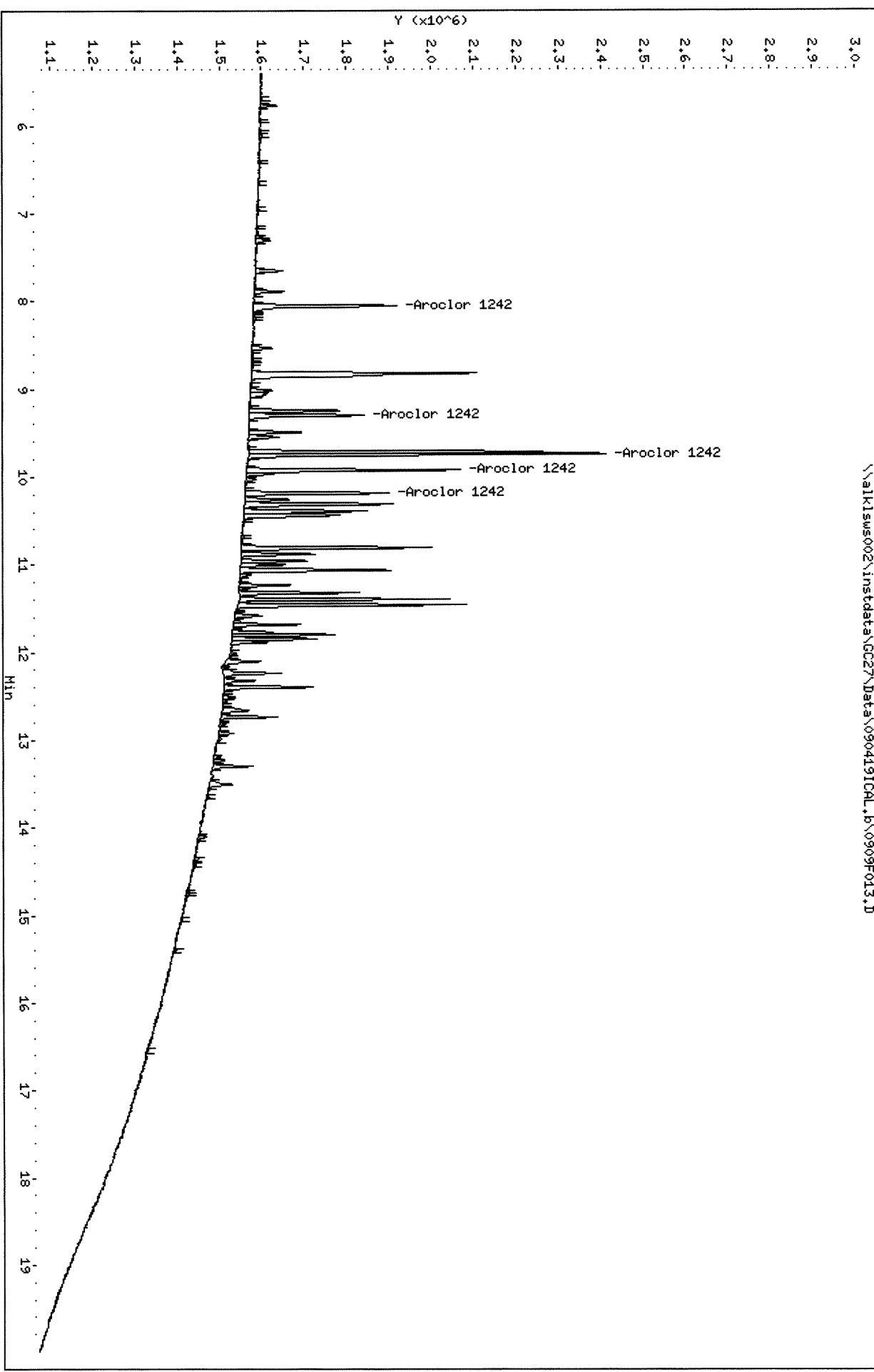
Column phase: DB-35MS

Instrument: GC27.i

Operator: SMA

Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419\CAL.b\0909F013.D



Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0909F013.D

Date: 09-SEP-2019 17:08

Client ID:

Sample Info: PO88-015E 1242 ICV @ 20 PPB

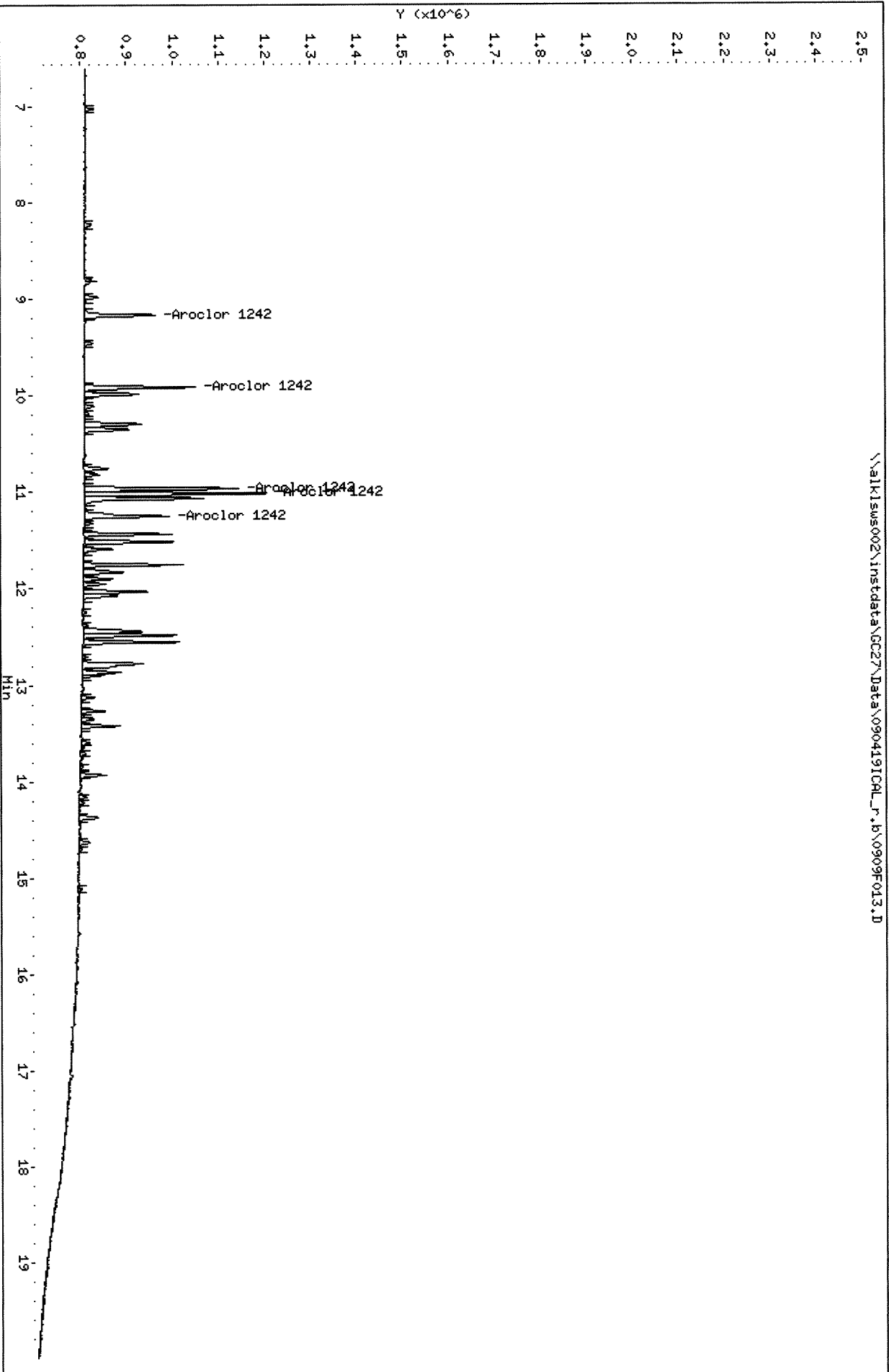
Column phase: DB-XLB

Instrument: GC27.1

Operator: SAA

Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0909F013.D



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F014.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F014.D
Inj Date : 09-SEP-2019 17:40
Sample Info: PCB8-015F 1268 ICV @ 20 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : AR1268.SUB
Sub List #2 : AR1268.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1268	14.951	16.201	3343051	1514696	20.4	21.2	80.00- 120.00	100.00
	15.054	16.328	3323205	1470780	22.7	23.4	71.27- 106.90	99.41
	15.441	16.701	2279185	1024654	18.4	19.0	61.53- 92.30	68.18
	16.431	17.721	6118947	2609351	17.5	17.9	171.54- 257.31	183.03
	Average of Peak Amounts =				19.8	20.4		

SA 9/11/19
W

Data File: \\alkl1sus002\instdata\GC27\Data\090419ICAL.b\0909F014.D
Date: 09-SEP-2019 17:40

Client ID:

Sample Info: PCB8-01SF 1268 ICV @ 20 PPB

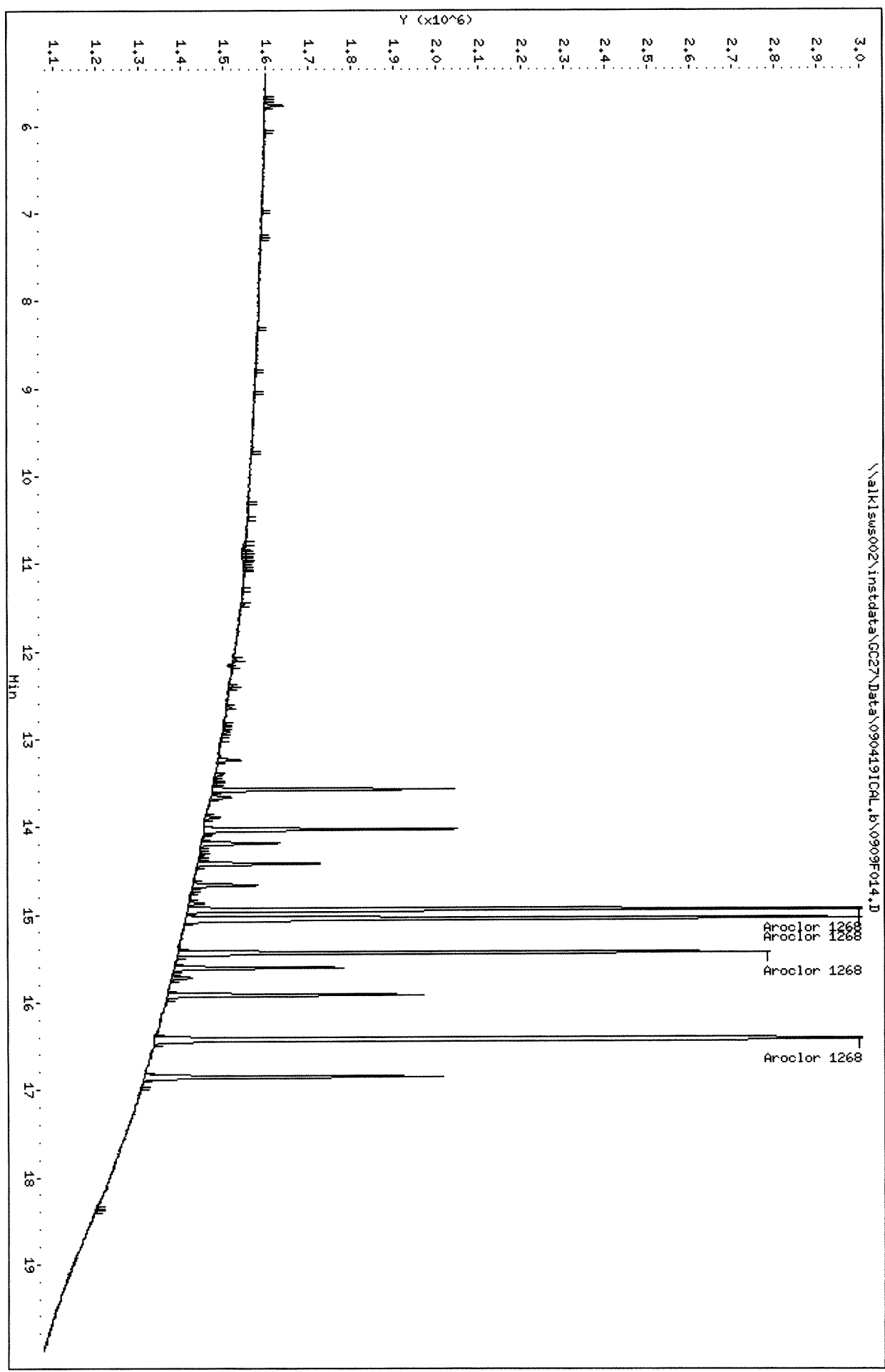
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alkl1sus002\instdata\GC27\Data\090419ICAL.b\0909F014.D



Data File: \\alkisw002\instdata\GC27\Data\090419ICAL_r.b\0909F014.D
Date : 09-SEP-2019 17:40

Client ID:

Sample Info: PCB8-015F 1268 ICV @ 20 PPB

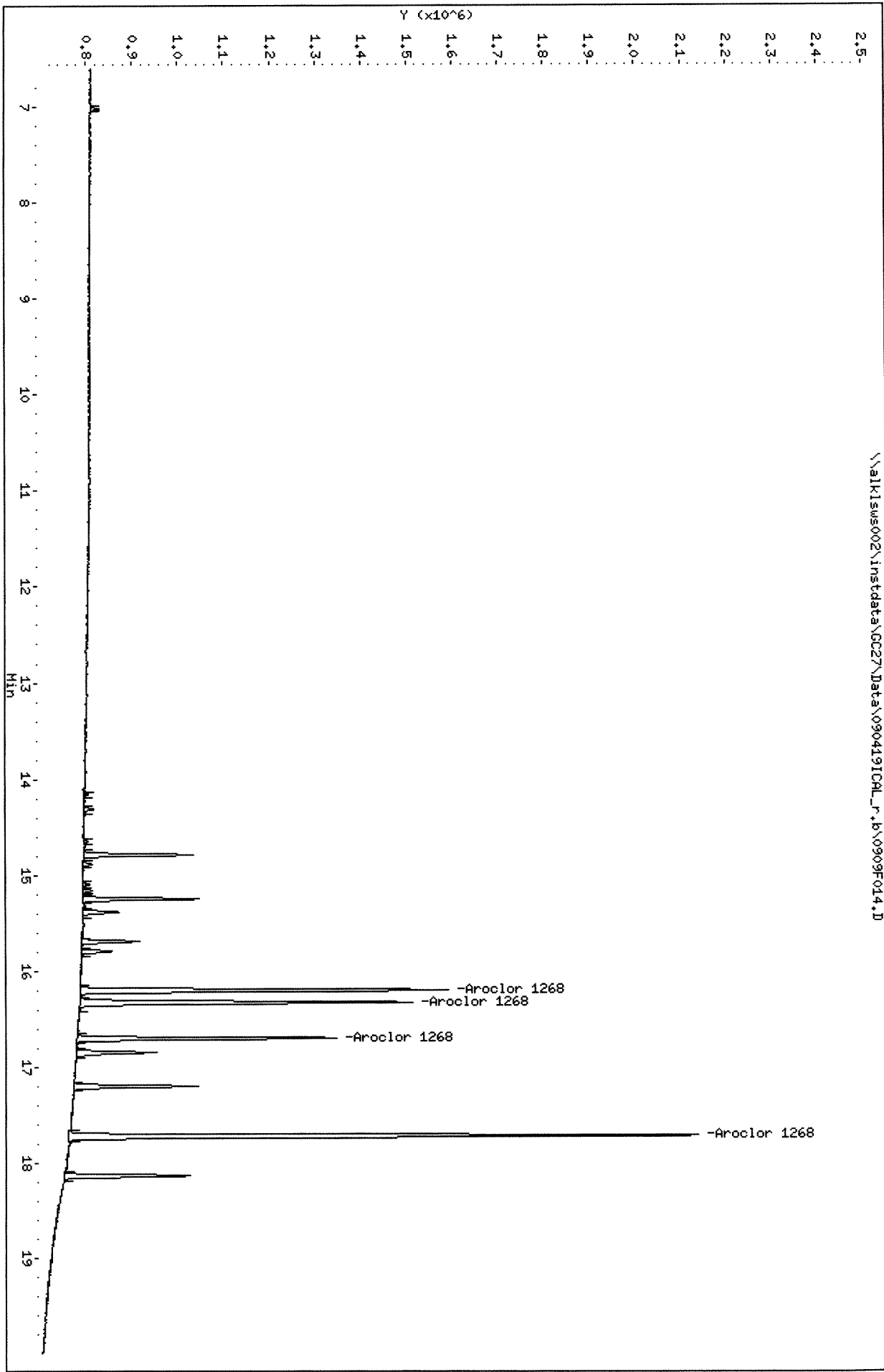
Column phase: DB-XLB

Instrument: GC27.1

Operator: SAA

Column diameter: 0.32

\\alkisw002\instdata\GC27\Data\090419ICAL_r.b\0909F014.D



Preparation Information

Group ID: KWG1904504	Prep Method: EPA 3541	Prep Date: 10/17/19 11:06
Department: Semivoa GC		

Lab Code	Client ID	Product	Matrix	Amt. Ext.	Final Vol.	Solids
K1909649-004	Landfill Ash 5-13-19	8082A PCB	SOIL	2.0920g	8mL	75.1
KWG1904504-1	Matrix Spike	8082A PCB	SOIL	2.0230g	8mL	75.1
KWG1904504-2	Duplicate Matrix Spike	8082A PCB	SOIL	2.0120g	8mL	75.1
KWG1904504-3	Lab Control Sample	8082A PCB	SOIL	2.0000g	8mL	
KWG1904504-4	Method Blank	8082A PCB	SOIL	2.0920g	8mL	

Lab Code	Parent Lab Code	Comments
KWG1904504-1	K1909649-004	KQ1915154-01
KWG1904504-2	K1909649-004	KQ1915154-02
KWG1904504-3		KQ1915154-03
KWG1904504-4		KQ1915154-04

Lab Code	Prep Event ID	Surrogate Solution ID	Amount Added	Spike Solution ID	Amount Added	Witness
K1909649-004	1737160					
KWG1904504-1	1737161					
KWG1904504-2	1737162					
KWG1904504-3	1737163					
KWG1904504-4	1737164					

Comments: _____

Started By: SDANIELS Assisted By: _____ Training
Yes No
 Completed By: CWilliam Assisted By: _____ Yes No
 Reviewed By: [Signature] Date: 10/18/19 Storage: _____

Chain of Custody

Relinquished By: <u>[Signature]</u>	Date: <u>10-18-19</u>	Extracts Examined
Received By: <u>[Signature]</u>	Date: <u>10/18/19</u>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Preparation Information

Due 10-22 10/28
 cul by 10/19

Group ID: KWG1904504 Prep Method: EPA 3541 3546 Prep Date: 10/17/19 11:06
 Department: Semivoa GC

#	Lab Code	Client ID	B#	✓	Product	Matrix	Amt. Ext.	pH	Int. Vol. ml	Final Vol. ml	Surr. Added µl	Spike Added µl
1	K1909649-004	Landfill Ash 5-13-19	.01	✓	8082A PCB	SOIL	2.092	1	20	8	50	-
2	KWG1904504-1	Matrix Spike 9649-4	.01	✓	8082A PCB	SOIL	2.023		20	8	50	400
3	KWG1904504-2	Duplicate Matrix Spike I	.01	✓	8082A PCB	SOIL	2.012		20	8	50	400
4	KWG1904504-3	Lab Control Sample	-	-	8082A PCB	SOIL	2.000		20	8	50	400
5	KWG1904504-4	Method Blank	-	-	8082A PCB	SOIL	2.092		20	8	50	-

Comments:

prep run # 346802

Surrogate ID: PCB8-12I 0.8 ppm 50 µl xp 2/29/20 ep
 Spike ID: PCB8-6P 1 ppm 400 µl xp 1/29/20 syringe
 Witness: J. Daniels 10-17-19
 Started By: SDANIELS Assisted By: _____
 Completed By: Curllam Assisted By: _____

Additional Prep Information for EPA 3541
Pest/PCB/Con in Soil

Service Request # K1909649 Work Group # Pest: —

PCB: KWG 1904504

Weighed (time/date/initial): 11:17 10/17/19 SD Balance ID: K-Bal-03 Calibration Verified

Storage Location (if not extracted same day): —

DCM Lot # DWB18 Sulfate Lot # 2019010772 Matrix Lot # 081717 Glass Wool Lot # 21317999

Soxtherm Start (time/date/initial): 11:43 10/17/19 SD

Soxtherm Stop (time/date/initial): 13:53 10/17/19 SD

Pipette (5 mL) Lot # 22918647

N-Evap (time/date/initial): 09:17 10-18-19 CW N-Evap Thermometer ID: X-SUM-004

Temp as measured: 20 °C Correction factor: 0.0 °C Adjusted temp: 20 °C

Solvent Exchange to Hexane (time/date/initial): 09:52 10-18-19 CW Hexane Lot # 223809

S-Evap (time/date/initial): — S-Evap Thermometer ID: —

Temp as measured: — °C Correction factor: — °C Adjusted temp: — °C

N-Evap (time/date/initial): — N-Evap Thermometer ID: —

Temp as measured: — °C Correction factor: — °C Adjusted temp: — °C

Carbon Clean-up (Ext-Car) (time/date/initial): — Carbon Lot # —

Hexane 1:1 DCM Lot # —

N-Evap (time/date/initial): — N-Evap Thermometer ID: —

Temp as measured: — °C Correction factor: — °C Adjusted temp: — °C

Florisil Clean-up (Ext-Flor)(time/date/initial): — Florisil Lot # —

Hexane 1:1 Acetone Lot # — Hexane 9:1 Acetone Lot # —

N-Evap (time/date/initial): — N-Evap Thermometer ID: —

Temp as measured: — °C Correction factor: — °C Adjusted temp: — °C

Sulfuric Acid Clean-up (3665)(time/date/initial): 11:10 10-18-19 CW Acid Lot # 54344

Other Clean-up: — all samples some samples: —

Pipette (2 mL) Lot # 16418646 Pipette (1 mL) Lot # —

Pest Vial: — Vial Storage: —

PCB Vial: Green Vial Storage: Mucky 01-D5

Archived Extract Storage: Lisette

Additional Comments:

Bench Sheet Review Check List	
<input checked="" type="checkbox"/>	Hold times met: if no, reason: _____
<input checked="" type="checkbox"/>	Prep date, time, method, department, product code correct
<input checked="" type="checkbox"/>	Spike information and Q.C. correct (insufficient volume or mass recorded if no Q.C.)
<input checked="" type="checkbox"/>	Weights/Volumes and units correct on raw and final bench sheets
<input checked="" type="checkbox"/>	Sample IDs have been checked - bottle numbers appended if required
<input checked="" type="checkbox"/>	Names present for: started by, completed by, relinquished by, and witnessed by
<input checked="" type="checkbox"/>	Extract storage recorded
<input checked="" type="checkbox"/>	Additional prep sheet completely filled out (NA or line out blanks)
<input checked="" type="checkbox"/>	All clean-ups have been noted on additional prep sheet

ALS Environmental

Extraction Analyst Notes

Service Request: K1909649 Prep Group: 346802

Topic	Notes	Initials/Date
No Anomalies: <input type="checkbox"/>		
Sample Anomalies: <input type="checkbox"/>		
Organics Present (sticks, leaves, bugs): <input type="checkbox"/>		
Fuel Odors: <input type="checkbox"/>		
Sulfur Odors, Precipitate: <input type="checkbox"/>		
General Notes:	<p>Sample was pulled from prep run 346730 because of issues w/ microwave extraction. Sample & QC were weighed out on K-Bal-03 by manually.</p>	<p>SD 10/17/19</p>



Semi-Volatile Organic Compounds by GC/MS

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 346731

Prep Workflow: OrgExtS(14)

Status: Prepped

Team: Semivoa GCMS/SDANIELS

Prep Method: EPA 3541

Prep Date/Time: 10/16/19 18:40

Number of Copies to make: 1

#	Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Final Vol	Sample Description
1	K1909649-002	Muriate of Potash 0-0-60	.01	8270D/SVO		Soil	40.415g	1.00mL	TANDREWS K-Balance-48
2	K1909649-003	TSP 052419	.01	8270D/SVO		Soil	40.095g	1.00mL	TANDREWS K-Balance-48
3	K1909649-004	Landfill Ash 5-13-19	.01	8270D/SVO		Soil	20.4030g	1.00mL	TANDREWS K-Balance-48
4	K1909649-005	Biosolids B	.01	8270D/SVO		Soil	40.610g	8.00mL	TANDREWS K-Balance-48
5	KQ1915120-01	K1909649-002 MS	.01	8270D/SVO		Solid	40.168g	1.00mL	TANDREWS K-Balance-48
6	KQ1915120-02	K1909649-002 DMS	.01	8270D/SVO		Solid	40.903g	1.00mL	TANDREWS K-Balance-48
7	KQ1915120-03	LCS		8270D/SVO		Solid	30.00g	1.00mL	
8	KQ1915120-04	MB		8270D/SVO		Solid	40.9030g	1.00mL	

Spiking Solutions

Name:	8270 ALL PURPOSE SURROGATE	Inventory ID	203048	Logbook Ref:	SVM61-80B	Expires On:	03/05/2020
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K1909649-002 1,000.00µL K1909649-003 1,000.00µL K1909649-004 1,000.00µL K1909649-005 1,000.00µL KQ1915120-01 1,000.00µL KQ1915120-02 1,000.00µL
 KQ1915120-03 1,000.00µL KQ1915120-04 1,000.00µL

Name:	8270 Matrix Spike	Inventory ID	203137	Logbook Ref:	SVM61-100A	Expires On:	03/20/2020
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KQ1915120-01 1,000.00µL KQ1915120-02 1,000.00µL KQ1915120-03 1,000.00µL

Name:	CLP Matrix Spike @ 100ug/mL	Inventory ID	203663	Logbook Ref:	SVM62-10L	Expires On:	04/04/2020
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KQ1915120-01 1,000.00µL KQ1915120-02 1,000.00µL KQ1915120-03 1,000.00µL

Name:	Benzidine (As Dihydrochloride) Spike 1000ppm	Inventory ID	203730	Logbook Ref:	10-SVMP-005-72D	Expires On:	04/07/2020
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KQ1915120-01 50.00µL KQ1915120-02 50.00µL KQ1915120-03 50.00µL

Preparation Steps

Step:	Weigh	Step:	Extraction	Step:	Final Volume
Started:	10/16/19 18:40	Started:	10/17/19 10:17	Started:	10/17/19 15:02
Finished:	10/17/19 09:19	Finished:	10/17/19 13:29	Finished:	10/18/19 15:53
By:	SDANIELS	By:	SDANIELS	By:	TMIRENTA
Comments	TANDREWS	Comments		Comments	

18: SUM SA-79EE

Comments: _____

Preparation Information Benchsheet

Prep Run#: 346731
Team: Semivoa GCMS/SDANIELS

Prep WorkFlow: OrgExtS(14)
Prep Method: EPA 3541

Status: Prepped
Prep Date/Time: 10/16/19 18:40

Reviewed By: [Signature] Date: 10/21/19

Chain of Custody

Relinquished By: <u>TMicenta</u>	Date: <u>10/18/19</u>	<u>Extracts Examined</u> <input checked="" type="radio"/> Yes <input type="radio"/> No
Received By: <u>Chun R. Carr</u>	Date: <u>10.21.19</u>	

Preparation Information Benchsheet *Due: int-10/28 10/22 out by 10/19*

rep Run#: 346731
 Team: Semivoa GCMS/SDANIELS
 Number of Copies to make: 1

Prep WorkFlow: OrgExtS(14)
 Prep Method: EPA 3541

Status: Draft
 Prep Date/Time: 10/16/19 18:40 PM

#	Lab Code	Client ID	B#	✓	Method / Test	Matrix	Amt. Ext.	pH	Int. Vol	Final Vol	Surr. Amt	Spike Amt
1	K1909649-002	Muriate of Potash 0-0-60	1A	.01	✓	8270D / SVO	Soil	*	10	1	1000	-
2	K1909649-003	TSP 052419	1B	.01	✓	8270D / SVO	Soil	*	10	1	1000	-
3	K1909649-004	Landfill Ash 5-13-19	1C	.01	✓	8270D / SVO	Soil	*	10	1	1000	-
4	K1909649-005 (1)	Biosolids B	1D	.01	✓	8270D / SVO	Soil	*	20	8	1000	-
5	KQ1915120-01	K1909649-002 MS	1E	.01	✓	8270D / SVO	Solid	*	10	1	1000	1000/50/1000
6	KQ1915120-02	K1909649-002 DMS	1F	.01	✓	8270D / SVO	Solid	*	10	1	1000	1000/50/1000
7	KQ1915120-03	LCS	2A	-	-	8270D / SVO	Solid	30.000	10	1	1000	1000/50/1000
8	KQ1915120-04	MB	2B	-	-	8270D / SVO	Solid	40.903	10	1	1000	-

8270 & SVM61-100A 100 ppm 1000 µl xp 3/20/20
 Benz 10-SVMP-005-72D 1000 µg/ml 50 µl xp 4/7/20
 CIP 8 SVM 62-10L 100 ppm 1000 µl xp 4/4/20

Comments: See prep prep info benchsheet 80 10/17/19

Surrogate ID: SVM61-80B 100/150 ppm 1000 µl xp 3/5/20 Spike ID: See above

Witnessed By: J. Official 10/17/19

Analyst: SDaniels

Assisted By: _____

GPC RUNLOG

Run Date: 10/17/2019

Calibration Date: 10/14/2019

GPC #: 6

Program Number: BNA

Lab I.D.	Position	Test	Dilution	Comments
BLANK	1	8270	NA	N/A
BLANK	2	8270	NA	N/A
KQ1915120-04 MB	3	8270	NA	N/A
KQ1915120-03 LCS	4	8270	NA	N/A
K1909649-002	5	8270	NA	N/A
K1909649-003	6	8270	NA	N/A
K1909649-004	7	8270	NA	N/A
K1909649-005	8	8270	5ml off I.V.	20ml I.V.
K1909649-002 MS	9	8270	NA	N/A
K1909649-002 DMS	10	8270	NA	N/A

Final Volume Calculation

Intermediate Volume before GPC:

8270	8270, diluted
10	20 ml
10	5 ml
10	10 ml
5	5 ml
0.5	0.5 ml
1	4 ml

Aliquot taken from intermediate volume:

Aliquot diluted up to....

Volume Injected onto column:

GPC'd Extract brought to the Final Volume of:

Calculated True Final Volume:

Filter Lot # 5142348A and 14970054

Operator Date and Initial: CW 10-17-19

ALS Environmental

EXT-3541

For Extracting 8270s and 8270-LLs in Solids by EPA Method 3541

Service Request K1909649 Workgroup KQ 1915120

Sulfate Lot # 2019010712M (GC²) Lot # DW818 Glass Wool Lot # 213 17999

Date/Time/Initials Weighed: — Balance ID: — Calibration Verified

Storage Location (if not extracted same day): —

Soxtherm/s unit I.D# K-50x 01,02

Soxtherm Start (Time/Date/Initial): 10:17 10/17/19 SD

Soxtherm Stop (Time/Date/Initial): 13:29 10/17/19 SD

Aliquot Amount: — Verified (date/initials): —

N-Evap (Time/Date/Initial): 150210-17-19 N-Evap Therm. ID: X-SUM-010

Temp as measured: 20 °C Correction factor: 0 °C Adjusted temp: 20 °C

GPC Clean-up (3640): (Time/Date/Initial) Start 16:38 10-17-19 CW

S-Evap (Time/Date/Initial): 0950 10/18/19 TM S-Evap Therm. ID: X-SUM-005

Temp as measured: 73 °C Correction factor: 0 °C Adjusted temp: 73 °C

N-Evap (Time/Date/Initial): 1130 10/18/19 TM N-Evap Therm. ID: X-SUM-010

Temp as measured: 20 °C Correction factor: 0 °C Adjusted temp: 20 °C

Pipet Lots: Intermediate Volume 22948649 Final Volume 30408617

Extract Storage: 9649-5 pm GPC extract in Lisett, pooh Bear

Completed (Time/Date/Initial): 1953 10/18/19 TM

Comments/Observations: _____

Bench Sheet Review Check List

- Hold times met, if no, reason: _____
- Prep date, time, method, department, product code correct
- Spike information and Q.C. correct (insufficient volume or mass recorded if no Q.C.)
- Weights/Volumes and units correct on raw and final bench sheets
- Sample IDs have been checked - bottle numbers appended if required
- Names present for: started by, completed by, relinquished by, and witnessed by
- Extract storage recorded
- Additional prep sheet completely filled out (NA or line out blanks)
- All clean-ups have been noted on additional prep sheet

Procedure:

R:\Extractions\Active Benchsheets\3541\3541_8270-Solids.doc
Reviewed by: Jonathon Walter

SOP: EXT-3541 Rev. 11

ALS Environmental Extraction Analyst Notes

Service Request: K1909679 Prep Group: 346731

Topic	Notes	Initials/Date
No Anomalies: <input type="checkbox"/>		
Sample Anomalies: <input type="checkbox"/>		
Organics Present (sticks, leafs, bugs): <input type="checkbox"/>		
Fuel Odors: <input type="checkbox"/>		
Sulfur Odors, Precipitate: <input type="checkbox"/>		
General Notes:	<p>Sample matrix in 9647-4 was ^{too} light & fluffy at regular weight of 40g so sample weight was reduced to 20.40g so that it would fit in Soxhlet thimble. as per Johnny Walter's instruction.</p> <p>① Sample stalled on N-evap and had to be brought to 1ml instead of a 1/2 ml, in addition to being diluted prior to clean up, making FEU 8ml</p>	<p>SD 10/17/19</p>

TM
10/18/19

Pre-Prep Information Benchsheet

Prep Run #: 346731

Container Lot No: 072219-1TW

Prep Due Date: Oct-22-2019

#	Lab Code	Bottle	Test Name	Weight	Sample Comments	Test Comments
1	K1909649-002	.01	SVO : 8270D	40.415g		TANDREWS K-Balance-48
2	K1909649-002 MS KQ1915120-01	.01	SVO : 8270D	40.168g		TANDREWS K-Balance-48
3	K1909649-002 DMS KQ1915120-02	.01	SVO : 8270D	40.903g		TANDREWS K-Balance-48
4	K1909649-003	.01	SVO : 8270D	40.095g		TANDREWS K-Balance-48
5	K1909649-004	.01	SVO : 8270D	* 40.190g 20.403		TANDREWS K-Balance-48
6	K1909649-005	.01	SVO : 8270D	40.610g		TANDREWS K-Balance-48

* See analyst notes.

Relinquished By: TA	Date/Time: 10-16-19 1844	Received By:	Date/Time:
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Validation Report

1st *LM* 10/22/19
2nd *Cpw* 10/22/19

Data File: J:\MS07\DATA\101919\1019F007.D\
Lab ID: K1909649-002
RunType: N/A
Matrix: Soil

Date Acquired: 10/19/19 13:35:00
Batch ID: 656208
Analysis Method: 8270D/SVO

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery		X
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates		X
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery	Aniline	-25		20	OK, <40%
	Benzoic Acid	29		20	OK, <40%
Surrogates	Nitrobenzene-d5	35	36	112	narr

Primary Review: _____

Secondary Review: _____

Quantitation Report

1st *LM* 10/22/19
2nd *Cpw* 10/22/19

Data File: J:\MS07\DATA\101919\1019F007.D\	Instrument: K-MS-07
Acqu Date: 10/19/19 13:35:00	Vial: 9
Run Type: N/A	Dilution: 1
Lab ID: K1909649-002	Raw Units: ug/mL

Bottle ID: K1909649-002.01	Tier: IV	Matrix: Soil
Prod Code: SVO	Collect Date: 10/15/19	Receive Date: 10/16/19

Analysis Lot: 656208	Prep Lot: 346731	Report Group: K1909649
Analysis: 8270D	Prep Method: EPA 3541	
	Prep Date: 10/16/19	

Title: Semivolatile Organic Compounds by GC/MS	Calibration ID: KC1900441
	Report List ID: 18699

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
1,4-Dichlorobenzene-d4	9.35	-0.01	31977	40.00	OK
Acenaphthene-d10	14.31	-0.01	64870	40.00	OK
Chrysene-d12	21.14	-0.03	90672	40.00	OK
Naphthalene-d8	11.44	-0.02	115123	40.00	OK
Perylene-d12	24.31	-0.03	99159	40.00	OK
Phenanthrene-d10	16.71	-0.02	107608	40.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
2,4,6-Tribromophenol	15.60	-0.02	44977	66.67	44	35 - 118	Y
2-Fluorobiphenyl	13.24	-0.02	97303	40.61	41	37 - 103	Y
2-Fluorophenol	7.13	-0.03	45423	46.18	31	30 - 98	Y
Nitrobenzene-d5	10.28	-0.01	43898	35.30	35 *	36 - 112	Y
Phenol-d6	8.83	-0.04	61081	49.81	33	31 - 103	Y
Terphenyl-d14	19.34	-0.02	145376	59.25	59	18 - 127	Y

Target Compounds

Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
1,2,4-Trichlorobenzene	0.00		0	0.00	0	U	Y
1,2-Dichlorobenzene	0.00		0	0.00	0	U	Y
1,3-Dichlorobenzene	0.00		0	0.00	0	U	Y
1,4-Dichlorobenzene	0.00		0	0.00	0	U	Y
2,4,5-Trichlorophenol	0.00		0	0.00	0	U	Y
2,4,6-Trichlorophenol	0.00		0	0.00	0	U	Y
2,4-Dichlorophenol	0.00		0	0.00	0	U	Y
2,4-Dimethylphenol	0.00		0	0.00	0	U	Y
2,4-Dinitrophenol	0.00		0	0.00	0	U	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 10/22/19 10:24

\\alprews001\starlims\LIMSRpts\QuantValidation.rpt

Data File:	J:\MS07\DATA\101919\1019F007.D\	Instrument:	K-MS-07 nd <i>Cpu</i>	10/22/19
Acqu Date:	10/19/19 13:35:00	Vial:	9	
Run Type:	N/A	Dilution:	1	
Lab ID:	K1909649-002	Raw Units:	ug/mL	

Target Compounds Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2,4-Dinitrotoluene	0.00		0	0.00	0	U	Y
2,6-Dinitrotoluene	0.00		0	0.00	0	U	Y
2-Chloronaphthalene	0.00		0	0.00	0	U	Y
2-Chlorophenol	0.00		0	0.00	0	U	Y
2-Methyl-4,6-dinitrophenol	0.00		0	0.00	0	U	Y
2-Methylnaphthalene	0.00		0	0.00	0	U	Y
2-Methylphenol	0.00		0	0.00	0	U	Y
2-Nitroaniline	0.00		0	0.00	0	U	Y
2-Nitrophenol	0.00		0	0.00	0	U	Y
3,3'-Dichlorobenzidine	0.00		0	0.00	0	U	Y
3-Nitroaniline	0.00		0	0.00	0	U	Y
4-Bromophenyl Phenyl Ether	0.00		0	0.00	0	U	Y
4-Chloro-3-methylphenol	0.00		0	0.00	0	U	Y
4-Chloroaniline	0.00		0	0.00	0	U	Y
4-Chlorophenyl Phenyl Ether	0.00		0	0.00	0	U	Y
4-Methylphenol	0.00		0	0.00	0	U	Y
4-Nitroaniline	0.00		0	0.00	0	U	Y
4-Nitrophenol	0.00		0	0.00	0	U	Y
Acenaphthene	0.00		0	0.00	0	U	Y
Acenaphthylene	0.00		0	0.00	0	U	Y
Aniline	8.80	-0.03	203	0.15	0.0037	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	0.00		0	0.00	0	U	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	27.28	-0.09	900	0.36	0.0089	U	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Benzoic Acid	0.00		0	0.00	0	U	Y
Benzyl Alcohol	0.00		0	0.00	0	U	Y
Bis(2-chloroethoxy)methane	0.00		0	0.00	0	U	Y
Bis(2-chloroethyl) Ether	0.00		0	0.00	0	U	Y
Bis(2-ethylhexyl) Phthalate	21.36	-0.03	582	0.38	0.0094	J	Y
Butyl Benzyl Phthalate	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Dibenzofuran	0.00		0	0.00	0	U	Y
Diethyl Phthalate	15.09	-0.03	589	0.28	0.0069	U	Y
Dimethyl Phthalate	0.00		0	0.00	0	U	Y
Di-n-butyl Phthalate	0.00		0	0.00	0	U	Y
Di-n-octyl Phthalate	22.93	+0.07	4593	1.65	0.041	JX	Y
Fluoranthene	18.67	-0.02	572	0.20	0.0050	U	Y

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound
 D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis
 *: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File:	J:\MS07\DATA\101919\1019F007.D\	Instrument:	K-MS-07 nd <i>Cpu</i>	10/22/19
Acqu Date:	10/19/19 13:35:00	Vial:	9	
Run Type:	N/A	Dilution:	1	
Lab ID:	K1909649-002	Raw Units:	ug/mL	

Target Compounds Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Fluorene	0.00		0	0.00	0	U	Y
Hexachlorobenzene	0.00		0	0.00	0	U	Y
Hexachlorobutadiene	0.00		0	0.00	0	U	Y
Hexachlorocyclopentadiene	0.00		0	0.00	0	U	Y
Hexachloroethane	0.00		0	0.00	0	U	Y
Indeno(1,2,3-cd)pyrene	0.00		0	0.00	0	U	Y
Isophorone	0.00		0	0.00	0	U	Y
Naphthalene	0.00		0	0.00	0	U	Y
Nitrobenzene	0.00		0	0.00	0	U	Y
N-Nitrosodimethylamine	0.00		0	0.00	0	U	Y
N-Nitrosodi-n-propylamine	0.00		0	0.00	0	U	Y
N-Nitrosodiphenylamine	0.00		0	0.00	0	U	Y
Pentachlorophenol	0.00		0	0.00	0	U	Y
Phenanthrene	0.00		0	0.00	0	U	Y
Phenol	0.00		0	0.00	0	U	Y
Pyrene	0.00		0	0.00	0	U	Y
2,2'-Oxybis(1-chloropropane)	0.00		0	0.00	0	U	Y

Prep Amount: 40.415 g **Dilution:** 1
Prep Final Amount: 1.00 mL **Basis Factor:** 99.80

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

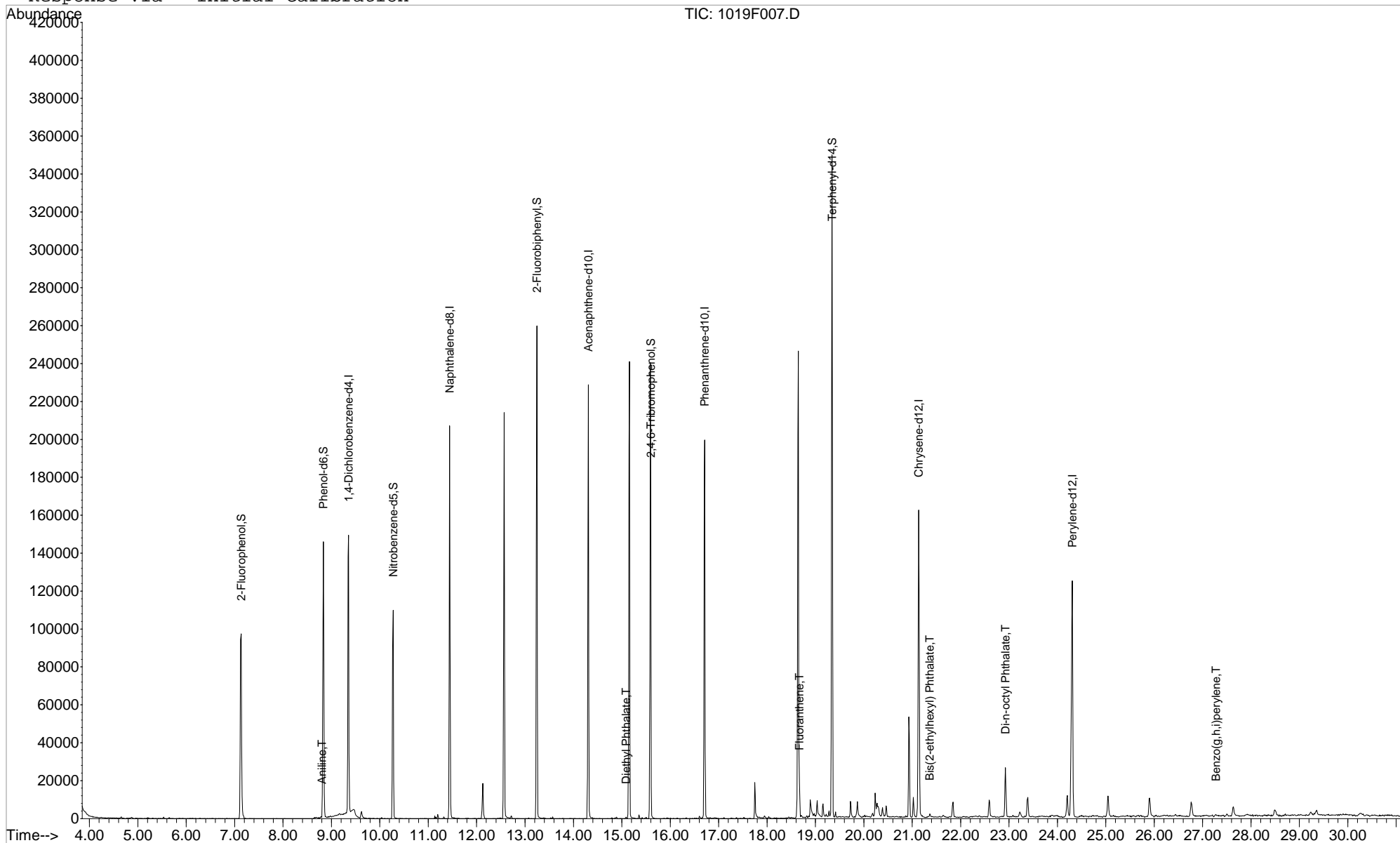
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

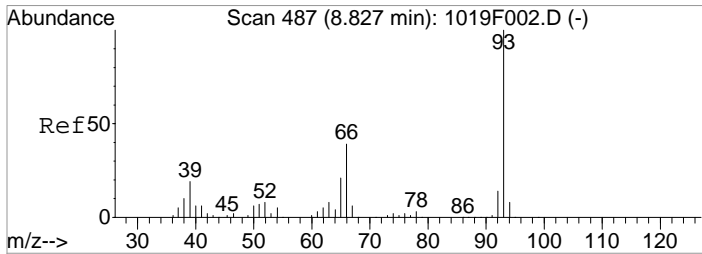
Data File : J:\MS07\DATA\101919\1019F007.D
 Acq On : 19 Oct 2019 1:35 pm
 Sample : K1909649-002
 Misc :
 MS Integration Params: RTEINT.P
 Quant Time: Oct 22 8:41 2019

Vial: 15
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

Quant Results File: 101719_BNP7.RES

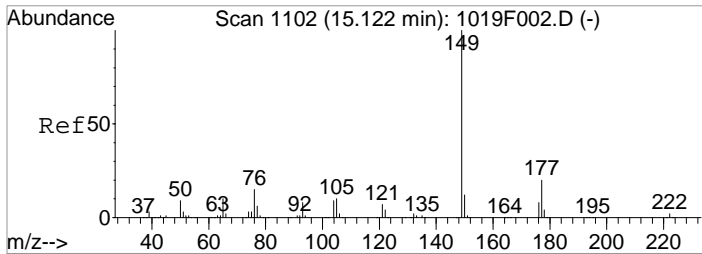
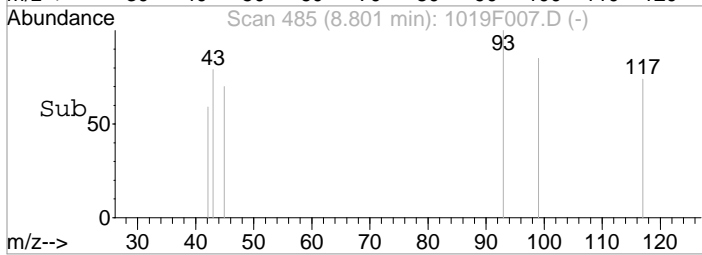
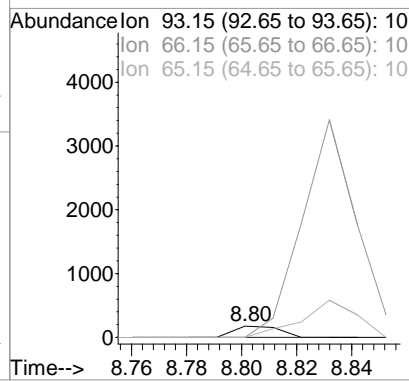
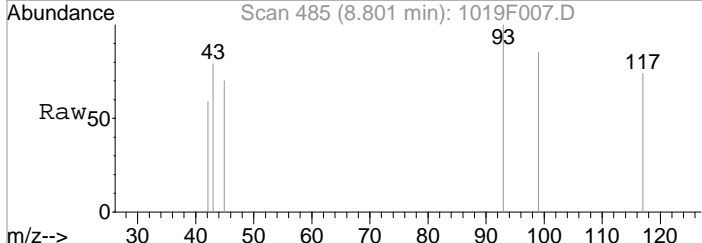
Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Mon Oct 21 16:51:09 2019
 Response via : Initial Calibration





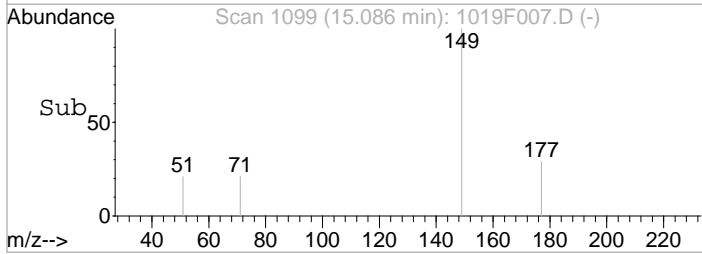
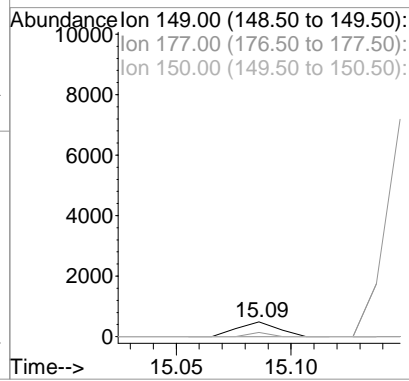
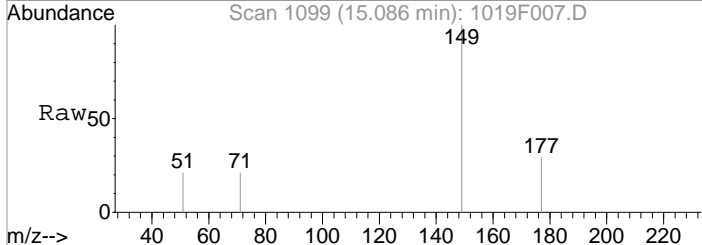
#6
 Aniline
 Concen: 0.15 ug/ml
 RT: 8.80 min Scan# 485
 Delta R.T. -0.02 min
 Lab File: 1019F007.D
 Acq: 19 Oct 2019 1:35 pm

Tgt Ion	93	66	65	Resp	203	47.4	34.4
Ion Ratio	100	0.0	0.0	Lower	Upper		

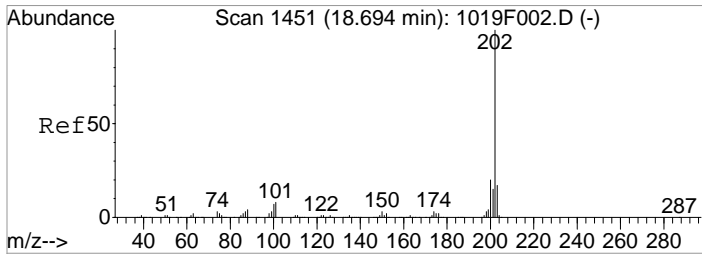


#55
 Diethyl Phthalate
 Concen: 0.28 ug/ml
 RT: 15.09 min Scan# 1099
 Delta R.T. -0.03 min
 Lab File: 1019F007.D
 Acq: 19 Oct 2019 1:35 pm

Tgt Ion	149	177	150	Resp	589	50.3	41.8
Ion Ratio	100	29.1	0.0	Lower	Upper		

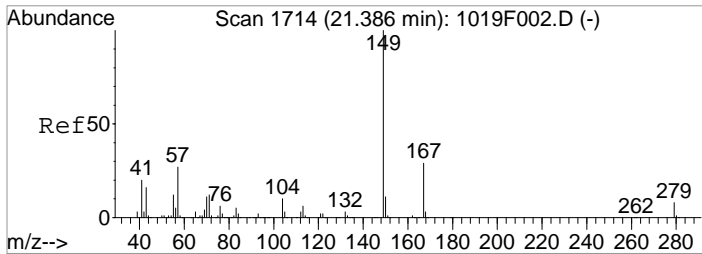
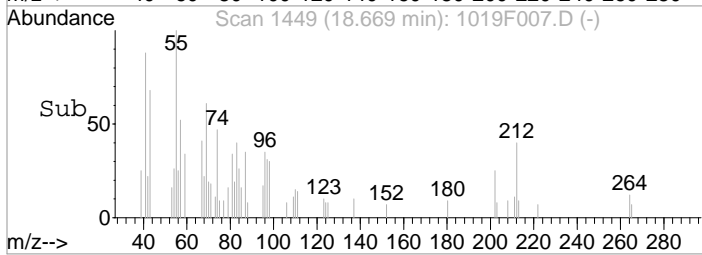
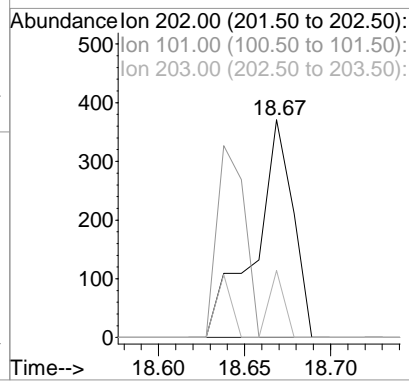
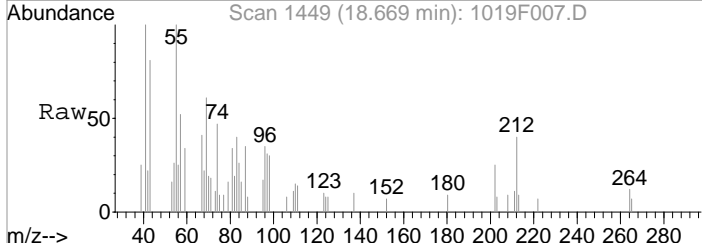


1st *LM* 10/22/19
 2nd *Cpw* 10/22/19



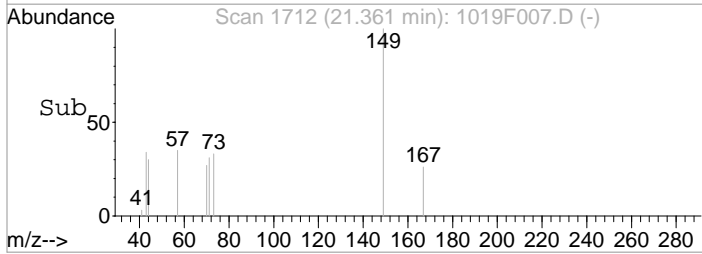
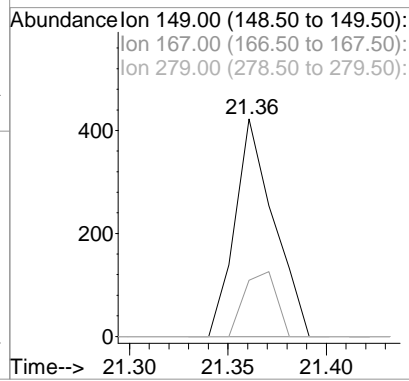
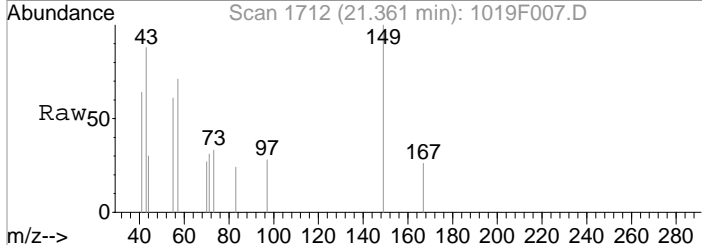
#72
 Fluoranthene
 Concen: 0.20 ug/ml
 RT: 18.67 min Scan# 1449
 Delta R.T. -0.01 min
 Lab File: 1019F007.D
 Acq: 19 Oct 2019 1:35 pm

Tgt Ion	Resp	Lower	Upper
202	100		
101	0.0	0.0	40.9
203	30.7	0.0	47.6

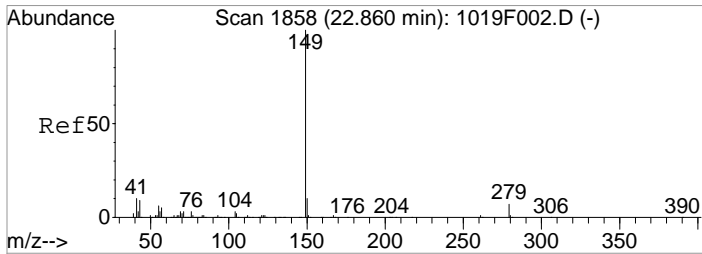


#83
 Bis(2-ethylhexyl) Phthalate
 Concen: 0.38 ug/ml
 RT: 21.36 min Scan# 1712
 Delta R.T. -0.02 min
 Lab File: 1019F007.D
 Acq: 19 Oct 2019 1:35 pm

Tgt Ion	Resp	Lower	Upper
149	100		
167	25.8	0.0	59.0
279	0.0	0.0	39.0

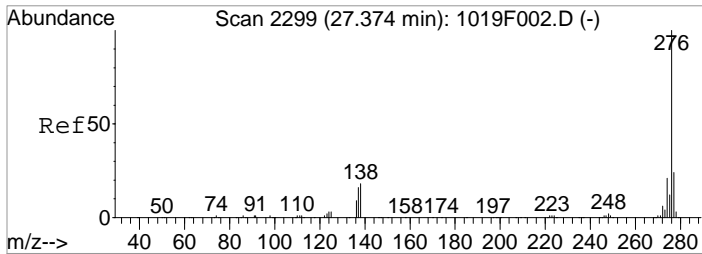
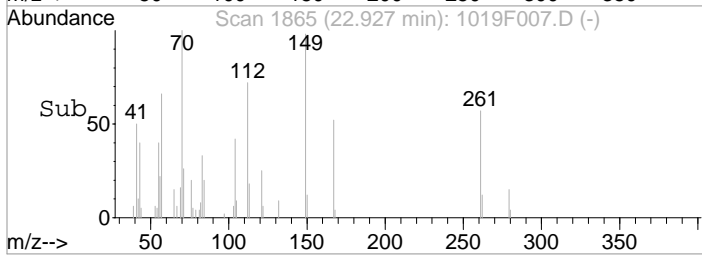
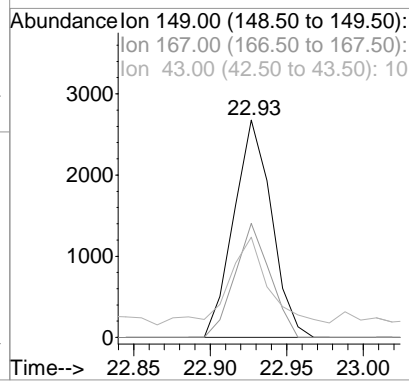
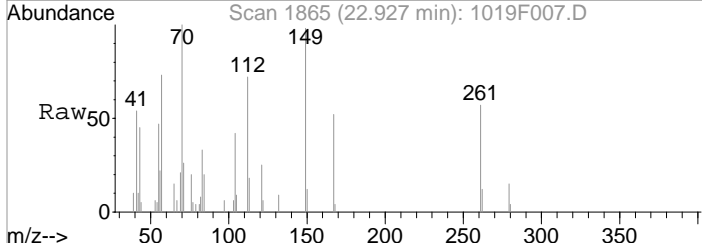


1st *LM* 10/22/19
2nd *Cpw* 10/22/19



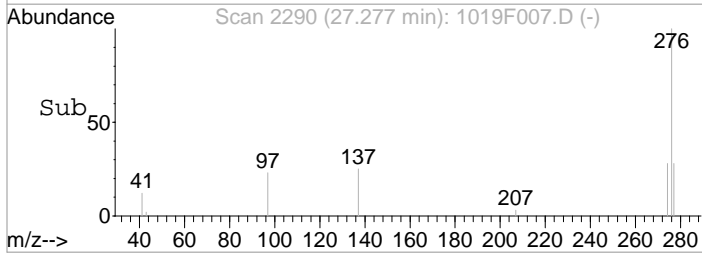
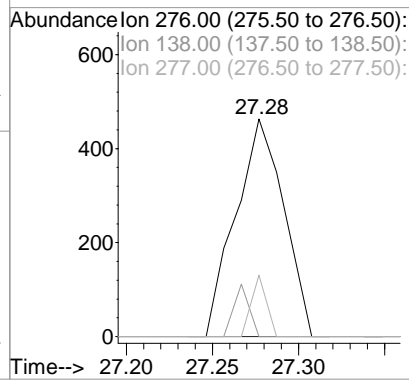
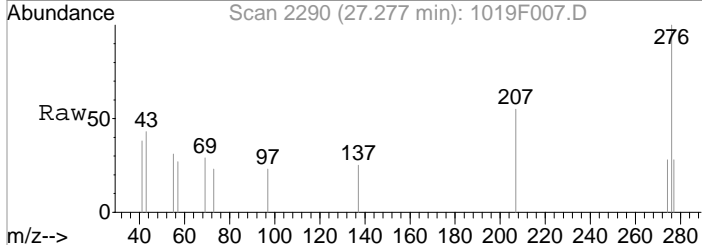
#85
Di-n-octyl Phthalate
Concen: 1.65 ug/ml
RT: 22.93 min Scan# 1865
Delta R.T. 0.08 min
Lab File: 1019F007.D
Acq: 19 Oct 2019 1:35 pm

Tgt Ion	Resp	Lower	Upper
149	4593		
167	52.5	0.0	31.4#
43	38.0	0.0	40.9



#93
Benzo(g,h,i)perylene
Concen: 0.36 ug/ml
RT: 27.28 min Scan# 2290
Delta R.T. -0.08 min
Lab File: 1019F007.D
Acq: 19 Oct 2019 1:35 pm

Tgt Ion	Resp	Lower	Upper
276	900		
138	0.0	0.0	48.9
277	28.3	0.0	53.5



Data File : J:\MS07\DATA\101919\1019F007.D
 Acq On : 19 Oct 2019 1:35 pm
 Sample : K1909649-002
 Misc :

Vial: 15
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 21 16:52:19 2019

Quant Results File: 101719_BNP7.RES

Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Mon Oct 21 16:51:09 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.35	152	31977	40.00	ug/ml	0.00
22) Naphthalene-d8	11.44	136	115123	40.00	ug/ml	-0.01
36) Acenaphthene-d10	14.31	164	64870	40.00	ug/ml	-0.01
61) Phenanthrene-d10	16.71	188	107608	40.00	ug/ml	-0.01
73) Chrysene-d12	21.14	240	90672	40.00	ug/ml	-0.02
84) Perylene-d12	24.31	264	99159	40.00	ug/ml	-0.02

System Monitoring Compounds

4) 2-Fluorophenol	7.13	112	45423	46.18	ug/ml	0.00
Spiked Amount 150.000	Range 21 - 100		Recovery =	30.79%		
8) Phenol-d6	8.83	99	61081	49.81	ug/ml	-0.01
Spiked Amount 150.000	Range 10 - 94		Recovery =	33.21%		
20) Nitrobenzene-d5	10.28	82	43898	35.30	ug/ml	-0.01
Spiked Amount 100.000	Range 35 - 114		Recovery =	35.30%		
40) 2-Fluorobiphenyl	13.24	172	97303	40.61	ug/ml	-0.01
Spiked Amount 100.000	Range 43 - 116		Recovery =	40.61%#		
62) 2,4,6-Tribromophenol	15.60	330	44977	66.67	ug/ml	-0.01
Spiked Amount 150.000	Range 10 - 123		Recovery =	44.45%		
76) Terphenyl-d14	19.34	244	145376	59.25	ug/ml	-0.01
Spiked Amount 100.000	Range 33 - 141		Recovery =	59.25%		

Target Compounds

					Qvalue
6) Aniline	8.80	93	203	0.15	ug/ml 66
55) Diethyl Phthalate	15.09	149	589	0.28	ug/ml 77
72) Fluoranthene	18.67	202	572	0.20	ug/ml 71
83) Bis(2-ethylhexyl) Phthalat	21.36	149	582	0.38	ug/ml 90
85) Di-n-octyl Phthalate	22.93	149	4593	1.65	ug/ml# 22
93) Benzo(g,h,i)perylene	27.28	276	900	0.36	ug/ml 76

Validation Report

1st *LM* 10/22/19
2nd *Cpw* 10/22/19

Data File: J:\MS07\DATA\101919\1019F008.D\
Lab ID: K1909649-003
RunType: N/A
Matrix: Soil

Date Acquired: 10/19/19 14:16:00
Batch ID: 656208
Analysis Method: 8270D/SVO

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery		X
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery	Aniline	-25		20	OK, <40%
	Benzoic Acid	29		20	OK, <40%

Primary Review: _____

Secondary Review: _____

Quantitation Report

1st *LM* 10/22/19
2nd *Cpw* 10/22/19

Data File: J:\MS07\DATA\101919\1019F008.D\	Instrument: K-MS-07
Acqu Date: 10/19/19 14:16:00	Vial: 10
Run Type: N/A	Dilution: 1
Lab ID: K1909649-003	Raw Units: ug/mL

Bottle ID: K1909649-003.01	Tier: IV	Matrix: Soil
Prod Code: SVO	Collect Date: 10/15/19	Receive Date: 10/16/19

Analysis Lot: 656208	Prep Lot: 346731	Report Group: K1909649
Analysis: 8270D	Prep Method: EPA 3541	
	Prep Date: 10/16/19	

Title: Semivolatile Organic Compounds by GC/MS	Calibration ID: KC1900441
	Report List ID: 18699

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
1,4-Dichlorobenzene-d4	9.35	-0.01	31016	40.00	OK
Acenaphthene-d10	14.31	-0.01	62271	40.00	OK
Chrysene-d12	21.14	-0.03	77657	40.00	OK
Naphthalene-d8	11.44	-0.02	112505	40.00	OK
Perylene-d12	24.31	-0.03	86479	40.00	OK
Phenanthrene-d10	16.71	-0.02	97252	40.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
2,4,6-Tribromophenol	15.60	-0.02	45258	74.23	49	35 - 118	Y
2-Fluorobiphenyl	13.24	-0.02	116287	50.56	51	37 - 103	Y
2-Fluorophenol	7.13	-0.03	54998	57.65	38	30 - 98	Y
Nitrobenzene-d5	10.27	-0.02	54970	45.58	46	36 - 112	Y
Phenol-d6	8.83	-0.04	72564	61.01	41	31 - 103	Y
Terphenyl-d14	19.34	-0.02	136757	65.08	65	18 - 127	Y

Target Compounds

Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
1,2,4-Trichlorobenzene	0.00		0	0.00	0	U	Y
1,2-Dichlorobenzene	0.00		0	0.00	0	U	Y
1,3-Dichlorobenzene	0.00		0	0.00	0	U	Y
1,4-Dichlorobenzene	0.00		0	0.00	0	U	Y
2,4,5-Trichlorophenol	0.00		0	0.00	0	U	Y
2,4,6-Trichlorophenol	0.00		0	0.00	0	U	Y
2,4-Dichlorophenol	0.00		0	0.00	0	U	Y
2,4-Dimethylphenol	0.00		0	0.00	0	U	Y
2,4-Dinitrophenol	0.00		0	0.00	0	U	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 10/22/19 10:24

\\alprews001\starlims\LIMSRpts\QuantValidation.rpt

Data File:	J:\MS07\DATA\101919\1019F008.D\	Instrument:	K-MS-07 nd <i>Cpu</i>	10/22/19
Acqu Date:	10/19/19 14:16:00	Vial:	10	
Run Type:	N/A	Dilution:	1	
Lab ID:	K1909649-003	Raw Units:	ug/mL	

Target Compounds Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2,4-Dinitrotoluene	0.00		0	0.00	0	U	Y
2,6-Dinitrotoluene	0.00		0	0.00	0	U	Y
2-Chloronaphthalene	0.00		0	0.00	0	U	Y
2-Chlorophenol	0.00		0	0.00	0	U	Y
2-Methyl-4,6-dinitrophenol	0.00		0	0.00	0	U	Y
2-Methylnaphthalene	0.00		0	0.00	0	U	Y
2-Methylphenol	0.00		0	0.00	0	U	Y
2-Nitroaniline	0.00		0	0.00	0	U	Y
2-Nitrophenol	0.00		0	0.00	0	U	Y
3,3'-Dichlorobenzidine	0.00		0	0.00	0	U	Y
3-Nitroaniline	0.00		0	0.00	0	U	Y
4-Bromophenyl Phenyl Ether	0.00		0	0.00	0	U	Y
4-Chloro-3-methylphenol	0.00		0	0.00	0	U	Y
4-Chloroaniline	0.00		0	0.00	0	U	Y
4-Chlorophenyl Phenyl Ether	0.00		0	0.00	0	U	Y
4-Methylphenol	0.00		0	0.00	0	U	Y
4-Nitroaniline	0.00		0	0.00	0	U	Y
4-Nitrophenol	0.00		0	0.00	0	U	Y
Acenaphthene	0.00		0	0.00	0	U	Y
Acenaphthylene	0.00		0	0.00	0	U	Y
Aniline	0.00		0	0.00	0	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	0.00		0	0.00	0	U	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	0.00		0	0.00	0	U	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Benzoic Acid	0.00		0	0.00	0	U	Y
Benzyl Alcohol	0.00		0	0.00	0	U	Y
Bis(2-chloroethoxy)methane	0.00		0	0.00	0	U	Y
Bis(2-chloroethyl) Ether	0.00		0	0.00	0	U	Y
Bis(2-ethylhexyl) Phthalate	21.37	-0.02	536	0.41	0.010	J	Y
Butyl Benzyl Phthalate	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Dibenzofuran	0.00		0	0.00	0	U	Y
Diethyl Phthalate	15.08	-0.04	676	0.34	0.0086	J	Y
Dimethyl Phthalate	0.00		0	0.00	0	U	Y
Di-n-butyl Phthalate	0.00		0	0.00	0	U	Y
Di-n-octyl Phthalate	0.00		0	0.00	0	U	Y
Fluoranthene	18.67	-0.02	590	0.23	0.0058	U	Y

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound
 D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis
 *: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File:	J:\MS07\DATA\101919\1019F008.D\	Instrument:	K-MS-07 nd <i>Cpu</i>	10/22/19
Acqu Date:	10/19/19 14:16:00	Vial:	10	
Run Type:	N/A	Dilution:	1	
Lab ID:	K1909649-003	Raw Units:	ug/mL	

Target Compounds Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Fluorene	0.00		0	0.00	0	U	Y
Hexachlorobenzene	0.00		0	0.00	0	U	Y
Hexachlorobutadiene	0.00		0	0.00	0	U	Y
Hexachlorocyclopentadiene	0.00		0	0.00	0	U	Y
Hexachloroethane	0.00		0	0.00	0	U	Y
Indeno(1,2,3-cd)pyrene	0.00		0	0.00	0	U	Y
Isophorone	0.00		0	0.00	0	U	Y
Naphthalene	0.00		0	0.00	0	U	Y
Nitrobenzene	0.00		0	0.00	0	U	Y
N-Nitrosodimethylamine	0.00		0	0.00	0	U	Y
N-Nitrosodi-n-propylamine	0.00		0	0.00	0	U	Y
N-Nitrosodiphenylamine	0.00		0	0.00	0	U	Y
Pentachlorophenol	0.00		0	0.00	0	U	Y
Phenanthrene	0.00		0	0.00	0	U	Y
Phenol	0.00		0	0.00	0	U	Y
Pyrene	0.00		0	0.00	0	U	Y
2,2'-Oxybis(1-chloropropane)	0.00		0	0.00	0	U	Y

Prep Amount: 40.095 g **Dilution:** 1
Prep Final Amount: 1.00 mL **Basis Factor:** 98.10

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

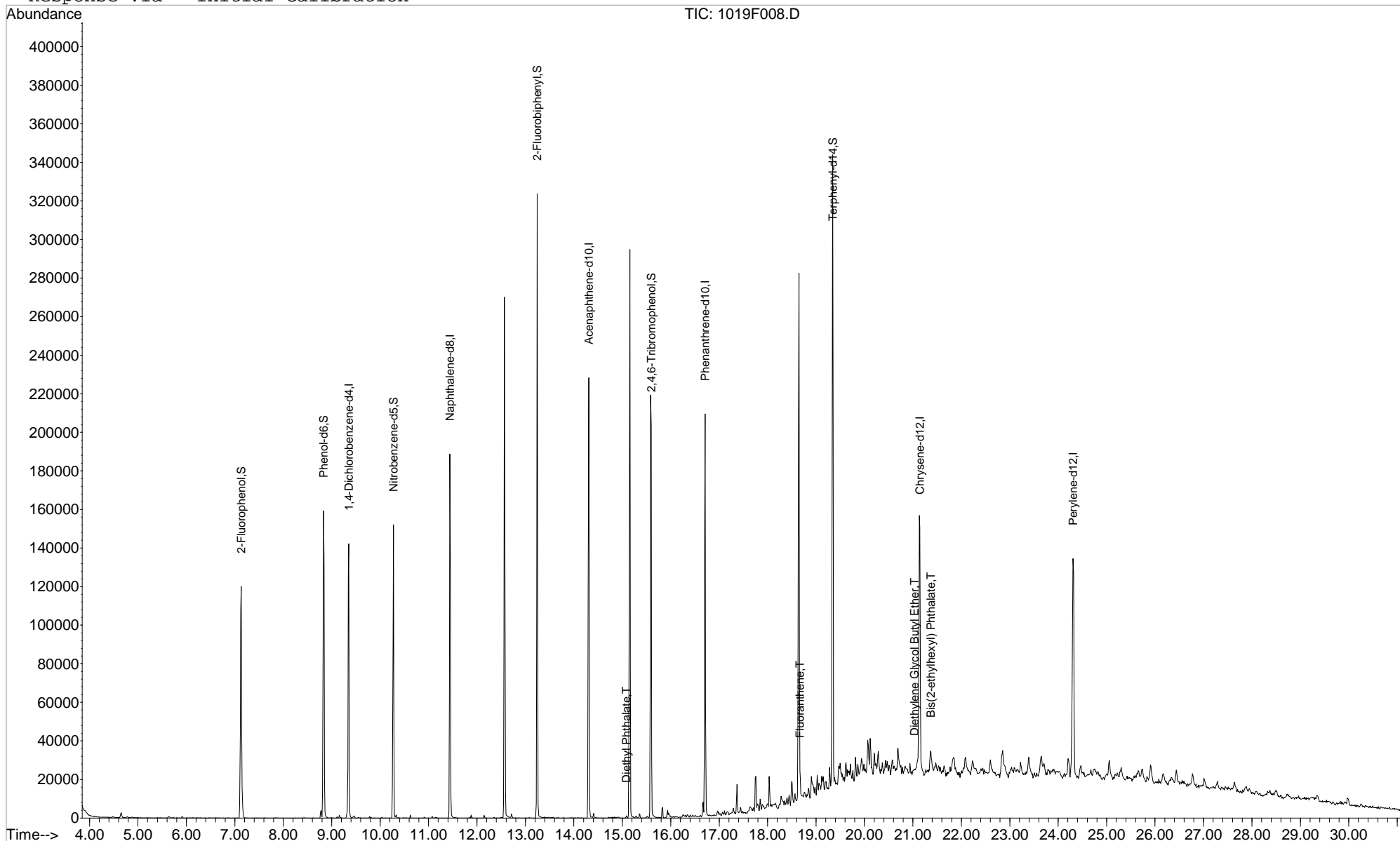
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

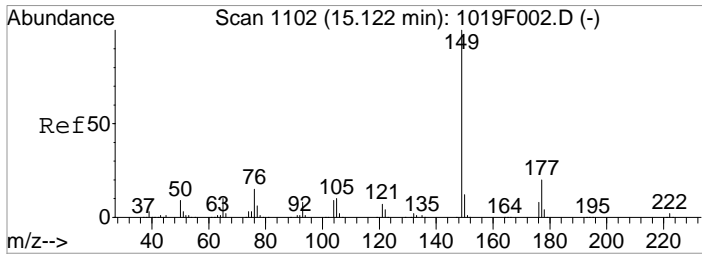
Data File : J:\MS07\DATA\101919\1019F008.D
 Acq On : 19 Oct 2019 2:16 pm
 Sample : K1909649-003
 Misc :
 MS Integration Params: RTEINT.P
 Quant Time: Oct 22 8:46 2019

Vial: 16
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

Quant Results File: 101719_BNP7.RES

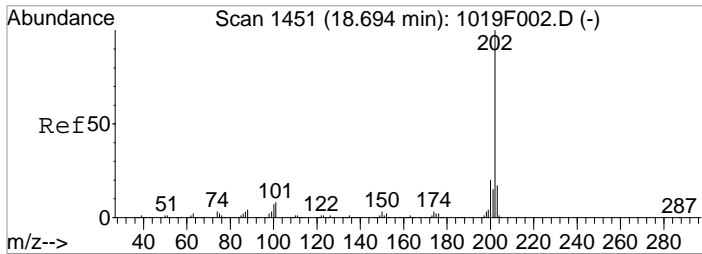
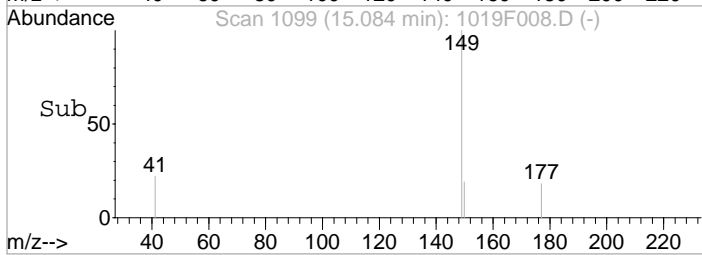
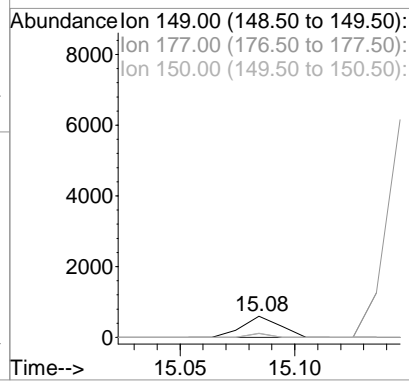
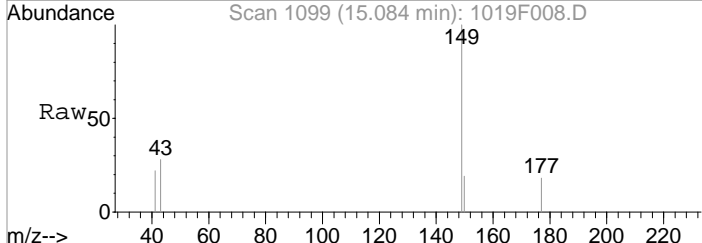
Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Mon Oct 21 16:51:09 2019
 Response via : Initial Calibration





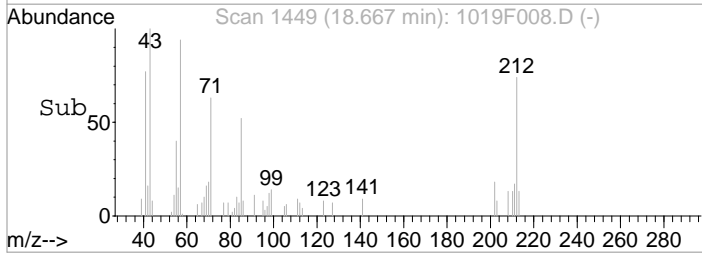
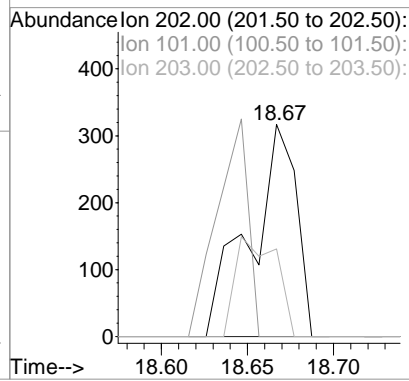
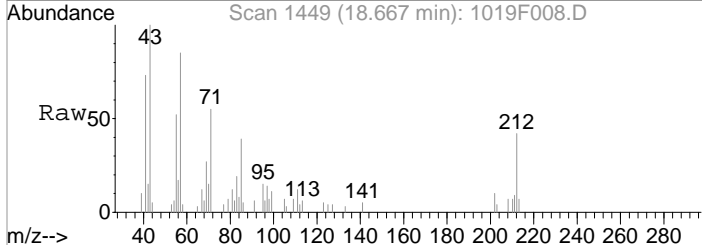
#55
 Diethyl Phthalate
 Concen: 0.34 ug/ml
 RT: 15.08 min Scan# 1099
 Delta R.T. -0.04 min
 Lab File: 1019F008.D
 Acq: 19 Oct 2019 2:16 pm

Tgt Ion	Resp	Lower	Upper
149	100		
177	18.0	0.0	50.3
150	19.5	0.0	41.8

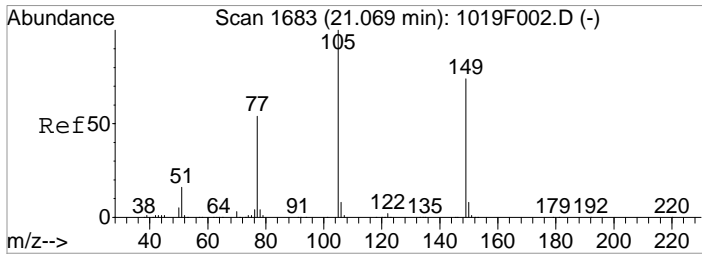


#72
 Fluoranthene
 Concen: 0.23 ug/ml
 RT: 18.67 min Scan# 1449
 Delta R.T. -0.02 min
 Lab File: 1019F008.D
 Acq: 19 Oct 2019 2:16 pm

Tgt Ion	Resp	Lower	Upper
202	100		
101	0.0	0.0	40.9
203	41.3	0.0	47.6

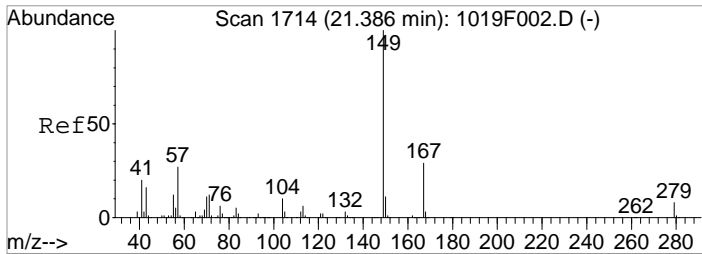
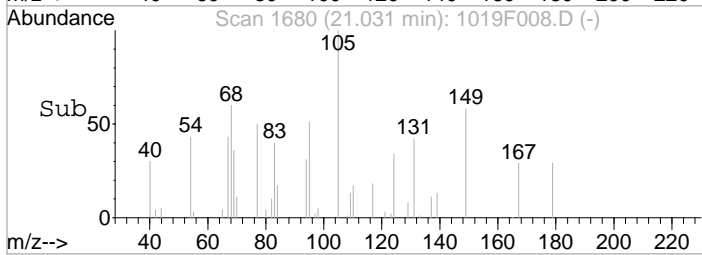
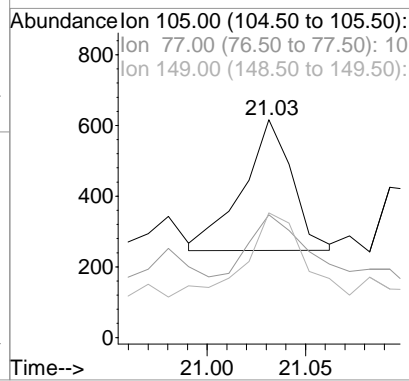
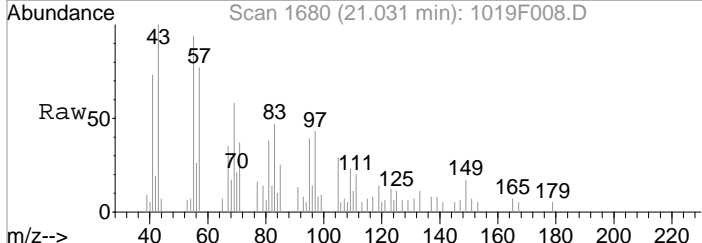


1st *LM* 10/22/19
 2nd *Cpw* 10/22/19



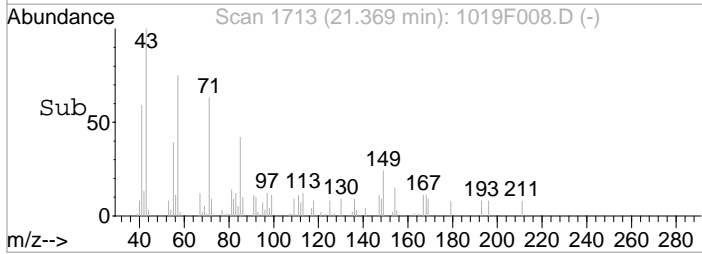
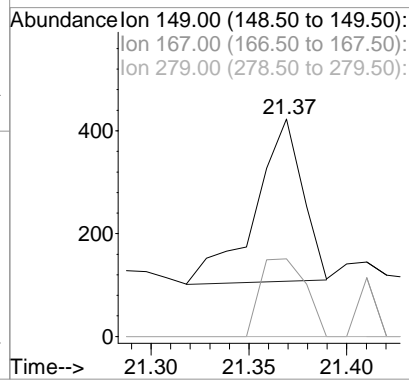
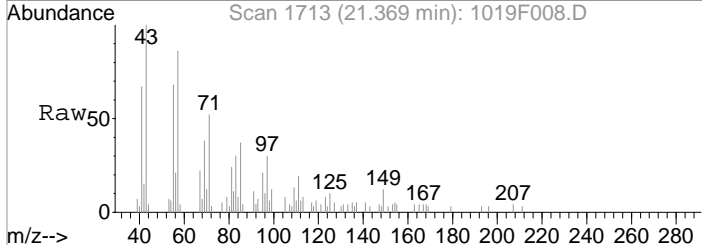
#79
 Diethylene Glycol Butyl Ether
 Concen: 0.43 ug/ml
 RT: 21.03 min Scan# 1680
 Delta R.T. -0.03 min
 Lab File: 1019F008.D
 Acq: 19 Oct 2019 2:16 pm

Tgt Ion	Resp	Lower	Upper
105	100		
77	89.3	36.5	67.9#
149	122.8	53.1	98.7#



#83
 Bis(2-ethylhexyl) Phthalate
 Concen: 0.41 ug/ml m
 RT: 21.37 min Scan# 1713
 Delta R.T. -0.02 min
 Lab File: 1019F008.D
 Acq: 19 Oct 2019 2:16 pm

Tgt Ion	Resp	Lower	Upper
149	100		
167	35.7	0.0	59.0
279	0.0	0.0	39.0



Data File : J:\MS07\DATA\101919\1019F008.D
 Acq On : 19 Oct 2019 2:16 pm
 Sample : K1909649-003
 Misc :

Vial: 16
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 21 16:52:21 2019

Quant Results File: 101719_BNP7.RES

Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Mon Oct 21 16:51:09 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.35	152	31016	40.00	ug/ml	0.00
22) Naphthalene-d8	11.44	136	112505	40.00	ug/ml	-0.02
36) Acenaphthene-d10	14.31	164	62271	40.00	ug/ml	-0.02
61) Phenanthrene-d10	16.71	188	97252	40.00	ug/ml	-0.02
73) Chrysene-d12	21.14	240	77657	40.00	ug/ml	-0.02
84) Perylene-d12	24.31	264	86479	40.00	ug/ml	-0.03

System Monitoring Compounds

4) 2-Fluorophenol	7.13	112	54998	57.65	ug/ml	0.00
Spiked Amount	150.000	Range 21 - 100	Recovery	=	38.43%	
8) Phenol-d6	8.83	99	72564	61.01	ug/ml	-0.02
Spiked Amount	150.000	Range 10 - 94	Recovery	=	40.67%	
20) Nitrobenzene-d5	10.27	82	54970	45.58	ug/ml	-0.02
Spiked Amount	100.000	Range 35 - 114	Recovery	=	45.58%	
40) 2-Fluorobiphenyl	13.24	172	116287	50.56	ug/ml	-0.02
Spiked Amount	100.000	Range 43 - 116	Recovery	=	50.56%	
62) 2,4,6-Tribromophenol	15.60	330	45258	74.23	ug/ml	-0.02
Spiked Amount	150.000	Range 10 - 123	Recovery	=	49.49%	
76) Terphenyl-d14	19.34	244	136757	65.08	ug/ml	-0.02
Spiked Amount	100.000	Range 33 - 141	Recovery	=	65.08%	

Target Compounds

						Qvalue
55) Diethyl Phthalate	15.08	149	676	0.34	ug/ml	90
72) Fluoranthene	18.67	202	590	0.23	ug/ml	56
79) Diethylene Glycol Butyl Et	21.03	105	646	0.43	ug/ml#	46
83) Bis(2-ethylhexyl) Phthalat	21.37	149	536m	0.41	ug/ml	

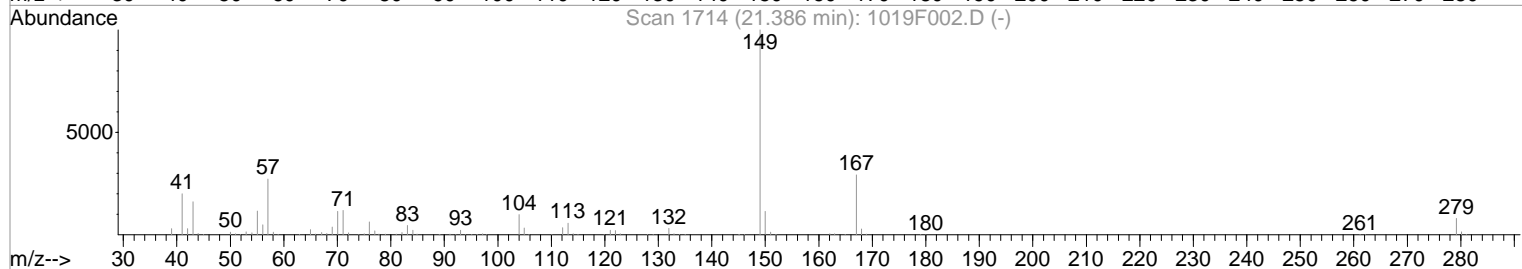
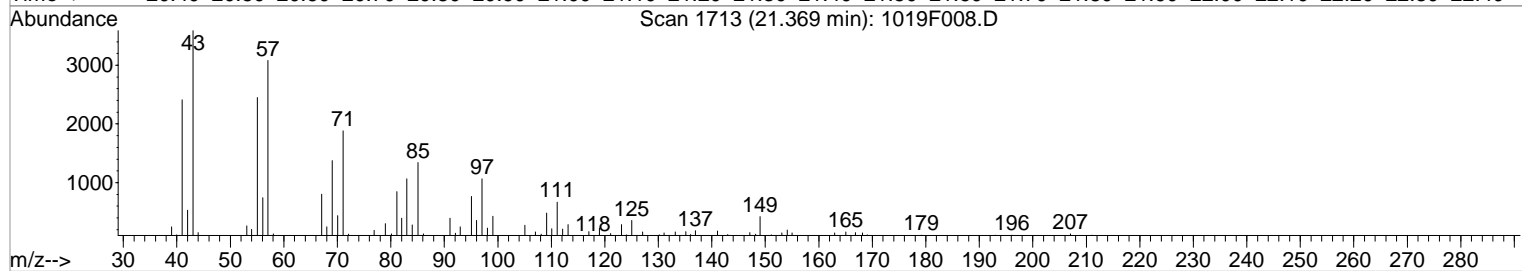
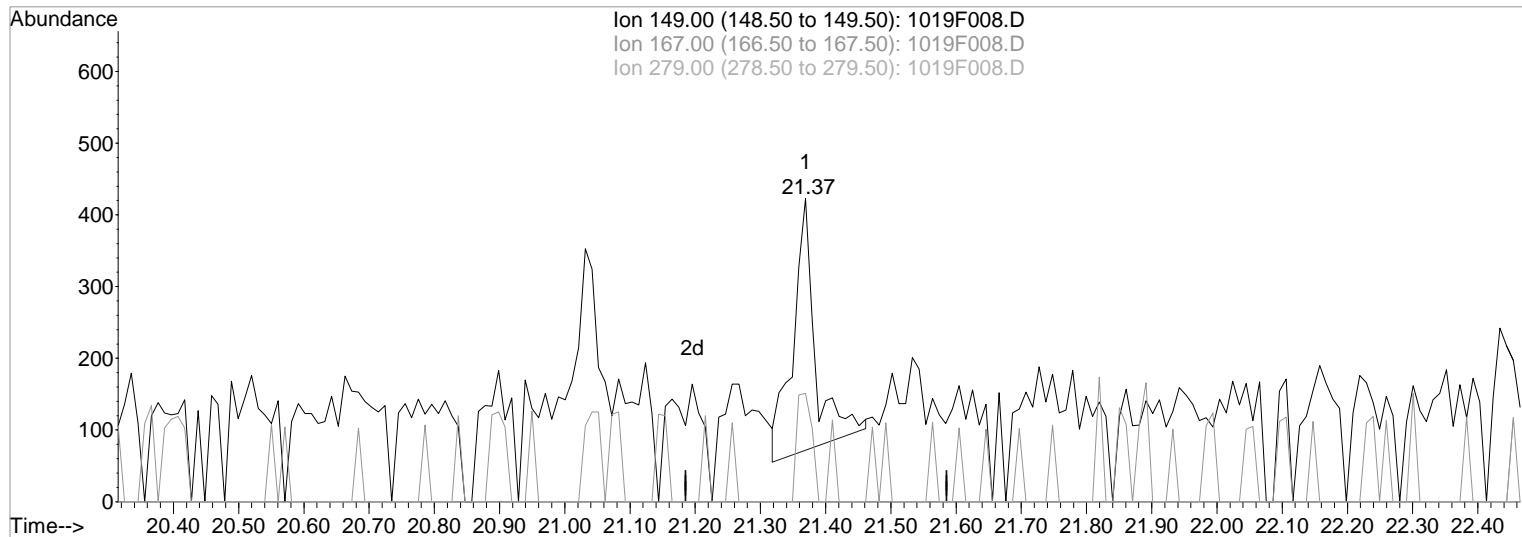
Data File : J:\MS07\DATA\101919\1019F008.D
 Acq On : 19 Oct 2019 2:16 pm
 Sample : K1909649-003
 Misc :

Vial: 16
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 22 8:44 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Mon Oct 21 16:51:09 2019
 Response via : Multiple Level Calibration



TIC: 1019F008.D

(83) Bis(2-ethylhexyl) Phthalate (T)

Manual Integration:

21.37min 0.65ug/ml

Before

response 843

Ion	Exp%	Act%
149.00	100	100
167.00	29.00	48.01
279.00	9.00	0.00
0.00	0.00	0.00

10/22/19

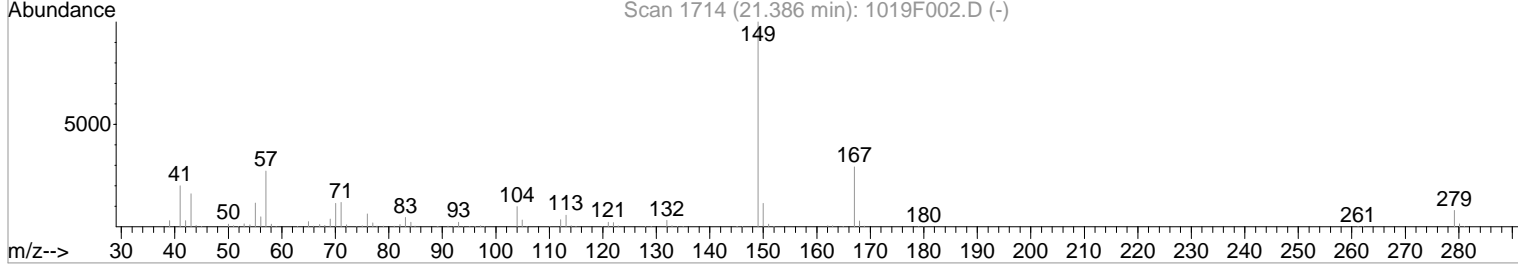
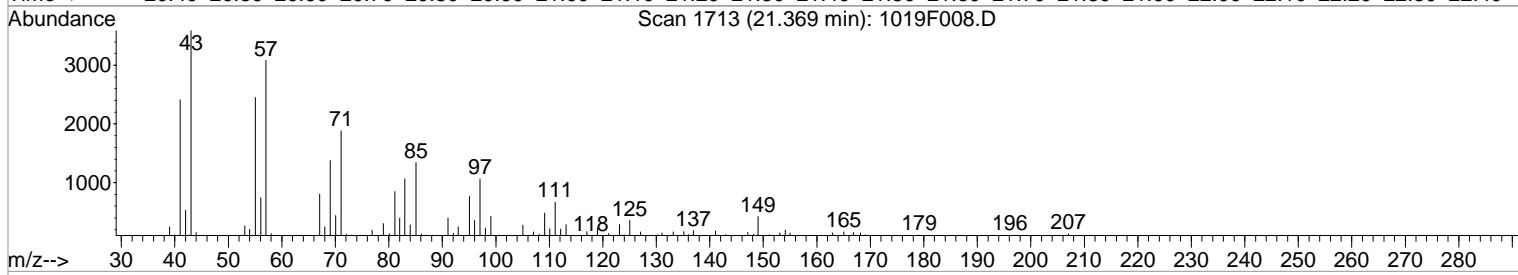
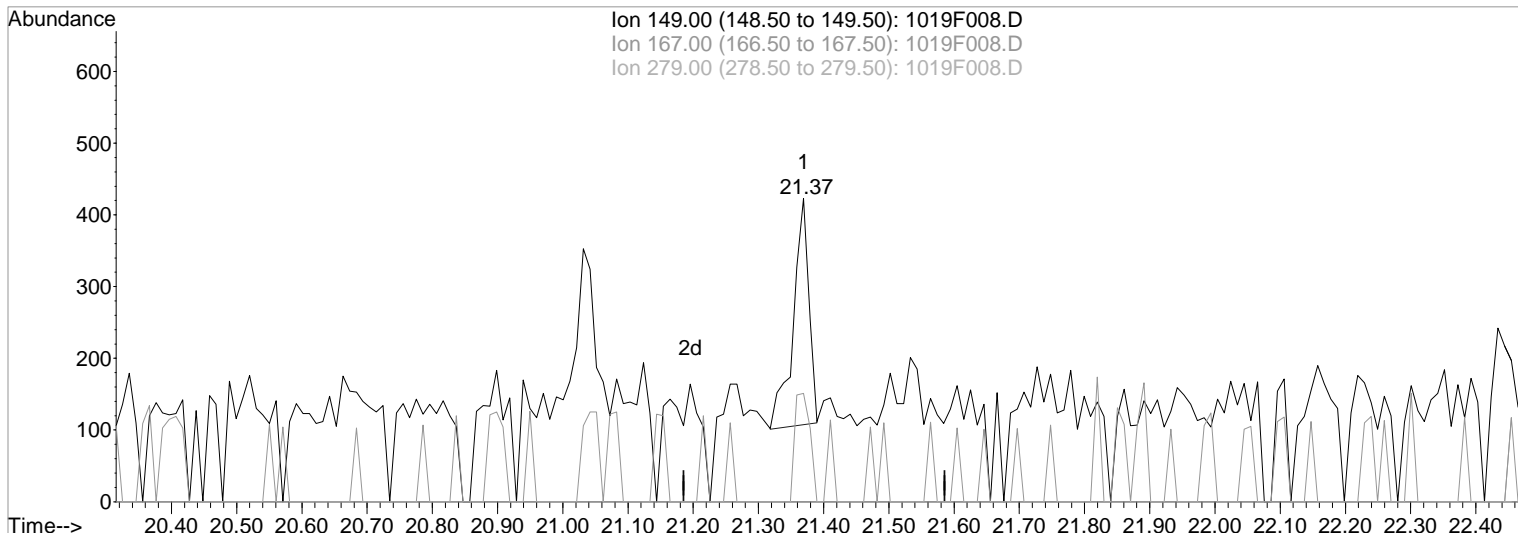
Data File : J:\MS07\DATA\101919\1019F008.D
 Acq On : 19 Oct 2019 2:16 pm
 Sample : K1909649-003
 Misc :

Vial: 16
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 22 8:45 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Mon Oct 21 16:51:09 2019
 Response via : Multiple Level Calibration



TIC: 1019F008.D

(83) Bis(2-ethylhexyl) Phthalate (T)

Manual Integration:

21.37min 0.41ug/ml m
 response 536

After
 BLC

Ion	Exp%	Act%
149.00	100	100
167.00	29.00	35.70
279.00	9.00	0.00
0.00	0.00	0.00

10/22/19

Validation Report

1st *LM* 10/22/19
2nd *Cpw* 10/22/19

Data File: J:\MS07\DATA\101919\1019F009.D\
Lab ID: K1909649-004
RunType: N/A
Matrix: Soil

Date Acquired: 10/19/19 14:58:00
Batch ID: 656208
Analysis Method: 8270D/SVO

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery		X
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates		X
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery	Aniline	-25		20	OK, <40%
	Benzoic Acid	29		20	OK, <40%
Surrogates	2,4,6-Tribromophenol	0	35	118	narr matrix
	2-Fluorobiphenyl	24	37	103	
	2-Fluorophenol	0	30	98	
	Nitrobenzene-d5	18	36	112	
	Phenol-d6	1	31	103	
	Terphenyl-d14	0	18	127	

Primary Review: _____

Secondary Review: _____

Quantitation Report

1st *LM* 10/22/19
2nd *Cpw* 10/22/19

Data File: J:\MS07\DATA\101919\1019F009.D\	Instrument: K-MS-07
Acqu Date: 10/19/19 14:58:00	Vial: 11
Run Type: N/A	Dilution: 1
Lab ID: K1909649-004	Raw Units: ug/mL

Bottle ID: K1909649-004.01	Tier: IV	Matrix: Soil
Prod Code: SVO	Collect Date: 10/15/19	Receive Date: 10/16/19

Analysis Lot: 656208	Prep Lot: 346731	Report Group: K1909649
Analysis: 8270D	Prep Method: EPA 3541	
	Prep Date: 10/16/19	

Title: Semivolatile Organic Compounds by GC/MS	Calibration ID: KC1900441
	Report List ID: 18699

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
1,4-Dichlorobenzene-d4	9.35	-0.01	30658	40.00	OK
Acenaphthene-d10	14.31	-0.01	63514	40.00	OK
Chrysene-d12	21.13	-0.04	80664	40.00	OK
Naphthalene-d8	11.44	-0.02	109892	40.00	OK
Perylene-d12	24.31	-0.03	88224	40.00	OK
Phenanthrene-d10	16.71	-0.02	97315	40.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
2,4,6-Tribromophenol	0.00		0	0.00	0	* matrix 35 - 118	Y
2-Fluorobiphenyl	13.24	-0.02	55113	23.50	24	* 37 - 103	Y
2-Fluorophenol	0.00		0	0.00	0	* 30 - 98	Y
Nitrobenzene-d5	10.26	-0.03	20903	17.53	18	* 36 - 112	Y
Phenol-d6	8.83	-0.04	2327	1.98	1	* 31 - 103	Y
Terphenyl-d14	19.33	-0.03	791	0.36	0	* 18 - 127	Y

Target Compounds

Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
1,2,4-Trichlorobenzene	0.00		0	0.00	0	U	Y
1,2-Dichlorobenzene	0.00		0	0.00	0	U	Y
1,3-Dichlorobenzene	0.00		0	0.00	0	U	Y
1,4-Dichlorobenzene	0.00		0	0.00	0	U	Y
2,4,5-Trichlorophenol	0.00		0	0.00	0	U	Y
2,4,6-Trichlorophenol	0.00		0	0.00	0	U	Y
2,4-Dichlorophenol	0.00		0	0.00	0	U	Y
2,4-Dimethylphenol	0.00		0	0.00	0	U	Y
2,4-Dinitrophenol	0.00		0	0.00	0	U	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 10/22/19 10:24

\\alprews001\starlims\LIMSRpts\QuantValidation.rpt

Data File:	J:\MS07\DATA\101919\1019F009.D\	Instrument:	K-MS-07 nd <i>Cpu</i>	10/22/19
Acqu Date:	10/19/19 14:58:00	Vial:	11	
Run Type:	N/A	Dilution:	1	
Lab ID:	K1909649-004	Raw Units:	ug/mL	

Target Compounds Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2,4-Dinitrotoluene	0.00		0	0.00	0	U	Y
2,6-Dinitrotoluene	0.00		0	0.00	0	U	Y
2-Chloronaphthalene	0.00		0	0.00	0	U	Y
2-Chlorophenol	0.00		0	0.00	0	U	Y
2-Methyl-4,6-dinitrophenol	0.00		0	0.00	0	U	Y
2-Methylnaphthalene	0.00		0	0.00	0	U	Y
2-Methylphenol	0.00		0	0.00	0	U	Y
2-Nitroaniline	0.00		0	0.00	0	U	Y
2-Nitrophenol	0.00		0	0.00	0	U	Y
3,3'-Dichlorobenzidine	0.00		0	0.00	0	U	Y
3-Nitroaniline	0.00		0	0.00	0	U	Y
4-Bromophenyl Phenyl Ether	0.00		0	0.00	0	U	Y
4-Chloro-3-methylphenol	0.00		0	0.00	0	U	Y
4-Chloroaniline	0.00		0	0.00	0	U	Y
4-Chlorophenyl Phenyl Ether	0.00		0	0.00	0	U	Y
4-Methylphenol	0.00		0	0.00	0	U	Y
4-Nitroaniline	0.00		0	0.00	0	U	Y
4-Nitrophenol	0.00		0	0.00	0	U	Y
Acenaphthene	0.00		0	0.00	0	U	Y
Acenaphthylene	0.00		0	0.00	0	U	Y
Aniline	0.00		0	0.00	0	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	0.00		0	0.00	0	U	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	0.00		0	0.00	0	U	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Benzoic Acid	0.00		0	0.00	0	U	Y
Benzyl Alcohol	0.00		0	0.00	0	U	Y
Bis(2-chloroethoxy)methane	0.00		0	0.00	0	U	Y
Bis(2-chloroethyl) Ether	0.00		0	0.00	0	U	Y
Bis(2-ethylhexyl) Phthalate	0.00		0	0.00	0	U	Y
Butyl Benzyl Phthalate	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Dibenzofuran	0.00		0	0.00	0	U	Y
Diethyl Phthalate	15.08	-0.04	677	0.33	0.022	J	Y
Dimethyl Phthalate	0.00		0	0.00	0	U	Y
Di-n-butyl Phthalate	0.00		0	0.00	0	U	Y
Di-n-octyl Phthalate	0.00		0	0.00	0	U	Y
Fluoranthene	0.00		0	0.00	0	U	Y

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound
 D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis
 *: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File: J:\MS07\DATA\101919\1019F009.D\
 Acqu Date: 10/19/19 14:58:00
 Run Type: N/A
 Lab ID: K1909649-004

Instrument: K-MS-07nd *Cpu* 10/22/19
 Vial: 11
 Dilution: 1
 Raw Units: ug/mL

Target Compounds

Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Fluorene	0.00		0	0.00	0	U	Y
Hexachlorobenzene	0.00		0	0.00	0	U	Y
Hexachlorobutadiene	0.00		0	0.00	0	U	Y
Hexachlorocyclopentadiene	0.00		0	0.00	0	U	Y
Hexachloroethane	0.00		0	0.00	0	U	Y
Indeno(1,2,3-cd)pyrene	0.00		0	0.00	0	U	Y
Isophorone	0.00		0	0.00	0	U	Y
Naphthalene	11.47	-0.03	1579	0.61	0.040	J	Y
Nitrobenzene	0.00		0	0.00	0	U	Y
N-Nitrosodimethylamine	0.00		0	0.00	0	U	Y
N-Nitrosodi-n-propylamine	0.00		0	0.00	0	U	Y
N-Nitrosodiphenylamine	0.00		0	0.00	0	U	Y
Pentachlorophenol	0.00		0	0.00	0	U	Y
Phenanthrene	0.00		0	0.00	0	U	Y
Phenol	0.00		0	0.00	0	U	Y
Pyrene	0.00		0	0.00	0	U	Y
2,2'-Oxybis(1-chloropropane)	0.00		0	0.00	0	U	Y

Prep Amount: 20.4030 g
 Prep Final Amount: 1.00 mL

Dilution: 1
 Basis Factor: 75.10

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Printed: 10/22/19 10:24

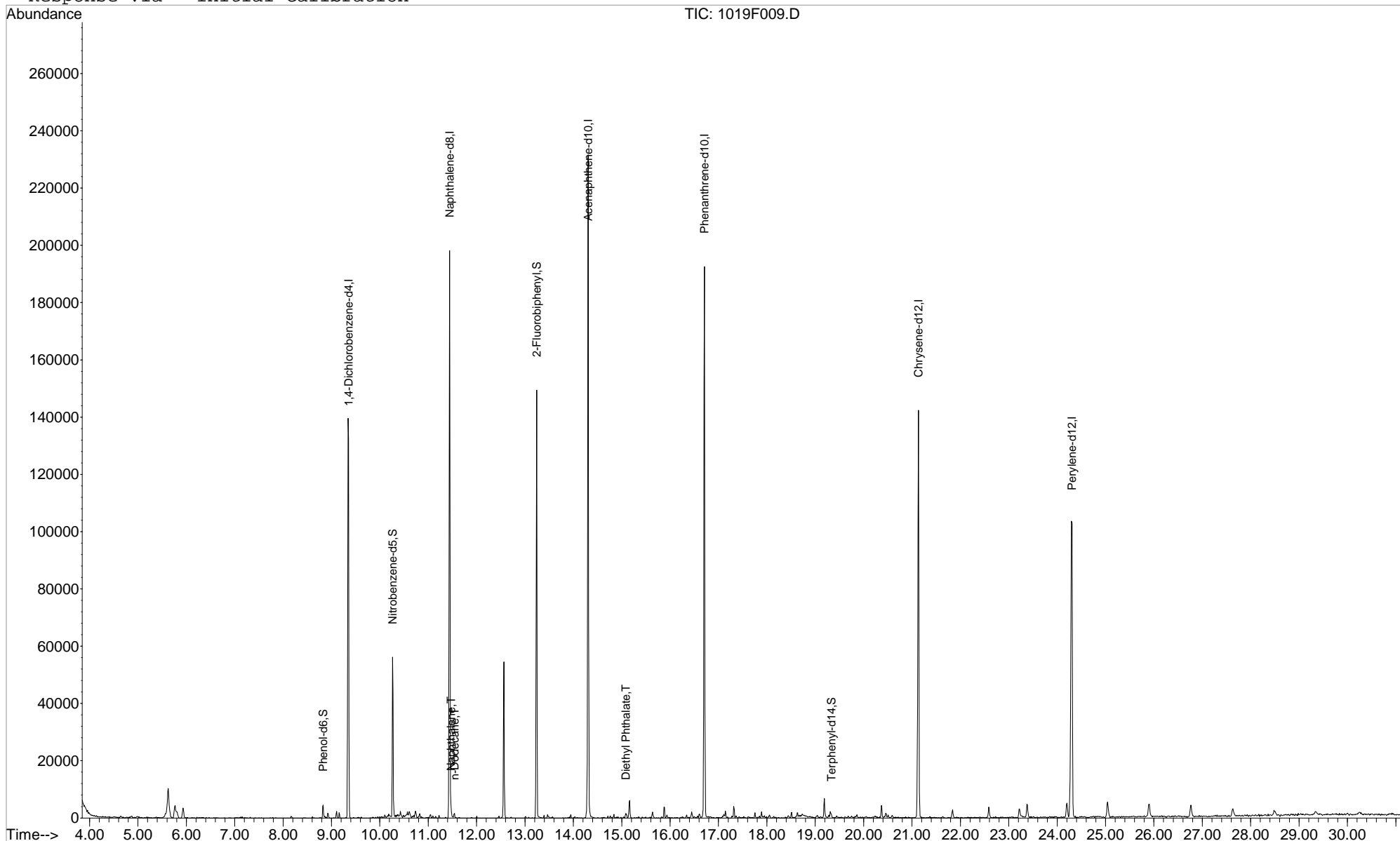
\valprews001\starlims\LIMSReps\QuantValidation.rpt

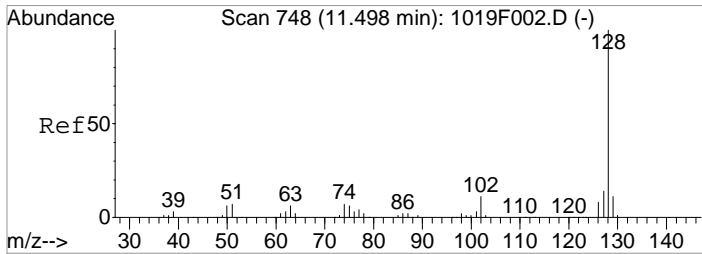
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 Acq On : 19 Oct 2019 2:58 pm
 Sample : K1909649-004
 Misc :
 MS Integration Params: RTEINT.P
 Quant Time: Oct 22 8:48 2019

Vial: 17
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

Quant Results File: 101719_BNP7.RES

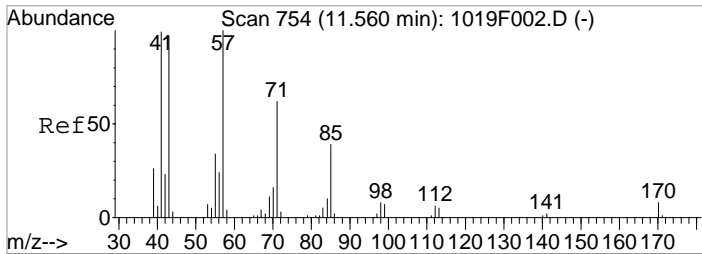
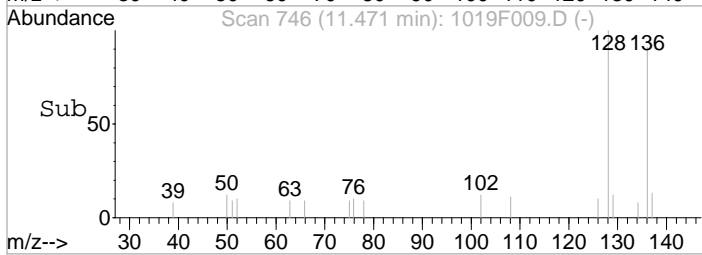
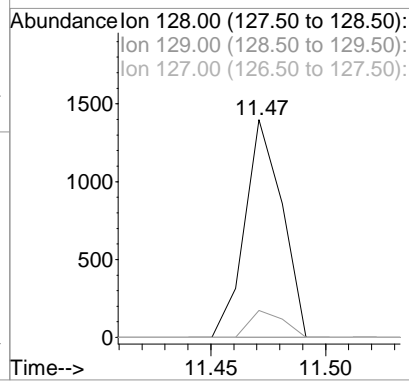
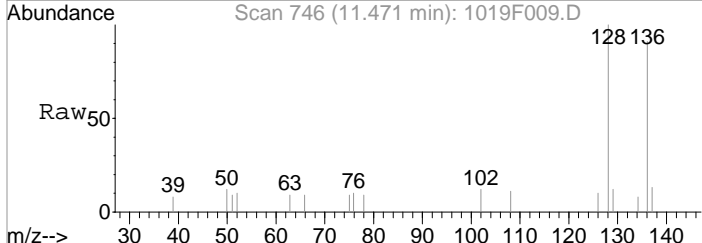
Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Mon Oct 21 16:51:09 2019
 Response via : Initial Calibration





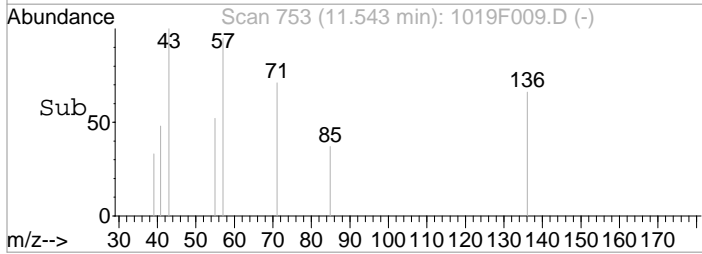
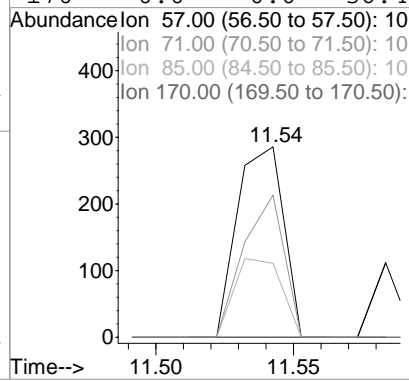
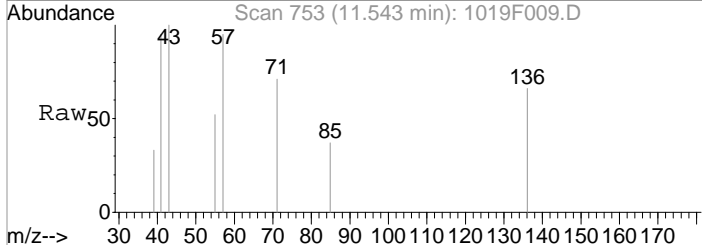
#30
 Naphthalene
 Concen: 0.61 ug/ml
 RT: 11.47 min Scan# 746
 Delta R.T. -0.03 min
 Lab File: 1019F009.D
 Acq: 19 Oct 2019 2:58 pm

Tgt Ion	Resp	Lower	Upper
128	100		
129	12.4	0.0	41.1
127	0.0	0.0	43.8

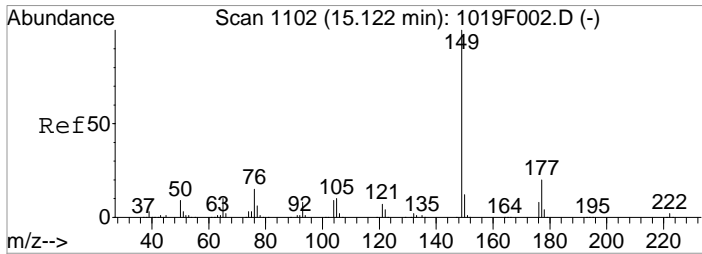


#31
 n-Dodecane
 Concen: 0.41 ug/ml
 RT: 11.54 min Scan# 753
 Delta R.T. -0.02 min
 Lab File: 1019F009.D
 Acq: 19 Oct 2019 2:58 pm

Tgt Ion	Resp	Lower	Upper
57	100		
71	65.6	28.6	88.6
85	42.2	4.8	64.8
170	0.0	0.0	36.4

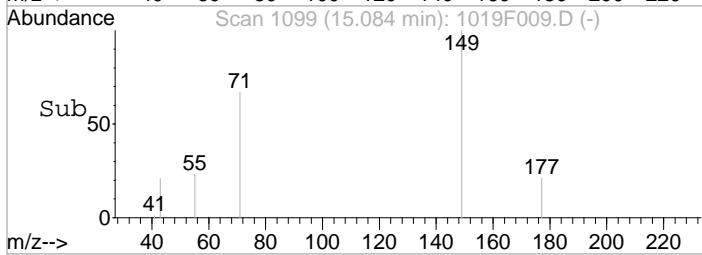
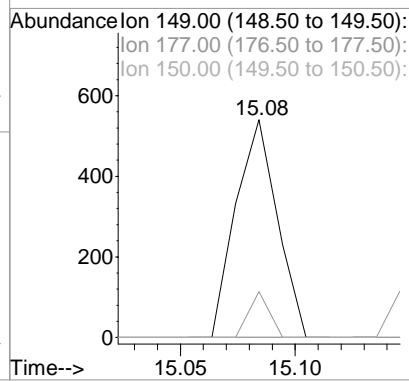
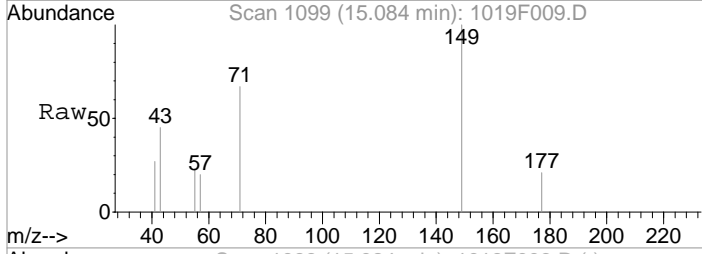


1st *LM* 10/22/19
2nd *Cpw* 10/22/19



#55
Diethyl Phthalate
Concen: 0.33 ug/ml
RT: 15.08 min Scan# 1099
Delta R.T. -0.04 min
Lab File: 1019F009.D
Acq: 19 Oct 2019 2:58 pm

Tgt Ion	Resp	Lower	Upper
149	100		
177	21.1	0.0	50.3
150	0.0	0.0	41.8



Data File : J:\MS07\DATA\101919\1019F009.D
 Acq On : 19 Oct 2019 2:58 pm
 Sample : K1909649-004
 Misc :

Vial: 17
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 21 16:52:22 2019

Quant Results File: 101719_BNP7.RES

Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Mon Oct 21 16:51:09 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.35	152	30658	40.00	ug/ml	0.00
22) Naphthalene-d8	11.44	136	109892	40.00	ug/ml	-0.02
36) Acenaphthene-d10	14.31	164	63514	40.00	ug/ml	-0.02
61) Phenanthrene-d10	16.71	188	97315	40.00	ug/ml	-0.02
73) Chrysene-d12	21.13	240	80664	40.00	ug/ml	-0.03
84) Perylene-d12	24.31	264	88224	40.00	ug/ml	-0.03

System Monitoring Compounds

4) 2-Fluorophenol	0.00	112	0	0.00	ug/ml	
Spiked Amount	150.000	Range 21 - 100	Recovery	=	0.00%#	
8) Phenol-d6	8.83	99	2327	1.98	ug/ml	-0.02
Spiked Amount	150.000	Range 10 - 94	Recovery	=	1.32%#	
20) Nitrobenzene-d5	10.26	82	20903	17.53	ug/ml	-0.03
Spiked Amount	100.000	Range 35 - 114	Recovery	=	17.53%#	
40) 2-Fluorobiphenyl	13.24	172	55113	23.50	ug/ml	-0.02
Spiked Amount	100.000	Range 43 - 116	Recovery	=	23.50%#	
62) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/ml	
Spiked Amount	150.000	Range 10 - 123	Recovery	=	0.00%#	
76) Terphenyl-d14	19.33	244	791	0.36	ug/ml	-0.03
Spiked Amount	100.000	Range 33 - 141	Recovery	=	0.36%#	

Target Compounds

					Qvalue
30) Naphthalene	11.47	128	1579	0.61	ug/ml 80
31) n-Dodecane	11.54	57	334	0.41	ug/ml# 89
55) Diethyl Phthalate	15.08	149	677	0.33	ug/ml 88

Validation Report

1st *LM* 10/22/19
2nd *Cpw* 10/22/19

Data File: J:\MS07\DATA\101919\1019F010.D\
Lab ID: K1909649-005
RunType: N/A
Matrix: Soil

Date Acquired: 10/19/19 15:39:00
Batch ID: 656208
Analysis Method: 8270D/SVO

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery		X
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery	Aniline	-25		20	OK, <40%
	Benzoic Acid	29		20	OK, <40%

Primary Review: _____

Secondary Review: _____

Quantitation Report

1st *LM* 10/22/19
2nd *Cpw* 10/22/19

Data File: J:\MS07\DATA\101919\1019F010.D\	Instrument: K-MS-07
Acqu Date: 10/19/19 15:39:00	Vial: 12
Run Type: N/A	Dilution: 10
Lab ID: K1909649-005	Raw Units: ug/mL

Bottle ID: K1909649-005.01	Tier: IV	Matrix: Soil
Prod Code: SVO	Collect Date: 10/15/19	Receive Date: 10/16/19

Analysis Lot: 656208	Prep Lot: 346731	Report Group: K1909649
Analysis: 8270D	Prep Method: EPA 3541	
	Prep Date: 10/16/19	

Title: Semivolatile Organic Compounds by GC/MS	Calibration ID: KC1900441
	Report List ID: 18699

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
1,4-Dichlorobenzene-d4	9.34	-0.02	31763	40.00	OK
Acenaphthene-d10	14.31	-0.01	60373	40.00	OK
Chrysene-d12	21.14	-0.03	79234	40.00	OK
Naphthalene-d8	11.44	-0.02	116514	40.00	OK
Perylene-d12	24.32	-0.02	84502	40.00	OK
Phenanthrene-d10	16.71	-0.02	96713	40.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
2,4,6-Tribromophenol	15.59	-0.03	393	0.65	35	35 - 118	Y
2-Fluorobiphenyl	13.23	-0.03	1648	0.74	59	37 - 103	Y
2-Fluorophenol	7.12	-0.04	692	0.71	38	30 - 98	Y
Nitrobenzene-d5	10.27	-0.02	770	0.62	50	36 - 112	Y
Phenol-d6	8.82	-0.05	832	0.68	36	31 - 103	Y
Terphenyl-d14	19.33	-0.03	2013	0.94	75	18 - 127	Y

Target Compounds

Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
1,2,4-Trichlorobenzene	0.00		0	0.00	0	U	Y
1,2-Dichlorobenzene	0.00		0	0.00	0	U	Y
1,3-Dichlorobenzene	0.00		0	0.00	0	U	Y
1,4-Dichlorobenzene	0.00		0	0.00	0	U	Y
2,4,5-Trichlorophenol	0.00		0	0.00	0	U	Y
2,4,6-Trichlorophenol	0.00		0	0.00	0	U	Y
2,4-Dichlorophenol	0.00		0	0.00	0	U	Y
2,4-Dimethylphenol	0.00		0	0.00	0	U	Y
2,4-Dinitrophenol	0.00		0	0.00	0	U	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 10/22/19 10:24

\\alprews001\starlims\LIMSReps\QuantValidation.rpt

Data File:	J:\MS07\DATA\101919\1019F010.D\	Instrument:	K-MS-07 nd <i>Cpu</i>	10/22/19
Acqu Date:	10/19/19 15:39:00	Vial:	12	
Run Type:	N/A	Dilution:	10	
Lab ID:	K1909649-005	Raw Units:	ug/mL	

Target Compounds Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2,4-Dinitrotoluene	0.00		0	0.00	0	U	Y
2,6-Dinitrotoluene	0.00		0	0.00	0	U	Y
2-Chloronaphthalene	0.00		0	0.00	0	U	Y
2-Chlorophenol	0.00		0	0.00	0	U	Y
2-Methyl-4,6-dinitrophenol	0.00		0	0.00	0	U	Y
2-Methylnaphthalene	0.00		0	0.00	0	U	Y
2-Methylphenol	0.00		0	0.00	0	U	Y
2-Nitroaniline	0.00		0	0.00	0	U	Y
2-Nitrophenol	0.00		0	0.00	0	U	Y
3,3'-Dichlorobenzidine	0.00		0	0.00	0	U	Y
3-Nitroaniline	0.00		0	0.00	0	U	Y
4-Bromophenyl Phenyl Ether	0.00		0	0.00	0	U	Y
4-Chloro-3-methylphenol	0.00		0	0.00	0	U	Y
4-Chloroaniline	0.00		0	0.00	0	U	Y
4-Chlorophenyl Phenyl Ether	0.00		0	0.00	0	U	Y
4-Methylphenol	10.10	-0.07	2334	1.96	4.0	J	Y
4-Nitroaniline	0.00		0	0.00	0	U	Y
4-Nitrophenol	0.00		0	0.00	0	U	Y
Acenaphthene	0.00		0	0.00	0	U	Y
Acenaphthylene	0.00		0	0.00	0	U	Y
Aniline	8.86	+0.03	335	0.24	0.50	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	0.00		0	0.00	0	U	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	0.00		0	0.00	0	U	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Benzoic Acid	0.00		0	0.00	0	U	Y
Benzyl Alcohol	0.00		0	0.00	0	U	Y
Bis(2-chloroethoxy)methane	0.00		0	0.00	0	U	Y
Bis(2-chloroethyl) Ether	0.00		0	0.00	0	U	Y
Bis(2-ethylhexyl) Phthalate	21.37	-0.02	52737	39.61	82		Y
Butyl Benzyl Phthalate	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Dibenzofuran	0.00		0	0.00	0	U	Y
Diethyl Phthalate	15.09	-0.03	696	0.36	0.74	J	Y
Dimethyl Phthalate	0.00		0	0.00	0	U	Y
Di-n-butyl Phthalate	17.76	-0.02	1035	0.38	0.78	U	Y
Di-n-octyl Phthalate	0.00		0	0.00	0	U	Y
Fluoranthene	0.00		0	0.00	0	U	Y

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound
 D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis
 *: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File:	J:\MS07\DATA\101919\1019F010.D\	Instrument:	K-MS-07 nd <i>Cpu</i>	10/22/19
Acqu Date:	10/19/19 15:39:00	Vial:	12	
Run Type:	N/A	Dilution:	10	
Lab ID:	K1909649-005	Raw Units:	ug/mL	

Target Compounds Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Fluorene	0.00		0	0.00	0	U	Y
Hexachlorobenzene	0.00		0	0.00	0	U	Y
Hexachlorobutadiene	0.00		0	0.00	0	U	Y
Hexachlorocyclopentadiene	0.00		0	0.00	0	U	Y
Hexachloroethane	0.00		0	0.00	0	U	Y
Indeno(1,2,3-cd)pyrene	0.00		0	0.00	0	U	Y
Isophorone	0.00		0	0.00	0	U	Y
Naphthalene	0.00		0	0.00	0	U	Y
Nitrobenzene	0.00		0	0.00	0	U	Y
N-Nitrosodimethylamine	0.00		0	0.00	0	U	Y
N-Nitrosodi-n-propylamine	0.00		0	0.00	0	U	Y
N-Nitrosodiphenylamine	0.00		0	0.00	0	U	Y
Pentachlorophenol	0.00		0	0.00	0	U	Y
Phenanthrene	16.74	-0.03	821	0.33	0.68	U	Y
Phenol	8.85	-0.05	1520	1.20	2.5	J	Y
Pyrene	0.00		0	0.00	0	U	Y
2,2'-Oxybis(1-chloropropane)	0.00		0	0.00	0	U	Y

Prep Amount: 40.610 g **Dilution:** 10
Prep Final Amount: 8.00 mL **Basis Factor:** 95.40

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

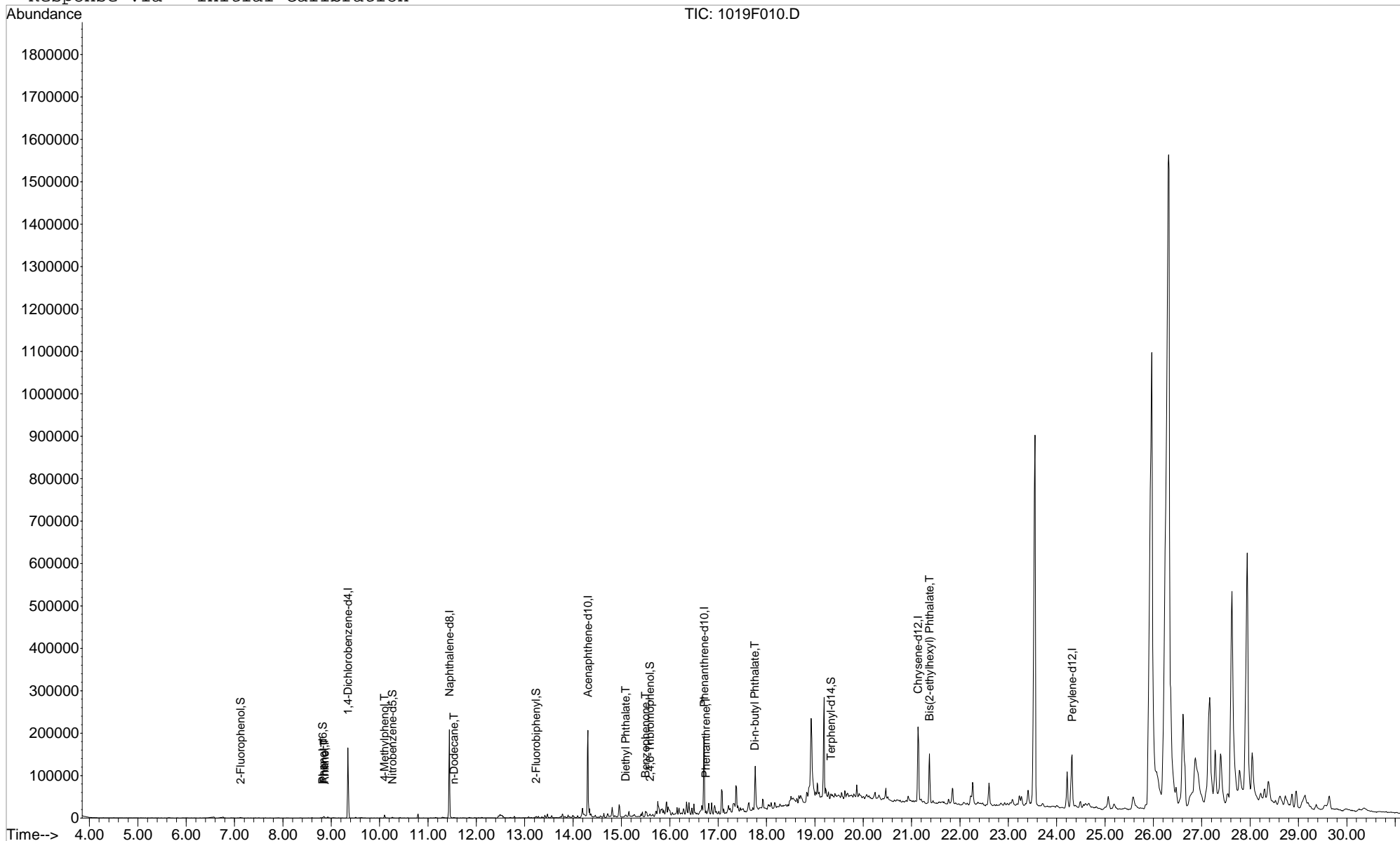
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

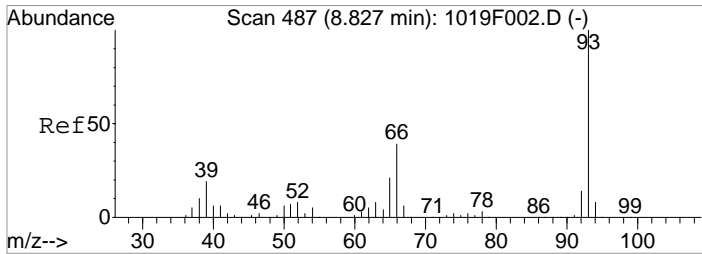
Data File : J:\MS07\DATA\101919\1019F010.D
 Acq On : 19 Oct 2019 3:39 pm
 Sample : K1909649-005 10X
 Misc :
 MS Integration Params: RTEINT.P
 Quant Time: Oct 22 8:55 2019

Vial: 18
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

Quant Results File: 101719_BNP7.RES

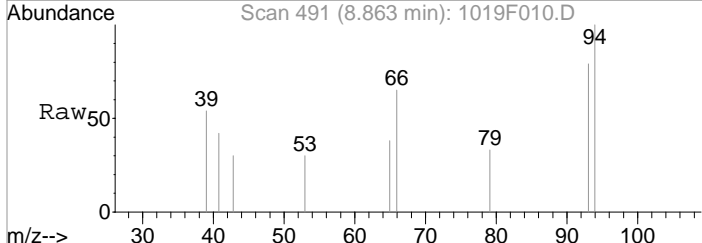
Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Mon Oct 21 16:51:09 2019
 Response via : Initial Calibration



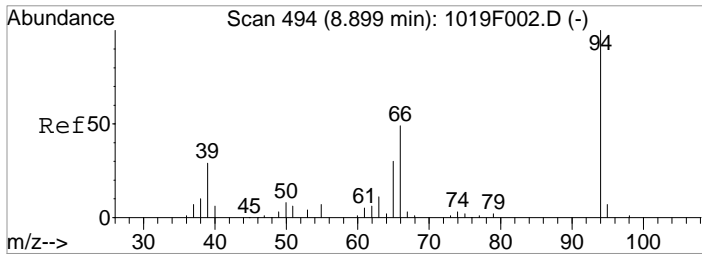
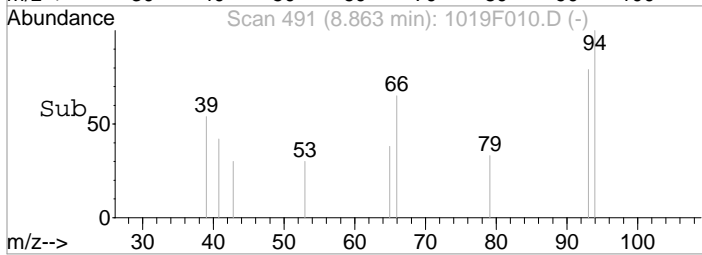
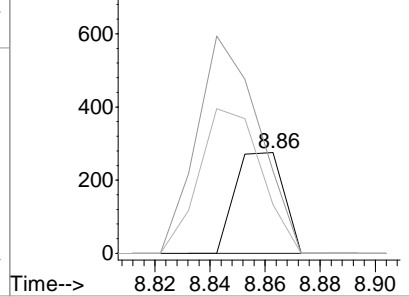


#6
 Aniline
 Concen: 0.24 ug/ml
 RT: 8.86 min Scan# 491
 Delta R.T. 0.04 min
 Lab File: 1019F010.D
 Acq: 19 Oct 2019 3:39 pm

Tgt Ion	Resp	Lower	Upper
93	100		
66	42.2	0.0	47.4
65	27.1	0.0	34.4

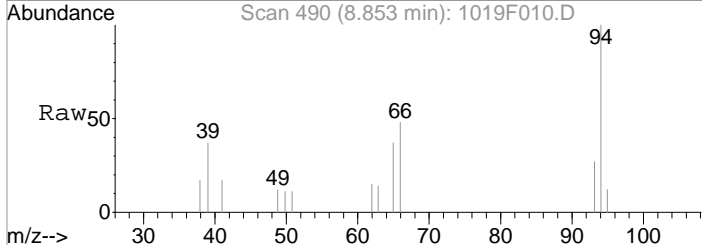


Abundance Ion 93.15 (92.65 to 93.65): 10
 Ion 66.15 (65.65 to 66.65): 10
 Ion 65.15 (64.65 to 65.65): 10

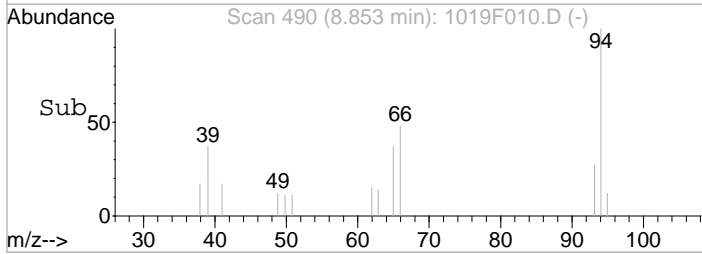
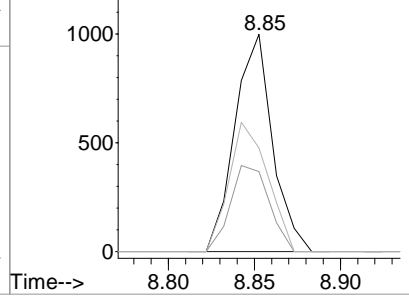


#9
 Phenol
 Concen: 1.20 ug/ml
 RT: 8.85 min Scan# 490
 Delta R.T. -0.01 min
 Lab File: 1019F010.D
 Acq: 19 Oct 2019 3:39 pm

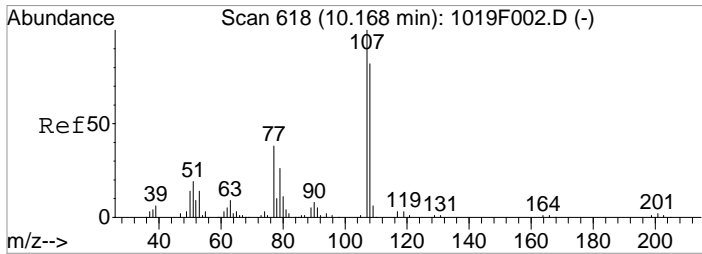
Tgt Ion	Resp	Lower	Upper
94	100		
65	36.8	2.7	62.7
66	47.6	19.9	79.9



Abundance Ion 94.00 (93.50 to 94.50): 10
 Ion 65.00 (64.50 to 65.50): 10
 Ion 66.00 (65.50 to 66.50): 10

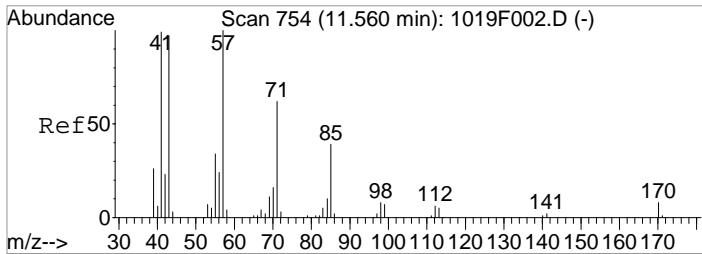
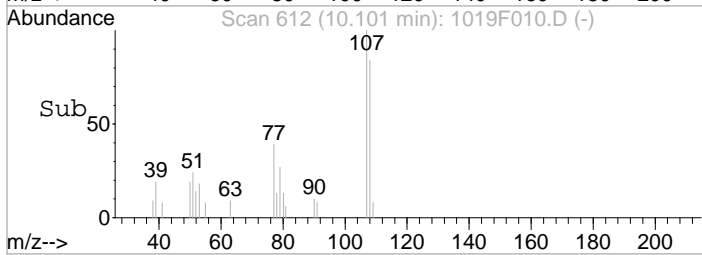
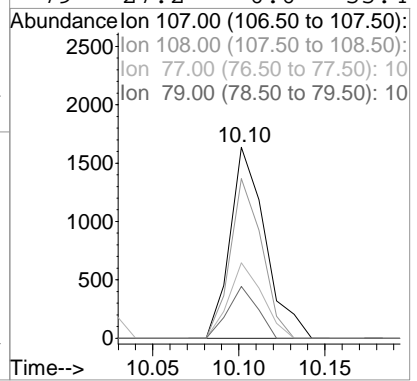
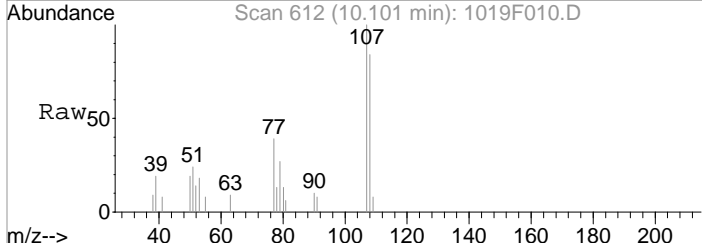


1st *LM* 10/22/19
 2nd *Cpu* 10/22/19



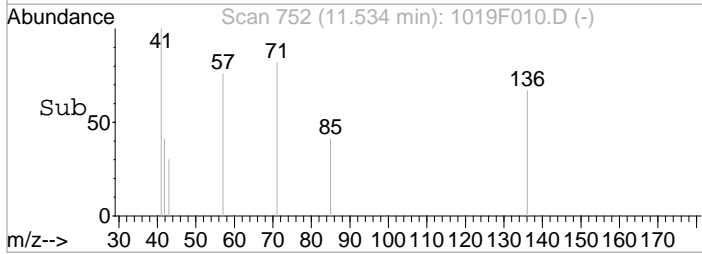
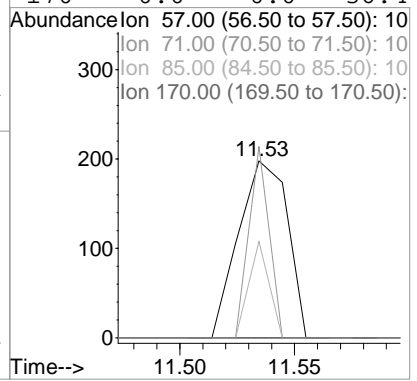
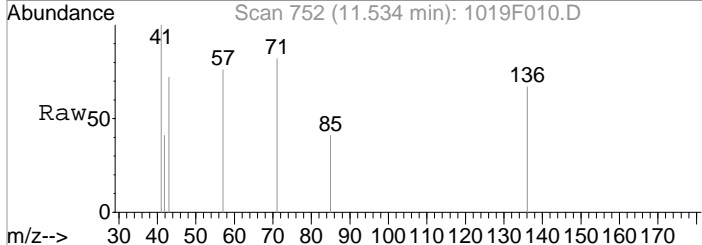
#19
 4-Methylphenol
 Concen: 1.96 ug/ml
 RT: 10.10 min Scan# 612
 Delta R.T. -0.03 min
 Lab File: 1019F010.D
 Acq: 19 Oct 2019 3:39 pm

Tgt Ion	Resp	Lower	Upper
107	2334		
108	83.7	51.3	111.3
77	39.4	6.1	66.1
79	27.2	0.0	55.4

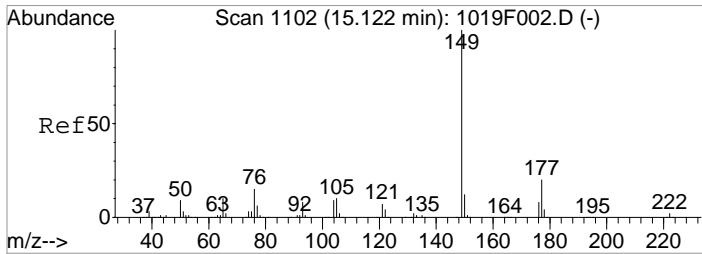


#31
 n-Dodecane
 Concen: 0.34 ug/ml
 RT: 11.53 min Scan# 752
 Delta R.T. -0.02 min
 Lab File: 1019F010.D
 Acq: 19 Oct 2019 3:39 pm

Tgt Ion	Resp	Lower	Upper
57	294		
71	44.6	28.6	88.6
85	0.0	4.8	64.8#
170	0.0	0.0	36.4

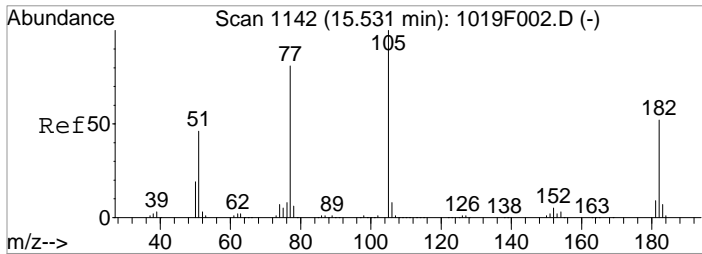
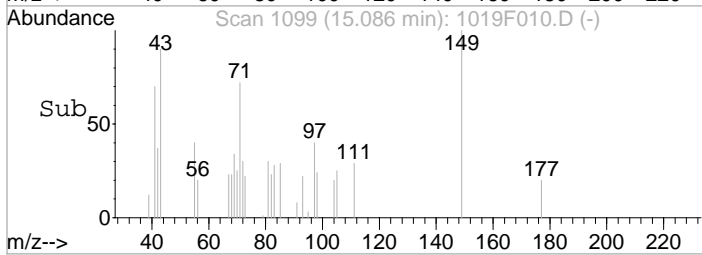
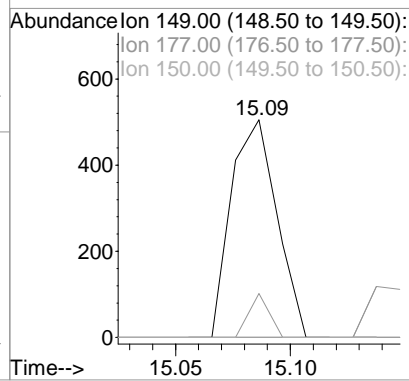
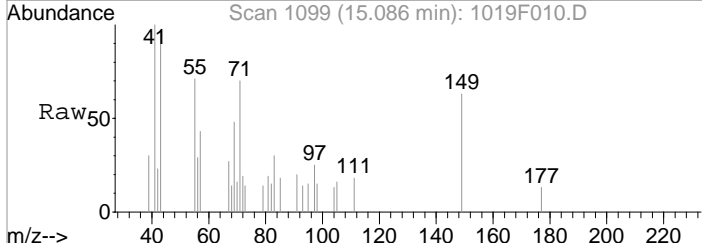


1st *LM* 10/22/19
 2nd *Cpw* 10/22/19



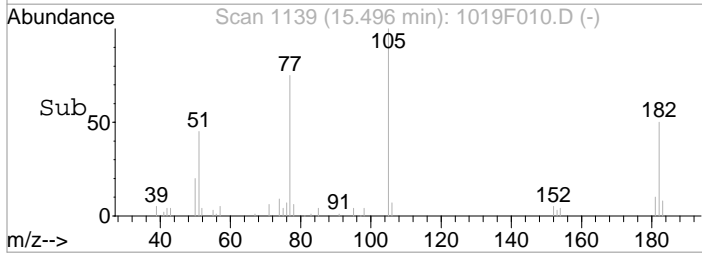
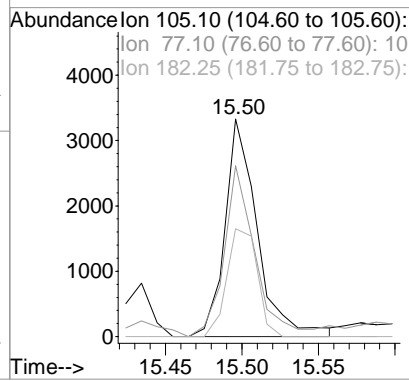
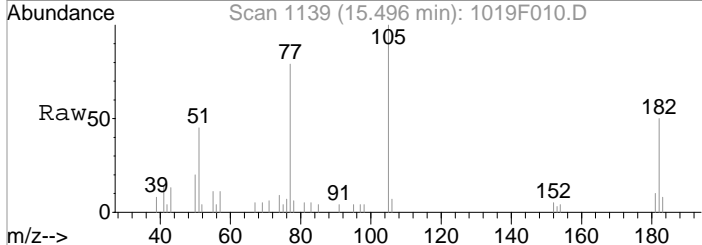
#55
 Diethyl Phthalate
 Concen: 0.36 ug/ml
 RT: 15.09 min Scan# 1099
 Delta R.T. -0.03 min
 Lab File: 1019F010.D
 Acq: 19 Oct 2019 3:39 pm

Tgt Ion	Resp	Lower	Upper
149	100		
177	20.2	0.0	50.3
150	0.0	0.0	41.8

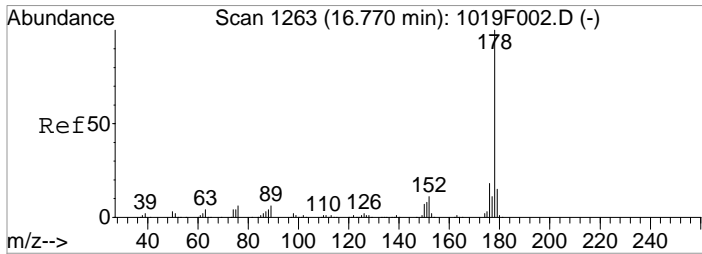


#60
 Benzophenone
 Concen: 2.59 ug/ml
 RT: 15.50 min Scan# 1139
 Delta R.T. -0.03 min
 Lab File: 1019F010.D
 Acq: 19 Oct 2019 3:39 pm

Tgt Ion	Resp	Lower	Upper
105	100		
77	75.0	142.7	202.7#
182	46.7	44.1	104.1

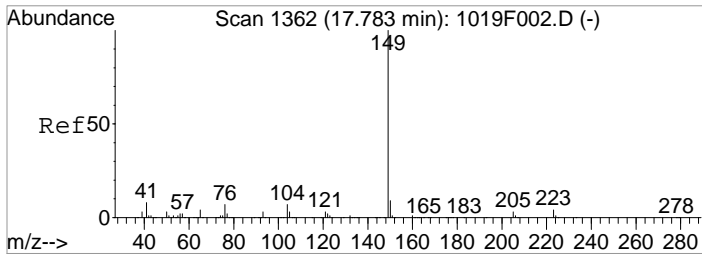
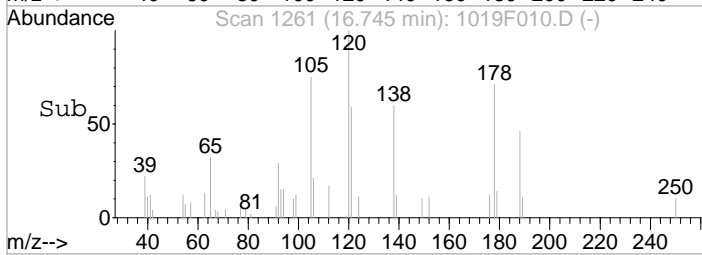
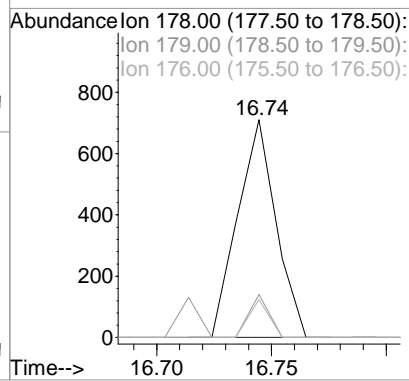
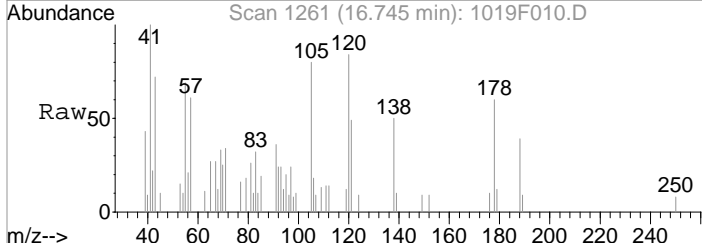


1st *LM* 10/22/19
2nd *Cpw* 10/22/19



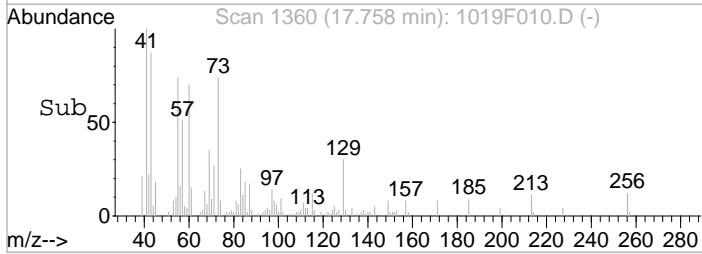
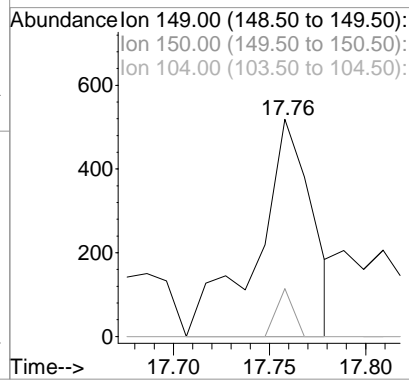
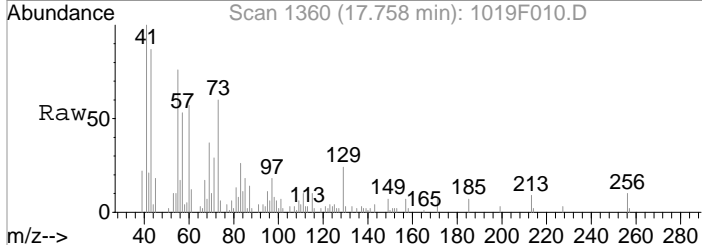
#68
Phenanthrene
Concen: 0.33 ug/ml
RT: 16.74 min Scan# 1261
Delta R.T. -0.02 min
Lab File: 1019F010.D
Acq: 19 Oct 2019 3:39 pm

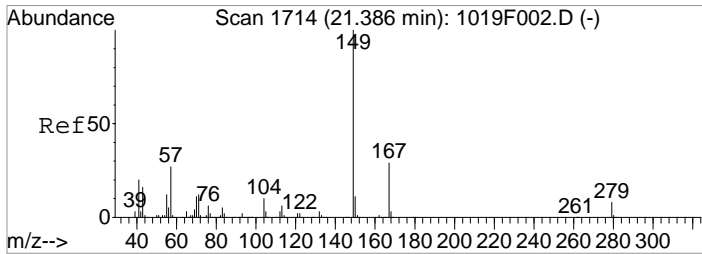
Tgt Ion	Resp	Lower	Upper
178	100		
179	10.5	0.0	45.3
176	17.5	0.0	48.4



#71
Di-n-butyl Phthalate
Concen: 0.38 ug/ml m
RT: 17.76 min Scan# 1360
Delta R.T. -0.02 min
Lab File: 1019F010.D
Acq: 19 Oct 2019 3:39 pm

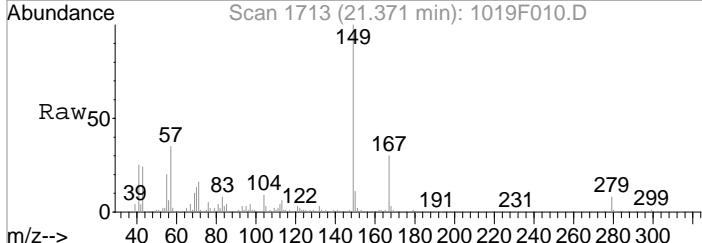
Tgt Ion	Resp	Lower	Upper
149	100		
150	22.0	0.0	39.0
104	0.0	0.0	35.7



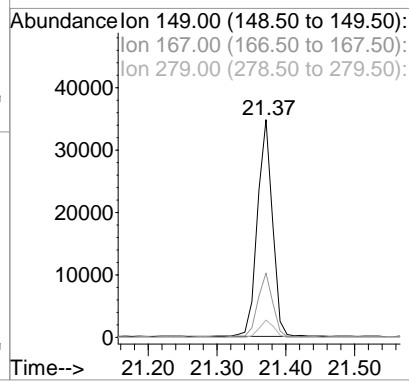
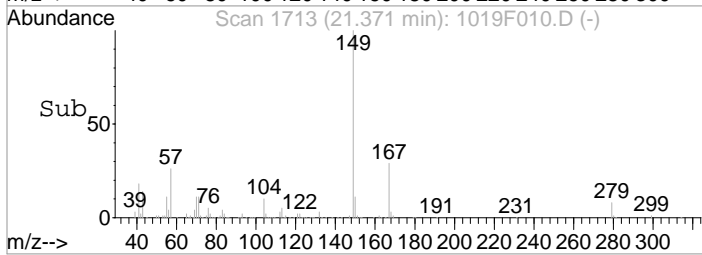


#83
 Bis(2-ethylhexyl) Phthalate
 Concen: 39.61 ug/ml
 RT: 21.37 min Scan# 1713
 Delta R.T. -0.01 min
 Lab File: 1019F010.D
 Acq: 19 Oct 2019 3:39 pm

1st *LM* 10/22/19
 2nd *Cpw* 10/22/19



Tgt Ion	Resp	Lower	Upper
149	100		
167	29.5	0.0	59.0
279	8.0	0.0	39.0



Data File : J:\MS07\DATA\101919\1019F010.D
 Acq On : 19 Oct 2019 3:39 pm
 Sample : K1909649-005 10X
 Misc :

Vial: 18
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 21 16:52:22 2019

Quant Results File: 101719_BNP7.RES

Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Mon Oct 21 16:51:09 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.34	152	31763	40.00	ug/ml	-0.01
22) Naphthalene-d8	11.44	136	116514	40.00	ug/ml	-0.01
36) Acenaphthene-d10	14.31	164	60373	40.00	ug/ml	-0.01
61) Phenanthrene-d10	16.71	188	96713	40.00	ug/ml	-0.01
73) Chrysene-d12	21.14	240	79234	40.00	ug/ml	-0.02
84) Perylene-d12	24.32	264	84502	40.00	ug/ml	-0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
4) 2-Fluorophenol	7.12	112	692	0.71	ug/ml	-0.01
Spiked Amount 150.000	Range 21	- 100	Recovery =	0.47%#		
8) Phenol-d6	8.82	99	832	0.68	ug/ml	-0.02
Spiked Amount 150.000	Range 10	- 94	Recovery =	0.45%#		
20) Nitrobenzene-d5	10.27	82	770	0.62	ug/ml	-0.02
Spiked Amount 100.000	Range 35	- 114	Recovery =	0.62%#		
40) 2-Fluorobiphenyl	13.23	172	1648	0.74	ug/ml	-0.02
Spiked Amount 100.000	Range 43	- 116	Recovery =	0.74%#		
62) 2,4,6-Tribromophenol	15.59	330	393	0.65	ug/ml	-0.02
Spiked Amount 150.000	Range 10	- 123	Recovery =	0.43%#		
76) Terphenyl-d14	19.33	244	2013	0.94	ug/ml	-0.02
Spiked Amount 100.000	Range 33	- 141	Recovery =	0.94%#		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
6) Aniline	8.86	93	335	0.24	ug/ml	41
9) Phenol	8.85	94	1520	1.20	ug/ml	95
19) 4-Methylphenol	10.10	107	2334	1.96	ug/ml	96
31) n-Dodecane	11.53	57	294	0.34	ug/ml#	67
55) Diethyl Phthalate	15.09	149	696	0.36	ug/ml	89
60) Benzophenone	15.50	105	4896	2.59	ug/ml#	41
68) Phenanthrene	16.74	178	821	0.33	ug/ml	94
71) Di-n-butyl Phthalate	17.76	149	1035m	0.38	ug/ml	
83) Bis(2-ethylhexyl) Phthalat	21.37	149	52737	39.61	ug/ml	99

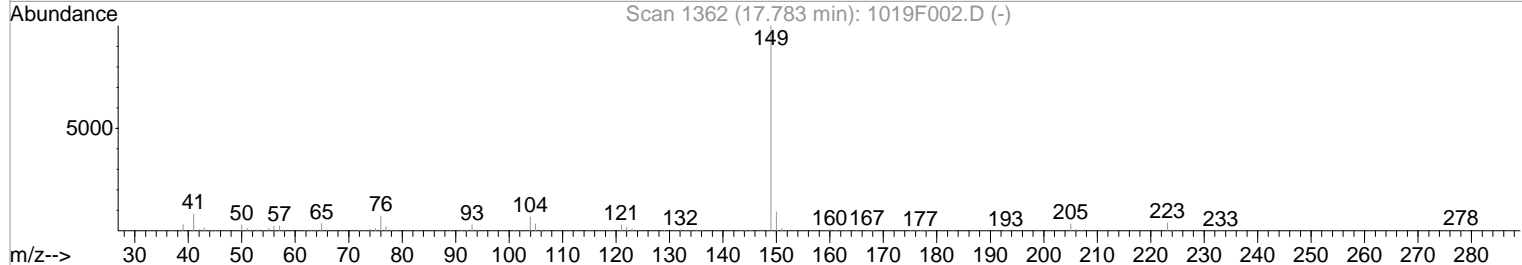
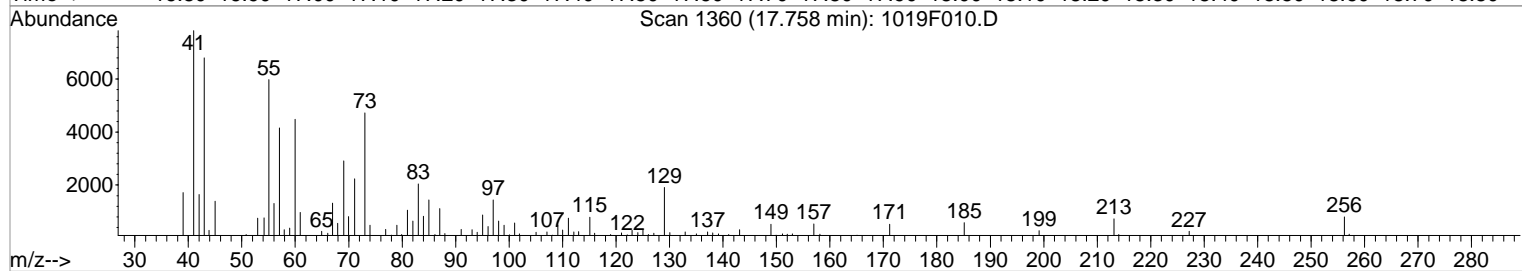
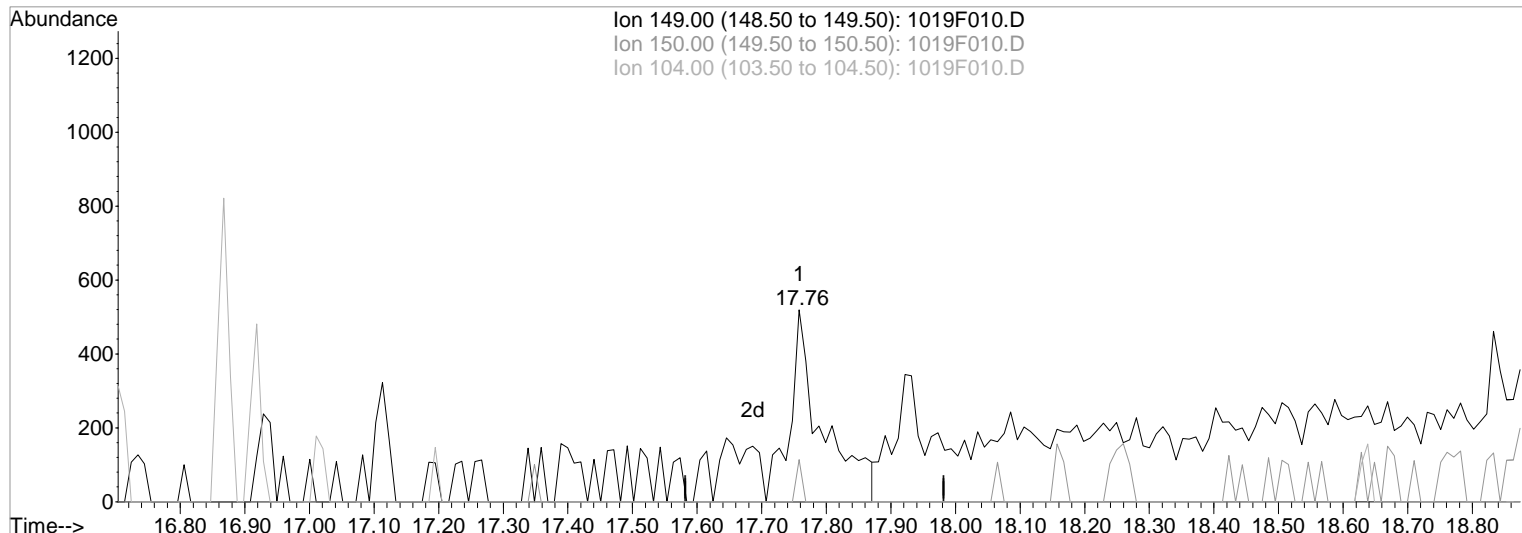
Data File : J:\MS07\DATA\101919\1019F010.D
 Acq On : 19 Oct 2019 3:39 pm
 Sample : K1909649-005 10X
 Misc :

Vial: 18
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 22 8:52 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Mon Oct 21 16:51:09 2019
 Response via : Multiple Level Calibration



TIC: 1019F010.D

(71) Di-n-butyl Phthalate (T)

Manual Integration:

17.76min 0.67ug/ml
 response 1822

Before

Ion	Exp%	Act%
149.00	100	100
150.00	9.00	24.49
104.00	5.70	0.00
0.00	0.00	0.00

10/22/19

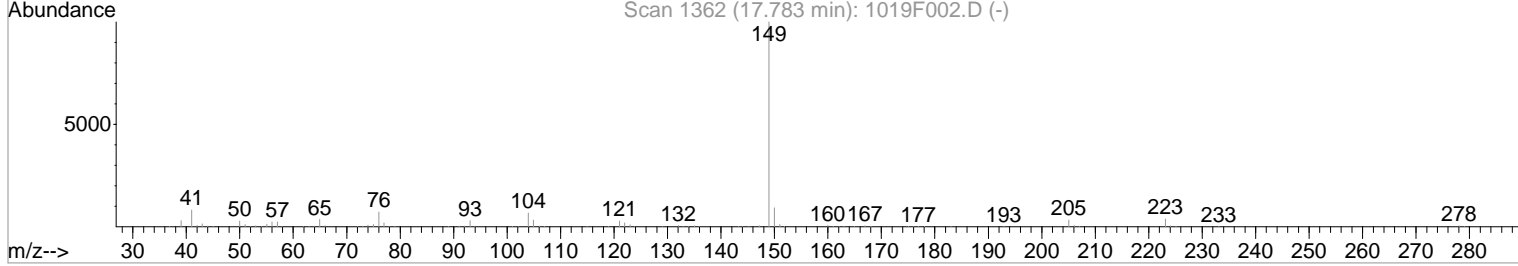
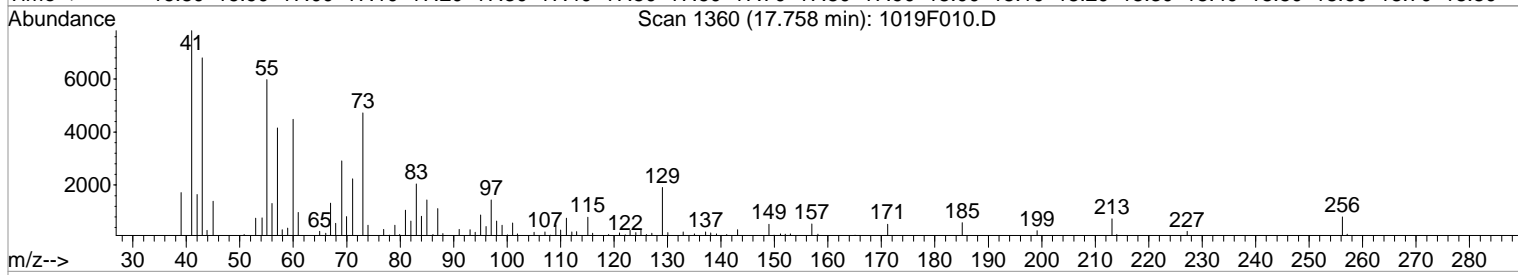
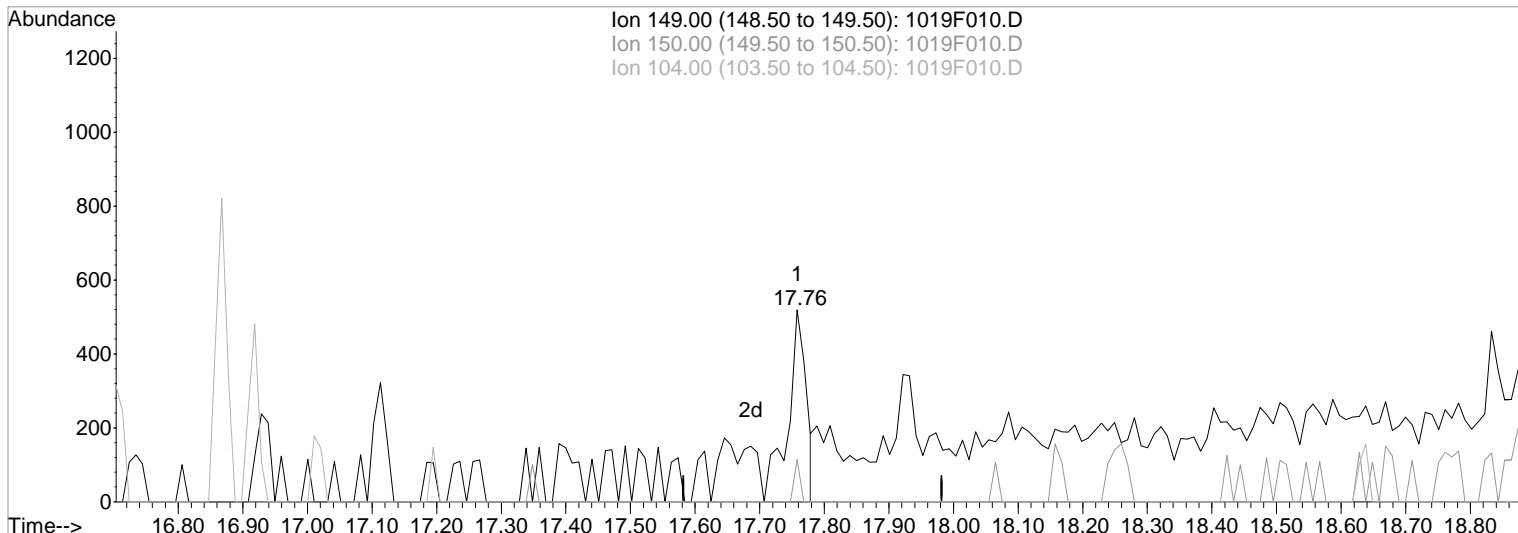
Data File : J:\MS07\DATA\101919\1019F010.D
 Acq On : 19 Oct 2019 3:39 pm
 Sample : K1909649-005 10X
 Misc :

Vial: 18
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 22 8:53 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Mon Oct 21 16:51:09 2019
 Response via : Multiple Level Calibration



TIC: 1019F010.D

(71) Di-n-butyl Phthalate (T)

Manual Integration:

17.76min 0.38ug/ml m

After

response 1035

IC-Overintegrated

Ion	Exp%	Act%
149.00	100	100
150.00	9.00	21.97
104.00	5.70	0.00
0.00	0.00	0.00

10/22/19

Validation Report

1st *LM* 10/22/19
2nd *Cpw* 10/22/19

Data File: J:\MS07\DATA\101919\1019F003.D\
Lab ID: KQ1915120-04
RunType: MB
Matrix: Soil

Date Acquired: 10/19/19 10:50:00
Batch ID: 656208
Analysis Method: 8270D/SVO

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery		X
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery	Aniline	-25		20	OK, <40%
	Benzoic Acid	29		20	OK, <40%

Primary Review: _____

Secondary Review: _____

Quantitation Report

1st *LM* 10/22/19
2nd *Cpw* 10/22/19

Data File: J:\MS07\DATA\101919\1019F003.D\	Instrument: K-MS-07
Acqu Date: 10/19/19 10:50:00	Vial: 5
Run Type: MB	Dilution: 1
Lab ID: KQ1915120-04	Raw Units: ug/mL

Bottle ID:	Tier: IV	Matrix: Soil
Prod Code: SVO	Collect Date: 10/15/19	Receive Date: 10/16/19

Analysis Lot: 656208	Prep Lot: 346731	Report Group: KQ1915120
Analysis: 8270D	Prep Method: EPA 3541	
	Prep Date: 10/16/19	

Title: Semivolatile Organic Compounds by GC/MS	Calibration ID: KC1900441
	Report List ID: 18699

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
1,4-Dichlorobenzene-d4	9.36		31876	40.00	OK
Acenaphthene-d10	14.31	-0.01	65764	40.00	OK
Chrysene-d12	21.14	-0.03	87319	40.00	OK
Naphthalene-d8	11.45	-0.01	114837	40.00	OK
Perylene-d12	24.31	-0.03	100334	40.00	OK
Phenanthrene-d10	16.72	-0.01	102026	40.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
2,4,6-Tribromophenol	15.59	-0.03	43112	67.40	45	35 - 118	Y
2-Fluorobiphenyl	13.25	-0.01	110008	45.29	45	37 - 103	Y
2-Fluorophenol	7.14	-0.02	56890	58.02	39	30 - 98	Y
Nitrobenzene-d5	10.28	-0.01	54513	43.98	44	36 - 112	Y
Phenol-d6	8.84	-0.03	75241	61.55	41	31 - 103	Y
Terphenyl-d14	19.35	-0.01	156315	66.16	66	18 - 127	Y

Target Compounds

Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
1,2,4-Trichlorobenzene	0.00		0	0.00	0	U	Y
1,2-Dichlorobenzene	0.00		0	0.00	0	U	Y
1,3-Dichlorobenzene	0.00		0	0.00	0	U	Y
1,4-Dichlorobenzene	0.00		0	0.00	0	U	Y
2,4,5-Trichlorophenol	0.00		0	0.00	0	U	Y
2,4,6-Trichlorophenol	0.00		0	0.00	0	U	Y
2,4-Dichlorophenol	0.00		0	0.00	0	U	Y
2,4-Dimethylphenol	0.00		0	0.00	0	U	Y
2,4-Dinitrophenol	0.00		0	0.00	0	U	Y

Data File:	J:\MS07\DATA\101919\1019F003.D\	Instrument:	K-MS-07 nd <i>Cpu</i>	10/22/19
Acqu Date:	10/19/19 10:50:00	Vial:	5	
Run Type:	MB	Dilution:	1	
Lab ID:	KQ1915120-04	Raw Units:	ug/mL	

Target Compounds Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2,4-Dinitrotoluene	0.00		0	0.00	0	U	Y
2,6-Dinitrotoluene	0.00		0	0.00	0	U	Y
2-Chloronaphthalene	0.00		0	0.00	0	U	Y
2-Chlorophenol	0.00		0	0.00	0	U	Y
2-Methyl-4,6-dinitrophenol	0.00		0	0.00	0	U	Y
2-Methylnaphthalene	0.00		0	0.00	0	U	Y
2-Methylphenol	0.00		0	0.00	0	U	Y
2-Nitroaniline	0.00		0	0.00	0	U	Y
2-Nitrophenol	0.00		0	0.00	0	U	Y
3,3'-Dichlorobenzidine	0.00		0	0.00	0	U	Y
3-Nitroaniline	0.00		0	0.00	0	U	Y
4-Bromophenyl Phenyl Ether	0.00		0	0.00	0	U	Y
4-Chloro-3-methylphenol	0.00		0	0.00	0	U	Y
4-Chloroaniline	0.00		0	0.00	0	U	Y
4-Chlorophenyl Phenyl Ether	0.00		0	0.00	0	U	Y
4-Methylphenol	0.00		0	0.00	0	U	Y
4-Nitroaniline	0.00		0	0.00	0	U	Y
4-Nitrophenol	0.00		0	0.00	0	U	Y
Acenaphthene	0.00		0	0.00	0	U	Y
Acenaphthylene	0.00		0	0.00	0	U	Y
Aniline	0.00		0	0.00	0	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	0.00		0	0.00	0	U	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	0.00		0	0.00	0	U	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Benzoic Acid	0.00		0	0.00	0	U	Y
Benzyl Alcohol	0.00		0	0.00	0	U	Y
Bis(2-chloroethoxy)methane	0.00		0	0.00	0	U	Y
Bis(2-chloroethyl) Ether	0.00		0	0.00	0	U	Y
Bis(2-ethylhexyl) Phthalate	0.00		0	0.00	0	U	Y
Butyl Benzyl Phthalate	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Dibenzofuran	0.00		0	0.00	0	U	Y
Diethyl Phthalate	15.09	-0.03	537	0.25	0.0061	U	Y
Dimethyl Phthalate	0.00		0	0.00	0	U	Y
Di-n-butyl Phthalate	0.00		0	0.00	0	U	Y
Di-n-octyl Phthalate	0.00		0	0.00	0	U	Y
Fluoranthene	0.00		0	0.00	0	U	Y

Data File:	J:\MS07\DATA\101919\1019F003.D\	Instrument:	K-MS-07 nd <i>Cpu</i>	10/22/19
Acqu Date:	10/19/19 10:50:00	Vial:	5	
Run Type:	MB	Dilution:	1	
Lab ID:	KQ1915120-04	Raw Units:	ug/mL	

Target Compounds Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Fluorene	0.00		0	0.00	0	U	Y
Hexachlorobenzene	0.00		0	0.00	0	U	Y
Hexachlorobutadiene	0.00		0	0.00	0	U	Y
Hexachlorocyclopentadiene	0.00		0	0.00	0	U	Y
Hexachloroethane	0.00		0	0.00	0	U	Y
Indeno(1,2,3-cd)pyrene	0.00		0	0.00	0	U	Y
Isophorone	0.00		0	0.00	0	U	Y
Naphthalene	0.00		0	0.00	0	U	Y
Nitrobenzene	0.00		0	0.00	0	U	Y
N-Nitrosodimethylamine	0.00		0	0.00	0	U	Y
N-Nitrosodi-n-propylamine	0.00		0	0.00	0	U	Y
N-Nitrosodiphenylamine	0.00		0	0.00	0	U	Y
Pentachlorophenol	0.00		0	0.00	0	U	Y
Phenanthrene	0.00		0	0.00	0	U	Y
Phenol	0.00		0	0.00	0	U	Y
Pyrene	0.00		0	0.00	0	U	Y
2,2'-Oxybis(1-chloropropane)	0.00		0	0.00	0	U	Y

Prep Amount: 40.9030 g **Dilution:** 1
Prep Final Amount: 1.00 mL **Basis Factor:** 100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

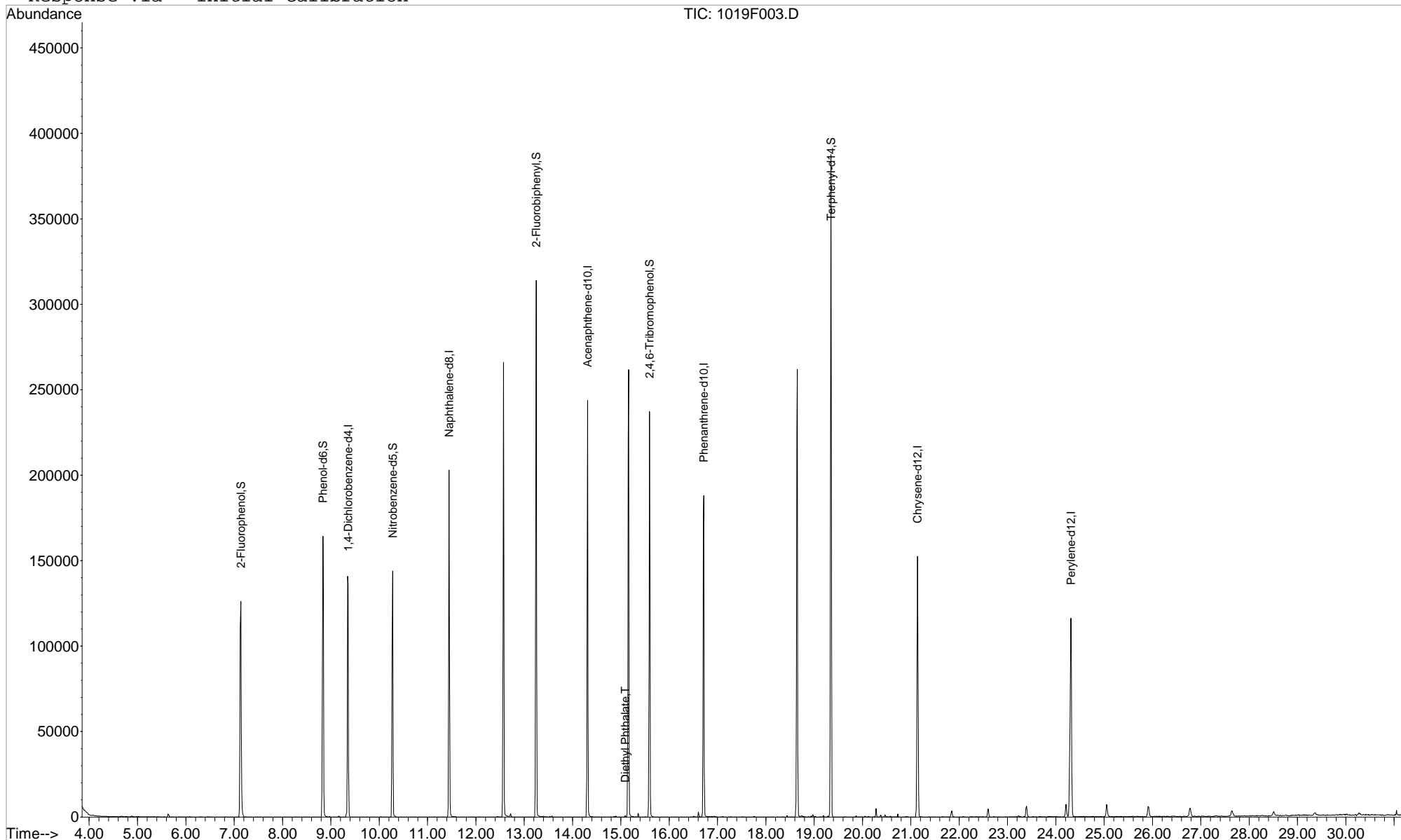
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File : J:\MS07\DATA\101919\1019F003.D
 Acq On : 19 Oct 2019 10:50 am
 Sample : KQ1915120-04 | MB
 Misc :
 MS Integration Params: RTEINT.P
 Quant Time: Oct 21 16:57 2019

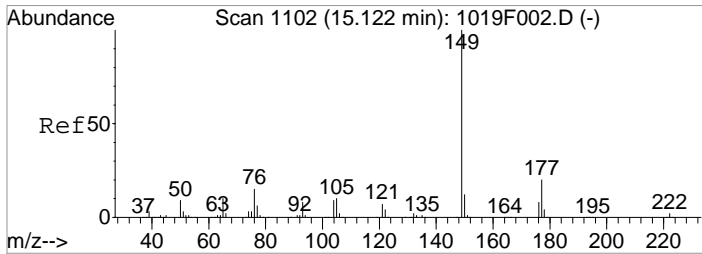
Vial: 11
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

Quant Results File: 101719_BNP7.RES

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Mon Oct 21 16:51:09 2019
 Response via : Initial Calibration

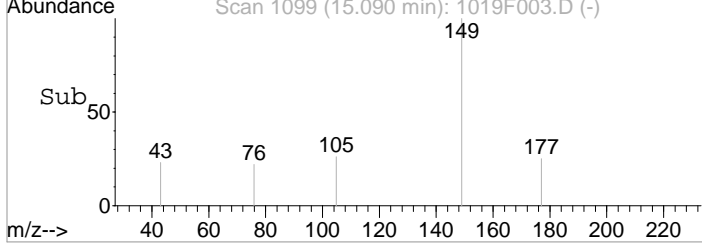
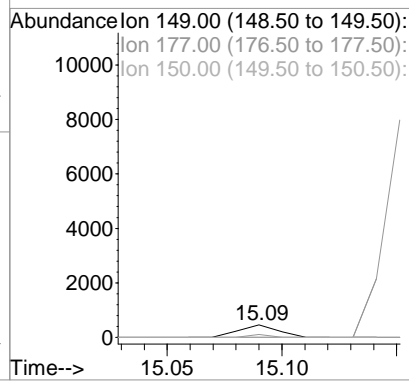
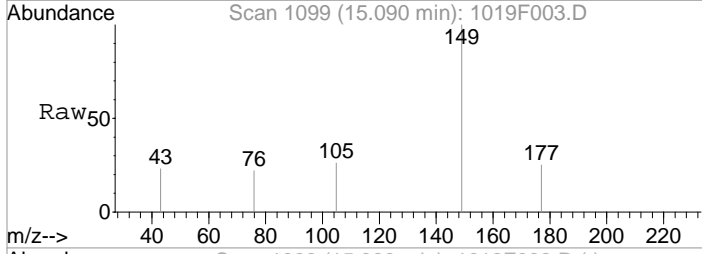


1st *LM* 10/22/19
2nd *Cpw* 10/22/19



#55
Diethyl Phthalate
Concen: 0.25 ug/ml
RT: 15.09 min Scan# 1099
Delta R.T. -0.03 min
Lab File: 1019F003.D
Acq: 19 Oct 2019 10:50 am

Tgt Ion	Resp	Lower	Upper
149	100		
177	24.5	0.0	50.3
150	0.0	0.0	41.8



Data File : J:\MS07\DATA\101919\1019F003.D
 Acq On : 19 Oct 2019 10:50 am
 Sample : KQ1915120-04 | MB
 Misc :

Vial: 11
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 21 16:52:14 2019

Quant Results File: 101719_BNP7.RES

Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Mon Oct 21 15:14:12 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.36	152	31876	40.00	ug/ml	0.00
22) Naphthalene-d8	11.45	136	114837	40.00	ug/ml	-0.01
36) Acenaphthene-d10	14.31	164	65764	40.00	ug/ml	-0.01
61) Phenanthrene-d10	16.72	188	102026	40.00	ug/ml	-0.01
73) Chrysene-d12	21.14	240	87319	40.00	ug/ml	-0.02
84) Perylene-d12	24.31	264	100334	40.00	ug/ml	-0.02

System Monitoring Compounds

4) 2-Fluorophenol	7.14	112	56890	58.02	ug/ml	0.00
Spiked Amount	150.000	Range	21 - 100	Recovery	=	38.68%
8) Phenol-d6	8.84	99	75241	61.55	ug/ml	-0.01
Spiked Amount	150.000	Range	10 - 94	Recovery	=	41.03%
20) Nitrobenzene-d5	10.28	82	54513	43.98	ug/ml	-0.01
Spiked Amount	100.000	Range	35 - 114	Recovery	=	43.98%
40) 2-Fluorobiphenyl	13.25	172	110008	45.29	ug/ml	-0.01
Spiked Amount	100.000	Range	43 - 116	Recovery	=	45.29%
62) 2,4,6-Tribromophenol	15.59	330	43112	67.40	ug/ml	-0.02
Spiked Amount	150.000	Range	10 - 123	Recovery	=	44.93%
76) Terphenyl-d14	19.35	244	156315	66.16	ug/ml	-0.01
Spiked Amount	100.000	Range	33 - 141	Recovery	=	66.16%

Target Compounds

55) Diethyl Phthalate	15.09	149	537	0.25	ug/ml	Qvalue 83
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Validation Report

1st *LM* 10/22/19
2nd *Cpw* 10/22/19

Data File: J:\MS07\DATA\101919\1019F004.D\
Lab ID: KQ1915120-03
RunType: LCS
Matrix: Soil

Date Acquired: 10/19/19 11:31:00
Batch ID: 656208
Analysis Method: 8270D/SVO

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery		X
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery	Aniline	-25		20	OK, <40%
	Benzoic Acid	29		20	OK, <40%

Primary Review: _____

Secondary Review: _____

Quantitation Report

1st *LM* 10/22/19
2nd *Cpw* 10/22/19

Data File: J:\MS07\DATA\101919\1019F004.D\	Instrument: K-MS-07
Acqu Date: 10/19/19 11:31:00	Vial: 6
Run Type: LCS	Dilution: 1
Lab ID: KQ1915120-03	Raw Units: ug/mL

Bottle ID:	Tier: IV	Matrix: Soil
Prod Code: SVO	Collect Date: 10/15/19	Receive Date: 10/16/19

Analysis Lot: 656208	Prep Lot: 346731	Report Group: KQ1915120
Analysis: 8270D	Prep Method: EPA 3541	
	Prep Date: 10/16/19	

Title: Semivolatile Organic Compounds by GC/MS	Calibration ID: KC1900441
	Report List ID: 18699

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
1,4-Dichlorobenzene-d4	9.35	-0.01	32502	40.00	OK
Acenaphthene-d10	14.32		64959	40.00	OK
Chrysene-d12	21.15	-0.02	95765	40.00	OK
Naphthalene-d8	11.45	-0.01	118676	40.00	OK
Perylene-d12	24.33	-0.01	102080	40.00	OK
Phenanthrene-d10	16.72	-0.01	107586	40.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
2,4,6-Tribromophenol	15.61	-0.01	62937	93.31	62	35 - 118	Y
2-Fluorobiphenyl	13.25	-0.01	140221	58.45	58	37 - 103	Y
2-Fluorophenol	7.14	-0.02	72594	72.61	48	30 - 98	Y
Nitrobenzene-d5	10.28	-0.01	72158	57.09	57	36 - 112	Y
Phenol-d6	8.85	-0.02	97795	78.46	52	31 - 103	Y
Terphenyl-d14	19.35	-0.01	187150	72.22	72	18 - 127	Y

Target Compounds

Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
1,2,4-Trichlorobenzene	11.37	-0.01	63555	62.46	2.08		Y
1,2-Dichlorobenzene	9.63	-0.01	65476	58.20	1.94		Y
1,3-Dichlorobenzene	9.26		65283	56.39	1.88		Y
1,4-Dichlorobenzene	9.38	-0.01	69191	57.44	1.91		Y
2,4,5-Trichlorophenol	13.20	+0.01	42935	58.22	1.94		Y
2,4,6-Trichlorophenol	13.12		40362	60.06	2.00		Y
2,4-Dichlorophenol	11.26	-0.02	53258	57.22	1.91		Y
2,4-Dimethylphenol	10.98	-0.03	35855	41.56	1.39		Y
2,4-Dinitrophenol	14.46	-0.01	16393	69.57	2.32		Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 10/22/19 10:24

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Data File: J:\MS07\DATA\101919\1019F004.D\
 Acqu Date: 10/19/19 11:31:00
 Run Type: LCS
 Lab ID: KQ1915120-03

Instrument: K-MS-07nd 10/22/19
 Vial: 6
 Dilution: 1
 Raw Units: ug/mL

Target Compounds

Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2,4-Dinitrotoluene	14.67	-0.01	48997	79.96	2.67		Y
2,6-Dinitrotoluene	14.03	-0.01	35351	74.50	2.48		Y
2-Chloronaphthalene	13.42		119943	66.73	2.22		Y
2-Chlorophenol	9.01	-0.01	56637	52.52	1.75		Y
2-Methyl-4,6-dinitrophenol	15.33	-0.02	25413	66.91	2.23		Y
2-Methylnaphthalene	12.63		123670	63.28	2.11		Y
2-Methylphenol	9.86	-0.05	43720	53.89	1.80		Y
2-Nitroaniline	13.61	-0.02	39403	67.44	2.25		Y
2-Nitrophenol	10.85		35941	61.52	2.05		Y
3,3'-Dichlorobenzidine	21.13	-0.03	76290	65.64	2.19		Y
3-Nitroaniline	14.30	-0.01	35508	70.46	2.35		Y
4-Bromophenyl Phenyl Ether	16.03	-0.01	47480	66.82	2.23		Y
4-Chloro-3-methylphenol	12.46	-0.01	50864	57.74	1.92		Y
4-Chloroaniline	11.61	-0.02	75593	58.17	1.94		Y
4-Chlorophenyl Phenyl Ether	15.24		70146	64.75	2.16		Y
4-Methylphenol	10.13	-0.04	63763	52.35	1.75		Y
4-Nitroaniline	15.30	-0.02	37792	74.52	2.48		Y
4-Nitrophenol	14.63	-0.01	32951	81.80	2.73		Y
Acenaphthene	14.37		105700	64.03	2.13		Y
Acenaphthylene	14.08	-0.01	172503	64.66	2.16		Y
Aniline	8.82	-0.01	64850	45.97	1.53		Y
Anthracene	16.84	-0.01	193955	67.64	2.25		Y
Benz(a)anthracene	21.13	-0.01	172265	70.00	2.33		Y
Benzo(a)pyrene	24.19	-0.03	181508	74.47	2.48		Y
Benzo(b)fluoranthene	23.47	-0.01	203841	69.38	2.31		Y
Benzo(g,h,i)perylene	27.35	-0.02	156365	60.66	2.02		Y
Benzo(k)fluoranthene	23.54	-0.02	191035	75.80	2.53		Y
Benzoic Acid	11.25	-0.05	36058	79.39	2.65		Y
Benzyl Alcohol	9.64	-0.02	39453	59.31	1.98		Y
Bis(2-chloroethoxy)methane	11.12	-0.01	69627	62.13	2.07		Y
Bis(2-chloroethyl) Ether	8.96	-0.02	54169	57.48	1.92		Y
Bis(2-ethylhexyl) Phthalate	21.38	-0.01	136804	85.02	2.83		Y
Butyl Benzyl Phthalate	20.20	-0.01	111438	88.32	2.94		Y
Chrysene	21.22		177781	70.34	2.34		Y
Dibenz(a,h)anthracene	26.86	-0.02	187313	74.63	2.49		Y
Dibenzofuran	14.65	-0.01	176604	65.37	2.18		Y
Diethyl Phthalate	15.11	-0.01	157793	75.45	2.52		Y
Dimethyl Phthalate	13.95	-0.01	151512	72.61	2.42		Y
Di-n-butyl Phthalate	17.78		252680	84.00	2.80		Y
Di-n-octyl Phthalate	22.84	-0.02	225737	78.81	2.63		Y
Fluoranthene	18.69		216657	77.60	2.59		Y

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Printed: 10/22/19 10:24

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Data File:	J:\MS07\DATA\101919\1019F004.D\	Instrument:	K-MS-07 nd <i>Cpu</i>	10/22/19
Acqu Date:	10/19/19 11:31:00	Vial:	6	
Run Type:	LCS	Dilution:	1	
Lab ID:	KQ1915120-03	Raw Units:	ug/mL	

Target Compounds Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Fluorene	15.22	+0.01	137162	68.13	2.27		Y
Hexachlorobenzene	16.10		60494	63.97	2.13		Y
Hexachlorobutadiene	11.73		44034	63.86	2.13		Y
Hexachlorocyclopentadiene	12.90		25686	33.24	1.11		Y
Hexachloroethane	10.18	-0.01	32038	57.44	1.91		Y
Indeno(1,2,3-cd)pyrene	26.77	-0.02	185875	70.91	2.36		Y
Isophorone	10.73	-0.02	108813	57.20	1.91		Y
Naphthalene	11.49	-0.01	178212	63.31	2.11		Y
Nitrobenzene	10.32	-0.01	68647	63.38	2.11		Y
N-Nitrosodimethylamine	4.34	+0.01	42998	59.52	1.98	J	Y
N-Nitrosodi-n-propylamine	10.10	-0.02	39427	56.70	1.89		Y
N-Nitrosodiphenylamine	15.44	-0.01	97694	67.61	2.25		Y
Pentachlorophenol	16.44		34195	59.31	1.98	J	Y
Phenanthrene	16.76	-0.01	188753	67.65	2.26		Y
Phenol	8.87	-0.03	59264	45.60	1.52		Y
Pyrene	19.05		215448	74.52	2.48		Y
2,2'-Oxybis(1-chloropropane)	9.87	-0.01	46113	51.62	1.72		Y

Prep Amount: 30.00 g **Dilution:** 1
Prep Final Amount: 1.00 mL **Basis Factor:** 100.00

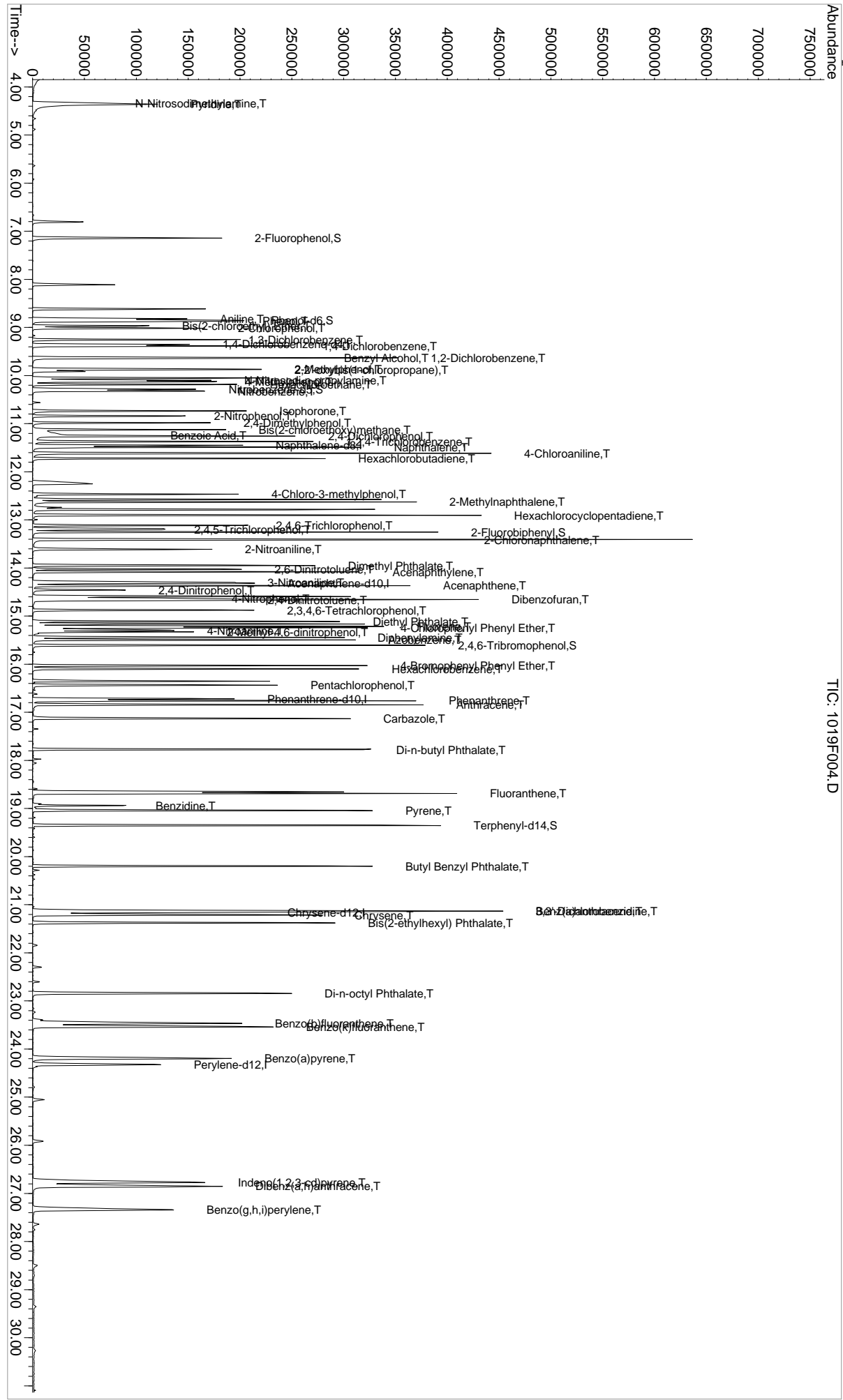
U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File : J:\MS07\DATA\101919\1019F004.D
Acq On : 19 Oct 2019 11:31 am
Sample : KQ1915120-03 | LCS
Misc :
MS Integration Params: RTEINT.P
Quant Results File: 101719_BNP7.RES
Vial: 12
Operator: CCONOVER/LM
Inst: MS07
Multiplr: 1.00

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
Title : BNA Calibration
Last Update : Mon Oct 21 16:51:09 2019
Response via : Initial Calibration
MS Integration Params: RTEINT.P
Quant Results File: 101719_BNP7.RES



Data File : J:\MS07\DATA\101919\1019F004.D
 Acq On : 19 Oct 2019 11:31 am
 Sample : KQ1915120-03 | LCS
 Misc :

Vial: 12
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 21 16:52:15 2019

Quant Results File: 101719_BNP7.RES

Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Mon Oct 21 16:51:09 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.35	152	32502	40.00	ug/ml	0.00
22) Naphthalene-d8	11.45	136	118676	40.00	ug/ml	0.00
36) Acenaphthene-d10	14.32	164	64959	40.00	ug/ml	0.00
61) Phenanthrene-d10	16.72	188	107586	40.00	ug/ml	0.00
73) Chrysene-d12	21.15	240	95765	40.00	ug/ml	0.00
84) Perylene-d12	24.33	264	102080	40.00	ug/ml	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
4) 2-Fluorophenol	7.14	112	72594	72.61	ug/ml	0.00
Spiked Amount	150.000	Range	21 - 100	Recovery	=	48.41%
8) Phenol-d6	8.85	99	97795	78.46	ug/ml	0.00
Spiked Amount	150.000	Range	10 - 94	Recovery	=	52.31%
20) Nitrobenzene-d5	10.28	82	72158	57.09	ug/ml	0.00
Spiked Amount	100.000	Range	35 - 114	Recovery	=	57.09%
40) 2-Fluorobiphenyl	13.25	172	140221	58.45	ug/ml	0.00
Spiked Amount	100.000	Range	43 - 116	Recovery	=	58.45%
62) 2,4,6-Tribromophenol	15.61	330	62937	93.31	ug/ml	0.00
Spiked Amount	150.000	Range	10 - 123	Recovery	=	62.21%
76) Terphenyl-d14	19.35	244	187150	72.22	ug/ml	0.00
Spiked Amount	100.000	Range	33 - 141	Recovery	=	72.22%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-Nitrosodimethylamine	4.34	42	42998	59.52	ug/ml	91
3) Pyridine	4.36	79	85010	89.43	ug/ml	96
6) Aniline	8.82	93	64850	45.97	ug/ml	91
7) Bis(2-chloroethyl) Ether	8.96	93	54169	57.48	ug/ml	96
9) Phenol	8.87	94	59264	45.60	ug/ml	97
10) 2-Chlorophenol	9.01	128	56637	52.52	ug/ml	96
11) 1,3-Dichlorobenzene	9.26	146	65283	56.39	ug/ml	96
12) 1,4-Dichlorobenzene	9.38	146	69191	57.44	ug/ml	98
13) 1,2-Dichlorobenzene	9.63	146	65476	58.20	ug/ml	97
14) Benzyl Alcohol	9.64	108	39453	59.31	ug/ml	93
15) 2,2'-oxybis(1-chloropropan	9.87	45	46113	51.62	ug/ml#	34
16) 2-Methylphenol	9.86	107	43720	53.89	ug/ml	92
17) Hexachloroethane	10.18	117	32038	57.44	ug/ml	94
18) N-Nitrosodi-n-propylamine	10.10	70	39427	56.70	ug/ml	97
19) 4-Methylphenol	10.13	107	63763	52.35	ug/ml	99
21) Nitrobenzene	10.32	77	68647	63.38	ug/ml	94
23) Isophorone	10.73	82	108813	57.20	ug/ml	99
24) 2-Nitrophenol	10.85	139	35941	61.52	ug/ml	98
25) 2,4-Dimethylphenol	10.98	122	35855	41.56	ug/ml	98
26) Bis(2-chloroethoxy)methane	11.12	93	69627	62.13	ug/ml	97
27) 2,4-Dichlorophenol	11.26	162	53258	57.22	ug/ml	100
28) Benzoic Acid	11.25	122	36058	79.39	ug/ml	95
29) 1,2,4-Trichlorobenzene	11.37	180	63555	62.46	ug/ml	96
30) Naphthalene	11.49	128	178212	63.31	ug/ml	100
32) 4-Chloroaniline	11.61	127	75593	58.17	ug/ml	99
33) Hexachlorobutadiene	11.73	225	44034	63.86	ug/ml	99
34) 4-Chloro-3-methylphenol	12.46	107	50864	57.74	ug/ml	99
35) 2-Methylnaphthalene	12.63	142	123670	63.28	ug/ml	100
37) Hexachlorocyclopentadiene	12.90	237	25686	33.24	ug/ml	99
38) 2,4,6-Trichlorophenol	13.12	196	40362	60.06	ug/ml	96
39) 2,4,5-Trichlorophenol	13.20	196	42935m	58.22	ug/ml	
41) 2-Chloronaphthalene	13.42	162	119943	66.73	ug/ml	99
42) 2-Nitroaniline	13.61	65	39403	67.44	ug/ml	93
43) Acenaphthylene	14.08	152	172503	64.66	ug/ml	99
44) Dimethyl Phthalate	13.95	163	151512	72.61	ug/ml	99
45) 2,6-Dinitrotoluene	14.03	165	35351	74.50	ug/ml	80

Data File : J:\MS07\DATA\101919\1019F004.D
Acq On : 19 Oct 2019 11:31 am
Sample : KQ1915120-03 | LCS
Misc :Vial: 12
Operator: CCONOVER/LM
Inst : MS07
Multiplr: 1.00MS Integration Params: RTEINT.P
Quant Time: Oct 21 16:52:15 2019

Quant Results File: 101719_BNP7.RES

Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
Last Update : Mon Oct 21 16:51:09 2019
Response via : Initial Calibration
DataAcq Meth : 8270_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) Acenaphthene	14.37	154	105700	64.03	ug/ml	98
47) 3-Nitroaniline	14.30	138	35508	70.46	ug/ml	99
48) 2,4-Dinitrophenol	14.46	184	16393	69.57	ug/ml	86
49) Dibenzofuran	14.65	168	176604	65.37	ug/ml	95
50) 4-Nitrophenol	14.63	109	32951	81.80	ug/ml#	77
51) 2,4-Dinitrotoluene	14.67	165	48997	79.96	ug/ml	83
52) 2,3,4,6-Tetrachlorophenol	14.88	232	36028	64.53	ug/ml	93
53) Fluorene	15.22	166	137162	68.13	ug/ml	99
54) 4-Chlorophenyl Phenyl Ethe	15.24	204	70146	64.75	ug/ml	97
55) Diethyl Phthalate	15.11	149	157793	75.45	ug/ml	99
56) 4-Nitroaniline	15.30	138	37792	74.52	ug/ml	95
57) 2-Methyl-4,6-dinitrophenol	15.33	198	25413	66.91	ug/ml	73
58) Diphenylamine	15.44	169	97694	67.61	ug/ml	98
59) Azobenzene	15.49	51	66220	60.77	ug/ml	94
63) 4-Bromophenyl Phenyl Ether	16.03	248	47480	66.82	ug/ml	97
64) Hexachlorobenzene	16.10	284	60494	63.97	ug/ml	95
66) Pentachlorophenol	16.44	266	34195	59.31	ug/ml	97
68) Phenanthrene	16.76	178	188753	67.65	ug/ml	100
69) Anthracene	16.84	178	193955	67.64	ug/ml	99
70) Carbazole	17.13	167	184912	72.52	ug/ml	99
71) Di-n-butyl Phthalate	17.78	149	252680	84.00	ug/ml	100
72) Fluoranthene	18.69	202	216657	77.60	ug/ml	97
74) Benzidine	18.94	184	49645	38.63	ug/ml	99
75) Pyrene	19.05	202	215448	74.52	ug/ml	98
78) Butyl Benzyl Phthalate	20.20	149	111438	88.32	ug/ml	95
80) 3,3'-Dichlorobenzidine	21.13	252	76290	65.64	ug/ml	99
81) Benz(a)anthracene	21.13	228	172265	70.00	ug/ml	99
82) Chrysene	21.22	228	177781	70.34	ug/ml	99
83) Bis(2-ethylhexyl) Phthalat	21.38	149	136804	85.02	ug/ml	97
85) Di-n-octyl Phthalate	22.84	149	225737	78.81	ug/ml	97
86) Benzo(b)fluoranthene	23.47	252	203841	69.38	ug/ml	98
87) Benzo(k)fluoranthene	23.54	252	191035	75.80	ug/ml	99
90) Benzo(a)pyrene	24.19	252	181508	74.47	ug/ml	99
91) Indeno(1,2,3-cd)pyrene	26.77	276	185875	70.91	ug/ml	99
92) Dibenz(a,h)anthracene	26.86	278	187313	74.63	ug/ml	99
93) Benzo(g,h,i)perylene	27.35	276	156365	60.66	ug/ml	97

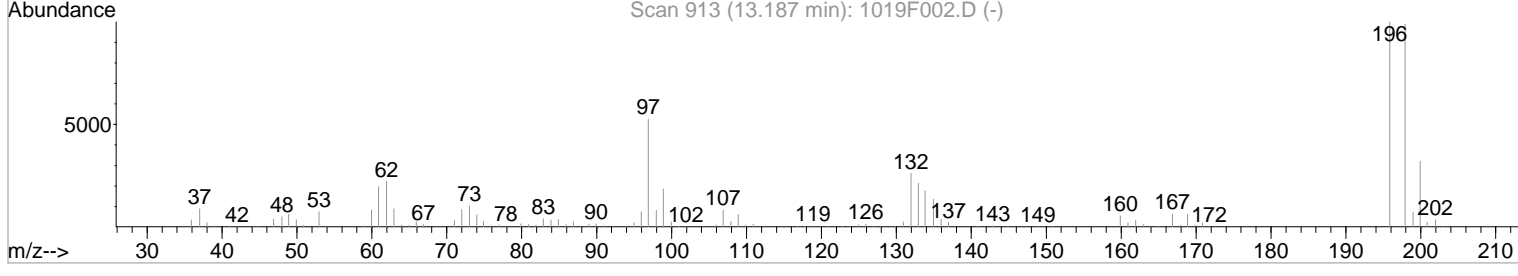
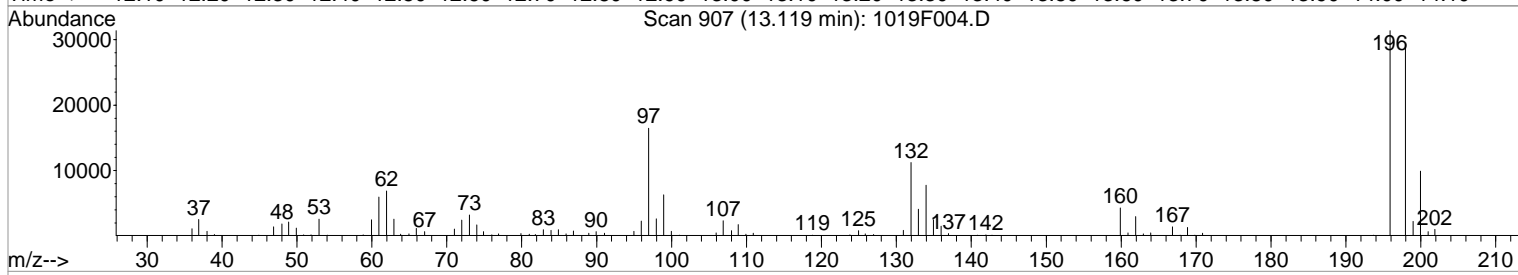
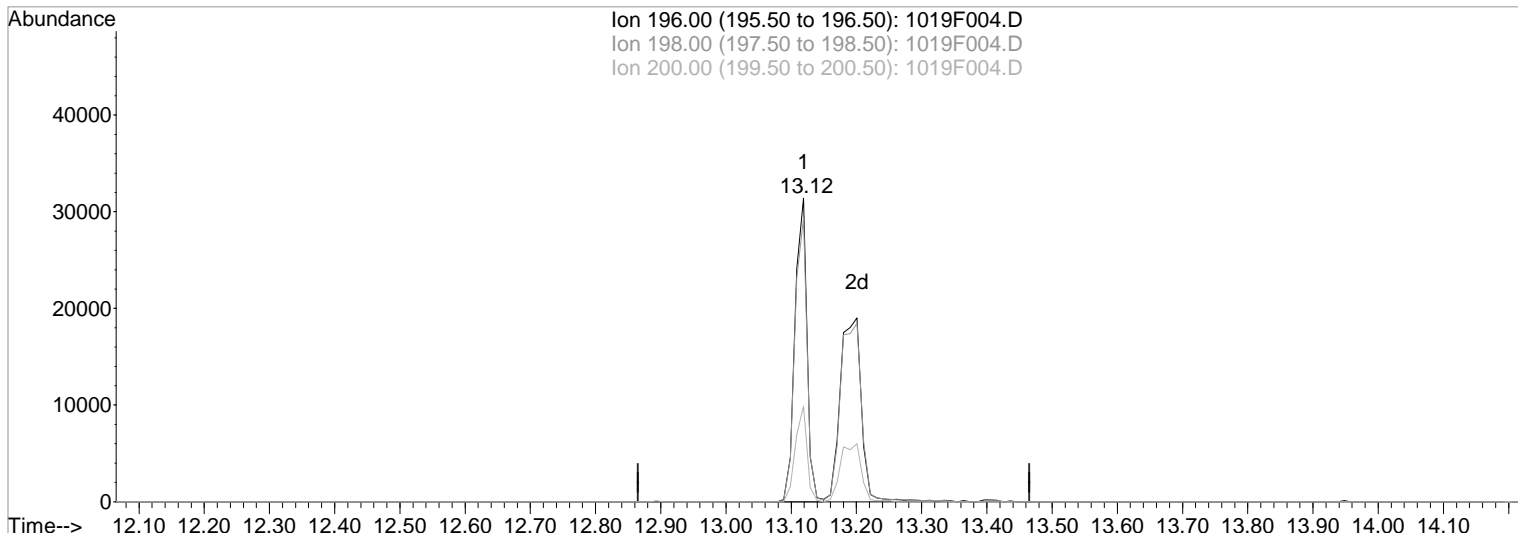
Data File : J:\MS07\DATA\101919\1019F004.D
 Acq On : 19 Oct 2019 11:31 am
 Sample : KQ1915120-03 | LCS
 Misc :

Vial: 12
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 22 8:31 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Mon Oct 21 16:51:09 2019
 Response via : Single Level Calibration



TIC: 1019F004.D

(39) 2,4,5-Trichlorophenol (T)			Manual Integration:
13.12min	54.73ug/ml	response	40362
			Before
			10/22/19
Ion	Exp%	Act%	
196.00	100	100	
198.00	97.90	93.51	
200.00	31.90	31.65	
0.00	0.00	0.00	

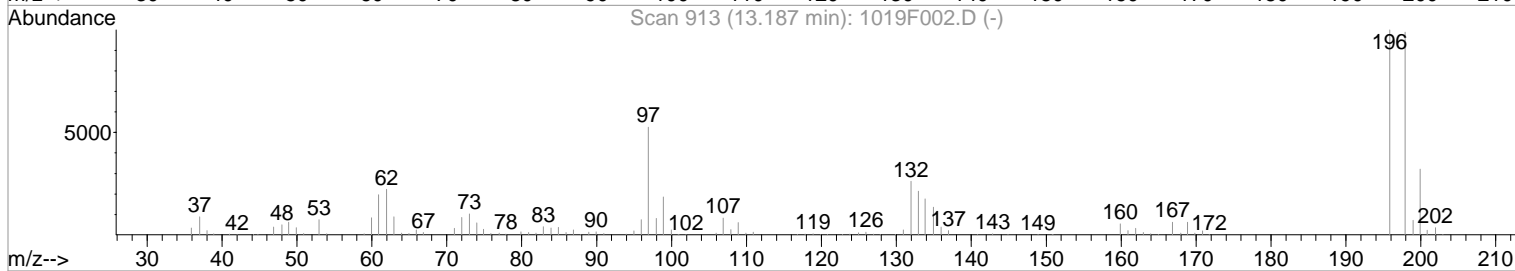
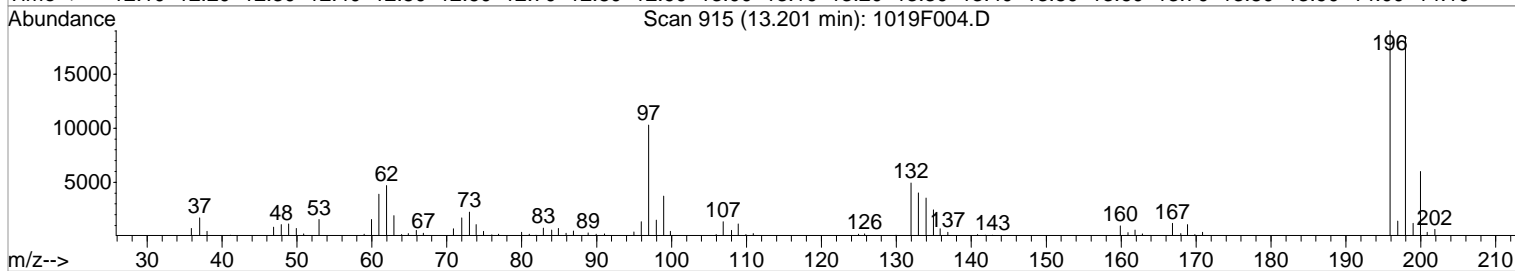
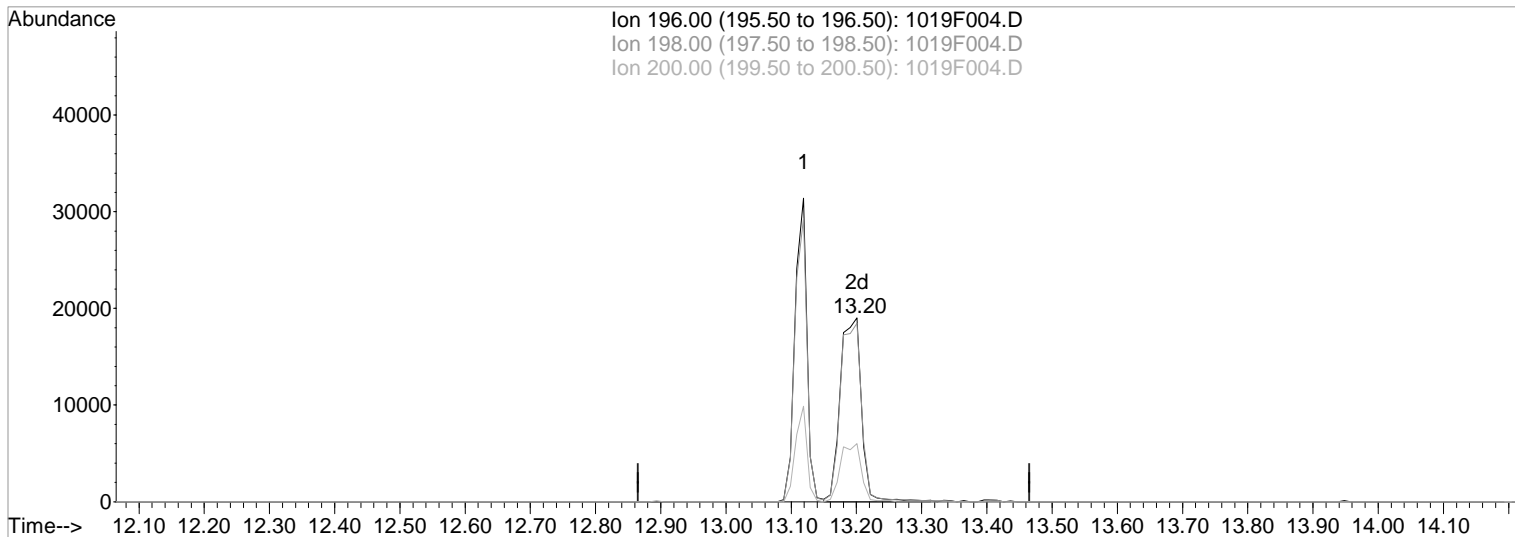
Data File : J:\MS07\DATA\101919\1019F004.D
 Acq On : 19 Oct 2019 11:31 am
 Sample : KQ1915120-03 | LCS
 Misc :

Vial: 12
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 22 8:31 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Mon Oct 21 16:51:09 2019
 Response via : Single Level Calibration



TIC: 1019F004.D

(39) 2,4,5-Trichlorophenol (T)

Manual Integration:

13.20min 58.22ug/ml m
 response 42935

After
 WP

Ion	Exp%	Act%
196.00	100	100
198.00	97.90	96.93
200.00	31.90	31.55
0.00	0.00	0.00

10/22/19

Validation Report

1st *LM* 10/22/19
2nd *Cpw* 10/22/19

Data File: J:\MS07\DATA\101919\1019F005.D\
Lab ID: KQ1915120-01
RunType: MS
Matrix: Soil

Date Acquired: 10/19/19 12:12:00
Batch ID: 656208
Analysis Method: 8270D/SVO

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery		X
Internal Standards	X	
Surrogates		X
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery	Aniline	-25		20	OK, <40%
	Benzoic Acid	29		20	OK, <40%
Surrogates	2-Fluorophenol	28	30	98	narr matrix
	Nitrobenzene-d5	34	36	112	narr matrix

Primary Review: _____

Secondary Review: _____

Quantitation Report

1st *LM* 10/22/19
2nd *Cpw* 10/22/19

Data File: J:\MS07\DATA\101919\1019F005.D\	Instrument: K-MS-07
Acqu Date: 10/19/19 12:12:00	Vial: 7
Run Type: MS	Dilution: 1
Lab ID: KQ1915120-01	Raw Units: ug/mL

Bottle ID: K1909649-002.01	Tier: IV	Matrix: Soil
Prod Code: SVO	Collect Date: 10/15/19	Receive Date: 10/16/19

Analysis Lot: 656208	Prep Lot: 346731	Report Group: KQ1915120
Analysis: 8270D	Prep Method: EPA 3541	
	Prep Date: 10/16/19	

Title: Semivolatile Organic Compounds by GC/MS	Calibration ID: KC1900441
	Report List ID: 18699

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
1,4-Dichlorobenzene-d4	9.35	-0.01	31234	40.00	OK
Acenaphthene-d10	14.32		66827	40.00	OK
Chrysene-d12	21.15	-0.02	89514	40.00	OK
Naphthalene-d8	11.45	-0.01	116151	40.00	OK
Perylene-d12	24.32	-0.02	100186	40.00	OK
Phenanthrene-d10	16.72	-0.01	107591	40.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
2,4,6-Tribromophenol	15.61	-0.01	47917	71.04	47	35 - 118	Y
2-Fluorobiphenyl	13.25	-0.01	95733	38.79	39	37 - 103	Y
2-Fluorophenol	7.13	-0.03	40312	41.96	28 *	30 - 98	Y
Nitrobenzene-d5	10.27	-0.02	41160	33.89	34 *	36 - 112	Y
Phenol-d6	8.84	-0.03	60781	50.74	34	31 - 103	Y
Terphenyl-d14	19.34	-0.02	131394	54.25	54	18 - 127	Y

Target Compounds

Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
1,2,4-Trichlorobenzene	11.37	-0.01	37422	37.58	0.937		Y
1,2-Dichlorobenzene	9.63	-0.01	35193	32.55	0.812		Y
1,3-Dichlorobenzene	9.25	-0.01	33860	30.43	0.759		Y
1,4-Dichlorobenzene	9.38	-0.01	36669	31.68	0.790		Y
2,4,5-Trichlorophenol	13.19		33723	44.45	1.11		Y
2,4,6-Trichlorophenol	13.11	-0.01	30322	43.86	1.09		Y
2,4-Dichlorophenol	11.26	-0.02	35516	38.99	0.973		Y
2,4-Dimethylphenol	10.98	-0.03	23685	28.05	0.700		Y
2,4-Dinitrophenol	14.45	-0.02	13126	58.21	1.45	J	Y

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Data File: J:\MS07\DATA\101919\1019F005.D\
 Acqu Date: 10/19/19 12:12:00
 Run Type: MS
 Lab ID: KQ1915120-01

Instrument: K-MS-07nd 10/22/19
 Vial: 7
 Dilution: 1
 Raw Units: ug/mL

Target Compounds

Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2,4-Dinitrotoluene	14.66	-0.02	37544	59.56	1.49		Y
2,6-Dinitrotoluene	14.02	-0.02	27551	56.44	1.41		Y
2-Chloronaphthalene	13.41	-0.01	82475	44.60	1.11		Y
2-Chlorophenol	9.00	-0.02	32902	31.75	0.792		Y
2-Methyl-4,6-dinitrophenol	15.32	-0.03	19686	52.67	1.31	J	Y
2-Methylnaphthalene	12.63		79929	41.79	1.04		Y
2-Methylphenol	9.86	-0.05	26648	34.18	0.853		Y
2-Nitroaniline	13.61	-0.02	30501	50.75	1.27		Y
2-Nitrophenol	10.84	-0.01	21419	37.46	0.934		Y
3,3'-Dichlorobenzidine	21.13	-0.03	50413	46.41	1.16		Y
3-Nitroaniline	14.30	-0.01	27180	52.43	1.31		Y
4-Bromophenyl Phenyl Ether	16.03	-0.01	36989	52.05	1.30		Y
4-Chloro-3-methylphenol	12.46	-0.01	39188	45.45	1.13		Y
4-Chloroaniline	11.60	-0.03	53717	42.23	1.05		Y
4-Chlorophenyl Phenyl Ether	15.24		55029	49.38	1.23		Y
4-Methylphenol	10.12	-0.05	41760	35.67	0.890		Y
4-Nitroaniline	15.29	-0.03	28358	54.35	1.36	J	Y
4-Nitrophenol	14.63	-0.01	20507	52.15	1.30	J	Y
Acenaphthene	14.37		80389	47.33	1.18		Y
Acenaphthylene	14.08	-0.01	130132	47.42	1.18		Y
Aniline	8.81	-0.02	40604	29.95	0.747	J	Y
Anthracene	16.84	-0.01	151627	52.88	1.32		Y
Benz(a)anthracene	21.12	-0.02	128803	56.00	1.40		Y
Benzo(a)pyrene	24.18	-0.04	138349	57.83	1.44		Y
Benzo(b)fluoranthene	23.46	-0.02	148367	51.45	1.28		Y
Benzo(g,h,i)perylene	27.33	-0.04	118569	46.86	1.17		Y
Benzo(k)fluoranthene	23.53	-0.03	142786	57.73	1.44		Y
Benzoic Acid	11.21	-0.09	28440	66.72	1.66		Y
Benzyl Alcohol	9.63	-0.03	24467	38.28	0.955		Y
Bis(2-chloroethoxy)methane	11.12	-0.01	42958	39.16	0.977		Y
Bis(2-chloroethyl) Ether	8.96	-0.02	30278	33.43	0.834		Y
Bis(2-ethylhexyl) Phthalate	21.37	-0.02	102484	68.14	1.70		Y
Butyl Benzyl Phthalate	20.19	-0.02	82395	69.86	1.74		Y
Chrysene	21.21	-0.01	132389	56.04	1.40		Y
Dibenz(a,h)anthracene	26.84	-0.04	136861	55.56	1.39		Y
Dibenzofuran	14.65	-0.01	137376	49.43	1.23		Y
Diethyl Phthalate	15.10	-0.02	123448	57.37	1.43		Y
Dimethyl Phthalate	13.95	-0.01	116741	54.38	1.36		Y
Di-n-butyl Phthalate	17.77	-0.01	187785	62.42	1.56		Y
Di-n-octyl Phthalate	22.83	-0.03	170243	60.56	1.51		Y
Fluoranthene	18.69		162192	58.09	1.45		Y

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Data File: J:\MS07\DATA\101919\1019F005.D\
 Acqu Date: 10/19/19 12:12:00
 Run Type: MS
 Lab ID: KQ1915120-01

Instrument: K-MS-07nd *Cpu* 10/22/19
 Vial: 7
 Dilution: 1
 Raw Units: ug/mL

Target Compounds

Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Fluorene	15.21		107045	51.69	1.29		Y
Hexachlorobenzene	16.10		47771	50.51	1.26		Y
Hexachlorobutadiene	11.72	-0.01	24495	36.30	0.906		Y
Hexachlorocyclopentadiene	12.89	-0.01	16020	21.22	0.529		Y
Hexachloroethane	10.18	-0.01	16598	30.97	0.773		Y
Indeno(1,2,3-cd)pyrene	26.76	-0.03	136980	53.25	1.33		Y
Isophorone	10.73	-0.02	70595	37.91	0.946		Y
Naphthalene	11.48	-0.02	106425	38.63	0.964		Y
Nitrobenzene	10.31	-0.02	41280	39.66	0.989		Y
N-Nitrosodimethylamine	4.32	-0.01	22957	33.07	0.825	J	Y
N-Nitrosodi-n-propylamine	10.09	-0.03	25278	37.83	0.944		Y
N-Nitrosodiphenylamine	15.44	-0.01	79524	53.50	1.33		Y
Pentachlorophenol	16.44		26216	46.55	1.16	J	Y
Phenanthrene	16.75	-0.02	146796	52.61	1.31		Y
Phenol	8.86	-0.04	38010	30.43	0.759		Y
Pyrene	19.04	-0.01	163967	60.68	1.51		Y
2,2'-Oxybis(1-chloropropane)	9.87	-0.01	27683	32.25	0.804		Y

Prep Amount: 40.168 g
 Prep Final Amount: 1.00 mL

Dilution: 1
 Basis Factor: 99.80

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Printed: 10/22/19 10:24

\valprews001\starlims\LIMSReps\QuantValidation.rpt

1st
Cpu

Data File : J:\MS07\DATA\101919\1019F005.D

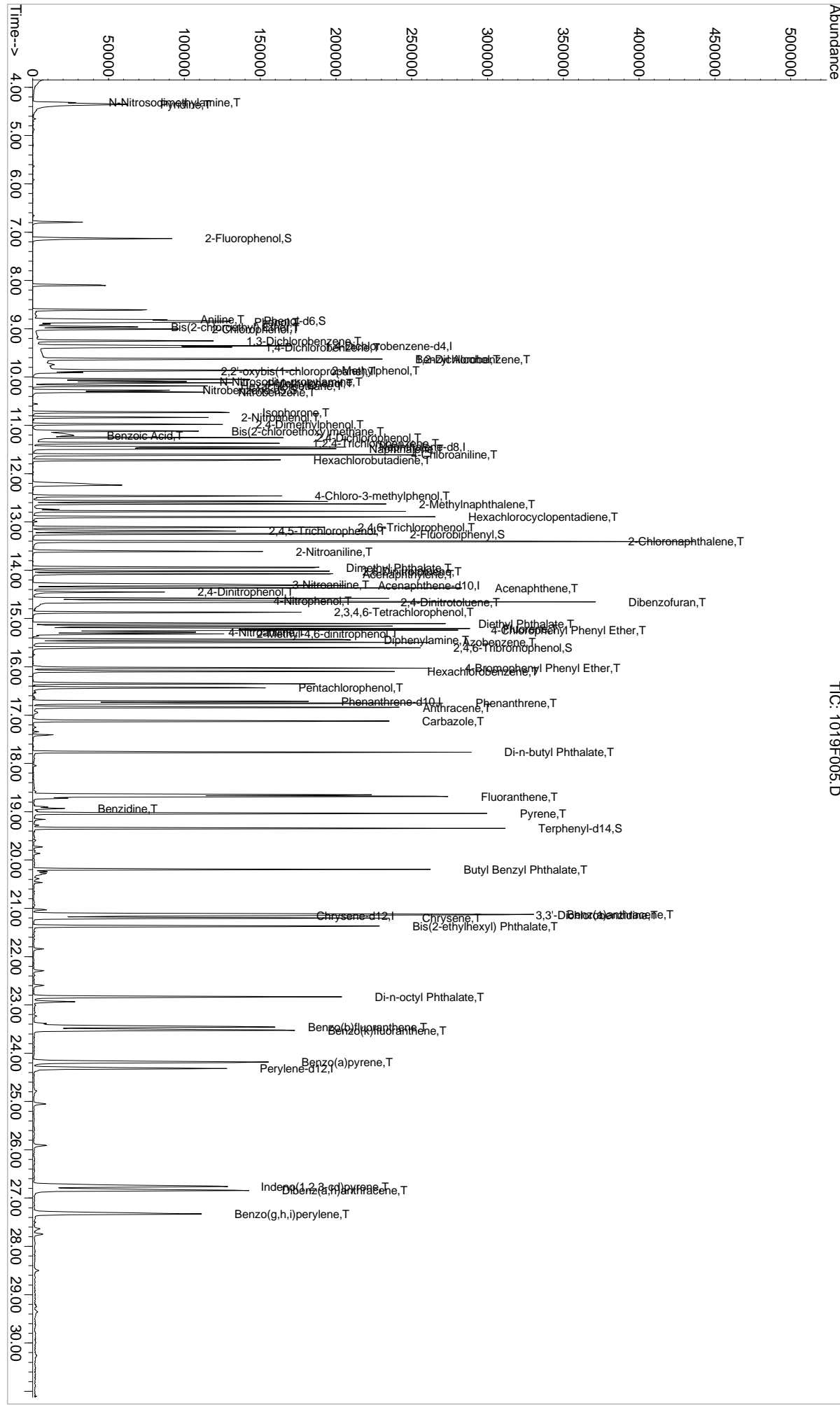
Acq On : 19 Oct 2019 12:12 pm
Sample : KQ1915120-01 | MS
Misc :
MS Integration Params: RTEINT.P
Quant Results File: 101719_BNP7.RES

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
Title : BNA Calibration
Last Update : Mon Oct 21 16:51:09 2019
Response via : Initial Calibration

Quantitation Report (QT Reviewed)

Vial: 13
Operator: CCONOVER/LM
Inst: MS07
Multiplr: 1.00

Abundance
TIC: 1019F005.D



Data File : J:\MS07\DATA\101919\1019F005.D
 Acq On : 19 Oct 2019 12:12 pm
 Sample : KQ1915120-01 | MS
 Misc :

Vial: 13
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 21 16:52:17 2019

Quant Results File: 101719_BNP7.RES

Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Mon Oct 21 16:51:09 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.35	152	31234	40.00	ug/ml	0.00
22) Naphthalene-d8	11.45	136	116151	40.00	ug/ml	0.00
36) Acenaphthene-d10	14.32	164	66827	40.00	ug/ml	0.00
61) Phenanthrene-d10	16.72	188	107591	40.00	ug/ml	0.00
73) Chrysene-d12	21.15	240	89514	40.00	ug/ml	0.00
84) Perylene-d12	24.32	264	100186	40.00	ug/ml	-0.02

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
4) 2-Fluorophenol	7.13	112	40312	41.96	ug/ml	0.00
Spiked Amount	150.000	Range	21 - 100	Recovery	=	27.97%
8) Phenol-d6	8.84	99	60781	50.74	ug/ml	0.00
Spiked Amount	150.000	Range	10 - 94	Recovery	=	33.83%
20) Nitrobenzene-d5	10.27	82	41160	33.89	ug/ml	-0.02
Spiked Amount	100.000	Range	35 - 114	Recovery	=	33.89%#
40) 2-Fluorobiphenyl	13.25	172	95733	38.79	ug/ml	0.00
Spiked Amount	100.000	Range	43 - 116	Recovery	=	38.79%#
62) 2,4,6-Tribromophenol	15.61	330	47917	71.04	ug/ml	0.00
Spiked Amount	150.000	Range	10 - 123	Recovery	=	47.36%
76) Terphenyl-d14	19.34	244	131394	54.25	ug/ml	-0.02
Spiked Amount	100.000	Range	33 - 141	Recovery	=	54.25%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-Nitrosodimethylamine	4.32	42	22957	33.07	ug/ml	93
3) Pyridine	4.36	79	51229	56.08	ug/ml	96
6) Aniline	8.81	93	40604	29.95	ug/ml	88
7) Bis(2-chloroethyl) Ether	8.96	93	30278	33.43	ug/ml	99
9) Phenol	8.86	94	38010	30.43	ug/ml	97
10) 2-Chlorophenol	9.00	128	32902	31.75	ug/ml	99
11) 1,3-Dichlorobenzene	9.25	146	33860	30.43	ug/ml	98
12) 1,4-Dichlorobenzene	9.38	146	36669	31.68	ug/ml	98
13) 1,2-Dichlorobenzene	9.63	146	35193	32.55	ug/ml	99
14) Benzyl Alcohol	9.63	108	24467	38.28	ug/ml	96
15) 2,2'-oxybis(1-chloropropan	9.87	45	27683m	32.25	ug/ml	
16) 2-Methylphenol	9.86	107	26648	34.18	ug/ml	96
17) Hexachloroethane	10.18	117	16598	30.97	ug/ml	98
18) N-Nitrosodi-n-propylamine	10.09	70	25278	37.83	ug/ml	95
19) 4-Methylphenol	10.12	107	41760	35.67	ug/ml	99
21) Nitrobenzene	10.31	77	41280	39.66	ug/ml	96
23) Isophorone	10.73	82	70595	37.91	ug/ml	94
24) 2-Nitrophenol	10.84	139	21419	37.46	ug/ml	88
25) 2,4-Dimethylphenol	10.98	122	23685	28.05	ug/ml	96
26) Bis(2-chloroethoxy)methane	11.12	93	42958	39.16	ug/ml	94
27) 2,4-Dichlorophenol	11.26	162	35516	38.99	ug/ml	95
28) Benzoic Acid	11.21	122	28440	66.72	ug/ml	97
29) 1,2,4-Trichlorobenzene	11.37	180	37422	37.58	ug/ml	98
30) Naphthalene	11.48	128	106425	38.63	ug/ml	100
32) 4-Chloroaniline	11.60	127	53717	42.23	ug/ml	98
33) Hexachlorobutadiene	11.72	225	24495	36.30	ug/ml	97
34) 4-Chloro-3-methylphenol	12.46	107	39188	45.45	ug/ml	99
35) 2-Methylnaphthalene	12.63	142	79929	41.79	ug/ml	99
37) Hexachlorocyclopentadiene	12.89	237	16020	21.22	ug/ml	99
38) 2,4,6-Trichlorophenol	13.11	196	30322	43.86	ug/ml	99
39) 2,4,5-Trichlorophenol	13.19	196	33723	44.45	ug/ml	99
41) 2-Chloronaphthalene	13.41	162	82475	44.60	ug/ml	93
42) 2-Nitroaniline	13.61	65	30501	50.75	ug/ml	98
43) Acenaphthylene	14.08	152	130132	47.42	ug/ml	99
44) Dimethyl Phthalate	13.95	163	116741	54.38	ug/ml	99
45) 2,6-Dinitrotoluene	14.02	165	27551	56.44	ug/ml	95

Data File : J:\MS07\DATA\101919\1019F005.D
Acq On : 19 Oct 2019 12:12 pm
Sample : KQ1915120-01 | MS
Misc :Vial: 13
Operator: CCONOVER/LM
Inst : MS07
Multiplr: 1.00MS Integration Params: RTEINT.P
Quant Time: Oct 21 16:52:17 2019

Quant Results File: 101719_BNP7.RES

Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
Last Update : Mon Oct 21 16:51:09 2019
Response via : Initial Calibration
DataAcq Meth : 8270_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) Acenaphthene	14.37	154	80389	47.33	ug/ml	99
47) 3-Nitroaniline	14.30	138	27180	52.43	ug/ml	96
48) 2,4-Dinitrophenol	14.45	184	13126	58.21	ug/ml	92
49) Dibenzofuran	14.65	168	137376	49.43	ug/ml	95
50) 4-Nitrophenol	14.63	109	20507m	52.15	ug/ml	
51) 2,4-Dinitrotoluene	14.66	165	37544	59.56	ug/ml	95
52) 2,3,4,6-Tetrachlorophenol	14.87	232	27947	48.65	ug/ml	76
53) Fluorene	15.21	166	107045	51.69	ug/ml	100
54) 4-Chlorophenyl Phenyl Ethe	15.24	204	55029	49.38	ug/ml	99
55) Diethyl Phthalate	15.10	149	123448	57.37	ug/ml	99
56) 4-Nitroaniline	15.29	138	28358	54.35	ug/ml	93
57) 2-Methyl-4,6-dinitrophenol	15.32	198	19686	52.67	ug/ml	69
58) Diphenylamine	15.44	169	79524	53.50	ug/ml	99
59) Azobenzene	15.49	51	52581	46.90	ug/ml	97
63) 4-Bromophenyl Phenyl Ether	16.03	248	36989	52.05	ug/ml	95
64) Hexachlorobenzene	16.10	284	47771	50.51	ug/ml	100
66) Pentachlorophenol	16.44	266	26216	46.55	ug/ml	98
68) Phenanthrene	16.75	178	146796	52.61	ug/ml	99
69) Anthracene	16.84	178	151627	52.88	ug/ml	99
70) Carbazole	17.12	167	143790	56.39	ug/ml	99
71) Di-n-butyl Phthalate	17.77	149	187785	62.42	ug/ml	98
72) Fluoranthene	18.69	202	162192	58.09	ug/ml	97
74) Benzidine	18.93	184	9952	8.29	ug/ml	100
75) Pyrene	19.04	202	163967	60.68	ug/ml	99
78) Butyl Benzyl Phthalate	20.19	149	82395	69.86	ug/ml	97
80) 3,3'-Dichlorobenzidine	21.13	252	50413	46.41	ug/ml	99
81) Benz(a)anthracene	21.12	228	128803	56.00	ug/ml	99
82) Chrysene	21.21	228	132389	56.04	ug/ml	99
83) Bis(2-ethylhexyl) Phthalat	21.37	149	102484	68.14	ug/ml	98
85) Di-n-octyl Phthalate	22.83	149	170243	60.56	ug/ml	99
86) Benzo(b)fluoranthene	23.46	252	148367	51.45	ug/ml	99
87) Benzo(k)fluoranthene	23.53	252	142786	57.73	ug/ml	98
90) Benzo(a)pyrene	24.18	252	138349	57.83	ug/ml	99
91) Indeno(1,2,3-cd)pyrene	26.76	276	136980	53.25	ug/ml	98
92) Dibenz(a,h)anthracene	26.84	278	136861	55.56	ug/ml	98
93) Benzo(g,h,i)perylene	27.33	276	118569	46.86	ug/ml	99

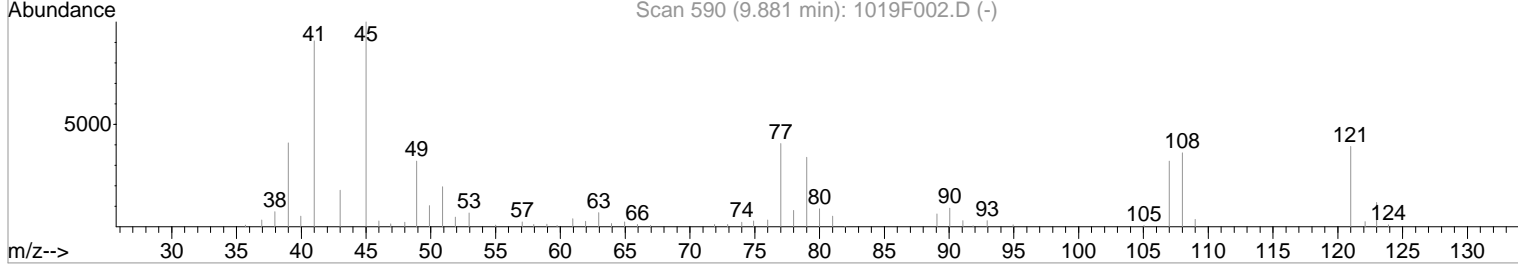
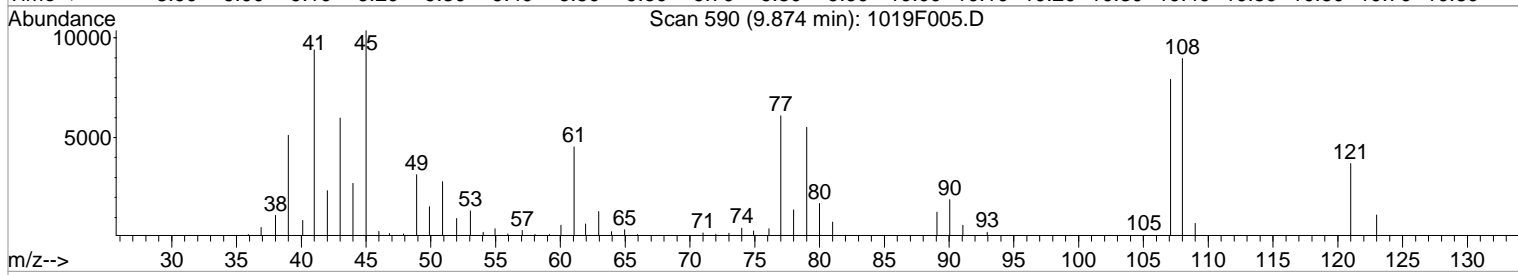
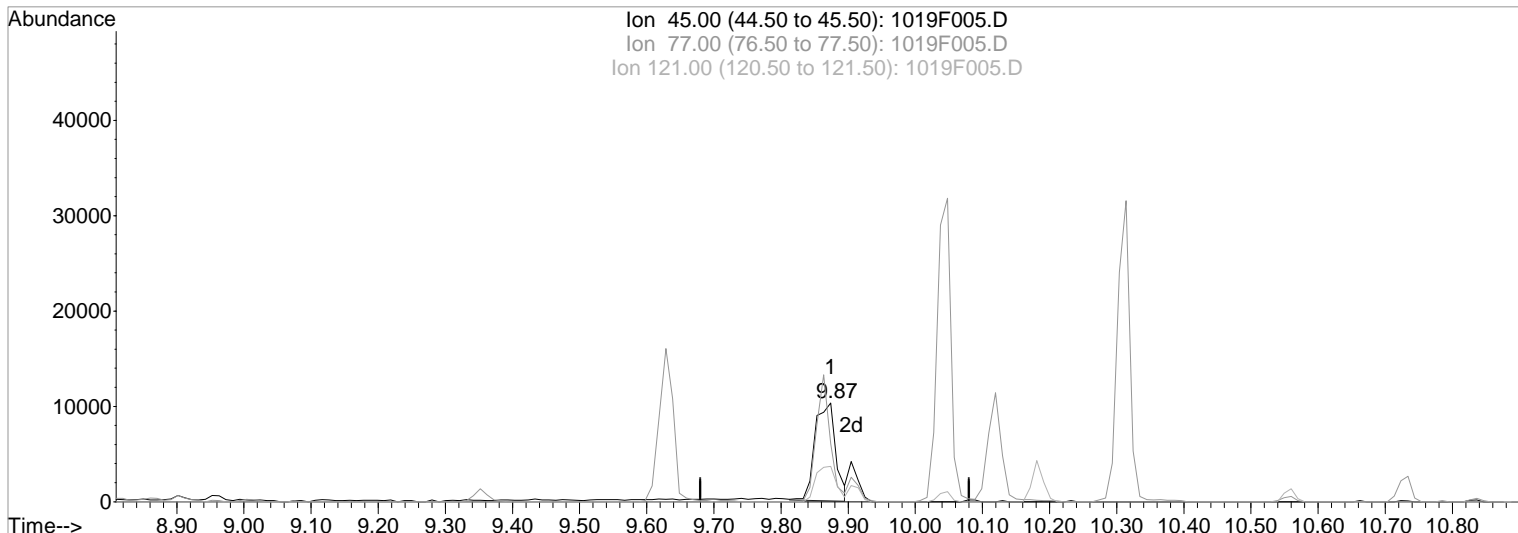
Data File : J:\MS07\DATA\101919\1019F005.D
 Acq On : 19 Oct 2019 12:12 pm
 Sample : KQ1915120-01 | MS
 Misc :

Vial: 13
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 21 16:54 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Mon Oct 21 16:51:09 2019
 Response via : Multiple Level Calibration



TIC: 1019F005.D

(15) 2,2'-oxybis(1-chloropropane) (T)

Manual Integration:

9.87min 25.52ug/ml

Before

response 21905

Ion	Exp%	Act%
45.00	100	100
77.00	19.30	60.13#
121.00	32.30	36.68
0.00	0.00	0.00

10/22/19

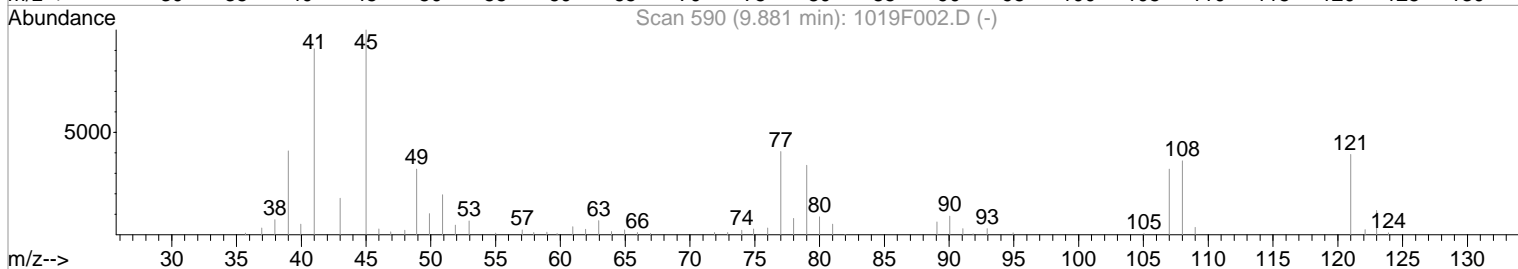
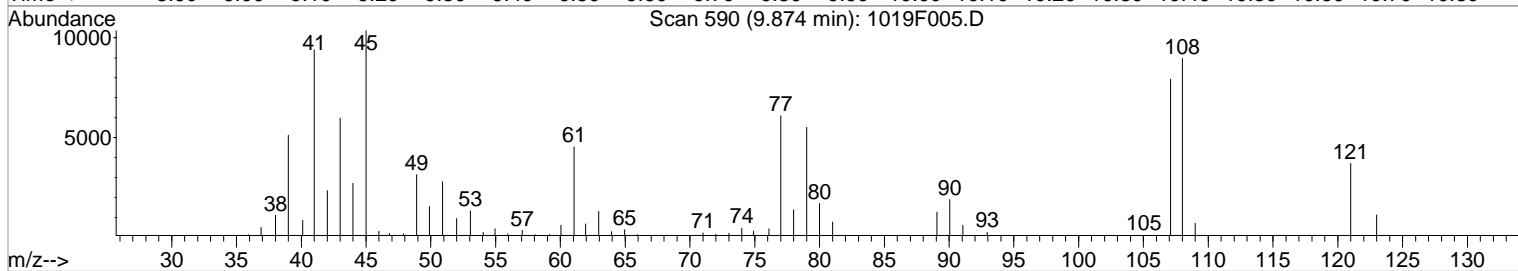
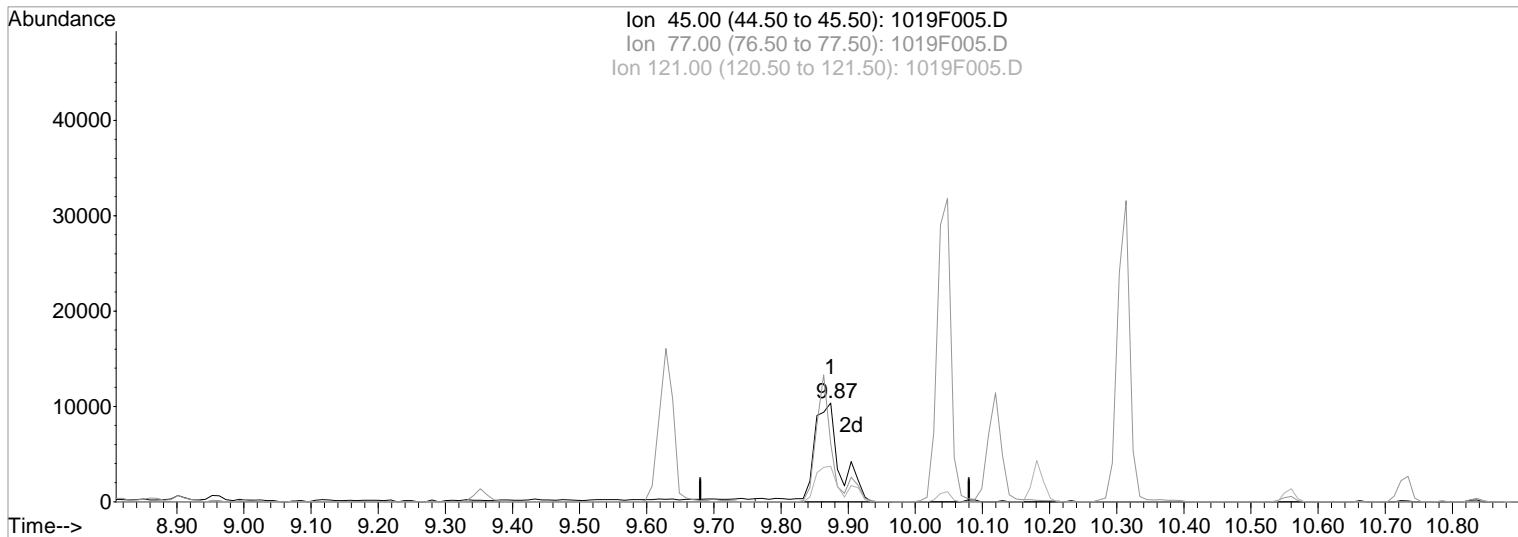
Data File : J:\MS07\DATA\101919\1019F005.D
 Acq On : 19 Oct 2019 12:12 pm
 Sample : KQ1915120-01 | MS
 Misc :

Vial: 13
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 22 8:33 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Mon Oct 21 16:51:09 2019
 Response via : Multiple Level Calibration



TIC: 1019F005.D

(15) 2,2'-oxybis(1-chloropropane) (T)

Manual Integration:

9.87min 32.25ug/ml m

After

response 27683

IC-Incomplete

Ion	Exp%	Act%
45.00	100	100
77.00	19.30	58.85#
121.00	32.30	35.72
0.00	0.00	0.00

10/22/19

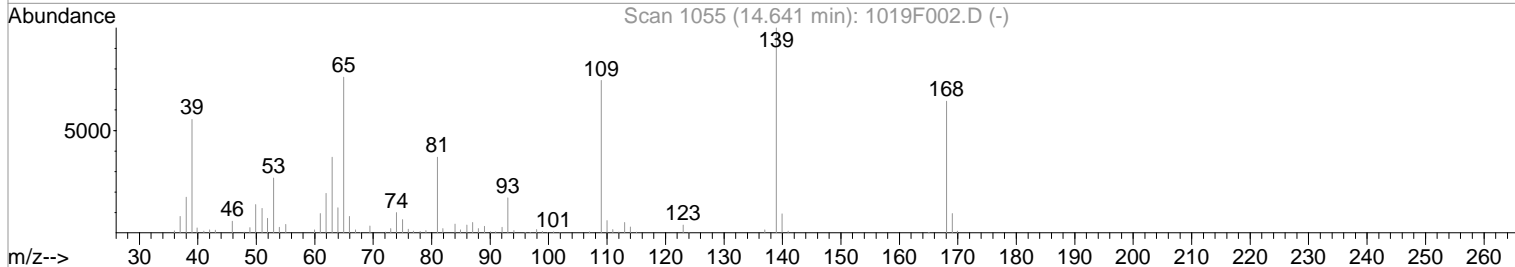
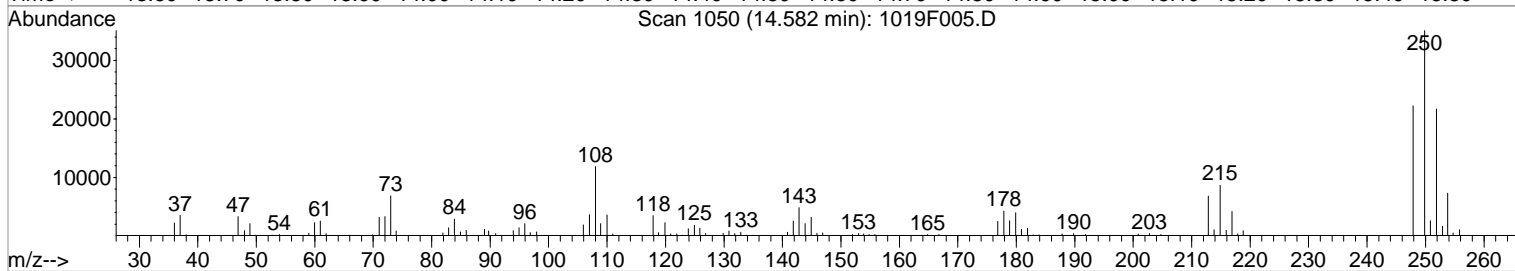
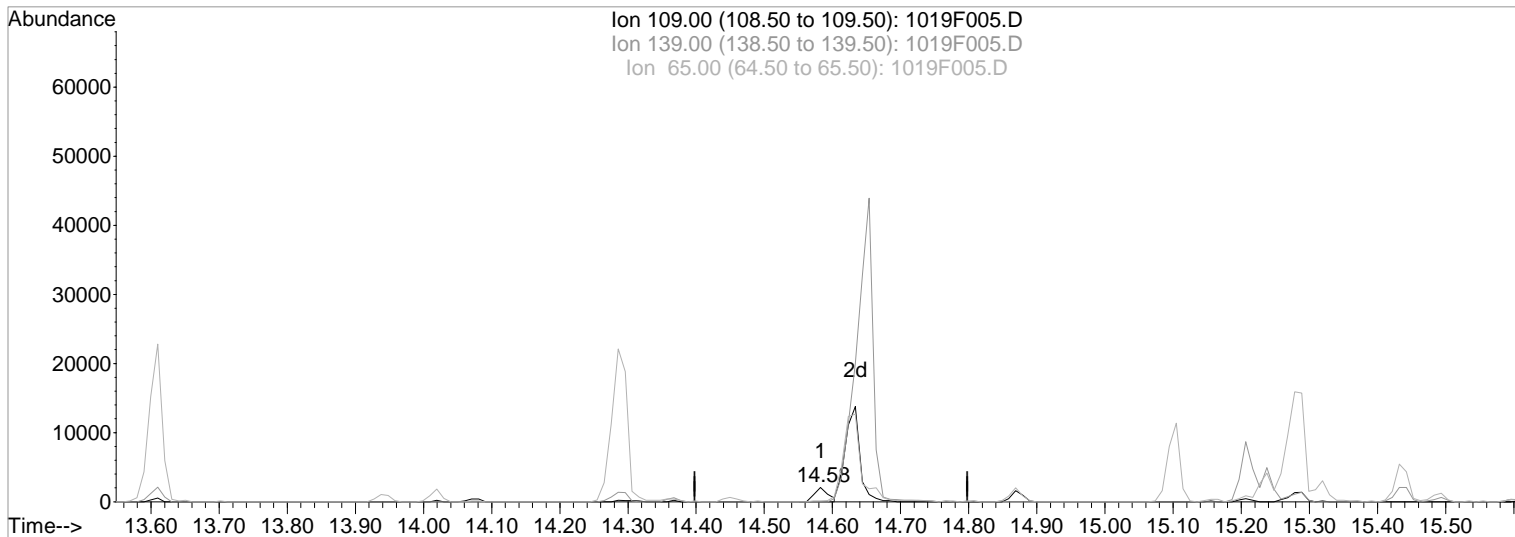
Data File : J:\MS07\DATA\101919\1019F005.D
 Acq On : 19 Oct 2019 12:12 pm
 Sample : KQ1915120-01 | MS
 Misc :

Vial: 13
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 22 8:33 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Mon Oct 21 16:51:09 2019
 Response via : Multiple Level Calibration



TIC: 1019F005.D

(50) 4-Nitrophenol (T)

Manual Integration:

14.58min 9.00ug/ml

Before

response 2897

Ion	Exp%	Act%
109.00	100	100
139.00	91.00	0.00#
65.00	111.80	0.00#
0.00	0.00	0.00

10/22/19

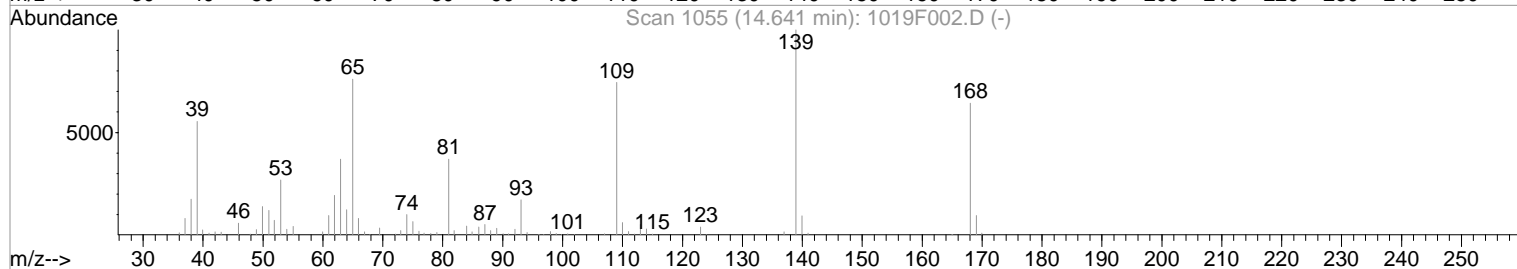
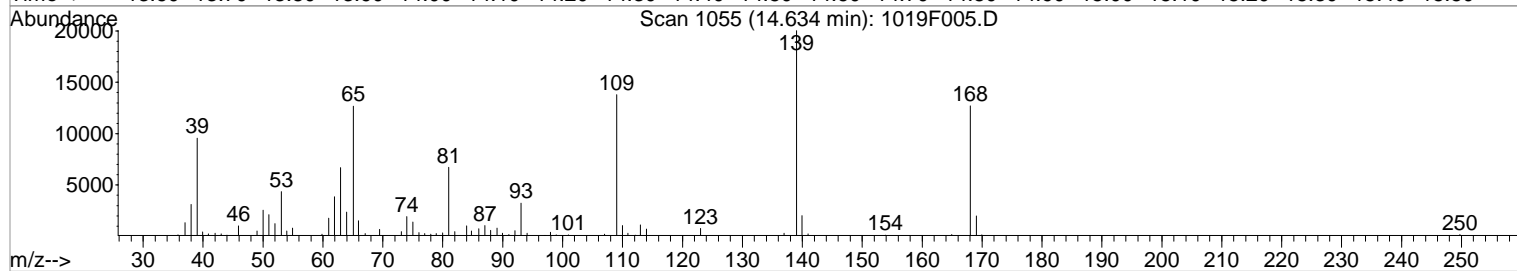
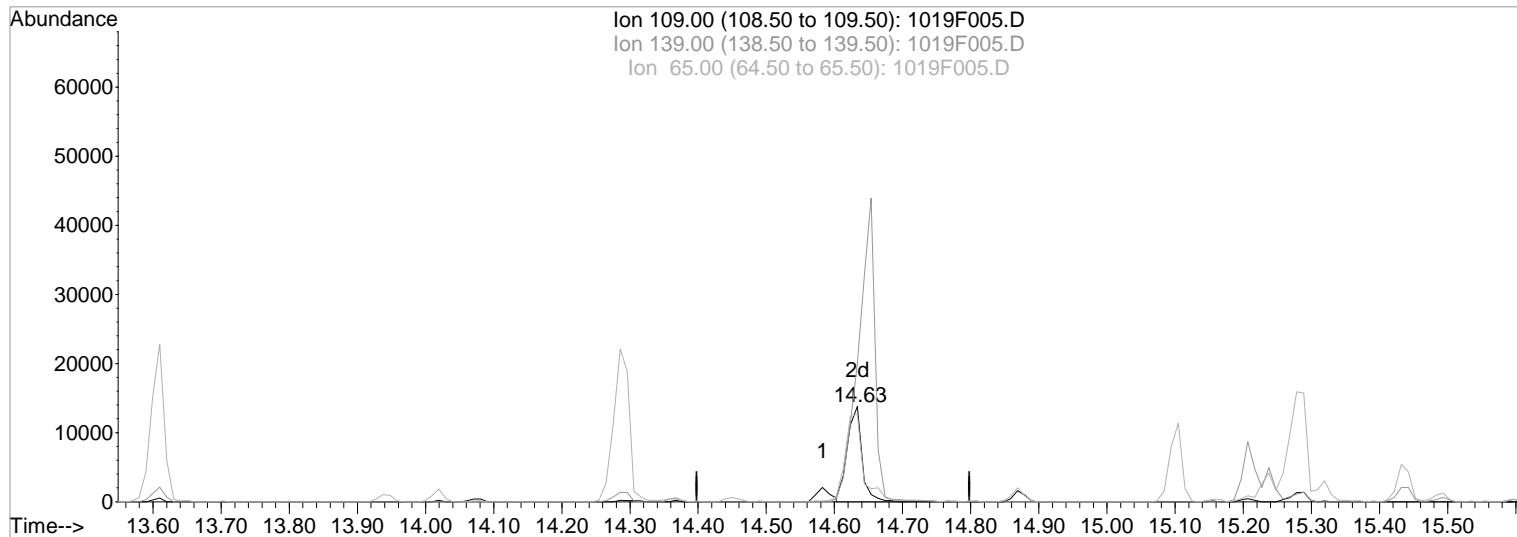
Data File : J:\MS07\DATA\101919\1019F005.D
 Acq On : 19 Oct 2019 12:12 pm
 Sample : KQ1915120-01 | MS
 Misc :

Vial: 13
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 22 8:34 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Mon Oct 21 16:51:09 2019
 Response via : Multiple Level Calibration



TIC: 1019F005.D

(50) 4-Nitrophenol (T)
 14.63min 52.15ug/ml m
 response 20507

Ion	Exp%	Act%
109.00	100	100
139.00	91.00	145.31#
65.00	111.80	91.86
0.00	0.00	0.00

Manual Integration:
 After
 WP
 10/22/19

Validation Report

1st *LM* 10/22/19
2nd *Cpw* 10/22/19

Data File: J:\MS07\DATA\101919\1019F006.D\
Lab ID: KQ1915120-02
RunType: DMS
Matrix: Soil

Date Acquired: 10/19/19 12:54:00
Batch ID: 656208
Analysis Method: 8270D/SVO

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery		X
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery	Aniline	-25		20	OK, <40%
	Benzoic Acid	29		20	OK, <40%

Primary Review: _____

Secondary Review: _____

Quantitation Report

1st *LM* 10/22/19
2nd *Cpw* 10/22/19

Data File: J:\MS07\DATA\101919\1019F006.D\	Instrument: K-MS-07
Acqu Date: 10/19/19 12:54:00	Vial: 8
Run Type: DMS	Dilution: 1
Lab ID: KQ1915120-02	Raw Units: ug/mL

Bottle ID: K1909649-002.01	Tier: IV	Matrix: Soil
Prod Code: SVO	Collect Date: 10/15/19	Receive Date: 10/16/19

Analysis Lot: 656208	Prep Lot: 346731	Report Group: KQ1915120
Analysis: 8270D	Prep Method: EPA 3541	
	Prep Date: 10/16/19	

Title: Semivolatile Organic Compounds by GC/MS	Calibration ID: KC1900441
	Report List ID: 18699

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
1,4-Dichlorobenzene-d4	9.36		30699	40.00	OK
Acenaphthene-d10	14.31	-0.01	66831	40.00	OK
Chrysene-d12	21.15	-0.02	90661	40.00	OK
Naphthalene-d8	11.45	-0.01	119570	40.00	OK
Perylene-d12	24.31	-0.03	98699	40.00	OK
Phenanthrene-d10	16.72	-0.01	105820	40.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
2,4,6-Tribromophenol	15.60	-0.02	55812	84.13	56	35 - 118	Y
2-Fluorobiphenyl	13.25	-0.01	126524	51.26	51	37 - 103	Y
2-Fluorophenol	7.14	-0.02	59920	63.45	42	30 - 98	Y
Nitrobenzene-d5	10.28	-0.01	58326	48.86	49	36 - 112	Y
Phenol-d6	8.85	-0.02	83712	71.11	47	31 - 103	Y
Terphenyl-d14	19.35	-0.01	151952	61.94	62	18 - 127	Y

Target Compounds

Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
1,2,4-Trichlorobenzene	11.36	-0.02	53212	51.90	1.27		Y
1,2-Dichlorobenzene	9.62	-0.02	51677	48.63	1.19		Y
1,3-Dichlorobenzene	9.25	-0.01	52452	47.97	1.18		Y
1,4-Dichlorobenzene	9.38	-0.01	55387	48.68	1.19		Y
2,4,5-Trichlorophenol	13.19		39847	52.52	1.29		Y
2,4,6-Trichlorophenol	13.11	-0.01	38387	55.52	1.36		Y
2,4-Dichlorophenol	11.26	-0.02	49285	52.56	1.29		Y
2,4-Dimethylphenol	10.99	-0.02	29069	33.44	0.819		Y
2,4-Dinitrophenol	14.46	-0.01	15254	64.77	1.59		Y

Data File: J:\MS07\DATA\101919\1019F006.D\
 Acq Date: 10/19/19 12:54:00
 Run Type: DMS
 Lab ID: KQ1915120-02

Instrument: K-MS-07nd 10/22/19
 Vial: 8
 Dilution: 1
 Raw Units: ug/mL

Target Compounds

Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2,4-Dinitrotoluene	14.67	-0.01	42554	67.50	1.65		Y
2,6-Dinitrotoluene	14.03	-0.01	32024	65.59	1.61		Y
2-Chloronaphthalene	13.41	-0.01	105888	57.26	1.40		Y
2-Chlorophenol	9.01	-0.01	46851	45.99	1.13		Y
2-Methyl-4,6-dinitrophenol	15.33	-0.02	23176	60.43	1.48	J	Y
2-Methylnaphthalene	12.62	-0.01	109649	55.69	1.36		Y
2-Methylphenol	9.87	-0.04	37250	48.62	1.19		Y
2-Nitroaniline	13.62	-0.01	36248	60.30	1.48		Y
2-Nitrophenol	10.84	-0.01	30827	52.37	1.28		Y
3,3'-Dichlorobenzidine	21.13	-0.03	60242	54.75	1.34		Y
3-Nitroaniline	14.29	-0.02	30973	59.74	1.46		Y
4-Bromophenyl Phenyl Ether	16.03	-0.01	43670	62.48	1.53		Y
4-Chloro-3-methylphenol	12.47		47101	53.07	1.30		Y
4-Chloroaniline	11.61	-0.02	68503	52.32	1.28		Y
4-Chlorophenyl Phenyl Ether	15.24		66821	59.95	1.47		Y
4-Methylphenol	10.13	-0.04	56650	49.24	1.21		Y
4-Nitroaniline	15.28	-0.04	32685	62.64	1.53		Y
4-Nitrophenol	14.64		25170	62.73	1.54		Y
Acenaphthene	14.36	-0.01	100092	58.93	1.44		Y
Acenaphthylene	14.08	-0.01	161598	58.88	1.44		Y
Aniline	8.82	-0.01	56339	42.29	1.04		Y
Anthracene	16.84	-0.01	170462	60.44	1.48		Y
Benz(a)anthracene	21.13	-0.01	145771	62.57	1.53		Y
Benzo(a)pyrene	24.19	-0.03	154477	65.55	1.61		Y
Benzo(b)fluoranthene	23.46	-0.02	166475	58.60	1.44		Y
Benzo(g,h,i)perylene	27.33	-0.04	135538	54.38	1.33		Y
Benzo(k)fluoranthene	23.52	-0.04	167343	68.67	1.68		Y
Benzoic Acid	11.24	-0.06	34801	76.68	1.88		Y
Benzyl Alcohol	9.63	-0.03	34137	54.34	1.33		Y
Bis(2-chloroethoxy)methane	11.12	-0.01	59087	52.33	1.28		Y
Bis(2-chloroethyl) Ether	8.96	-0.02	43992	49.42	1.21		Y
Bis(2-ethylhexyl) Phthalate	21.37	-0.02	113505	74.52	1.83		Y
Butyl Benzyl Phthalate	20.20	-0.01	91779	76.84	1.88		Y
Chrysene	21.21	-0.01	149674	62.55	1.53		Y
Dibenz(a,h)anthracene	26.84	-0.04	155156	63.94	1.57		Y
Dibenzofuran	14.65	-0.01	164614	59.22	1.45		Y
Diethyl Phthalate	15.10	-0.02	138553	64.39	1.58		Y
Dimethyl Phthalate	13.94	-0.02	137779	64.18	1.57		Y
Di-n-butyl Phthalate	17.77	-0.01	212390	71.78	1.76		Y
Di-n-octyl Phthalate	22.84	-0.02	192488	69.50	1.70		Y
Fluoranthene	18.68	-0.01	181982	66.26	1.62		Y

Data File:	J:\MS07\DATA\101919\1019F006.D\	Instrument:	K-MS-07 nd <i>Cpu</i>	10/22/19
Acqu Date:	10/19/19 12:54:00	Vial:	8	
Run Type:	DMS	Dilution:	1	
Lab ID:	KQ1915120-02	Raw Units:	ug/mL	

Target Compounds Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Fluorene	15.21		124563	60.14	1.47		Y
Hexachlorobenzene	16.09	-0.01	54729	58.84	1.44		Y
Hexachlorobutadiene	11.72	-0.01	35572	51.21	1.25		Y
Hexachlorocyclopentadiene	12.90		21671	27.77	0.680		Y
Hexachloroethane	10.19		25252	47.93	1.17		Y
Indeno(1,2,3-cd)pyrene	26.76	-0.03	157055	61.97	1.52		Y
Isophorone	10.73	-0.02	99991	52.17	1.28		Y
Naphthalene	11.49	-0.01	145529	51.32	1.26		Y
Nitrobenzene	10.31	-0.02	57325	56.04	1.37		Y
N-Nitrosodimethylamine	4.32	-0.01	35320	51.76	1.27	J	Y
N-Nitrosodi-n-propylamine	10.09	-0.03	33510	51.02	1.25		Y
N-Nitrosodiphenylamine	15.44	-0.01	85946	57.81	1.42		Y
Pentachlorophenol	16.43	-0.01	31362	55.63	1.36	J	Y
Phenanthrene	16.76	-0.01	167895	61.18	1.50		Y
Phenol	8.87	-0.03	51847	42.24	1.03		Y
Pyrene	19.04	-0.01	188627	68.92	1.69		Y
2,2'-Oxybis(1-chloropropane)	9.87	-0.01	37881	44.90	1.10		Y

Prep Amount: 40.903 g **Dilution:** 1
Prep Final Amount: 1.00 mL **Basis Factor:** 99.80

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st *CP*

Data File : J:\MS07\DATA\101919\1019F006.D

Acq On : 19 Oct 2019 12:54 pm

Sample : KQ1915120-02 | DMS

MS Integration Params: RTEINT.P

Quant Results File: 101719_BNP7.RES

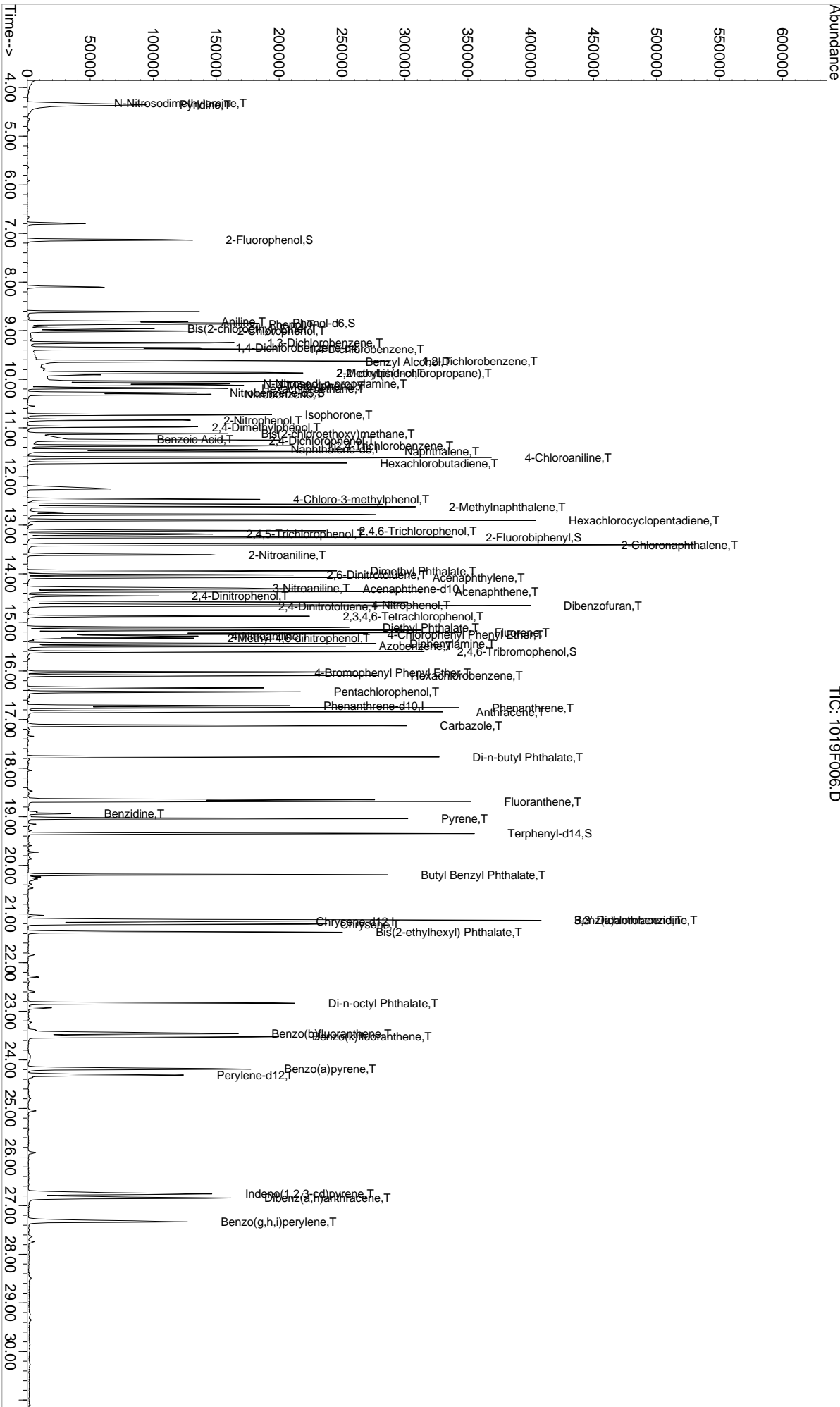
Vial: 14
Operator: CCONOVER/LM
Inst: MS07
Multiplr: 1.00

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)

Title : BNA Calibration

Last Update : Mon Oct 21 16:51:09 2019

Response via : Initial Calibration



Data File : J:\MS07\DATA\101919\1019F006.D
 Acq On : 19 Oct 2019 12:54 pm
 Sample : KQ1915120-02 | DMS
 Misc :

Vial: 14
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 21 16:52:18 2019

Quant Results File: 101719_BNP7.RES

Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Mon Oct 21 16:51:09 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.36	152	30699	40.00	ug/ml	0.00
22) Naphthalene-d8	11.45	136	119570	40.00	ug/ml	-0.01
36) Acenaphthene-d10	14.31	164	66831	40.00	ug/ml	-0.01
61) Phenanthrene-d10	16.72	188	105820	40.00	ug/ml	-0.01
73) Chrysene-d12	21.15	240	90661	40.00	ug/ml	-0.01
84) Perylene-d12	24.31	264	98699	40.00	ug/ml	-0.02

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
4) 2-Fluorophenol	7.14	112	59920	63.45	ug/ml	0.00
Spiked Amount	150.000	Range	21 - 100	Recovery	=	42.30%
8) Phenol-d6	8.85	99	83712	71.11	ug/ml	0.00
Spiked Amount	150.000	Range	10 - 94	Recovery	=	47.41%
20) Nitrobenzene-d5	10.28	82	58326	48.86	ug/ml	-0.01
Spiked Amount	100.000	Range	35 - 114	Recovery	=	48.86%
40) 2-Fluorobiphenyl	13.25	172	126524	51.26	ug/ml	-0.01
Spiked Amount	100.000	Range	43 - 116	Recovery	=	51.26%
62) 2,4,6-Tribromophenol	15.60	330	55812	84.13	ug/ml	-0.01
Spiked Amount	150.000	Range	10 - 123	Recovery	=	56.09%
76) Terphenyl-d14	19.35	244	151952	61.94	ug/ml	-0.01
Spiked Amount	100.000	Range	33 - 141	Recovery	=	61.94%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-Nitrosodimethylamine	4.32	42	35320	51.76	ug/ml	97
3) Pyridine	4.35	79	75448	84.03	ug/ml	98
6) Aniline	8.82	93	56339	42.29	ug/ml	86
7) Bis(2-chloroethyl) Ether	8.96	93	43992	49.42	ug/ml	98
9) Phenol	8.87	94	51847	42.24	ug/ml	99
10) 2-Chlorophenol	9.01	128	46851	45.99	ug/ml	98
11) 1,3-Dichlorobenzene	9.25	146	52452	47.97	ug/ml	99
12) 1,4-Dichlorobenzene	9.38	146	55387	48.68	ug/ml	98
13) 1,2-Dichlorobenzene	9.62	146	51677	48.63	ug/ml	97
14) Benzyl Alcohol	9.63	108	34137	54.34	ug/ml	95
15) 2,2'-oxybis(1-chloropropan	9.87	45	37881	44.90	ug/ml#	13
16) 2-Methylphenol	9.87	107	37250	48.62	ug/ml	96
17) Hexachloroethane	10.19	117	25252	47.93	ug/ml	79
18) N-Nitrosodi-n-propylamine	10.09	70	33510	51.02	ug/ml	99
19) 4-Methylphenol	10.13	107	56650	49.24	ug/ml	99
21) Nitrobenzene	10.31	77	57325	56.04	ug/ml	98
23) Isophorone	10.73	82	99991	52.17	ug/ml	99
24) 2-Nitrophenol	10.84	139	30827	52.37	ug/ml	97
25) 2,4-Dimethylphenol	10.99	122	29069	33.44	ug/ml	99
26) Bis(2-chloroethoxy)methane	11.12	93	59087	52.33	ug/ml	96
27) 2,4-Dichlorophenol	11.26	162	49285	52.56	ug/ml	94
28) Benzoic Acid	11.24	122	34801	76.68	ug/ml	98
29) 1,2,4-Trichlorobenzene	11.36	180	53212	51.90	ug/ml	98
30) Naphthalene	11.49	128	145529	51.32	ug/ml	99
32) 4-Chloroaniline	11.61	127	68503	52.32	ug/ml	99
33) Hexachlorobutadiene	11.72	225	35572	51.21	ug/ml	99
34) 4-Chloro-3-methylphenol	12.47	107	47101	53.07	ug/ml	93
35) 2-Methylnaphthalene	12.62	142	109649	55.69	ug/ml	100
37) Hexachlorocyclopentadiene	12.90	237	21671	27.77	ug/ml	99
38) 2,4,6-Trichlorophenol	13.11	196	38387	55.52	ug/ml	97
39) 2,4,5-Trichlorophenol	13.19	196	39847	52.52	ug/ml	98
41) 2-Chloronaphthalene	13.41	162	105888	57.26	ug/ml	96
42) 2-Nitroaniline	13.62	65	36248	60.30	ug/ml	95
43) Acenaphthylene	14.08	152	161598	58.88	ug/ml	98
44) Dimethyl Phthalate	13.94	163	137779	64.18	ug/ml	99
45) 2,6-Dinitrotoluene	14.03	165	32024	65.59	ug/ml	87

Data File : J:\MS07\DATA\101919\1019F006.D
 Acq On : 19 Oct 2019 12:54 pm
 Sample : KQ1915120-02 | DMS
 Misc :

Vial: 14
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 21 16:52:18 2019

Quant Results File: 101719_BNP7.RES

Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Mon Oct 21 16:51:09 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) Acenaphthene	14.36	154	100092	58.93	ug/ml	99
47) 3-Nitroaniline	14.29	138	30973	59.74	ug/ml	95
48) 2,4-Dinitrophenol	14.46	184	15254	64.77	ug/ml	93
49) Dibenzofuran	14.65	168	164614	59.22	ug/ml	85
50) 4-Nitrophenol	14.64	109	25170m	62.73	ug/ml	
51) 2,4-Dinitrotoluene	14.67	165	42554	67.50	ug/ml	88
52) 2,3,4,6-Tetrachlorophenol	14.87	232	32727	56.97	ug/ml	87
53) Fluorene	15.21	166	124563	60.14	ug/ml	99
54) 4-Chlorophenyl Phenyl Ethe	15.24	204	66821	59.95	ug/ml	91
55) Diethyl Phthalate	15.10	149	138553	64.39	ug/ml	98
56) 4-Nitroaniline	15.28	138	32685	62.64	ug/ml	93
57) 2-Methyl-4,6-dinitrophenol	15.33	198	23176	60.43	ug/ml	82
58) Diphenylamine	15.44	169	85946	57.81	ug/ml	99
59) Azobenzene	15.49	51	60104	53.61	ug/ml	92
63) 4-Bromophenyl Phenyl Ether	16.03	248	43670	62.48	ug/ml	87
64) Hexachlorobenzene	16.09	284	54729	58.84	ug/ml	92
66) Pentachlorophenol	16.43	266	31362	55.63	ug/ml	97
68) Phenanthrene	16.76	178	167895	61.18	ug/ml	99
69) Anthracene	16.84	178	170462	60.44	ug/ml	100
70) Carbazole	17.13	167	161131	64.25	ug/ml	99
71) Di-n-butyl Phthalate	17.77	149	212390	71.78	ug/ml	99
72) Fluoranthene	18.68	202	181982	66.26	ug/ml	98
74) Benzidine	18.94	184	20177	16.59	ug/ml	99
75) Pyrene	19.04	202	188627	68.92	ug/ml	99
78) Butyl Benzyl Phthalate	20.20	149	91779	76.84	ug/ml	98
80) 3,3'-Dichlorobenzidine	21.13	252	60242	54.75	ug/ml	100
81) Benz(a)anthracene	21.13	228	145771	62.57	ug/ml	98
82) Chrysene	21.21	228	149674	62.55	ug/ml	99
83) Bis(2-ethylhexyl) Phthalat	21.37	149	113505	74.52	ug/ml	99
85) Di-n-octyl Phthalate	22.84	149	192488	69.50	ug/ml	97
86) Benzo(b)fluoranthene	23.46	252	166475	58.60	ug/ml	98
87) Benzo(k)fluoranthene	23.52	252	167343	68.67	ug/ml	99
90) Benzo(a)pyrene	24.19	252	154477	65.55	ug/ml	99
91) Indeno(1,2,3-cd)pyrene	26.76	276	157055	61.97	ug/ml	99
92) Dibenz(a,h)anthracene	26.84	278	155156	63.94	ug/ml	99
93) Benzo(g,h,i)perylene	27.33	276	135538	54.38	ug/ml	98

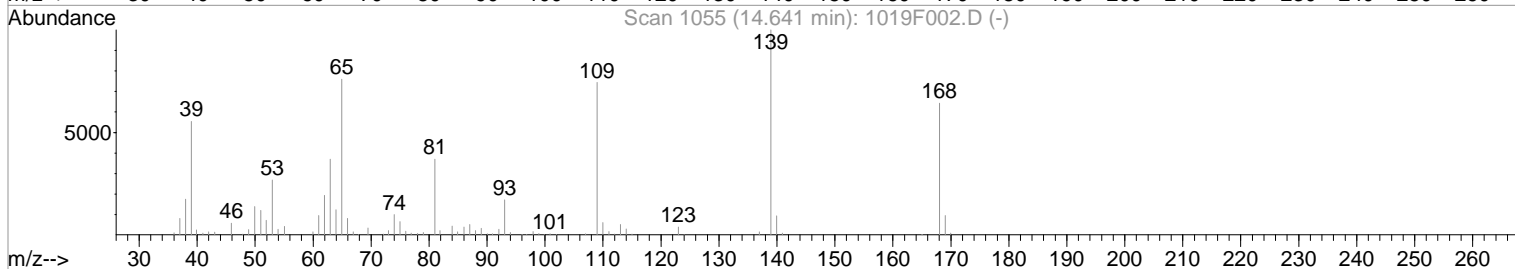
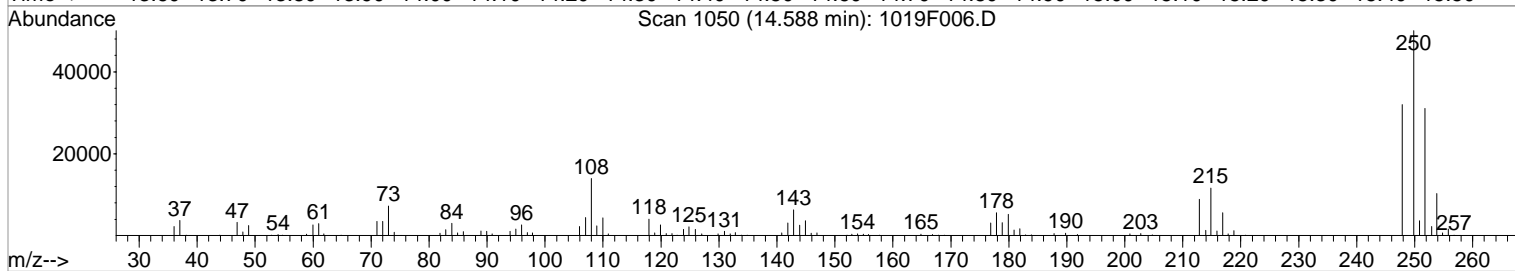
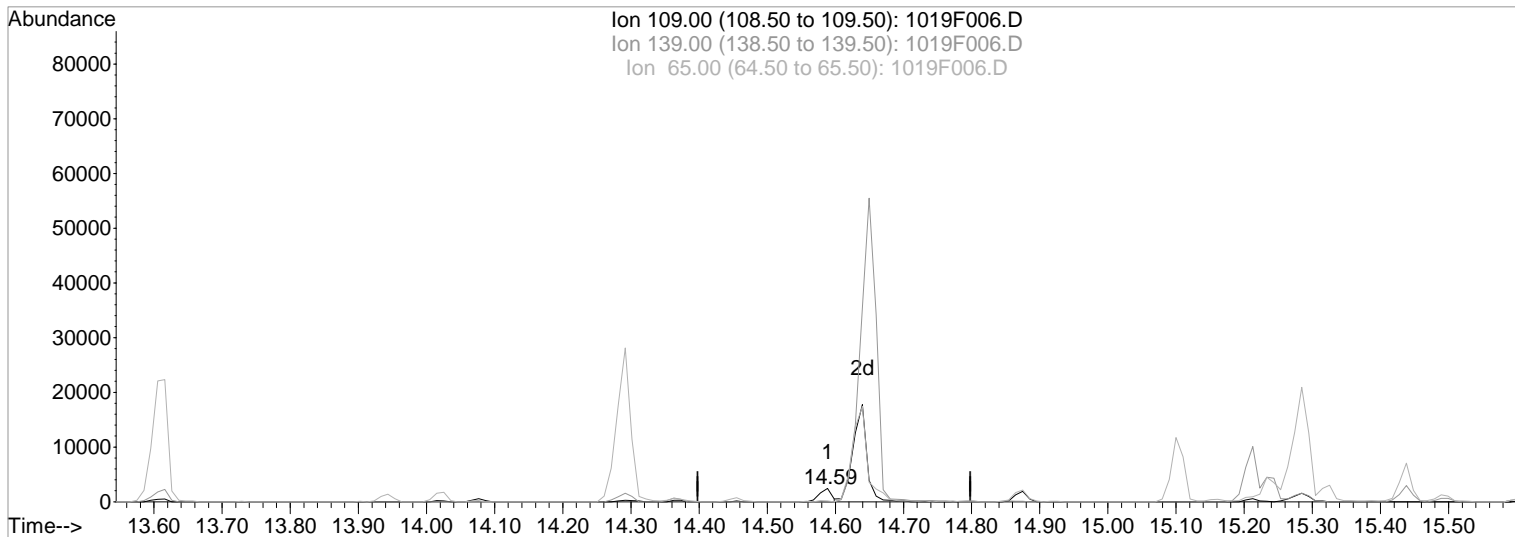
Data File : J:\MS07\DATA\101919\1019F006.D
 Acq On : 19 Oct 2019 12:54 pm
 Sample : KQ1915120-02 | DMS
 Misc :

Vial: 14
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 22 8:36 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Mon Oct 21 16:51:09 2019
 Response via : Multiple Level Calibration



TIC: 1019F006.D

(50) 4-Nitrophenol (T)

Manual Integration:

14.59min 9.27ug/ml

Before

response 3002

Ion	Exp%	Act%
109.00	100	100
139.00	91.00	0.00#
65.00	111.80	6.64#
0.00	0.00	0.00

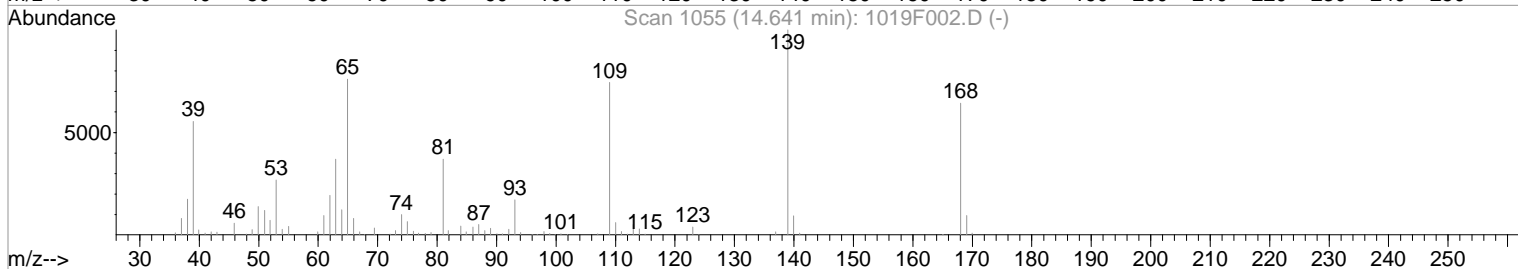
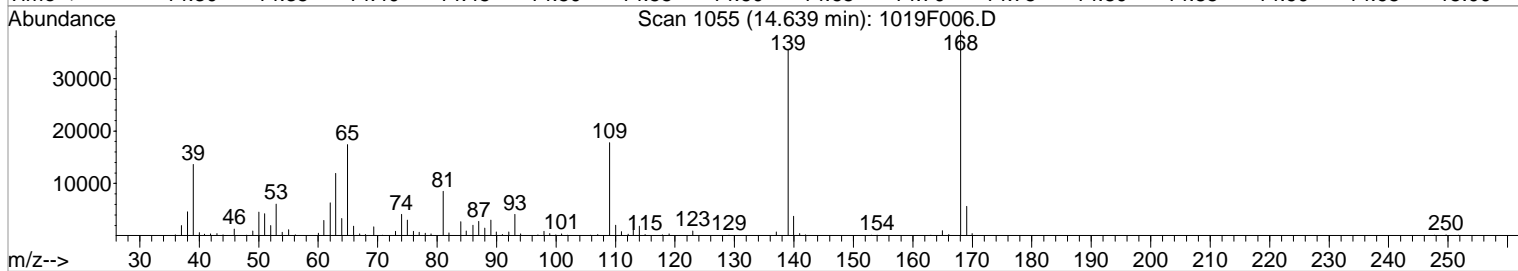
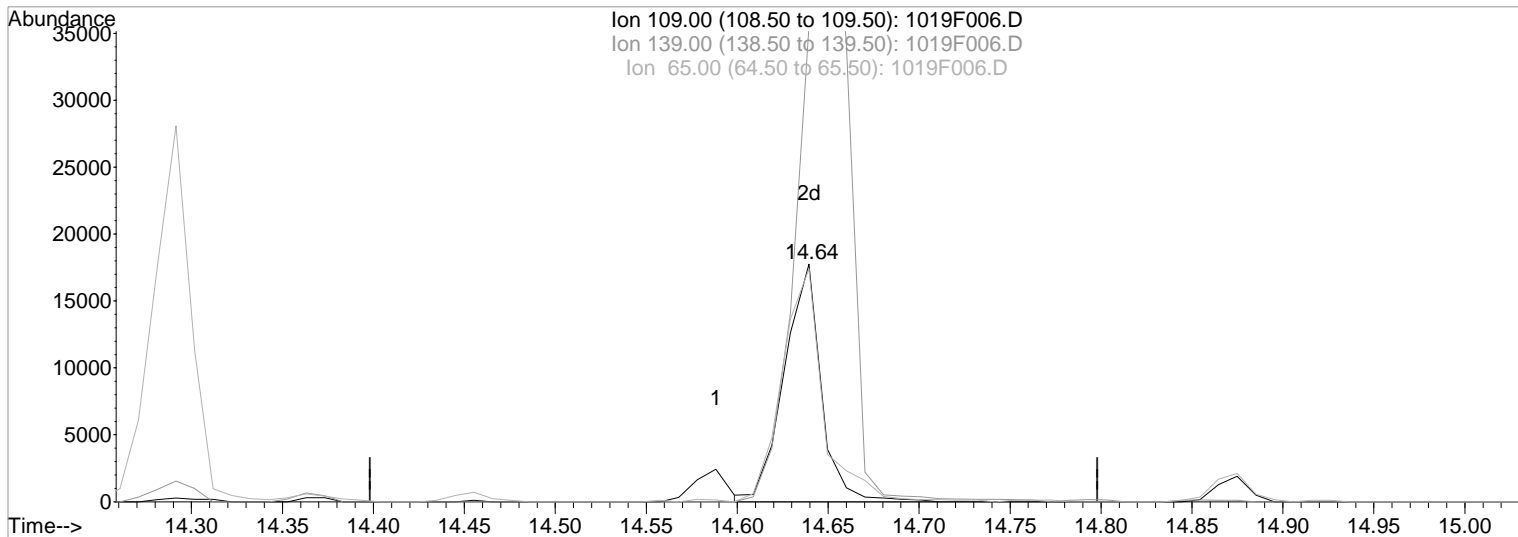
10/22/19

Data File : J:\MS07\DATA\101919\1019F006.D
 Acq On : 19 Oct 2019 12:54 pm
 Sample : KQ1915120-02 | DMS
 Misc :
 MS Integration Params: RTEINT.P
 Quant Time: Oct 22 8:36 2019

Vial: 14
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Mon Oct 21 16:51:09 2019
 Response via : Multiple Level Calibration



TIC: 1019F006.D

(50) 4-Nitrophenol (T)		
14.64min	62.73ug/ml	m
response	25170	
Ion	Exp%	Act%
109.00	100	100
139.00	91.00	199.77#
65.00	111.80	98.06
0.00	0.00	0.00

Manual Integration:
 After
 WP
 10/22/19

Validation Report

1st *LM* 10/22/19
2nd *Cpw* 10/22/19

Data File: J:\MS07\DATA\101919\1019F002.D\
Lab ID: KQ1915292-02
RunType: CCV
Matrix: Water

Date Acquired: 10/19/19 10:09:00
Batch ID: 656208
Analysis Method: 8270D/SVO

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Internal Standards	X	
Above Highest ICAL Level	X	

Primary Review: _____

Secondary Review: _____

Quantitation Report

1st *LM* 10/22/19
2nd *Cpw* 10/22/19

Data File: J:\MS07\DATA\101919\1019F002.D\	Instrument: K-MS-07
Acqu Date: 10/19/19 10:09:00	Vial: 2
Run Type: CCV	Dilution: 1
Lab ID: KQ1915292-02	Raw Units: ug/mL

Bottle ID:	Tier: II	Matrix: Water
Prod Code: SVO	Collect Date: 10/16/19	Receive Date: 10/16/19

Analysis Lot: 656208	Prep Lot:	Report Group: KQ1915292
Analysis: 8270D	Prep Method:	
	Prep Date:	

Title: Semivolatile Organic Compounds by GC/MS	Calibration ID: KC1900441
	Report List ID: 18699

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
1,4-Dichlorobenzene-d4	9.36		35594	40.00	OK
Acenaphthene-d10	14.32		73151	40.00	OK
Chrysene-d12	21.17		99875	40.00	OK
Naphthalene-d8	11.46		134242	40.00	OK
Perylene-d12	24.34		105871	40.00	OK
Phenanthrene-d10	16.73		115653	40.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
2,4,6-Tribromophenol	15.62		51548	71.09	Y
2-Fluorobiphenyl	13.26		203533	75.34	Y
2-Fluorophenol	7.16		78255	71.47	Y
Nitrobenzene-d5	10.29		102149	73.80	Y
Phenol-d6	8.87		98239	71.97	Y
Terphenyl-d14	19.36		216919	80.26	Y

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
1,2,4-Trichlorobenzene	11.38		94010	81.68	Y
1,2-Dichlorobenzene	9.64		95421	77.45	Y
1,3-Dichlorobenzene	9.26		98765	77.90	Y
1,4-Dichlorobenzene	9.39		104289	79.06	Y
2,4,5-Trichlorophenol	13.19		63900	76.94	Y
2,4,6-Trichlorophenol	13.12		61058	80.69	Y
2,4-Dichlorophenol	11.28		87779	83.38	Y
2,4-Dimethylphenol	11.01		76523	78.42	Y
2,4-Dinitrophenol	14.47		25322	87.07	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 10/22/19 10:24

\\alprews001\starlims\LIMSReps\QuantValidation.rpt

Data File: J:\MS07\DATA\101919\1019F002.D\
 Acq Date: 10/19/19 10:09:00
 Run Type: CCV
 Lab ID: KQ1915292-02

Instrument: K-MS-07nd *Cpu* 10/22/19
 Vial: 2
 Dilution: 1
 Raw Units: ug/mL

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
2,4-Dinitrotoluene	14.68		59886	86.79	Y
2,6-Dinitrotoluene	14.04		44477	83.23	Y
2-Chloronaphthalene	13.42		167444	82.72	Y
2-Chlorophenol	9.02		94922	80.37	Y
2-Methyl-4,6-dinitrophenol	15.35		37100	83.33	Y
2-Methylnaphthalene	12.63		172807	78.17	Y
2-Methylphenol	9.91		72270	81.35	Y
2-Nitroaniline	13.63		51938	78.94	Y
2-Nitrophenol	10.85		57345	86.77	Y
3,3'-Dichlorobenzidine	21.16		103959	85.77	Y
3-Nitroaniline	14.31		46055	81.15	Y
4-Bromophenyl Phenyl Ether	16.04		58131	76.10	Y
4-Chloro-3-methylphenol	12.47		78620	78.90	Y
4-Chloroaniline	11.63		104689	71.22	Y
4-Chlorophenyl Phenyl Ether	15.24		91628	75.11	Y
4-Methylphenol	10.17		106215	79.62	Y
4-Nitroaniline	15.32		46410	81.26	Y
4-Nitrophenol	14.64		40623	88.58	Y
Acenaphthene	14.37		147912	79.56	Y
Acenaphthylene	14.09		237560	79.08	Y
Aniline	8.83		92910	60.14	Y
Anthracene	16.85		240293	77.96	Y
Benz(a)anthracene	21.14		205398	80.03	Y
Benzo(a)pyrene	24.22		213433	84.43	Y
Benzo(b)fluoranthene	23.48		245880	80.69	Y
Benzo(g,h,i)perylene	27.37		221626	82.89	Y
Benzo(k)fluoranthene	23.56		225168	86.14	Y
Benzoic Acid	11.30		56391	103.17	Y
Benzyl Alcohol	9.66		56944	78.17	Y
Bis(2-chloroethoxy)methane	11.13		99604	78.57	Y
Bis(2-chloroethyl) Ether	8.98		74985	72.65	Y
Bis(2-ethylhexyl) Phthalate	21.39		156530	93.28	Y
Butyl Benzyl Phthalate	20.21		121315	92.19	Y
Chrysene	21.22		213593	81.03	Y
Dibenz(a,h)anthracene	26.88		224015	86.06	Y
Dibenzofuran	14.66		231823	76.20	Y
Diethyl Phthalate	15.12		188543	80.05	Y
Dimethyl Phthalate	13.96		184161	78.38	Y
Di-n-butyl Phthalate	17.78		298335	92.26	Y
Di-n-octyl Phthalate	22.86		277343	93.36	Y
Fluoranthene	18.69		257449	85.77	Y

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Printed: 10/22/19 10:24

\\alprews001\starlims\LIMSReps\QuantValidation.rpt

Data File: J:\MS07\DATA\101919\1019F002.D\
 Acqu Date: 10/19/19 10:09:00
 Run Type: CCV
 Lab ID: KQ1915292-02

Instrument: K-MS-07nd *Cpu* 10/22/19
 Vial: 2
 Dilution: 1
 Raw Units: ug/mL

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
Fluorene	15.21		176677	77.93	Y
Hexachlorobenzene	16.10		76364	75.12	Y
Hexachlorobutadiene	11.73		64767	83.04	Y
Hexachlorocyclopentadiene	12.90		61024	66.18	Y
Hexachloroethane	10.19		48944	80.13	Y
Indeno(1,2,3-cd)pyrene	26.79		222527	81.86	Y
Isophorone	10.75		163569	76.01	Y
Naphthalene	11.50		248539	78.06	Y
Nitrobenzene	10.33		96743	81.57	Y
N-Nitrosodimethylamine	4.33		61867	78.20	Y
N-Nitrosodi-n-propylamine	10.12		56273	73.90	Y
N-Nitrosodiphenylamine	15.45		124186	76.32	Y
Pentachlorophenol	16.44		48782	76.95	Y
Phenanthrene	16.77		234618	78.22	Y
Phenol	8.90		100742	70.78	Y
Pyrene	19.05		259144	85.95	Y
2,2'-Oxybis(1-chloropropane)	9.88		63874	65.29	Y

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Printed: 10/22/19 10:24

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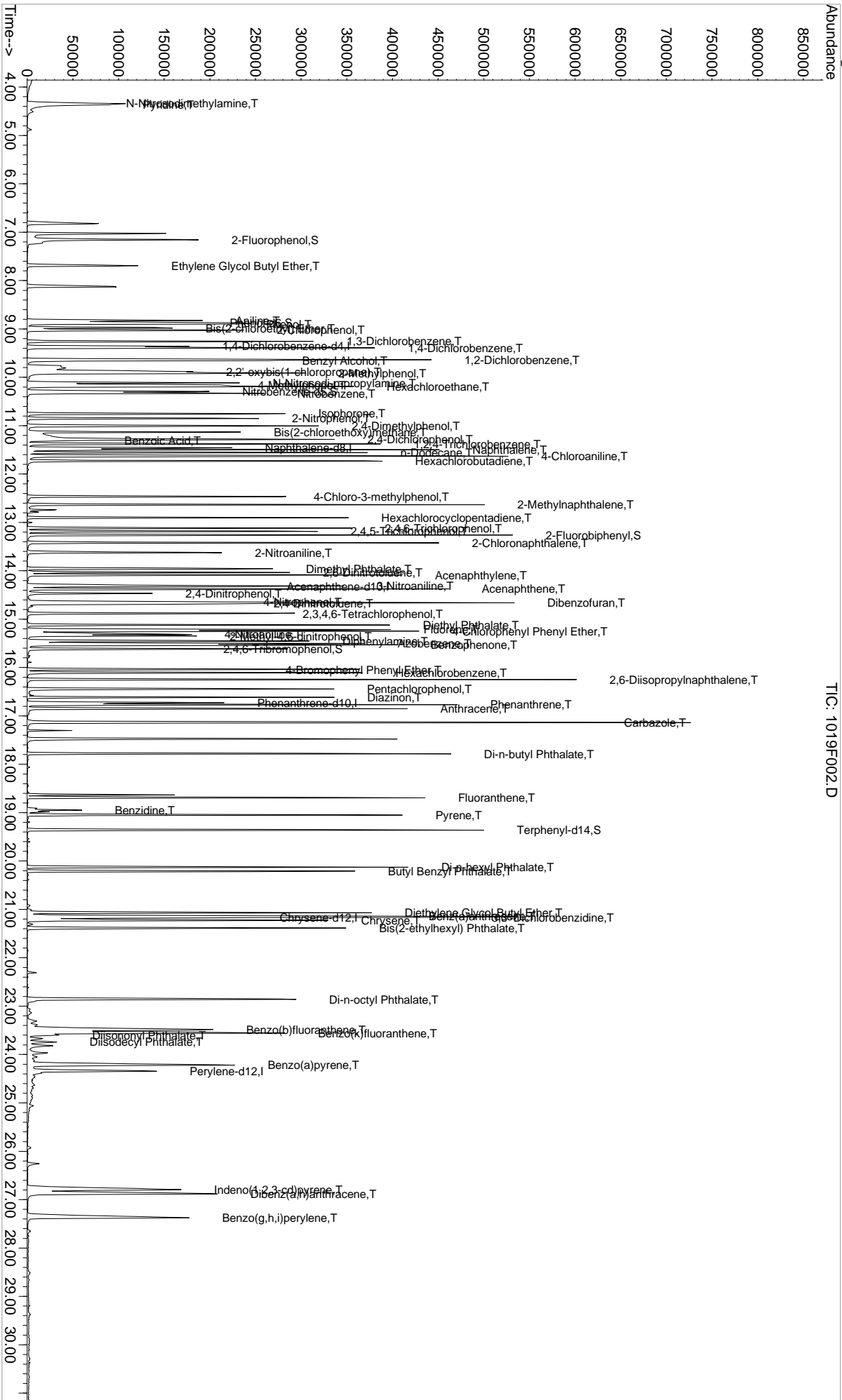
1st
Cpu

Data File : J:\MS07\DATA\101919\1019F002.D
 Acq On : 19 Oct 2019 10:09 am
 Sample : 8270/P CCV @ 80ppm | SVM62-18K
 Misc :
 MS Integration Params: RTEINT.P
 Quant Results File: 101719_BNP7.RES

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Mon Oct 21 16:51:09 2019
 Response via : Initial Calibration

Quantitation Report (QT Reviewed)

Vial: 2
 Operator: CCONOVER/LM
 Inst: MS07
 Multiplr: 1.00



Data File : J:\MS07\DATA\101919\1019F002.D
 Acq On : 19 Oct 2019 10:09 am
 Sample : 8270/P CCV @ 80ppm | SVM62-18K
 Misc :

Vial: 2
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 19 10:48:14 2019

Quant Results File: 101719_BNP7.RES

Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 19:58:35 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.36	152	35594	40.00	ug/ml	0.00
22) Naphthalene-d8	11.46	136	134242	40.00	ug/ml	0.00
36) Acenaphthene-d10	14.32	164	73151	40.00	ug/ml	0.00
61) Phenanthrene-d10	16.73	188	115653	40.00	ug/ml	0.00
73) Chrysene-d12	21.17	240	99875	40.00	ug/ml	0.01
84) Perylene-d12	24.34	264	105871	40.00	ug/ml	0.01

System Monitoring Compounds

4) 2-Fluorophenol	7.16	112	78255	71.47	ug/ml	0.02
Spiked Amount	150.000	Range	21 - 100	Recovery	=	47.65%
8) Phenol-d6	8.87	99	98239	71.97	ug/ml	0.02
Spiked Amount	150.000	Range	10 - 94	Recovery	=	47.98%
20) Nitrobenzene-d5	10.29	82	102149	73.80	ug/ml	0.00
Spiked Amount	100.000	Range	35 - 114	Recovery	=	73.80%
40) 2-Fluorobiphenyl	13.26	172	203533	75.34	ug/ml	0.00
Spiked Amount	100.000	Range	43 - 116	Recovery	=	75.34%
62) 2,4,6-Tribromophenol	15.62	330	51548	71.09	ug/ml	0.01
Spiked Amount	150.000	Range	10 - 123	Recovery	=	47.39%
76) Terphenyl-d14	19.36	244	216919	80.26	ug/ml	0.00
Spiked Amount	100.000	Range	33 - 141	Recovery	=	80.26%

Target Compounds

						Qvalue
2) N-Nitrosodimethylamine	4.33	42	61867	78.20	ug/ml	94
3) Pyridine	4.36	79	71258	68.45	ug/ml	97
5) Ethylene Glycol Butyl Ethe	7.69	57	61213	71.72	ug/ml	98
6) Aniline	8.83	93	92910	60.14	ug/ml	95
7) Bis(2-chloroethyl) Ether	8.98	93	74985	72.65	ug/ml	79
9) Phenol	8.90	94	100742	70.78	ug/ml	98
10) 2-Chlorophenol	9.02	128	94922	80.37	ug/ml	99
11) 1,3-Dichlorobenzene	9.26	146	98765	77.90	ug/ml	99
12) 1,4-Dichlorobenzene	9.39	146	104289	79.06	ug/ml	99
13) 1,2-Dichlorobenzene	9.64	146	95421	77.45	ug/ml	98
14) Benzyl Alcohol	9.66	108	56944	78.17	ug/ml	99
15) 2,2'-oxybis(1-chloropropan	9.88	45	63874	65.29	ug/ml	75
16) 2-Methylphenol	9.91	107	72270	81.35	ug/ml	92
17) Hexachloroethane	10.19	117	48944	80.13	ug/ml	99
18) N-Nitrosodi-n-propylamine	10.12	70	56273	73.90	ug/ml	97
19) 4-Methylphenol	10.17	107	106215	79.62	ug/ml	99
21) Nitrobenzene	10.33	77	96743	81.57	ug/ml	98
23) Isophorone	10.75	82	163569	76.01	ug/ml	99
24) 2-Nitrophenol	10.85	139	57345	86.77	ug/ml	94
25) 2,4-Dimethylphenol	11.01	122	76523	78.42	ug/ml	99
26) Bis(2-chloroethoxy)methane	11.13	93	99604	78.57	ug/ml	99
27) 2,4-Dichlorophenol	11.28	162	87779	83.38	ug/ml	98
28) Benzoic Acid	11.30	122	56391	103.17	ug/ml	97
29) 1,2,4-Trichlorobenzene	11.38	180	94010	81.68	ug/ml	97
30) Naphthalene	11.50	128	248539	78.06	ug/ml	99
31) n-Dodecane	11.56	57	73302	73.61	ug/ml	98
32) 4-Chloroaniline	11.63	127	104689	71.22	ug/ml	97
33) Hexachlorobutadiene	11.73	225	64767	83.04	ug/ml	98
34) 4-Chloro-3-methylphenol	12.47	107	78620	78.90	ug/ml	92
35) 2-Methylnaphthalene	12.63	142	172807	78.17	ug/ml	98
37) Hexachlorocyclopentadiene	12.90	237	61024	66.18	ug/ml	98
38) 2,4,6-Trichlorophenol	13.12	196	61058	80.69	ug/ml	96
39) 2,4,5-Trichlorophenol	13.19	196	63900	76.94	ug/ml	99
41) 2-Chloronaphthalene	13.42	162	167444	82.72	ug/ml	99
42) 2-Nitroaniline	13.63	65	51938	78.94	ug/ml	95
43) Acenaphthylene	14.09	152	237560	79.08	ug/ml	100

Data File : J:\MS07\DATA\101919\1019F002.D
 Acq On : 19 Oct 2019 10:09 am
 Sample : 8270/P CCV @ 80ppm | SVM62-18K
 Misc :

Vial: 2
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 19 10:48:14 2019

Quant Results File: 101719_BNP7.RES

Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 19:58:35 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44) Dimethyl Phthalate	13.96	163	184161	78.38	ug/ml	99
45) 2,6-Dinitrotoluene	14.04	165	44477	83.23	ug/ml	93
46) Acenaphthene	14.37	154	147912	79.56	ug/ml	97
47) 3-Nitroaniline	14.31	138	46055	81.15	ug/ml	97
48) 2,4-Dinitrophenol	14.47	184	25322	87.07	ug/ml	99
49) Dibenzofuran	14.66	168	231823	76.20	ug/ml	90
50) 4-Nitrophenol	14.64	109	40623	88.58	ug/ml#	74
51) 2,4-Dinitrotoluene	14.68	165	59886	86.79	ug/ml	98
52) 2,3,4,6-Tetrachlorophenol	14.89	232	51725	82.27	ug/ml	97
53) Fluorene	15.21	166	176677	77.93	ug/ml	99
54) 4-Chlorophenyl Phenyl Eth	15.24	204	91628	75.11	ug/ml	97
55) Diethyl Phthalate	15.12	149	188543	80.05	ug/ml	99
56) 4-Nitroaniline	15.32	138	46410	81.26	ug/ml	95
57) 2-Methyl-4,6-dinitrophenol	15.35	198	37100	83.33	ug/ml	85
58) Diphenylamine	15.45	169	124186	76.32	ug/ml	100
59) Azobenzene	15.50	51	102127m	83.23	ug/ml	
60) Benzophenone	15.53	105	169502	74.12	ug/ml	99
63) 4-Bromophenyl Phenyl Ether	16.04	248	58131	76.10	ug/ml	87
64) Hexachlorobenzene	16.10	284	76364	75.12	ug/ml	92
65) 2,6-Diisopropyl naphthalene	16.25	197	154810	85.28	ug/ml	99
66) Pentachlorophenol	16.44	266	48782	76.95	ug/ml	97
67) Diazinon	16.62	137	30564	74.68	ug/ml	97
68) Phenanthrene	16.77	178	234618	78.22	ug/ml	100
69) Anthracene	16.85	178	240293	77.96	ug/ml	98
70) Carbazole	17.14	167	225178	82.15	ug/ml	99
71) Di-n-butyl Phthalate	17.78	149	298335	92.26	ug/ml	99
72) Fluoranthene	18.69	202	257449	85.77	ug/ml	96
74) Benzidine	18.95	184	31696	23.65	ug/ml	99
75) Pyrene	19.05	202	259144	85.95	ug/ml	99
77) Di-n-hexyl Phthalate	20.13	149	295258	98.00	ug/ml	97
78) Butyl Benzyl Phthalate	20.21	149	121315	92.19	ug/ml	94
79) Diethylene Glycol Butyl Et	21.07	105	190307	98.20	ug/ml	98
80) 3,3'-Dichlorobenzidine	21.16	252	103959	85.77	ug/ml	99
81) Benz(a)anthracene	21.14	228	205398	80.03	ug/ml	99
82) Chrysene	21.22	228	213593	81.03	ug/ml	100
83) Bis(2-ethylhexyl) Phthalat	21.39	149	156530	93.28	ug/ml	99
85) Di-n-octyl Phthalate	22.86	149	277343	93.36	ug/ml	95
86) Benzo(b)fluoranthene	23.48	252	245880	80.69	ug/ml	99
87) Benzo(k)fluoranthene	23.56	252	225168	86.14	ug/ml	98
88) Diisononyl Phthalate	23.60	293	18194m	82.45	ug/ml	
89) Diisodecyl Phthalate	23.74	149	260936m	91.42	ug/ml	
90) Benzo(a)pyrene	24.22	252	213433	84.43	ug/ml	99
91) Indeno(1,2,3-cd)pyrene	26.79	276	222527	81.86	ug/ml	99
92) Dibenz(a,h)anthracene	26.88	278	224015	86.06	ug/ml	97
93) Benzo(g,h,i)perylene	27.37	276	221626	82.89	ug/ml	99

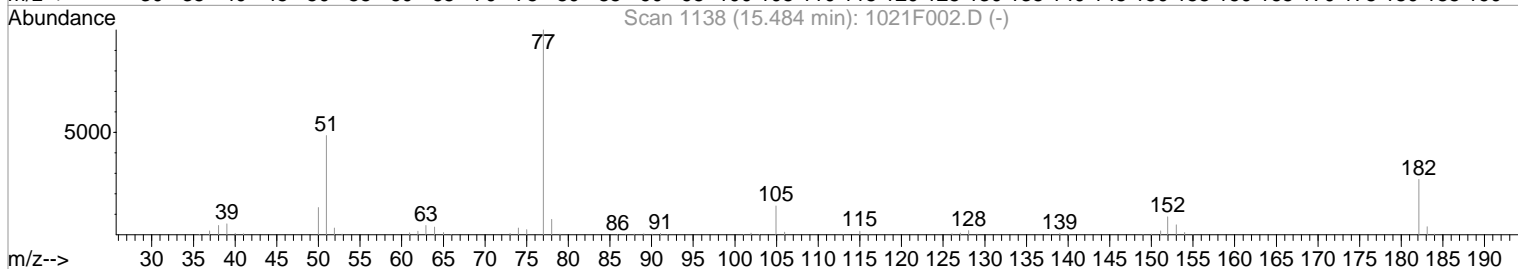
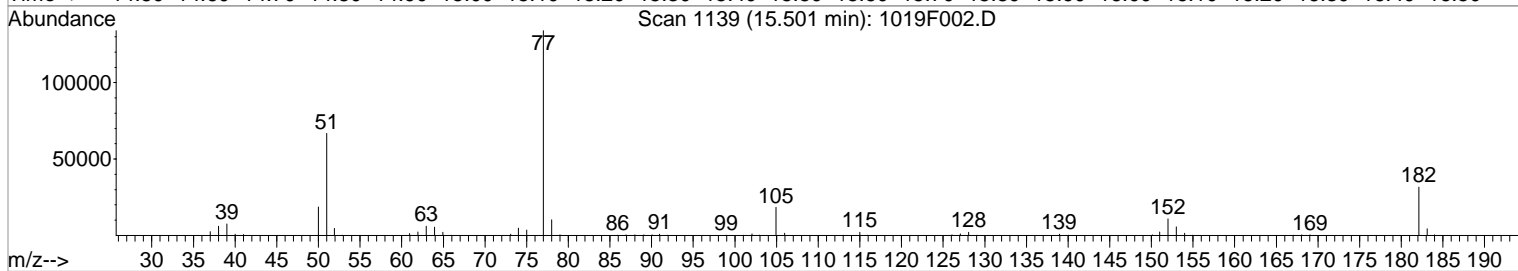
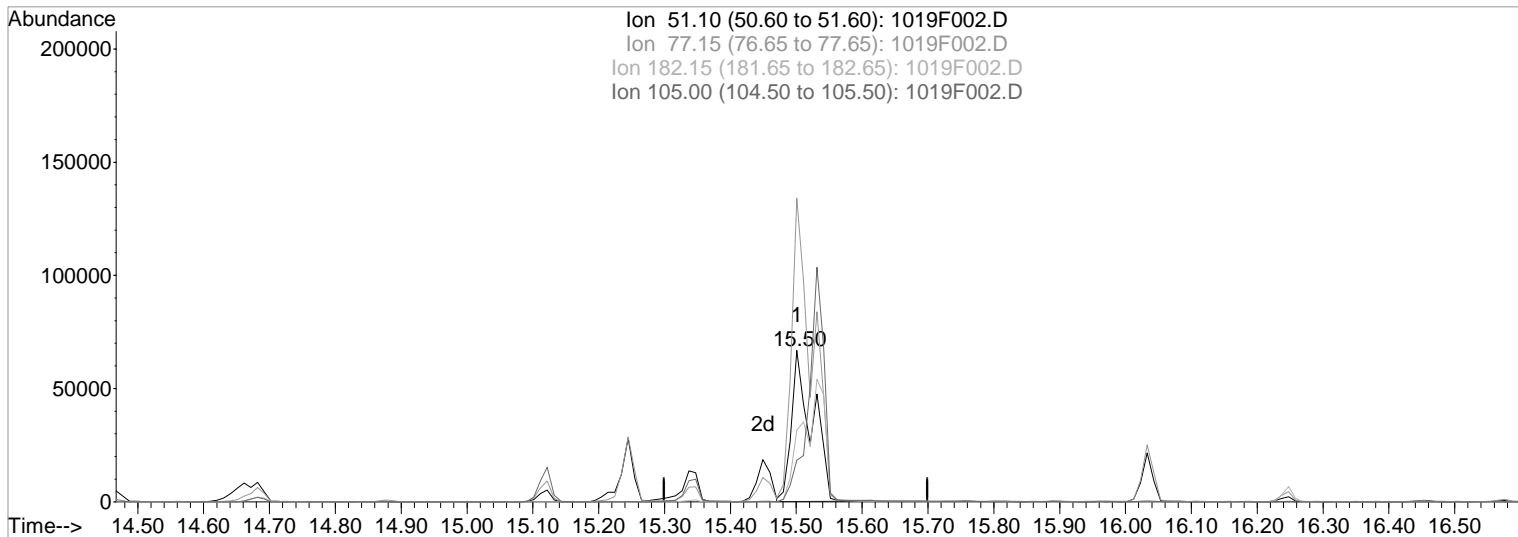
Data File : J:\MS07\DATA\101919\1019F002.D
 Acq On : 19 Oct 2019 10:09 am
 Sample : 8270/P CCV @ 80ppm | SVM62-18K
 Misc :

Vial: 2
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 19 10:48 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Mon Oct 21 15:14:12 2019
 Response via : Single Level Calibration



TIC: 1019F002.D

(59) Azobenzene (T)

Manual Integration:

15.50min 120.10ug/ml
 response 147372

Before

Ion	Exp%	Act%
51.10	100	100
77.15	213.80	202.02
182.15	52.80	47.88
105.00	29.60	27.47

10/21/19

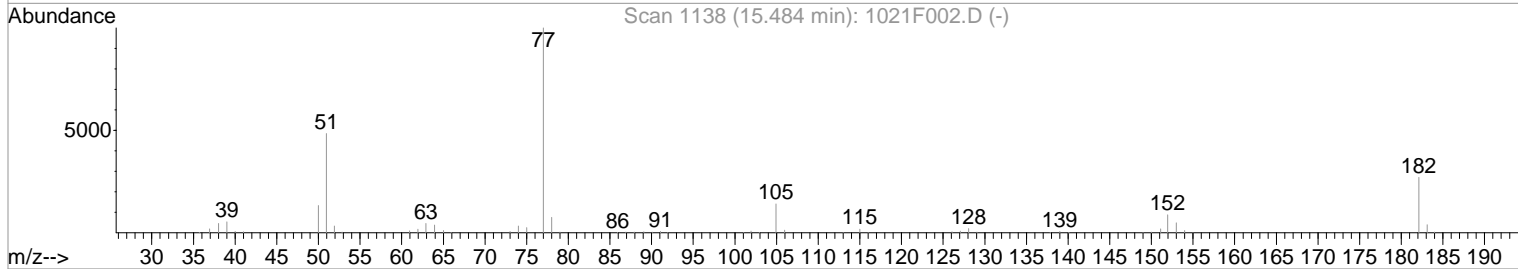
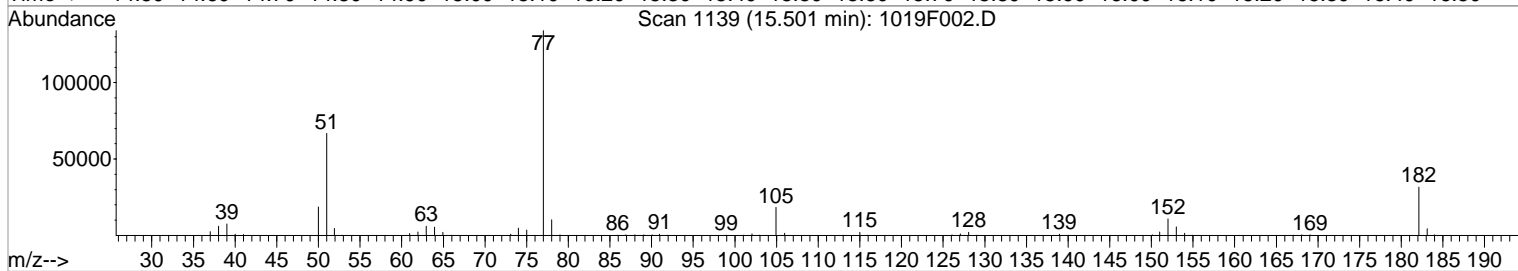
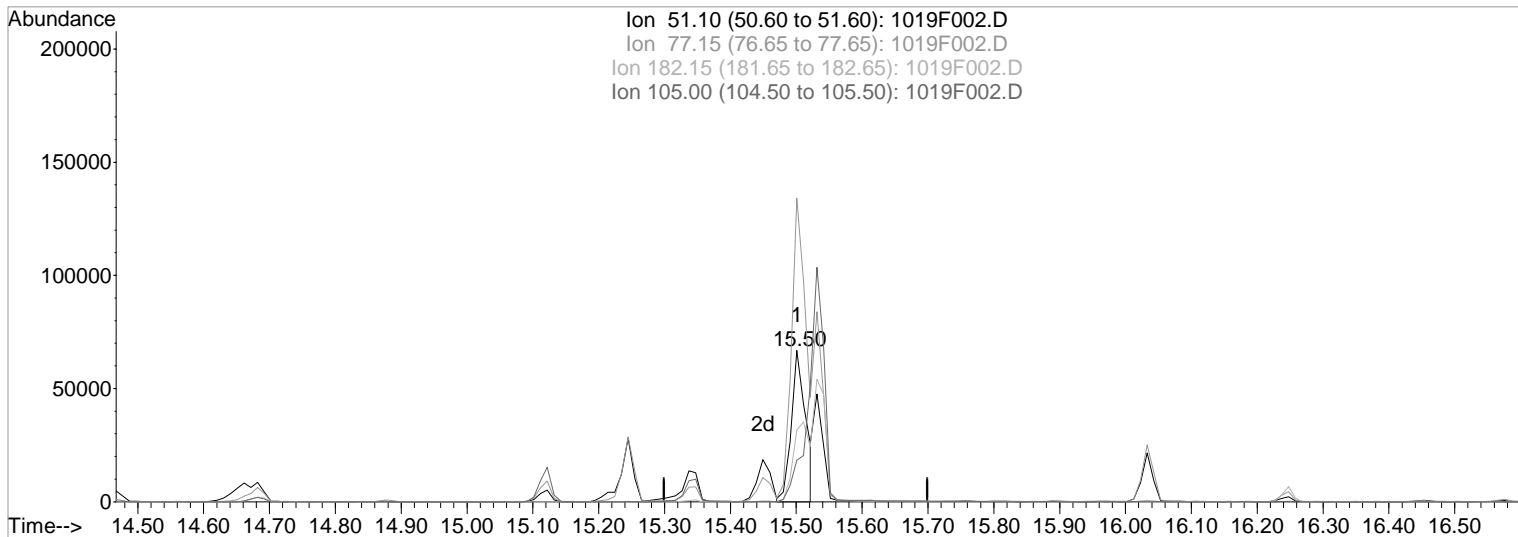
Data File : J:\MS07\DATA\101919\1019F002.D
 Acq On : 19 Oct 2019 10:09 am
 Sample : 8270/P CCV @ 80ppm | SVM62-18K
 Misc :

Vial: 2
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 21 16:50 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Mon Oct 21 15:14:12 2019
 Response via : Single Level Calibration



TIC: 1019F002.D

(59) Azobenzene (T)

Manual Integration:

15.50min 83.23ug/ml m
 response 102127

After
 IC - overintegrated

Ion	Exp%	Act%
51.10	100	100
77.15	213.80	200.91
182.15	52.80	47.45
105.00	29.60	27.49

10/21/19

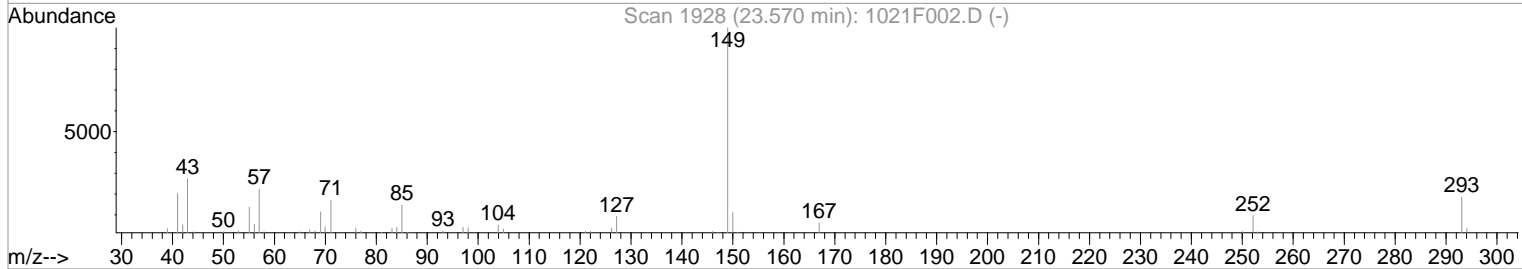
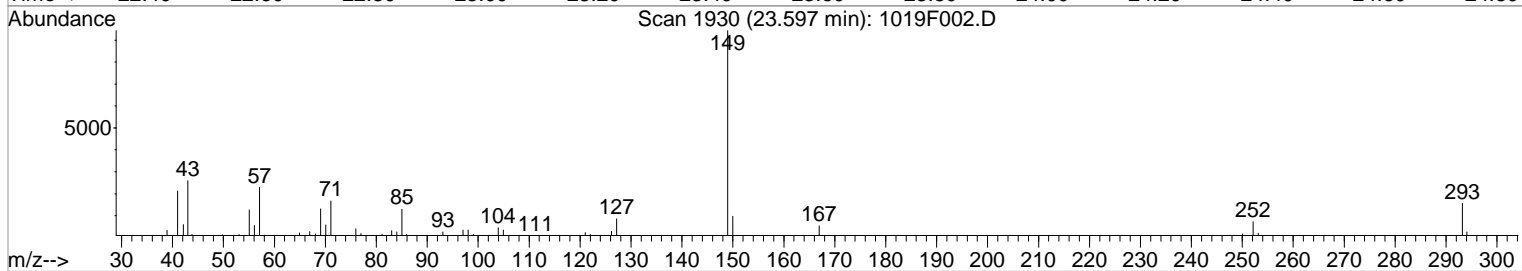
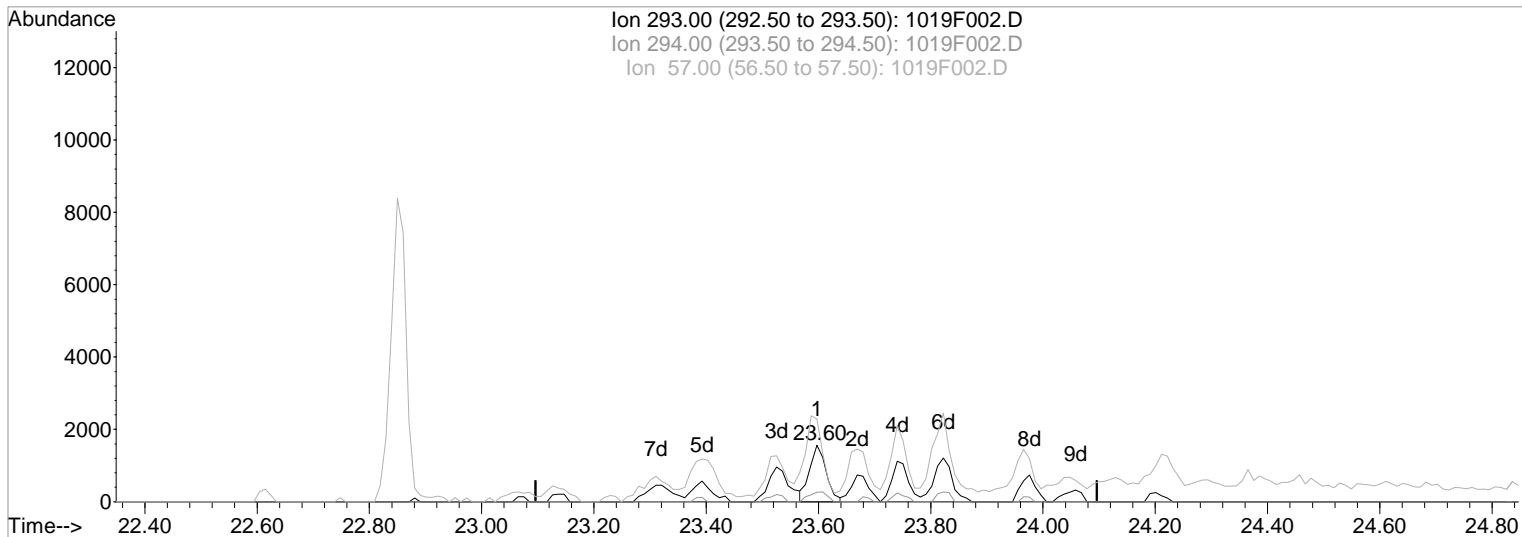
Data File : J:\MS07\DATA\101919\1019F002.D
 Acq On : 19 Oct 2019 10:09 am
 Sample : 8270/P CCV @ 80ppm | SVM62-18K
 Misc :

Vial: 2
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 21 16:50 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Mon Oct 21 15:14:12 2019
 Response via : Single Level Calibration



TIC: 1019F002.D

(88) Diisononyl Phthalate (T)

Manual Integration:

23.60min 24.31ug/ml

Before

response 3184

Ion Exp% Act%

10/21/19

293.00 100 100

294.00 2.90 18.97

57.00 25.80 143.37#

0.00 0.00 0.00

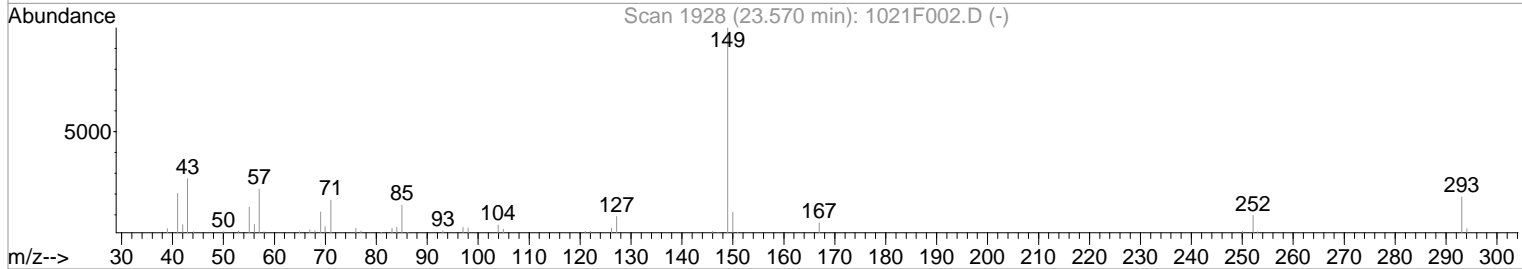
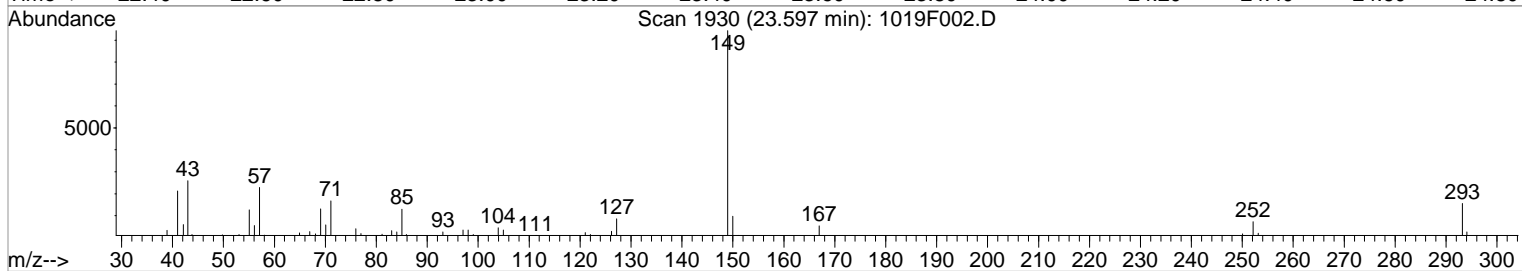
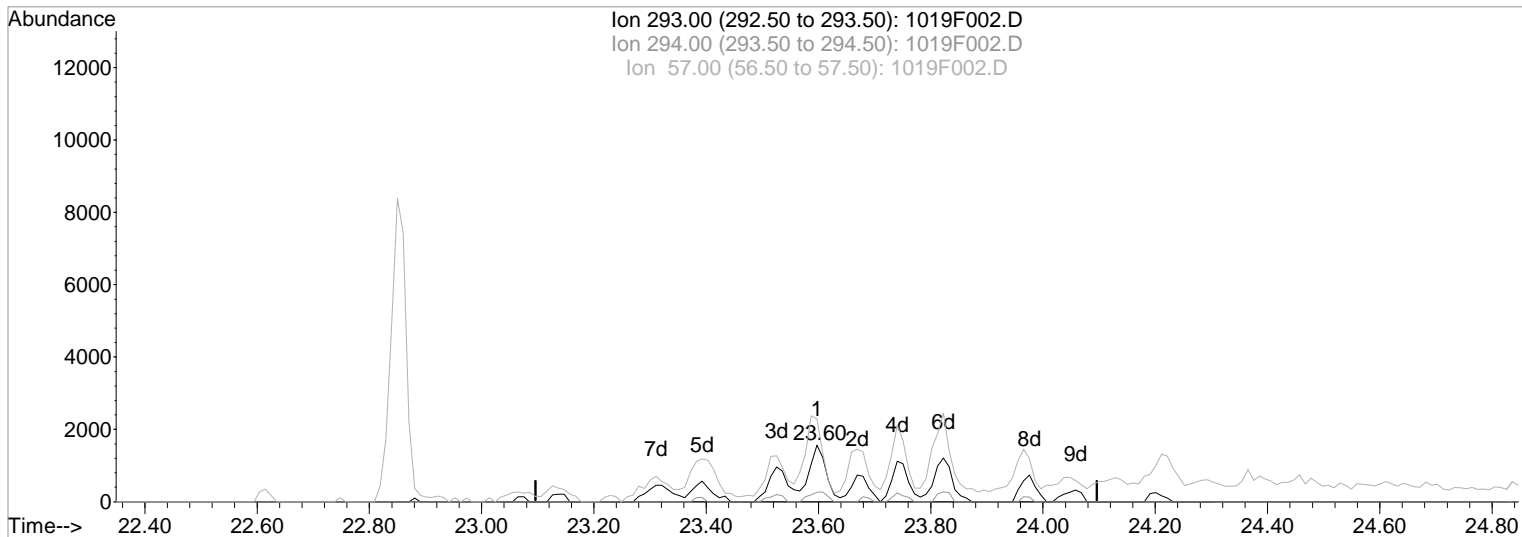
Data File : J:\MS07\DATA\101919\1019F002.D
 Acq On : 19 Oct 2019 10:09 am
 Sample : 8270/P CCV @ 80ppm | SVM62-18K
 Misc :

Vial: 2
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 21 16:51 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Mon Oct 21 15:14:12 2019
 Response via : Single Level Calibration



TIC: 1019F002.D

(88) Diisononyl Phthalate (T)

23.60min 82.45ug/ml m
 response 18194

Manual Integration:

After

Range integration correction

10/21/19

Ion	Exp%	Act%
293.00	100	100
294.00	2.90	3.32
57.00	25.80	25.09
0.00	0.00	0.00

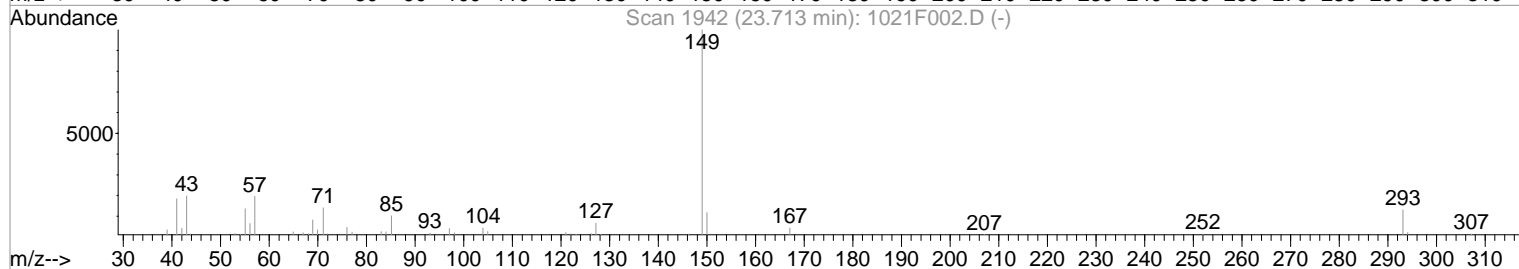
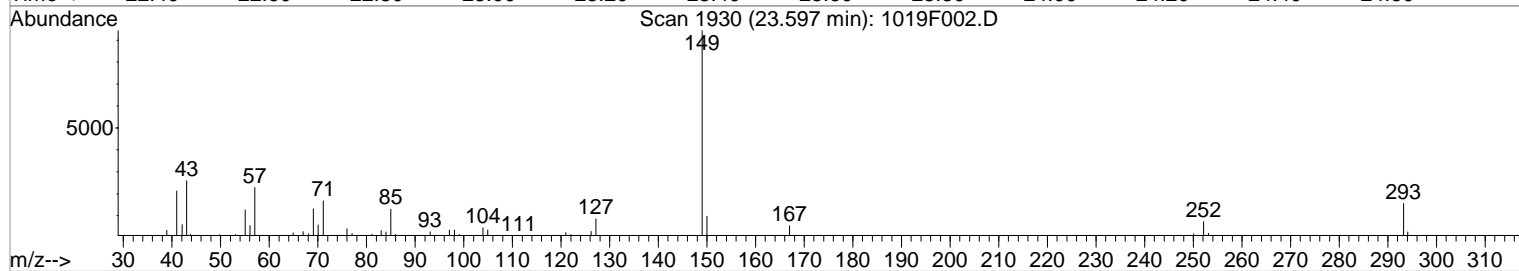
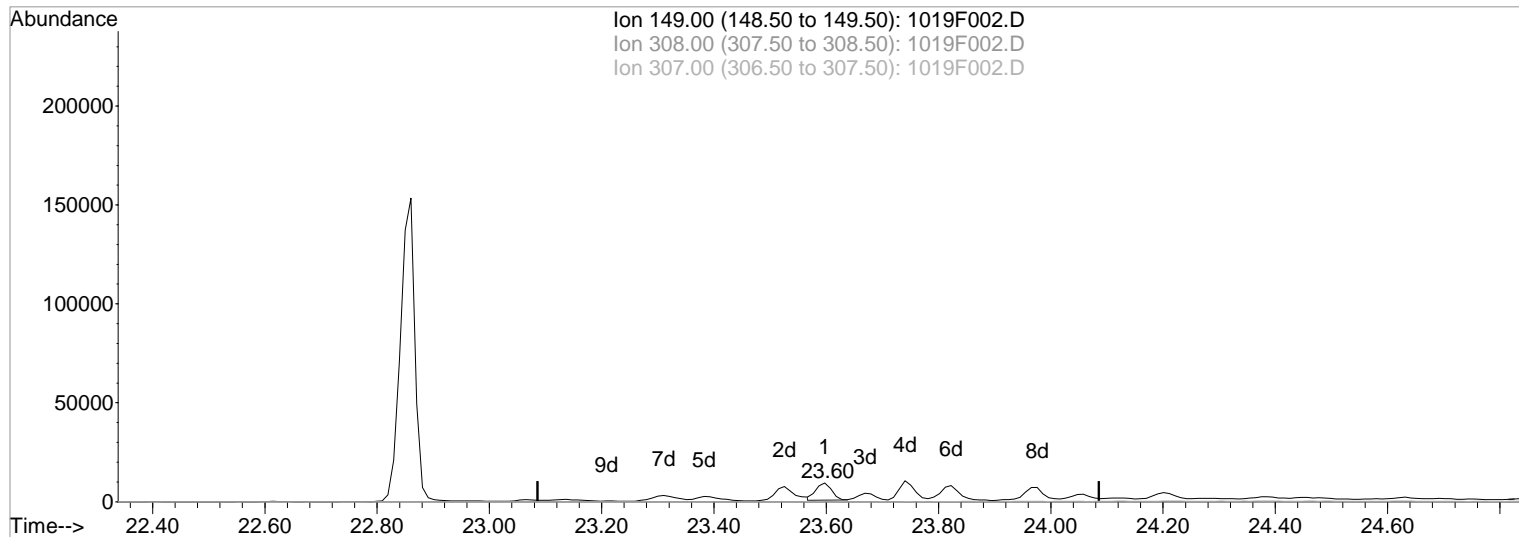
Data File : J:\MS07\DATA\101919\1019F002.D
 Acq On : 19 Oct 2019 10:09 am
 Sample : 8270/P CCV @ 80ppm | SVM62-18K
 Misc :

Vial: 2
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 21 16:51 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Mon Oct 21 15:14:12 2019
 Response via : Single Level Calibration



TIC: 1019F002.D

(89) Diisodecyl Phthalate (T)

Manual Integration:

23.60min 5.81ug/ml

Before

response 16597

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.00
307.00	0.00	0.83
0.00	0.00	0.00

10/21/19

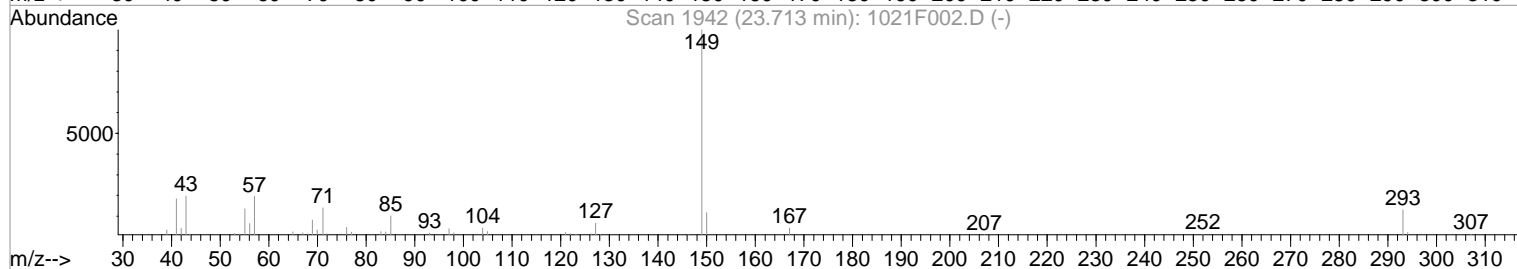
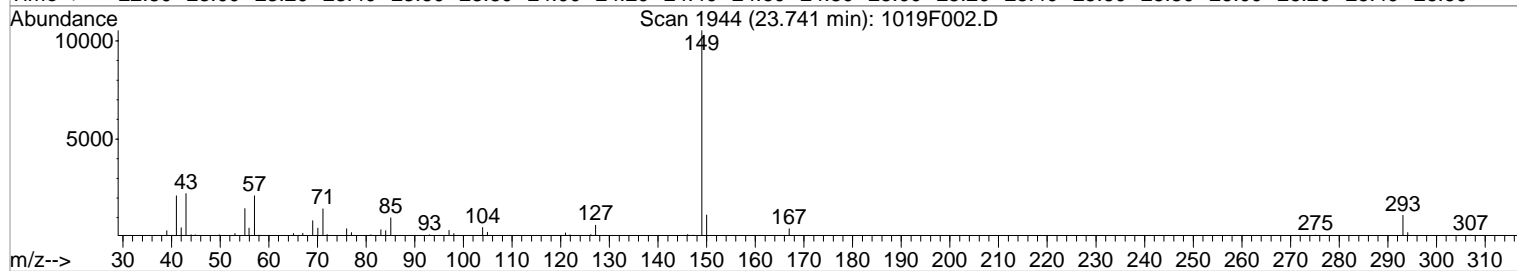
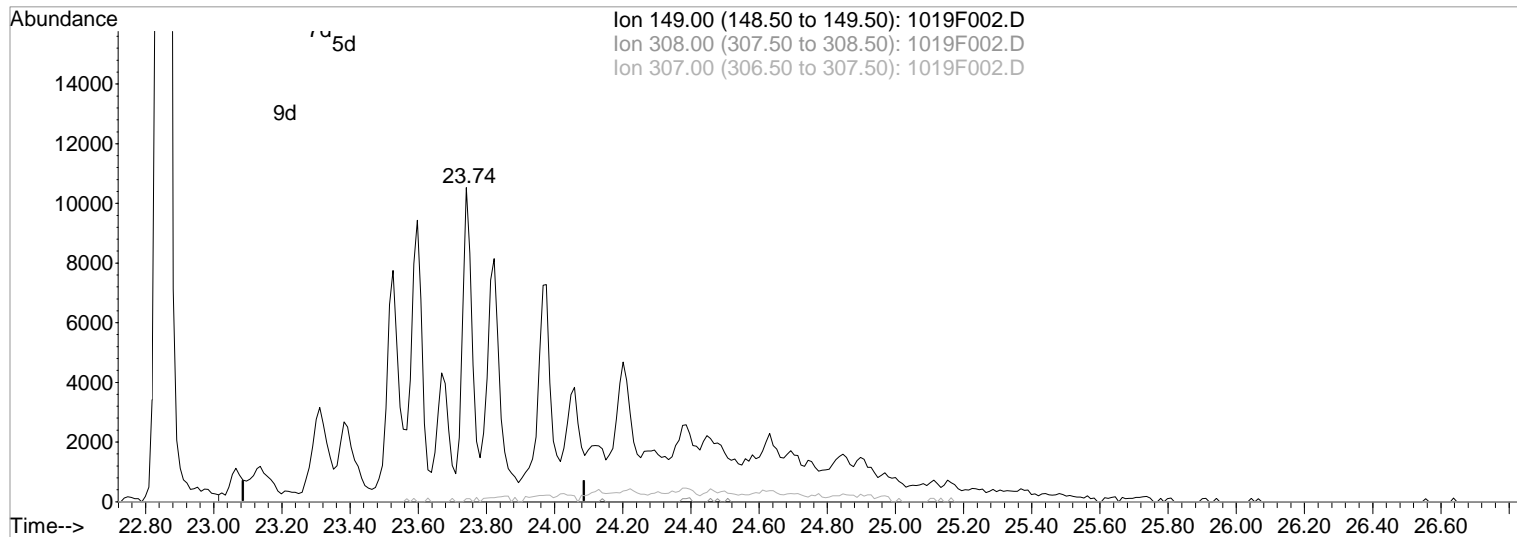
Data File : J:\MS07\DATA\101919\1019F002.D
 Acq On : 19 Oct 2019 10:09 am
 Sample : 8270/P CCV @ 80ppm | SVM62-18K
 Misc :

Vial: 2
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 21 16:52 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Mon Oct 21 15:14:12 2019
 Response via : Single Level Calibration



TIC: 1019F002.D

(89) Diisodecyl Phthalate (T)

23.74min 91.42ug/ml m
 response 260936

Manual Integration:

After

Range integration correction

10/21/19

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.00
307.00	0.00	0.05
0.00	0.00	0.00

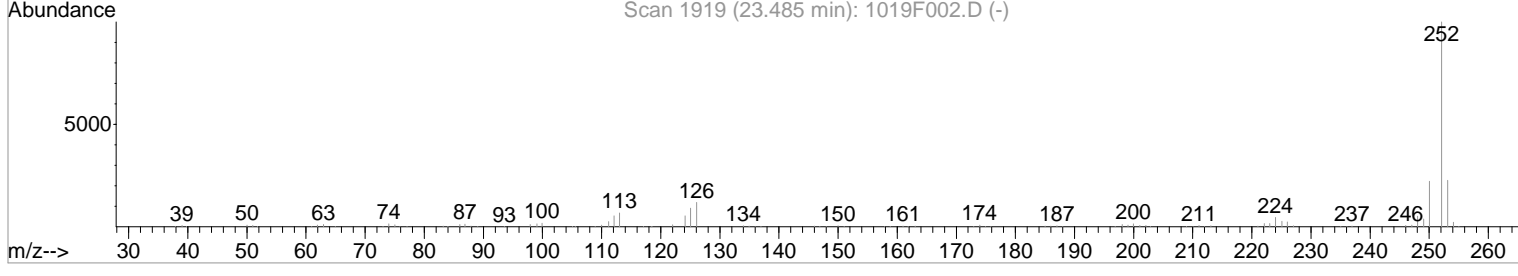
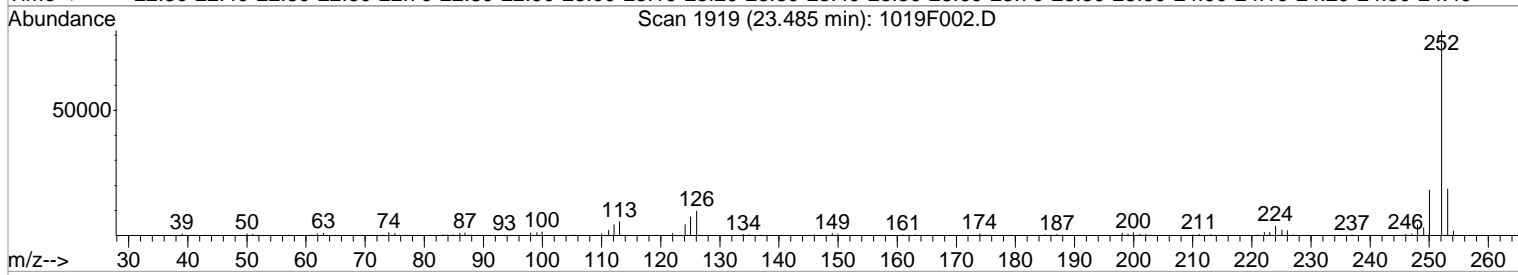
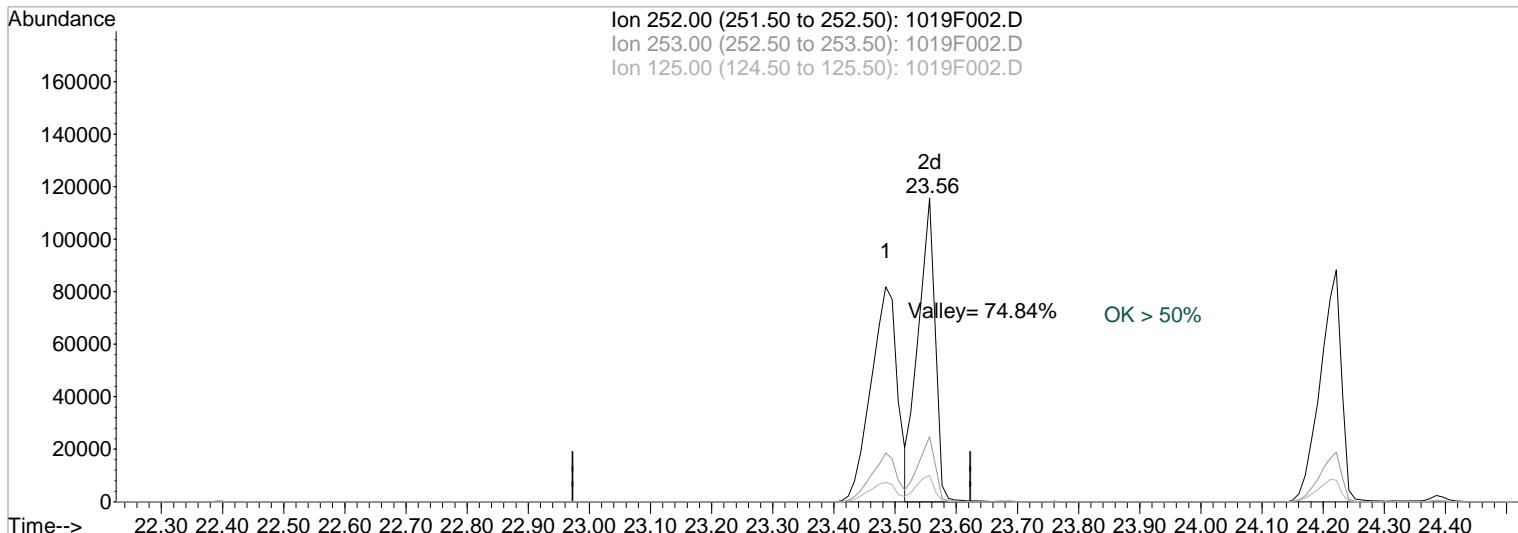
Data File : J:\MS07\DATA\101919\1019F002.D
 Acq On : 19 Oct 2019 10:09 am
 Sample : 8270/P CCV @ 80ppm | SVM62-18K
 Misc :

Vial: 2
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 21 16:52 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Mon Oct 21 15:14:12 2019
 Response via : Single Level Calibration



TIC: 1019F002.D

(86) Benzo(b)fluoranthene (T)

23.48min 80.69ug/ml

response 245880

Ion	Exp%	Act%
252.00	100	100
253.00	21.90	22.87
125.00	8.90	8.88
0.00	0.00	0.00

Validation Report

1st *LM* 10/22/19
2nd *Cpw* 10/22/19

Data File: J:\MS07\DATA\101919\1019F001.D\
Lab ID: KQ1915292-03
RunType: TUNE
Matrix: Soil

Date Acquired: 10/19/19 08:29:00
Batch ID: 656208
Analysis Method: 8270D/SVO

Validations

Validation Categories	Pass	Fail
Tune Ion Ratio	X	

Primary Review: _____

Secondary Review: _____

Quantitation Report

1st *LM* 10/22/19
2nd *Cpw* 10/22/19

Data File: J:\MS07\DATA\101919\1019F001.D\	Instrument: K-MS-07
Acqu Date: 10/19/19 08:29:00	Vial: 1
Run Type: TUNE	Dilution: 1
Lab ID: KQ1915292-01	Raw Units:

Bottle ID:	Tier: II	Matrix: Water
Prod Code: SVO	Collect Date: 10/16/19	Receive Date: 10/16/19

Analysis Lot: 656208	Prep Lot:	Report Group: KQ1915292
Analysis: 8270D	Prep Method:	
	Prep Date:	

Title: Semivolatile Organic Compounds by GC/MS	Calibration ID: KC1900441
	Report List ID: 18699

Tune Results

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	30	80	56.12	21456	Pass
68	69	0	2	0.00	0	Pass
69	198	0	100	73.01	27912	Pass
70	69	0	2	0.00	0	Pass
127	198	25	75	54.28	20752	Pass
197	198	0	1	0.00	0	Pass
198	198	100	100	100.00	38232	Pass
199	198	5	9	6.80	2599	Pass
275	198	10	30	24.25	9272	Pass
365	198	0.75	100	2.96	1130	Pass
441	443	0.01	100	75.15	3593	Pass
442	198	40	110	62.15	23760	Pass
443	442	15	24	20.12	4781	Pass

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

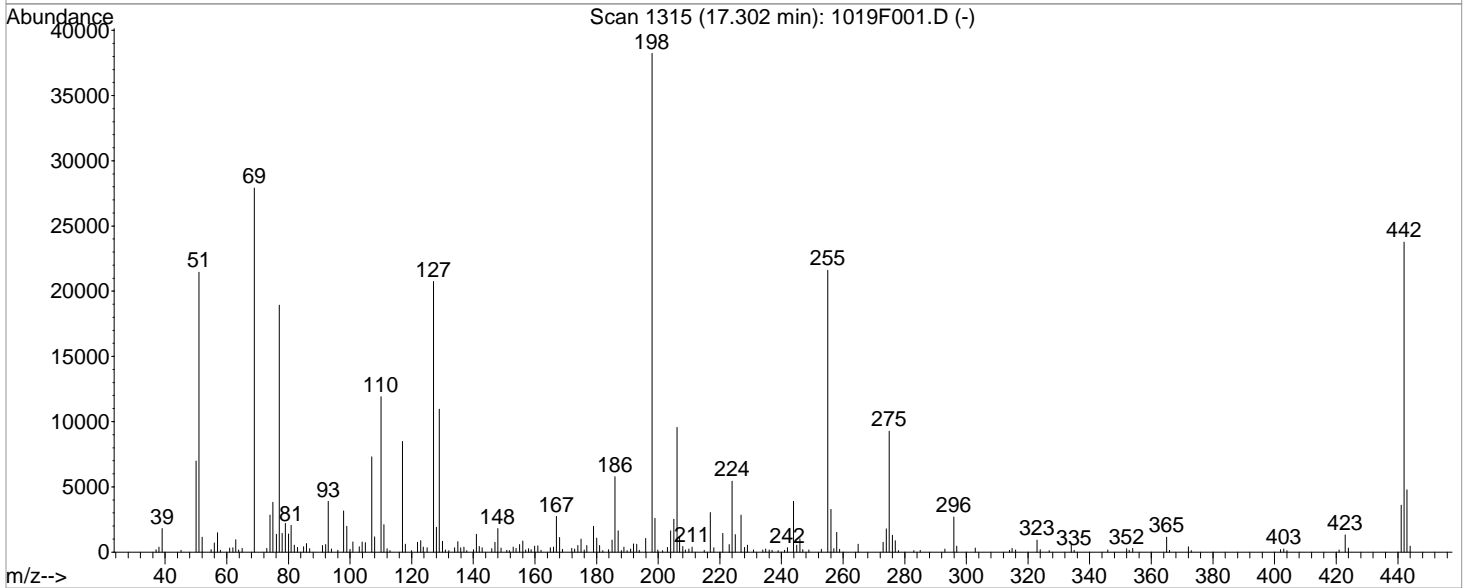
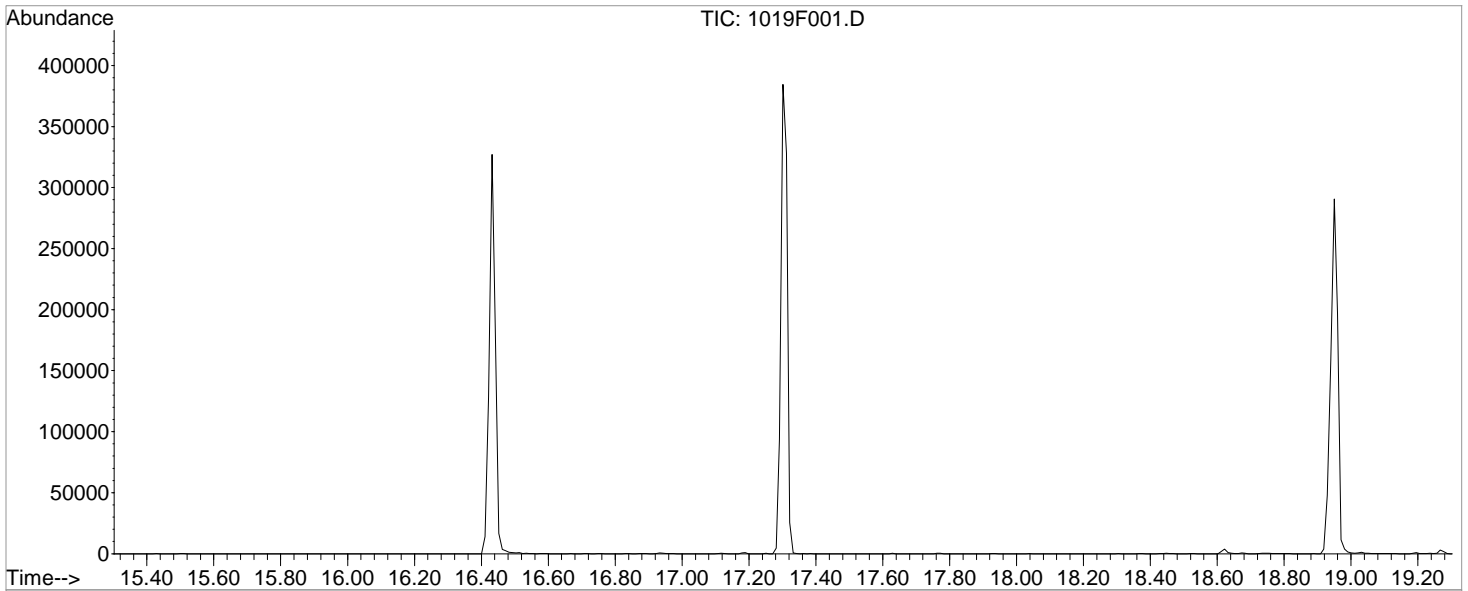
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 10/22/19 10:24

\\alprews001\starlims\LIMSReps\QuantValidation.rpt

Data File : J:\MS07\DATA\101919\1019F001.D
 Acq On : 19 Oct 2019 8:29 am
 Sample : MS07 Tune @ 50ppm | SVM61-100C
 Misc :
 MS Integration Params: RTEINT.P
 Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Vial: 1
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00



Spectrum Information: Scan 1315 apex - scan 1310

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	56.1	21456	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	54.3	20752	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	38232	PASS
199	198	5	9	6.8	2599	PASS
275	198	10	30	24.3	9272	PASS
365	198	1	100	3.0	1130	PASS
441	443	0.01	100	75.2	3593	PASS
442	198	40	100	62.1	23760	PASS
443	442	17	23	20.1	4781	PASS

Scan 1315 (17.302 min): 1019F001.D
MS07 Tune @ 50ppm | SVM61-100C

1st *LM* 10/22/19
2nd *Cpu* 10/22/19

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.00	188	60.95	304	78.00	1430	92.95	3881
38.00	376	61.95	324	79.00	2209	93.95	238
39.00	1797	62.95	938	80.00	1392	96.05	132
45.10	128	63.85	157	80.90	2042	97.95	3150
50.00	6987	64.95	289	81.90	538	98.95	1989
51.00	21456	68.95	27912	82.90	357	99.95	214
52.00	1140	73.00	289	84.90	414	100.95	773
54.95	197	74.00	2845	85.90	651	102.95	395
55.95	711	75.00	3816	86.90	251	103.95	763
56.95	1497	76.10	1359	91.05	494	104.95	728
57.95	137	77.00	18920	92.05	575	107.00	7298

Scan 1315 (17.302 min): 1019F001.D
MS07 Tune @ 50ppm | SVM61-100C

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
108.00	1179	125.05	327	137.85	100	152.90	385
110.00	11925	127.05	20752	140.05	197	153.90	283
111.00	2101	128.05	1894	140.95	1375	155.00	568
112.00	255	128.95	10963	141.95	422	156.00	851
113.00	123	129.95	834	142.85	325	157.00	160
117.00	8473	130.95	162	146.00	261	157.90	254
117.90	594	132.05	113	147.00	738	158.80	184
119.90	101	133.95	327	147.90	1795	159.90	455
121.90	752	134.95	796	149.00	315	160.90	476
122.90	861	135.95	344	150.90	135	161.95	138
123.80	388	136.95	373	151.70	109	164.95	330

Scan 1315 (17.302 min): 1019F001.D
MS07 Tune @ 50ppm | SVM61-100C

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
166.05	391	180.00	1062	192.00	622	206.05	9560
166.95	2734	181.00	513	193.00	600	206.95	1192
167.95	1126	182.00	109	193.90	135	207.95	432
168.95	201	183.90	174	195.90	1051	208.85	158
171.95	275	185.00	911	197.95	38232	209.95	227
172.85	246	186.00	5771	198.95	2599	210.95	382
173.95	511	187.00	1634	199.85	154	214.95	143
174.95	1006	188.00	115	201.45	118	216.90	3020
175.95	171	188.90	388	202.95	364	218.00	324
176.85	504	189.90	100	204.05	1628	221.00	1428
178.95	1969	191.00	237	205.05	2519	223.00	586

Scan 1315 (17.302 min): 1019F001.D
MS07 Tune @ 50ppm | SVM61-100C

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
224.00	5447	240.95	147	257.90	1515	293.00	229
225.00	1340	241.95	333	258.90	203	295.90	2692
226.90	2826	243.95	3884	264.90	613	296.90	444
228.00	367	244.95	541	272.95	754	302.90	298
228.90	539	245.95	1011	274.05	1791	313.95	145
230.90	173	246.95	196	274.95	9272	314.85	293
233.95	162	248.85	157	275.95	1288	315.95	148
234.85	228	252.90	221	276.95	869	322.95	917
236.05	159	255.00	21608	277.95	112	323.95	197
236.95	145	256.00	3281	282.95	105	326.90	118
238.95	115	257.00	270	285.05	131	334.00	591

Scan 1315 (17.302 min): 1019F001.D
MS07 Tune @ 50ppm | SVM61-100C

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
335.00	145	404.00	101				
345.85	158	420.95	170				
351.95	253	422.95	1302				
352.85	140	423.95	312				
353.95	292	441.10	3593				
365.00	1130	442.00	23760				
365.90	136	443.00	4781				
372.00	413	444.00	445				
373.00	107						
401.90	188						
403.00	224						

e	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1017f001.d	1.	MS07 Tune @ 50ppm SVM61-100C		17 Oct 2019 12:27	
2	1017f002.d	1.	IB		17 Oct 2019 13:08	
3	1017f003.d	1.	8270/P ICAL @ 1ppm SVM62-22C		17 Oct 2019 13:49	
4	1017f004.d	1.	8270/P ICAL @ 2.5ppm SVM6...		17 Oct 2019 14:31	
5	1017f005.d	1.	8270/P ICAL @ 5ppm SVM62-22E		17 Oct 2019 15:12	
6	1017f006.d	1.	8270/P ICAL @ 7.5ppm SVM6...		17 Oct 2019 15:53	
7	1017f007.d	1.	8270/P ICAL @ 10ppm SVM62...		17 Oct 2019 16:35	
8	1017f008.d	1.	8270/P ICAL @ 20ppm SVM62...		17 Oct 2019 17:16	
9	1017f009.d	1.	8270/P ICAL @ 50ppm SVM62...		17 Oct 2019 17:58	
10	1017f010.d	1.	8270/P ICAL @ 80ppm SVM62...		17 Oct 2019 18:40	
11	1017f011.d	1.	8270/P ICAL @ 100ppm SVM6... NR		17 Oct 2019 19:21	
12	1017f012.d	1.	8270/P ICAL @ 140ppm SVM6...		17 Oct 2019 20:03	
13	1017f013.d	1.	8270/P ICAL @ 180ppm SVM6...		17 Oct 2019 20:44	
14	1017f014.d	1.	8270/P ICAL @ 200ppm SVM6...		17 Oct 2019 21:26	
15	1017f015.d	1.	8270 ICV @ 80ppm SVM62-23B		17 Oct 2019 22:07	

KC 1900441

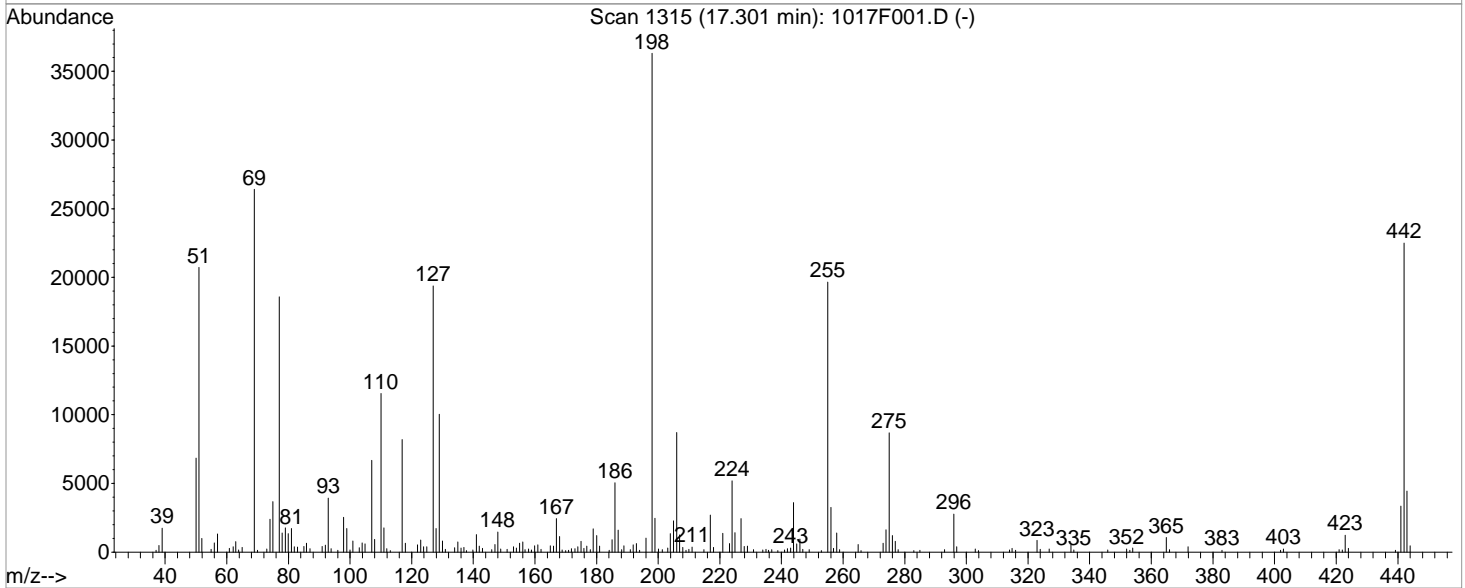
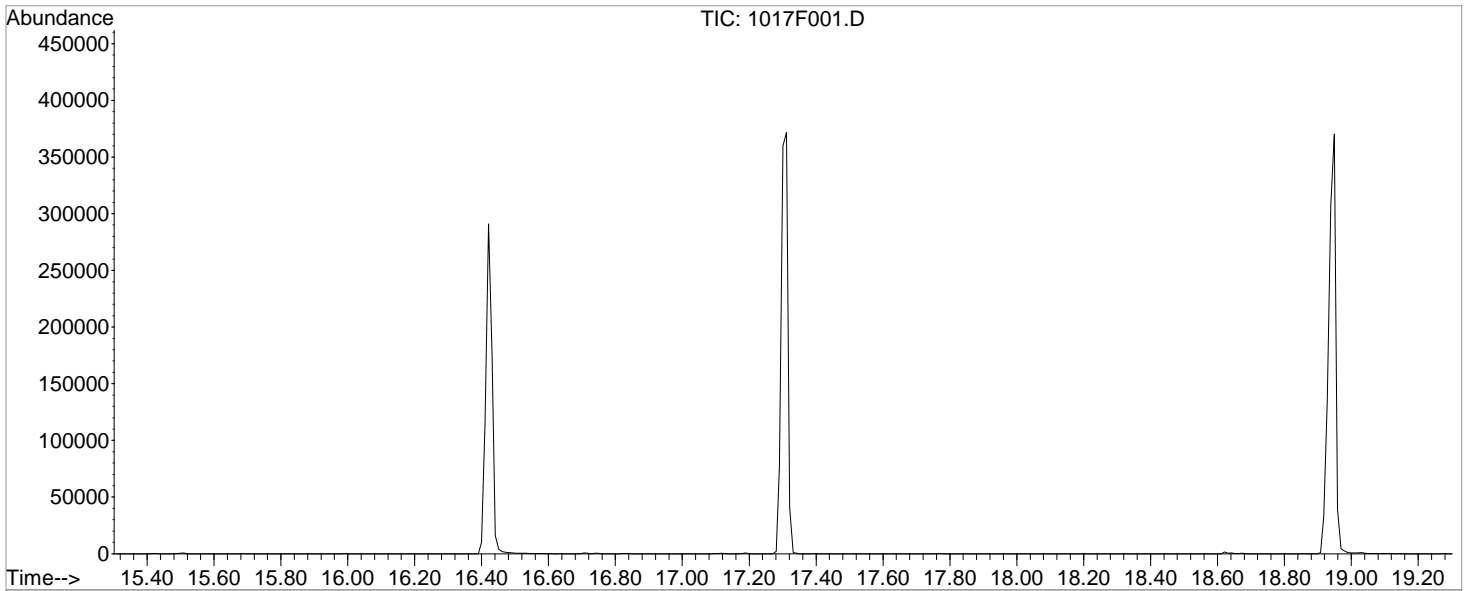
ICAL 16156

6107 8 1 100 LM

cl

Data File : J:\MS07\DATA\101719\1017F001.D
 Acq On : 17 Oct 2019 12:27 pm
 Sample : MS07 Tune @ 50ppm | SVM61-100C
 Misc :
 MS Integration Params: RTEINT.P
 Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Vial: 1
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00



Spectrum Information: Scan 1315 one scan to the left of the apex - scan 1309

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	57.1	20720	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.5	130	PASS
127	198	40	60	53.4	19384	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	36304	PASS
199	198	5	9	6.8	2451	PASS
275	198	10	30	23.9	8685	PASS
365	198	1	100	2.9	1051	PASS
441	443	0.01	100	75.6	3354	PASS
442	198	40	100	62.0	22496	PASS
443	442	17	23	19.7	4435	PASS

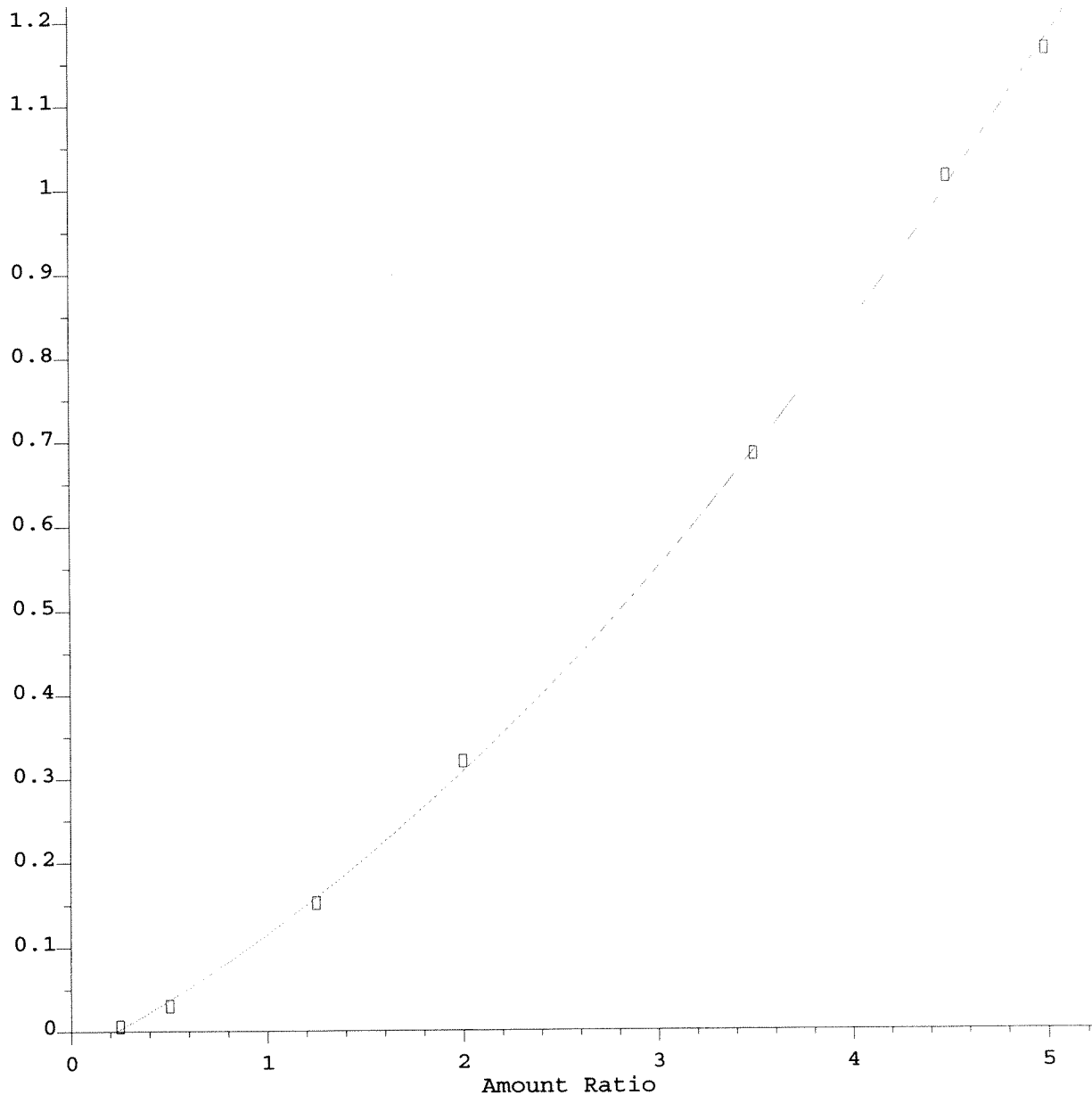
Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1018f001.d	1.	MS07 Tune @ 50ppm SVM61-100C		18 Oct 2019 08:08
2	2	1018f002.d	1.	Paper ICV @ 80ppm SVM62-07A		18 Oct 2019 08:49
3	3	1018f003.d	1.	Benzidine ICV @ 50ppm SVM...		18 Oct 2019 09:30
4	1	1018f004.d	1.	8270/P ICAL @80ppm SVM62-22.J		18 Oct 2019 10:11
5	2	1018f005.d	1.	KQ1914896-03 MB		18 Oct 2019 10:53
6	3	1018f006.d	1.	KQ1914896-01 LGS		18 Oct 2019 11:34
7	4	1018f007.d	1.	KQ1914896-02 DLCS		18 Oct 2019 12:15
8	5	1018f008.d	1.	K1909349-001	RX	18 Oct 2019 12:57
9	6	1018f009.d	1.	K1909458-005		18 Oct 2019 13:38

LM 6107 8 | 100

cl

2,4-Dinitrophenol

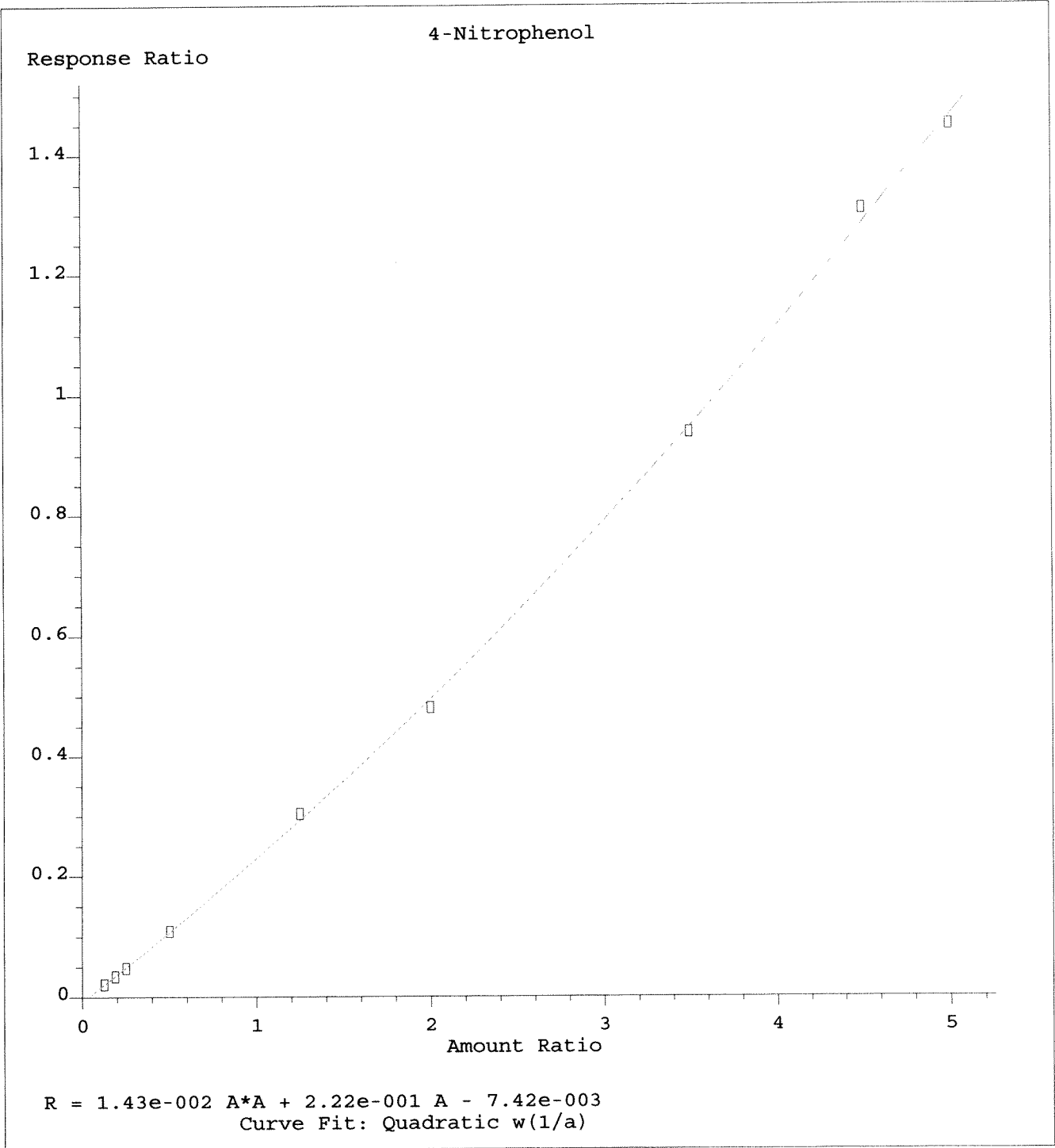
Response Ratio



$R = 2.42e-002 A^2 + 1.20e-001 A - 2.89e-002$
Curve Fit: Quadratic w(1/a)

Method Name: J:\MS07\METHODS\8270_625\101719_BNP7.M
Calibration Table Last Updated: Fri Oct 18 09:31:11 2019

LM OCT 18 2019 *al*

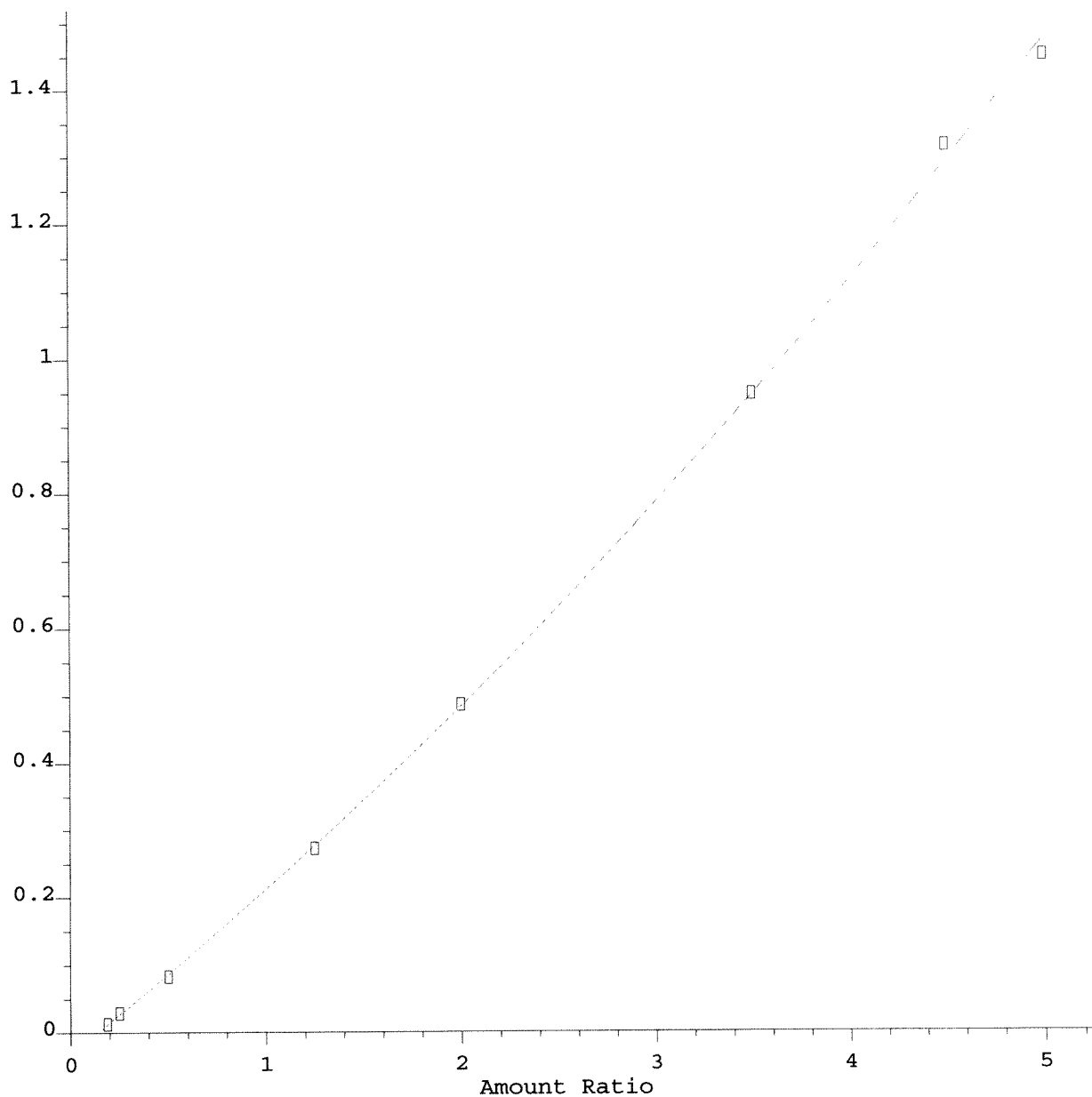


Method Name: J:\MS07\METHODS\8270_625\101719_BNP7.M
 Calibration Table Last Updated: Fri Oct 18 09:31:46 2019

LM *cl*
 OCT 18 2019

2-Methyl-4,6-dinitrophenol

Response Ratio



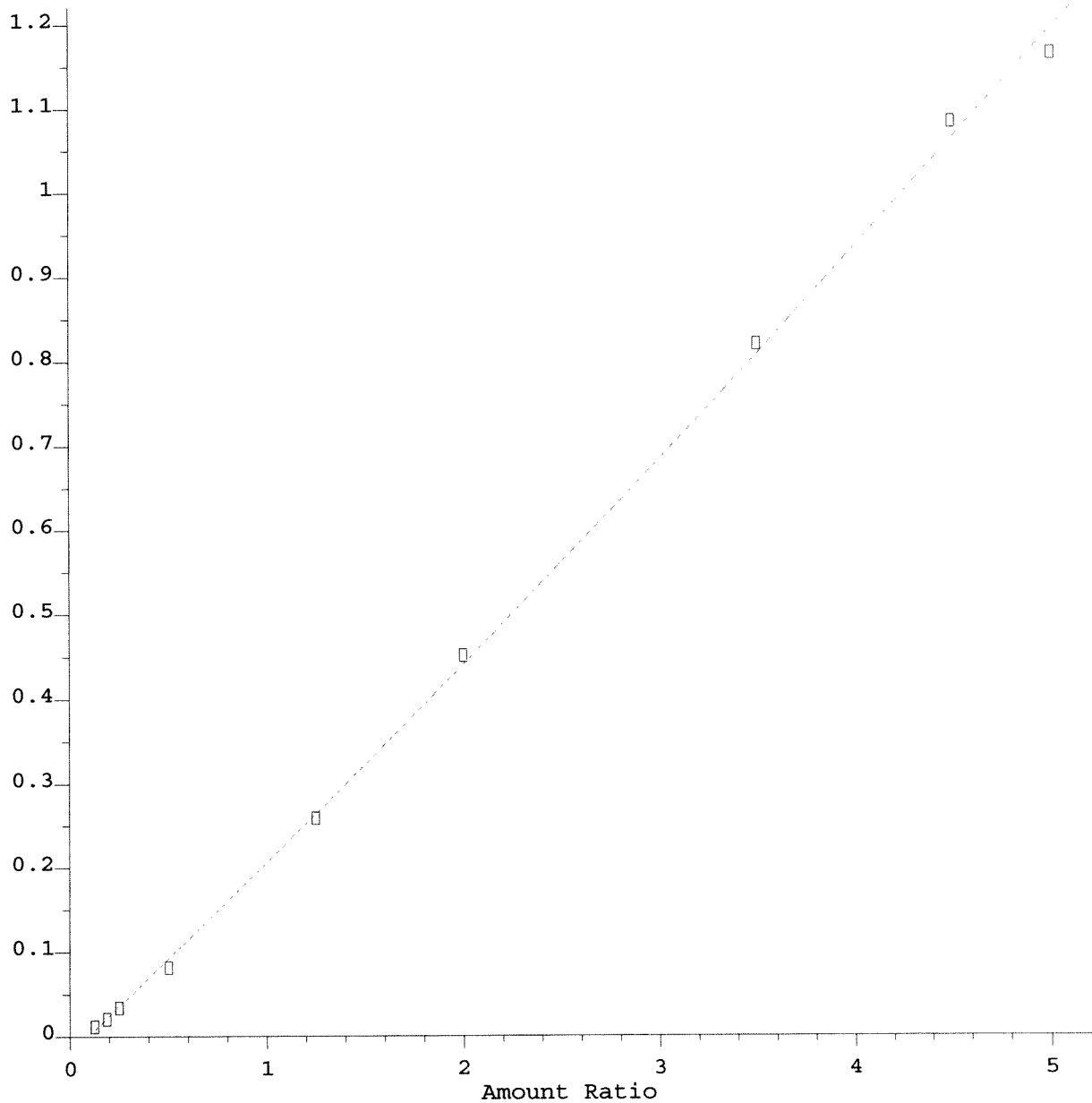
$R = 1.44e-002 A^2 + 2.28e-001 A - 3.09e-002$
Curve Fit: Quadratic w(1/a)

Method Name: J:\MS07\METHODS\8270_625\101719_BNP7.M
Calibration Table Last Updated: Fri Oct 18 09:34:12 2019

LM OCT 18 2019 *cl*

Pentachlorophenol

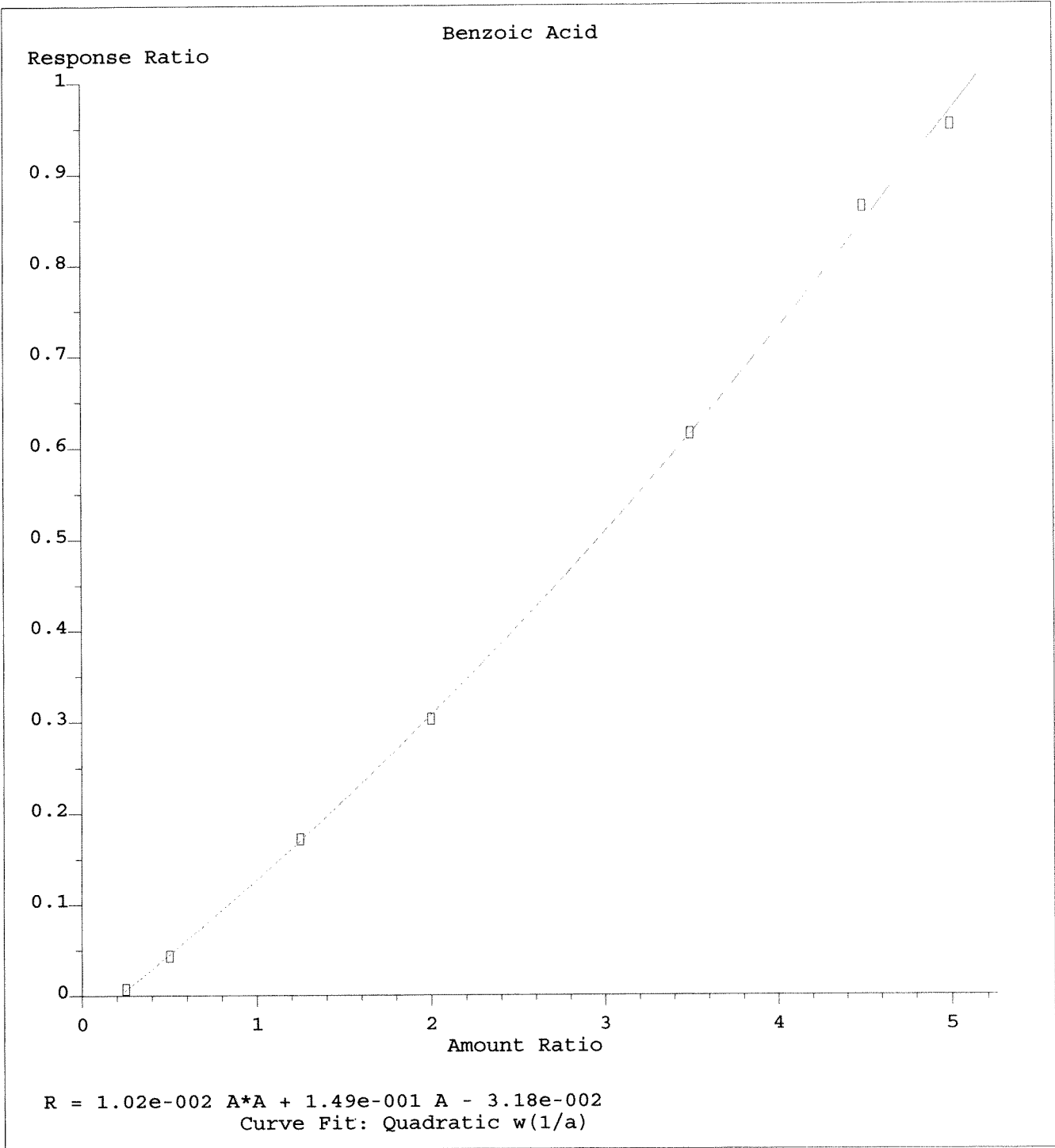
Response Ratio



$R = 4.15e-003 A^2 + 2.22e-001 A - 1.99e-002$
Curve Fit: Quadratic w(1/a)

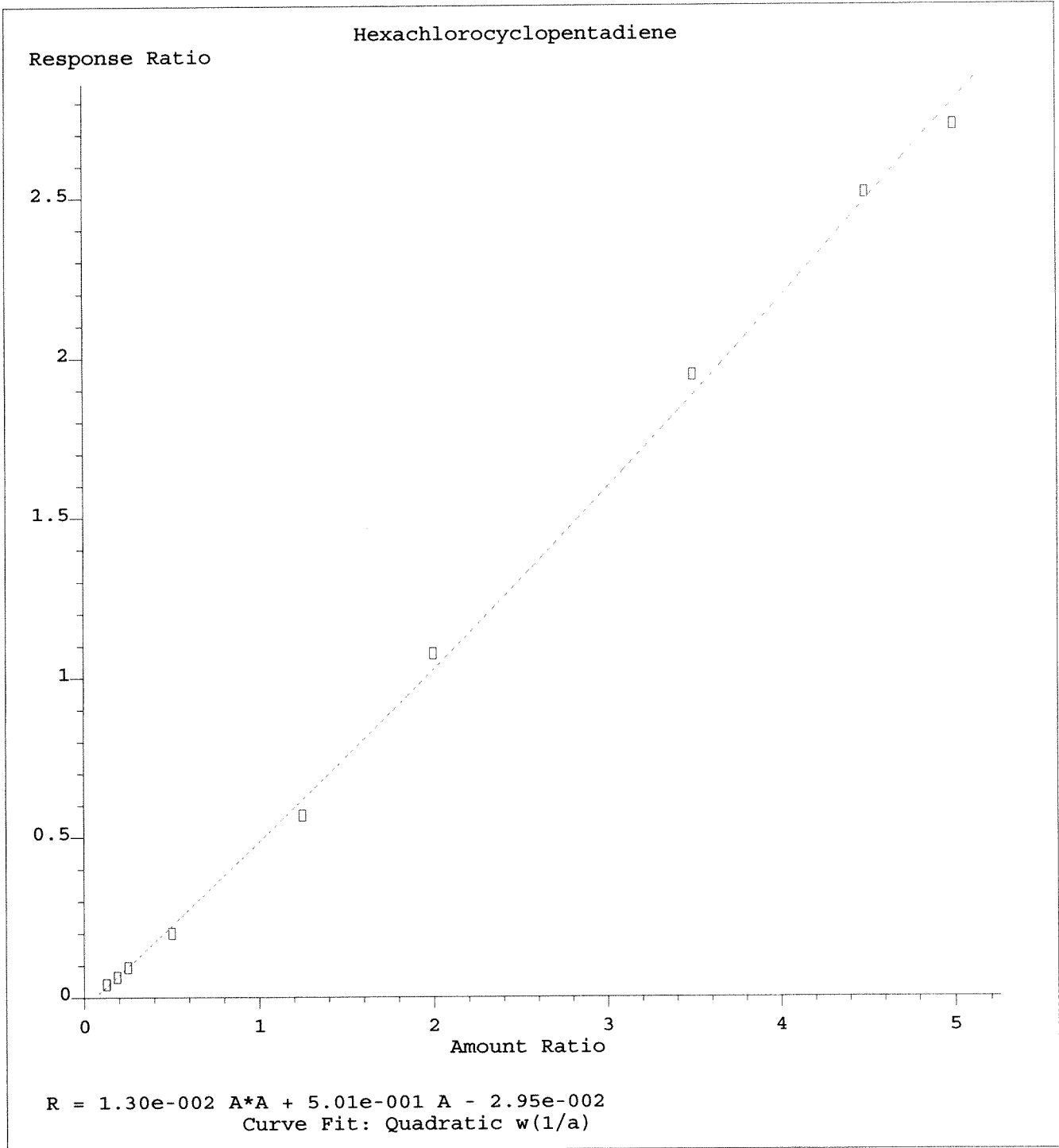
Method Name: J:\MS07\METHODS\8270_625\101719_BNP7.M
Calibration Table Last Updated: Fri Oct 18 09:39:21 2019

LM OCT 18 2019 *ce*



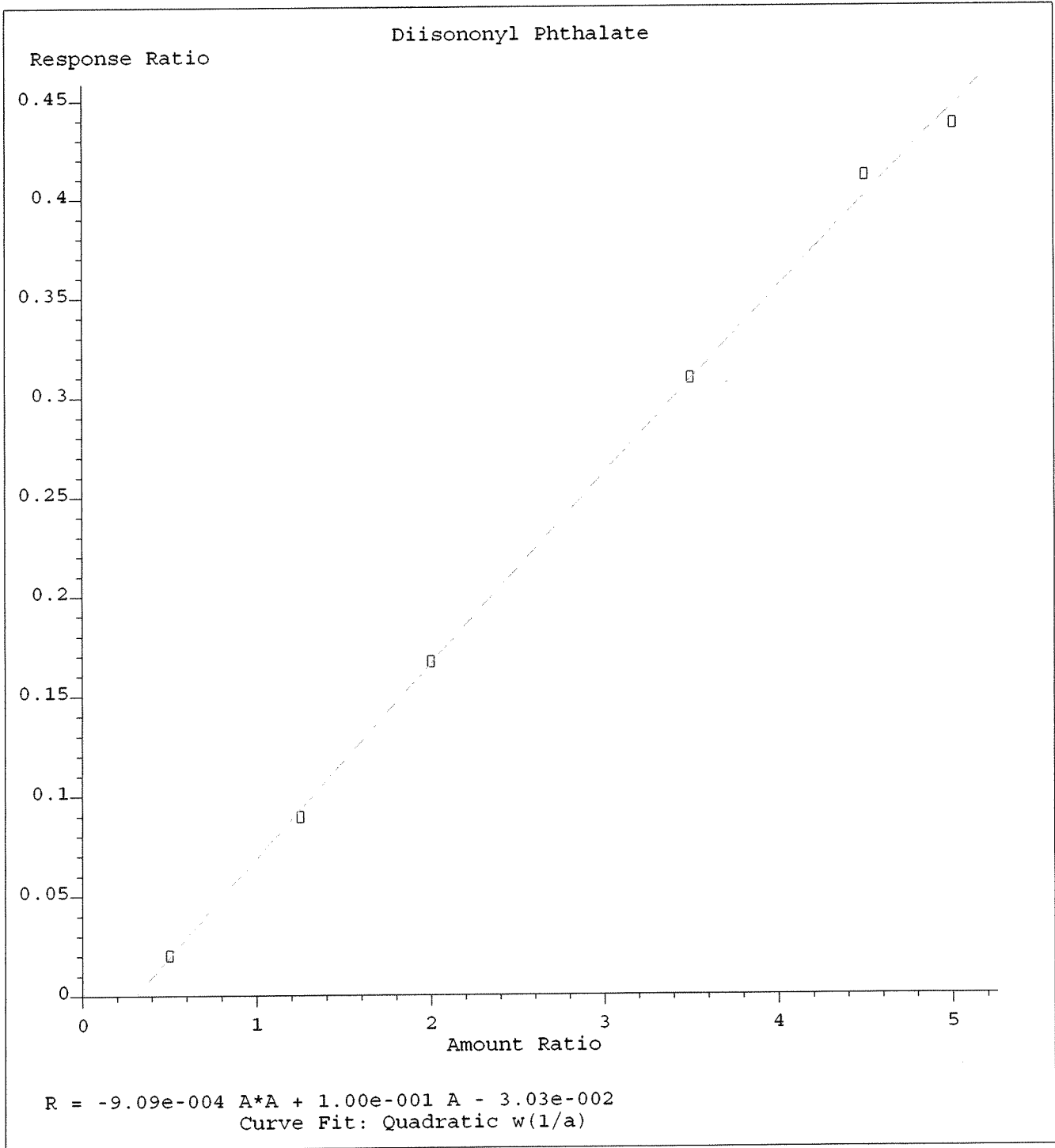
Method Name: J:\MS07\METHODS\8270_625\101719_BNP7.M
 Calibration Table Last Updated: Fri Oct 18 09:46:54 2019

LM OCT 18 2019 *CL*



Method Name: J:\MS07\METHODS\8270_625\101719_BNP7.M
 Calibration Table Last Updated: Fri Oct 18 11:25:01 2019

LW OCT 18 2019 *Cl*



Method Name: J:\MS07\METHODS\8270_625\101719_BNP7.M
 Calibration Table Last Updated: Fri Oct 18 18:31:04 2019

LM OCT 18 2019
 ce

Scan 1315 (17.301 min): 1017F001.D
MS07 Tune @ 50ppm | SVM61-100C

1st LM 10/18/19

Modified:subtracted

2nd CE 10/18/19

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.00	128	62.95	752	79.90	1346	96.05	125
38.00	469	63.85	142	81.00	1713	97.95	2540
39.00	1730	64.95	348	81.90	392	98.95	1720
50.00	6843	68.95	26408	82.90	369	99.95	152
51.00	20720	69.95	130	85.00	398	100.95	812
51.90	985	73.00	222	85.90	651	102.95	310
54.95	211	74.00	2382	87.00	254	103.95	655
55.95	669	75.00	3681	90.95	401	104.85	598
56.95	1312	77.00	18584	91.95	496	107.00	6673
60.85	270	78.00	1377	92.95	3934	108.00	932
62.05	380	79.00	1771	93.85	239	110.00	11548

Scan 1315 (17.301 min): 1017F001.D
MS07 Tune @ 50ppm | SVM61-100C

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
111.00	1770	128.95	10027	142.95	260	157.90	227
111.90	255	129.95	806	146.00	187	158.90	154
113.10	114	130.95	200	147.00	559	159.90	463
116.90	8197	133.95	315	147.90	1450	160.90	516
117.90	635	134.95	746	148.90	220	161.95	202
121.90	534	136.05	289	151.00	193	164.95	449
122.90	872	136.95	351	153.00	387	166.05	422
123.90	375	137.75	113	154.00	301	166.95	2443
124.95	375	139.85	143	155.00	644	167.95	1136
126.95	19384	140.95	1283	156.00	744	168.85	158
127.95	1714	141.95	427	156.80	173	169.95	111

Scan 1315 (17.301 min): 1017F001.D
MS07 Tune @ 50ppm | SVM61-100C

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
170.85	121	184.10	133	197.95	36304	209.95	195
171.85	246	185.00	905	198.95	2451	210.95	355
172.95	234	186.00	5039	200.05	232	214.85	167
173.95	396	187.00	1603	201.35	169	216.90	2683
174.95	774	188.10	173	203.05	291	217.90	344
175.85	266	188.90	454	203.95	1340	221.00	1365
176.85	424	190.90	178	204.95	2285	223.10	624
177.95	186	191.90	533	205.95	8705	224.00	5193
178.85	1700	192.90	613	206.95	1238	224.90	1401
180.00	1203	194.00	140	207.95	340	226.90	2434
181.00	443	196.00	1017	209.05	133	227.90	407

Scan 1315 (17.301 min): 1017F001.D
MS07 Tune @ 50ppm | SVM61-100C

Modified:subtracted

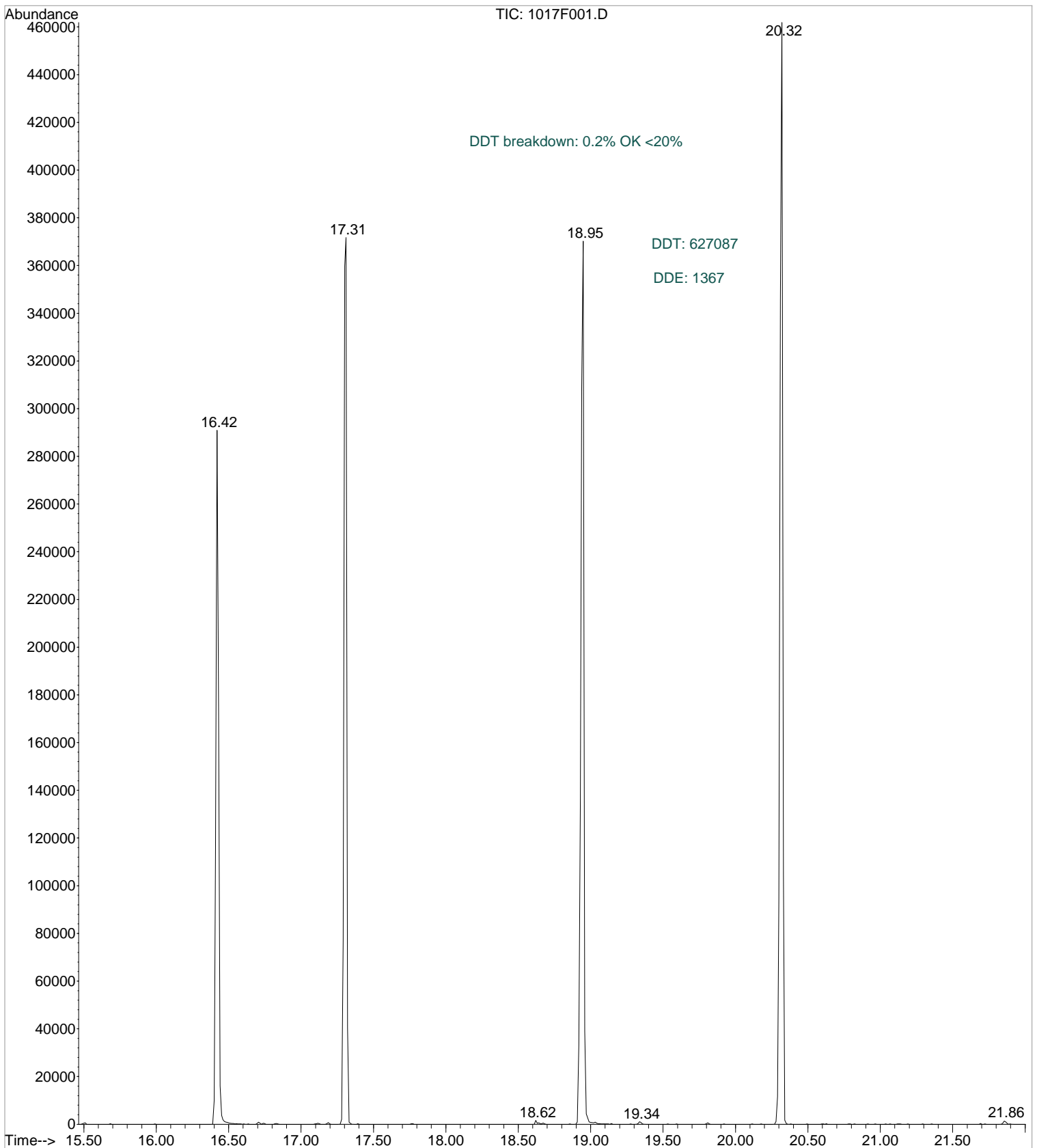
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
228.90	436	244.95	591	265.80	106	296.90	374
230.90	173	245.95	949	272.95	632	302.90	232
233.95	156	246.95	191	273.95	1627	303.90	101
234.95	194	248.95	176	274.95	8685	313.95	154
235.85	128	252.90	100	275.95	1193	314.85	280
236.85	177	255.00	19656	276.95	788	315.95	132
238.85	104	256.00	3261	277.85	165	322.95	856
240.95	143	256.90	265	282.95	116	323.95	203
241.95	256	257.90	1376	284.95	121	326.90	225
242.95	289	258.90	184	292.90	183	333.90	532
243.95	3613	264.90	554	295.90	2758	334.90	163

Scan 1315 (17.301 min): 1017F001.D
MS07 Tune @ 50ppm | SVM61-100C

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
345.85	160	421.95	158				
351.95	218	422.95	1227				
353.05	140	423.95	276				
353.95	286	439.20	131				
364.90	1051	441.00	3354				
365.90	171	442.00	22496				
371.90	383	443.00	4435				
382.95	136	444.00	455				
401.90	137						
402.90	228						
420.95	185						

File : J:\MS07\DATA\101719\1017F001.D
Operator : CCONOVER/LM
Acquired : 17 Oct 2019 12:27 pm using AcqMethod 8270_1
Instrument : MS07
Sample Name: MS07 Tune @ 50ppm | SVM61-100C
Misc Info :
Vial Number: 1



Data File : J:\MS07\DATA\101719\1017F001.D
 Acq On : 17 Oct 2019 12:27 pm
 Sample : MS07 Tune @ 50ppm | SVM61-100C
 Misc :

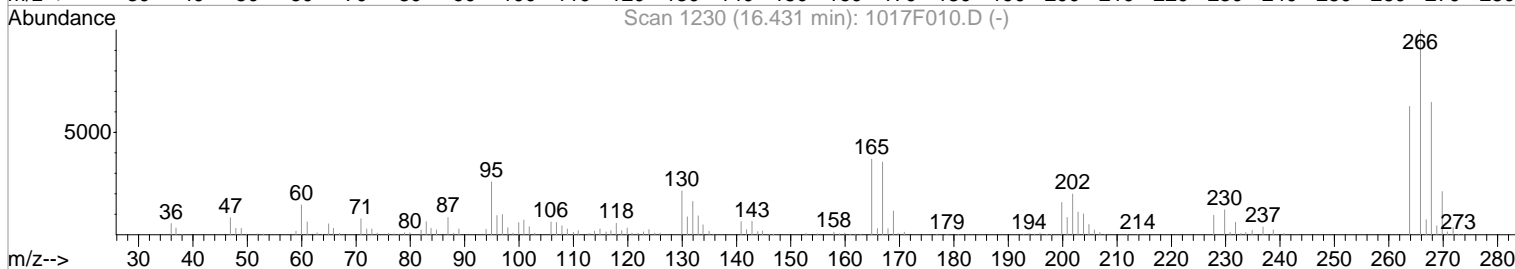
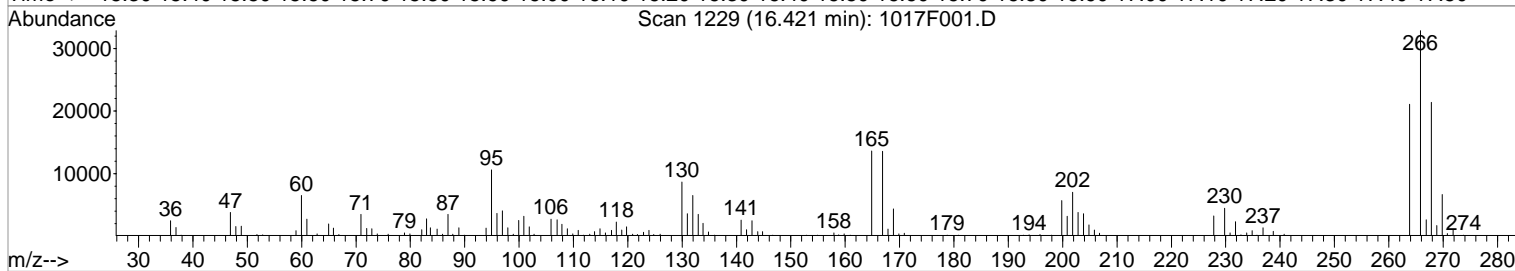
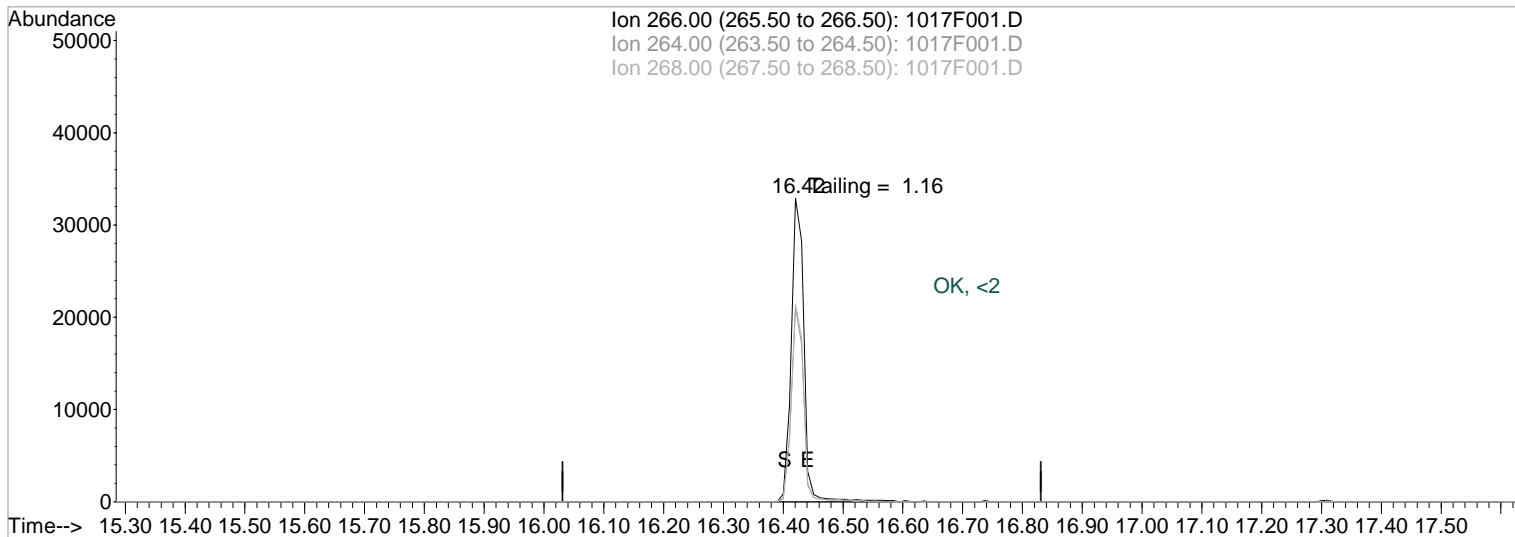
Vial: 1
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 15:33 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 12:23:15 2019
 Response via : Multiple Level Calibration



TIC: 1017F001.D

(66) Pentachlorophenol (T)

16.42min 3950.19ug/ml

response 48765

Ion	Exp%	Act%
266.00	100	100
264.00	62.70	64.04
268.00	64.60	65.11
0.00	0.00	0.00

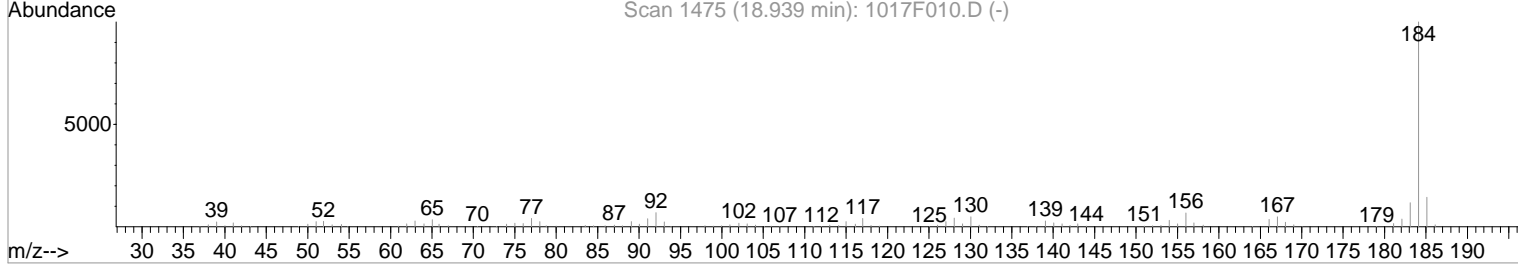
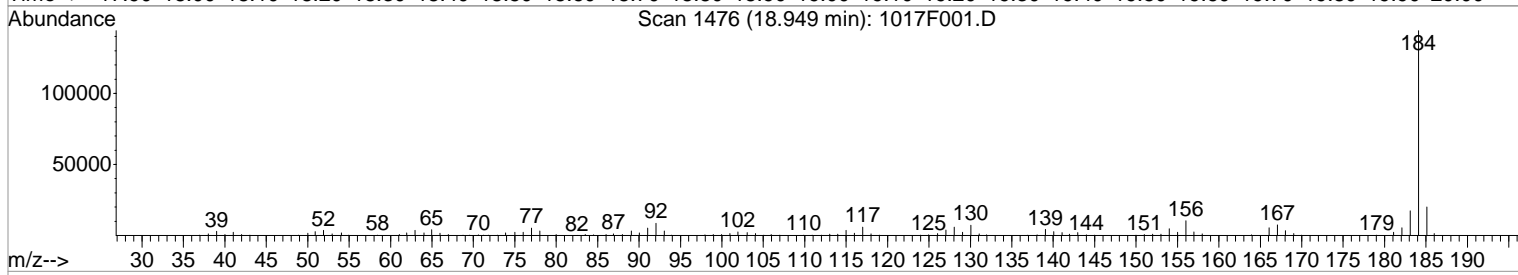
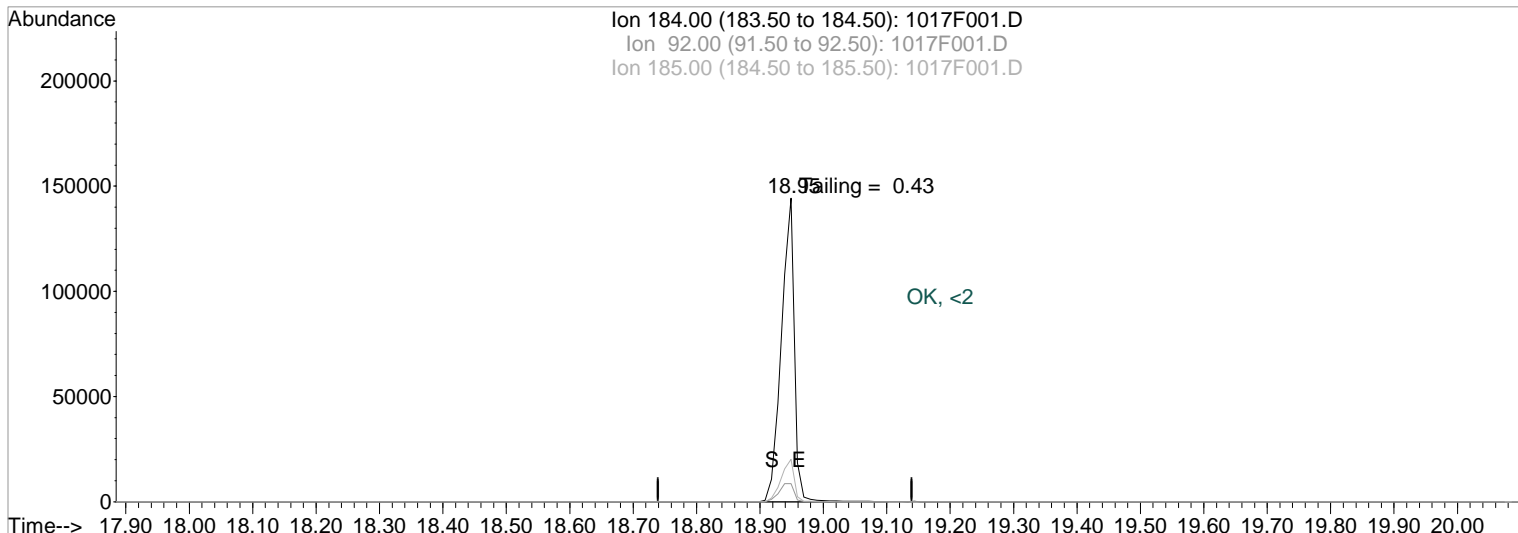
Data File : J:\MS07\DATA\101719\1017F001.D
 Acq On : 17 Oct 2019 12:27 pm
 Sample : MS07 Tune @ 50ppm | SVM61-100C
 Misc :

Vial: 1
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 15:33 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 12:23:15 2019
 Response via : Multiple Level Calibration



TIC: 1017F001.D

(74) Benzidine (T)		
18.95min	0.00ug/ml	
response	206049	
Ion	Exp%	Act%
184.00	100	100
92.00	6.90	6.01
185.00	14.40	13.96
0.00	0.00	0.00

Data File : J:\MS07\DATA\101719\1017F002.D
 Acq On : 17 Oct 2019 1:08 pm
 Sample : IB
 Misc :

Vial: 2
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 15:39:53 2019

Quant Results File: 101719_BNP7.RES

Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 12:23:15 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.36	152	31635	40.00	ug/ml	0.00
22) Naphthalene-d8	11.45	136	114180	40.00	ug/ml	-0.01
36) Acenaphthene-d10	14.31	164	67759	40.00	ug/ml	-0.01
61) Phenanthrene-d10	16.72	188	125525	40.00	ug/ml	-0.01
73) Chrysene-d12	21.15	240	105363	40.00	ug/ml	-0.01
84) Perylene-d12	24.31	264	107199	40.00	ug/ml	-0.02

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
4) 2-Fluorophenol	0.00	112	0	0.00	ug/ml	
Spiked Amount 150.000	Range 21 - 100		Recovery =		0.00%#	
8) Phenol-d6	0.00	99	0	0.00	ug/ml	
Spiked Amount 150.000	Range 10 - 94		Recovery =		0.00%#	
20) Nitrobenzene-d5	0.00	82	0	0.00	ug/ml	
Spiked Amount 100.000	Range 35 - 114		Recovery =		0.00%#	
40) 2-Fluorobiphenyl	0.00	172	0	0.00	ug/ml	
Spiked Amount 100.000	Range 43 - 116		Recovery =		0.00%#	
62) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/ml	
Spiked Amount 150.000	Range 10 - 123		Recovery =		0.00%#	
76) Terphenyl-d14	0.00	244	0d	0.00	ug/ml	
Spiked Amount 100.000	Range 33 - 141		Recovery =		0.00%#	

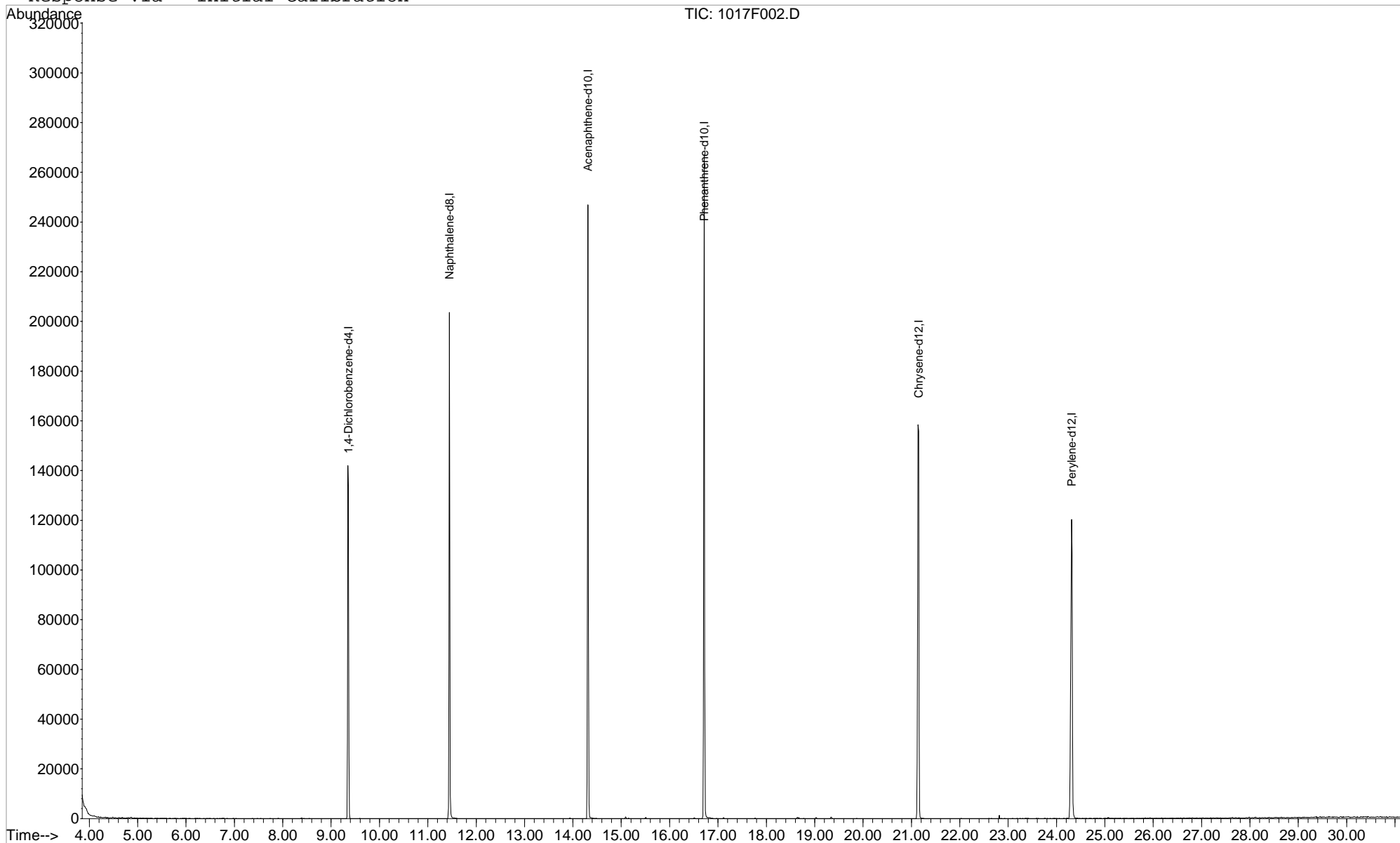
Target Compounds Qvalue

Data File : J:\MS07\DATA\101719\1017F002.D
 Acq On : 17 Oct 2019 1:08 pm
 Sample : IB
 Misc :
 MS Integration Params: RTEINT.P
 Quant Time: Oct 18 16:08 2019

Vial: 2
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

Quant Results File: 101719_BNP7.RES

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 12:23:15 2019
 Response via : Initial Calibration



Data File : J:\MS07\DATA\101719\1017F003.D
 Acq On : 17 Oct 2019 1:49 pm
 Sample : 8270/P ICAL @ lppm | SVM62-22C
 Misc :

Vial: 3
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 08:27:07 2019

Quant Results File: 101719_BNP7.RES

Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.35	152	31659	40.00	ug/ml	0.00
22) Naphthalene-d8	11.45	136	113732	40.00	ug/ml	0.00
36) Acenaphthene-d10	14.31	164	69321	40.00	ug/ml	-0.02
61) Phenanthrene-d10	16.71	188	132596	40.00	ug/ml	-0.02
73) Chrysene-d12	21.14	240	105119	40.00	ug/ml	-0.02
84) Perylene-d12	24.32	264	108044	40.00	ug/ml	-0.02

System Monitoring Compounds

4) 2-Fluorophenol	7.10	112	913	0.91	ug/ml	-0.04
Spiked Amount	150.000	Range	21 - 100	Recovery	=	0.61%#
8) Phenol-d6	8.80	99	1326	1.04	ug/ml	-0.05
Spiked Amount	150.000	Range	10 - 94	Recovery	=	0.69%#
20) Nitrobenzene-d5	10.27	82	1239	0.94	ug/ml	-0.02
Spiked Amount	100.000	Range	35 - 114	Recovery	=	0.94%#
40) 2-Fluorobiphenyl	13.24	172	2453	0.89	ug/ml	-0.02
Spiked Amount	100.000	Range	43 - 116	Recovery	=	0.89%#
62) 2,4,6-Tribromophenol	15.59	330	464	0.50	ug/ml	-0.03
Spiked Amount	150.000	Range	10 - 123	Recovery	=	0.33%#
76) Terphenyl-d14	19.34	244	3214	1.02	ug/ml	-0.02
Spiked Amount	100.000	Range	33 - 141	Recovery	=	1.02%#

Target Compounds

						Qvalue
3) Pyridine	4.40	79	799	0.82	ug/ml	85
5) Ethylene Glycol Butyl Ether	7.66	57	649	0.81	ug/ml	95
6) Aniline	8.80	93	1422m	1.02	ug/ml	
7) Bis(2-chloroethyl) Ether	8.95	93	918	0.96	ug/ml	91
9) Phenol	8.82	94	1308	1.00	ug/ml	86
10) 2-Chlorophenol	8.99	128	1031	0.92	ug/ml	88
11) 1,3-Dichlorobenzene	9.25	146	1192	1.03	ug/ml	90
12) 1,4-Dichlorobenzene	9.37	146	1104	0.91	ug/ml	88
13) 1,2-Dichlorobenzene	9.62	146	1228	1.08	ug/ml	97
14) Benzyl Alcohol	9.61	108	577	0.84	ug/ml	86
16) 2-Methylphenol	9.82	107	846	0.99	ug/ml	84
17) Hexachloroethane	10.18	117	509	0.91	ug/ml	89
18) N-Nitrosodi-n-propylamine	10.07	70	677	0.95	ug/ml	91
19) 4-Methylphenol	10.08	107	1071	0.83	ug/ml	96
21) Nitrobenzene	10.30	77	978	0.86	ug/ml	98
23) Isophorone	10.71	82	1984	1.09	ug/ml	96
24) 2-Nitrophenol	10.84	139	366	0.60	ug/ml	88
25) 2,4-Dimethylphenol	10.96	122	798	0.93	ug/ml	81
26) Bis(2-chloroethoxy)methane	11.11	93	1047	0.91	ug/ml	96
27) 2,4-Dichlorophenol	11.24	162	729	0.77	ug/ml	93
29) 1,2,4-Trichlorobenzene	11.37	180	1048	1.07	ug/ml	93
30) Naphthalene	11.48	128	3110	1.14	ug/ml	98
31) n-Dodecane	11.54	57	893	1.06	ug/ml#	91
32) 4-Chloroaniline	11.59	127	1276	1.05	ug/ml	96
33) Hexachlorobutadiene	11.73	225	654	0.93	ug/ml	89
34) 4-Chloro-3-methylphenol	12.41	107	654	0.76	ug/ml	93
35) 2-Methylnaphthalene	12.62	142	1917	1.04	ug/ml	92
37) Hexachlorocyclopentadiene	12.89	237	456	0.49	ug/ml	81
38) 2,4,6-Trichlorophenol	13.10	196	405	0.52	ug/ml	91
39) 2,4,5-Trichlorophenol	13.15	196	515	0.61	ug/ml	93
41) 2-Chloronaphthalene	13.41	162	1854	0.89	ug/ml	98
42) 2-Nitroaniline	13.58	65	664	1.07	ug/ml#	70
43) Acenaphthylene	14.07	152	2815	0.94	ug/ml	98
44) Dimethyl Phthalate	13.93	163	2392	1.11	ug/ml	96
45) 2,6-Dinitrotoluene	14.00	165	443	0.84	ug/ml	97
46) Acenaphthene	14.36	154	1862	1.05	ug/ml	97

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS07\DATA\101719\1017F003.D
 Acq On : 17 Oct 2019 1:49 pm
 Sample : 8270/P ICAL @ lppm | SVM62-22C
 Misc :

Vial: 3
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 08:27:07 2019

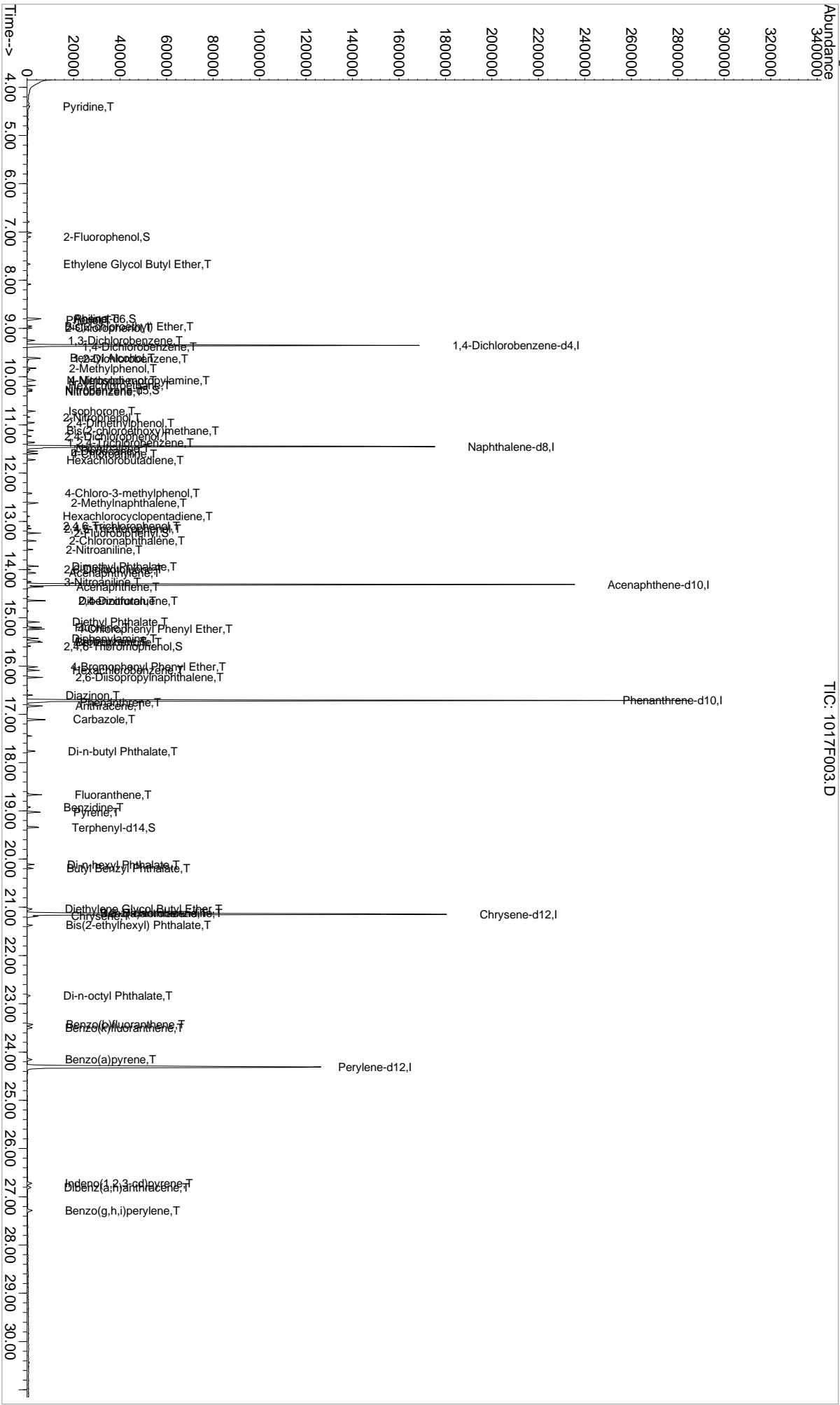
Quant Results File: 101719_BNP7.RES

Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
47) 3-Nitroaniline	14.26	138	429	0.79	ug/ml	91
49) Dibenzofuran	14.64	168	3125	1.11	ug/ml	99
51) 2,4-Dinitrotoluene	14.64	165	561	0.85	ug/ml	73
53) Fluorene	15.20	166	2284	1.11	ug/ml	94
54) 4-Chlorophenyl Phenyl Eth	15.23	204	1313	1.19	ug/ml	96
55) Diethyl Phthalate	15.09	149	2822	1.38	ug/ml	97
58) Diphenylamine	15.42	169	1844	1.34	ug/ml	97
59) Azobenzene	15.48	51	2079	1.75	ug/ml	94
60) Benzophenone	15.50	105	2550	1.29	ug/ml	97
63) 4-Bromophenyl Phenyl Ether	16.02	248	876	0.93	ug/ml	96
64) Hexachlorobenzene	16.09	284	1268	1.05	ug/ml	93
65) 2,6-Diisopropyl naphthalene	16.23	197	2058	0.93	ug/ml	95
67) Diazinon	16.60	137	422	0.77	ug/ml#	65
68) Phenanthrene	16.74	178	3914	1.13	ug/ml	97
69) Anthracene	16.83	178	3681	1.02	ug/ml	95
70) Carbazole	17.10	167	3104	0.92	ug/ml	97
71) Di-n-butyl Phthalate	17.77	149	3070	0.71	ug/ml	98
72) Fluoranthene	18.67	202	3732	0.99	ug/ml	96
74) Benzidine	18.92	184	1305	0.90	ug/ml	85
75) Pyrene	19.03	202	3624	1.06	ug/ml	97
77) Di-n-hexyl Phthalate	20.11	149	2420	0.65	ug/ml	100
78) Butyl Benzyl Phthalate	20.19	149	1119	0.71	ug/ml	92
79) Diethylene Glycol Butyl Et	21.03	105	1405	0.61	ug/ml	96
80) 3,3'-Dichlorobenzidine	21.11	252	900	0.61	ug/ml	95
81) Benz(a)anthracene	21.11	228	3079	1.10	ug/ml	98
82) Chrysene	21.19	228	2878	1.00	ug/ml	95
83) Bis(2-ethylhexyl) Phthalat	21.37	149	1502	0.73	ug/ml	91
85) Di-n-octyl Phthalate	22.83	149	1929	0.57	ug/ml	95
86) Benzo(b)fluoranthene	23.43	252	2636	0.82	ug/ml	92
87) Benzo(k)fluoranthene	23.50	252	2578	0.86	ug/ml	92
90) Benzo(a)pyrene	24.15	252	2364	0.83	ug/ml	94
91) Indeno(1,2,3-cd)pyrene	26.72	276	2152	0.74	ug/ml	82
92) Dibenz(a,h)anthracene	26.81	278	2034	0.68	ug/ml	85
93) Benzo(g,h,i)perylene	27.29	276	2278	0.76	ug/ml	87

1st M

Data File : J:\MS07\DATA\101719\1017F003.D
 Acq On : 17 Oct 2019 1:49 pm
 Sample : 8270/P ICAL @ 1ppm | SVM62-22C
 Misc :
 MS Integration Params: RTEINT.P
 Quant Results File: 101719_BNP7.RES
 Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 09:20:51 2019
 Response via : Initial Calibration



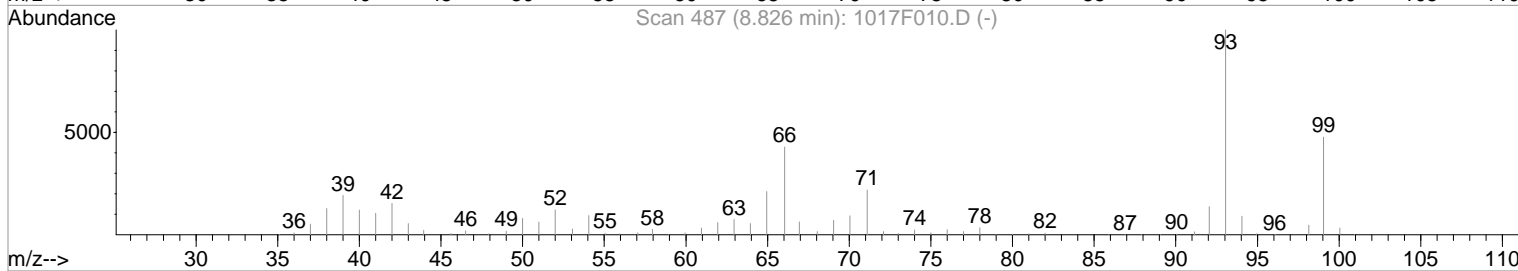
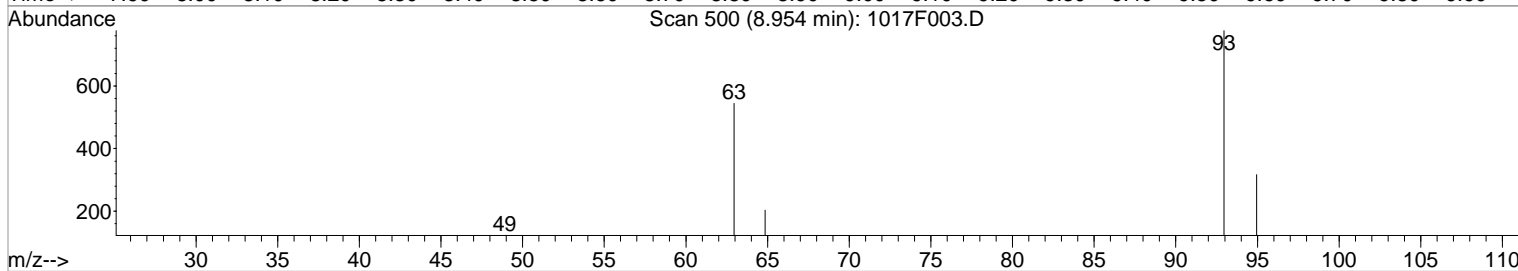
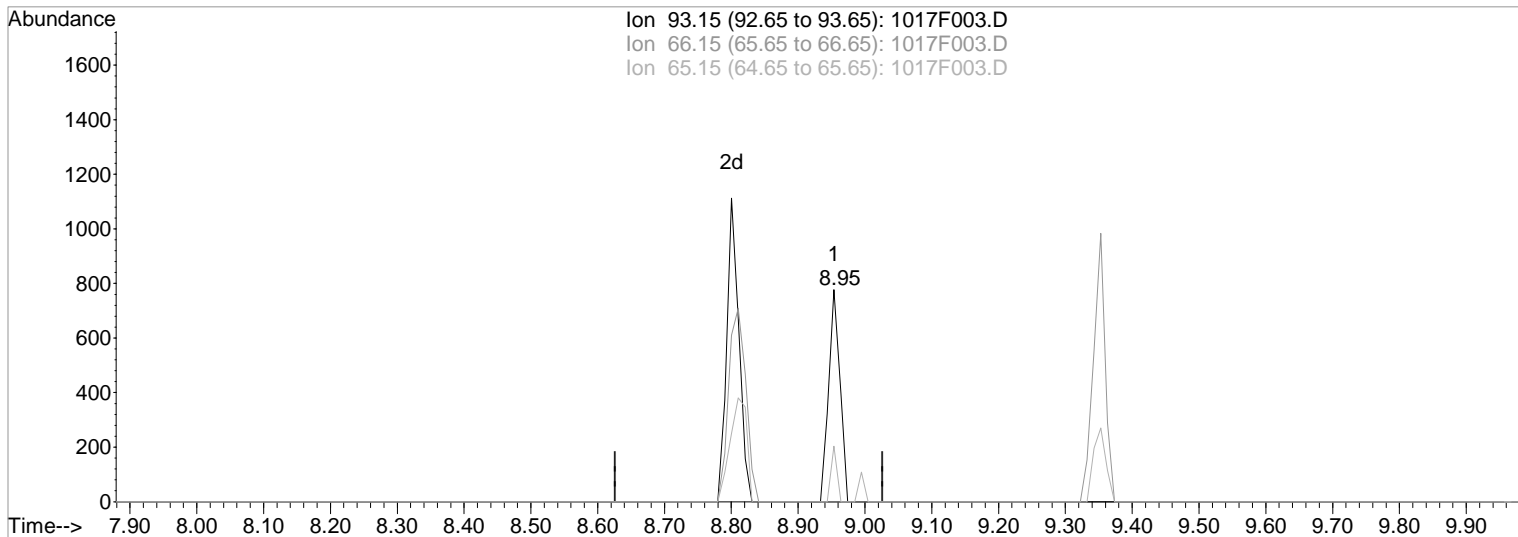
Data File : J:\MS07\DATA\101719\1017F003.D
 Acq On : 17 Oct 2019 1:49 pm
 Sample : 8270/P ICAL @ 1ppm | SVM62-22C
 Misc :

Vial: 3
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 8:27 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F003.D

(6) Aniline (T)

Manual Integration:

8.95min 0.66ug/ml

Before

response 918

Ion	Exp%	Act%
93.15	100	100
66.15	17.40	0.00
65.15	4.40	26.13
0.00	0.00	0.00

10/18/19

Data File : J:\MS07\DATA\101719\1017F003.D
 Acq On : 17 Oct 2019 1:49 pm
 Sample : 8270/P ICAL @ 1ppm | SVM62-22C
 Misc :

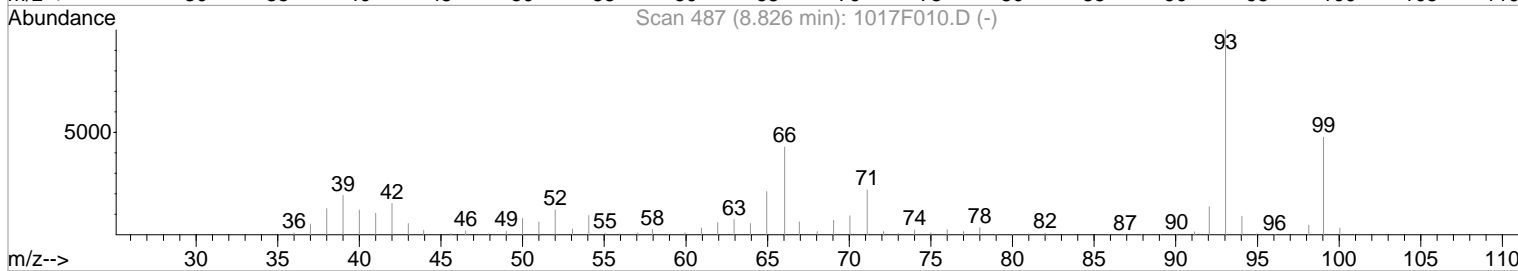
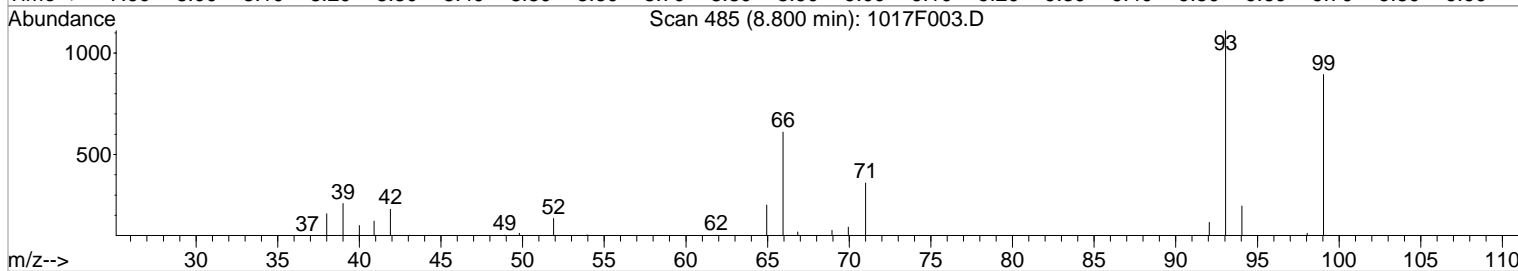
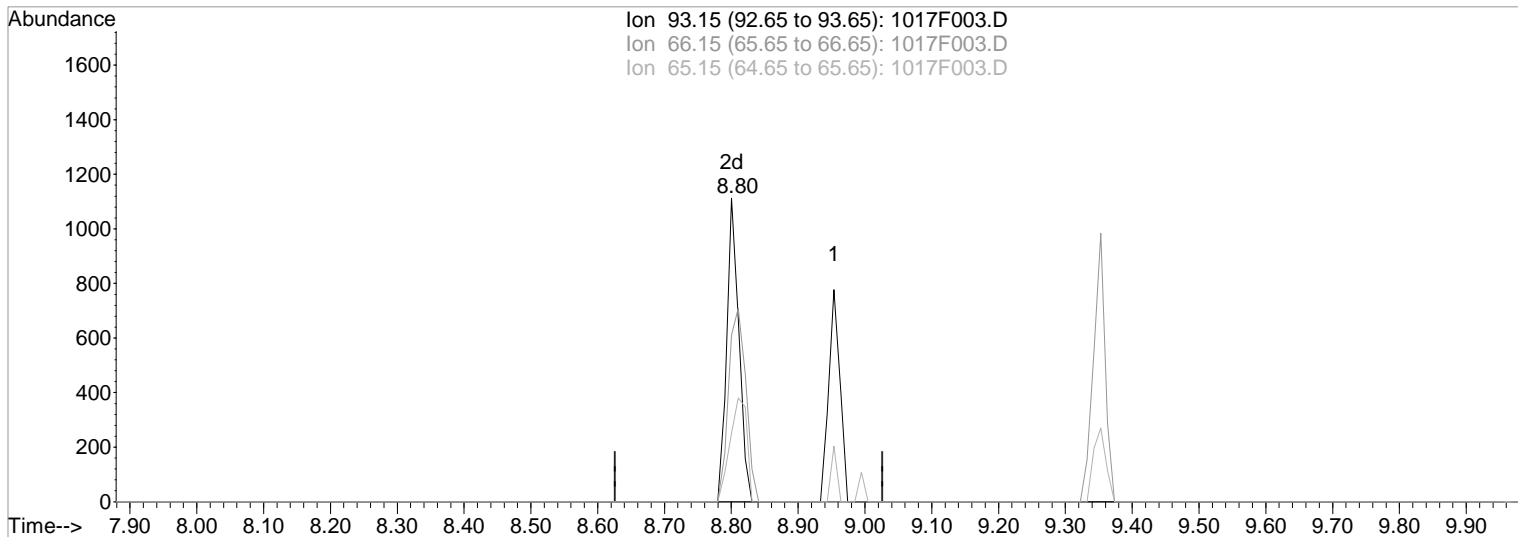
Vial: 3
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 8:29 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F003.D

(6) Aniline (T)

8.80min 1.02ug/ml m
 response 1422

Manual Integration:

After
 Wrong peak

Ion	Exp%	Act%
93.15	100	100
66.15	17.40	54.86#
65.15	4.40	22.48
0.00	0.00	0.00

10/18/19

Initial Calibration - Detailed Report

Calibration ID: KC1900441	Instrument ID: K-MS-07
	Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
02	KC1900441-02	8270/P ICAL @ 1ppm SVM62-22C	J:\MS07\DATA\101719\1017F003.D	10/17/2019 13:49
03	KC1900441-03	8270/P ICAL @ 2.5ppm SVM62-22D	J:\MS07\DATA\101719\1017F004.D	10/17/2019 14:31
04	KC1900441-04	8270/P ICAL @ 5ppm SVM62-22E	J:\MS07\DATA\101719\1017F005.D	10/17/2019 15:12
05	KC1900441-05	8270/P ICAL @ 7.5ppm SVM62-22F	J:\MS07\DATA\101719\1017F006.D	10/17/2019 15:53
06	KC1900441-06	8270/P ICAL @ 10ppm SVM62-22G	J:\MS07\DATA\101719\1017F007.D	10/17/2019 16:35
07	KC1900441-07	8270/P ICAL @ 20ppm SVM62-22H	J:\MS07\DATA\101719\1017F008.D	10/17/2019 17:16
08	KC1900441-08	8270/P ICAL @ 50ppm SVM62-22I	J:\MS07\DATA\101719\1017F009.D	10/17/2019 17:58
09	KC1900441-09	8270/P ICAL @ 80ppm SVM62-22J	J:\MS07\DATA\101719\1017F010.D	10/17/2019 18:40
10	KC1900441-10	8270/P ICAL @ 140ppm SVM62-22L	J:\MS07\DATA\101719\1017F012.D	10/17/2019 20:03
11	KC1900441-11	8270/P ICAL @ 180ppm SVM62-22M	J:\MS07\DATA\101719\1017F013.D	10/17/2019 20:44
12	KC1900441-12	8270/P ICAL @ 200ppm SVM62-22N	J:\MS07\DATA\101719\1017F014.D	10/17/2019 21:26

<u>Analyte</u>	<u>Curve Fit</u>	<u>Weighting</u>			
1,2,4-Trichlorobenzene	Average RF		RSD = 2.934		Average RF = 0.343
# Amount RF	# Amount RF		# Amount RF		# Amount RF
02 1.000 0.3686	03 2.500 0.3482		04 5.000 0.3403		05 7.500 0.3348
06 10.000 0.3445	07 20.000 0.3304		08 50.000 0.3417		09 80.000 0.3446
10 140.000 0.3454	11 180.000 0.3397		12 200.000 0.3344		
1,2-Dichlorobenzene	Average RF		RSD = 4.684		Average RF = 1.385E0
# Amount RF	# Amount RF		# Amount RF		# Amount RF
02 1.000 1.552	03 2.500 1.293		04 5.000 1.356		05 7.500 1.364
06 10.000 1.364	07 20.000 1.361		08 50.000 1.405		09 80.000 1.431
10 140.000 1.379	11 180.000 1.359		12 200.000 1.366		
1,2-Diphenylhydrazine	Average RF		RSD = 10.74		Average RF = 6.71E-1
# Amount RF	# Amount RF		# Amount RF		# Amount RF
05 7.500 0.6924	06 10.000 0.6712		07 20.000 0.8119		08 50.000 0.6929
09 80.000 0.6852	10 140.000 0.6333		11 180.000 0.5678		12 200.000 0.6134
1,3-Dichlorobenzene	Average RF		RSD = 2.927		Average RF = 1.425E0
# Amount RF	# Amount RF		# Amount RF		# Amount RF
02 1.000 1.506	03 2.500 1.338		04 5.000 1.411		05 7.500 1.433
06 10.000 1.416	07 20.000 1.416		08 50.000 1.438		09 80.000 1.46
10 140.000 1.431	11 180.000 1.435		12 200.000 1.389		
1,4-Dichlorobenzene	Average RF		RSD = 3.212		Average RF = 1.482E0
# Amount RF	# Amount RF		# Amount RF		# Amount RF
02 1.000 1.395	03 2.500 1.426		04 5.000 1.556		05 7.500 1.522
06 10.000 1.494	07 20.000 1.47		08 50.000 1.51		09 80.000 1.536
10 140.000 1.461	11 180.000 1.468		12 200.000 1.468		
2,3,4,6-Tetrachlorophenol	Average RF		RSD = 14.39		Average RF = 0.3438
# Amount RF	# Amount RF		# Amount RF		# Amount RF

Initial Calibration - Detailed Report

Calibration ID: KC1900441	Instrument ID: K-MS-07
	Column Name: 1

05 7.500 0.2525	06 10.000 0.2854	07 20.000 0.3406	08 50.000 0.3651
09 80.000 0.3601	10 140.000 0.3705	11 180.000 0.3899	12 200.000 0.3864

2,4,5-Trichlorophenol

Average RF

RSD = 9.453

Average RF = 0.4541

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	5.000	0.371	05	7.500	0.4108	06	10.000	0.4209	07	20.000	0.4623
08	50.000	0.4927	09	80.000	0.4885	10	140.000	0.4833	11	180.000	0.4838
12	200.000	0.4737									

2,4,6-Trichlorophenol

Average RF

RSD = 10.48

Average RF = 0.4138

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	5.000	0.3304	05	7.500	0.3623	06	10.000	0.397	07	20.000	0.4072
08	50.000	0.4412	09	80.000	0.4527	10	140.000	0.4411	11	180.000	0.4467
12	200.000	0.4458									

2,4-Dichlorophenol

Average RF

RSD = 7.194

Average RF = 0.3137

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.2564	03	2.500	0.2897	04	5.000	0.3055	05	7.500	0.3206
06	10.000	0.3204	07	20.000	0.3244	08	50.000	0.3319	09	80.000	0.3326
10	140.000	0.3252	11	180.000	0.3227	12	200.000	0.3211			

2,4-Dimethylphenol

Average RF

RSD = 3.262

Average RF = 0.2908

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.2807	03	2.500	0.2779	04	5.000	0.2929	05	7.500	0.29
06	10.000	0.2851	07	20.000	0.3092	08	50.000	0.2977	09	80.000	0.3032
10	140.000	0.2897	11	180.000	0.288	12	200.000	0.2841			

2,4-Dinitrophenol

Quadratic 1/X

COD = 0.9995

Y = 0.02422 X² + 0.1196 X + -0.0289

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	10.000	0.02282	07	20.000	0.06053	08	50.000	0.1216	09	80.000	0.1599
10	140.000	0.1952	11	180.000	0.2249	12	200.000	0.2326			

2,4-Dinitrotoluene

Average RF

RSD = 10.5

Average RF = 0.3773

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.3237	03	2.500	0.2993	04	5.000	0.3504	05	7.500	0.3722
06	10.000	0.3802	07	20.000	0.3977	08	50.000	0.3967	09	80.000	0.3801
10	140.000	0.4002	11	180.000	0.4318	12	200.000	0.4182			

2,6-Diisopropyl-naphthalene

Average RF

RSD = 5.934

Average RF = 6.279E-1

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.6208	03	2.500	0.5594	04	5.000	0.5737	05	7.500	0.6209
06	10.000	0.6473	07	20.000	0.635	08	50.000	0.6894	09	80.000	0.6705
10	140.000	0.6336	11	180.000	0.635	12	200.000	0.621			

2,6-Dinitrotoluene

Average RF

RSD = 8.831

Average RF = 0.2922

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.2556	03	2.500	0.2343	04	5.000	0.2796	05	7.500	0.2977
06	10.000	0.2953	07	20.000	0.3108	08	50.000	0.3144	09	80.000	0.3041
10	140.000	0.3014	11	180.000	0.3063	12	200.000	0.3148			

2-Chloronaphthalene

Average RF

RSD = 6.861

Average RF = 1.107E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.07	03	2.500	0.9877	04	5.000	1.016	05	7.500	1.049
06	10.000	1.067	07	20.000	1.086	08	50.000	1.154	09	80.000	1.203
10	140.000	1.166	11	180.000	1.196	12	200.000	1.181			

Initial Calibration - Detailed Report

Calibration ID: KC1900441	Instrument ID: K-MS-07
	Column Name: 1

2-Chlorophenol

Average RF			RSD = 3.494			Average RF = 1.327E0					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.303	03	2.500	1.241	04	5.000	1.305	05	7.500	1.304
06	10.000	1.302	07	20.000	1.306	08	50.000	1.377	09	80.000	1.411
10	140.000	1.356	11	180.000	1.352	12	200.000	1.344			

2-Methylnaphthalene

Average RF			RSD = 2.613			Average RF = 6.587E-1					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.6742	03	2.500	0.6523	04	5.000	0.6464	05	7.500	0.656
06	10.000	0.6829	07	20.000	0.668	08	50.000	0.689	09	80.000	0.6504
10	140.000	0.6428	11	180.000	0.6459	12	200.000	0.6376			

2-Methylphenol

Average RF			RSD = 5.634			Average RF = 9.983E-1					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.069	03	2.500	0.9233	04	5.000	0.9822	05	7.500	0.9489
06	10.000	0.9426	07	20.000	0.995	08	50.000	1.079	09	80.000	1.084
10	140.000	1.011	11	180.000	0.9791	12	200.000	0.9683			

2-Nitroaniline

Average RF			RSD = 8.05			Average RF = 0.3598					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.3831	03	2.500	0.2803	04	5.000	0.338	05	7.500	0.3691
06	10.000	0.3644	07	20.000	0.3805	08	50.000	0.3713	09	80.000	0.3596
10	140.000	0.3653	11	180.000	0.3724	12	200.000	0.3733			

2-Nitrophenol

Average RF			RSD = 9.938			Average RF = 0.1969					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	5.000	0.1542	05	7.500	0.1774	06	10.000	0.1919	07	20.000	0.2026
08	50.000	0.2073	09	80.000	0.2149	10	140.000	0.2078	11	180.000	0.2089
12	200.000	0.2072									

3,3'-Dichlorobenzidine

Average RF			RSD = 13.23			Average RF = 0.4854					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.500	0.3669	04	5.000	0.4309	05	7.500	0.433	06	10.000	0.4658
07	20.000	0.4594	08	50.000	0.5075	09	80.000	0.5596	10	140.000	0.5491
11	180.000	0.5458	12	200.000	0.5363						

3-Nitroaniline

Average RF			RSD = 10.44			Average RF = 0.3103					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.2475	03	2.500	0.2536	04	5.000	0.2951	05	7.500	0.3087
06	10.000	0.331	07	20.000	0.3324	08	50.000	0.3308	09	80.000	0.3153
10	140.000	0.3214	11	180.000	0.3378	12	200.000	0.3397			

4,6-Dinitro-2-methylphenol

Quadratic			1/X			COD = 0.9994			Y = 0.01445 X ² + 0.2282 X + -0.03094		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
05	7.500	0.06817	06	10.000	0.1137	07	20.000	0.1662	08	50.000	0.218
09	80.000	0.2431	10	140.000	0.2705	11	180.000	0.2918	12	200.000	0.2896

4-Bromophenyl Phenyl Ether

Average RF			RSD = 5.054			Average RF = 0.2642					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.2643	03	2.500	0.2507	04	5.000	0.2469	05	7.500	0.2489
06	10.000	0.2668	07	20.000	0.261	08	50.000	0.2876	09	80.000	0.2841
10	140.000	0.2713	11	180.000	0.2674	12	200.000	0.2572			

4-Chloro-3-methylphenol

Average RF			RSD = 10.13			Average RF = 0.2969					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF

Initial Calibration - Detailed Report

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02 1.000 0.23	03 2.500 0.2622	04 5.000 0.3112	05 7.500 0.3117
06 10.000 0.3203	07 20.000 0.3268	08 50.000 0.3327	09 80.000 0.3027
10 140.000 0.2918	11 180.000 0.2912	12 200.000 0.2856	

4-Chloroaniline

Average RF

RSD = 4.835

Average RF = 0.438

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.4488	03	2.500	0.4335	04	5.000	0.4533	05	7.500	0.4392
06	10.000	0.4585	07	20.000	0.4566	08	50.000	0.4687	09	80.000	0.4281
10	140.000	0.4143	11	180.000	0.4052	12	200.000	0.412			

4-Chlorophenyl Phenyl Ether

Average RF

RSD = 5.203

Average RF = 6.671E-1

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.7576	03	2.500	0.6837	04	5.000	0.6613	05	7.500	0.687
06	10.000	0.6675	07	20.000	0.6615	08	50.000	0.6566	09	80.000	0.6352
10	140.000	0.6381	11	180.000	0.653	12	200.000	0.6363			

4-Methylphenol

Average RF

RSD = 5.638

Average RF = 1.499E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.353	03	2.500	1.368	04	5.000	1.493	05	7.500	1.479
06	10.000	1.564	07	20.000	1.491	08	50.000	1.601	09	80.000	1.627
10	140.000	1.534	11	180.000	1.494	12	200.000	1.486			

4-Nitroaniline

Average RF

RSD = 8.684

Average RF = 0.3123

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.500	0.2553	04	5.000	0.3035	05	7.500	0.305	06	10.000	0.292
07	20.000	0.3169	08	50.000	0.3133	09	80.000	0.3118	10	140.000	0.3301
11	180.000	0.3469	12	200.000	0.3482						

4-Nitrophenol

Quadratic 1/X

COD = 0.9995

Y = 0.01431 X² + 0.2224 X + -0.007423

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	5.000	0.1671	05	7.500	0.1815	06	10.000	0.1924	07	20.000	0.2184
08	50.000	0.2428	09	80.000	0.2405	10	140.000	0.268	11	180.000	0.2907
12	200.000	0.2897									

Acenaphthene

Average RF

RSD = 2.914

Average RF = 1.017E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.074	03	2.500	0.9854	04	5.000	1.007	05	7.500	1.018
06	10.000	1.049	07	20.000	1.019	08	50.000	1.037	09	80.000	1.022
10	140.000	1.002	11	180.000	1.003	12	200.000	0.9667			

Acenaphthylene

Average RF

RSD = 3.314

Average RF = 1.643E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.624	03	2.500	1.522	04	5.000	1.605	05	7.500	1.637
06	10.000	1.645	07	20.000	1.642	08	50.000	1.714	09	80.000	1.728
10	140.000	1.633	11	180.000	1.671	12	200.000	1.649			

Aniline

Average RF

RSD = 2.54

Average RF = 1.736E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.797	03	2.500	1.652	04	5.000	1.729	05	7.500	1.709
06	10.000	1.773	07	20.000	1.784	08	50.000	1.765	09	80.000	1.764
10	140.000	1.716	11	180.000	1.711	12	200.000	1.696			

Anthracene

Average RF

RSD = 2.46

Average RF = 1.066E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.11	03	2.500	1.055	04	5.000	1.062	05	7.500	1.032
06	10.000	1.08	07	20.000	1.084	08	50.000	1.065	09	80.000	1.086

Initial Calibration - Detailed Report

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10	140.000	1.063	11	180.000	1.075	12	200.000	1.015
Benz(a)anthracene			Average RF			RSD = 5.701		
Average RF = 1.028E0								
#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.172	03	2.500	0.9552	04	5.000	0.9861
06	10.000	1.013	07	20.000	1.015	08	50.000	1.062
10	140.000	1.03	11	180.000	1.023	12	200.000	1.019
Benzidine			Average RF			RSD = 11.9		
Average RF = 5.368E-1								
#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.4966	03	2.500	0.5203	04	5.000	0.5533
06	10.000	0.6133	07	20.000	0.6103	08	50.000	0.6122
10	140.000	0.4722	11	180.000	0.4537	12	200.000	0.4429
Benzo(a)pyrene			Average RF			RSD = 9.491		
Average RF = 9.551E-1								
#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.8752	03	2.500	0.8317	04	5.000	0.8463
06	10.000	0.895	07	20.000	0.9677	08	50.000	1.029
10	140.000	1.059	11	180.000	1.042	12	200.000	1.022
Benzo(b)fluoranthene			Average RF			RSD = 14		
Average RF = 1.151E0								
#	Amount	RF	#	Amount	RF	#	Amount	RF
05	7.500	0.9578	06	10.000	0.9596	07	20.000	1.025
09	80.000	1.196	10	140.000	1.29	11	180.000	1.322
12	200.000	1.351						
Benzo(g,h,i)perylene			Average RF			RSD = 9.991		
Average RF = 1.01E0								
#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.8434	03	2.500	0.8484	04	5.000	0.9114
06	10.000	1.041	07	20.000	1.094	08	50.000	1.066
10	140.000	1.085	11	180.000	1.085	12	200.000	1.069
Benzo(k)fluoranthene			Average RF			RSD = 7.441		
Average RF = 9.876E-1								
#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.9544	03	2.500	0.9169	04	5.000	0.9472
06	10.000	0.9709	07	20.000	1.049	08	50.000	1.115
10	140.000	0.9793	11	180.000	0.9823	12	200.000	0.8775
Benzoic Acid			Quadratic			COD = 0.9992		
			1/X			Y = 0.01024 X² + 0.1488 X + -0.03182		
#	Amount	RF	#	Amount	RF	#	Amount	RF
06	10.000	0.02721	07	20.000	0.08667	08	50.000	0.1374
10	140.000	0.1757	11	180.000	0.1918	12	200.000	0.1905
Benzophenone			Average RF			RSD = 8.558		
Average RF = 1.251E0								
#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.471	03	2.500	1.219	04	5.000	1.343
06	10.000	1.314	07	20.000	1.311	08	50.000	1.195
10	140.000	1.142	11	180.000	1.184	12	200.000	1.131
Benzyl Alcohol			Average RF			RSD = 5.464		
Average RF = 8.186E-1								
#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.729	03	2.500	0.7636	04	5.000	0.8235
06	10.000	0.8231	07	20.000	0.7999	08	50.000	0.868
10	140.000	0.8511	11	180.000	0.8337	12	200.000	0.854
Bis(1-chloroisopropyl) Ether			Average RF			RSD = 5.371		
Average RF = 1.099E0								
#	Amount	RF	#	Amount	RF	#	Amount	RF

Initial Calibration - Detailed Report

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03 2.500 1.102	04 5.000 1.16	05 7.500 1.097	06 10.000 1.105
07 20.000 1.149	08 50.000 1.16	09 80.000 1.152	10 140.000 1.051
11 180.000 1.016	12 200.000 1.003		

Bis(2-chloroethoxy) Methane

Average RF

RSD = 3.657

Average RF = 0.3777

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.3682	03	2.500	0.3888	04	5.000	0.3703	05	7.500	0.357
06	10.000	0.3862	07	20.000	0.3863	08	50.000	0.3892	09	80.000	0.4025
10	140.000	0.3764	11	180.000	0.3645	12	200.000	0.3657			

Bis(2-chloroethyl) Ether

Average RF

RSD = 2.589

Average RF = 1.16E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.16	03	2.500	1.112	04	5.000	1.166	05	7.500	1.147
06	10.000	1.199	07	20.000	1.165	08	50.000	1.185	09	80.000	1.21
10	140.000	1.146	11	180.000	1.147	12	200.000	1.121			

Bis(2-ethylhexyl) Phthalate

Average RF

RSD = 12.08

Average RF = 6.721E-1

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.5715	03	2.500	0.5501	04	5.000	0.5789	05	7.500	0.6148
06	10.000	0.6685	07	20.000	0.6903	08	50.000	0.7603	09	80.000	0.7815
10	140.000	0.7354	11	180.000	0.7292	12	200.000	0.7121			

Butyl Benzyl Phthalate

Average RF

RSD = 10.87

Average RF = 5.27E-1

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.4258	03	2.500	0.4263	04	5.000	0.503	05	7.500	0.5187
06	10.000	0.5479	07	20.000	0.5619	08	50.000	0.589	09	80.000	0.6013
10	140.000	0.5513	11	180.000	0.5399	12	200.000	0.5322			

Butyl Cellosolve

Average RF

RSD = 6.134

Average RF = 9.592E-1

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.82	03	2.500	0.8877	04	5.000	1.006	05	7.500	0.9612
06	10.000	1.031	07	20.000	0.9797	08	50.000	0.9627	09	80.000	1.007
10	140.000	0.9636	11	180.000	0.9624	12	200.000	0.9702			

Carbazole

Average RF

RSD = 7.803

Average RF = 9.48E-1

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.9364	03	2.500	0.8298	04	5.000	0.8856	05	7.500	0.8888
06	10.000	0.885	07	20.000	0.9037	08	50.000	0.995	09	80.000	1.013
10	140.000	1.029	11	180.000	1.047	12	200.000	1.015			

Chrysene

Average RF

RSD = 2.451

Average RF = 1.056E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.095	03	2.500	1.026	04	5.000	1.014	05	7.500	1.057
06	10.000	1.076	07	20.000	1.042	08	50.000	1.07	09	80.000	1.091
10	140.000	1.039	11	180.000	1.059	12	200.000	1.044			

Di-n-Hexyl Phthalate

Average RF

RSD = 14.29

Average RF = 1.207E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.9209	03	2.500	0.9473	04	5.000	1.06	05	7.500	1.16
06	10.000	1.233	07	20.000	1.27	08	50.000	1.453	09	80.000	1.418
10	140.000	1.308	11	180.000	1.255	12	200.000	1.249			

Di-n-butyl Phthalate

Average RF

RSD = 14.69

Average RF = 1.118E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.500	0.8823	04	5.000	0.9481	05	7.500	0.9788	06	10.000	0.9839
07	20.000	1.062	08	50.000	1.201	09	80.000	1.299	10	140.000	1.315

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11 180.000 1.276 12 200.000 1.238

Di-n-octyl Phthalate

Average RF			RSD = 13.92			Average RF = 1.122E0					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	5.000	0.8655	05	7.500	0.9401	06	10.000	0.989	07	20.000	1.101
08	50.000	1.169	09	80.000	1.25	10	140.000	1.261	11	180.000	1.283
12	200.000	1.242									

Diazinon

Average RF			RSD = 11.29			Average RF = 0.1416					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.1273	03	2.500	0.1145	04	5.000	0.1256	05	7.500	0.1373
06	10.000	0.1294	07	20.000	0.1449	08	50.000	0.1603	09	80.000	0.1646
10	140.000	0.1544	11	180.000	0.1523	12	200.000	0.1467			

Dibenz(a,h)anthracene

Average RF			RSD = 13.89			Average RF = 9.834E-1					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.500	0.7255	04	5.000	0.8067	05	7.500	0.8886	06	10.000	0.937
07	20.000	1.061	08	50.000	1.037	09	80.000	1.109	10	140.000	1.093
11	180.000	1.102	12	200.000	1.073						

Dibenzofuran

Average RF			RSD = 3.258			Average RF = 1.664E0					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.803	03	2.500	1.614	04	5.000	1.654	05	7.500	1.669
06	10.000	1.652	07	20.000	1.682	08	50.000	1.677	09	80.000	1.622
10	140.000	1.605	11	180.000	1.688	12	200.000	1.634			

Diethyl Phthalate

Average RF			RSD = 9.421			Average RF = 1.288E0					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.628	03	2.500	1.167	04	5.000	1.273	05	7.500	1.25
06	10.000	1.265	07	20.000	1.3	08	50.000	1.268	09	80.000	1.18
10	140.000	1.247	11	180.000	1.31	12	200.000	1.278			

Diethylene Glycol Dibenzoate

Average RF			RSD = 12.04			Average RF = 7.762E-1					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	5.000	0.5986	05	7.500	0.6723	06	10.000	0.7401	07	20.000	0.7494
08	50.000	0.8245	09	80.000	0.8798	10	140.000	0.8427	11	180.000	0.8299
12	200.000	0.8481									

Diisodecyl Phthalate

Average RF			RSD = 9.887			Average RF = 1.078E0					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
07	20.000	0.8852	08	50.000	1.028	09	80.000	1.109	10	140.000	1.139
11	180.000	1.172	12	200.000	1.138						

Diisononyl Phthalate

Quadratic			1/X			COD = 0.9982			Y = -0.000909 X ² + 0.09997 X + -0.03035		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
07	20.000	0.04053	08	50.000	0.07168	09	80.000	0.08352	10	140.000	0.08837
11	180.000	0.09142	12	200.000	0.08747						

Dimethyl Phthalate

Average RF			RSD = 3.767			Average RF = 1.285E0					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.38	03	2.500	1.189	04	5.000	1.306	05	7.500	1.312
06	10.000	1.287	07	20.000	1.315	08	50.000	1.3	09	80.000	1.246
10	140.000	1.253	11	180.000	1.274	12	200.000	1.272			

Fluoranthene

Average RF			RSD = 9.296			Average RF = 1.038E0					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF

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02 1.000 1.126	03 2.500 0.9052	04 5.000 0.941	05 7.500 0.9114
06 10.000 0.9621	07 20.000 0.9875	08 50.000 1.087	09 80.000 1.142
10 140.000 1.141	11 180.000 1.122	12 200.000 1.094	

Fluorene			Average RF			RSD = 4.048			Average RF = 1.24E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.318	03	2.500	1.241	04	5.000	1.263	05	7.500	1.314
06	10.000	1.26	07	20.000	1.248	08	50.000	1.252	09	80.000	1.188
10	140.000	1.183	11	180.000	1.193	12	200.000	1.175			

Hexachlorobenzene			Average RF			RSD = 4.086			Average RF = 0.3516		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.3825	03	2.500	0.3326	04	5.000	0.336	05	7.500	0.3478
06	10.000	0.3571	07	20.000	0.3472	08	50.000	0.3624	09	80.000	0.3638
10	140.000	0.3511	11	180.000	0.3481	12	200.000	0.3389			

Hexachlorobutadiene			Average RF			RSD = 3.387			Average RF = 0.2324		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.23	03	2.500	0.2244	04	5.000	0.2312	05	7.500	0.2181
06	10.000	0.2294	07	20.000	0.2322	08	50.000	0.2296	09	80.000	0.2473
10	140.000	0.2399	11	180.000	0.2385	12	200.000	0.2358			

Hexachlorocyclopentadiene			Quadratic			1/X			COD = 0.9981			Y = 0.01301 X² + 0.5005 X + -0.02953		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	5.000	0.3282	05	7.500	0.3413	06	10.000	0.3785	07	20.000	0.4013			
08	50.000	0.4541	09	80.000	0.5376	10	140.000	0.5557	11	180.000	0.5582			
12	200.000	0.5449												

Hexachloroethane			Average RF			RSD = 3.203			Average RF = 6.864E-1		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.6431	03	2.500	0.6646	04	5.000	0.7219	05	7.500	0.6712
06	10.000	0.6789	07	20.000	0.688	08	50.000	0.7065	09	80.000	0.7054
10	140.000	0.6991	11	180.000	0.6885	12	200.000	0.6834			

Indeno(1,2,3-cd)pyrene			Average RF			RSD = 13.24			Average RF = 1.027E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	5.000	0.78	05	7.500	0.8563	06	10.000	0.9531	07	20.000	1.08
08	50.000	1.051	09	80.000	1.082	10	140.000	1.106	11	180.000	1.178
12	200.000	1.157									

Isophorone			Average RF			RSD = 4.872			Average RF = 6.412E-1		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.6978	03	2.500	0.6028	04	5.000	0.6539	05	7.500	0.6569
06	10.000	0.6589	07	20.000	0.6652	08	50.000	0.6562	09	80.000	0.6385
10	140.000	0.5993	11	180.000	0.6053	12	200.000	0.6186			

N-Nitrosodi-n-propylamine			Average RF			RSD = 4.108			Average RF = 8.557E-1		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	5.000	0.8242	05	7.500	0.8426	06	10.000	0.9	07	20.000	0.8374
08	50.000	0.9006	09	80.000	0.9042	10	140.000	0.8269	11	180.000	0.8424
12	200.000	0.8232									

N-Nitrosodimethylamine			Average RF			RSD = 7.088			Average RF = 8.891E-1		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.500	0.7211	04	5.000	0.8907	05	7.500	0.8754	06	10.000	0.8833
07	20.000	0.8958	08	50.000	0.9202	09	80.000	0.9325	10	140.000	0.9105

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11 180.000 0.9457 12 200.000 0.916

N-Nitrosodiphenylamine

Average RF	RSD = 8.138	Average RF = 8.898E-1
# Amount RF	# Amount RF	# Amount RF
02 1.000 1.064	03 2.500 0.8827	04 5.000 0.9358
06 10.000 0.9125	07 20.000 0.8899	08 50.000 0.8565
10 140.000 0.8291	11 180.000 0.8452	12 200.000 0.8462
		05 7.500 0.9309
		09 80.000 0.7948

Naphthalene

Average RF	RSD = 5.344	Average RF = 9.487E-1
# Amount RF	# Amount RF	# Amount RF
02 1.000 1.094	03 2.500 0.9516	04 5.000 0.9337
06 10.000 0.943	07 20.000 0.953	08 50.000 0.9382
10 140.000 0.9208	11 180.000 0.9113	12 200.000 0.9124
		05 7.500 0.922
		09 80.000 0.9561

Nitrobenzene

Average RF	RSD = 5.815	Average RF = 1.333E0
# Amount RF	# Amount RF	# Amount RF
02 1.000 1.236	03 2.500 1.23	04 5.000 1.252
06 10.000 1.307	07 20.000 1.339	08 50.000 1.452
10 140.000 1.387	11 180.000 1.335	12 200.000 1.379
		05 7.500 1.301
		09 80.000 1.444

Pentachlorophenol (PCP)

Quadratic	1/X	COD = 0.9989	Y = 0.004152 X² + 0.2216 X + -0.01987
# Amount RF	# Amount RF	# Amount RF	# Amount RF
04 5.000 0.09417	05 7.500 0.1104	06 10.000 0.1359	07 20.000 0.1624
08 50.000 0.207	09 80.000 0.2255	10 140.000 0.2341	11 180.000 0.2403
12 200.000 0.2326			

Phenanthrene

Average RF	RSD = 4.931	Average RF = 1.037E0
# Amount RF	# Amount RF	# Amount RF
02 1.000 1.181	03 2.500 1.053	04 5.000 1.029
06 10.000 1.029	07 20.000 1.006	08 50.000 1.019
10 140.000 0.9994	11 180.000 1.033	12 200.000 0.9916
		05 7.500 1.022
		09 80.000 1.049

Phenol

Average RF	RSD = 3.602	Average RF = 1.6E0
# Amount RF	# Amount RF	# Amount RF
02 1.000 1.653	03 2.500 1.471	04 5.000 1.578
06 10.000 1.597	07 20.000 1.607	08 50.000 1.686
10 140.000 1.634	11 180.000 1.596	12 200.000 1.572
		05 7.500 1.556
		09 80.000 1.645

Pyrene

Average RF	RSD = 6.705	Average RF = 1.208E0
# Amount RF	# Amount RF	# Amount RF
02 1.000 1.379	03 2.500 1.144	04 5.000 1.158
06 10.000 1.167	07 20.000 1.152	08 50.000 1.295
10 140.000 1.217	11 180.000 1.181	12 200.000 1.161
		05 7.500 1.113
		09 80.000 1.299

Pyridine

Average RF	RSD = 8.897	Average RF = 1.17E0
# Amount RF	# Amount RF	# Amount RF
02 1.000 1.01	03 2.500 0.9876	04 5.000 1.116
06 10.000 1.307	07 20.000 1.216	08 50.000 1.277
10 140.000 1.198	11 180.000 1.215	12 200.000 1.212
		05 7.500 1.096
		09 80.000 1.234

n-Dodecane

Average RF	RSD = 7.944	Average RF = 0.2967
# Amount RF	# Amount RF	# Amount RF
02 1.000 0.3141	03 2.500 0.299	04 5.000 0.3194
06 10.000 0.328	07 20.000 0.3155	08 50.000 0.2992
10 140.000 0.2655	11 180.000 0.2617	12 200.000 0.2625
		05 7.500 0.3018
		09 80.000 0.297

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2,4,6-Tribromophenol			Average RF			RSD = 13.08			Average RF = 0.2508		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
05	7.500	0.1901	06	10.000	0.2147	07	20.000	0.2402	08	50.000	0.2673
09	80.000	0.2778	10	140.000	0.2758	11	180.000	0.2754	12	200.000	0.2649
2-Fluorobiphenyl			Average RF			RSD = 6.009			Average RF = 1.477E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.415	03	2.500	1.404	04	5.000	1.361	05	7.500	1.404
06	10.000	1.412	07	20.000	1.436	08	50.000	1.49	09	80.000	1.591
10	140.000	1.576	11	180.000	1.599	12	200.000	1.561			
2-Fluorophenol			Average RF			RSD = 3.307			Average RF = 1.23E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.154	03	2.500	1.16	04	5.000	1.204	05	7.500	1.253
06	10.000	1.275	07	20.000	1.259	08	50.000	1.24	09	80.000	1.263
10	140.000	1.243	11	180.000	1.231	12	200.000	1.252			
Nitrobenzene-d5			Average RF			RSD = 6.305			Average RF = 1.555E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.565	03	2.500	1.356	04	5.000	1.415	05	7.500	1.529
06	10.000	1.522	07	20.000	1.564	08	50.000	1.67	09	80.000	1.668
10	140.000	1.616	11	180.000	1.623	12	200.000	1.581			
Phenol-d6			Average RF			RSD = 5.407			Average RF = 1.534E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.675	03	2.500	1.338	04	5.000	1.508	05	7.500	1.519
06	10.000	1.507	07	20.000	1.537	08	50.000	1.578	09	80.000	1.614
10	140.000	1.544	11	180.000	1.525	12	200.000	1.529			
p-Terphenyl-d14			Average RF			RSD = 7.395			Average RF = 1.082E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.223	03	2.500	0.9776	04	5.000	1.026	05	7.500	1.016
06	10.000	1.064	07	20.000	1.028	08	50.000	1.169	09	80.000	1.197
10	140.000	1.095	11	180.000	1.061	12	200.000	1.049			

Analyte

1,2,4-Trichlorobenzene				Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	1.000	1.07	7.5	03	2.500	2.54	1.5	04	5.000	4.96	-0.8	05	7.500	7.32	-2.4
06	10.000	49.8	-0.4	07	20.000	80.4	0.5	08	50.000	19.3	-3.7	09	80.000	178	-1.0
10	140.000	178	-1.0	11	180.000	195	-2.5	12	200.000	141	0.7				

1,2-Dichlorobenzene				Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	1.000	1.12	12.1	03	2.500	2.33	-6.6	04	5.000	4.90	-2.0	05	7.500	7.39	-1.5
06	10.000	50.7	1.5	07	20.000	82.7	3.4	08	50.000	19.7	-1.7	09	80.000	139	-0.4
10	140.000	177	-1.9	11	180.000	197	-1.3	12	200.000	139	-0.4				

1,2-Diphenylhydrazine				Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D

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05	7.500	7.74	3.2	06	10.000	10.0	0.0	07	20.000	24.2	21.0
08	50.000	51.6	3.3	09	80.000	81.7	2.1	10	140.000	132	-5.6
11	180.000	152	-15.4	12	200.000	183	-8.6				

1,3-Dichlorobenzene

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	1.000	1.06	5.7	03	2.500	2.35	-6.1	04	5.000	4.95	-1.0
05	7.500	7.54	0.6	06	10.000	9.93	-0.7	07	20.000	19.9	-0.6
08	50.000	50.5	0.9	09	80.000	81.9	2.4	10	140.000	141	0.5
11	180.000	181	0.7	12	200.000	195	-2.5				

1,4-Dichlorobenzene

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	1.000	0.941	-5.9	03	2.500	2.40	-3.8	04	5.000	5.25	5.0
05	7.500	7.70	2.7	06	10.000	10.1	0.8	07	20.000	19.8	-0.8
08	50.000	50.9	1.9	09	80.000	82.9	3.6	10	140.000	138	-1.5
11	180.000	178	-1.0	12	200.000	198	-1.0				

2,3,4,6-Tetrachlorophenol

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
05	7.500	5.51	-26.6	06	10.000	8.30	-17.0	07	20.000	19.8	-0.9
08	50.000	53.1	6.2	09	80.000	83.8	4.7	10	140.000	151	7.8
11	180.000	204	13.4	12	200.000	225	12.4				

2,4,5-Trichlorophenol

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
04	5.000	4.08	-18.3	05	7.500	6.78	-9.5	06	10.000	9.27	-7.3
07	20.000	20.4	1.8	08	50.000	54.3	8.5	09	80.000	86.1	7.6
10	140.000	149	6.4	11	180.000	192	6.5	12	200.000	209	4.3

2,4,6-Trichlorophenol

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
04	5.000	3.99	-20.2	05	7.500	6.57	-12.5	06	10.000	9.59	-4.1
07	20.000	19.7	-1.6	08	50.000	53.3	6.6	09	80.000	87.5	9.4
10	140.000	149	6.6	11	180.000	194	7.9	12	200.000	215	7.7

2,4-Dichlorophenol

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	1.000	0.817	-18.3	03	2.500	2.31	-7.7	04	5.000	4.87	-2.6
05	7.500	7.66	2.2	06	10.000	10.2	2.2	07	20.000	20.7	3.4
08	50.000	52.9	5.8	09	80.000	84.8	6.0	10	140.000	145	3.7
11	180.000	185	2.9	12	200.000	205	2.4				

2,4-Dimethylphenol

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	1.000	0.965	-3.5	03	2.500	2.39	-4.4	04	5.000	5.04	0.7
05	7.500	7.48	-0.3	06	10.000	9.81	-1.9	07	20.000	21.3	6.3
08	50.000	51.2	2.4	09	80.000	83.4	4.3	10	140.000	139	-0.4
11	180.000	178	-0.9	12	200.000	195	-2.3				

2,4-Dinitrophenol

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	1.000	0.965	-3.5	03	2.500	2.39	-4.4	04	5.000	5.04	0.7
05	7.500	7.48	-0.3	06	10.000	9.81	-1.9	07	20.000	21.3	6.3
08	50.000	51.2	2.4	09	80.000	83.4	4.3	10	140.000	139	-0.4
11	180.000	178	-0.9	12	200.000	195	-2.3				

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#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
06	10.000	11.0	9.6	07	20.000	18.1	-9.4	08	50.000	48.6	-2.9
09	80.000	82.3	2.9	10	140.000	140	-0.3	11	180.000	181	0.8
12	200.000	199	-0.6								

2,4-Dinitrotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.858	-14.2	03	2.500	1.98	-20.7	04	5.000	4.64	-7.1
05	7.500	7.40	-1.4	06	10.000	10.1	0.8	07	20.000	21.1	5.4
08	50.000	52.6	5.1	09	80.000	80.6	0.7	10	140.000	148	6.1
11	180.000	206	14.4	12	200.000	222	10.8				

2,6-Diisopropylnaphthalene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.989	-1.1	03	2.500	2.23	-10.9	04	5.000	4.57	-8.6
05	7.500	7.42	-1.1	06	10.000	10.3	3.1	07	20.000	20.2	1.1
08	50.000	54.9	9.8	09	80.000	85.4	6.8	10	140.000	141	0.9
11	180.000	182	1.1	12	200.000	198	-1.1				

2,6-Dinitrotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.875	-12.5	03	2.500	2.00	-19.8	04	5.000	4.78	-4.3
05	7.500	7.64	1.9	06	10.000	10.1	1.0	07	20.000	21.3	6.4
08	50.000	53.8	7.6	09	80.000	83.3	4.1	10	140.000	144	3.1
11	180.000	189	4.8	12	200.000	215	7.7				

2-Chloronaphthalene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.967	-3.3	03	2.500	2.23	-10.8	04	5.000	4.59	-8.2
05	7.500	7.11	-5.2	06	10.000	9.64	-3.6	07	20.000	19.6	-1.9
08	50.000	52.1	4.3	09	80.000	86.9	8.7	10	140.000	147	5.3
11	180.000	195	8.1	12	200.000	213	6.7				

2-Chlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.981	-1.9	03	2.500	2.34	-6.5	04	5.000	4.92	-1.7
05	7.500	7.37	-1.8	06	10.000	9.81	-1.9	07	20.000	19.7	-1.6
08	50.000	51.9	3.8	09	80.000	85.1	6.3	10	140.000	143	2.2
11	180.000	183	1.8	12	200.000	202	1.2				

2-Methylnaphthalene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.02	2.4	03	2.500	2.48	-1.0	04	5.000	4.91	-1.9
05	7.500	7.47	-0.4	06	10.000	10.4	3.7	07	20.000	20.3	1.4
08	50.000	52.3	4.6	09	80.000	79.0	-1.3	10	140.000	137	-2.4
11	180.000	176	-1.9	12	200.000	194	-3.2				

2-Methylphenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.07	7.1	03	2.500	2.31	-7.5	04	5.000	4.92	-1.6

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05	7.500	7.13	-5.0	06	10.000	9.44	-5.6	07	20.000	19.9	-0.3
08	50.000	54.0	8.0	09	80.000	86.9	8.6	10	140.000	142	1.3
11	180.000	177	-1.9	12	200.000	194	-3.0				

2-Nitroaniline

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.06	6.5	03	2.500	1.95	-22.1	04	5.000	4.70	-6.1
05	7.500	7.70	2.6	06	10.000	10.1	1.3	07	20.000	21.2	5.8
08	50.000	51.6	3.2	09	80.000	80.0	-0.0	10	140.000	142	1.5
11	180.000	186	3.5	12	200.000	208	3.8				

2-Nitrophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
04	5.000	3.92	-21.7	05	7.500	6.76	-9.9	06	10.000	9.74	-2.6
07	20.000	20.6	2.9	08	50.000	52.6	5.3	09	80.000	87.3	9.1
10	140.000	148	5.5	11	180.000	191	6.1	12	200.000	210	5.2

3,3'-Dichlorobenzidine

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.500	1.89	-24.4	04	5.000	4.44	-11.2	05	7.500	6.69	-10.8
06	10.000	9.60	-4.0	07	20.000	18.9	-5.4	08	50.000	52.3	4.5
09	80.000	92.2	15.3	10	140.000	158	13.1	11	180.000	202	12.4
12	200.000	221	10.5								

3-Nitroaniline

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.798	-20.2	03	2.500	2.04	-18.3	04	5.000	4.76	-4.9
05	7.500	7.46	-0.5	06	10.000	10.7	6.7	07	20.000	21.4	7.1
08	50.000	53.3	6.6	09	80.000	81.3	1.6	10	140.000	145	3.6
11	180.000	196	8.9	12	200.000	219	9.5				

4,6-Dinitro-2-methylphenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
05	7.500	7.57	1.0	06	10.000	10.2	2.4	07	20.000	19.4	-3.0
08	50.000	49.3	-1.3	09	80.000	80.4	0.5	10	140.000	140	0.2
11	180.000	183	1.5	12	200.000	197	-1.3				

4-Bromophenyl Phenyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.00	0.0	03	2.500	2.37	-5.1	04	5.000	4.67	-6.6
05	7.500	7.07	-5.8	06	10.000	10.1	1.0	07	20.000	19.8	-1.2
08	50.000	54.4	8.8	09	80.000	86.0	7.5	10	140.000	144	2.7
11	180.000	182	1.2	12	200.000	195	-2.7				

4-Chloro-3-methylphenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.775	-22.5	03	2.500	2.21	-11.7	04	5.000	5.24	4.8
05	7.500	7.87	5.0	06	10.000	10.8	7.9	07	20.000	22.0	10.1
08	50.000	56.0	12.0	09	80.000	81.6	1.9	10	140.000	138	-1.7
11	180.000	177	-1.9	12	200.000	192	-3.8				

4-Chloroaniline

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#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.02	2.5	03	2.500	2.47	-1.0	04	5.000	5.17	3.5
05	7.500	7.52	0.3	06	10.000	10.5	4.7	07	20.000	20.8	4.2
08	50.000	53.5	7.0	09	80.000	78.2	-2.3	10	140.000	132	-5.4
11	180.000	167	-7.5	12	200.000	188	-5.9				

4-Chlorophenyl Phenyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.14	13.6	03	2.500	2.56	2.5	04	5.000	4.96	-0.9
05	7.500	7.72	3.0	06	10.000	10.0	0.1	07	20.000	19.8	-0.8
08	50.000	49.2	-1.6	09	80.000	76.2	-4.8	10	140.000	134	-4.3
11	180.000	176	-2.1	12	200.000	191	-4.6				

4-Methylphenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.903	-9.7	03	2.500	2.28	-8.8	04	5.000	4.98	-0.4
05	7.500	7.40	-1.3	06	10.000	10.4	4.3	07	20.000	19.9	-0.5
08	50.000	53.4	6.8	09	80.000	86.8	8.6	10	140.000	143	2.3
11	180.000	179	-0.3	12	200.000	198	-0.9				

4-Nitroaniline

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.500	2.04	-18.3	04	5.000	4.86	-2.8	05	7.500	7.33	-2.3
06	10.000	9.35	-6.5	07	20.000	20.3	1.5	08	50.000	50.2	0.3
09	80.000	79.9	-0.2	10	140.000	148	5.7	11	180.000	200	11.1
12	200.000	223	11.5								

4-Nitrophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
04	5.000	5.05	1.0	05	7.500	7.37	-1.8	06	10.000	9.83	-1.7
07	20.000	20.3	1.6	08	50.000	51.6	3.3	09	80.000	78.0	-2.4
10	140.000	139	-0.7	11	180.000	183	1.6	12	200.000	198	-0.8

Acenaphthene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.06	5.7	03	2.500	2.42	-3.1	04	5.000	4.95	-1.0
05	7.500	7.51	0.1	06	10.000	10.3	3.1	07	20.000	20.0	0.2
08	50.000	51.0	2.0	09	80.000	80.5	0.6	10	140.000	138	-1.4
11	180.000	178	-1.3	12	200.000	190	-4.9				

Acenaphthylene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.989	-1.1	03	2.500	2.32	-7.4	04	5.000	4.89	-2.3
05	7.500	7.47	-0.3	06	10.000	10.0	0.1	07	20.000	20.0	-0.1
08	50.000	52.2	4.3	09	80.000	84.1	5.2	10	140.000	139	-0.6
11	180.000	183	1.7	12	200.000	201	0.4				

Aniline

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.03	3.5	03	2.500	2.38	-4.8	04	5.000	4.98	-0.4

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05	7.500	7.38	-1.5	06	10.000	10.2	2.1	07	20.000	20.6	2.8
08	50.000	50.8	1.7	09	80.000	81.3	1.6	10	140.000	138	-1.2
11	180.000	177	-1.5	12	200.000	195	-2.3				

Anthracene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.04	4.2	03	2.500	2.47	-1.1	04	5.000	4.98	-0.4
05	7.500	7.26	-3.2	06	10.000	10.1	1.3	07	20.000	20.3	1.7
08	50.000	49.9	-0.1	09	80.000	81.5	1.9	10	140.000	140	-0.3
11	180.000	181	0.8	12	200.000	190	-4.8				

Benz(a)anthracene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.14	14.0	03	2.500	2.32	-7.1	04	5.000	4.80	-4.1
05	7.500	7.06	-5.9	06	10.000	9.85	-1.5	07	20.000	19.8	-1.2
08	50.000	51.7	3.4	09	80.000	82.8	3.5	10	140.000	140	0.2
11	180.000	179	-0.5	12	200.000	198	-0.9				

Benzidine

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.925	-7.5	03	2.500	2.42	-3.1	04	5.000	5.15	3.1
05	7.500	8.04	7.2	06	10.000	11.4	14.3	07	20.000	22.7	13.7
08	50.000	57.0	14.1	09	80.000	82.6	3.3	10	140.000	123	-12.0
11	180.000	152	-15.5	12	200.000	165	-17.5				

Benzo(a)pyrene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.916	-8.4	03	2.500	2.18	-12.9	04	5.000	4.43	-11.4
05	7.500	6.90	-8.0	06	10.000	9.37	-6.3	07	20.000	20.3	1.3
08	50.000	53.9	7.7	09	80.000	88.8	11.0	10	140.000	155	10.8
11	180.000	196	9.1	12	200.000	214	7.0				

Benzo(b)fluoranthene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
05	7.500	6.24	-16.8	06	10.000	8.33	-16.7	07	20.000	17.8	-11.0
08	50.000	48.2	-3.6	09	80.000	83.1	3.9	10	140.000	157	12.0
11	180.000	207	14.8	12	200.000	235	17.3				

Benzo(g,h,i)perylene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.835	-16.5	03	2.500	2.10	-16.0	04	5.000	4.51	-9.8
05	7.500	7.12	-5.0	06	10.000	10.3	3.1	07	20.000	21.7	8.3
08	50.000	52.8	5.6	09	80.000	87.8	9.7	10	140.000	150	7.4
11	180.000	193	7.5	12	200.000	212	5.8				

Benzo(k)fluoranthene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.966	-3.4	03	2.500	2.32	-7.2	04	5.000	4.80	-4.1
05	7.500	7.35	-2.1	06	10.000	9.83	-1.7	07	20.000	21.2	6.2
08	50.000	56.4	12.9	09	80.000	89.4	11.8	10	140.000	139	-0.8
11	180.000	179	-0.5	12	200.000	178	-11.1				

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Benzoic Acid

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
06	10.000	10.2	2.0	07	20.000	19.5	-2.3	08	50.000	50.4	0.7
09	80.000	79.2	-1.0	10	140.000	140	0.1	11	180.000	183	1.7
12	200.000	198	-1.2								

Benzophenone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.18	17.7	03	2.500	2.44	-2.5	04	5.000	5.37	7.4
05	7.500	7.82	4.3	06	10.000	10.5	5.1	07	20.000	21.0	4.8
08	50.000	47.8	-4.4	09	80.000	72.9	-8.8	10	140.000	128	-8.7
11	180.000	170	-5.3	12	200.000	181	-9.6				

Benzyl Alcohol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.891	-10.9	03	2.500	2.33	-6.7	04	5.000	5.03	0.6
05	7.500	7.22	-3.7	06	10.000	10.1	0.5	07	20.000	19.5	-2.3
08	50.000	53.0	6.0	09	80.000	85.1	6.3	10	140.000	146	4.0
11	180.000	183	1.8	12	200.000	209	4.3				

Bis(1-chloroisopropyl) Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.500	2.51	0.2	04	5.000	5.28	5.5	05	7.500	7.48	-0.2
06	10.000	10.0	0.5	07	20.000	20.9	4.5	08	50.000	52.8	5.5
09	80.000	83.9	4.8	10	140.000	134	-4.4	11	180.000	166	-7.6
12	200.000	182	-8.8								

Bis(2-chloroethoxy) Methane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.975	-2.5	03	2.500	2.57	2.9	04	5.000	4.90	-2.0
05	7.500	7.09	-5.5	06	10.000	10.2	2.2	07	20.000	20.5	2.3
08	50.000	51.5	3.0	09	80.000	85.2	6.5	10	140.000	140	-0.3
11	180.000	174	-3.5	12	200.000	194	-3.2				

Bis(2-chloroethyl) Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.00	0.0	03	2.500	2.40	-4.1	04	5.000	5.03	0.5
05	7.500	7.42	-1.1	06	10.000	10.3	3.3	07	20.000	20.1	0.5
08	50.000	51.1	2.2	09	80.000	83.4	4.3	10	140.000	138	-1.2
11	180.000	178	-1.1	12	200.000	193	-3.4				

Bis(2-ethylhexyl) Phthalate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.850	-15.0	03	2.500	2.05	-18.2	04	5.000	4.31	-13.9
05	7.500	6.86	-8.5	06	10.000	9.95	-0.5	07	20.000	20.5	2.7
08	50.000	56.6	13.1	09	80.000	93.0	16.3	10	140.000	153	9.4
11	180.000	195	8.5	12	200.000	212	6.0				

Butyl Benzyl Phthalate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D

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02	1.000	0.808	-19.2	03	2.500	2.02	-19.1	04	5.000	4.77	-4.6
05	7.500	7.38	-1.6	06	10.000	10.4	4.0	07	20.000	21.3	6.6
08	50.000	55.9	11.8	09	80.000	91.3	14.1	10	140.000	146	4.6
11	180.000	184	2.4	12	200.000	202	1.0				

Butyl Cellosolve

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.855	-14.5	03	2.500	2.31	-7.5	04	5.000	5.24	4.8
05	7.500	7.52	0.2	06	10.000	10.7	7.4	07	20.000	20.4	2.1
08	50.000	50.2	0.4	09	80.000	84.0	5.0	10	140.000	141	0.5
11	180.000	181	0.3	12	200.000	202	1.2				

Carbazole

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.988	-1.2	03	2.500	2.19	-12.5	04	5.000	4.67	-6.6
05	7.500	7.03	-6.3	06	10.000	9.34	-6.6	07	20.000	19.1	-4.7
08	50.000	52.5	5.0	09	80.000	85.5	6.9	10	140.000	152	8.6
11	180.000	199	10.4	12	200.000	214	7.0				

Chrysene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.04	3.7	03	2.500	2.43	-2.8	04	5.000	4.80	-4.0
05	7.500	7.51	0.1	06	10.000	10.2	1.9	07	20.000	19.7	-1.3
08	50.000	50.7	1.4	09	80.000	82.7	3.3	10	140.000	138	-1.6
11	180.000	181	0.3	12	200.000	198	-1.2				

Di-n-Hexyl Phthalate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.763	-23.7	03	2.500	1.96	-21.5	04	5.000	4.39	-12.2
05	7.500	7.21	-3.9	06	10.000	10.2	2.2	07	20.000	21.1	5.3
08	50.000	60.2	20.4	09	80.000	94.0	17.5	10	140.000	152	8.4
11	180.000	187	4.0	12	200.000	207	3.5				

Di-n-butyl Phthalate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.500	1.97	-21.1	04	5.000	4.24	-15.2	05	7.500	6.56	-12.5
06	10.000	8.80	-12.0	07	20.000	19.0	-5.1	08	50.000	53.7	7.4
09	80.000	92.9	16.2	10	140.000	165	17.6	11	180.000	205	14.1
12	200.000	221	10.7								

Di-n-octyl Phthalate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
04	5.000	3.86	-22.9	05	7.500	6.28	-16.2	06	10.000	8.81	-11.9
07	20.000	19.6	-1.9	08	50.000	52.1	4.2	09	80.000	89.1	11.3
10	140.000	157	12.4	11	180.000	206	14.3	12	200.000	221	10.6

Diazinon

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.899	-10.1	03	2.500	2.02	-19.1	04	5.000	4.44	-11.3
05	7.500	7.27	-3.0	06	10.000	9.14	-8.6	07	20.000	20.5	2.3
08	50.000	56.6	13.2	09	80.000	93.0	16.2	10	140.000	153	9.0

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11	180.000	194	7.6	12	200.000	207	3.6
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Dibenz(a,h)anthracene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.500	1.84	-26.2	04	5.000	4.10	-18.0	05	7.500	6.78	-9.6
06	10.000	9.53	-4.7	07	20.000	21.6	7.9	08	50.000	52.7	5.4
09	80.000	90.2	12.8	10	140.000	156	11.2	11	180.000	202	12.1
12	200.000	218	9.2								

Dibenzofuran

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.08	8.4	03	2.500	2.43	-3.0	04	5.000	4.97	-0.6
05	7.500	7.52	0.3	06	10.000	9.93	-0.7	07	20.000	20.2	1.1
08	50.000	50.4	0.8	09	80.000	78.0	-2.5	10	140.000	135	-3.5
11	180.000	183	1.5	12	200.000	196	-1.8				

Diethyl Phthalate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.26	26.4	03	2.500	2.26	-9.4	04	5.000	4.94	-1.2
05	7.500	7.28	-2.9	06	10.000	9.82	-1.8	07	20.000	20.2	0.9
08	50.000	49.2	-1.5	09	80.000	73.3	-8.4	10	140.000	136	-3.2
11	180.000	183	1.7	12	200.000	198	-0.8				

Diethylene Glycol Dibenzoate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
04	5.000	3.86	-22.9	05	7.500	6.50	-13.4	06	10.000	9.54	-4.6
07	20.000	19.3	-3.4	08	50.000	53.1	6.2	09	80.000	90.7	13.3
10	140.000	152	8.6	11	180.000	192	6.9	12	200.000	219	9.3

Diisodecyl Phthalate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
07	20.000	16.4	-17.9	08	50.000	47.6	-4.7	09	80.000	82.2	2.8
10	140.000	148	5.6	11	180.000	196	8.7	12	200.000	211	5.5

Diisononyl Phthalate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
07	20.000	20.3	1.7	08	50.000	48.5	-2.9	09	80.000	80.4	0.6
10	140.000	140	0.3	11	180.000	184	2.5	12	200.000	196	-2.1

Dimethyl Phthalate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.07	7.4	03	2.500	2.31	-7.5	04	5.000	5.08	1.7
05	7.500	7.66	2.1	06	10.000	10.0	0.1	07	20.000	20.5	2.3
08	50.000	50.6	1.1	09	80.000	77.6	-3.1	10	140.000	137	-2.5
11	180.000	178	-0.9	12	200.000	198	-1.0				

Fluoranthene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.08	8.5	03	2.500	2.18	-12.8	04	5.000	4.53	-9.3
05	7.500	6.58	-12.2	06	10.000	9.27	-7.3	07	20.000	19.0	-4.9
08	50.000	52.4	4.7	09	80.000	88.0	10.0	10	140.000	154	9.9

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11 180.000 195 8.1 12 200.000 211 5.4

Fluorene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.06	6.3	03	2.500	2.50	0.1	04	5.000	5.10	1.9
05	7.500	7.95	6.0	06	10.000	10.2	1.7	07	20.000	20.1	0.7
08	50.000	50.5	1.0	09	80.000	76.6	-4.2	10	140.000	134	-4.5
11	180.000	173	-3.8	12	200.000	190	-5.2				

Hexachlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.09	8.8	03	2.500	2.36	-5.4	04	5.000	4.78	-4.4
05	7.500	7.42	-1.1	06	10.000	10.2	1.6	07	20.000	19.8	-1.2
08	50.000	51.5	3.1	09	80.000	82.8	3.5	10	140.000	140	-0.2
11	180.000	178	-1.0	12	200.000	193	-3.6				

Hexachlorobutadiene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.990	-1.0	03	2.500	2.41	-3.4	04	5.000	4.97	-0.5
05	7.500	7.04	-6.2	06	10.000	9.87	-1.3	07	20.000	20.0	-0.1
08	50.000	49.4	-1.2	09	80.000	85.1	6.4	10	140.000	145	3.2
11	180.000	185	2.6	12	200.000	203	1.5				

Hexachlorocyclopentadiene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
04	5.000	5.62	12.4	05	7.500	7.44	-0.8	06	10.000	9.86	-1.4
07	20.000	18.2	-9.1	08	50.000	46.3	-7.3	09	80.000	83.7	4.7
10	140.000	144	3.1	11	180.000	182	0.9	12	200.000	195	-2.3

Hexachloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.937	-6.3	03	2.500	2.42	-3.2	04	5.000	5.26	5.2
05	7.500	7.33	-2.2	06	10.000	9.89	-1.1	07	20.000	20.0	0.2
08	50.000	51.5	2.9	09	80.000	82.2	2.8	10	140.000	143	1.8
11	180.000	181	0.3	12	200.000	199	-0.4				

Indeno(1,2,3-cd)pyrene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
04	5.000	3.80	-24.1	05	7.500	6.25	-16.6	06	10.000	9.28	-7.2
07	20.000	21.0	5.2	08	50.000	51.2	2.3	09	80.000	84.3	5.4
10	140.000	151	7.7	11	180.000	206	14.7	12	200.000	225	12.7

Isophorone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.09	8.8	03	2.500	2.35	-6.0	04	5.000	5.10	2.0
05	7.500	7.68	2.4	06	10.000	10.3	2.8	07	20.000	20.7	3.7
08	50.000	51.2	2.3	09	80.000	79.7	-0.4	10	140.000	131	-6.5
11	180.000	170	-5.6	12	200.000	193	-3.5				

N-Nitrosodi-n-propylamine

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D

Initial Calibration - Detailed Report

Calibration ID: KC1900441	Instrument ID: K-MS-07
	Column Name: 1

04	5.000	4.82	-3.7	05	7.500	7.39	-1.5	06	10.000	10.5	5.2
07	20.000	19.6	-2.1	08	50.000	52.6	5.2	09	80.000	84.5	5.7
10	140.000	135	-3.4	11	180.000	177	-1.6	12	200.000	192	-3.8

N-Nitrosodimethylamine

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
03	2.500	2.03	-18.9	04	5.000	5.01	0.2	05	7.500	7.38	-1.5
06	10.000	9.93	-0.7	07	20.000	20.1	0.7	08	50.000	51.7	3.5
09	80.000	83.9	4.9	10	140.000	143	2.4	11	180.000	191	6.4
12	200.000	206	3.0								

N-Nitrosodiphenylamine

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	1.000	1.20	19.6	03	2.500	2.48	-0.8	04	5.000	5.26	5.2
05	7.500	7.85	4.6	06	10.000	10.3	2.6	07	20.000	20.0	0.0
08	50.000	48.1	-3.7	09	80.000	71.5	-10.7	10	140.000	130	-6.8
11	180.000	171	-5.0	12	200.000	190	-4.9				

Naphthalene

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	1.000	1.15	15.3	03	2.500	2.51	0.3	04	5.000	4.92	-1.6
05	7.500	7.29	-2.8	06	10.000	9.94	-0.6	07	20.000	20.1	0.4
08	50.000	49.4	-1.1	09	80.000	80.6	0.8	10	140.000	136	-2.9
11	180.000	173	-3.9	12	200.000	192	-3.8				

Nitrobenzene

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	1.000	0.927	-7.3	03	2.500	2.31	-7.7	04	5.000	4.70	-6.1
05	7.500	7.32	-2.4	06	10.000	9.80	-2.0	07	20.000	20.1	0.4
08	50.000	54.5	8.9	09	80.000	86.7	8.4	10	140.000	146	4.1
11	180.000	180	0.2	12	200.000	207	3.5				

Pentachlorophenol (PCP)

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
04	5.000	5.70	13.9	05	7.500	7.30	-2.7	06	10.000	9.67	-3.3
07	20.000	18.1	-9.6	08	50.000	49.2	-1.7	09	80.000	81.8	2.3
10	140.000	142	1.4	11	180.000	183	1.7	12	200.000	196	-2.2

Phenanthrene

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	1.000	1.14	13.8	03	2.500	2.54	1.5	04	5.000	4.96	-0.8
05	7.500	7.39	-1.5	06	10.000	9.92	-0.8	07	20.000	19.4	-3.0
08	50.000	49.1	-1.8	09	80.000	80.9	1.1	10	140.000	135	-3.7
11	180.000	179	-0.5	12	200.000	191	-4.4				

Phenol

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	1.000	1.03	3.3	03	2.500	2.30	-8.0	04	5.000	4.93	-1.4
05	7.500	7.30	-2.7	06	10.000	9.98	-0.2	07	20.000	20.1	0.5
08	50.000	52.7	5.4	09	80.000	82.3	2.8	10	140.000	143	2.1
11	180.000	180	-0.2	12	200.000	197	-1.7				

Initial Calibration - Detailed Report

Calibration ID: KC1900441	Instrument ID: K-MS-07
	Column Name: 1

Pyrene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.14	14.2	03	2.500	2.37	-5.2	04	5.000	4.80	-4.1
05	7.500	7.02	-6.5	06	10.000	9.67	-3.3	07	20.000	19.1	-4.6
08	50.000	53.6	7.2	09	80.000	86.1	7.6	10	140.000	141	0.8
11	180.000	176	-2.2	12	200.000	192	-3.9				

Pyridine

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.863	-13.7	03	2.500	2.11	-15.6	04	5.000	4.77	-4.6
05	7.500	7.03	-6.3	06	10.000	11.2	11.7	07	20.000	20.8	3.9
08	50.000	54.6	9.1	09	80.000	84.4	5.5	10	140.000	143	2.4
11	180.000	187	3.8	12	200.000	207	3.6				

n-Dodecane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.06	5.9	03	2.500	2.52	0.8	04	5.000	5.38	7.7
05	7.500	7.63	1.7	06	10.000	11.1	10.6	07	20.000	21.3	6.3
08	50.000	50.4	0.8	09	80.000	80.1	0.1	10	140.000	125	-10.5
11	180.000	159	-11.8	12	200.000	177	-11.5				

2,4,6-Tribromophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
05	7.500	5.68	-24.2	06	10.000	8.56	-14.4	07	20.000	19.2	-4.2
08	50.000	53.3	6.6	09	80.000	88.6	10.8	10	140.000	154	10.0
11	180.000	198	9.8	12	200.000	211	5.6				

2-Fluorobiphenyl

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.958	-4.2	03	2.500	2.38	-4.9	04	5.000	4.61	-7.9
05	7.500	7.13	-4.9	06	10.000	9.56	-4.4	07	20.000	19.4	-2.8
08	50.000	50.4	0.8	09	80.000	86.2	7.7	10	140.000	149	6.7
11	180.000	195	8.3	12	200.000	211	5.7				

2-Fluorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.938	-6.2	03	2.500	2.36	-5.7	04	5.000	4.89	-2.1
05	7.500	7.64	1.9	06	10.000	10.4	3.6	07	20.000	20.5	2.3
08	50.000	50.4	0.8	09	80.000	82.1	2.6	10	140.000	141	1.1
11	180.000	180	0.1	12	200.000	204	1.8				

Nitrobenzene-d5

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.01	0.6	03	2.500	2.18	-12.8	04	5.000	4.55	-9.0
05	7.500	7.37	-1.7	06	10.000	9.79	-2.1	07	20.000	20.1	0.6
08	50.000	53.7	7.3	09	80.000	85.8	7.2	10	140.000	145	3.9
11	180.000	188	4.4	12	200.000	203	1.6				

Phenol-d6

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D

Initial Calibration - Detailed Report

Calibration ID: KC1900441	Instrument ID: K-MS-07
	Column Name: 1

02	1.000	1.09	9.2	03	2.500	2.18	-12.8	04	5.000	4.92	-1.7
05	7.500	7.42	-1.0	06	10.000	9.82	-1.8	07	20.000	20.0	0.2
08	50.000	51.4	2.9	09	80.000	84.2	5.2	10	140.000	141	0.7
11	180.000	179	-0.6	12	200.000	199	-0.3				

p-Terphenyl-d14

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.13	13.0	03	2.500	2.26	-9.7	04	5.000	4.74	-5.2
05	7.500	7.04	-6.1	06	10.000	9.83	-1.7	07	20.000	19.0	-5.0
08	50.000	54.0	8.0	09	80.000	88.5	10.6	10	140.000	142	1.2
11	180.000	177	-1.9	12	200.000	194	-3.1				

Initial Calibration Verification Summary Report

Calibration ID:	KC1900441	Instrument ID:	K-MS-07
Datafile ID:	J:\MS07\DATA\101719\1017F015.D	Column Name:	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
1,2,4-Trichlorobenzene	KC1900441-13	T	Average RF	80	81.046	ug/ml	1.3	<= 20
1,2,4-Trichlorobenzene	KC1900441-13	T	Average RF	80	81.046	ug/ml	101.3	61 - 130
1,2,4-Trichlorobenzene	KC1900441-13	T	Average RF	80	81.046	ug/ml	1.3	<= 30
1,2-Dichlorobenzene	KC1900441-13	T	Average RF	80	85.119	ug/ml	6.4	<= 20
1,2-Dichlorobenzene	KC1900441-13	T	Average RF	80	85.119	ug/ml	6.4	<= 30
1,2-Dichlorobenzene	KC1900441-13	T	Average RF	80	85.119	ug/ml	106.4	60 - 140
1,2-Diphenylhydrazine	KC1900441-13	T	Average RF	80	69.514	ug/ml	86.9	60 - 140
1,2-Diphenylhydrazine	KC1900441-13	T	Average RF	80	69.514	ug/ml	-13.1	<= 30
1,2-Diphenylhydrazine	KC1900441-13	T	Average RF	80	69.514	ug/ml	-13.1	<= 20
1,3-Dichlorobenzene	KC1900441-13	T	Average RF	80	84.559	ug/ml	5.7	<= 20
1,3-Dichlorobenzene	KC1900441-13	T	Average RF	80	84.559	ug/ml	105.7	60 - 140
1,3-Dichlorobenzene	KC1900441-13	T	Average RF	80	84.559	ug/ml	5.7	<= 30
1,4-Dichlorobenzene	KC1900441-13	T	Average RF	80	81.633	ug/ml	102.0	60 - 140
1,4-Dichlorobenzene	KC1900441-13	T	Average RF	80	81.633	ug/ml	2.0	<= 30
1,4-Dichlorobenzene	KC1900441-13	T	Average RF	80	81.633	ug/ml	2.0	<= 20
2,3,4,6-Tetrachlorophenol	KC1900441-13	T	Average RF	80	89.961	ug/ml	12.5	<= 30
2,3,4,6-Tetrachlorophenol	KC1900441-13	T	Average RF	80	89.961	ug/ml	12.5	<= 20
2,3,4,6-Tetrachlorophenol	KC1900441-13	T	Average RF	80	89.961	ug/ml	112.5	60 - 140
2,4,5-Trichlorophenol	KC1900441-13	T	Average RF	80	89.916	ug/ml	12.4	<= 20
2,4,5-Trichlorophenol	KC1900441-13	T	Average RF	80	89.916	ug/ml	112.4	60 - 140
2,4,5-Trichlorophenol	KC1900441-13	T	Average RF	80	89.916	ug/ml	12.4	<= 30
2,4,6-Trichlorophenol	KC1900441-13	T	Average RF	80	88.793	ug/ml	11.0	<= 30
2,4,6-Trichlorophenol	KC1900441-13	T	Average RF	80	88.793	ug/ml	11.0	<= 20
2,4,6-Trichlorophenol	KC1900441-13	T	Average RF	80	88.793	ug/ml	111.0	69 - 130
2,4-Dichlorophenol	KC1900441-13	T	Average RF	80	82.933	ug/ml	3.7	<= 30
2,4-Dichlorophenol	KC1900441-13	T	Average RF	80	82.933	ug/ml	103.7	64 - 130
2,4-Dichlorophenol	KC1900441-13	T	Average RF	80	82.933	ug/ml	3.7	<= 20
2,4-Dimethylphenol	KC1900441-13	T	Average RF	80	79.472	ug/ml	-0.7	<= 20
2,4-Dimethylphenol	KC1900441-13	T	Average RF	80	79.472	ug/ml	-0.7	<= 30
2,4-Dimethylphenol	KC1900441-13	T	Average RF	80	79.472	ug/ml	99.3	58 - 130
2,4-Dinitrophenol	KC1900441-13	T	Quadratic	80	86.013	ug/ml	107.5	39 - 173
2,4-Dinitrophenol	KC1900441-13	T	Quadratic	80	86.013	ug/ml	7.5	<= 20
2,4-Dinitrophenol	KC1900441-13	T	Quadratic	80	86.013	ug/ml	7.5	<= 30
2,4-Dinitrotoluene	KC1900441-13	T	Average RF	80	85.009	ug/ml	6.3	<= 30
2,4-Dinitrotoluene	KC1900441-13	T	Average RF	80	85.009	ug/ml	106.3	53 - 130
2,4-Dinitrotoluene	KC1900441-13	T	Average RF	80	85.009	ug/ml	6.3	<= 20
2,6-Diisopropylnaphthalene	KC1900441-01	T	Average RF	80	80.962	ug/ml	1.2	<= 30
2,6-Diisopropylnaphthalene	KC1900441-01	T	Average RF	80	80.962	ug/ml	1.2	<= 20
2,6-Dinitrotoluene	KC1900441-13	T	Average RF	80	88.383	ug/ml	110.5	68 - 137

Initial Calibration Verification Summary Report

Calibration ID:	KC1900441	Instrument ID:	K-MS-07
Datafile ID:	J:\MS07\DATA\101719\1017F015.D	Column Name:	1

2,6-Dinitrotoluene	KC1900441-13	T	Average RF	80	88.383	ug/ml	10.5	<= 20
2,6-Dinitrotoluene	KC1900441-13	T	Average RF	80	88.383	ug/ml	10.5	<= 30
2-Chloronaphthalene	KC1900441-13	T	Average RF	80	88.099	ug/ml	110.1	70 - 130
2-Chloronaphthalene	KC1900441-13	T	Average RF	80	88.099	ug/ml	10.1	<= 20
2-Chloronaphthalene	KC1900441-13	T	Average RF	80	88.099	ug/ml	10.1	<= 30
2-Chlorophenol	KC1900441-13	T	Average RF	80	81.198	ug/ml	101.5	55 - 130
2-Chlorophenol	KC1900441-13	T	Average RF	80	81.198	ug/ml	1.5	<= 20
2-Chlorophenol	KC1900441-13	T	Average RF	80	81.198	ug/ml	1.5	<= 30
2-Methylnaphthalene	KC1900441-13	T	Average RF	80	81.511	ug/ml	101.9	60 - 140
2-Methylnaphthalene	KC1900441-13	T	Average RF	80	81.511	ug/ml	1.9	<= 20
2-Methylnaphthalene	KC1900441-13	T	Average RF	80	81.511	ug/ml	1.9	<= 30
2-Methylphenol	KC1900441-13	T	Average RF	80	85.509	ug/ml	106.9	60 - 140
2-Methylphenol	KC1900441-13	T	Average RF	80	85.509	ug/ml	6.9	<= 20
2-Methylphenol	KC1900441-13	T	Average RF	80	85.509	ug/ml	6.9	<= 30
2-Nitroaniline	KC1900441-13	T	Average RF	80	81.523	ug/ml	1.9	<= 20
2-Nitroaniline	KC1900441-13	T	Average RF	80	81.523	ug/ml	1.9	<= 30
2-Nitroaniline	KC1900441-13	T	Average RF	80	81.523	ug/ml	101.9	60 - 140
2-Nitrophenol	KC1900441-13	T	Average RF	80	83.839	ug/ml	4.8	<= 30
2-Nitrophenol	KC1900441-13	T	Average RF	80	83.839	ug/ml	4.8	<= 20
2-Nitrophenol	KC1900441-13	T	Average RF	80	83.839	ug/ml	104.8	61 - 163
3,3'-Dichlorobenzidine	KC1900441-13	T	Average RF	80	91.145	ug/ml	113.9	18 - 213
3,3'-Dichlorobenzidine	KC1900441-13	T	Average RF	80	91.145	ug/ml	13.9	<= 20
3,3'-Dichlorobenzidine	KC1900441-13	T	Average RF	80	91.145	ug/ml	13.9	<= 30
3-Nitroaniline	KC1900441-13	T	Average RF	80	84.015	ug/ml	105.0	60 - 140
3-Nitroaniline	KC1900441-13	T	Average RF	80	84.015	ug/ml	5.0	<= 20
3-Nitroaniline	KC1900441-13	T	Average RF	80	84.015	ug/ml	5.0	<= 30
4,6-Dinitro-2-methylphenol	KC1900441-13	T	Quadratic	80	85.047	ug/ml	106.3	56 - 130
4,6-Dinitro-2-methylphenol	KC1900441-13	T	Quadratic	80	85.047	ug/ml	6.3	<= 20
4,6-Dinitro-2-methylphenol	KC1900441-13	T	Quadratic	80	85.047	ug/ml	6.3	<= 30
4-Bromophenyl Phenyl Ether	KC1900441-13	T	Average RF	80	86.817	ug/ml	108.5	70 - 130
4-Bromophenyl Phenyl Ether	KC1900441-13	T	Average RF	80	86.817	ug/ml	8.5	<= 30
4-Bromophenyl Phenyl Ether	KC1900441-13	T	Average RF	80	86.817	ug/ml	8.5	<= 20
4-Chloro-3-methylphenol	KC1900441-13	T	Average RF	80	85.166	ug/ml	6.5	<= 30
4-Chloro-3-methylphenol	KC1900441-13	T	Average RF	80	85.166	ug/ml	6.5	<= 20
4-Chloro-3-methylphenol	KC1900441-13	T	Average RF	80	85.166	ug/ml	106.5	68 - 130
4-Chloroaniline	KC1900441-13	T	Average RF	80	82.147	ug/ml	102.7	60 - 140
4-Chloroaniline	KC1900441-13	T	Average RF	80	82.147	ug/ml	2.7	<= 30
4-Chloroaniline	KC1900441-13	T	Average RF	80	82.147	ug/ml	2.7	<= 20
4-Chlorophenyl Phenyl Ether	KC1900441-13	T	Average RF	80	80.230	ug/ml	100.3	57 - 145
4-Chlorophenyl Phenyl Ether	KC1900441-13	T	Average RF	80	80.230	ug/ml	0.3	<= 20

Initial Calibration Verification Summary Report

Calibration ID:	KC1900441	Instrument ID:	K-MS-07
Datafile ID:	J:\MS07\DATA\101719\1017F015.D	Column Name:	1

Compound	ID	Type	Method	RF	Conc	Unit	Value	Limit
4-Chlorophenyl Phenyl Ether	KC1900441-13	T	Average RF	80	80.230	ug/ml	0.3	<= 30
4-Methylphenol	KC1900441-13	T	Average RF	160	143.097	ug/ml	89.4	60 - 140
4-Methylphenol	KC1900441-13	T	Average RF	160	143.097	ug/ml	-10.6	<= 30
4-Methylphenol	KC1900441-13	T	Average RF	160	143.097	ug/ml	-10.6	<= 20
4-Nitroaniline	KC1900441-13	T	Average RF	80	81.995	ug/ml	2.5	<= 30
4-Nitroaniline	KC1900441-13	T	Average RF	80	81.995	ug/ml	2.5	<= 20
4-Nitroaniline	KC1900441-13	T	Average RF	80	81.995	ug/ml	102.5	60 - 140
4-Nitrophenol	KC1900441-13	T	Quadratic	80	78.823	ug/ml	-1.5	<= 20
4-Nitrophenol	KC1900441-13	T	Quadratic	80	78.823	ug/ml	-1.5	<= 30
4-Nitrophenol	KC1900441-13	T	Quadratic	80	78.823	ug/ml	98.5	35 - 130
Acenaphthene	KC1900441-13	T	Average RF	80	82.316	ug/ml	2.9	<= 20
Acenaphthene	KC1900441-13	T	Average RF	80	82.316	ug/ml	102.9	70 - 130
Acenaphthene	KC1900441-13	T	Average RF	80	82.316	ug/ml	2.9	<= 30
Acenaphthylene	KC1900441-13	T	Average RF	80	90.945	ug/ml	113.7	60 - 130
Acenaphthylene	KC1900441-13	T	Average RF	80	90.945	ug/ml	13.7	<= 20
Acenaphthylene	KC1900441-13	T	Average RF	80	90.945	ug/ml	13.7	<= 30
Aniline	KC1900441-13	T	Average RF	80	81.707	ug/ml	2.1	<= 30
Aniline	KC1900441-13	T	Average RF	80	81.707	ug/ml	102.1	60 - 140
Aniline	KC1900441-13	T	Average RF	80	81.707	ug/ml	2.1	<= 20
Anthracene	KC1900441-13	T	Average RF	80	82.546	ug/ml	3.2	<= 20
Anthracene	KC1900441-13	T	Average RF	80	82.546	ug/ml	3.2	<= 30
Anthracene	KC1900441-13	T	Average RF	80	82.546	ug/ml	103.2	58 - 130
Benz(a)anthracene	KC1900441-13	T	Average RF	80	92.854	ug/ml	116.1	42 - 133
Benz(a)anthracene	KC1900441-13	T	Average RF	80	92.854	ug/ml	16.1	<= 20
Benz(a)anthracene	KC1900441-13	T	Average RF	80	92.854	ug/ml	16.1	<= 30
Benzidine	KC1900441-13	T	Average RF	80	131.003	ug/ml	163.8	60 - 140
Benzidine	KC1900441-13	T	Average RF	80	131.003	ug/ml	63.8	<= 20
Benzidine	KC1900441-13	T	Average RF	80	131.003	ug/ml	63.8	<= 30
Benzo(a)pyrene	KC1900441-13	T	Average RF	80	89.951	ug/ml	12.4	<= 20
Benzo(a)pyrene	KC1900441-13	T	Average RF	80	89.951	ug/ml	112.4	32 - 148
Benzo(a)pyrene	KC1900441-13	T	Average RF	80	89.951	ug/ml	12.4	<= 30
Benzo(b)fluoranthene	KC1900441-13	T	Average RF	80	81.756	ug/ml	2.2	<= 30
Benzo(b)fluoranthene	KC1900441-13	T	Average RF	80	81.756	ug/ml	102.2	42 - 140
Benzo(b)fluoranthene	KC1900441-13	T	Average RF	80	81.756	ug/ml	2.2	<= 20
Benzo(g,h,i)perylene	KC1900441-13	T	Average RF	80	90.303	ug/ml	112.9	13 - 195
Benzo(g,h,i)perylene	KC1900441-13	T	Average RF	80	90.303	ug/ml	12.9	<= 20
Benzo(g,h,i)perylene	KC1900441-13	T	Average RF	80	90.303	ug/ml	12.9	<= 30
Benzo(k)fluoranthene	KC1900441-13	T	Average RF	80	89.643	ug/ml	12.1	<= 30
Benzo(k)fluoranthene	KC1900441-13	T	Average RF	80	89.643	ug/ml	12.1	<= 20
Benzo(k)fluoranthene	KC1900441-13	T	Average RF	80	89.643	ug/ml	112.1	25 - 146

Initial Calibration Verification Summary Report

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Benzoic Acid	KC1900441-13	T	Quadratic	80	91.657	ug/ml	14.6	<= 30
Benzoic Acid	KC1900441-13	T	Quadratic	80	91.657	ug/ml	14.6	<= 20
Benzoic Acid	KC1900441-13	T	Quadratic	80	91.657	ug/ml	114.6	60 - 140
Benzophenone	KC1900441-01	T	Average RF	80	68.504	ug/ml	-14.4	<= 30
Benzophenone	KC1900441-01	T	Average RF	80	68.504	ug/ml	-14.4	<= 20
Benzyl Alcohol	KC1900441-13	T	Average RF	80	86.898	ug/ml	8.6	<= 30
Benzyl Alcohol	KC1900441-13	T	Average RF	80	86.898	ug/ml	8.6	<= 20
Benzyl Alcohol	KC1900441-13	T	Average RF	80	86.898	ug/ml	108.6	60 - 140
Bis(1-chloroisopropyl) Ether	KC1900441-13	T	Average RF	80	102.751	ug/ml	128.4	63 - 139
Bis(1-chloroisopropyl) Ether	KC1900441-13	T	Average RF	80	102.751	ug/ml	28.4	<= 30
Bis(1-chloroisopropyl) Ether	KC1900441-13	T	Average RF	80	102.751	ug/ml	28.4	<= 20
Bis(2-chloroethoxy) Methane	KC1900441-13	T	Average RF	80	83.726	ug/ml	104.7	52 - 164
Bis(2-chloroethoxy) Methane	KC1900441-13	T	Average RF	80	83.726	ug/ml	4.7	<= 20
Bis(2-chloroethoxy) Methane	KC1900441-13	T	Average RF	80	83.726	ug/ml	4.7	<= 30
Bis(2-chloroethyl) Ether	KC1900441-13	T	Average RF	80	84.930	ug/ml	6.2	<= 30
Bis(2-chloroethyl) Ether	KC1900441-13	T	Average RF	80	84.930	ug/ml	6.2	<= 20
Bis(2-chloroethyl) Ether	KC1900441-13	T	Average RF	80	84.930	ug/ml	106.2	52 - 130
Bis(2-ethylhexyl) Phthalate	KC1900441-13	T	Average RF	80	95.756	ug/ml	19.7	<= 30
Bis(2-ethylhexyl) Phthalate	KC1900441-13	T	Average RF	80	95.756	ug/ml	119.7	43 - 137
Bis(2-ethylhexyl) Phthalate	KC1900441-13	T	Average RF	80	95.756	ug/ml	19.7	<= 20
Butyl Benzyl Phthalate	KC1900441-13	T	Average RF	80	93.952	ug/ml	117.4	43 - 140
Butyl Benzyl Phthalate	KC1900441-13	T	Average RF	80	93.952	ug/ml	17.4	<= 20
Butyl Benzyl Phthalate	KC1900441-13	T	Average RF	80	93.952	ug/ml	17.4	<= 30
Butyl Cellosolve	KC1900441-01	T	Average RF	80	81.569	ug/ml	2.0	<= 30
Butyl Cellosolve	KC1900441-01	T	Average RF	80	81.569	ug/ml	2.0	<= 20
Carbazole	KC1900441-13	T	Average RF	80	85.050	ug/ml	106.3	60 - 140
Carbazole	KC1900441-13	T	Average RF	80	85.050	ug/ml	6.3	<= 20
Carbazole	KC1900441-13	T	Average RF	80	85.050	ug/ml	6.3	<= 30
Chrysene	KC1900441-13	T	Average RF	80	86.227	ug/ml	107.8	44 - 140
Chrysene	KC1900441-13	T	Average RF	80	86.227	ug/ml	7.8	<= 30
Chrysene	KC1900441-13	T	Average RF	80	86.227	ug/ml	7.8	<= 20
Di-n-Hexyl Phthalate	KC1900441-01	T	Average RF	80	94.669	ug/ml	18.3	<= 30
Di-n-butyl Phthalate	KC1900441-13	T	Average RF	80	88.418	ug/ml	10.5	<= 20
Di-n-butyl Phthalate	KC1900441-13	T	Average RF	80	88.418	ug/ml	110.5	52 - 130
Di-n-butyl Phthalate	KC1900441-13	T	Average RF	80	88.418	ug/ml	10.5	<= 30
Di-n-octyl Phthalate	KC1900441-13	T	Average RF	80	82.645	ug/ml	3.3	<= 20
Di-n-octyl Phthalate	KC1900441-13	T	Average RF	80	82.645	ug/ml	103.3	21 - 132
Di-n-octyl Phthalate	KC1900441-13	T	Average RF	80	82.645	ug/ml	3.3	<= 30
Diazinon	KC1900441-01	T	Average RF	80	99.681	ug/ml	24.6	<= 20
Diazinon	KC1900441-01	T	Average RF	80	99.681	ug/ml	24.6	<= 30

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Dibenz(a,h)anthracene	KC1900441-13	T	Average RF	80	90.548	ug/ml	113.2	13 - 200
Dibenz(a,h)anthracene	KC1900441-13	T	Average RF	80	90.548	ug/ml	13.2	<= 20
Dibenz(a,h)anthracene	KC1900441-13	T	Average RF	80	90.548	ug/ml	13.2	<= 30
Dibenzofuran	KC1900441-13	T	Average RF	80	78.551	ug/ml	-1.8	<= 20
Dibenzofuran	KC1900441-13	T	Average RF	80	78.551	ug/ml	98.2	60 - 140
Dibenzofuran	KC1900441-13	T	Average RF	80	78.551	ug/ml	-1.8	<= 30
Diethyl Phthalate	KC1900441-13	T	Average RF	80	75.981	ug/ml	-5.0	<= 20
Diethyl Phthalate	KC1900441-13	T	Average RF	80	75.981	ug/ml	95.0	47 - 130
Diethyl Phthalate	KC1900441-13	T	Average RF	80	75.981	ug/ml	-5.0	<= 30
Diethylene Glycol Dibenzoate	KC1900441-01	T	Average RF	80	73.646	ug/ml	-7.9	<= 30
Diethylene Glycol Dibenzoate	KC1900441-01	T	Average RF	80	73.646	ug/ml	-7.9	<= 20
Diisodecyl Phthalate	KC1900441-01	T	Average RF	80	73.556	ug/ml	-8.1	<= 30
Diisodecyl Phthalate	KC1900441-01	T	Average RF	80	73.556	ug/ml	-8.1	<= 20
Diisononyl Phthalate	KC1900441-01	T	Quadratic	80	72.013	ug/ml	-10.0	<= 30
Diisononyl Phthalate	KC1900441-01	T	Quadratic	80	72.013	ug/ml	-10.0	<= 20
Dimethyl Phthalate	KC1900441-13	T	Average RF	80	77.586	ug/ml	97.0	50 - 130
Dimethyl Phthalate	KC1900441-13	T	Average RF	80	77.586	ug/ml	-3.0	<= 30
Dimethyl Phthalate	KC1900441-13	T	Average RF	80	77.586	ug/ml	-3.0	<= 20
Fluoranthene	KC1900441-13	T	Average RF	80	88.405	ug/ml	10.5	<= 30
Fluoranthene	KC1900441-13	T	Average RF	80	88.405	ug/ml	10.5	<= 20
Fluoranthene	KC1900441-13	T	Average RF	80	88.405	ug/ml	110.5	47 - 130
Fluorene	KC1900441-13	T	Average RF	80	82.038	ug/ml	2.5	<= 30
Fluorene	KC1900441-13	T	Average RF	80	82.038	ug/ml	102.5	70 - 130
Fluorene	KC1900441-13	T	Average RF	80	82.038	ug/ml	2.5	<= 20
Hexachlorobenzene	KC1900441-13	T	Average RF	80	84.978	ug/ml	6.2	<= 30
Hexachlorobenzene	KC1900441-13	T	Average RF	80	84.978	ug/ml	106.2	38 - 142
Hexachlorobenzene	KC1900441-13	T	Average RF	80	84.978	ug/ml	6.2	<= 20
Hexachlorobutadiene	KC1900441-13	T	Average RF	80	83.441	ug/ml	4.3	<= 30
Hexachlorobutadiene	KC1900441-13	T	Average RF	80	83.441	ug/ml	4.3	<= 20
Hexachlorobutadiene	KC1900441-13	T	Average RF	80	83.441	ug/ml	104.3	68 - 130
Hexachlorocyclopentadiene	KC1900441-13	T	Quadratic	80	82.680	ug/ml	3.3	<= 30
Hexachlorocyclopentadiene	KC1900441-13	T	Quadratic	80	82.680	ug/ml	3.3	<= 20
Hexachlorocyclopentadiene	KC1900441-13	T	Quadratic	80	82.680	ug/ml	103.3	60 - 140
Hexachloroethane	KC1900441-13	T	Average RF	80	84.749	ug/ml	5.9	<= 30
Hexachloroethane	KC1900441-13	T	Average RF	80	84.749	ug/ml	5.9	<= 20
Hexachloroethane	KC1900441-13	T	Average RF	80	84.749	ug/ml	105.9	55 - 130
Indeno(1,2,3-cd)pyrene	KC1900441-13	T	Average RF	80	84.328	ug/ml	5.4	<= 20
Indeno(1,2,3-cd)pyrene	KC1900441-13	T	Average RF	80	84.328	ug/ml	105.4	13 - 151
Indeno(1,2,3-cd)pyrene	KC1900441-13	T	Average RF	80	84.328	ug/ml	5.4	<= 30
Isophorone	KC1900441-13	T	Average RF	80	78.222	ug/ml	-2.2	<= 30

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Calibration ID:	KC1900441	Instrument ID:	K-MS-07
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Isophorone	KC1900441-13	T	Average RF	80	78.222	ug/ml	-2.2	<= 20
Isophorone	KC1900441-13	T	Average RF	80	78.222	ug/ml	97.8	52 - 180
N-Nitrosodi-n-propylamine	KC1900441-13	T	Average RF	80	95.996	ug/ml	120.0	59 - 170
N-Nitrosodi-n-propylamine	KC1900441-13	T	Average RF	80	95.996	ug/ml	20.0	<= 30
N-Nitrosodi-n-propylamine	KC1900441-13	T	Average RF	80	95.996	ug/ml	20.0	<= 20
N-Nitrosodimethylamine	KC1900441-13	T	Average RF	80	81.764	ug/ml	102.2	60 - 140
N-Nitrosodimethylamine	KC1900441-13	T	Average RF	80	81.764	ug/ml	2.2	<= 30
N-Nitrosodimethylamine	KC1900441-13	T	Average RF	80	81.764	ug/ml	2.2	<= 20
N-Nitrosodiphenylamine	KC1900441-13	T	Average RF	80	92.536	ug/ml	15.7	<= 30
N-Nitrosodiphenylamine	KC1900441-13	T	Average RF	80	92.536	ug/ml	15.7	<= 20
N-Nitrosodiphenylamine	KC1900441-13	T	Average RF	80	92.536	ug/ml	115.7	60 - 140
Naphthalene	KC1900441-13	T	Average RF	80	83.438	ug/ml	4.3	<= 20
Naphthalene	KC1900441-13	T	Average RF	80	83.438	ug/ml	4.3	<= 30
Naphthalene	KC1900441-13	T	Average RF	80	83.438	ug/ml	104.3	70 - 130
Nitrobenzene	KC1900441-13	T	Average RF	80	92.400	ug/ml	15.5	<= 30
Nitrobenzene	KC1900441-13	T	Average RF	80	92.400	ug/ml	15.5	<= 20
Nitrobenzene	KC1900441-13	T	Average RF	80	92.400	ug/ml	115.5	54 - 158
Pentachlorophenol (PCP)	KC1900441-13	T	Quadratic	80	83.819	ug/ml	104.8	42 - 152
Pentachlorophenol (PCP)	KC1900441-13	T	Quadratic	80	83.819	ug/ml	4.8	<= 20
Pentachlorophenol (PCP)	KC1900441-13	T	Quadratic	80	83.819	ug/ml	4.8	<= 30
Phenanthrene	KC1900441-13	T	Average RF	80	81.840	ug/ml	102.3	67 - 130
Phenanthrene	KC1900441-13	T	Average RF	80	81.840	ug/ml	2.3	<= 30
Phenanthrene	KC1900441-13	T	Average RF	80	81.840	ug/ml	2.3	<= 20
Phenol	KC1900441-13	T	Average RF	80	81.034	ug/ml	1.3	<= 20
Phenol	KC1900441-13	T	Average RF	80	81.034	ug/ml	1.3	<= 30
Phenol	KC1900441-13	T	Average RF	80	81.034	ug/ml	101.3	48 - 130
Pyrene	KC1900441-13	T	Average RF	80	93.540	ug/ml	16.9	<= 30
Pyrene	KC1900441-13	T	Average RF	80	93.540	ug/ml	116.9	70 - 130
Pyrene	KC1900441-13	T	Average RF	80	93.540	ug/ml	16.9	<= 20
Pyridine	KC1900441-13	T	Average RF	80	84.314	ug/ml	5.4	<= 20
Pyridine	KC1900441-13	T	Average RF	80	84.314	ug/ml	5.4	<= 30
Pyridine	KC1900441-13	T	Average RF	80	84.314	ug/ml	105.4	60 - 140
n-Dodecane	KC1900441-01	T	Average RF	80	83.283	ug/ml	4.1	<= 20
n-Dodecane	KC1900441-01	T	Average RF	80	83.283	ug/ml	4.1	<= 30
2,4,6-Tribromophenol	KC1900441-13	S	Average RF	80	82.981	ug/ml	3.7	<= 30
2,4,6-Tribromophenol	KC1900441-13	S	Average RF	80	82.981	ug/ml	103.7	60 - 140
2,4,6-Tribromophenol	KC1900441-13	S	Average RF	80	82.981	ug/ml	3.7	<= 20
2-Fluorobiphenyl	KC1900441-13	S	Average RF	80	80.347	ug/ml	0.4	<= 20
2-Fluorobiphenyl	KC1900441-13	S	Average RF	80	80.347	ug/ml	0.4	<= 30
2-Fluorobiphenyl	KC1900441-13	S	Average RF	80	80.347	ug/ml	100.4	60 - 140

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Compound	ID	Type	Method	RF	Conc	Unit	Offset	Range
2-Fluorophenol	KC1900441-13	S	Average RF	80	77.922	ug/ml	-2.6	<= 30
2-Fluorophenol	KC1900441-13	S	Average RF	80	77.922	ug/ml	97.4	60 - 140
2-Fluorophenol	KC1900441-13	S	Average RF	80	77.922	ug/ml	-2.6	<= 20
Nitrobenzene-d5	KC1900441-13	S	Average RF	80	84.135	ug/ml	5.2	<= 30
Nitrobenzene-d5	KC1900441-13	S	Average RF	80	84.135	ug/ml	5.2	<= 20
Nitrobenzene-d5	KC1900441-13	S	Average RF	80	84.135	ug/ml	105.2	46 - 219
Phenol-d6	KC1900441-13	S	Average RF	80	80.819	ug/ml	101.0	48 - 208
Phenol-d6	KC1900441-13	S	Average RF	80	80.819	ug/ml	1.0	<= 30
Phenol-d6	KC1900441-13	S	Average RF	80	80.819	ug/ml	1.0	<= 20
p-Terphenyl-d14	KC1900441-13	S	Average RF	80	85.638	ug/ml	107.0	60 - 140
p-Terphenyl-d14	KC1900441-13	S	Average RF	80	85.638	ug/ml	7.0	<= 30
p-Terphenyl-d14	KC1900441-13	S	Average RF	80	85.638	ug/ml	7.0	<= 20

Exceptions

QAP **Method**
 DOD QSM v5.0 8270D
 Kelso

Compound	Type	Criteria	Result
Bis(1-chloroisopropyl) Ether Diazinon	Percent Difference	<= 20	OK if <MRL in samples
Benzidine	Percent Difference	<= 20	NT
Benzidine	Percent Difference	<= 20	OK if <MRL in samples

Exceptions

QAP **Method**
 LAB QAP 625

Compound	Type	Criteria	Result
Benzidine	Percent Difference	<= 30	OK if <MRL in samples

LAB QAP 625_Actual

Compound	Type	Criteria	Result
Benzidine	Percent Difference	<= 30	OK if <MRL in samples

LAB QAP 625.1

Compound	Type	Criteria	Result
Benzidine	High Recovery	<= 140	OK if <MRL in samples

LAB QAP 8270D

Compound	Type	Criteria	Result
Benzidine	Percent Difference	<= 30	OK if <MRL in samples

Data File : J:\MS07\DATA\101719\1017F004.D
 Acq On : 17 Oct 2019 2:31 pm
 Sample : 8270/P ICAL @ 2.5ppm | SVM62-22D
 Misc :

Vial: 4
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 08:27:08 2019

Quant Results File: 101719_BNP7.RES

Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.35	152	34571	40.00	ug/ml	-0.01
22) Naphthalene-d8	11.45	136	122843	40.00	ug/ml	-0.01
36) Acenaphthene-d10	14.31	164	75586	40.00	ug/ml	-0.01
61) Phenanthrene-d10	16.72	188	133891	40.00	ug/ml	-0.01
73) Chrysene-d12	21.14	240	110038	40.00	ug/ml	-0.02
84) Perylene-d12	24.31	264	110945	40.00	ug/ml	-0.02

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
4) 2-Fluorophenol	7.11	112	2507	2.30	ug/ml	-0.03
Spiked Amount	150.000	Range	21 - 100	Recovery	=	1.53%#
8) Phenol-d6	8.80	99	2890	2.07	ug/ml	-0.05
Spiked Amount	150.000	Range	10 - 94	Recovery	=	1.38%#
20) Nitrobenzene-d5	10.27	82	2929	2.03	ug/ml	-0.02
Spiked Amount	100.000	Range	35 - 114	Recovery	=	2.03%#
40) 2-Fluorobiphenyl	13.25	172	6635	2.21	ug/ml	-0.01
Spiked Amount	100.000	Range	43 - 116	Recovery	=	2.21%#
62) 2,4,6-Tribromophenol	15.58	330	1211	1.30	ug/ml	-0.03
Spiked Amount	150.000	Range	10 - 123	Recovery	=	0.87%#
76) Terphenyl-d14	19.34	244	6723	2.04	ug/ml	-0.02
Spiked Amount	100.000	Range	33 - 141	Recovery	=	2.04%#

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-Nitrosodimethylamine	4.32	42	1558	1.93	ug/ml	83
3) Pyridine	4.37	79	2134	2.00	ug/ml	95
5) Ethylene Glycol Butyl Ethe	7.66	57	1918	2.20	ug/ml	93
6) Aniline	8.81	93	3570m	2.34	ug/ml	
7) Bis(2-chloroethyl) Ether	8.95	93	2403	2.30	ug/ml	77
9) Phenol	8.82	94	3179	2.24	ug/ml	85
10) 2-Chlorophenol	8.99	128	2681	2.20	ug/ml	97
11) 1,3-Dichlorobenzene	9.25	146	2891	2.29	ug/ml	95
12) 1,4-Dichlorobenzene	9.38	146	3081	2.32	ug/ml	90
13) 1,2-Dichlorobenzene	9.62	146	2794	2.26	ug/ml	99
14) Benzyl Alcohol	9.61	108	1650	2.19	ug/ml#	78
15) 2,2'-oxybis(1-chloropropan	9.87	45	2381	2.39	ug/ml	83
16) 2-Methylphenol	9.83	107	1995	2.13	ug/ml	88
17) Hexachloroethane	10.18	117	1436	2.36	ug/ml	86
18) N-Nitrosodi-n-propylamine	10.06	70	1656	2.12	ug/ml	97
19) 4-Methylphenol	10.08	107	2955	2.10	ug/ml	95
21) Nitrobenzene	10.30	77	2657	2.13	ug/ml	98
23) Isophorone	10.72	82	4628	2.36	ug/ml	91
24) 2-Nitrophenol	10.83	139	1004	1.52	ug/ml	88
25) 2,4-Dimethylphenol	10.95	122	2134	2.29	ug/ml	97
26) Bis(2-chloroethoxy)methane	11.11	93	2985	2.42	ug/ml	89
27) 2,4-Dichlorophenol	11.23	162	2224	2.18	ug/ml	91
29) 1,2,4-Trichlorobenzene	11.36	180	2673	2.53	ug/ml	96
30) Naphthalene	11.48	128	7306	2.49	ug/ml	98
31) n-Dodecane	11.55	57	2296	2.52	ug/ml#	93
32) 4-Chloroaniline	11.59	127	3328	2.53	ug/ml	96
33) Hexachlorobutadiene	11.72	225	1723	2.27	ug/ml	96
34) 4-Chloro-3-methylphenol	12.42	107	2013	2.17	ug/ml	92
35) 2-Methylnaphthalene	12.62	142	5008	2.51	ug/ml	96
37) Hexachlorocyclopentadiene	12.90	237	1193	1.17	ug/ml	94
38) 2,4,6-Trichlorophenol	13.09	196	1235	1.44	ug/ml	96
39) 2,4,5-Trichlorophenol	13.15	196	1260	1.36	ug/ml	86
41) 2-Chloronaphthalene	13.40	162	4666	2.06	ug/ml	92
42) 2-Nitroaniline	13.59	65	1324	1.95	ug/ml	79
43) Acenaphthylene	14.07	152	7189	2.20	ug/ml	96
44) Dimethyl Phthalate	13.92	163	5617	2.39	ug/ml	96

Data File : J:\MS07\DATA\101719\1017F004.D
 Acq On : 17 Oct 2019 2:31 pm
 Sample : 8270/P ICAL @ 2.5ppm | SVM62-22D
 Misc :

Vial: 4
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 08:27:08 2019

Quant Results File: 101719_BNP7.RES

Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
45) 2,6-Dinitrotoluene	13.99	165	1107	1.93	ug/ml	84
46) Acenaphthene	14.35	154	4655	2.41	ug/ml	97
47) 3-Nitroaniline	14.25	138	1198	2.01	ug/ml	90
49) Dibenzofuran	14.64	168	7626	2.49	ug/ml	96
50) 4-Nitrophenol	14.56	109	591	1.30	ug/ml	92
51) 2,4-Dinitrotoluene	14.65	165	1414	1.97	ug/ml	93
52) 2,3,4,6-Tetrachlorophenol	14.85	232	928	1.36	ug/ml	92
53) Fluorene	15.20	166	5864	2.61	ug/ml	99
54) 4-Chlorophenyl Phenyl Ethe	15.23	204	3230	2.69	ug/ml	95
55) Diethyl Phthalate	15.09	149	5512	2.47	ug/ml	96
56) 4-Nitroaniline	15.23	138	1206	2.05	ug/ml	98
58) Diphenylamine	15.43	169	4170	2.78	ug/ml	87
59) Azobenzene	15.48	51	4736	3.66	ug/ml	97
60) Benzophenone	15.50	105	5760	2.67	ug/ml	99
63) 4-Bromophenyl Phenyl Ether	16.02	248	2098	2.21	ug/ml	92
64) Hexachlorobenzene	16.08	284	2783	2.29	ug/ml	87
65) 2,6-Diisopropyl naphthalene	16.24	197	4681	2.09	ug/ml	97
67) Diazinon	16.61	137	958	1.74	ug/ml	92
68) Phenanthrene	16.75	178	8809	2.51	ug/ml	98
69) Anthracene	16.83	178	8826	2.43	ug/ml	98
70) Carbazole	17.11	167	6944	2.05	ug/ml	99
71) Di-n-butyl Phthalate	17.76	149	7383	1.70	ug/ml	96
72) Fluoranthene	18.66	202	7575	1.98	ug/ml	95
74) Benzidine	18.92	184	3578	2.35	ug/ml	92
75) Pyrene	19.02	202	7871	2.20	ug/ml	98
77) Di-n-hexyl Phthalate	20.11	149	6515	1.67	ug/ml	94
78) Butyl Benzyl Phthalate	20.19	149	2932	1.77	ug/ml	93
79) Diethylene Glycol Butyl Et	21.04	105	3675	1.52	ug/ml	97
80) 3,3'-Dichlorobenzidine	21.12	252	2523	1.64	ug/ml	95
81) Benz(a)anthracene	21.11	228	6569	2.24	ug/ml	96
82) Chrysene	21.19	228	7054	2.35	ug/ml	97
83) Bis(2-ethylhexyl) Phthalat	21.38	149	3783	1.76	ug/ml	97
85) Di-n-octyl Phthalate	22.84	149	5331	1.54	ug/ml	99
86) Benzo(b)fluoranthene	23.43	252	6508	1.96	ug/ml	99
87) Benzo(k)fluoranthene	23.49	252	6358	2.08	ug/ml	97
90) Benzo(a)pyrene	24.16	252	5767	1.96	ug/ml	95
91) Indeno(1,2,3-cd)pyrene	26.72	276	5290	1.76	ug/ml	95
92) Dibenz(a,h)anthracene	26.81	278	5031	1.64	ug/ml	96
93) Benzo(g,h,i)perylene	27.28	276	5883m	1.91	ug/ml	

Data File : J:\MS07\DATA\101719\1017F004.D
 Acq On : 17 Oct 2019 2:31 pm
 Sample : 8270/P ICAL @ 2.5ppm | SVM62-22D
 Misc :

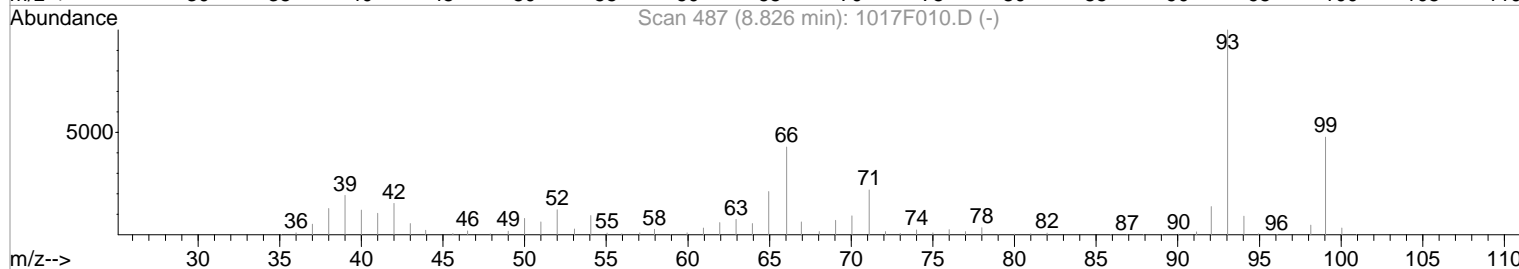
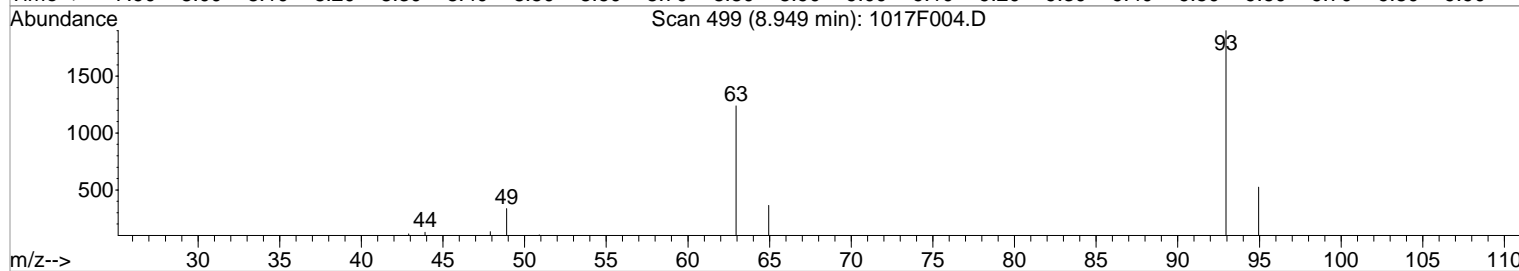
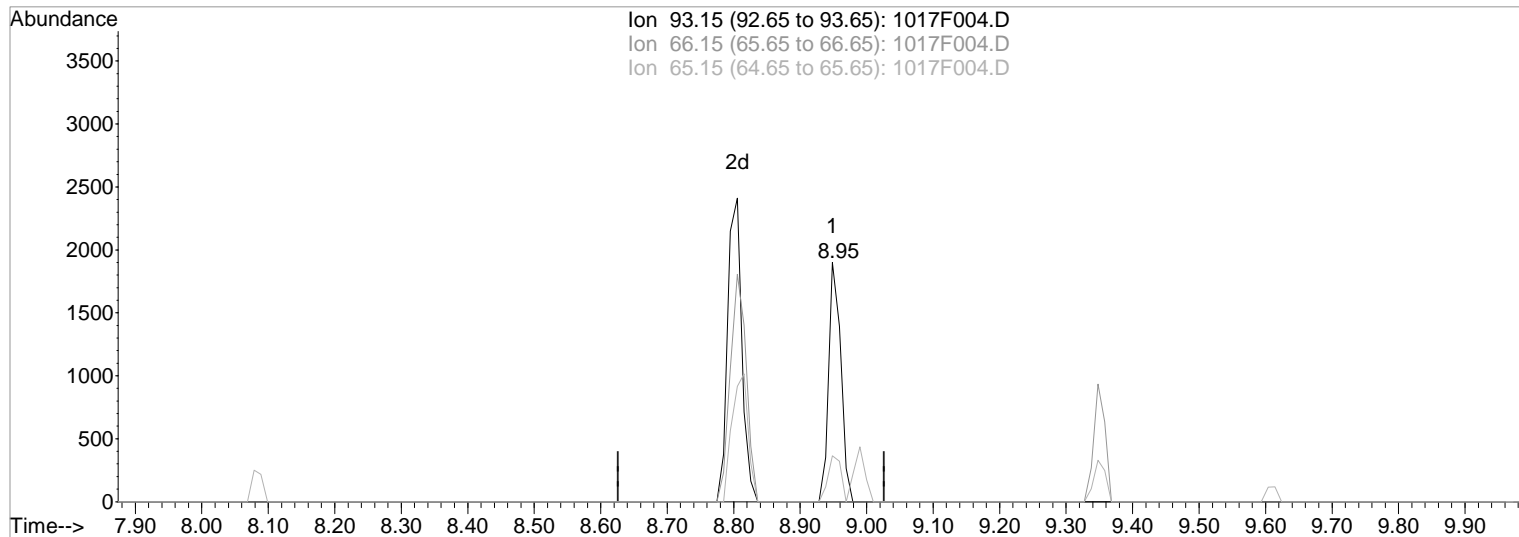
Vial: 4
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 8:27 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F004.D

(6) Aniline (T)

Manual Integration:

8.95min 1.58ug/ml

Before

response 2403

Ion	Exp%	Act%
93.15	100	100
66.15	17.40	0.00
65.15	4.40	13.47
0.00	0.00	0.00

10/18/19

Data File : J:\MS07\DATA\101719\1017F004.D
 Acq On : 17 Oct 2019 2:31 pm
 Sample : 8270/P ICAL @ 2.5ppm | SVM62-22D
 Misc :

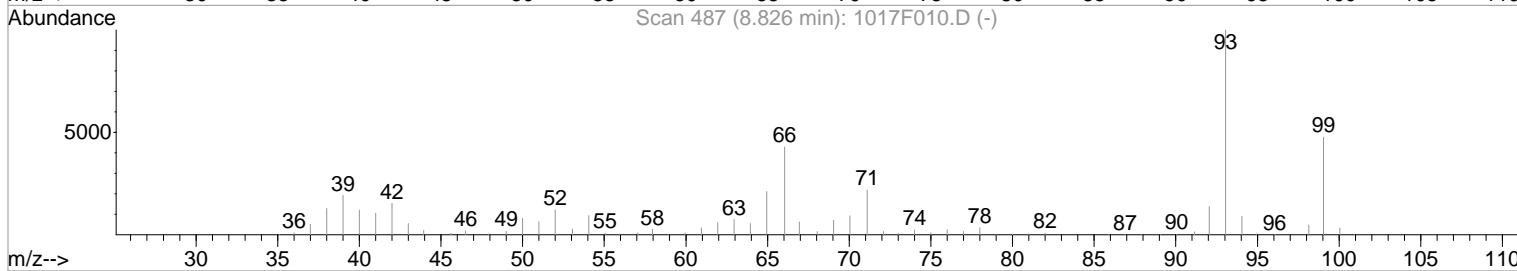
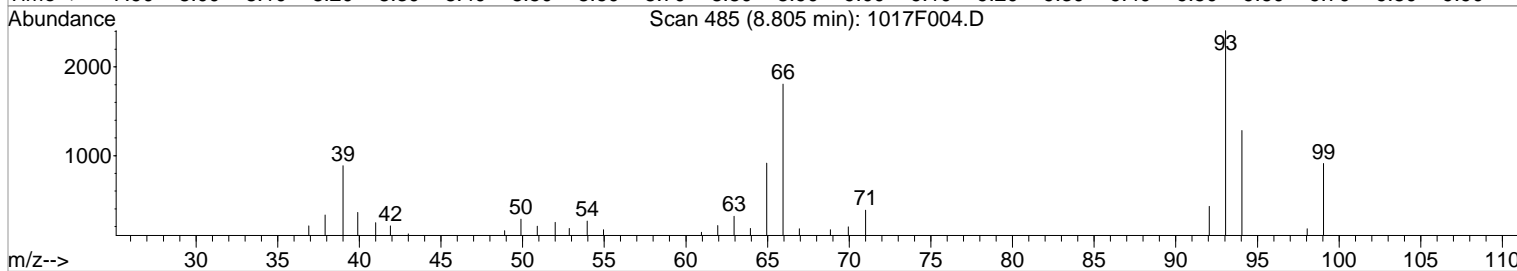
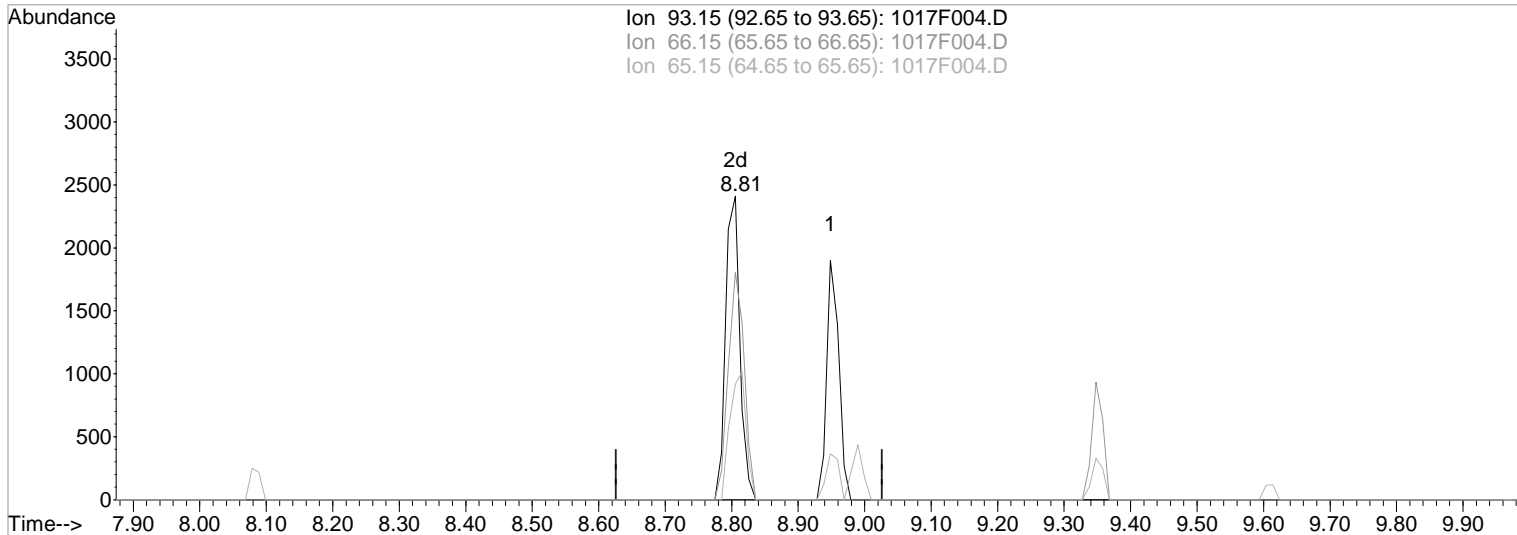
Vial: 4
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 8:36 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F004.D

(6) Aniline (T)

8.81min 2.34ug/ml m
 response 3570

Manual Integration:

After
 Wrong peak

Ion	Exp%	Act%
93.15	100	100
66.15	17.40	74.90#
65.15	4.40	38.05#
0.00	0.00	0.00

10/18/19

Data File : J:\MS07\DATA\101719\1017F004.D
 Acq On : 17 Oct 2019 2:31 pm
 Sample : 8270/P ICAL @ 2.5ppm | SVM62-22D
 Misc :

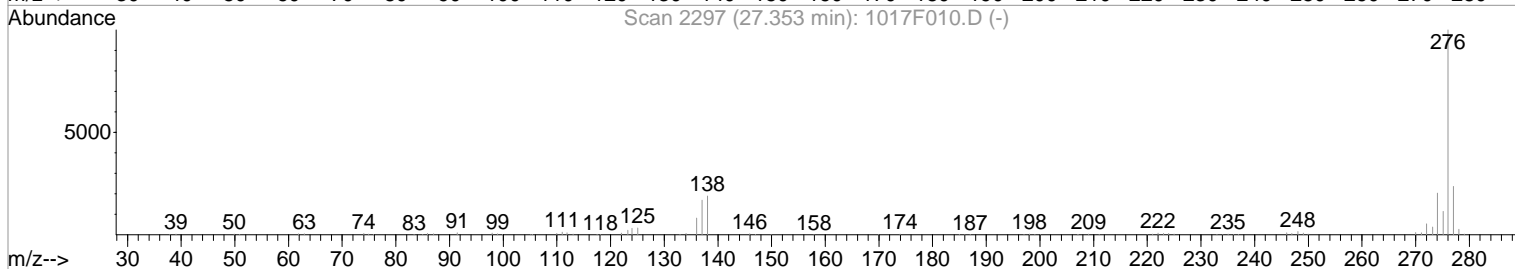
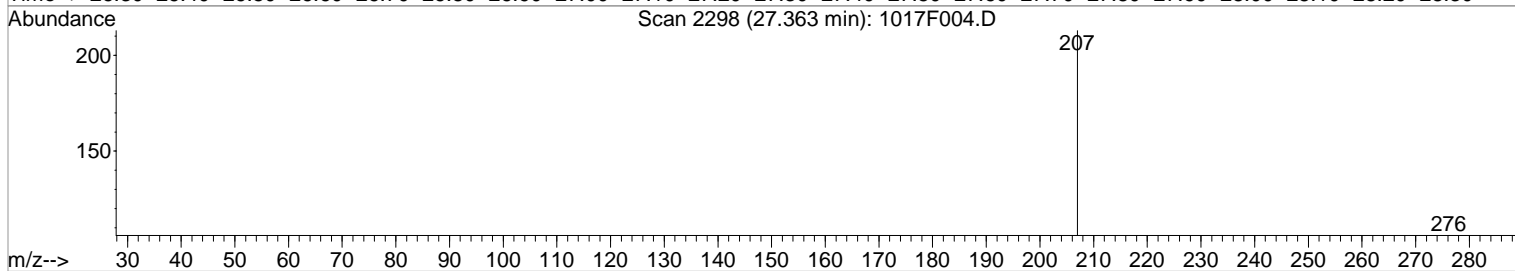
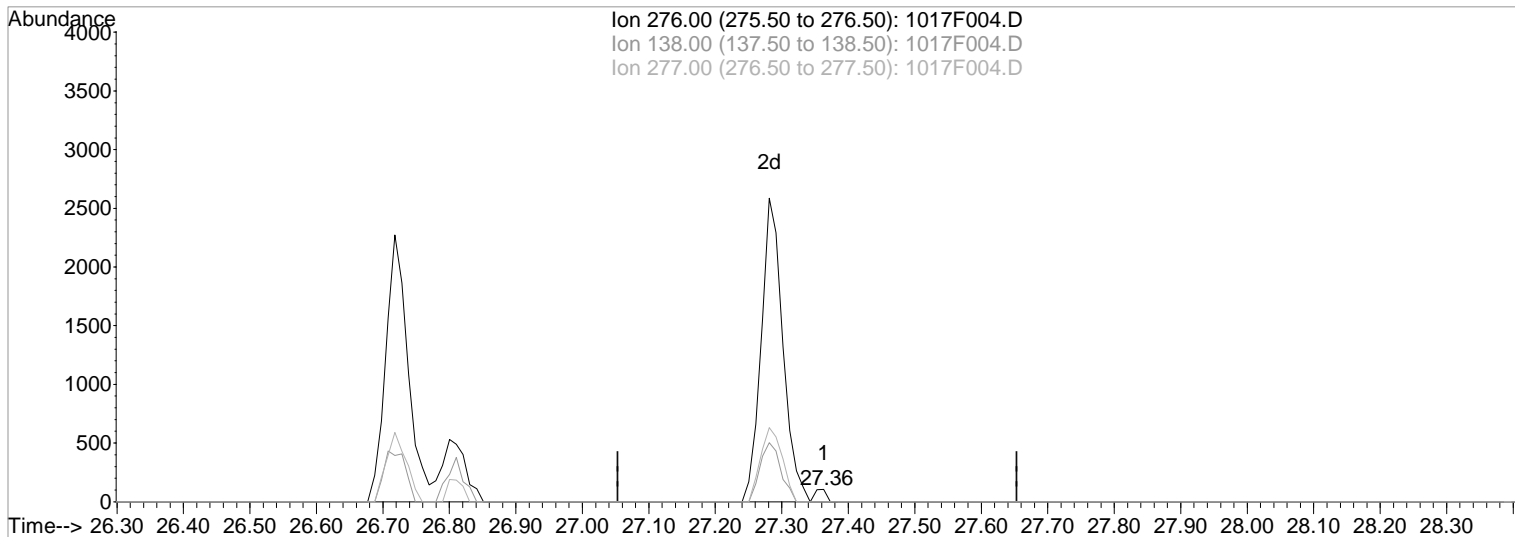
Vial: 4
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 8:40 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F004.D

(93) Benzo(g,h,i)perylene (T)

Manual Integration:

27.36min 0.04ug/ml

Before

response 128

10/18/19

Ion	Exp%	Act%
276.00	100	100
138.00	18.90	0.00
277.00	23.50	0.00
0.00	0.00	0.00

Data File : J:\MS07\DATA\101719\1017F004.D
 Acq On : 17 Oct 2019 2:31 pm
 Sample : 8270/P ICAL @ 2.5ppm | SVM62-22D
 Misc :

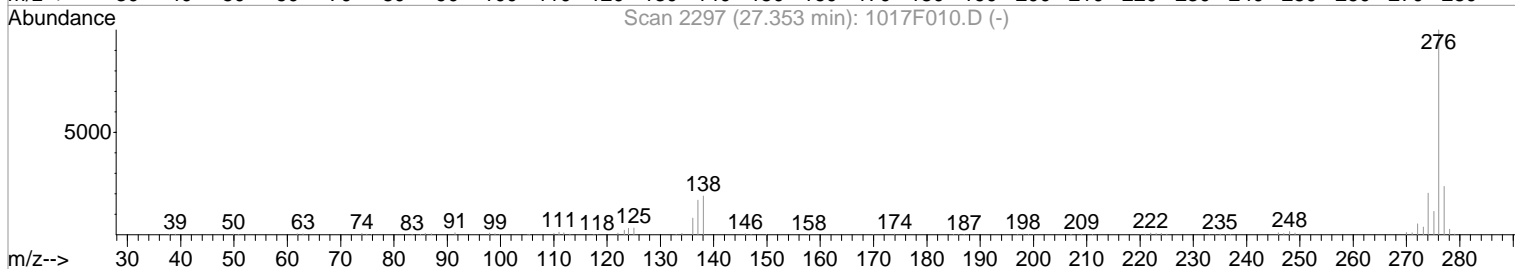
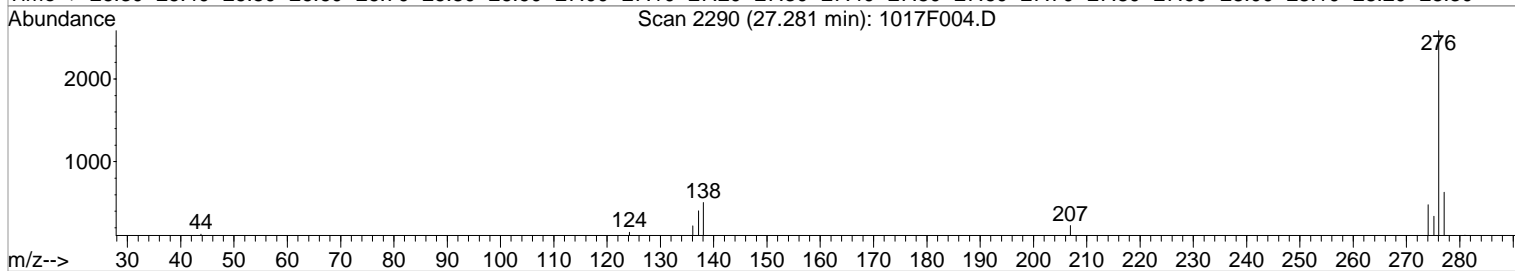
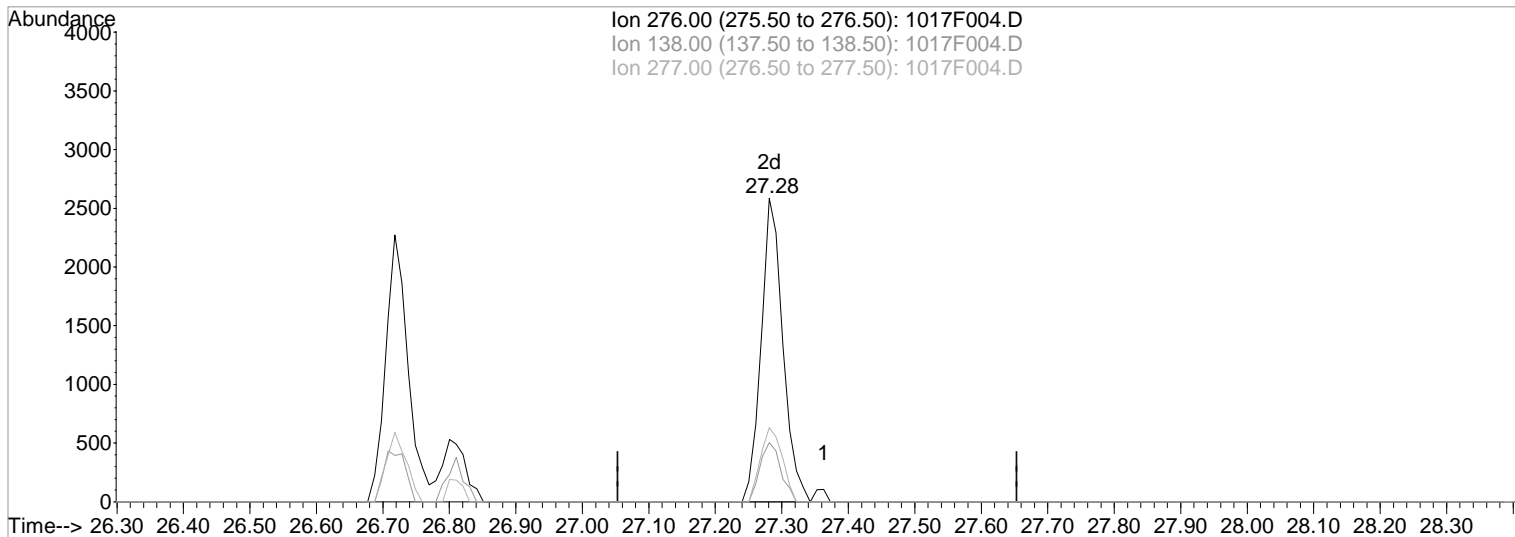
Vial: 4
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 8:40 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F004.D

(93) Benzo(g,h,i)perylene (T)

Manual Integration:

27.28min 1.91ug/ml m

After

response 5883

Wrong peak

Ion	Exp%	Act%
276.00	100	100
138.00	18.90	19.49
277.00	23.50	24.36
0.00	0.00	0.00

10/18/19

Data File : J:\MS07\DATA\101719\1017F005.D
 Acq On : 17 Oct 2019 3:12 pm
 Sample : 8270/P ICAL @ 5ppm | SVM62-22E
 Misc :

Vial: 5
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 08:27:09 2019

Quant Results File: 101719_BNP7.RES

Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.35	152	32361	40.00	ug/ml	-0.01
22) Naphthalene-d8	11.45	136	118793	40.00	ug/ml	-0.01
36) Acenaphthene-d10	14.31	164	73592	40.00	ug/ml	-0.01
61) Phenanthrene-d10	16.72	188	131343	40.00	ug/ml	-0.01
73) Chrysene-d12	21.14	240	109100	40.00	ug/ml	-0.02
84) Perylene-d12	24.31	264	111214	40.00	ug/ml	-0.02

System Monitoring Compounds

4) 2-Fluorophenol	7.11	112	4872	4.77	ug/ml	-0.03
Spiked Amount	150.000	Range	21 - 100	Recovery	=	3.18%#
8) Phenol-d6	8.79	99	6101	4.67	ug/ml	-0.05
Spiked Amount	150.000	Range	10 - 94	Recovery	=	3.11%#
20) Nitrobenzene-d5	10.27	82	5724	4.24	ug/ml	-0.02
Spiked Amount	100.000	Range	35 - 114	Recovery	=	4.24%#
40) 2-Fluorobiphenyl	13.25	172	12518	4.28	ug/ml	-0.01
Spiked Amount	100.000	Range	43 - 116	Recovery	=	4.28%#
62) 2,4,6-Tribromophenol	15.59	330	2806	3.08	ug/ml	-0.02
Spiked Amount	150.000	Range	10 - 123	Recovery	=	2.05%#
76) Terphenyl-d14	19.34	244	13997	4.29	ug/ml	-0.02
Spiked Amount	100.000	Range	33 - 141	Recovery	=	4.29%#

Target Compounds

						Qvalue
2) N-Nitrosodimethylamine	4.31	42	3603	4.78	ug/ml	97
3) Pyridine	4.36	79	4516	4.52	ug/ml	82
5) Ethylene Glycol Butyl Ethe	7.66	57	4068	4.99	ug/ml	98
6) Aniline	8.81	93	6996m	4.90	ug/ml	
7) Bis(2-chloroethyl) Ether	8.95	93	4717	4.82	ug/ml	99
9) Phenol	8.82	94	6382	4.80	ug/ml	82
10) 2-Chlorophenol	8.99	128	5278	4.62	ug/ml	96
11) 1,3-Dichlorobenzene	9.25	146	5708	4.83	ug/ml	99
12) 1,4-Dichlorobenzene	9.38	146	6295	5.07	ug/ml	98
13) 1,2-Dichlorobenzene	9.62	146	5487	4.74	ug/ml	98
14) Benzyl Alcohol	9.61	108	3331	4.73	ug/ml	92
15) 2,2'-oxybis(1-chloropropan	9.87	45	4692	5.03	ug/ml	78
16) 2-Methylphenol	9.83	107	3973	4.53	ug/ml	85
17) Hexachloroethane	10.19	117	2920	5.12	ug/ml	88
18) N-Nitrosodi-n-propylamine	10.06	70	3334	4.56	ug/ml	93
19) 4-Methylphenol	10.08	107	6038	4.59	ug/ml	96
21) Nitrobenzene	10.30	77	5065	4.33	ug/ml	97
23) Isophorone	10.72	82	9710	5.12	ug/ml	96
24) 2-Nitrophenol	10.83	139	2290	3.59	ug/ml	91
25) 2,4-Dimethylphenol	10.95	122	4349	4.83	ug/ml	100
26) Bis(2-chloroethoxy)methane	11.11	93	5498	4.60	ug/ml	99
27) 2,4-Dichlorophenol	11.23	162	4537	4.60	ug/ml	98
29) 1,2,4-Trichlorobenzene	11.36	180	5053	4.94	ug/ml	98
30) Naphthalene	11.48	128	13865	4.88	ug/ml	99
31) n-Dodecane	11.55	57	4743	5.38	ug/ml	95
32) 4-Chloroaniline	11.59	127	6731	5.29	ug/ml	96
33) Hexachlorobutadiene	11.72	225	3433	4.67	ug/ml	96
34) 4-Chloro-3-methylphenol	12.42	107	4621	5.15	ug/ml	98
35) 2-Methylnaphthalene	12.62	142	9599	4.97	ug/ml	93
37) Hexachlorocyclopentadiene	12.90	237	3019	3.05	ug/ml	99
38) 2,4,6-Trichlorophenol	13.09	196	3039	3.65	ug/ml	97
39) 2,4,5-Trichlorophenol	13.15	196	3413	3.80	ug/ml	97
41) 2-Chloronaphthalene	13.40	162	9343	4.23	ug/ml	96
42) 2-Nitroaniline	13.59	65	3109	4.70	ug/ml	93
43) Acenaphthylene	14.07	152	14766	4.65	ug/ml	97
44) Dimethyl Phthalate	13.93	163	12015	5.24	ug/ml	99

(#) = qualifier out of range (m) = manual integration
 1017F005.D 101719_BNP7.M Fri Oct 18 09:21:22 2019

Data File : J:\MS07\DATA\101719\1017F005.D
 Acq On : 17 Oct 2019 3:12 pm
 Sample : 8270/P ICAL @ 5ppm | SVM62-22E
 Misc :

Vial: 5
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 08:27:09 2019

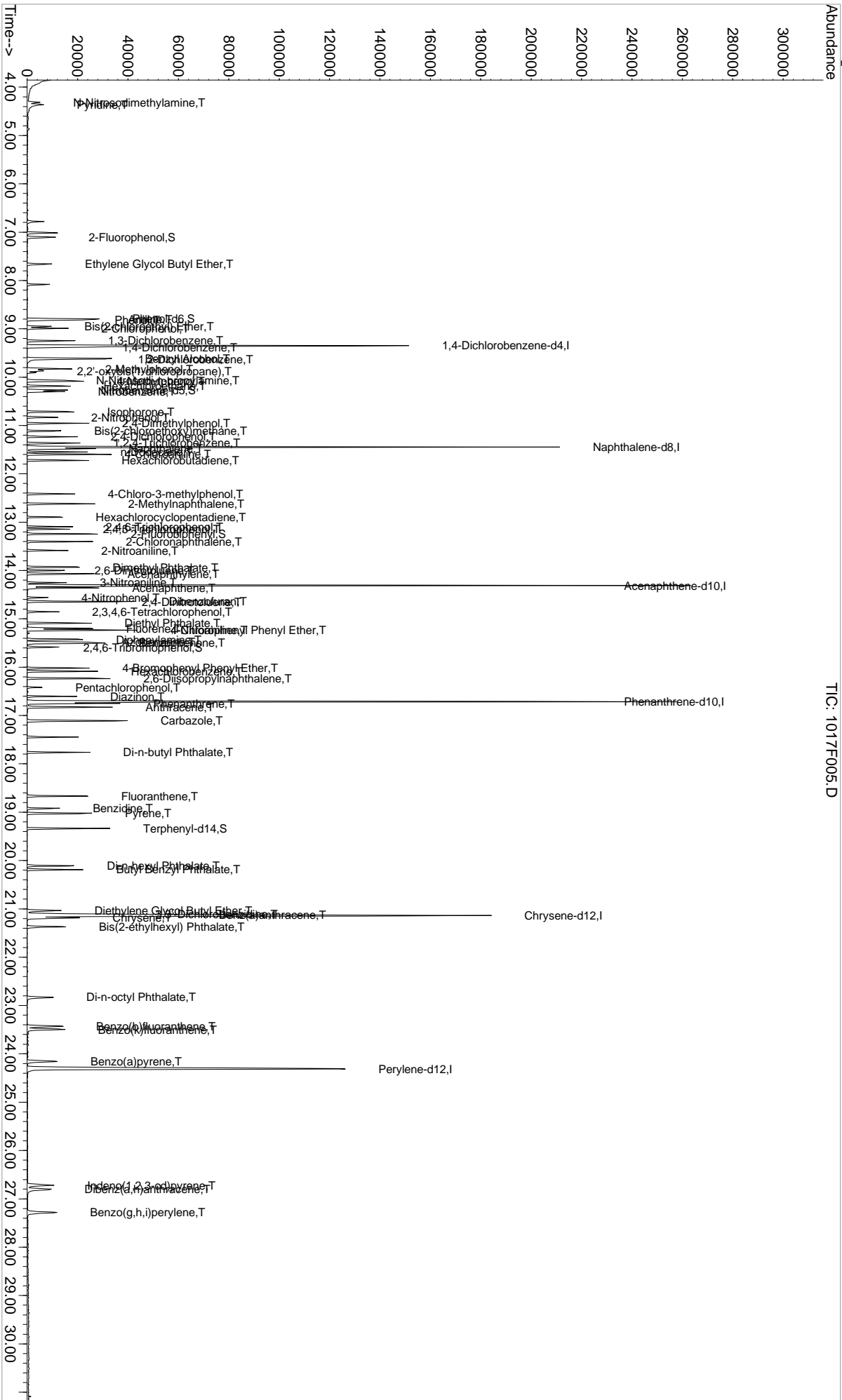
Quant Results File: 101719_BNP7.RES

Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
45) 2,6-Dinitrotoluene	14.00	165	2572	4.60	ug/ml	92
46) Acenaphthene	14.36	154	9260	4.92	ug/ml	96
47) 3-Nitroaniline	14.25	138	2715	4.68	ug/ml	77
49) Dibenzofuran	14.64	168	15215	5.10	ug/ml	97
50) 4-Nitrophenol	14.56	109	1537	3.47	ug/ml	94
51) 2,4-Dinitrotoluene	14.65	165	3223	4.61	ug/ml	95
52) 2,3,4,6-Tetrachlorophenol	14.85	232	2021	3.05	ug/ml	92
53) Fluorene	15.20	166	11622	5.32	ug/ml	98
54) 4-Chlorophenyl Phenyl Ethe	15.23	204	6083	5.21	ug/ml	92
55) Diethyl Phthalate	15.09	149	11707	5.39	ug/ml	98
56) 4-Nitroaniline	15.23	138	2792	4.87	ug/ml	97
58) Diphenylamine	15.43	169	8608	5.89	ug/ml	96
59) Azobenzene	15.48	51	9937	7.88	ug/ml	98
60) Benzophenone	15.50	105	12351	5.89	ug/ml	97
63) 4-Bromophenyl Phenyl Ether	16.02	248	4053	4.34	ug/ml	90
64) Hexachlorobenzene	16.08	284	5517	4.62	ug/ml	91
65) 2,6-Diisopropyl naphthalene	16.24	197	9419	4.28	ug/ml	99
66) Pentachlorophenol	16.42	266	1546	2.09	ug/ml	97
67) Diazinon	16.60	137	2062	3.82	ug/ml	96
68) Phenanthrene	16.75	178	16893	4.90	ug/ml	98
69) Anthracene	16.83	178	17438	4.89	ug/ml	97
70) Carbazole	17.11	167	14540	4.37	ug/ml	98
71) Di-n-butyl Phthalate	17.76	149	15566	3.65	ug/ml	96
72) Fluoranthene	18.67	202	15450	4.12	ug/ml	98
74) Benzidine	18.92	184	7546	4.99	ug/ml	94
75) Pyrene	19.02	202	15795	4.46	ug/ml	100
77) Di-n-hexyl Phthalate	20.11	149	14450	3.74	ug/ml	93
78) Butyl Benzyl Phthalate	20.19	149	6859	4.18	ug/ml	98
79) Diethylene Glycol Butyl Et	21.04	105	8164	3.40	ug/ml	97
80) 3,3'-Dichlorobenzidine	21.11	252	5877	3.85	ug/ml	95
81) Benz(a)anthracene	21.12	228	13448	4.63	ug/ml	97
82) Chrysene	21.19	228	13825	4.65	ug/ml	99
83) Bis(2-ethylhexyl) Phthalat	21.37	149	7895	3.70	ug/ml	99
85) Di-n-octyl Phthalate	22.83	149	12032	3.46	ug/ml	97
86) Benzo(b)fluoranthene	23.43	252	12823	3.86	ug/ml	98
87) Benzo(k)fluoranthene	23.49	252	13168	4.29	ug/ml	98
90) Benzo(a)pyrene	24.16	252	11765	3.99	ug/ml	94
91) Indeno(1,2,3-cd)pyrene	26.72	276	10844	3.60	ug/ml	96
92) Dibenz(a,h)anthracene	26.80	278	11215	3.64	ug/ml	96
93) Benzo(g,h,i)perylene	27.28	276	12670	4.11	ug/ml	96

Data File : J:\MS07\DATA\101719\1017F005.D
 Acq On : 17 Oct 2019 3:12 pm
 Sample : 8270/P ICAL @ 5ppm | SVM62-22E
 Misc :
 MS Integration Params: RTEINT.P
 Quant Results File: 101719_BNP7.RES
 Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration
 Last Update : Fri Oct 18 09:20:51 2019
 Response via : Initial Calibration

Quantitation Report (QT Reviewed)
 Vial: 5
 Operator: CCONOVER/LM
 Inst: MS07
 Multipl: 1.00



Data File : J:\MS07\DATA\101719\1017F005.D
 Acq On : 17 Oct 2019 3:12 pm
 Sample : 8270/P ICAL @ 5ppm | SVM62-22E
 Misc :

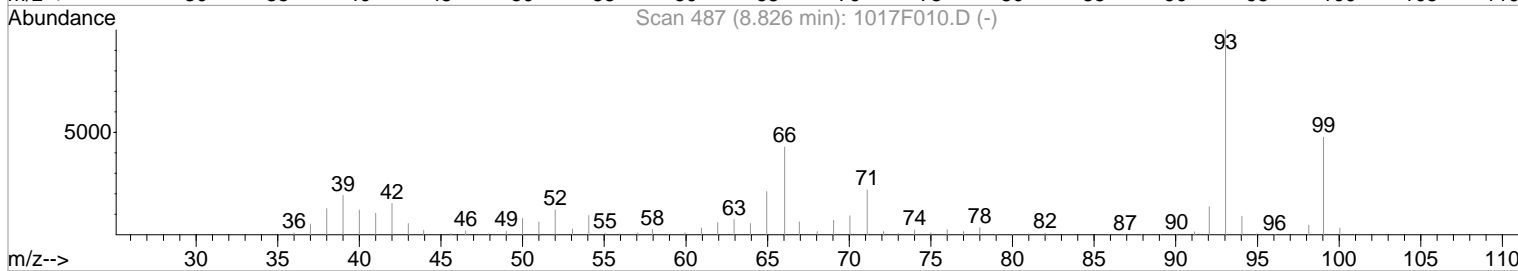
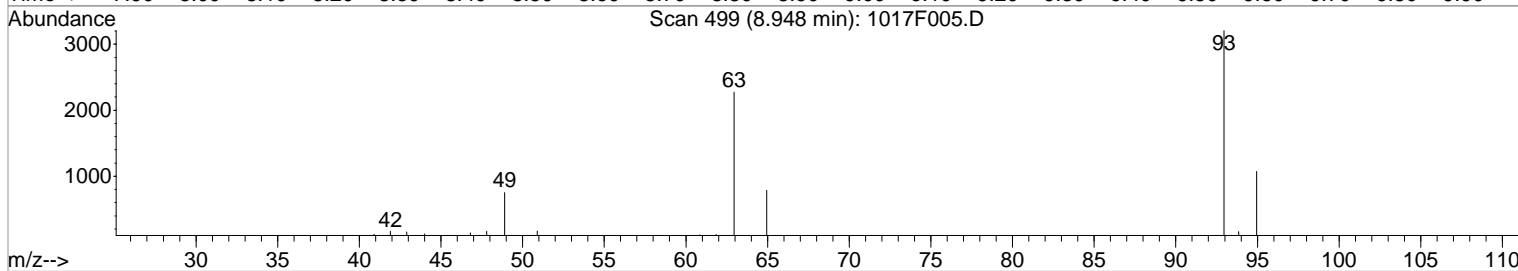
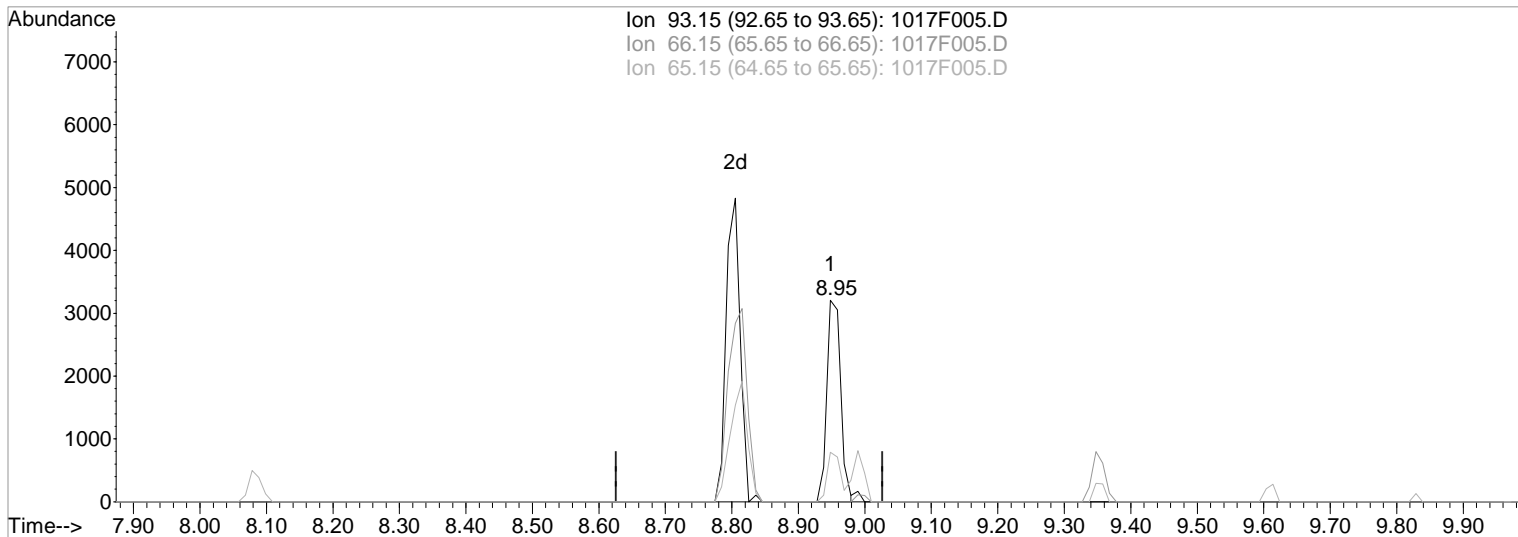
Vial: 5
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 8:27 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F005.D

(6) Aniline (T)

Manual Integration:

8.95min 3.23ug/ml

Before

response 4614

Ion	Exp%	Act%
93.15	100	100
66.15	17.40	0.00
65.15	4.40	19.52
0.00	0.00	0.00

10/18/19

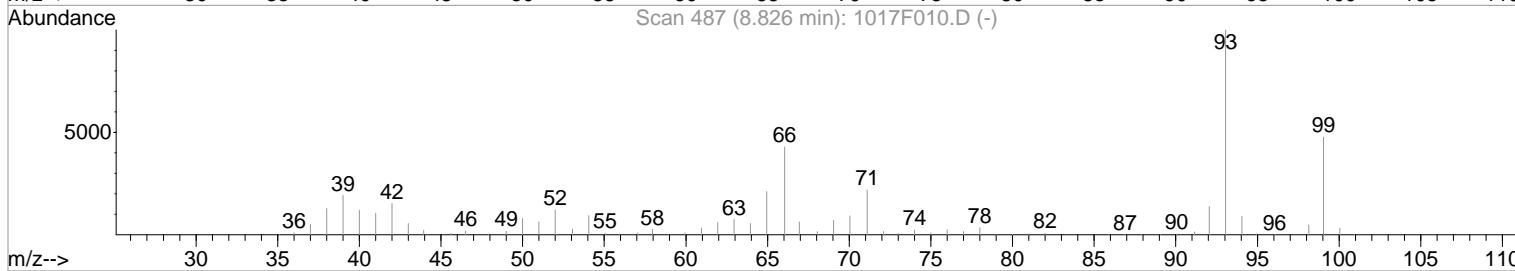
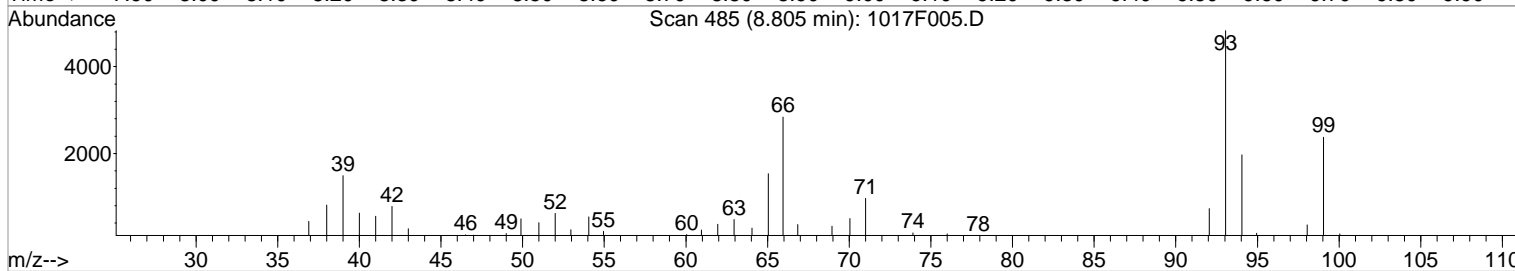
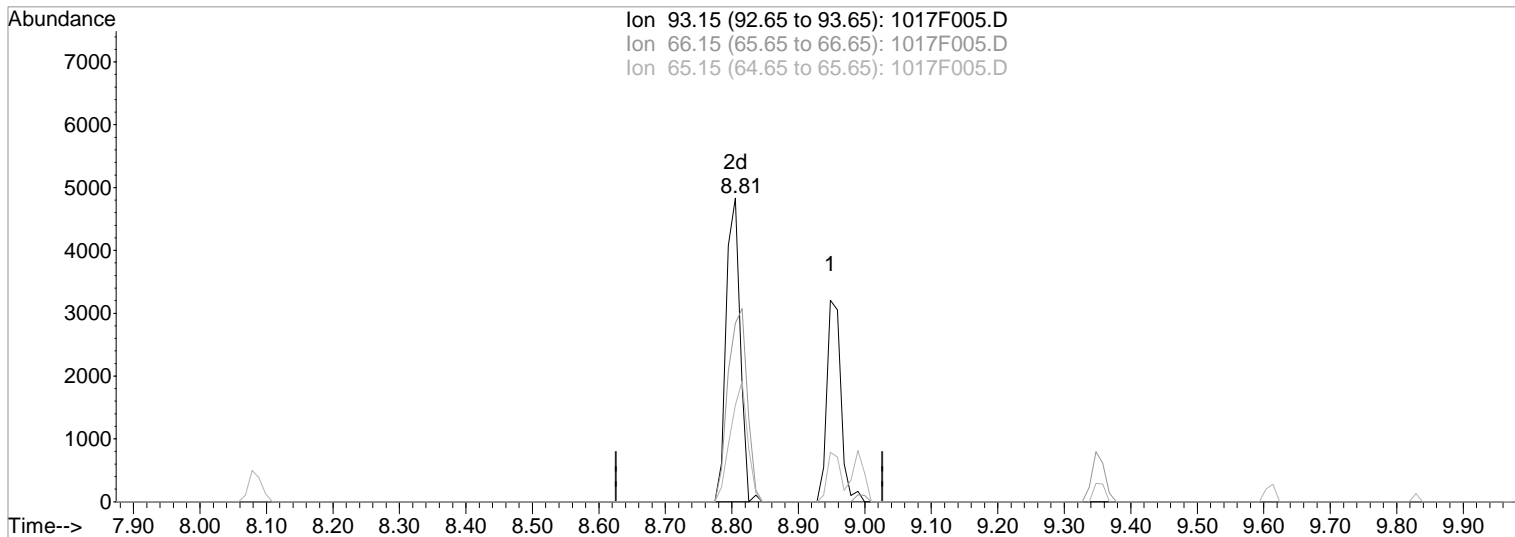
Data File : J:\MS07\DATA\101719\1017F005.D
 Acq On : 17 Oct 2019 3:12 pm
 Sample : 8270/P ICAL @ 5ppm | SVM62-22E
 Misc :

Vial: 5
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 8:42 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F005.D

(6) Aniline (T)

8.81min 4.90ug/ml m
 response 6996

Manual Integration:

After
 Wrong peak

Ion	Exp%	Act%
93.15	100	100
66.15	17.40	58.80#
65.15	4.40	31.76
0.00	0.00	0.00

10/18/19

Data File : J:\MS07\DATA\101719\1017F006.D
 Acq On : 17 Oct 2019 3:53 pm
 Sample : 8270/P ICAL @ 7.5ppm | SVM62-22F
 Misc :

Vial: 6
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 08:27:10 2019

Quant Results File: 101719_BNP7.RES

Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.35	152	33881	40.00	ug/ml	0.00
22) Naphthalene-d8	11.45	136	127499	40.00	ug/ml	0.00
36) Acenaphthene-d10	14.32	164	76126	40.00	ug/ml	0.00
61) Phenanthrene-d10	16.71	188	131829	40.00	ug/ml	-0.02
73) Chrysene-d12	21.14	240	107430	40.00	ug/ml	-0.02
84) Perylene-d12	24.31	264	107677	40.00	ug/ml	-0.03

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
4) 2-Fluorophenol	7.11	112	7962	7.44	ug/ml	-0.03
Spiked Amount	150.000	Range	21 - 100	Recovery	=	4.96%#
8) Phenol-d6	8.80	99	9647	7.06	ug/ml	-0.05
Spiked Amount	150.000	Range	10 - 94	Recovery	=	4.71%#
20) Nitrobenzene-d5	10.27	82	9716	6.88	ug/ml	-0.02
Spiked Amount	100.000	Range	35 - 114	Recovery	=	6.88%#
40) 2-Fluorobiphenyl	13.24	172	20043	6.62	ug/ml	-0.02
Spiked Amount	100.000	Range	43 - 116	Recovery	=	6.62%#
62) 2,4,6-Tribromophenol	15.59	330	4698	5.13	ug/ml	-0.03
Spiked Amount	150.000	Range	10 - 123	Recovery	=	3.42%#
76) Terphenyl-d14	19.34	244	20464	6.36	ug/ml	-0.02
Spiked Amount	100.000	Range	33 - 141	Recovery	=	6.36%#

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-Nitrosodimethylamine	4.31	42	5561	7.04	ug/ml	97
3) Pyridine	4.36	79	6963	6.66	ug/ml	89
5) Ethylene Glycol Butyl Ethe	7.66	57	6106	7.16	ug/ml	96
6) Aniline	8.80	93	10859	7.27	ug/ml	34
7) Bis(2-chloroethyl) Ether	8.95	93	7288	7.11	ug/ml	98
9) Phenol	8.82	94	9885	7.09	ug/ml	94
10) 2-Chlorophenol	8.99	128	8283	6.93	ug/ml	97
11) 1,3-Dichlorobenzene	9.25	146	9102	7.36	ug/ml	98
12) 1,4-Dichlorobenzene	9.38	146	9671	7.43	ug/ml	98
13) 1,2-Dichlorobenzene	9.63	146	8664	7.15	ug/ml	96
14) Benzyl Alcohol	9.61	108	5008	6.79	ug/ml	97
15) 2,2'-oxybis(1-chloropropan	9.86	45	6967m	7.14	ug/ml	
16) 2-Methylphenol	9.83	107	6028	6.57	ug/ml	87
17) Hexachloroethane	10.18	117	4264	7.14	ug/ml	94
18) N-Nitrosodi-n-propylamine	10.07	70	5353	6.99	ug/ml	98
19) 4-Methylphenol	10.09	107	9396	6.82	ug/ml	96
21) Nitrobenzene	10.30	77	8264	6.76	ug/ml	94
23) Isophorone	10.71	82	15704	7.72	ug/ml	99
24) 2-Nitrophenol	10.83	139	4240	6.19	ug/ml	88
25) 2,4-Dimethylphenol	10.96	122	6932	7.17	ug/ml	96
26) Bis(2-chloroethoxy)methane	11.11	93	8534	6.65	ug/ml	96
27) 2,4-Dichlorophenol	11.24	162	7664	7.24	ug/ml	94
28) Benzoic Acid	10.96	122	6932	14.36	ug/ml#	15
29) 1,2,4-Trichlorobenzene	11.37	180	8003	7.29	ug/ml	98
30) Naphthalene	11.48	128	22042	7.23	ug/ml	99
31) n-Dodecane	11.54	57	7215	7.62	ug/ml	97
32) 4-Chloroaniline	11.59	127	10499	7.69	ug/ml	97
33) Hexachlorobutadiene	11.73	225	5213	6.61	ug/ml	96
34) 4-Chloro-3-methylphenol	12.41	107	7451	7.73	ug/ml	92
35) 2-Methylnaphthalene	12.62	142	15683	7.57	ug/ml	98
37) Hexachlorocyclopentadiene	12.89	237	4872	4.76	ug/ml	100
38) 2,4,6-Trichlorophenol	13.10	196	5171	6.00	ug/ml	93
39) 2,4,5-Trichlorophenol	13.15	196	5864	6.31	ug/ml	96
41) 2-Chloronaphthalene	13.41	162	14976	6.55	ug/ml	99
42) 2-Nitroaniline	13.58	65	5269	7.70	ug/ml	80
43) Acenaphthylene	14.07	152	23366	7.11	ug/ml	100

Data File : J:\MS07\DATA\101719\1017F006.D
 Acq On : 17 Oct 2019 3:53 pm
 Sample : 8270/P ICAL @ 7.5ppm | SVM62-22F
 Misc :

Vial: 6
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 08:27:10 2019

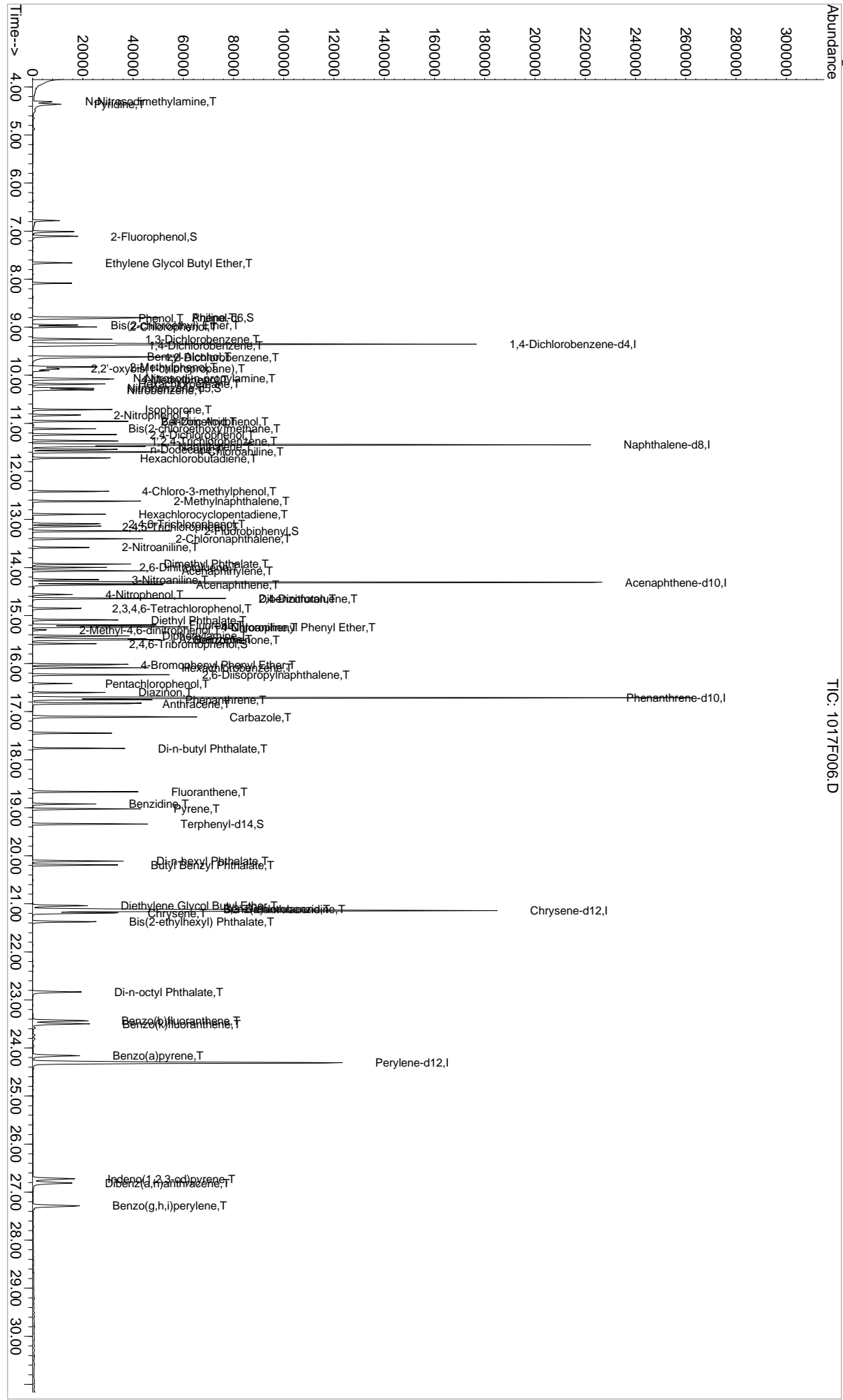
Quant Results File: 101719_BNP7.RES

Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44) Dimethyl Phthalate	13.93	163	18733	7.90	ug/ml	98
45) 2,6-Dinitrotoluene	14.00	165	4249	7.34	ug/ml	90
46) Acenaphthene	14.36	154	14524	7.46	ug/ml	97
47) 3-Nitroaniline	14.25	138	4406	7.34	ug/ml	94
49) Dibenzofuran	14.64	168	23822	7.72	ug/ml	93
50) 4-Nitrophenol	14.56	109	2590	5.66	ug/ml	89
51) 2,4-Dinitrotoluene	14.64	165	5312	7.34	ug/ml#	62
52) 2,3,4,6-Tetrachlorophenol	14.86	232	3604	5.26	ug/ml	91
53) Fluorene	15.20	166	18759	8.30	ug/ml	100
54) 4-Chlorophenyl Phenyl Ethe	15.24	204	9806	8.11	ug/ml	91
55) Diethyl Phthalate	15.09	149	17848	7.95	ug/ml	98
56) 4-Nitroaniline	15.24	138	4354	7.34	ug/ml	98
57) 2-Methyl-4,6-dinitrophenol	15.30	198	973	2.10	ug/ml#	53
58) Diphenylamine	15.42	169	13287	8.78	ug/ml	98
59) Azobenzene	15.48	51	9883m	7.58	ug/ml	
60) Benzophenone	15.50	105	18622	8.58	ug/ml	99
63) 4-Bromophenyl Phenyl Ether	16.03	248	6153	6.57	ug/ml	89
64) Hexachlorobenzene	16.09	284	8598	7.17	ug/ml	96
65) 2,6-Diisopropyl naphthalene	16.23	197	15348	6.95	ug/ml	98
66) Pentachlorophenol	16.41	266	2730	3.67	ug/ml	92
67) Diazinon	16.60	137	3394	6.26	ug/ml	97
68) Phenanthrene	16.75	178	25265	7.31	ug/ml	99
69) Anthracene	16.83	178	25504	7.13	ug/ml	98
70) Carbazole	17.11	167	21969	6.58	ug/ml	99
71) Di-n-butyl Phthalate	17.77	149	24194	5.65	ug/ml	99
72) Fluoranthene	18.67	202	22527	5.99	ug/ml	98
74) Benzidine	18.92	184	11585	7.78	ug/ml	98
75) Pyrene	19.02	202	22754	6.52	ug/ml	98
77) Di-n-hexyl Phthalate	20.11	149	23359	6.13	ug/ml	99
78) Butyl Benzyl Phthalate	20.19	149	10448	6.47	ug/ml	98
79) Diethylene Glycol Butyl Et	21.04	105	13542	5.73	ug/ml	97
80) 3,3'-Dichlorobenzidine	21.11	252	8722	5.80	ug/ml	97
81) Benzo(a)anthracene	21.11	228	19490	6.82	ug/ml	96
82) Chrysene	21.19	228	21286	7.27	ug/ml	96
83) Bis(2-ethylhexyl) Phthalat	21.37	149	12385	5.90	ug/ml	98
85) Di-n-octyl Phthalate	22.83	149	18980	5.63	ug/ml	99
86) Benzo(b)fluoranthene	23.44	252	19337	6.01	ug/ml	100
87) Benzo(k)fluoranthene	23.50	252	19529	6.57	ug/ml	99
90) Benzo(a)pyrene	24.16	252	17743	6.22	ug/ml	97
91) Indeno(1,2,3-cd)pyrene	26.72	276	17288	5.93	ug/ml	99
92) Dibenz(a,h)anthracene	26.81	278	17941	6.01	ug/ml	97
93) Benzo(g,h,i)perylene	27.29	276	19366	6.49	ug/ml	98

Data File : J:\MS07\DATA\101719\1017F006.D
Acq On : 17 Oct 2019 3:53 pm
Sample : 8270/P ICAL @ 7.5ppm | SVM62-22F
Misc :
MS Integration Params: RTEINT.P
Quant Results File: 101719_BNP7.RES
Vial: 6
Operator: CCONOVER/LM
Inst: MS07
Multiplr: 1.00

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
Title : BNA Calibration
Last Update : Fri Oct 18 09:20:51 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS07\DATA\101719\1017F006.D
 Acq On : 17 Oct 2019 3:53 pm
 Sample : 8270/P ICAL @ 7.5ppm | SVM62-22F
 Misc :

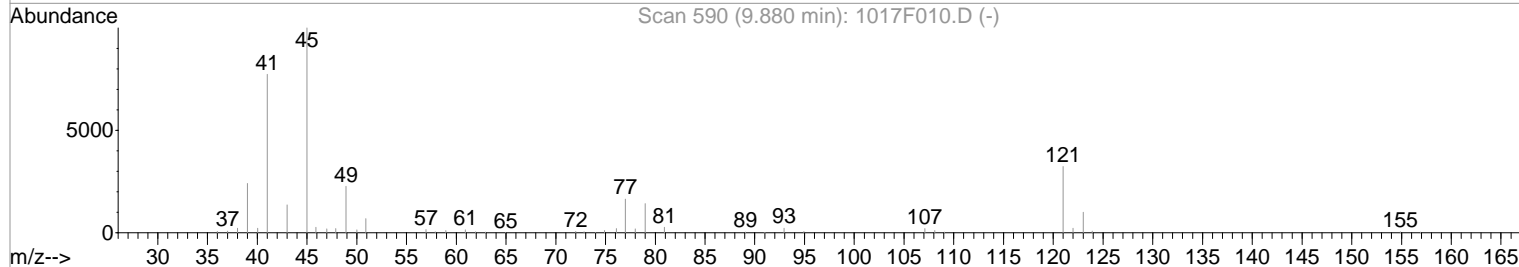
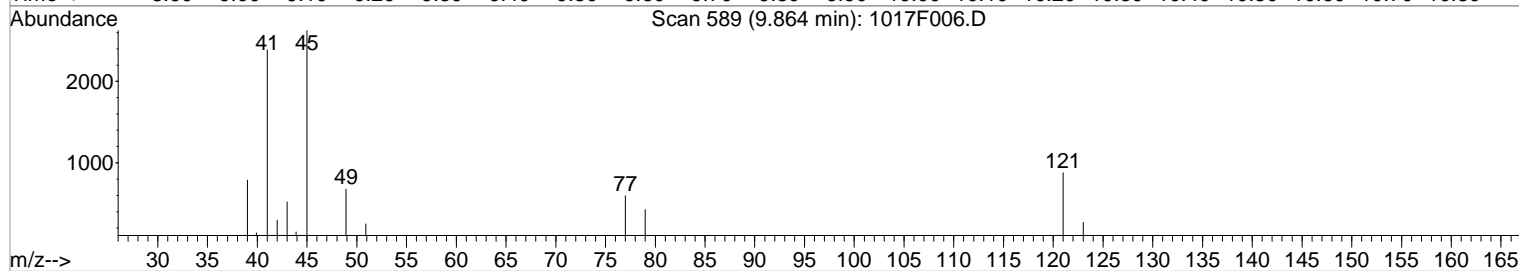
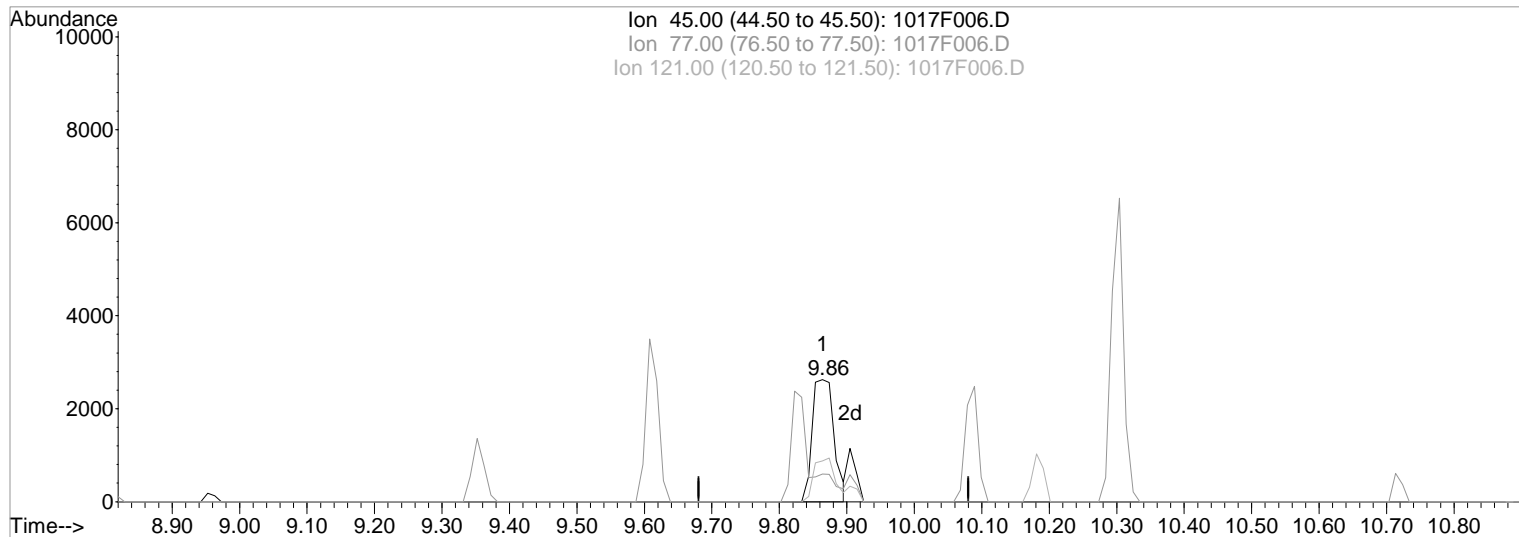
Vial: 6
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 8:27 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F006.D

(15) 2,2'-oxybis(1-chloropropane) (T)

Manual Integration:

9.86min 6.05ug/ml

Before

response 5907

Ion	Exp%	Act%
45.00	100	100
77.00	19.30	0.00
121.00	32.30	32.35
0.00	0.00	0.00

10/18/19

Data File : J:\MS07\DATA\101719\1017F006.D
 Acq On : 17 Oct 2019 3:53 pm
 Sample : 8270/P ICAL @ 7.5ppm | SVM62-22F
 Misc :

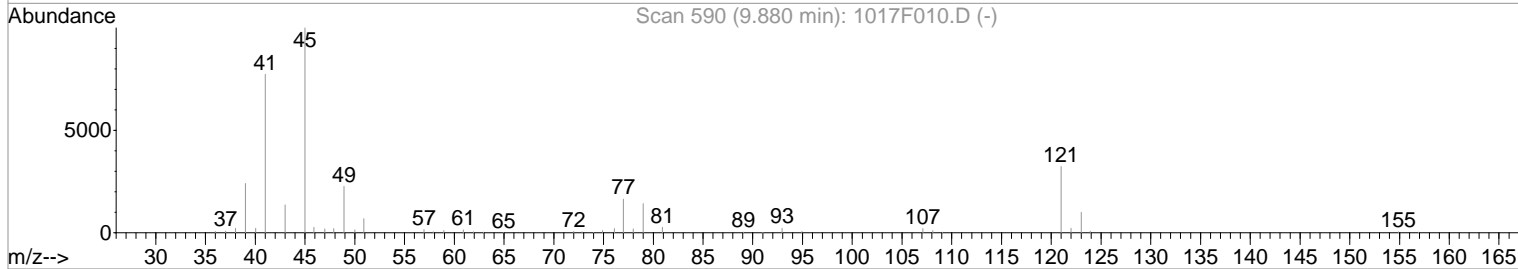
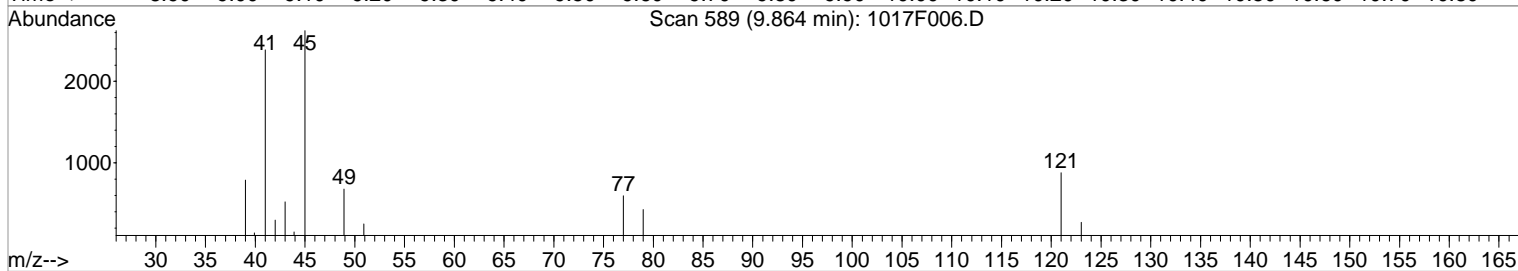
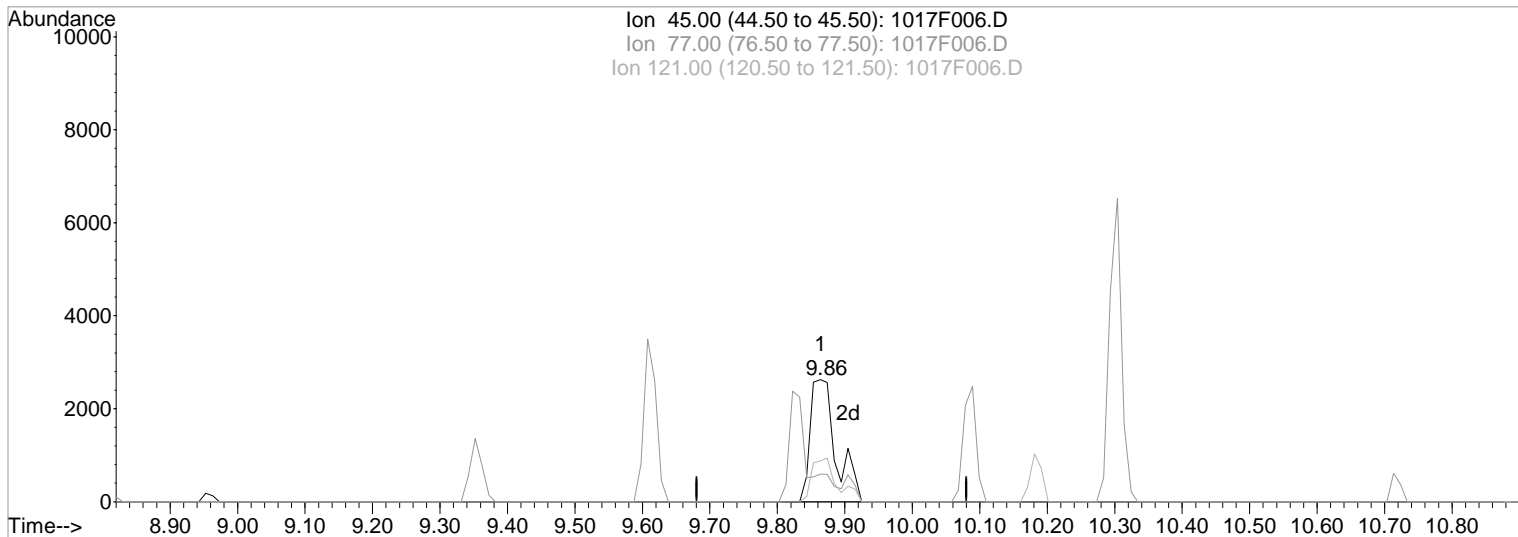
Vial: 6
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 8:45 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F006.D

(15) 2,2'-oxybis(1-chloropropane) (T)

Manual Integration:

9.86min 7.14ug/ml m

After

response 6967

IC - incomplete

Ion	Exp%	Act%
45.00	100	100
77.00	19.30	22.79
121.00	32.30	33.42
0.00	0.00	0.00

10/18/19

Data File : J:\MS07\DATA\101719\1017F006.D
 Acq On : 17 Oct 2019 3:53 pm
 Sample : 8270/P ICAL @ 7.5ppm | SVM62-22F
 Misc :

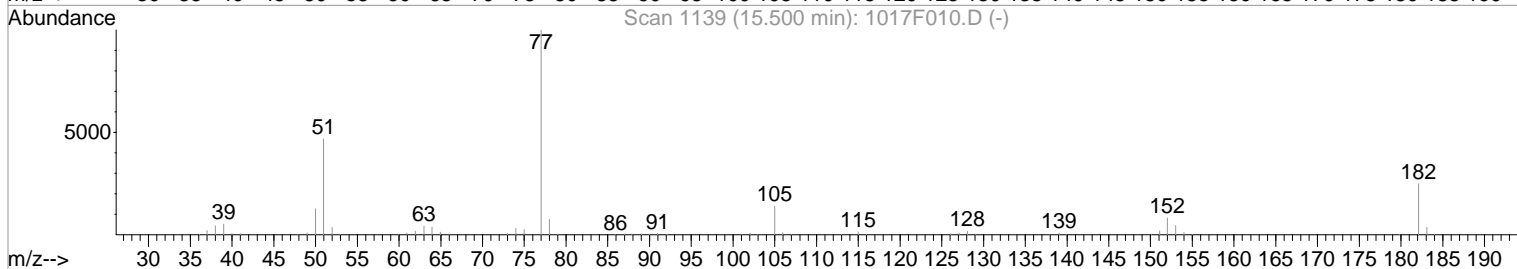
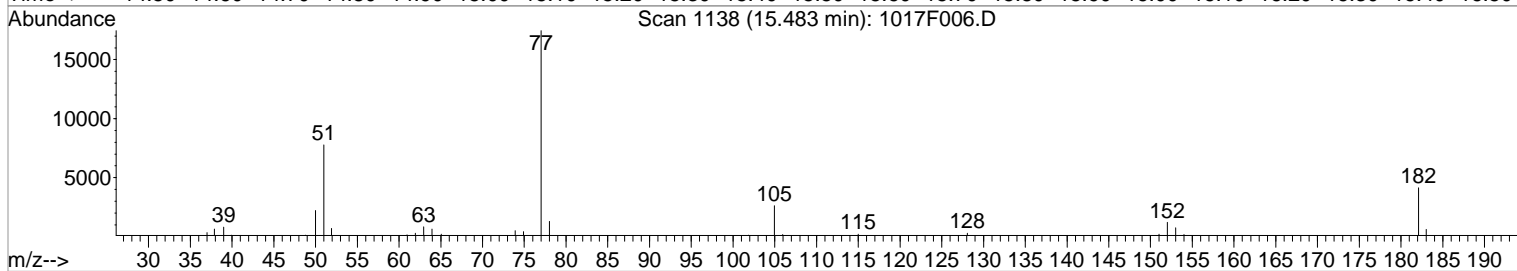
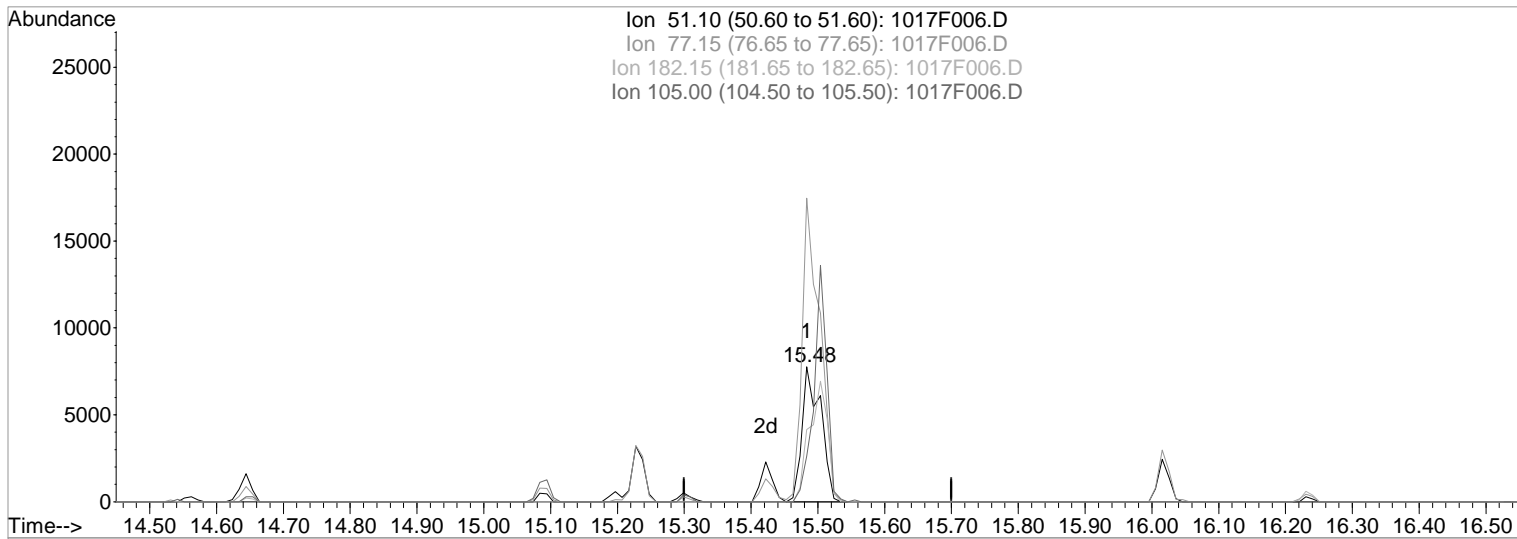
Vial: 6
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 8:47 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F006.D

(59) Azobenzene (T)

Manual Integration:

15.48min 11.63ug/ml
 response 15162

Before

Ion	Exp%	Act%
51.10	100	100
77.15	213.80	224.11
182.15	52.80	53.37
105.00	29.60	33.73

10/18/19

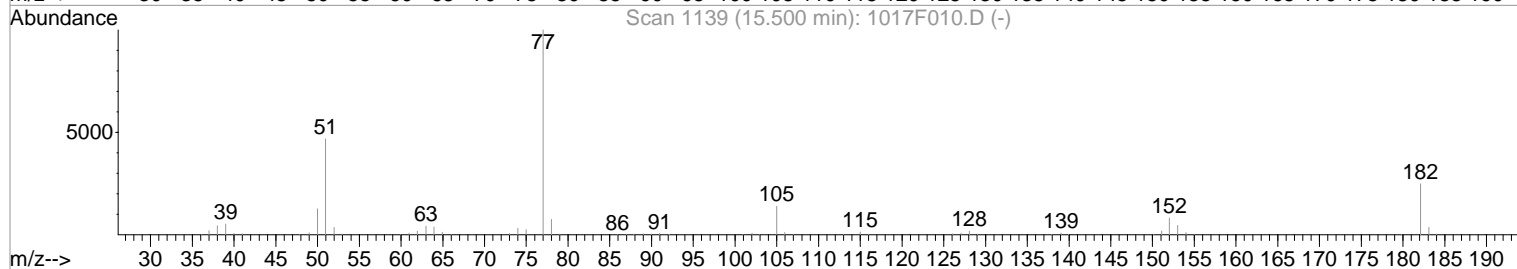
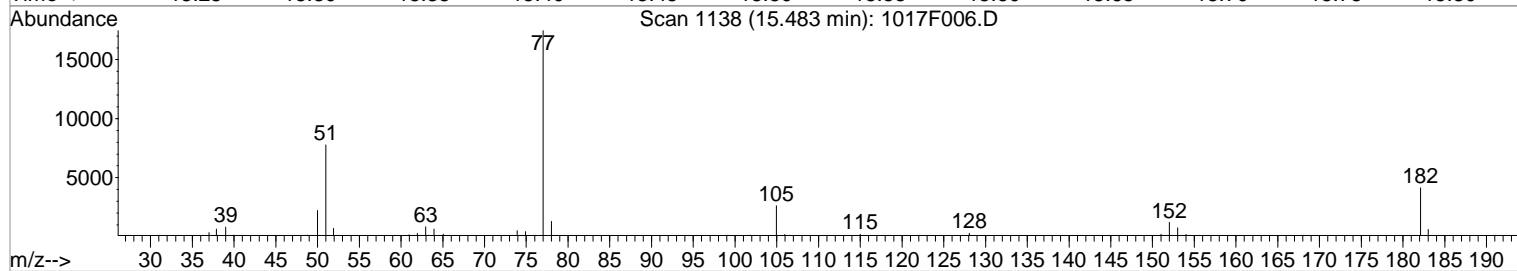
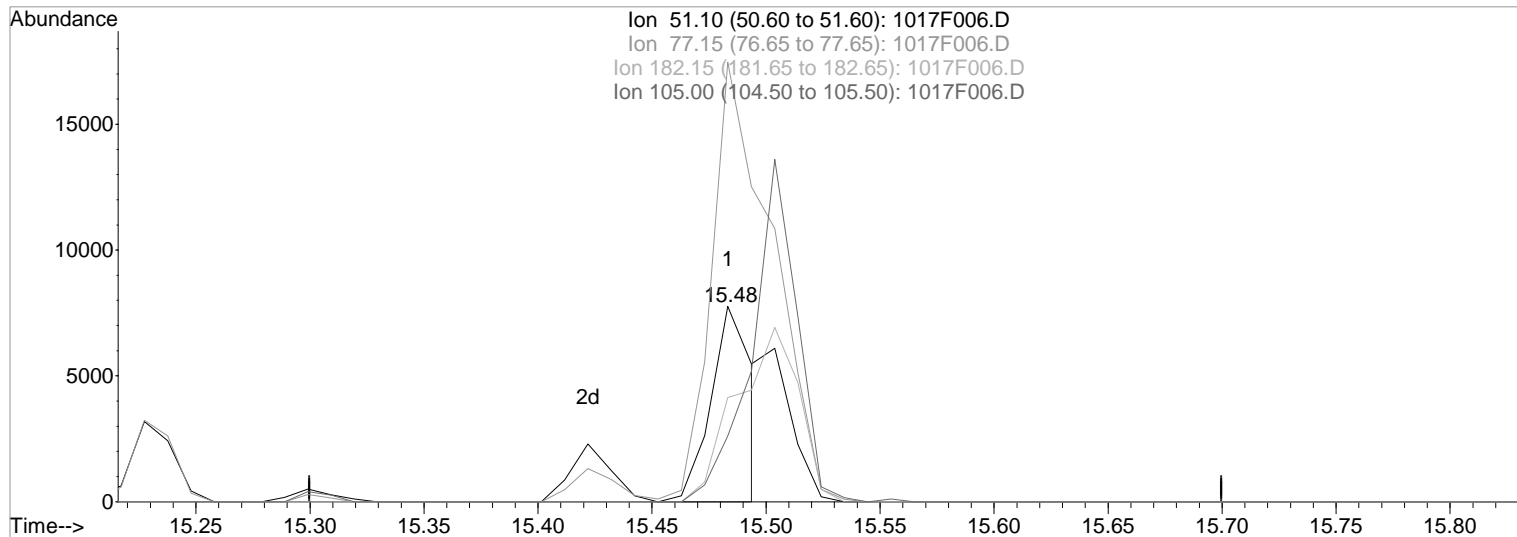
Data File : J:\MS07\DATA\101719\1017F006.D
 Acq On : 17 Oct 2019 3:53 pm
 Sample : 8270/P ICAL @ 7.5ppm | SVM62-22F
 Misc :

Vial: 6
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 8:48 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F006.D

(59) Azobenzene (T)

Manual Integration:

15.48min 7.58ug/ml m
 response 9883

After
 IC - overintegrated

Ion	Exp%	Act%
51.10	100	100
77.15	213.80	224.85
182.15	52.80	53.37
105.00	29.60	33.73

10/18/19

Data File : J:\MS07\DATA\101719\1017F007.D
 Acq On : 17 Oct 2019 4:35 pm
 Sample : 8270/P ICAL @ 10ppm | SVM62-22G
 Misc :

Vial: 7
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 08:27:11 2019

Quant Results File: 101719_BNP7.RES

Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.35	152	34325	40.00	ug/ml	0.00
22) Naphthalene-d8	11.45	136	129199	40.00	ug/ml	0.00
36) Acenaphthene-d10	14.32	164	76951	40.00	ug/ml	0.00
61) Phenanthrene-d10	16.71	188	130096	40.00	ug/ml	-0.02
73) Chrysene-d12	21.14	240	107646	40.00	ug/ml	-0.02
84) Perylene-d12	24.31	264	110088	40.00	ug/ml	-0.03

System Monitoring Compounds

4) 2-Fluorophenol	7.11	112	10937	10.09	ug/ml	-0.03
Spiked Amount	150.000	Range	21 - 100	Recovery	=	6.73%#
8) Phenol-d6	8.80	99	12928	9.33	ug/ml	-0.05
Spiked Amount	150.000	Range	10 - 94	Recovery	=	6.22%#
20) Nitrobenzene-d5	10.27	82	13064	9.13	ug/ml	-0.02
Spiked Amount	100.000	Range	35 - 114	Recovery	=	9.13%#
40) 2-Fluorobiphenyl	13.24	172	27157	8.87	ug/ml	-0.02
Spiked Amount	100.000	Range	43 - 116	Recovery	=	8.87%#
62) 2,4,6-Tribromophenol	15.59	330	6983	7.73	ug/ml	-0.03
Spiked Amount	150.000	Range	10 - 123	Recovery	=	5.15%#
76) Terphenyl-d14	19.34	244	28630	8.89	ug/ml	-0.02
Spiked Amount	100.000	Range	33 - 141	Recovery	=	8.89%#

Target Compounds

					Qvalue
2) N-Nitrosodimethylamine	4.31	42	7580	9.47	ug/ml 99
3) Pyridine	4.36	79	11214	10.59	ug/ml 99
5) Ethylene Glycol Butyl Ethe	7.66	57	8843	10.23	ug/ml 96
6) Aniline	8.80	93	15216m	10.05	ug/ml
7) Bis(2-chloroethyl) Ether	8.95	93	10286	9.91	ug/ml 95
9) Phenol	8.82	94	13704	9.71	ug/ml 94
10) 2-Chlorophenol	8.99	128	11170	9.22	ug/ml 99
11) 1,3-Dichlorobenzene	9.25	146	12147	9.70	ug/ml 98
12) 1,4-Dichlorobenzene	9.38	146	12824	9.73	ug/ml 97
13) 1,2-Dichlorobenzene	9.63	146	11708	9.53	ug/ml 98
14) Benzyl Alcohol	9.61	108	7063	9.46	ug/ml 98
15) 2,2'-oxybis(1-chloropropan	9.86	45	9478m	9.58	ug/ml
16) 2-Methylphenol	9.83	107	8089	8.70	ug/ml 92
17) Hexachloroethane	10.18	117	5826	9.62	ug/ml 93
18) N-Nitrosodi-n-propylamine	10.07	70	7723	9.95	ug/ml 95
19) 4-Methylphenol	10.09	107	13422	9.61	ug/ml 98
21) Nitrobenzene	10.30	77	11212	9.05	ug/ml 97
23) Isophorone	10.71	82	21281	10.32	ug/ml 99
24) 2-Nitrophenol	10.84	139	6198	8.93	ug/ml 97
25) 2,4-Dimethylphenol	10.96	122	9210	9.40	ug/ml 96
26) Bis(2-chloroethoxy)methane	11.11	93	12474	9.60	ug/ml 100
27) 2,4-Dichlorophenol	11.24	162	10350	9.65	ug/ml 97
28) Benzoic Acid	11.06	122	879m	1.80	ug/ml
29) 1,2,4-Trichlorobenzene	11.37	180	11128	10.00	ug/ml 96
30) Naphthalene	11.48	128	30460	9.86	ug/ml 99
31) n-Dodecane	11.54	57	10595	11.04	ug/ml 96
32) 4-Chloroaniline	11.59	127	14808	10.71	ug/ml 98
33) Hexachlorobutadiene	11.73	225	7409	9.28	ug/ml 95
34) 4-Chloro-3-methylphenol	12.41	107	10347	10.59	ug/ml 94
35) 2-Methylnaphthalene	12.62	142	22058	10.50	ug/ml 99
37) Hexachlorocyclopentadiene	12.89	237	7281	7.04	ug/ml 99
38) 2,4,6-Trichlorophenol	13.10	196	7637	8.77	ug/ml 97
39) 2,4,5-Trichlorophenol	13.15	196	8097	8.62	ug/ml 99
41) 2-Chloronaphthalene	13.41	162	20524	8.88	ug/ml 98
42) 2-Nitroaniline	13.59	65	7011	10.13	ug/ml 96
43) Acenaphthylene	14.07	152	31644	9.53	ug/ml 98

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS07\DATA\101719\1017F007.D
 Acq On : 17 Oct 2019 4:35 pm
 Sample : 8270/P ICAL @ 10ppm | SVM62-22G
 Misc :

Vial: 7
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 08:27:11 2019

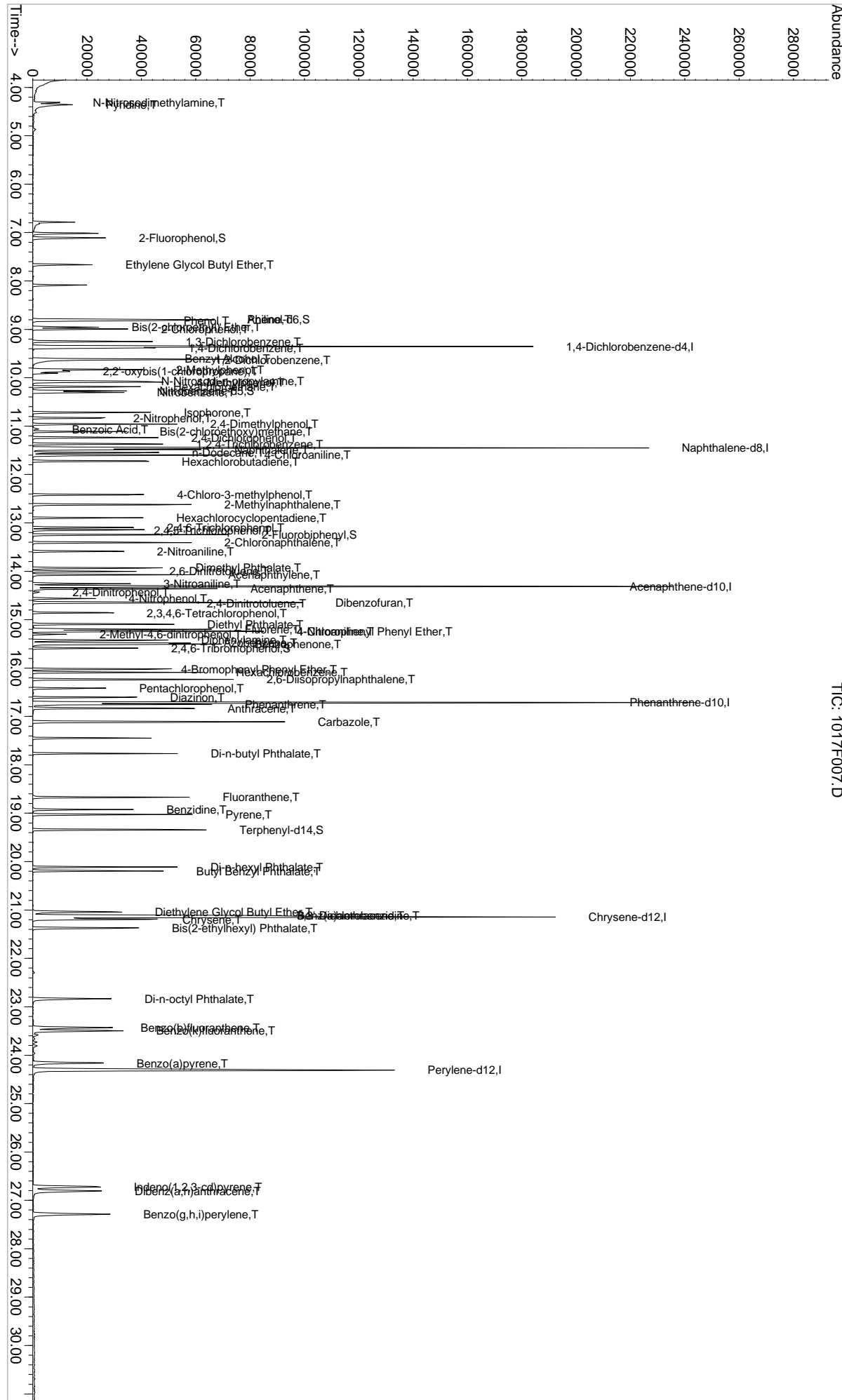
Quant Results File: 101719_BNP7.RES

Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44) Dimethyl Phthalate	13.93	163	24753	10.33	ug/ml	98
45) 2,6-Dinitrotoluene	14.00	165	5680	9.71	ug/ml	89
46) Acenaphthene	14.36	154	20171	10.26	ug/ml	95
47) 3-Nitroaniline	14.26	138	6368	10.50	ug/ml	98
48) 2,4-Dinitrophenol	14.43	184	439	1.43	ug/ml	87
49) Dibenzofuran	14.64	168	31778	10.19	ug/ml	97
50) 4-Nitrophenol	14.56	109	3702	8.00	ug/ml	91
51) 2,4-Dinitrotoluene	14.66	165	7315	10.00	ug/ml	88
52) 2,3,4,6-Tetrachlorophenol	14.86	232	5490	7.92	ug/ml	99
53) Fluorene	15.20	166	24249	10.61	ug/ml	100
54) 4-Chlorophenyl Phenyl Et	15.24	204	12841	10.51	ug/ml	92
55) Diethyl Phthalate	15.10	149	24341	10.72	ug/ml	99
56) 4-Nitroaniline	15.24	138	5617	9.37	ug/ml	89
57) 2-Methyl-4,6-dinitrophenol	15.30	198	2188	4.68	ug/ml#	57
58) Diphenylamine	15.42	169	17555	11.48	ug/ml	97
59) Azobenzene	15.48	51	12912m	9.80	ug/ml	
60) Benzophenone	15.50	105	25280	11.52	ug/ml	97
63) 4-Bromophenyl Phenyl Ether	16.03	248	8677	9.39	ug/ml	89
64) Hexachlorobenzene	16.09	284	11614	9.81	ug/ml	96
65) 2,6-Diisopropyl naphthalene	16.23	197	21054	9.65	ug/ml	99
66) Pentachlorophenol	16.42	266	4419	6.03	ug/ml	98
67) Diazinon	16.60	137	4209	7.86	ug/ml	94
68) Phenanthrene	16.75	178	33461	9.80	ug/ml	98
69) Anthracene	16.84	178	35137	9.95	ug/ml	99
70) Carbazole	17.11	167	28784	8.74	ug/ml	97
71) Di-n-butyl Phthalate	17.77	149	31999	7.57	ug/ml	99
72) Fluoranthene	18.67	202	31290	8.43	ug/ml	99
74) Benzidine	18.92	184	16505	11.06	ug/ml	98
75) Pyrene	19.03	202	31410	8.99	ug/ml	99
77) Di-n-hexyl Phthalate	20.11	149	33175	8.69	ug/ml	98
78) Butyl Benzyl Phthalate	20.19	149	14744	9.11	ug/ml	94
79) Diethylene Glycol Butyl Et	21.04	105	19917	8.41	ug/ml	97
80) 3,3'-Dichlorobenzidine	21.11	252	12535	8.32	ug/ml	99
81) Benz(a)anthracene	21.11	228	27251	9.52	ug/ml	100
82) Chrysene	21.20	228	28958	9.87	ug/ml	100
83) Bis(2-ethylhexyl) Phthalat	21.37	149	17989	8.55	ug/ml	97
85) Di-n-octyl Phthalate	22.83	149	27220	7.90	ug/ml	99
86) Benzo(b)fluoranthene	23.44	252	26411	8.02	ug/ml	98
87) Benzo(k)fluoranthene	23.50	252	26720	8.80	ug/ml	99
90) Benzo(a)pyrene	24.16	252	24633	8.44	ug/ml	99
91) Indeno(1,2,3-cd)pyrene	26.72	276	26230	8.81	ug/ml	97
92) Dibenz(a,h)anthracene	26.81	278	25789	8.45	ug/ml	98
93) Benzo(g,h,i)perylene	27.29	276	28655	9.39	ug/ml	99

Data File : J:\MS07\DATA\101719\1017F007.D
Acq On : 17 Oct 2019 4:35 pm
Sample : 8270/P ICAL @ 10ppm | SVM62-22G
Misc :
MS Integration Params: RTEINT.P
Quant Results File: 101719_BNP7.RES
Vial: 7
Operator: CCONOVER/LM
Inst: MS07
Multiplr: 1.00

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
Last Update : Fri Oct 18 09:20:51 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

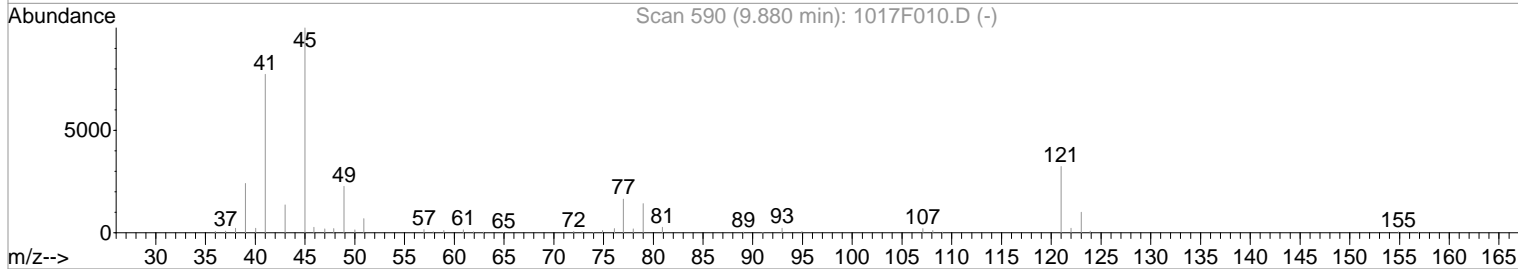
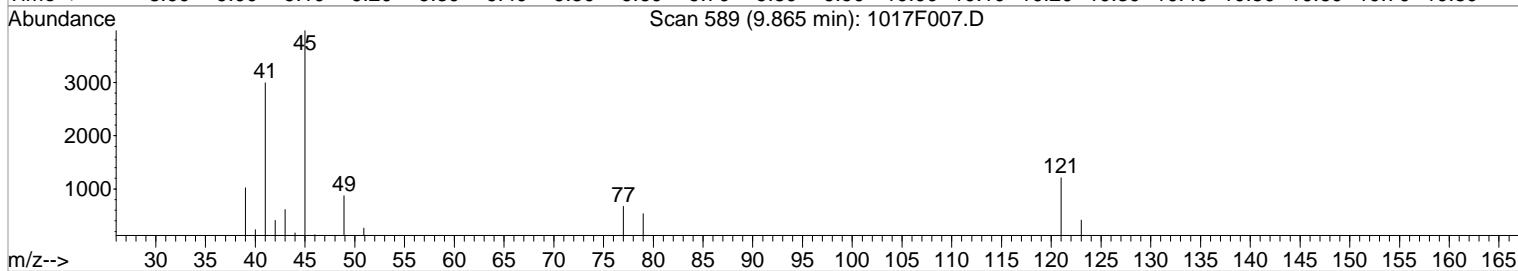
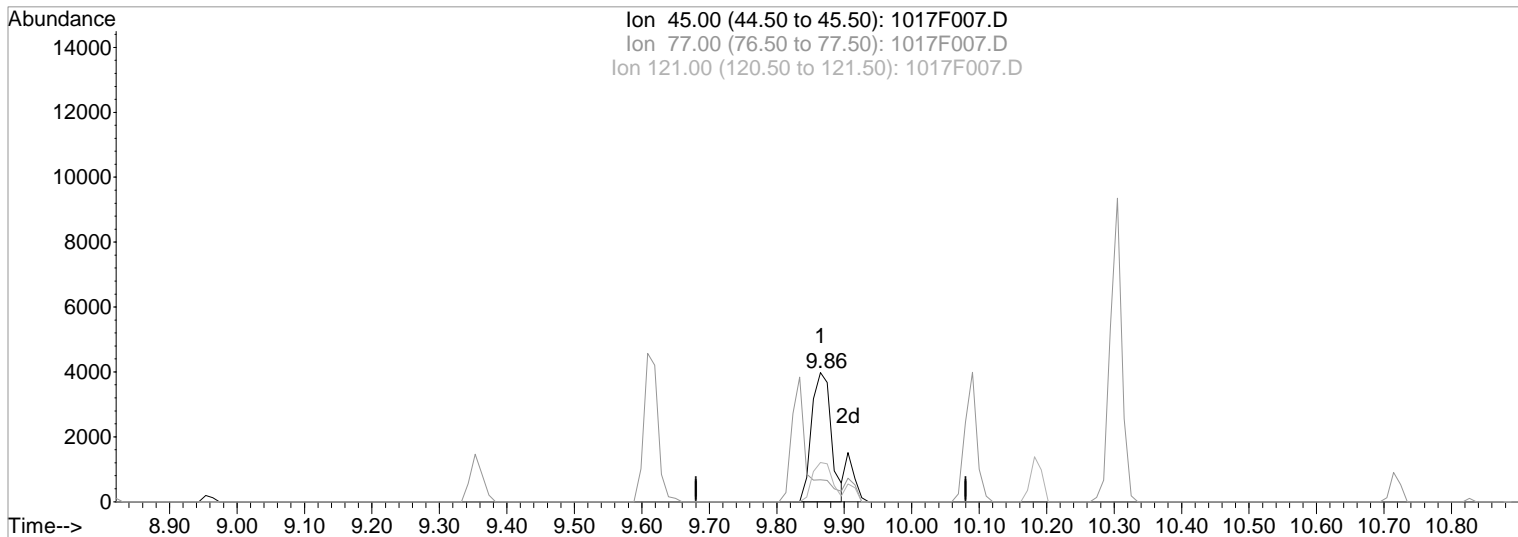
Data File : J:\MS07\DATA\101719\1017F007.D
 Acq On : 17 Oct 2019 4:35 pm
 Sample : 8270/P ICAL @ 10ppm | SVM62-22G
 Misc :

Vial: 7
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 8:49 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F007.D

(15) 2,2'-oxybis(1-chloropropane) (T)

Manual Integration:

9.86min 8.13ug/ml

Before

response 8038

Ion	Exp%	Act%
45.00	100	100
77.00	19.30	0.00
121.00	32.30	30.36
0.00	0.00	0.00

10/18/19

Data File : J:\MS07\DATA\101719\1017F007.D
 Acq On : 17 Oct 2019 4:35 pm
 Sample : 8270/P ICAL @ 10ppm | SVM62-22G
 Misc :

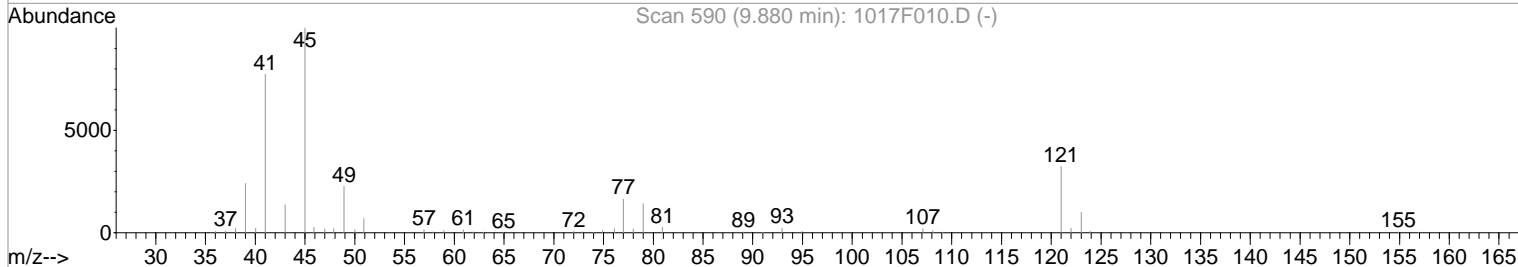
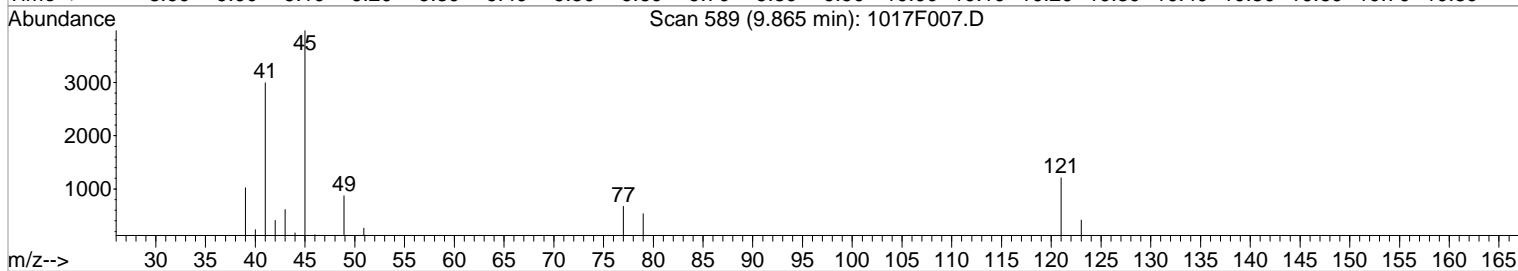
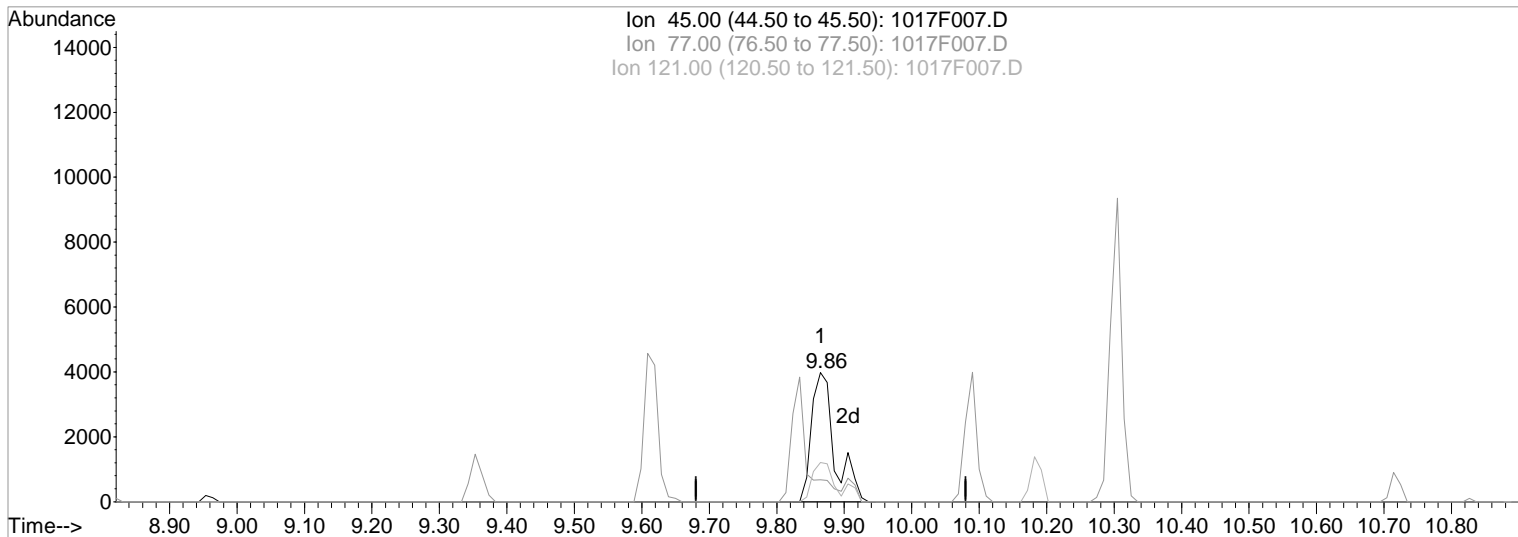
Vial: 7
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 8:50 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F007.D

(15) 2,2'-oxybis(1-chloropropane) (T)

Manual Integration:

9.86min 9.58ug/ml m

After

response 9478

IC - incomplete

Ion	Exp%	Act%
45.00	100	100
77.00	19.30	16.90
121.00	32.30	30.36
0.00	0.00	0.00

10/18/19

Data File : J:\MS07\DATA\101719\1017F007.D
 Acq On : 17 Oct 2019 4:35 pm
 Sample : 8270/P ICAL @ 10ppm | SVM62-22G
 Misc :

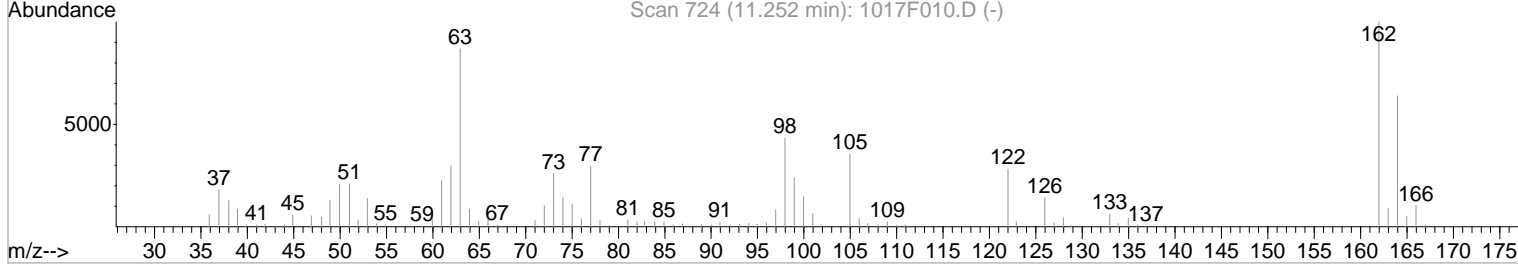
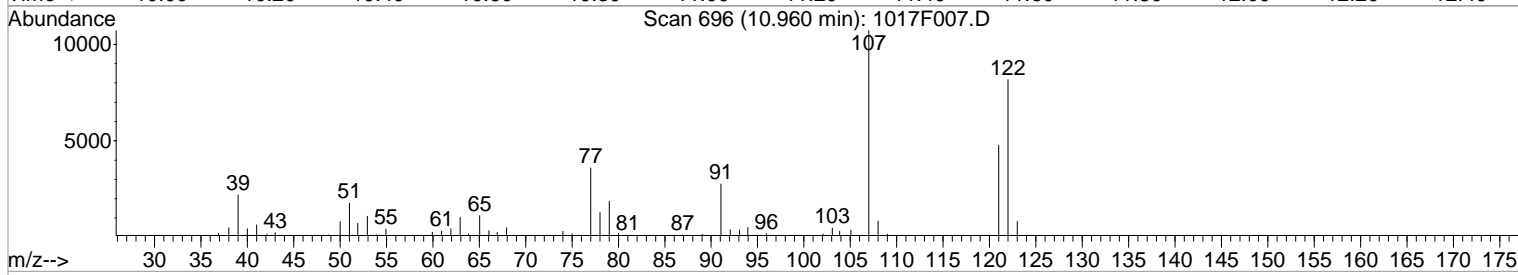
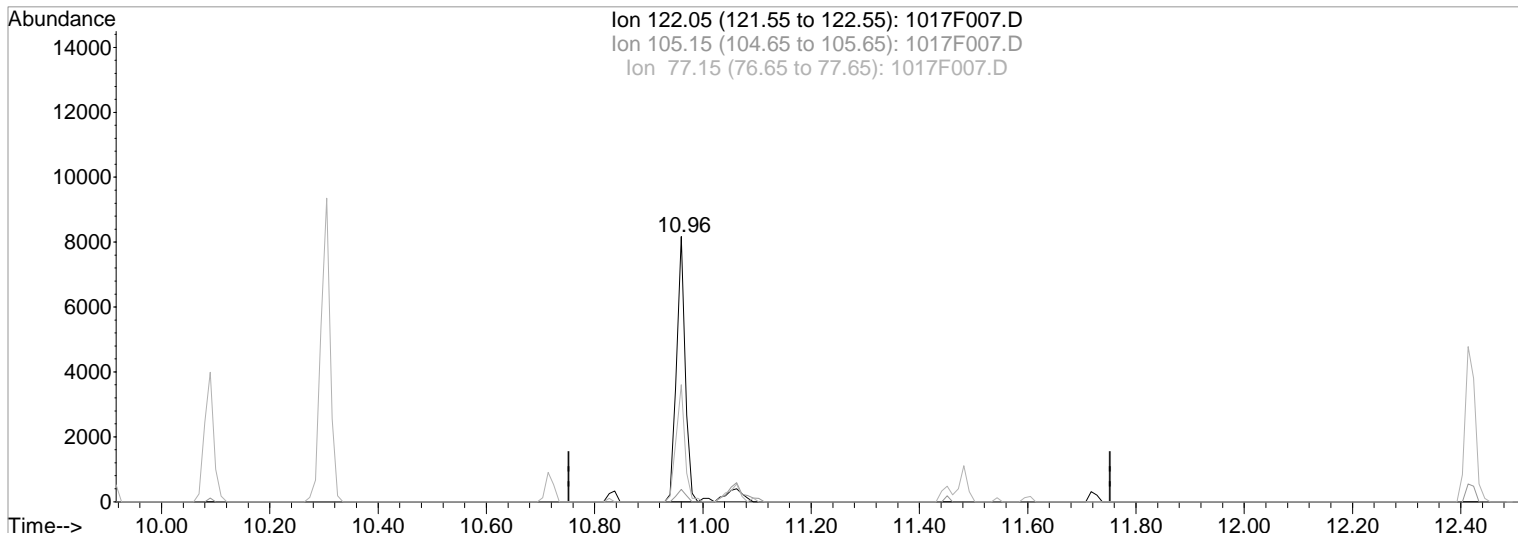
Vial: 7
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 8:50 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F007.D

(28) Benzoic Acid (T)

Manual Integration:

10.96min 18.84ug/ml

Before

response 9212

Ion Exp% Act%

10/18/19

122.05 100 100

105.15 123.50 4.69#

77.15 104.20 44.06#

0.00 0.00 0.00

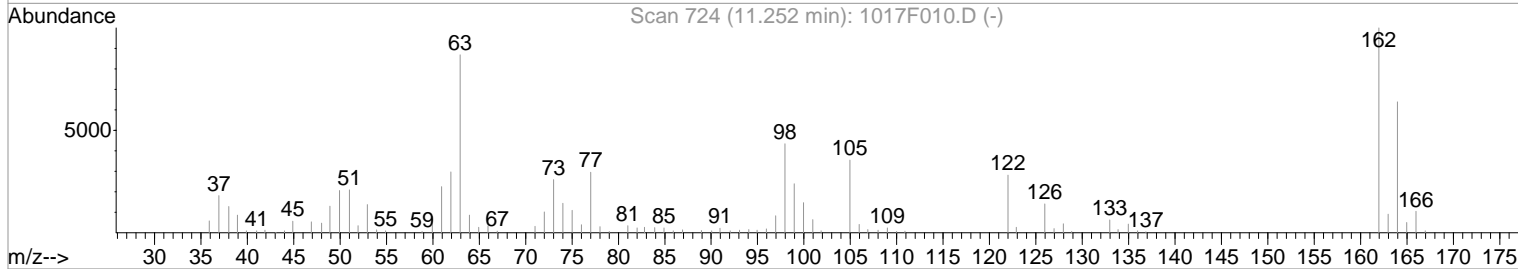
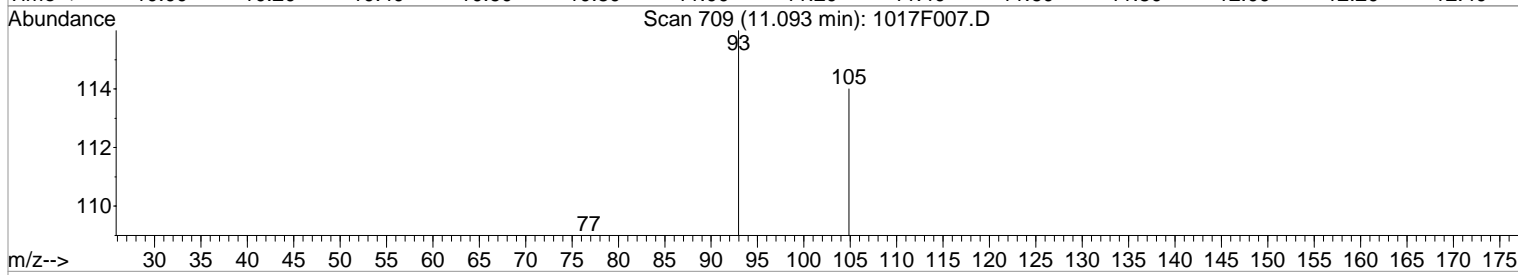
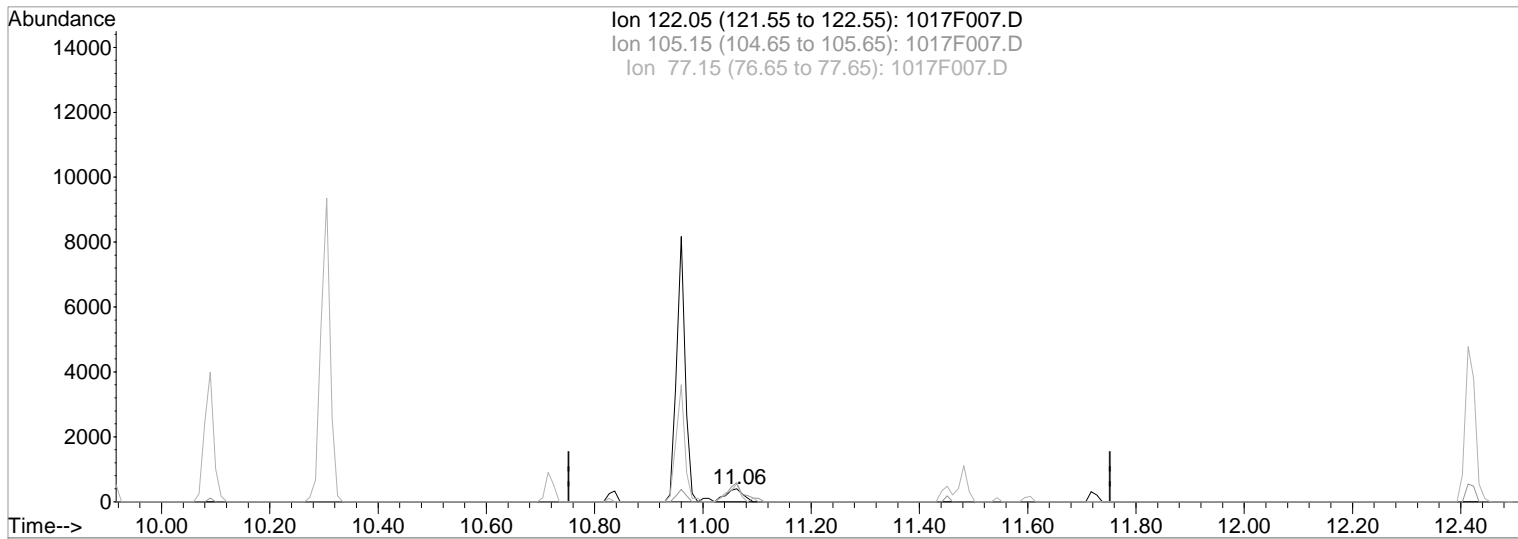
Data File : J:\MS07\DATA\101719\1017F007.D
 Acq On : 17 Oct 2019 4:35 pm
 Sample : 8270/P ICAL @ 10ppm | SVM62-22G
 Misc :

Vial: 7
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 8:50 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F007.D

(28) Benzoic Acid (T)

Manual Integration:

11.06min 1.80ug/ml m
 response 879

After
 Wrong peak

Ion	Exp%	Act%
122.05	100	100
105.15	123.50	145.41
77.15	104.20	135.48#
0.00	0.00	0.00

10/18/19

Data File : J:\MS07\DATA\101719\1017F007.D
 Acq On : 17 Oct 2019 4:35 pm
 Sample : 8270/P ICAL @ 10ppm | SVM62-22G
 Misc :

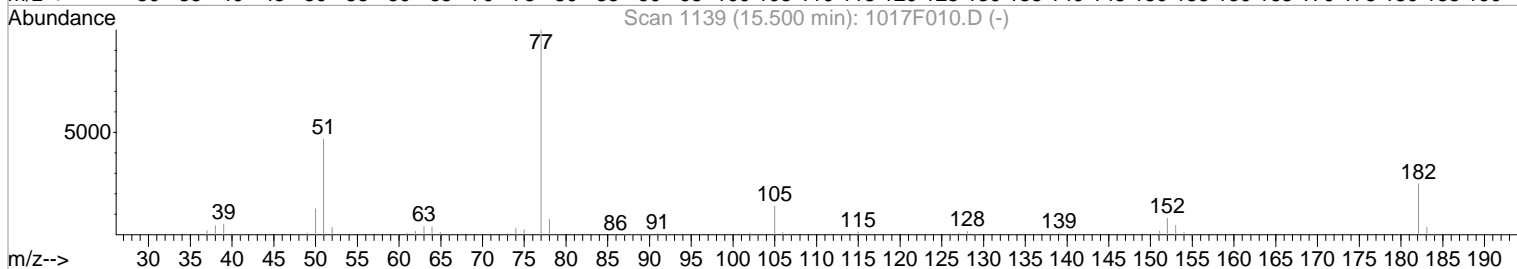
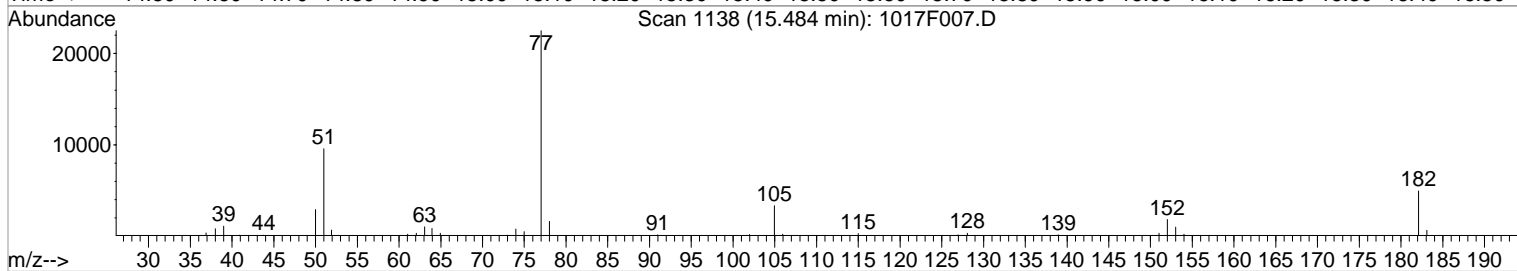
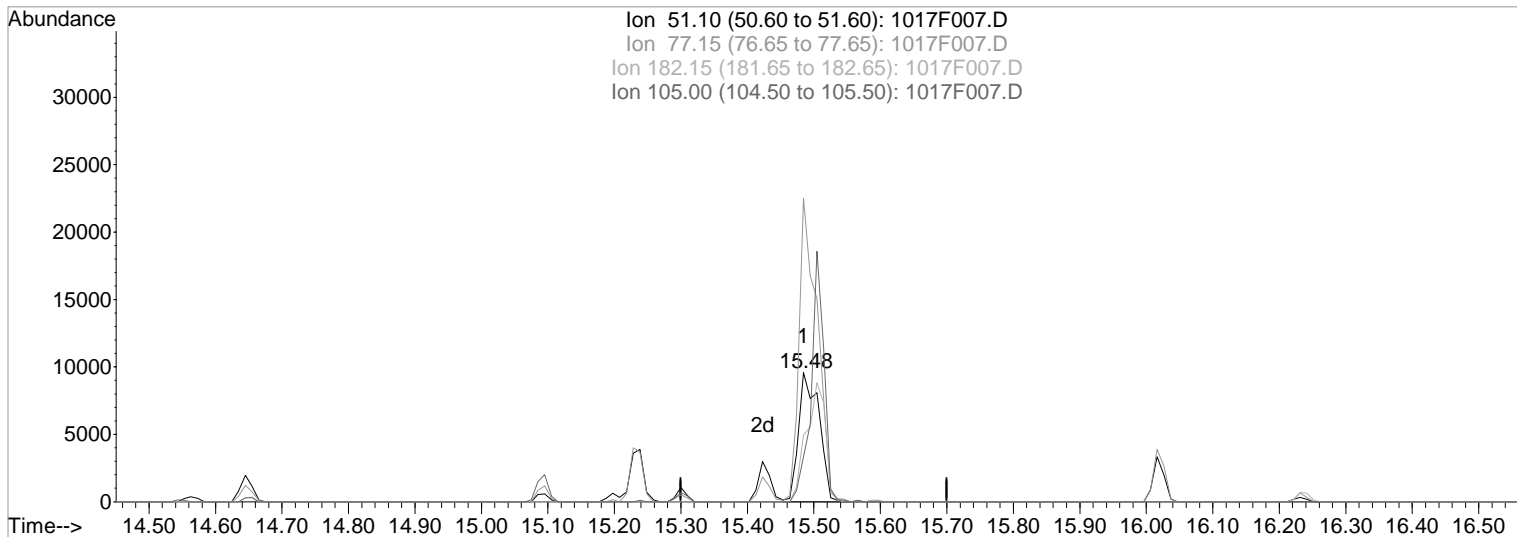
Vial: 7
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 8:50 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F007.D

(59) Azobenzene (T)

Manual Integration:

15.48min 15.52ug/ml

Before

response 20461

Ion Exp% Act%

10/18/19

51.10 100 100

77.15 213.80 236.15

182.15 52.80 51.94

105.00 29.60 35.02

Data File : J:\MS07\DATA\101719\1017F007.D
 Acq On : 17 Oct 2019 4:35 pm
 Sample : 8270/P ICAL @ 10ppm | SVM62-22G
 Misc :

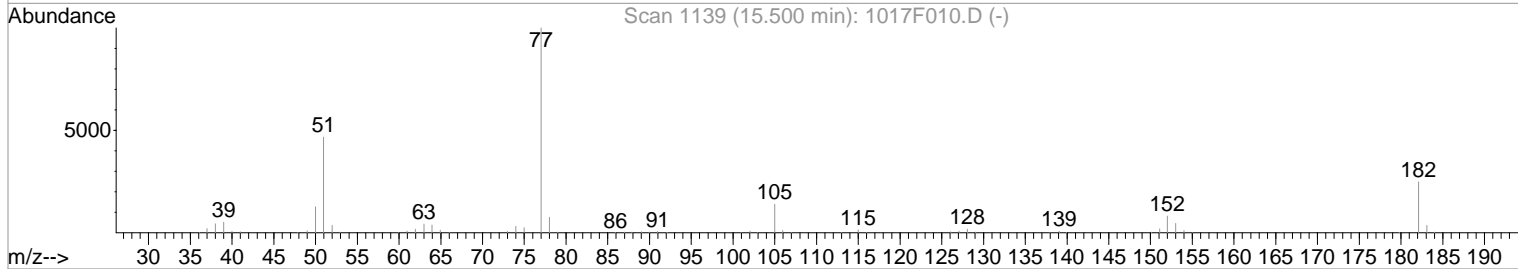
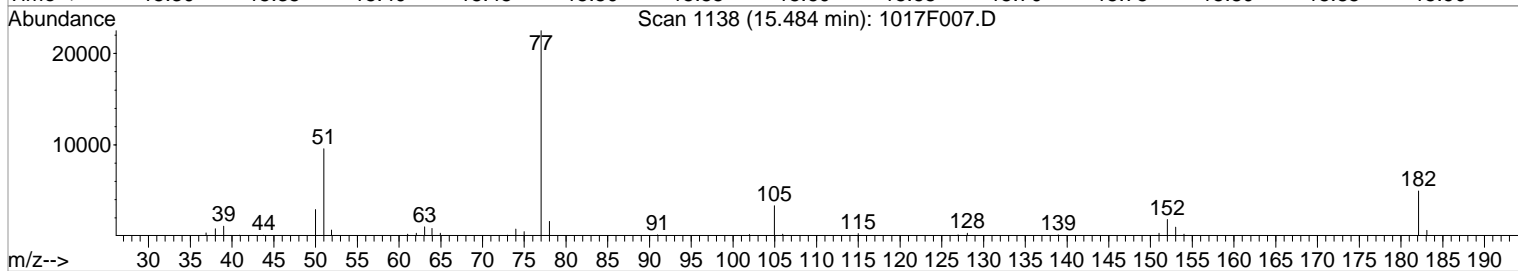
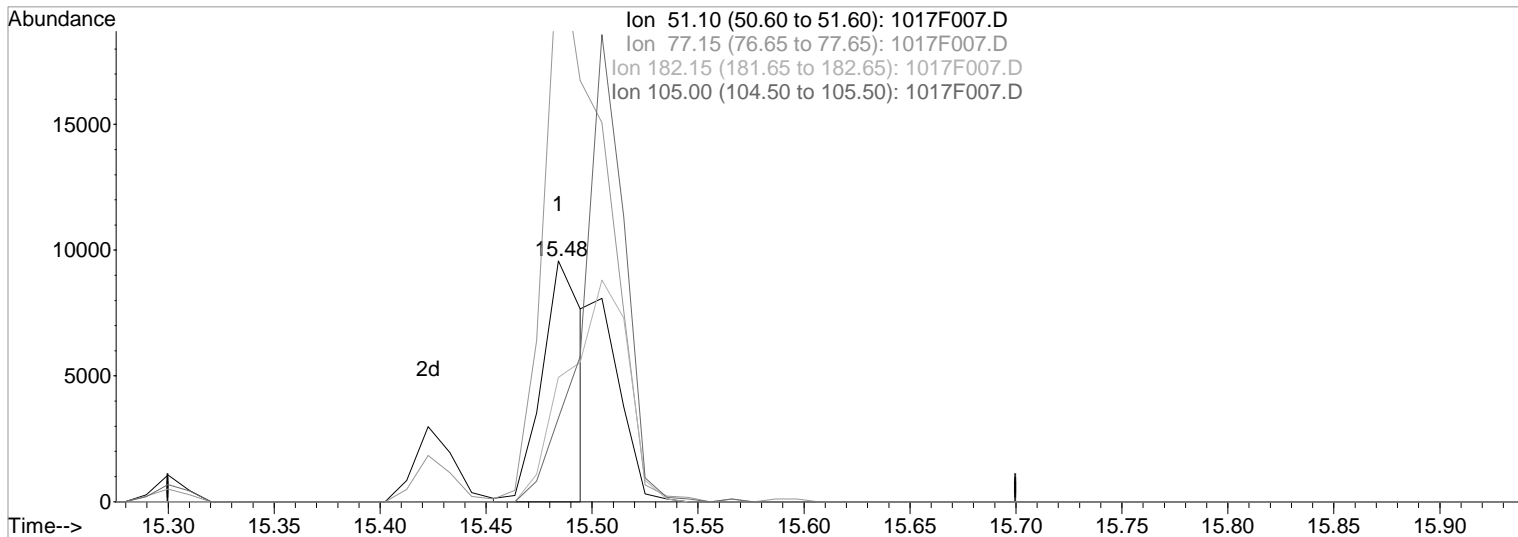
Vial: 7
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 8:52 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F007.D

(59) Azobenzene (T)

Manual Integration:

15.48min 9.80ug/ml m

After

response 12912

IC - overintegrated

Ion Exp% Act%

10/18/19

51.10 100 100

77.15 213.80 235.06

182.15 52.80 51.58

105.00 29.60 34.78

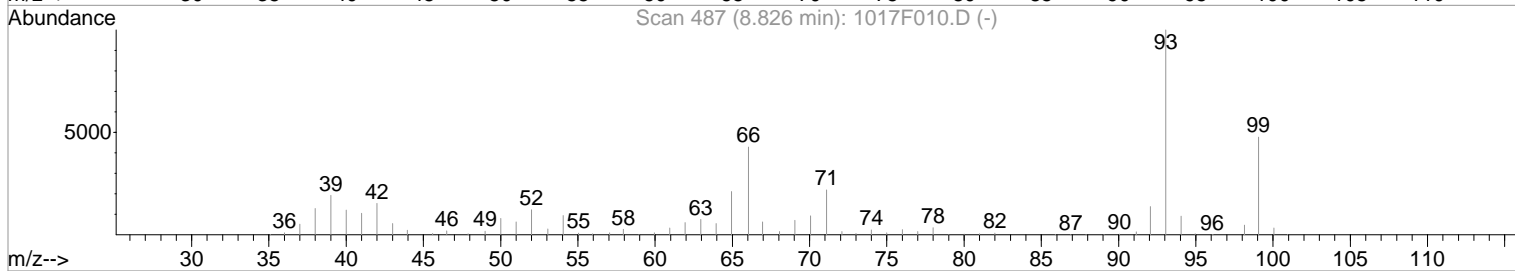
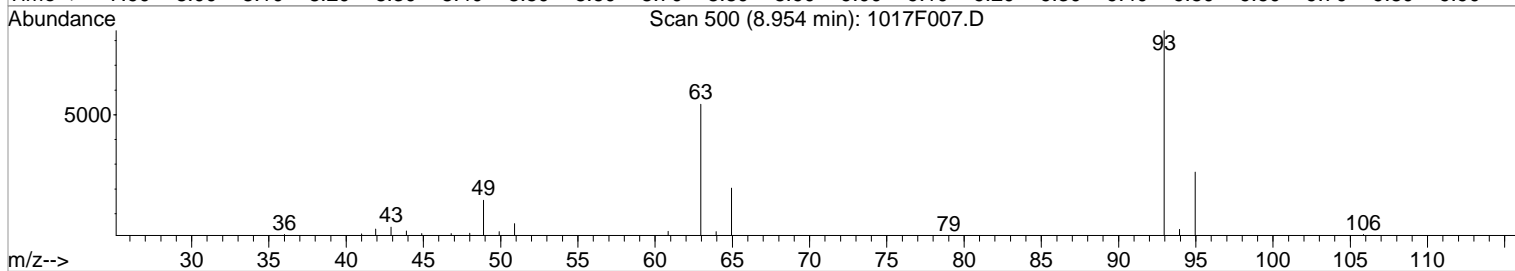
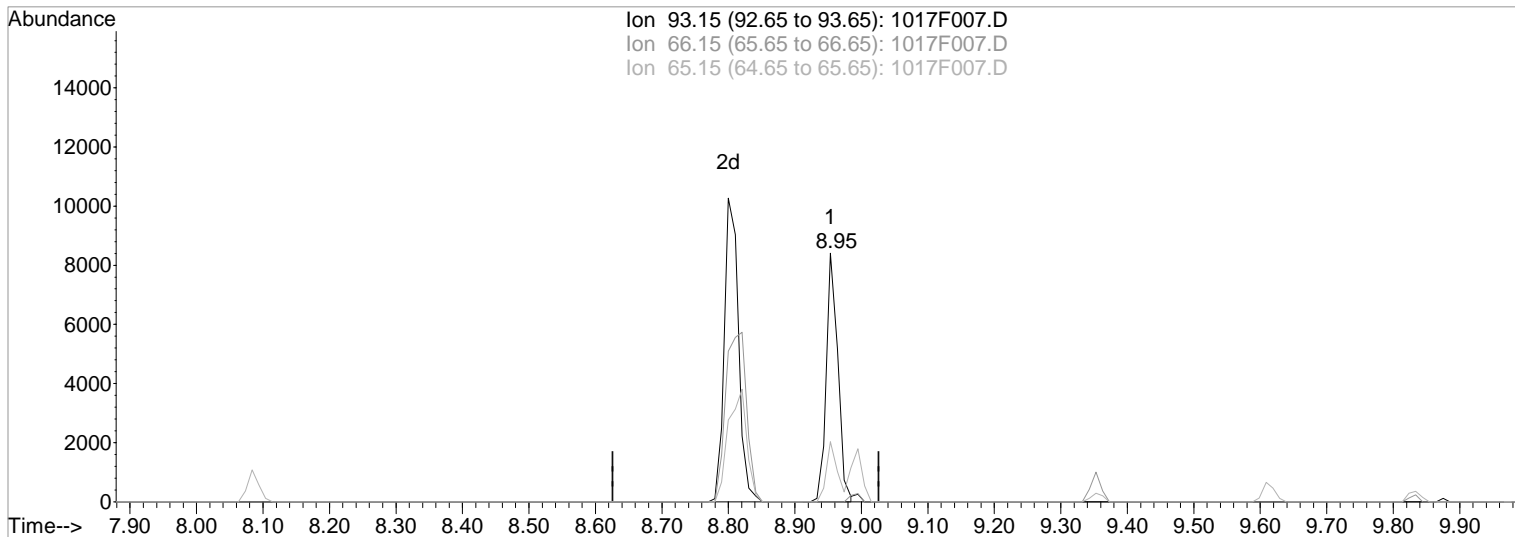
Data File : J:\MS07\DATA\101719\1017F007.D
 Acq On : 17 Oct 2019 4:35 pm
 Sample : 8270/P ICAL @ 10ppm | SVM62-22G
 Misc :

Vial: 7
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 8:27 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F007.D

(6) Aniline (T)

Manual Integration:

8.95min 6.69ug/ml

Before

response 10127

Ion	Exp%	Act%
93.15	100	100
66.15	17.40	0.00
65.15	4.40	17.57
0.00	0.00	0.00

10/18/19

Data File : J:\MS07\DATA\101719\1017F007.D
 Acq On : 17 Oct 2019 4:35 pm
 Sample : 8270/P ICAL @ 10ppm | SVM62-22G
 Misc :

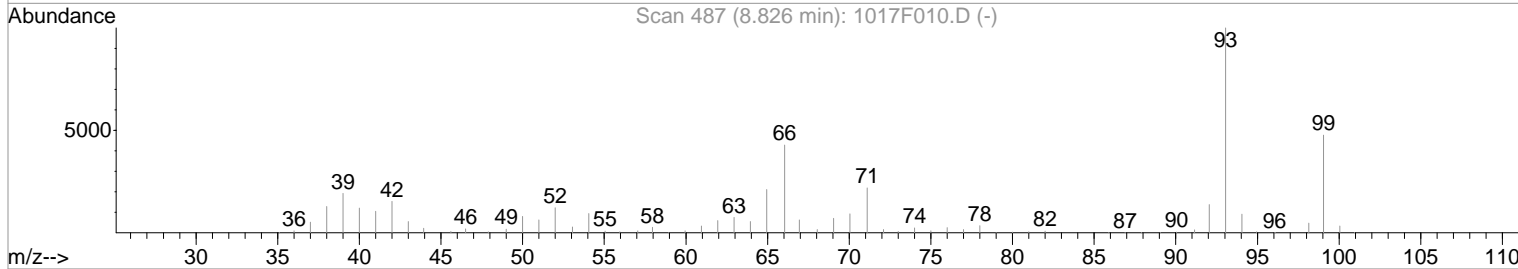
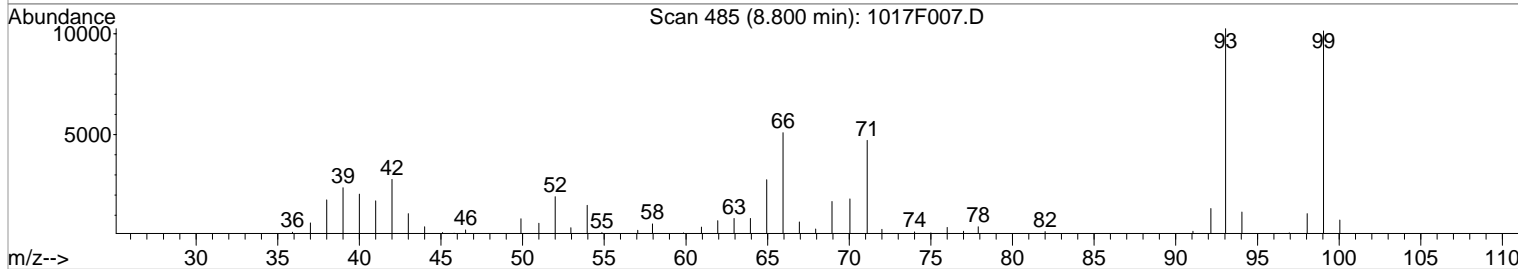
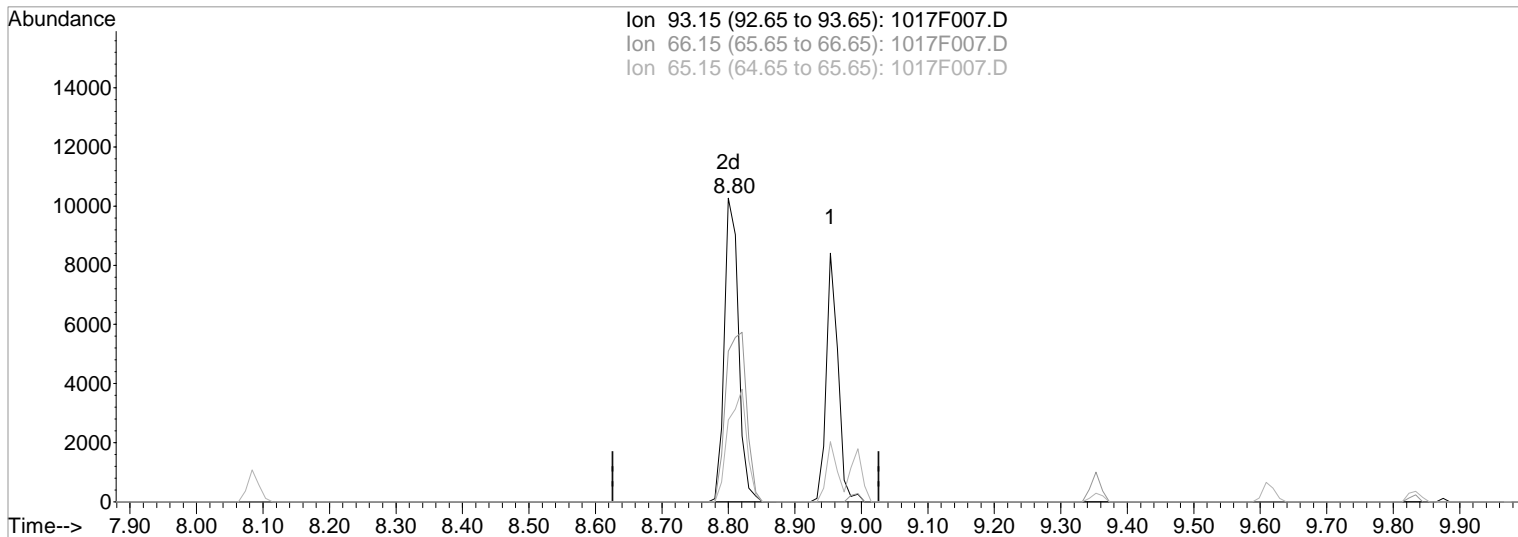
Vial: 7
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 8:49 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F007.D

(6) Aniline (T)

8.80min 10.05ug/ml m
 response 15216

Manual Integration:

After
 Wrong peak

Ion	Exp%	Act%
93.15	100	100
66.15	17.40	49.64#
65.15	4.40	26.94
0.00	0.00	0.00

10/18/19

Data File : J:\MS07\DATA\101719\1017F008.D
 Acq On : 17 Oct 2019 5:16 pm
 Sample : 8270/P ICAL @ 20ppm | SVM62-22H
 Misc :

Vial: 8
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 08:27:12 2019

Quant Results File: 101719_BNP7.RES

Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.35	152	33502	40.00	ug/ml	0.00
22) Naphthalene-d8	11.45	136	125608	40.00	ug/ml	0.00
36) Acenaphthene-d10	14.32	164	75503	40.00	ug/ml	0.00
61) Phenanthrene-d10	16.71	188	127062	40.00	ug/ml	-0.02
73) Chrysene-d12	21.14	240	108926	40.00	ug/ml	-0.02
84) Perylene-d12	24.31	264	105453	40.00	ug/ml	-0.03

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
4) 2-Fluorophenol	7.12	112	21082	19.94	ug/ml	-0.02
Spiked Amount	150.000	Range	21 - 100	Recovery	=	13.29%#
8) Phenol-d6	8.81	99	25748	19.05	ug/ml	-0.04
Spiked Amount	150.000	Range	10 - 94	Recovery	=	12.70%
20) Nitrobenzene-d5	10.27	82	26203	18.76	ug/ml	-0.02
Spiked Amount	100.000	Range	35 - 114	Recovery	=	18.76%#
40) 2-Fluorobiphenyl	13.25	172	54221	18.05	ug/ml	0.00
Spiked Amount	100.000	Range	43 - 116	Recovery	=	18.05%#
62) 2,4,6-Tribromophenol	15.60	330	15260	17.29	ug/ml	-0.02
Spiked Amount	150.000	Range	10 - 123	Recovery	=	11.53%
76) Terphenyl-d14	19.34	244	55992	17.18	ug/ml	-0.02
Spiked Amount	100.000	Range	33 - 141	Recovery	=	17.18%#

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-Nitrosodimethylamine	4.32	42	15005	19.21	ug/ml	95
3) Pyridine	4.36	79	20371	19.71	ug/ml	100
5) Ethylene Glycol Butyl Ethe	7.66	57	16411	19.46	ug/ml	99
6) Aniline	8.81	93	29881m	20.22	ug/ml	
7) Bis(2-chloroethyl) Ether	8.96	93	19523	19.27	ug/ml	96
9) Phenol	8.83	94	26923	19.54	ug/ml	97
10) 2-Chlorophenol	8.99	128	21878	18.51	ug/ml	97
11) 1,3-Dichlorobenzene	9.25	146	23727	19.41	ug/ml	97
12) 1,4-Dichlorobenzene	9.38	146	24627	19.15	ug/ml	99
13) 1,2-Dichlorobenzene	9.63	146	22797	19.02	ug/ml	97
14) Benzyl Alcohol	9.62	108	13399	18.38	ug/ml	97
15) 2,2'-oxybis(1-chloropropan	9.87	45	19252	19.95	ug/ml	91
16) 2-Methylphenol	9.83	107	16667	18.36	ug/ml	88
17) Hexachloroethane	10.18	117	11524	19.50	ug/ml	94
18) N-Nitrosodi-n-propylamine	10.08	70	14028	18.52	ug/ml	97
19) 4-Methylphenol	10.10	107	24982	18.33	ug/ml	98
21) Nitrobenzene	10.30	77	22423	18.54	ug/ml	98
23) Isophorone	10.72	82	41780	20.84	ug/ml	99
24) 2-Nitrophenol	10.84	139	12723	18.85	ug/ml	97
25) 2,4-Dimethylphenol	10.96	122	19421	20.40	ug/ml	98
26) Bis(2-chloroethoxy)methane	11.11	93	24263	19.20	ug/ml	99
27) 2,4-Dichlorophenol	11.24	162	20374	19.55	ug/ml	97
28) Benzoic Acid	11.11	122	5443	11.45	ug/ml	90
29) 1,2,4-Trichlorobenzene	11.37	180	20749	19.17	ug/ml	98
30) Naphthalene	11.48	128	59850	19.93	ug/ml	99
31) n-Dodecane	11.55	57	19814	21.25	ug/ml	98
32) 4-Chloroaniline	11.59	127	28676	21.33	ug/ml	98
33) Hexachlorobutadiene	11.73	225	14583	18.78	ug/ml	99
34) 4-Chloro-3-methylphenol	12.42	107	20523	21.61	ug/ml	99
35) 2-Methylnaphthalene	12.63	142	41950	20.54	ug/ml	96
37) Hexachlorocyclopentadiene	12.89	237	15148	14.93	ug/ml	97
38) 2,4,6-Trichlorophenol	13.10	196	15371	17.99	ug/ml	99
39) 2,4,5-Trichlorophenol	13.15	196	17453	18.93	ug/ml	98
41) 2-Chloronaphthalene	13.41	162	41012	18.09	ug/ml	97
42) 2-Nitroaniline	13.59	65	14363	21.16	ug/ml	91
43) Acenaphthylene	14.07	152	61976	19.02	ug/ml	99

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS07\DATA\101719\1017F008.D
Acq On : 17 Oct 2019 5:16 pm
Sample : 8270/P ICAL @ 20ppm | SVM62-22H
Misc :

Vial: 8
Operator: CCONOVER/LM
Inst : MS07
Multiplr: 1.00

MS Integration Params: RTEINT.P
Quant Time: Oct 18 08:27:12 2019

Quant Results File: 101719_BNP7.RES

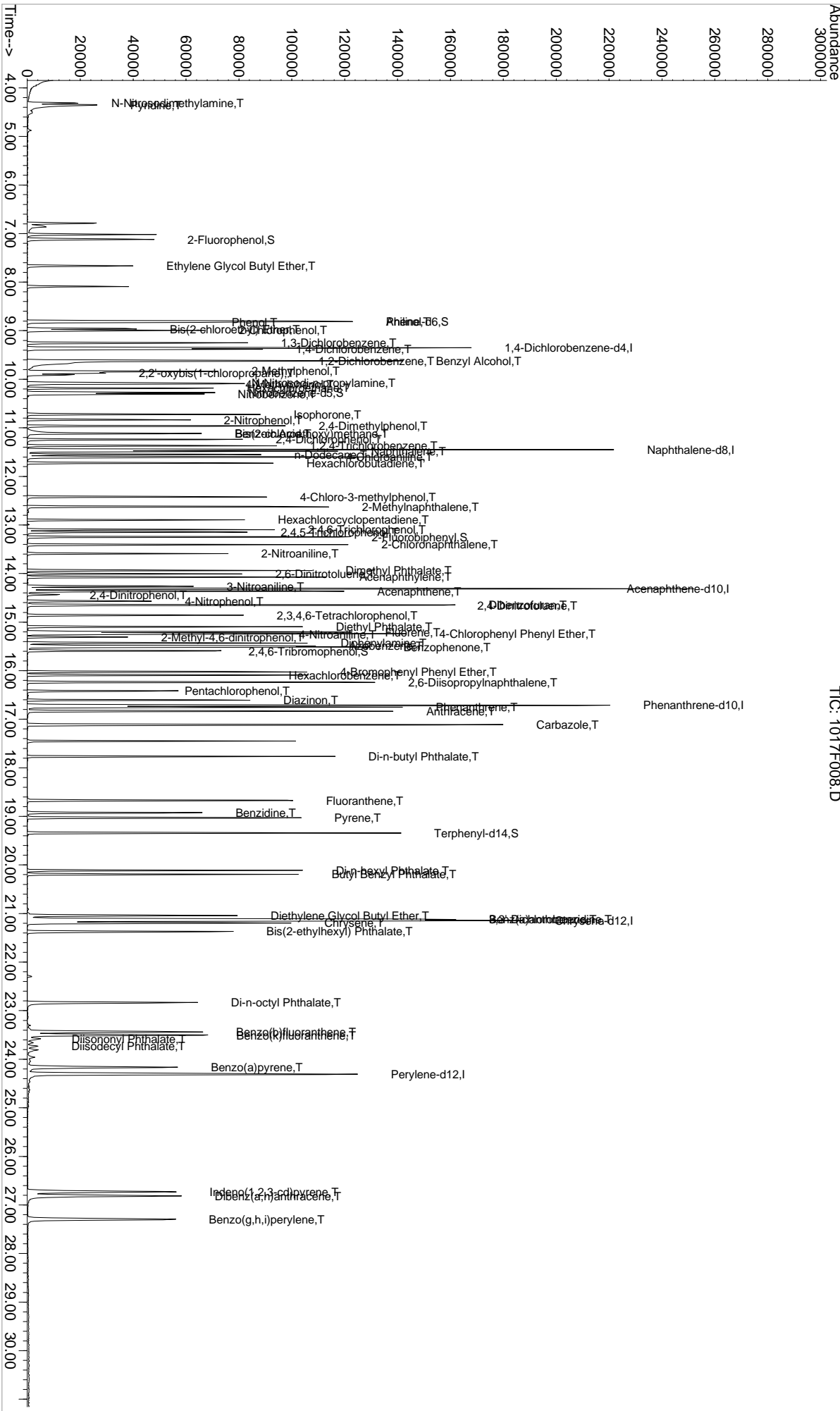
Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
Last Update : Fri Oct 18 08:26:48 2019
Response via : Initial Calibration
DataAcq Meth : 8270_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44) Dimethyl Phthalate	13.94	163	49626	21.11	ug/ml	98
45) 2,6-Dinitrotoluene	14.01	165	11733	20.44	ug/ml	92
46) Acenaphthene	14.37	154	38457	19.93	ug/ml	96
47) 3-Nitroaniline	14.27	138	12549	21.08	ug/ml	91
48) 2,4-Dinitrophenol	14.44	184	2285	7.57	ug/ml	85
49) Dibenzofuran	14.64	168	63481	20.74	ug/ml	95
50) 4-Nitrophenol	14.57	109	8246	18.16	ug/ml	84
51) 2,4-Dinitrotoluene	14.65	165	15012	20.92	ug/ml	91
52) 2,3,4,6-Tetrachlorophenol	14.86	232	12859	18.92	ug/ml	94
53) Fluorene	15.21	166	47127	21.02	ug/ml	98
54) 4-Chlorophenyl Phenyl Eth	15.24	204	24973	20.83	ug/ml	94
55) Diethyl Phthalate	15.09	149	49078	22.04	ug/ml	100
56) 4-Nitroaniline	15.25	138	11963	20.33	ug/ml	98
57) 2-Methyl-4,6-dinitrophenol	15.31	198	6273	13.67	ug/ml	76
58) Diphenylamine	15.43	169	33594	22.39	ug/ml	97
59) Azobenzene	15.49	51	30650m	23.70	ug/ml	
60) Benzophenone	15.51	105	49483	22.99	ug/ml	98
63) 4-Bromophenyl Phenyl Ether	16.03	248	16583	18.38	ug/ml	94
64) Hexachlorobenzene	16.10	284	22058	19.09	ug/ml	90
65) 2,6-Diisopropyl naphthalene	16.24	197	40341	18.94	ug/ml	99
66) Pentachlorophenol	16.43	266	10315	14.40	ug/ml	99
67) Diazinon	16.61	137	9203	17.61	ug/ml	98
68) Phenanthrene	16.75	178	63935	19.18	ug/ml	99
69) Anthracene	16.83	178	68859	19.96	ug/ml	99
70) Carbazole	17.11	167	57416	17.84	ug/ml	100
71) Di-n-butyl Phthalate	17.77	149	67444	16.33	ug/ml	99
72) Fluoranthene	18.68	202	62736	17.30	ug/ml	97
74) Benzidine	18.92	184	33240	22.02	ug/ml	98
75) Pyrene	19.03	202	62741	17.74	ug/ml	99
77) Di-n-hexyl Phthalate	20.11	149	69195	17.92	ug/ml	96
78) Butyl Benzyl Phthalate	20.19	149	30602	18.69	ug/ml	97
79) Diethylene Glycol Butyl Et	21.04	105	40815	17.04	ug/ml	99
80) 3,3'-Dichlorobenzidine	21.12	252	25022	16.42	ug/ml	99
81) Benz(a)anthracene	21.12	228	55297	19.08	ug/ml	99
82) Chrysene	21.20	228	56759	19.12	ug/ml	98
83) Bis(2-ethylhexyl) Phthalat	21.37	149	37598	17.67	ug/ml	98
85) Di-n-octyl Phthalate	22.83	149	58050	17.59	ug/ml	100
86) Benzo(b)fluoranthene	23.44	252	54059	17.14	ug/ml	99
87) Benzo(k)fluoranthene	23.51	252	55317	19.01	ug/ml	97
88) Diisononyl Phthalate	23.59	293	2137m	9.71	ug/ml	
89) Diisodecyl Phthalate	23.73	149	46673m	15.98	ug/ml	
90) Benzo(a)pyrene	24.16	252	51026	18.26	ug/ml	98
91) Indeno(1,2,3-cd)pyrene	26.73	276	56962	19.96	ug/ml	99
92) Dibenz(a,h)anthracene	26.81	278	55955	19.14	ug/ml	99
93) Benzo(g,h,i)perylene	27.30	276	57694	19.74	ug/ml	99

Data File : J:\MS07\DATA\101719\1017F008.D
Acq On : 17 Oct 2019 5:16 pm
Sample : 8270/P ICAL @ 20ppm | SVM62-22H
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 18 8:56 2019

Quantitation Report (QT Reviewed)
Vial: 8
Operator: CCONOVER/LM
Inst: MS07
Multiplr: 1.00
Quant Results File: 101719_BNP7.RES

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
Title : BNA Calibration
Last Update : Fri Oct 18 09:20:51 2019
Response via : Initial Calibration



Data File : J:\MS07\DATA\101719\1017F008.D
 Acq On : 17 Oct 2019 5:16 pm
 Sample : 8270/P ICAL @ 20ppm | SVM62-22H
 Misc :

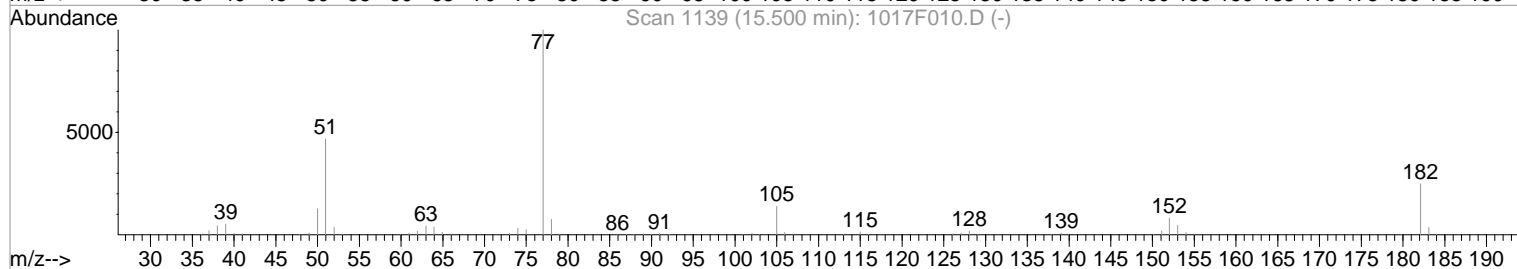
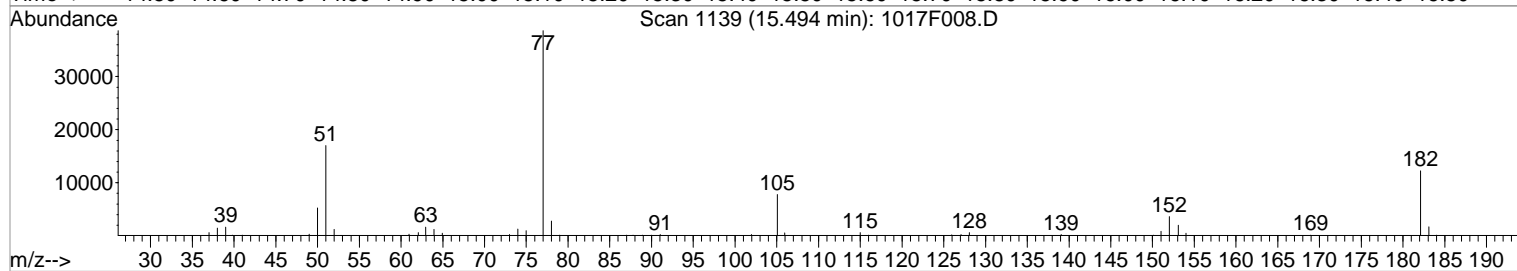
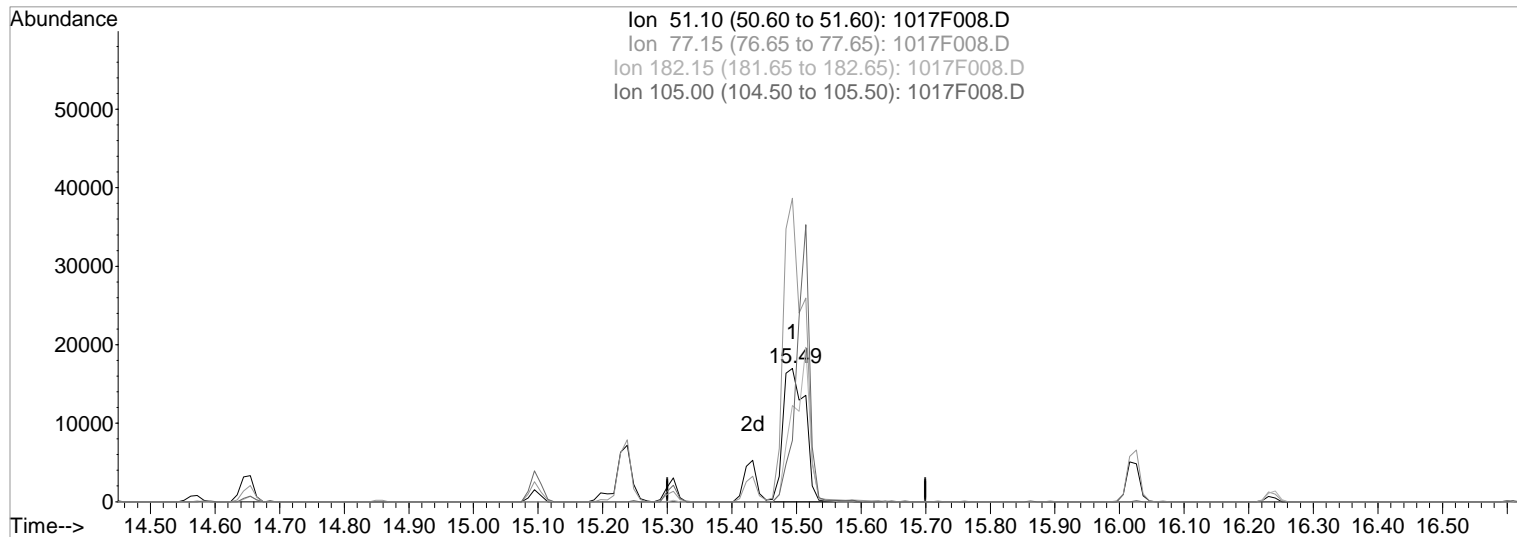
Vial: 8
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 8:53 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F008.D

(59) Azobenzene (T)

Manual Integration:

15.49min 31.58ug/ml

Before

response 40848

10/18/19

Ion	Exp%	Act%
51.10	100	100
77.15	213.80	228.00
182.15	52.80	72.56
105.00	29.60	46.24

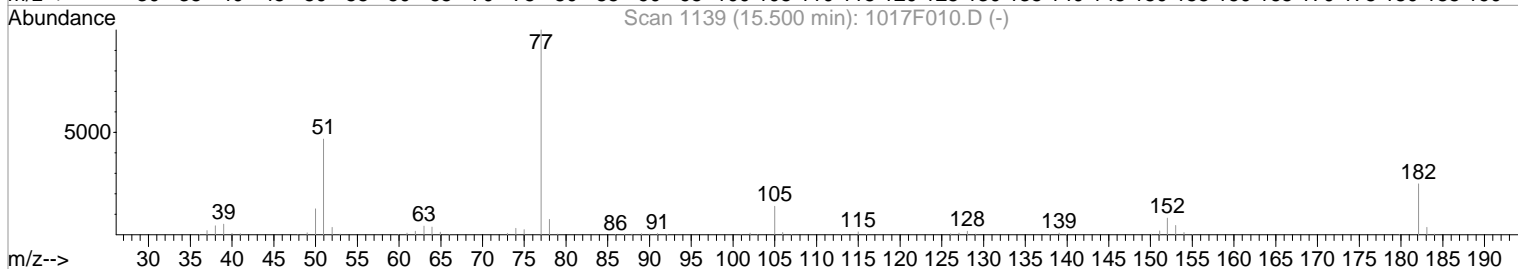
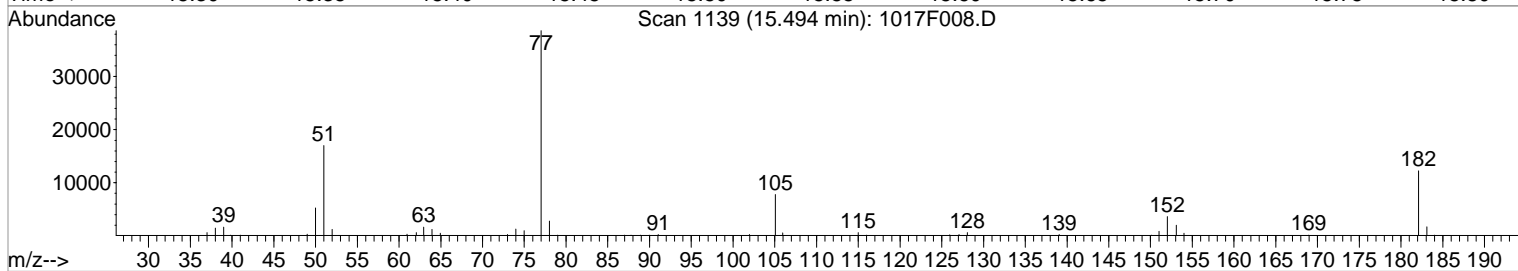
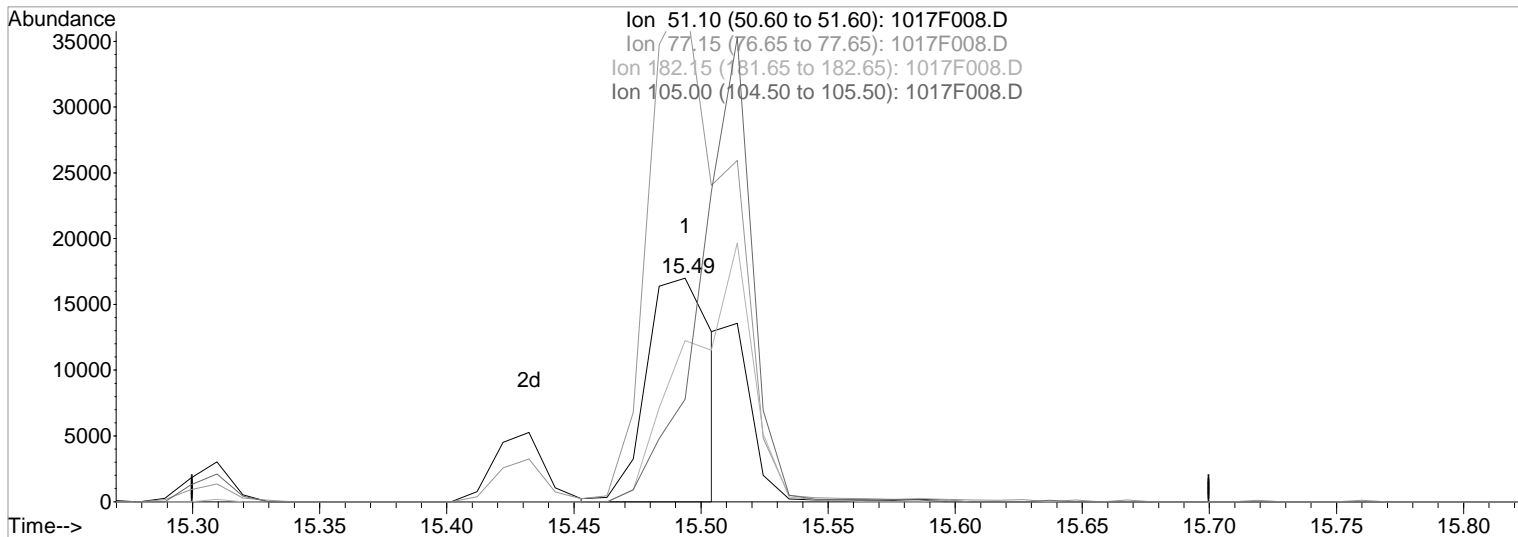
Data File : J:\MS07\DATA\101719\1017F008.D
 Acq On : 17 Oct 2019 5:16 pm
 Sample : 8270/P ICAL @ 20ppm | SVM62-22H
 Misc :

Vial: 8
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 8:55 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F008.D

(59) Azobenzene (T)		
15.49min	23.70ug/ml	m
response	30650	
Ion	Exp%	Act%
51.10	100	100
77.15	213.80	227.44
182.15	52.80	72.05
105.00	29.60	45.92

Manual Integration:
 After
 IC - overintegrated
 10/18/19

Data File : J:\MS07\DATA\101719\1017F008.D
 Acq On : 17 Oct 2019 5:16 pm
 Sample : 8270/P ICAL @ 20ppm | SVM62-22H
 Misc :

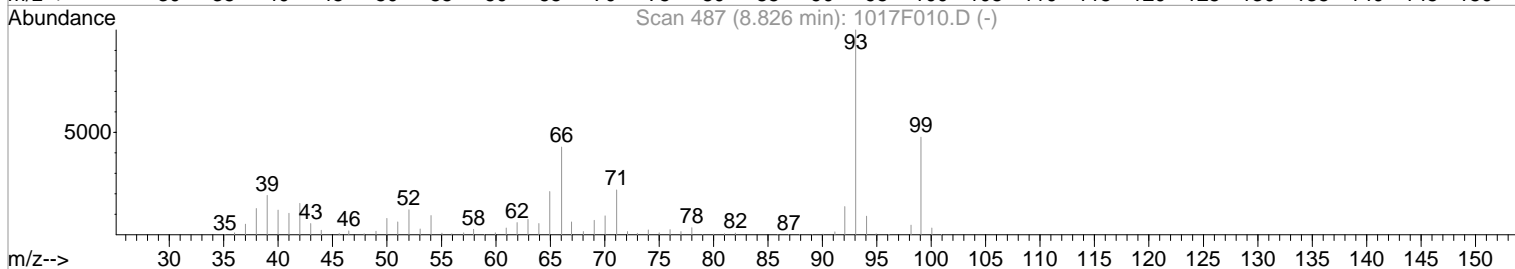
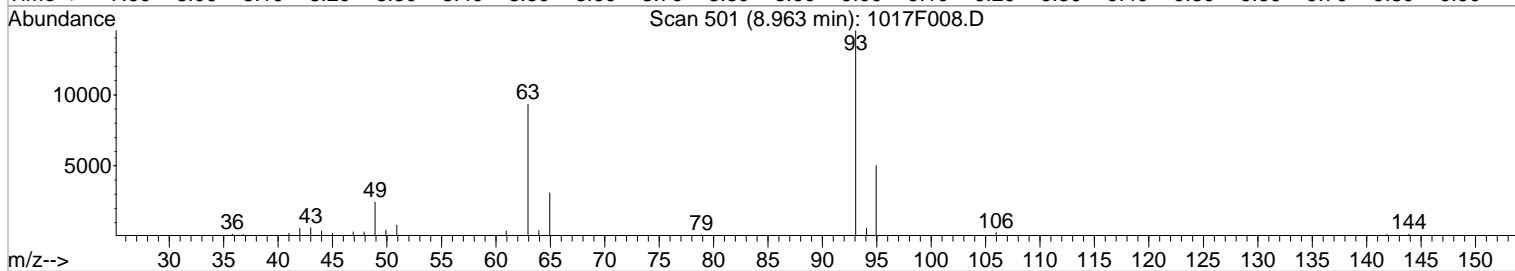
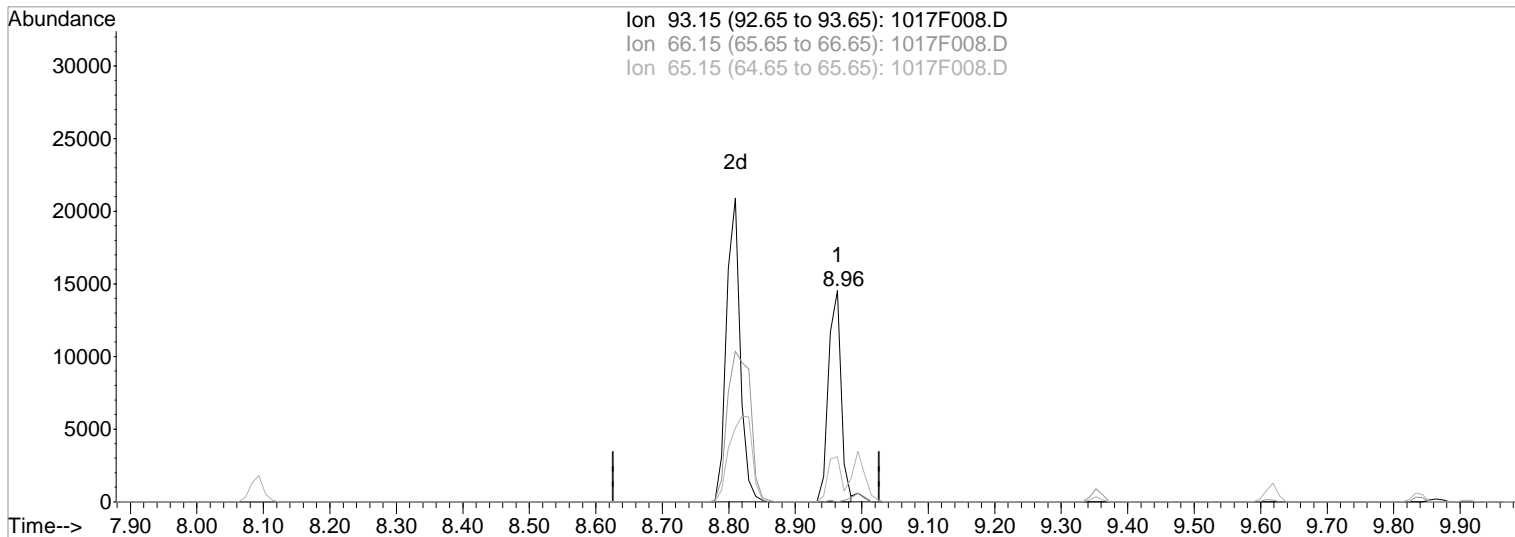
Vial: 8
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 8:27 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F008.D

(6) Aniline (T)

Manual Integration:

8.96min 12.86ug/ml

Before

response 18998

Ion	Exp%	Act%
93.15	100	100
66.15	17.40	0.00
65.15	4.40	16.11
0.00	0.00	0.00

10/18/19

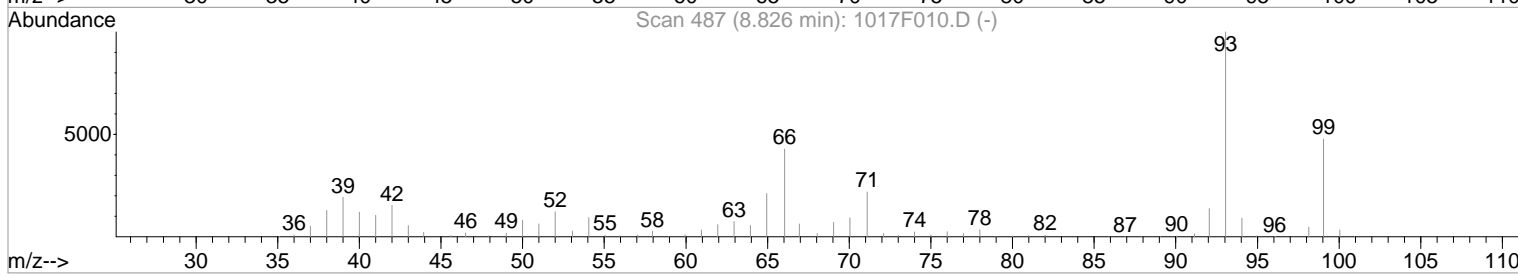
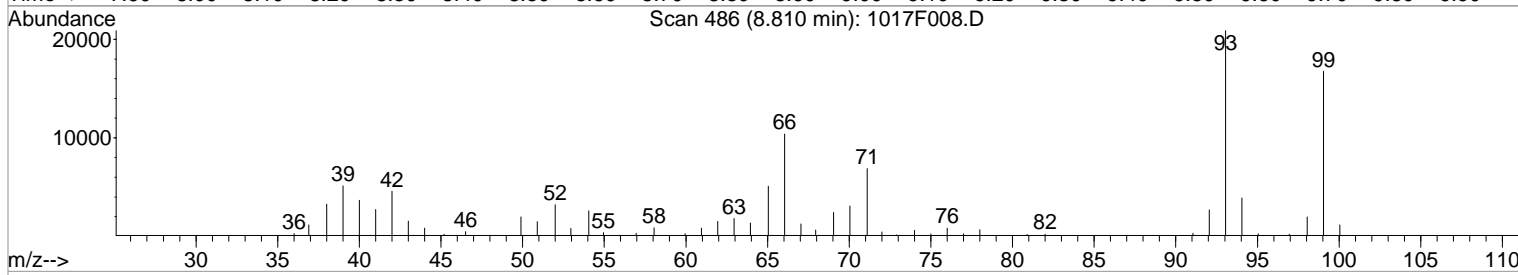
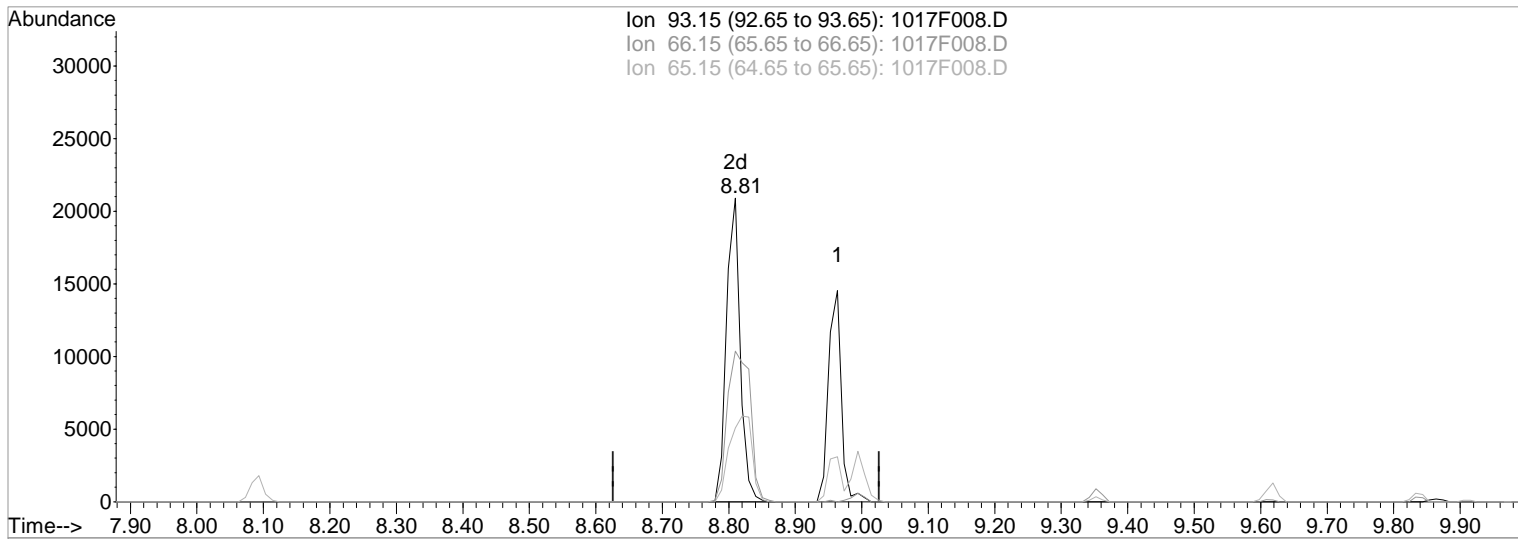
Data File : J:\MS07\DATA\101719\1017F008.D
 Acq On : 17 Oct 2019 5:16 pm
 Sample : 8270/P ICAL @ 20ppm | SVM62-22H
 Misc :

Vial: 8
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 8:53 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F008.D

(6) Aniline (T)		
8.81min	20.22ug/ml m	
response	29881	
Ion	Exp%	Act%
93.15	100	100
66.15	17.40	49.63#
65.15	4.40	24.34
0.00	0.00	0.00

Manual Integration:
 After
 Wrong peak
 10/18/19

Data File : J:\MS07\DATA\101719\1017F008.D
 Acq On : 17 Oct 2019 5:16 pm
 Sample : 8270/P ICAL @ 20ppm | SVM62-22H
 Misc :

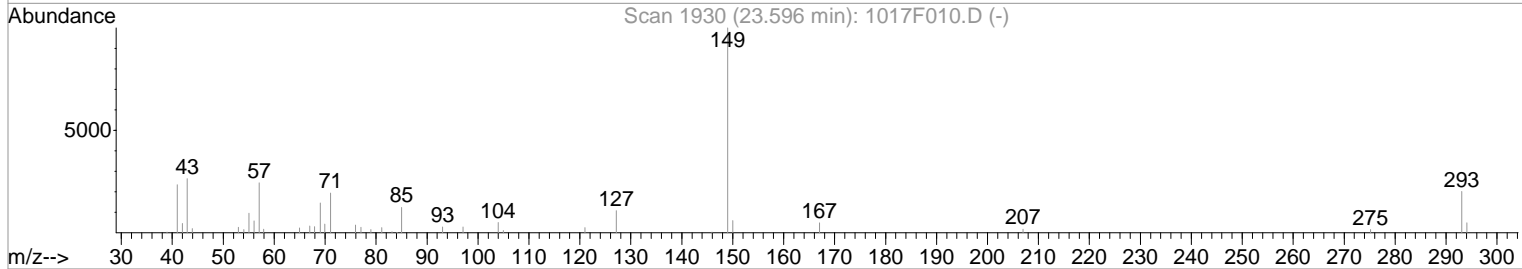
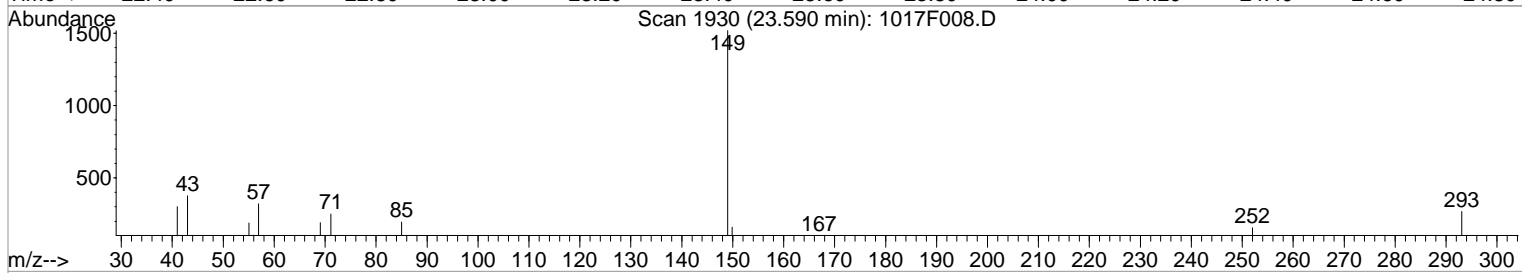
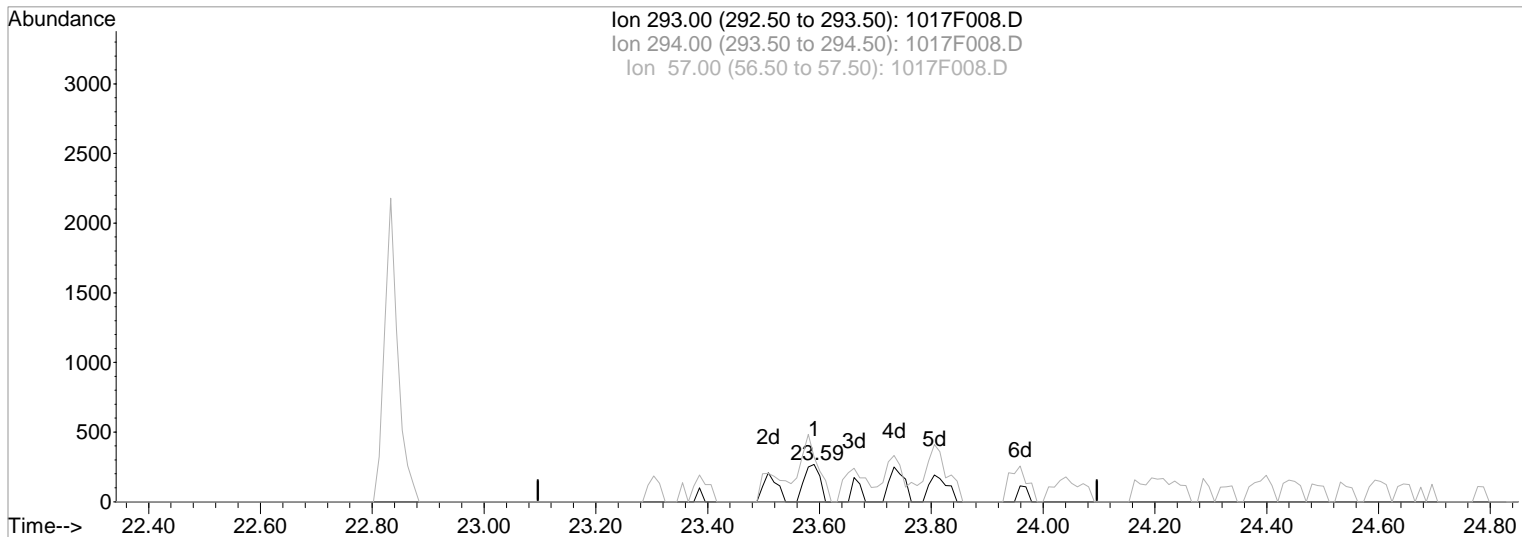
Vial: 8
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 8:55 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F008.D

(88) Diisononyl Phthalate (T)

Manual Integration:

23.59min 2.33ug/ml

Before

response 512

Ion	Exp%	Act%
293.00	100	100
294.00	2.90	0.00
57.00	25.80	201.56#
0.00	0.00	0.00

10/18/19

Data File : J:\MS07\DATA\101719\1017F008.D
 Acq On : 17 Oct 2019 5:16 pm
 Sample : 8270/P ICAL @ 20ppm | SVM62-22H
 Misc :

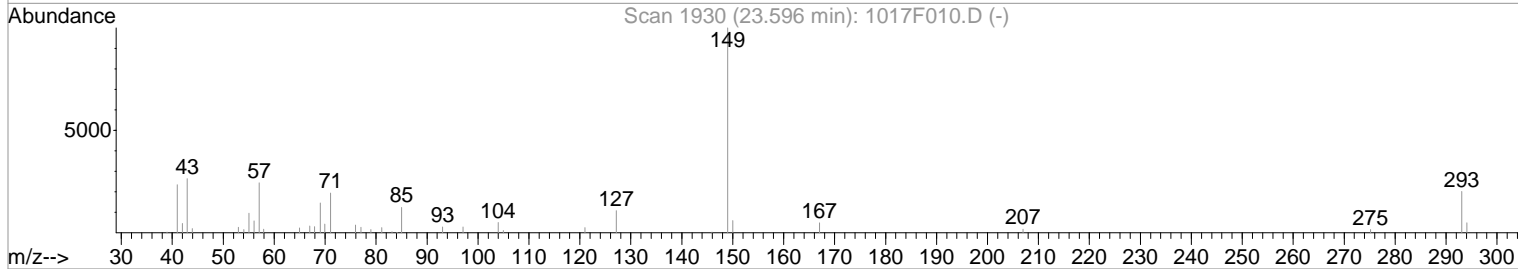
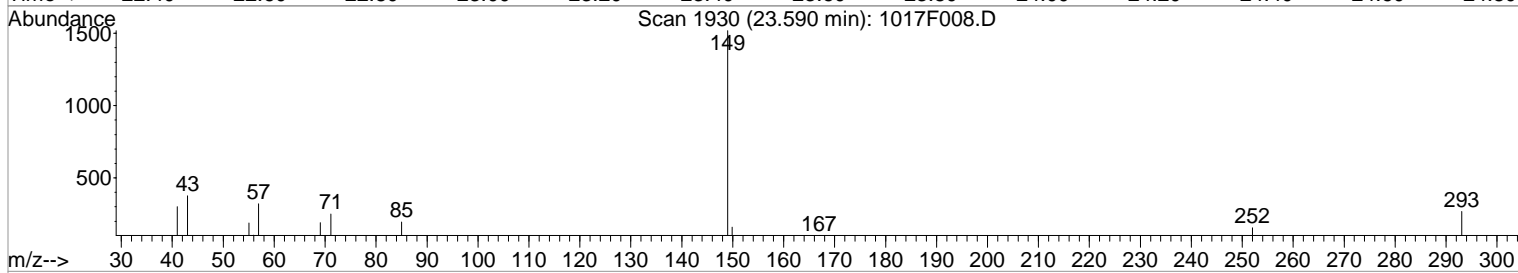
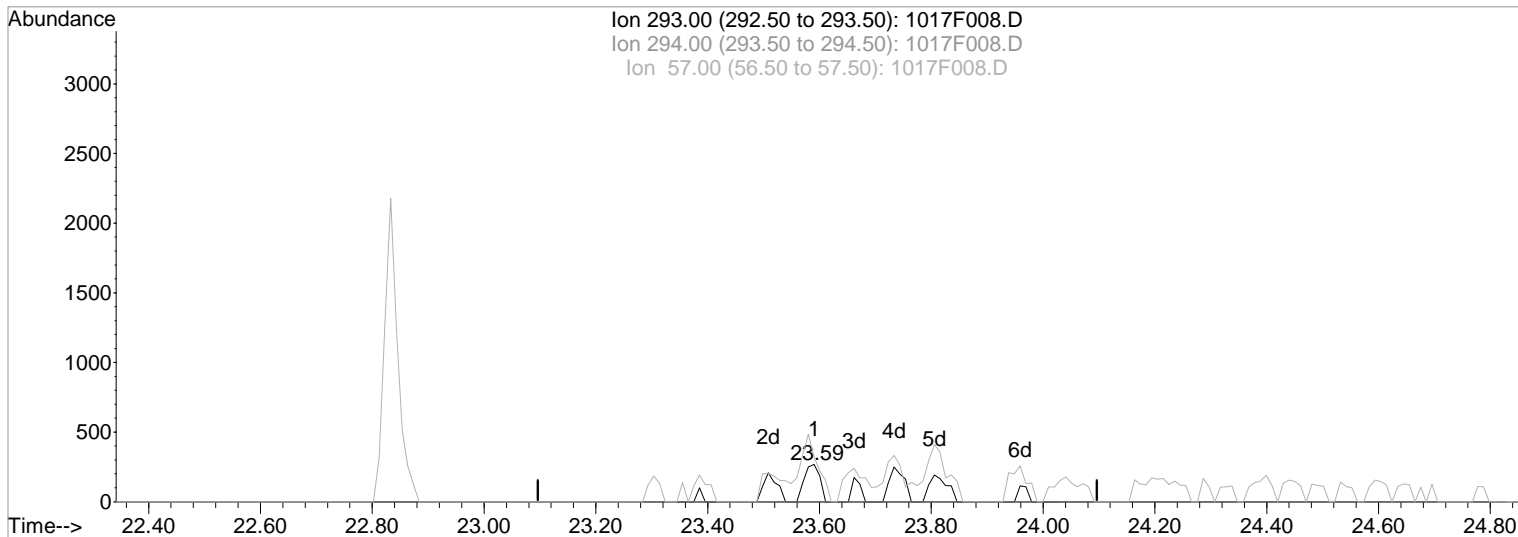
Vial: 8
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 8:56 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F008.D

(88) Diisononyl Phthalate (T)

23.59min 9.71ug/ml m

response 2137

Ion	Exp%	Act%
293.00	100	100
294.00	2.90	0.00
57.00	25.80	48.29
0.00	0.00	0.00

Manual Integration:

After

Range integration correction

10/18/19

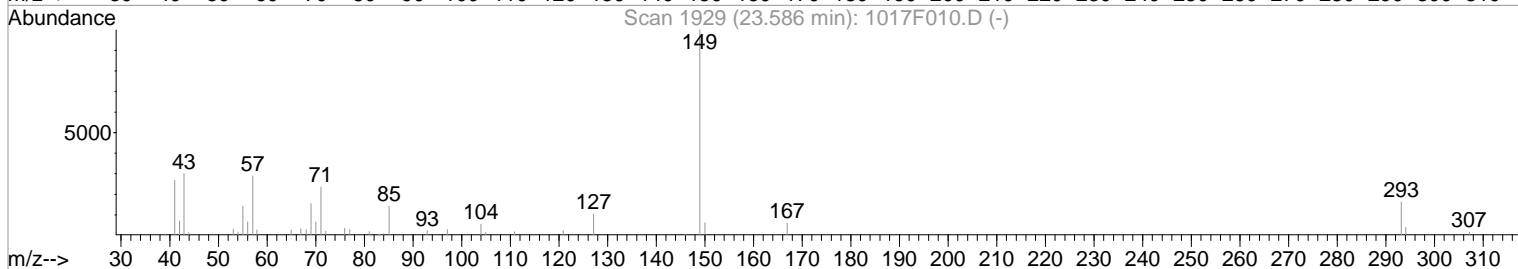
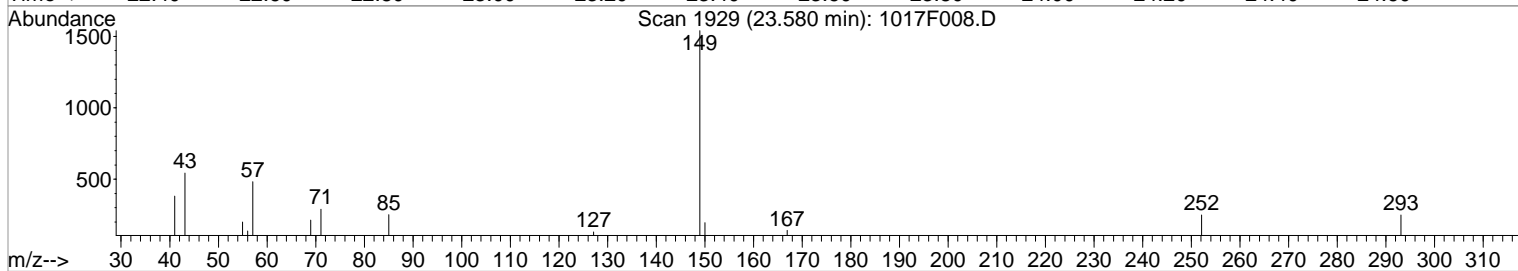
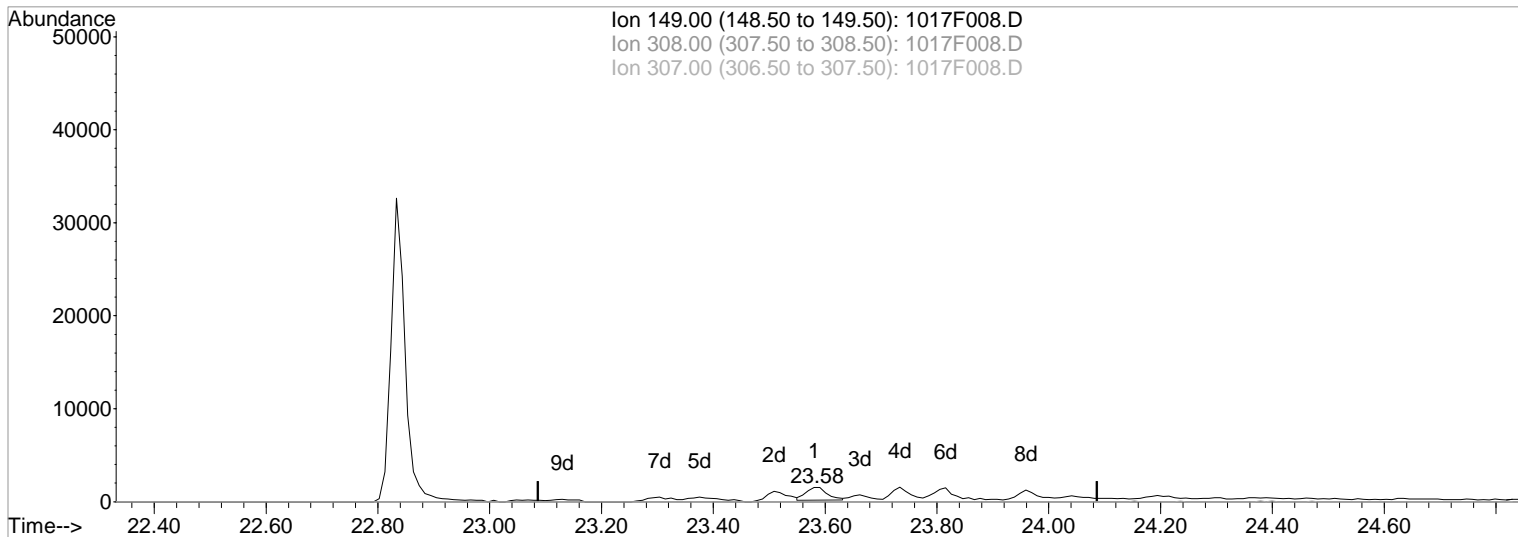
Data File : J:\MS07\DATA\101719\1017F008.D
 Acq On : 17 Oct 2019 5:16 pm
 Sample : 8270/P ICAL @ 20ppm | SVM62-22H
 Misc :

Vial: 8
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 8:56 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F008.D

(89) Diisodecyl Phthalate (T)

Manual Integration:

23.58min 1.24ug/ml

Before

response 3611

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.00
307.00	0.00	0.00
0.00	0.00	0.00

10/18/19

Data File : J:\MS07\DATA\101719\1017F008.D
 Acq On : 17 Oct 2019 5:16 pm
 Sample : 8270/P ICAL @ 20ppm | SVM62-22H
 Misc :

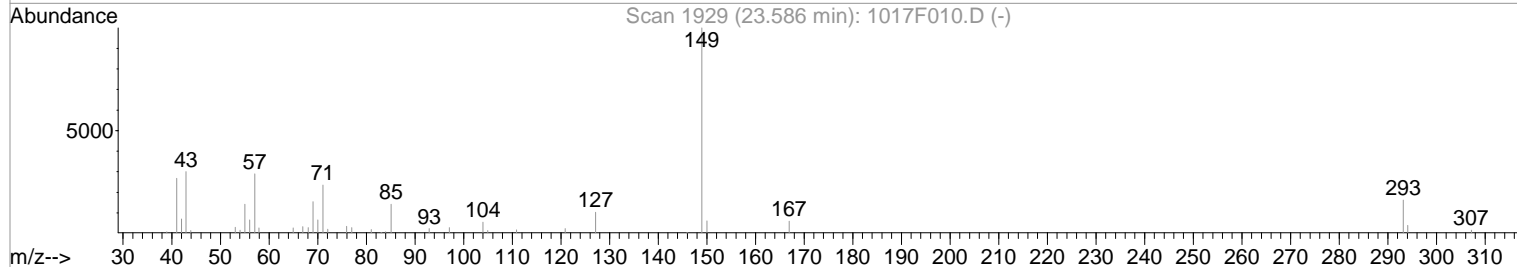
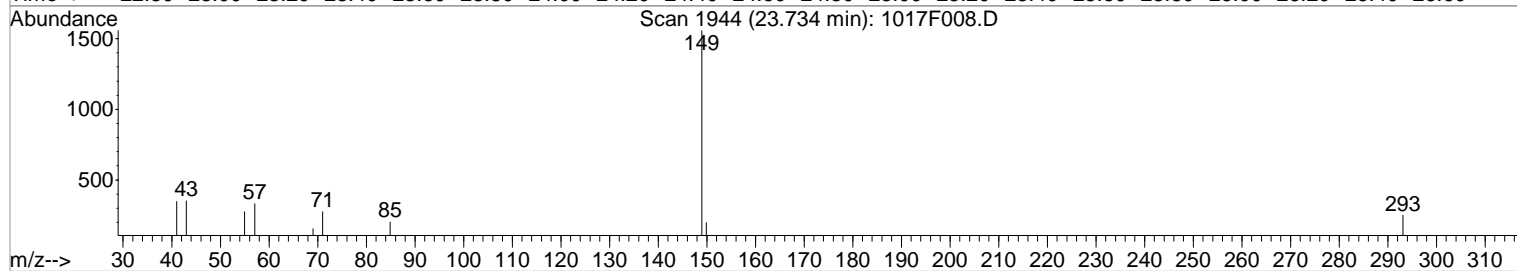
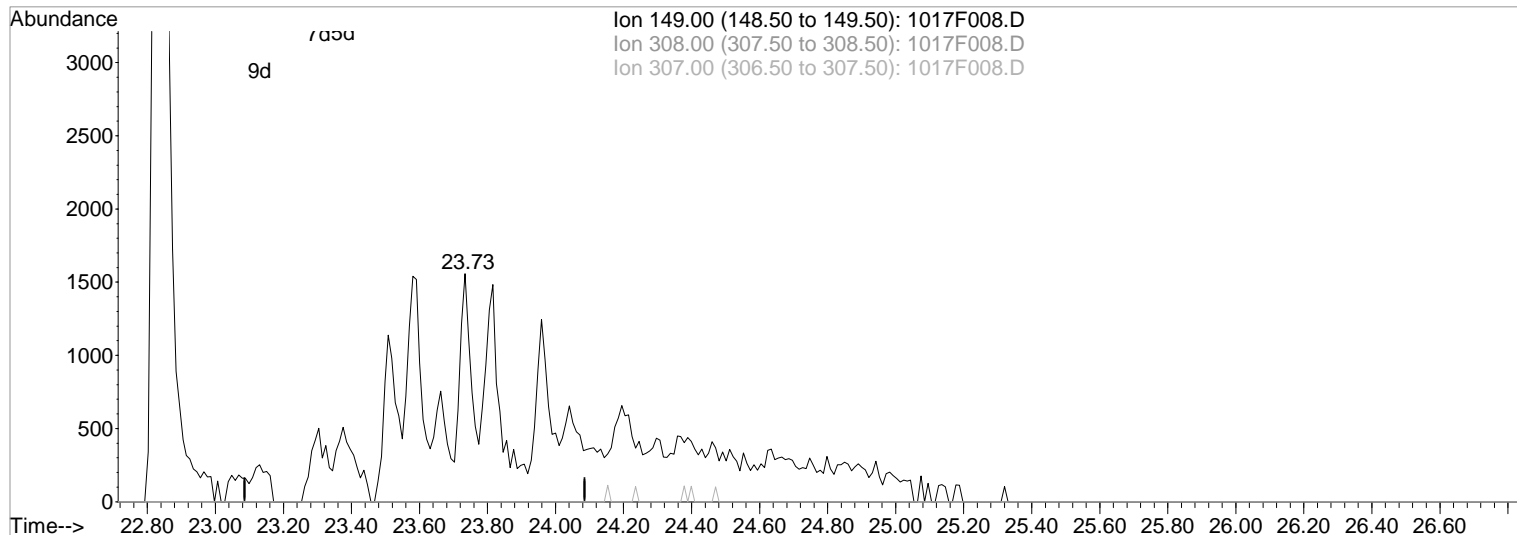
Vial: 8
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 8:56 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F008.D

(89) Diisodecyl Phthalate (T)

23.73min 15.98ug/ml m

response 46673

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.00
307.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Range integration correction

10/18/19

Data File : J:\MS07\DATA\101719\1017F009.D
 Acq On : 17 Oct 2019 5:58 pm
 Sample : 8270/P ICAL @ 50ppm | SVM62-22I
 Misc :

Vial: 9
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 08:27:13 2019

Quant Results File: 101719_BNP7.RES

Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.36	152	34105	40.00	ug/ml	0.00
22) Naphthalene-d8	11.46	136	135621	40.00	ug/ml	0.00
36) Acenaphthene-d10	14.31	164	77165	40.00	ug/ml	0.00
61) Phenanthrene-d10	16.72	188	118720	40.00	ug/ml	0.00
73) Chrysene-d12	21.15	240	101325	40.00	ug/ml	0.00
84) Perylene-d12	24.32	264	111285	40.00	ug/ml	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
4) 2-Fluorophenol	7.14	112	52873	49.11	ug/ml	0.00
Spiked Amount	150.000	Range	21 - 100	Recovery	=	32.74%
8) Phenol-d6	8.82	99	67267	48.88	ug/ml	-0.03
Spiked Amount	150.000	Range	10 - 94	Recovery	=	32.59%
20) Nitrobenzene-d5	10.28	82	71179	50.06	ug/ml	0.00
Spiked Amount	100.000	Range	35 - 114	Recovery	=	50.06%
40) 2-Fluorobiphenyl	13.26	172	143677	46.81	ug/ml	0.00
Spiked Amount	100.000	Range	43 - 116	Recovery	=	46.81%
62) 2,4,6-Tribromophenol	15.60	330	39660	48.11	ug/ml	0.00
Spiked Amount	150.000	Range	10 - 123	Recovery	=	32.07%
76) Terphenyl-d14	19.35	244	148081	48.83	ug/ml	0.00
Spiked Amount	100.000	Range	33 - 141	Recovery	=	48.83%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-Nitrosodimethylamine	4.31	42	39228	49.34	ug/ml	99
3) Pyridine	4.35	79	54437	51.73	ug/ml	97
5) Ethylene Glycol Butyl Ethe	7.68	57	41043	47.80	ug/ml	99
6) Aniline	8.82	93	75251	50.02	ug/ml	87
7) Bis(2-chloroethyl) Ether	8.97	93	50532	49.00	ug/ml	99
9) Phenol	8.85	94	71880	51.25	ug/ml	96
10) 2-Chlorophenol	9.00	128	58723	48.80	ug/ml	97
11) 1,3-Dichlorobenzene	9.26	146	61305	49.26	ug/ml	99
12) 1,4-Dichlorobenzene	9.39	146	64380	49.17	ug/ml	98
13) 1,2-Dichlorobenzene	9.63	146	59903	49.09	ug/ml	99
14) Benzyl Alcohol	9.63	108	37006	49.87	ug/ml	97
15) 2,2'-oxybis(1-chloropropan	9.87	45	49447m	50.33	ug/ml	
16) 2-Methylphenol	9.86	107	45986	49.76	ug/ml	97
17) Hexachloroethane	10.19	117	30117	50.07	ug/ml	96
18) N-Nitrosodi-n-propylamine	10.09	70	38392	49.80	ug/ml	99
19) 4-Methylphenol	10.12	107	68235	49.18	ug/ml	99
21) Nitrobenzene	10.32	77	61902	50.27	ug/ml	92
23) Isophorone	10.74	82	111238	51.39	ug/ml	98
24) 2-Nitrophenol	10.84	139	35141	48.23	ug/ml	98
25) 2,4-Dimethylphenol	10.98	122	50467	49.09	ug/ml	99
26) Bis(2-chloroethoxy)methane	11.13	93	65980	48.35	ug/ml	97
27) 2,4-Dichlorophenol	11.25	162	56262	49.99	ug/ml	98
28) Benzoic Acid	11.19	122	23296	45.38	ug/ml	96
29) 1,2,4-Trichlorobenzene	11.38	180	57932	49.58	ug/ml	97
30) Naphthalene	11.49	128	159051	49.07	ug/ml	100
31) n-Dodecane	11.55	57	50718	50.37	ug/ml	98
32) 4-Chloroaniline	11.61	127	79455	54.74	ug/ml	96
33) Hexachlorobutadiene	11.72	225	38919	46.42	ug/ml	99
34) 4-Chloro-3-methylphenol	12.43	107	56396	55.01	ug/ml	98
35) 2-Methylnaphthalene	12.63	142	116809	52.97	ug/ml	100
37) Hexachlorocyclopentadiene	12.90	237	43801	42.24	ug/ml	96
38) 2,4,6-Trichlorophenol	13.11	196	42560	48.74	ug/ml	98
39) 2,4,5-Trichlorophenol	13.16	196	47527	50.43	ug/ml	96
41) 2-Chloronaphthalene	13.41	162	111309	48.04	ug/ml	98
42) 2-Nitroaniline	13.61	65	35816	51.63	ug/ml	95
43) Acenaphthylene	14.08	152	165294	49.62	ug/ml	99

Data File : J:\MS07\DATA\101719\1017F009.D
 Acq On : 17 Oct 2019 5:58 pm
 Sample : 8270/P ICAL @ 50ppm | SVM62-22I
 Misc :

Vial: 9
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 08:27:13 2019

Quant Results File: 101719_BNP7.RES

Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

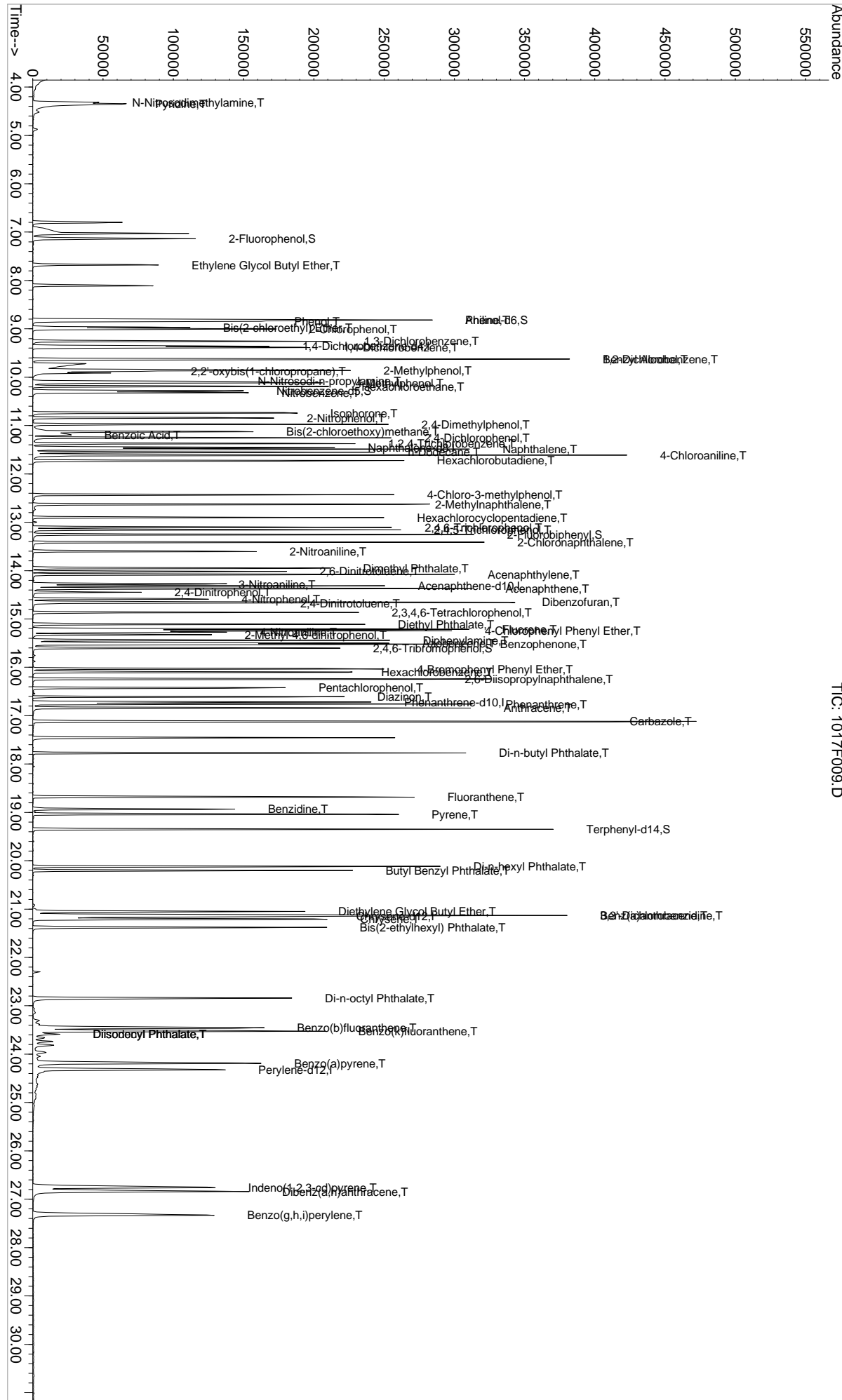
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44) Dimethyl Phthalate	13.94	163	125351	52.16	ug/ml	98
45) 2,6-Dinitrotoluene	14.02	165	30330	51.70	ug/ml	98
46) Acenaphthene	14.37	154	100029	50.72	ug/ml	100
47) 3-Nitroaniline	14.28	138	31911	52.46	ug/ml	91
48) 2,4-Dinitrophenol	14.45	184	11731	38.03	ug/ml	95
49) Dibenzofuran	14.65	168	161797	51.72	ug/ml	93
50) 4-Nitrophenol	14.59	109	23423	50.48	ug/ml	84
51) 2,4-Dinitrotoluene	14.67	165	38266	52.18	ug/ml	87
52) 2,3,4,6-Tetrachlorophenol	14.87	232	35216	50.69	ug/ml	90
53) Fluorene	15.21	166	120719	52.70	ug/ml	100
54) 4-Chlorophenyl Phenyl Ethe	15.24	204	63337	51.69	ug/ml	93
55) Diethyl Phthalate	15.11	149	122350	53.75	ug/ml	99
56) 4-Nitroaniline	15.28	138	30217	50.24	ug/ml	96
57) 2-Methyl-4,6-dinitrophenol	15.33	198	21032	44.85	ug/ml	74
58) Diphenylamine	15.44	169	82616	53.88	ug/ml	98
59) Azobenzene	15.50	51	66837m	50.56	ug/ml	
60) Benzophenone	15.52	105	115285	52.41	ug/ml	100
63) 4-Bromophenyl Phenyl Ether	16.03	248	42674	50.61	ug/ml	91
64) Hexachlorobenzene	16.10	284	53775	49.80	ug/ml	93
65) 2,6-Diisopropyl naphthalene	16.25	197	102302	51.41	ug/ml	99
66) Pentachlorophenol	16.42	266	30718	45.91	ug/ml	99
67) Diazinon	16.61	137	23788	48.71	ug/ml	99
68) Phenanthrene	16.76	178	151212	48.55	ug/ml	99
69) Anthracene	16.84	178	157992	49.02	ug/ml	99
70) Carbazole	17.12	167	147660	49.11	ug/ml	99
71) Di-n-butyl Phthalate	17.77	149	178241	46.18	ug/ml	99
72) Fluoranthene	18.68	202	161343	47.62	ug/ml	97
74) Benzidine	18.93	184	77545	55.23	ug/ml	98
75) Pyrene	19.04	202	164007	49.84	ug/ml	98
77) Di-n-hexyl Phthalate	20.12	149	184003	51.23	ug/ml	97
78) Butyl Benzyl Phthalate	20.20	149	74596	48.98	ug/ml	94
79) Diethylene Glycol Butyl Et	21.05	105	104422	46.86	ug/ml	100
80) 3,3'-Dichlorobenzidine	21.13	252	64273	45.34	ug/ml	99
81) Benz(a)anthracene	21.13	228	134552	49.92	ug/ml	98
82) Chrysene	21.21	228	135563	49.10	ug/ml	100
83) Bis(2-ethylhexyl) Phthalat	21.38	149	96292	48.64	ug/ml	98
85) Di-n-octyl Phthalate	22.84	149	162680	46.72	ug/ml	100
86) Benzo(b)fluoranthene	23.45	252	154390	46.40	ug/ml	99
87) Benzo(k)fluoranthene	23.53	252	155038	50.49	ug/ml	99
88) Diisononyl Phthalate	23.59	293	9971m	42.91	ug/ml	
89) Diisodecyl Phthalate	23.59	149	142963m	46.39	ug/ml	
90) Benzo(a)pyrene	24.19	252	143124	48.53	ug/ml	99
91) Indeno(1,2,3-cd)pyrene	26.76	276	146201	48.56	ug/ml	98
92) Dibenz(a,h)anthracene	26.84	278	144230	46.74	ug/ml	99
93) Benzo(g,h,i)perylene	27.33	276	148343	48.11	ug/ml	99

Data File : J:\MS07\DATA\101719\1017F009.D
Acq On : 17 Oct 2019 5:58 pm
Sample : 8270/P ICAL @ 50ppm | SVM62-22I
Misc :
MS Integration Params: RTEINT.P
Quant Results File: 101719_BNP7.RES

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
Title : BNA Calibration
Last Update : Fri Oct 18 09:20:51 2019
Response via : Initial Calibration

Quantitation Report (QT Reviewed)

Vial : 9
Operator : CCONOVER/LM
Inst : MS07
Multiplr : 1.00



Data File : J:\MS07\DATA\101719\1017F009.D
 Acq On : 17 Oct 2019 5:58 pm
 Sample : 8270/P ICAL @ 50ppm | SVM62-22I
 Misc :

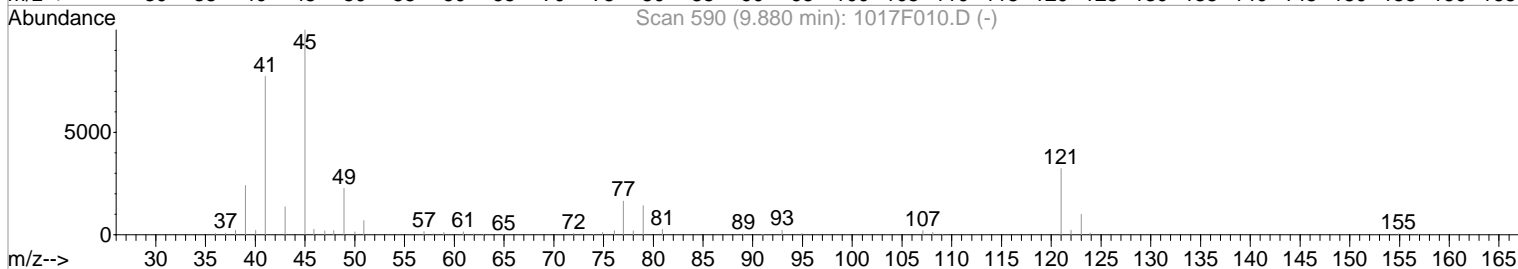
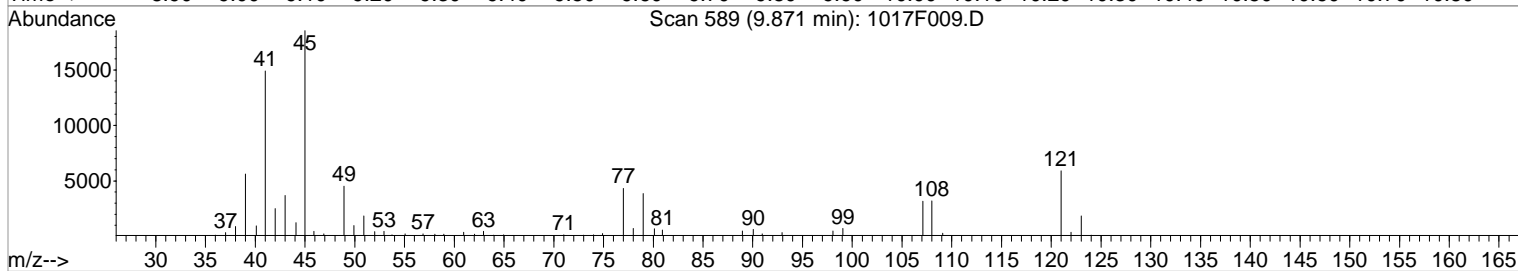
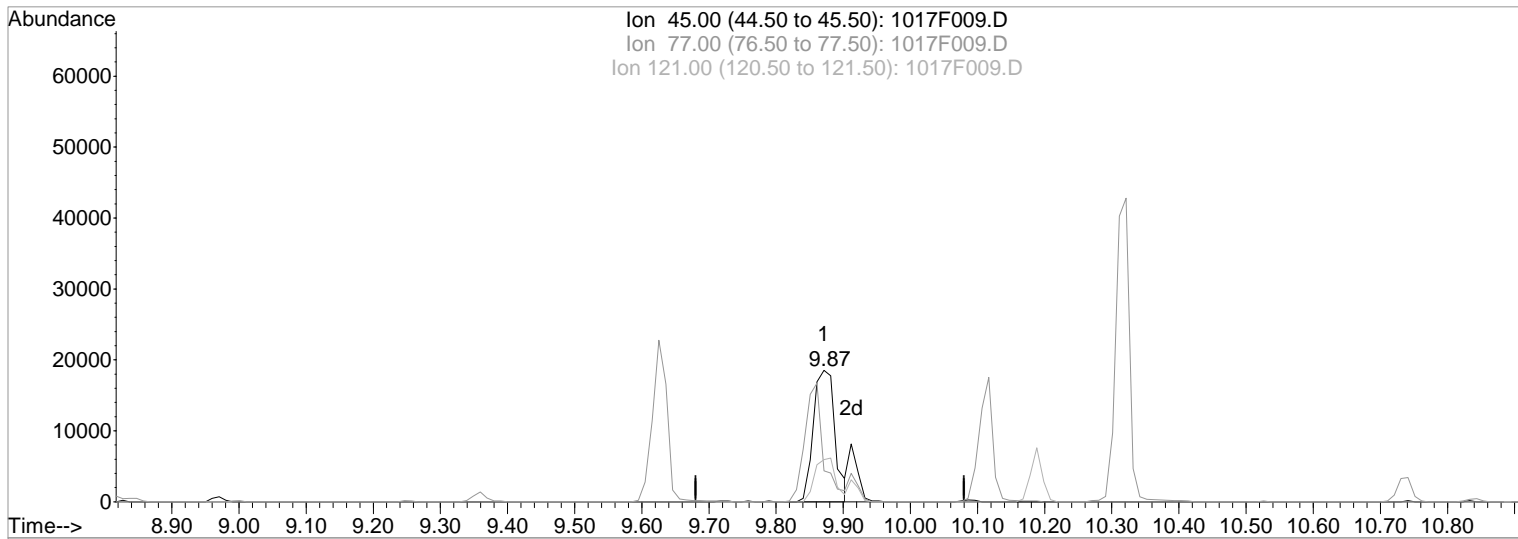
Vial: 9
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 8:28 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F009.D

(15) 2,2'-oxybis(1-chloropropane) (T)

Manual Integration:

9.87min 42.20ug/ml

Before

response 41466

Ion	Exp%	Act%
45.00	100	100
77.00	19.30	20.71
121.00	32.30	32.04
0.00	0.00	0.00

10/18/19

Data File : J:\MS07\DATA\101719\1017F009.D
 Acq On : 17 Oct 2019 5:58 pm
 Sample : 8270/P ICAL @ 50ppm | SVM62-22I
 Misc :

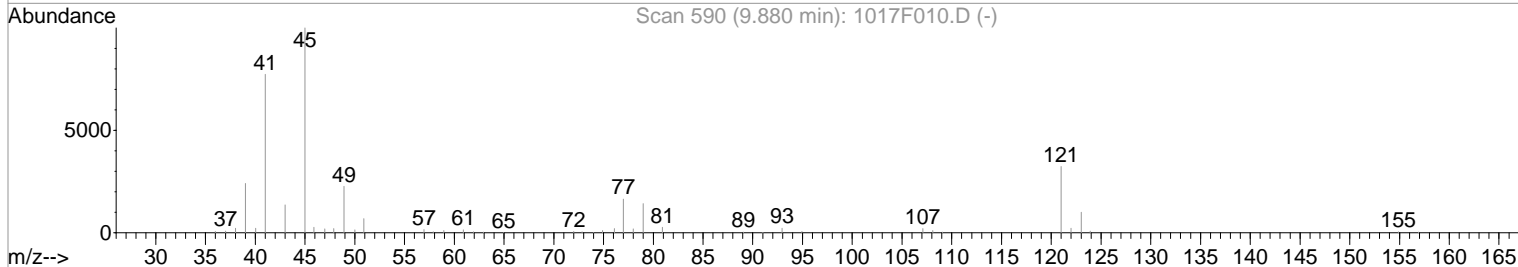
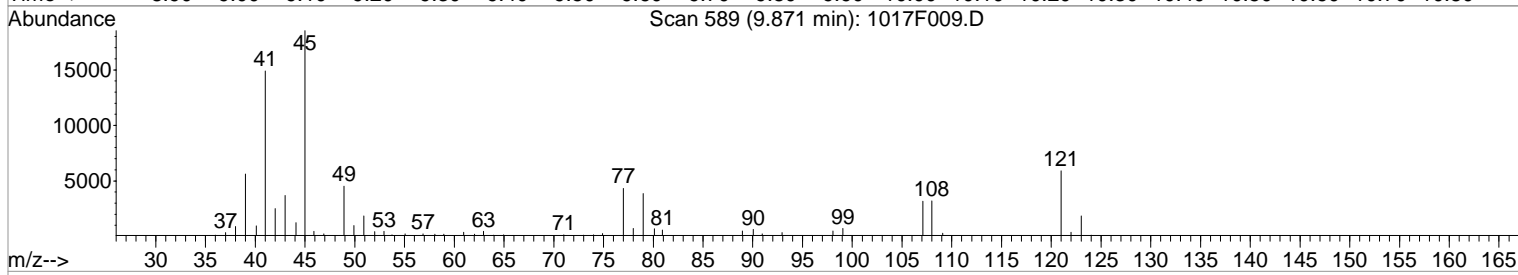
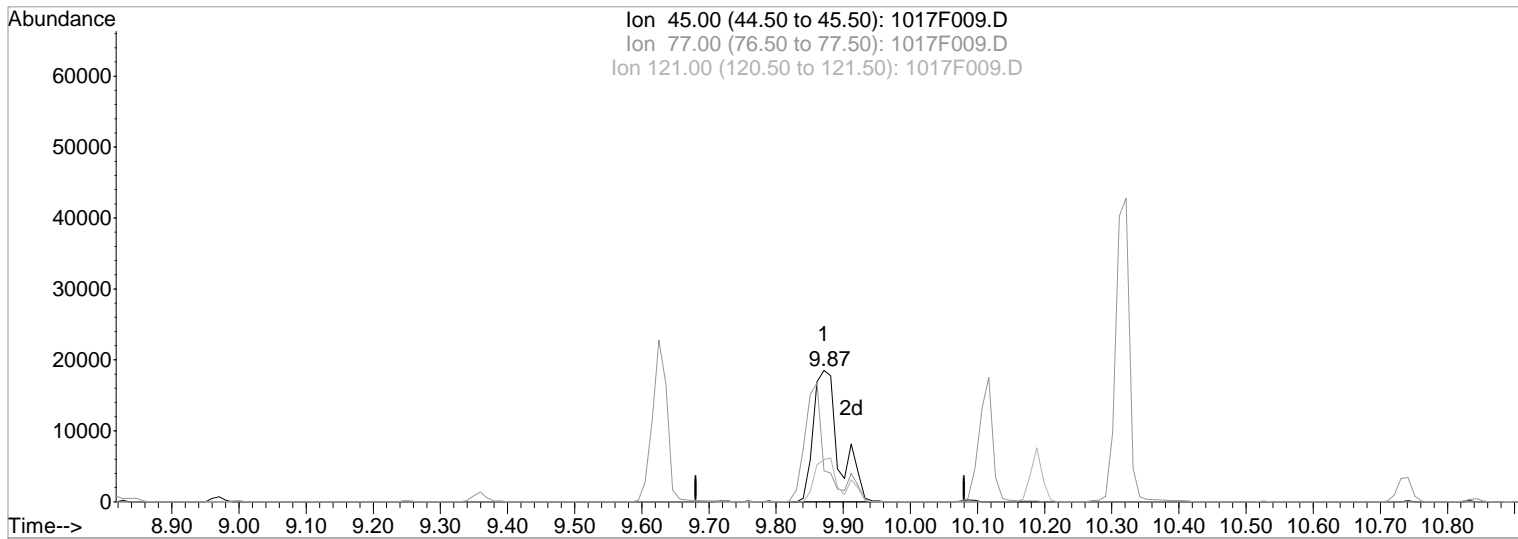
Vial: 9
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 8:57 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F009.D

(15) 2,2'-oxybis(1-chloropropane) (T)

Manual Integration:

9.87min 50.33ug/ml m

After

response 49447

IC - incomplete

Ion	Exp%	Act%
45.00	100	100
77.00	19.30	23.40
121.00	32.30	31.93
0.00	0.00	0.00

10/18/19

Data File : J:\MS07\DATA\101719\1017F009.D
 Acq On : 17 Oct 2019 5:58 pm
 Sample : 8270/P ICAL @ 50ppm | SVM62-22I
 Misc :

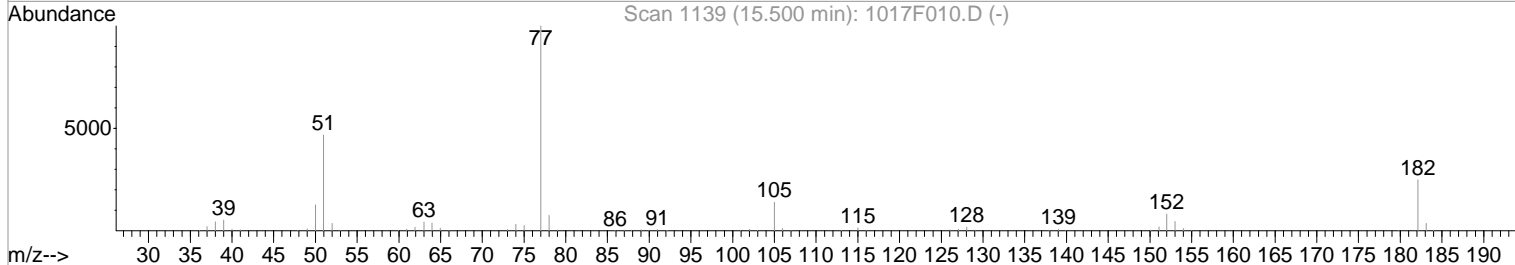
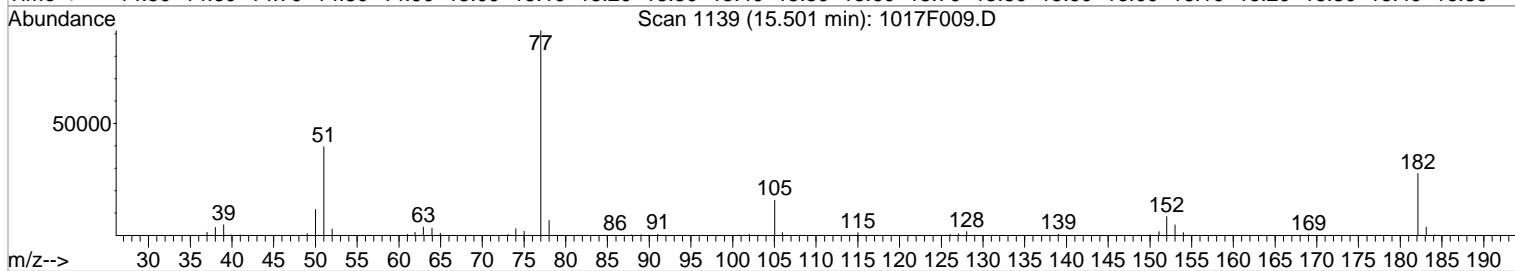
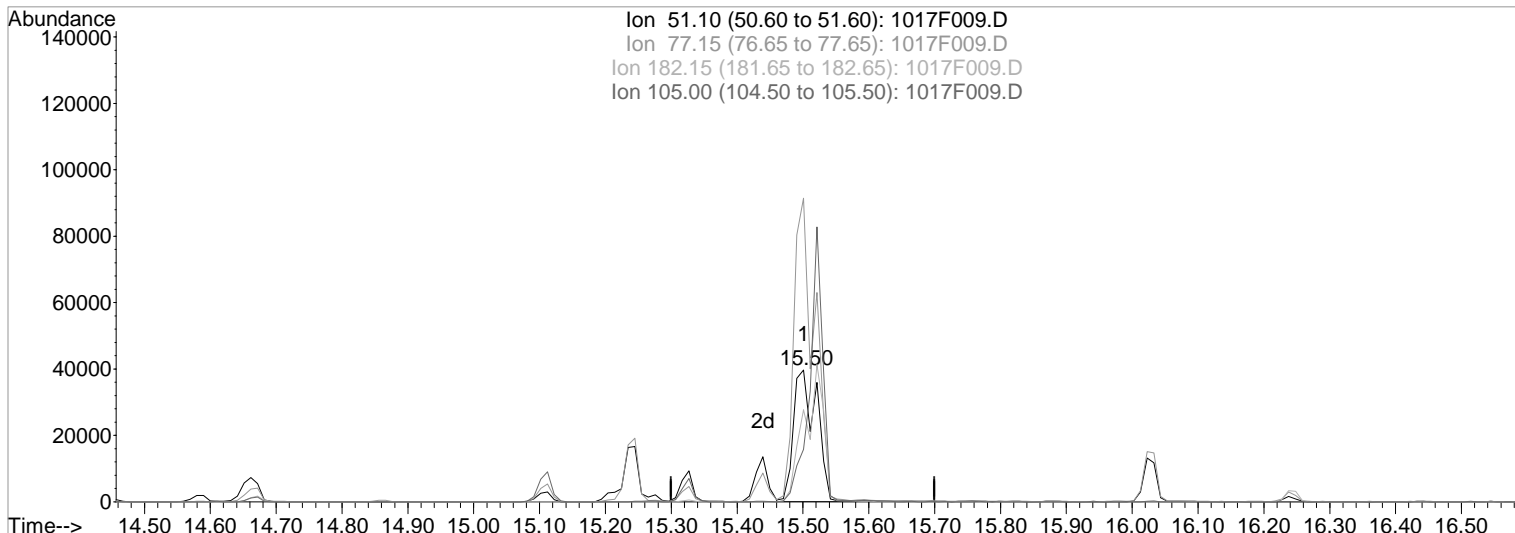
Vial: 9
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 8:57 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F009.D

(59) Azobenzene (T)

Manual Integration:

15.50min 73.36ug/ml

Before

response 96970

Ion Exp% Act%

10/18/19

51.10 100 100

77.15 213.80 231.32

182.15 52.80 70.30

105.00 29.60 39.89

Data File : J:\MS07\DATA\101719\1017F009.D
 Acq On : 17 Oct 2019 5:58 pm
 Sample : 8270/P ICAL @ 50ppm | SVM62-22I
 Misc :

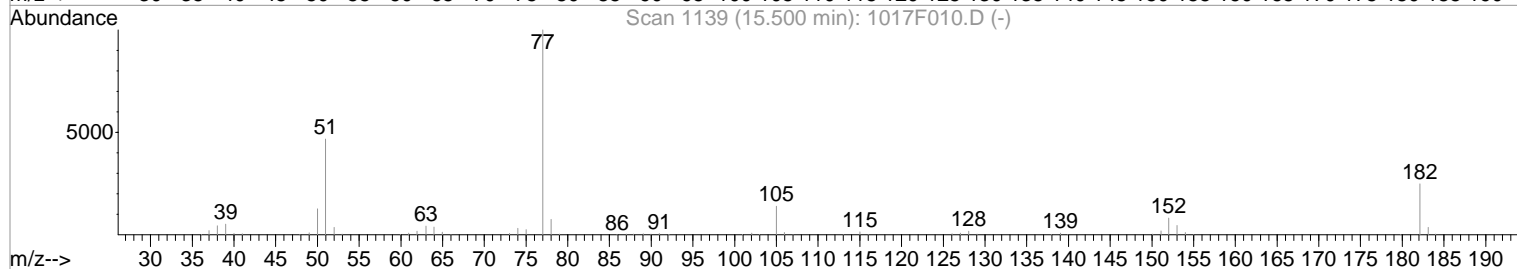
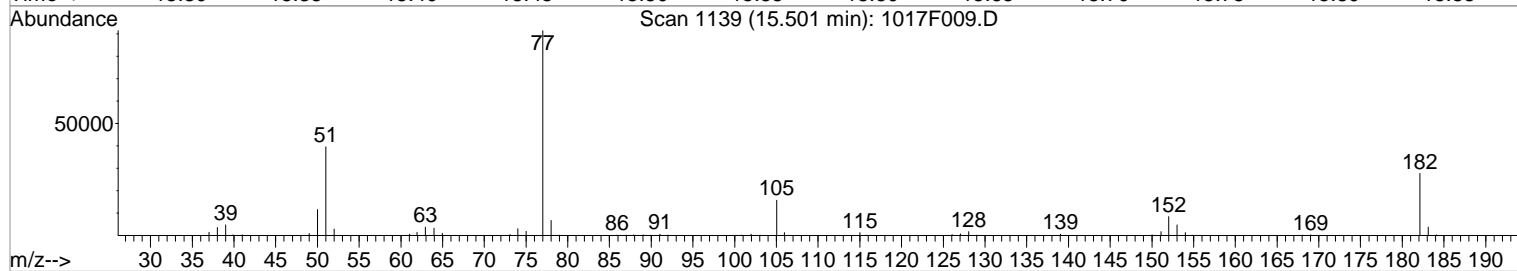
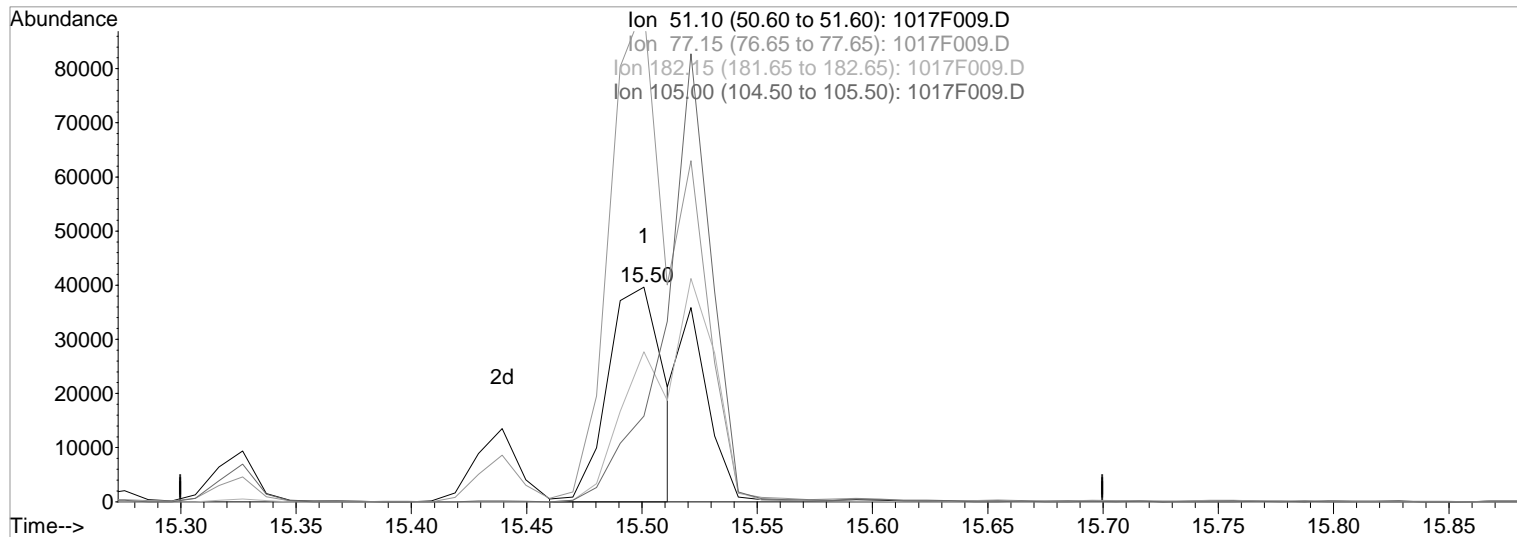
Vial: 9
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 8:58 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F009.D

(59) Azobenzene (T)

Manual Integration:

15.50min 50.56ug/ml m
 response 66837

After
 IC - overintegrated

Ion	Exp%	Act%
51.10	100	100
77.15	213.80	230.68
182.15	52.80	69.88
105.00	29.60	39.87

10/18/19

Data File : J:\MS07\DATA\101719\1017F009.D
 Acq On : 17 Oct 2019 5:58 pm
 Sample : 8270/P ICAL @ 50ppm | SVM62-22I
 Misc :

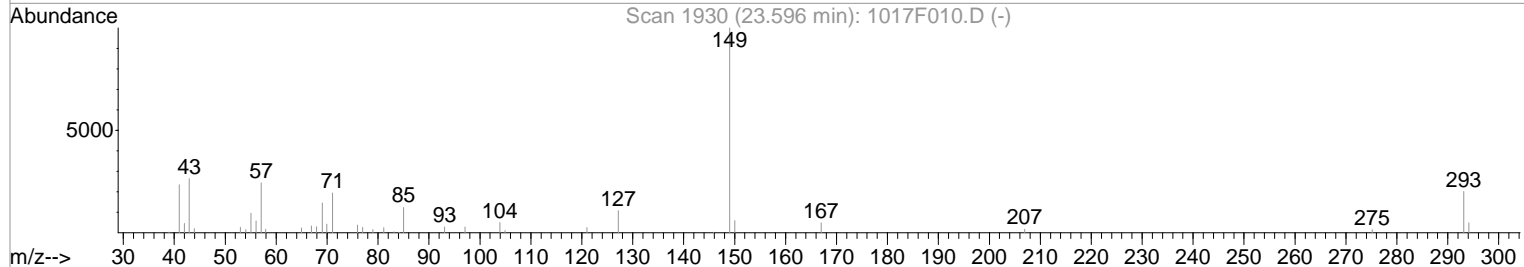
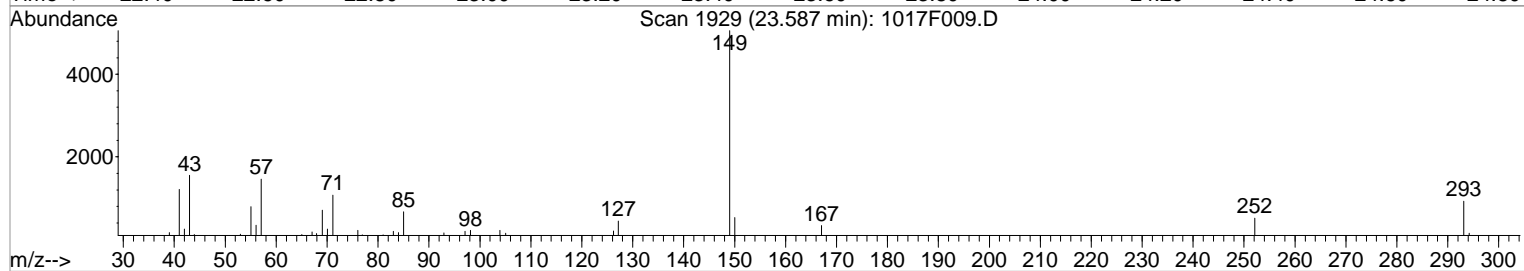
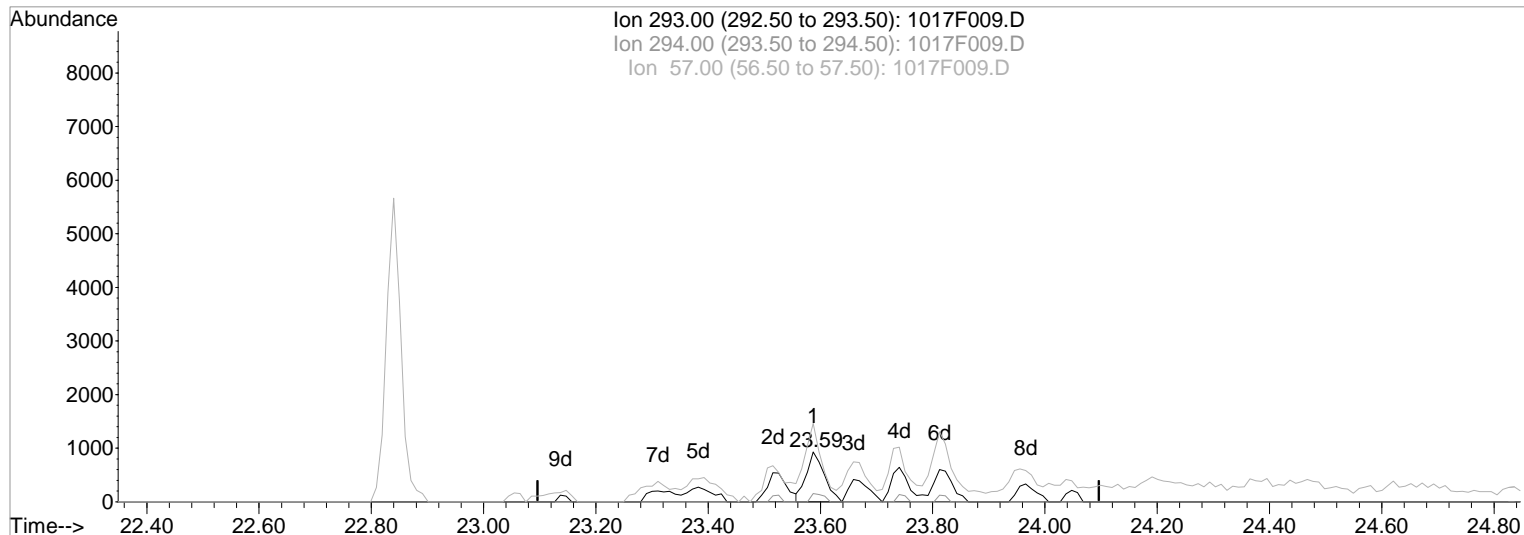
Vial: 9
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 8:58 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F009.D

(88) Diisononyl Phthalate (T)

Manual Integration:

23.59min 8.84ug/ml

Before

response 2053

Ion	Exp%	Act%
293.00	100	100
294.00	2.90	11.79
57.00	25.80	116.76#
0.00	0.00	0.00

10/18/19

Data File : J:\MS07\DATA\101719\1017F009.D
 Acq On : 17 Oct 2019 5:58 pm
 Sample : 8270/P ICAL @ 50ppm | SVM62-22I
 Misc :

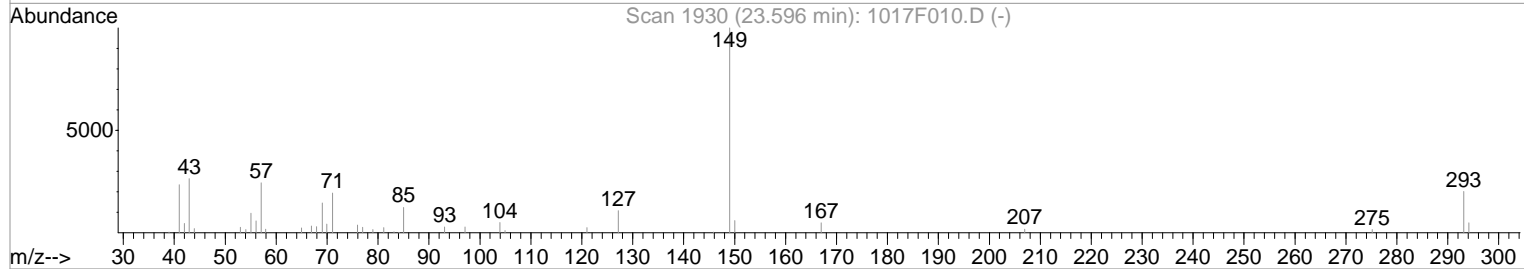
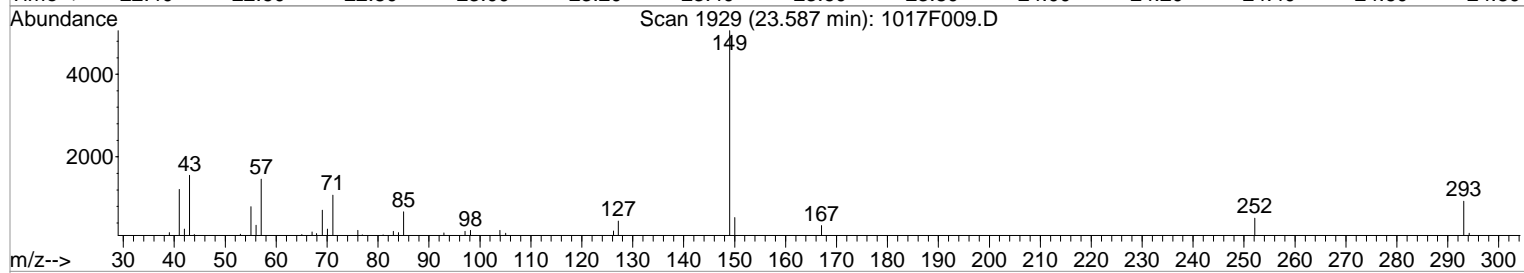
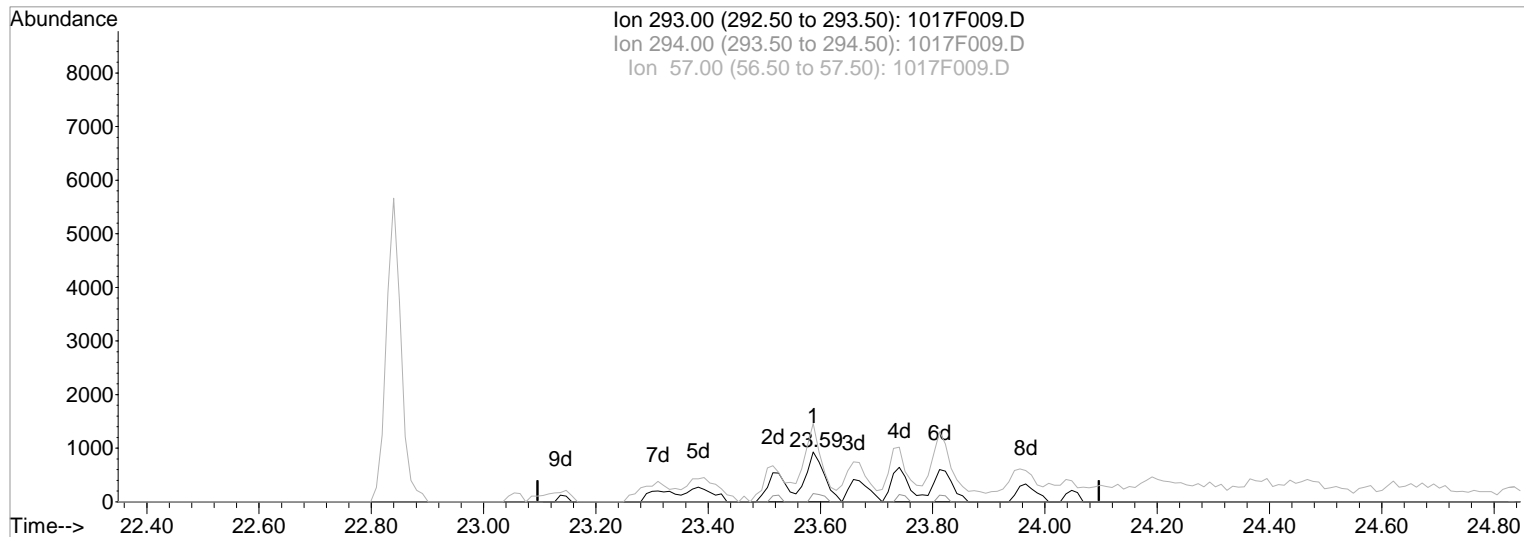
Vial: 9
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 8:59 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F009.D

(88) Diisononyl Phthalate (T)

23.59min 42.91ug/ml m

response 9971

Ion	Exp%	Act%
293.00	100	100
294.00	2.90	2.43
57.00	25.80	24.04
0.00	0.00	0.00

Manual Integration:

After

Range integration correction

10/18/19

Data File : J:\MS07\DATA\101719\1017F009.D
 Acq On : 17 Oct 2019 5:58 pm
 Sample : 8270/P ICAL @ 50ppm | SVM62-22I
 Misc :

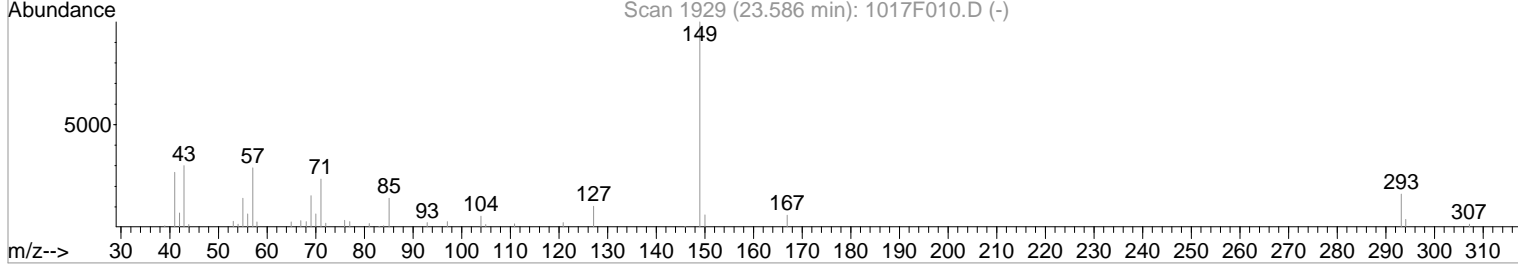
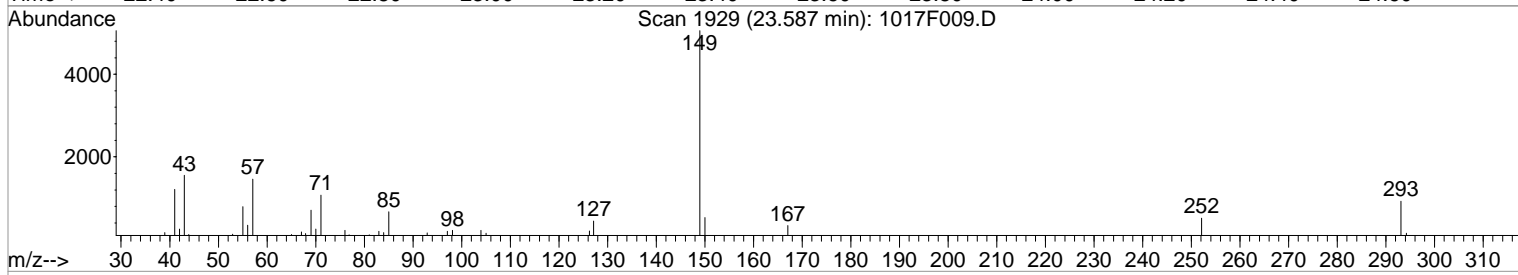
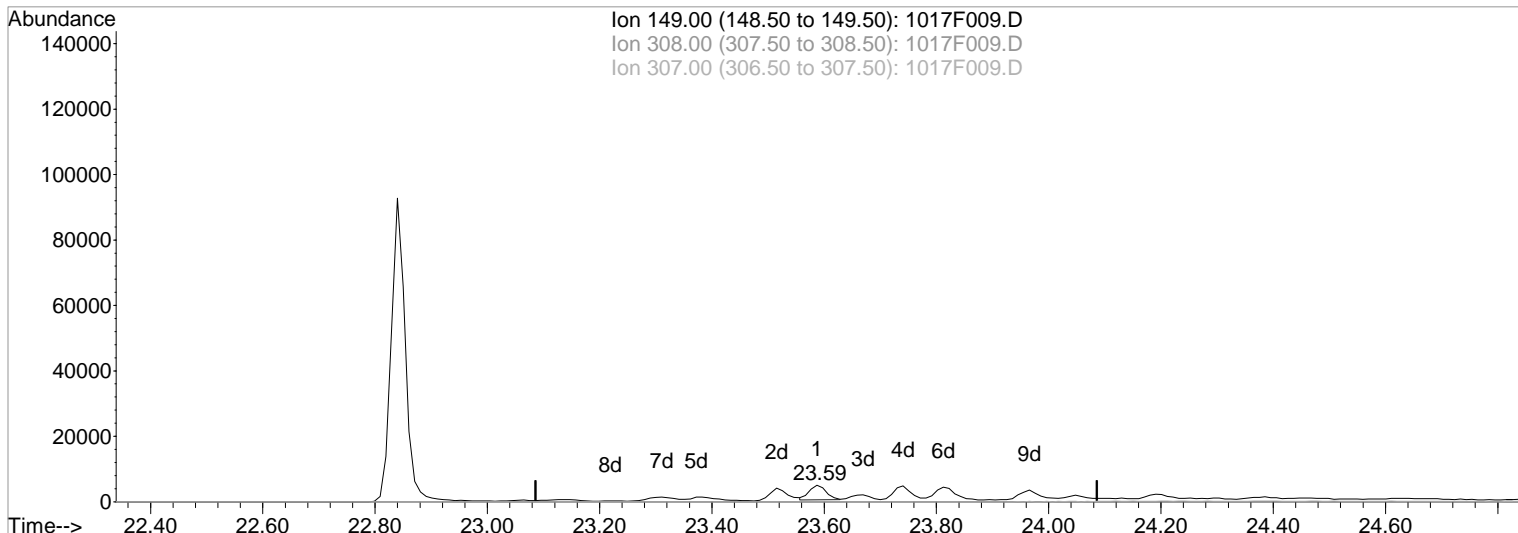
Vial: 9
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 8:59 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F009.D

(89) Diisodecyl Phthalate (T)

Manual Integration:

23.59min 2.99ug/ml

Before

response 9224

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.00
307.00	0.00	0.00
0.00	0.00	0.00

10/18/19

Data File : J:\MS07\DATA\101719\1017F009.D
 Acq On : 17 Oct 2019 5:58 pm
 Sample : 8270/P ICAL @ 50ppm | SVM62-22I
 Misc :

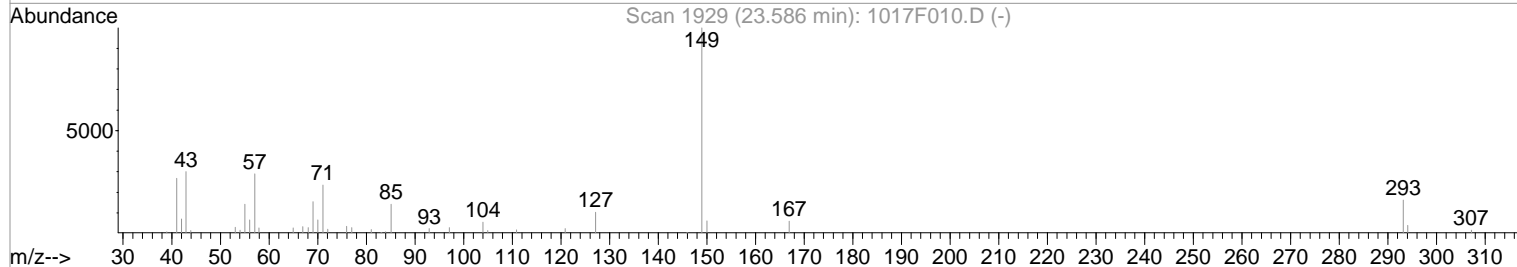
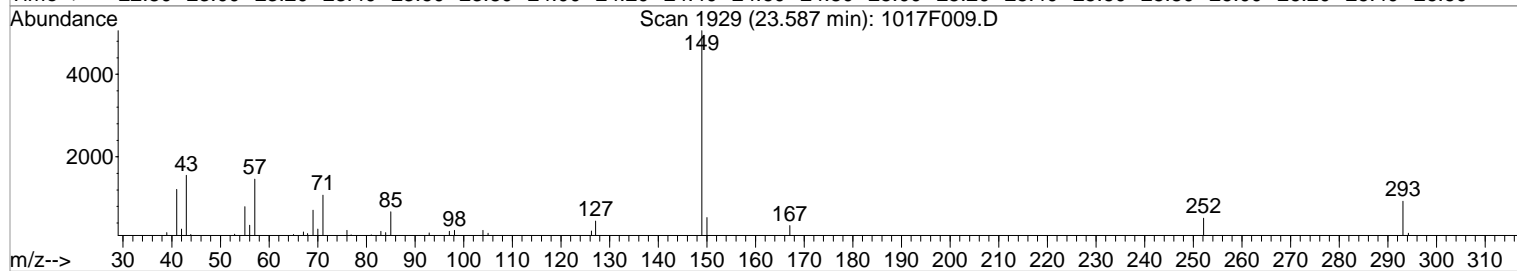
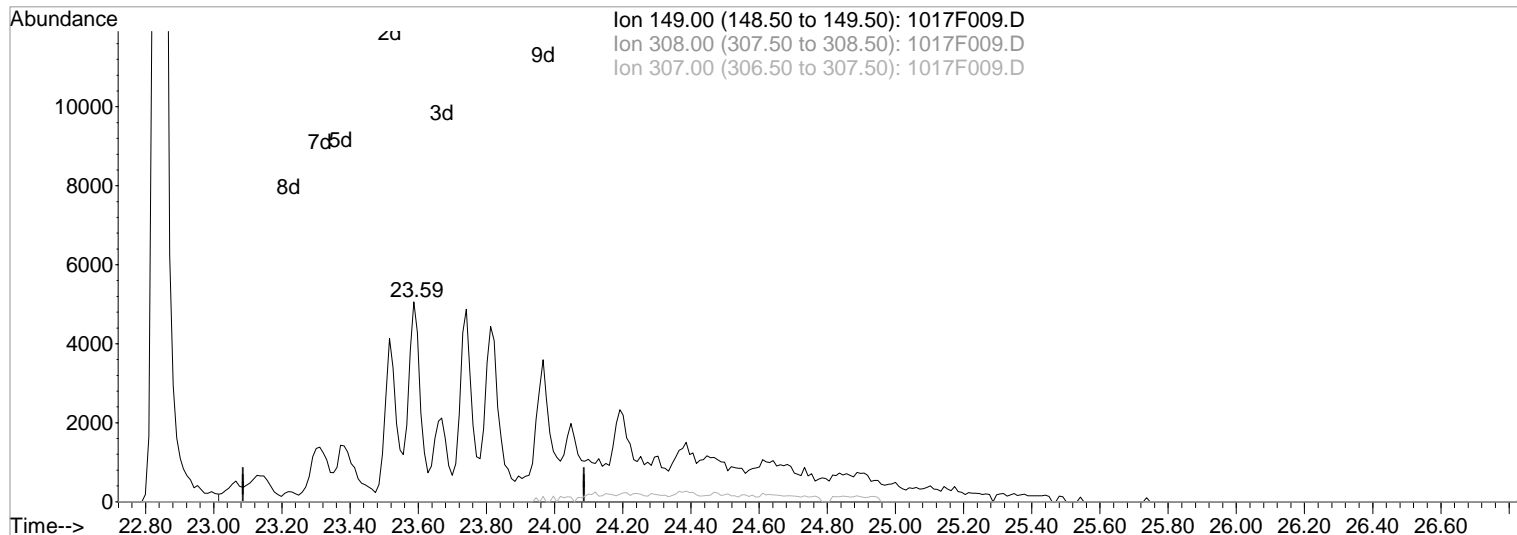
Vial: 9
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 8:59 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F009.D

(89) Diisodecyl Phthalate (T)

23.59min 46.39ug/ml m

response 142963

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.00
307.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Range integration correction

10/18/19

Data File : J:\MS07\DATA\101719\1017F010.D
 Acq On : 17 Oct 2019 6:40 pm
 Sample : 8270/P ICAL @ 80ppm | SVM62-22J
 Misc :

Vial: 10
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 08:27:15 2019

Quant Results File: 101719_BNP7.RES

Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.36	152	39813	40.00	ug/ml	0.00
22) Naphthalene-d8	11.46	136	155396	40.00	ug/ml	0.00
36) Acenaphthene-d10	14.32	164	80265	40.00	ug/ml	0.00
61) Phenanthrene-d10	16.73	188	117405	40.00	ug/ml	0.00
73) Chrysene-d12	21.16	240	102298	40.00	ug/ml	0.00
84) Perylene-d12	24.33	264	116461	40.00	ug/ml	0.00

System Monitoring Compounds

4) 2-Fluorophenol	7.14	112	100538	80.00	ug/ml	0.00
Spiked Amount	150.000	Range	21 - 100	Recovery	=	53.33%
8) Phenol-d6	8.85	99	128528	80.00	ug/ml	0.00
Spiked Amount	150.000	Range	10 - 94	Recovery	=	53.33%
20) Nitrobenzene-d5	10.29	82	132795	80.00	ug/ml	0.00
Spiked Amount	100.000	Range	35 - 114	Recovery	=	80.00%
40) 2-Fluorobiphenyl	13.26	172	255413	80.00	ug/ml	0.00
Spiked Amount	100.000	Range	43 - 116	Recovery	=	80.00%
62) 2,4,6-Tribromophenol	15.61	330	65225	80.00	ug/ml	0.00
Spiked Amount	150.000	Range	10 - 123	Recovery	=	53.33%
76) Terphenyl-d14	19.36	244	244936	80.01	ug/ml	0.00
Spiked Amount	100.000	Range	33 - 141	Recovery	=	80.01%

Target Compounds

						Qvalue
2) N-Nitrosodimethylamine	4.33	42	74255	80.00	ug/ml	100
3) Pyridine	4.34	79	98277	80.00	ug/ml	100
5) Ethylene Glycol Butyl Ethe	7.69	57	80189	80.00	ug/ml	100
6) Aniline	8.83	93	140484	80.00	ug/ml	100
7) Bis(2-chloroethyl) Ether	8.98	93	96312	80.00	ug/ml	100
9) Phenol	8.87	94	130991	80.00	ug/ml	100
10) 2-Chlorophenol	9.01	128	112370	80.00	ug/ml	100
11) 1,3-Dichlorobenzene	9.26	146	116215	80.00	ug/ml	100
12) 1,4-Dichlorobenzene	9.39	146	122281	80.00	ug/ml	100
13) 1,2-Dichlorobenzene	9.63	146	113967	80.00	ug/ml	100
14) Benzyl Alcohol	9.64	108	69299	80.00	ug/ml	100
15) 2,2'-oxybis(1-chloropropan	9.88	45	91756	80.00	ug/ml	100
16) 2-Methylphenol	9.87	107	86306	80.00	ug/ml	100
17) Hexachloroethane	10.19	117	56170	80.00	ug/ml	100
18) N-Nitrosodi-n-propylamine	10.11	70	71997	80.00	ug/ml	100
19) 4-Methylphenol	10.14	107	129579	80.00	ug/ml	100
21) Nitrobenzene	10.33	77	114999	80.00	ug/ml	100
23) Isophorone	10.75	82	198427	80.00	ug/ml	100
24) 2-Nitrophenol	10.85	139	66787	80.00	ug/ml	100
25) 2,4-Dimethylphenol	10.99	122	94227	80.00	ug/ml	100
26) Bis(2-chloroethoxy)methane	11.13	93	125083	80.00	ug/ml	100
27) 2,4-Dichlorophenol	11.26	162	103376	80.17	ug/ml	100
28) Benzoic Acid	11.25	122	47055	80.00	ug/ml	100
29) 1,2,4-Trichlorobenzene	11.37	180	107113	80.00	ug/ml	100
30) Naphthalene	11.50	128	297141	80.00	ug/ml	100
31) n-Dodecane	11.56	57	92305	80.00	ug/ml	100
32) 4-Chloroaniline	11.62	127	133043	80.00	ug/ml	100
33) Hexachlorobutadiene	11.73	225	76852	80.00	ug/ml	100
34) 4-Chloro-3-methylphenol	12.44	107	94074	80.08	ug/ml	100
35) 2-Methylnaphthalene	12.63	142	202130	80.00	ug/ml	100
37) Hexachlorocyclopentadiene	12.90	237	86297	80.00	ug/ml	100
38) 2,4,6-Trichlorophenol	13.11	196	72666	80.00	ug/ml	100
39) 2,4,5-Trichlorophenol	13.17	196	78423	80.00	ug/ml	100
41) 2-Chloronaphthalene	13.42	162	193123	80.14	ug/ml	100
42) 2-Nitroaniline	13.62	65	57730	80.00	ug/ml	100
43) Acenaphthylene	14.09	152	277352	80.05	ug/ml	100

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS07\DATA\101719\1017F010.D
 Acq On : 17 Oct 2019 6:40 pm
 Sample : 8270/P ICAL @ 80ppm | SVM62-22J
 Misc :

Vial: 10
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 08:27:15 2019

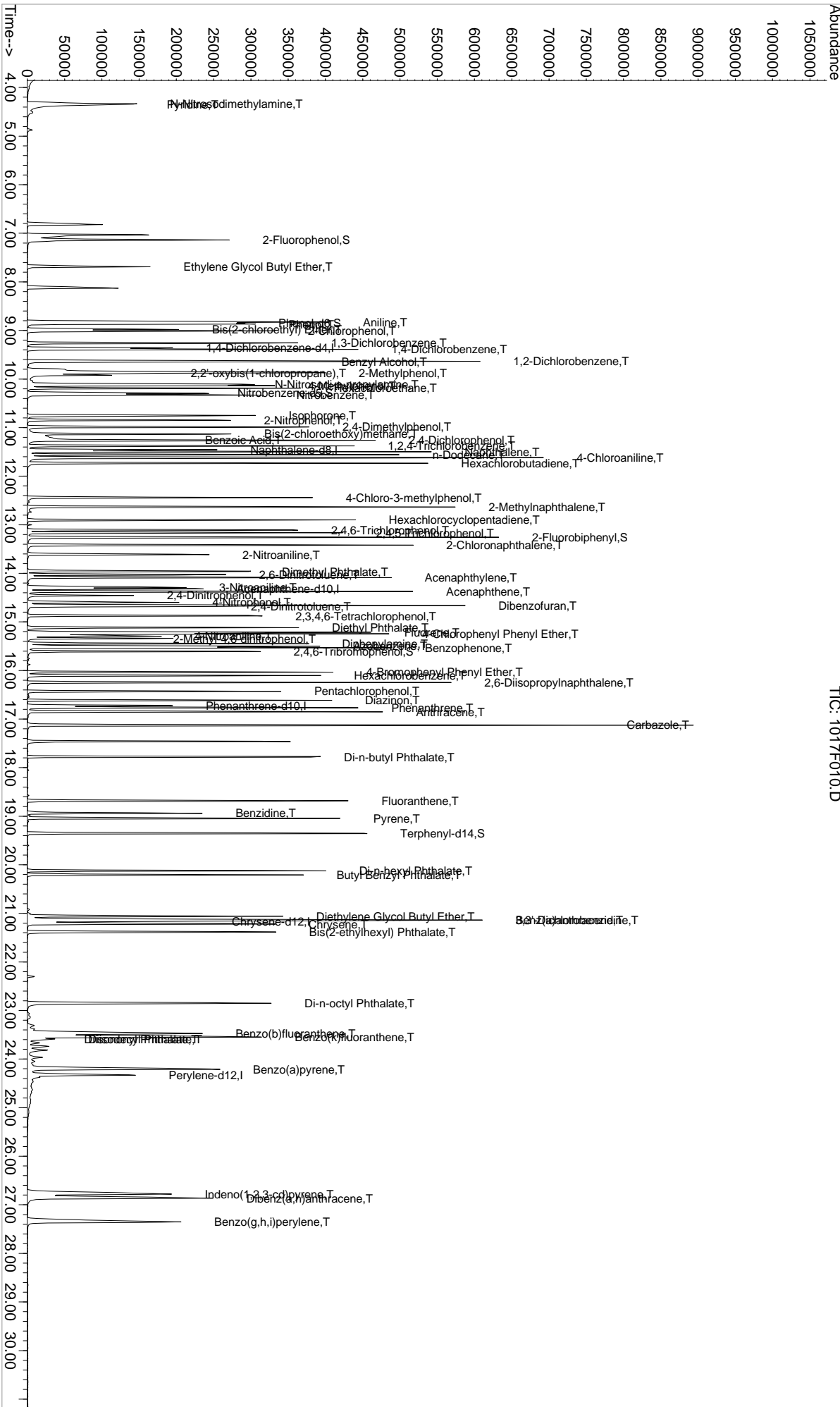
Quant Results File: 101719_BNP7.RES

Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44) Dimethyl Phthalate	13.96	163	199965	80.00	ug/ml	100
45) 2,6-Dinitrotoluene	14.03	165	48822	80.00	ug/ml	100
46) Acenaphthene	14.37	154	164112	80.00	ug/ml	100
47) 3-Nitroaniline	14.29	138	50619	80.00	ug/ml	100
48) 2,4-Dinitrophenol	14.46	184	25667	80.00	ug/ml	100
49) Dibenzofuran	14.66	168	260339	80.00	ug/ml	100
50) 4-Nitrophenol	14.60	109	38608	80.00	ug/ml	100
51) 2,4-Dinitrotoluene	14.68	165	61023	80.00	ug/ml	100
52) 2,3,4,6-Tetrachlorophenol	14.88	232	57811	80.00	ug/ml	100
53) Fluorene	15.21	166	190633	80.00	ug/ml	100
54) 4-Chlorophenyl Phenyl Ethe	15.24	204	101970	80.00	ug/ml	100
55) Diethyl Phthalate	15.12	149	189408	80.00	ug/ml	100
56) 4-Nitroaniline	15.30	138	50048	80.00	ug/ml	100
57) 2-Methyl-4,6-dinitrophenol	15.35	198	39019	80.00	ug/ml	100
58) Diphenylamine	15.45	169	127592	80.00	ug/ml	100
59) Azobenzene	15.50	51	109997m	80.00	ug/ml	100
60) Benzophenone	15.53	105	183047	80.00	ug/ml	100
63) 4-Bromophenyl Phenyl Ether	16.03	248	66706	80.00	ug/ml	100
64) Hexachlorobenzene	16.10	284	85432	80.00	ug/ml	100
65) 2,6-Diisopropyl naphthalene	16.25	197	157434	80.00	ug/ml	100
66) Pentachlorophenol	16.43	266	52940	80.00	ug/ml	100
67) Diazinon	16.62	137	38639	80.00	ug/ml	100
68) Phenanthrene	16.77	178	246391	80.00	ug/ml	100
69) Anthracene	16.85	178	255009	80.00	ug/ml	100
70) Carbazole	17.13	167	237873	80.00	ug/ml	100
71) Di-n-butyl Phthalate	17.78	149	305044	79.92	ug/ml	100
72) Fluoranthene	18.68	202	268052	80.00	ug/ml	100
74) Benzidine	18.94	184	113406	80.00	ug/ml	100
75) Pyrene	19.04	202	265767	80.00	ug/ml	100
77) Di-n-hexyl Phthalate	20.13	149	290114	80.00	ug/ml	100
78) Butyl Benzyl Phthalate	20.21	149	123014	80.00	ug/ml	100
79) Diethylene Glycol Butyl Et	21.06	105	179995	80.00	ug/ml	100
80) 3,3'-Dichlorobenzidine	21.14	252	114484	80.00	ug/ml	100
81) Benz(a)anthracene	21.14	228	217718	80.00	ug/ml	100
82) Chrysene	21.22	228	223198	80.08	ug/ml	100
83) Bis(2-ethylhexyl) Phthalat	21.39	149	159898	80.00	ug/ml	100
85) Di-n-octyl Phthalate	22.85	149	291096	79.89	ug/ml	100
86) Benzo(b)fluoranthene	23.47	252	278586	80.00	ug/ml	100
87) Benzo(k)fluoranthene	23.55	252	257056	80.00	ug/ml	100
88) Diisononyl Phthalate	23.60	293	19453m	80.00	ug/ml	100
89) Diisodecyl Phthalate	23.59	149	258206m	80.06	ug/ml	100
90) Benzo(a)pyrene	24.21	252	246902	80.00	ug/ml	100
91) Indeno(1,2,3-cd)pyrene	26.78	276	252082m	80.00	ug/ml	100
92) Dibenz(a,h)anthracene	26.86	278	258352	80.00	ug/ml	100
93) Benzo(g,h,i)perylene	27.35	276	258168	80.00	ug/ml	100

Data File : J:\MS07\DATA\101719\1017F010.D
Acq On : 17 Oct 2019 6:40 pm
Sample : 8270/P ICAL @ 80ppm | SVM62-22J
Misc :
MS Integration Params: RTEINT.P
Quant Results File: 101719_BNP7.RES
Vial: 10
Operator: CCONOVER/LM
Inst: MS07
Multiplr: 1.00

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
Title : BNA Calibration
Last Update : Fri Oct 18 09:20:51 2019
Response via : Initial Calibration
MS07



Quantitation Report (QT Reviewed)

Data File : J:\MS07\DATA\101719\1017F010.D
 Acq On : 17 Oct 2019 6:40 pm
 Sample : 8270/P ICAL @ 80ppm | SVM62-22J
 Misc :

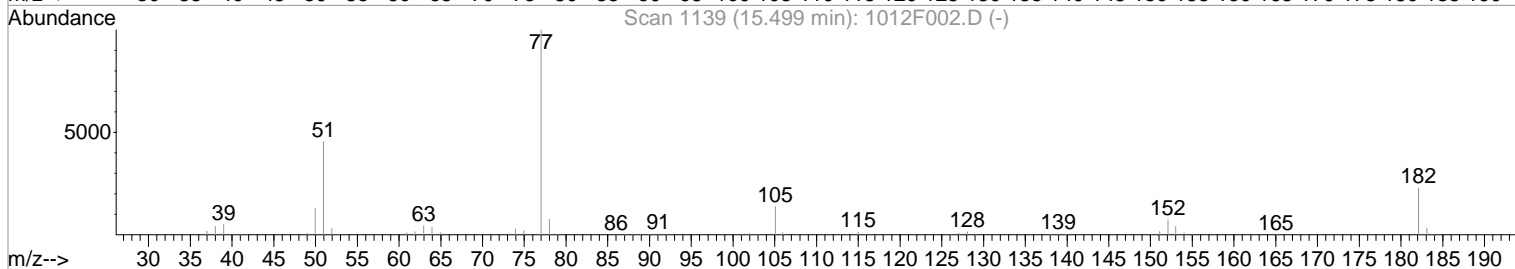
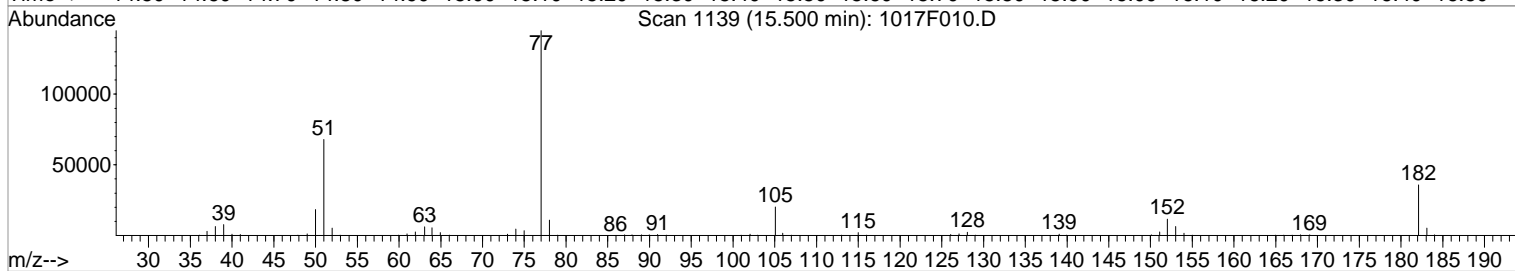
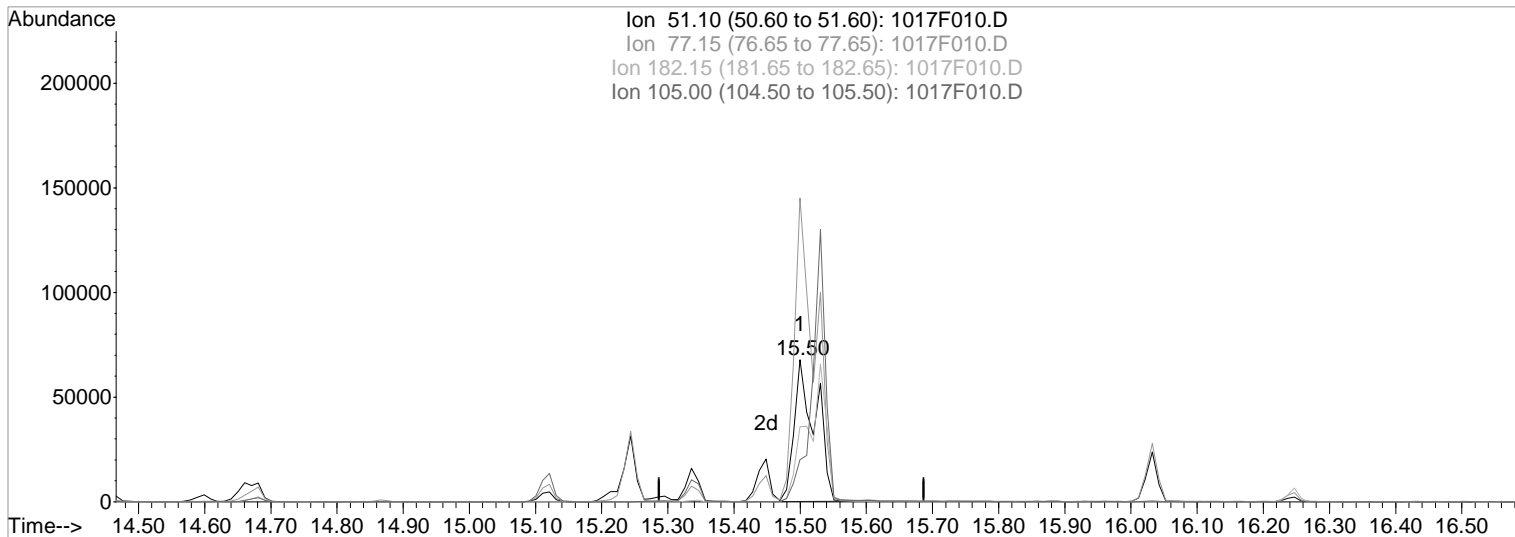
Vial: 10
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 8:19 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:13:50 2019
 Response via : Multiple Level Calibration



TIC: 1017F010.D

(59) Azobenzene (T)

Manual Integration:

15.50min 128.77ug/ml
 response 153553

Before

Ion	Exp%	Act%
51.10	100	100
77.15	260.40	214.12#
182.15	59.10	52.99
105.00	36.00	29.27

10/18/19

Data File : J:\MS07\DATA\101719\1017F010.D
 Acq On : 17 Oct 2019 6:40 pm
 Sample : 8270/P ICAL @ 80ppm | SVM62-22J
 Misc :

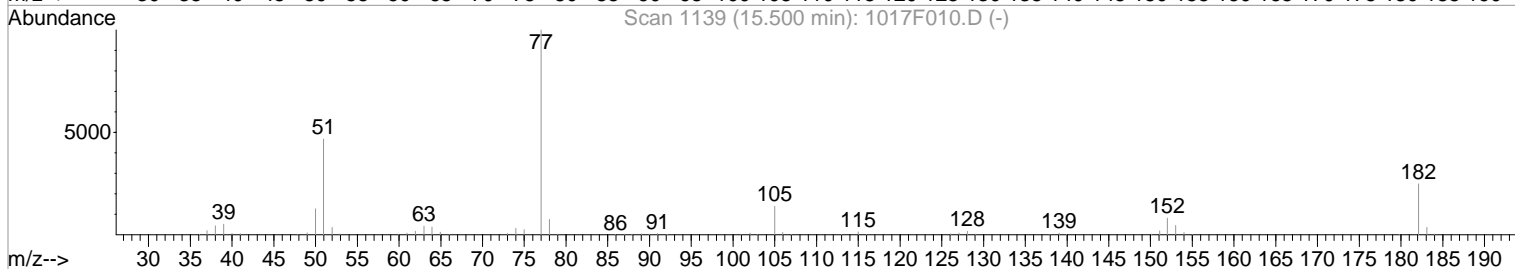
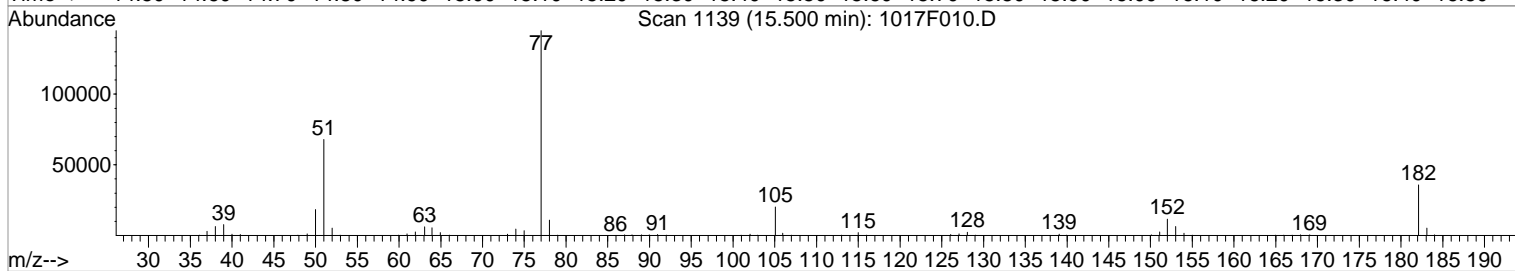
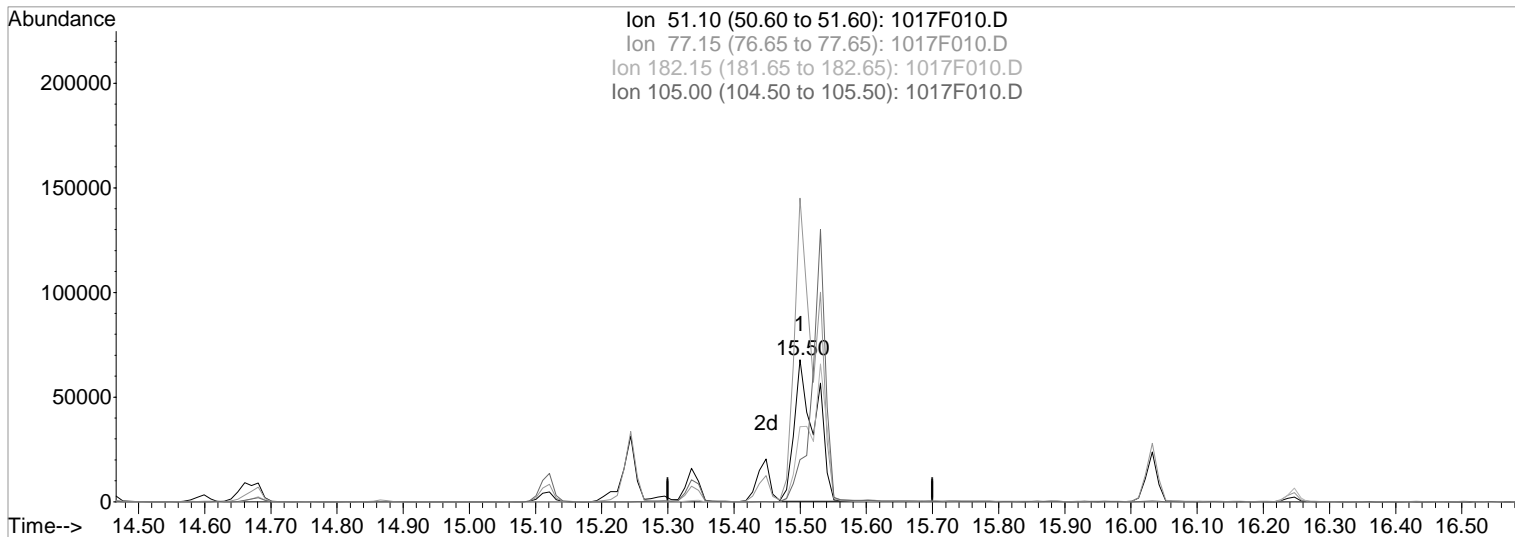
Vial: 10
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 8:28 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F010.D

(59) Azobenzene (T)

Manual Integration:

15.50min 111.64ug/ml
 response 153506

Before

Ion	Exp%	Act%
51.10	100	100
77.15	213.80	214.12
182.15	52.80	52.99
105.00	29.60	29.27

10/18/19

Data File : J:\MS07\DATA\101719\1017F010.D
 Acq On : 17 Oct 2019 6:40 pm
 Sample : 8270/P ICAL @ 80ppm | SVM62-22J
 Misc :

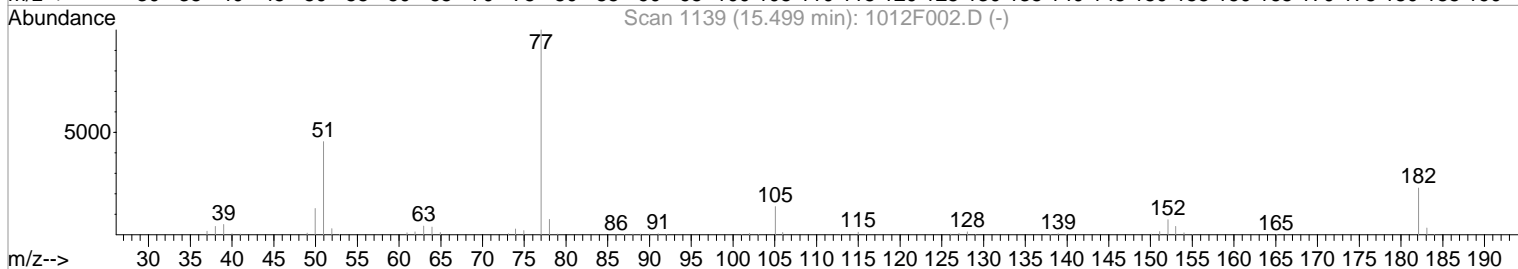
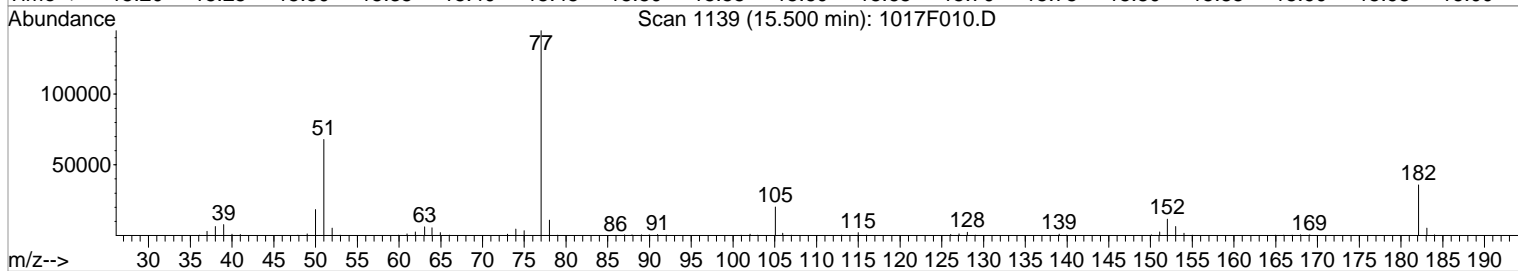
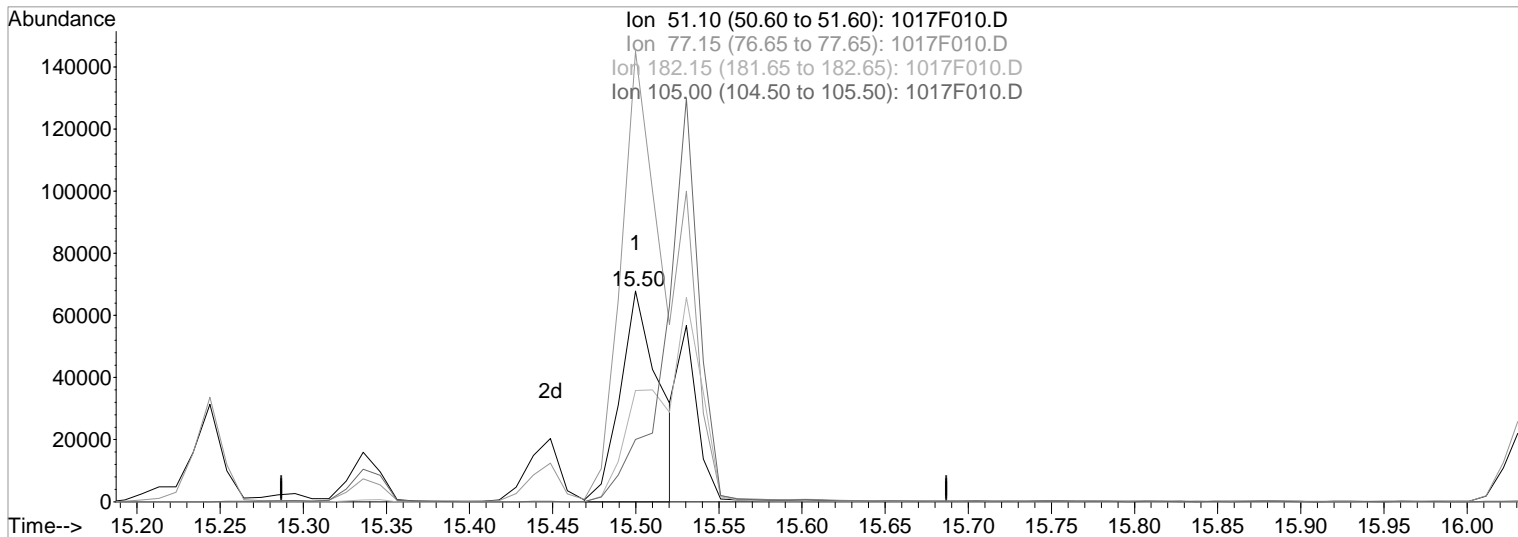
Vial: 10
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 8:23 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:13:50 2019
 Response via : Multiple Level Calibration



TIC: 1017F010.D

(59) Azobenzene (T)

Manual Integration:

15.50min 92.24ug/ml m
 response 109997

After
 IC - overintegrated

Ion	Exp%	Act%
51.10	100	100
77.15	260.40	213.82#
182.15	59.10	52.84
105.00	36.00	29.57

10/18/19

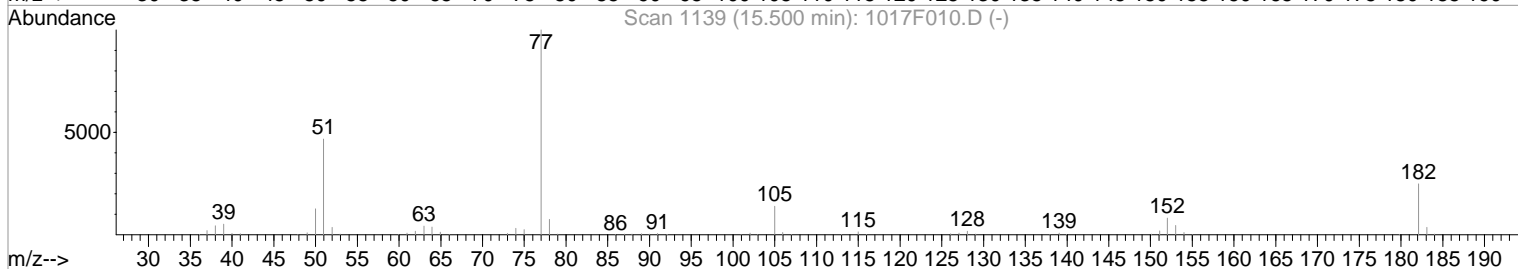
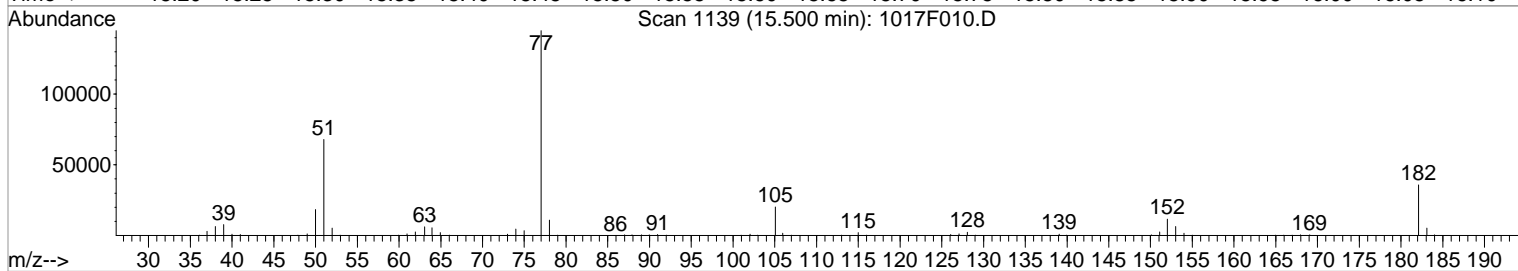
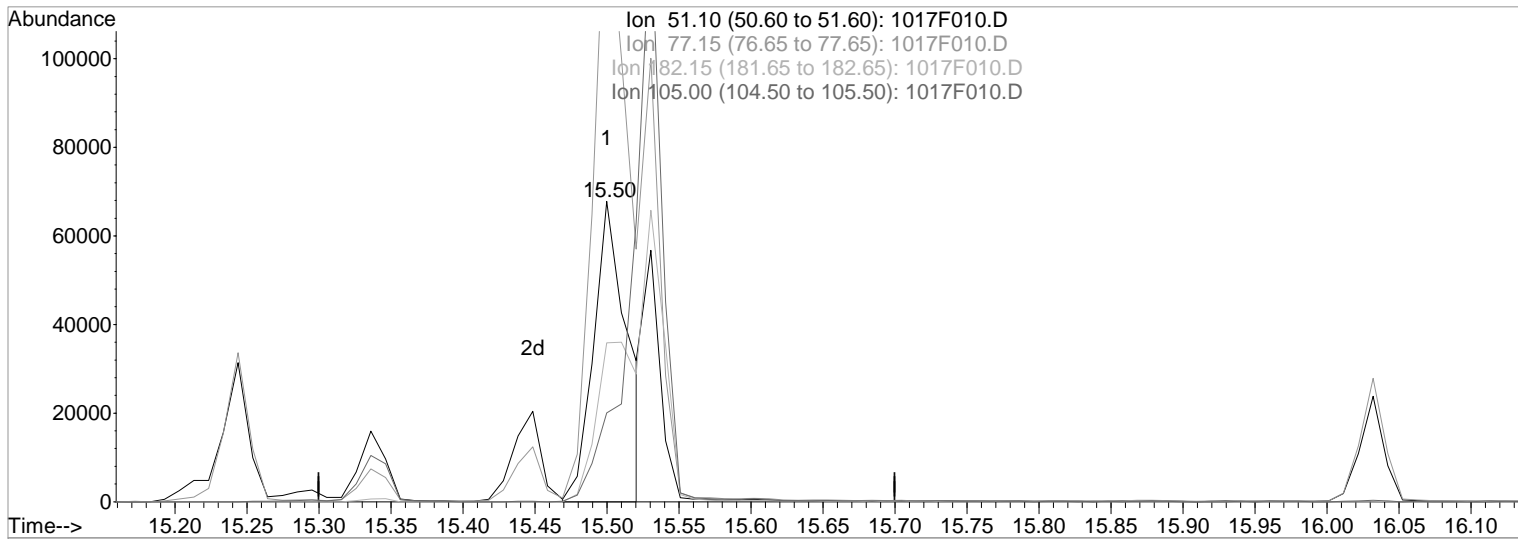
Data File : J:\MS07\DATA\101719\1017F010.D
 Acq On : 17 Oct 2019 6:40 pm
 Sample : 8270/P ICAL @ 80ppm | SVM62-22J
 Misc :

Vial: 10
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 9:01 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F010.D

(59) Azobenzene (T)

Manual Integration:

15.50min 80.00ug/ml m
 response 109997

After
 IC - overintegrated

Ion	Exp%	Act%
51.10	100	100
77.15	213.80	213.82
182.15	52.80	52.84
105.00	29.60	29.57

10/18/19

Data File : J:\MS07\DATA\101719\1017F010.D
 Acq On : 17 Oct 2019 6:40 pm
 Sample : 8270/P ICAL @ 80ppm | SVM62-22J
 Misc :

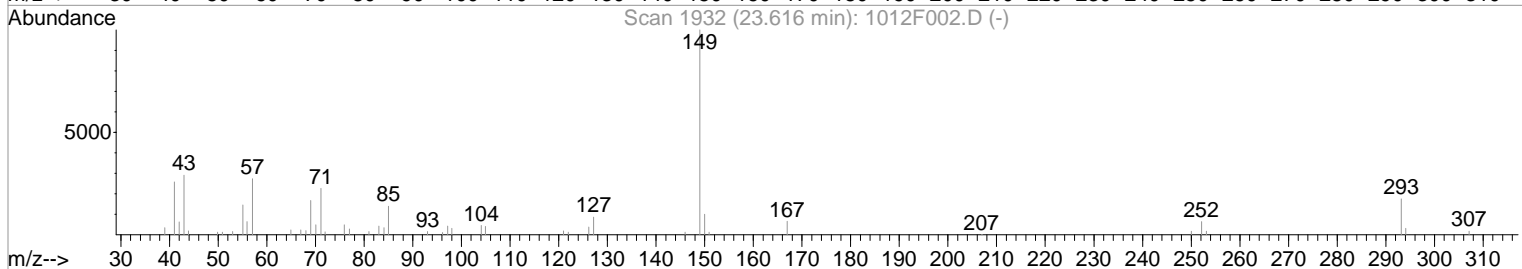
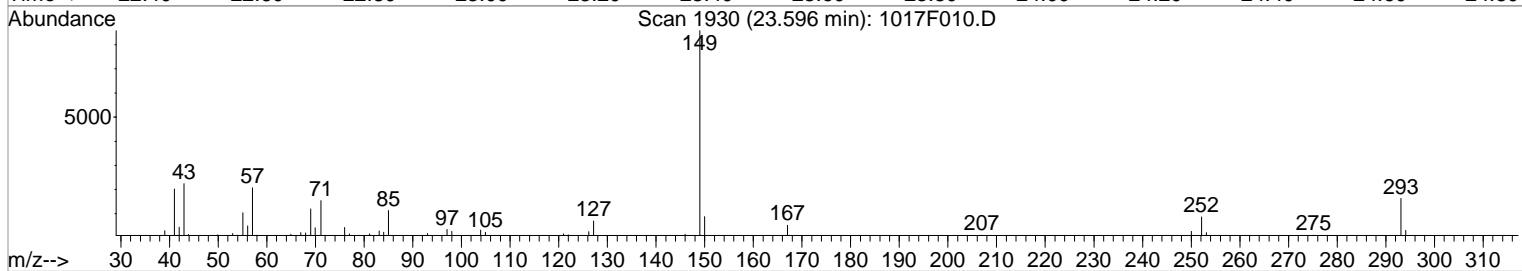
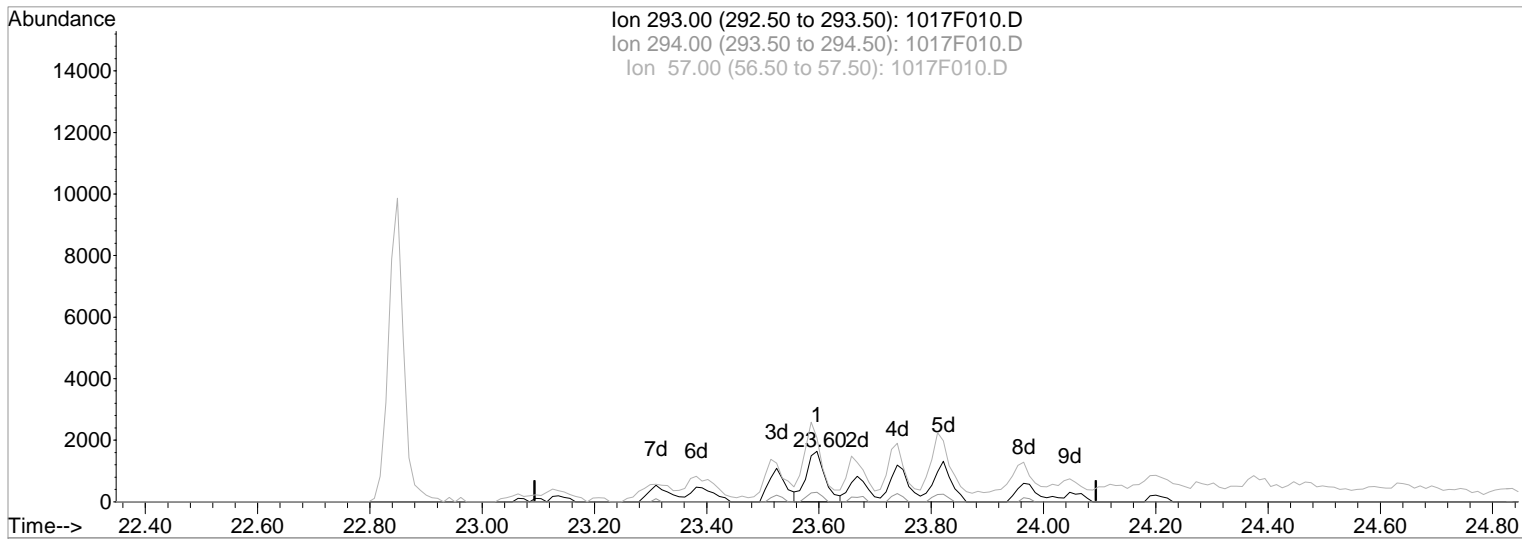
Vial: 10
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 8:23 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:13:50 2019
 Response via : Multiple Level Calibration



TIC: 1017F010.D

(88) Diisononyl Phthalate (T)

Manual Integration:

23.60min 15.91ug/ml

Before

response 3766

Ion	Exp%	Act%
293.00	100	100
294.00	1.60	14.76
57.00	15.00	133.22#
0.00	0.00	0.00

10/18/19

Data File : J:\MS07\DATA\101719\1017F010.D
 Acq On : 17 Oct 2019 6:40 pm
 Sample : 8270/P ICAL @ 80ppm | SVM62-22J
 Misc :

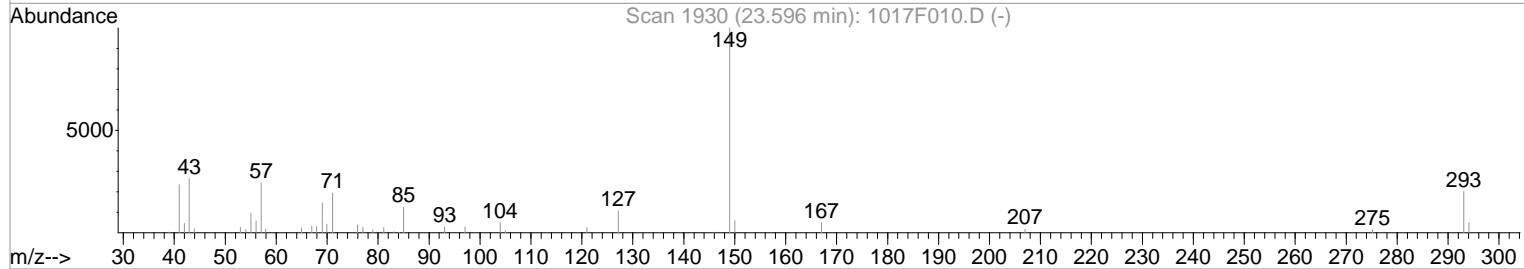
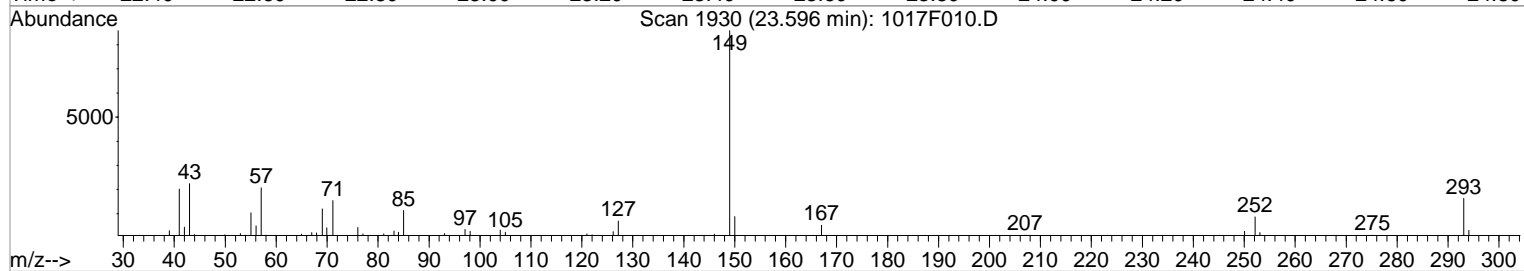
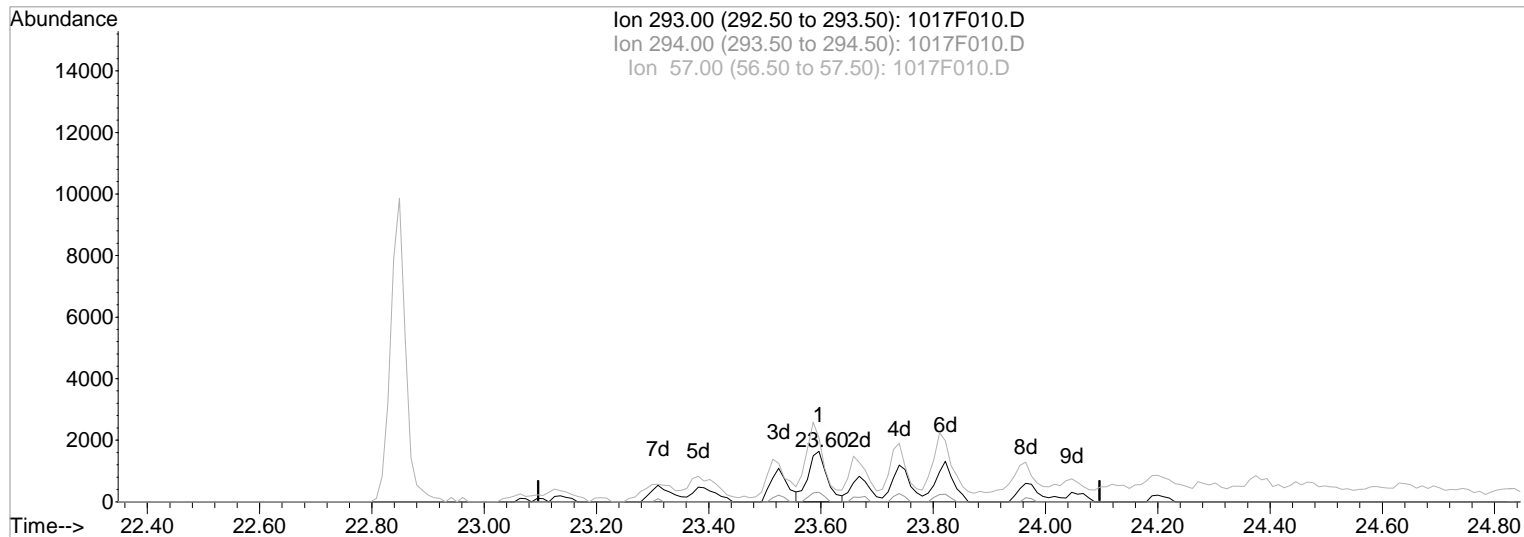
Vial: 10
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 9:01 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F010.D

(88) Diisononyl Phthalate (T)

Manual Integration:

23.60min 15.49ug/ml

Before

response 3766

Ion	Exp%	Act%
293.00	100	100
294.00	2.90	14.76
57.00	25.80	114.63#
0.00	0.00	0.00

10/18/19

Data File : J:\MS07\DATA\101719\1017F010.D
 Acq On : 17 Oct 2019 6:40 pm
 Sample : 8270/P ICAL @ 80ppm | SVM62-22J
 Misc :

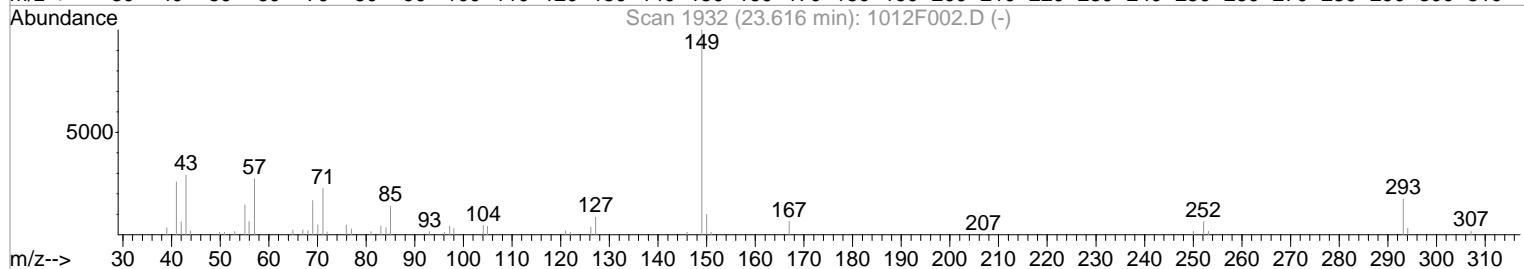
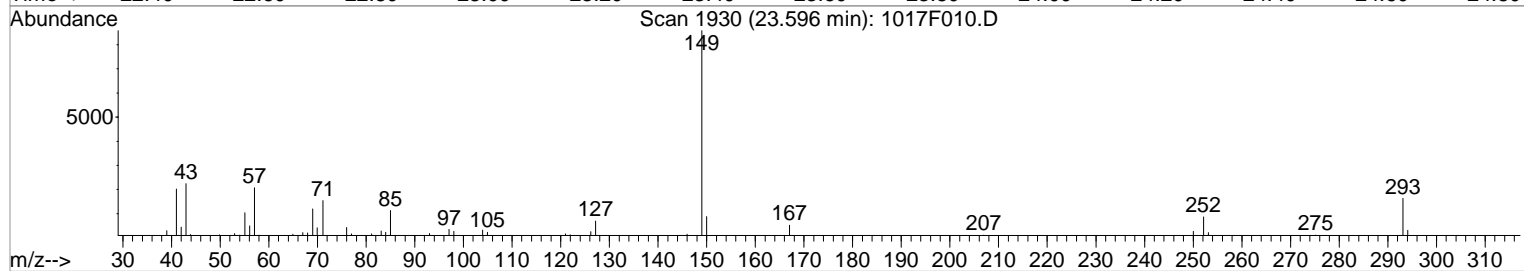
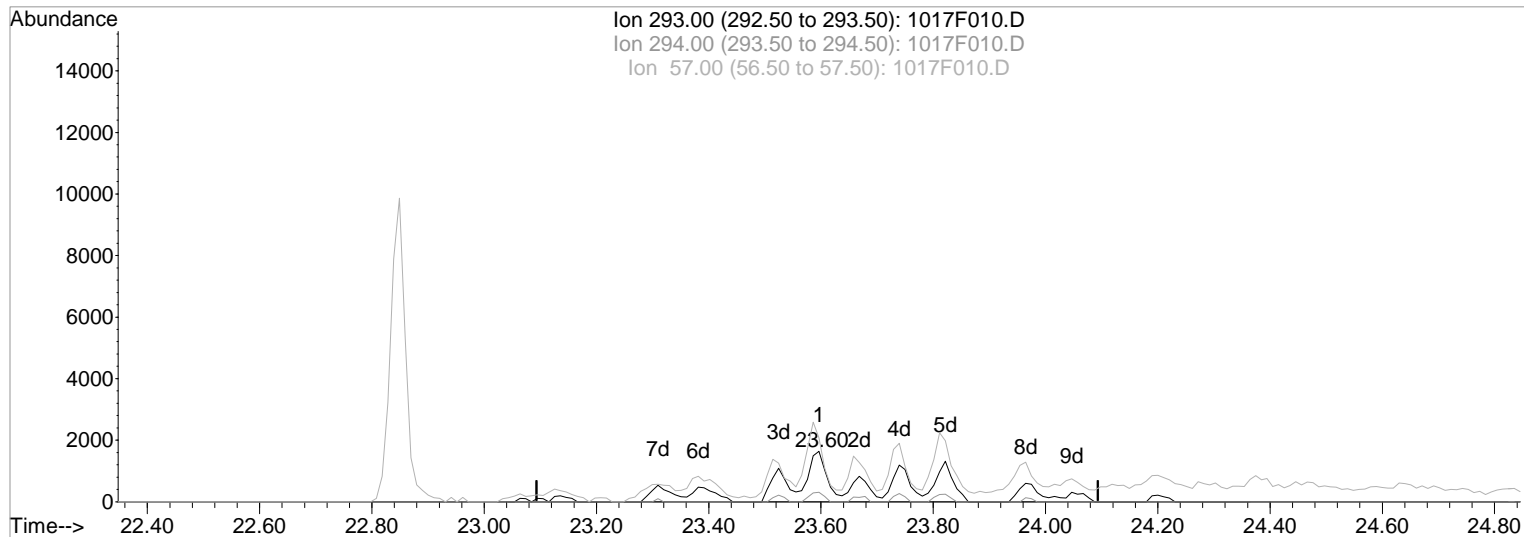
Vial: 10
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 8:24 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:13:50 2019
 Response via : Multiple Level Calibration



TIC: 1017F010.D

(88) Diisononyl Phthalate (T)

23.60min 82.16ug/ml m

response 19453

Ion	Exp%	Act%
293.00	100	100
294.00	1.60	2.86
57.00	15.00	25.79
0.00	0.00	0.00

Manual Integration:

After

Range integration correction

10/18/19

Data File : J:\MS07\DATA\101719\1017F010.D
 Acq On : 17 Oct 2019 6:40 pm
 Sample : 8270/P ICAL @ 80ppm | SVM62-22J
 Misc :

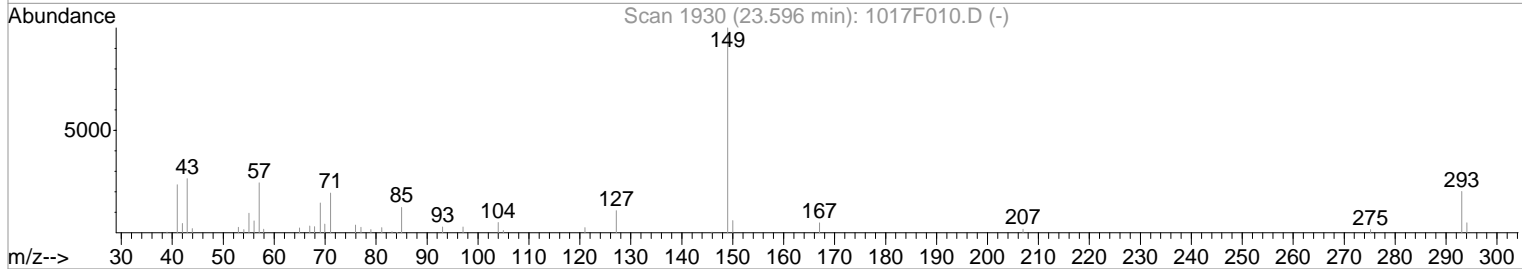
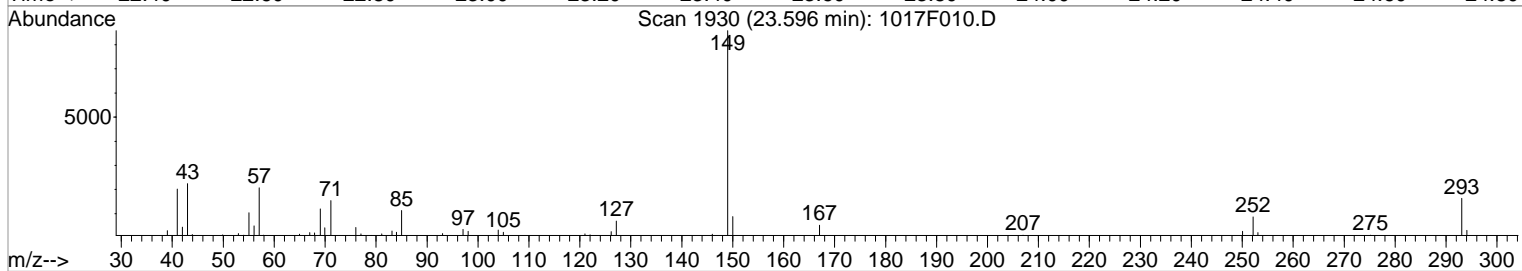
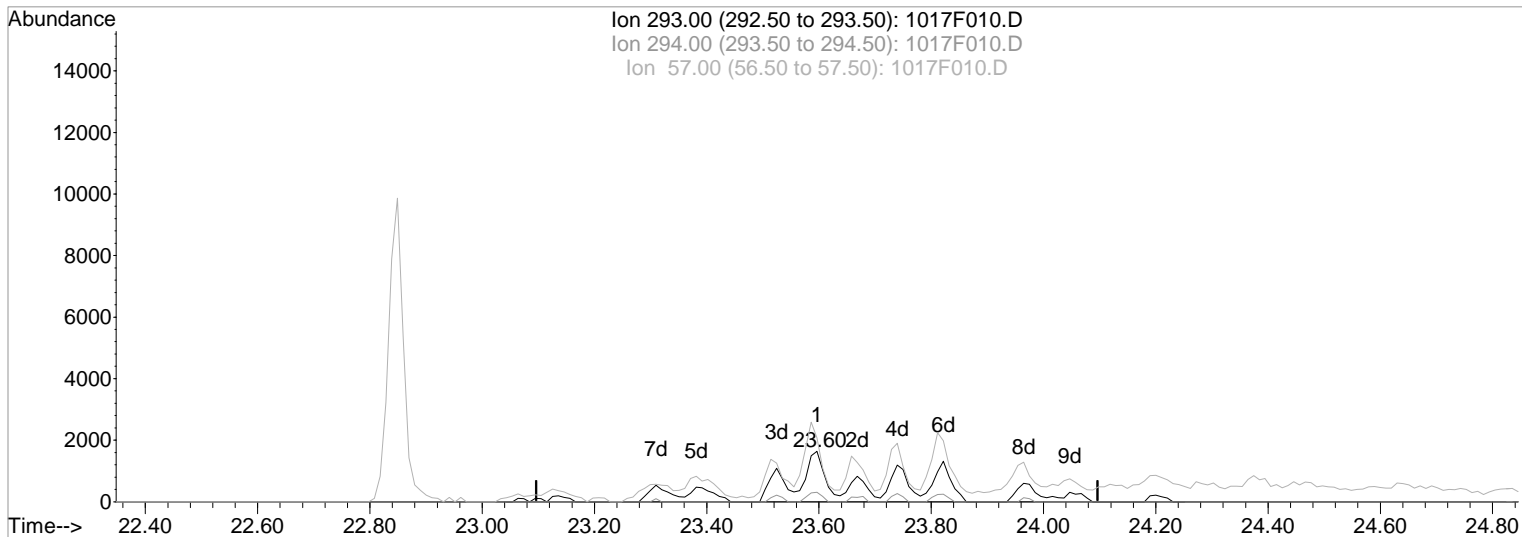
Vial: 10
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 9:02 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F010.D

(88) Diisononyl Phthalate (T)

23.60min 80.00ug/ml m

response 19453

Ion	Exp%	Act%
293.00	100	100
294.00	2.90	2.86
57.00	25.80	22.19
0.00	0.00	0.00

Manual Integration:

After

Range integration correction

10/18/19

Data File : J:\MS07\DATA\101719\1017F010.D
 Acq On : 17 Oct 2019 6:40 pm
 Sample : 8270/P ICAL @ 80ppm | SVM62-22J
 Misc :

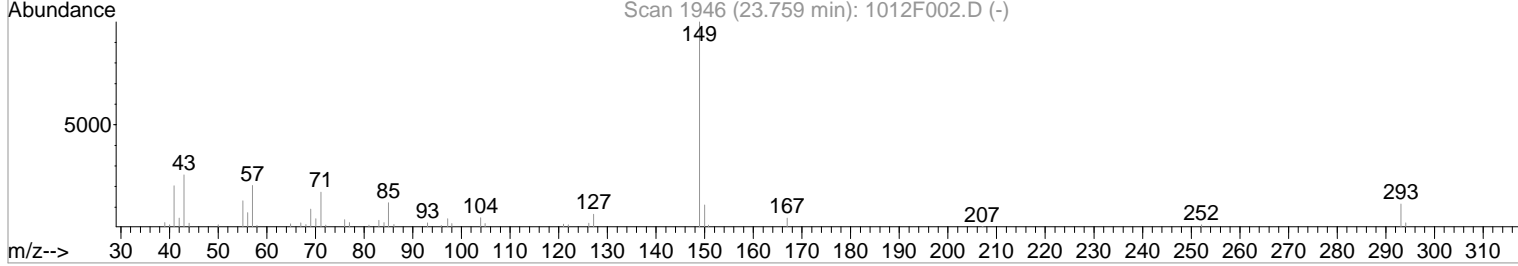
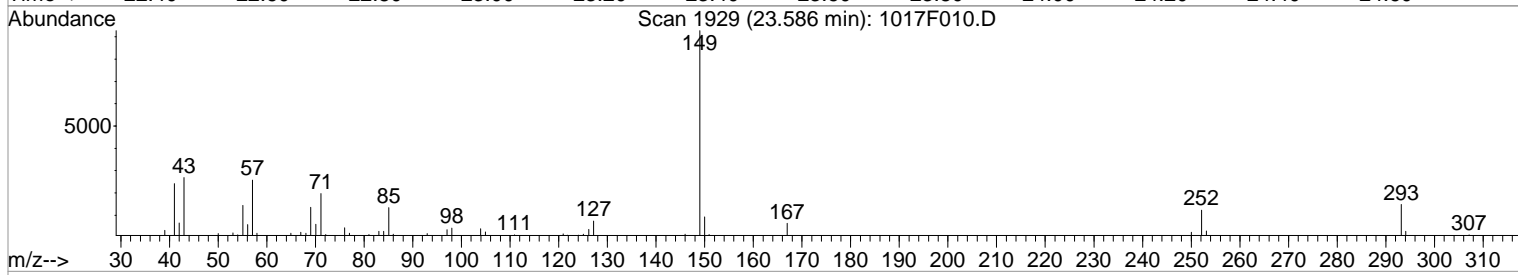
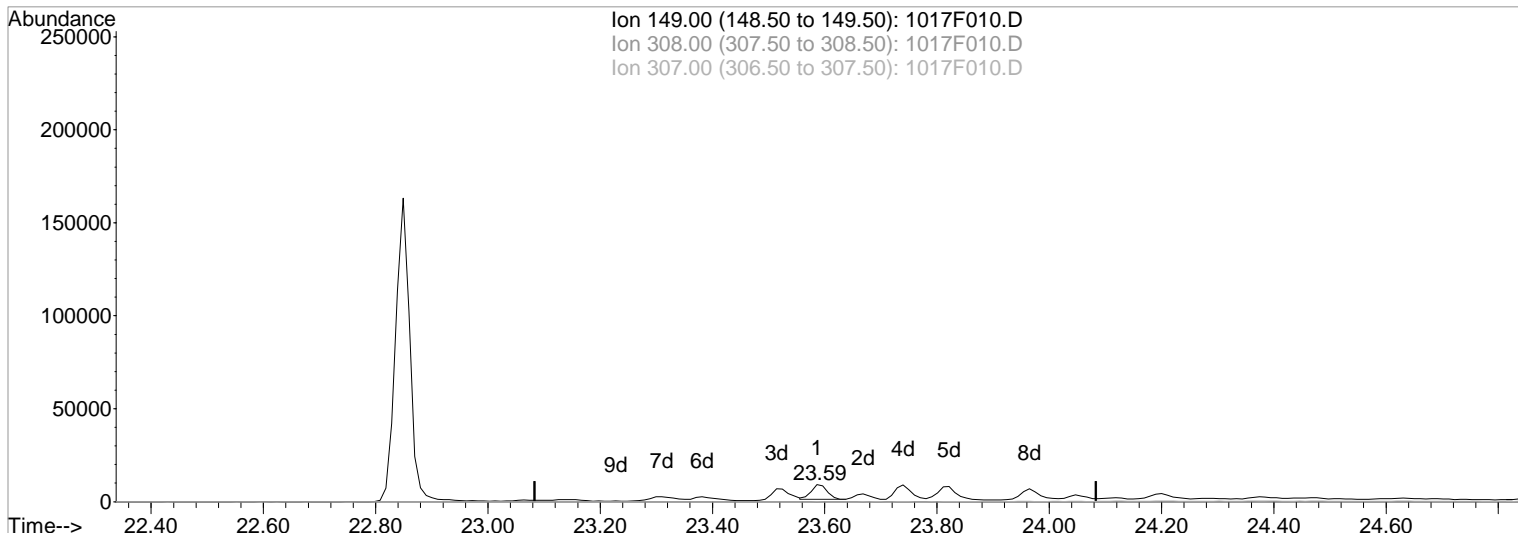
Vial: 10
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 8:24 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:13:50 2019
 Response via : Multiple Level Calibration



TIC: 1017F010.D

(89) Diisodecyl Phthalate (T)

Manual Integration:

23.59min 4.99ug/ml

Before

response 15645

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.00
307.00	0.00	0.00
0.00	0.00	0.00

10/18/19

Data File : J:\MS07\DATA\101719\1017F010.D
 Acq On : 17 Oct 2019 6:40 pm
 Sample : 8270/P ICAL @ 80ppm | SVM62-22J
 Misc :

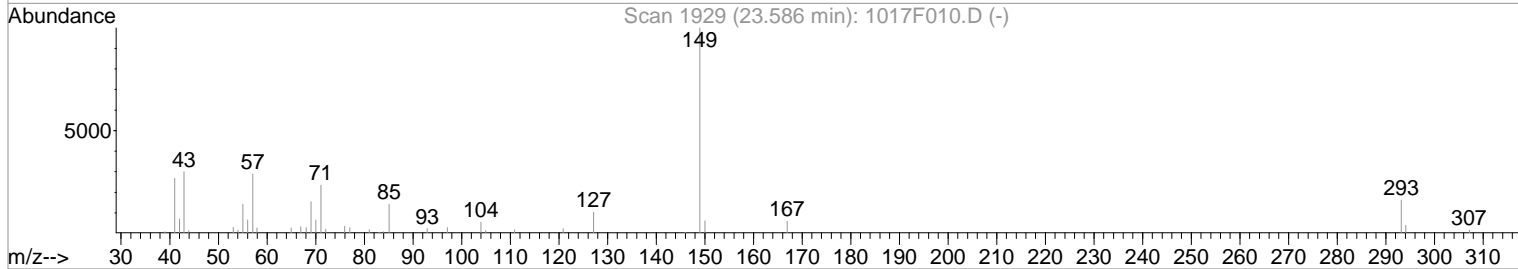
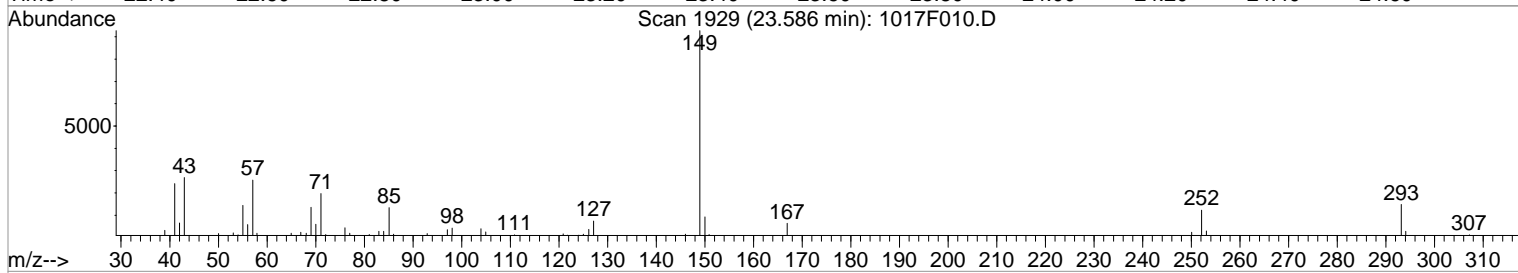
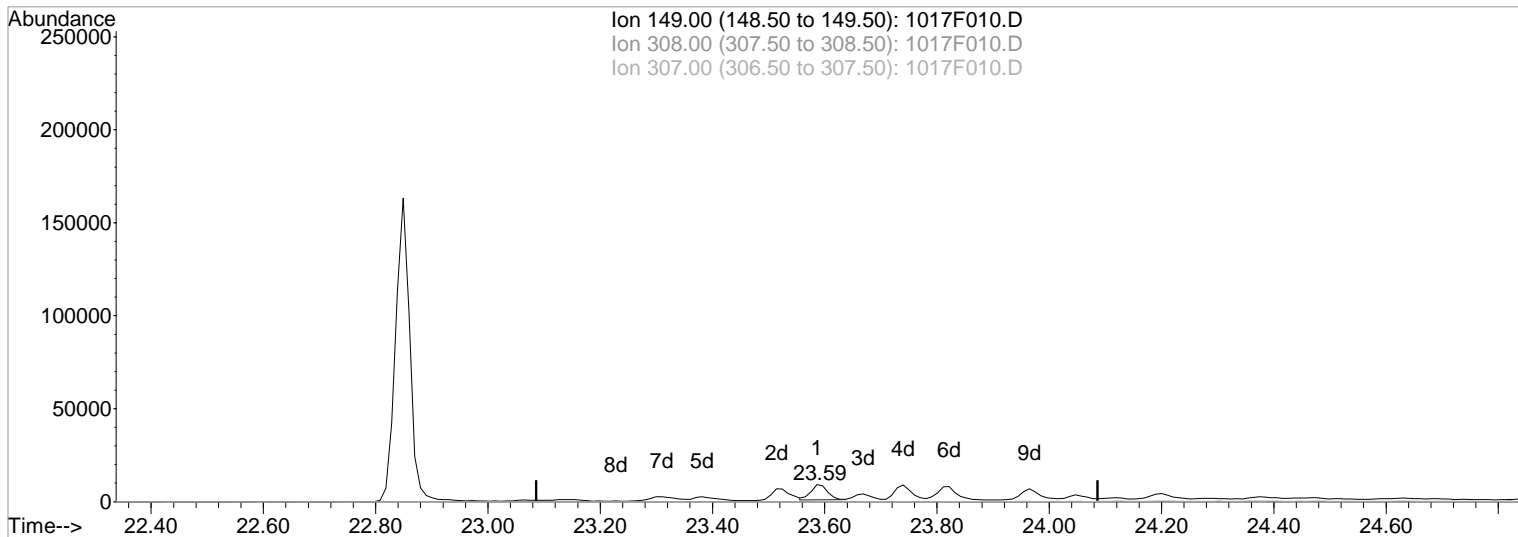
Vial: 10
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 9:02 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F010.D

(89) Diisodecyl Phthalate (T)

Manual Integration:

23.59min 5.23ug/ml

Before

response 16871

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.00
307.00	0.00	0.00
0.00	0.00	0.00

10/18/19

Data File : J:\MS07\DATA\101719\1017F010.D
 Acq On : 17 Oct 2019 6:40 pm
 Sample : 8270/P ICAL @ 80ppm | SVM62-22J
 Misc :

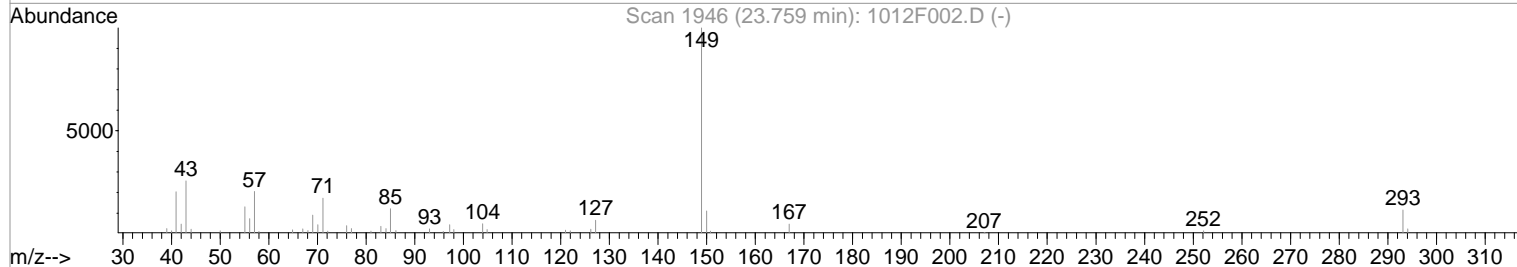
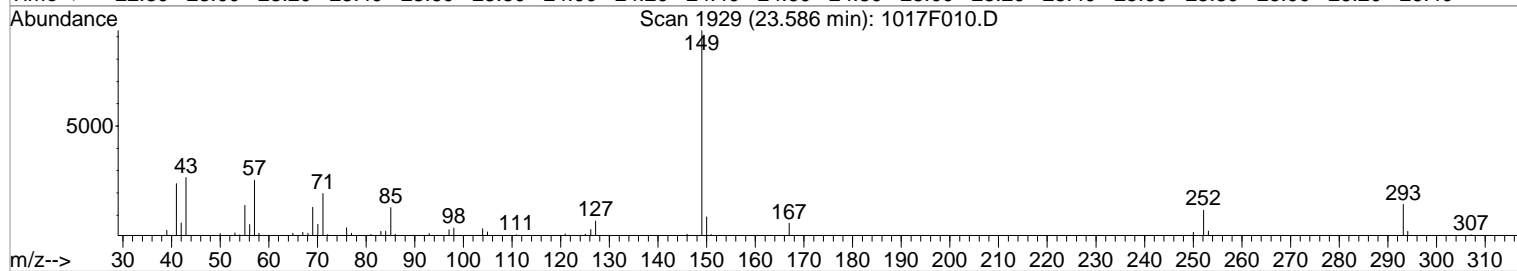
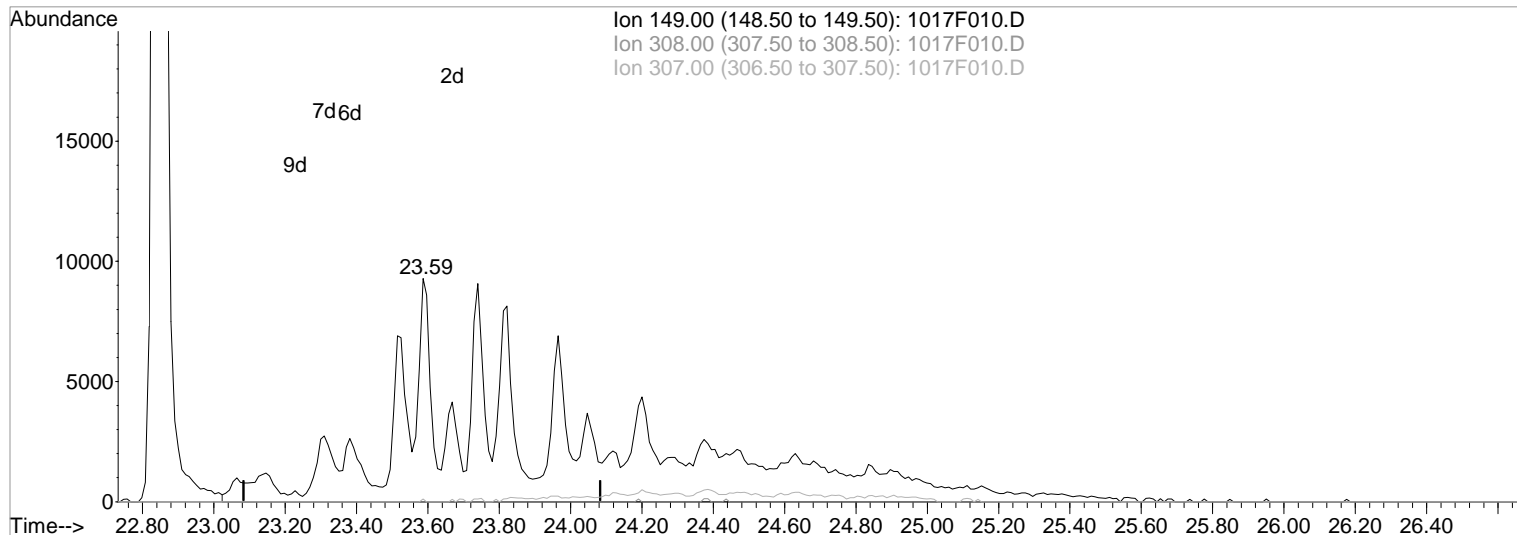
Vial: 10
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 8:25 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:13:50 2019
 Response via : Multiple Level Calibration



TIC: 1017F010.D

(89) Diisodecyl Phthalate (T)

Manual Integration:

23.59min 82.28ug/ml m

After

response 258027

Range integration correction

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.00
307.00	0.00	0.00
0.00	0.00	0.00

10/18/19

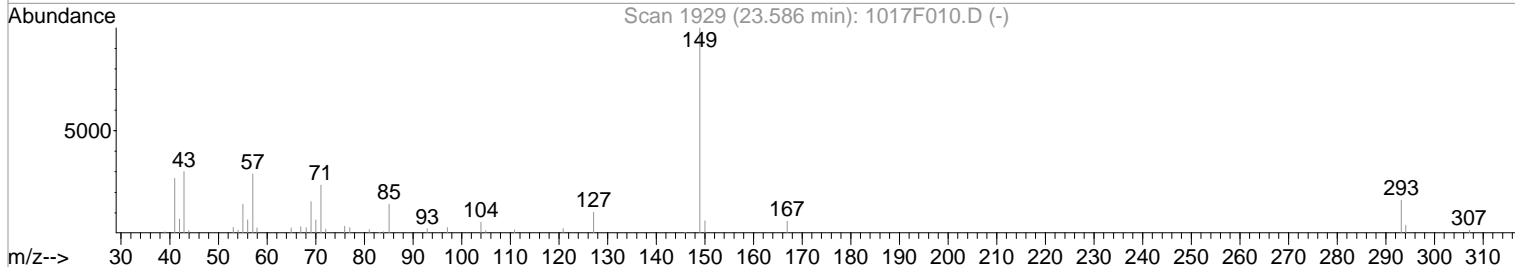
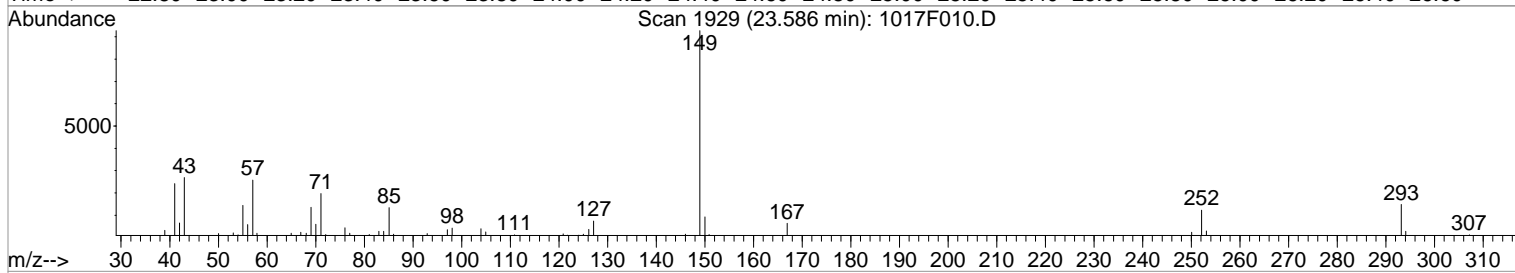
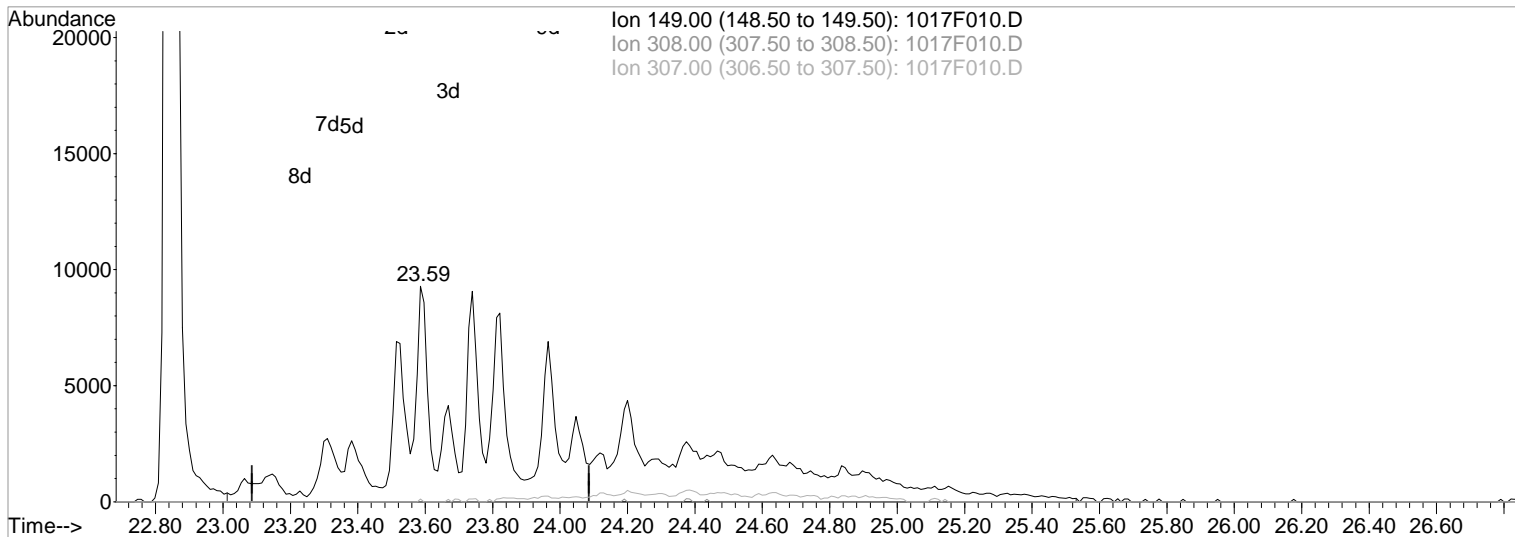
Data File : J:\MS07\DATA\101719\1017F010.D
 Acq On : 17 Oct 2019 6:40 pm
 Sample : 8270/P ICAL @ 80ppm | SVM62-22J
 Misc :

Vial: 10
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 9:03 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F010.D

(89) Diisodecyl Phthalate (T)

Manual Integration:

23.59min 80.06ug/ml m

After

response 258206

Range integration correction

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.00
307.00	0.00	0.00
0.00	0.00	0.00

10/18/19

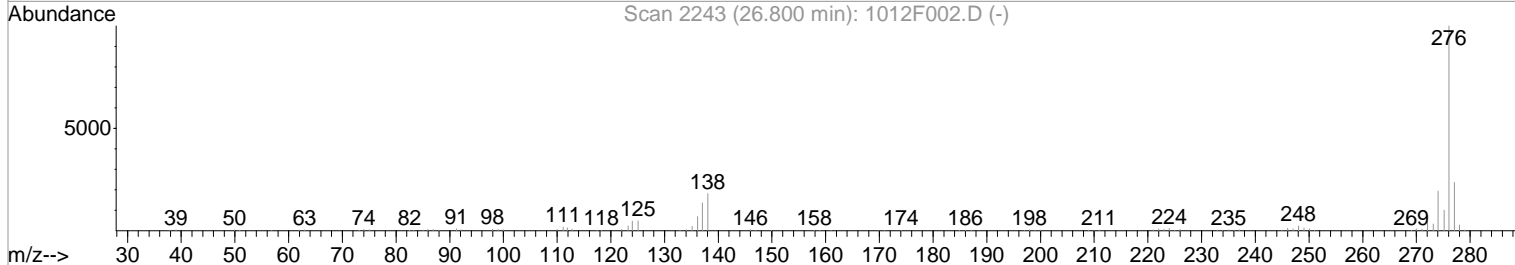
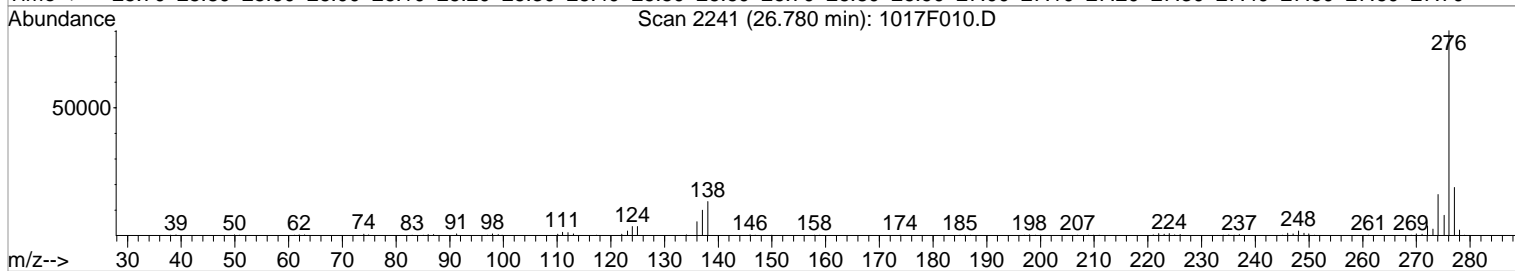
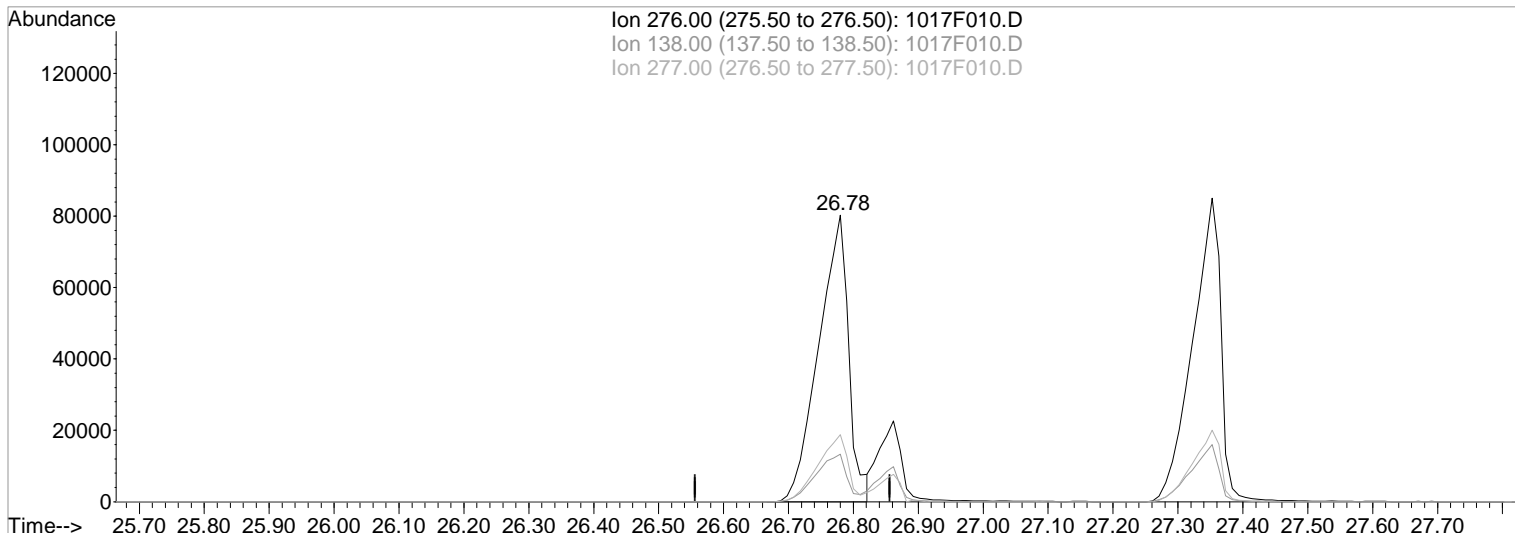
Data File : J:\MS07\DATA\101719\1017F010.D
 Acq On : 17 Oct 2019 6:40 pm
 Sample : 8270/P ICAL @ 80ppm | SVM62-22J
 Misc :

Vial: 10
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 8:25 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:13:50 2019
 Response via : Multiple Level Calibration



TIC: 1017F010.D

(91) Indeno(1,2,3-cd)pyrene (T)

Manual Integration:

26.78min 91.97ug/ml

Before

response 256772

Ion	Exp%	Act%
276.00	100	100
138.00	19.10	15.43
277.00	22.80	22.93
0.00	0.00	0.00

10/18/19

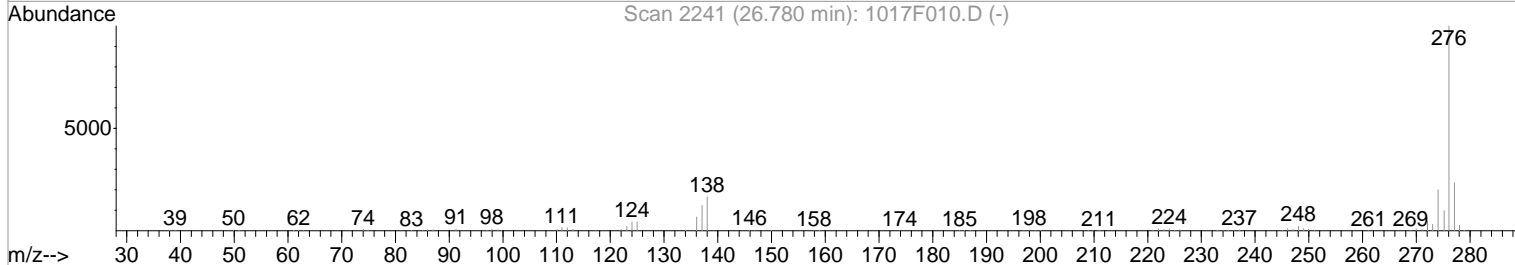
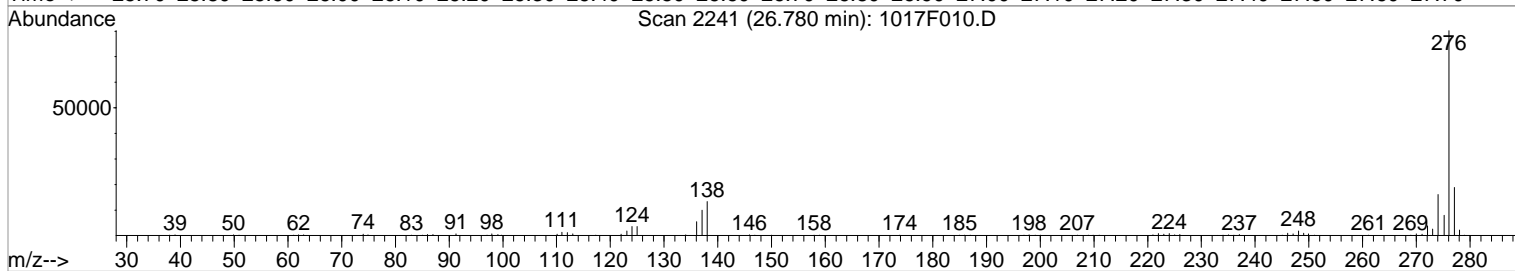
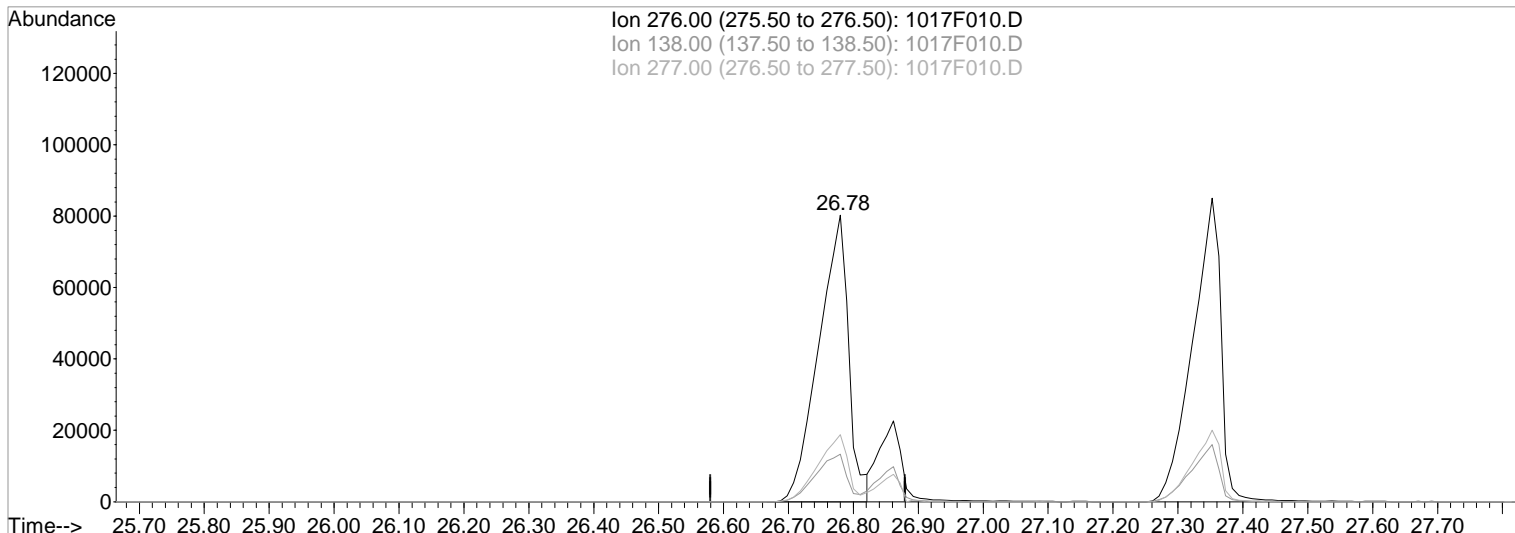
Data File : J:\MS07\DATA\101719\1017F010.D
 Acq On : 17 Oct 2019 6:40 pm
 Sample : 8270/P ICAL @ 80ppm | SVM62-22J
 Misc :

Vial: 10
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 9:03 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F010.D

(91) Indeno(1,2,3-cd)pyrene (T)

Manual Integration:

26.78min 81.49ug/ml

Before

response 256772

Ion	Exp%	Act%
276.00	100	100
138.00	16.60	15.43
277.00	23.40	22.93
0.00	0.00	0.00

10/18/19

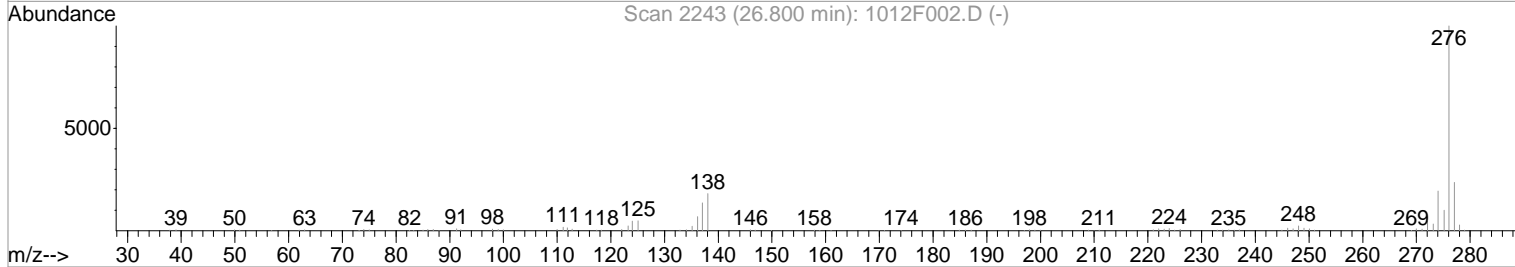
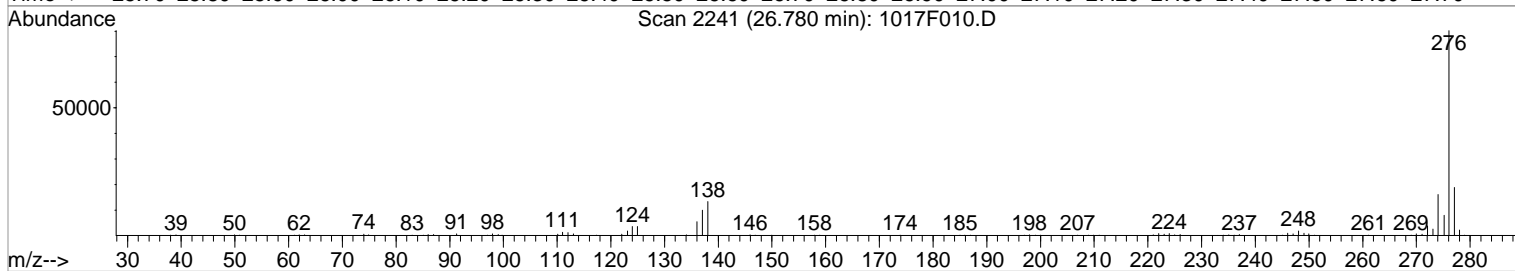
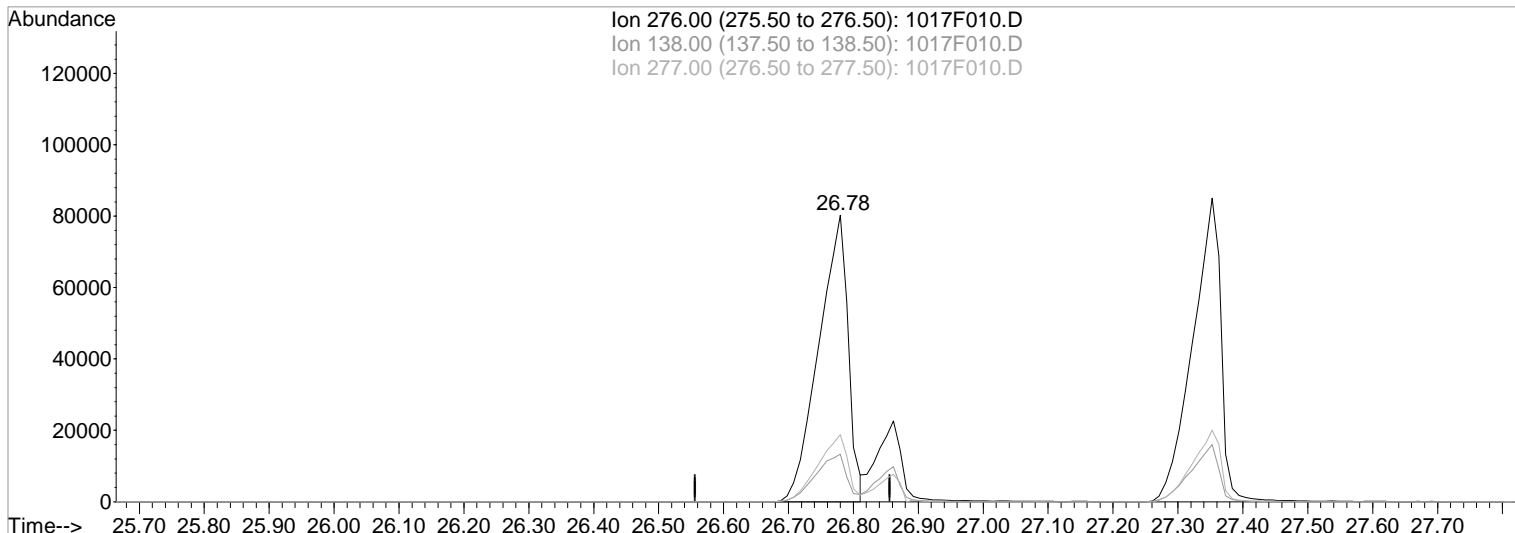
Data File : J:\MS07\DATA\101719\1017F010.D
 Acq On : 17 Oct 2019 6:40 pm
 Sample : 8270/P ICAL @ 80ppm | SVM62-22J
 Misc :

Vial: 10
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 8:26 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:13:50 2019
 Response via : Multiple Level Calibration



TIC: 1017F010.D

(91) Indeno(1,2,3-cd)pyrene (T)

Manual Integration:

26.78min 90.29ug/ml m
 response 252086

After
 IC - overintegrated

Ion	Exp%	Act%
276.00	100	100
138.00	19.10	16.57
277.00	22.80	23.43
0.00	0.00	0.00

10/18/19

Data File : J:\MS07\DATA\101719\1017F010.D
 Acq On : 17 Oct 2019 6:40 pm
 Sample : 8270/P ICAL @ 80ppm | SVM62-22J
 Misc :

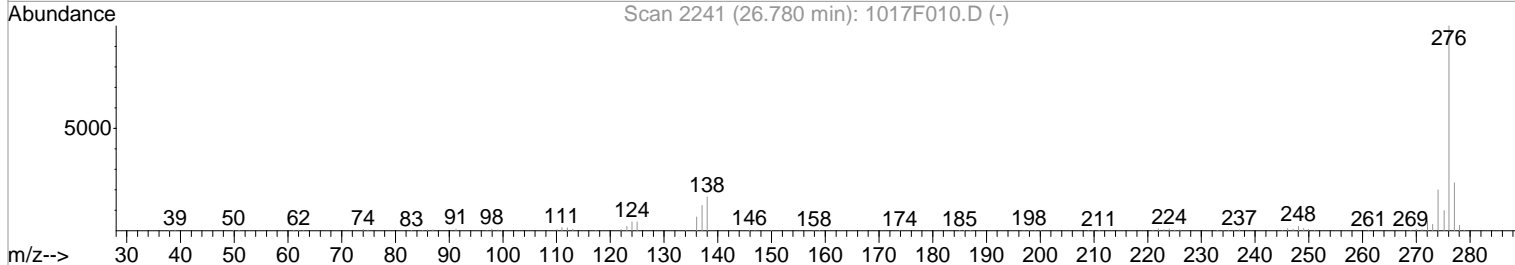
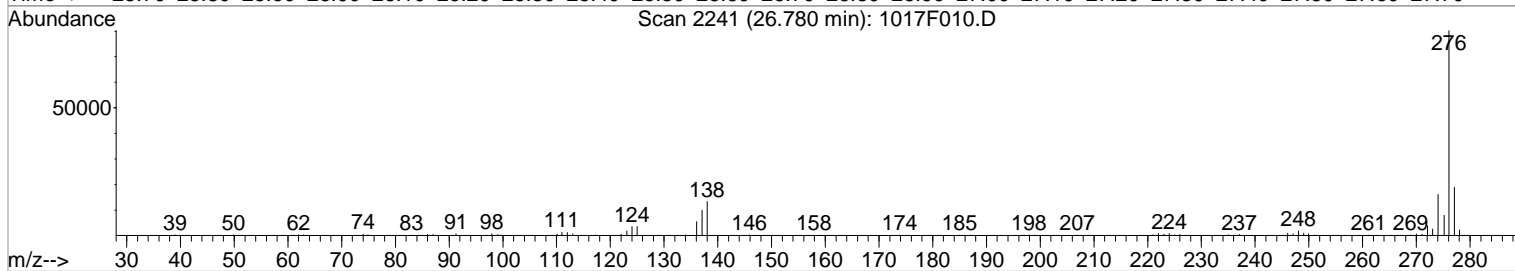
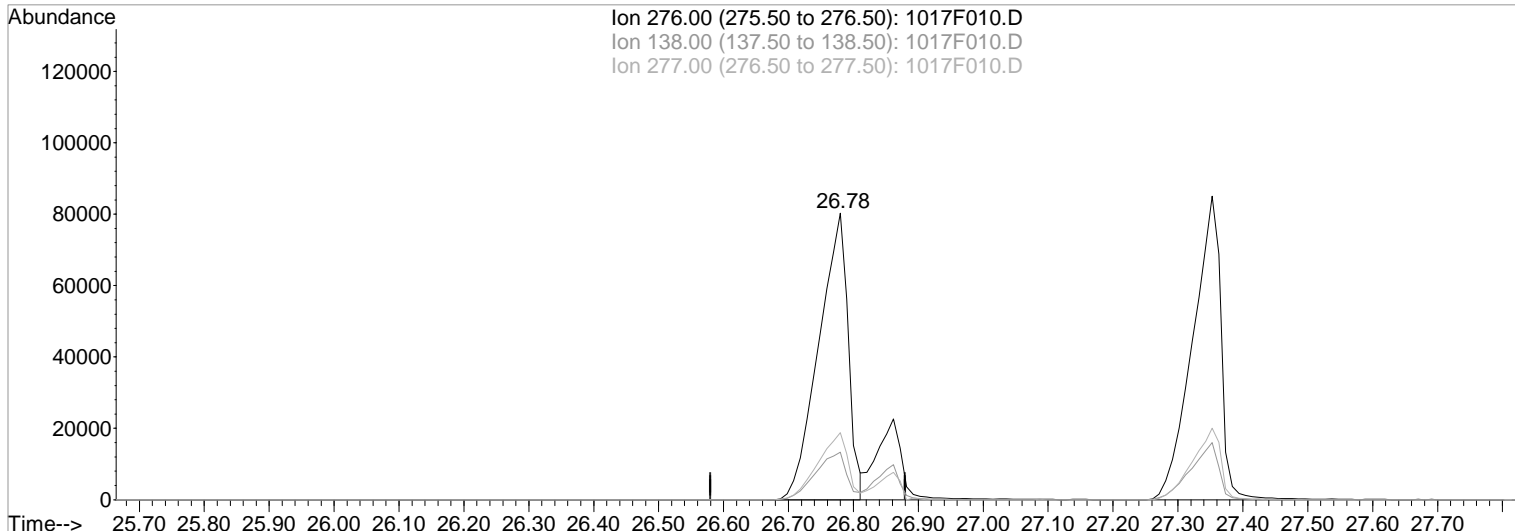
Vial: 10
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 9:03 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F010.D

(91) Indeno(1,2,3-cd)pyrene (T)

Manual Integration:

26.78min 80.00ug/ml m

After

response 252082

IC - overintegrated

Ion	Exp%	Act%
276.00	100	100
138.00	16.60	16.57
277.00	23.40	23.43
0.00	0.00	0.00

10/18/19

Data File : J:\MS07\DATA\101719\1017F012.D
 Acq On : 17 Oct 2019 8:03 pm
 Sample : 8270/P ICAL @ 140ppm | SVM62-22L
 Misc :

Vial: 12
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 08:27:17 2019

Quant Results File: 101719_BNP7.RES

Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.36	152	38324	40.00	ug/ml	0.00
22) Naphthalene-d8	11.46	136	146765	40.00	ug/ml	0.00
36) Acenaphthene-d10	14.32	164	74489	40.00	ug/ml	0.00
61) Phenanthrene-d10	16.72	188	116072	40.00	ug/ml	0.00
73) Chrysene-d12	21.16	240	107659	40.00	ug/ml	0.00
84) Perylene-d12	24.34	264	111325	40.00	ug/ml	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
4) 2-Fluorophenol	7.15	112	166774	137.86	ug/ml	0.01
Spiked Amount	150.000	Range 21 - 100	Recovery =	91.91%		
8) Phenol-d6	8.86	99	207099	133.91	ug/ml	0.01
Spiked Amount	150.000	Range 10 - 94	Recovery =	89.27%		
20) Nitrobenzene-d5	10.30	82	216778	135.67	ug/ml	0.01
Spiked Amount	100.000	Range 35 - 114	Recovery =	135.67%#		
40) 2-Fluorobiphenyl	13.26	172	410950	138.70	ug/ml	0.00
Spiked Amount	100.000	Range 43 - 116	Recovery =	138.70%#		
62) 2,4,6-Tribromophenol	15.62	330	112064	139.03	ug/ml	0.00
Spiked Amount	150.000	Range 10 - 123	Recovery =	92.69%		
76) Terphenyl-d14	19.36	244	412687	128.09	ug/ml	0.00
Spiked Amount	100.000	Range 33 - 141	Recovery =	128.09%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-Nitrosodimethylamine	4.35	42	122134	136.70	ug/ml	99
3) Pyridine	4.35	79	160753	135.94	ug/ml	99
5) Ethylene Glycol Butyl Ethe	7.70	57	129250	133.96	ug/ml	99
6) Aniline	8.83	93	230133	136.14	ug/ml	99
7) Bis(2-chloroethyl) Ether	8.98	93	153742	132.66	ug/ml	99
9) Phenol	8.89	94	219143	139.04	ug/ml	96
10) 2-Chlorophenol	9.02	128	181902	134.53	ug/ml	97
11) 1,3-Dichlorobenzene	9.26	146	191983	137.29	ug/ml	99
12) 1,4-Dichlorobenzene	9.39	146	195948	133.18	ug/ml	98
13) 1,2-Dichlorobenzene	9.64	146	184949	134.87	ug/ml	98
14) Benzyl Alcohol	9.67	108	114160	136.91	ug/ml	99
15) 2,2'-oxybis(1-chloropropan	9.88	45	141014	127.72	ug/ml	100
16) 2-Methylphenol	9.86	107	135606	130.58	ug/ml	97
17) Hexachloroethane	10.19	117	93771	138.74	ug/ml	95
18) N-Nitrosodi-n-propylamine	10.13	70	110909	128.03	ug/ml	98
19) 4-Methylphenol	10.16	107	205731	131.95	ug/ml	99
21) Nitrobenzene	10.34	77	186034	134.44	ug/ml	96
23) Isophorone	10.76	82	307860	131.42	ug/ml	99
24) 2-Nitrophenol	10.86	139	106741	135.38	ug/ml	94
25) 2,4-Dimethylphenol	11.01	122	148805	133.77	ug/ml	100
26) Bis(2-chloroethoxy)methane	11.14	93	193365	130.94	ug/ml	98
27) 2,4-Dichlorophenol	11.28	162	167049	137.17	ug/ml	98
28) Benzoic Acid	11.33	122	90268	162.49	ug/ml	96
29) 1,2,4-Trichlorobenzene	11.38	180	177447	140.32	ug/ml	99
30) Naphthalene	11.50	128	473004	134.84	ug/ml	100
31) n-Dodecane	11.56	57	136391	125.16	ug/ml	99
32) 4-Chloroaniline	11.63	127	212820	135.50	ug/ml	96
33) Hexachlorobutadiene	11.74	225	123214	135.80	ug/ml	98
34) 4-Chloro-3-methylphenol	12.45	107	149891	135.09	ug/ml	98
35) 2-Methylnaphthalene	12.64	142	330208	138.38	ug/ml	100
37) Hexachlorocyclopentadiene	12.90	237	144883	144.73	ug/ml	100
38) 2,4,6-Trichlorophenol	13.12	196	114987	136.41	ug/ml	98
39) 2,4,5-Trichlorophenol	13.18	196	126005	138.51	ug/ml	98
41) 2-Chloronaphthalene	13.43	162	303979	135.92	ug/ml	99
42) 2-Nitroaniline	13.62	65	95248	142.23	ug/ml	91
43) Acenaphthylene	14.09	152	425731	132.40	ug/ml	100

Data File : J:\MS07\DATA\101719\1017F012.D
 Acq On : 17 Oct 2019 8:03 pm
 Sample : 8270/P ICAL @ 140ppm | SVM62-22L
 Misc :

Vial: 12
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 08:27:17 2019

Quant Results File: 101719_BNP7.RES

Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

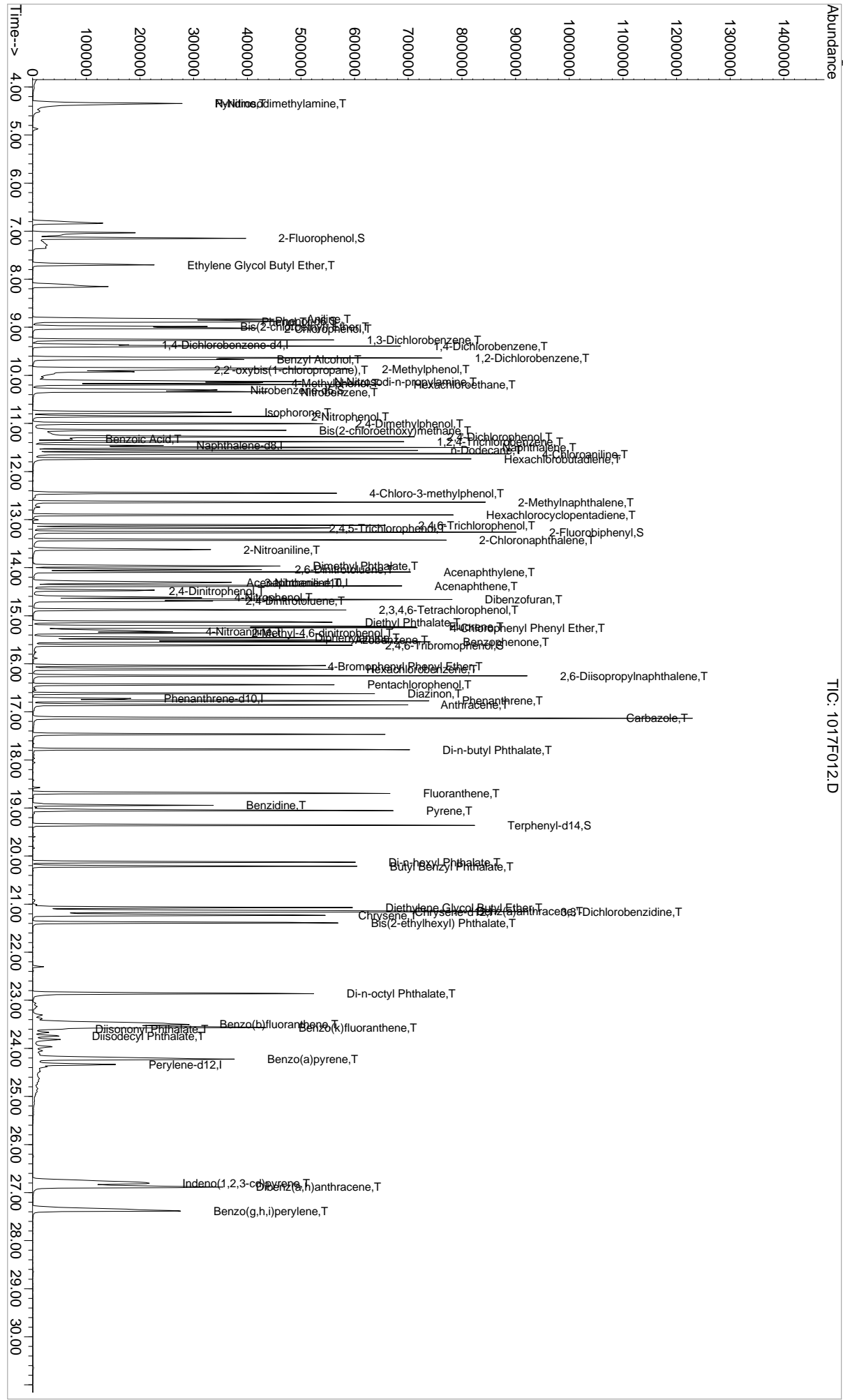
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44) Dimethyl Phthalate	13.97	163	326711	140.84	ug/ml	99
45) 2,6-Dinitrotoluene	14.04	165	78567	138.72	ug/ml	98
46) Acenaphthene	14.38	154	261296	137.25	ug/ml	98
47) 3-Nitroaniline	14.31	138	83800	142.71	ug/ml	96
48) 2,4-Dinitrophenol	14.48	184	50880	170.88	ug/ml	83
49) Dibenzofuran	14.66	168	418403	138.54	ug/ml	99
50) 4-Nitrophenol	14.62	109	69865	155.99	ug/ml	91
51) 2,4-Dinitrotoluene	14.70	165	104333	147.38	ug/ml	91
52) 2,3,4,6-Tetrachlorophenol	14.88	232	96589	144.03	ug/ml	90
53) Fluorene	15.23	166	308512	139.51	ug/ml	100
54) 4-Chlorophenyl Phenyl Eth	15.25	204	166366	140.64	ug/ml	99
55) Diethyl Phthalate	15.14	149	325103	147.96	ug/ml	100
56) 4-Nitroaniline	15.33	138	86070	148.25	ug/ml	99
57) 2-Methyl-4,6-dinitrophenol	15.36	198	70511	155.78	ug/ml	76
58) Diphenylamine	15.46	169	216155	146.04	ug/ml	99
59) Azobenzene	15.50	51	165101m	129.39	ug/ml	
60) Benzophenone	15.54	105	297745	140.22	ug/ml	100
63) 4-Bromophenyl Phenyl Ether	16.05	248	110199	133.68	ug/ml	88
64) Hexachlorobenzene	16.12	284	142619	135.08	ug/ml	95
65) 2,6-Diisopropyl naphthalene	16.25	197	257382	132.29	ug/ml	100
66) Pentachlorophenol	16.44	266	95093	145.35	ug/ml	98
67) Diazinon	16.62	137	62706	131.32	ug/ml	99
68) Phenanthrene	16.77	178	406024	133.34	ug/ml	99
69) Anthracene	16.85	178	431955	137.07	ug/ml	100
70) Carbazole	17.13	167	418118	142.23	ug/ml	100
71) Di-n-butyl Phthalate	17.79	149	534334	141.60	ug/ml	100
72) Fluoranthene	18.70	202	463592	139.95	ug/ml	96
74) Benzidine	18.94	184	177932	119.27	ug/ml	100
75) Pyrene	19.06	202	458549	131.16	ug/ml	98
77) Di-n-hexyl Phthalate	20.13	149	492903	129.15	ug/ml	100
78) Butyl Benzyl Phthalate	20.21	149	207719	128.36	ug/ml	97
79) Diethylene Glycol Butyl Et	21.07	105	317542	134.11	ug/ml	99
80) 3,3'-Dichlorobenzidine	21.15	252	206903	137.38	ug/ml	100
81) Benz(a)anthracene	21.14	228	388209	135.54	ug/ml	98
82) Chrysene	21.24	228	391626	133.51	ug/ml	99
83) Bis(2-ethylhexyl) Phthalat	21.39	149	277105	131.74	ug/ml	99
85) Di-n-octyl Phthalate	22.86	149	491527	141.12	ug/ml	98
86) Benzo(b)fluoranthene	23.50	252	502545	150.97	ug/ml	99
87) Benzo(k)fluoranthene	23.57	252	381582	124.23	ug/ml	96
88) Diisononyl Phthalate	23.60	293	34434m	148.14	ug/ml	
89) Diisodecyl Phthalate	23.74	149	443834m	143.96	ug/ml	
90) Benzo(a)pyrene	24.22	252	412432	139.80	ug/ml	99
91) Indeno(1,2,3-cd)pyrene	26.80	276	430972	143.08	ug/ml	97
92) Dibenz(a,h)anthracene	26.89	278	426037	138.01	ug/ml	99
93) Benzo(g,h,i)perylene	27.39	276	422728	137.04	ug/ml	96

Data File : J:\MS07\DATA\101719\1017F012.D
Acq On : 17 Oct 2019 8:03 pm
Sample : 8270/P ICAL @ 140ppm | SVM62-22L
Misc :
MS Integration Params: RTEINT.P
Quant Results File: 101719_BNP7.RES

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
Last Update : Fri Oct 18 09:20:51 2019
Response via : Initial Calibration

Quantitation Report (QT Reviewed)

Vial: 12
Operator: CCONOVER/LM
Inst: MS07
Multiplr: 1.00



Data File : J:\MS07\DATA\101719\1017F012.D
 Acq On : 17 Oct 2019 8:03 pm
 Sample : 8270/P ICAL @ 140ppm | SVM62-22L
 Misc :

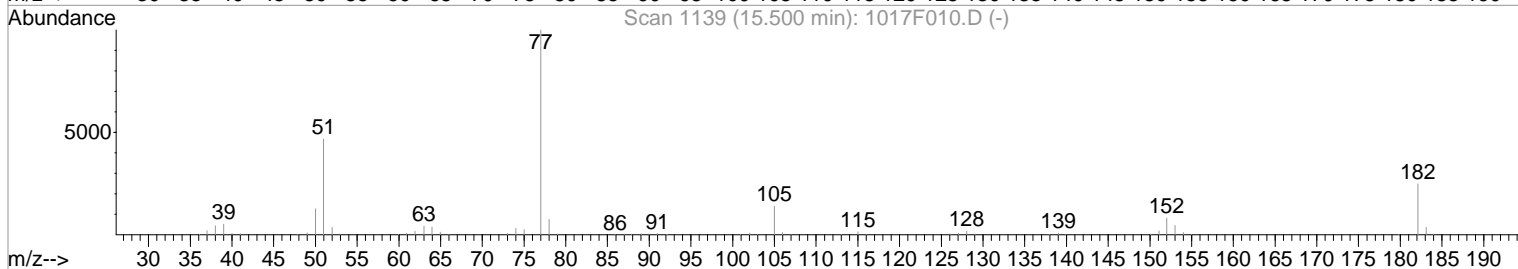
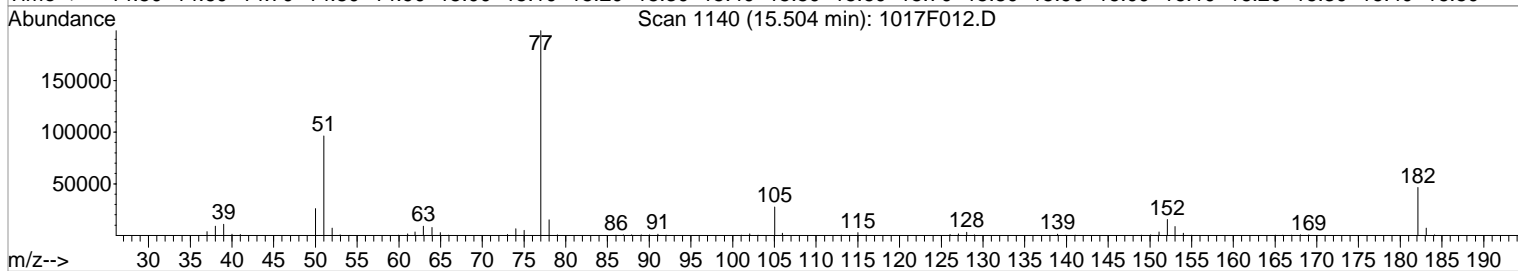
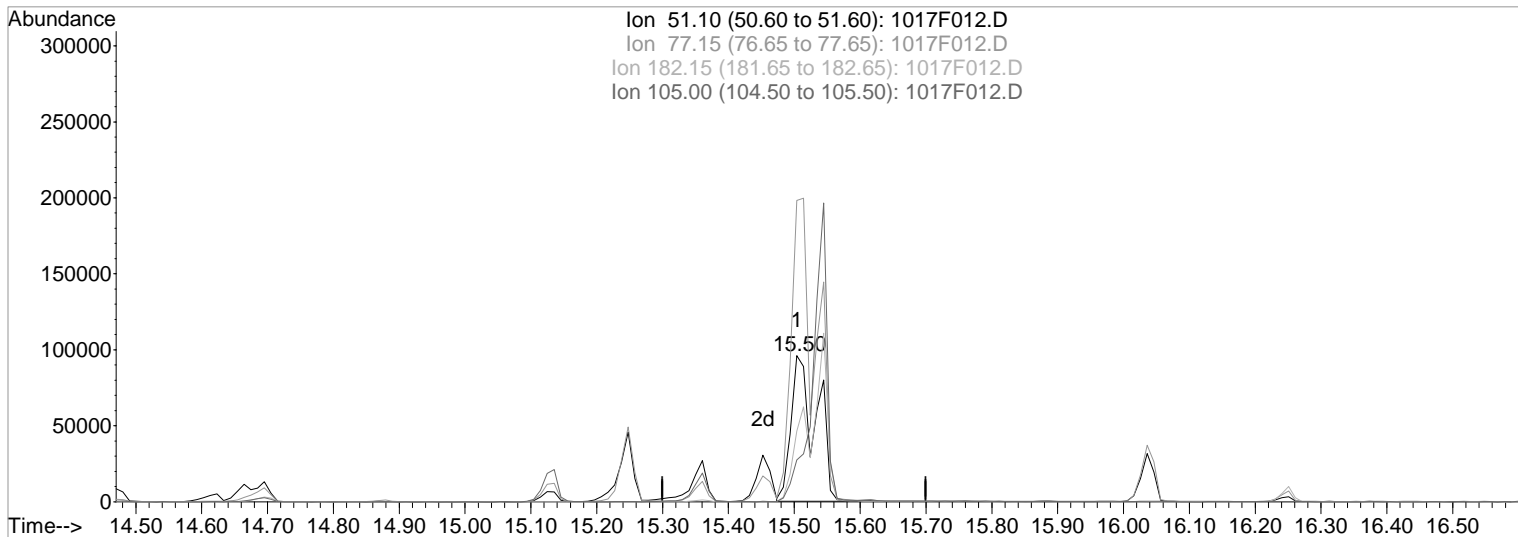
Vial: 12
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 8:28 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F012.D

(59) Azobenzene (T)

Manual Integration:

15.50min 200.32ug/ml
 response 255608

Before

Ion	Exp%	Act%
51.10	100	100
77.15	213.80	207.30
182.15	52.80	48.59
105.00	29.60	28.51

10/18/19

Data File : J:\MS07\DATA\101719\1017F012.D
 Acq On : 17 Oct 2019 8:03 pm
 Sample : 8270/P ICAL @ 140ppm | SVM62-22L
 Misc :

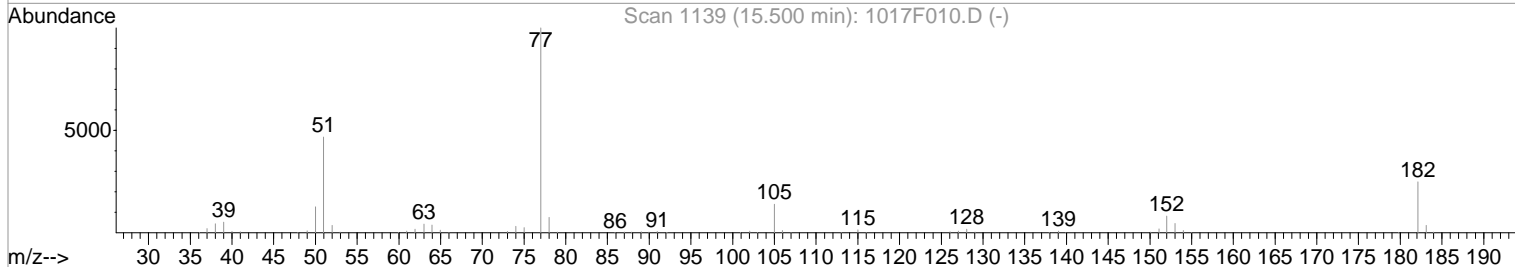
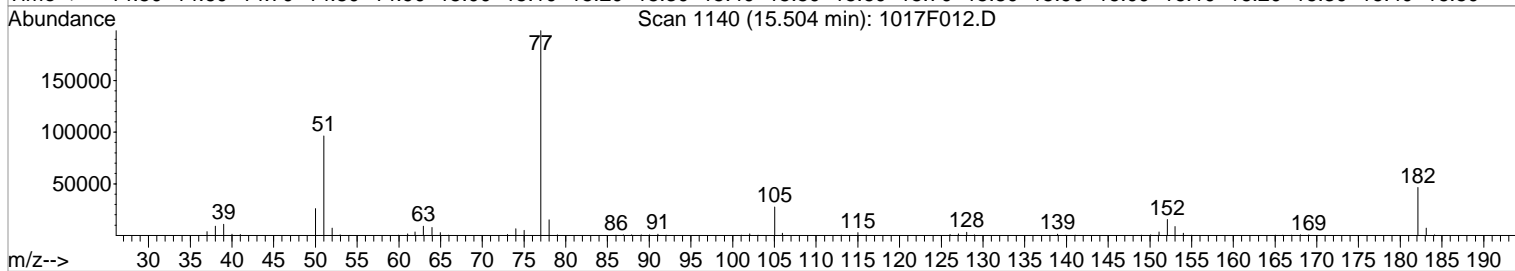
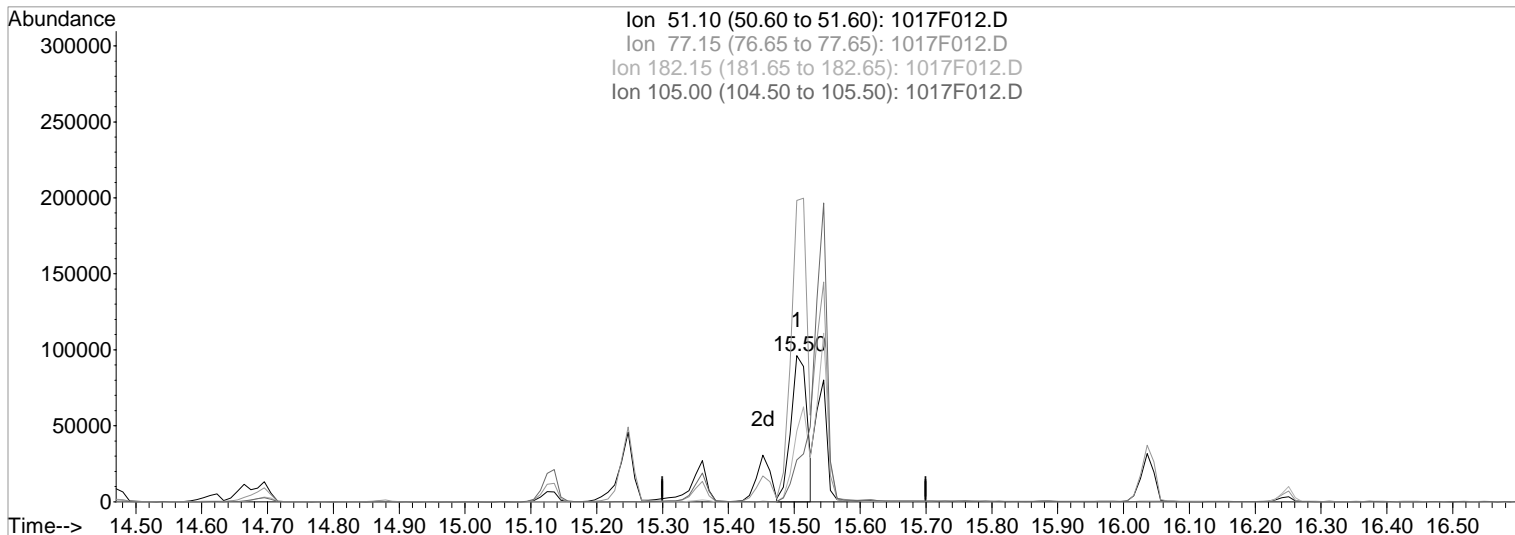
Vial: 12
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 9:07 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F012.D

(59) Azobenzene (T)

Manual Integration:

15.50min 129.39ug/ml m
 response 165101

After
 IC - overintegrated

Ion	Exp%	Act%
51.10	100	100
77.15	213.80	206.15
182.15	52.80	48.23
105.00	29.60	28.65

10/18/19

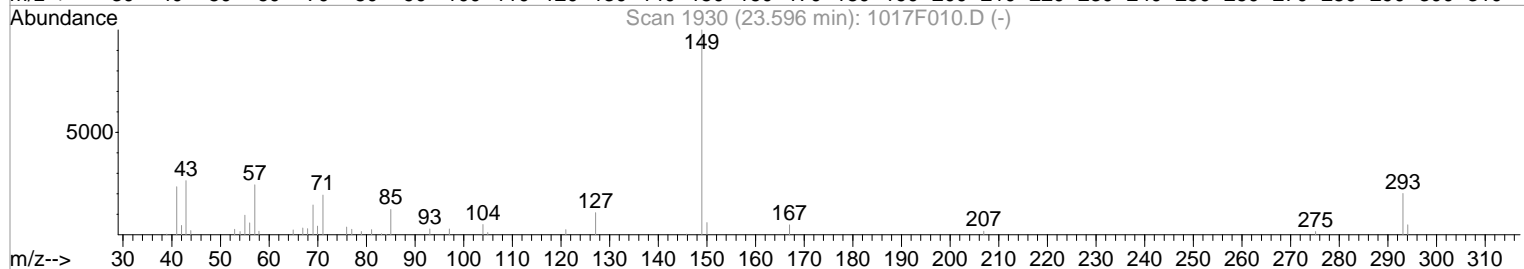
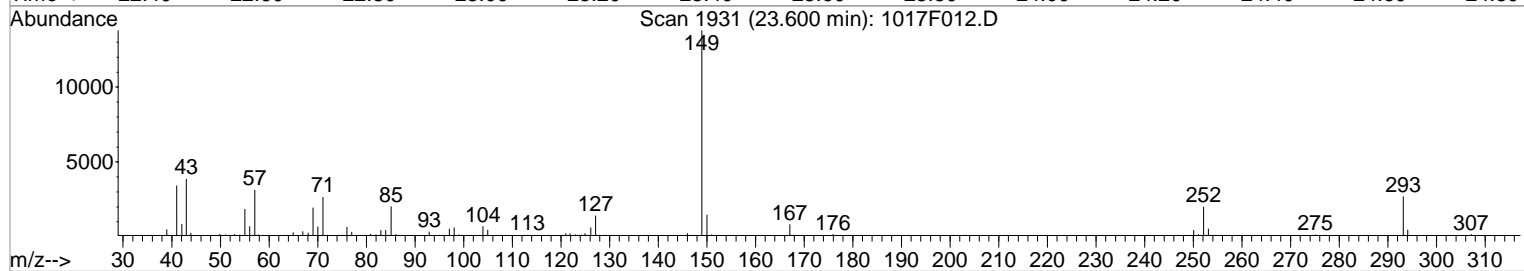
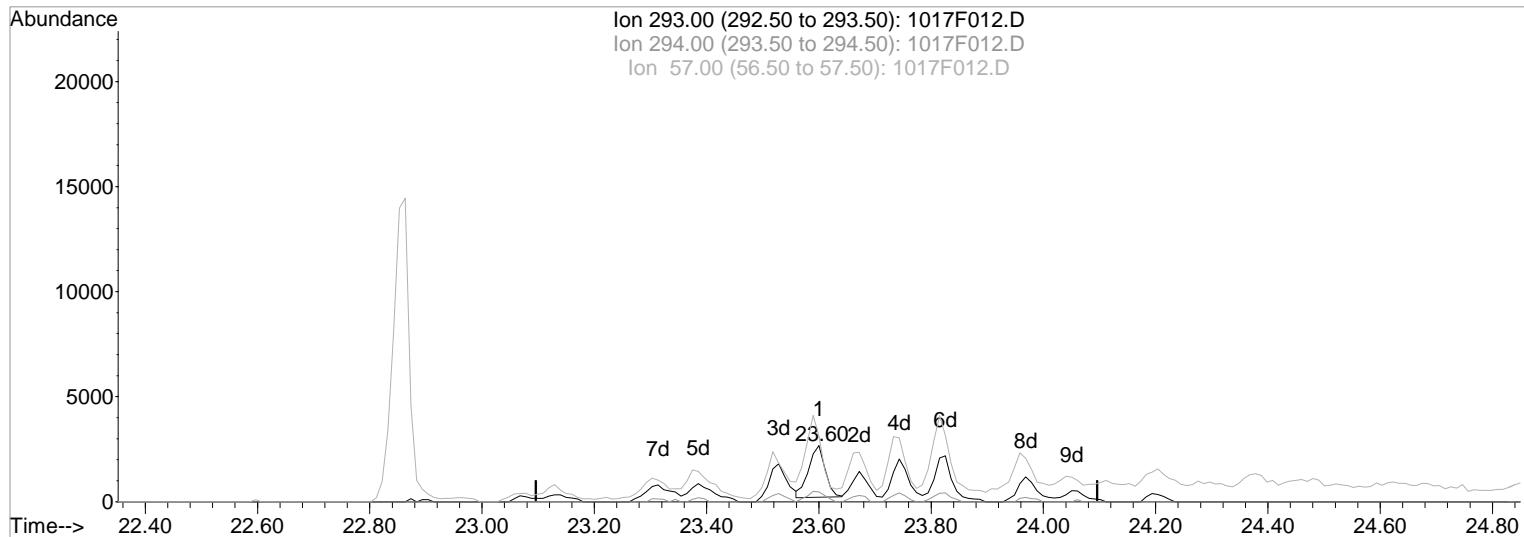
Data File : J:\MS07\DATA\101719\1017F012.D
 Acq On : 17 Oct 2019 8:03 pm
 Sample : 8270/P ICAL @ 140ppm | SVM62-22L
 Misc :

Vial: 12
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 9:07 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F012.D

(88) Diisononyl Phthalate (T)

Manual Integration:

23.60min 21.55ug/ml

Before

response 5010

Ion	Exp%	Act%
293.00	100	100
294.00	2.90	21.92
57.00	25.80	129.64#
0.00	0.00	0.00

10/18/19

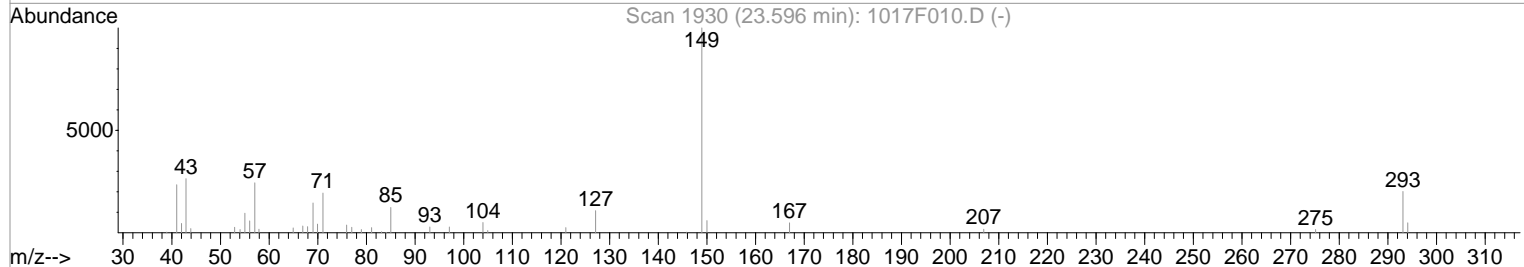
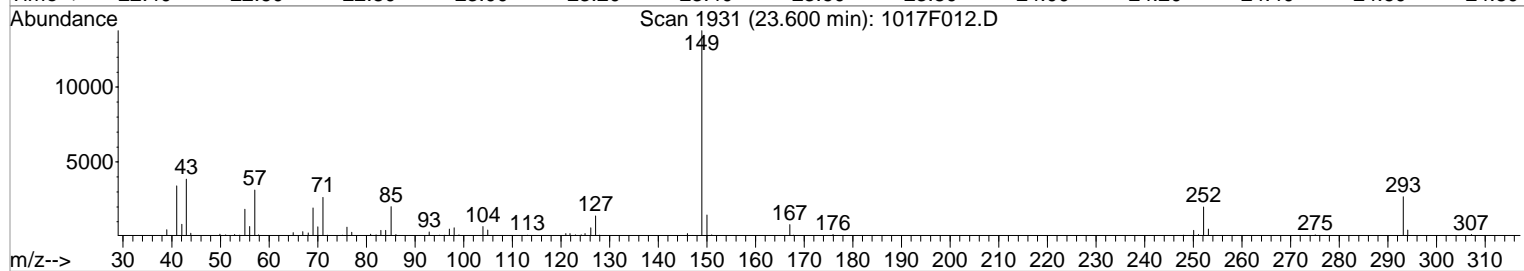
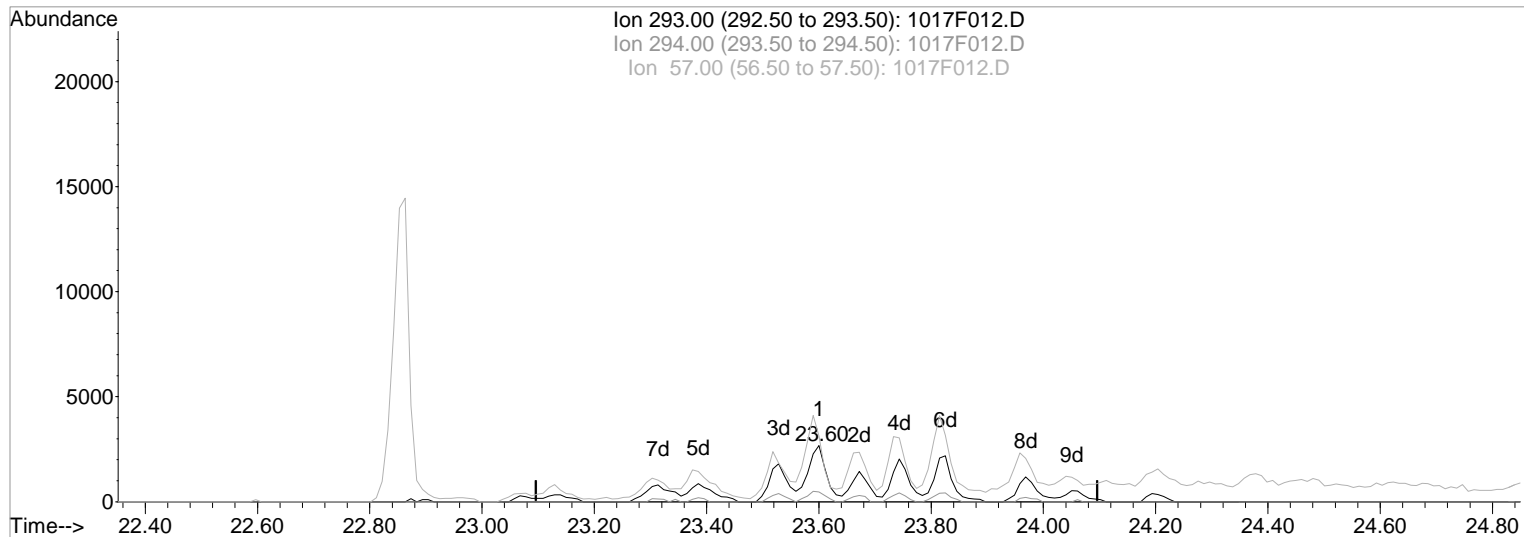
Data File : J:\MS07\DATA\101719\1017F012.D
 Acq On : 17 Oct 2019 8:03 pm
 Sample : 8270/P ICAL @ 140ppm | SVM62-22L
 Misc :

Vial: 12
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 9:08 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F012.D

(88) Diisononyl Phthalate (T)

Manual Integration:

23.60min 148.14ug/ml m

After

response 34434

Range integration correction

Ion	Exp%	Act%
293.00	100	100
294.00	2.90	3.19
57.00	25.80	18.86
0.00	0.00	0.00

10/18/19

Data File : J:\MS07\DATA\101719\1017F012.D
 Acq On : 17 Oct 2019 8:03 pm
 Sample : 8270/P ICAL @ 140ppm | SVM62-22L
 Misc :

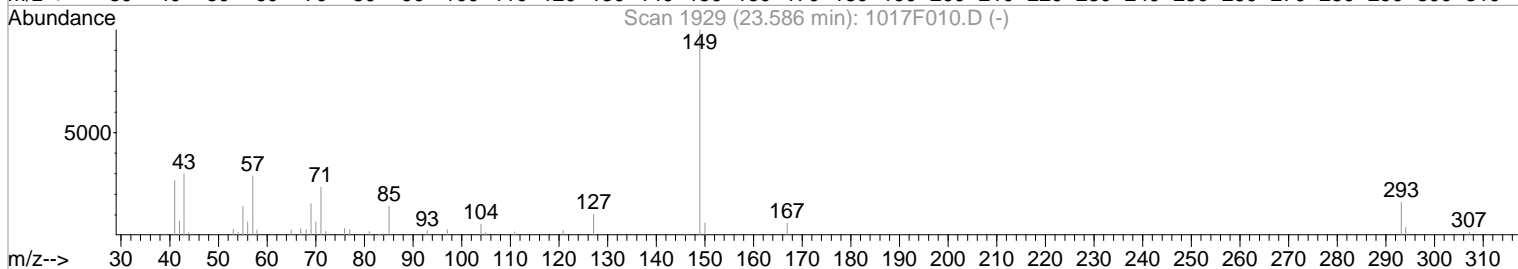
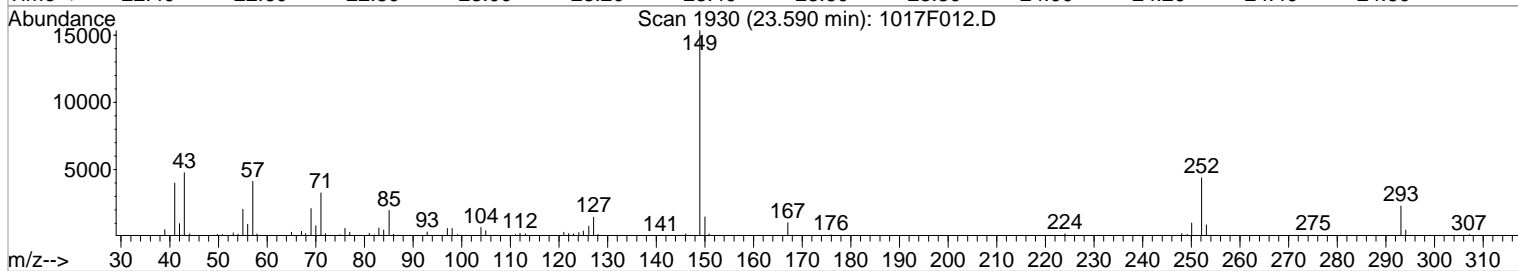
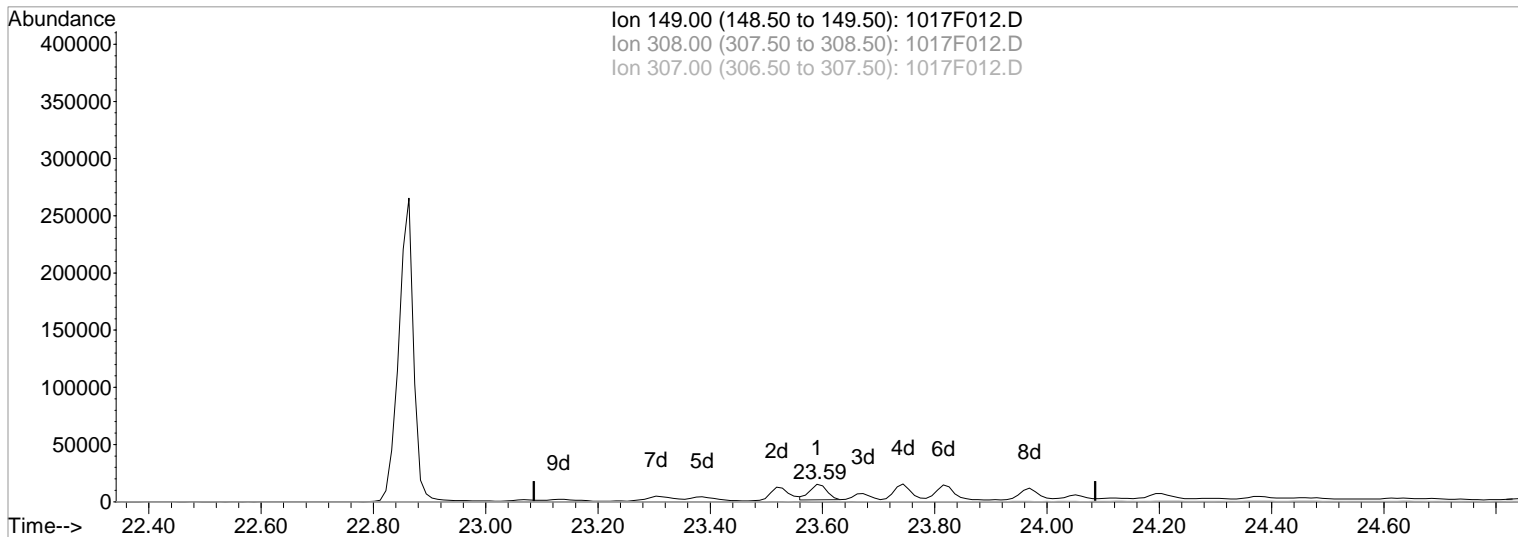
Vial: 12
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 9:08 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F012.D

(89) Diisodecyl Phthalate (T)

Manual Integration:

23.59min 9.31ug/ml

Before

response 28698

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.00
307.00	0.00	1.21
0.00	0.00	0.00

10/18/19

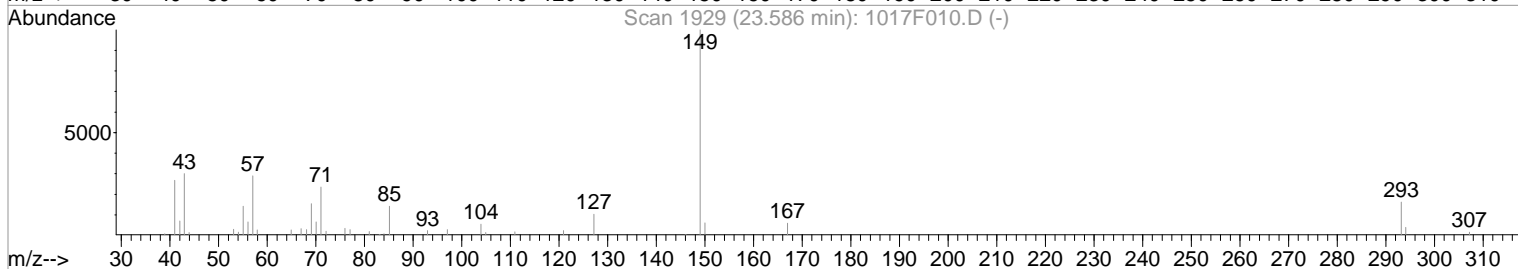
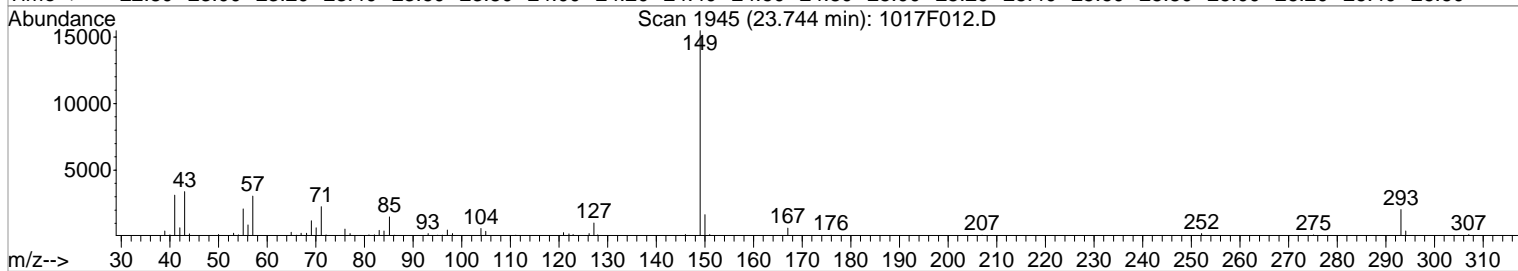
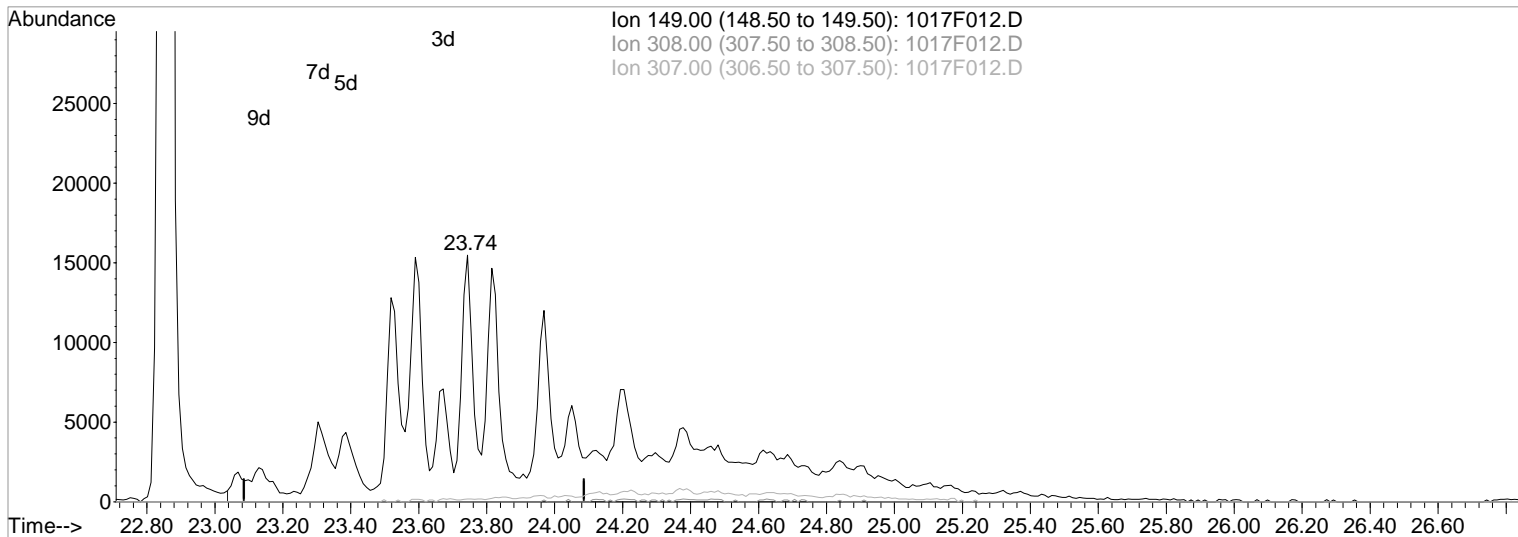
Data File : J:\MS07\DATA\101719\1017F012.D
 Acq On : 17 Oct 2019 8:03 pm
 Sample : 8270/P ICAL @ 140ppm | SVM62-22L
 Misc :

Vial: 12
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 9:09 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F012.D

(89) Diisodecyl Phthalate (T)

23.74min 143.96ug/ml m
 response 443834

Manual Integration:

After

Range integration correction

10/18/19

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.00
307.00	0.00	0.08
0.00	0.00	0.00

Data File : J:\MS07\DATA\101719\1017F013.D
 Acq On : 17 Oct 2019 8:44 pm
 Sample : 8270/P ICAL @ 180ppm | SVM62-22M
 Misc :

Vial: 13
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 08:27:18 2019

Quant Results File: 101719_BNP7.RES

Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.36	152	37170	40.00	ug/ml	0.00
22) Naphthalene-d8	11.46	136	142495	40.00	ug/ml	0.00
36) Acenaphthene-d10	14.32	164	71514	40.00	ug/ml	0.00
61) Phenanthrene-d10	16.73	188	115643	40.00	ug/ml	0.00
73) Chrysene-d12	21.17	240	109784	40.00	ug/ml	0.01
84) Perylene-d12	24.35	264	110674	40.00	ug/ml	0.01

System Monitoring Compounds

4) 2-Fluorophenol	7.16	112	205942	175.52	ug/ml	0.02
Spiked Amount	150.000	Range	21 - 100	Recovery	=	117.01%#
8) Phenol-d6	8.87	99	255088	170.06	ug/ml	0.02
Spiked Amount	150.000	Range	10 - 94	Recovery	=	113.37%#
20) Nitrobenzene-d5	10.31	82	271530	175.21	ug/ml	0.02
Spiked Amount	100.000	Range	35 - 114	Recovery	=	175.21%#
40) 2-Fluorobiphenyl	13.27	172	514647	180.92	ug/ml	0.01
Spiked Amount	100.000	Range	43 - 116	Recovery	=	180.92%#
62) 2,4,6-Tribromophenol	15.63	330	143325	178.47	ug/ml	0.01
Spiked Amount	150.000	Range	10 - 123	Recovery	=	118.98%
76) Terphenyl-d14	19.36	244	524392	159.61	ug/ml	0.00
Spiked Amount	100.000	Range	33 - 141	Recovery	=	159.61%#

Target Compounds

						Qvalue
2) N-Nitrosodimethylamine	4.36	42	158190	182.55	ug/ml	97
3) Pyridine	4.37	79	203186	177.16	ug/ml	97
5) Ethylene Glycol Butyl Ethe	7.70	57	160968	172.01	ug/ml	99
6) Aniline	8.83	93	286165	174.55	ug/ml	85
7) Bis(2-chloroethyl) Ether	8.99	93	191885	170.72	ug/ml	93
9) Phenol	8.90	94	266890	174.59	ug/ml	99
10) 2-Chlorophenol	9.02	128	226088	172.40	ug/ml	99
11) 1,3-Dichlorobenzene	9.26	146	240099	177.03	ug/ml	99
12) 1,4-Dichlorobenzene	9.39	146	245511	172.04	ug/ml	99
13) 1,2-Dichlorobenzene	9.64	146	227258	170.87	ug/ml	97
14) Benzyl Alcohol	9.68	108	139446	172.43	ug/ml	99
15) 2,2'-oxybis(1-chloropropan	9.88	45	169858	158.63	ug/ml	96
16) 2-Methylphenol	9.86	107	163762	162.59	ug/ml	99
17) Hexachloroethane	10.19	117	115161	175.68	ug/ml	93
18) N-Nitrosodi-n-propylamine	10.13	70	140911	167.71	ug/ml	97
19) 4-Methylphenol	10.17	107	249968	165.30	ug/ml	98
21) Nitrobenzene	10.35	77	223346	166.42	ug/ml	100
23) Isophorone	10.78	82	388119	170.65	ug/ml	99
24) 2-Nitrophenol	10.86	139	133980	175.02	ug/ml	93
25) 2,4-Dimethylphenol	11.01	122	184682	170.99	ug/ml	98
26) Bis(2-chloroethoxy)methane	11.14	93	233756	163.04	ug/ml	98
27) 2,4-Dichlorophenol	11.29	162	206928	175.00	ug/ml	95
28) Benzoic Acid	11.37	122	123002	228.05	ug/ml	90
29) 1,2,4-Trichlorobenzene	11.38	180	217808	177.40	ug/ml	97
30) Naphthalene	11.50	128	584358	171.57	ug/ml	100
31) n-Dodecane	11.56	57	167821	158.62	ug/ml	98
32) 4-Chloroaniline	11.63	127	259850	170.40	ug/ml	99
33) Hexachlorobutadiene	11.74	225	152926	173.60	ug/ml	99
34) 4-Chloro-3-methylphenol	12.46	107	186707	173.32	ug/ml	94
35) 2-Methylnaphthalene	12.64	142	414149	178.75	ug/ml	99
37) Hexachlorocyclopentadiene	12.90	237	179635	186.90	ug/ml	100
38) 2,4,6-Trichlorophenol	13.12	196	143749	177.62	ug/ml	98
39) 2,4,5-Trichlorophenol	13.18	196	155705	178.27	ug/ml	98
41) 2-Chloronaphthalene	13.43	162	385030	179.32	ug/ml	98
42) 2-Nitroaniline	13.63	65	119849	186.41	ug/ml	94
43) Acenaphthylene	14.09	152	537844	174.23	ug/ml	99

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS07\DATA\101719\1017F013.D
 Acq On : 17 Oct 2019 8:44 pm
 Sample : 8270/P ICAL @ 180ppm | SVM62-22M
 Misc :

Vial: 13
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 08:27:18 2019

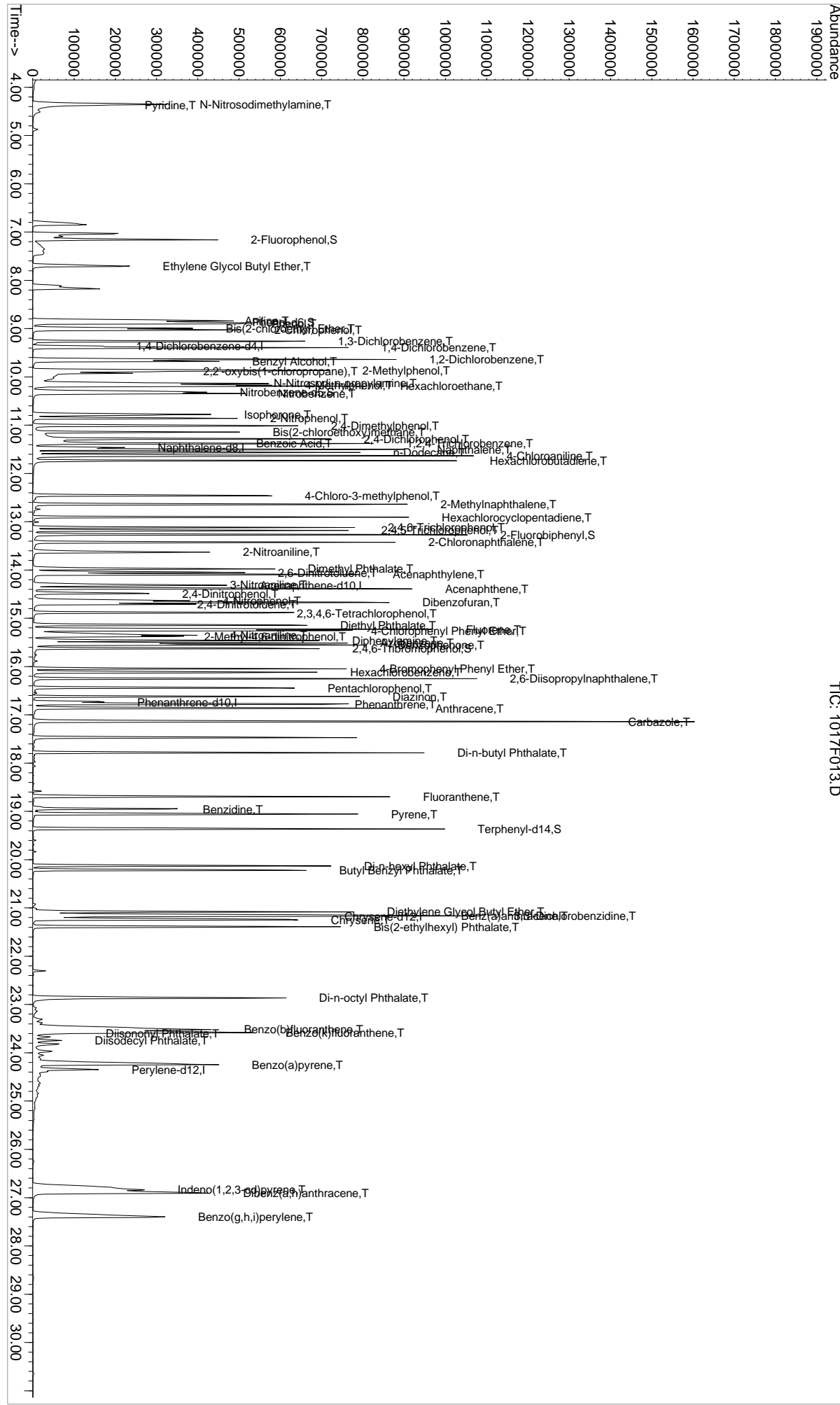
Quant Results File: 101719_BNP7.RES

Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44) Dimethyl Phthalate	13.98	163	409964	184.08	ug/ml	100
45) 2,6-Dinitrotoluene	14.05	165	98570	181.28	ug/ml	99
46) Acenaphthene	14.39	154	322748	176.58	ug/ml	99
47) 3-Nitroaniline	14.31	138	108722	192.85	ug/ml	96
48) 2,4-Dinitrophenol	14.49	184	72363	253.14	ug/ml	85
49) Dibenzofuran	14.67	168	543281	187.37	ug/ml	97
50) 4-Nitrophenol	14.63	109	93563	217.60	ug/ml	89
51) 2,4-Dinitrotoluene	14.72	165	138968	204.48	ug/ml	73
52) 2,3,4,6-Tetrachlorophenol	14.89	232	125463	194.86	ug/ml	98
53) Fluorene	15.23	166	383850	180.80	ug/ml	100
54) 4-Chlorophenyl Phenyl Et	15.26	204	210143	185.04	ug/ml	90
55) Diethyl Phthalate	15.15	149	421684	199.90	ug/ml	99
56) 4-Nitroaniline	15.35	138	111641	200.29	ug/ml	99
57) 2-Methyl-4,6-dinitrophenol	15.38	198	93918	216.12	ug/ml	95
58) Diphenylamine	15.46	169	272003	191.41	ug/ml	99
59) Azobenzene	15.51	51	182727m	149.16	ug/ml	
60) Benzophenone	15.56	105	381085	186.93	ug/ml#	26
63) 4-Bromophenyl Phenyl Ether	16.05	248	139134	169.40	ug/ml	95
64) Hexachlorobenzene	16.12	284	181144	172.21	ug/ml	98
65) 2,6-Diisopropyl naphthalene	16.25	197	330426	170.46	ug/ml	99
66) Pentachlorophenol	16.45	266	125072	191.88	ug/ml	99
67) Diazinon	16.62	137	79253	166.59	ug/ml	99
68) Phenanthrene	16.78	178	537339	177.13	ug/ml	99
69) Anthracene	16.87	178	559225	178.11	ug/ml	100
70) Carbazole	17.14	167	544835	186.03	ug/ml	100
71) Di-n-butyl Phthalate	17.79	149	664043	176.63	ug/ml	98
72) Fluoranthene	18.70	202	584135	176.99	ug/ml	97
74) Benzidine	18.95	184	224152	147.34	ug/ml	98
75) Pyrene	19.06	202	583403	163.64	ug/ml	99
77) Di-n-hexyl Phthalate	20.13	149	620029	159.32	ug/ml	99
78) Butyl Benzyl Phthalate	20.22	149	266706	161.62	ug/ml	95
79) Diethylene Glycol Butyl Et	21.08	105	409995	169.80	ug/ml	99
80) 3,3'-Dichlorobenzidine	21.16	252	269643	175.57	ug/ml	99
81) Benz(a)anthracene	21.15	228	505338	173.02	ug/ml	100
82) Chrysene	21.25	228	523249	174.93	ug/ml	100
83) Bis(2-ethylhexyl) Phthalat	21.39	149	360249	167.95	ug/ml	98
85) Di-n-octyl Phthalate	22.86	149	639165	184.59	ug/ml	99
86) Benzo(b)fluoranthene	23.52	252	658264	198.91	ug/ml	99
87) Benzo(k)fluoranthene	23.58	252	489224	160.22	ug/ml	99
88) Diisononyl Phthalate	23.60	293	45529m	197.03	ug/ml	
89) Diisodecyl Phthalate	23.74	149	583905m	190.50	ug/ml	
90) Benzo(a)pyrene	24.25	252	518862	176.91	ug/ml	99
91) Indeno(1,2,3-cd)pyrene	26.84	276	586542m	195.87	ug/ml	
92) Dibenz(a,h)anthracene	26.91	278	548997	178.89	ug/ml	97
93) Benzo(g,h,i)perylene	27.40	276	540566	176.27	ug/ml	99

Data File : J:\MS07\DATA\101719\1017F013.D
Acq On : 17 Oct 2019 8:44 pm
Sample : 8270/P ICAL @ 180ppm | SVM62-22M
Misc :
MS Integration Params: RTEINT.P
Quant Results File: 101719_BNP7.RES
Vial: 13
Operator: CCONOVER/LM
Inst: MS07
Multiplr: 1.00

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
Last Update : Fri Oct 18 09:20:51 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS07\DATA\101719\1017F013.D
 Acq On : 17 Oct 2019 8:44 pm
 Sample : 8270/P ICAL @ 180ppm | SVM62-22M
 Misc :

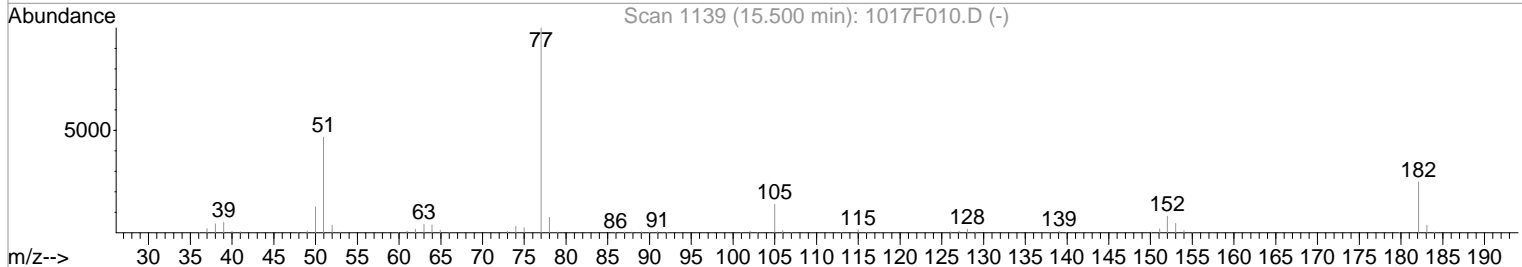
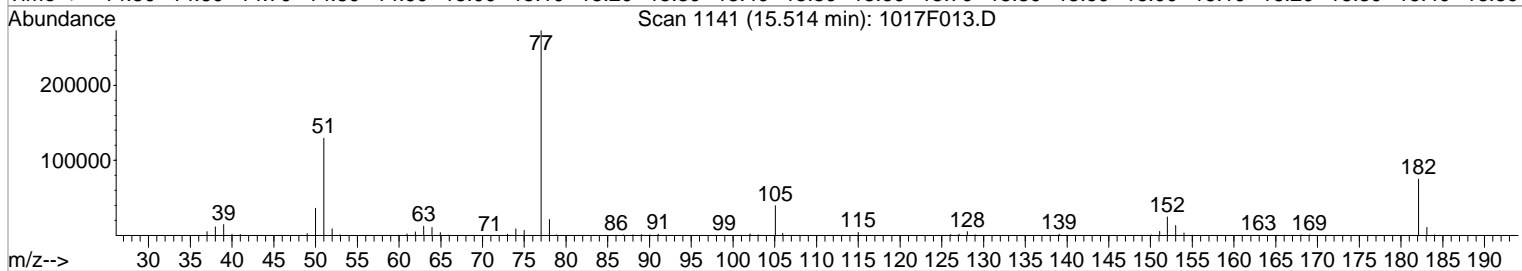
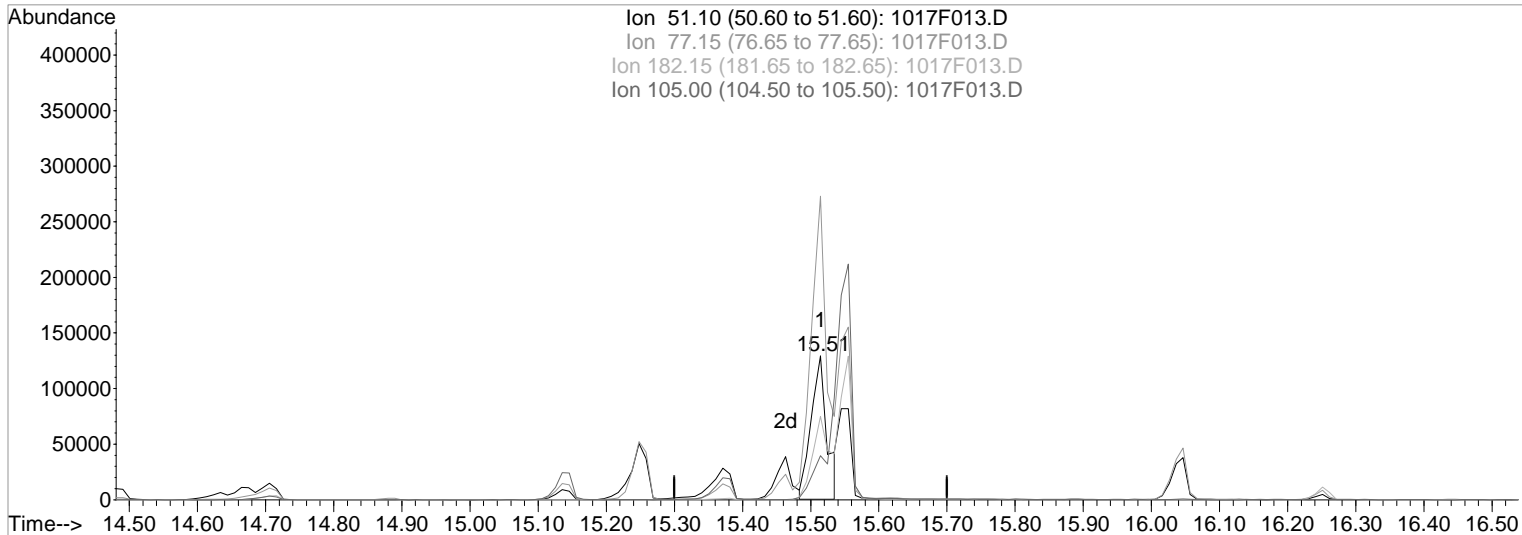
Vial: 13
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 8:28 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F013.D

(59) Azobenzene (T)

Manual Integration:

15.51min 169.54ug/ml
 response 207699

Before

Ion	Exp%	Act%
51.10	100	100
77.15	213.80	218.97
182.15	52.80	51.12
105.00	29.60	0.00

10/18/19

Data File : J:\MS07\DATA\101719\1017F013.D
 Acq On : 17 Oct 2019 8:44 pm
 Sample : 8270/P ICAL @ 180ppm | SVM62-22M
 Misc :

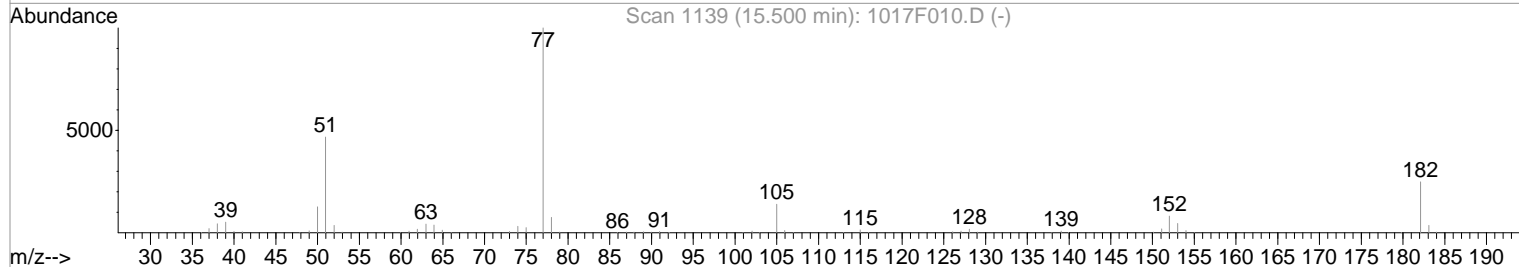
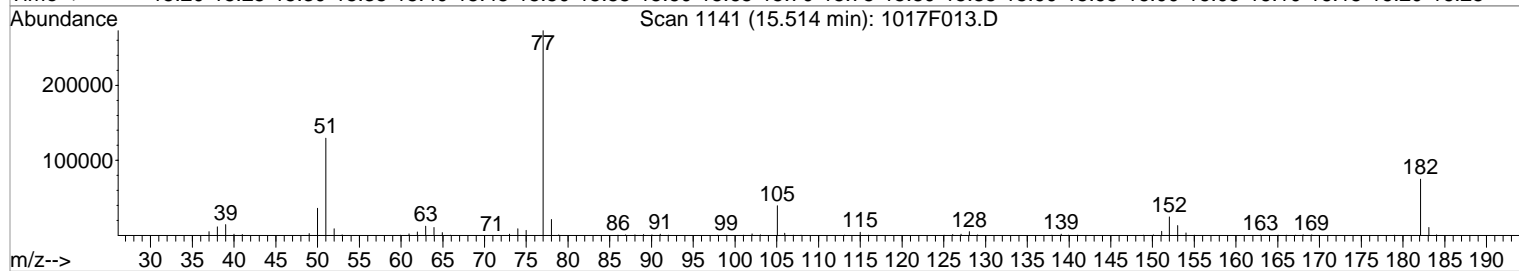
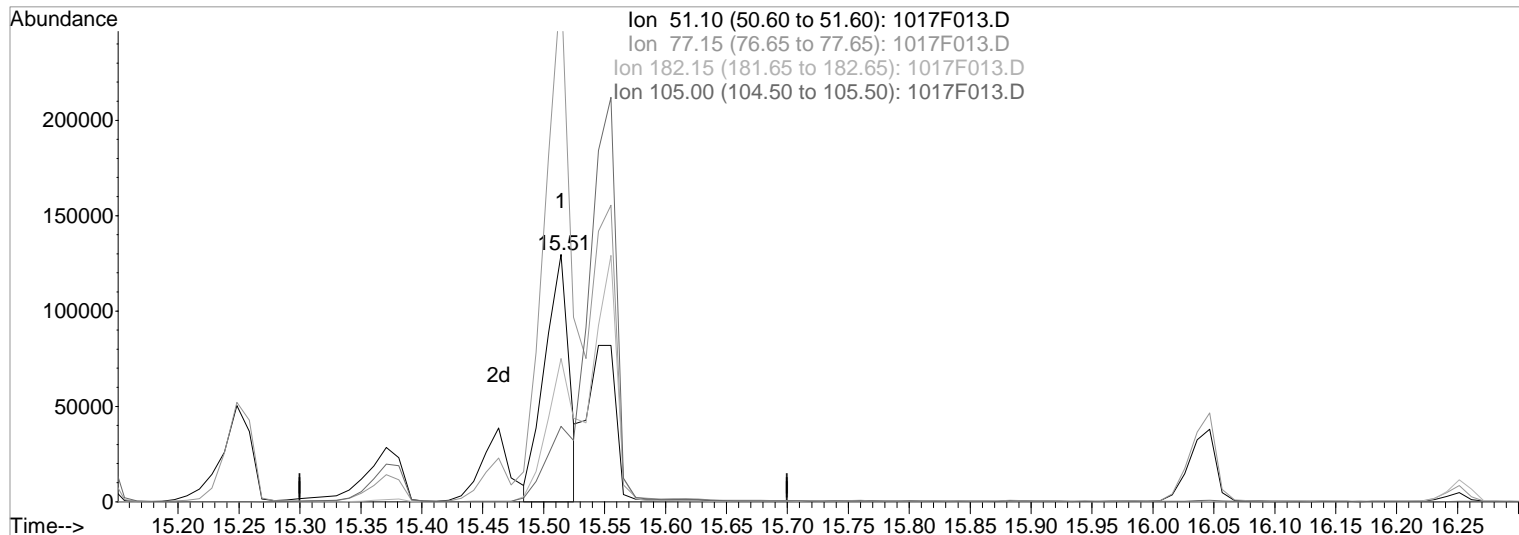
Vial: 13
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 9:10 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F013.D

(59) Azobenzene (T)			Manual Integration:
15.51min	149.16ug/ml	m	After
response	182727		IC - overintegrated
Ion	Exp%	Act%	10/18/19
51.10	100	100	
77.15	213.80	210.73	
182.15	52.80	57.97	
105.00	29.60	30.52	

Data File : J:\MS07\DATA\101719\1017F013.D
 Acq On : 17 Oct 2019 8:44 pm
 Sample : 8270/P ICAL @ 180ppm | SVM62-22M
 Misc :

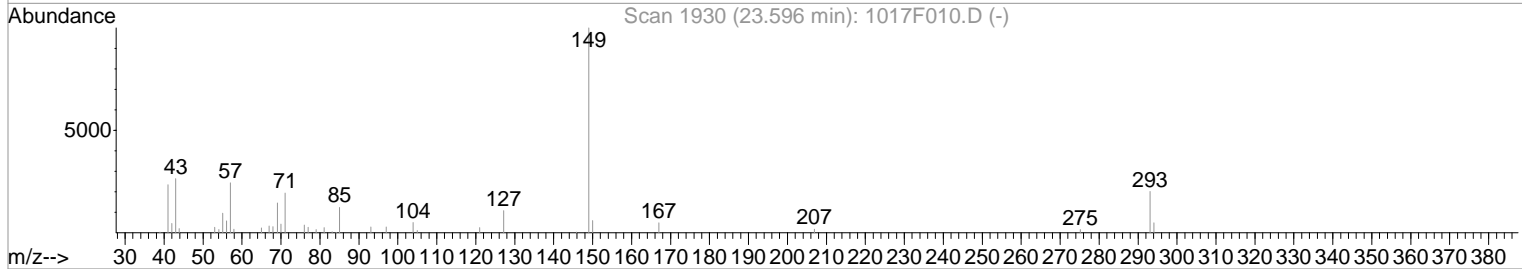
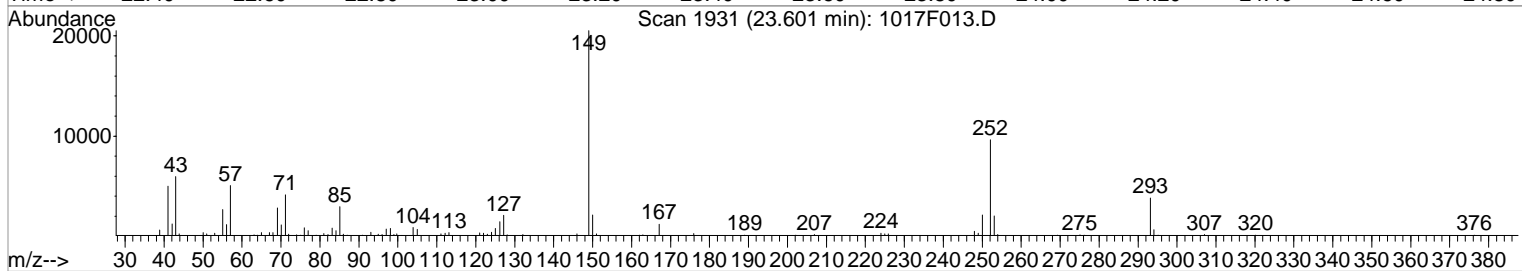
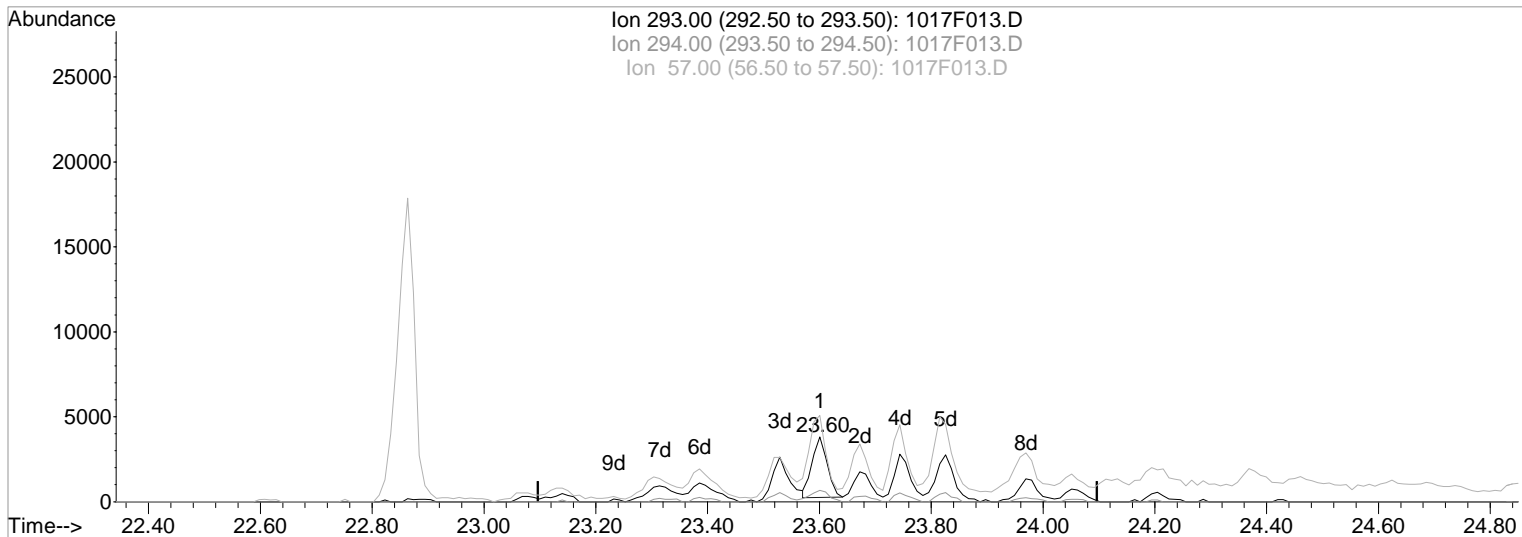
Vial: 13
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 9:10 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F013.D

(88) Diisononyl Phthalate (T)

Manual Integration:

23.60min 29.02ug/ml

Before

response 6705

Ion	Exp%	Act%
293.00	100	100
294.00	2.90	23.89
57.00	25.80	136.44#
0.00	0.00	0.00

10/18/19

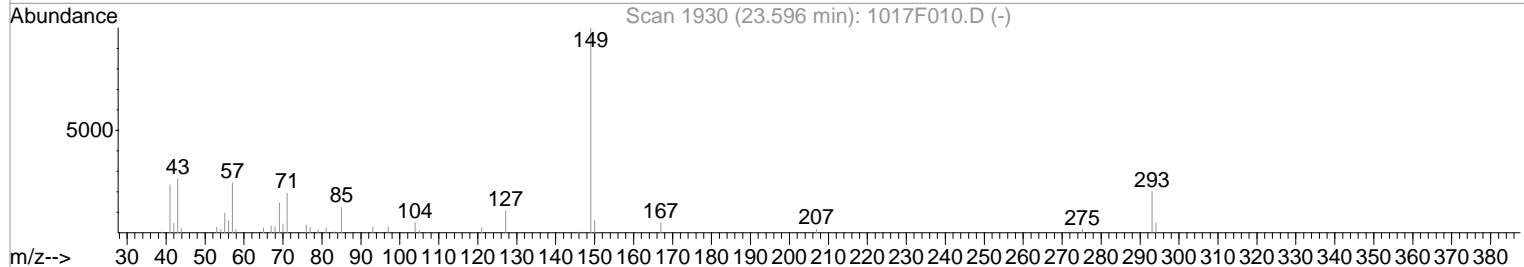
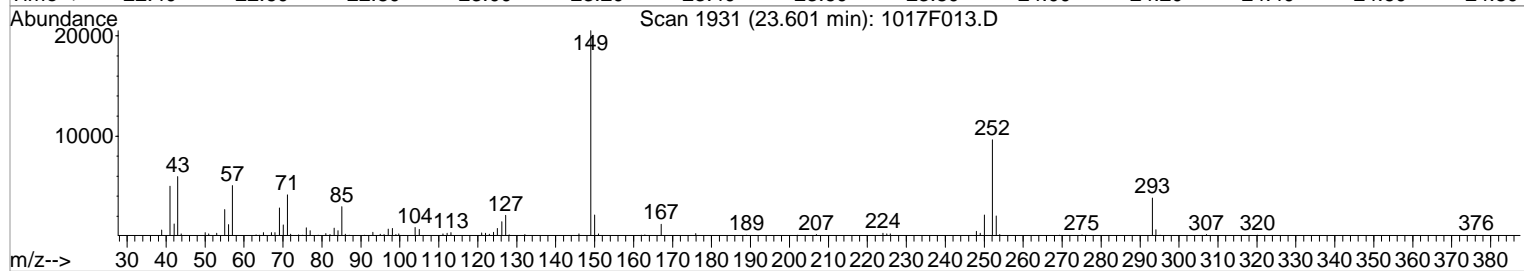
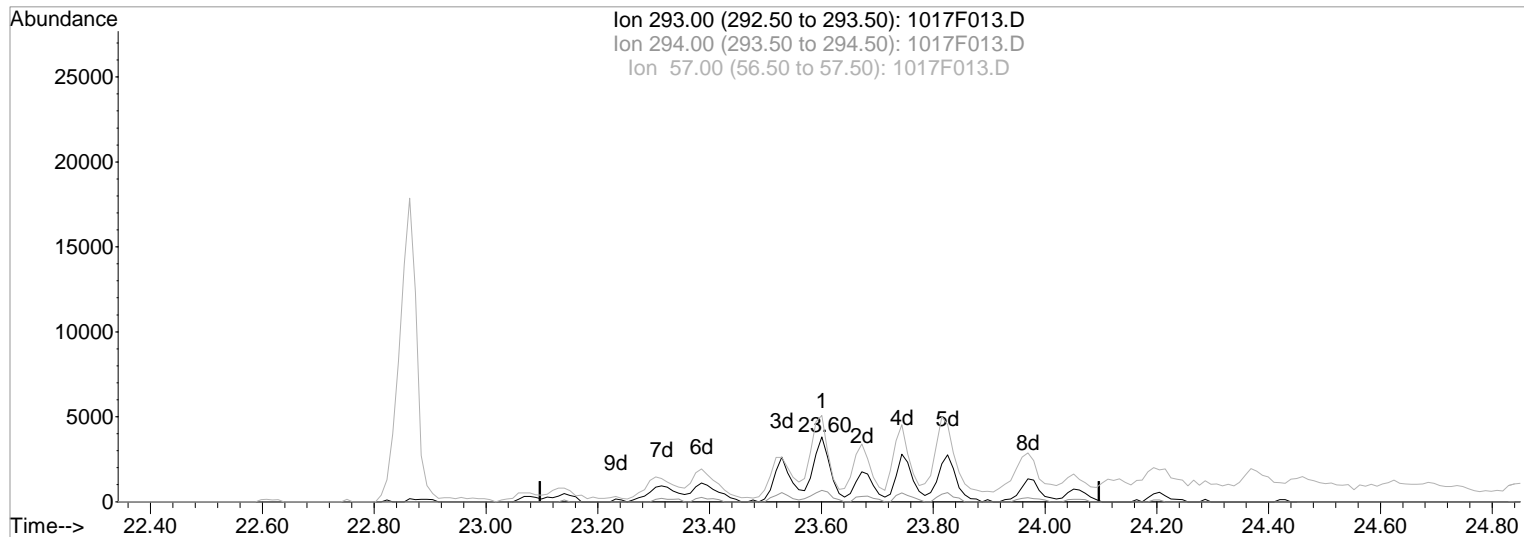
Data File : J:\MS07\DATA\101719\1017F013.D
 Acq On : 17 Oct 2019 8:44 pm
 Sample : 8270/P ICAL @ 180ppm | SVM62-22M
 Misc :

Vial: 13
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 9:11 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F013.D

(88) Diisononyl Phthalate (T)

23.60min 197.03ug/ml m

response 45529

Ion	Exp%	Act%
293.00	100	100
294.00	2.90	3.52
57.00	25.80	20.09
0.00	0.00	0.00

Manual Integration:

After

Range integration correction

10/18/19

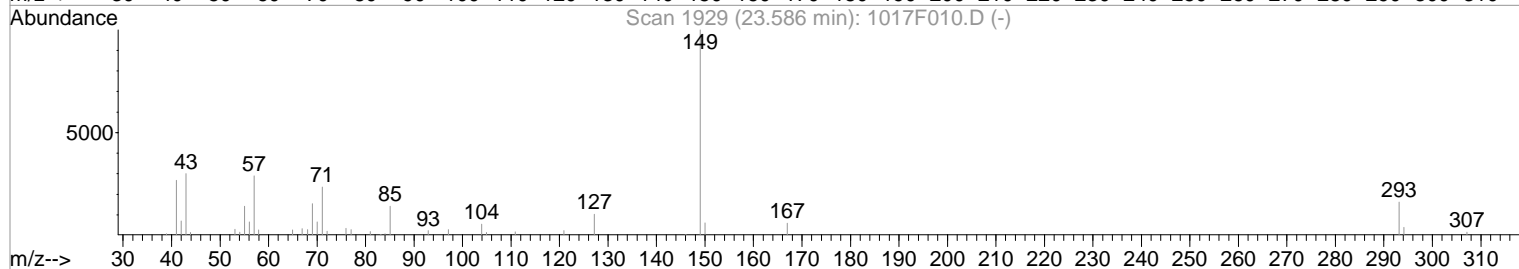
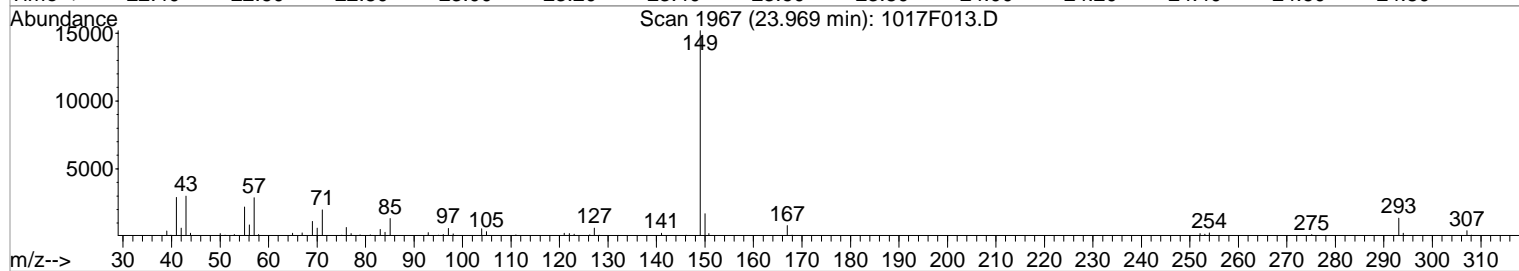
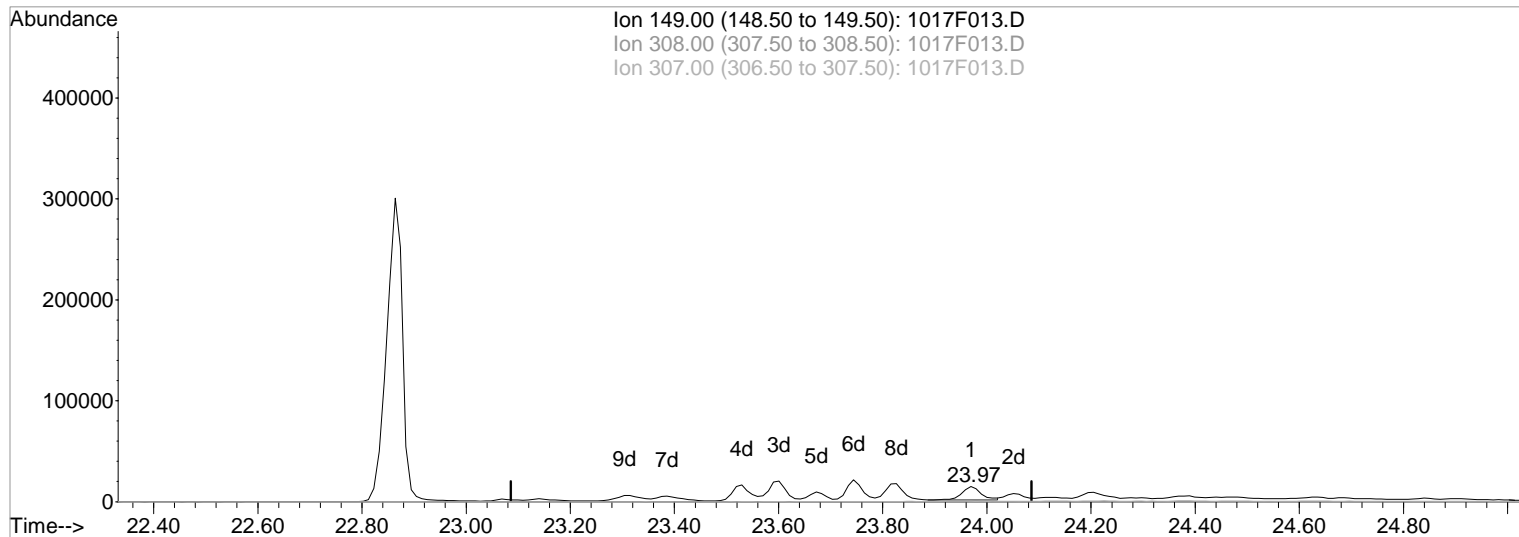
Data File : J:\MS07\DATA\101719\1017F013.D
 Acq On : 17 Oct 2019 8:44 pm
 Sample : 8270/P ICAL @ 180ppm | SVM62-22M
 Misc :

Vial: 13
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 9:11 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F013.D

(89) Diisodecyl Phthalate (T)

Manual Integration:

23.97min 10.82ug/ml

Before

response 33154

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.42
307.00	0.00	2.78
0.00	0.00	0.00

10/18/19

Data File : J:\MS07\DATA\101719\1017F013.D
 Acq On : 17 Oct 2019 8:44 pm
 Sample : 8270/P ICAL @ 180ppm | SVM62-22M
 Misc :

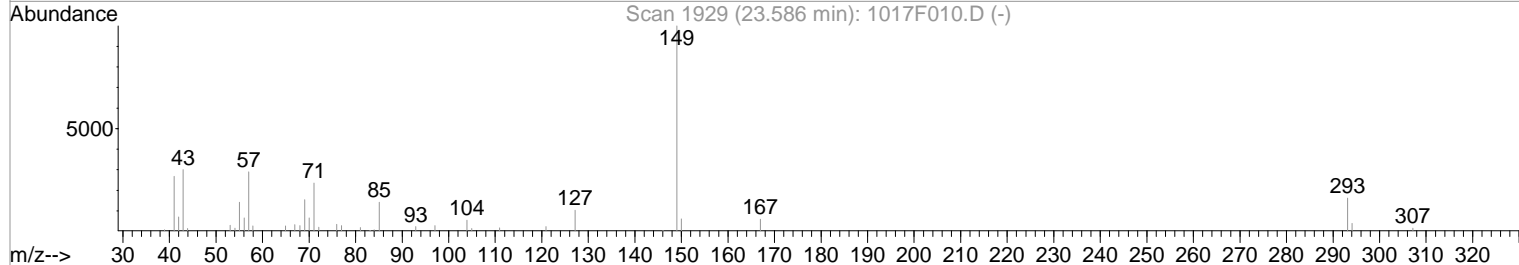
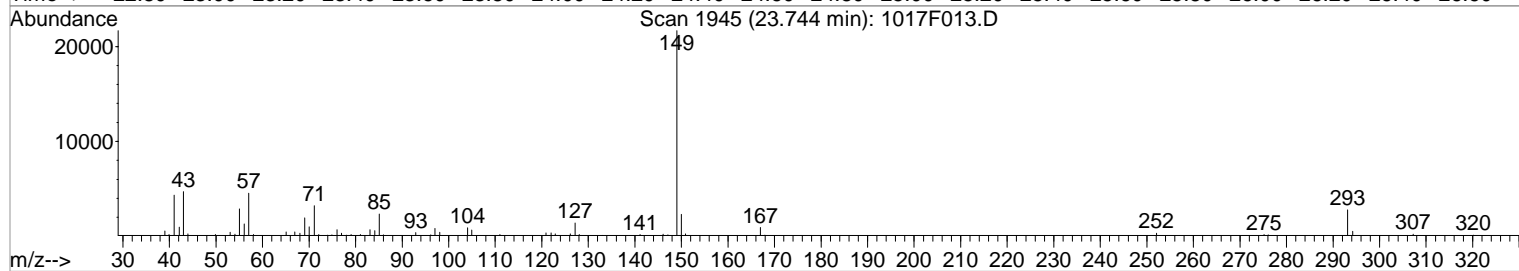
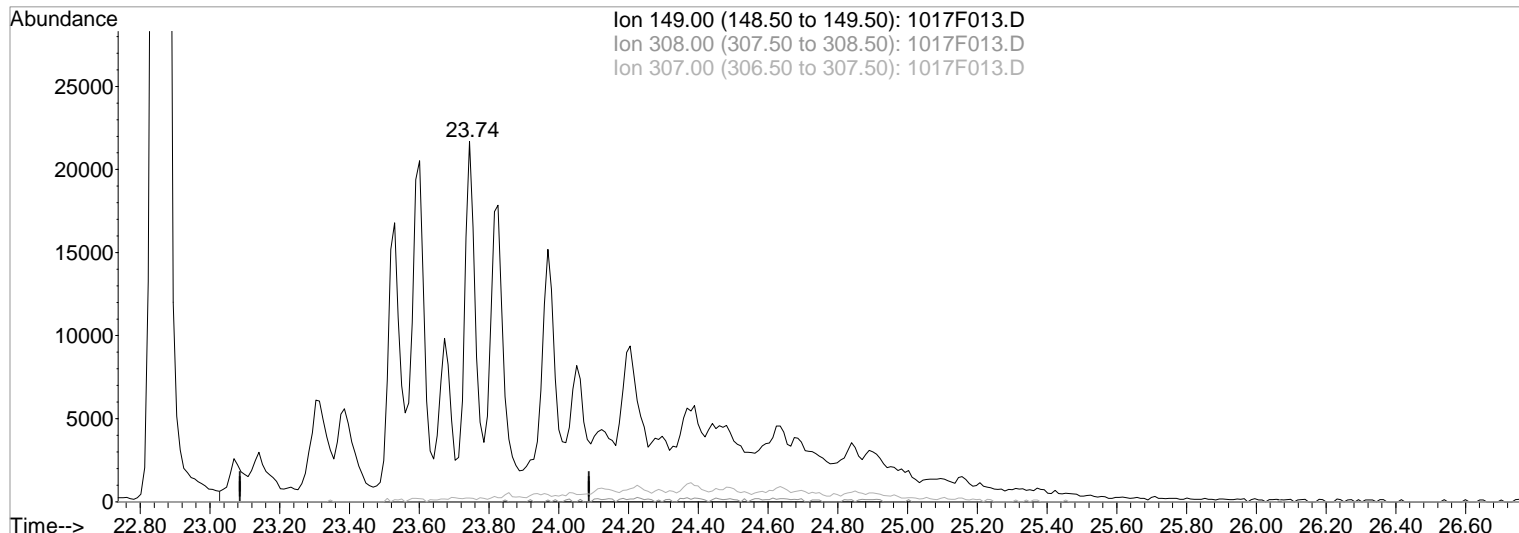
Vial: 13
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 9:11 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F013.D

(89) Diisodecyl Phthalate (T)

23.74min 190.50ug/ml m
 response 583905

Manual Integration:

After

Range integration correction

10/18/19

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.02
307.00	0.00	0.16
0.00	0.00	0.00

Data File : J:\MS07\DATA\101719\1017F013.D
 Acq On : 17 Oct 2019 8:44 pm
 Sample : 8270/P ICAL @ 180ppm | SVM62-22M
 Misc :

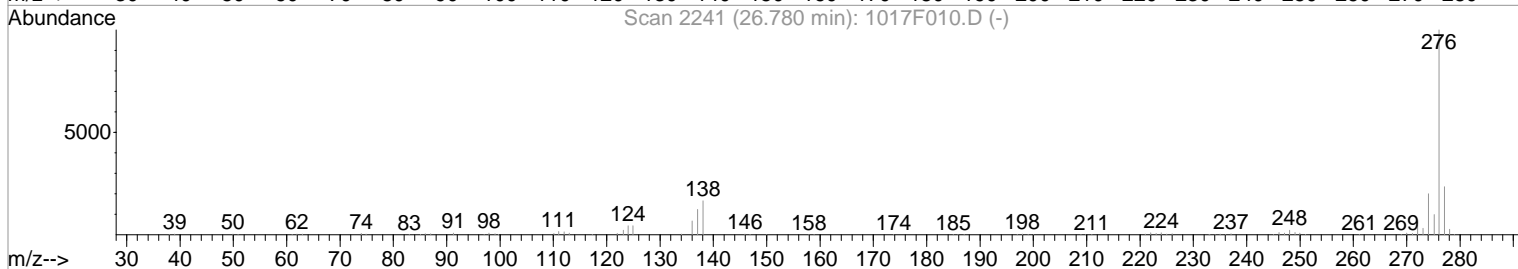
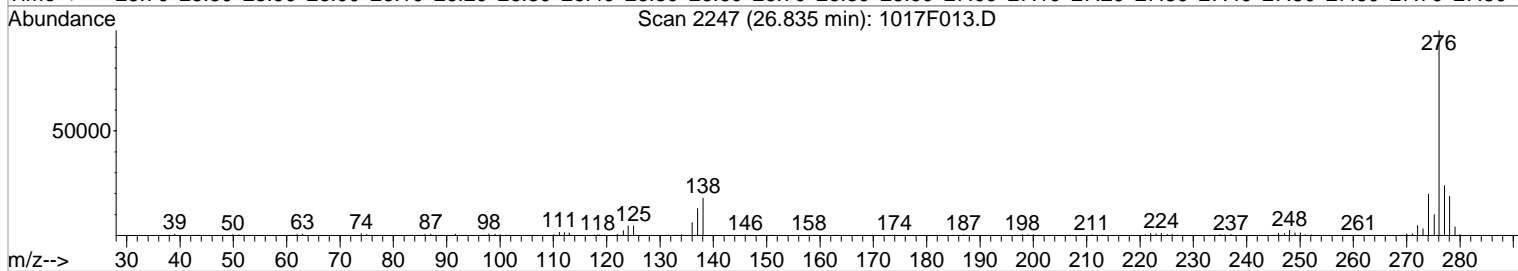
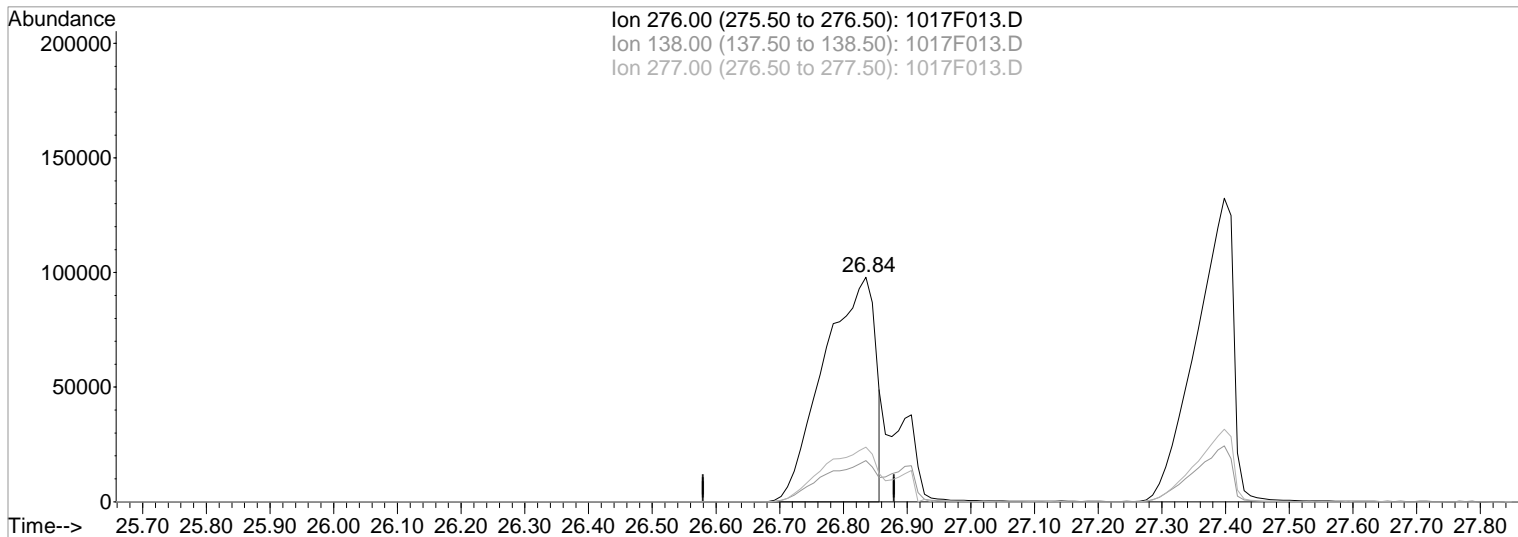
Vial: 13
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 9:11 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F013.D

(91) Indeno(1,2,3-cd)pyrene (T)

Manual Integration:

26.84min 184.01ug/ml

Before

response 551031

Ion	Exp%	Act%
276.00	100	100
138.00	16.60	17.27
277.00	23.40	23.95
0.00	0.00	0.00

10/18/19

Data File : J:\MS07\DATA\101719\1017F013.D
 Acq On : 17 Oct 2019 8:44 pm
 Sample : 8270/P ICAL @ 180ppm | SVM62-22M
 Misc :

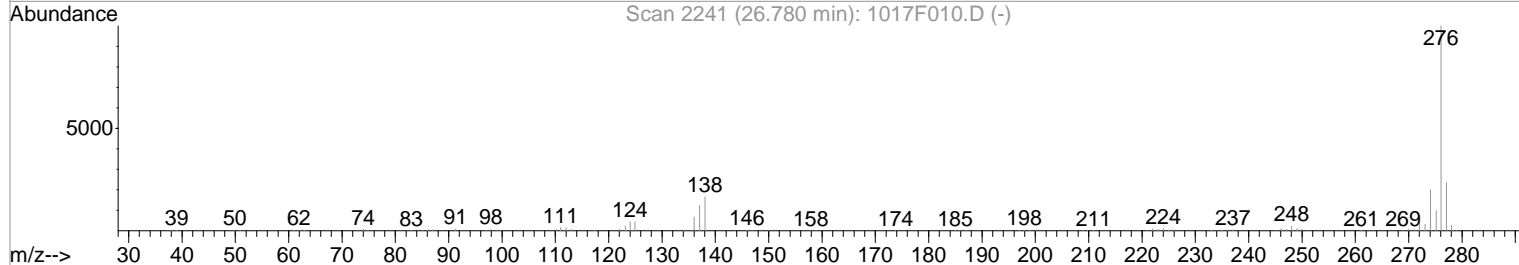
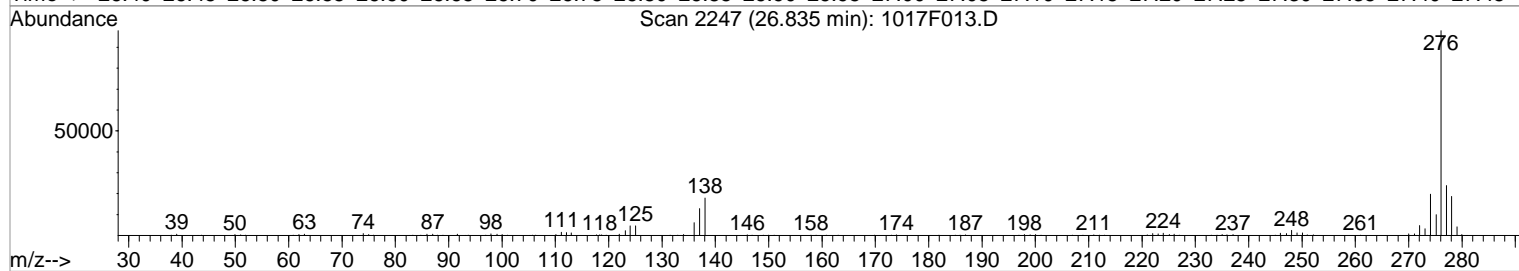
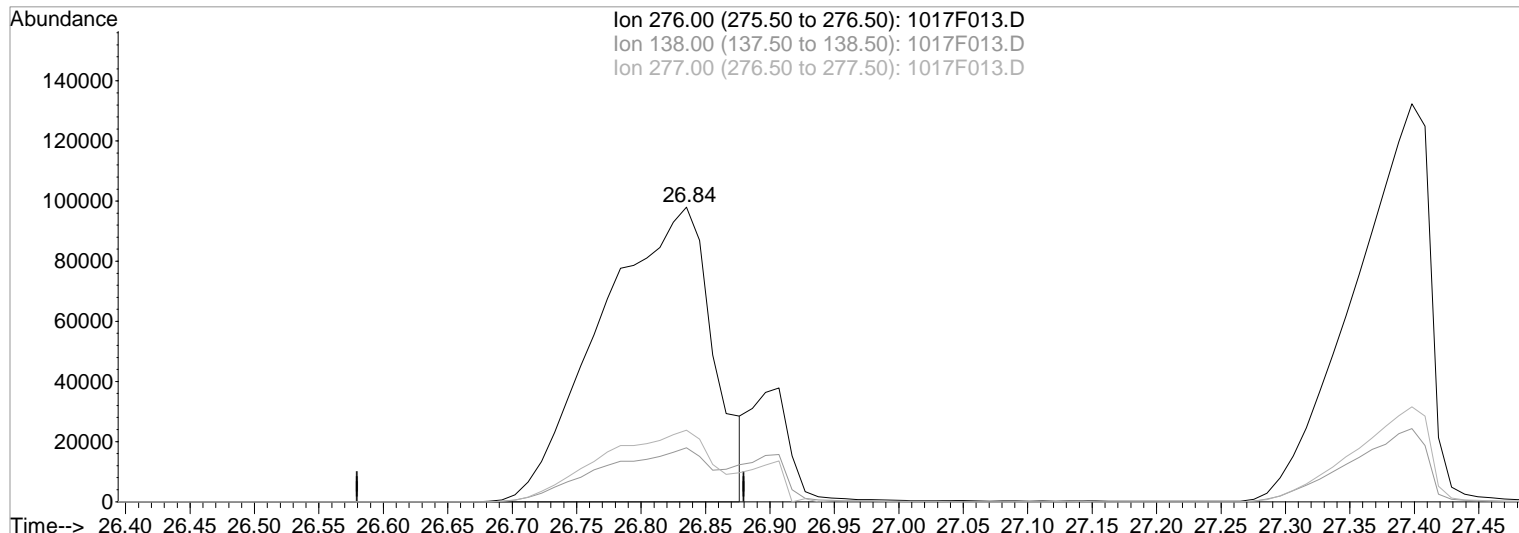
Vial: 13
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 9:12 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F013.D

(91) Indeno(1,2,3-cd)pyrene (T)

Manual Integration:

26.84min 195.87ug/ml m

After

response 586542

IC - incomplete

Ion	Exp%	Act%
276.00	100	100
138.00	16.60	18.34
277.00	23.40	24.32
0.00	0.00	0.00

10/18/19

Data File : J:\MS07\DATA\101719\1017F014.D
 Acq On : 17 Oct 2019 9:26 pm
 Sample : 8270/P ICAL @ 200ppm | SVM62-22N
 Misc :

Vial: 14
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 12:07:23 2019

Quant Results File: 101719_BNP7.RES

Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 12:06:38 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.36	152	36865	40.00	ug/ml	0.00
22) Naphthalene-d8	11.46	136	140779	40.00	ug/ml	0.00
36) Acenaphthene-d10	14.32	164	70980	40.00	ug/ml	0.00
61) Phenanthrene-d10	16.73	188	118640	40.00	ug/ml	0.00
73) Chrysene-d12	21.17	240	110362	40.00	ug/ml	0.01
84) Perylene-d12	24.35	264	113507	40.00	ug/ml	0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
4) 2-Fluorophenol	7.16	112	230863	202.32	ug/ml	0.02
Spiked Amount 150.000	Range 21	- 100	Recovery =	134.88%#		
8) Phenol-d6	8.88	99	281907	201.26	ug/ml	0.03
Spiked Amount 150.000	Range 10	- 94	Recovery =	134.17%#		
20) Nitrobenzene-d5	10.31	82	291335	203.36	ug/ml	0.02
Spiked Amount 100.000	Range 35	- 114	Recovery =	203.36%#		
40) 2-Fluorobiphenyl	13.27	172	554004	210.46	ug/ml	0.01
Spiked Amount 100.000	Range 43	- 116	Recovery =	210.46%#		
62) 2,4,6-Tribromophenol	15.63	330	157122	211.24	ug/ml	0.01
Spiked Amount 150.000	Range 10	- 123	Recovery =	140.83%#		
76) Terphenyl-d14	19.36	244	578593	196.29	ug/ml	0.00
Spiked Amount 100.000	Range 33	- 141	Recovery =	196.29%#		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-Nitrosodimethylamine	4.36	42	168835	206.04	ug/ml	96
3) Pyridine	4.36	79	223417	204.41	ug/ml	97
5) Ethylene Glycol Butyl Ethe	7.71	57	178833	199.41	ug/ml	99
6) Aniline	8.84	93	312529	196.02	ug/ml	93
7) Bis(2-chloroethyl) Ether	8.99	93	206563	193.24	ug/ml	94
9) Phenol	8.90	94	289797	197.24	ug/ml	95
10) 2-Chlorophenol	9.03	128	247643	202.07	ug/ml	97
11) 1,3-Dichlorobenzene	9.27	146	255948	196.03	ug/ml	97
12) 1,4-Dichlorobenzene	9.40	146	270631	196.92	ug/ml	98
13) 1,2-Dichlorobenzene	9.64	146	251872	199.79	ug/ml	97
14) Benzyl Alcohol	9.68	108	157413	206.39	ug/ml	99
15) 2,2'-oxybis(1-chloropropan	9.89	45	184803	182.39	ug/ml	95
16) 2-Methylphenol	9.87	107	178485	195.36	ug/ml	98
17) Hexachloroethane	10.19	117	125963	197.87	ug/ml	97
18) N-Nitrosodi-n-propylamine	10.14	70	151732	194.42	ug/ml	99
19) 4-Methylphenol	10.18	107	273979	196.39	ug/ml	99
21) Nitrobenzene	10.34	77	254271	205.50	ug/ml	98
23) Isophorone	10.77	82	435440	194.67	ug/ml	98
24) 2-Nitrophenol	10.87	139	145876	217.81	ug/ml	99
25) 2,4-Dimethylphenol	11.02	122	199973	194.73	ug/ml	99
26) Bis(2-chloroethoxy)methane	11.15	93	257420	193.14	ug/ml	97
27) 2,4-Dichlorophenol	11.29	162	226053	201.08	ug/ml	96
28) Benzoic Acid	11.39	122	134113	197.53	ug/ml	96
29) 1,2,4-Trichlorobenzene	11.39	180	235397	196.49	ug/ml	98
30) Naphthalene	11.51	128	642234	195.33	ug/ml	99
31) n-Dodecane	11.56	57	184767	177.98	ug/ml	98
32) 4-Chloroaniline	11.63	127	290022	188.60	ug/ml	99
33) Hexachlorobutadiene	11.74	225	166012	202.77	ug/ml	100
34) 4-Chloro-3-methylphenol	12.46	107	201042	188.14	ug/ml	97
35) 2-Methylnaphthalene	12.65	142	448820	194.06	ug/ml	100
37) Hexachlorocyclopentadiene	12.90	237	193399	195.32	ug/ml	100
38) 2,4,6-Trichlorophenol	13.12	196	158202	215.45	ug/ml	99
39) 2,4,5-Trichlorophenol	13.19	196	168106	208.61	ug/ml	100
41) 2-Chloronaphthalene	13.43	162	419030	212.63	ug/ml	97
42) 2-Nitroaniline	13.64	65	132478	208.87	ug/ml	96
43) Acenaphthylene	14.09	152	585310	200.57	ug/ml	99

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS07\DATA\101719\1017F014.D
 Acq On : 17 Oct 2019 9:26 pm
 Sample : 8270/P ICAL @ 200ppm | SVM62-22N
 Misc :

Vial: 14
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 12:07:23 2019

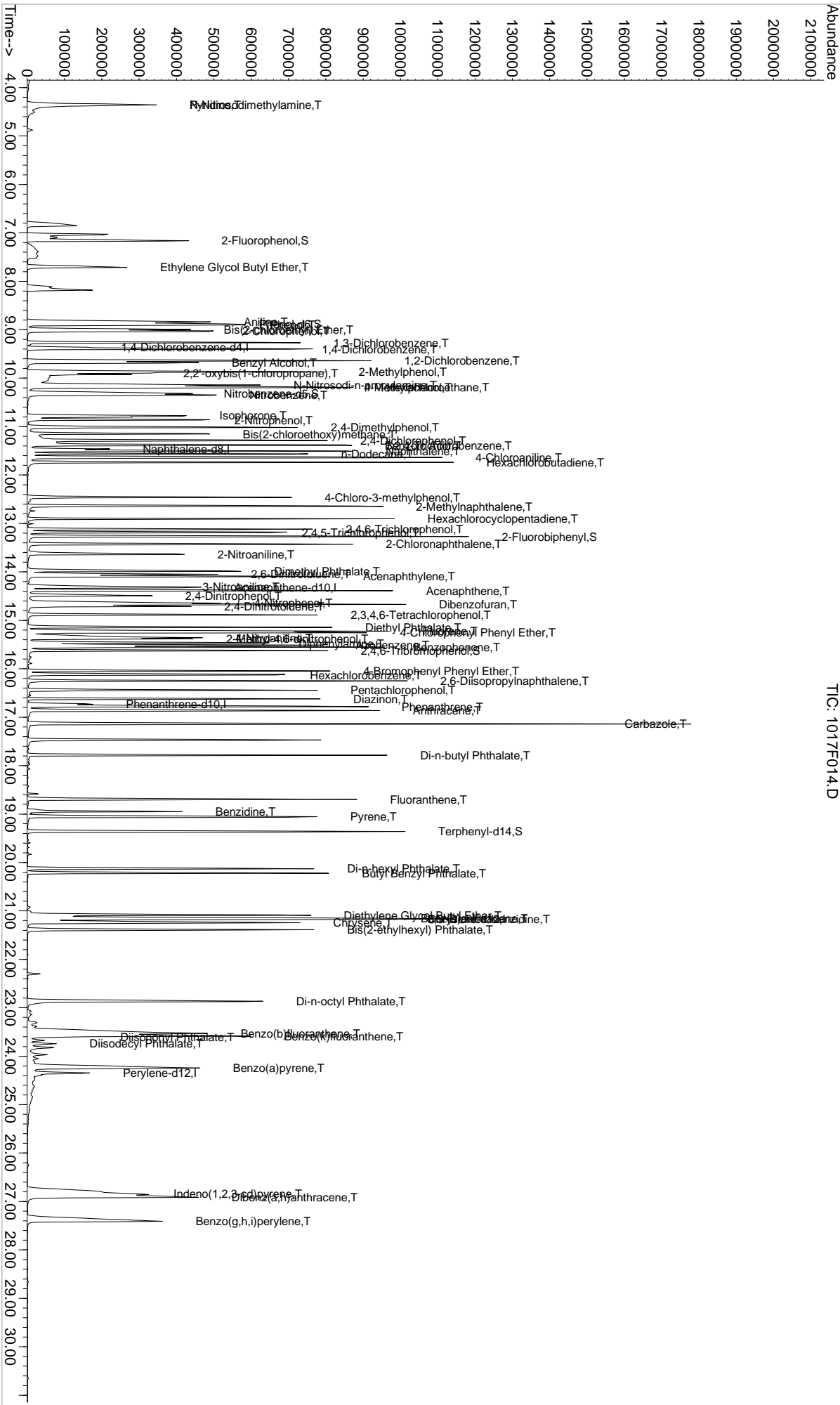
Quant Results File: 101719_BNP7.RES

Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 12:06:38 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44) Dimethyl Phthalate	13.99	163	451459	199.49	ug/ml	100
45) 2,6-Dinitrotoluene	14.05	165	111708	212.77	ug/ml	98
46) Acenaphthene	14.39	154	343076	191.27	ug/ml	99
47) 3-Nitroaniline	14.31	138	120567	214.61	ug/ml	96
48) 2,4-Dinitrophenol	14.49	184	82540	198.71	ug/ml	98
49) Dibenzofuran	14.67	168	579916	198.10	ug/ml	96
50) 4-Nitrophenol	14.64	109	102809	198.47	ug/ml#	74
51) 2,4-Dinitrotoluene	14.72	165	148424	218.57	ug/ml	90
52) 2,3,4,6-Tetrachlorophenol	14.89	232	137135	224.78	ug/ml	93
53) Fluorene	15.23	166	416980	190.77	ug/ml	99
54) 4-Chlorophenyl Phenyl Et	15.26	204	225836	193.41	ug/ml	95
55) Diethyl Phthalate	15.15	149	453411	203.79	ug/ml	99
56) 4-Nitroaniline	15.36	138	123567	222.98	ug/ml	98
57) 2-Methyl-4,6-dinitrophenol	15.38	198	102764	197.48	ug/ml	87
58) Diphenylamine	15.47	169	300303	194.00	ug/ml	98
59) Azobenzene	15.51	51	217684	182.82	ug/ml	93
60) Benzophenone	15.55	105	401401	184.14	ug/ml#	29
63) 4-Bromophenyl Phenyl Ether	16.05	248	152550	194.69	ug/ml	97
64) Hexachlorobenzene	16.13	284	201031	194.49	ug/ml	88
65) 2,6-Diisopropyl naphthalene	16.25	197	368364	197.59	ug/ml	99
66) Pentachlorophenol	16.44	266	137964	195.58	ug/ml	100
67) Diazinon	16.62	137	87000	205.15	ug/ml	100
68) Phenanthrene	16.78	178	588213	193.85	ug/ml	99
69) Anthracene	16.86	178	602225	191.25	ug/ml	99
70) Carbazole	17.14	167	602014	213.83	ug/ml	99
71) Di-n-butyl Phthalate	17.79	149	734288	221.36	ug/ml	98
72) Fluoranthene	18.70	202	648811	212.52	ug/ml	97
74) Benzidine	18.95	184	244383	163.79	ug/ml	99
75) Pyrene	19.06	202	640681	195.07	ug/ml	99
77) Di-n-hexyl Phthalate	20.13	149	689310	202.25	ug/ml	100
78) Butyl Benzyl Phthalate	20.22	149	293675	198.17	ug/ml	99
79) Diethylene Glycol Butyl Et	21.09	105	468010	218.55	ug/ml	99
80) 3,3'-Dichlorobenzidine	21.17	252	295935	220.96	ug/ml	99
81) Benz(a)anthracene	21.15	228	562064	201.00	ug/ml	99
82) Chrysene	21.25	228	575846	198.44	ug/ml	99
83) Bis(2-ethylhexyl) Phthalat	21.39	149	392953	208.80	ug/ml	99
85) Di-n-octyl Phthalate	22.86	149	704701	221.26	ug/ml	100
86) Benzo(b)fluoranthene	23.53	252	766556	234.63	ug/ml	99
87) Benzo(k)fluoranthene	23.59	252	498004m	177.18	ug/ml	
88) Diisononyl Phthalate	23.60	293	49641m	206.92	ug/ml	
89) Diisodecyl Phthalate	23.74	149	645666m	210.98	ug/ml	
90) Benzo(a)pyrene	24.24	252	579980	212.22	ug/ml	98
91) Indeno(1,2,3-cd)pyrene	26.84	276	656771m	225.34	ug/ml	
92) Dibenz(a,h)anthracene	26.92	278	609213	218.30	ug/ml	97
93) Benzo(g,h,i)perylene	27.41	276	606513	208.15	ug/ml	99

Data File : J:\MS07\DATA\101719\1017F014.D
Acq On : 17 Oct 2019 9:26 pm
Sample : 8270/P ICAL @ 200ppm | SVM62-22N
Misc :
MS Integration Params: RTEINT.P
Quant Results File: 101719_BNP7.RES
Vial: 14
Operator: CCONOVER/LM
Inst: MS07
Multiplr: 1.00

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
Title : BNA Calibration
Last Update : Fri Oct 18 18:32:34 2019
Response via : Initial Calibration
MS07



Data File : J:\MS07\DATA\101719\1017F014.D
 Acq On : 17 Oct 2019 9:26 pm
 Sample : 8270/P ICAL @ 200ppm | SVM62-22N
 Misc :

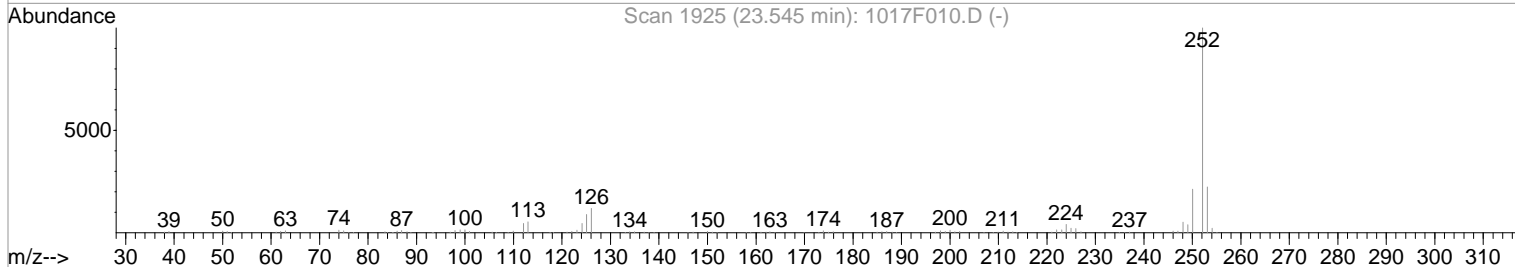
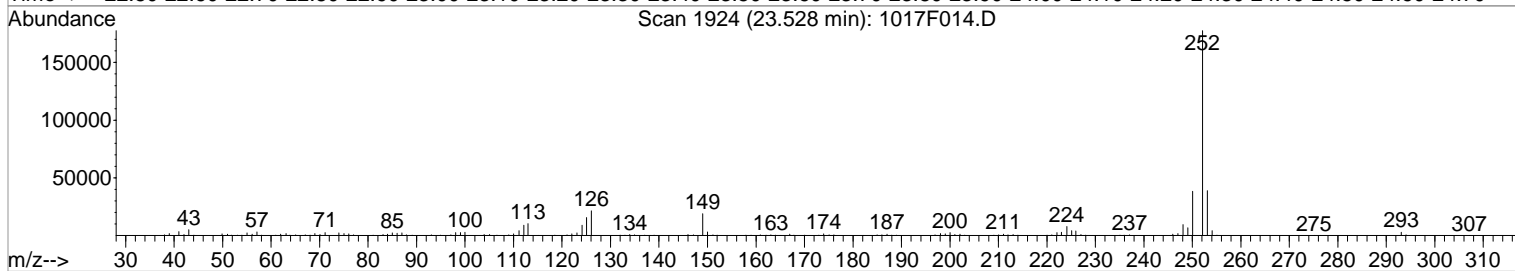
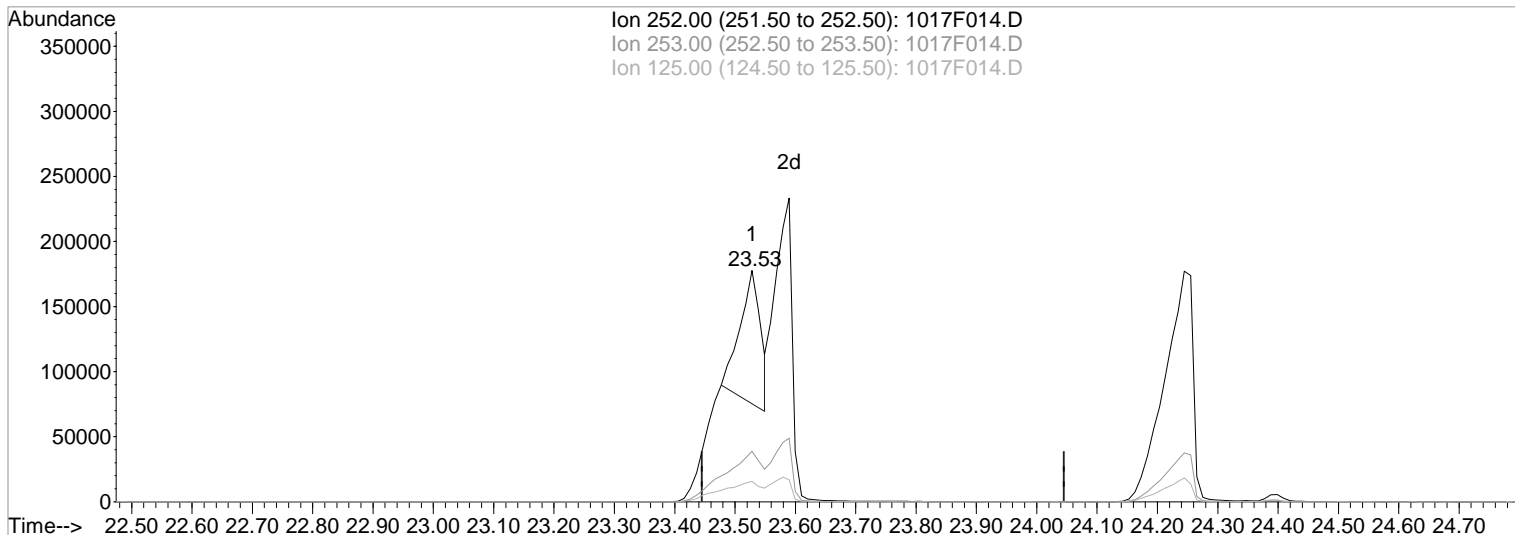
Vial: 14
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 8:28 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F014.D

(87) Benzo(k)fluoranthene (T)

Manual Integration:

23.53min 76.02ug/ml

Before

response 238063

Ion	Exp%	Act%
252.00	100	100
253.00	22.30	21.58
125.00	9.00	7.77
0.00	0.00	0.00

10/18/19

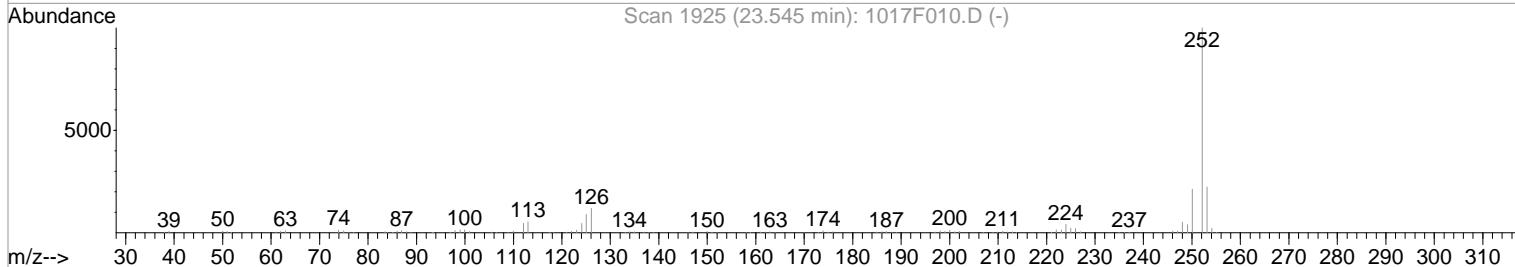
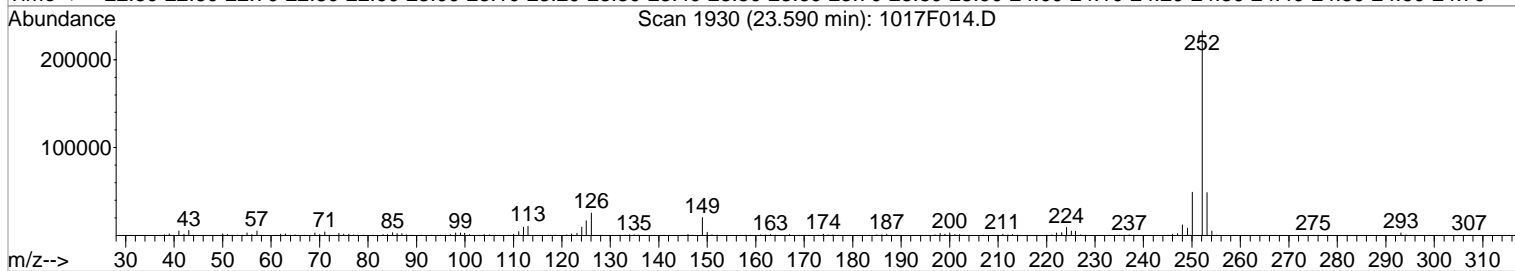
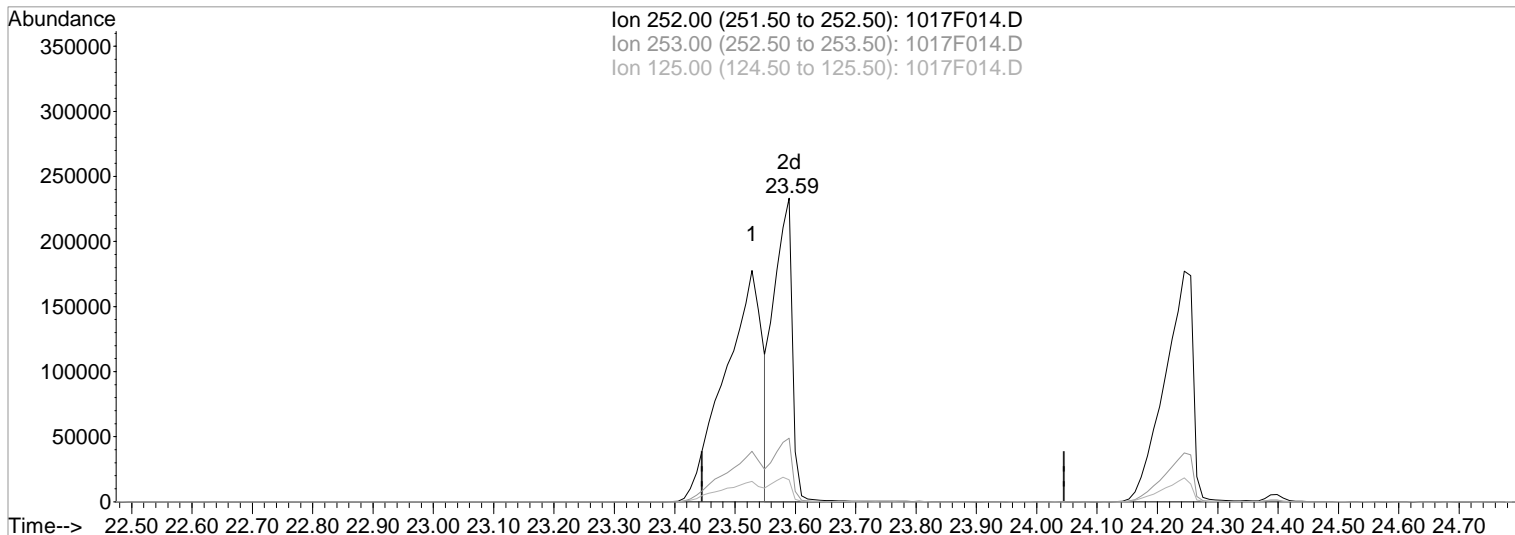
Data File : J:\MS07\DATA\101719\1017F014.D
 Acq On : 17 Oct 2019 9:26 pm
 Sample : 8270/P ICAL @ 200ppm | SVM62-22N
 Misc :

Vial: 14
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 18:29 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 18:26:25 2019
 Response via : Multiple Level Calibration



TIC: 1017F014.D

(87) Benzo(k)fluoranthene (T)

Manual Integration:

23.59min 177.18ug/ml m
 response 498004

After
 WP

Ion	Exp%	Act%
252.00	100	100
253.00	22.30	20.97
125.00	9.00	7.20
0.00	0.00	0.00

10/18/19

Data File : J:\MS07\DATA\101719\1017F014.D
 Acq On : 17 Oct 2019 9:26 pm
 Sample : 8270/P ICAL @ 200ppm | SVM62-22N
 Misc :

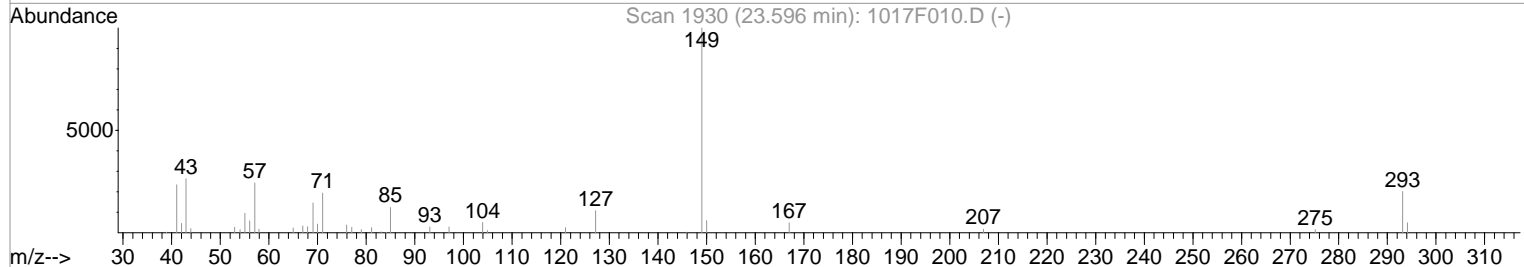
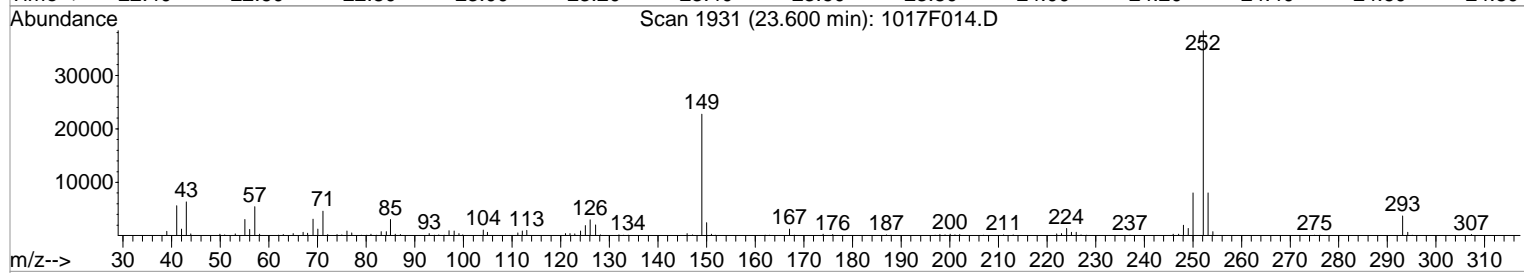
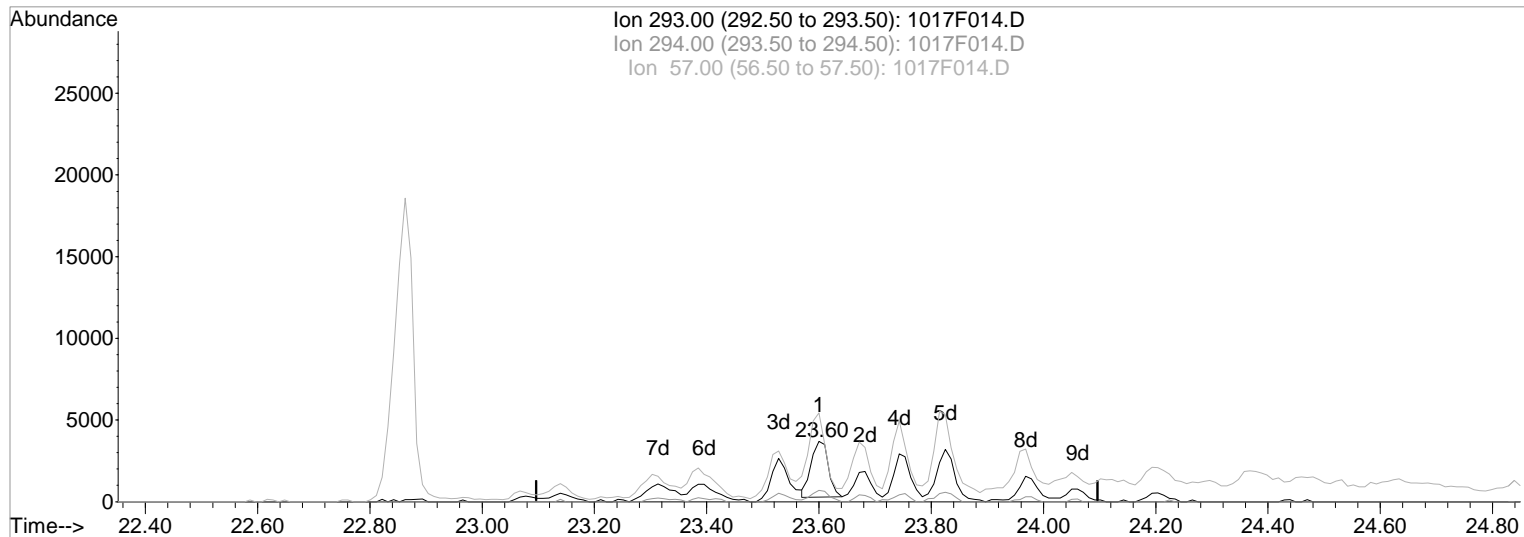
Vial: 14
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 9:14 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F014.D

(88) Diisononyl Phthalate (T)

Manual Integration:

23.60min 30.52ug/ml

Before

response 7233

Ion	Exp%	Act%
293.00	100	100
294.00	2.90	21.15
57.00	25.80	134.12#
0.00	0.00	0.00

10/18/19

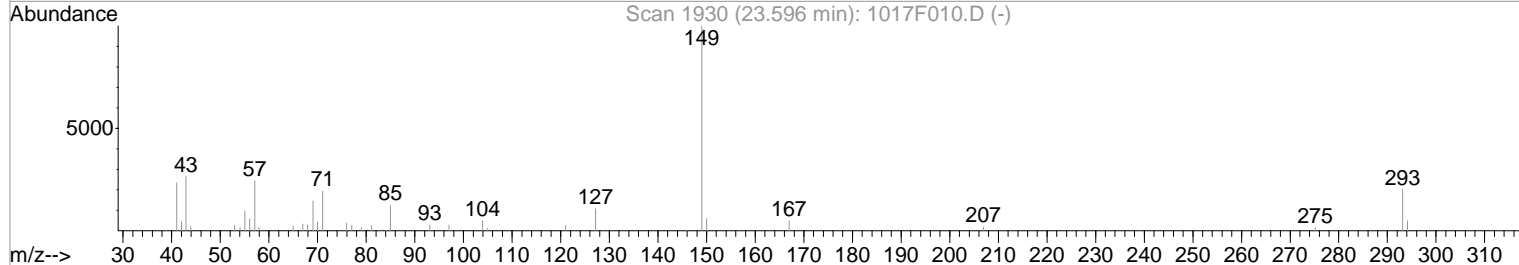
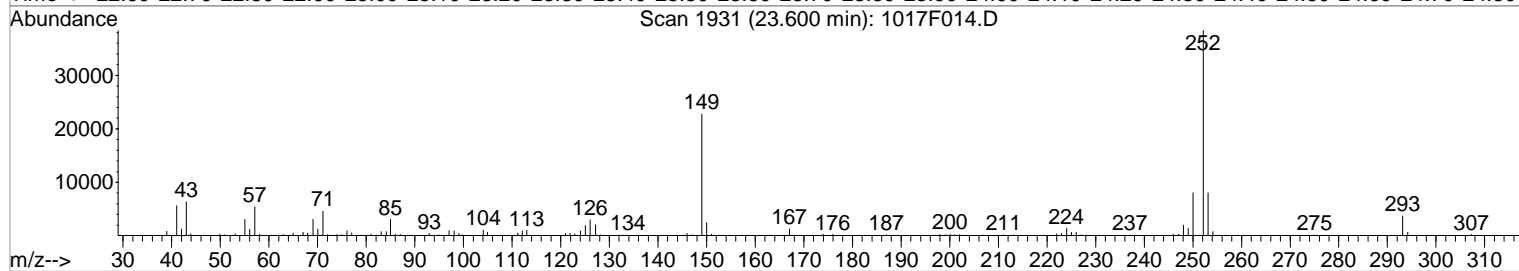
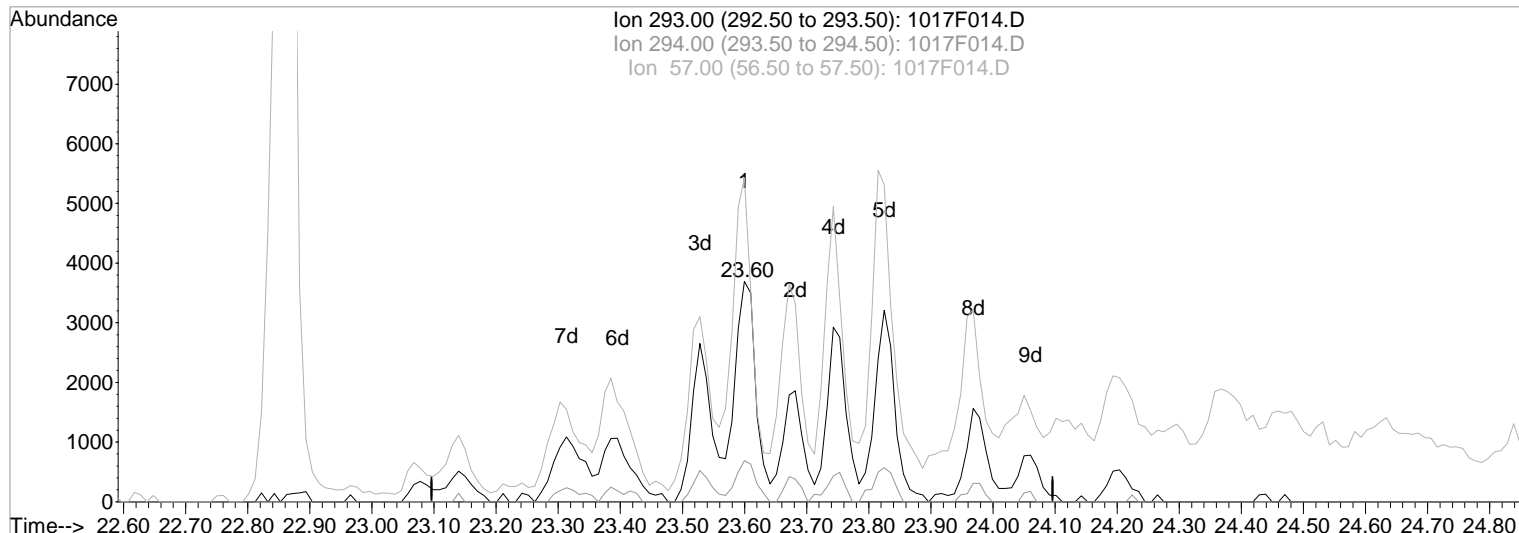
Data File : J:\MS07\DATA\101719\1017F014.D
 Acq On : 17 Oct 2019 9:26 pm
 Sample : 8270/P ICAL @ 200ppm | SVM62-22N
 Misc :

Vial: 14
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 18:29 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 18:26:25 2019
 Response via : Single Level Calibration



TIC: 1017F014.D

(88) Diisononyl Phthalate (T)

23.60min 206.92ug/ml m
 response 49641

Manual Integration:

After
 IC-Incomplete

Ion	Exp%	Act%
293.00	100	100
294.00	2.90	3.08
57.00	25.80	19.54
0.00	0.00	0.00

10/18/19

Data File : J:\MS07\DATA\101719\1017F014.D
 Acq On : 17 Oct 2019 9:26 pm
 Sample : 8270/P ICAL @ 200ppm | SVM62-22N
 Misc :

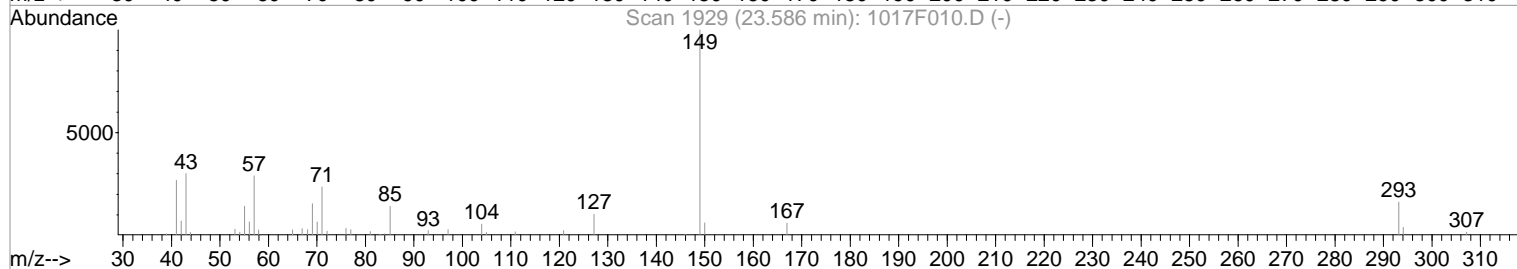
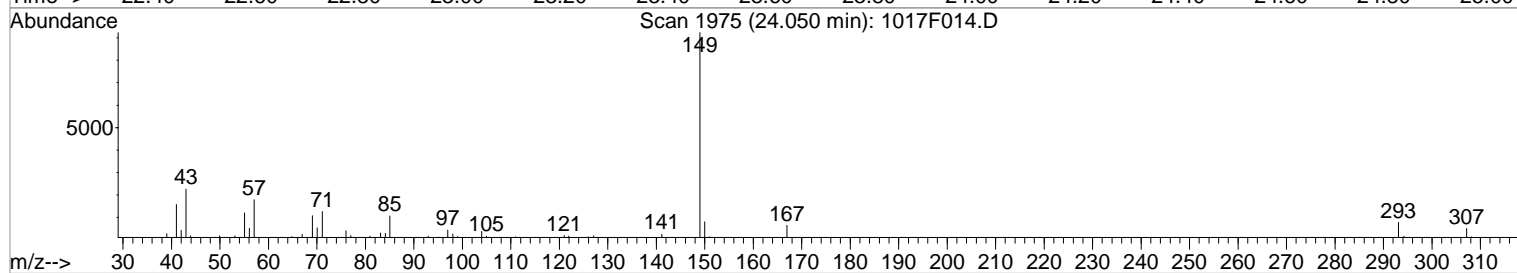
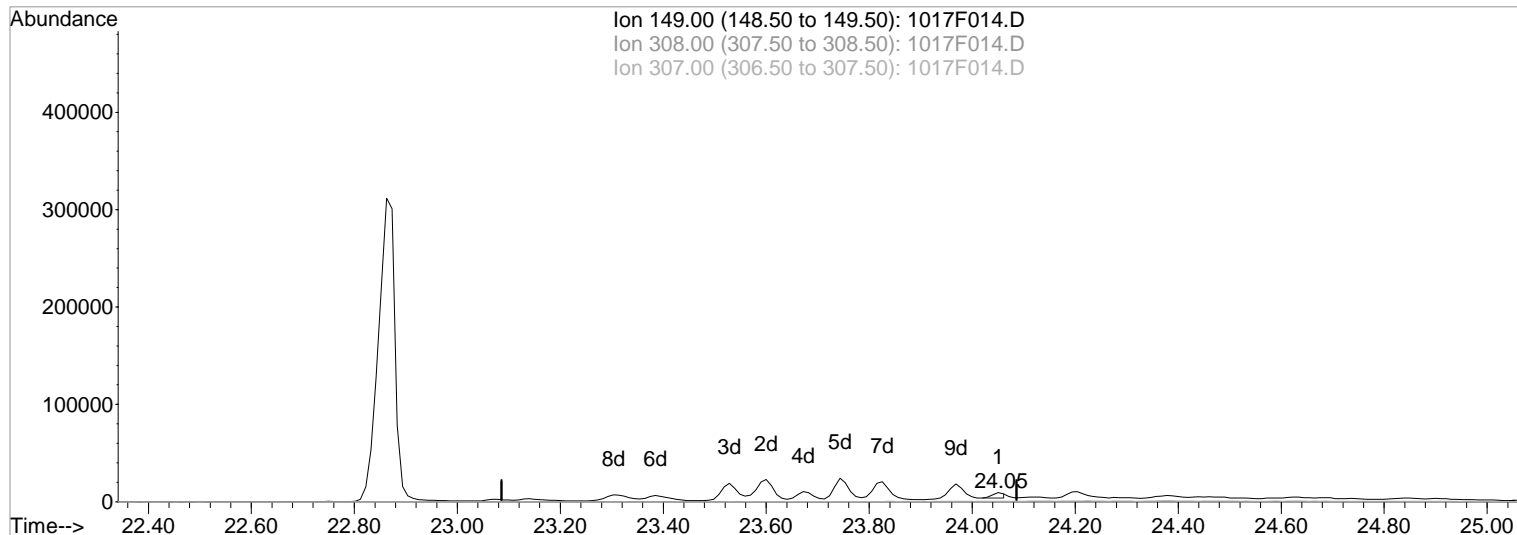
Vial: 14
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 9:14 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F014.D

(89) Diisodecyl Phthalate (T)

Manual Integration:

24.05min 2.66ug/ml

Before

response 8362

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	4.54
307.00	0.00	5.44
0.00	0.00	0.00

10/18/19

Data File : J:\MS07\DATA\101719\1017F014.D
 Acq On : 17 Oct 2019 9:26 pm
 Sample : 8270/P ICAL @ 200ppm | SVM62-22N
 Misc :

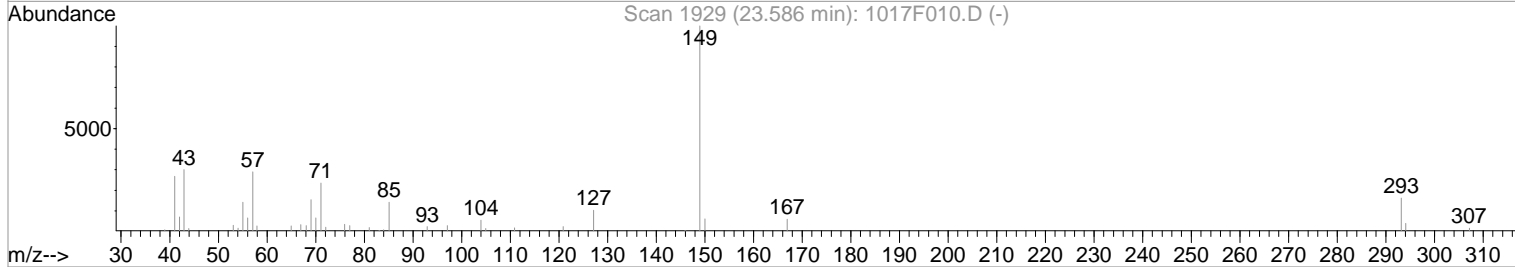
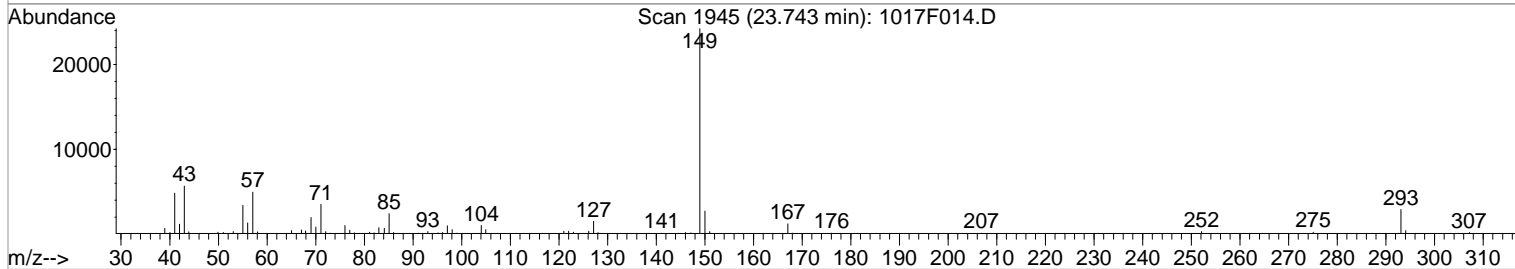
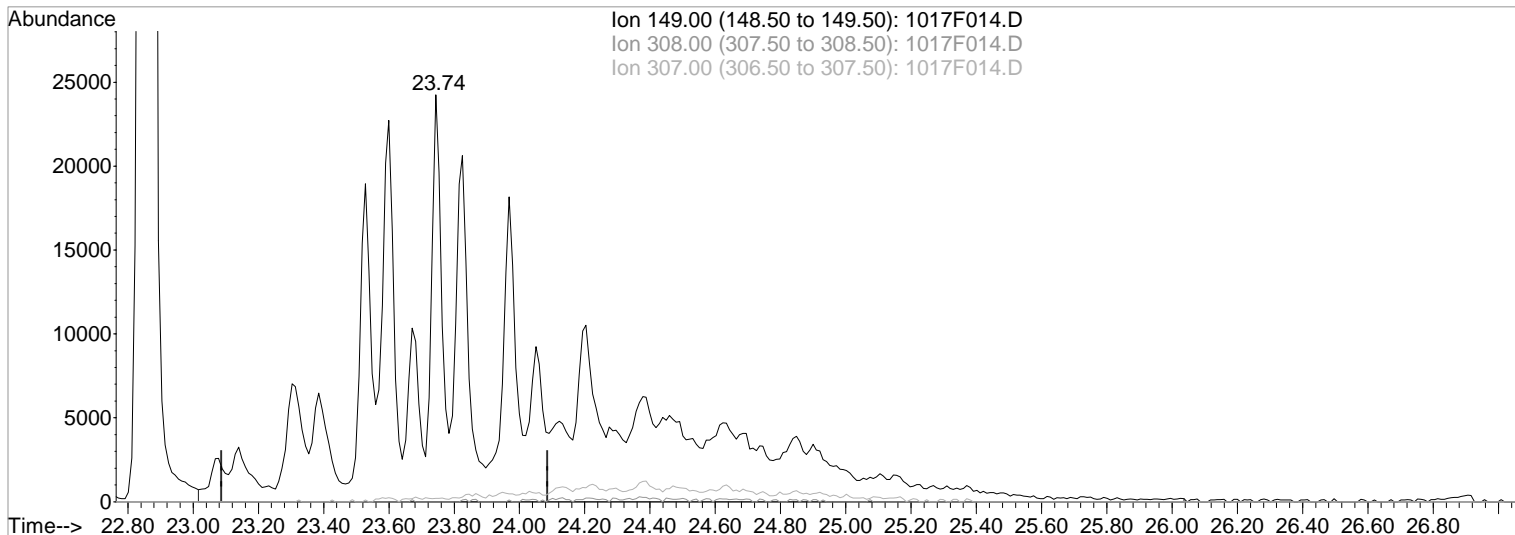
Vial: 14
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 9:15 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F014.D

(89) Diisodecyl Phthalate (T)

23.74min 205.40ug/ml m

response 645666

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.06
307.00	0.00	0.07
0.00	0.00	0.00

Manual Integration:

After

Range integration correction

10/18/19

Data File : J:\MS07\DATA\101719\1017F014.D
 Acq On : 17 Oct 2019 9:26 pm
 Sample : 8270/P ICAL @ 200ppm | SVM62-22N
 Misc :

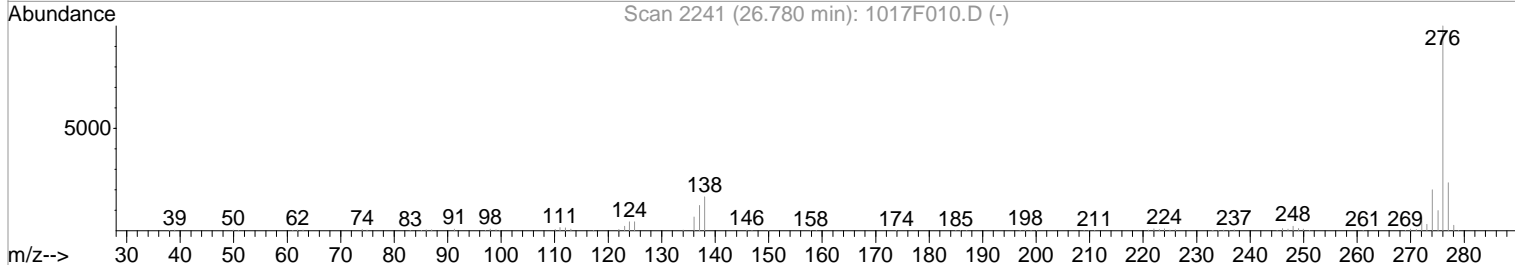
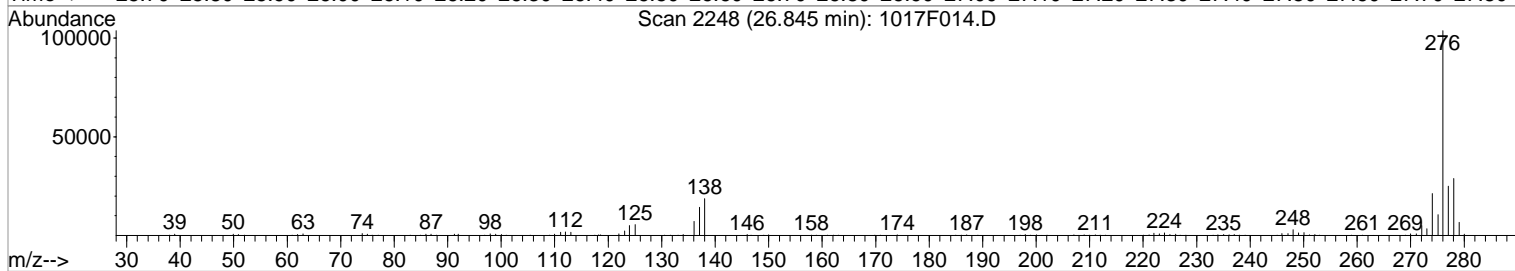
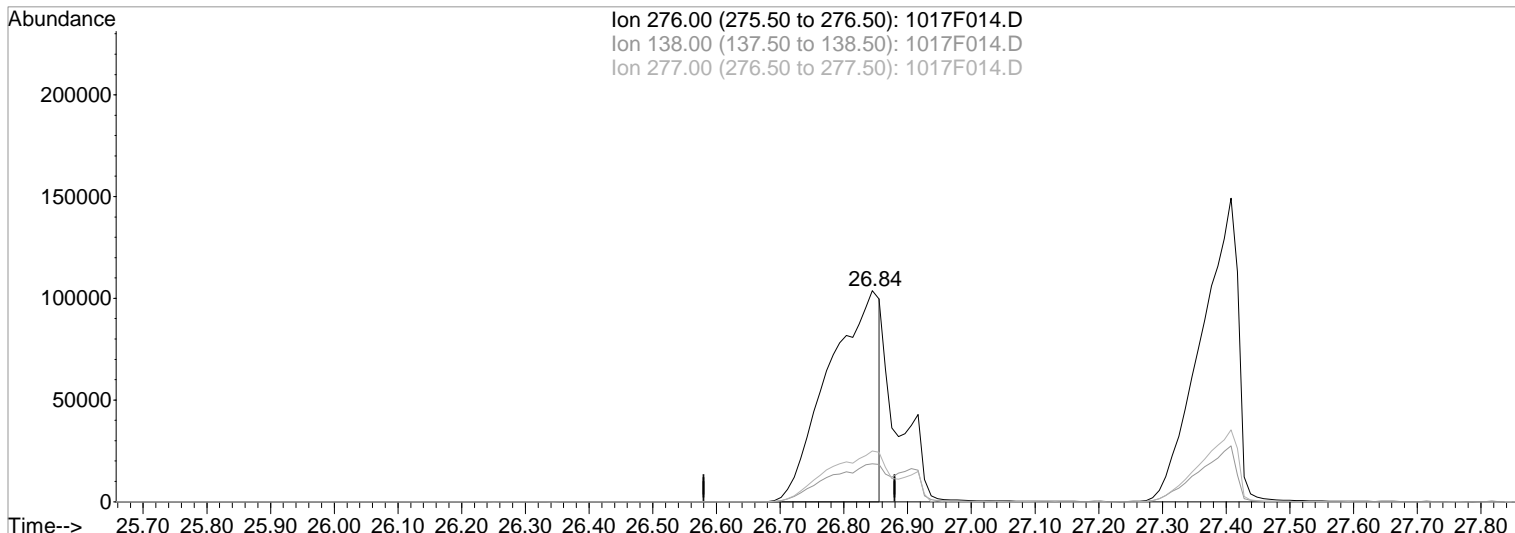
Vial: 14
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 9:15 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 08:26:48 2019
 Response via : Multiple Level Calibration



TIC: 1017F014.D

(91) Indeno(1,2,3-cd)pyrene (T)

Manual Integration:

26.84min 187.17ug/ml

Before

response 574833

Ion	Exp%	Act%
276.00	100	100
138.00	16.60	17.51
277.00	23.40	23.74
0.00	0.00	0.00

10/18/19

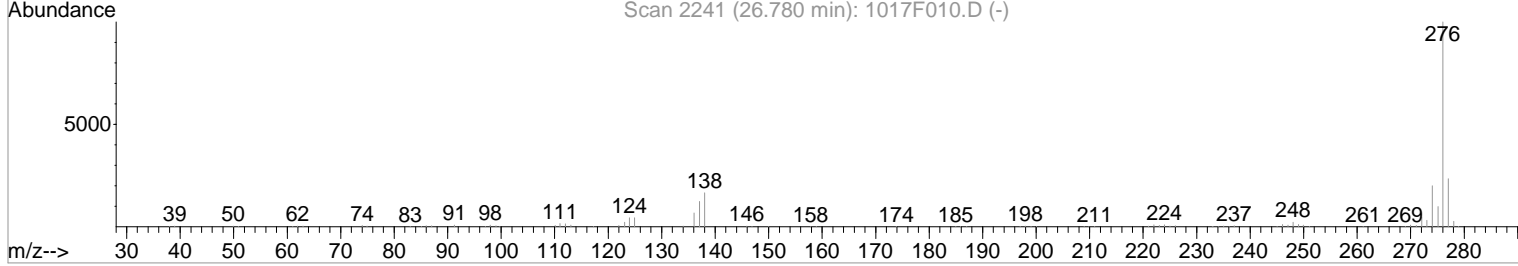
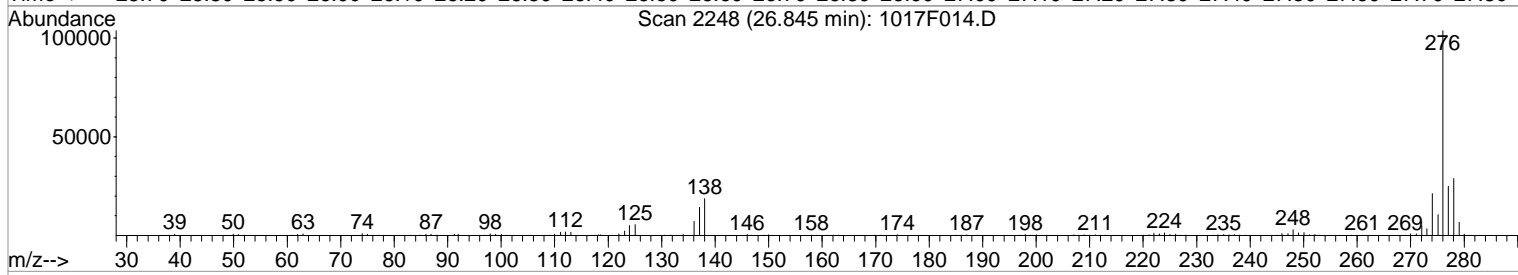
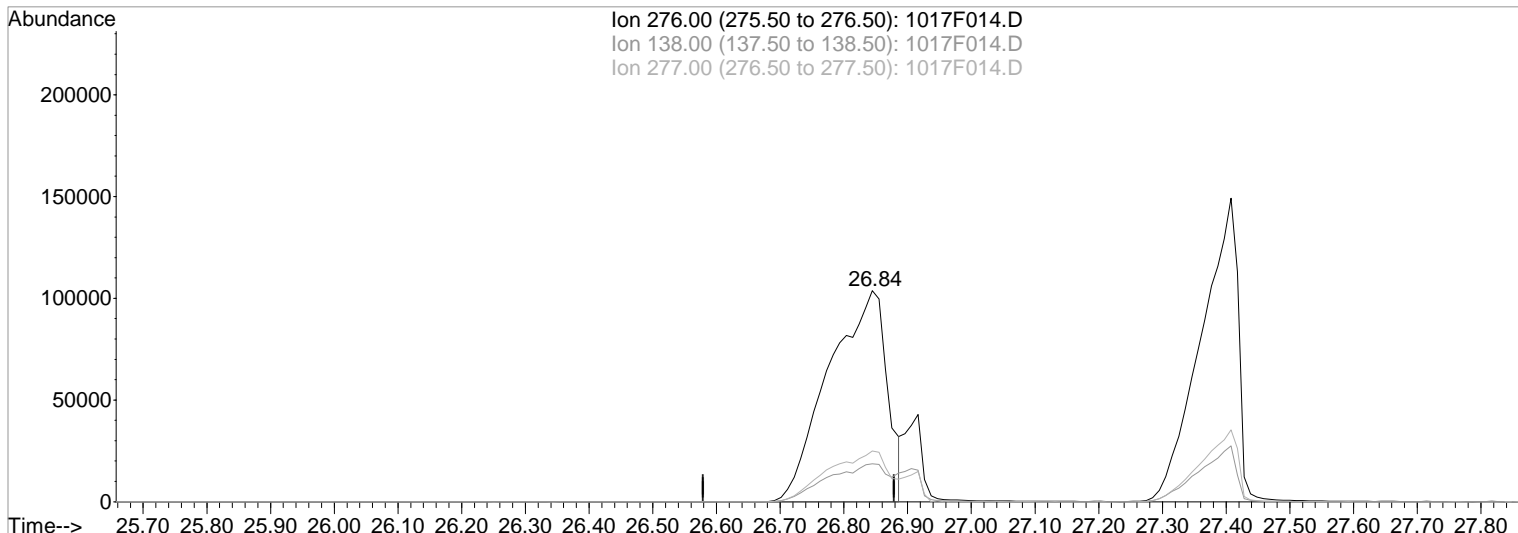
Data File : J:\MS07\DATA\101719\1017F014.D
 Acq On : 17 Oct 2019 9:26 pm
 Sample : 8270/P ICAL @ 200ppm | SVM62-22N
 Misc :

Vial: 14
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 18:30 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 18:26:25 2019
 Response via : Single Level Calibration



TIC: 1017F014.D

(91) Indeno(1,2,3-cd)pyrene (T)

Manual Integration:

26.84min 225.34ug/ml m

After

response 656771

IC-Incomplete

Ion	Exp%	Act%
276.00	100	100
138.00	16.60	17.97
277.00	23.40	24.07
0.00	0.00	0.00

10/18/19

Data File : J:\MS07\DATA\101719\1017F015.D
 Acq On : 17 Oct 2019 10:07 pm
 Sample : 8270 ICV @ 80ppm | SVM62-23B
 Misc :

Vial: 15
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 19:07:24 2019

Quant Results File: 101719_BNP7.RES

Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 19:04:21 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.36	152	37503	40.00	ug/ml	0.00
22) Naphthalene-d8	11.46	136	153124	40.00	ug/ml	0.00
36) Acenaphthene-d10	14.32	164	81657	40.00	ug/ml	0.00
61) Phenanthrene-d10	16.72	188	122496	40.00	ug/ml	-0.01
73) Chrysene-d12	21.15	240	101221	40.00	ug/ml	-0.01
84) Perylene-d12	24.31	264	119948	40.00	ug/ml	-0.02

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
4) 2-Fluorophenol	7.11	112	89891	77.92	ug/ml	-0.03
Spiked Amount	150.000	Range	21 - 100	Recovery	=	51.95%
8) Phenol-d6	8.83	99	116235	80.82	ug/ml	-0.02
Spiked Amount	150.000	Range	10 - 94	Recovery	=	53.88%
20) Nitrobenzene-d5	10.29	82	122696	84.14	ug/ml	0.00
Spiked Amount	100.000	Range	35 - 114	Recovery	=	84.14%
40) 2-Fluorobiphenyl	13.26	172	242304	80.35	ug/ml	0.00
Spiked Amount	100.000	Range	43 - 116	Recovery	=	80.35%
62) 2,4,6-Tribromophenol	15.60	330	63725	82.98	ug/ml	-0.01
Spiked Amount	150.000	Range	10 - 123	Recovery	=	55.32%
76) Terphenyl-d14	19.35	244	234564	85.64	ug/ml	-0.01
Spiked Amount	100.000	Range	33 - 141	Recovery	=	85.64%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-Nitrosodimethylamine	4.31	42	68160	81.76	ug/ml	95
3) Pyridine	4.34	79	92482	84.31	ug/ml	97
6) Aniline	8.82	93	132990	81.71	ug/ml	50
7) Bis(2-chloroethyl) Ether	8.97	93	92357	84.93	ug/ml	97
9) Phenol	8.85	94	121524	81.03	ug/ml	99
10) 2-Chlorophenol	9.00	128	101043	81.20	ug/ml	98
11) 1,3-Dichlorobenzene	9.26	146	112958	84.56	ug/ml	98
12) 1,4-Dichlorobenzene	9.39	146	113460	81.63	ug/ml	96
13) 1,2-Dichlorobenzene	9.62	146	110499	85.12	ug/ml	98
14) Benzyl Alcohol	9.63	108	66694	86.90	ug/ml	97
15) 2,2'-oxybis(1-chloropropan	9.88	45	105912	102.75	ug/ml	94
16) 2-Methylphenol	9.84	107	80039	85.51	ug/ml	92
17) Hexachloroethane	10.19	117	54541	84.75	ug/ml	92
18) N-Nitrosodi-n-propylamine	10.10	70	77018	96.00	ug/ml	98
19) 4-Methylphenol	10.13	107	201131	143.10	ug/ml	84
21) Nitrobenzene	10.32	77	115469	92.40	ug/ml	99
23) Isophorone	10.76	82	192006	78.22	ug/ml	99
24) 2-Nitrophenol	10.84	139	63198	83.84	ug/ml	93
25) 2,4-Dimethylphenol	10.97	122	88461	79.47	ug/ml	99
26) Bis(2-chloroethoxy)methane	11.13	93	121070	83.73	ug/ml	98
27) 2,4-Dichlorophenol	11.25	162	99589	82.93	ug/ml	97
28) Benzoic Acid	11.26	122	55566	91.66	ug/ml	97
29) 1,2,4-Trichlorobenzene	11.37	180	106406	81.05	ug/ml	97
30) Naphthalene	11.49	128	303030	83.44	ug/ml	100
32) 4-Chloroaniline	11.61	127	137740	82.15	ug/ml	95
33) Hexachlorobutadiene	11.72	225	74231	83.44	ug/ml	99
34) 4-Chloro-3-methylphenol	12.43	107	96804	85.17	ug/ml	99
35) 2-Methylnaphthalene	12.63	142	205532	81.51	ug/ml	98
37) Hexachlorocyclopentadiene	12.90	237	86609	82.68	ug/ml	99
38) 2,4,6-Trichlorophenol	13.10	196	75007	88.79	ug/ml	97
39) 2,4,5-Trichlorophenol	13.16	196	83358	89.92	ug/ml	99
41) 2-Chloronaphthalene	13.41	162	199070	88.10	ug/ml	98
42) 2-Nitroaniline	13.61	65	59873	81.52	ug/ml	93
43) Acenaphthylene	14.09	152	304979	90.94	ug/ml	99
44) Dimethyl Phthalate	13.96	163	203503	77.59	ug/ml	98
45) 2,6-Dinitrotoluene	14.03	165	52722	88.38	ug/ml	98

Data File : J:\MS07\DATA\101719\1017F015.D

Vial: 15

Acq On : 17 Oct 2019 10:07 pm

Operator: CCONOVER/LM

Sample : 8270 ICV @ 80ppm | SVM62-23B

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 19:07:24 2019

Quant Results File: 101719_BNP7.RES

Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Fri Oct 18 19:04:21 2019

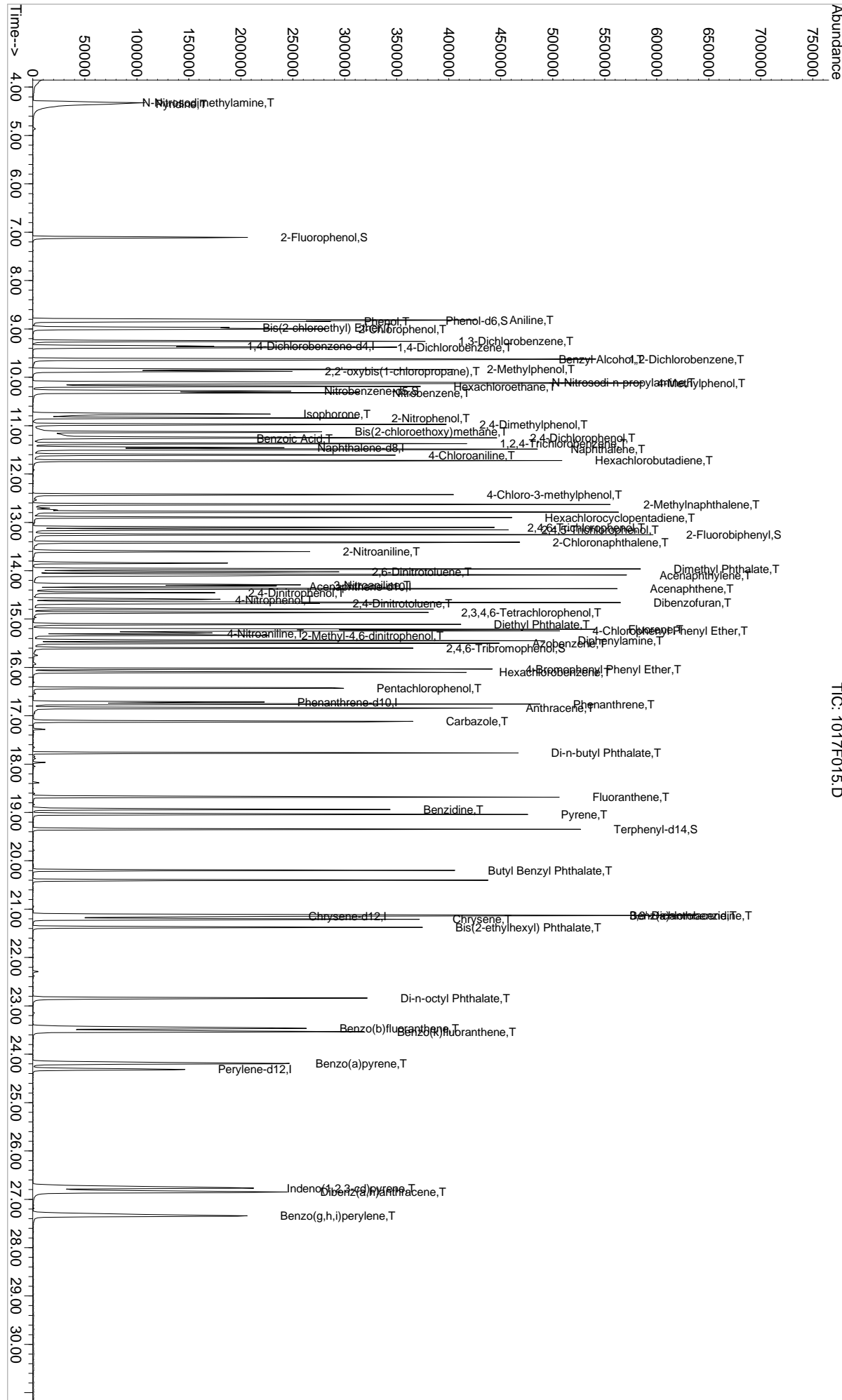
Response via : Initial Calibration

DataAcq Meth : 8270_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) Acenaphthene	14.37	154	170828	82.32	ug/ml	99
47) 3-Nitroaniline	14.29	138	53223	84.01	ug/ml	96
48) 2,4-Dinitrophenol	14.46	184	27784	86.01	ug/ml	95
49) Dibenzofuran	14.66	168	266773	78.55	ug/ml	98
50) 4-Nitrophenol	14.60	109	39722	78.82	ug/ml	82
51) 2,4-Dinitrotoluene	14.68	165	65480	85.01	ug/ml	92
52) 2,3,4,6-Tetrachlorophenol	14.86	232	63140	89.96	ug/ml	84
53) Fluorene	15.21	166	207604	82.04	ug/ml	99
54) 4-Chlorophenyl Phenyl Ethe	15.24	204	109257	80.23	ug/ml	95
55) Diethyl Phthalate	15.11	149	199763	75.98	ug/ml	98
56) 4-Nitroaniline	15.29	138	52274	81.99	ug/ml	90
57) 2-Methyl-4,6-dinitrophenol	15.34	198	42425	85.05	ug/ml	81
58) Diphenylamine	15.45	169	168085	92.54	ug/ml	99
59) Azobenzene	15.50	51	95221	69.51	ug/ml	97
63) 4-Bromophenyl Phenyl Ether	16.03	248	70238	86.82	ug/ml	93
64) Hexachlorobenzene	16.10	284	91497	84.98	ug/ml	96
66) Pentachlorophenol	16.43	266	56681	83.82	ug/ml	100
68) Phenanthrene	16.76	178	260004	81.84	ug/ml	100
69) Anthracene	16.84	178	269497	82.55	ug/ml	100
70) Carbazole	17.12	167	246925	85.05	ug/ml	99
71) Di-n-butyl Phthalate	17.77	149	302831	88.42	ug/ml	99
72) Fluoranthene	18.68	202	281048	88.41	ug/ml	98
74) Benzidine	18.94	184	177937	131.00	ug/ml	99
75) Pyrene	19.04	202	285839	93.54	ug/ml	99
78) Butyl Benzyl Phthalate	20.20	149	125294	93.95	ug/ml	99
80) 3,3'-Dichlorobenzidine	21.13	252	111961	91.15	ug/ml	99
81) Benz(a)anthracene	21.13	228	241520	92.85	ug/ml	99
82) Chrysene	21.21	228	230354	86.23	ug/ml	99
83) Bis(2-ethylhexyl) Phthalat	21.37	149	162850	95.76	ug/ml	99
85) Di-n-octyl Phthalate	22.84	149	278156	82.65	ug/ml	100
86) Benzo(b)fluoranthene	23.46	252	282266	81.76	ug/ml	99
87) Benzo(k)fluoranthene	23.53	252	265468	89.64	ug/ml	98
90) Benzo(a)pyrene	24.20	252	257622	89.95	ug/ml	100
91) Indeno(1,2,3-cd)pyrene	26.77	276	259731	84.33	ug/ml	100
92) Dibenz(a,h)anthracene	26.85	278	267028	90.55	ug/ml	100
93) Benzo(g,h,i)perylene	27.34	276	273539	90.30	ug/ml	99

Data File : J:\MS07\DATA\101719\1017F015.D
Acq On : 17 Oct 2019 10:07 pm
Sample : 8270 ICV @ 80ppm | SVM62-23B
Misc :
MS Integration Params: RTEINT.P
Quant Results File: 101719_BNP7.RES
Vial: 15
Operator: CCONOVER/LM
Inst : MS07
Multiplr: 1.00

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
Title : BNA Calibration
Last Update : Fri Oct 18 19:04:21 2019
Response via : Initial Calibration
MS07



Quantitation Report (QT Reviewed)

Quantitation Report

1st *ce* 10/18/19
2nd *LM* 10/21/19

Data File: J:\MS07\DATA\101819\1018F001.D\	Instrument: K-MS-07
Acqu Date: 10/18/19 08:08:00	Vial: 1
Run Type: TUNE	Dilution: 1
Lab ID: KQ1915290-01	Raw Units:

Bottle ID:	Tier: II	Matrix: Water
Prod Code: SVO	Collect Date: 10/8/19	Receive Date: 10/8/19

Analysis Lot: 656196	Prep Lot:	Report Group: KQ1915290
Analysis: 625	Prep Method:	
	Prep Date:	

Title: Semivolatile Organic Compounds by GC/MS	Calibration ID: KC1900441
	Report List ID: 18823

Tune Results

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	30	60	50.03	23088	Pass
68	69	0	2	0.00	0	Pass
69	198	0	100	66.78	30816	Pass
70	69	0	2	0.00	0	Pass
127	198	40	60	53.45	24664	Pass
197	198	0	1	0.00	0	Pass
198	198	100	100	100.00	46144	Pass
199	198	5	9	6.40	2952	Pass
275	198	10	30	25.91	11958	Pass
365	198	1	100	3.24	1493	Pass
441	443	0.01	100	70.83	4587	Pass
442	198	40	100	71.01	32768	Pass
443	442	17	23	19.76	6476	Pass

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

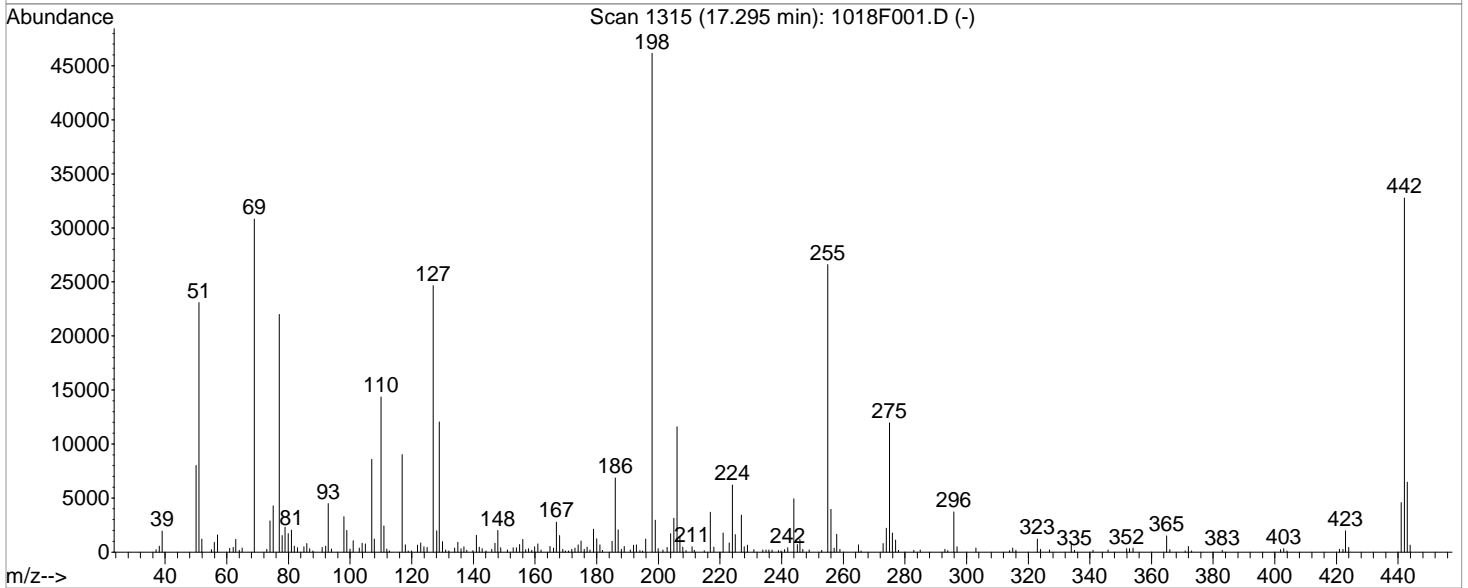
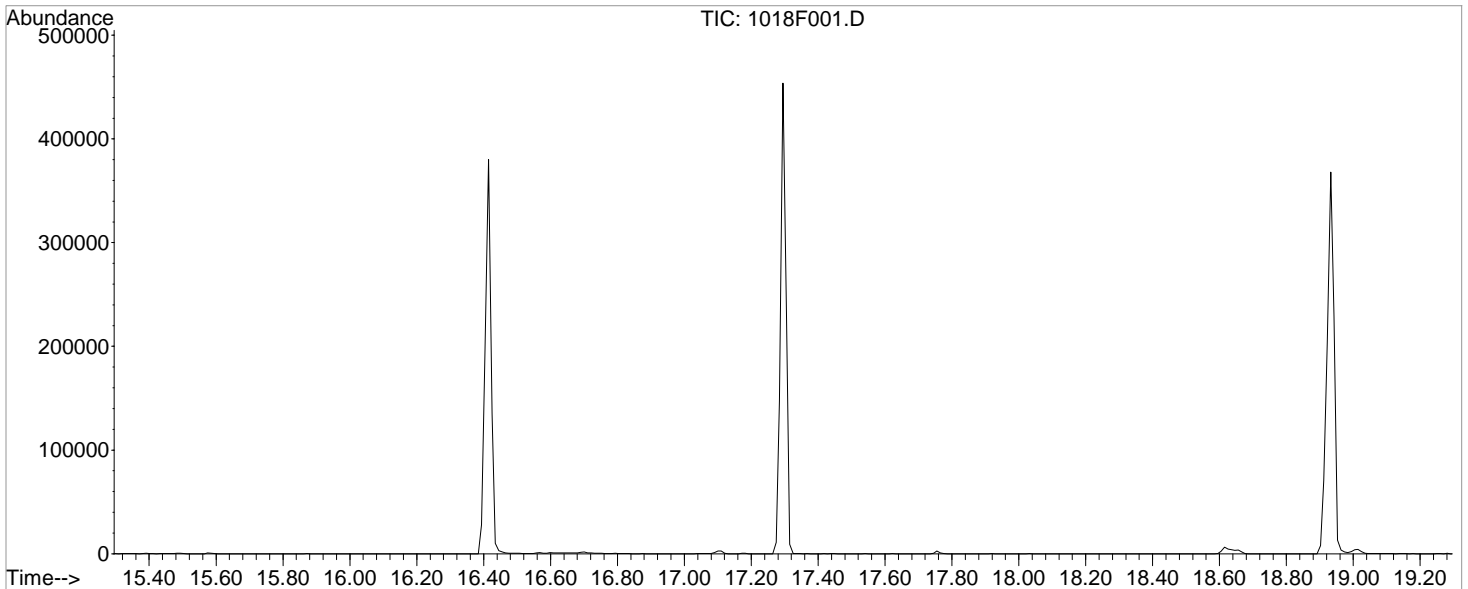
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 10/18/19 20:52

\\alprews001\starlims\LIMSReps\QuantValidation.rpt

Data File : J:\MS07\DATA\101819\1018F001.D
 Acq On : 18 Oct 2019 8:08 am
 Sample : MS07 Tune @ 50ppm | SVM61-100C
 Misc :
 MS Integration Params: RTEINT.P
 Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Vial: 1
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00



Spectrum Information: Scan 1315 apex - scan 1310

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	50.0	23088	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	53.5	24664	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	46144	PASS
199	198	5	9	6.4	2952	PASS
275	198	10	30	25.9	11958	PASS
365	198	1	100	3.2	1493	PASS
441	443	0.01	100	70.8	4587	PASS
442	198	40	100	71.0	32768	PASS
443	442	17	23	19.8	6476	PASS

Scan 1315 (17.295 min): 1018F001.D
MS07 Tune @ 50ppm | SVM61-100C

1st LM 10/18/19
2nd CE 10/18/19

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.00	214	62.95	1172	81.00	2021	97.95	3274
38.10	544	64.05	173	81.90	540	98.95	2012
39.00	1950	64.95	363	82.90	388	99.95	276
50.00	8022	68.95	30816	85.00	490	100.95	1065
51.00	23088	73.00	265	85.90	775	102.95	367
51.90	1215	74.00	2897	86.90	303	103.95	805
55.05	217	75.00	4266	87.90	118	104.95	744
55.95	902	77.00	21984	90.95	428	107.00	8583
56.95	1593	78.00	1515	92.05	550	107.90	1203
60.95	336	78.90	2292	92.95	4481	110.00	14339
62.05	441	79.90	1714	93.95	296	111.00	2414

Scan 1315 (17.295 min): 1018F001.D
MS07 Tune @ 50ppm | SVM61-100C

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
111.90	287	128.05	1970	140.95	1551	155.00	710
112.70	119	128.95	12026	141.95	475	156.00	1181
116.90	9030	129.95	971	142.85	316	157.00	211
117.90	674	130.95	196	144.10	103	157.90	303
118.90	115	132.05	112	145.90	255	158.90	167
119.90	106	133.95	377	147.00	804	159.90	479
121.90	645	134.95	913	147.90	1987	160.90	749
122.90	832	135.95	310	148.90	412	161.95	185
123.90	494	136.95	477	151.00	190	164.85	511
124.95	440	137.85	163	152.90	409	165.95	370
126.95	24664	139.85	122	153.90	393	166.95	2765

Scan 1315 (17.295 min): 1018F001.D
MS07 Tune @ 50ppm | SVM61-100C

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
167.95	1521	178.95	2122	192.90	667	206.05	11609
168.95	244	180.00	1235	194.00	138	206.95	1435
169.85	107	181.00	678	194.80	111	207.95	462
170.85	103	181.90	151	195.90	1198	208.95	139
171.95	246	185.00	1004	197.95	46144	210.95	497
172.95	373	186.00	6850	198.95	2952	211.65	169
173.95	660	187.00	2051	199.95	310	214.85	149
174.95	1024	188.00	244	201.45	197	216.90	3687
175.95	257	188.90	533	202.85	421	218.00	471
176.85	458	190.90	204	203.95	1716	221.00	1768
177.85	193	191.90	640	205.05	3140	223.00	847

Scan 1315 (17.295 min): 1018F001.D
MS07 Tune @ 50ppm | SVM61-100C

Modified:subtracted

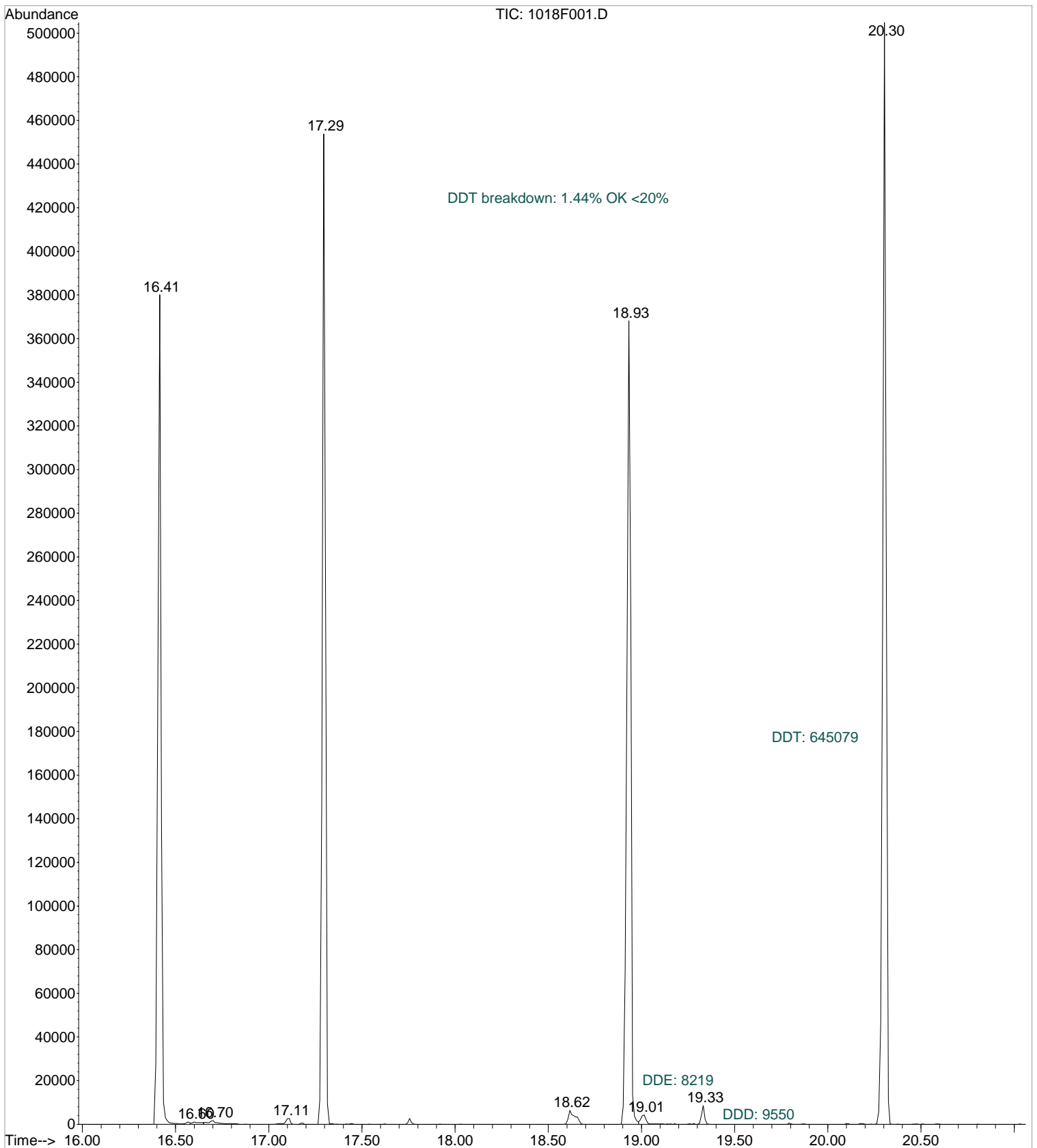
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
224.00	6204	239.75	110	257.00	375	282.85	157
225.00	1609	240.95	220	257.90	1653	284.95	180
226.90	3409	241.95	390	258.90	260	293.00	254
227.90	493	243.95	4942	264.90	670	293.90	125
228.90	645	245.05	706	265.80	100	295.90	3729
231.00	214	245.95	1171	272.95	784	296.90	480
233.85	208	246.85	248	273.95	2194	303.00	365
234.95	200	248.95	187	274.95	11958	313.95	140
235.85	181	253.00	169	275.95	1769	314.95	372
236.85	195	255.00	26616	276.95	1103	315.95	165
238.95	135	256.00	3951	277.95	177	322.95	1206

Scan 1315 (17.295 min): 1018F001.D
MS07 Tune @ 50ppm | SVM61-100C

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
323.95	240	370.90	103	441.00	4587		
326.90	180	372.00	511	442.00	32768		
334.00	699	373.00	110	443.00	6476		
335.00	174	382.95	150	443.90	648		
341.00	153	401.90	214				
345.85	203	402.90	298				
351.95	319	403.90	107				
352.85	302	420.95	253				
353.95	363	422.05	259				
364.90	1493	422.95	1975				
365.90	235	423.95	424				

File : J:\MS07\DATA\101819\1018F001.D
Operator : CCONOVER/LM
Acquired : 18 Oct 2019 8:08 am using AcqMethod 8270_1
Instrument : MS07
Sample Name: MS07 Tune @ 50ppm | SVM61-100C
Misc Info :
Vial Number: 1



Data File : J:\MS07\DATA\101819\1018F001.D
 Acq On : 18 Oct 2019 8:08 am
 Sample : MS07 Tune @ 50ppm | SVM61-100C
 Misc :

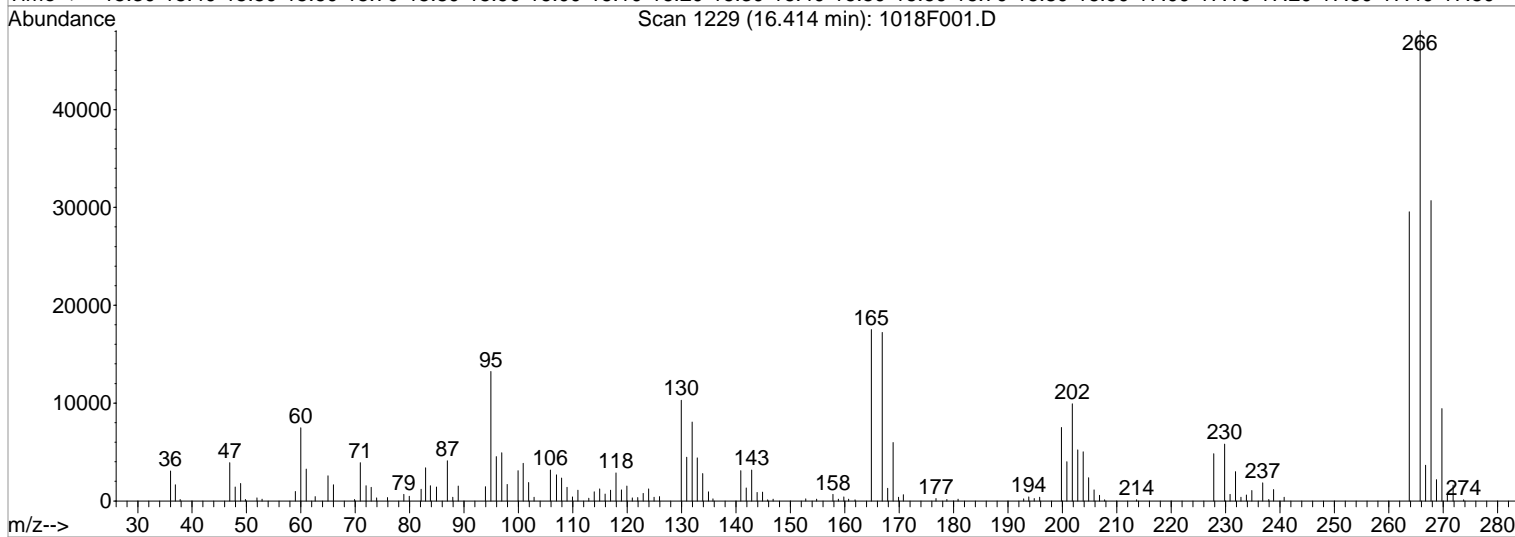
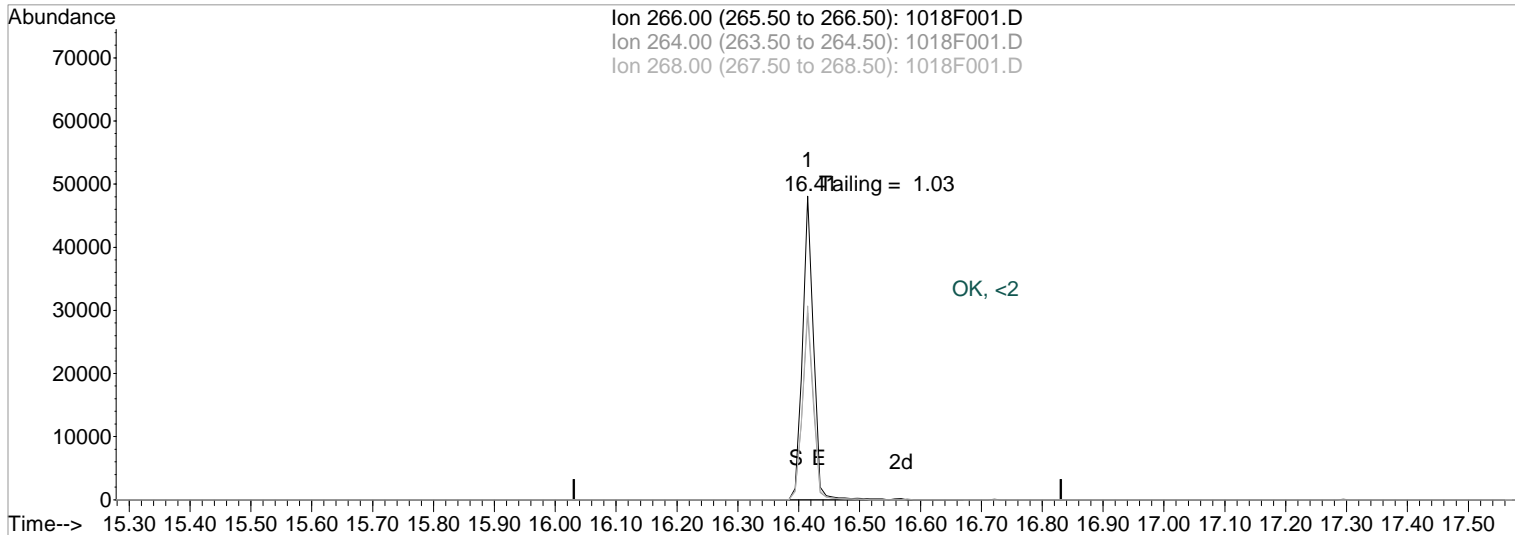
Vial: 1
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 16:13 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 12:23:15 2019
 Response via : Multiple Level Calibration



TIC: 1018F001.D

(66) Pentachlorophenol (T)

16.41min 2301.44ug/ml m

response 60391

Ion	Exp%	Act%
266.00	100	100
264.00	62.70	61.48
268.00	64.60	63.88
0.00	0.00	0.00

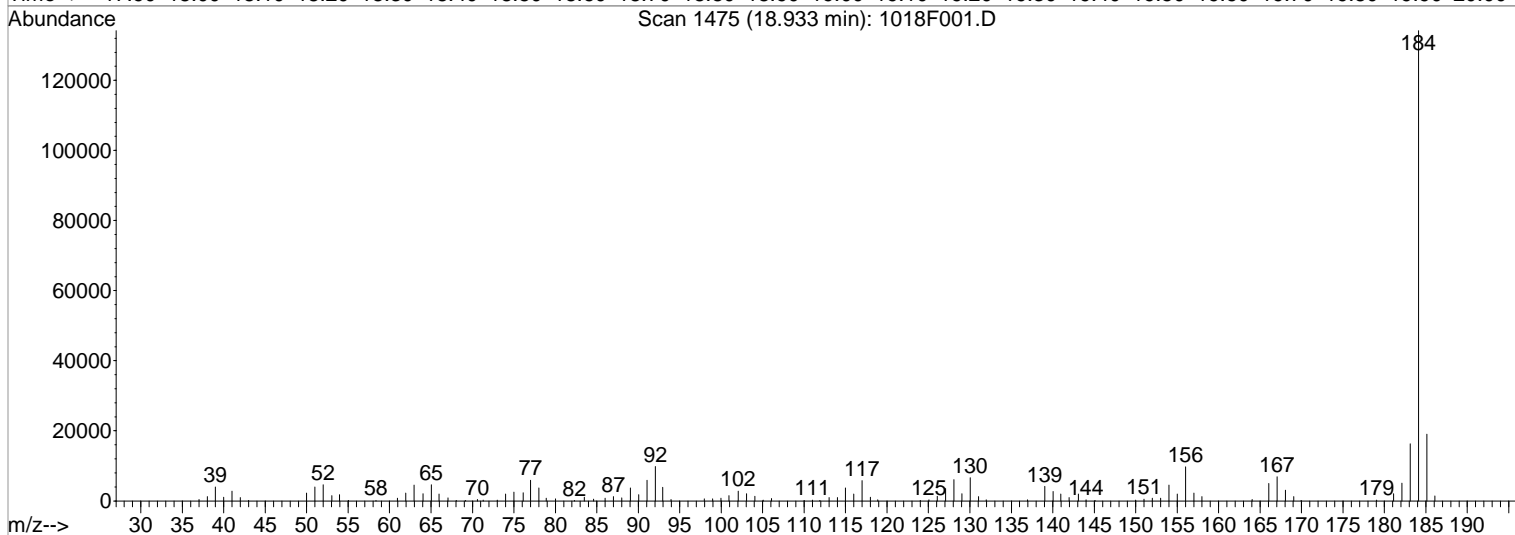
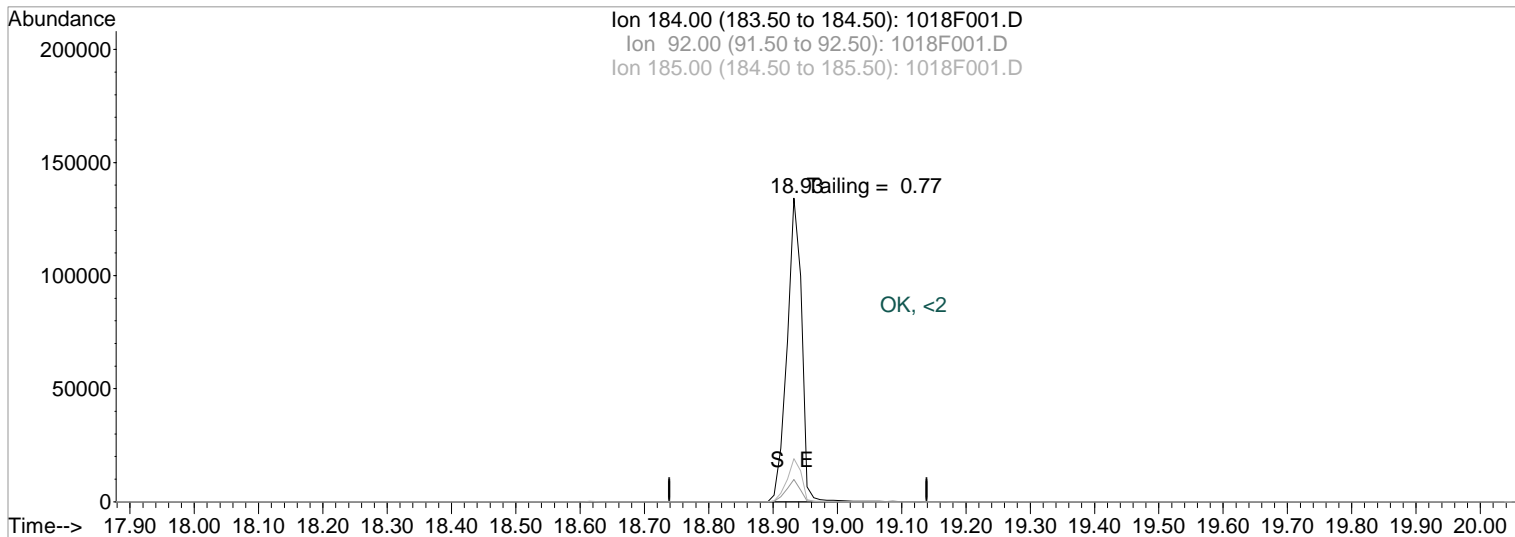
Data File : J:\MS07\DATA\101819\1018F001.D
 Acq On : 18 Oct 2019 8:08 am
 Sample : MS07 Tune @ 50ppm | SVM61-100C
 Misc :

Vial: 1
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 16:13 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 12:23:15 2019
 Response via : Multiple Level Calibration



TIC: 1018F001.D

(74) Benzidine (T)

18.93min 15970.35ug/ml

response 211157

Ion	Exp%	Act%
184.00	100	100
92.00	6.90	7.31
185.00	14.40	14.23
0.00	0.00	0.00

Data File : J:\MS07\DATA\101819\1018F002.D
 Acq On : 18 Oct 2019 8:49 am
 Sample : Paper ICV @ 80ppm | SVM62-07A
 Misc :

Vial: 2
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 19:10:40 2019

Quant Results File: 101719_BNP7.RES

Quant Method : J:\MS07\M...\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 19:04:21 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.37	152	41546	40.00	ug/ml	0.00
22) Naphthalene-d8	11.44	136	151306	40.00	ug/ml	-0.01
36) Acenaphthene-d10	14.30	164	83198	40.00	ug/ml	-0.02
61) Phenanthrene-d10	16.70	188	138481	40.00	ug/ml	-0.02
73) Chrysene-d12	21.13	240	106168	40.00	ug/ml	-0.03
84) Perylene-d12	24.30	264	96645	40.00	ug/ml	-0.03

System Monitoring Compounds

4) 2-Fluorophenol	0.00	112	0	0.00	ug/ml	
Spiked Amount	150.000	Range	21 - 100	Recovery	=	0.00%#
8) Phenol-d6	0.00	99	0	0.00	ug/ml	
Spiked Amount	150.000	Range	10 - 94	Recovery	=	0.00%#
20) Nitrobenzene-d5	0.00	82	0	0.00	ug/ml	
Spiked Amount	100.000	Range	35 - 114	Recovery	=	0.00%#
40) 2-Fluorobiphenyl	0.00	172	0	0.00	ug/ml	
Spiked Amount	100.000	Range	43 - 116	Recovery	=	0.00%#
62) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/ml	
Spiked Amount	150.000	Range	10 - 123	Recovery	=	0.00%#
76) Terphenyl-d14	0.00	244	0d	0.00	ug/ml	
Spiked Amount	100.000	Range	33 - 141	Recovery	=	0.00%#

Target Compounds

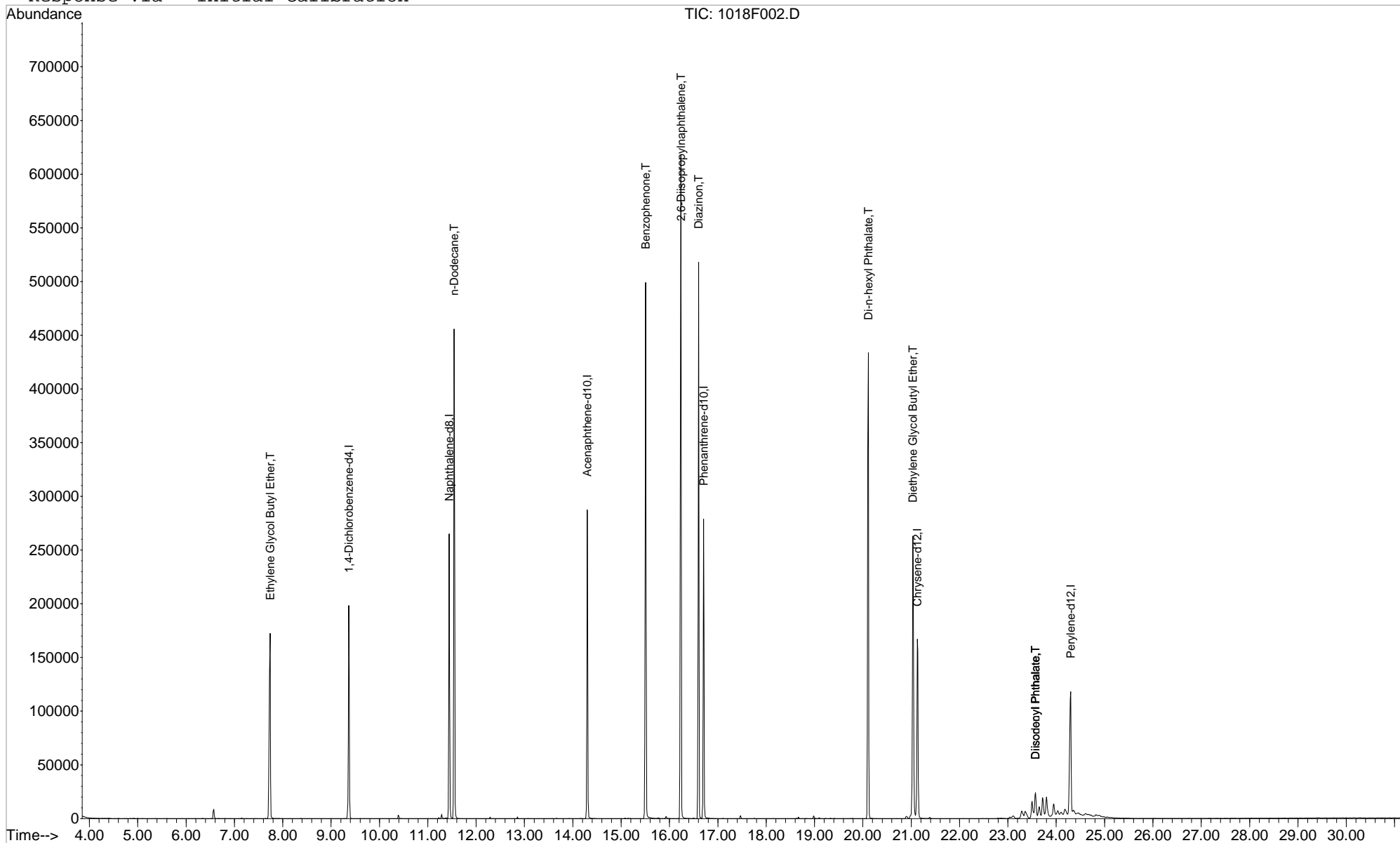
						Qvalue
5) Ethylene Glycol Butyl Ethe	7.74	57	81261	81.57	ug/ml	99
31) n-Dodecane	11.55	57	93471	83.28	ug/ml	99
60) Benzophenone	15.51	105	178179	68.50	ug/ml#	43
65) 2,6-Diisopropyl naphthalene	16.23	197	175986	80.96	ug/ml	100
67) Diazinon	16.60	137	48851	99.68	ug/ml	98
77) Di-n-hexyl Phthalate	20.11	149	303209	94.67	ug/ml	100
79) Diethylene Glycol Butyl Et	21.03	105	151717	73.65	ug/ml	99
88) Diisononyl Phthalate	23.57	293	14177m	72.01	ug/ml	
89) Diisodecyl Phthalate	23.57	149	191662m	73.56	ug/ml	

Data File : J:\MS07\DATA\101819\1018F002.D
 Acq On : 18 Oct 2019 8:49 am
 Sample : Paper ICV @ 80ppm | SVM62-07A
 Misc :
 MS Integration Params: RTEINT.P
 Quant Time: Oct 18 19:12 2019

Vial: 2
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

Quant Results File: 101719_BNP7.RES

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 19:04:21 2019
 Response via : Initial Calibration



Data File : J:\MS07\DATA\101819\1018F002.D
 Acq On : 18 Oct 2019 8:49 am
 Sample : Paper ICV @ 80ppm | SVM62-07A
 Misc :

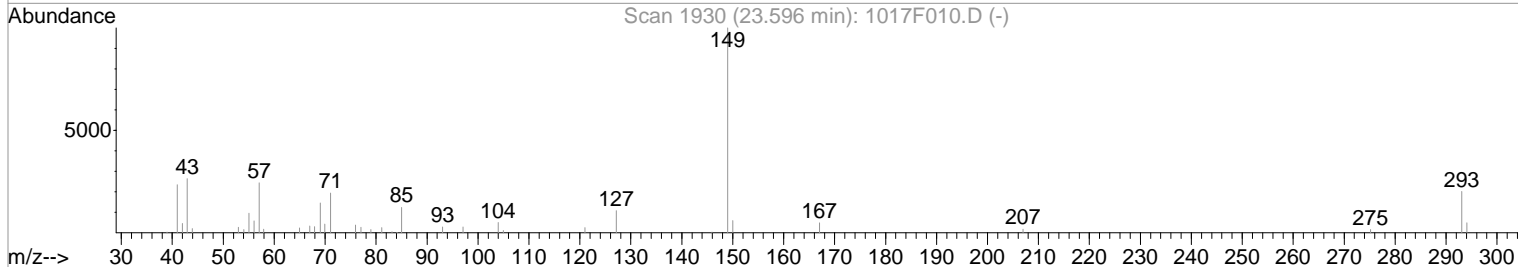
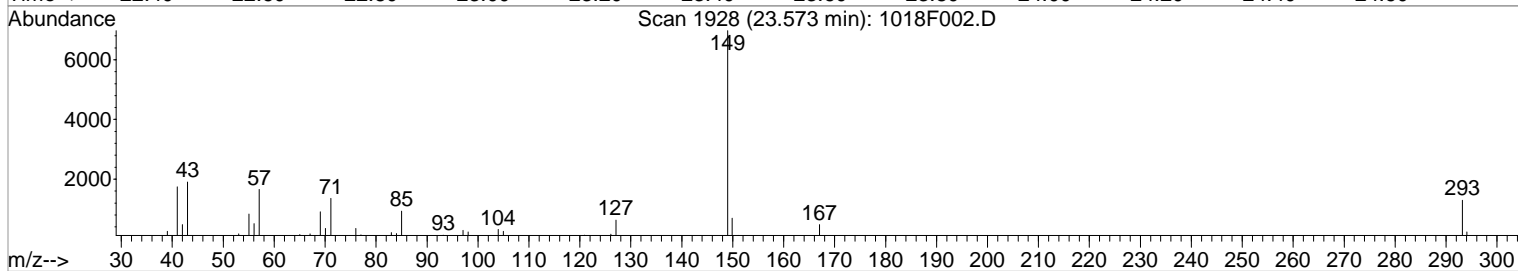
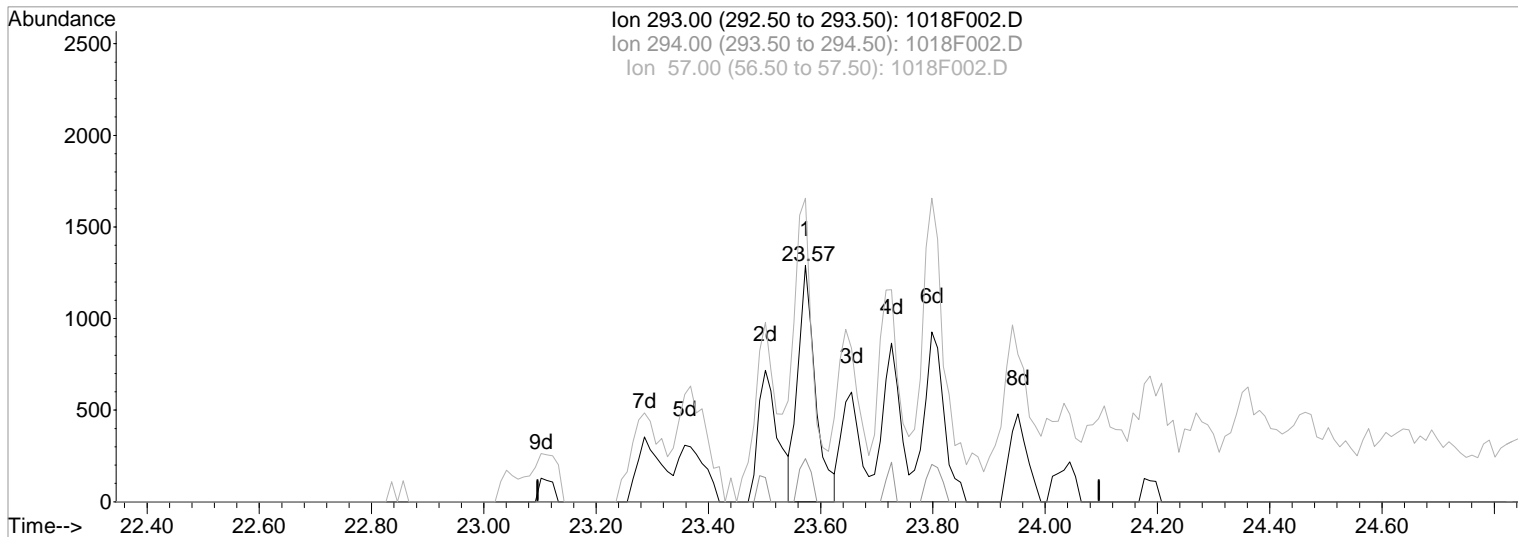
Vial: 2
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 12:27 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 12:23:15 2019
 Response via : Single Level Calibration



TIC: 1018F002.D

(88) Diisononyl Phthalate (T)

Manual Integration:

23.57min 23.82ug/ml

Before

response 2790

Ion	Exp%	Act%
293.00	100	100
294.00	2.90	12.65
57.00	25.80	117.85#
0.00	0.00	0.00

10/18/19

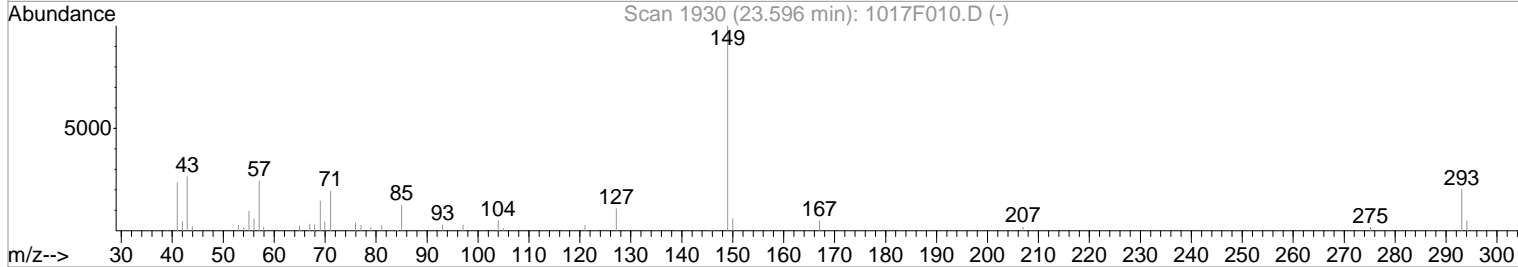
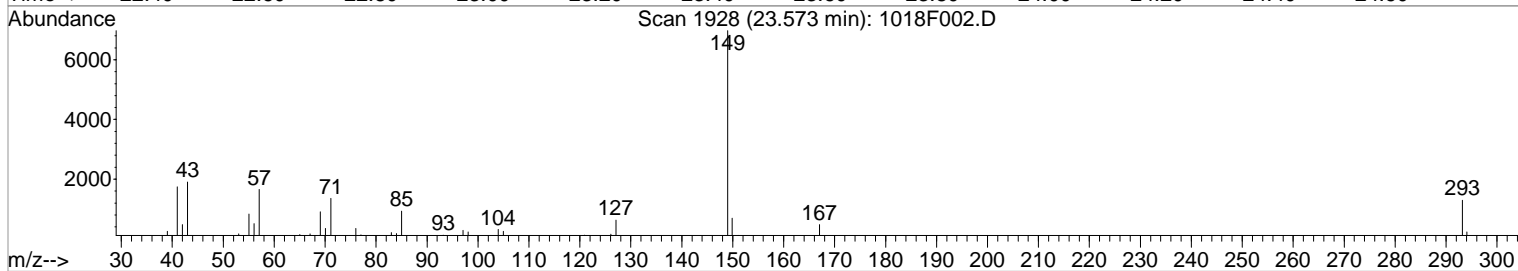
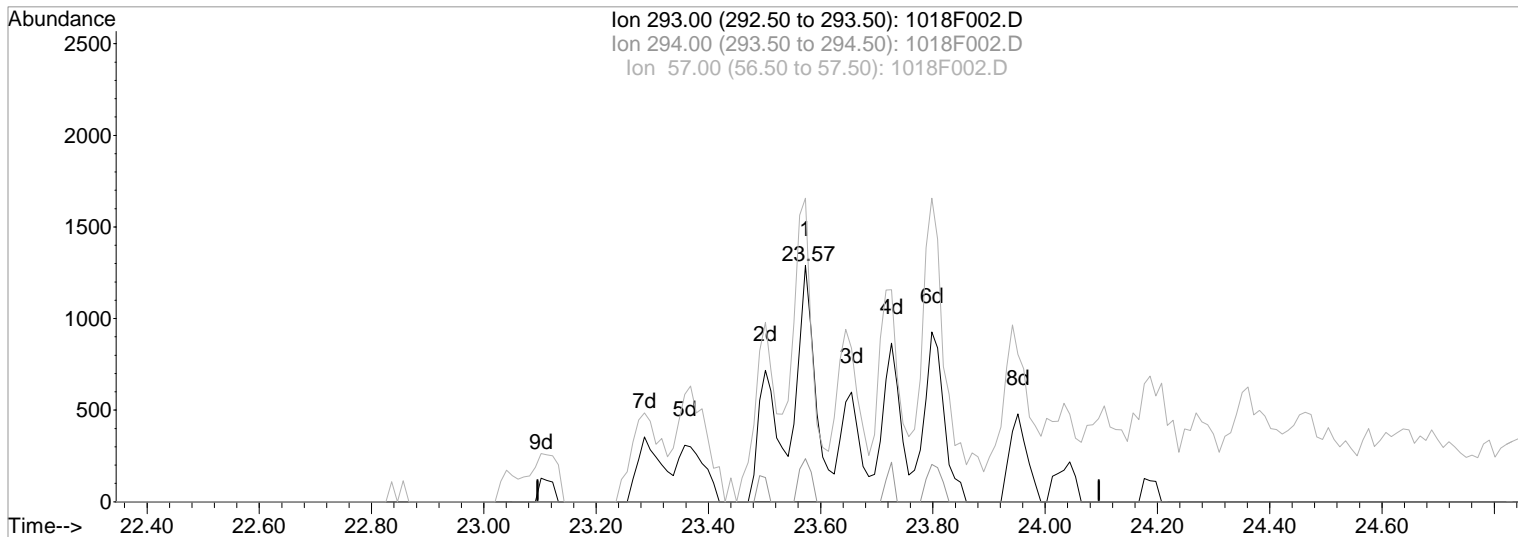
Data File : J:\MS07\DATA\101819\1018F002.D
 Acq On : 18 Oct 2019 8:49 am
 Sample : Paper ICV @ 80ppm | SVM62-07A
 Misc :

Vial: 2
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 18 19:12 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 19:04:21 2019
 Response via : Single Level Calibration



TIC: 1018F002.D

(88) Diisononyl Phthalate (T)

Manual Integration:

23.57min 72.01ug/ml m
 response 14177

After
 IC-Incomplete

Ion	Exp%	Act%
293.00	100	100
294.00	2.90	2.49
57.00	25.80	23.19
0.00	0.00	0.00

10/18/19

Data File : J:\MS07\DATA\101819\1018F002.D
 Acq On : 18 Oct 2019 8:49 am
 Sample : Paper ICV @ 80ppm | SVM62-07A
 Misc :

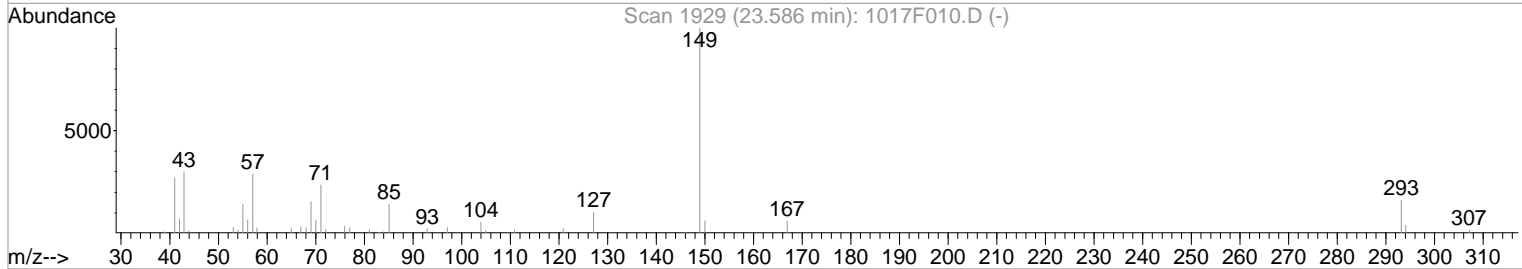
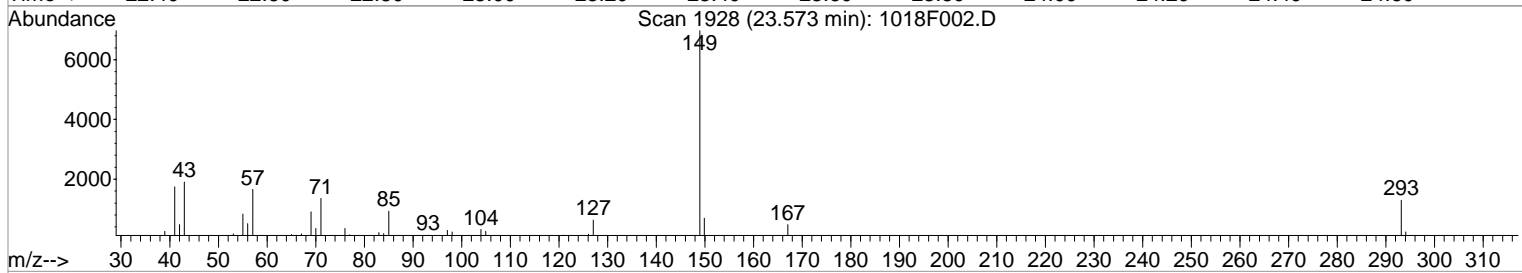
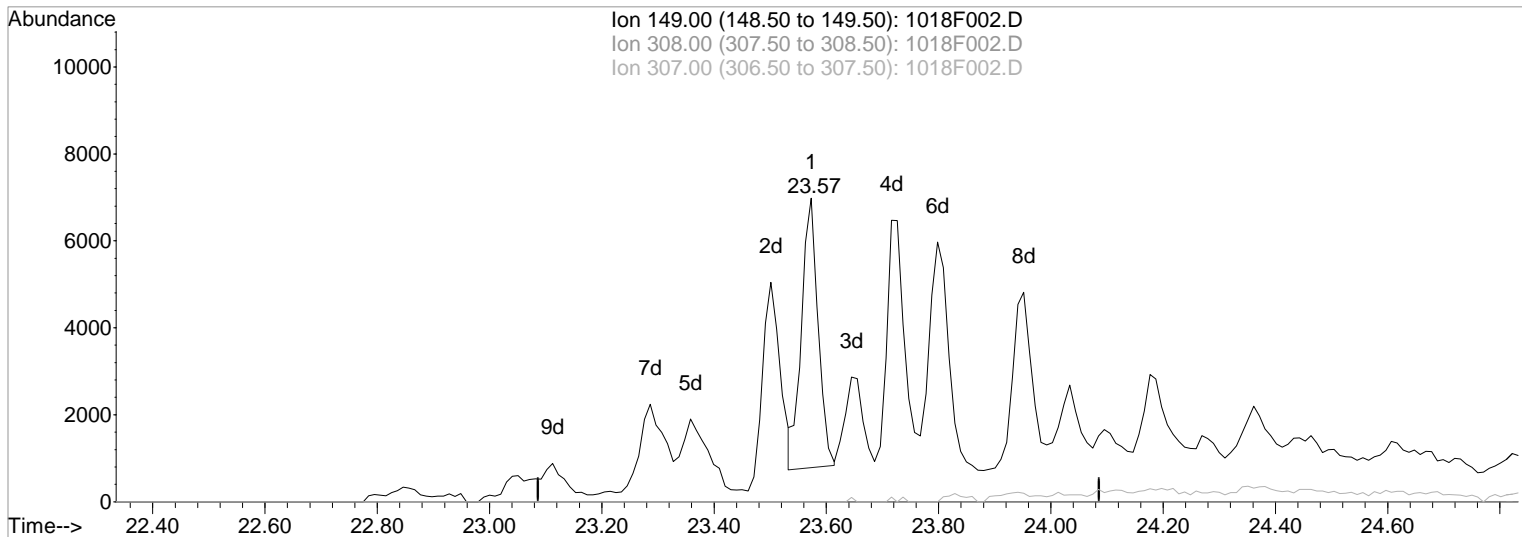
Vial: 2
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 18 12:27 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 12:23:15 2019
 Response via : Single Level Calibration



TIC: 1018F002.D

(89) Diisodecyl Phthalate (T)

Manual Integration:

23.57min 4.86ug/ml

Before

response 12665

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.00
307.00	0.00	0.00
0.00	0.00	0.00

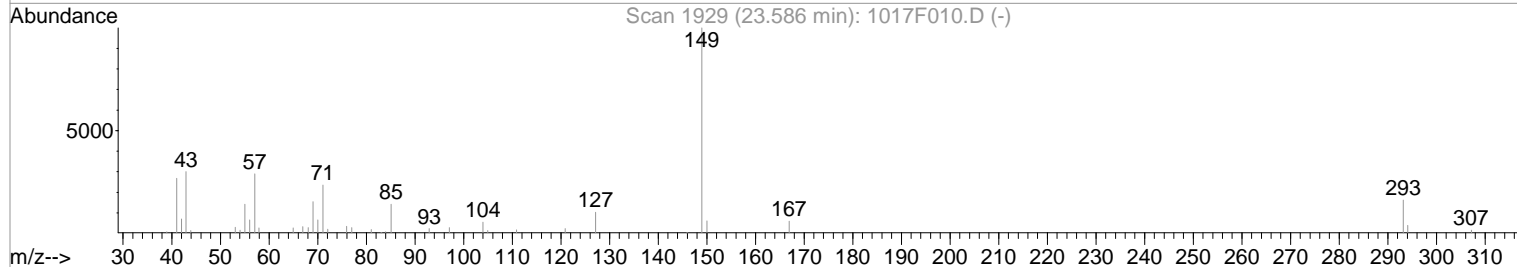
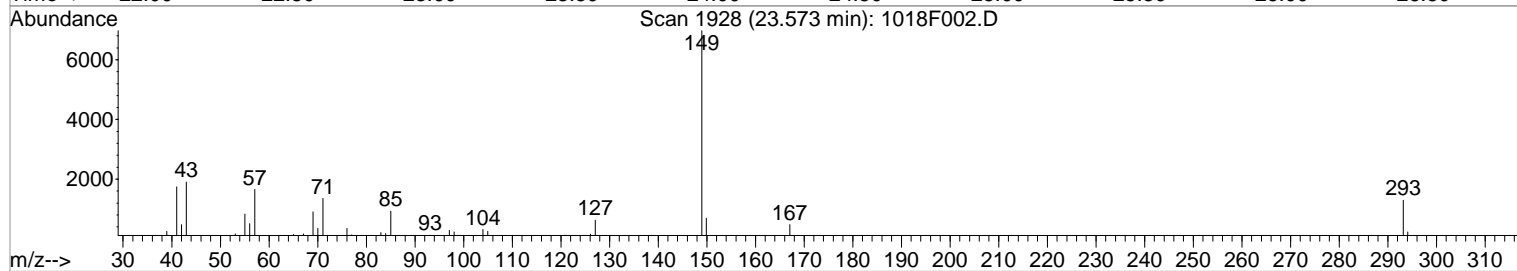
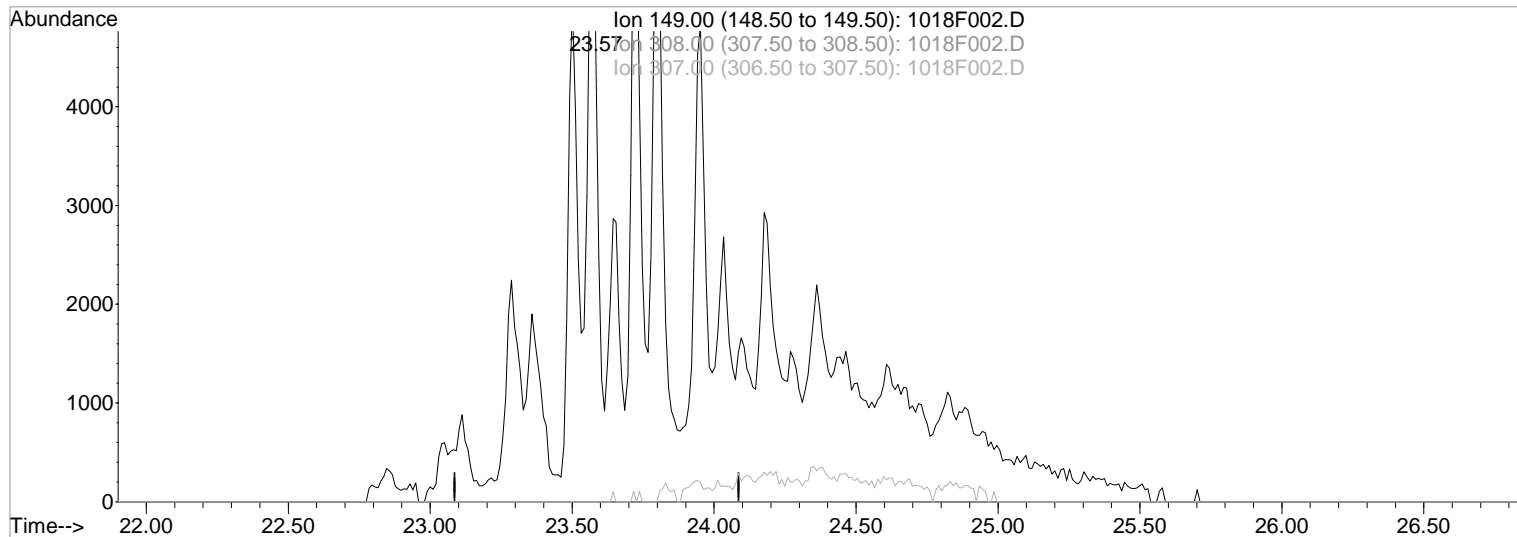
10/18/19

Data File : J:\MS07\DATA\101819\1018F002.D
 Acq On : 18 Oct 2019 8:49 am
 Sample : Paper ICV @ 80ppm | SVM62-07A
 Misc :
 MS Integration Params: RTEINT.P
 Quant Time: Oct 18 19:12 2019

Vial: 2
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\101719_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 18 19:04:21 2019
 Response via : Single Level Calibration



TIC: 1018F002.D

(89) Diisodecyl Phthalate (T)

23.57min 73.56ug/ml m
 response 191662

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.00
307.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After
 IC-Incomplete
 10/18/19

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1019F001.D	1.	MS07 Tune @ 50ppm SVM61-100C		19 Oct 2019 08:29
2	2	1019F002.D	1.	8270/P CCV @ 80ppm SVM62-18K		19 Oct 2019 10:09
3	11	1019F003.D	1.	KQ1915120-04 MB		19 Oct 2019 10:50
4	12	1019F004.D	1.	KQ1915120-03 LCS		19 Oct 2019 11:31
5	13	1019F005.D	1.	KQ1915120-01 MS		19 Oct 2019 12:12
3	14	1019F006.D	1.	KQ1915120-02 DMS		19 Oct 2019 12:54
7	15	1019F007.D	1.	K1909649-002		19 Oct 2019 13:35
3	16	1019F008.D	1.	K1909649-003		19 Oct 2019 14:16
3	17	1019F009.D	1.	K1909649-004		19 Oct 2019 14:58
10	18	1019F010.D	1.	K1909649-005 10X		19 Oct 2019 15:39
11	19	1019F011.D	1.	KQ1915189-03 MB		19 Oct 2019 16:20
12	20	1019F012.D	1.	KQ1915189-01 LCS		19 Oct 2019 17:01
13	21	1019F013.D	1.	KQ1915189-02 DLCS		19 Oct 2019 17:43
14	22	1019F014.D	1.	K1909647-001 5X	NR: su ix (ran 10/21 on MS07)	19 Oct 2019 18:24 ✓

KC1900441

Starlims 656 208

LM 10-22-19

✓ 10/22/19



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February 21, 2020

Analytical Report for Service Request No: K1909014.01

Amy Kephart
Ramboll Environ
901 Fifth Avenue Suite 2820
Seattle, WA 98164

RE: SATES

Dear Amy,

Enclosed are the results of the sample(s) submitted to our laboratory September 27, 2019
For your reference, these analyses have been assigned our service request number **K1909014**.

The results for Total Xylenes have been removed per Cristy Kessel.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager



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Volatile Organic Compounds
Semivolatile Organic Compounds by GCMS
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Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable. See case narrative.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.



Case Narrative

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Received: 09/27/2019

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier level IV requested by the client.

Sample Receipt:

Seven soil samples were received for analysis at ALS Environmental on 09/27/2019. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Semivolatiles by GC/MS:

Method 8270D, Semivolatile Organic Compounds by GC/MS 10/10/2019: The control criteria were exceeded for 2-Fluorophenol and Phenol-d6 in sample PS-GNB-052619 and all surrogates in sample Black Owl Biochar due to matrix interference. Sample Black Owl Biochar is charcol. The presence of non-target background components prevented adequate resolution of the surrogate. Accurate quantitation was not possible. No further corrective action was appropriate.

Method 8270D, Semivolatile Organic Compounds by GC/MS 10/10/2019: The results reported for Phenol in sample PS-GNB-052619 may contain a slight bias. The chromatogram indicated the presence of non-target background components. The matrix interference may have resulted in a slight high bias in the affected samples. The results were flagged with "X" to indicate the issue.

Semivola GC:

Method 8082A, Polychlorinated Biphenyls (PCBs) 10/07/19: Insufficient sample volume was received to perform a Matrix Spike/Matrix Spike Duplicate (MS/MSD). A Laboratory Control Sample/Duplicate Laboratory Control Sample (LCS/DLCS) was analyzed and reported in lieu of the MS/MSD for these samples.

Metals:

No significant anomalies were noted with this analysis.

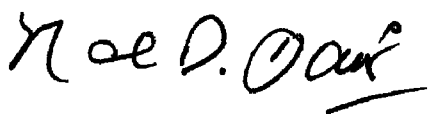
Volatiles by GC/MS:

Method 8260C, 10/7/19; The upper control criterion was exceeded for Dichlorodifluoromethane in Second Source Verification (SSV) MS24\0715F022.D. The elevated recovery suggest a potential high bias in the field samples for the target analyte. One associated field sample, Black Owl Biochar, did show a positive detection for the target analyte at 240 ug/Kg. This value is bias high due to the low recovery of the associated internal standard because of matrix interference. The low recovery of the associated internal standard has an inverse affect on the quantification of the target analyte. Dichlorodifluoromethane was not detected in the other associated field samples indicating the data was not significantly affected by the elevated SSV. No further corrective action was taken.

Method 8260C, 10/7/19; The following analytes were flagged as outside the control criterion for Continuing Calibration Verification (CCV) MS24\1007F004.D: n-Butylbenzene, sec-Butylbenzene, Chloromethane, Dichlorodifluoromethane, Hexachlorobutadiene, Isopropylbenzene, and 4-Isopropyltoluene. In accordance with the EPA Method, 80% or more of the CCV analytes must pass within 20% of the true value. The ALS SOP allows for 40% difference for the remaining analytes. The CCV met these criteria. The quality of the sample data was not significantly affected. No further corrective action was required.

Method 8260C, 10/7/19; The Internal Standard control criteria was exceeded, due to matrix interferences, for 1,4-Dichlorobenzene-d4 in samples Biosolids B and PS-GNB-052619. Internal Standard control criteria was also exceeded, due to matrix interferences, for Chlorobenzene-d5, 1,4-Dichlorobenzene-d4, and Fluorobenzene in samples Landfill Ash 5-13-19, and Black Owl Biochar. The presence of non-target background components in the samples prevented adequate resolution of the internal standards. The results quantified using the affected internal standards were flagged to indicate the problem.

Method 8260C, 10/7/19; The control criteria was exceeded for surrogate 4-Bromofluorobenzene in samples Landfill Ash 5-13-19,

Approved by 

Date 10/16/2019



Chain of Custody

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com



102971

CHAIN OF CUSTODY

102971

001

SR# K1909014
 COC Set _____ of _____
 COC# _____

1317 South 13th Ave, Kelso, WA 98626 Phone (360) 577-7222 / 800-695-7222 / FAX (360) 636-1068
 www.alsglobal.com

Project Name: SATES		Project Number:		NUMBER OF CONTAINERS	14D			28D	999D						
Project Manager: FORWARD TO AMY KEPHART					3082A / PCB	3260C / VOC FP	3270D / SVO	7471B / Hg	160.3 Modified / TS	1	2	3	4	5	
Company: TECK										6	7	8	9	10	
Address:															
Phone #:		email:													
Sampler Signature:		Sampler Printed Name:													
CLIENT SAMPLE ID	LABID	SAMPLING Date	Time	Matrix											Remarks
1. TSP 052419		9/25	1304	1	X	X	X	X	X						
2. BIOSOLIDS B		9/25	1335	2	X	X	X	X	X						
3. MURIATE OF POTASH D-060		9/25	1314	1	X	X	X	X	X						
4. LANDFILL ASH S-13-19		9/25	1323	2	X	X	X	X	X						
5. BASELINE SOIL		9/26	-	1			X								
6.															
7.															
8.															
9.															
10.															

- Report Requirements**
- I. Routine Report: Method Blank, Surrogate, as required
 - II. Report Dup., MS, MSD as required
 - III. CLP Like Summary (no raw data)
 - IV. Data Validation Report
 - V. EDD

Invoice Information

P.O.# _____
 Bill To: _____

Turnaround Requirements

24 hr. 48 hr.
 5 Day
 Standard

Requested Report Date _____

Circle which metals are to be analyzed

Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

Special Instructions/Comments: _____

*Indicate State Hydrocarbon Procedure: AK CA WI Northwest Other _____ (Circle One)

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature: _____	Signature: _____	Signature: _____	Signature: _____	Signature: _____	Signature: _____
Printed Name: MARTINA VAZQUEZ MIRANDA	Printed Name: HW	Printed Name: _____	Printed Name: _____	Printed Name: _____	Printed Name: _____
Firm: OSW	Firm: 9/27/19 1040	Firm: _____	Firm: _____	Firm: _____	Firm: _____
Date/Time: 9/26/19	Date/Time: _____	Date/Time: _____	Date/Time: _____	Date/Time: _____	Date/Time: _____



102972

CHAIN OF CUSTODY
102972

001

1317 South 13th Ave, Kelso, WA 98626 Phone (360) 577-7222 / 800-695-7222 / FAX (360) 636-1068
www.alsglobal.com

SR# K1909014
COC Set _____ of _____
COC# _____

Project Name: SATES		Project Number:		NUMBER OF CONTAINERS	14D		28D		999D		Remarks		
Project Manager: FORWARD TO AMY KEPHART (RESULTS)					3082A / PCB		B260C / VOC FP		B270D / SYO				
Company: TEOK					7471B / Hg		160.3 Modified / TS						
Address:													
Phone #:		email:											
Sampler Signature:		Sampler Printed Name:											
CLIENT SAMPLE ID	LABID	SAMPLING Date	Time	Matrix									
1. PS-6NB 052619		9/25	1342		2	X	X	X	X				
2. BLACK OWL BIOCHAR		9/25	1350		3	X	X	X	X				
3.													
4.													
5.													
6.													
7.													
8.													
9.													
10.													

Report Requirements <input type="checkbox"/> I. Routine Report: Method Blank, Surrogate, as required <input type="checkbox"/> II. Report Dup., MS, MSD as required <input type="checkbox"/> III. CLP Like Summary (no raw data) <input type="checkbox"/> IV. Data Validation Report <input type="checkbox"/> V. EDD	Invoice Information P.O.# _____ Bill To: _____ _____ _____	Circle which metals are to be analyzed Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg
	Turnaround Requirements <input type="checkbox"/> 24 hr. _____ 48 hr. <input type="checkbox"/> 5 Day _____ <input type="checkbox"/> Standard _____	Special Instructions/Comments: _____ *Indicate State Hydrocarbon Procedure: AK CA WI Northwest Other _____ (Circle One)

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature:	Signature:	Signature:	Signature:	Signature:	Signature:
Printed Name: MARTINA V. MIRANDA	Printed Name: [unclear]	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Firm: OSU	Firm: 9/27/19 1040	Firm:	Firm:	Firm:	Firm:
Date/Time: 09/26/19	Date/Time:	Date/Time:	Date/Time:	Date/Time:	Date/Time:



PC MH

Cooler Receipt and Preservation Form

Client OSU/Teck Service Request K19 09014
Received: 9/27/19 Opened: 9/27/19 By: BR Unloaded: 9/27/19 By: BR

- 1. Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
- 2. Samples were received in: (circle) Cooler Box Envelope Other NA
- 3. Were custody seals on coolers? NA Y N If yes, how many and where? 1 front
If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Raw Cooler Temp	Corrected Cooler Temp	Raw Temp Blank	Corrected Temp Blank	Corr. Factor	Thermometer ID	Cooler/COC ID	Tracking Number	NA	Filed
<u>9.8</u>	<u>9.8</u>	<u>-</u>	<u>-</u>	<u>0.0</u>	<u>390</u>	<u>NA</u>	<u>1244294E2499586982</u>	<u>NA</u>	

- 4. Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves
- 5. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
- 6. Were samples received in good condition (temperature, unbroken)? Indicate in the table below. NA Y N
If applicable, tissue samples were received: Frozen Partially Thawed Thawed
- 7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA Y N
- 8. Did all sample labels and tags agree with custody papers? Indicate major discrepancies in the table on page 2. NA Y N
- 9. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
- 10. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y N
- 11. Were VOA vials received without headspace? Indicate in the table below. NA Y N
- 12. Was C12/Res negative? NA Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time
<u>TSP 052419</u>	<u>1-8oz</u>	<u>X</u>								
<u>Biosolids B</u>	<u>1-8oz, 1-4oz</u>	<u>X</u>								
<u>Muriate of Potash 0-0-60</u>	<u>1-8oz</u>	<u>X</u>								
<u>Landfill Ash 5-13-19</u>	<u>1-8oz, 1-4oz</u>	<u>X</u>								
<u>Baseline Soil</u>	<u>1-8oz</u>	<u>X</u>								

Notes, Discrepancies, & Resolutions: Cooler out of temp. contained appreserved jars for (Ice was melted) TSP 052419, Biosolids B, Muriate of Potash 0060, Landfill Ash 5-13-19, & Baseline Soil. Corresponding Terra-Core kits were received in temp in a seperate cooler



PC MH

Cooler Receipt and Preservation Form

Client OSU / Teck Service Request K19 09014
 Received: 9/27/19 Opened: 9/27/19 By: BR Unloaded: 9/27/19 By: BR

1. Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
2. Samples were received in: (circle) Cooler Box Envelope Other NA
3. Were custody seals on coolers? NA Y N If yes, how many and where? front
- If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Raw Cooler Temp	Corrected Cooler Temp	Raw Temp Blank	Corrected Temp Blank	Corr. Factor	Thermometer ID	Cooler/COC ID	Tracking Number	NA	Filed
4.8	4.7	4.3	4.2	-0.1	384	NA	1244294E01916282947	NA	

4. Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves
5. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
6. Were samples received in good condition (temperature, unbroken)? Indicate in the table below.
 If applicable, tissue samples were received: Frozen Partially Thawed Thawed NA Y N
7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA Y N
8. Did all sample labels and tags agree with custody papers? Indicate major discrepancies in the table on page 2. NA Y N
9. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
10. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below. NA Y N
11. Were VOA vials received without headspace? Indicate in the table below. NA Y N
12. Was C12/Res negative? NA Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions: _____



PC MH

Cooler Receipt and Preservation Form

Client Teak/Ramboll Service Request K19 09014
 Received: 9/27/19 Opened: 9/27/19 By: KM Unloaded: 9/27/19 By: KM

1. Samples were received via? USPS ~~Fed Ex~~ UPS ~~DHL~~ ~~PDX~~ ~~Courier~~ ~~Hand Delivered~~
 2. Samples were received in: (circle) Cooler ~~Box~~ ~~Envelope~~ ~~Other~~ NA
 3. Were custody seals on coolers? NA Y ~~N~~ If yes, how many and where? 1 Front
 If present, were custody seals intact? Y ~~N~~ If present, were they signed and dated? Y ~~N~~

Raw Cooler Temp	Corrected Cooler Temp	Raw Temp Blank	Corrected Temp Blank	Corr. Factor	Thermometer ID	Cooler/COC ID	Tracking Number	NA	Filed
<u>1.3</u>	<u>5.6</u> <u>1.3</u>	<u>5.6</u>	<u>5.6</u>	<u>0</u>	<u>380</u>	<u>102896</u>	<u>1244294E3495438916</u>		

4. Packing material: Inserts ~~Baggies~~ ~~Bubble Wrap~~ Gel Packs ~~Wet Ice~~ ~~Dry Ice~~ ~~Sleeves~~
 5. Were custody papers properly filled out (ink, signed, etc.)? NA Y ~~N~~
 6. Were samples received in good condition (temperature, unbroken)? Indicate in the table below.
 If applicable, tissue samples were received: Frozen ~~Partially Thawed~~ ~~Thawed~~
 7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA Y ~~N~~
 8. Did all sample labels and tags agree with custody papers? Indicate major discrepancies in the table on page 2. NA Y ~~N~~
 9. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y ~~N~~
 10. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y ~~N~~
 11. Were VOA vials received without headspace? Indicate in the table below. NA Y ~~N~~
 12. Was C12/Res negative? NA Y ~~N~~

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions: TerraCores = Rec'd 1 meth vial + 2 Sol Bisulfate vials for each sample. Client did not submit a jar with samples



Total Solids

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil
Analysis Method: 160.3 Modified
Prep Method: None

Service Request: K1909014
Date Collected: 09/25/19 - 09/26/19
Date Received: 09/27/19
Units: Percent
Basis: As Received

Solids, Total

Sample Name	Lab Code	Result	MRL	MDL	Dil.	Date Analyzed	Q
TSP 052419	K1909014-001	97.8	-	-	1	10/09/19 17:09	
Biosolids B	K1909014-002	95.1	-	-	1	10/09/19 17:09	
Muriate of Potash 0-0-60	K1909014-003	99.7	-	-	1	10/09/19 17:09	
Landfill Ash 5-13-19	K1909014-004	83.0	-	-	1	10/09/19 17:09	
Baseline Soil	K1909014-005	91.6	-	-	1	10/09/19 17:09	
PS-GNB-052619	K1909014-006	95.0	-	-	1	10/03/19 19:08	
Black Owl Biochar	K1909014-007	100	-	-	1	10/03/19 19:08	

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Collected: 09/25/19
Date Received: 09/27/19
Date Analyzed: 10/03/19

Replicate Sample Summary
Inorganic Parameters

Sample Name: Black Owl Biochar
Lab Code: K1909014-007

Units: Percent
Basis: As Received

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>MRL</u>	<u>Sample Result</u>	<u>Duplicate Sample K1909014-007DUP Result</u>	<u>Average</u>	<u>RPD</u>	<u>RPD Limit</u>
Solids, Total	160.3 Modified	-	100	100	100	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.



Metals

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil
Sample Name: PS-GNB-052619
Lab Code: K1909014-006

Service Request: K1909014
Date Collected: 09/25/19 13:42
Date Received: 09/27/19 10:40
Basis: Dry

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Mercury	7471B	0.013 J	mg/Kg	0.018	0.002	1	10/08/19 10:27	10/07/19	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil
Sample Name: Black Owl Biochar
Lab Code: K1909014-007

Service Request: K1909014
Date Collected: 09/25/19 13:50
Date Received: 09/27/19 10:40
Basis: Dry

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Mercury	7471B	ND U	mg/Kg	0.017	0.002	1	10/08/19 10:37	10/07/19	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil
Sample Name: Method Blank
Lab Code: KQ1914466-01

Service Request: K1909014
Date Collected: NA
Date Received: NA
Basis: Dry

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Mercury	7471B	ND U	mg/Kg	0.02	0.002	1	10/08/19 10:24	10/07/19	

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Collected: 09/25/19
Date Received: 09/27/19
Date Analyzed: 10/08/19

Replicate Sample Summary
Total Metals

Sample Name: PS-GNB-052619
Lab Code: K1909014-006

Units: mg/Kg
Basis: Dry

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate Sample	Average	RPD	RPD Limit
					KQ1914466-03 Result			
Mercury	7471B	0.020	0.002	0.013 J	0.014 J	0.014	8	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Collected: 09/25/19
Date Received: 09/27/19
Date Analyzed: 10/8/19
Date Extracted: 10/7/19

Matrix Spike Summary
Total Metals

Sample Name: PS-GNB-052619
Lab Code: K1909014-006
Analysis Method: 7471B
Prep Method: Method

Units: mg/Kg
Basis: Dry

Matrix Spike
KQ1914466-04

<u>Analyte Name</u>	<u>Sample Result</u>	<u>Result</u>	<u>Spike Amount</u>	<u>% Rec</u>	<u>% Rec Limits</u>
Mercury	0.013 J	0.514	0.517	97	80-120

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Analyzed: 10/08/19

Lab Control Sample Summary
Total Metals

Units:mg/Kg
Basis:Dry

Lab Control Sample
KQ1914466-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Mercury	7471B	11.7	12.0	98	60-139

ALS Group USA, Corp.
dba ALS Environmental

Prep Summary Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014

Metals

Prep Method: Method
Analytical Method: 7471B

Extraction Lot: 345996
Extraction Date: 10/07/19 08:02

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Amount	Percent Solids
PS-GNB-052619	K1909014-006	9/25/19	9/27/19	0.589 g	50 mL	
Black Owl Biochar	K1909014-007	9/25/19	9/27/19	0.592 g	50 mL	
Method Blank	KQ1914466-01MB	NA	NA	0.5 g	50 mL	
Lab Control Sample	KQ1914466-02LCS	NA	NA	0.2540 g	50 mL	
Duplicate	KQ1914466-03DUP	9/25/19	9/27/19	0.538 g	50 mL	
Matrix Spike	KQ1914466-04MS	9/25/19	9/27/19	0.509 g	50 mL	

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Concentration Units: ug/L

Sample ID	Analyte	Method	Analysis Batch:	Result	True Value	% Rec	% Rec. Limits
ICV	10/08/19 09:29 Mercury	7471B	654581	5.16	5.00	103	90-110
CCV	10/08/19 09:34 Mercury	7471B	654581	5.12	5.00	102	90-110
CCV	10/08/19 09:53 Mercury	7471B	654581	5.10	5.00	102	90-110
CCV	10/08/19 10:13 Mercury	7471B	654581	5.07	5.00	101	90-110
CCV	10/08/19 10:32 Mercury	7471B	654581	5.10	5.00	102	90-110
CCV	10/08/19 10:52 Mercury	7471B	654581	4.89	5.00	98	90-110

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014

INITIAL AND CONTINUING CALIBRATION BLANKS

Concentration Units: ug/L

Sample ID	Analyte	Method	Analysis Batch:	Result	C
ICB 10/08/19 09:31	Mercury	7471B	654581	0.02	U
CCB 10/08/19 09:35	Mercury	7471B	654581	0.02	U
CCB 10/08/19 09:55	Mercury	7471B	654581	0.02	U
CCB 10/08/19 10:14	Mercury	7471B	654581	0.02	U
CCB 10/08/19 10:34	Mercury	7471B	654581	-0.0200	J
CCB 10/08/19 10:53	Mercury	7471B	654581	-0.0220	J

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014

LOW LEVEL INITIAL AND LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Concentration Units: ug/L

Sample ID	Analyte	Method	Analysis Batch:	Result	True Value	% Rec	% Rec. Limits	Analysis Date
LLICV	Mercury	7471B	654581	0.20	0.2	102	50-150	10/08/19 09:32

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014

POST SPIKE SAMPLE RECOVERY

Concentration Units: ppb

Sample ID	Analyte	Method	Analysis Batch:	Initial Sample Result	Post Spike Result	True Value	% Rec	% Rec. Limits	Analysis Date
K1909014-006A	Mercury	7471B	654581	0.14 J	4.50	5.00	87	80-120	10/08/19 10:29

Results flagged with a pound (#) indicate the control criteria is not applicable.

Client: Ramboll US Corporation
Project: SATES/

Service Request: K1909014

Detection Limits

Instrument: K-CVAA-02

Matrix: Soil

Analyte	Wavelength (nm)	Units	MRL	MDL	Method
Mercury	253	ug/L	0.2	0.02	7471B

Client: Ramboll US Corporation
Project: SATES/

Service Request: K1909014

Analysis Run Log

Instrument ID: K-CVAA-02

Analytical BatchID: 654581

Sample	Dilution Factor	Date/Time	H g
ZZZZZZ	1	10/08/19 09:19	
ZZZZZZ	1	10/08/19 09:21	
ZZZZZZ	1	10/08/19 09:22	
ZZZZZZ	1	10/08/19 09:24	
ZZZZZZ	1	10/08/19 09:26	
ZZZZZZ	1	10/08/19 09:27	
ICV1	1	10/08/19 09:29	X
ICB1	1	10/08/19 09:31	X
LLICV1	1	10/08/19 09:32	X
CCV1	1	10/08/19 09:34	X
CCB1	1	10/08/19 09:35	X
ZZZZZZ	1	10/08/19 09:37	
ZZZZZZ	10	10/08/19 09:39	
ZZZZZZ	1	10/08/19 09:40	
ZZZZZZ	1	10/08/19 09:42	
ZZZZZZ	1	10/08/19 09:43	
ZZZZZZ	1	10/08/19 09:45	
ZZZZZZ	1	10/08/19 09:47	
ZZZZZZ	1	10/08/19 09:48	
ZZZZZZ	1	10/08/19 09:50	
ZZZZZZ	1	10/08/19 09:52	
CCV2	1	10/08/19 09:53	X
CCB2	1	10/08/19 09:55	X
ZZZZZZ	1	10/08/19 09:57	
ZZZZZZ	1	10/08/19 09:58	
ZZZZZZ	1	10/08/19 10:00	
ZZZZZZ	1	10/08/19 10:01	
ZZZZZZ	1	10/08/19 10:03	
ZZZZZZ	1	10/08/19 10:05	
ZZZZZZ	1	10/08/19 10:06	
ZZZZZZ	1	10/08/19 10:08	
ZZZZZZ	1	10/08/19 10:09	
ZZZZZZ	1	10/08/19 10:11	
CCV3	1	10/08/19 10:13	X
CCB3	1	10/08/19 10:14	X
ZZZZZZ	1	10/08/19 10:16	
ZZZZZZ	1	10/08/19 10:18	

Client: Ramboll US Corporation
Project: SATES/

Service Request: K1909014

Analysis Run Log

Instrument ID: K-CVAA-02

Analytical BatchID: 654581

Sample	Dilution Factor	Date/Time	H g
ZZZZZZ	1	10/08/19 10:19	
ZZZZZZ	1	10/08/19 10:21	
ZZZZZZ	1	10/08/19 10:23	
KQ1914466-01MB	1	10/08/19 10:24	X
KQ1914466-02LCS1	10	10/08/19 10:26	X
K1909014-006	1	10/08/19 10:27	X
K1909014-006PS	1	10/08/19 10:29	X
K1909014-006DUP	1	10/08/19 10:31	X
CCV4	1	10/08/19 10:32	X
CCB4	1	10/08/19 10:34	X
K1909014-006MS	1	10/08/19 10:36	X
K1909014-007	1	10/08/19 10:37	X
ZZZZZZ	1	10/08/19 10:39	
ZZZZZZ	1	10/08/19 10:40	
ZZZZZZ	1	10/08/19 10:42	
ZZZZZZ	1	10/08/19 10:44	
ZZZZZZ	1	10/08/19 10:45	
ZZZZZZ	1	10/08/19 10:47	
ZZZZZZ	1	10/08/19 10:49	
ZZZZZZ	1	10/08/19 10:50	
CCV5	1	10/08/19 10:52	X
CCB5	1	10/08/19 10:53	X
ZZZZZZ	1	10/08/19 10:55	
ZZZZZZ	1	10/08/19 10:57	
ZZZZZZ	1	10/08/19 10:58	
ZZZZZZ	1	10/08/19 11:00	
ZZZZZZ	1	10/08/19 11:02	
ZZZZZZ	1	10/08/19 11:03	
ZZZZZZ	1	10/08/19 11:05	
ZZZZZZ	1	10/08/19 11:06	
ZZZZZZ	5	10/08/19 11:12	
ZZZZZZ	1	10/08/19 11:14	
ZZZZZZ	1	10/08/19 11:16	



Polychlorinated Biphenyls (PCBs)

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014

**Cover Page - Organic Analysis Data Package
Polychlorinated Biphenyls (PCBs)**

Sample Name	Lab Code	Date Collected	Date Received
PS-GNB-052619	K1909014-006	09/25/2019	09/27/2019
Black Owl Biochar	K1909014-007	09/25/2019	09/27/2019
PS-GNB-052619MS	KWG1904339-1	09/25/2019	09/27/2019
PS-GNB-052619DMS	KWG1904339-2	09/25/2019	09/27/2019

Analytical Results

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Collected: 09/25/2019
Date Received: 09/27/2019

Polychlorinated Biphenyls (PCBs)

Sample Name: PS-GNB-052619
Lab Code: K1909014-006
Extraction Method: EPA 3546
Analysis Method: 8082A

Units: ug/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	10	2.9	1	10/04/19	10/07/19	KWG1904339	
Aroclor 1221	ND	U	20	2.9	1	10/04/19	10/07/19	KWG1904339	
Aroclor 1232	ND	U	10	2.9	1	10/04/19	10/07/19	KWG1904339	
Aroclor 1242	ND	U	10	2.9	1	10/04/19	10/07/19	KWG1904339	
Aroclor 1248	ND	U	10	2.9	1	10/04/19	10/07/19	KWG1904339	
Aroclor 1254	ND	U	10	2.9	1	10/04/19	10/07/19	KWG1904339	
Aroclor 1260	ND	U	10	2.9	1	10/04/19	10/07/19	KWG1904339	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	94	70-130	10/07/19	Acceptable

Comments: _____

Analytical Results

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Collected: 09/25/2019
Date Received: 09/27/2019

Polychlorinated Biphenyls (PCBs)

Sample Name: Black Owl Biochar
Lab Code: K1909014-007
Extraction Method: EPA 3541
Analysis Method: 8082A

Units: ug/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	10	10	1	10/09/19	10/10/19	KWG1904387	
Aroclor 1221	ND	U	20	20	1	10/09/19	10/10/19	KWG1904387	
Aroclor 1232	ND	U	10	10	1	10/09/19	10/10/19	KWG1904387	
Aroclor 1242	ND	U	10	10	1	10/09/19	10/10/19	KWG1904387	
Aroclor 1248	ND	U	10	10	1	10/09/19	10/10/19	KWG1904387	
Aroclor 1254	ND	U	10	10	1	10/09/19	10/10/19	KWG1904387	
Aroclor 1260	ND	U	10	10	1	10/09/19	10/10/19	KWG1904387	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	86	43-148	10/10/19	Acceptable

Comments: _____

Analytical Results

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Collected: NA
Date Received: NA

Polychlorinated Biphenyls (PCBs)

Sample Name: Method Blank
Lab Code: KWG1904339-4
Extraction Method: EPA 3546
Analysis Method: 8082A

Units: ug/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	10	2.9	1	10/04/19	10/07/19	KWG1904339	
Aroclor 1221	ND	U	19	2.9	1	10/04/19	10/07/19	KWG1904339	
Aroclor 1232	ND	U	10	2.9	1	10/04/19	10/07/19	KWG1904339	
Aroclor 1242	ND	U	10	2.9	1	10/04/19	10/07/19	KWG1904339	
Aroclor 1248	ND	U	10	2.9	1	10/04/19	10/07/19	KWG1904339	
Aroclor 1254	ND	U	10	2.9	1	10/04/19	10/07/19	KWG1904339	
Aroclor 1260	ND	U	10	2.9	1	10/04/19	10/07/19	KWG1904339	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	79	70-130	10/07/19	Acceptable

Comments: _____

Analytical Results

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Collected: NA
Date Received: NA

Polychlorinated Biphenyls (PCBs)

Sample Name: Method Blank
Lab Code: KWG1904387-3
Extraction Method: EPA 3541
Analysis Method: 8082A

Units: ug/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	10	10	1	10/09/19	10/10/19	KWG1904387	
Aroclor 1221	ND	U	20	20	1	10/09/19	10/10/19	KWG1904387	
Aroclor 1232	ND	U	10	10	1	10/09/19	10/10/19	KWG1904387	
Aroclor 1242	ND	U	10	10	1	10/09/19	10/10/19	KWG1904387	
Aroclor 1248	ND	U	10	10	1	10/09/19	10/10/19	KWG1904387	
Aroclor 1254	ND	U	10	10	1	10/09/19	10/10/19	KWG1904387	
Aroclor 1260	ND	U	10	10	1	10/09/19	10/10/19	KWG1904387	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	82	43-148	10/10/19	Acceptable

Comments: _____

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014

**Surrogate Recovery Summary
 Polychlorinated Biphenyls (PCBs)**

Extraction Method: EPA 3546
Analysis Method: 8082A

Units: Percent
Level: Low

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>
PS-GNB-052619	K1909014-006	94
Black Owl Biochar	K1909014-007	86
Method Blank	KWG1904339-4	79
Method Blank	KWG1904387-3	82
PS-GNB-052619MS	KWG1904339-1	94
PS-GNB-052619DMS	KWG1904339-2	89
Lab Control Sample	KWG1904339-3	76
Lab Control Sample	KWG1904387-1	84
Duplicate Lab Control Sample	KWG1904387-2	84

Surrogate Recovery Control Limits (%)

Sur1 = Decachlorobiphenyl 43-148

Results flagged with an asterisk (*) indicate values outside control criteria.
 Results flagged with a pound (#) indicate the control criteria is not applicable.

QA/QC Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Extracted: 10/04/2019
Date Analyzed: 10/07/2019

Matrix Spike/Duplicate Matrix Spike Summary
Polychlorinated Biphenyls (PCBs)

Sample Name: PS-GNB-052619
Lab Code: K1909014-006
Extraction Method: EPA 3546
Analysis Method: 8082A

Units: ug/Kg
Basis: Dry
Level: Low
Extraction Lot: KWG1904339

Analyte Name	Sample Result	PS-GNB-052619MS KWG1904339-1 Matrix Spike			PS-GNB-052619DMS KWG1904339-2 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Spike Amount	%Rec	Result	Spike Amount	%Rec			
Aroclor 1016	ND	91.1	102	89	90.0	102	89	70-130	1	40
Aroclor 1260	ND	124	102	121	117	102	116	70-130	5	40

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Extracted: 10/04/2019
Date Analyzed: 10/07/2019

Lab Control Spike Summary
Polychlorinated Biphenyls (PCBs)

Extraction Method: EPA 3546
Analysis Method: 8082A

Units: ug/Kg
Basis: Dry
Level: Low
Extraction Lot: KWG1904339

Lab Control Sample
 KWG1904339-3
Lab Control Spike

Analyte Name	Result	Spike Amount	%Rec	%Rec Limits
Aroclor 1016	80.2	100	80	70-130
Aroclor 1260	96.0	100	96	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Extracted: 10/09/2019
Date Analyzed: 10/10/2019

Lab Control Spike/Duplicate Lab Control Spike Summary
Polychlorinated Biphenyls (PCBs)

Extraction Method: EPA 3541
Analysis Method: 8082A

Units: ug/Kg
Basis: Dry
Level: Low
Extraction Lot: KWG1904387

Analyte Name	Lab Control Sample KWG1904387-1 Lab Control Spike			Duplicate Lab Control Sample KWG1904387-2 Duplicate Lab Control Spike			%Rec Limits	RPD	RPD Limit
	Result	Spike Amount	%Rec	Result	Spike Amount	%Rec			
Aroclor 1016	163	200	82	169	200	85	42-122	4	40
Aroclor 1260	190	200	95	192	200	96	50-124	1	40

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Extracted: 10/04/2019
Date Analyzed: 10/07/2019
Time Analyzed: 11:34

Method Blank Summary
Polychlorinated Biphenyls (PCBs)

Sample Name: Method Blank
Lab Code: KWG1904339-4
Extraction Method: EPA 3546
Analysis Method: 8082A

Instrument ID: GC27.i
File ID: J:\GC27\DATA\100719.B\1007F005.D
Level: Low
Extraction Lot: KWG1904339

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG1904339-3	J:\GC27\DATA\100719.B\1007F006.D	10/07/19	12:05
PS-GNB-052619	K1909014-006	J:\GC27\DATA\100719.B\1007F007.D	10/07/19	12:37
PS-GNB-052619MS	KWG1904339-1	J:\GC27\DATA\100719.B\1007F008.D	10/07/19	13:09
PS-GNB-052619DMS	KWG1904339-2	J:\GC27\DATA\100719.B\1007F009.D	10/07/19	13:40

QA/QC Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Extracted: 10/09/2019
Date Analyzed: 10/10/2019
Time Analyzed: 12:24

Method Blank Summary
Polychlorinated Biphenyls (PCBs)

Sample Name: Method Blank
Lab Code: KWG1904387-3
Extraction Method: EPA 3541
Analysis Method: 8082A

Instrument ID: GC27.i
File ID: J:\GC27\DATA\101019B.B\1010F005.D
Level: Low
Extraction Lot: KWG1904387

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG1904387-1	J:\GC27\DATA\101019B.B\1010F006.D	10/10/19	12:56
Duplicate Lab Control Sample	KWG1904387-2	J:\GC27\DATA\101019B.B\1010F007.D	10/10/19	13:27
Black Owl Biochar	K1909014-007	J:\GC27\DATA\101019B.B\1010F008.D	10/10/19	13:59

QA/QC Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Extracted: 10/04/2019
Date Analyzed: 10/07/2019
Time Analyzed: 12:05

Lab Control Sample Summary
Polychlorinated Biphenyls (PCBs)

Sample Name: Lab Control Sample
Lab Code: KWG1904339-3
Extraction Method: EPA 3546
Analysis Method: 8082A
Instrument ID: GC27.i
File ID: J:\GC27\DATA\100719.B\1007F006.D
Level: Low
Extraction Lot: KWG1904339

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Method Blank	KWG1904339-4	J:\GC27\DATA\100719.B\1007F005.D	10/07/19	11:34
PS-GNB-052619	K1909014-006	J:\GC27\DATA\100719.B\1007F007.D	10/07/19	12:37
PS-GNB-052619MS	KWG1904339-1	J:\GC27\DATA\100719.B\1007F008.D	10/07/19	13:09
PS-GNB-052619DMS	KWG1904339-2	J:\GC27\DATA\100719.B\1007F009.D	10/07/19	13:40

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Calibration Date: 09/04/2019

Initial Calibration Summary
Polychlorinated Biphenyls (PCBs)

Calibration ID: CAL16127
Instrument ID: GC27.i

Column: DB-35MS

Level ID	File ID	Level ID	File ID
A	\\alksls002\instdata\GC27\Data\090419ICAL.b\0904F005.D	V	\\alksls002\instdata\GC27\Data\090419ICAL.b\0904F026.D
B	\\alksls002\instdata\GC27\Data\090419ICAL.b\0904F006.D	W	\\alksls002\instdata\GC27\Data\090419ICAL.b\0904F027.D
C	\\alksls002\instdata\GC27\Data\090419ICAL.b\0904F007.D	X	\\alksls002\instdata\GC27\Data\090419ICAL.b\0904F028.D
D	\\alksls002\instdata\GC27\Data\090419ICAL.b\0904F008.D	Y	\\alksls002\instdata\GC27\Data\090419ICAL.b\0904F033.D
E	\\alksls002\instdata\GC27\Data\090419ICAL.b\0904F009.D	Z	\\alksls002\instdata\GC27\Data\090419ICAL.b\0904F034.D
F	\\alksls002\instdata\GC27\Data\090419ICAL.b\0904F010.D	AA	\\alksls002\instdata\GC27\Data\090419ICAL.b\0904F035.D
G	\\alksls002\instdata\GC27\Data\090419ICAL.b\0904F011.D	AB	\\alksls002\instdata\GC27\Data\090419ICAL.b\0904F036.D
H	\\alksls002\instdata\GC27\Data\090419ICAL.b\0904F012.D	AC	\\alksls002\instdata\GC27\Data\090419ICAL.b\0904F037.D
I	\\alksls002\instdata\GC27\Data\090419ICAL.b\0904F013.D	AD	\\alksls002\instdata\GC27\Data\090419ICAL.b\0904F038.D
J	\\alksls002\instdata\GC27\Data\090419ICAL.b\0904F014.D	AE	\\alksls002\instdata\GC27\Data\090419ICAL.b\0904F039.D
K	\\alksls002\instdata\GC27\Data\090419ICAL.b\0904F015.D	AF	\\alksls002\instdata\GC27\Data\090419ICAL.b\0904F040.D
L	\\alksls002\instdata\GC27\Data\090419ICAL.b\0904F016.D	AG	\\alksls002\instdata\GC27\Data\090419ICAL.b\0904F041.D
M	\\alksls002\instdata\GC27\Data\090419ICAL.b\0904F017.D	AH	\\alksls002\instdata\GC27\Data\090419ICAL.b\0904F042.D
N	\\alksls002\instdata\GC27\Data\090419ICAL.b\0904F018.D	AI	\\alksls002\instdata\GC27\Data\090419ICAL.b\0904F043.D
O	\\alksls002\instdata\GC27\Data\090419ICAL.b\0904F019.D	AJ	\\alksls002\instdata\GC27\Data\090419ICAL.b\0904F044.D
P	\\alksls002\instdata\GC27\Data\090419ICAL.b\0904F020.D	AK	\\alksls002\instdata\GC27\Data\090419ICAL.b\0909F009.D
Q	\\alksls002\instdata\GC27\Data\090419ICAL.b\0904F021.D	AL	\\alksls002\instdata\GC27\Data\090419ICAL.b\0909F010.D
R	\\alksls002\instdata\GC27\Data\090419ICAL.b\0904F022.D	AM	\\alksls002\instdata\GC27\Data\090419ICAL.b\0909F011.D
S	\\alksls002\instdata\GC27\Data\090419ICAL.b\0904F023.D	AN	\\alksls002\instdata\GC27\Data\090419ICAL.b\0909F012.D
T	\\alksls002\instdata\GC27\Data\090419ICAL.b\0904F024.D		
U	\\alksls002\instdata\GC27\Data\090419ICAL.b\0904F025.D		

Analyte Name	Level ID			Level ID			Level ID			Level ID			Level ID		
	ID	Amt	RF	ID	Amt	RF	ID	Amt	RF	ID	Amt	RF	ID	Amt	RF
Decachlorobiphenyl	A	0.10	1.23E+6	B	0.20	1.17E+6	C	0.50	1.10E+6	D	1.0	1.11E+6	E	2.0	1.14E+6
	F	5.0	1.05E+6	G	10	9.84E+5	H	20	9.51E+5						
Aroclor 1016 {1}	A	1.0	39400	B	2.0	35500	C	5.0	32500	D	10	35200	E	20	35700
	F	50	32900	G	100	31400	H	200	30300						
Aroclor 1016 {2}	A	1.0	31700	B	2.0	29200	C	5.0	26900	D	10	28300	E	20	29300
	F	50	27500	G	100	26100	H	200	25000						
Aroclor 1016 {3}	A	1.0	92700	B	2.0	97900	C	5.0	83800	D	10	85000	E	20	90000
	F	50	86200	G	100	80100	H	200	79700						
Aroclor 1016 {4}	A	1.0	51300	B	2.0	53400	C	5.0	52500	D	10	53400	E	20	54900
	F	50	51000	G	100	47600	H	200	46300						
Aroclor 1016 {5}	A	1.0	36000	B	2.0	34900	C	5.0	35600	D	10	36700	E	20	37600
	F	50	35100	G	100	33200	H	200	32100						
Aroclor 1260 {1}	A	1.0	35400	B	2.0	35400	C	5.0	31900	D	10	33900	E	20	34900
	F	50	32900	G	100	32000	H	200	31600						
Aroclor 1260 {2}	A	1.0	48500	B	2.0	46000	C	5.0	44700	D	10	47300	E	20	50200
	F	50	47300	G	100	44900	H	200	43900						

Results flagged with an asterisk (*) indicate values outside control criteria.

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Calibration Date: 09/04/2019

Initial Calibration Summary
Polychlorinated Biphenyls (PCBs)

Calibration ID: CAL16127
Instrument ID: GC27.i

Column: DB-35MS

Analyte Name	Level			Level			Level			Level			Level		
	ID	Amt	RF	ID	Amt	RF	ID	Amt	RF	ID	Amt	RF	ID	Amt	RF
Aroclor 1260 {3}	A	1.0	54100	B	2.0	50400	C	5.0	49200	D	10	51700	E	20	52700
	F	50	49600	G	100	47300	H	200	46200						
Aroclor 1260 {4}	A	1.0	1.21E+5	B	2.0	1.07E+5	C	5.0	1.03E+5	D	10	1.07E+5	E	20	1.10E+5
	F	50	1.03E+5	G	100	99200	H	200	99100						
Aroclor 1260 {5}	A	1.0	89800	B	2.0	81800	C	5.0	77900	D	10	81000	E	20	81300
	F	50	76900	G	100	73500	H	200	72700						

Results flagged with an asterisk (*) indicate values outside control criteria.

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Calibration Date: 09/04/2019

**Initial Calibration Summary
 Polychlorinated Biphenyls (PCBs)**

Calibration ID: CAL16127
Instrument ID: GC27.i

Column: DB-35MS

Analyte Name	Compound Type	Calibration Evaluation				Control Criteria
		Fit Type	Eval.	Eval. Result	Q	
Decachlorobiphenyl	SURR	AverageRF	% RSD	8.4	≤ 20	
Aroclor 1016 {1}	MULTI	AverageRF	% RSD	8.5	≤ 20	
Aroclor 1016 {2}	MULTI	AverageRF	% RSD	7.5	≤ 20	
Aroclor 1016 {3}	MULTI	AverageRF	% RSD	7.2	≤ 20	
Aroclor 1016 {4}	MULTI	AverageRF	% RSD	5.8	≤ 20	
Aroclor 1016 {5}	MULTI	AverageRF	% RSD	5.1	≤ 20	
Aroclor 1260 {1}	MULTI	AverageRF	% RSD	4.9	≤ 20	
Aroclor 1260 {2}	MULTI	AverageRF	% RSD	4.6	≤ 20	
Aroclor 1260 {3}	MULTI	AverageRF	% RSD	5.3	≤ 20	
Aroclor 1260 {4}	MULTI	AverageRF	% RSD	6.7	≤ 20	
Aroclor 1260 {5}	MULTI	AverageRF	% RSD	6.9	≤ 20	

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Calibration Date: 09/04/2019
Date Analyzed: 09/05/2019

Second Source Calibration Verification
Polychlorinated Biphenyls (PCBs)

Calibration Type: External Standard
Analysis Method: 8082A

Calibration ID: CAL16127
Units: ng/mL

File ID: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F045.D
 \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F046.D
 \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F047.D
 \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F049.D
 \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F050.D
 \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F051.D
 \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F052.D
 \\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F013.D
 \\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F014.D

Column ID: DB-35MS

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Aroclor 1016 {1}	20	20	34100	33400	-2	NA	± 100 %	AverageRF
Aroclor 1016 {2}	20	18	28000	25600	-9	NA	± 100 %	AverageRF
Aroclor 1016 {3}	20	18	86900	78700	-9	NA	± 100 %	AverageRF
Aroclor 1016 {4}	20	18	51300	47100	-8	NA	± 100 %	AverageRF
Aroclor 1016 {5}	20	18	35100	31700	-10	NA	± 100 %	AverageRF
Aroclor 1016	20	18	NA	NA	NA	-8	± 20 %	NA
Aroclor 1260 {1}	20	17	33500	28900	-14	NA	± 100 %	AverageRF
Aroclor 1260 {2}	20	22	46600	50500	8	NA	± 100 %	AverageRF
Aroclor 1260 {3}	20	20	50200	51200	2	NA	± 100 %	AverageRF
Aroclor 1260 {4}	20	20	106000	107000	0	NA	± 100 %	AverageRF
Aroclor 1260 {5}	20	19	79400	76800	-3	NA	± 100 %	AverageRF
Aroclor 1260	20	20	NA	NA	NA	-1	± 20 %	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Calibration Date: 09/04/2019

Initial Calibration Summary
Polychlorinated Biphenyls (PCBs)

Calibration ID: CAL16127
Instrument ID: GC27.i

Column: DB-XLB

Level ID	File ID	Level ID	File ID
A	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0904F005.D	V	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0904F026.D
B	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0904F006.D	W	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0904F027.D
C	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0904F007.D	X	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0904F028.D
D	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0904F008.D	Y	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0904F033.D
E	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0904F009.D	Z	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0904F034.D
F	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0904F010.D	AA	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0904F035.D
G	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0904F011.D	AB	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0904F036.D
H	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0904F012.D	AC	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0904F037.D
I	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0904F013.D	AD	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0904F038.D
J	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0904F014.D	AE	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0904F039.D
K	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0904F015.D	AF	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0904F040.D
L	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0904F016.D	AG	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0904F041.D
M	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0904F017.D	AH	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0904F042.D
N	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0904F018.D	AI	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0904F043.D
O	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0904F019.D	AJ	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0904F044.D
P	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0904F020.D	AK	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0909F009.D
Q	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0904F021.D	AL	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0909F010.D
R	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0904F022.D	AM	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0909F011.D
S	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0904F023.D	AN	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0909F012.D
T	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0904F024.D		
U	\\alksls002\instdata\GC27\Data\090419ICAL_r.b\0904F025.D		

Analyte Name	Level ID			Level ID			Level ID			Level ID			Level ID		
	Level ID	Amt	RF	Level ID	Amt	RF	Level ID	Amt	RF	Level ID	Amt	RF	Level ID	Amt	RF
Decachlorobiphenyl	A	0.10	4.62E+5	B	0.20	4.97E+5	C	0.50	4.53E+5	D	1.0	4.84E+5	E	2.0	4.96E+5
	F	5.0	4.31E+5	G	10	3.89E+5	H	20	3.60E+5						
Aroclor 1016 {1}	A	1.0	16100	B	2.0	14200	C	5.0	13800	D	10	14700	E	20	16600
	F	50	15800	G	100	15000	H	200	14200						
Aroclor 1016 {2}	A	1.0	23800	B	2.0	22200	C	5.0	21100	D	10	22900	E	20	24400
	F	50	22500	G	100	20600	H	200	19300						
Aroclor 1016 {3}	A	1.0	22100	B	2.0	23700	C	5.0	23700	D	10	25800	E	20	27200
	F	50	25400	G	100	23000	H	200	21900						
Aroclor 1016 {4}	A	1.0	20500	B	2.0	18200	C	5.0	16800	D	10	17800	E	20	19400
	F	50	17900	G	100	16500	H	200	15400						
Aroclor 1016 {5}	A	1.0	18300	B	2.0	16000	C	5.0	16300	D	10	17500	E	20	18600
	F	50	17200	G	100	15900	H	200	15000						
Aroclor 1260 {1}	A	1.0	13200	B	2.0	13400	C	5.0	14000	D	10	15100	E	20	15800
	F	50	15100	G	100	13700	H	200	13100						
Aroclor 1260 {2}	A	1.0	29200	B	2.0	26700	C	5.0	22500	D	10	22700	E	20	23400
	F	50	21200	G	100	19200	H	200	18500						

Results flagged with an asterisk (*) indicate values outside control criteria.

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Calibration Date: 09/04/2019

Initial Calibration Summary
Polychlorinated Biphenyls (PCBs)

Calibration ID: CAL16127
Instrument ID: GC27.i

Column: DB-XLB

Analyte Name	Level			Level			Level			Level					
	ID	Amt	RF	ID	Amt	RF	ID	Amt	RF	ID	Amt	RF			
Aroclor 1260 {3}	A	1.0	26800	B	2.0	24400	C	5.0	22900	D	10	23200	E	20	23600
	F	50	21600	G	100	19500	H	200	18200						
Aroclor 1260 {4}	A	1.0	57100	B	2.0	51900	C	5.0	49800	D	10	50300	E	20	50400
	F	50	44200	G	100	39600	H	200	36900						
Aroclor 1260 {5}	A	1.0	30900	B	2.0	27800	C	5.0	30800	D	10	32300	E	20	33000
	F	50	29500	G	100	26700	H	200	24500						

Results flagged with an asterisk (*) indicate values outside control criteria.

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Calibration Date: 09/04/2019

Initial Calibration Summary
Polychlorinated Biphenyls (PCBs)

Calibration ID: CAL16127
Instrument ID: GC27.i

Column: DB-XLB

Analyte Name	Compound Type	Calibration Evaluation				Control Criteria
		Fit Type	Eval.	Eval. Result	Q	
Decachlorobiphenyl	SURR	AverageRF	% RSD	11.3		≤ 20
Aroclor 1016 {1}	MULTI	AverageRF	% RSD	6.8		≤ 20
Aroclor 1016 {2}	MULTI	AverageRF	% RSD	7.8		≤ 20
Aroclor 1016 {3}	MULTI	AverageRF	% RSD	7.8		≤ 20
Aroclor 1016 {4}	MULTI	AverageRF	% RSD	9.0		≤ 20
Aroclor 1016 {5}	MULTI	AverageRF	% RSD	7.5		≤ 20
Aroclor 1260 {1}	MULTI	AverageRF	% RSD	7.1		≤ 20
Aroclor 1260 {2}	MULTI	AverageRF	% RSD	15.6		≤ 20
Aroclor 1260 {3}	MULTI	AverageRF	% RSD	12.1		≤ 20
Aroclor 1260 {4}	MULTI	AverageRF	% RSD	14.2		≤ 20
Aroclor 1260 {5}	MULTI	AverageRF	% RSD	9.8		≤ 20

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Calibration Date: 09/04/2019
Date Analyzed: 09/05/2019

Second Source Calibration Verification
Polychlorinated Biphenyls (PCBs)

Calibration Type: External Standard
Analysis Method: 8082A

Calibration ID: CAL16127
Units: ng/mL

File ID: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F045.D
 \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F046.D
 \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F047.D
 \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F049.D
 \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F050.D
 \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F051.D
 \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F052.D
 \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F013.D
 \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F014.D

Column ID: DB-XLB

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Aroclor 1016 {1}	20	21	15100	15500	3	NA	± 100 %	AverageRF
Aroclor 1016 {2}	20	20	22100	21600	-2	NA	± 100 %	AverageRF
Aroclor 1016 {3}	20	20	24100	24200	0	NA	± 100 %	AverageRF
Aroclor 1016 {4}	20	19	17800	17000	-4	NA	± 100 %	AverageRF
Aroclor 1016 {5}	20	20	16800	16800	0	NA	± 100 %	AverageRF
Aroclor 1016	20	20	NA	NA	NA	-1	± 20 %	NA
Aroclor 1260 {1}	20	21	14200	15000	6	NA	± 100 %	AverageRF
Aroclor 1260 {2}	20	21	22900	24600	7	NA	± 100 %	AverageRF
Aroclor 1260 {3}	20	21	22500	23400	4	NA	± 100 %	AverageRF
Aroclor 1260 {4}	20	20	47500	48700	2	NA	± 100 %	AverageRF
Aroclor 1260 {5}	20	20	29400	30000	2	NA	± 100 %	AverageRF
Aroclor 1260	20	21	NA	NA	NA	4	± 20 %	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

QA/QC Results

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Date Analyzed: 10/07/2019

Continuing Calibration Verification Summary
Polychlorinated Biphenyls (PCBs)

Calibration Type: External Standard
Analysis Method: 8082A

Calibration Date: 09/04/2019
Calibration ID: CAL16127
Analysis Lot: KWG1904382
Units: ng/mL
Column ID: DB-35MS

File ID: \\ALKLSWS002\INSTDATA\GC27\DATA\100719.B\1007F003.D

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	2.0	1.9	1090000	1060000	-3	NA	± 20	AverageRF
Aroclor 1016 {1}	20	20	34100	34400	1	NA	± 100	AverageRF
Aroclor 1016 {2}	20	20	28000	28600	2	NA	± 100	AverageRF
Aroclor 1016 {3}	20	18	86900	78400	-10	NA	± 100	AverageRF
Aroclor 1016 {4}	20	19	51300	49400	-4	NA	± 100	AverageRF
Aroclor 1016 {5}	20	20	35100	34900	-1	NA	± 100	AverageRF
Aroclor 1016	20	20	NA	NA	NA	-2	± 20	NA
Aroclor 1260 {1}	20	20	33500	33200	-1	NA	± 100	AverageRF
Aroclor 1260 {2}	20	21	46600	49300	6	NA	± 100	AverageRF
Aroclor 1260 {3}	20	21	50200	53200	6	NA	± 100	AverageRF
Aroclor 1260 {4}	20	21	106000	109000	3	NA	± 100	AverageRF
Aroclor 1260 {5}	20	20	79400	81300	2	NA	± 100	AverageRF
Aroclor 1260	20	21	NA	NA	NA	3	± 20	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Date Analyzed: 10/07/2019

Continuing Calibration Verification Summary
Polychlorinated Biphenyls (PCBs)

Calibration Type: External Standard
Analysis Method: 8082A

Calibration Date: 09/04/2019
Calibration ID: CAL16127
Analysis Lot: KWG1904382
Units: ng/mL
Column ID: DB-XLB

File ID: \\ALKLSWS002\INSTDATA\GC27\DATA\100719_R.B\1007F003.D

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	2.0	2.0	446000	451000	1	NA	± 20	AverageRF
Aroclor 1016 {1}	20	20	15100	15200	1	NA	± 100	AverageRF
Aroclor 1016 {2}	20	23	22100	25200	14	NA	± 100	AverageRF
Aroclor 1016 {3}	20	20	24100	24300	1	NA	± 100	AverageRF
Aroclor 1016 {4}	20	20	17800	17900	1	NA	± 100	AverageRF
Aroclor 1016 {5}	20	21	16800	17600	4	NA	± 100	AverageRF
Aroclor 1016	20	21	NA	NA	NA	4	± 20	NA
Aroclor 1260 {1}	20	22	14200	15700	11	NA	± 100	AverageRF
Aroclor 1260 {2}	20	20	22900	23500	2	NA	± 100	AverageRF
Aroclor 1260 {3}	20	21	22500	23800	6	NA	± 100	AverageRF
Aroclor 1260 {4}	20	20	47500	48500	2	NA	± 100	AverageRF
Aroclor 1260 {5}	20	21	29400	31200	6	NA	± 100	AverageRF
Aroclor 1260	20	21	NA	NA	NA	5	± 20	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Date Analyzed: 10/07/2019

Continuing Calibration Verification Summary
Polychlorinated Biphenyls (PCBs)

Calibration Type: External Standard
Analysis Method: 8082A

Calibration Date: 09/04/2019
Calibration ID: CAL16127
Analysis Lot: KWG1904382
Units: ng/mL
Column ID: DB-35MS

File ID: \\ALKLSWS002\INSTDATA\GC27\DATA\100719.B\1007F010.D

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	2.0	2.1	1090000	1120000	3	NA	± 20	AverageRF
Aroclor 1016 {1}	20	21	34100	36100	6	NA	± 100	AverageRF
Aroclor 1016 {2}	20	22	28000	30500	9	NA	± 100	AverageRF
Aroclor 1016 {3}	20	19	86900	83400	-4	NA	± 100	AverageRF
Aroclor 1016 {4}	20	21	51300	52800	3	NA	± 100	AverageRF
Aroclor 1016 {5}	20	21	35100	37100	6	NA	± 100	AverageRF
Aroclor 1016	20	21	NA	NA	NA	4	± 20	NA
Aroclor 1260 {1}	20	21	33500	34700	4	NA	± 100	AverageRF
Aroclor 1260 {2}	20	22	46600	51700	11	NA	± 100	AverageRF
Aroclor 1260 {3}	20	22	50200	55100	10	NA	± 100	AverageRF
Aroclor 1260 {4}	20	22	106000	114000	8	NA	± 100	AverageRF
Aroclor 1260 {5}	20	21	79400	84600	7	NA	± 100	AverageRF
Aroclor 1260	20	22	NA	NA	NA	8	± 20	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Date Analyzed: 10/07/2019

Continuing Calibration Verification Summary
Polychlorinated Biphenyls (PCBs)

Calibration Type: External Standard
Analysis Method: 8082A

Calibration Date: 09/04/2019
Calibration ID: CAL16127
Analysis Lot: KWG1904382
Units: ng/mL
Column ID: DB-XLB

File ID: \\ALKLSWS002\INSTDATA\GC27\DATA\100719_R.B\1007F010.D

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	2.0	2.1	446000	461000	3	NA	± 20	AverageRF
Aroclor 1016 {1}	20	23	15100	17100	13	NA	± 100	AverageRF
Aroclor 1016 {2}	20	25	22100	27600	25	NA	± 100	AverageRF
Aroclor 1016 {3}	20	22	24100	26500	10	NA	± 100	AverageRF
Aroclor 1016 {4}	20	22	17800	19200	8	NA	± 100	AverageRF
Aroclor 1016 {5}	20	23	16800	19100	13	NA	± 100	AverageRF
Aroclor 1016	20	23	NA	NA	NA	14	± 20	NA
Aroclor 1260 {1}	20	23	14200	16600	17	NA	± 100	AverageRF
Aroclor 1260 {2}	20	21	22900	24100	5	NA	± 100	AverageRF
Aroclor 1260 {3}	20	22	22500	24700	10	NA	± 100	AverageRF
Aroclor 1260 {4}	20	21	47500	50100	5	NA	± 100	AverageRF
Aroclor 1260 {5}	20	22	29400	32800	11	NA	± 100	AverageRF
Aroclor 1260	20	22	NA	NA	NA	10	± 20	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Date Analyzed: 10/10/2019

Continuing Calibration Verification Summary
Polychlorinated Biphenyls (PCBs)

Calibration Type: External Standard
Analysis Method: 8082A

Calibration Date: 09/04/2019
Calibration ID: CAL16127
Analysis Lot: KWG1904425
Units: ng/mL
Column ID: DB-35MS

File ID: \\ALKLSWS002\INSTDATA\GC27\DATA\101019B.B\1010F003.D

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	2.0	2.0	1090000	1070000	-2	NA	± 20	AverageRF
Aroclor 1016 {1}	20	20	34100	33900	-1	NA	± 100	AverageRF
Aroclor 1016 {2}	20	20	28000	28500	2	NA	± 100	AverageRF
Aroclor 1016 {3}	20	18	86900	79500	-9	NA	± 100	AverageRF
Aroclor 1016 {4}	20	19	51300	48900	-5	NA	± 100	AverageRF
Aroclor 1016 {5}	20	20	35100	35300	0	NA	± 100	AverageRF
Aroclor 1016	20	20	NA	NA	NA	-2	± 20	NA
Aroclor 1260 {1}	20	20	33500	32900	-2	NA	± 100	AverageRF
Aroclor 1260 {2}	20	21	46600	49300	6	NA	± 100	AverageRF
Aroclor 1260 {3}	20	21	50200	52900	6	NA	± 100	AverageRF
Aroclor 1260 {4}	20	21	106000	110000	3	NA	± 100	AverageRF
Aroclor 1260 {5}	20	20	79400	81200	2	NA	± 100	AverageRF
Aroclor 1260	20	21	NA	NA	NA	3	± 20	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Date Analyzed: 10/10/2019

Continuing Calibration Verification Summary
Polychlorinated Biphenyls (PCBs)

Calibration Type: External Standard
Analysis Method: 8082A

Calibration Date: 09/04/2019
Calibration ID: CAL16127
Analysis Lot: KWG1904425
Units: ng/mL
Column ID: DB-XLB

File ID: \\ALKLSWS002\INSTDATA\GC27\DATA\101019B_R.B\1010F003.D

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	2.0	2.0	446000	454000	2	NA	± 20	AverageRF
Aroclor 1016 {1}	20	20	15100	14800	-1	NA	± 100	AverageRF
Aroclor 1016 {2}	20	22	22100	24100	9	NA	± 100	AverageRF
Aroclor 1016 {3}	20	19	24100	23300	-3	NA	± 100	AverageRF
Aroclor 1016 {4}	20	19	17800	17200	-3	NA	± 100	AverageRF
Aroclor 1016 {5}	20	20	16800	16900	0	NA	± 100	AverageRF
Aroclor 1016	20	20	NA	NA	NA	0	± 20	NA
Aroclor 1260 {1}	20	22	14200	15400	8	NA	± 100	AverageRF
Aroclor 1260 {2}	20	20	22900	23100	1	NA	± 100	AverageRF
Aroclor 1260 {3}	20	21	22500	23900	6	NA	± 100	AverageRF
Aroclor 1260 {4}	20	21	47500	48900	3	NA	± 100	AverageRF
Aroclor 1260 {5}	20	21	29400	31500	7	NA	± 100	AverageRF
Aroclor 1260	20	21	NA	NA	NA	5	± 20	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Date Analyzed: 10/10/2019

Continuing Calibration Verification Summary
Polychlorinated Biphenyls (PCBs)

Calibration Type: External Standard
Analysis Method: 8082A

Calibration Date: 09/04/2019
Calibration ID: CAL16127
Analysis Lot: KWG1904425
Units: ng/mL
Column ID: DB-35MS

File ID: \\ALKLSWS002\INSTDATA\GC27\DATA\101019B.B\1010F009.D

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	2.0	2.0	1090000	1110000	1	NA	± 20	AverageRF
Aroclor 1016 {1}	20	20	34100	34100	0	NA	± 100	AverageRF
Aroclor 1016 {2}	20	20	28000	28400	1	NA	± 100	AverageRF
Aroclor 1016 {3}	20	19	86900	82500	-5	NA	± 100	AverageRF
Aroclor 1016 {4}	20	19	51300	49400	-4	NA	± 100	AverageRF
Aroclor 1016 {5}	20	20	35100	35000	0	NA	± 100	AverageRF
Aroclor 1016	20	20	NA	NA	NA	-2	± 20	NA
Aroclor 1260 {1}	20	20	33500	33300	0	NA	± 100	AverageRF
Aroclor 1260 {2}	20	21	46600	49700	7	NA	± 100	AverageRF
Aroclor 1260 {3}	20	21	50200	53700	7	NA	± 100	AverageRF
Aroclor 1260 {4}	20	21	106000	111000	5	NA	± 100	AverageRF
Aroclor 1260 {5}	20	21	79400	81900	3	NA	± 100	AverageRF
Aroclor 1260	20	21	NA	NA	NA	4	± 20	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Date Analyzed: 10/10/2019

Continuing Calibration Verification Summary
Polychlorinated Biphenyls (PCBs)

Calibration Type: External Standard
Analysis Method: 8082A

Calibration Date: 09/04/2019
Calibration ID: CAL16127
Analysis Lot: KWG1904425
Units: ng/mL
Column ID: DB-XLB

File ID: \\ALKLSWS002\INSTDATA\GC27\DATA\101019B_R.B\1010F009.D

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	2.0	2.0	446000	450000	1	NA	± 20	AverageRF
Aroclor 1016 {1}	20	21	15100	15600	4	NA	± 100	AverageRF
Aroclor 1016 {2}	20	23	22100	25000	13	NA	± 100	AverageRF
Aroclor 1016 {3}	20	20	24100	24400	1	NA	± 100	AverageRF
Aroclor 1016 {4}	20	20	17800	17800	0	NA	± 100	AverageRF
Aroclor 1016 {5}	20	21	16800	17700	5	NA	± 100	AverageRF
Aroclor 1016	20	21	NA	NA	NA	5	± 20	NA
Aroclor 1260 {1}	20	22	14200	15800	11	NA	± 100	AverageRF
Aroclor 1260 {2}	20	20	22900	22800	-1	NA	± 100	AverageRF
Aroclor 1260 {3}	20	21	22500	23600	5	NA	± 100	AverageRF
Aroclor 1260 {4}	20	20	47500	48400	2	NA	± 100	AverageRF
Aroclor 1260 {5}	20	21	29400	31100	6	NA	± 100	AverageRF
Aroclor 1260	20	21	NA	NA	NA	5	± 20	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014

Analysis Run Log
Polychlorinated Biphenyls (PCBs)

Analysis Method: 8082A

Analysis Lot: KWG1904382
Instrument ID: GC27.i
Column: DB-35MS

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
1007F003.D	Continuing Calibration Verification	KWG1904382-1	10/7/2019	10:30		10/7/2019	10:30
1007F004.D	Instrument Blank	KWG1904382-2	10/7/2019	11:02		10/7/2019	11:02
1007F005.D	Method Blank	KWG1904339-4	10/7/2019	11:34		10/7/2019	11:34
1007F006.D	Lab Control Sample	KWG1904339-3	10/7/2019	12:05		10/7/2019	12:05
1007F007.D	PS-GNB-052619	K1909014-006	10/7/2019	12:37		10/7/2019	12:37
1007F008.D	PS-GNB-052619MS	KWG1904339-1	10/7/2019	13:09		10/7/2019	13:09
1007F009.D	PS-GNB-052619DMS	KWG1904339-2	10/7/2019	13:40		10/7/2019	13:40
1007F010.D	Continuing Calibration Verification	KWG1904382-3	10/7/2019	14:12		10/7/2019	14:12
1007F011.D	Instrument Blank	KWG1904382-4	10/7/2019	14:43		10/7/2019	14:43
1007F012.D	ZZZZZZ	ZZZZZZ	10/7/2019	15:15		10/7/2019	15:15
1007F013.D	ZZZZZZ	ZZZZZZ	10/7/2019	15:47		10/7/2019	15:47
1007F015.D	ZZZZZZ	ZZZZZZ	10/7/2019	16:50		10/7/2019	16:50
1007F016.D	ZZZZZZ	ZZZZZZ	10/7/2019	17:21		10/7/2019	17:21
1007F020.D	Continuing Calibration Verification	KWG1904382-5	10/7/2019	19:28		10/7/2019	19:28
1007F021.D	Instrument Blank	KWG1904382-6	10/7/2019	19:59		10/7/2019	19:59

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014

Analysis Run Log
Polychlorinated Biphenyls (PCBs)

Analysis Method: 8082A

Analysis Lot: KWG1904425
Instrument ID: GC27.i
Column: DB-35MS

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
1010F003.D	Continuing Calibration Verification	KWG1904425-1	10/10/2019	11:21		10/10/2019	11:21
1010F004.D	Instrument Blank	KWG1904425-2	10/10/2019	11:53		10/10/2019	11:53
1010F005.D	Method Blank	KWG1904387-3	10/10/2019	12:24		10/10/2019	12:24
1010F006.D	Lab Control Sample	KWG1904387-1	10/10/2019	12:56		10/10/2019	12:56
1010F007.D	Duplicate Lab Control Sample	KWG1904387-2	10/10/2019	13:27		10/10/2019	13:27
1010F008.D	Black Owl Biochar	K1909014-007	10/10/2019	13:59		10/10/2019	13:59
1010F009.D	Continuing Calibration Verification	KWG1904425-3	10/10/2019	14:31		10/10/2019	14:31
1010F010.D	Instrument Blank	KWG1904425-4	10/10/2019	15:02		10/10/2019	15:02

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

QA/QC Results

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Extracted: 10/04/2019

Extraction Prep Log
Polychlorinated Biphenyls (PCBs)

Extraction Method: EPA 3546
Analysis Method: 8082A

Extraction Lot: KWG1904339
Level: Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
PS-GNB-052619	K1909014-006	09/25/19	09/27/19	2.113g	8mL	95	
Method Blank	KWG1904339-4	NA	NA	2.113g	8mL	NA	
PS-GNB-052619MS	KWG1904339-1	09/25/19	09/27/19	2.057g	8mL	95	
PS-GNB-052619DMS	KWG1904339-2	09/25/19	09/27/19	2.072g	8mL	95	
Lab Control Sample	KWG1904339-3	NA	NA	2.000g	8mL	NA	

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

QA/QC Results

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Extracted: 10/09/2019

Extraction Prep Log
Polychlorinated Biphenyls (PCBs)

Extraction Method: EPA 3541
Analysis Method: 8082A

Extraction Lot: KWG1904387
Level: Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
Black Owl Biochar	K1909014-007	09/25/19	09/27/19	2.012g	8mL	100	
Method Blank	KWG1904387-3	NA	NA	2.012g	8mL	NA	
Lab Control Sample	KWG1904387-1	NA	NA	2.000g	8mL	NA	
Duplicate Lab Control Sample	KWG1904387-2	NA	NA	2.000g	8mL	NA	

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis



Volatile Organic Compounds

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014

**Cover Page - Organic Analysis Data Package
Volatile Organic Compounds**

Sample Name	Lab Code	Date Collected	Date Received
TSP 052419	K1909014-001	09/25/2019	09/27/2019
Biosolids B	K1909014-002	09/25/2019	09/27/2019

Analytical Results

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Collected: 09/25/2019
Date Received: 09/27/2019

Volatile Organic Compounds

Sample Name: TSP 052419
Lab Code: K1909014-001
Extraction Method: EPA 5035A/5030B
Analysis Method: 8260C

Units: mg/Kg
Basis: Dry
Level: Med

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Acetone	ND	U	5.0	0.83	1	10/07/19	10/07/19	KWG1904386	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	100	55-132	10/07/19	Acceptable
Toluene-d8	106	81-124	10/07/19	Acceptable
4-Bromofluorobenzene	94	64-132	10/07/19	Acceptable

Comments: _____

Analytical Results

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Collected: 09/25/2019
Date Received: 09/27/2019

Volatile Organic Compounds

Sample Name: Biosolids B
Lab Code: K1909014-002
Extraction Method: EPA 5035A/5030B
Analysis Method: 8260C

Units: mg/Kg
Basis: Dry
Level: Med

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Acetone	2.5		2.2	0.35	1	10/07/19	10/07/19	KWG1904386	
2-Butanone (MEK)	0.74	J	2.2	0.21	1	10/07/19	10/07/19	KWG1904386	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	95	55-132	10/07/19	Acceptable
Toluene-d8	105	81-124	10/07/19	Acceptable
4-Bromofluorobenzene	94	64-132	10/07/19	Acceptable

Comments: _____

Analytical Results

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Sludge, solid

Service Request: K1909014
Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG1904386-3
Extraction Method: EPA 5035A/5030B
Analysis Method: 8260C

Units: mg/Kg
Basis: Dry
Level: Med

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Acetone	ND	U	2.0	0.33	1	10/07/19	10/07/19	KWG1904386	
2-Butanone (MEK)	ND	U	2.0	0.19	1	10/07/19	10/07/19	KWG1904386	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	95	55-132	10/07/19	Acceptable
Toluene-d8	104	81-124	10/07/19	Acceptable
4-Bromofluorobenzene	91	64-132	10/07/19	Acceptable

Comments: _____

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014

**Surrogate Recovery Summary
 Volatile Organic Compounds**

Extraction Method: EPA 5035A/5030B
Analysis Method: 8260C

Units: Percent
Level: Med

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>	<u>Sur2</u>	<u>Sur3</u>
TSP 052419	K1909014-001	100	106	94
Biosolids B	K1909014-002	95	105	94
Method Blank	KWG1904386-3	95	104	91
Lab Control Sample	KWG1904386-1	99	102	95
Duplicate Lab Control Sample	KWG1904386-2	100	103	92

Surrogate Recovery Control Limits (%)

Sur1 = Dibromofluoromethane	55-132
Sur2 = Toluene-d8	81-124
Sur3 = 4-Bromofluorobenzene	64-132

Results flagged with an asterisk (*) indicate values outside control criteria.
 Results flagged with a pound (#) indicate the control criteria is not applicable.

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Date Analyzed: 10/07/2019
Time Analyzed: 11:13

Internal Standard Area and RT Summary
Volatile Organic Compounds

File ID: J:\MS13\DATA\100719\1007F004.D
Instrument ID: MS13
Analysis Method: 8260C

Lab Code: KWG1904384-2
Analysis Lot: KWG1904384

	Fluorobenzene		Chlorobenzene-d5		1,4-Dichlorobenzene-d4	
	<u>Area</u>	<u>RT</u>	<u>Area</u>	<u>RT</u>	<u>Area</u>	<u>RT</u>
Results ==>	295,564	5.33	105,882	9.37	92,706	11.97
Upper Limit ==>	591,128	5.83	211,764	9.87	185,412	12.47
Lower Limit ==>	147,782	4.83	52,941	8.87	46,353	11.47
ICAL Result ==>	296,176	5.33	109,383	9.37	82,314	11.97

Associated Analyses

Lab Control Sample	KWG1904386-1	294,031	5.33	108,119	9.37	92,059	11.97
Duplicate Lab Control Sample	KWG1904386-2	284,113	5.33	107,650	9.37	86,214	11.97
Method Blank	KWG1904386-3	285,688	5.33	107,653	9.37	85,668	11.97
TSP 052419	K1909014-001	282,108	5.33	106,613	9.37	86,858	11.97
Biosolids B	K1909014-002	270,782	5.33	102,811	9.37	81,055	11.97

Results flagged with an asterisk (*) indicate values outside control criteria.

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Sludge, solid

Service Request: K1909014
Date Extracted: 10/07/2019
Date Analyzed: 10/07/2019

Lab Control Spike/Duplicate Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method: EPA 5035A/5030B
Analysis Method: 8260C

Units: mg/Kg
Basis: Dry
Level: Med
Extraction Lot: KWG1904386

Analyte Name	Lab Control Sample KWG1904386-1 Lab Control Spike			Duplicate Lab Control Sample KWG1904386-2 Duplicate Lab Control Spike			%Rec Limits	RPD	RPD Limit
	Result	Spike Amount	%Rec	Result	Spike Amount	%Rec			
Acetone	4.77	5.00	95	5.10	5.00	102	47-142	7	40
2-Butanone (MEK)	5.21	5.00	104	5.03	5.00	101	65-139	3	40

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Sludge, solid

Service Request: K1909014
Date Extracted: 10/07/2019
Date Analyzed: 10/07/2019
Time Analyzed: 14:44

Method Blank Summary
Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG1904386-3
Extraction Method: EPA 5035A/5030B
Analysis Method: 8260C

Instrument ID: MS13
File ID: J:\MS13\DATA\100719\1007F011.D
Level: Med
Extraction Lot: KWG1904386

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG1904386-1	J:\MS13\DATA\100719\1007F007.D	10/07/19	12:58
Duplicate Lab Control Sample	KWG1904386-2	J:\MS13\DATA\100719\1007F008.D	10/07/19	13:25
TSP 052419	K1909014-001	J:\MS13\DATA\100719\1007F012.D	10/07/19	15:48
Biosolids B	K1909014-002	J:\MS13\DATA\100719\1007F013.D	10/07/19	16:14

QA/QC Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Sludge, solid

Service Request: K1909014
Date Extracted: 10/07/2019
Date Analyzed: 10/07/2019
Time Analyzed: 12:58

Lab Control Sample Summary
Volatile Organic Compounds

Sample Name: Lab Control Sample
Lab Code: KWG1904386-1
Extraction Method: EPA 5035A/5030B
Analysis Method: 8260C

Instrument ID: MS13
File ID: J:\MS13\DATA\100719\1007F007.D
Level: Med
Extraction Lot: KWG1904386

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Method Blank	KWG1904386-3	J:\MS13\DATA\100719\1007F011.D	10/07/19	14:44
TSP 052419	K1909014-001	J:\MS13\DATA\100719\1007F012.D	10/07/19	15:48
Biosolids B	K1909014-002	J:\MS13\DATA\100719\1007F013.D	10/07/19	16:14

QA/QC Results

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Date Analyzed: 10/07/2019
Time Analyzed: 10:54

Tune Summary
Volatile Organic Compounds

File ID: J:\MS13\DATA\100719\1007F003.D
Instrument ID: MS13
Column:

Analysis Method: 8260C
Analysis Lot: KWG1904384

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	21.1	76442	PASS
75	95	30	60	51.1	185237	PASS
95	95	100	100	100.0	362432	PASS
96	95	5	9	7.0	25293	PASS
173	174	0	2	0.0	0	PASS
174	95	50	120	90.5	328128	PASS
175	174	5	9	8.3	27093	PASS
176	174	95	101	96.7	317141	PASS
177	176	5	9	6.9	21893	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG1904384-2	J:\MS13\DATA\100719\1007F004.D	10/07/2019	11:13	
Lab Control Sample	KWG1904386-1	J:\MS13\DATA\100719\1007F007.D	10/07/2019	12:58	
Duplicate Lab Control Sample	KWG1904386-2	J:\MS13\DATA\100719\1007F008.D	10/07/2019	13:25	
Method Blank	KWG1904386-3	J:\MS13\DATA\100719\1007F011.D	10/07/2019	14:44	
TSP 052419	K1909014-001	J:\MS13\DATA\100719\1007F012.D	10/07/2019	15:48	
Biosolids B	K1909014-002	J:\MS13\DATA\100719\1007F013.D	10/07/2019	16:14	

Results flagged with an asterisk (*) indicate the analysis performed outside specified tune window

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Calibration Date: 07/25/2019

**Initial Calibration Summary
 Volatile Organic Compounds**

Calibration ID: CAL16105
Instrument ID: MS13

Column: MS

Level ID	File ID	Level ID	File ID
A	F:\MS13\DATA\072519\0725F006.D	G	F:\MS13\DATA\072519\0725F012.D
B	F:\MS13\DATA\072519\0725F007.D	H	F:\MS13\DATA\072519\0725F014.D
C	F:\MS13\DATA\072519\0725F008.D	I	F:\MS13\DATA\072519\0725F015.D
D	F:\MS13\DATA\072519\0725F009.D	J	F:\MS13\DATA\072519\0725F016.D
E	F:\MS13\DATA\072519\0725F010.D	K	F:\MS13\DATA\072519\0725F020.D
F	F:\MS13\DATA\072519\0725F011.D		

Analyte Name	Level ID			Level ID			Level ID			Level ID		
	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF
Acetone	F	50	0.0366	G	100	0.0371	H	400	0.0372	I	600	0.0377
	K	200	0.0356							J	800	0.0367
							D	10	0.0404	E	20	0.0350
2-Butanone (MEK)	F	50	0.0130	G	100	0.0130	C	5.0	0.0131	D	10	0.0144
	K	200	0.0126				H	400	0.0134	I	600	0.0137
										J	800	0.0133
Dibromofluoromethane	F	8.0	0.224	G	10	0.227	H	14	0.247	D	4.0	0.192
	K	12	0.230							I	16	0.251
										J	20	0.245
Toluene-d8	F	8.0	0.976	G	10	1.00	H	14	1.01	D	4.0	0.871
	K	12	0.975							I	16	1.02
										J	20	1.01
4-Bromofluorobenzene	F	8.0	0.810	G	10	0.884	H	14	0.918	D	4.0	0.710
	K	12	0.848							I	16	0.901
										J	20	0.860

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Calibration Date: 07/25/2019

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL16105
Instrument ID: MS13

Column: MS

Analyte Name	Compound Type	Calibration Evaluation					RRF Evaluation		
		Fit Type	Eval.	Eval. Result	Q	Control Criteria	Average RRF	Q	Minimum RRF
Acetone	MS	AverageRF	% RSD	4.4		≤20	0.0370		0.01
2-Butanone (MEK)	MS	AverageRF	% RSD	5.7		≤20	0.0131		0.01
Dibromofluoromethane	SURR	AverageRF	% RSD	9.7		≤20	0.227		0.01
Toluene-d8	SURR	AverageRF	% RSD	5.7		≤20	0.970		0.01
4-Bromofluorobenzene	SURR	AverageRF	% RSD	8.9		≤20	0.835		0.01

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

QA/QC Results

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Calibration Date: 07/25/2019
Date Analyzed: 07/25/2019

Second Source Calibration Verification
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260C

Calibration ID: CAL16105
Units: PPB

File ID: I:\MS13\DATA\072519\0725F023.D

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Acetone	50	55	0.0370	0.0405	9	NA	± 30 %	AverageRF
2-Butanone (MEK)	50	53	0.0131	0.0140	7	NA	± 30 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

QA/QC Results

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Date Analyzed: 10/07/2019

Continuing Calibration Verification Summary
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260C

Calibration Date: 07/25/2019
Calibration ID: CAL16105
Analysis Lot: KWG1904384
Units: PPB

File ID: J:\MS13\DATA\100719\1007F004.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Acetone	100	110	0.01	0.0370	0.0410	11	NA	± 20	AverageRF
2-Butanone (MEK)	100	99	0.01	0.0131	0.0130	-1	NA	± 20	AverageRF
Dibromofluoromethane	10	10	0.01	0.227	0.226	0	NA	± 20	AverageRF
Toluene-d8	10	10	0.01	0.970	1.01	4	NA	± 20	AverageRF
4-Bromofluorobenzene	10	9.8	0.01	0.835	0.819	-2	NA	± 20	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014

Analysis Run Log
Volatile Organic Compounds

Analysis Method: 8260C

Analysis Lot: KWG1904384
Instrument ID: MS13

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
1007F003.D	GC/MS Tuning - Bromofluorobenzene	KWG1904384-1	10/7/2019	10:54		10/7/2019	10:57
1007F004.D	Continuing Calibration Verification	KWG1904384-2	10/7/2019	11:13		10/7/2019	11:29
1007F007.D	Lab Control Sample	KWG1904386-1	10/7/2019	12:58		10/7/2019	13:14
1007F008.D	Duplicate Lab Control Sample	KWG1904386-2	10/7/2019	13:25		10/7/2019	13:41
1007F011.D	Method Blank	KWG1904386-3	10/7/2019	14:44		10/7/2019	15:00
1007F012.D	TSP 052419	K1909014-001	10/7/2019	15:48		10/7/2019	16:04
1007F013.D	Biosolids B	K1909014-002	10/7/2019	16:14		10/7/2019	16:30
1007F014.D	ZZZZZZ	ZZZZZZ	10/7/2019	16:41		10/7/2019	16:57

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

QA/QC Results

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Extracted: 10/7/2019

Extraction Prep Log
Volatile Organic Compounds

Extraction Method: EPA 5035A/5030B
Analysis Method: 8260C

Extraction Lot: KWG1904386
Level: Med

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	MeOH Volume	MeOH Aliquot	Final Volume	% Solids	Note
TSP 052419	K1909014-001	09/25/19	09/27/19	2.09g	5.1ml	500uL	50ml	97.8	
Biosolids B	K1909014-002	09/25/19	09/27/19	5.07g	5.1ml	500uL	50ml	95.1	
Method Blank	KWG1904386-3	NA	NA	5g	5ml	500uL	50ml	NA	
Lab Control Sample	KWG1904386-1	NA	NA	5g	5ml	500uL	50ml	NA	
Duplicate Lab Control Sample	KWG1904386-2	NA	NA	5g	5ml	500uL	50ml	NA	

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis



Volatile Organic Compounds

ALS Environmental—Kelso Laboratory
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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Collected: 09/25/19 13:04
Date Received: 09/27/19 10:40

Sample Name: TSP 052419
Lab Code: K1909014-001

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Acetone	160	20	3.0	1	10/07/19 13:23	
Benzene	8.9	5.1	0.056	1	10/07/19 13:23	
Bromobenzene	ND U	5.1	0.090	1	10/07/19 13:23	
Bromochloromethane	ND U	5.1	0.25	1	10/07/19 13:23	
Bromodichloromethane	ND U	5.1	0.17	1	10/07/19 13:23	
Bromoform	ND U	5.1	0.15	1	10/07/19 13:23	
Bromomethane	2.0 J	5.1	0.21	1	10/07/19 13:23	
2-Butanone (MEK)	30	20	0.93	1	10/07/19 13:23	
n-Butylbenzene	ND U	20	0.071	1	10/07/19 13:23	*
sec-Butylbenzene	0.19 J	20	0.076	1	10/07/19 13:23	*
tert-Butylbenzene	ND U	20	0.15	1	10/07/19 13:23	
Carbon Disulfide	11	5.1	0.095	1	10/07/19 13:23	
Carbon Tetrachloride	ND U	5.1	0.097	1	10/07/19 13:23	
Chlorobenzene	ND U	5.1	0.067	1	10/07/19 13:23	
Chloroethane	1.6 J	5.1	0.76	1	10/07/19 13:23	
Chloroform	ND U	5.1	0.12	1	10/07/19 13:23	
Chloromethane	1.8 J	5.1	0.19	1	10/07/19 13:23	*
2-Chlorotoluene	0.35 J	20	0.13	1	10/07/19 13:23	
4-Chlorotoluene	ND U	20	0.090	1	10/07/19 13:23	
1,2-Dibromo-3-chloropropane	ND U	20	0.41	1	10/07/19 13:23	
Dibromochloromethane	ND U	5.1	0.19	1	10/07/19 13:23	
1,2-Dibromoethane (EDB)	ND U	20	0.097	1	10/07/19 13:23	
Dibromomethane	ND U	5.1	0.29	1	10/07/19 13:23	
1,2-Dichlorobenzene	ND U	5.1	0.079	1	10/07/19 13:23	
1,3-Dichlorobenzene	ND U	5.1	0.097	1	10/07/19 13:23	
1,4-Dichlorobenzene	ND U	5.1	0.088	1	10/07/19 13:23	
Dichlorodifluoromethane	ND U	5.1	0.13	1	10/07/19 13:23	*
1,1-Dichloroethane	ND U	5.1	0.13	1	10/07/19 13:23	
1,2-Dichloroethane (EDC)	ND U	5.1	0.072	1	10/07/19 13:23	
1,1-Dichloroethene	ND U	5.1	0.26	1	10/07/19 13:23	
cis-1,2-Dichloroethene	ND U	5.1	0.13	1	10/07/19 13:23	
trans-1,2-Dichloroethene	ND U	5.1	0.13	1	10/07/19 13:23	
1,2-Dichloropropane	ND U	5.1	0.14	1	10/07/19 13:23	
1,3-Dichloropropane	ND U	5.1	0.13	1	10/07/19 13:23	
2,2-Dichloropropane	ND U	5.1	0.11	1	10/07/19 13:23	
1,1-Dichloropropene	ND U	5.1	0.14	1	10/07/19 13:23	
cis-1,3-Dichloropropene	ND U	5.1	0.14	1	10/07/19 13:23	
trans-1,3-Dichloropropene	ND U	5.1	0.12	1	10/07/19 13:23	
Ethylbenzene	5.2	5.1	0.097	1	10/07/19 13:23	
Hexachlorobutadiene	ND U	20	0.41	1	10/07/19 13:23	*
2-Hexanone	ND U	20	0.96	1	10/07/19 13:23	
Isopropylbenzene	0.38 J	20	0.083	1	10/07/19 13:23	*
4-Isopropyltoluene	0.30 J	20	0.066	1	10/07/19 13:23	*

ALS Group USA, Corp.
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Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Collected: 09/25/19 13:04
Date Received: 09/27/19 10:40

Sample Name: TSP 052419
Lab Code: K1909014-001

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
4-Methyl-2-pentanone (MIBK)	ND U	20	1.9	1	10/07/19 13:23	
Methylene Chloride	1.2 J	10	0.17	1	10/07/19 13:23	
Naphthalene	0.96 J	20	0.14	1	10/07/19 13:23	
n-Propylbenzene	0.73 J	20	0.14	1	10/07/19 13:23	
Styrene	0.32 J	5.1	0.15	1	10/07/19 13:23	
1,1,1,2-Tetrachloroethane	ND U	5.1	0.12	1	10/07/19 13:23	
1,1,2,2-Tetrachloroethane	ND U	5.1	0.14	1	10/07/19 13:23	
Tetrachloroethene (PCE)	ND U	5.1	0.17	1	10/07/19 13:23	
Toluene	11	5.1	0.16	1	10/07/19 13:23	
1,2,3-Trichlorobenzene	ND U	20	0.20	1	10/07/19 13:23	
1,2,4-Trichlorobenzene	ND U	20	0.14	1	10/07/19 13:23	
1,1,2-Trichloroethane	ND U	5.1	0.16	1	10/07/19 13:23	
1,1,1-Trichloroethane (TCA)	ND U	5.1	0.12	1	10/07/19 13:23	
Trichloroethene (TCE)	ND U	5.1	0.16	1	10/07/19 13:23	
Trichlorofluoromethane (CFC 11)	ND U	5.1	0.087	1	10/07/19 13:23	
1,2,3-Trichloropropane	ND U	5.1	0.47	1	10/07/19 13:23	
1,2,4-Trimethylbenzene	3.4 J	20	0.056	1	10/07/19 13:23	
1,3,5-Trimethylbenzene	0.43 J	20	0.095	1	10/07/19 13:23	
Vinyl Chloride	ND U	5.1	0.19	1	10/07/19 13:23	
o-Xylene	2.4 J	5.1	0.083	1	10/07/19 13:23	
m,p-Xylenes	5.2	5.1	0.11	1	10/07/19 13:23	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	88 - 127	10/07/19 13:23	
Dibromofluoromethane	103	82 - 146	10/07/19 13:23	
Toluene-d8	108	90 - 142	10/07/19 13:23	

ALS Group USA, Corp.
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Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Collected: 09/25/19 13:35
Date Received: 09/27/19 10:40

Sample Name: Biosolids B
Lab Code: K1909014-002

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Benzene	2.1 J	13	0.14	1	10/07/19 13:44	
Bromobenzene	ND U	13	0.23	1	10/07/19 13:44	*
Bromochloromethane	ND U	13	0.61	1	10/07/19 13:44	
Bromodichloromethane	ND U	13	0.41	1	10/07/19 13:44	
Bromoform	ND U	13	0.36	1	10/07/19 13:44	
Bromomethane	ND U	13	0.51	1	10/07/19 13:44	
n-Butylbenzene	ND U	51	0.18	1	10/07/19 13:44	*
sec-Butylbenzene	ND U	51	0.19	1	10/07/19 13:44	*
tert-Butylbenzene	ND U	51	0.36	1	10/07/19 13:44	*
Carbon Disulfide	100	13	0.24	1	10/07/19 13:44	
Carbon Tetrachloride	ND U	13	0.24	1	10/07/19 13:44	
Chlorobenzene	ND U	13	0.17	1	10/07/19 13:44	
Chloroethane	ND U	13	1.9	1	10/07/19 13:44	
Chloroform	ND U	13	0.28	1	10/07/19 13:44	
Chloromethane	2.9 J	13	0.46	1	10/07/19 13:44	*
2-Chlorotoluene	ND U	51	0.31	1	10/07/19 13:44	*
4-Chlorotoluene	ND U	51	0.23	1	10/07/19 13:44	*
1,2-Dibromo-3-chloropropane	ND U	51	1.1	1	10/07/19 13:44	*
Dibromochloromethane	ND U	13	0.46	1	10/07/19 13:44	
1,2-Dibromoethane (EDB)	ND U	51	0.24	1	10/07/19 13:44	
Dibromomethane	ND U	13	0.72	1	10/07/19 13:44	
1,2-Dichlorobenzene	ND U	13	0.20	1	10/07/19 13:44	*
1,3-Dichlorobenzene	ND U	13	0.24	1	10/07/19 13:44	*
1,4-Dichlorobenzene	2.8 J	13	0.22	1	10/07/19 13:44	*
Dichlorodifluoromethane	ND U	13	0.31	1	10/07/19 13:44	*
1,1-Dichloroethane	ND U	13	0.31	1	10/07/19 13:44	
1,2-Dichloroethane (EDC)	ND U	13	0.18	1	10/07/19 13:44	
1,1-Dichloroethene	ND U	13	0.64	1	10/07/19 13:44	
cis-1,2-Dichloroethene	ND U	13	0.31	1	10/07/19 13:44	
trans-1,2-Dichloroethene	ND U	13	0.31	1	10/07/19 13:44	
1,2-Dichloropropane	ND U	13	0.34	1	10/07/19 13:44	
1,3-Dichloropropane	ND U	13	0.31	1	10/07/19 13:44	
2,2-Dichloropropane	ND U	13	0.25	1	10/07/19 13:44	
1,1-Dichloropropene	ND U	13	0.34	1	10/07/19 13:44	
cis-1,3-Dichloropropene	ND U	13	0.34	1	10/07/19 13:44	
trans-1,3-Dichloropropene	ND U	13	0.28	1	10/07/19 13:44	
Ethylbenzene	ND U	13	0.24	1	10/07/19 13:44	
Hexachlorobutadiene	ND U	51	1.1	1	10/07/19 13:44	*
2-Hexanone	98	51	2.4	1	10/07/19 13:44	
Isopropylbenzene	ND U	51	0.21	1	10/07/19 13:44	*
4-Isopropyltoluene	48 J	51	0.17	1	10/07/19 13:44	*
4-Methyl-2-pentanone (MIBK)	40 J	51	4.6	1	10/07/19 13:44	
Methylene Chloride	3.4 J	25	0.41	1	10/07/19 13:44	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Collected: 09/25/19 13:35
Date Received: 09/27/19 10:40

Sample Name: Biosolids B
Lab Code: K1909014-002

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Naphthalene	2.2 J	51	0.34	1	10/07/19 13:44	*
n-Propylbenzene	ND U	51	0.34	1	10/07/19 13:44	*
Styrene	ND U	13	0.36	1	10/07/19 13:44	
1,1,1,2-Tetrachloroethane	ND U	13	0.28	1	10/07/19 13:44	
1,1,2,2-Tetrachloroethane	ND U	13	0.34	1	10/07/19 13:44	*
Tetrachloroethene (PCE)	ND U	13	0.41	1	10/07/19 13:44	
Toluene	3.9 J	13	0.39	1	10/07/19 13:44	
1,2,3-Trichlorobenzene	ND U	51	0.49	1	10/07/19 13:44	*
1,2,4-Trichlorobenzene	ND U	51	0.34	1	10/07/19 13:44	*
1,1,2-Trichloroethane	ND U	13	0.39	1	10/07/19 13:44	
1,1,1-Trichloroethane (TCA)	ND U	13	0.28	1	10/07/19 13:44	
Trichloroethene (TCE)	ND U	13	0.39	1	10/07/19 13:44	
Trichlorofluoromethane (CFC 11)	ND U	13	0.22	1	10/07/19 13:44	
1,2,3-Trichloropropane	ND U	13	1.2	1	10/07/19 13:44	*
1,2,4-Trimethylbenzene	ND U	51	0.14	1	10/07/19 13:44	*
1,3,5-Trimethylbenzene	ND U	51	0.24	1	10/07/19 13:44	*
Vinyl Chloride	ND U	13	0.46	1	10/07/19 13:44	
o-Xylene	ND U	13	0.21	1	10/07/19 13:44	
m,p-Xylenes	2.9 J	13	0.26	1	10/07/19 13:44	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	88 - 127	10/07/19 13:44	
Dibromofluoromethane	109	82 - 146	10/07/19 13:44	
Toluene-d8	95	90 - 142	10/07/19 13:44	

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Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Collected: 09/25/19 13:14
Date Received: 09/27/19 10:40

Sample Name: Muriate of Potash 0-0-60
Lab Code: K1909014-003

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Acetone	12 J	20	2.9	1	10/07/19 14:05	
Benzene	0.56 J	5.0	0.054	1	10/07/19 14:05	
Bromobenzene	ND U	5.0	0.088	1	10/07/19 14:05	
Bromochloromethane	ND U	5.0	0.24	1	10/07/19 14:05	
Bromodichloromethane	ND U	5.0	0.16	1	10/07/19 14:05	
Bromoform	ND U	5.0	0.14	1	10/07/19 14:05	
Bromomethane	ND U	5.0	0.20	1	10/07/19 14:05	
2-Butanone (MEK)	ND U	20	0.90	1	10/07/19 14:05	
n-Butylbenzene	ND U	20	0.069	1	10/07/19 14:05	*
sec-Butylbenzene	ND U	20	0.074	1	10/07/19 14:05	*
tert-Butylbenzene	ND U	20	0.14	1	10/07/19 14:05	
Carbon Disulfide	ND U	5.0	0.092	1	10/07/19 14:05	
Carbon Tetrachloride	ND U	5.0	0.094	1	10/07/19 14:05	
Chlorobenzene	ND U	5.0	0.065	1	10/07/19 14:05	
Chloroethane	ND U	5.0	0.74	1	10/07/19 14:05	
Chloroform	ND U	5.0	0.11	1	10/07/19 14:05	
Chloromethane	0.75 J	5.0	0.18	1	10/07/19 14:05	*
2-Chlorotoluene	ND U	20	0.12	1	10/07/19 14:05	
4-Chlorotoluene	ND U	20	0.088	1	10/07/19 14:05	
1,2-Dibromo-3-chloropropane	ND U	20	0.40	1	10/07/19 14:05	
Dibromochloromethane	ND U	5.0	0.18	1	10/07/19 14:05	
1,2-Dibromoethane (EDB)	ND U	20	0.094	1	10/07/19 14:05	
Dibromomethane	ND U	5.0	0.28	1	10/07/19 14:05	
1,2-Dichlorobenzene	ND U	5.0	0.077	1	10/07/19 14:05	
1,3-Dichlorobenzene	ND U	5.0	0.094	1	10/07/19 14:05	
1,4-Dichlorobenzene	ND U	5.0	0.086	1	10/07/19 14:05	
Dichlorodifluoromethane	ND U	5.0	0.12	1	10/07/19 14:05	*
1,1-Dichloroethane	ND U	5.0	0.12	1	10/07/19 14:05	
1,2-Dichloroethane (EDC)	ND U	5.0	0.070	1	10/07/19 14:05	
1,1-Dichloroethene	ND U	5.0	0.25	1	10/07/19 14:05	
cis-1,2-Dichloroethene	ND U	5.0	0.12	1	10/07/19 14:05	
trans-1,2-Dichloroethene	ND U	5.0	0.12	1	10/07/19 14:05	
1,2-Dichloropropane	ND U	5.0	0.13	1	10/07/19 14:05	
1,3-Dichloropropane	ND U	5.0	0.12	1	10/07/19 14:05	
2,2-Dichloropropane	ND U	5.0	0.098	1	10/07/19 14:05	
1,1-Dichloropropene	ND U	5.0	0.13	1	10/07/19 14:05	
cis-1,3-Dichloropropene	ND U	5.0	0.13	1	10/07/19 14:05	
trans-1,3-Dichloropropene	ND U	5.0	0.11	1	10/07/19 14:05	
Ethylbenzene	0.25 J	5.0	0.094	1	10/07/19 14:05	
Hexachlorobutadiene	ND U	20	0.40	1	10/07/19 14:05	*
2-Hexanone	ND U	20	0.93	1	10/07/19 14:05	
Isopropylbenzene	ND U	20	0.081	1	10/07/19 14:05	*
4-Isopropyltoluene	ND U	20	0.064	1	10/07/19 14:05	*

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Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Collected: 09/25/19 13:14
Date Received: 09/27/19 10:40

Sample Name: Muriate of Potash 0-0-60
Lab Code: K1909014-003

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
4-Methyl-2-pentanone (MIBK)	ND U	20	1.8	1	10/07/19 14:05	
Methylene Chloride	1.2 J	10	0.16	1	10/07/19 14:05	
Naphthalene	0.33 J	20	0.13	1	10/07/19 14:05	
n-Propylbenzene	ND U	20	0.13	1	10/07/19 14:05	
Styrene	ND U	5.0	0.14	1	10/07/19 14:05	
1,1,1,2-Tetrachloroethane	ND U	5.0	0.11	1	10/07/19 14:05	
1,1,2,2-Tetrachloroethane	ND U	5.0	0.13	1	10/07/19 14:05	
Tetrachloroethene (PCE)	ND U	5.0	0.16	1	10/07/19 14:05	
Toluene	1.0 J	5.0	0.15	1	10/07/19 14:05	
1,2,3-Trichlorobenzene	ND U	20	0.19	1	10/07/19 14:05	
1,2,4-Trichlorobenzene	ND U	20	0.13	1	10/07/19 14:05	
1,1,2-Trichloroethane	ND U	5.0	0.15	1	10/07/19 14:05	
1,1,1-Trichloroethane (TCA)	ND U	5.0	0.11	1	10/07/19 14:05	
Trichloroethene (TCE)	ND U	5.0	0.15	1	10/07/19 14:05	
Trichlorofluoromethane (CFC 11)	ND U	5.0	0.085	1	10/07/19 14:05	
1,2,3-Trichloropropane	ND U	5.0	0.45	1	10/07/19 14:05	
1,2,4-Trimethylbenzene	ND U	20	0.054	1	10/07/19 14:05	
1,3,5-Trimethylbenzene	ND U	20	0.092	1	10/07/19 14:05	
Vinyl Chloride	ND U	5.0	0.18	1	10/07/19 14:05	
o-Xylene	ND U	5.0	0.081	1	10/07/19 14:05	
m,p-Xylenes	0.54 J	5.0	0.10	1	10/07/19 14:05	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	88 - 127	10/07/19 14:05	
Dibromofluoromethane	105	82 - 146	10/07/19 14:05	
Toluene-d8	114	90 - 142	10/07/19 14:05	

ALS Group USA, Corp.
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Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Collected: 09/25/19 13:23
Date Received: 09/27/19 10:40

Sample Name: Landfill Ash 5-13-19
Lab Code: K1909014-004

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Acetone	130	76	12	1	10/07/19 14:26	*
Benzene	ND U	19	0.21	1	10/07/19 14:26	*
Bromobenzene	ND U	19	0.34	1	10/07/19 14:26	*
Bromochloromethane	ND U	19	0.92	1	10/07/19 14:26	*
Bromodichloromethane	ND U	19	0.62	1	10/07/19 14:26	*
Bromoform	ND U	19	0.54	1	10/07/19 14:26	*
Bromomethane	ND U	19	0.77	1	10/07/19 14:26	*
2-Butanone (MEK)	ND U	76	3.5	1	10/07/19 14:26	*
n-Butylbenzene	ND U	76	0.27	1	10/07/19 14:26	*
sec-Butylbenzene	ND U	76	0.29	1	10/07/19 14:26	*
tert-Butylbenzene	ND U	76	0.54	1	10/07/19 14:26	*
Carbon Disulfide	ND U	19	0.36	1	10/07/19 14:26	*
Carbon Tetrachloride	ND U	19	0.36	1	10/07/19 14:26	*
Chlorobenzene	ND U	19	0.25	1	10/07/19 14:26	*
Chloroethane	ND U	19	2.9	1	10/07/19 14:26	*
Chloroform	ND U	19	0.42	1	10/07/19 14:26	*
Chloromethane	ND U	19	0.69	1	10/07/19 14:26	*
2-Chlorotoluene	ND U	76	0.46	1	10/07/19 14:26	*
4-Chlorotoluene	ND U	76	0.34	1	10/07/19 14:26	*
1,2-Dibromo-3-chloropropane	ND U	76	1.6	1	10/07/19 14:26	*
Dibromochloromethane	ND U	19	0.69	1	10/07/19 14:26	*
1,2-Dibromoethane (EDB)	ND U	76	0.36	1	10/07/19 14:26	*
Dibromomethane	ND U	19	1.1	1	10/07/19 14:26	*
1,2-Dichlorobenzene	ND U	19	0.30	1	10/07/19 14:26	*
1,3-Dichlorobenzene	ND U	19	0.36	1	10/07/19 14:26	*
1,4-Dichlorobenzene	ND U	19	0.33	1	10/07/19 14:26	*
Dichlorodifluoromethane	ND U	19	0.46	1	10/07/19 14:26	*
1,1-Dichloroethane	ND U	19	0.46	1	10/07/19 14:26	*
1,2-Dichloroethane (EDC)	ND U	19	0.27	1	10/07/19 14:26	*
1,1-Dichloroethene	ND U	19	0.96	1	10/07/19 14:26	*
cis-1,2-Dichloroethene	ND U	19	0.46	1	10/07/19 14:26	*
trans-1,2-Dichloroethene	ND U	19	0.46	1	10/07/19 14:26	*
1,2-Dichloropropane	ND U	19	0.50	1	10/07/19 14:26	*
1,3-Dichloropropane	ND U	19	0.46	1	10/07/19 14:26	*
2,2-Dichloropropane	ND U	19	0.38	1	10/07/19 14:26	*
1,1-Dichloropropene	ND U	19	0.50	1	10/07/19 14:26	*
cis-1,3-Dichloropropene	ND U	19	0.50	1	10/07/19 14:26	*
trans-1,3-Dichloropropene	ND U	19	0.42	1	10/07/19 14:26	*
Ethylbenzene	ND U	19	0.36	1	10/07/19 14:26	*
Hexachlorobutadiene	ND U	76	1.6	1	10/07/19 14:26	*
2-Hexanone	ND U	76	3.6	1	10/07/19 14:26	*
Isopropylbenzene	ND U	76	0.31	1	10/07/19 14:26	*
4-Isopropyltoluene	ND U	76	0.25	1	10/07/19 14:26	*

ALS Group USA, Corp.
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Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Collected: 09/25/19 13:23
Date Received: 09/27/19 10:40

Sample Name: Landfill Ash 5-13-19
Lab Code: K1909014-004

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
4-Methyl-2-pentanone (MIBK)	ND U	76	6.9	1	10/07/19 14:26	*
Methylene Chloride	9.2 J	38	0.62	1	10/07/19 14:26	*
Naphthalene	ND U	76	0.50	1	10/07/19 14:26	*
n-Propylbenzene	ND U	76	0.50	1	10/07/19 14:26	*
Styrene	ND U	19	0.54	1	10/07/19 14:26	*
1,1,1,2-Tetrachloroethane	ND U	19	0.42	1	10/07/19 14:26	*
1,1,2,2-Tetrachloroethane	ND U	19	0.50	1	10/07/19 14:26	*
Tetrachloroethene (PCE)	ND U	19	0.62	1	10/07/19 14:26	*
Toluene	ND U	19	0.58	1	10/07/19 14:26	*
1,2,3-Trichlorobenzene	ND U	76	0.73	1	10/07/19 14:26	*
1,2,4-Trichlorobenzene	ND U	76	0.50	1	10/07/19 14:26	*
1,1,2-Trichloroethane	ND U	19	0.58	1	10/07/19 14:26	*
1,1,1-Trichloroethane (TCA)	ND U	19	0.42	1	10/07/19 14:26	*
Trichloroethene (TCE)	ND U	19	0.58	1	10/07/19 14:26	*
Trichlorofluoromethane (CFC 11)	ND U	19	0.33	1	10/07/19 14:26	*
1,2,3-Trichloropropane	ND U	19	1.8	1	10/07/19 14:26	*
1,2,4-Trimethylbenzene	ND U	76	0.21	1	10/07/19 14:26	*
1,3,5-Trimethylbenzene	ND U	76	0.36	1	10/07/19 14:26	*
Vinyl Chloride	ND U	19	0.69	1	10/07/19 14:26	*
o-Xylene	ND U	19	0.31	1	10/07/19 14:26	*
m,p-Xylenes	ND U	19	0.39	1	10/07/19 14:26	*

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	72	88 - 127	10/07/19 14:26	*
Dibromofluoromethane	108	82 - 146	10/07/19 14:26	
Toluene-d8	96	90 - 142	10/07/19 14:26	

ALS Group USA, Corp.
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Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Collected: 09/25/19 13:42
Date Received: 09/27/19 10:40

Sample Name: PS-GNB-052619
Lab Code: K1909014-006

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Acetone	2900	100	15	1	10/07/19 14:47	
Benzene	ND U	26	0.28	1	10/07/19 14:47	
Bromobenzene	ND U	26	0.46	1	10/07/19 14:47	*
Bromochloromethane	ND U	26	1.3	1	10/07/19 14:47	
Bromodichloromethane	ND U	26	0.83	1	10/07/19 14:47	
Bromoform	ND U	26	0.73	1	10/07/19 14:47	
Bromomethane	ND U	26	1.1	1	10/07/19 14:47	
2-Butanone (MEK)	150	100	4.7	1	10/07/19 14:47	
n-Butylbenzene	ND U	100	0.36	1	10/07/19 14:47	*
sec-Butylbenzene	ND U	100	0.39	1	10/07/19 14:47	*
tert-Butylbenzene	ND U	100	0.73	1	10/07/19 14:47	*
Carbon Disulfide	ND U	26	0.48	1	10/07/19 14:47	
Carbon Tetrachloride	ND U	26	0.49	1	10/07/19 14:47	
Chlorobenzene	ND U	26	0.34	1	10/07/19 14:47	
Chloroethane	ND U	26	3.9	1	10/07/19 14:47	
Chloroform	ND U	26	0.57	1	10/07/19 14:47	
Chloromethane	15 J	26	0.93	1	10/07/19 14:47	*
2-Chlorotoluene	ND U	100	0.62	1	10/07/19 14:47	*
4-Chlorotoluene	ND U	100	0.46	1	10/07/19 14:47	*
1,2-Dibromo-3-chloropropane	ND U	100	2.1	1	10/07/19 14:47	*
Dibromochloromethane	ND U	26	0.93	1	10/07/19 14:47	
1,2-Dibromoethane (EDB)	ND U	100	0.49	1	10/07/19 14:47	
Dibromomethane	ND U	26	1.5	1	10/07/19 14:47	
1,2-Dichlorobenzene	ND U	26	0.40	1	10/07/19 14:47	*
1,3-Dichlorobenzene	ND U	26	0.49	1	10/07/19 14:47	*
1,4-Dichlorobenzene	ND U	26	0.45	1	10/07/19 14:47	*
Dichlorodifluoromethane	ND U	26	0.62	1	10/07/19 14:47	*
1,1-Dichloroethane	ND U	26	0.62	1	10/07/19 14:47	
1,2-Dichloroethane (EDC)	ND U	26	0.37	1	10/07/19 14:47	
1,1-Dichloroethene	ND U	26	1.3	1	10/07/19 14:47	
cis-1,2-Dichloroethene	ND U	26	0.62	1	10/07/19 14:47	
trans-1,2-Dichloroethene	ND U	26	0.62	1	10/07/19 14:47	
1,2-Dichloropropane	ND U	26	0.68	1	10/07/19 14:47	
1,3-Dichloropropane	ND U	26	0.62	1	10/07/19 14:47	
2,2-Dichloropropane	ND U	26	0.51	1	10/07/19 14:47	
1,1-Dichloropropene	ND U	26	0.68	1	10/07/19 14:47	
cis-1,3-Dichloropropene	ND U	26	0.68	1	10/07/19 14:47	
trans-1,3-Dichloropropene	ND U	26	0.57	1	10/07/19 14:47	
Ethylbenzene	ND U	26	0.49	1	10/07/19 14:47	
Hexachlorobutadiene	ND U	100	2.1	1	10/07/19 14:47	*
2-Hexanone	ND U	100	4.8	1	10/07/19 14:47	
Isopropylbenzene	ND U	100	0.42	1	10/07/19 14:47	*
4-Isopropyltoluene	160	100	0.34	1	10/07/19 14:47	*

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Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Collected: 09/25/19 13:42
Date Received: 09/27/19 10:40

Sample Name: PS-GNB-052619
Lab Code: K1909014-006

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
4-Methyl-2-pentanone (MIBK)	ND U	100	9.3	1	10/07/19 14:47	
Methylene Chloride	6.8 J	52	0.83	1	10/07/19 14:47	
Naphthalene	ND U	100	0.68	1	10/07/19 14:47	*
n-Propylbenzene	ND U	100	0.68	1	10/07/19 14:47	*
Styrene	ND U	26	0.73	1	10/07/19 14:47	
1,1,1,2-Tetrachloroethane	ND U	26	0.57	1	10/07/19 14:47	
1,1,2,2-Tetrachloroethane	ND U	26	0.68	1	10/07/19 14:47	*
Tetrachloroethene (PCE)	ND U	26	0.83	1	10/07/19 14:47	
Toluene	26	26	0.78	1	10/07/19 14:47	
1,2,3-Trichlorobenzene	ND U	100	0.99	1	10/07/19 14:47	*
1,2,4-Trichlorobenzene	ND U	100	0.68	1	10/07/19 14:47	*
1,1,2-Trichloroethane	ND U	26	0.78	1	10/07/19 14:47	
1,1,1-Trichloroethane (TCA)	ND U	26	0.57	1	10/07/19 14:47	
Trichloroethene (TCE)	ND U	26	0.78	1	10/07/19 14:47	
Trichlorofluoromethane (CFC 11)	ND U	26	0.44	1	10/07/19 14:47	
1,2,3-Trichloropropane	ND U	26	2.4	1	10/07/19 14:47	*
1,2,4-Trimethylbenzene	ND U	100	0.28	1	10/07/19 14:47	*
1,3,5-Trimethylbenzene	ND U	100	0.48	1	10/07/19 14:47	*
Vinyl Chloride	ND U	26	0.93	1	10/07/19 14:47	
o-Xylene	ND U	26	0.42	1	10/07/19 14:47	
m,p-Xylenes	ND U	26	0.52	1	10/07/19 14:47	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	85	88 - 127	10/07/19 14:47	*
Dibromofluoromethane	105	82 - 146	10/07/19 14:47	
Toluene-d8	102	90 - 142	10/07/19 14:47	

ALS Group USA, Corp.
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Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Collected: 09/25/19 13:50
Date Received: 09/27/19 10:40

Sample Name: Black Owl Biochar
Lab Code: K1909014-007

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Acetone	1800	280	41	1	10/07/19 15:08	*
Benzene	ND U	69	0.75	1	10/07/19 15:08	*
Bromobenzene	ND U	69	1.3	1	10/07/19 15:08	*
Bromochloromethane	ND U	69	3.4	1	10/07/19 15:08	*
Bromodichloromethane	ND U	69	2.3	1	10/07/19 15:08	*
Bromoform	ND U	69	2.0	1	10/07/19 15:08	*
Bromomethane	ND U	69	2.8	1	10/07/19 15:08	*
2-Butanone (MEK)	ND U	280	13	1	10/07/19 15:08	*
n-Butylbenzene	ND U	280	0.96	1	10/07/19 15:08	*
sec-Butylbenzene	ND U	280	1.1	1	10/07/19 15:08	*
tert-Butylbenzene	ND U	280	2.0	1	10/07/19 15:08	*
Carbon Disulfide	ND U	69	1.3	1	10/07/19 15:08	*
Carbon Tetrachloride	ND U	69	1.4	1	10/07/19 15:08	*
Chlorobenzene	ND U	69	0.91	1	10/07/19 15:08	*
Chloroethane	ND U	69	11	1	10/07/19 15:08	*
Chloroform	ND U	69	1.6	1	10/07/19 15:08	*
Chloromethane	ND U	69	2.5	1	10/07/19 15:08	*
2-Chlorotoluene	ND U	280	1.7	1	10/07/19 15:08	*
4-Chlorotoluene	ND U	280	1.3	1	10/07/19 15:08	*
1,2-Dibromo-3-chloropropane	ND U	280	5.6	1	10/07/19 15:08	*
Dibromochloromethane	ND U	69	2.5	1	10/07/19 15:08	*
1,2-Dibromoethane (EDB)	ND U	280	1.4	1	10/07/19 15:08	*
Dibromomethane	ND U	69	3.9	1	10/07/19 15:08	*
1,2-Dichlorobenzene	ND U	69	1.1	1	10/07/19 15:08	*
1,3-Dichlorobenzene	ND U	69	1.4	1	10/07/19 15:08	*
1,4-Dichlorobenzene	ND U	69	1.2	1	10/07/19 15:08	*
Dichlorodifluoromethane	240	69	1.7	1	10/07/19 15:08	*
1,1-Dichloroethane	ND U	69	1.7	1	10/07/19 15:08	*
1,2-Dichloroethane (EDC)	ND U	69	0.98	1	10/07/19 15:08	*
1,1-Dichloroethene	ND U	69	3.5	1	10/07/19 15:08	*
cis-1,2-Dichloroethene	ND U	69	1.7	1	10/07/19 15:08	*
trans-1,2-Dichloroethene	ND U	69	1.7	1	10/07/19 15:08	*
1,2-Dichloropropane	ND U	69	1.9	1	10/07/19 15:08	*
1,3-Dichloropropane	ND U	69	1.7	1	10/07/19 15:08	*
2,2-Dichloropropane	ND U	69	1.4	1	10/07/19 15:08	*
1,1-Dichloropropene	ND U	69	1.9	1	10/07/19 15:08	*
cis-1,3-Dichloropropene	ND U	69	1.9	1	10/07/19 15:08	*
trans-1,3-Dichloropropene	ND U	69	1.6	1	10/07/19 15:08	*
Ethylbenzene	ND U	69	1.4	1	10/07/19 15:08	*
Hexachlorobutadiene	ND U	280	5.6	1	10/07/19 15:08	*
2-Hexanone	ND U	280	13	1	10/07/19 15:08	*
Isopropylbenzene	ND U	280	1.2	1	10/07/19 15:08	*
4-Isopropyltoluene	ND U	280	0.89	1	10/07/19 15:08	*

ALS Group USA, Corp.
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Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Collected: 09/25/19 13:50
Date Received: 09/27/19 10:40

Sample Name: Black Owl Biochar
Lab Code: K1909014-007

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
4-Methyl-2-pentanone (MIBK)	ND U	280	25	1	10/07/19 15:08	*
Methylene Chloride	71 J	140	2.3	1	10/07/19 15:08	*
Naphthalene	ND U	280	1.9	1	10/07/19 15:08	*
n-Propylbenzene	ND U	280	1.9	1	10/07/19 15:08	*
Styrene	ND U	69	2.0	1	10/07/19 15:08	*
1,1,1,2-Tetrachloroethane	ND U	69	1.6	1	10/07/19 15:08	*
1,1,2,2-Tetrachloroethane	ND U	69	1.9	1	10/07/19 15:08	*
Tetrachloroethene (PCE)	ND U	69	2.3	1	10/07/19 15:08	*
Toluene	ND U	69	2.1	1	10/07/19 15:08	*
1,2,3-Trichlorobenzene	ND U	280	2.7	1	10/07/19 15:08	*
1,2,4-Trichlorobenzene	ND U	280	1.9	1	10/07/19 15:08	*
1,1,2-Trichloroethane	ND U	69	2.1	1	10/07/19 15:08	*
1,1,1-Trichloroethane (TCA)	ND U	69	1.6	1	10/07/19 15:08	*
Trichloroethene (TCE)	ND U	69	2.1	1	10/07/19 15:08	*
Trichlorofluoromethane (CFC 11)	140	69	1.2	1	10/07/19 15:08	*
1,2,3-Trichloropropane	ND U	69	6.3	1	10/07/19 15:08	*
1,2,4-Trimethylbenzene	ND U	280	0.75	1	10/07/19 15:08	*
1,3,5-Trimethylbenzene	ND U	280	1.3	1	10/07/19 15:08	*
Vinyl Chloride	ND U	69	2.5	1	10/07/19 15:08	*
o-Xylene	ND U	69	1.2	1	10/07/19 15:08	*
m,p-Xylenes	ND U	69	1.4	1	10/07/19 15:08	*

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	57	88 - 127	10/07/19 15:08	*
Dibromofluoromethane	229	82 - 146	10/07/19 15:08	*
Toluene-d8	66	90 - 142	10/07/19 15:08	*

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: KQ1914491-05

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Acetone	ND U	20	2.9	1	10/07/19 12:41	
Benzene	ND U	5.0	0.054	1	10/07/19 12:41	
Bromobenzene	ND U	5.0	0.088	1	10/07/19 12:41	
Bromochloromethane	ND U	5.0	0.24	1	10/07/19 12:41	
Bromodichloromethane	ND U	5.0	0.16	1	10/07/19 12:41	
Bromoform	ND U	5.0	0.14	1	10/07/19 12:41	
Bromomethane	ND U	5.0	0.20	1	10/07/19 12:41	
2-Butanone (MEK)	ND U	20	0.90	1	10/07/19 12:41	
n-Butylbenzene	ND U	20	0.069	1	10/07/19 12:41	
sec-Butylbenzene	ND U	20	0.074	1	10/07/19 12:41	
tert-Butylbenzene	ND U	20	0.14	1	10/07/19 12:41	
Carbon Disulfide	ND U	5.0	0.092	1	10/07/19 12:41	
Carbon Tetrachloride	ND U	5.0	0.094	1	10/07/19 12:41	
Chlorobenzene	ND U	5.0	0.065	1	10/07/19 12:41	
Chloroethane	ND U	5.0	0.74	1	10/07/19 12:41	
Chloroform	ND U	5.0	0.11	1	10/07/19 12:41	
Chloromethane	ND U	5.0	0.18	1	10/07/19 12:41	
2-Chlorotoluene	ND U	20	0.12	1	10/07/19 12:41	
4-Chlorotoluene	ND U	20	0.088	1	10/07/19 12:41	
1,2-Dibromo-3-chloropropane	ND U	20	0.40	1	10/07/19 12:41	
Dibromochloromethane	ND U	5.0	0.18	1	10/07/19 12:41	
1,2-Dibromoethane (EDB)	ND U	20	0.094	1	10/07/19 12:41	
Dibromomethane	ND U	5.0	0.28	1	10/07/19 12:41	
1,2-Dichlorobenzene	ND U	5.0	0.077	1	10/07/19 12:41	
1,3-Dichlorobenzene	ND U	5.0	0.094	1	10/07/19 12:41	
1,4-Dichlorobenzene	ND U	5.0	0.086	1	10/07/19 12:41	
Dichlorodifluoromethane	ND U	5.0	0.12	1	10/07/19 12:41	
1,1-Dichloroethane	ND U	5.0	0.12	1	10/07/19 12:41	
1,2-Dichloroethane (EDC)	ND U	5.0	0.070	1	10/07/19 12:41	
1,1-Dichloroethene	ND U	5.0	0.25	1	10/07/19 12:41	
cis-1,2-Dichloroethene	ND U	5.0	0.12	1	10/07/19 12:41	
trans-1,2-Dichloroethene	ND U	5.0	0.12	1	10/07/19 12:41	
1,2-Dichloropropane	ND U	5.0	0.13	1	10/07/19 12:41	
1,3-Dichloropropane	ND U	5.0	0.12	1	10/07/19 12:41	
2,2-Dichloropropane	ND U	5.0	0.098	1	10/07/19 12:41	
1,1-Dichloropropene	ND U	5.0	0.13	1	10/07/19 12:41	
cis-1,3-Dichloropropene	ND U	5.0	0.13	1	10/07/19 12:41	
trans-1,3-Dichloropropene	ND U	5.0	0.11	1	10/07/19 12:41	
Ethylbenzene	ND U	5.0	0.094	1	10/07/19 12:41	
Hexachlorobutadiene	ND U	20	0.40	1	10/07/19 12:41	
2-Hexanone	ND U	20	0.93	1	10/07/19 12:41	
Isopropylbenzene	ND U	20	0.081	1	10/07/19 12:41	
4-Isopropyltoluene	ND U	20	0.064	1	10/07/19 12:41	

ALS Group USA, Corp.
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Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: KQ1914491-05

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
4-Methyl-2-pentanone (MIBK)	ND U	20	1.8	1	10/07/19 12:41	
Methylene Chloride	1.8 J	10	0.16	1	10/07/19 12:41	
Naphthalene	ND U	20	0.13	1	10/07/19 12:41	
n-Propylbenzene	ND U	20	0.13	1	10/07/19 12:41	
Styrene	ND U	5.0	0.14	1	10/07/19 12:41	
1,1,1,2-Tetrachloroethane	ND U	5.0	0.11	1	10/07/19 12:41	
1,1,2,2-Tetrachloroethane	ND U	5.0	0.13	1	10/07/19 12:41	
Tetrachloroethene (PCE)	ND U	5.0	0.16	1	10/07/19 12:41	
Toluene	ND U	5.0	0.15	1	10/07/19 12:41	
1,2,3-Trichlorobenzene	ND U	20	0.19	1	10/07/19 12:41	
1,2,4-Trichlorobenzene	ND U	20	0.13	1	10/07/19 12:41	
1,1,2-Trichloroethane	ND U	5.0	0.15	1	10/07/19 12:41	
1,1,1-Trichloroethane (TCA)	ND U	5.0	0.11	1	10/07/19 12:41	
Trichloroethene (TCE)	ND U	5.0	0.15	1	10/07/19 12:41	
Trichlorofluoromethane (CFC 11)	ND U	5.0	0.085	1	10/07/19 12:41	
1,2,3-Trichloropropane	ND U	5.0	0.45	1	10/07/19 12:41	
1,2,4-Trimethylbenzene	ND U	20	0.054	1	10/07/19 12:41	
1,3,5-Trimethylbenzene	ND U	20	0.092	1	10/07/19 12:41	
Vinyl Chloride	ND U	5.0	0.18	1	10/07/19 12:41	
o-Xylene	ND U	5.0	0.081	1	10/07/19 12:41	
m,p-Xylenes	ND U	5.0	0.10	1	10/07/19 12:41	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	88 - 127	10/07/19 12:41	
Dibromofluoromethane	102	82 - 146	10/07/19 12:41	
Toluene-d8	114	90 - 142	10/07/19 12:41	

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Extraction Method: None

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		88-127	82-146	90-142
TSP 052419	K1909014-001	97	103	108
Biosolids B	K1909014-002	93	109	95
Muriate of Potash 0-0-60	K1909014-003	102	105	114
Landfill Ash 5-13-19	K1909014-004	72*	108	96
PS-GNB-052619	K1909014-006	85*	105	102
Black Owl Biochar	K1909014-007	57*	229*	66*
Method Blank	KQ1914491-05	100	102	114
Lab Control Sample	KQ1914491-03	105	100	114
Duplicate Lab Control Sample	KQ1914491-04	103	103	116

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QA/QC Report

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Date Analyzed: 10/07/19 10:32

Internal Standard Area and RT SUMMARY
Volatile Organic Compounds by GC/MS

File ID: J:\MS24\DATA\100719\1007F004.D\
Instrument ID: K-MS-24
Analysis Method: 8260C

Lab Code: KQ1914491-02
Analysis Lot: 654417
Signal ID: 1

	Chlorobenzene-d5		1,4-Dichlorobenzene-d4		Fluorobenzene	
	Area	RT	Area	RT	Area	RT
Result ==>	70,399	6.50	67,344	8.82	173,558	3.90
Upper Limit ==>	140,798	7.00	134,688	9.32	347,116	4.40
Lower Limit ==>	35,200	6.00	33,672	8.32	86,779	3.40

Associated Analyses

Sample Name	Lab Code	Area	RT	Area	RT	Area	RT
Lab Control Sample	KQ1914491-03	69800	6.50	65636	8.82	174571	3.89
Duplicate Lab Control Sample	KQ1914491-04	71889	6.50	67401	8.82	170934	3.90
Method Blank	KQ1914491-05	67818	6.50	61832	8.82	164050	3.90
TSP 052419	K1909014-001	55322	6.50	45940	8.82	147045	3.90
Biosolids B	K1909014-002	35231	6.50	24458*	8.82	121763	3.90
Muriate of Potash 0-0-60	K1909014-003	66025	6.50	56885	8.82	163903	3.90
Landfill Ash 5-13-19	K1909014-004	3969*	6.50	2603*	8.82	23425*	3.90
PS-GNB-052619	K1909014-006	44433	6.50	27492*	8.82	142959	3.90
Black Owl Biochar	K1909014-007	1177*	6.50	582*	8.81	9713*	3.90

ALS Group USA, Corp.
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QA/QC Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Analyzed: 10/07/19
Date Extracted: NA

Duplicate Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Units: ug/Kg
Basis: Dry
Analysis Lot: 654417

Analyte Name	Lab Control Sample KQ1914491-03			Duplicate Lab Control Sample KQ1914491-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1,2-Tetrachloroethane	47.7	50.0	95	45.6	50.0	91	71-119	5	40
1,1,1-Trichloroethane (TCA)	49.1	50.0	98	47.8	50.0	96	59-146	3	40
1,1,2,2-Tetrachloroethane	43.1	50.0	86	41.8	50.0	84	60-128	3	40
1,1,2-Trichloroethane	45.6	50.0	91	43.3	50.0	87	72-118	5	40
1,1-Dichloroethane	47.9	50.0	96	46.9	50.0	94	59-137	2	40
1,1-Dichloroethene	49.2	50.0	98	48.3	50.0	97	64-152	2	40
1,1-Dichloropropene	50.5	50.0	101	49.1	50.0	98	52-142	3	40
1,2,3-Trichlorobenzene	49.0	50.0	98	47.0	50.0	94	52-138	4	40
1,2,3-Trichloropropane	42.1	50.0	84	40.7	50.0	81	53-134	3	40
1,2,4-Trichlorobenzene	50.0	50.0	100	48.2	50.0	96	57-136	4	40
1,2,4-Trimethylbenzene	49.5	50.0	99	46.5	50.0	93	65-132	6	40
1,2-Dibromo-3-chloropropane	44.7	50.0	89	44.1	50.0	88	55-127	1	40
1,2-Dibromoethane (EDB)	45.2	50.0	90	43.3	50.0	87	71-116	4	40
1,2-Dichlorobenzene	45.6	50.0	91	43.7	50.0	87	67-124	4	40
1,2-Dichloroethane (EDC)	41.0	50.0	82	41.0	50.0	82	65-121	<1	40
1,2-Dichloropropane	49.5	50.0	99	49.5	50.0	99	71-121	<1	40
1,3,5-Trimethylbenzene	49.6	50.0	99	46.2	50.0	92	66-132	7	40
1,3-Dichlorobenzene	47.1	50.0	94	44.8	50.0	90	69-128	5	40
1,3-Dichloropropane	45.4	50.0	91	43.0	50.0	86	72-118	6	40
1,4-Dichlorobenzene	45.8	50.0	92	43.8	50.0	88	69-125	5	40
2,2-Dichloropropane	47.0	50.0	94	45.0	50.0	90	50-138	4	40
2-Butanone (MEK)	229	250	91	227	250	91	54-116	<1	40
2-Chlorotoluene	46.9	50.0	94	44.1	50.0	88	65-129	6	40
2-Hexanone	261	250	104	251	250	100	67-121	4	40
4-Chlorotoluene	46.2	50.0	92	43.5	50.0	87	51-134	6	40
4-Isopropyltoluene	54.5	50.0	109	51.0	50.0	102	61-132	7	40
4-Methyl-2-pentanone (MIBK)	261	250	104	258	250	103	69-126	1	40
Acetone	211	250	84	211	250	84	32-135	<1	40
Benzene	47.4	50.0	95	47.0	50.0	94	68-122	<1	40
Bromobenzene	44.9	50.0	90	42.8	50.0	86	71-124	5	40
Bromochloromethane	43.2	50.0	86	43.5	50.0	87	65-131	<1	40
Bromodichloromethane	47.7	50.0	95	47.1	50.0	94	61-143	1	40
Bromoform	50.6	50.0	101	48.9	50.0	98	62-134	3	40
Bromomethane	40.3	50.0	81	39.8	50.0	80	22-180	1	40
Carbon Disulfide	83.0	100	83	80.0	100	80	55-141	4	40
Carbon Tetrachloride	52.2	50.0	104	50.4	50.0	101	51-135	3	40
Chlorobenzene	47.7	50.0	95	44.4	50.0	89	70-116	7	40
Chloroethane	49.3	50.0	99	48.6	50.0	97	51-122	2	40
Chloroform	45.4	50.0	91	45.0	50.0	90	61-137	1	40
Chloromethane	46.8	50.0	94	45.2	50.0	90	37-146	4	40
cis-1,2-Dichloroethene	44.4	50.0	89	43.9	50.0	88	62-138	1	40

ALS Group USA, Corp.
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QA/QC Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Analyzed: 10/07/19
Date Extracted: NA

Duplicate Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Units: ug/Kg
Basis: Dry
Analysis Lot: 654417

Analyte Name	Lab Control Sample KQ1914491-03			Duplicate Lab Control Sample KQ1914491-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
cis-1,3-Dichloropropene	50.5	50.0	101	48.1	50.0	96	58-138	5	40
Dibromochloromethane	47.7	50.0	95	45.3	50.0	91	69-120	5	40
Dibromomethane	45.8	50.0	92	45.7	50.0	91	68-125	<1	40
Dichlorodifluoromethane	56.3	50.0	113	54.6	50.0	109	38-160	3	40
Ethylbenzene	50.5	50.0	101	47.1	50.0	94	70-118	7	40
Hexachlorobutadiene	51.3	50.0	103	48.2	50.0	96	54-140	6	40
Isopropylbenzene	53.3	50.0	107	49.1	50.0	98	67-133	8	40
m,p-Xylenes	101	100	101	93.8	100	94	69-127	8	40
Methylene Chloride	43.2	50.0	86	42.4	50.0	85	65-122	2	40
Naphthalene	48.1	50.0	96	47.1	50.0	94	54-134	2	40
n-Butylbenzene	52.8	50.0	106	49.1	50.0	98	53-139	7	40
n-Propylbenzene	49.4	50.0	99	46.6	50.0	93	57-143	6	40
o-Xylene	49.9	50.0	100	44.9	50.0	90	69-124	10	40
sec-Butylbenzene	52.7	50.0	105	49.3	50.0	99	55-146	7	40
Styrene	49.1	50.0	98	46.6	50.0	93	62-135	5	40
tert-Butylbenzene	50.7	50.0	101	47.0	50.0	94	67-131	8	40
Tetrachloroethene (PCE)	53.2	50.0	106	49.0	50.0	98	66-126	8	40
Toluene	52.1	50.0	104	51.4	50.0	103	75-117	1	40
trans-1,2-Dichloroethene	47.1	50.0	94	44.8	50.0	90	63-127	5	40
trans-1,3-Dichloropropene	46.4	50.0	93	43.5	50.0	87	63-121	6	40
Trichloroethene (TCE)	50.2	50.0	100	48.6	50.0	97	67-126	3	40
Trichlorofluoromethane (CFC 11)	45.6	50.0	91	44.7	50.0	89	51-140	2	40
Vinyl Chloride	49.3	50.0	99	47.7	50.0	95	54-127	3	40

ALS Group USA, Corp.
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QA/QC Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Analyzed: 10/07/19 12:41
Date Extracted:

Method Blank Summary
Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: KQ1914491-05
Analysis Method: 8260C
Prep Method: None

Instrument ID: K-MS-24
File ID: J:\MS24\DATA\100719\1007F009.D\
Analysis Lot: 654417

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	KQ1914491-03	J:\MS24\DATA\100719\1007F005.D\	10/07/19 11:12
Duplicate Lab Control Sample	KQ1914491-04	J:\MS24\DATA\100719\1007F006.D\	10/07/19 11:33
TSP 052419	K1909014-001	J:\MS24\DATA\100719\1007F011.D\	10/07/19 13:23
Biosolids B	K1909014-002	J:\MS24\DATA\100719\1007F012.D\	10/07/19 13:44
Muriate of Potash 0-0-60	K1909014-003	J:\MS24\DATA\100719\1007F013.D\	10/07/19 14:05
Landfill Ash 5-13-19	K1909014-004	J:\MS24\DATA\100719\1007F014.D\	10/07/19 14:26
PS-GNB-052619	K1909014-006	J:\MS24\DATA\100719\1007F015.D\	10/07/19 14:47
Black Owl Biochar	K1909014-007	J:\MS24\DATA\100719\1007F016.D\	10/07/19 15:08

ALS Group USA, Corp.
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QA/QC Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Analyzed: 10/07/19 11:12
Date Extracted:

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Sample Name: Lab Control Sample
Lab Code: KQ1914491-03
Analysis Method: 8260C
Prep Method: None

Instrument ID: K-MS-24
File ID: J:\MS24\DATA\100719\1007F005.D\
Analysis Lot: 654417

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Duplicate Lab Control Sample	KQ1914491-04	J:\MS24\DATA\100719\1007F006.D\	10/07/19 11:33
Method Blank	KQ1914491-05	J:\MS24\DATA\100719\1007F009.D\	10/07/19 12:41
TSP 052419	K1909014-001	J:\MS24\DATA\100719\1007F011.D\	10/07/19 13:23
Biosolids B	K1909014-002	J:\MS24\DATA\100719\1007F012.D\	10/07/19 13:44
Muriate of Potash 0-0-60	K1909014-003	J:\MS24\DATA\100719\1007F013.D\	10/07/19 14:05
Landfill Ash 5-13-19	K1909014-004	J:\MS24\DATA\100719\1007F014.D\	10/07/19 14:26
PS-GNB-052619	K1909014-006	J:\MS24\DATA\100719\1007F015.D\	10/07/19 14:47
Black Owl Biochar	K1909014-007	J:\MS24\DATA\100719\1007F016.D\	10/07/19 15:08

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Calibration Date: 7/15/2019

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: KC1900275
Instrument ID: K-MS-24

Signal ID: 1

#	Lab Code	Sample Name	File Location	Acquisition Date
01	KC1900275-01	ICAL 1	J:\MS24\DATA\071519\0715008.D	07/15/2019 11:07
02	KC1900275-02	ICAL 2	J:\MS24\DATA\071519\0715009.D	07/15/2019 11:28
03	KC1900275-03	ICAL 5	J:\MS24\DATA\071519\0715010.D	07/15/2019 11:49
04	KC1900275-04	ICAL 10	J:\MS24\DATA\071519\0715011.D	07/15/2019 12:10
05	KC1900275-05	ICAL 20	J:\MS24\DATA\071519\0715012.D	07/15/2019 12:31
06	KC1900275-06	ICAL 50	J:\MS24\DATA\071519\0715013.D	07/15/2019 12:52
07	KC1900275-07	ICAL 100	J:\MS24\DATA\071519\0715014.D	07/15/2019 13:12
08	KC1900275-08	ICAL 200	J:\MS24\DATA\071519\0715015.D	07/15/2019 13:34
09	KC1900275-09	ICAL 300	J:\MS24\DATA\071519\0715016.D	07/15/2019 13:55

Analyte

1,1,1,2-Tetrachloroethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.5613	02	2.000	0.7391	03	5.000	0.6835	04	10.000	0.668
05	20.000	0.6975	06	50.000	0.6186	07	100.000	0.7063	08	200.000	0.7328
09	300.000	0.7409									

1,1,1-Trichloroethane (TCA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.3533	02	2.000	0.3655	03	5.000	0.3549	04	10.000	0.3212
05	20.000	0.3689	06	50.000	0.3268	07	100.000	0.3631	08	200.000	0.3809
09	300.000	0.3818									

1,1,2,2-Tetrachloroethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.9655	02	2.000	0.9825	03	5.000	0.93	04	10.000	0.895
05	20.000	0.9158	06	50.000	0.813	07	100.000	0.9072	08	200.000	0.9452
09	300.000	0.9464									

1,1,2-Trichloroethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.5428	02	2.000	0.6296	03	5.000	0.6192	04	10.000	0.6029
05	20.000	0.6118	06	50.000	0.5161	07	100.000	0.579	08	200.000	0.5966
09	300.000	0.6031									

1,1-Dichloroethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.4806	02	2.000	0.4854	03	5.000	0.4725	04	10.000	0.4692
05	20.000	0.4898	06	50.000	0.4218	07	100.000	0.4573	08	200.000	0.4726
09	300.000	0.5048									

1,1-Dichloroethene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.2042	02	2.000	0.2239	03	5.000	0.1779	04	10.000	0.1748
05	20.000	0.1998	06	50.000	0.176	07	100.000	0.1956	08	200.000	0.1975
09	300.000	0.1947									

ALS Group USA, Corp.
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QA/QC Report

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Calibration Date: 7/15/2019

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: KC1900275
Instrument ID: K-MS-24

Signal ID: 1

Analyte

1,1-Dichloropropene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.3595	02	2.000	0.3744	03	5.000	0.3197	04	10.000	0.2932
05	20.000	0.3472	06	50.000	0.3092	07	100.000	0.34	08	200.000	0.3551
09	300.000	0.3601									

1,2,3-Trichlorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.233	02	2.000	1.026	03	5.000	1.022	04	10.000	0.9052
05	20.000	0.9884	06	50.000	0.8585	07	100.000	0.9551	08	200.000	1.056
09	300.000	1.121									

1,2,3-Trichloropropane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.2516	02	2.000	0.2837	03	5.000	0.3015	04	10.000	0.2987
05	20.000	0.2971	06	50.000	0.2588	07	100.000	0.284	08	200.000	0.2968
09	300.000	0.2929									

1,2,4-Trichlorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.276	02	2.000	1.122	03	5.000	1.05	04	10.000	0.9252
05	20.000	0.997	06	50.000	0.8914	07	100.000	0.9773	08	200.000	1.075
09	300.000	1.142									

1,2,4-Trimethylbenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	2.31	02	2.000	2.439	03	5.000	2.378	04	10.000	2.271
05	20.000	2.53	06	50.000	2.343	07	100.000	2.632	08	200.000	2.887
09	300.000	2.952									

1,2-Dibromo-3-chloropropane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	2.000	0.1434	03	5.000	0.1434	04	10.000	0.1356	05	20.000	0.1348
06	50.000	0.128	07	100.000	0.1421	08	200.000	0.1495	09	300.000	0.1581

1,2-Dibromoethane (EDB)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.7205	02	2.000	0.6323	03	5.000	0.6808	04	10.000	0.6747
05	20.000	0.6819	06	50.000	0.5759	07	100.000	0.6669	08	200.000	0.6783
09	300.000	0.687									

1,2-Dichlorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.807	02	2.000	1.624	03	5.000	1.706	04	10.000	1.518
05	20.000	1.672	06	50.000	1.451	07	100.000	1.572	08	200.000	1.659
09	300.000	1.701									

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Calibration Date: 7/15/2019

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: KC1900275
Instrument ID: K-MS-24

Signal ID: 1

Analyte

1,2-Dichloroethane (EDC)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.4747	02	2.000	0.3952	03	5.000	0.4231	04	10.000	0.4159
05	20.000	0.419	06	50.000	0.3693	07	100.000	0.3972	08	200.000	0.4026
09	300.000	0.4068									

1,2-Dichloropropane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.2865	02	2.000	0.2948	03	5.000	0.3047	04	10.000	0.3096
05	20.000	0.3123	06	50.000	0.2674	07	100.000	0.2968	08	200.000	0.3209
09	300.000	0.3187									

1,3,5-Trimethylbenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	2.214	02	2.000	2.322	03	5.000	2.275	04	10.000	2.209
05	20.000	2.508	06	50.000	2.314	07	100.000	2.568	08	200.000	2.856
09	300.000	2.926									

1,3-Dichlorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.737	02	2.000	1.658	03	5.000	1.666	04	10.000	1.518
05	20.000	1.683	06	50.000	1.484	07	100.000	1.608	08	200.000	1.713
09	300.000	1.738									

1,3-Dichloropropane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.277	02	2.000	1.199	03	5.000	1.209	04	10.000	1.169
05	20.000	1.179	06	50.000	1.017	07	100.000	1.161	08	200.000	1.187
09	300.000	1.19									

1,4-Dichlorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.939	02	2.000	1.823	03	5.000	1.696	04	10.000	1.573
05	20.000	1.67	06	50.000	1.492	07	100.000	1.612	08	200.000	1.728
09	300.000	1.748									

2,2-Dichloropropane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.4011	02	2.000	0.3867	03	5.000	0.3637	04	10.000	0.3169
05	20.000	0.3656	06	50.000	0.3116	07	100.000	0.3509	08	200.000	0.3665
09	300.000	0.3432									

2-Butanone (MEK)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	10.000	0.04053	04	20.000	0.03259	05	40.000	0.03784	06	100.000	0.03188
07	200.000	0.03655	08	400.000	0.03608	09	600.000	0.03208			

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Calibration Date: 7/15/2019

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: KC1900275
Instrument ID: K-MS-24

Signal ID: 1

Analyte

2-Chlorotoluene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	2.394	02	2.000	2.368	03	5.000	2.224	04	10.000	2.073
05	20.000	2.32	06	50.000	2.046	07	100.000	2.26	08	200.000	2.486
09	300.000	2.506									

2-Hexanone

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	10.000	0.08328	04	20.000	0.08701	05	40.000	0.08687	06	100.000	0.07766
07	200.000	0.09018	08	400.000	0.09117	09	600.000	0.09156			

4-Bromofluorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	10.000	0.7395	03	20.000	0.8643	04	30.000	0.8593	05	40.000	0.8804
06	50.000	0.8668	07	70.000	0.8122	08	80.000	0.8437	09	120.000	0.8124

4-Chlorotoluene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	2.449	02	2.000	2.368	03	5.000	2.276	04	10.000	2.171
05	20.000	2.414	06	50.000	2.174	07	100.000	2.37	08	200.000	2.575
09	300.000	2.616									

4-Isopropyltoluene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	2.348	02	2.000	2.389	03	5.000	2.323	04	10.000	2.216
05	20.000	2.619	06	50.000	2.447	07	100.000	2.69	08	200.000	2.977
09	300.000	3.056									

4-Methyl-2-pentanone (MIBK)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	4.000	0.1084	03	10.000	0.1007	04	20.000	0.1193	05	40.000	0.1103
06	100.000	0.09315	07	200.000	0.1047	08	400.000	0.1072	09	600.000	0.1085

Acetone

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	4.000	0.2365	03	10.000	0.1321	04	20.000	0.1082	05	40.000	0.09902
06	100.000	0.07768	07	200.000	0.08399	08	400.000	0.07917	09	600.000	0.07803

Benzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.166	02	2.000	1.158	03	5.000	1.133	04	10.000	1.044
05	20.000	1.153	06	50.000	1.01	07	100.000	1.108	08	200.000	1.159
09	300.000	1.172									

Bromobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.003	02	2.000	1.034	03	5.000	0.9608	04	10.000	0.9091
05	20.000	0.9381	06	50.000	0.8368	07	100.000	0.923	08	200.000	0.9881
09	300.000	1.005									

ALS Group USA, Corp.
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QA/QC Report

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Calibration Date: 7/15/2019

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: KC1900275
Instrument ID: K-MS-24

Signal ID: 1

Analyte

Bromochloromethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.1716	02	2.000	0.1601	03	5.000	0.1634	04	10.000	0.1492
05	20.000	0.159	06	50.000	0.1365	07	100.000	0.145	08	200.000	0.1435
09	300.000	0.1421									

Bromodichloromethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.3412	02	2.000	0.3603	03	5.000	0.3395	04	10.000	0.3627
05	20.000	0.3707	06	50.000	0.3246	07	100.000	0.3558	08	200.000	0.3831
09	300.000	0.3953									

Bromoform

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.4214	02	2.000	0.4207	03	5.000	0.4297	04	10.000	0.4431
05	20.000	0.4823	06	50.000	0.4364	07	100.000	0.5037	08	200.000	0.5223
09	300.000	0.523									

Bromomethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	5.000	0.2271	04	10.000	0.1889	05	20.000	0.1901	06	50.000	0.1516
07	100.000	0.1691	08	200.000	0.1614	09	300.000	0.1606			

Carbon Disulfide

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.6766	02	2.000	0.7086	03	5.000	0.6446	04	10.000	0.5968
05	20.000	0.6906	06	50.000	0.611	07	100.000	0.6737	08	200.000	0.6933
09	300.000	0.7041									

Carbon Tetrachloride

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.2598	02	2.000	0.2889	03	5.000	0.2752	04	10.000	0.243
05	20.000	0.299	06	50.000	0.2661	07	100.000	0.3035	08	200.000	0.3207
09	300.000	0.3227									

Chlorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	2.073	02	2.000	2.064	03	5.000	2.04	04	10.000	1.893
05	20.000	2.011	06	50.000	1.73	07	100.000	1.924	08	200.000	1.999
09	300.000	2.003									

Chloroethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.1768	02	2.000	0.165	03	5.000	0.1594	04	10.000	0.1455
05	20.000	0.1702	06	50.000	0.144	07	100.000	0.1564	08	200.000	0.1603
09	300.000	0.1603									

ALS Group USA, Corp.
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QA/QC Report

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Calibration Date: 7/15/2019

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: KC1900275
Instrument ID: K-MS-24

Signal ID: 1

Analyte

Chloroform

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.4851	02	2.000	0.4953	03	5.000	0.4909	04	10.000	0.4507
05	20.000	0.5085	06	50.000	0.4368	07	100.000	0.4822	08	200.000	0.496
09	300.000	0.5051									

Chloromethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.3728	02	2.000	0.3466	03	5.000	0.3132	04	10.000	0.3019
05	20.000	0.3267	06	50.000	0.27	07	100.000	0.2941	08	200.000	0.3049
09	300.000	0.318									

Dibromochloromethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.6783	02	2.000	0.6699	03	5.000	0.7311	04	10.000	0.7138
05	20.000	0.7297	06	50.000	0.6616	07	100.000	0.7598	08	200.000	0.7868
09	300.000	0.8094									

Dibromofluoromethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	10.000	0.1942	03	20.000	0.2428	04	30.000	0.2507	05	40.000	0.259
06	50.000	0.2547	07	70.000	0.2432	08	80.000	0.2604	09	120.000	0.2494

Dibromomethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.1872	02	2.000	0.1926	03	5.000	0.1687	04	10.000	0.1823
05	20.000	0.1834	06	50.000	0.1602	07	100.000	0.1742	08	200.000	0.186
09	300.000	0.1888									

Dichlorodifluoromethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.2344	02	2.000	0.2313	03	5.000	0.1898	04	10.000	0.1744
05	20.000	0.2032	06	50.000	0.176	07	100.000	0.1928	08	200.000	0.1961
09	300.000	0.1934									

Ethylbenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.9748	02	2.000	0.9906	03	5.000	0.959	04	10.000	0.8439
05	20.000	0.9588	06	50.000	0.8662	07	100.000	0.9944	08	200.000	1.039
09	300.000	1.056									

Hexachlorobutadiene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.6779	02	2.000	0.6637	03	5.000	0.61	04	10.000	0.5474
05	20.000	0.6222	06	50.000	0.5341	07	100.000	0.5513	08	200.000	0.5964
09	300.000	0.6263									

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Calibration Date: 7/15/2019

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: KC1900275
Instrument ID: K-MS-24

Signal ID: 1

Analyte

Isopropylbenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	2.612	02	2.000	2.695	03	5.000	2.585	04	10.000	2.455
05	20.000	2.872	06	50.000	2.596	07	100.000	2.91	08	200.000	3.052
09	300.000	3.036									

Methylene Chloride

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	5.000	0.3358	04	10.000	0.2977	05	20.000	0.3044	06	50.000	0.2502
07	100.000	0.2657	08	200.000	0.2697	09	300.000	0.2738			

Naphthalene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	2.706	02	2.000	2.335	03	5.000	2.169	04	10.000	2.001
05	20.000	2.199	06	50.000	2.075	07	100.000	2.379	08	200.000	2.635
09	300.000	2.878									

Styrene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.7883	02	2.000	0.8816	03	5.000	0.8515	04	10.000	0.8561
05	20.000	0.925	06	50.000	0.8694	07	100.000	1.017	08	200.000	1.032
09	300.000	1.074									

Tetrachloroethene (PCE)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.4759	02	2.000	0.5713	03	5.000	0.5108	04	10.000	0.4782
05	20.000	0.5433	06	50.000	0.4657	07	100.000	0.5376	08	200.000	0.5647
09	300.000	0.5742									

Toluene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.6519	02	2.000	0.6218	03	5.000	0.6082	04	10.000	0.5859
05	20.000	0.6295	06	50.000	0.5676	07	100.000	0.6307	08	200.000	0.6749
09	300.000	0.7006									

Toluene-d8

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	10.000	0.6899	03	20.000	0.8712	04	30.000	0.9118	05	40.000	0.9042
06	50.000	0.899	07	70.000	0.8507	08	80.000	0.92	09	120.000	0.916

Trichloroethene (TCE)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.2878	02	2.000	0.2645	03	5.000	0.2699	04	10.000	0.2572
05	20.000	0.2737	06	50.000	0.24	07	100.000	0.265	08	200.000	0.2841
09	300.000	0.2886									

Trichlorofluoromethane (CFC 11)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.3516	02	2.000	0.4292	03	5.000	0.3311	04	10.000	0.2911

Client: Ramboll US Corporation
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Initial Calibration Summary
Volatile Organic Compounds by GC/MS

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Signal ID: 1

Analyte

Trichlorofluoromethane (CFC 11)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
05	20.000	0.3594	06	50.000	0.3083	07	100.000	0.3301	08	200.000	0.3334
09	300.000	0.3275									

Vinyl Chloride

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.2992	02	2.000	0.2938	03	5.000	0.2654	04	10.000	0.251
05	20.000	0.2867	06	50.000	0.2534	07	100.000	0.2761	08	200.000	0.2854
09	300.000	0.2846									

cis-1,2-Dichloroethene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.3643	02	2.000	0.3005	03	5.000	0.3195	04	10.000	0.2932
05	20.000	0.3216	06	50.000	0.2732	07	100.000	0.2985	08	200.000	0.3129
09	300.000	0.2865									

cis-1,3-Dichloropropene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.4425	02	2.000	0.4236	03	5.000	0.3963	04	10.000	0.4415
05	20.000	0.4449	06	50.000	0.3925	07	100.000	0.4405	08	200.000	0.475
09	300.000	0.4997									

m,p-Xylenes

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.132	02	4.000	1.129	03	10.000	1.078	04	20.000	1.019
05	40.000	1.17	06	100.000	1.054	07	200.000	1.185	08	400.000	1.26
09	600.000	1.28									

n-Butylbenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	2.215	02	2.000	2.219	03	5.000	2.22	04	10.000	2.018
05	20.000	2.347	06	50.000	2.151	07	100.000	2.413	08	200.000	2.634
09	300.000	2.729									

n-Propylbenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	3.54	02	2.000	3.554	03	5.000	3.402	04	10.000	3.14
05	20.000	3.621	06	50.000	3.298	07	100.000	3.672	08	200.000	4.054
09	300.000	4.122									

o-Xylene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.118	02	2.000	1.148	03	5.000	1.117	04	10.000	1.043
05	20.000	1.154	06	50.000	1.015	07	100.000	1.174	08	200.000	1.236
09	300.000	1.241									

Client: Ramboll US Corporation
Project: SATES

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Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: KC1900275
Instrument ID: K-MS-24

Signal ID: 1

Analyte

sec-Butylbenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	2.841	02	2.000	3.024	03	5.000	2.948	04	10.000	2.824
05	20.000	3.269	06	50.000	2.961	07	100.000	3.254	08	200.000	3.583
09	300.000	3.621									

tert-Butylbenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	2.228	02	2.000	2.198	03	5.000	2.011	04	10.000	1.97
05	20.000	2.283	06	50.000	2.046	07	100.000	2.276	08	200.000	2.493
09	300.000	2.516									

trans-1,2-Dichloroethene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.2589	02	2.000	0.2802	03	5.000	0.2392	04	10.000	0.2231
05	20.000	0.2547	06	50.000	0.2203	07	100.000	0.2405	08	200.000	0.2532
09	300.000	0.2524									

trans-1,3-Dichloropropene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.094	02	2.000	0.9951	03	5.000	0.9683	04	10.000	1.019
05	20.000	1.046	06	50.000	0.9261	07	100.000	1.07	08	200.000	1.147
09	300.000	1.179									

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Calibration Date: 7/15/2019

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: KC1900275
Instrument ID: K-MS-24

Signal ID: 1

Analyte Name	Compound Type	Calibration Evaluation				Calibration Evaluation	
		Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
1,1,1,2-Tetrachloroethane	TRG	Average RF	% RSD	8.8	20	0.6831	0.01
1,1,1-Trichloroethane (TCA)	TRG	Average RF	% RSD	6.0	20	0.3574	0.100
1,1,2,2-Tetrachloroethane	TRG	Average RF	% RSD	5.4	20	0.9223	0.300
1,1,2-Trichloroethane	TRG	Average RF	% RSD	6.3	20	0.589	0.100
1,1-Dichloroethane	TRG	Average RF	% RSD	5.0	20	0.4727	0.200
1,1-Dichloroethene	TRG	Average RF	% RSD	8.2	20	0.1938	0.100
1,1-Dichloropropene	TRG	Average RF	% RSD	7.9	20	0.3398	0.01
1,2,3-Trichlorobenzene	TRG	Average RF	% RSD	11.0	20	1.018	0.01
1,2,3-Trichloropropane	TRG	Average RF	% RSD	6.3	20	0.285	0.01
1,2,4-Trichlorobenzene	TRG	Average RF	% RSD	11.4	20	1.051	0.200
1,2,4-Trimethylbenzene	TRG	Average RF	% RSD	9.9	20	2.527	0.01
1,2-Dibromo-3-chloropropane	TRG	Average RF	% RSD	6.6	20	0.1419	0.025
1,2-Dibromoethane (EDB)	TRG	Average RF	% RSD	6.1	20	0.6665	0.100
1,2-Dichlorobenzene	TRG	Average RF	% RSD	6.6	20	1.634	0.400
1,2-Dichloroethane (EDC)	TRG	Average RF	% RSD	7.0	20	0.4115	0.100
1,2-Dichloropropane	TRG	Average RF	% RSD	5.6	20	0.3013	0.100
1,3,5-Trimethylbenzene	TRG	Average RF	% RSD	11.0	20	2.466	0.01
1,3-Dichlorobenzene	TRG	Average RF	% RSD	5.6	20	1.645	0.600
1,3-Dichloropropane	TRG	Average RF	% RSD	5.8	20	1.176	0.01
1,4-Dichlorobenzene	TRG	Average RF	% RSD	7.9	20	1.698	0.500
2,2-Dichloropropane	TRG	Average RF	% RSD	8.3	20	0.3562	0.01
2-Butanone (MEK)	TRG	Average RF	% RSD	9.3	20	0.03536	0.010
2-Chlorotoluene	TRG	Average RF	% RSD	7.1	20	2.298	0.01
2-Hexanone	TRG	Average RF	% RSD	5.7	20	0.08682	0.015
4-Bromofluorobenzene	SURR	Average RF	% RSD	5.5	20	0.8348	0.01
4-Chlorotoluene	TRG	Average RF	% RSD	6.6	20	2.379	0.01
4-Isopropyltoluene	TRG	Average RF	% RSD	11.6	20	2.563	0.01
4-Methyl-2-pentanone (MIBK)	TRG	Average RF	% RSD	7.1	20	0.1065	0.010
Acetone	TRG	Linear	R2	0.9995	.990	0.1118	0.010
Benzene	TRG	Average RF	% RSD	5.2	20	1.123	0.500
Bromobenzene	TRG	Average RF	% RSD	6.4	20	0.9554	0.01
Bromochloromethane	TRG	Average RF	% RSD	7.7	20	0.1523	0.01
Bromodichloromethane	TRG	Average RF	% RSD	6.2	20	0.3593	0.200
Bromoform	TRG	Average RF	% RSD	9.3	20	0.4647	0.100

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Calibration Date: 7/15/2019

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: KC1900275
Instrument ID: K-MS-24

Signal ID: 1

Analyte Name	Compound Type	Calibration Evaluation				Calibration Evaluation	
		Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
Bromomethane	TRG	Average RF	% RSD	14.5	20	0.1784	0.100
Carbon Disulfide	TRG	Average RF	% RSD	6.1	20	0.6666	0.100
Carbon Tetrachloride	TRG	Average RF	% RSD	9.6	20	0.2866	0.100
Chlorobenzene	TRG	Average RF	% RSD	5.5	20	1.971	0.500
Chloroethane	TRG	Average RF	% RSD	6.6	20	0.1598	0.100
Chloroform	TRG	Average RF	% RSD	5.0	20	0.4834	0.200
Chloromethane	TRG	Average RF	% RSD	9.5	20	0.3165	0.100
Dibromochloromethane	TRG	Average RF	% RSD	7.1	20	0.7267	0.100
Dibromofluoromethane	SURR	Average RF	% RSD	8.7	20	0.2443	0.01
Dibromomethane	TRG	Average RF	% RSD	5.9	20	0.1804	0.01
Dichlorodifluoromethane	TRG	Average RF	% RSD	10.7	20	0.1991	0.100
Ethylbenzene	TRG	Average RF	% RSD	7.3	20	0.9648	0.100
Hexachlorobutadiene	TRG	Average RF	% RSD	8.5	20	0.6033	0.01
Isopropylbenzene	TRG	Average RF	% RSD	7.8	20	2.757	0.100
Methylene Chloride	TRG	Average RF	% RSD	10.2	20	0.2853	0.100
Naphthalene	TRG	Average RF	% RSD	12.8	20	2.375	0.01
Styrene	TRG	Average RF	% RSD	10.6	20	0.9217	0.300
Tetrachloroethene (PCE)	TRG	Average RF	% RSD	8.2	20	0.5246	0.200
Toluene	TRG	Average RF	% RSD	6.6	20	0.6301	0.400
Toluene-d8	SURR	Average RF	% RSD	8.8	20	0.8704	0.01
Trichloroethene (TCE)	TRG	Average RF	% RSD	5.8	20	0.2701	0.200
Trichlorofluoromethane (CFC 11)	TRG	Average RF	% RSD	11.5	20	0.3402	0.100
Vinyl Chloride	TRG	Average RF	% RSD	6.2	20	0.2773	0.100
cis-1,2-Dichloroethene	TRG	Average RF	% RSD	8.6	20	0.3078	0.100
cis-1,3-Dichloropropene	TRG	Average RF	% RSD	7.7	20	0.4396	0.200
m,p-Xylenes	TRG	Average RF	% RSD	7.7	20	1.145	.100
n-Butylbenzene	TRG	Average RF	% RSD	9.9	20	2.327	0.01
n-Propylbenzene	TRG	Average RF	% RSD	9.0	20	3.6	0.01
o-Xylene	TRG	Average RF	% RSD	6.7	20	1.139	0.300
sec-Butylbenzene	TRG	Average RF	% RSD	9.6	20	3.147	0.01
tert-Butylbenzene	TRG	Average RF	% RSD	8.8	20	2.225	0.01
trans-1,2-Dichloroethene	TRG	Average RF	% RSD	7.5	20	0.2469	0.100
trans-1,3-Dichloropropene	TRG	Average RF	% RSD	7.9	20	1.049	0.100

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Calibration Date: 7/15/2019

Initial Calibration Verification Summary
Volatile Organic Compounds by GC/MS

Calibration ID: KC1900275
Instrument ID: K-MS-24

Signal ID: 1

#	Lab Code	Sample Name	File Location	Acquisition Date
10	KC1900275-10	ICV RR	J:\MS24\DATA\071519\0715022.D	07/15/2019 16:47

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
Acetone	250	236	1.118E-1	7.551E-2	-5.691	±30	Linear
Benzene	50.0	49.7	1.123E0	1.115E0	-0.667	±30	Average RF
Bromobenzene	50.0	47.5	9.554E-1	9.078E-1	-4.982	±30	Average RF
Bromochloromethane	50.0	44.6	1.523E-1	1.359E-1	-10.724	±30	Average RF
Bromodichloromethane	50.0	44.5	3.593E-1	3.198E-1	-10.986	±30	Average RF
Bromoform	50.0	46.1	4.647E-1	4.281E-1	-7.884	±30	Average RF
Bromomethane	50.0	42.7	1.784E-1	1.522E-1	-14.676	±30	Average RF
2-Butanone (MEK)	250	248	3.536E-2	3.513E-2	-0.665	±30	Average RF
n-Butylbenzene	50.0	55.2	2.327E0	2.57E0	10.40	±30	Average RF
sec-Butylbenzene	50.0	55.6	3.147E0	3.501E0	11.24	±30	Average RF
tert-Butylbenzene	50.0	53.3	2.225E0	2.373E0	6.65	±30	Average RF
Carbon Disulfide	100	101	6.666E-1	6.747E-1	1.23	±30	Average RF
Carbon Tetrachloride	50.0	54.5	2.866E-1	3.121E-1	8.93	±30	Average RF
Chlorobenzene	50.0	48.2	1.971E0	1.901E0	-3.525	±30	Average RF
Chloroethane	50.0	54.1	1.598E-1	1.729E-1	8.22	±30	Average RF
Chloroform	50.0	46.9	4.834E-1	4.537E-1	-6.150	±30	Average RF
Chloromethane	50.0	53.0	3.165E-1	3.356E-1	6.04	±30	Average RF
2-Chlorotoluene	50.0	49.6	2.298E0	2.278E0	-0.863	±30	Average RF
4-Chlorotoluene	50.0	50.0	2.379E0	2.381E0	0.077	±30	Average RF
1,2-Dibromo-3-chloropropane	50.0	41.1	1.419E-1	1.165E-1	-17.852	±30	Average RF
Dibromochloromethane	50.0	46.2	7.267E-1	6.718E-1	-7.553	±30	Average RF
1,2-Dibromoethane (EDB)	50.0	45.8	6.665E-1	6.106E-1	-8.392	±30	Average RF
Dibromomethane	50.0	44.0	1.804E-1	1.589E-1	-11.906	±30	Average RF
1,2-Dichlorobenzene	50.0	47.3	1.634E0	1.545E0	-5.499	±30	Average RF
1,3-Dichlorobenzene	50.0	50.6	1.645E0	1.664E0	1.18	±30	Average RF
1,4-Dichlorobenzene	50.0	48.3	1.698E0	1.64E0	-3.438	±30	Average RF
Dichlorodifluoromethane	50.0	73.7	1.991E-1	2.933E-1	47.34*	±30	Average RF
1,1-Dichloroethane	50.0	53.3	4.727E-1	5.041E-1	6.65	±30	Average RF
1,2-Dichloroethane (EDC)	50.0	45.2	4.115E-1	3.721E-1	-9.577	±30	Average RF
1,1-Dichloroethene	50.0	56.0	1.938E-1	2.169E-1	11.93	±30	Average RF
cis-1,2-Dichloroethene	50.0	47.4	3.078E-1	2.916E-1	-5.267	±30	Average RF
trans-1,2-Dichloroethene	50.0	49.7	2.469E-1	2.457E-1	-0.512	±30	Average RF
1,2-Dichloropropane	50.0	47.8	3.013E-1	2.88E-1	-4.415	±30	Average RF

ALS Group USA, Corp.
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QA/QC Report

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Calibration Date: 7/15/2019

Initial Calibration Verification Summary
Volatile Organic Compounds by GC/MS

Calibration ID: KC1900275
Instrument ID: K-MS-24

Signal ID: 1

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
1,3-Dichloropropane	50.0	46.3	1.176E0	1.089E0	-7.409	±30	Average RF
2,2-Dichloropropane	50.0	49.4	3.562E-1	3.523E-1	-1.118	±30	Average RF
1,1-Dichloropropene	50.0	52.7	3.398E-1	3.581E-1	5.38	±30	Average RF
cis-1,3-Dichloropropene	50.0	45.3	4.396E-1	3.985E-1	-9.358	±30	Average RF
trans-1,3-Dichloropropene	50.0	47.8	1.049E0	1.004E0	-4.344	±30	Average RF
Ethylbenzene	50.0	51.1	9.648E-1	9.851E-1	2.10	±30	Average RF
Hexachlorobutadiene	50.0	48.9	6.033E-1	5.903E-1	-2.147	±30	Average RF
2-Hexanone	250	270	8.682E-2	9.381E-2	8.06	±30	Average RF
Isopropylbenzene	50.0	52.8	2.757E0	2.911E0	5.58	±30	Average RF
4-Isopropyltoluene	50.0	56.9	2.563E0	2.916E0	13.78	±30	Average RF
4-Methyl-2-pentanone (MIBK)	250	238	1.065E-1	1.014E-1	-4.781	±30	Average RF
Methylene Chloride	50.0	45.1	2.853E-1	2.576E-1	-9.708	±30	Average RF
Naphthalene	50.0	45.8	2.375E0	2.177E0	-8.342	±30	Average RF
n-Propylbenzene	50.0	52.9	3.6E0	3.806E0	5.72	±30	Average RF
Styrene	50.0	50.4	9.217E-1	9.29E-1	0.798	±30	Average RF
1,1,1,2-Tetrachloroethane	50.0	48.4	6.831E-1	6.607E-1	-3.275	±30	Average RF
1,1,2,2-Tetrachloroethane	50.0	43.6	9.223E-1	8.041E-1	-12.814	±30	Average RF
Tetrachloroethene (PCE)	50.0	56.0	5.246E-1	5.876E-1	12.01	±30	Average RF
Toluene	50.0	48.6	6.301E-1	6.119E-1	-2.897	±30	Average RF
1,2,3-Trichlorobenzene	50.0	47.6	1.018E0	9.697E-1	-4.761	±30	Average RF
1,2,4-Trichlorobenzene	50.0	49.7	1.051E0	1.045E0	-0.571	±30	Average RF
1,1,2-Trichloroethane	50.0	46.3	5.89E-1	5.458E-1	-7.331	±30	Average RF
1,1,1-Trichloroethane (TCA)	50.0	51.4	3.574E-1	3.673E-1	2.79	±30	Average RF
Trichloroethene (TCE)	50.0	50.7	2.701E-1	2.739E-1	1.39	±30	Average RF
Trichlorofluoromethane (CFC 11)	50.0	48.4	3.402E-1	3.293E-1	-3.204	±30	Average RF
1,2,3-Trichloropropane	50.0	44.6	2.85E-1	2.54E-1	-10.879	±30	Average RF
1,2,4-Trimethylbenzene	50.0	51.8	2.527E0	2.619E0	3.66	±30	Average RF
1,3,5-Trimethylbenzene	50.0	53.4	2.466E0	2.635E0	6.87	±30	Average RF
Vinyl Chloride	50.0	56.1	2.773E-1	3.11E-1	12.15	±30	Average RF
o-Xylene	50.0	49.9	1.139E0	1.136E0	-0.255	±30	Average RF
m,p-Xylenes	100	104	1.145E0	1.187E0	3.64	±30	Average RF

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Calibration Date: 7/15/2019

**Initial Calibration Verification Summary
Volatile Organic Compounds by GC/MS**

Calibration ID: KC1900275
Instrument ID: K-MS-24

Signal ID: 1

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
4-Bromofluorobenzene	50.0	48.7	8.348E-1	8.131E-1	-2.603	±30	Average RF
Dibromofluoromethane	50.0	47.6	2.443E-1	2.325E-1	-4.813	±30	Average RF
Toluene-d8	50.0	48.8	8.704E-1	8.487E-1	-2.485	±30	Average RF

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Date Analyzed: 10/07/19 10:32

**Continuing Calibration Verification (CCV) Summary
Volatile Organic Compounds by GC/MS**

Analysis Method: 8260C
File ID: J:\MS24\DATA\100719\1007F004.D\
Signal ID: 1

Calibration Date: 7/15/2019
Calibration ID: KC1900275
Analysis Lot: 654417
Units: ppb

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Acetone	100	96.8	0.1118	0.0811	NA	-3.2	±20	Linear
Benzene	50.0	50.3	1.1226	1.1297	0.6	NA	±20	Average RF
Bromobenzene	50.0	49.5	0.9554	0.9448	-1.1	NA	±20	Average RF
Bromochloromethane	50.0	43.6	0.1523	0.1327	-12.8	NA	±20	Average RF
Bromodichloromethane	50.0	54.6	0.3593	0.392	9.1	NA	±20	Average RF
Bromoform	50.0	58.5	0.4647	0.5436	17.0	NA	±20	Average RF
Bromomethane	50.0	44.2	0.1784	0.1577	-11.6	NA	±20	Average RF
2-Butanone (MEK)	100	96.6	0.0354	0.0342	-3.4	NA	±20	Average RF
n-Butylbenzene	50.0	61.6	2.3275	2.8692	23.3*	NA	±20	Average RF
sec-Butylbenzene	50.0	60.4	3.1471	3.8035	20.9*	NA	±20	Average RF
tert-Butylbenzene	50.0	58.2	2.2246	2.5888	16.4	NA	±20	Average RF
Carbon Disulfide	50.0	55.8	0.6666	0.7442	11.6	NA	±20	Average RF
Carbon Tetrachloride	50.0	60.2	0.2866	0.3451	20.4	NA	±20	Average RF
Chlorobenzene	50.0	51.8	1.9708	2.0409	3.6	NA	±20	Average RF
Chloroethane	50.0	48.5	0.1598	0.155	-3.0	NA	±20	Average RF
Chloroform	50.0	49.3	0.4834	0.477	-1.3	NA	±20	Average RF
Chloromethane	50.0	38.2	0.3165	0.2418	-23.6*	NA	±20	Average RF
2-Chlorotoluene	50.0	52.8	2.2977	2.4274	5.6	NA	±20	Average RF
4-Chlorotoluene	50.0	53.0	2.3792	2.5203	5.9	NA	±20	Average RF
1,2-Dibromo-3-chloropropane	50.0	53.5	0.1419	0.1517	7.0	NA	±20	Average RF
Dibromochloromethane	50.0	53.2	0.7267	0.773	6.4	NA	±20	Average RF
1,2-Dibromoethane (EDB)	50.0	48.8	0.6665	0.651	-2.3	NA	±20	Average RF
Dibromomethane	50.0	47.8	0.1804	0.1726	-4.3	NA	±20	Average RF
1,2-Dichlorobenzene	50.0	52.5	1.6344	1.7156	5.0	NA	±20	Average RF
1,3-Dichlorobenzene	50.0	54.1	1.6449	1.7812	8.3	NA	±20	Average RF
1,4-Dichlorobenzene	50.0	52.8	1.6979	1.7911	5.5	NA	±20	Average RF
Dichlorodifluoromethane	50.0	35.1	0.1991	0.1396	-29.9*	NA	±20	Average RF
1,1-Dichloroethane	50.0	52.0	0.4727	0.492	4.1	NA	±20	Average RF
1,2-Dichloroethane (EDC)	50.0	43.4	0.4115	0.3572	-13.2	NA	±20	Average RF
1,1-Dichloroethene	50.0	53.4	0.1938	0.2069	6.8	NA	±20	Average RF
cis-1,2-Dichloroethene	50.0	45.4	0.3078	0.2795	-9.2	NA	±20	Average RF
trans-1,2-Dichloroethene	50.0	46.3	0.2469	0.2287	-7.4	NA	±20	Average RF
1,2-Dichloropropane	50.0	54.6	0.3013	0.329	9.2	NA	±20	Average RF
1,3-Dichloropropane	50.0	49.1	1.1764	1.1549	-1.8	NA	±20	Average RF
2,2-Dichloropropane	50.0	55.1	0.3562	0.3926	10.2	NA	±20	Average RF
1,1-Dichloropropene	50.0	51.7	0.3398	0.3515	3.4	NA	±20	Average RF
cis-1,3-Dichloropropene	50.0	54.6	0.4396	0.4796	9.1	NA	±20	Average RF
trans-1,3-Dichloropropene	50.0	49.9	1.0493	1.0467	-0.2	NA	±20	Average RF
Ethylbenzene	50.0	55.8	0.9648	1.0765	11.6	NA	±20	Average RF

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Date Analyzed: 10/07/19 10:32

Continuing Calibration Verification (CCV) Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
File ID: J:\MS24\DATA\100719\1007F004.D\
Signal ID: 1

Calibration Date: 7/15/2019
Calibration ID: KC1900275
Analysis Lot: 654417
Units: ppb

Hexachlorobutadiene	50.0	62.0	0.6033	0.7484	24.1*	NA	±20	Average RF
2-Hexanone	100	102	0.0868	0.0887	2.1	NA	±20	Average RF
Isopropylbenzene	50.0	60.6	2.7569	3.3437	21.3*	NA	±20	Average RF
4-Isopropyltoluene	50.0	61.7	2.5627	3.1598	23.3*	NA	±20	Average RF
4-Methyl-2-pentanone (MIBK)	100	110	0.1065	0.1168	9.7	NA	±20	Average RF
Methylene Chloride	50.0	44.4	0.2853	0.2536	-11.1	NA		Average RF
n-Propylbenzene	50.0	56.4	3.6004	4.063	12.8	NA	±20	Average RF
Styrene	50.0	54.6	0.9217	1.0071	9.3	NA	±20	Average RF
1,1,1,2-Tetrachloroethane	50.0	55.0	0.6831	0.7515	10.0	NA	±20	Average RF
1,1,2,2-Tetrachloroethane	50.0	50.1	0.9223	0.9234	0.1	NA	±20	Average RF
Tetrachloroethene (PCE)	50.0	56.0	0.5246	0.5874	12.0	NA	±20	Average RF
Toluene	50.0	56.2	0.6301	0.7078	12.3	NA	±20	Average RF
1,2,3-Trichlorobenzene	50.0	55.3	1.0182	1.1268	10.7	NA	±20	Average RF
1,1,2-Trichloroethane	50.0	49.8	0.589	0.5866	-0.4	NA	±20	Average RF
1,1,1-Trichloroethane (TCA)	50.0	55.7	0.3574	0.398	11.4	NA	±20	Average RF
Trichloroethene (TCE)	50.0	52.9	0.2701	0.2858	5.8	NA	±20	Average RF
Trichlorofluoromethane (CFC 11)	50.0	51.2	0.3402	0.3486	2.5	NA	±20	Average RF
1,2,3-Trichloropropane	50.0	47.8	0.285	0.2725	-4.4	NA	±20	Average RF
1,2,4-Trimethylbenzene	50.0	56.6	2.527	2.8594	13.2	NA	±20	Average RF
1,3,5-Trimethylbenzene	50.0	57.6	2.4659	2.8411	15.2	NA	±20	Average RF
Vinyl Chloride	50.0	45.6	0.2773	0.2526	-8.9	NA	±20	Average RF
o-Xylene	50.0	55.8	1.1386	1.2713	11.7	NA	±20	Average RF
m,p-Xylenes	100	113	1.1453	1.2962	13.2	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromofluorobenzene	50.0	53.1	0.8348	0.8867	6.2	NA	±20	Average RF
Dibromofluoromethane	50.0	49.6	0.2443	0.2421	-0.9	NA	±20	Average RF
Toluene-d8	50.0	56.8	0.8704	0.9879	13.5	NA	±20	Average RF

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QA/QC Report

Client: Ramboll US Corporation
Project: SATES

Service Request:K1909014

Analysis Run Log
Volatile Organic Compounds by GC/MS

Analysis Method:

Analysis Lot:654417
Instrument ID:K-MS-24

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
J:\MS24\DATA\100719\1007F003.D\	ZZZZZZZ	ZZZZZZZ	10/7/2019	10:04:00	
J:\MS24\DATA\100719\1007F004.D\	Continuing Calibration Verification	KQ1914491-02	10/7/2019	10:32:00	
J:\MS24\DATA\100719\1007F005.D\	Lab Control Sample	KQ1914491-03	10/7/2019	11:12:00	
J:\MS24\DATA\100719\1007F006.D\	Duplicate Lab Control Sample	KQ1914491-04	10/7/2019	11:33:00	
J:\MS24\DATA\100719\1007F009.D\	Method Blank	KQ1914491-05	10/7/2019	12:41:00	
J:\MS24\DATA\100719\1007F011.D\	TSP 052419	K1909014-001	10/7/2019	13:23:00	
J:\MS24\DATA\100719\1007F012.D\	Biosolids B	K1909014-002	10/7/2019	13:44:00	
J:\MS24\DATA\100719\1007F013.D\	Muriate of Potash 0-0-60	K1909014-003	10/7/2019	14:05:00	
J:\MS24\DATA\100719\1007F014.D\	Landfill Ash 5-13-19	K1909014-004	10/7/2019	14:26:00	
J:\MS24\DATA\100719\1007F015.D\	PS-GNB-052619	K1909014-006	10/7/2019	14:47:00	
J:\MS24\DATA\100719\1007F016.D\	Black Owl Biochar	K1909014-007	10/7/2019	15:08:00	
J:\MS24\DATA\100719\1007F017.D\	ZZZZZZZ	ZZZZZZZ	10/7/2019	15:29:00	
J:\MS24\DATA\100719\1007F018.D\	ZZZZZZZ	ZZZZZZZ	10/7/2019	15:50:00	
J:\MS24\DATA\100719\1007F019.D\	ZZZZZZZ	ZZZZZZZ	10/7/2019	16:11:00	
J:\MS24\DATA\100719\1007F020.D\	ZZZZZZZ	ZZZZZZZ	10/7/2019	16:32:00	



Semi-Volatile Organic Compounds by GC/MS

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
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Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Collected: 09/25/19 13:42
Date Received: 09/27/19 10:40

Sample Name: PS-GNB-052619
Lab Code: K1909014-006

Units: mg/Kg
Basis: Dry

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	ND U	2.8	0.093	1	10/10/19 08:05	10/4/19	
1,2-Dichlorobenzene	ND U	2.8	0.066	1	10/10/19 08:05	10/4/19	
1,3-Dichlorobenzene	ND U	2.8	0.071	1	10/10/19 08:05	10/4/19	
1,4-Dichlorobenzene	ND U	2.8	0.070	1	10/10/19 08:05	10/4/19	
2,4,5-Trichlorophenol	ND U	2.8	0.070	1	10/10/19 08:05	10/4/19	
2,4,6-Trichlorophenol	ND U	2.8	0.12	1	10/10/19 08:05	10/4/19	
2,4-Dichlorophenol	ND U	2.8	0.065	1	10/10/19 08:05	10/4/19	
2,4-Dimethylphenol	ND U	2.8	0.31	1	10/10/19 08:05	10/4/19	
2,4-Dinitrophenol	ND U	17	1.2	1	10/10/19 08:05	10/4/19	
2,4-Dinitrotoluene	ND U	2.8	0.13	1	10/10/19 08:05	10/4/19	
2,6-Dinitrotoluene	ND U	2.8	0.062	1	10/10/19 08:05	10/4/19	
2-Chloronaphthalene	ND U	2.8	0.084	1	10/10/19 08:05	10/4/19	
2-Chlorophenol	ND U	2.8	0.072	1	10/10/19 08:05	10/4/19	
2-Methyl-4,6-dinitrophenol	ND U	17	0.27	1	10/10/19 08:05	10/4/19	
2-Methylnaphthalene	ND U	2.8	0.093	1	10/10/19 08:05	10/4/19	
2-Methylphenol	ND U	2.8	0.13	1	10/10/19 08:05	10/4/19	
2-Nitroaniline	ND U	2.8	0.36	1	10/10/19 08:05	10/4/19	
2-Nitrophenol	ND U	2.8	0.12	1	10/10/19 08:05	10/4/19	
3,3'-Dichlorobenzidine	ND U	2.8	0.23	1	10/10/19 08:05	10/4/19	
3-Nitroaniline	ND U	2.8	0.067	1	10/10/19 08:05	10/4/19	
4-Bromophenyl Phenyl Ether	ND U	2.8	0.11	1	10/10/19 08:05	10/4/19	
4-Chloro-3-methylphenol	ND U	2.8	1.4	1	10/10/19 08:05	10/4/19	
4-Chloroaniline	ND U	2.8	0.059	1	10/10/19 08:05	10/4/19	
4-Chlorophenyl Phenyl Ether	ND U	2.8	0.072	1	10/10/19 08:05	10/4/19	
4-Methylphenol	ND U	2.8	0.084	1	10/10/19 08:05	10/4/19	
4-Nitroaniline	ND U	17	0.083	1	10/10/19 08:05	10/4/19	
4-Nitrophenol	ND U	17	0.41	1	10/10/19 08:05	10/4/19	
Acenaphthene	ND U	2.8	0.078	1	10/10/19 08:05	10/4/19	
Acenaphthylene	ND U	2.8	0.060	1	10/10/19 08:05	10/4/19	
Aniline	ND U	8.4	0.11	1	10/10/19 08:05	10/4/19	
Anthracene	ND U	2.8	0.072	1	10/10/19 08:05	10/4/19	
Benz(a)anthracene	ND U	2.8	0.077	1	10/10/19 08:05	10/4/19	
Benzo(a)pyrene	ND U	2.8	0.14	1	10/10/19 08:05	10/4/19	
Benzo(b)fluoranthene	ND U	2.8	0.11	1	10/10/19 08:05	10/4/19	
Benzo(g,h,i)perylene	ND U	2.8	0.093	1	10/10/19 08:05	10/4/19	
Benzo(k)fluoranthene	ND U	2.8	0.12	1	10/10/19 08:05	10/4/19	
Benzoic Acid	ND U	17	1.2	1	10/10/19 08:05	10/4/19	
Benzyl Alcohol	ND U	2.8	0.062	1	10/10/19 08:05	10/4/19	
Bis(2-chloroethoxy)methane	ND U	2.8	0.079	1	10/10/19 08:05	10/4/19	
Bis(2-chloroethyl) Ether	ND U	2.8	0.069	1	10/10/19 08:05	10/4/19	
Bis(2-ethylhexyl) Phthalate	ND U	2.8	0.060	1	10/10/19 08:05	10/4/19	
Butyl Benzyl Phthalate	ND U	2.8	0.13	1	10/10/19 08:05	10/4/19	
Chrysene	ND U	2.8	0.12	1	10/10/19 08:05	10/4/19	

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Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Collected: 09/25/19 13:42
Date Received: 09/27/19 10:40

Sample Name: PS-GNB-052619
Lab Code: K1909014-006

Units: mg/Kg
Basis: Dry

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Dibenz(a,h)anthracene	ND U	2.8	0.12	1	10/10/19 08:05	10/4/19	
Dibenzofuran	ND U	2.8	0.082	1	10/10/19 08:05	10/4/19	
Diethyl Phthalate	0.089 J	2.8	0.067	1	10/10/19 08:05	10/4/19	
Dimethyl Phthalate	ND U	2.8	0.064	1	10/10/19 08:05	10/4/19	
Di-n-butyl Phthalate	ND U	2.8	0.13	1	10/10/19 08:05	10/4/19	
Di-n-octyl Phthalate	ND U	2.8	0.084	1	10/10/19 08:05	10/4/19	
Fluoranthene	ND U	2.8	0.11	1	10/10/19 08:05	10/4/19	
Fluorene	ND U	2.8	0.11	1	10/10/19 08:05	10/4/19	
Hexachlorobenzene	ND U	2.8	0.14	1	10/10/19 08:05	10/4/19	
Hexachlorobutadiene	ND U	2.8	0.093	1	10/10/19 08:05	10/4/19	
Hexachlorocyclopentadiene	ND U	2.8	0.21	1	10/10/19 08:05	10/4/19	
Hexachloroethane	ND U	2.8	0.067	1	10/10/19 08:05	10/4/19	
Indeno(1,2,3-cd)pyrene	ND U	2.8	0.093	1	10/10/19 08:05	10/4/19	
Isophorone	ND U	2.8	0.093	1	10/10/19 08:05	10/4/19	
Naphthalene	ND U	2.8	0.093	1	10/10/19 08:05	10/4/19	
Nitrobenzene	ND U	2.8	0.093	1	10/10/19 08:05	10/4/19	
N-Nitrosodimethylamine	ND U	17	2.6	1	10/10/19 08:05	10/4/19	
N-Nitrosodi-n-propylamine	ND U	2.8	0.093	1	10/10/19 08:05	10/4/19	
N-Nitrosodiphenylamine	ND U	2.8	0.063	1	10/10/19 08:05	10/4/19	
Pentachlorophenol	ND U	17	0.53	1	10/10/19 08:05	10/4/19	
Phenanthrene	ND U	2.8	0.093	1	10/10/19 08:05	10/4/19	
Phenol	0.66 JX	2.8	0.16	1	10/10/19 08:05	10/4/19	
Pyrene	0.12 J	2.8	0.081	1	10/10/19 08:05	10/4/19	
2,2'-Oxybis(1-chloropropane)	ND U	2.8	0.067	1	10/10/19 08:05	10/4/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	44	35 - 118	10/10/19 08:05	
2-Fluorobiphenyl	52	37 - 103	10/10/19 08:05	
2-Fluorophenol	24	30 - 98	10/10/19 08:05	*
Nitrobenzene-d5	49	36 - 112	10/10/19 08:05	
Phenol-d6	24	31 - 103	10/10/19 08:05	*
Terphenyl-d14	52	18 - 127	10/10/19 08:05	

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Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Collected: 09/25/19 13:50
Date Received: 09/27/19 10:40

Sample Name: Black Owl Biochar
Lab Code: K1909014-007

Units: mg/Kg
Basis: Dry

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	ND U	1.0	0.035	1	10/10/19 08:46	10/4/19	
1,2-Dichlorobenzene	ND U	1.0	0.025	1	10/10/19 08:46	10/4/19	
1,3-Dichlorobenzene	ND U	1.0	0.027	1	10/10/19 08:46	10/4/19	
1,4-Dichlorobenzene	ND U	1.0	0.026	1	10/10/19 08:46	10/4/19	
2,4,5-Trichlorophenol	ND U	1.0	0.026	1	10/10/19 08:46	10/4/19	
2,4,6-Trichlorophenol	ND U	1.0	0.044	1	10/10/19 08:46	10/4/19	
2,4-Dichlorophenol	ND U	1.0	0.024	1	10/10/19 08:46	10/4/19	
2,4-Dimethylphenol	ND U	1.0	0.12	1	10/10/19 08:46	10/4/19	
2,4-Dinitrophenol	ND U	6.2	0.44	1	10/10/19 08:46	10/4/19	
2,4-Dinitrotoluene	ND U	1.0	0.047	1	10/10/19 08:46	10/4/19	
2,6-Dinitrotoluene	ND U	1.0	0.023	1	10/10/19 08:46	10/4/19	
2-Chloronaphthalene	ND U	1.0	0.031	1	10/10/19 08:46	10/4/19	
2-Chlorophenol	ND U	1.0	0.027	1	10/10/19 08:46	10/4/19	
2-Methyl-4,6-dinitrophenol	ND U	6.2	0.10	1	10/10/19 08:46	10/4/19	
2-Methylnaphthalene	ND U	1.0	0.035	1	10/10/19 08:46	10/4/19	
2-Methylphenol	ND U	1.0	0.047	1	10/10/19 08:46	10/4/19	
2-Nitroaniline	ND U	1.0	0.14	1	10/10/19 08:46	10/4/19	
2-Nitrophenol	ND U	1.0	0.044	1	10/10/19 08:46	10/4/19	
3,3'-Dichlorobenzidine	ND U	1.0	0.084	1	10/10/19 08:46	10/4/19	
3-Nitroaniline	ND U	1.0	0.025	1	10/10/19 08:46	10/4/19	
4-Bromophenyl Phenyl Ether	ND U	1.0	0.041	1	10/10/19 08:46	10/4/19	
4-Chloro-3-methylphenol	ND U	1.0	0.50	1	10/10/19 08:46	10/4/19	
4-Chloroaniline	ND U	1.0	0.022	1	10/10/19 08:46	10/4/19	
4-Chlorophenyl Phenyl Ether	ND U	1.0	0.027	1	10/10/19 08:46	10/4/19	
4-Methylphenol	ND U	1.0	0.031	1	10/10/19 08:46	10/4/19	
4-Nitroaniline	ND U	6.2	0.031	1	10/10/19 08:46	10/4/19	
4-Nitrophenol	ND U	6.2	0.16	1	10/10/19 08:46	10/4/19	
Acenaphthene	ND U	1.0	0.029	1	10/10/19 08:46	10/4/19	
Acenaphthylene	ND U	1.0	0.022	1	10/10/19 08:46	10/4/19	
Aniline	ND U	3.1	0.038	1	10/10/19 08:46	10/4/19	
Anthracene	ND U	1.0	0.027	1	10/10/19 08:46	10/4/19	
Benz(a)anthracene	ND U	1.0	0.029	1	10/10/19 08:46	10/4/19	
Benzo(a)pyrene	ND U	1.0	0.050	1	10/10/19 08:46	10/4/19	
Benzo(b)fluoranthene	ND U	1.0	0.038	1	10/10/19 08:46	10/4/19	
Benzo(g,h,i)perylene	ND U	1.0	0.035	1	10/10/19 08:46	10/4/19	
Benzo(k)fluoranthene	ND U	1.0	0.044	1	10/10/19 08:46	10/4/19	
Benzoic Acid	ND U	6.2	0.44	1	10/10/19 08:46	10/4/19	
Benzyl Alcohol	ND U	1.0	0.023	1	10/10/19 08:46	10/4/19	
Bis(2-chloroethoxy)methane	ND U	1.0	0.030	1	10/10/19 08:46	10/4/19	
Bis(2-chloroethyl) Ether	ND U	1.0	0.026	1	10/10/19 08:46	10/4/19	
Bis(2-ethylhexyl) Phthalate	0.027 J	1.0	0.022	1	10/10/19 08:46	10/4/19	
Butyl Benzyl Phthalate	ND U	1.0	0.047	1	10/10/19 08:46	10/4/19	
Chrysene	ND U	1.0	0.044	1	10/10/19 08:46	10/4/19	

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Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Collected: 09/25/19 13:50
Date Received: 09/27/19 10:40

Sample Name: Black Owl Biochar
Lab Code: K1909014-007

Units: mg/Kg
Basis: Dry

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Dibenz(a,h)anthracene	ND U	1.0	0.044	1	10/10/19 08:46	10/4/19	
Dibenzofuran	ND U	1.0	0.031	1	10/10/19 08:46	10/4/19	
Diethyl Phthalate	0.031 J	1.0	0.025	1	10/10/19 08:46	10/4/19	
Dimethyl Phthalate	ND U	1.0	0.024	1	10/10/19 08:46	10/4/19	
Di-n-butyl Phthalate	ND U	1.0	0.047	1	10/10/19 08:46	10/4/19	
Di-n-octyl Phthalate	ND U	1.0	0.031	1	10/10/19 08:46	10/4/19	
Fluoranthene	ND U	1.0	0.038	1	10/10/19 08:46	10/4/19	
Fluorene	ND U	1.0	0.041	1	10/10/19 08:46	10/4/19	
Hexachlorobenzene	ND U	1.0	0.050	1	10/10/19 08:46	10/4/19	
Hexachlorobutadiene	ND U	1.0	0.035	1	10/10/19 08:46	10/4/19	
Hexachlorocyclopentadiene	ND U	1.0	0.075	1	10/10/19 08:46	10/4/19	
Hexachloroethane	ND U	1.0	0.025	1	10/10/19 08:46	10/4/19	
Indeno(1,2,3-cd)pyrene	ND U	1.0	0.035	1	10/10/19 08:46	10/4/19	
Isophorone	ND U	1.0	0.035	1	10/10/19 08:46	10/4/19	
Naphthalene	ND U	1.0	0.035	1	10/10/19 08:46	10/4/19	
Nitrobenzene	ND U	1.0	0.035	1	10/10/19 08:46	10/4/19	
N-Nitrosodimethylamine	ND U	6.2	0.93	1	10/10/19 08:46	10/4/19	
N-Nitrosodi-n-propylamine	ND U	1.0	0.035	1	10/10/19 08:46	10/4/19	
N-Nitrosodiphenylamine	ND U	1.0	0.024	1	10/10/19 08:46	10/4/19	
Pentachlorophenol	ND U	6.2	0.20	1	10/10/19 08:46	10/4/19	
Phenanthrene	ND U	1.0	0.035	1	10/10/19 08:46	10/4/19	
Phenol	ND U	1.0	0.059	1	10/10/19 08:46	10/4/19	
Pyrene	ND U	1.0	0.030	1	10/10/19 08:46	10/4/19	
2,2'-Oxybis(1-chloropropane)	ND U	1.0	0.025	1	10/10/19 08:46	10/4/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	0	35 - 118	10/10/19 08:46	*
2-Fluorobiphenyl	0	37 - 103	10/10/19 08:46	*
2-Fluorophenol	0	30 - 98	10/10/19 08:46	*
Nitrobenzene-d5	2	36 - 112	10/10/19 08:46	*
Phenol-d6	0	31 - 103	10/10/19 08:46	*
Terphenyl-d14	0	18 - 127	10/10/19 08:46	*

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Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: KQ1914345-03

Units: mg/Kg
Basis: Dry

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	ND U	0.33	0.011	1	10/10/19 06:02	10/4/19	
1,2-Dichlorobenzene	ND U	0.33	0.0078	1	10/10/19 06:02	10/4/19	
1,3-Dichlorobenzene	ND U	0.33	0.0084	1	10/10/19 06:02	10/4/19	
1,4-Dichlorobenzene	ND U	0.33	0.0083	1	10/10/19 06:02	10/4/19	
2,4,5-Trichlorophenol	ND U	0.33	0.0083	1	10/10/19 06:02	10/4/19	
2,4,6-Trichlorophenol	ND U	0.33	0.014	1	10/10/19 06:02	10/4/19	
2,4-Dichlorophenol	ND U	0.33	0.0077	1	10/10/19 06:02	10/4/19	
2,4-Dimethylphenol	ND U	0.33	0.036	1	10/10/19 06:02	10/4/19	
2,4-Dinitrophenol	ND U	2.0	0.14	1	10/10/19 06:02	10/4/19	
2,4-Dinitrotoluene	ND U	0.33	0.015	1	10/10/19 06:02	10/4/19	
2,6-Dinitrotoluene	ND U	0.33	0.0073	1	10/10/19 06:02	10/4/19	
2-Chloronaphthalene	ND U	0.33	0.010	1	10/10/19 06:02	10/4/19	
2-Chlorophenol	ND U	0.33	0.0086	1	10/10/19 06:02	10/4/19	
2-Methyl-4,6-dinitrophenol	ND U	2.0	0.032	1	10/10/19 06:02	10/4/19	
2-Methylnaphthalene	ND U	0.33	0.011	1	10/10/19 06:02	10/4/19	
2-Methylphenol	ND U	0.33	0.015	1	10/10/19 06:02	10/4/19	
2-Nitroaniline	ND U	0.33	0.042	1	10/10/19 06:02	10/4/19	
2-Nitrophenol	ND U	0.33	0.014	1	10/10/19 06:02	10/4/19	
3,3'-Dichlorobenzidine	ND U	0.33	0.027	1	10/10/19 06:02	10/4/19	
3-Nitroaniline	ND U	0.33	0.0079	1	10/10/19 06:02	10/4/19	
4-Bromophenyl Phenyl Ether	ND U	0.33	0.013	1	10/10/19 06:02	10/4/19	
4-Chloro-3-methylphenol	ND U	0.33	0.16	1	10/10/19 06:02	10/4/19	
4-Chloroaniline	ND U	0.33	0.0070	1	10/10/19 06:02	10/4/19	
4-Chlorophenyl Phenyl Ether	ND U	0.33	0.0085	1	10/10/19 06:02	10/4/19	
4-Methylphenol	ND U	0.33	0.010	1	10/10/19 06:02	10/4/19	
4-Nitroaniline	ND U	2.0	0.0099	1	10/10/19 06:02	10/4/19	
4-Nitrophenol	ND U	2.0	0.049	1	10/10/19 06:02	10/4/19	
Acenaphthene	ND U	0.33	0.0093	1	10/10/19 06:02	10/4/19	
Acenaphthylene	ND U	0.33	0.0071	1	10/10/19 06:02	10/4/19	
Aniline	ND U	1.0	0.012	1	10/10/19 06:02	10/4/19	
Anthracene	ND U	0.33	0.0086	1	10/10/19 06:02	10/4/19	
Benz(a)anthracene	ND U	0.33	0.0091	1	10/10/19 06:02	10/4/19	
Benzo(a)pyrene	ND U	0.33	0.016	1	10/10/19 06:02	10/4/19	
Benzo(b)fluoranthene	ND U	0.33	0.012	1	10/10/19 06:02	10/4/19	
Benzo(g,h,i)perylene	ND U	0.33	0.011	1	10/10/19 06:02	10/4/19	
Benzo(k)fluoranthene	ND U	0.33	0.014	1	10/10/19 06:02	10/4/19	
Benzoic Acid	ND U	2.0	0.14	1	10/10/19 06:02	10/4/19	
Benzyl Alcohol	ND U	0.33	0.0073	1	10/10/19 06:02	10/4/19	
Bis(2-chloroethoxy)methane	ND U	0.33	0.0094	1	10/10/19 06:02	10/4/19	
Bis(2-chloroethyl) Ether	ND U	0.33	0.0082	1	10/10/19 06:02	10/4/19	
Bis(2-ethylhexyl) Phthalate	ND U	0.33	0.0071	1	10/10/19 06:02	10/4/19	
Butyl Benzyl Phthalate	ND U	0.33	0.015	1	10/10/19 06:02	10/4/19	
Chrysene	ND U	0.33	0.014	1	10/10/19 06:02	10/4/19	

ALS Group USA, Corp.
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Analytical Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: KQ1914345-03

Units: mg/Kg
Basis: Dry

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Dibenz(a,h)anthracene	ND U	0.33	0.014	1	10/10/19 06:02	10/4/19	
Dibenzofuran	ND U	0.33	0.0098	1	10/10/19 06:02	10/4/19	
Diethyl Phthalate	0.0090 J	0.33	0.0079	1	10/10/19 06:02	10/4/19	
Dimethyl Phthalate	ND U	0.33	0.0076	1	10/10/19 06:02	10/4/19	
Di-n-butyl Phthalate	ND U	0.33	0.015	1	10/10/19 06:02	10/4/19	
Di-n-octyl Phthalate	ND U	0.33	0.010	1	10/10/19 06:02	10/4/19	
Fluoranthene	ND U	0.33	0.012	1	10/10/19 06:02	10/4/19	
Fluorene	ND U	0.33	0.013	1	10/10/19 06:02	10/4/19	
Hexachlorobenzene	ND U	0.33	0.016	1	10/10/19 06:02	10/4/19	
Hexachlorobutadiene	ND U	0.33	0.011	1	10/10/19 06:02	10/4/19	
Hexachlorocyclopentadiene	ND U	0.33	0.024	1	10/10/19 06:02	10/4/19	
Hexachloroethane	ND U	0.33	0.0079	1	10/10/19 06:02	10/4/19	
Indeno(1,2,3-cd)pyrene	ND U	0.33	0.011	1	10/10/19 06:02	10/4/19	
Isophorone	ND U	0.33	0.011	1	10/10/19 06:02	10/4/19	
Naphthalene	ND U	0.33	0.011	1	10/10/19 06:02	10/4/19	
Nitrobenzene	ND U	0.33	0.011	1	10/10/19 06:02	10/4/19	
N-Nitrosodimethylamine	ND U	2.0	0.30	1	10/10/19 06:02	10/4/19	
N-Nitrosodi-n-propylamine	ND U	0.33	0.011	1	10/10/19 06:02	10/4/19	
N-Nitrosodiphenylamine	ND U	0.33	0.0075	1	10/10/19 06:02	10/4/19	
Pentachlorophenol	ND U	2.0	0.063	1	10/10/19 06:02	10/4/19	
Phenanthrene	ND U	0.33	0.011	1	10/10/19 06:02	10/4/19	
Phenol	ND U	0.33	0.019	1	10/10/19 06:02	10/4/19	
Pyrene	ND U	0.33	0.0096	1	10/10/19 06:02	10/4/19	
2,2'-Oxybis(1-chloropropane)	ND U	0.33	0.0079	1	10/10/19 06:02	10/4/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	51	35 - 118	10/10/19 06:02	
2-Fluorobiphenyl	51	37 - 103	10/10/19 06:02	
2-Fluorophenol	46	30 - 98	10/10/19 06:02	
Nitrobenzene-d5	54	36 - 112	10/10/19 06:02	
Phenol-d6	52	31 - 103	10/10/19 06:02	
Terphenyl-d14	54	18 - 127	10/10/19 06:02	

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014

SURROGATE RECOVERY SUMMARY
Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Extraction Method: EPA 3541

Sample Name	Lab Code	2,4,6-Tribromophenol	2-Fluorobiphenyl	2-Fluorophenol
		35-118	37-103	30-98
PS-GNB-052619	K1909014-006	44	52	24*
Black Owl Biochar	K1909014-007	0*	0*	0*
Method Blank	KQ1914345-03	51	51	46
Lab Control Sample	KQ1914345-01	67	62	54
Duplicate Lab Control Sample	KQ1914345-02	61	55	47

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014

SURROGATE RECOVERY SUMMARY
Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Extraction Method: EPA 3541

Sample Name	Lab Code	Nitrobenzene-d5	Phenol-d6	Terphenyl-d14
		36-112	31-103	18-127
PS-GNB-052619	K1909014-006	49	24*	52
Black Owl Biochar	K1909014-007	2*	0*	0*
Method Blank	KQ1914345-03	54	52	54
Lab Control Sample	KQ1914345-01	60	57	73
Duplicate Lab Control Sample	KQ1914345-02	58	55	62

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QA/QC Report

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Date Analyzed: 10/10/19 01:14

Internal Standard Area and RT SUMMARY
Semivolatile Organic Compounds by GC/MS

File ID: J:\MS07\DATA\100919\1009F020.D\
Instrument ID: K-MS-07
Analysis Method: 8270D

Lab Code: KQ1914763-05
Analysis Lot: 654315
Signal ID: 1

	1,4-Dichlorobenzene-d4		Acenaphthene-d10		Chrysene-d12	
	Area	RT	Area	RT	Area	RT
Result ==>	50,950	9.34	111,710	14.30	135,653	21.14
Upper Limit ==>	101,900	9.84	223,420	14.80	271,306	21.64
Lower Limit ==>	25,475	8.84	55,855	13.80	67,827	20.64

Associated Analyses

		Area	RT	Area	RT	Area	RT
Method Blank	KQ1914345-03	45219	9.33	103897	14.30	140126	21.12
Lab Control Sample	KQ1914345-01	46887	9.34	90252	14.30	135449	21.14
Duplicate Lab Control Sample	KQ1914345-02	47403	9.34	107948	14.30	130789	21.14
PS-GNB-052619	K1909014-006	49676	9.33	99771	14.30	118540	21.13
Black Owl Biochar	K1909014-007	43533	9.33	89628	14.30	131423	21.12

ALS Group USA, Corp.
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QA/QC Report

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Date Analyzed: 10/10/19 01:14

Internal Standard Area and RT SUMMARY
Semivolatile Organic Compounds by GC/MS

File ID: J:\MS07\DATA\100919\1009F020.D\
Instrument ID: K-MS-07
Analysis Method: 8270D

Lab Code: KQ1914763-05
Analysis Lot: 654315
Signal ID: 1

	Naphthalene-d8		Perylene-d12		Phenanthrene-d10	
	Area	RT	Area	RT	Area	RT
Result ==>	204,018	11.44	162,322	24.30	168,145	16.71
Upper Limit ==>	408,036	11.94	324,644	24.80	336,290	17.21
Lower Limit ==>	102,009	10.94	81,161	23.80	84,073	16.21

Associated Analyses

Method Blank	KQ1914345-03	174852	11.43	146265	24.30	177411	16.70
Lab Control Sample	KQ1914345-01	174623	11.44	154886	24.30	153969	16.71
Duplicate Lab Control Sample	KQ1914345-02	190062	11.44	150755	24.30	158549	16.71
PS-GNB-052619	K1909014-006	190926	11.43	129996	24.31	143807	16.70
Black Owl Biochar	K1909014-007	155042	11.43	135176	24.29	147892	16.70

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Analyzed: 10/10/19
Date Extracted: 10/04/19

Duplicate Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Units: mg/Kg
Basis: Dry
Analysis Lot: 654315

Analyte Name	Lab Control Sample KQ1914345-01			Duplicate Lab Control Sample KQ1914345-02			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,2,4-Trichlorobenzene	2.19	3.33	66	1.91	3.33	57	43-98	14	40
1,2-Dichlorobenzene	2.07	3.33	62	1.80	3.33	54	42-96	14	40
1,3-Dichlorobenzene	2.04	3.33	61	1.72	3.33	52	39-93	17	40
1,4-Dichlorobenzene	2.10	3.33	63	1.77	3.33	53	40-93	17	40
2,2'-Oxybis(1-chloropropane)	1.99	3.33	60	1.72	3.33	52	37-102	15	40
2,4,5-Trichlorophenol	2.23	3.33	67	1.83	3.33	55	46-117	19	40
2,4,6-Trichlorophenol	2.17	3.33	65	1.78	3.33	53	50-114	19	40
2,4-Dichlorophenol	1.97	3.33	59	1.81	3.33	54	52-106	8	40
2,4-Dimethylphenol	1.37	3.33	41	1.28	3.33	38	18-94	7	40
2,4-Dinitrophenol	2.30	3.33	69	1.70 J	3.33	51	22-136	30	40
2,4-Dinitrotoluene	2.85	3.33	85	2.09	3.33	63	44-120	31	40
2,6-Dinitrotoluene	2.71	3.33	81	2.13	3.33	64	47-116	24	40
2-Chloronaphthalene	2.26	3.33	68	1.98	3.33	59	48-102	13	40
2-Chlorophenol	1.90	3.33	57	1.67	3.33	50	49-102	13	40
2-Methyl-4,6-dinitrophenol	2.53	3.33	76	1.88 J	3.33	56	36-132	29	40
2-Methylnaphthalene	2.22	3.33	67	2.05	3.33	61	47-102	8	40
2-Methylphenol	1.87	3.33	56	1.72	3.33	52	46-109	8	40
2-Nitroaniline	2.64	3.33	79	2.10	3.33	63	53-106	23	40
2-Nitrophenol	2.13	3.33	64	1.85	3.33	56	50-111	14	40
3,3'-Dichlorobenzidine	2.22	3.33	67	1.87	3.33	56	28-90	17	40
3-Nitroaniline	2.65	3.33	79	2.05	3.33	61	45-108	26	40
4-Bromophenyl Phenyl Ether	2.40	3.33	72	2.16	3.33	65	54-113	10	40
4-Chloro-3-methylphenol	2.08	3.33	62	1.93	3.33	58	53-109	8	40
4-Chloroaniline	2.09	3.33	63	1.96	3.33	59	43-100	6	40
4-Chlorophenyl Phenyl Ether	2.46	3.33	74	1.94	3.33	58	52-106	24	40
4-Methylphenol	1.82	3.33	55	1.75	3.33	52	48-114	4	40
4-Nitroaniline	2.74	3.33	82	1.90 J	3.33	57	44-113	36	40
4-Nitrophenol	2.77	3.33	83	2.02	3.33	61	41-135	32	40
Acenaphthene	2.39	3.33	72	1.96	3.33	59	51-102	20	40
Acenaphthylene	2.34	3.33	70	1.99	3.33	60	48-103	16	40
Aniline	1.82	3.33	55	1.70	3.33	51	30-95	7	40
Anthracene	2.42	3.33	73	2.04	3.33	61	53-101	17	40
Benz(a)anthracene	2.48	3.33	74	2.05	3.33	61	55-106	19	40
Benzo(a)pyrene	2.60	3.33	78	2.21	3.33	66	52-104	16	40
Benzo(b)fluoranthene	2.37	3.33	71	2.03	3.33	61	50-107	15	40
Benzo(g,h,i)perylene	2.11	3.33	63	1.81	3.33	54	50-111	15	40
Benzo(k)fluoranthene	2.62	3.33	79	2.15	3.33	65	52-107	20	40
Benzoic Acid	1.60 J	3.33	48	1.26 J	3.33	38	31-125	24	40
Benzyl Alcohol	2.11	3.33	63	1.98	3.33	60	48-107	6	40
Bis(2-chloroethoxy)methane	2.17	3.33	65	1.93	3.33	58	51-102	11	40
Bis(2-chloroethyl) Ether	2.12	3.33	64	1.84	3.33	55	47-104	14	40

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Analyzed: 10/10/19
Date Extracted: 10/04/19

Duplicate Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Units: mg/Kg
Basis: Dry
Analysis Lot: 654315

Analyte Name	Lab Control Sample KQ1914345-01			Duplicate Lab Control Sample KQ1914345-02			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Bis(2-ethylhexyl) Phthalate	2.64	3.33	79	2.13	3.33	64	49-114	22	40
Butyl Benzyl Phthalate	2.73	3.33	82	2.16	3.33	65	51-114	23	40
Chrysene	2.51	3.33	75	2.06	3.33	62	51-102	20	40
Dibenz(a,h)anthracene	2.48	3.33	74	2.12	3.33	64	56-109	15	40
Dibenzofuran	2.39	3.33	72	2.01	3.33	60	48-100	17	40
Diethyl Phthalate	2.52	3.33	76	1.91	3.33	57	52-105	28	40
Dimethyl Phthalate	2.50	3.33	75	2.02	3.33	61	53-104	21	40
Di-n-butyl Phthalate	2.61	3.33	78	2.04	3.33	61	53-107	25	40
Di-n-octyl Phthalate	2.50	3.33	75	2.10	3.33	63	44-119	18	40
Fluoranthene	2.74	3.33	82	2.12	3.33	64	53-111	25	40
Fluorene	2.48	3.33	74	2.02	3.33	60	51-100	21	40
Hexachlorobenzene	2.34	3.33	70	2.03	3.33	61	54-110	14	40
Hexachlorobutadiene	2.21	3.33	66	1.86	3.33	56	36-101	18	40
Hexachlorocyclopentadiene	1.48	3.33	45	1.17	3.33	35	10-50	23	40
Hexachloroethane	2.06	3.33	62	1.73	3.33	52	35-94	17	40
Indeno(1,2,3-cd)pyrene	2.49	3.33	75	2.12	3.33	63	56-108	16	40
Isophorone	2.08	3.33	62	1.93	3.33	58	44-105	7	40
Naphthalene	2.23	3.33	67	1.95	3.33	58	46-98	13	40
Nitrobenzene	2.21	3.33	66	2.07	3.33	62	51-109	6	40
N-Nitrosodimethylamine	2.07	3.33	62	1.78 J	3.33	53	43-116	15	40
N-Nitrosodi-n-propylamine	2.03	3.33	61	1.96	3.33	59	51-107	3	40
N-Nitrosodiphenylamine	2.58	3.33	77	1.93	3.33	58	38-106	29	40
Pentachlorophenol	2.21	3.33	66	1.78 J	3.33	53	35-113	22	40
Phenanthrene	2.42	3.33	73	2.08	3.33	62	54-102	15	40
Phenol	1.86	3.33	56	1.71	3.33	51	46-99	9	40
Pyrene	2.63	3.33	79	2.16	3.33	65	47-113	20	40

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014
Date Analyzed: 10/10/19 06:43
Date Extracted: 10/04/19

Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Sample Name: Lab Control Sample **Instrument ID:** K-MS-07
Lab Code: KQ1914345-01 **File ID:** J:\MS07\DATA\100919\1009F028.D\
Analysis Method: 8270D **Analysis Lot:** 654315
Prep Method: EPA 3541 **Extraction Lot:** 345831

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	KQ1914345-03	J:\MS07\DATA\100919\1009F027.D\	10/10/19 06:02
Duplicate Lab Control Sample	KQ1914345-02	J:\MS07\DATA\100919\1009F029.D\	10/10/19 07:24
PS-GNB-052619	K1909014-006	J:\MS07\DATA\100919\1009F030.D\	10/10/19 08:05
Black Owl Biochar	K1909014-007	J:\MS07\DATA\100919\1009F031.D\	10/10/19 08:46

ALS Group USA, Corp.
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QC/QC Report

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Date Analyzed: 10/10/19 00:33

Tune Summary
Semivolatile Organic Compounds by GC/MS

File ID: J:\MS07\DATA\100919\1009F019.D\
Instrument ID: K-MS-07

Analytical Method: 8270D
Analysis Lot: 654315

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	30	80	44.53	22848	Pass
68	69	0	2	0.00	0	Pass
69	198	0	100	57.84	29680	Pass
70	69	0	2	0.00	0	Pass
127	198	25	75	45.51	23352	Pass
197	198	0	1	0.00	0	Pass
198	198	100	100	100.00	51312	Pass
199	198	5	9	7.01	3599	Pass
275	198	10	30	27.01	13858	Pass
365	198	0.75	100	3.34	1712	Pass
441	443	0.01	100	78.33	6837	Pass
442	198	40	110	87.76	45032	Pass
443	442	15	24	19.38	8728	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	KQ1914763-05	J:\MS07\DATA\100919\1009F020.D\	10/10/19 01:14	
Method Blank	KQ1914345-03	J:\MS07\DATA\100919\1009F027.D\	10/10/19 06:02	
Lab Control Sample	KQ1914345-01	J:\MS07\DATA\100919\1009F028.D\	10/10/19 06:43	
Duplicate Lab Control Sample	KQ1914345-02	J:\MS07\DATA\100919\1009F029.D\	10/10/19 07:24	
PS-GNB-052619	K1909014-006	J:\MS07\DATA\100919\1009F030.D\	10/10/19 08:05	
Black Owl Biochar	K1909014-007	J:\MS07\DATA\100919\1009F031.D\	10/10/19 08:46	

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Calibration Date: 10/9/2019

Initial Calibration Summary
Semivolatile Organic Compounds by GC/MS

Calibration ID: KC1900424
Instrument ID: K-MS-07

Signal ID: 1

#	Lab Code	Sample Name	File Location	Acquisition Date
01	KC1900424-01	ICAL @1ppm SVM-62-13B	J:\MS07\DATA\100919\1009F003.D	10/09/2019 13:33
02	KC1900424-02	ICAL @2.5ppm SVM-62-13C	J:\MS07\DATA\100919\1009F004.D	10/09/2019 14:15
03	KC1900424-03	ICAL @5ppm SVM-62-13D	J:\MS07\DATA\100919\1009F005.D	10/09/2019 14:56
04	KC1900424-04	ICAL @7.5ppm SVM-62-13E	J:\MS07\DATA\100919\1009F006.D	10/09/2019 15:37
05	KC1900424-05	ICAL @10ppm SVM-62-13F	J:\MS07\DATA\100919\1009F007.D	10/09/2019 16:19
06	KC1900424-06	ICAL @20ppm SVM-62-13G	J:\MS07\DATA\100919\1009F008.D	10/09/2019 17:00
07	KC1900424-07	ICAL @50ppm SVM-62-13H	J:\MS07\DATA\100919\1009F009.D	10/09/2019 17:41
08	KC1900424-08	ICAL @80ppm SVM-62-13I	J:\MS07\DATA\100919\1009F010.D	10/09/2019 18:22
09	KC1900424-09	ICAL @100ppm SVM-62-13J	J:\MS07\DATA\100919\1009F011.D	10/09/2019 19:04
10	KC1900424-10	ICAL @120ppm SVM-62-13K	J:\MS07\DATA\100919\1009F012.D	10/09/2019 19:45
11	KC1900424-11	ICAL @150ppm SVM-62-13L	J:\MS07\DATA\100919\1009F013.D	10/09/2019 20:26
12	KC1900424-12	ICAL @160ppm SVM-62-13M	J:\MS07\DATA\100919\1009F014.D	10/09/2019 21:07
13	KC1900424-13	ICAL @180ppm SVM-62-13N	J:\MS07\DATA\100919\1009F015.D	10/09/2019 21:48
14	KC1900424-14	ICAL @200ppm SVM-62-13O	J:\MS07\DATA\100919\1009F016.D	10/09/2019 22:29

Analyte

1,2,4-Trichlorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.3199	02	2.500	0.2892	03	5.000	0.319	04	7.500	0.3219
05	10.000	0.3118	06	20.000	0.3161	07	50.000	0.31	08	80.000	0.3247
09	100.000	0.3162	10	120.000	0.3185	11	150.000	0.3185	12	160.000	0.3115
13	180.000	0.3094	14	200.000	0.3059						

1,2-Dichlorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.239	02	2.500	1.307	03	5.000	1.375	04	7.500	1.394
05	10.000	1.347	06	20.000	1.384	07	50.000	1.341	08	80.000	1.394
09	100.000	1.336	10	120.000	1.311	11	150.000	1.335	12	160.000	1.319
13	180.000	1.34	14	200.000	1.281						

1,3-Dichlorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.313	02	2.500	1.344	03	5.000	1.405	04	7.500	1.42
05	10.000	1.385	06	20.000	1.405	07	50.000	1.43	08	80.000	1.454
09	100.000	1.376	10	120.000	1.404	11	150.000	1.406	12	160.000	1.377
13	180.000	1.367	14	200.000	1.319						

1,4-Dichlorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.36	02	2.500	1.409	03	5.000	1.443	04	7.500	1.483
05	10.000	1.434	06	20.000	1.436	07	50.000	1.438	08	80.000	1.503
09	100.000	1.42	10	120.000	1.453	11	150.000	1.438	12	160.000	1.412
13	180.000	1.414	14	200.000	1.363						

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Calibration Date: 10/9/2019

Initial Calibration Summary
Semivolatile Organic Compounds by GC/MS

Calibration ID: KC1900424
Instrument ID: K-MS-07

Signal ID: 1

Analyte

2,2'-Oxybis(1-chloropropane)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	2.500	1.734	03	5.000	1.75	04	7.500	1.776	05	10.000	1.808
06	20.000	1.803	07	50.000	1.869	08	80.000	1.864	09	100.000	1.755
10	120.000	1.725	11	150.000	1.699	12	160.000	1.682	13	180.000	1.661

2,4,5-Trichlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.3039	02	2.500	0.3467	03	5.000	0.3679	04	7.500	0.4011
05	10.000	0.4212	06	20.000	0.4381	07	50.000	0.4471	08	80.000	0.4565
09	100.000	0.4576	10	120.000	0.4607	11	150.000	0.4611	12	160.000	0.444
13	180.000	0.4569	14	200.000	0.4602						

2,4,6-Tribromophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	7.500	0.202	05	10.000	0.2194	06	20.000	0.2369	07	50.000	0.2454
08	80.000	0.2516	09	100.000	0.245	10	120.000	0.2488	11	150.000	0.2475
12	160.000	0.2381	13	180.000	0.2457	14	200.000	0.2426			

2,4,6-Trichlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	5.000	0.3468	04	7.500	0.3755	05	10.000	0.3611	06	20.000	0.3938
07	50.000	0.3918	08	80.000	0.4212	09	100.000	0.4131	10	120.000	0.4189
11	150.000	0.4017	12	160.000	0.4185	13	180.000	0.4276	14	200.000	0.4223

2,4-Dichlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.2353	02	2.500	0.2507	03	5.000	0.291	04	7.500	0.2898
05	10.000	0.2925	06	20.000	0.3003	07	50.000	0.3045	08	80.000	0.3154
09	100.000	0.311	10	120.000	0.3088	11	150.000	0.3024	12	160.000	0.3039
13	180.000	0.3014	14	200.000	0.3017						

2,4-Dimethylphenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.2667	02	2.500	0.2754	03	5.000	0.2982	04	7.500	0.2896
05	10.000	0.286	06	20.000	0.3016	07	50.000	0.2921	08	80.000	0.3054
09	100.000	0.2903	10	120.000	0.2988	11	150.000	0.2882	12	160.000	0.2789
13	180.000	0.2785	14	200.000	0.283						

2,4-Dinitrophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
05	10.000	0.04057	06	20.000	0.07338	07	50.000	0.1261	08	80.000	0.1609
09	100.000	0.1753	10	120.000	0.188	11	150.000	0.1997	12	160.000	0.2028
13	180.000	0.2195	14	200.000	0.215						

2,4-Dinitrotoluene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	2.500	0.252	03	5.000	0.2969	04	7.500	0.3241	05	10.000	0.3489
06	20.000	0.3575	07	50.000	0.3415	08	80.000	0.3724	09	100.000	0.3786

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Calibration Date: 10/9/2019

Initial Calibration Summary
Semivolatile Organic Compounds by GC/MS

Calibration ID: KC1900424
Instrument ID: K-MS-07

Signal ID: 1

Analyte

2,4-Dinitrotoluene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	120.000	0.3841	11	150.000	0.3985	12	160.000	0.3886	13	180.000	0.4092
14	200.000	0.3803									

2,6-Dinitrotoluene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	2.500	0.2094	03	5.000	0.2451	04	7.500	0.2589	05	10.000	0.2703
06	20.000	0.2798	07	50.000	0.2783	08	80.000	0.2952	09	100.000	0.2969
10	120.000	0.3007	11	150.000	0.3108	12	160.000	0.2925	13	180.000	0.3018
14	200.000	0.2918									

2-Chloronaphthalene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.005	02	2.500	1.031	03	5.000	1.048	04	7.500	1.106
05	10.000	1.054	06	20.000	1.068	07	50.000	1.059	08	80.000	1.141
09	100.000	1.103	10	120.000	1.101	11	150.000	1.078	12	160.000	1.061
13	180.000	1.118	14	200.000	1.103						

2-Chlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.147	02	2.500	1.256	03	5.000	1.313	04	7.500	1.344
05	10.000	1.318	06	20.000	1.301	07	50.000	1.373	08	80.000	1.408
09	100.000	1.359	10	120.000	1.342	11	150.000	1.344	12	160.000	1.326
13	180.000	1.342	14	200.000	1.334						

2-Fluorobiphenyl

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.191	02	2.500	1.259	03	5.000	1.264	04	7.500	1.29
05	10.000	1.245	06	20.000	1.273	07	50.000	1.244	08	80.000	1.362
09	100.000	1.275	10	120.000	1.304	11	150.000	1.3	12	160.000	1.282
13	180.000	1.316	14	200.000	1.355						

2-Fluorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.129	02	2.500	1.145	03	5.000	1.186	04	7.500	1.262
05	10.000	1.2	06	20.000	1.226	07	50.000	1.248	08	80.000	1.287
09	100.000	1.228	10	120.000	1.235	11	150.000	1.234	12	160.000	1.256
13	180.000	1.229	14	200.000	1.221						

2-Methyl-4,6-dinitrophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	20.000	0.16	07	50.000	0.1971	08	80.000	0.2295	09	100.000	0.245
10	120.000	0.2647	11	150.000	0.2812	12	160.000	0.2642	13	180.000	0.288
14	200.000	0.2692									

2-Methylnaphthalene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.5784	02	2.500	0.5712	03	5.000	0.6213	04	7.500	0.6338

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Calibration Date: 10/9/2019

Initial Calibration Summary
Semivolatile Organic Compounds by GC/MS

Calibration ID: KC1900424
Instrument ID: K-MS-07

Signal ID: 1

Analyte

2-Methylnaphthalene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
05	10.000	0.6332	06	20.000	0.6589	07	50.000	0.6311	08	80.000	0.6416
09	100.000	0.6208	10	120.000	0.6188	11	150.000	0.6206	12	160.000	0.5894
13	180.000	0.5951	14	200.000	0.5902						

2-Methylphenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.9102	02	2.500	0.9597	03	5.000	1.018	04	7.500	1.02
05	10.000	1.034	06	20.000	1.031	07	50.000	1.113	08	80.000	1.12
09	100.000	1.07	10	120.000	1.015	11	150.000	0.995	12	160.000	1.038
13	180.000	1.044	14	200.000	1.034						

2-Nitroaniline

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.2496	02	2.500	0.3154	03	5.000	0.3157	04	7.500	0.3464
05	10.000	0.3748	06	20.000	0.3863	07	50.000	0.3847	08	80.000	0.395
09	100.000	0.3968	10	120.000	0.3975	11	150.000	0.4047	12	160.000	0.383
13	180.000	0.4051	14	200.000	0.3868						

2-Nitrophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
05	10.000	0.1688	06	20.000	0.1785	07	50.000	0.1863	08	80.000	0.2003
09	100.000	0.201	10	120.000	0.206	11	150.000	0.196	12	160.000	0.2044
13	180.000	0.1985	14	200.000	0.2029						

3,3'-Dichlorobenzidine

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	2.500	0.3636	03	5.000	0.421	04	7.500	0.4273	05	10.000	0.4265
06	20.000	0.4432	07	50.000	0.4573	08	80.000	0.5237	09	100.000	0.526
10	120.000	0.5336	11	150.000	0.5341	12	160.000	0.5181	13	180.000	0.5308
14	200.000	0.5153									

3-Nitroaniline

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.1966	02	2.500	0.2383	03	5.000	0.2943	04	7.500	0.3035
05	10.000	0.3112	06	20.000	0.3248	07	50.000	0.3122	08	80.000	0.3325
09	100.000	0.3308	10	120.000	0.3464	11	150.000	0.3488	12	160.000	0.3328
13	180.000	0.346	14	200.000	0.3289						

4-Bromophenyl Phenyl Ether

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.2228	02	2.500	0.2238	03	5.000	0.2447	04	7.500	0.2533
05	10.000	0.2535	06	20.000	0.2742	07	50.000	0.2667	08	80.000	0.2748
09	100.000	0.2663	10	120.000	0.2635	11	150.000	0.2611	12	160.000	0.2527
13	180.000	0.2643	14	200.000	0.2554						

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Calibration Date: 10/9/2019

Initial Calibration Summary
Semivolatile Organic Compounds by GC/MS

Calibration ID: KC1900424
Instrument ID: K-MS-07

Signal ID: 1

Analyte

4-Chloro-3-methylphenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.2204	02	2.500	0.245	03	5.000	0.2777	04	7.500	0.2731
05	10.000	0.302	06	20.000	0.3206	07	50.000	0.3092	08	80.000	0.3128
09	100.000	0.318	10	120.000	0.2986	11	150.000	0.2995	12	160.000	0.2927
13	180.000	0.2916	14	200.000	0.2846						

4-Chloroaniline

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.3836	02	2.500	0.3829	03	5.000	0.4317	04	7.500	0.4404
05	10.000	0.4416	06	20.000	0.4621	07	50.000	0.4404	08	80.000	0.4339
09	100.000	0.4373	10	120.000	0.4265	11	150.000	0.4203	12	160.000	0.3921
13	180.000	0.3869	14	200.000	0.3897						

4-Chlorophenyl Phenyl Ether

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.6073	02	2.500	0.624	03	5.000	0.6243	04	7.500	0.6069
05	10.000	0.6269	06	20.000	0.6238	07	50.000	0.6049	08	80.000	0.6241
09	100.000	0.6172	10	120.000	0.6226	11	150.000	0.605	12	160.000	0.6048
13	180.000	0.6252	14	200.000	0.6071						

4-Methylphenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.344	02	2.500	1.358	03	5.000	1.502	04	7.500	1.515
05	10.000	1.573	06	20.000	1.609	07	50.000	1.75	08	80.000	1.761
09	100.000	1.644	10	120.000	1.577	11	150.000	1.566	12	160.000	1.573
13	180.000	1.568	14	200.000	1.594						

4-Nitroaniline

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.1896	02	2.500	0.2795	03	5.000	0.296	04	7.500	0.314
05	10.000	0.3127	06	20.000	0.3247	07	50.000	0.3043	08	80.000	0.3291
09	100.000	0.344	10	120.000	0.3585	11	150.000	0.3643	12	160.000	0.3237
13	180.000	0.3497	14	200.000	0.3346						

4-Nitrophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	5.000	0.1356	04	7.500	0.1649	05	10.000	0.1661	06	20.000	0.1772
07	50.000	0.1753	08	80.000	0.1998	09	100.000	0.1993	10	120.000	0.2104
11	150.000	0.2223	12	160.000	0.2058	13	180.000	0.2256	14	200.000	0.2092

Acenaphthene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.9215	02	2.500	0.9879	03	5.000	0.9445	04	7.500	0.9622
05	10.000	0.975	06	20.000	0.996	07	50.000	0.9468	08	80.000	0.9967
09	100.000	0.951	10	120.000	0.9718	11	150.000	0.9458	12	160.000	0.9341
13	180.000	0.9461	14	200.000	0.9606						

ALS Group USA, Corp.
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QA/QC Report

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Calibration Date: 10/9/2019

Initial Calibration Summary
Semivolatile Organic Compounds by GC/MS

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Analyte

Acenaphthylene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	2.500	1.556	03	5.000	1.579	04	7.500	1.604	05	10.000	1.594
06	20.000	1.647	07	50.000	1.621	08	80.000	1.679	09	100.000	1.615
10	120.000	1.628	11	150.000	1.601	12	160.000	1.596	13	180.000	1.644
14	200.000	1.579									

Aniline

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.833	02	2.500	1.805	03	5.000	1.93	04	7.500	1.975
05	10.000	1.98	06	20.000	1.997	07	50.000	2.037	08	80.000	2.008
09	100.000	1.946	10	120.000	1.873	11	150.000	1.881	12	160.000	1.848
13	180.000	1.861	14	200.000	1.836						

Anthracene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.006	02	2.500	0.9942	03	5.000	1.061	04	7.500	1.048
05	10.000	1.044	06	20.000	1.011	07	50.000	1.022	08	80.000	1.067
09	100.000	1.012	10	120.000	1.039	11	150.000	1.015	12	160.000	1.006
13	180.000	1.026	14	200.000	1.025						

Benz(a)anthracene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.9702	02	2.500	0.9496	03	5.000	0.9925	04	7.500	0.9666
05	10.000	0.9676	06	20.000	0.9824	07	50.000	0.9755	08	80.000	1.037
09	100.000	1.005	10	120.000	0.9984	11	150.000	0.9944	12	160.000	0.96
13	180.000	0.9855	14	200.000	0.9751						

Benzo(a)pyrene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.7199	02	2.500	0.7823	03	5.000	0.8376	04	7.500	0.8552
05	10.000	0.8337	06	20.000	0.9206	07	50.000	0.9525	08	80.000	0.9808
09	100.000	1.01	10	120.000	1.01	11	150.000	0.9942	12	160.000	0.9696
13	180.000	0.9851	14	200.000	0.9803						

Benzo(b)fluoranthene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	2.500	0.8203	03	5.000	0.9256	04	7.500	0.9151	05	10.000	0.8741
06	20.000	0.9916	07	50.000	0.9818	08	80.000	1.098	09	100.000	1.07
10	120.000	1.102	11	150.000	1.218	12	160.000	1.105	13	180.000	1.228
14	200.000	1.286									

Benzo(g,h,i)perylene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.7358	02	2.500	0.8109	03	5.000	0.9138	04	7.500	0.931
05	10.000	0.9816	06	20.000	1.145	07	50.000	1.019	08	80.000	1.032
09	100.000	1.004	10	120.000	1.022	11	150.000	1.028	12	160.000	0.9992
13	180.000	1.008	14	200.000	1.006						

ALS Group USA, Corp.
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QA/QC Report

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Calibration Date: 10/9/2019

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Semivolatile Organic Compounds by GC/MS

Calibration ID: KC1900424
Instrument ID: K-MS-07

Signal ID: 1

Analyte

Benzo(k)fluoranthene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.822	02	2.500	0.8792	03	5.000	0.9457	04	7.500	0.9712
05	10.000	0.9296	06	20.000	0.9623	07	50.000	0.9918	08	80.000	1.043
09	100.000	1.069	10	120.000	1.056	11	150.000	0.9262	12	160.000	0.9836
13	180.000	0.8781	14	200.000	0.8064						

Benzoic Acid

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	20.000	0.1502	07	50.000	0.2007	08	80.000	0.2158	09	100.000	0.212
10	120.000	0.2259	11	150.000	0.2228	12	160.000	0.2288	13	180.000	0.2298
14	200.000	0.2305									

Benzyl Alcohol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.7505	02	2.500	0.7909	03	5.000	0.8291	04	7.500	0.8646
05	10.000	0.8504	06	20.000	0.8701	07	50.000	0.924	08	80.000	0.9319
09	100.000	0.9006	10	120.000	0.8537	11	150.000	0.8851	12	160.000	0.8751
13	180.000	0.8906	14	200.000	0.8941						

Bis(2-chloroethoxy)methane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.3556	02	2.500	0.3921	03	5.000	0.4144	04	7.500	0.4352
05	10.000	0.4233	06	20.000	0.4372	07	50.000	0.4226	08	80.000	0.4501
09	100.000	0.4397	10	120.000	0.4429	11	150.000	0.424	12	160.000	0.4265
13	180.000	0.4191	14	200.000	0.4144						

Bis(2-chloroethyl) Ether

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.178	02	2.500	1.256	03	5.000	1.36	04	7.500	1.388
05	10.000	1.393	06	20.000	1.351	07	50.000	1.397	08	80.000	1.427
09	100.000	1.341	10	120.000	1.336	11	150.000	1.35	12	160.000	1.345
13	180.000	1.315	14	200.000	1.306						

Bis(2-ethylhexyl) Phthalate

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	2.500	0.5441	03	5.000	0.6216	04	7.500	0.6504	05	10.000	0.6883
06	20.000	0.7165	07	50.000	0.7441	08	80.000	0.7624	09	100.000	0.7575
10	120.000	0.7659	11	150.000	0.7231	12	160.000	0.7163	13	180.000	0.7284
14	200.000	0.7368									

Butyl Benzyl Phthalate

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	2.500	0.4851	03	5.000	0.5164	04	7.500	0.5247	05	10.000	0.5502
06	20.000	0.5512	07	50.000	0.5768	08	80.000	0.5911	09	100.000	0.5724
10	120.000	0.5627	11	150.000	0.5455	12	160.000	0.5349	13	180.000	0.5401
14	200.000	0.5204									

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
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Semivolatile Organic Compounds by GC/MS

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Signal ID: 1

Analyte

Chrysene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.9091	02	2.500	0.9908	03	5.000	1.009	04	7.500	1.044
05	10.000	1.026	06	20.000	1.028	07	50.000	1.011	08	80.000	1.041
09	100.000	1.035	10	120.000	1.053	11	150.000	1.031	12	160.000	1.034
13	180.000	1.04	14	200.000	1.032						

Di-n-butyl Phthalate

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.035	02	2.500	0.981	03	5.000	1.089	04	7.500	1.109
05	10.000	0.9924	06	20.000	1.081	07	50.000	1.136	08	80.000	1.264
09	100.000	1.214	10	120.000	1.254	11	150.000	1.269	12	160.000	1.205
13	180.000	1.229	14	200.000	1.164						

Di-n-octyl Phthalate

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	2.500	0.7141	03	5.000	0.8658	04	7.500	0.9392	05	10.000	0.9777
06	20.000	1.092	07	50.000	1.039	08	80.000	1.113	09	100.000	1.145
10	120.000	1.163	11	150.000	1.146	12	160.000	1.125	13	180.000	1.161
14	200.000	1.163									

Dibenz(a,h)anthracene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	2.500	0.6442	03	5.000	0.7769	04	7.500	0.8108	05	10.000	0.8784
06	20.000	1.076	07	50.000	0.9859	08	80.000	1.007	09	100.000	1.028
10	120.000	1.024	11	150.000	1.028	12	160.000	0.982	13	180.000	1.019
14	200.000	1.007									

Dibenzofuran

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.532	02	2.500	1.566	03	5.000	1.547	04	7.500	1.591
05	10.000	1.577	06	20.000	1.61	07	50.000	1.541	08	80.000	1.573
09	100.000	1.544	10	120.000	1.559	11	150.000	1.539	12	160.000	1.534
13	180.000	1.571	14	200.000	1.521						

Diethyl Phthalate

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.528	02	2.500	1.382	03	5.000	1.355	04	7.500	1.32
05	10.000	1.32	06	20.000	1.298	07	50.000	1.163	08	80.000	1.2
09	100.000	1.199	10	120.000	1.213	11	150.000	1.21	12	160.000	1.128
13	180.000	1.216	14	200.000	1.164						

Dimethyl Phthalate

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.22	02	2.500	1.202	03	5.000	1.234	04	7.500	1.259
05	10.000	1.262	06	20.000	1.277	07	50.000	1.208	08	80.000	1.231
09	100.000	1.199	10	120.000	1.242	11	150.000	1.205	12	160.000	1.191
13	180.000	1.211	14	200.000	1.176						

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
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Semivolatile Organic Compounds by GC/MS

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Signal ID: 1

Analyte

Fluoranthene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.092	02	2.500	0.9309	03	5.000	0.9839	04	7.500	0.975
05	10.000	0.8857	06	20.000	0.9297	07	50.000	1	08	80.000	1.107
09	100.000	1.058	10	120.000	1.073	11	150.000	1.105	12	160.000	1.049
13	180.000	1.071	14	200.000	1.016						

Fluorene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.133	02	2.500	1.145	03	5.000	1.184	04	7.500	1.175
05	10.000	1.206	06	20.000	1.21	07	50.000	1.143	08	80.000	1.15
09	100.000	1.17	10	120.000	1.169	11	150.000	1.14	12	160.000	1.108
13	180.000	1.163	14	200.000	1.095						

Hexachlorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.3331	02	2.500	0.3239	03	5.000	0.3414	04	7.500	0.3456
05	10.000	0.3448	06	20.000	0.3494	07	50.000	0.3439	08	80.000	0.3606
09	100.000	0.3421	10	120.000	0.3421	11	150.000	0.3366	12	160.000	0.3265
13	180.000	0.3384	14	200.000	0.3297						

Hexachlorobutadiene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.1851	02	2.500	0.187	03	5.000	0.2002	04	7.500	0.1957
05	10.000	0.1908	06	20.000	0.1945	07	50.000	0.192	08	80.000	0.2052
09	100.000	0.1988	10	120.000	0.2013	11	150.000	0.2034	12	160.000	0.2013
13	180.000	0.1981	14	200.000	0.1983						

Hexachlorocyclopentadiene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	2.500	0.3007	03	5.000	0.3421	04	7.500	0.3712	05	10.000	0.3418
06	20.000	0.3677	07	50.000	0.4006	08	80.000	0.4588	09	100.000	0.4289
10	120.000	0.4516	11	150.000	0.4672	12	160.000	0.4583	13	180.000	0.4755
14	200.000	0.4869									

Hexachloroethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.593	02	2.500	0.5768	03	5.000	0.6288	04	7.500	0.6543
05	10.000	0.6479	06	20.000	0.6459	07	50.000	0.6667	08	80.000	0.688
09	100.000	0.6629	10	120.000	0.6588	11	150.000	0.6684	12	160.000	0.6455
13	180.000	0.6606	14	200.000	0.6277						

Indeno(1,2,3-cd)pyrene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	2.500	0.7091	03	5.000	0.7743	04	7.500	0.793	05	10.000	0.8586
06	20.000	1.086	07	50.000	0.9909	08	80.000	1.001	09	100.000	1.013
10	120.000	1.043	11	150.000	1.043	12	160.000	1.026	13	180.000	1.06
14	200.000	1.068									

ALS Group USA, Corp.
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QA/QC Report

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Analyte

Isophorone											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.6141	02	2.500	0.6282	03	5.000	0.6799	04	7.500	0.6832
05	10.000	0.6971	06	20.000	0.7019	07	50.000	0.6998	08	80.000	0.7313
09	100.000	0.7071	10	120.000	0.7024	11	150.000	0.677	12	160.000	0.6745
13	180.000	0.6693	14	200.000	0.6801						

N-Nitrosodi-n-propylamine											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.914	02	2.500	0.8433	03	5.000	0.8986	04	7.500	0.9544
05	10.000	0.9573	06	20.000	0.9802	07	50.000	1.045	08	80.000	1.049
09	100.000	0.9845	10	120.000	0.9429	11	150.000	0.9303	12	160.000	0.9611
13	180.000	0.9623	14	200.000	0.9779						

N-Nitrosodimethylamine											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.8766	02	2.500	0.777	03	5.000	0.8482	04	7.500	0.9039
05	10.000	0.8366	06	20.000	0.9016	07	50.000	0.9118	08	80.000	0.9398
09	100.000	0.9042	10	120.000	0.9136	11	150.000	0.9573	12	160.000	0.9351
13	180.000	0.9579	14	200.000	0.8733						

N-Nitrosodiphenylamine											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.7899	02	2.500	0.8627	03	5.000	0.8753	04	7.500	0.8676
05	10.000	0.862	06	20.000	0.8401	07	50.000	0.7831	08	80.000	0.7893
09	100.000	0.8051	10	120.000	0.8338	11	150.000	0.8025	12	160.000	0.7659
13	180.000	0.82	14	200.000	0.7598						

Naphthalene											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.8998	02	2.500	0.8862	03	5.000	0.948	04	7.500	0.9546
05	10.000	0.9542	06	20.000	0.9546	07	50.000	0.8938	08	80.000	0.9357
09	100.000	0.9374	10	120.000	0.9145	11	150.000	0.9169	12	160.000	0.8875
13	180.000	0.8959	14	200.000	0.8684						

Nitrobenzene											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	2.500	1.281	03	5.000	1.343	04	7.500	1.337	05	10.000	1.416
06	20.000	1.44	07	50.000	1.53	08	80.000	1.544	09	100.000	1.477
10	120.000	1.418	11	150.000	1.438	12	160.000	1.405	13	180.000	1.419
14	200.000	1.455									

Nitrobenzene-d5											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	5.000	1.355	04	7.500	1.37	05	10.000	1.405	06	20.000	1.456
07	50.000	1.556	08	80.000	1.625	09	100.000	1.552	10	120.000	1.528
11	150.000	1.509	12	160.000	1.504	13	180.000	1.53	14	200.000	1.516

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Calibration Date: 10/9/2019

Initial Calibration Summary
Semivolatile Organic Compounds by GC/MS

Calibration ID: KC1900424
Instrument ID: K-MS-07

Signal ID: 1

Analyte

Pentachlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	7.500	0.1589	05	10.000	0.1629	06	20.000	0.1914	07	50.000	0.207
08	80.000	0.237	09	100.000	0.2322	10	120.000	0.2347	11	150.000	0.2435
12	160.000	0.2325	13	180.000	0.24	14	200.000	0.2354			

Phenanthrene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.001	02	2.500	0.9556	03	5.000	1.03	04	7.500	1.003
05	10.000	0.9999	06	20.000	1.009	07	50.000	0.9748	08	80.000	1.025
09	100.000	0.9841	10	120.000	0.9764	11	150.000	0.9943	12	160.000	0.946
13	180.000	0.9603	14	200.000	0.9581						

Phenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.628	02	2.500	1.709	03	5.000	1.818	04	7.500	1.904
05	10.000	1.87	06	20.000	1.871	07	50.000	1.929	08	80.000	1.988
09	100.000	1.893	10	120.000	1.852	11	150.000	1.822	12	160.000	1.86
13	180.000	1.857	14	200.000	1.849						

Phenol-d6

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.471	02	2.500	1.516	03	5.000	1.557	04	7.500	1.606
05	10.000	1.638	06	20.000	1.638	07	50.000	1.725	08	80.000	1.741
09	100.000	1.664	10	120.000	1.633	11	150.000	1.615	12	160.000	1.646
13	180.000	1.643	14	200.000	1.649						

Pyrene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.105	02	2.500	1.053	03	5.000	1.105	04	7.500	1.051
05	10.000	1.113	06	20.000	1.139	07	50.000	1.212	08	80.000	1.299
09	100.000	1.308	10	120.000	1.302	11	150.000	1.271	12	160.000	1.207
13	180.000	1.189	14	200.000	1.102						

Terphenyl-d14

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.016	02	2.500	0.9113	03	5.000	0.916	04	7.500	0.8827
05	10.000	0.9561	06	20.000	0.9697	07	50.000	1.067	08	80.000	1.146
09	100.000	1.079	10	120.000	1.098	11	150.000	1.085	12	160.000	1.003
13	180.000	1.002	14	200.000	0.9421						

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Calibration Date: 10/9/2019

Initial Calibration Summary
Semivolatile Organic Compounds by GC/MS

Calibration ID: KC1900424
Instrument ID: K-MS-07

Signal ID: 1

Analyte Name	Compound Type	Calibration Evaluation				Calibration Evaluation	
		Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
1,2,4-Trichlorobenzene	TRG	Average RF	% RSD	2.8	20	0.3138	0.01
1,2-Dichlorobenzene	TRG	Average RF	% RSD	3.3	20	1.336	0.01
1,3-Dichlorobenzene	TRG	Average RF	% RSD	2.9	20	1.386	0.01
1,4-Dichlorobenzene	TRG	Average RF	% RSD	2.7	20	1.429	0.01
2,2'-Oxybis(1-chloropropane)	TRG	Average RF	% RSD	3.8	20	1.761	0.01
2,4,5-Trichlorophenol	TRG	Average RF	% RSD	11.8	20	0.4231	0.2
2,4,6-Tribromophenol	SURR	Average RF	% RSD	6.2	20	0.2385	0.01
2,4,6-Trichlorophenol	TRG	Average RF	% RSD	6.6	20	0.3994	0.2
2,4-Dichlorophenol	TRG	Average RF	% RSD	7.8	20	0.2935	0.2
2,4-Dimethylphenol	TRG	Average RF	% RSD	3.8	20	0.2881	0.2
2,4-Dinitrophenol	TRG	Quadratic	COD	0.9977	0.990	0.1601	0.01
2,4-Dinitrotoluene	TRG	Average RF	% RSD	12.4	20	0.3563	0.2
2,6-Dinitrotoluene	TRG	Average RF	% RSD	10.0	20	0.2793	0.2
2-Chloronaphthalene	TRG	Average RF	% RSD	3.4	20	1.077	0.8
2-Chlorophenol	TRG	Average RF	% RSD	4.6	20	1.322	0.8
2-Fluorobiphenyl	SURR	Average RF	% RSD	3.5	20	1.283	0.01
2-Fluorophenol	SURR	Average RF	% RSD	3.5	20	1.22	0.01
2-Methyl-4,6-dinitrophenol	TRG	Quadratic	COD	0.9916	0.990	0.2443	0.01
2-Methylnaphthalene	TRG	Average RF	% RSD	4.2	20	0.6146	0.4
2-Methylphenol	TRG	Average RF	% RSD	5.2	20	1.029	0.7
2-Nitroaniline	TRG	Average RF	% RSD	12.3	20	0.3673	0.01
2-Nitrophenol	TRG	Average RF	% RSD	6.4	20	0.1943	0.1
3,3'-Dichlorobenzidine	TRG	Average RF	% RSD	12.0	20	0.4785	0.01
3-Nitroaniline	TRG	Average RF	% RSD	14.0	20	0.3105	0.01
4-Bromophenyl Phenyl Ether	TRG	Average RF	% RSD	6.3	20	0.2555	0.1
4-Chloro-3-methylphenol	TRG	Average RF	% RSD	9.7	20	0.289	0.01
4-Chloroaniline	TRG	Average RF	% RSD	6.4	20	0.4192	0.01
4-Chlorophenyl Phenyl Ether	TRG	Average RF	% RSD	1.5	20	0.616	0.4
4-Methylphenol	TRG	Average RF	% RSD	7.5	20	1.567	0.6
4-Nitroaniline	TRG	Average RF	% RSD	13.8	20	0.316	0.01
4-Nitrophenol	TRG	Average RF	% RSD	14.2	20	0.191	0.01
Acenaphthene	TRG	Average RF	% RSD	2.4	20	0.96	0.9
Acenaphthylene	TRG	Average RF	% RSD	2.0	20	1.611	0.9
Aniline	TRG	Average RF	% RSD	4.0	20	1.915	0.01

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Calibration Date: 10/9/2019

Initial Calibration Summary
Semivolatile Organic Compounds by GC/MS

Calibration ID: KC1900424
Instrument ID: K-MS-07

Signal ID: 1

Analyte Name	Compound Type	Calibration Evaluation				Calibration Evaluation	
		Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
Anthracene	TRG	Average RF	% RSD	2.1	20	1.027	0.7
Benz(a)anthracene	TRG	Average RF	% RSD	2.2	20	0.9828	0.8
Benzo(a)pyrene	TRG	Average RF	% RSD	10.2	20	0.9166	0.7
Benzo(b)fluoranthene	TRG	Average RF	% RSD	13.8	20	1.047	0.7
Benzo(g,h,i)perylene	TRG	Average RF	% RSD	10.4	20	0.974	0.5
Benzo(k)fluoranthene	TRG	Average RF	% RSD	8.6	20	0.9474	0.7
Benzoic Acid	TRG	Average RF	% RSD	12.0	20	0.213	0.01
Benzyl Alcohol	TRG	Average RF	% RSD	5.7	20	0.865	0.01
Bis(2-chloroethoxy)methane	TRG	Average RF	% RSD	5.7	20	0.4212	0.3
Bis(2-chloroethyl) Ether	TRG	Average RF	% RSD	4.7	20	1.339	0.7
Bis(2-ethylhexyl) Phthalate	TRG	Average RF	% RSD	9.1	20	0.7043	0.01
Butyl Benzyl Phthalate	TRG	Average RF	% RSD	5.3	20	0.544	0.01
Chrysene	TRG	Average RF	% RSD	3.5	20	1.02	0.7
Di-n-butyl Phthalate	TRG	Average RF	% RSD	8.7	20	1.145	0.01
Di-n-octyl Phthalate	TRG	Average RF	% RSD	13.2	20	1.049	0.01
Dibenz(a,h)anthracene	TRG	Average RF	% RSD	13.5	20	0.9437	0.4
Dibenzofuran	TRG	Average RF	% RSD	1.6	20	1.557	0.8
Diethyl Phthalate	TRG	Average RF	% RSD	8.6	20	1.264	0.01
Dimethyl Phthalate	TRG	Average RF	% RSD	2.4	20	1.223	0.01
Fluoranthene	TRG	Average RF	% RSD	7.0	20	1.02	0.6
Fluorene	TRG	Average RF	% RSD	2.8	20	1.157	0.9
Hexachlorobenzene	TRG	Average RF	% RSD	2.8	20	0.3398	0.1
Hexachlorobutadiene	TRG	Average RF	% RSD	3.1	20	0.1965	0.01
Hexachlorocyclopentadiene	TRG	Linear	R2	0.9973	0.990	0.4116	0.05
Hexachloroethane	TRG	Average RF	% RSD	4.6	20	0.6447	0.3
Indeno(1,2,3-cd)pyrene	TRG	Average RF	% RSD	13.4	20	0.959	0.5
Isophorone	TRG	Average RF	% RSD	4.5	20	0.6819	0.4
N-Nitrosodi-n-propylamine	TRG	Average RF	% RSD	5.6	20	0.9572	0.5
N-Nitrosodimethylamine	TRG	Average RF	% RSD	5.6	20	0.8955	0.01
N-Nitrosodiphenylamine	TRG	Average RF	% RSD	4.8	20	0.8184	0.01
Naphthalene	TRG	Average RF	% RSD	3.2	20	0.9177	0.7
Nitrobenzene	TRG	Average RF	% RSD	5.2	20	1.423	0.2
Nitrobenzene-d5	SURR	Average RF	% RSD	5.4	20	1.492	0.01
Pentachlorophenol	TRG	Average RF	% RSD	14.5	20	0.2159	0.05
Phenanthrene	TRG	Average RF	% RSD	2.7	20	0.9869	0.7

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Calibration Date: 10/9/2019

Initial Calibration Summary
Semivolatile Organic Compounds by GC/MS

Calibration ID: KC1900424
Instrument ID: K-MS-07

Signal ID: 1

Analyte Name	Compound Type	Calibration Evaluation				Calibration Evaluation	
		Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
Phenol	TRG	Average RF	% RSD	4.8	20	1.846	0.8
Phenol-d6	SURR	Average RF	% RSD	4.4	20	1.624	0.01
Pyrene	TRG	Linear	R2	0.9960	0.990	1.175	0.6
Terphenyl-d14	SURR	Average RF	% RSD	8.0	20	1.005	0.01

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Calibration Date: 10/9/2019

**Initial Calibration Verification Summary
Semivolatile Organic Compounds by GC/MS**

Calibration ID: KC1900424
Instrument ID: K-MS-07

Signal ID: 1

#	Lab Code	Sample Name	File Location	Acquisition Date
15	KC1900424-15	8270 ICV @80ppm SVM-61-84C	J:\MS07\DATA\100919\1009F017.D	10/09/2019 23:11
16	KC1900424-16	Paper ICV @80ppm SVM-62-7A	J:\MS07\DATA\100919\1009F018.D	10/09/2019 23:52

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
1,2,4-Trichlorobenzene	80.0	89.8	3.138E-1	3.521E-1	12.21	±30	Average RF
1,2-Dichlorobenzene	80.0	89.5	1.336E0	1.494E0	11.87	±30	Average RF
1,3-Dichlorobenzene	80.0	89.5	1.386E0	1.551E0	11.86	±30	Average RF
1,4-Dichlorobenzene	80.0	87.5	1.429E0	1.563E0	9.36	±30	Average RF
2,4,5-Trichlorophenol	80.0	91.4	4.231E-1	4.834E-1	14.25	±30	Average RF
2,4,6-Trichlorophenol	80.0	94.7	3.994E-1	4.729E-1	18.41	±30	Average RF
2,4-Dichlorophenol	80.0	90.8	2.935E-1	3.331E-1	13.49	±30	Average RF
2,4-Dimethylphenol	80.0	86.7	2.881E-1	3.121E-1	8.36	±30	Average RF
2,4-Dinitrophenol	80.0	87.7	1.601E-1	1.812E-1	9.59	±30	Quadratic
2,4-Dinitrotoluene	80.0	93.2	3.563E-1	4.153E-1	16.53	±30	Average RF
2,6-Dinitrotoluene	80.0	91.6	2.793E-1	3.199E-1	14.53	±30	Average RF
2-Chloronaphthalene	80.0	91.0	1.077E0	1.226E0	13.80	±30	Average RF
2-Chlorophenol	80.0	87.4	1.322E0	1.444E0	9.25	±30	Average RF
2-Methyl-4,6-dinitrophenol	80.0	86.3	2.443E-1	2.6E-1	7.82	±30	Quadratic
2-Methylnaphthalene	80.0	88.8	6.146E-1	6.823E-1	11.02	±30	Average RF
2-Methylphenol	80.0	90.3	1.029E0	1.162E0	12.93	±30	Average RF
2-Nitroaniline	80.0	93.4	3.673E-1	4.287E-1	16.72	±30	Average RF
2-Nitrophenol	80.0	91.5	1.943E-1	2.222E-1	14.39	±30	Average RF
3,3'-Dichlorobenzidine	80.0	92.8	4.785E-1	5.55E-1	15.98	±30	Average RF
3-Nitroaniline	80.0	92.6	3.105E-1	3.594E-1	15.74	±30	Average RF
4-Bromophenyl Phenyl Ether	80.0	95.0	2.555E-1	3.035E-1	18.80	±30	Average RF
4-Chloro-3-methylphenol	80.0	89.4	2.89E-1	3.231E-1	11.80	±30	Average RF
4-Chloroaniline	80.0	89.9	4.192E-1	4.711E-1	12.36	±30	Average RF
4-Chlorophenyl Phenyl Ether	80.0	86.4	6.16E-1	6.651E-1	7.97	±30	Average RF
4-Methylphenol	160	152	1.567E0	1.484E0	-5.308	±30	Average RF
4-Nitroaniline	80.0	86.6	3.16E-1	3.422E-1	8.29	±30	Average RF
4-Nitrophenol	80.0	85.4	1.91E-1	2.04E-1	6.81	±30	Average RF
Acenaphthene	80.0	89.2	9.6E-1	1.07E0	11.45	±30	Average RF
Acenaphthylene	80.0	95.8	1.611E0	1.928E0	19.69	±30	Average RF
Aniline	80.0	92.1	1.915E0	2.206E0	15.18	±30	Average RF
Anthracene	80.0	91.1	1.027E0	1.17E0	13.91	±30	Average RF
Benz(a)anthracene	80.0	98.4	9.828E-1	1.209E0	23.04	±30	Average RF

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Calibration Date: 10/9/2019

**Initial Calibration Verification Summary
Semivolatile Organic Compounds by GC/MS**

Calibration ID: KC1900424
Instrument ID: K-MS-07

Signal ID: 1

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
Benzo(a)pyrene	80.0	94.6	9.166E-1	1.084E0	18.27	±30	Average RF
Benzo(b)fluoranthene	80.0	86.7	1.047E0	1.135E0	8.36	±30	Average RF
Benzo(g,h,i)perylene	80.0	91.0	9.74E-1	1.108E0	13.81	±30	Average RF
Benzo(k)fluoranthene	80.0	93.2	9.474E-1	1.104E0	16.54	±30	Average RF
Benzoic Acid	80.0	90.3	2.13E-1	2.405E-1	12.93	±30	Average RF
Benzyl Alcohol	80.0	90.6	8.65E-1	9.795E-1	13.23	±30	Average RF
Bis(2-chloroethoxy)methane	80.0	90.3	4.212E-1	4.752E-1	12.82	±30	Average RF
Bis(2-chloroethyl) Ether	80.0	89.4	1.339E0	1.497E0	11.78	±30	Average RF
Bis(2-ethylhexyl) Phthalate	80.0	96.0	7.043E-1	8.448E-1	19.96	±30	Average RF
Butyl Benzyl Phthalate	80.0	94.8	5.44E-1	6.449E-1	18.55	±30	Average RF
Chrysene	80.0	92.0	1.02E0	1.174E0	15.01	±30	Average RF
Dibenz(a,h)anthracene	80.0	92.3	9.437E-1	1.089E0	15.35	±30	Average RF
Dibenzofuran	80.0	85.1	1.557E0	1.656E0	6.32	±30	Average RF
Diethyl Phthalate	80.0	77.8	1.264E0	1.229E0	-2.741	±30	Average RF
Dimethyl Phthalate	80.0	82.3	1.223E0	1.258E0	2.87	±30	Average RF
Di-n-butyl Phthalate	80.0	89.4	1.145E0	1.278E0	11.70	±30	Average RF
Di-n-octyl Phthalate	80.0	85.9	1.049E0	1.127E0	7.39	±30	Average RF
Fluoranthene	80.0	93.0	1.02E0	1.185E0	16.21	±30	Average RF
Fluorene	80.0	88.7	1.157E0	1.282E0	10.83	±30	Average RF
Hexachlorobenzene	80.0	92.6	3.398E-1	3.934E-1	15.75	±30	Average RF
Hexachlorobutadiene	80.0	91.8	1.965E-1	2.254E-1	14.70	±30	Average RF
Hexachlorocyclopentadiene	80.0	93.0	4.116E-1	5.328E-1	16.27	±30	Linear
Hexachloroethane	80.0	90.2	6.447E-1	7.265E-1	12.69	±30	Average RF
Indeno(1,2,3-cd)pyrene	80.0	89.1	9.59E-1	1.068E0	11.42	±30	Average RF
Isophorone	80.0	89.0	6.819E-1	7.589E-1	11.30	±30	Average RF
Naphthalene	80.0	90.4	9.177E-1	1.036E0	12.95	±30	Average RF
Nitrobenzene	80.0	95.2	1.423E0	1.694E0	19.04	±30	Average RF
N-Nitrosodimethylamine	80.0	86.0	8.955E-1	9.63E-1	7.53	±30	Average RF
N-Nitrosodi-n-propylamine	80.0	102	9.572E-1	1.222E0	27.64	±30	Average RF
N-Nitrosodiphenylamine	80.0	99.2	8.184E-1	1.015E0	24.03	±30	Average RF
Pentachlorophenol	80.0	92.6	2.159E-1	2.501E-1	15.81	±30	Average RF
Phenanthrene	80.0	90.4	9.869E-1	1.116E0	13.03	±30	Average RF
Phenol	80.0	86.4	1.846E0	1.995E0	8.02	±30	Average RF
Pyrene	80.0	95.8	1.175E0	1.457E0	19.72	±30	Linear
2,2'-Oxybis(1-chloropropane)	80.0	104	1.761E0	2.287E0	29.93	±30	Average RF

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Calibration Date: 10/9/2019

**Initial Calibration Verification Summary
Semivolatile Organic Compounds by GC/MS**

Calibration ID: KC1900424
Instrument ID: K-MS-07

Signal ID: 1

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
2,4,6-Tribromophenol	80.0	95.2	2.385E-1	2.839E-1	19.04	±30	Average RF
2-Fluorobiphenyl	80.0	92.6	1.283E0	1.484E0	15.72	±30	Average RF
2-Fluorophenol	80.0	88.8	1.22E0	1.354E0	10.94	±30	Average RF
Nitrobenzene-d5	80.0	95.8	1.492E0	1.787E0	19.78	±30	Average RF
Phenol-d6	80.0	91.5	1.624E0	1.857E0	14.34	±30	Average RF
Terphenyl-d14	80.0	94.3	1.005E0	1.185E0	17.88	±30	Average RF

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Date Analyzed: 10/10/19 01:14

**Continuing Calibration Verification (CCV) Summary
Semivolatile Organic Compounds by GC/MS**

Analysis Method: 8270D
File ID: J:\MS07\DATA\100919\1009F020.D\
Signal ID: 1

Calibration Date: 10/9/2019
Calibration ID: KC1900424
Analysis Lot: 654315
Units: ug/mL

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
1,2,4-Trichlorobenzene	80.0	82.9	0.3138	0.3251	3.6	NA	±20	Average RF
1,2-Dichlorobenzene	80.0	81.4	1.3359	1.359	1.7	NA	±20	Average RF
1,3-Dichlorobenzene	80.0	84.8	1.3861	1.4693	6.0	NA	±20	Average RF
1,4-Dichlorobenzene	80.0	84.6	1.4288	1.5107	5.7	NA	±20	Average RF
2,4,5-Trichlorophenol	80.0	90.9	0.4231	0.4805	13.6	NA	±20	Average RF
2,4,6-Trichlorophenol	80.0	86.4	0.3994	0.4312	8.0	NA	±20	Average RF
2,4-Dichlorophenol	80.0	89.4	0.2935	0.328	11.8	NA	±20	Average RF
2,4-Dimethylphenol	80.0	85.3	0.2881	0.307	6.6	NA	±20	Average RF
2,4-Dinitrophenol	80.0	83.5	0.1601	0.1698	NA	4.3	±20	Quadratic
2,4-Dinitrotoluene	80.0	83.4	0.3563	0.3715	4.3	NA	±20	Average RF
2,6-Dinitrotoluene	80.0	86.8	0.2793	0.303	8.5	NA	±20	Average RF
2-Chloronaphthalene	80.0	84.5	1.077	1.1378	5.6	NA	±20	Average RF
2-Chlorophenol	80.0	86.4	1.322	1.4279	8.0	NA	±20	Average RF
2-Methyl-4,6-dinitrophenol	80.0	79.8	0.2443	0.2371	NA	-0.2	±20	Quadratic
2-Methylnaphthalene	80.0	87.0	0.6146	0.6687	8.8	NA	±20	Average RF
2-Methylphenol	80.0	88.2	1.0287	1.1339	10.2	NA	±20	Average RF
2-Nitroaniline	80.0	87.9	0.3673	0.4037	9.9	NA	±20	Average RF
2-Nitrophenol	80.0	85.1	0.1943	0.2067	6.4	NA	±20	Average RF
3,3'-Dichlorobenzidine	80.0	87.7	0.4785	0.5246	9.6	NA	±20	Average RF
3-Nitroaniline	80.0	86.4	0.3105	0.3354	8.0	NA	±20	Average RF
4-Bromophenyl Phenyl Ether	80.0	87.1	0.2555	0.2782	8.9	NA	±20	Average RF
4-Chloro-3-methylphenol	80.0	91.2	0.289	0.3296	14.0	NA	±20	Average RF
4-Chloroaniline	80.0	85.9	0.4192	0.4501	7.4	NA	±20	Average RF
4-Chlorophenyl Phenyl Ether	80.0	82.1	0.616	0.6322	2.6	NA	±20	Average RF
4-Methylphenol	80.0	90.4	1.5667	1.7698	13.0	NA	±20	Average RF
4-Nitroaniline	80.0	81.6	0.316	0.3224	2.0	NA	±20	Average RF
4-Nitrophenol	80.0	81.5	0.191	0.1946	1.9	NA	±20	Average RF
Acenaphthene	80.0	83.7	0.96	1.0045	4.6	NA	±20	Average RF
Acenaphthylene	80.0	82.6	1.6109	1.6629	3.2	NA	±20	Average RF
Aniline	80.0	79.2	1.9151	1.8959	-1.0	NA	±20	Average RF
Anthracene	80.0	81.2	1.0269	1.0424	1.5	NA	±20	Average RF
Benz(a)anthracene	80.0	82.6	0.9828	1.0142	3.2	NA	±20	Average RF
Benzo(a)pyrene	80.0	87.3	0.9166	0.9999	9.1	NA	±20	Average RF
Benzo(b)fluoranthene	80.0	84.5	1.0474	1.1059	5.6	NA	±20	Average RF
Benzo(g,h,i)perylene	80.0	84.4	0.974	1.0272	5.5	NA	±20	Average RF
Benzo(k)fluoranthene	80.0	88.9	0.9474	1.053	11.1	NA	±20	Average RF
Benzoic Acid	80.0	87.0	0.213	0.2317	8.8	NA	±20	Average RF
Benzyl Alcohol	80.0	87.3	0.865	0.944	9.1	NA	±20	Average RF
Bis(2-chloroethoxy)methane	80.0	87.1	0.4212	0.4584	8.8	NA	±20	Average RF

Client: Ramboll US Corporation
Project: SATES

Service Request: K1909014
Date Analyzed: 10/10/19 01:14

**Continuing Calibration Verification (CCV) Summary
Semivolatile Organic Compounds by GC/MS**

Analysis Method: 8270D
File ID: J:\MS07\DATA\100919\1009F020.D\
Signal ID: 1

Calibration Date: 10/9/2019
Calibration ID: KC1900424
Analysis Lot: 654315
Units: ug/mL

Bis(2-chloroethyl) Ether	80.0	85.7	1.3389	1.4347	7.2	NA	±20	Average RF
Bis(2-ethylhexyl) Phthalate	80.0	87.9	0.7043	0.7739	9.9	NA	±20	Average RF
Butyl Benzyl Phthalate	80.0	85.8	0.544	0.5836	7.3	NA	±20	Average RF
Chrysene	80.0	82.5	1.0204	1.0516	3.1	NA	±20	Average RF
Dibenz(a,h)anthracene	80.0	87.8	0.9437	1.0354	9.7	NA	±20	Average RF
Dibenzofuran	80.0	81.1	1.5575	1.5778	1.3	NA	±20	Average RF
Diethyl Phthalate	80.0	76.1	1.264	1.2025	-4.9	NA	±20	Average RF
Dimethyl Phthalate	80.0	81.6	1.2226	1.2476	2.0	NA	±20	Average RF
Di-n-butyl Phthalate	80.0	85.1	1.1445	1.2174	6.4	NA	±20	Average RF
Di-n-octyl Phthalate	80.0	90.2	1.0494	1.1491	9.5	NA	±20	Average RF
Fluoranthene	80.0	83.3	1.0198	1.062	4.1	NA	±20	Average RF
Fluorene	80.0	80.2	1.1565	1.1599	0.3	NA	±20	Average RF
Hexachlorobenzene	80.0	83.1	0.3398	0.353	3.9	NA	±20	Average RF
Hexachlorobutadiene	80.0	82.6	0.1965	0.2029	3.2	NA	±20	Average RF
Hexachlorocyclopentadiene	80.0	80.3	0.4116	0.4588	NA	0.4	±20	Linear
Hexachloroethane	80.0	83.4	0.6447	0.6723	4.3	NA	±20	Average RF
Indeno(1,2,3-cd)pyrene	80.0	85.5	0.959	1.0242	6.8	NA	±20	Average RF
Isophorone	80.0	85.5	0.6819	0.7285	6.8	NA	±20	Average RF
Naphthalene	80.0	83.6	0.9177	0.9594	4.5	NA	±20	Average RF
Nitrobenzene	80.0	89.0	1.4233	1.5832	11.2	NA	±20	Average RF
N-Nitrosodimethylamine	80.0	84.0	0.8955	0.9404	5.0	NA	±20	Average RF
N-Nitrosodi-n-propylamine	80.0	89.5	0.9572	1.0708	11.9	NA	±20	Average RF
N-Nitrosodiphenylamine	80.0	78.8	0.8184	0.8057	-1.5	NA	±20	Average RF
Pentachlorophenol	80.0	85.8	0.2159	0.2315	7.2	NA	±20	Average RF
Phenanthrene	80.0	79.5	0.9869	0.9802	-0.7	NA	±20	Average RF
Phenol	80.0	86.3	1.8464	1.9922	7.9	NA	±20	Average RF
Pyrene	80.0	86.4	1.1754	1.3135	NA	8.0	±20	Linear
2,2'-Oxybis(1-chloropropane)	80.0	82.6	1.7606	1.8172	3.2	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
2,4,6-Tribromophenol	80.0	86.1	0.2385	0.2567	7.7	NA	±20	Average RF
2-Fluorobiphenyl	80.0	84.5	1.2828	1.3551	5.6	NA	±20	Average RF
2-Fluorophenol	80.0	84.6	1.2205	1.2902	5.7	NA	±20	Average RF
Nitrobenzene-d5	80.0	88.1	1.4922	1.6425	10.1	NA	±20	Average RF
Phenol-d6	80.0	84.3	1.6245	1.7114	5.4	NA	±20	Average RF
Terphenyl-d14	80.0	89.1	1.0052	1.1201	11.4	NA	±20	Average RF

Client: Ramboll US Corporation
Project: SATES

Service Request:K1909014

Analysis Run Log
Semivolatile Organic Compounds by GC/MS

Analysis Method:

Analysis Lot:654315
Instrument ID:K-MS-07

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
J:\MS07\DATA\100919\1009F019.D\	ZZZZZZZ	ZZZZZZZ	10/10/2019	00:33:00	
J:\MS07\DATA\100919\1009F019.D\	ZZZZZZZ	ZZZZZZZ	10/10/2019	00:33:00	
J:\MS07\DATA\100919\1009F020.D\	ZZZZZZZ	ZZZZZZZ	10/10/2019	01:14:00	
J:\MS07\DATA\100919\1009F020.D\	Continuing Calibration Verification	KQ1914763-05	10/10/2019	01:14:00	
J:\MS07\DATA\100919\1009F021.D\	ZZZZZZZ	ZZZZZZZ	10/10/2019	01:56:00	
J:\MS07\DATA\100919\1009F022.D\	ZZZZZZZ	ZZZZZZZ	10/10/2019	02:37:00	
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J:\MS07\DATA\100919\1009F026.D\	ZZZZZZZ	ZZZZZZZ	10/10/2019	05:21:00	
J:\MS07\DATA\100919\1009F027.D\	Method Blank	KQ1914345-03	10/10/2019	06:02:00	
J:\MS07\DATA\100919\1009F028.D\	Lab Control Sample	KQ1914345-01	10/10/2019	06:43:00	
J:\MS07\DATA\100919\1009F029.D\	Duplicate Lab Control Sample	KQ1914345-02	10/10/2019	07:24:00	
J:\MS07\DATA\100919\1009F030.D\	PS-GNB-052619	K1909014-006	10/10/2019	08:05:00	
J:\MS07\DATA\100919\1009F031.D\	Black Owl Biochar	K1909014-007	10/10/2019	08:46:00	*
J:\MS07\DATA\100919\1009F032.D\	ZZZZZZZ	ZZZZZZZ	10/10/2019	09:28:00	
J:\MS07\DATA\100919\1009F033.D\	ZZZZZZZ	ZZZZZZZ	10/10/2019	10:10:00	
J:\MS07\DATA\100919\1009F034.D\	ZZZZZZZ	ZZZZZZZ	10/10/2019	10:51:00	
J:\MS07\DATA\100919\1009F035.D\	ZZZZZZZ	ZZZZZZZ	10/10/2019	11:32:00	
J:\MS07\DATA\100919\1009F036.D\	ZZZZZZZ	ZZZZZZZ	10/10/2019	12:13:00	

ALS Group USA, Corp.
dba ALS Environmental

Prep Summary Report

Client: Ramboll US Corporation
Project: SATES
Sample Matrix: Soil

Service Request: K1909014

Semivolatile Organic Compounds by GC/MS

Prep Method: EPA 3541
Analytical Method: 8270D

Extraction Lot: 345831
Extraction Date: 10/04/19 10:39

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Amount	Percent Solids
PS-GNB-052619	K1909014-006	9/25/19	9/27/19	15.100 g	4 mL	95.0
Black Owl Biochar	K1909014-007	9/25/19	9/27/19	9.6830 g	1 mL	100
Lab Control Sample	KQ1914345-01LCS	NA	NA	30.00 g	1 mL	
Duplicate Lab Control Sample	KQ1914345-02DLCS	NA	NA	30.00 g	1 mL	
Method Blank	KQ1914345-03MB	NA	NA	30.0000 g	1 mL	



Raw Data

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com



Total Solids

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Benchsheet

Service Request #: K1909393, KQ1914662, K1909014,
 K1909130
Test: TS
Method: 160.3 Modified

Run #: 654782
Balance ID: K-BALANCE-47

Matrix	Lab Code	Tare (g)	Wet Wt. (g)	Tare + Dry Wt. (g)	Dry Weight (g)	% Total Solids	RPD
Sludge, Solid	K1909393-002	1.268	11.336	1.843	0.575	5.07	
Sludge, Solid	K1909393-002DUP	1.266	12.481	1.946	0.680	5.45	7
Soil	K1909014-001	1.271	10.447	11.485	10.2	97.8	
Soil	K1909014-002	1.267	10.464	11.217	9.95	95.1	
Soil	K1909014-003	1.269	11.348	12.583	11.3	99.7	
Soil	K1909014-004	1.262	10.591	10.055	8.79	83.0	
Soil	K1909014-005	1.271	11.501	11.807	10.5	91.6	
Sludge, Solid	K1909130-001	6.214	10.159	6.383	0.169	1.66	
Soil	K1909130-002	6.238	11.667	14.319	8.08	69.3	

Oven	Oven ID	Temp In	Temp Out	Date In	Time In	Date Out	Time Out	Thermometer ID
Oven1	K-Oven-07	105	105	10/9/2019	17:09	10/10/2019	08:38	

	Cal EQID	Cal Start Value	Cal End Value	Start Date	Start Time	End Date	End Time
Calibration1	K-BALANCE-55	1.000, 99.999	1.000, 99.999	10/9/2019	12:00	10/9/2019	17:08
Calibration2	K-BALANCE-55	1.000, 100.000	1.000, 100.000	10/10/2019	09:40	10/10/2019	09:43

Comments: TA LA SN: 42868 Reviewed by SC 10/10/19



Metals

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

CVAA Mercury Soil Data Review Form
K-CVAA-02

Element: Hg

Analysis Lot #: 100819B HG2

Starlims #: 654581

Cal. STD/CCV Source: HG3-25-S

Pipette IDs: U52540, HG2-5.0

16mL Tube Lot #: P7304532

KMnO4: HG3-25-P Expiration Date: 10/2/2020

NH2OH-HCl/NaCl: HG3-25-N Expiration Date: 10/1/2020

SnCl2/HCl: HG3-25-Q Expiration Date: 11/2/2019

Service Request Numbers:

K1909230, K1909014, K1909093, K1909130, K1909223, K1909268

	Yes	No	NA
1) Appropriate standardization completed	<u>X</u>		
2) ICV within 10% of true value	<u>X</u>		
3) CCVs in control (+/- 10%)	<u>X</u>		
4) CCBs and or ICBs below MRL	<u>X</u>		
5) CCV/CCB check run every 10 samples	<u>X</u>		
6) All reported samples within calibration range	<u>X</u>		
7) Calculations correct	<u>X</u>		

Comments:

Data reviewed against service request(s) to ensure no samples were omitted: JA (Initials)

Primary Reviewed By: JA

Date: 10/8/19

Secondary Reviewed By: Kath Z

Date: 10-8-19

Data Review Form

Instrument ID#: K-CVAA-02
DataFile Name: R:\ICP\WIP\DATA\K-CVAA-02 (QUICKTRACE)\100819B HG2.csv
RUNNO: 654581

K1909014

No exceptions to report.

K1909093

No exceptions to report.

K1909130

No exceptions to report.

K1909223


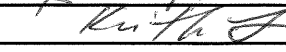
No exceptions to report.

K1909230

No exceptions to report.

K1909268

No exceptions to report.

Primary Approver:  10/8/19
Secondary Approver:  10.8.19

CVAA Hg ANALYTICAL WORKSHEET

Method: 7471	Cal. Inter. Std* (100ppb): HG3-25-S 2nd Source Inter Std** (1ppm): HG3-25-I
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Analysis For: Hg		DATA				
Pos.	SAMPLE NUMBER	Measured (µg/L)	Dilution Factor	Recoveries (ICV, CCV, LCS, MS)		Comments:
1	Cal. Blk.	0.000	~	~		
2	Std 0.2*	0.200	~	(0.10-50mL)		
3	Std 0.5*	0.500	~	(0.25-50mL)		
4	Std 1.0*	1.000	~	(0.5-50mL)		
5	Std 5.0*	5.000	~	(2.5-50mL)		
6	Std 10.0*	10.000	~	(5.0-50mL)		
7	ICV1**	5.16	~	103%		
8	ICB1	-0.018	~			
9	LLICV1*	0.203	~	102%		
10	CCV1*	5.12	~	102%		
11	CCB1	-0.017	~			
12	KQ1914463-01	0.068	~			
13	KQ1914463-02 10X	5.760	10	95%		
14	K1909230-001	0.119	~			
15	K1909230-001A	4.840	~	94%		
16	KQ1914463-03	0.117	~			
17	KQ1914463-04	5.100	~	100%		
18	K1909230-002	0.100	~			
19	K1909230-003	0.155	~			
20	K1909230-004	0.106	~			
21	K1909230-005	0.118	~			
22	CCV2	5.100	~	102%		
23	CCB2	-0.013	~			
24	K1909230-006	0.084	~			
25	K1909230-007	0.090	~			
26	K1909230-009	0.164	~			
27	K1909230-010	0.084	~			
28	K1909230-011	0.016	~			
29	K1909230-012	0.043	~			
30	K1909230-013	0.090	~			
31	K1909230-014	0.113	~			
32	K1909230-016	0.121	~			

Comments:

Soil/Tissue Spike Level:						
Method	Spike Level	MRL	LCS Limit	MS Limit	RPD	Post-Spike @ 5ppb
7470A Water	5.0 µg/L	0.2 µg/L	80-120%	75-125%	20%	+/- 20%
245.1 Water	5.0 µg/L	0.2 µg/L	85-115%	70-130%	20%	+/- 20%
7470A TCLP	5.0 µg/L	1.0 µg/L	80-120%	75-125%	20%	+/- 20%
7471A Soil LCSS	7.1mg/kg	0.02 mg/kg	51-149%	80-120%	20%	+/- 20%
7471A Tissue Dorm	0.41 mg/kg	0.02 mg/kg	68-136%	80-120%	20%	+/- 20%

CVAA Hg ANALYTICAL WORKSHEET

7471	HG3-25-S HG3-25-I
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Analysis For: Hg		DATA				
Pos.	SAMPLE NUMBER	Measured (µg/L)	Dilution Factor	Recoveries (ICV, CCV, LCS, MS)		Comments:
33	K1909230-017	0.018	~			
34	CCV3	5.070	~	101%		
35	CCB3	-0.013	~			
36	K1909230-018	0.022	~			
37	K1909230-019	0.021	~			
38	K1909230-020	0.029	~			
39	K1909230-023	0.035	~			
40	K1909230-025	0.143	~			
41	KQ1914466-01	-0.002	~			
42	KQ1914466-02 10X	5.960	10	98%		
43	K1909014-006	0.141	~			
44	K1909014-006A	4.500	~	87%		
45	KQ1914466-03	0.140	~			
46	CCV4	5.100	~	102%		
47	CCB4	-0.020	~			
48	KQ1914466-04	4.970	~	97%		
49	K1909014-007	-0.025	~			
50	K1909093-001	0.035	~			
51	K1909093-002	0.163	~			
52	K1909130-001	0.083	~			
53	K1909130-002	3.040	~		SDL	2% DIFF
54	K1909223-001	0.017	~			
55	KQ1914466-05	0.004	~			
56	KQ1914466-06	4.790	~	96%		
57	K1909230-022	-0.003	~			
58	CCV5	4.890	~	98%		
59	CCB5	-0.022	~			
60	KQ1914466-07	0.004	~			
61	KQ1914466-08	5.010	~	98%		
62	K1909230-027	0.005	~			
63	K1909230-028	0.013	~			
64	K1909268-001	0.853	~			

Comments:

Soil/Tissue Spike Level:						
Method	Spike Level	MRL	LCS Limit	MS Limit	RPD	Post-Spike @ 5ppb
7470A Water	5.0 µg/L	0.2 µg/L	80-120%	75-125%	20%	+/- 20%
245.1 Water	5.0 µg/L	0.2 µg/L	85-115%	70-130%	20%	+/- 20%
7470A TCLP	5.0 µg/L	1.0 µg/L	80-120%	75-125%	20%	+/- 20%
7471A Soil LCSS	7.1mg/kg	0.02 mg/kg	51-149%	80-120%	20%	+/- 20%
7471A Tissue Dorm	0.41 mg/kg	0.02 mg/kg	68-136%	80-120%	20%	+/- 20%

CVAA Hg ANALYTICAL WORKSHEET

7471	HG3-25-S HG3-25-I
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Analysis For: Hg		DATA				
Pos.	SAMPLE NUMBER	Measured (µg/L)	Dilution Factor	Recoveries (ICV, CCV, LCS, MS)		Comments:
65	KQ1914466-09	0.655	~			
66	KQ1914466-10	5.740	~	98%		
67	K1909268-002	1.250	~			
68	K1909130-002L 5X	0.622	5	102%		
69	CCV6	5.170	~	103%		
70	CCB6	-0.010	~			
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Comments:

Soil/Tissue Spike Level:						
Method	Spike Level	MRL	LCS Limit	MS Limit	RPD	Post-Spike @ 5ppb
7470A Water	5.0 µg/L	0.2 µg/L	80-120%	75-125%	20%	+/- 20%
245.1 Water	5.0 µg/L	0.2 µg/L	85-115%	70-130%	20%	+/- 20%
7470A TCLP	5.0 µg/L	1.0 µg/L	80-120%	75-125%	20%	+/- 20%
7471A Soil LCSS	7.1mg/kg	0.02 mg/kg	51-149%	80-120%	20%	+/- 20%
7471A Tissue Dorm	0.41 mg/kg	0.02 mg/kg	68-136%	80-120%	20%	+/- 20%

Report Generated By CETAC QuickTrace

Analyst: ALKLS.ALKLSXP196

Worksheet file: C:\Program Files\QuickTrace\Worksheets\100819B HG2.wsz

Date Started: 10/8/2019 9:06:01 AM

Comment:

Results

Sample Name					Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags
Calibration Blank					STD	10/08/19 09:19:34 am	0.000	144	16.29	
Replicates	119.5	130.8	154.1	171.8						
Standard #1					STD	10/08/19 09:21:11 am	0.200	1129	2.08	
Replicates	1148.1	1135.0	1094.8	1138.6						
Standard #2					STD	10/08/19 09:22:48 am	0.500	2568	0.53	
Replicates	2548.9	2576.4	2567.1	2579.4						
Standard #3					STD	10/08/19 09:24:26 am	1.000	5010	0.58	
Replicates	4975.9	5000.5	5021.2	5043.5						
Standard #4					STD	10/08/19 09:26:05 am	5.000	24894	0.51	
Replicates	24877.3	25024.1	24951.4	24724.7						
Standard #5					STD	10/08/19 09:27:44 am	10.000	49322	0.17	
Replicates	49242.5	49353.9	49425.4	49267.9						

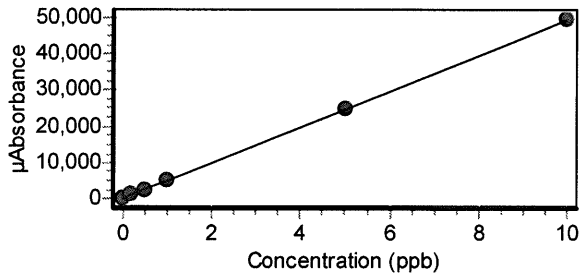
Calibration

Equation: $A = 144.044 + 4923.674C$

R2: 0.99999

SEE: 92.3054

Flags:



ICV1					ICV	10/08/19 09:29:24 am	5.160	25562	0.55	
Replicates	25682.4	25627.1	25577.3	25363.1						
% Recovery	103.25									
ICB1					ICB	10/08/19 09:31:00 am	-0.018	56	50.75	
Replicates	19.3	63.8	54.4	88.5						

Sample Name	Type	Date/Time	Conc (ppb)	μAbs	%RSD	Flags
LLICV1	CRDL	10/08/19 09:32:37 am	0.203	1143	3.61	
Replicates		1140.4 1142.5 1194.2	1093.2			
% Recovery		101.40				
CCV1	CCV	10/08/19 09:34:15 am	5.120	25334	0.60	
Replicates		25151.4 25465.0 25455.1	25263.1			
% Recovery		102.32				
CCB1	CCB	10/08/19 09:35:52 am	-0.017	62	42.69	
Replicates		73.6 63.4 86.6	25.0			
KQ1914463-01	UNK	10/08/19 09:37:28 am	0.068	481	3.50	
Replicates		479.0 499.1 485.7	458.7			
KQ1914463-02 10X	UNK	10/08/19 09:39:05 am	5.760	28525	0.26	
Replicates		28572.2 28599.1 28490.8	28439.3			
K1909230-001	UNK	10/08/19 09:40:42 am	0.119	731	4.48	
Replicates		747.6 686.9 762.1	725.6			
K1909230-001A	UNK	10/08/19 09:42:19 am	4.840	23982	0.45	
Replicates		23952.0 24067.1 24064.1	23843.1			
KQ1914463-04	UNK	10/08/19 09:43:56 am	0.117	720	1.87	
Replicates		723.2 736.7 713.3	705.4			
KQ1914463-03	UNK	10/08/19 09:45:34 am	5.100	25277	0.43	
Replicates		25181.7 25382.5 25357.6	25184.8			
K1909230-002	UNK	10/08/19 09:47:12 am	0.099	634	4.17	
Replicates		616.3 614.8 633.3	671.7			
K1909230-003	UNK	10/08/19 09:48:50 am	0.155	905	1.79	
Replicates		891.6 921.0 917.2	890.6			
K1909230-004	UNK	10/08/19 09:50:29 am	0.106	666	4.40	
Replicates		669.3 660.1 632.0	703.1			

Sample Name				Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags
K1909230-005				UNK	10/08/19 09:52:08 am	0.118	723	1.14	
Replicates	731.8	715.0	716.7	727.6					
CCV1				CCV	10/08/19 09:53:46 am	5.100	25243	0.41	
Replicates	25122.3	25224.4	25370.8	25256.4					
% Recovery	101.95								
CCB1				CCB	10/08/19 09:55:23 am	-0.012	83	17.62	
Replicates	64.5	89.9	97.9	78.1					
K1909230-006				UNK	10/08/19 09:57:02 am	0.084	557	2.40	
Replicates	552.0	575.9	544.8	554.9					
K1909230-007				UNK	10/08/19 09:58:41 am	0.090	587	6.20	
Replicates	601.8	628.3	575.9	543.0					
K1909230-009				UNK	10/08/19 10:00:17 am	0.164	953	4.36	
Replicates	1013.4	918.5	941.1	938.6					
K1909230-010				UNK	10/08/19 10:01:54 am	0.083	555	4.87	
Replicates	545.6	543.0	537.3	595.6					
K1909230-011				UNK	10/08/19 10:03:30 am	0.016	222	10.93	
Replicates	224.8	197.5	254.8	212.4					
K1909230-012				UNK	10/08/19 10:05:07 am	0.043	358	5.86	
Replicates	369.3	372.4	363.0	327.0					
K1909230-013				UNK	10/08/19 10:06:44 am	0.090	587	7.24	
Replicates	650.8	565.7	570.7	561.9					
K1909230-014				UNK	10/08/19 10:08:21 am	0.113	700	6.53	
Replicates	716.5	636.9	702.2	744.9					
K1909230-016				UNK	10/08/19 10:09:59 am	0.121	742	8.83	
Replicates	705.5	839.1	725.4	699.0					

Sample Name				Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags
K1909230-017				UNK	10/08/19 10:11:37 am	0.018	232	8.28	
Replicates	227.6	212.3	258.6	231.3					
CCV1				CCV	10/08/19 10:13:16 am	5.070	25119	0.41	
Replicates	24984.0	25113.7	25235.4	25141.6					
% Recovery	101.45								
CCB1				CCB	10/08/19 10:14:52 am	-0.013	77	37.79	
Replicates	87.1	47.1	61.6	113.5					
K1909230-018				UNK	10/08/19 10:16:30 am	0.021	250	9.78	
Replicates	256.0	273.7	215.7	254.3					
K1909230-019				UNK	10/08/19 10:18:09 am	0.021	249	6.46	
Replicates	245.6	250.2	231.4	270.4					
K1909230-020				UNK	10/08/19 10:19:48 am	0.028	285	13.32	
Replicates	292.7	312.2	304.2	229.0					
K1909230-023				UNK	10/08/19 10:21:27 am	0.035	314	6.35	
Replicates	336.4	320.4	288.6	311.7					
K1909230-025				UNK	10/08/19 10:23:03 am	0.143	850	2.82	
Replicates	824.7	878.4	860.0	836.6					
KQ1914466-01				UNK	10/08/19 10:24:39 am	-0.002	135	21.73	
Replicates	127.1	155.2	96.9	160.7					
KQ1914466-02 10X				UNK	10/08/19 10:26:16 am	5.960	29513	0.45	
Replicates	29593.3	29567.4	29577.1	29313.7					
K1909014-006				UNK	10/08/19 10:27:53 am	0.141	839	1.97	
Replicates	835.0	817.8	855.9	847.0					
K1909014-006A				UNK	10/08/19 10:29:30 am	4.500	22314	0.45	
Replicates	22357.5	22388.6	22343.8	22165.7					

Sample Name				Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags
KQ1914466-03				UNK	10/08/19 10:31:07 am	0.140	834	4.12	
Replicates	861.0	836.4	784.7	853.5					
CCV1				CCV	10/08/19 10:32:46 am	5.100	25233	0.44	
Replicates	25078.9	25235.0	25338.1	25279.3					
% Recovery	101.91								
CCB1				CCB	10/08/19 10:34:22 am	-0.020	46	91.51	
Replicates	56.5	65.6	-15.8	76.9					
KQ1914466-04				UNK	10/08/19 10:36:00 am	4.970	24617	0.19	
Replicates	24579.2	24667.6	24643.1	24577.3					
K1909014-007				UNK	10/08/19 10:37:38 am	-0.025	20	87.05	
Replicates	-2.3	33.4	35.2	14.8					
K1909093-001				UNK	10/08/19 10:39:16 am	0.035	319	6.11	
Replicates	326.4	341.9	298.2	307.6					
K1909093-002				UNK	10/08/19 10:40:55 am	0.163	945	2.05	
Replicates	936.8	923.1	950.5	968.5					
K1909130-001				UNK	10/08/19 10:42:33 am	0.083	553	4.17	
Replicates	556.8	519.6	568.6	568.1					
K1909130-002				UNK	10/08/19 10:44:13 am	3.040	15136	0.39	
Replicates	15109.3	15072.6	15153.9	15208.5					
K1909223-001				UNK	10/08/19 10:45:49 am	0.017	227	8.33	
Replicates	199.2	231.5	236.6	240.7					
KQ1914466-05				UNK	10/08/19 10:47:26 am	0.004	166	21.44	
Replicates	119.3	203.9	178.6	162.1					
KQ1914466-06				UNK	10/08/19 10:49:02 am	4.790	23743	0.40	
Replicates	23617.2	23765.2	23844.2	23746.7					

Sample Name				Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags
K1909230-022				UNK	10/08/19 10:50:39 am	-0.003	127	23.17	
Replicates	104.2	99.3	155.5	149.3					
CCV1				CCV	10/08/19 10:52:17 am	4.890	24237	0.39	
Replicates	24250.9	24340.8	24242.0	24112.6					
% Recovery	97.86								
CCB1				CCB	10/08/19 10:53:54 am	-0.022	38	42.15	
Replicates	33.8	22.1	60.0	35.3					
KQ1914466-07				UNK	10/08/19 10:55:31 am	0.004	166	10.58	
Replicates	181.0	158.7	144.1	178.7					
KQ1914466-08				UNK	10/08/19 10:57:08 am	5.010	24834	0.14	
Replicates	24853.3	24868.4	24786.3	24829.9					
K1909230-027				UNK	10/08/19 10:58:46 am	0.005	171	18.04	
Replicates	147.0	211.8	178.4	147.3					
K1909230-028				UNK	10/08/19 11:00:24 am	0.013	208	10.01	
Replicates	210.3	197.7	236.0	187.9					
K1909268-001				UNK	10/08/19 11:02:02 am	0.853	4344	1.28	
Replicates	4355.4	4408.5	4338.5	4274.0					
KQ1914466-09				UNK	10/08/19 11:03:41 am	0.655	3370	1.48	
Replicates	3407.9	3359.1	3409.4	3303.6					
KQ1914466-10				UNK	10/08/19 11:05:19 am	5.740	28408	0.32	
Replicates	28312.2	28478.2	28492.1	28350.7					
K1909268-002				UNK	10/08/19 11:06:59 am	1.250	6274	0.49	
Replicates	6276.5	6310.6	6273.7	6235.8					
K1909130-002L 5X				UNK	10/08/19 11:12:03 am	0.622	3205	1.12	
Replicates	3152.2	3217.5	3233.1	3216.5					

Sample Name				Type	Date/Time	Conc (ppb)	μAbs	%RSD	Flags
CCV6				CCV	10/08/19 11:14:47 am	5.170	25612	0.91	
	Replicates	25737.8	25806.0	25623.9	25278.9				
	% Recovery	103.45							
CCB6				CCB	10/08/19 11:16:23 am	-0.010	95	30.32	
	Replicates	96.4	56.6	126.4	101.4				

Preparation Information Benchsheet

Prep Run#: 345918
Team: Metals/JHINSON
 Number of Copies to make: 1

Prep Workflow: HgDigs
Prep Method: Method

Status: Prepped
Prep Date/Time: 10/7/19 07:45

#	Lab Code	Client ID	#	Method /Test	pH	Matrix	Amt. Ext.	Final Vol	Sample Description
1	KQ1914463-01	MB		7471B/Hg		Solid	0.5g	50.00ml	
2	KQ1914463-02	LCS1		7471B/Hg		Solid	0.2530g	50.00ml	
3	K1909230-001	EV001-SE-1-092619	.03	7471B/Hg		Sediment	0.598g	50.00ml	TANDREWS K-Balance-47
4	KQ1914463-04	K1909230-001 MS	.03	7471B/Hg		Solid	0.546g	50.00ml	TANDREWS K-Balance-47
5	KQ1914463-03	K1909230-001 DUP	.03	7471B/Hg		Solid	0.584g	50.00ml	TANDREWS K-Balance-47
6	K1909230-002	EV001-SE-2-092619	.04	7471B/Hg		Sediment	0.632g	50.00ml	TANDREWS K-Balance-47
7	K1909230-003	EV052-SE-1-092619	.05	7471B/Hg		Sediment	0.587g	50.00ml	TANDREWS K-Balance-47
8	K1909230-004	EV072-SE-1-092619	.04	7471B/Hg		Sediment	0.530g	50.00ml	TANDREWS K-Balance-47
9	K1909230-005	EV072-SE-2-092619	.05	7471B/Hg		Sediment	0.545g	50.00ml	TANDREWS K-Balance-47
10	K1909230-006	REF014-SE-1-092619	.04	7471B/Hg		Sediment	0.617g	50.00ml	TANDREWS K-Balance-47
11	K1909230-007	REF014-SE-2-092619	.05	7471B/Hg		Sediment	0.775g	50.00ml	TANDREWS K-Balance-47
12	K1909230-009	REF015-SE-1-092619	.04	7471B/Hg		Sediment	0.556g	50.00ml	TANDREWS K-Balance-47
13	K1909230-010	EV049-SE-1-092719	.06	7471B/Hg		Sediment	0.719g	50.00ml	TANDREWS K-Balance-47
14	K1909230-011	REF003-SE-1-092719	.05	7471B/Hg		Sediment	0.617g	50.00ml	TANDREWS K-Balance-47
15	K1909230-012	REF004-SE-1-092719	.05	7471B/Hg		Sediment	0.779g	50.00ml	TANDREWS K-Balance-47
16	K1909230-013	4-B1-2019-SE-1-092619	.05	7471B/Hg		Sediment	0.570g	50.00ml	TANDREWS K-Balance-47
17	K1909230-014	4-B6-2019-SE-1-092619	.05	7471B/Hg		Sediment	0.602g	50.00ml	TANDREWS K-Balance-47
18	K1909230-016	EV011-SE-1-092819	.03	7471B/Hg		Sediment	0.723g	50.00ml	TANDREWS K-Balance-47
19	K1909230-017	REF002-SE-1-092819	.05	7471B/Hg		Sediment	0.655g	50.00ml	TANDREWS K-Balance-47
20	K1909230-018	REF001-SE-1-092819	.05	7471B/Hg		Sediment	0.624g	50.00ml	TANDREWS K-Balance-47
21	K1909230-019	REF007-SE-1-093019	.04	7471B/Hg		Sediment	0.719g	50.00ml	TANDREWS K-Balance-47
22	K1909230-020	REF008-SE-1-093019	.05	7471B/Hg		Sediment	0.653g	50.00ml	TANDREWS K-Balance-47
23	K1909230-023	REF011-SE-2-100119	.05	7471B/Hg		Sediment	0.668g	50.00ml	TANDREWS K-Balance-47
24	K1909230-025	EV020-SE-1-100219	.02	7471B/Hg		Sediment	0.775g	50.00ml	TANDREWS K-Balance-47 / High water content in

Spiking Solutions

Name: K-MET SOIL CRM Inventory ID: 190199 Logbook Ref: D099-540 Expires On: 05/31/2020	Name: K-MET Hg Source Standard 1000 ug/L Inventory ID: 203441 Logbook Ref: HG3-25-1 Expires On: 11/01/2019
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KQ1914463-02 0.25g

KQ1914463-04 0.25ml

Preparation Information Benchsheet

Prep Run#: 345918
 Team: Metals/JHINSON

Prep Workflow: HgDigs
 Prep Method: Method

Status: Draft
 Prep Date/Time: 10/4/19 19:30 PM

Number of Copies to make: 1

#	Lab Code	Client ID	B#	Method / Test	Matrix	Amt. Ext.	pH	Int. Vol	Final Vol	Surr Amt	Spike Amt
1	KI914463-01	MB		7471B / Hg	Solid						
2	KI914463-02	LCSI		7471B / Hg	Solid	0.253					
3	KI909230-001	EV001-SE-1-092619	.03	7471B / Hg	Sediment	0.8					
4	KI914463-04	KI909230-001 MS	.03	7471B / Hg	Solid	10181490					
5	KI914463-03	KI909230-001 DUP	.03	7471B / Hg	Solid	5.07					
6	KI909230-002	EV001-SE-2-092619	.04	7471B / Hg	Sediment						
7	KI909230-003	EV052-SE-1-092619	.05	7471B / Hg	Sediment						
8	KI909230-004	EV072-SE-1-092619	.04	7471B / Hg	Sediment						
9	KI909230-005	EV072-SE-2-092619	.05	7471B / Hg	Sediment						
10	KI909230-006	REF014-SE-1-092619	.04	7471B / Hg	Sediment						
11	KI909230-007	REF014-SE-2-092619	.05	7471B / Hg	Sediment						
12	KI909230-009	REF015-SE-1-092619	.04	7471B / Hg	Sediment						
13	KI909230-010	EV049-SE-1-092719	.06	7471B / Hg	Sediment						
14	KI909230-011	REF003-SE-1-092719	.05	7471B / Hg	Sediment						
15	KI909230-012	REF004-SE-1-092719	.05	7471B / Hg	Sediment						
16	KI909230-013	4-B1-2019-SE-1-092619	.05	7471B / Hg	Sediment						
17	KI909230-014	4-B6-2019-SE-1-092619	.05	7471B / Hg	Sediment						
18	KI909230-016	EV011-SE-1-092819	.03	7471B / Hg	Sediment						
19	KI909230-017	REF002-SE-1-092819	.05	7471B / Hg	Sediment						
20	KI909230-018	REF001-SE-1-092819	.05	7471B / Hg	Sediment						
21	KI909230-019	REF007-SE-1-093019	.04	7471B / Hg	Sediment						
22	KI909230-020	REF008-SE-1-093019	.05	7471B / Hg	Sediment						
23	KI909230-023	REF011-SE-2-100119	.05	7471B / Hg	Sediment						
24	KI909230-025	EV020-SE-1-100219	.02	7471B / Hg	Sediment						

Comments: Cal Std: HG-3-25-5 Calibration Curve digested w/ batch # 34599c

Digest BIK 15/95/84 1317-1347 10/7/19

Spike ID:

Witnessed By:

Analyst:

Assisted By:

654581

Preparation Information Benchsheet

Prep Run#: 345996

Team: Metals/JHINSON

Number of Copies to make: 6

Prep Workflow: HgDigs

Prep Method: Method

Status: Prepped

Prep Date/Time: 10/7/19 08:02

#	Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Final Vol	Sample Description
1	KQ1914466-01	MB		7471B/Hg		Solid	0.5g	50.00mL	
2	KQ1914466-01	MB		7471A/Hg		Solid	0.5g	50.00mL	
3	KQ1914466-02	LCSI		7471A/Hg		Solid	0.2540g	50.00mL	
4	KQ1914466-02	LCSI		7471B/Hg		Solid	0.2540g	50.00mL	
5	K1909014-006	PS-GNB-052619	.01	7471B/Hg		Soil	0.589g	50.00mL	TANDREWS K-Balance-47 / 8270 reduced due to high
6	KQ1914466-03	K1909014-006 DUP	.01	7471B/Hg		Solid	0.538g	50.00mL	TANDREWS K-Balance-47
7	KQ1914466-04	K1909014-006 MS	.01	7471B/Hg		Solid	0.509g	50.00mL	TANDREWS K-Balance-47
8	K1909014-007	Black Owl Biochar	.01	7471B/Hg		Soil	0.592g	50.00mL	TANDREWS K-Balance-47 / 8270 reduced due to high
9	K1909093-001	Backfill (Stockpile A)	.02	7471B/Hg		Soil	0.514g	50.00mL	TANDREWS K-BALANCE-47
10	K1909093-002	Top Soil (Stockpile A)	.02	7471B/Hg		Soil	0.510g	50.00mL	TANDREWS K-BALANCE-47
11	K1909130-001	Sludge (Wet)	.03	7471B/Hg		Sludge- Solid	0.592g	50.00mL	TANDREWS K-BALANCE-47
12	K1909130-002	Compost	.01	7471B/Hg		Soil	0.582g	50.00mL	TANDREWS K-BALANCE-47
13	K1909223-001	Somat Quarterly	.01	7471B/Hg		Soil	0.540g	50.00mL	TANDREWS K-Balance-47
14	KQ1914466-05	K1909223-001 DUP	.01	7471B/Hg		Solid	0.5250g	50.00mL	
15	KQ1914466-06	K1909223-001 MS	.01	7471B/Hg		Solid	0.5160g	50.00mL	
16	K1909230-022	REF011-SE-1-100119	.03	7471B/Hg		Sediment	0.640g	50.00mL	TANDREWS K-Balance-47
17	KQ1914466-07	K1909230-022 DUP	.03	7471B/Hg		Solid	0.590g	50.00mL	TANDREWS K-Balance-47
18	KQ1914466-08	K1909230-022 MS	.03	7471B/Hg		Solid	0.692g	50.00mL	TANDREWS K-Balance-47
19	K1909230-027	REF006-SE-1-100219	.04	7471B/Hg		Sediment	0.702g	50.00mL	TANDREWS K-Balance-47
20	K1909230-028	REF009A-SE-1-100219	.05	7471B/Hg		Sediment	0.768g	50.00mL	TANDREWS K-Balance-47
21	K1909268-001	SSP-14	.03	7471A/Hg		Soil	0.539g	50.00mL	DMADDEN K-Balance-50
22	KQ1914466-09	K1909268-001 DUP	.04	7471A/Hg		Solid	0.533g	50.00mL	DMADDEN K-Balance-50
23	KQ1914466-10	K1909268-001 MS	.03	7471A/Hg		Solid	0.542g	50.00mL	DMADDEN K-Balance-50
24	K1909268-002	SSP-15	.04	7471A/Hg		Soil	0.554g	50.00mL	DMADDEN K-Balance-50

Spiking Solutions

Name: K-MET SOIL CRM	Inventory ID 190199	Logbook Ref: D099-540	Expires On: 05/31/2020
KQ1914466-02 0.25g	KQ1914466-02 0.25g		
Name: K-MET Hg Source Standard 1000 ug/L	Inventory ID 203441	Logbook Ref: HG3-25-1	Expires On: 11/01/2019
KQ1914466-04 0.25mL	KQ1914466-06 0.25mL	KQ1914466-08 0.25mL	KQ1914466-10 0.25mL

Preparation Information Benchsheet

Prep Run#: 345996

Team: Metals/JHINSON

Prep WorkFlow: HgDigs
Prep Method: Method

Status: Prepped
Prep Date/Time: 10/7/19 08:02

Preparation Materials

K-MET 100ml Centrifuge Tube 1902243 (202197)
K-MET HNO3 Hg 0000221802 (202063)

K-MET 16 mL Tube P7304532 (200110)

K-MET HCl Hg

0000216381 (198094)

Preparation Steps

Step: Weigh	Step: Digestion
Started: 10/7/19 08:02	Started: 10/7/19 13:27
Finished: 10/7/19 08:30	Finished: 10/7/19 13:57
By: JHINSON	By: JHINSON
Comments	Comments

Preparation Equipment

K-Block-Digester-14	Digestion	Corrected Temperature	95 deg C	K-Block-Digester-14	Digestion	Correction Factor	0 deg C
K-Block-Digester-14	Digestion	Observed Temperature	95 deg C	K-Block-Digester-14	Digestion	Thermometer ID 697024	NONE
K-Block-Digester-14	Digestion	Thermometer Location	24 NONE	K-U72662	Digestion		
K-DG500A	Digestion			K-HG2-5.0	Digestion		
K-DG250A	Digestion			K-DG100A	Digestion		
K-U52540	Digestion			K-DG1000C	Digestion		

Comments: Cal Std: HG3-25-S.

Reviewed By: W **Date:** 10.8.19

Preparation Information Benchsheet

Prep Run#: 345996
 Team: Metals/JHINSON
 Number of Copies to make: 6

Prep Workflow: HgDigs
 Prep Method: Method

Status: Draft
 Prep Date/Time: 10/7/19 08:02 AM

#	Lab Code	Client ID	B#	Method / Test	Matrix	Amt. Ext.	pH	Int. Vol	Final Vol	Surr Amt	Spike Amt
1	KQ1914466-01	MB		7471B/Hg	Solid						
2	KQ1914466-01	MB		7471A/Hg	Solid						
3	KQ1914466-02	LCSI		7471B/Hg	Solid	0.254					
4	KQ1914466-02	LCSI		7471A/Hg	Solid						
5	K1909014-006	PS-GNB-052619	.01	7471B/Hg	Soil	0.510					
6	KQ1914466-03	K1909014-006 DUP	.01	7471B/Hg	Solid	0.511					
7	KQ1914466-04	K1909014-006 MS	.01	7471B/Hg	Solid	0.484					
8	K1909014-007	Black Owl Biochar	.01	7471B/Hg	Soil						
9	K1909093-001	Backfill (Stockpile A)	.02	7471B/Hg	Soil						
10	K1909093-002	Top Soil (Stockpile A)	.02	7471B/Hg	Soil						
11	K1909130-001	Sludge (Wet)	.03	7471B/Hg	Sludge, Solid						
12	K1909130-002	Compost	.01	7471B/Hg	Soil						
13	K1909223-001	Somat Quarterly	.01	7471B/Hg	Soil						
14	KQ1914466-05	K1909223-001 DUP	.01	7471B/Hg	Solid	0.525		0.058			
15	KQ1914466-06	K1909223-001 MS	.01	7471B/Hg	Solid	0.516		0.056			
16	K1909230-022	REF011-SE-1-100119	.03	7471B/Hg	Sediment	0.465		0.055			
17	KQ1914466-07	K1909230-022 DUP	.03	7471B/Hg	Solid	0.429					
18	KQ1914466-08	K1909230-022 MS	.03	7471B/Hg	Solid	0.503					
19	K1909230-027	REF006-SE-1-100219	.04	7471B/Hg	Sediment						
20	K1909230-028	REF009A-SE-1-100219	.05	7471B/Hg	Sediment						
21	K1909268-001	SSP-14	.03	7471A/Hg	Soil	0.442		0.096			
22	KQ1914466-09	K1909268-001 DUP	.04	7471A/Hg	Solid	0.437					
23	KQ1914466-10	K1909268-001 MS	.03	7471A/Hg	Solid	0.444					
24	K1909268-002	SSP-15	.04	7471A/Hg	Soil						

Comments: Cal STD: Hg3-25-S Calibration digested w/ this batch
 Digest 17/95/134 10/7/19 1327-1357 10/7/19

Surrogate ID: Spike ID:

Witnessed By:

Analyst: Assisted By:

Pre-Prep Information Benchsheet

Prep Run #: 345918

Container Lot No: 1812114

Prep Due Date: Oct-14-2019

#	Lab Code	Bottle	Test Name	Weight	Sample Comments	Test Comments
1	K1909230-001	.03	Hg : 7471B	0.598g		TANDREWS K-Balance-47
2	K1909230-001 DUP	.03	Hg : 7471B	0.584g		TANDREWS K-Balance-47
3	KQ1914420-01	.03	Hg : 7471B	0.546g		TANDREWS K-Balance-47
4	KQ1914420-02	.04	Hg : 7471B	0.632g		TANDREWS K-Balance-47
5	K1909230-003	.05	Hg : 7471B	0.587g		TANDREWS K-Balance-47
6	K1909230-004	.04	Hg : 7471B	0.530g		TANDREWS K-Balance-47
7	K1909230-005	.05	Hg : 7471B	0.545g		TANDREWS K-Balance-47
8	K1909230-006	.04	Hg : 7471B	0.617g		TANDREWS K-Balance-47
9	K1909230-007	.05	Hg : 7471B	0.775g		TANDREWS K-Balance-47
10	K1909230-009	.04	Hg : 7471B	0.556g		TANDREWS K-Balance-47
11	K1909230-010	.06	Hg : 7471B	0.719g		TANDREWS K-Balance-47
12	K1909230-011	.05	Hg : 7471B	0.617g		TANDREWS K-Balance-47
13	K1909230-012	.05	Hg : 7471B	0.779g		TANDREWS K-Balance-47
14	K1909230-013	.05	Hg : 7471B	0.570g		TANDREWS K-Balance-47
15	K1909230-014	.05	Hg : 7471B	0.602g		TANDREWS K-Balance-47
16	K1909230-016	.03	Hg : 7471B	0.723g		TANDREWS K-Balance-47
17	K1909230-017	.05	Hg : 7471B	0.655g		TANDREWS K-Balance-47
18	K1909230-018	.05	Hg : 7471B	0.624g		TANDREWS K-Balance-47
19	K1909230-019	.04	Hg : 7471B	0.719g		TANDREWS K-Balance-47
20	K1909230-020	.05	Hg : 7471B	0.653g		TANDREWS K-Balance-47

Relinquished By: TA	Date/Time: 10-11-19/1935	Received By: [Signature]	Date/Time: 10/17/19 0743
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Pre-Prep Information Benchsheet

Prep Run #: 345925

Container Lot No: 1812114

Prep Due Date: Oct-15-2019

#	Lab Code	Botfile	Test Name	Weight	Sample Comments	Test Comments
1	K1909268-001	.03	Hg : 7471A	0.539g	/	DMADDEN K-Balance-50
2	K1909268-001 DUP K01914427-01	.03	Hg : 7471A	0.533g	/	DMADDEN K-Balance-50
3	K1909268-001 MS K01914427-02	.03	Hg : 7471A	0.542g	/	DMADDEN K-Balance-50
4	K1909268-002	.03	Hg : 7471A	0.554g	/	DMADDEN K-Balance-50

Relinquished By: <i>STW</i>	Date/Time: 10/4/19 1946	Received By: <i>[Signature]</i>	Date/Time: 10/7/19 0743
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Pre-Prep Information Benchsheet

Prep Run #: 345935

Container Lot No: 1812114

Prep Due Date: Oct-10-2019

#	Lab Code	Bottle	Test Name	Weight	Sample Comments	Test Comments
1	K1909223-001	.01	Hg : 7471B	0.540g		TANDREWS K-Balance-47
2	K1909230-022	.03	Hg : 7471B	0.640g		TANDREWS K-Balance-47
3	K1909230-022 DUP K01914440-01	.03	Hg : 7471B	0.590g		TANDREWS K-Balance-47
4	K1909230-022 MS K01914440-02	.03	Hg : 7471B	0.692g		TANDREWS K-Balance-47
5	K1909230-023	.05	Hg : 7471B	0.668g		TANDREWS K-Balance-47
6	K1909230-025	.02	Hg : 7471B	0.775g	High water content in sample 9230-025.02 TA 10/05/19	TANDREWS K-Balance-47
7	K1909230-027	.04	Hg : 7471B	0.702g		TANDREWS K-Balance-47
8	K1909230-028	.05	Hg : 7471B	0.768g		TANDREWS K-Balance-47
9	K1909292-001	.01	Hg : 7471B	0.574g		TANDREWS K-Balance-47

needs tag

Relinquished By: TA	Date/Time: 10-S-19/1341	Received By: <i>[Signature]</i>	Date/Time: 10/7/19 0743
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Pre-Prep Information Benchsheet

Prep Run #: 345829

Container Lot No: 1812114

Prep Due Date: Oct-08-2019

#	Lab Code	Bottle	Test Name	Weight	Sample Comments	Test Comments
1	K1909014-006	.01	Hg : 7471B	0.589g	8270 reduced due to high organic matter in sample as per JW 10/3/19, no MS/DMS	TANDREWS K-Balance-47
2	K1909014-006 DUP	.01	Hg : 7471B	0.538g		TANDREWS K-Balance-47
3	KO1914326-01 KQ1914326-02	.01	Hg : 7471B	0.509g		TANDREWS K-Balance-47
4	K1909014-007	.01	Hg : 7471B	0.592g	8270 reduced due to high organic matter in sample as per JW 10/3/19, no MS/DMS	TANDREWS K-Balance-47

Relinquished By: <i>TA</i>	Date/Time: <i>10/11/10:3:19</i>	Received By: <i>[Signature]</i>	Date/Time: <i>10/17/19 0743</i>
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Pre-Prep Information Benchsheet

Prep Run #: 345723

Container Lot No: 1812114

Prep Due Date: Oct-08-2019

#	Lab Code	Bottle	Test Name	Weight	Sample Comments	Test Comments
1	K1909093-001	.02	Hg : 7471B	0.514g	/	TANDREWS K-BALANCE-47
2	K1909093-001 D11P KQ1914223-01	.02	Hg : 7471B	0.615g	x	TANDREWS K-BALANCE-47
3	K1909093-001 MS KQ1914223-02	.02	Hg : 7471B	0.624g	x	TANDREWS K-BALANCE-47
4	K1909093-002	.02	Hg : 7471B	0.510g	/	TANDREWS K-BALANCE-47
5	K1909130-001	.03	Hg : 7471B	0.592g	/	TANDREWS K-BALANCE-47
6	K1909130-002	.01	Hg : 7471B	0.582g	/	TANDREWS K-BALANCE-47
7	K1909134-008	.01	Hg : 7471B	0.569g		TANDREWS K-BALANCE-47

Relinquished By: TA	Date/Time: 10-2-19/1844	Received By: [Signature]
		Date/Time: 10/2/19 0743



Polychlorinated Biphenyls (PCBs)

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Exception Report

Data File: \\ALKLSWS002\INSTDATA\GC27\DATA\100719.B\1007F007.D
Lab ID: K1909014-006
RunType: SMPL
Matrix: SOIL

Date Acquired: 10/07/2019 12:37
Date Quantitated: 10/08/2019 09:07
Batch ID: KWG1904382
Analysis Method: 8082A
ListJoinID: LJ18762

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: SA 10/8/19
 Secondary Review: W

Exception Report

Data File: \\ALKLSWS002\INSTDATA\GC27\DATA\100719_R.B\1007F007.D
Lab ID: K1909014-006
RunType: SMPL
Matrix: SOIL

Date Acquired: 10/07/2019 12:37
Date Quantitated: 10/08/2019 09:07
Batch ID: KWG1904382
Analysis Method: 8082A
ListJoinID: LJ18762

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: SA 10/8/19

Secondary Review: W

Quantitation Report

Data File #1:	J:\GC27\DATA\100719.B\1007F007.D	Instrument:	GC27.i
Data File #2:	\\alklsws002\instdata\GC27\Data\100719_r.b\1007F007.D	Vial:	5
Acqu Date:	10/07/2019 12:37	Quant Date:	10/08/2019 09:07
Run Type:	SMPL	ListJoinID:	LJ18762
Lab ID:	K1909014-006	Soln Conc. Units:	ng/mL
Signal #1:	DB-35MS	Signal #2:	DB-XLB

Bottle ID:		Tier:	IV	Matrix:	SOIL
Prod Code:	8082A PCB	Collect Date:	09/25/2019	Receive Date:	09/27/2019

Analysis Lot:	KWG1904382	Prep Lot:	KWG1904339	Report Group:	K1909014
Analysis Method:	8082A	Prep Method:	EPA 3546		
Prep Ref:	1735939	Prep Date:	10/04/2019		

Quant Method:	\\ALKLSWS002\INSTDATA\GC27\DATA\100719.B\090419UL_F.M	Calibration ID:	CAL16127
Title:	Polychlorinated Biphenyls (PCBs)	Report List ID:	LJ18762
MB Ref:	J:\GC27\DATA\100719.B\1007F005.D	Method ID:	MJ1660
		Quant based on Report List	

Surrogate Compounds

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ng/mL #1	ng/mL #2	Rpt
Decachlorobiphenyl	16.85 ^{+0.00}	18.12	5101333	2090511	4.68	4.68	94 OK
%Recovery =					94 OK	94 OK	Limits = 70-130

Target Compounds

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	Final Conc. Units: ug/Kg Dry Weight				Rpt
					ng/mL #1	ng/mL #2	ug/Kg #1	ug/Kg #2	
Aroclor 1016 {1}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1016			0	0	0.0000	0.0000	2.9U	2.9U	2.9U
Aroclor 1016 {2}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1016 {3}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1016 {4}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1016 {5}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1221 {1}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1221			0	0	0.0000	0.0000	2.9U	2.9U	2.9U
Aroclor 1221 {2}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1221 {3}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1232 {1}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1232			0	0	0.0000	0.0000	2.9U	2.9U	2.9U
Aroclor 1232 {2}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1232 {3}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1232 {4}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1232 {5}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1242 {1}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1242			0	0	0.0000	0.0000	2.9U	2.9U	2.9U
Aroclor 1242 {2}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1242 {3}			0d	0d	0.0000	0.0000	2.9U	2.9U	

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File #1:	J:\GC27\DATA\100719.B\1007F007.D	Instrument:	GC27.i
Data File #2:	\\alklsws002\instdata\GC27\Data\100719_r.b\1007F007.D	Vial:	5
Acqu Date:	10/07/2019 12:37	Quant Date:	10/08/2019 09:07
Run Type:	SMPL	ListJoinID:	LJ18762
Lab ID:	K1909014-006	Soln Conc. Units:	ng/mL
Signal #1:	DB-35MS	Signal #2:	DB-XLB

Target Compounds

Final Conc. Units: ug/Kg Dry Weight

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ng/mL #1	ng/mL #2	ug/Kg #1	ug/Kg #2	Rpt
Aroclor 1242 {4}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1242 {5}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1248 {1}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1248			0	0	0.0000	0.0000	2.9U	2.9U	2.9U
Aroclor 1248 {2}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1248 {3}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1248 {4}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1248 {5}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1254 {1}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1254			0	0	0.0000	0.0000	2.9U	2.9U	2.9U
Aroclor 1254 {2}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1254 {3}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1254 {4}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1254 {5}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1260 {1}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1260			0	0	0.0000	0.0000	2.9U	2.9U	2.9U
Aroclor 1260 {2}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1260 {3}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1260 {4}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1260 {5}			0d	0d	0.0000	0.0000	2.9U	2.9U	

The +/- after Retention Time symbolize the direction of the RT shift

Prep Amount: 2.113 g **Dilution:** 1.0
Prep Final Vol: 8 mL **Unit Factor:** 1
Solids: 95 %

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / (Prep Amount x Solids)) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File: \\alklsws002\instdata\GC27\Data\100719.b\1007F007.D
Report Date: 08-Oct-2019 09:07

ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\100719.b\1007F007.D
Sample #2 : \\alklsws002\instdata\GC27\Data\100719_r.b\1007F007.D
Inj Date : 07-OCT-2019 12:37
Sample Info: K1909014-006
Misc Info :
Cal Date : 07-OCT-2019 11:35
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\100719.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\100719_r.b\090419_r.m
Sub List #1 : ALL.SUB
Sub List #2 : ALL.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.964	8.428	8669141	3951436	4.81	4.76		100.00 (R)
Decachlorobiphenyl	16.851	18.121	5101333	2090511	4.68	4.68		100.00 (R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: \\alk1sus002\instdata\GC27\Data\100719.16\1007F007.D

Date : 07-OCT-2019 12:37

Client ID:

Sample Info: K1909014-006

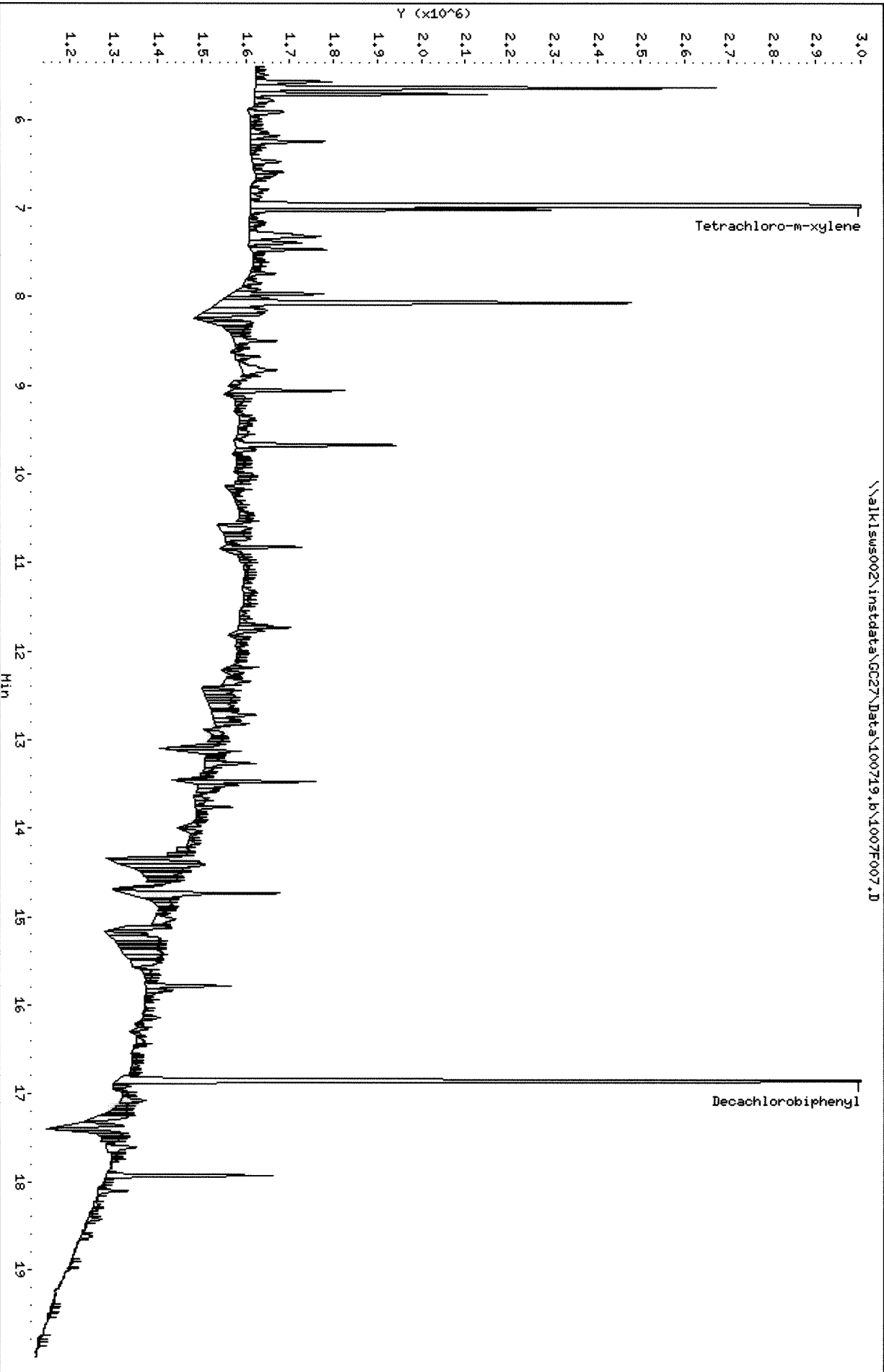
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

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Data File: \\alkisws002\instdata\GC27\Data\100719_Lr.b\1007F007.D

Date : 07-OCT-2019 12:37

Client ID:

Sample Info: K1909014-006

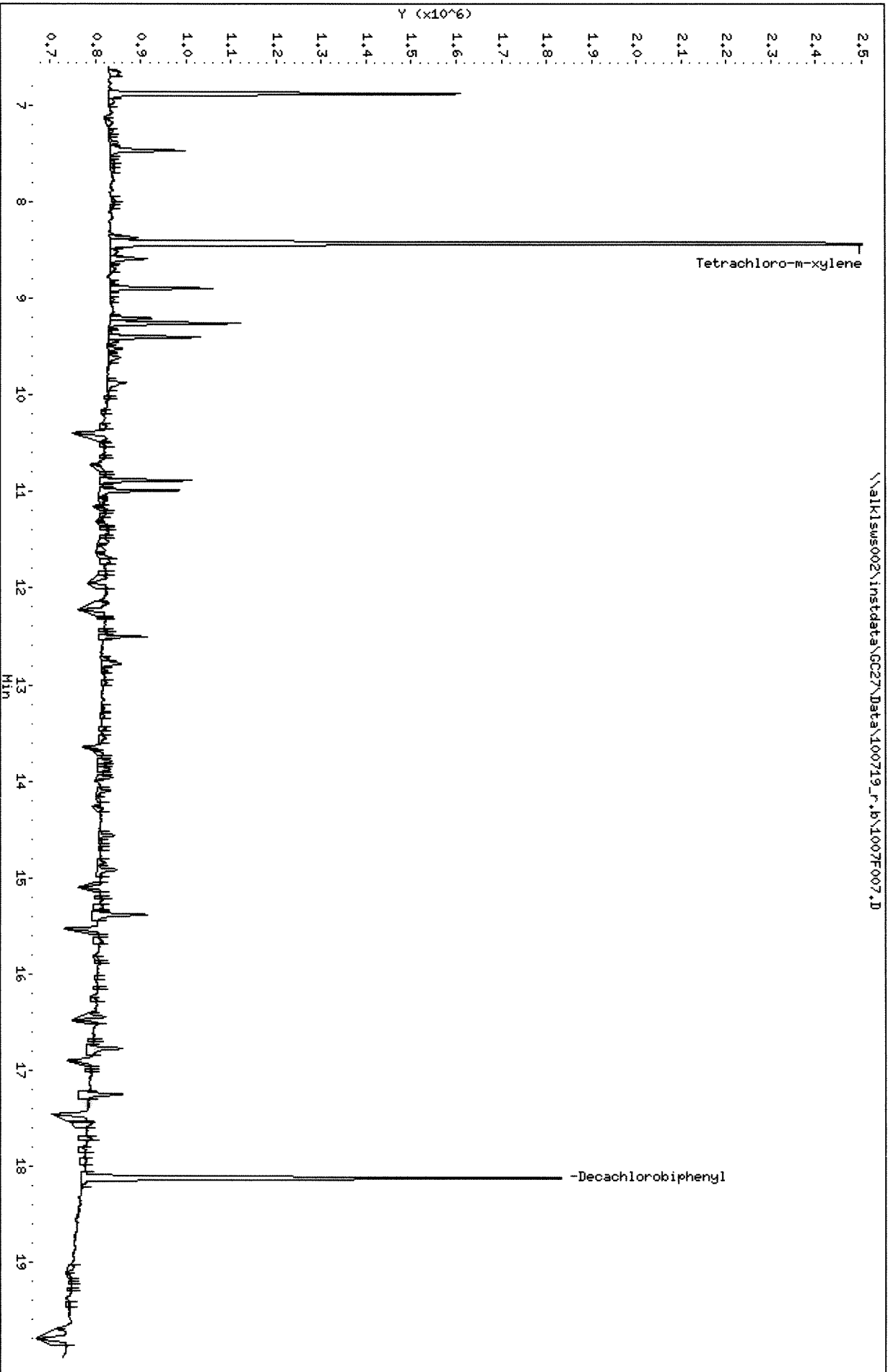
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alkisws002\instdata\GC27\Data\100719_Lr.b\1007F007.D



Exception Report

Data File: \\ALKLSWS002\INSTDATA\GC27\DATA\101019B.B\1010F008.D
Lab ID: K1909014-007
RunType: SMPL
Matrix: SOIL

Date Acquired: 10/10/2019 13:59
Date Quantitated: 10/10/2019 15:53
Batch ID: KWG1904425
Analysis Method: 8082A
ListJoinID: LJ18687

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA		x
Duplicate Lab Control Spike	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Lab Control Spike	Aroclor 1016 {1}	0	42	122	MCAV6

Primary Review: SA 10/10/19
 Secondary Review: W

Exception Report

Data File: \\ALKLSWS002\INSTDATA\GC27\DATA\101019B_R.B\1010F008.E
Lab ID: K1909014-007
RunType: SMPL
Matrix: SOIL

Date Acquired: 10/10/2019 13:59
Date Quantitated: 10/10/2019 15:53
Batch ID: KWG1904425
Analysis Method: 8082A
ListJoinID: LJ18687

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA		x
Duplicate Lab Control Spike	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Lab Control Spike	Aroclor 1016 {1}	0	42	122	MCV6

Primary Review: SA 10/10/19

Secondary Review: W

Quantitation Report

Data File #1:	J:\GC27\DATA\101019B.B\1010F008.D	Instrument:	GC27.i
Data File #2:	\\alklsws002\instdata\GC27\Data\101019B_r.b\1010F008.D	Vial:	6
Acqu Date:	10/10/2019 13:59	Quant Date:	10/10/2019 15:53
Run Type:	SMPL	ListJoinID:	LJ18687
Lab ID:	K1909014-007	Soln Conc. Units:	ng/mL
Signal #1:	DB-35MS	Signal #2:	DB-XLB

Bottle ID:		Tier:	IV	Matrix:	SOIL
Prod Code:	8082A PCB	Collect Date:	09/25/2019	Receive Date:	09/27/2019

Analysis Lot:	KWG1904425	Prep Lot:	KWG1904387	Report Group:	K1909014
Analysis Method:	8082A	Prep Method:	EPA 3541		
Prep Ref:	1736378	Prep Date:	10/09/2019		

Quant Method:	\\ALKLSWS002\INSTDATA\GC27\DATA\101019B.B\090419UL_F.M	Calibration ID:	CAL16127
Title:	Polychlorinated Biphenyls (PCBs)	Report List ID:	LJ18687
MB Ref:	J:\GC27\DATA\101019B.B\1010F005.D	Method ID:	MJ1677
		Quant based on Report List	

Surrogate Compounds

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ng/mL #1	ng/mL #2	Rpt
Decachlorobiphenyl	16.84 ^{+0.00}	18.12 ^{+0.00}	4666538	1829565	4.28	4.10	86 OK
%Recovery =					86 OK	82 OK	Limits = 43-148

Target Compounds

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	Final Conc. Units: ug/Kg Dry Weight				Rpt
					ng/mL #1	ng/mL #2	ug/Kg #1	ug/Kg #2	
Aroclor 1016 {1}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1016			0	0	0.0000	0.0000	10U	10U	10U
Aroclor 1016 {2}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1016 {3}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1016 {4}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1016 {5}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1221 {1}			0d	0	0.0000	0.0000	20U	20U	
Aroclor 1221			0	0	0.0000	0.0000	20U	20U	20U
Aroclor 1221 {2}			0d	0	0.0000	0.0000	20U	20U	
Aroclor 1221 {3}			0d	0	0.0000	0.0000	20U	20U	
Aroclor 1232 {1}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1232			0	0	0.0000	0.0000	10U	10U	10U
Aroclor 1232 {2}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1232 {3}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1232 {4}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1232 {5}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1242 {1}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1242			0	0	0.0000	0.0000	10U	10U	10U
Aroclor 1242 {2}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1242 {3}			0d	0	0.0000	0.0000	10U	10U	

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File #1:	J:\GC27\DATA\101019B.B\1010F008.D	Instrument:	GC27.i
Data File #2:	\\alklsws002\instdata\GC27\Data\101019B_r.b\1010F008.D	Vial:	6
Acqu Date:	10/10/2019 13:59	Quant Date:	10/10/2019 15:53
Run Type:	SMPL	ListJoinID:	LJ18687
Lab ID:	K1909014-007	Soln Conc. Units:	ng/mL
Signal #1:	DB-35MS	Signal #2:	DB-XLB

Target Compounds

Final Conc. Units: ug/Kg Dry Weight

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ng/mL #1	ng/mL #2	ug/Kg #1	ug/Kg #2	Rpt
Aroclor 1242 {4}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1242 {5}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1248 {1}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1248			0	0	0.0000	0.0000	10U	10U	10U
Aroclor 1248 {2}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1248 {3}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1248 {4}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1248 {5}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1254 {1}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1254			0	0	0.0000	0.0000	10U	10U	10U
Aroclor 1254 {2}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1254 {3}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1254 {4}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1254 {5}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1260 {1}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1260			0	0	0.0000	0.0000	10U	10U	10U
Aroclor 1260 {2}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1260 {3}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1260 {4}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1260 {5}			0d	0	0.0000	0.0000	10U	10U	

The +/- after Retention Time symbolize the direction of the RT shift

Prep Amount: 2.012 g **Dilution:** 1.0
Prep Final Vol: 8 mL **Unit Factor:** 1
Solids: 100 %

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / (Prep Amount x Solids)) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File: \\alklsws002\instdata\GC27\Data\101019B.b\1010F008.D
Report Date: 10-Oct-2019 15:53

ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\101019B.b\1010F008.D
Sample #2 : \\alklsws002\instdata\GC27\Data\101019B_r.b\1010F008.D
Inj Date : 10-OCT-2019 13:59
Sample Info: K1909014-007
Misc Info :
Cal Date : 10-OCT-2019 12:42
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\101019B.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\101019B_r.b\090419_r.m
Sub List #1 : ALL.SUB
Sub List #2 : ALL.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.960	8.423	3477727	1631959	1.93	1.96		100.00 (R)
Decachlorobiphenyl	16.843	18.117	4666538	1829565	4.28	4.10		100.00 (R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: \\alkliss002\instdata\GC27\Data\1010198.b\1010F008.D

Date : 10-OCT-2019 13:59

Client ID:

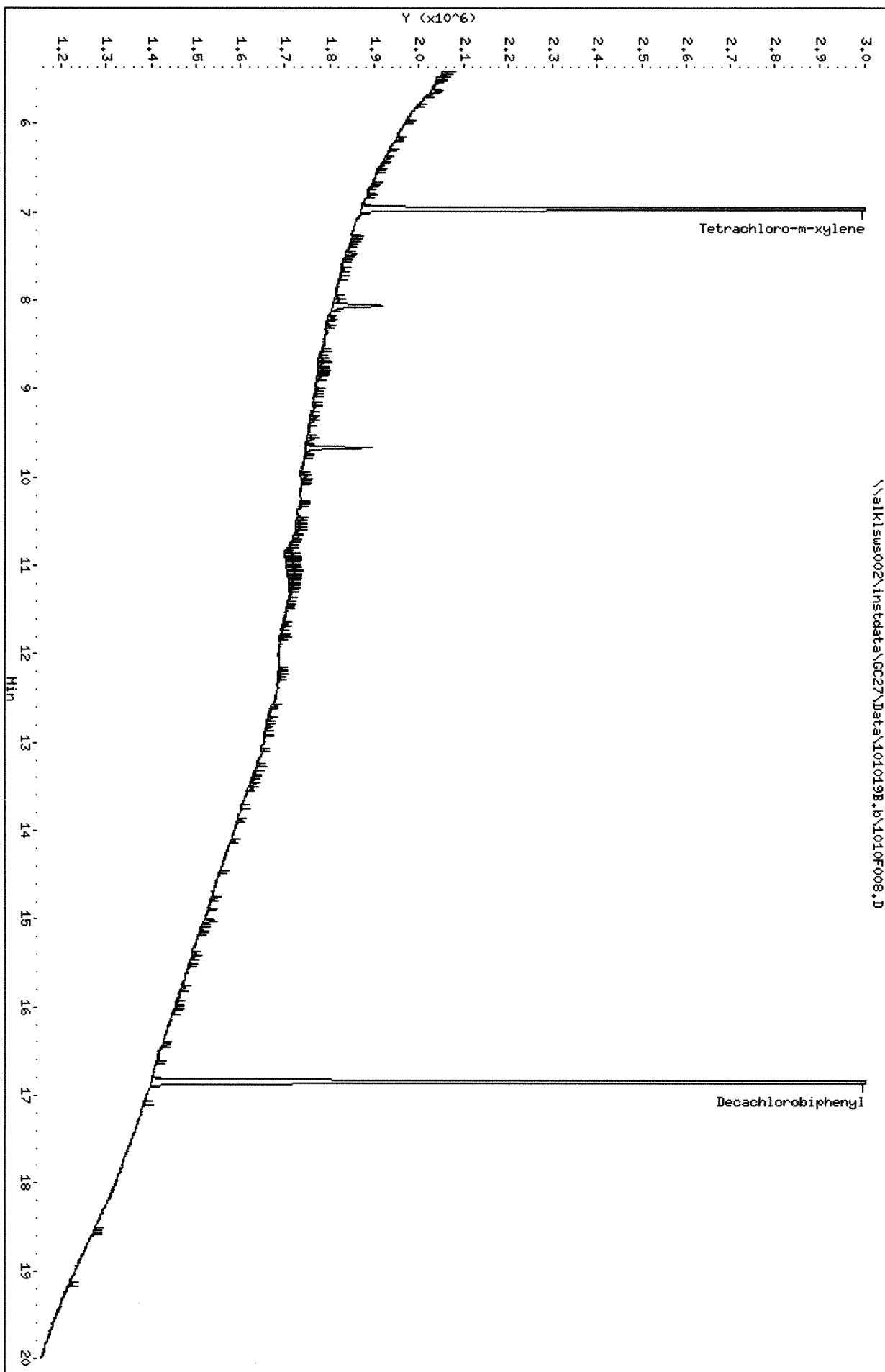
Sample Info: K1909014-007

Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Data File: \\alk1s002\instdata\GC27\Data\101019B_r.b\1010f008.D

Date : 10-OCT-2019 13:59

Client ID:

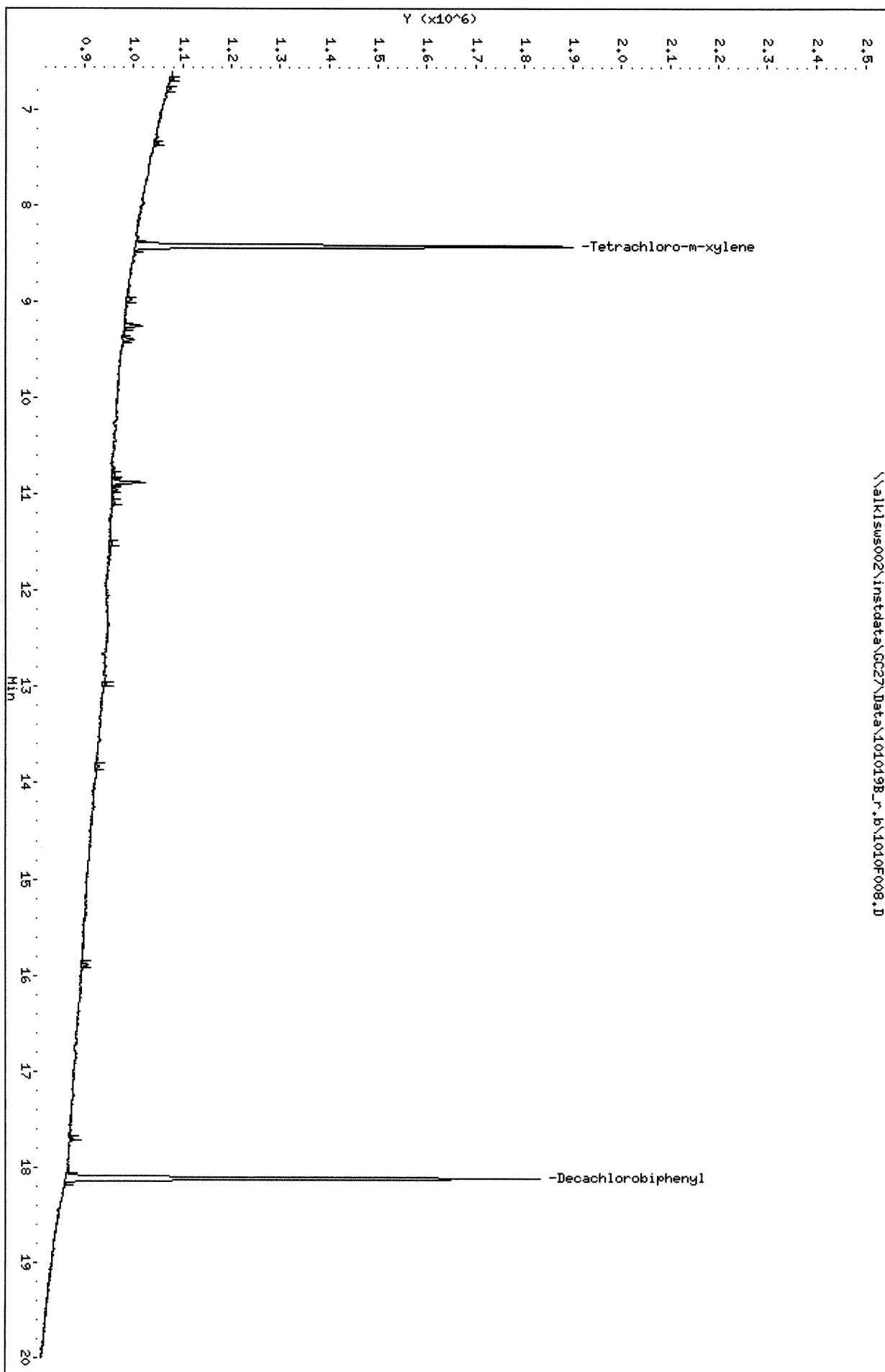
Sample Info: K1909014-007

Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Exception Report

Data File: \\ALKLSWS002\INSTDATA\GC27\DATA\101019B.B\1010F009.D
Lab ID: KWG1904425-3
RunType: CCV
Matrix: NOT APPLICABLE

Date Acquired: 10/10/2019 14:31
Date Quantitated: 10/10/2019 15:53
Batch ID: KWG1904425
Analysis Method: 8082A
MethodJoinID: MJ1677

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: SA 10/10/19

Secondary Review: 

Exception Report

Data File: \\ALKLSWS002\INSTDATA\GC27\DATA\100719_R.B\1007F005.D
Lab ID: KWG1904339-4
RunType: MB
Matrix: SOIL

Date Acquired: 10/07/2019 11:34
Date Quantitated: 10/08/2019 09:07
Batch ID: KWG1904382
Analysis Method: 8082A
MethodJoinID: MJ1660


Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA		x
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery (Closing)	Tetrachloro-m-xylene	20.5	NA	20	MC

Primary Review: SA 10/8/19

Secondary Review: 

Quantitation Report

Data File #1:	J:\GC27\DATA\100719.B\1007F005.D	Instrument:	GC27.i
Data File #2:	\\alklsws002\instdata\GC27\Data\100719_r.b\1007F005.D	Vial:	3
Acqu Date:	10/07/2019 11:34	Quant Date:	10/08/2019 09:07
Run Type:	MB	MethodJoinID:	MJ1660
Lab ID:	KWG1904339-4	Soln Conc. Units:	ng/mL
Signal #1:	DB-35MS	Signal #2:	DB-XLB

Bottle ID:		Tier:	SOIL
Prod Code:	8082A PCB	Collect Date:	10/05/2019

Analysis Lot:	KWG1904382	Prep Lot:	KWG1904339	Report Group:	
Analysis Method:	8082A	Prep Method:	EPA 3546		
Prep Ref:	1735944	Prep Date:	10/04/2019		

Quant Method:	\\ALKLSWS002\INSTDATA\GC27\DATA\100719.B\090419UL_F.M	Calibration ID:	CAL16127
Title:		Method ID:	MJ1660
MB Ref:		Quant based on Method	

Surrogate Compounds

Parameter Name	RT #1	RT #2	Resp #1	Respe #2	ng/mL #1	ng/mL #2			Rpt
Tetrachloro-m-xylene	6.97 ^{+0.00}	8.43 ^{+0.00}	8139354	3696432	4.52	4.45 ^{CCV}			90 OK
			%Recovery =		90 OK	89 OK	Limits =	70-130	
Decachlorobiphenyl	16.85 ^{+0.00}	18.12 ^{+0.00}	4309737	1765368	3.95	3.96			79 OK
			%Recovery =		79 OK	79 OK	Limits =	70-130	

Target Compounds

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	Final Conc. Units: ug/Kg Wet Weight				Rpt
					ng/mL #1	ng/mL #2	ug/Kg #1	ug/Kg #2	
Aroclor 1016			0	0	0.0000	0.0000	2.90U	2.90U	2.90U
Aroclor 1016 {1}			0d	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1016 {2}			0d	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1016 {3}			0d	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1016 {4}			0d	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1016 {5}			0d	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1221			0	0	0.0000	0.0000	2.9U	2.9U	2.9U
Aroclor 1221 {1}			0d	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1221 {2}			0d	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1221 {3}			0d	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1232			0	0	0.0000	0.0000	2.9U	2.9U	2.9U
Aroclor 1232 {1}			0d	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1232 {2}			0d	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1232 {3}			0d	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1232 {4}			0d	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1232 {5}			0d	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1242			0	0	0.0000	0.0000	2.9U	2.9U	2.9U
Aroclor 1242 {1}			0d	0	0.0000	0.0000	2.9U	2.9U	

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File #1:	J:\GC27\DATA\100719.B\1007F005.D	Instrument:	GC27.i
Data File #2:	\\alklsws002\instdata\GC27\Data\100719_r.b\1007F005.D	Vial:	3
Acqu Date:	10/07/2019 11:34	Quant Date:	10/08/2019 09:07
Run Type:	MB	MethodJoinID:	MJ1660
Lab ID:	KWG1904339-4	Soln Conc. Units:	ng/mL
Signal #1:	DB-35MS	Signal #2:	DB-XLB

Target Compounds

Final Conc. Units: ug/Kg Wet Weight

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ng/mL #1	ng/mL #2	ug/Kg #1	ug/Kg #2	Rpt
Aroclor 1242 {2}			0d	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1242 {3}			0d	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1242 {4}			0d	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1242 {5}			0d	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1248			0	0	0.0000	0.0000	2.9U	2.9U	2.9U
Aroclor 1248 {1}			0d	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1248 {2}			0d	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1248 {3}			0d	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1248 {4}			0d	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1248 {5}			0d	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1254			0	0	0.0000	0.0000	2.9U	2.9U	2.9U
Aroclor 1254 {1}			0	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1254 {2}			0	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1254 {3}			0	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1254 {4}			0	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1254 {5}			0	0	0.0000	0.0000	2.9U	2.9U	
Aroclors, Total			0	0	0.0000	0.0000	2.9U	2.9U	2.9U
Aroclor 1260			0	0	0.0000	0.0000	2.90U	2.90U	2.90U
Aroclor 1260 {1}			0	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1260 {2}			0	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1260 {3}			0	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1260 {4}			0	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1260 {5}			0	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1262			0	0	0.0000	0.0000	2.9U	2.9U	2.9U
Aroclor 1262 {1}			0	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1262 {2}			0	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1262 {3}			0	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1262 {4}			0	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1262 {5}			0	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1268			0	0	0.0000	0.0000	2.9U	2.9U	2.9U
Aroclor 1268 {1}			0	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1268 {2}			0	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1268 {3}			0	0	0.0000	0.0000	2.9U	2.9U	
Aroclor 1268 {4}			0	0	0.0000	0.0000	2.9U	2.9U	

The +/- after Retention Time symbolize the direction of the RT shift

Prep Amount: 2.113 g **Dilution:** 1.0
Prep Final Vol: 8 mL **Unit Factor:** 1
Solids: %

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / (Prep Amount x Solids)) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
c: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File: \\alklsws002\instdata\GC27\Data\100719.b\1007F005.D
Report Date: 08-Oct-2019 09:07

ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\100719.b\1007F005.D
Sample #2 : \\alklsws002\instdata\GC27\Data\100719_r.b\1007F005.D
Inj Date : 07-OCT-2019 11:34
Sample Info: KWG1904339-004 MB
Misc Info :
Cal Date : 07-OCT-2019 11:35
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\100719.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\100719_r.b\090419_r.m
Sub List #1 : ALL.SUB
Sub List #2 : ALL.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.965	8.428	8139354	3696432	4.52	4.45		100.00(R)
Decachlorobiphenyl	16.851	18.122	4309737	1765368	3.95	3.95		100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: \\alkisus002\instdata\GC27\Data\100719.16\1007F005.D

Date : 07-OCT-2019 14:34

Client ID:

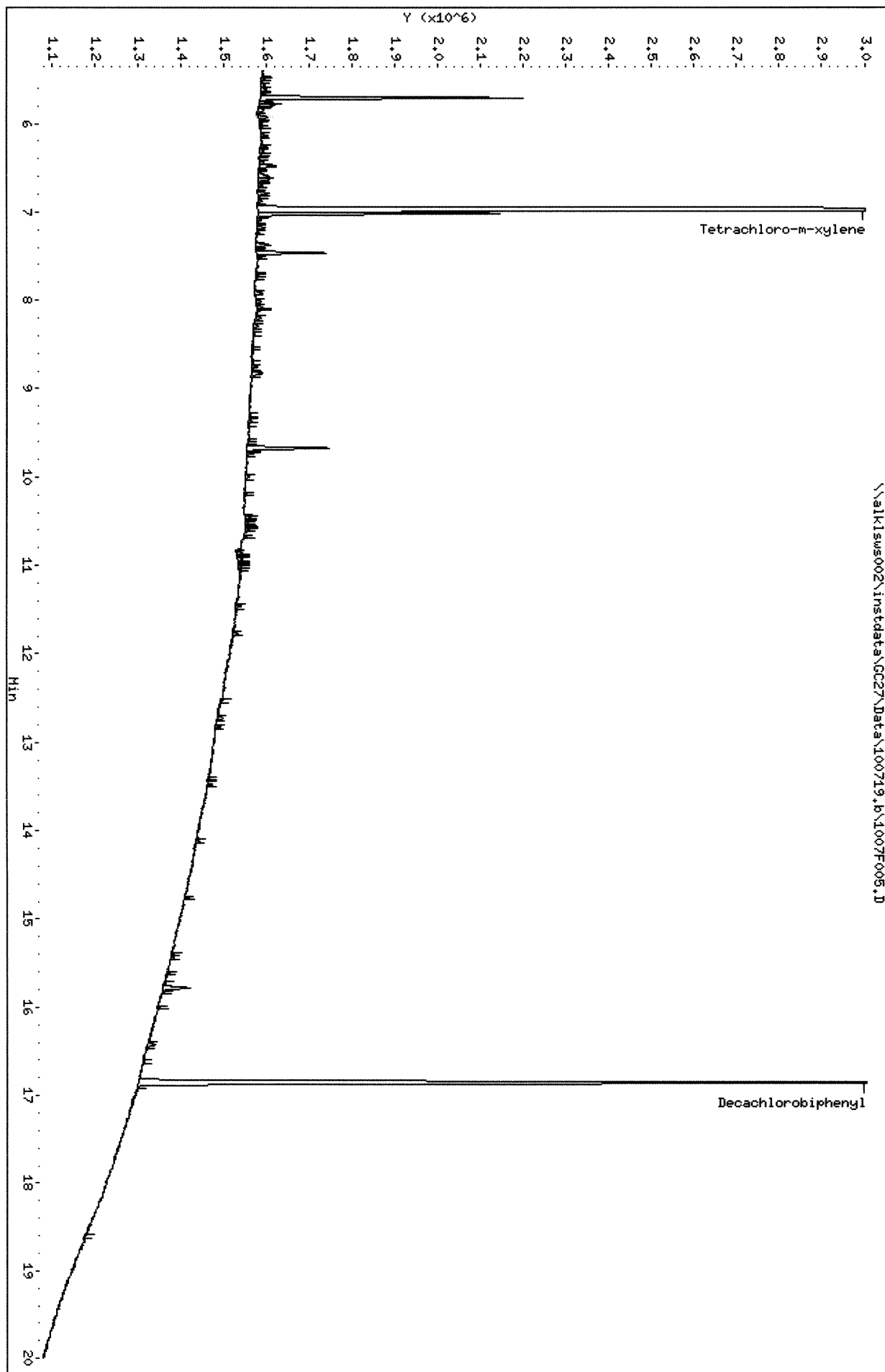
Sample Info: KMG1904339-004 MB

Column phase: DB-35MS

Instrument: GC27.1

Operator: SAA

Column diameter: 0.32



Data File: \\alklms002\instdata\GC27\Data\100719_r.b\1007F005.D

Date : 07-OCT-2019 11:34

Client ID:

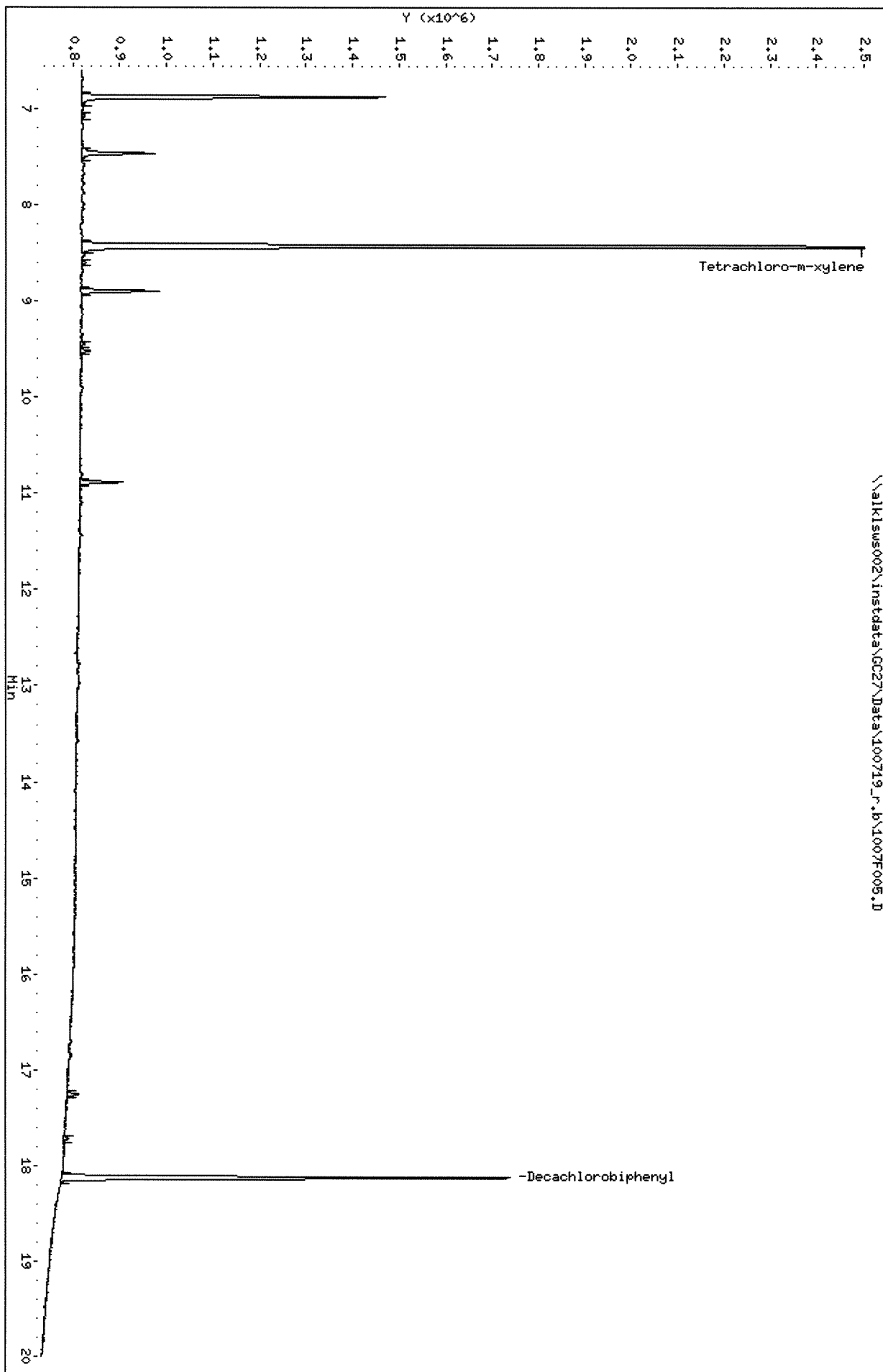
Sample Info: KMG1904339-004 MB

Column phase: DB-KLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Exception Report

Data File: \\ALKLSWS002\INSTDATA\GC27\DATA\101019B_R.B\1010F005.D
Lab ID: KWG1904387-3
RunType: MB
Matrix: SOIL

Date Acquired: 10/10/2019 12:24
Date Quantitated: 10/10/2019 15:53
Batch ID: KWG1904425
Analysis Method: 8082A
MethodJoinID: MJ1677

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: AT 10/10/19

Secondary Review: NY

Quantitation Report

Data File #1:	J:\GC27\DATA\101019B.B\1010F005.D	Instrument:	GC27.i
Data File #2:	\\alklsws002\instdata\GC27\Data\101019B_r.b\1010F005.D	Vial:	3
Acqu Date:	10/10/2019 12:24	Quant Date:	10/10/2019 15:52
Run Type:	MB	MethodJoinID:	MJ1677
Lab ID:	KWG1904387-3	Soln Conc. Units:	ng/mL
Signal #1:	DB-35MS	Signal #2:	DB-XLB

Bottle ID:		Tier:	SOIL
Prod Code:	8082A PCB	Collect Date:	10/09/2019

Analysis Lot:	KWG1904425	Prep Lot:	KWG1904387	Report Group:	
Analysis Method:	8082A	Prep Method:	EPA 3541		
Prep Ref:	1736381	Prep Date:	10/09/2019		

Quant Method:	\\ALKLSWS002\INSTDATA\GC27\DATA\101019B.B\090419UL_F.M	Calibration ID:	CAL16127
Title:		Method ID:	MJ1677
MB Ref:		Quant based on Method	

Surrogate Compounds

Parameter Name	RT #1	RT #2	Resp #1	Respe #2	ng/mL #1	ng/mL #2	Final Conc. Units: ug/Kg Wet Weight		Rpt
Tetrachloro-m-xylene	6.96 ^{+0.00}	8.42 ^{+0.00}	8296931	3706219	4.61	4.46	92 OK	89 OK	92 OK
			%Recovery =		92 OK	89 OK	Limits =	10-135	
Decachlorobiphenyl	16.84 ^{+0.00}	18.12 ^{+0.00}	4473167	1828444	4.10	4.10	82 OK	82 OK	82 OK
			%Recovery =		82 OK	82 OK	Limits =	43-148	

Target Compounds

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ng/mL #1	ng/mL #2	ug/Kg #1	ug/Kg #2	Rpt
Aroclor 1016			0	0	0.0000	0.0000	10.0U	10.0U	10.0U
Aroclor 1016 {1}			0	0	0.0000	0.0000	10U	10U	
Aroclor 1016 {2}			0	0	0.0000	0.0000	10U	10U	
Aroclor 1016 {3}			0	0	0.0000	0.0000	10U	10U	
Aroclor 1016 {4}			0	0	0.0000	0.0000	10U	10U	
Aroclor 1016 {5}			0	0	0.0000	0.0000	10U	10U	
Aroclor 1221			0	0	0.0000	0.0000	20U	20U	20U
Aroclor 1221 {1}			0	0	0.0000	0.0000	20U	20U	
Aroclor 1221 {2}			0	0	0.0000	0.0000	20U	20U	
Aroclor 1221 {3}			0	0	0.0000	0.0000	20U	20U	
Aroclor 1232			0	0	0.0000	0.0000	10U	10U	10U
Aroclor 1232 {1}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1232 {2}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1232 {3}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1232 {4}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1232 {5}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1242			0	0	0.0000	0.0000	10U	10U	10U
Aroclor 1242 {1}			0	0	0.0000	0.0000	10U	10U	

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File #1:	J:\GC27\DATA\101019B.B\1010F005.D	Instrument:	GC27.i
Data File #2:	\\alklsws002\instdata\GC27\Data\101019B_r.b\1010F005.D	Vial:	3
Acqu Date:	10/10/2019 12:24	Quant Date:	10/10/2019 15:52
Run Type:	MB	MethodJoinID:	MJ1677
Lab ID:	KWG1904387-3	Soln Conc. Units:	ng/mL
Signal #1:	DB-35MS	Signal #2:	DB-XLB

Target Compounds

Final Conc. Units: ug/Kg Wet Weight

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ng/mL #1	ng/mL #2	ug/Kg #1	ug/Kg #2	Rpt
Aroclor 1242 {2}			0	0	0.0000	0.0000	10U	10U	
Aroclor 1242 {3}			0	0	0.0000	0.0000	10U	10U	
Aroclor 1242 {4}			0	0	0.0000	0.0000	10U	10U	
Aroclor 1242 {5}			0	0	0.0000	0.0000	10U	10U	
Aroclor 1248			0	0	0.0000	0.0000	10U	10U	10U
Aroclor 1248 {1}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1248 {2}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1248 {3}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1248 {4}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1248 {5}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1254			0	0	0.0000	0.0000	10U	10U	10U
Aroclor 1254 {1}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1254 {2}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1254 {3}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1254 {4}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1254 {5}			0d	0	0.0000	0.0000	10U	10U	
Aroclors, Total			0	0	0.0000	0.0000	10U	10U	10U
Aroclor 1260			0	0	0.0000	0.0000	10.0U	10.0U	10.0U
Aroclor 1260 {1}			0	0	0.0000	0.0000	10U	10U	
Aroclor 1260 {2}			0	0	0.0000	0.0000	10U	10U	
Aroclor 1260 {3}			0	0	0.0000	0.0000	10U	10U	
Aroclor 1260 {4}			0	0	0.0000	0.0000	10U	10U	
Aroclor 1260 {5}			0	0	0.0000	0.0000	10U	10U	
Aroclor 1262			0	0	0.0000	0.0000	10U	10U	10U
Aroclor 1262 {1}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1262 {2}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1262 {3}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1262 {4}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1262 {5}			0d	0	0.0000	0.0000	10U	10U	
Aroclor 1268			0	0	0.0000	0.0000	10U	10U	10U
Aroclor 1268 {1}			0	0	0.0000	0.0000	10U	10U	
Aroclor 1268 {2}			0	0	0.0000	0.0000	10U	10U	
Aroclor 1268 {3}			0	0	0.0000	0.0000	10U	10U	
Aroclor 1268 {4}			0	0	0.0000	0.0000	10U	10U	

The +/- after Retention Time symbolize the direction of the RT shift

Prep Amount: 2.012 g **Dilution:** 1.0
Prep Final Vol: 8 mL **Unit Factor:** 1
Solids: %

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / (Prep Amount x Solids)) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File: \\alklsws002\instdata\GC27\Data\101019B.b\1010F005.D
Report Date: 10-Oct-2019 15:52

ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\101019B.b\1010F005.D
Sample #2 : \\alklsws002\instdata\GC27\Data\101019B_r.b\1010F005.D
Inj Date : 10-OCT-2019 12:24
Sample Info: KWG1904387-003 MB
Misc Info :
Cal Date : 10-OCT-2019 12:42
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\101019B.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\101019B_r.b\090419_r.m
Sub List #1 : ALL.SUB
Sub List #2 : ALL.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.959	8.423	8296931	3706219	4.61	4.46		100.00 (R)
Decachlorobiphenyl	16.843	18.116	4473167	1828444	4.10	4.10		100.00 (R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: \\aik1s002\instdata\GC27\Data\1010198.b\1010F005.D

Date : 10-OCT-2019 12:24

Client ID:

Sample Info: KMG1904387-003 MB

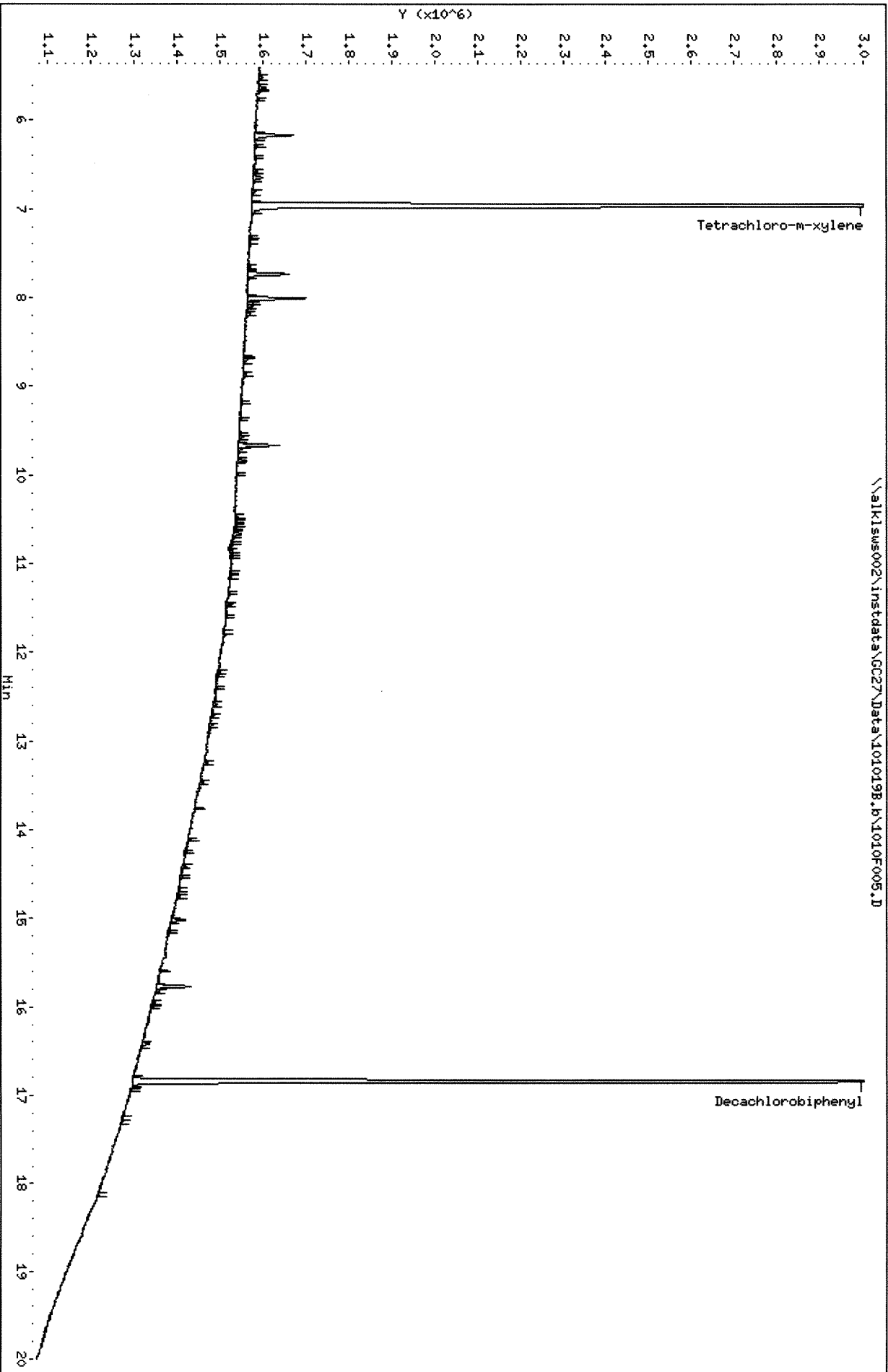
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\aik1s002\instdata\GC27\Data\1010198.b\1010F005.D



Data File: \\alk1s02\instdata\GC27\Data\101019B_r.b\1010F005.D

Date : 10-OCT-2019 12:24

Client ID:

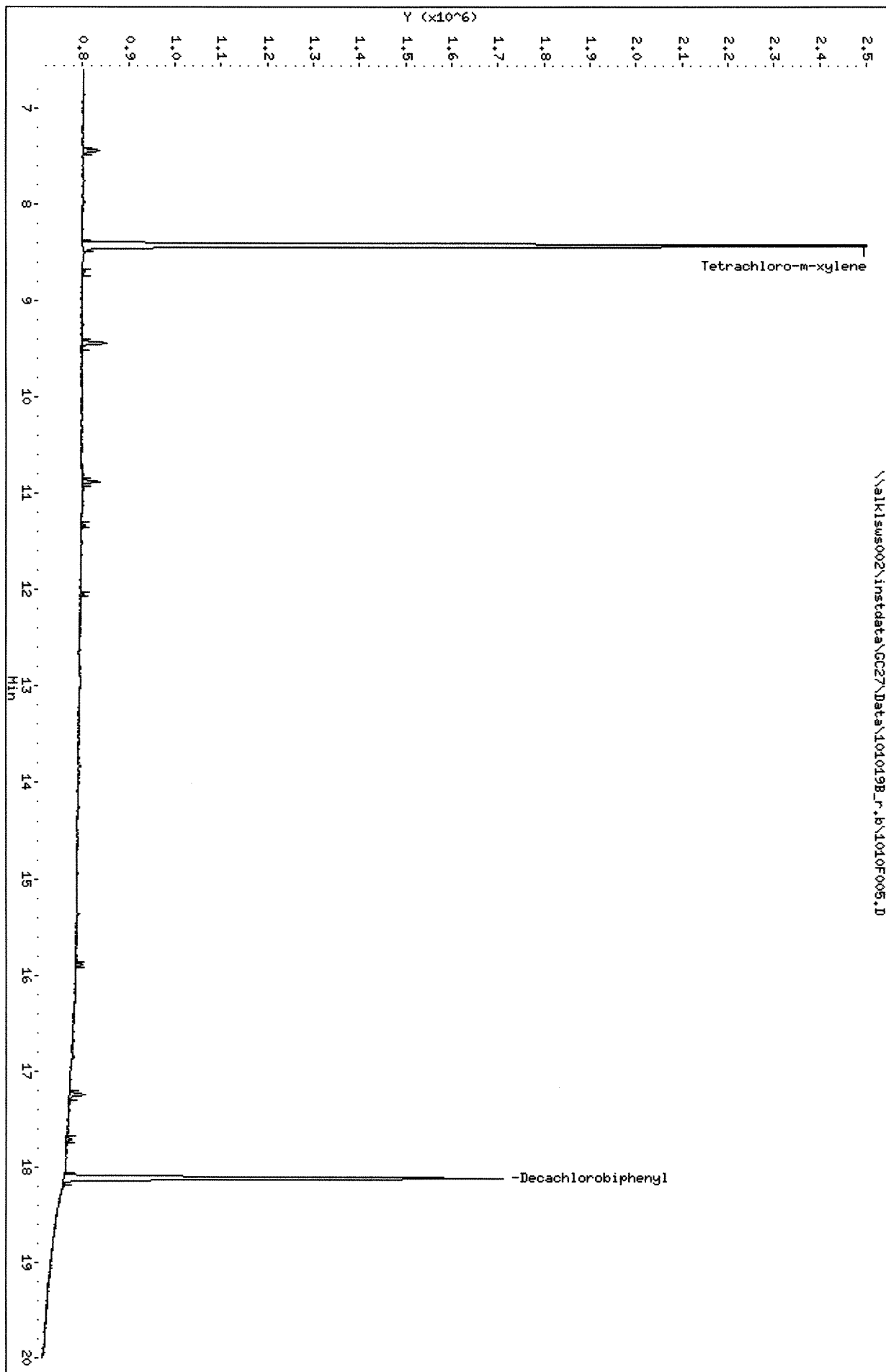
Sample Info: KMC1904387-003 HB

Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Exception Report

Data File: \\ALKLSWS002\INSTDATA\GC27\DATA\100719.B\1007F008.D
Lab ID: KWG1904339-1 -- K1909014-006MS
RunType: MS
Matrix: SOIL

Date Acquired: 10/07/2019 13:09
Date Quantitated: 10/08/2019 09:07
Batch ID: KWG1904382
Analysis Method: 8082A
MethodJoinID: MJ1660

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: SA 10/8/19

Secondary Review: W

Exception Report

Data File: \\ALKLSWS002\INSTDATA\GC27\DATA\100719_R.B\1007F008.D
Lab ID: KWG1904339-1 -- K1909014-006MS
RunType: MS
Matrix: SOIL

Date Acquired: 10/07/2019 13:09
Date Quantitated: 10/08/2019 09:07
Batch ID: KWG1904382
Analysis Method: 8082A
MethodJoinID: MJ1660

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA		x
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery (Closing)	Tetrachloro-m-xylene	20.5	NA	20	<i>MK</i>

Primary Review: SA 10/8/19

Secondary Review: *W*

Quantitation Report

Data File #1:	J:\GC27\DATA\100719.B\1007F008.D	Instrument:	GC27.i
Data File #2:	\\alklsws002\instdata\GC27\Data\100719_r.b\1007F008.D	Vial:	6
Acqu Date:	10/07/2019 13:09	Quant Date:	10/08/2019 09:07
Run Type:	MS	MethodJoinID:	MJ1660
Lab ID:	KWG1904339-1 -- K1909014-006MS		
Signal #1:	DB-35MS	Signal #2:	DB-XLB

Bottle ID:		Tier:		Matrix:	SOIL
Prod Code:	8082A PCB	Collect Date:		Receive Date:	10/05/2019

Analysis Lot:	KWG1904382	Prep Lot:	KWG1904339	Report Group:	
Analysis Method:	8082A	Prep Method:	EPA 3546		
Prep Ref:	1735941	Prep Date:	10/04/2019		

Quant Method:	\\ALKLSWS002\INSTDATA\GC27\DATA\100719.B\090419UL_F.M	Calibration ID:	CAL16127
Title:		Method ID:	MJ1660
MB Ref:	J:\GC27\DATA\100719.B\1007F005.D	Quant based on Method	

Surrogate Compounds

Parameter Name	RT #1	RT #2	Resp #1	Respe #2	ng/mL #1	ng/mL #2			Rpt
Tetrachloro-m-xylene	6.96 ^{+0.00}	8.43 ^{+0.00}	8668953	3956918	4.81	4.76 ^{CCV}			96 OK
			%Recovery =		96 OK	95 OK	Limits =	70-130	
Decachlorobiphenyl	16.85 ^{+0.00}	18.12 ^{+0.00}	5129815	2043590	4.71	4.58			94 OK
			%Recovery =		94 OK	92 OK	Limits =	70-130	

Target Compounds

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ng/mL #1	ng/mL #2	Final Conc. Units: ug/Kg Dry Weight		Rpt
							ug/Kg #1	ug/Kg #2	
Aroclor 1016			0	0	22.26	27.95	91.1	114	91.1
Aroclor 1016 {1}	8.06 ^{+0.01}	9.15 ^{+0.00}	0	418610m	0.0000	27.80	3.0U	114	
Aroclor 1016 {2}	9.30 ^{+0.00}	9.90 ^{+0.00}	659863	703366m	23.56	31.85	96.4	130	
Aroclor 1016 {3}	9.74 ^{+0.00}	11.05 ^{+0.00}	1810993	574378m	20.83	23.82	85.3	97.5	
Aroclor 1016 {4}	9.92 ^{+0.00}	11.50 ^{0.00}	1150145	496919m	22.42	27.89	91.8	114	
Aroclor 1016 {5}	10.31 ^{+0.01}	11.74 ^{0.00}	780597	477935m	22.21	28.37	90.9	116	
Aroclor 1221			0	0	0.0000	0.0000	3.0U	3.0U	3.0U
Aroclor 1221 {1}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1221 {2}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1221 {3}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1232			0	0	0.0000	0.0000	3.0U	3.0U	3.0U
Aroclor 1232 {1}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1232 {2}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1232 {3}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1232 {4}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1232 {5}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1242			0	0	0.0000	0.0000	3.0U	3.0U	3.0U
Aroclor 1242 {1}			0d	0d	0.0000	0.0000	3.0U	3.0U	

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 c: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File #1:	J:\GC27\DATA\100719.B\1007F008.D	Instrument:	GC27.i
Data File #2:	\\alklsws002\instdata\GC27\Data\100719_r.b\1007F008.D	Vial:	6
Acqu Date:	10/07/2019 13:09	Quant Date:	10/08/2019 09:07
Run Type:	MS	MethodJoinID:	MJ1660
Lab ID:	KWG1904339-1 -- K1909014-006MS	Soln Conc. Units:	ng/mL
Signal #1:	DB-35MS	Signal #2:	DB-XLB

Target Compounds

Final Conc. Units: ug/Kg Dry Weight

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ng/mL #1	ng/mL #2	ug/Kg #1	ug/Kg #2	Rpt
Aroclor 1242 {2}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1242 {3}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1242 {4}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1242 {5}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1248			0	0	0.0000	0.0000	3.0U	3.0U	3.0U
Aroclor 1248 {1}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1248 {2}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1248 {3}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1248 {4}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1248 {5}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1254			0	0	0.0000	0.0000	3.0U	3.0U	3.0U
Aroclor 1254 {1}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1254 {2}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1254 {3}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1254 {4}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1254 {5}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclors, Total	1.00	1.00	3015021	1367515	52.43	58.64	215J	240J	215J
Aroclor 1260			0	0	30.17	30.70	124	126	124
Aroclor 1260 {1}	13.19 ^{+0.00}	13.54 ^{+0.00}	845814m	446384	25.24	31.45	103	129	
Aroclor 1260 {2}	13.58 ^{+0.01}	14.78 ^{+0.00}	1584661m	704896	34.00	30.74	139	126	
Aroclor 1260 {3}	14.05 ^{+0.00}	15.15 ^{+0.00}	1589721m	695389	31.70	30.91	130	127	
Aroclor 1260 {4}	14.42 ^{+0.00}	15.68 ^{0.00}	3161572m	1423305	29.79	29.95	122	123	
Aroclor 1260 {5}	15.05 ^{+0.00}	16.18 ^{+0.01}	2391341m	896394	30.13	30.44	123	125	
Aroclor 1262			0	0	0.0000	0.0000	3.0U	3.0U	3.0U
Aroclor 1262 {1}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1262 {2}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1262 {3}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1262 {4}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1262 {5}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1268			0	0	0.0000	0.0000	3.0U	3.0U	3.0U
Aroclor 1268 {1}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1268 {2}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1268 {3}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1268 {4}			0d	0d	0.0000	0.0000	3.0U	3.0U	

The +/- after Retention Time symbolize the direction of the RT shift

Prep Amount: 2.057 g **Dilution:** 1.0
Prep Final Vol: 8 mL **Unit Factor:** 1
Solids: 95 %

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / (Prep Amount x Solids)) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\100719.b\1007F008.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\100719_r.b\1007F008.D
 Inj Date : 07-OCT-2019 13:09
 Sample Info: K1909014-006 MS
 Misc Info :
 Cal Date : 07-OCT-2019 11:35
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\100719.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\100719_r.b\090419_r.m
 Sub List #1 : ALL.SUB
 Sub List #2 : ALL.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.963	8.427	8668953	3956918	4.81	4.76		100.00 (R)
Aroclor 1016	8.057	9.154		418610		27.8	80.00- 120.00	100.00
	9.300	9.904	659863	703366	23.6	31.9	65.14- 97.71	27.12
	9.740	11.054	1810993	574378	20.8	23.8	186.93- 280.39	74.43
	9.923	11.504	1150145	496919	22.4	27.9	111.40- 167.10	47.27
	10.310	11.740	780597	477935	22.2	28.4	80.81- 121.21	32.08
	Average of Peak Amounts =				22.3	28.0		
Aroclor 1260	13.190	13.537	845814	446384	25.2	31.4	80.00- 120.00	100.00 (M)
	13.577	14.780	1584661	704896	34.0	30.7	120.26- 180.40	187.35 (M)
	14.047	15.150	1589721	695389	31.7	30.9	128.27- 192.40	187.95 (M)
	14.423	15.677	3161572	1423305	29.8	29.9	269.79- 404.69	373.79 (M)
	15.053	16.184	2391341	896394	30.1	30.4	198.82- 298.22	282.73 (M)
	Average of Peak Amounts =				30.2	30.7		
Decachlorobiphenyl	16.850	18.124	5129815	2043590	4.71	4.58		100.00 (R)
Aroclors, Total	1.000	1.000	3015021	1367515	52.4	58.6		0.00

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
 M - Compound response manually integrated.

Data File: \\alk1s002\instdata\GC27\Data\100719.B\1007F008.D

Date : 07-OCT-2019 13:09

Client ID:

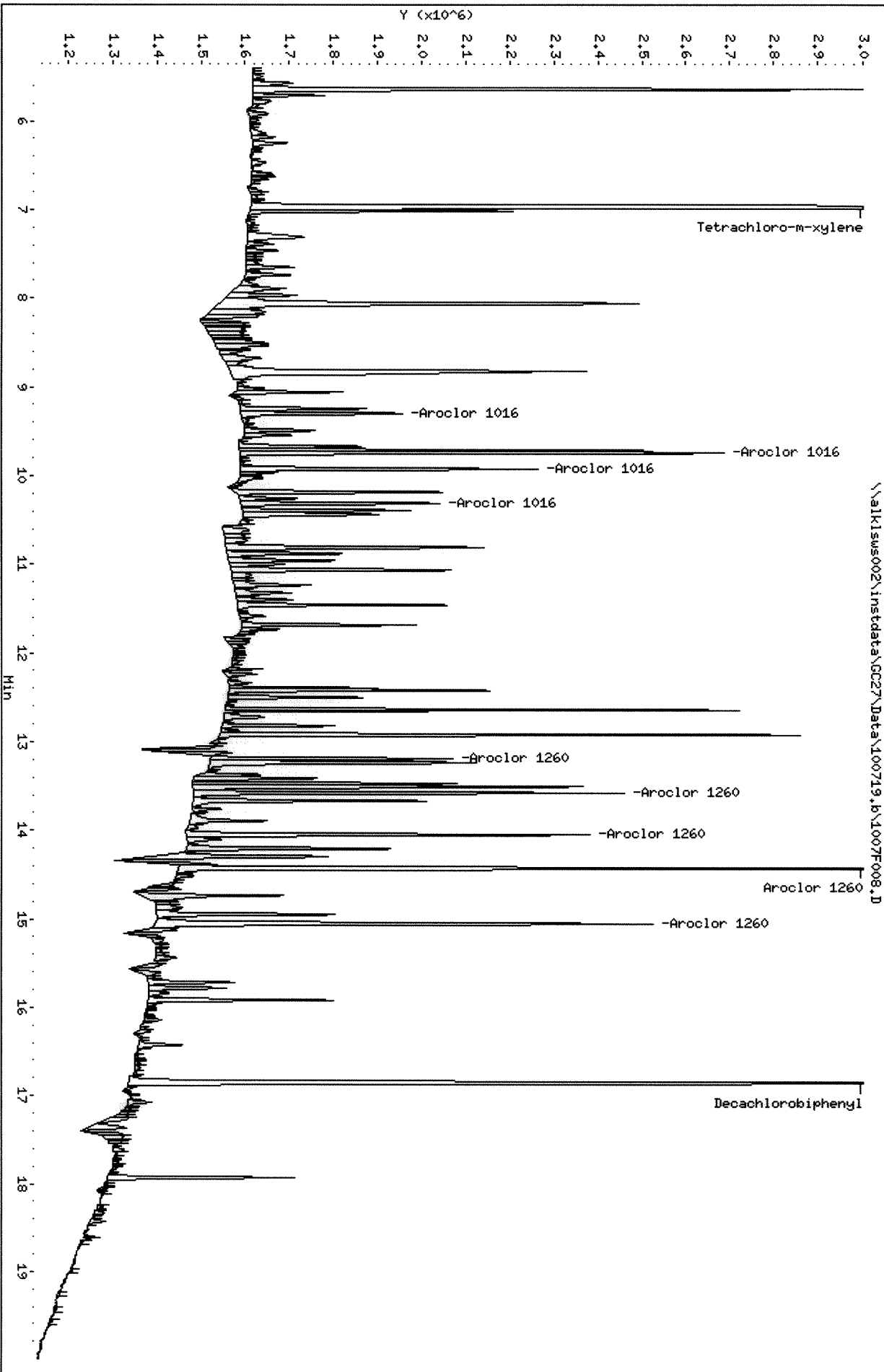
Sample Info: K1909014-006 HS

Column phase: DB-35MS

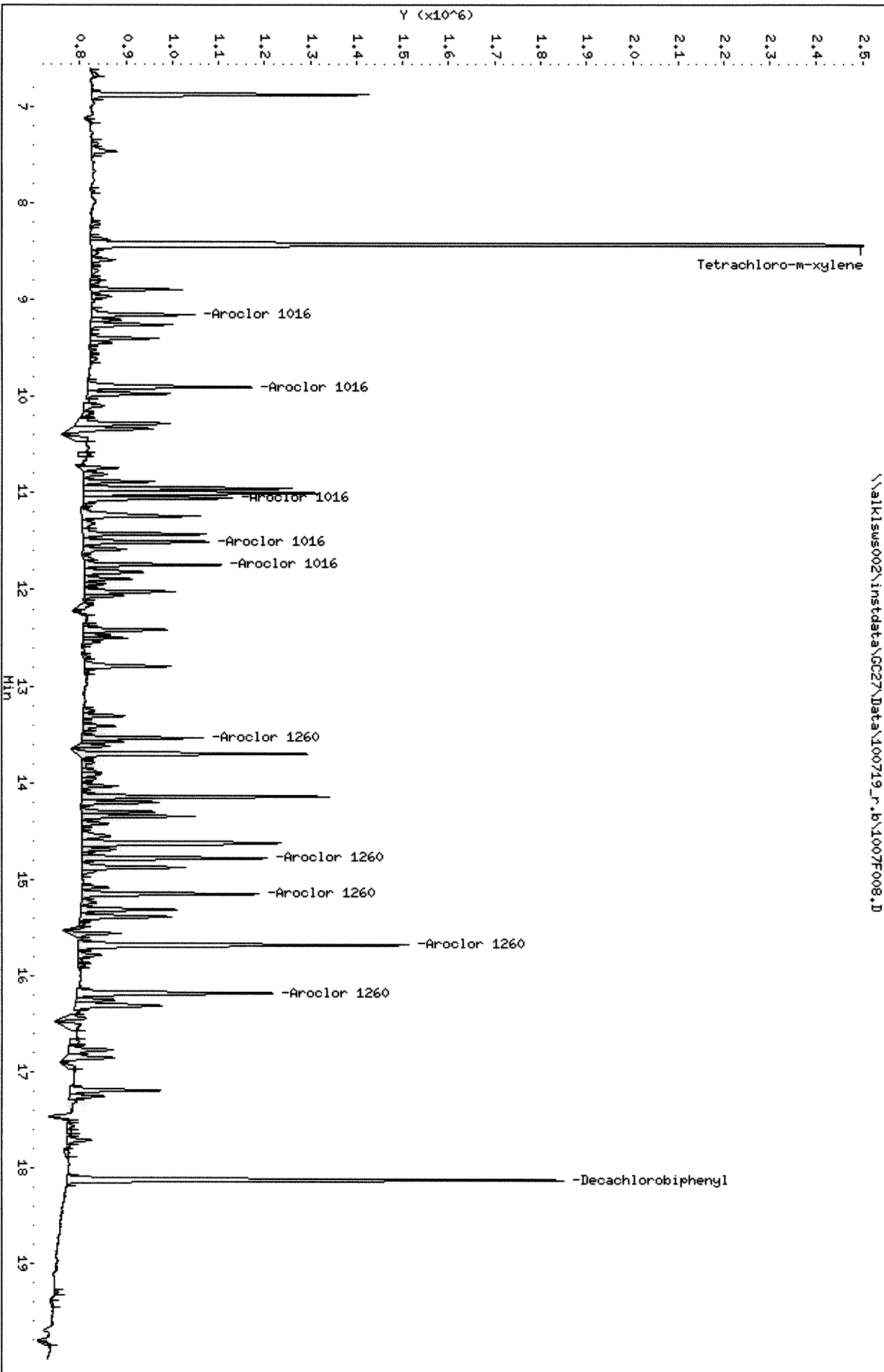
Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

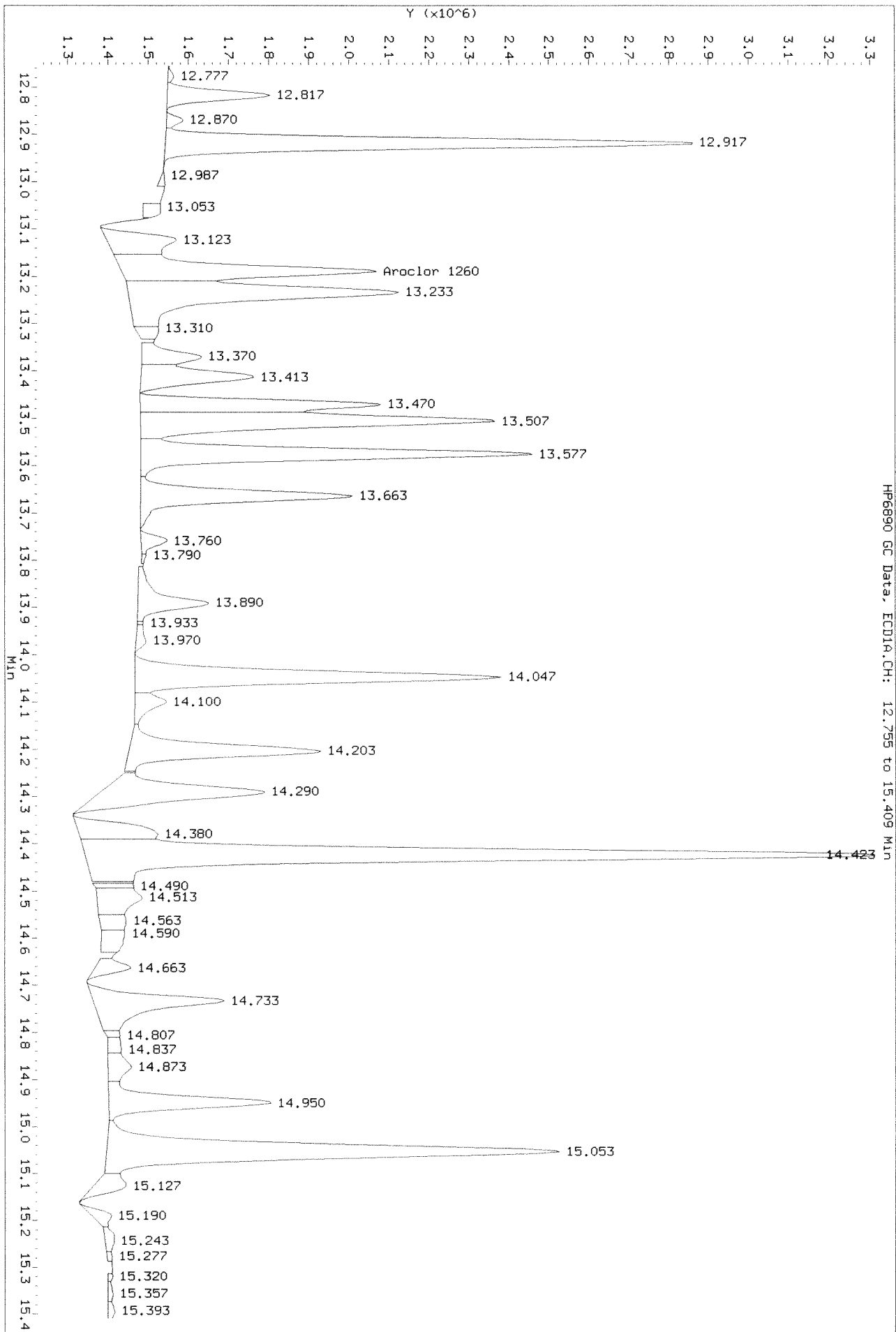


\\alkisus002\instdata\GC27\Data\100719_r.b\1007F008.D



Data File: \\alklsws002\instdata\GC27\Data\100719_b\1007F008.D
Injection Date: 07-OCT-2019 13:09
Instrument: GC27.1
Client Sample ID:

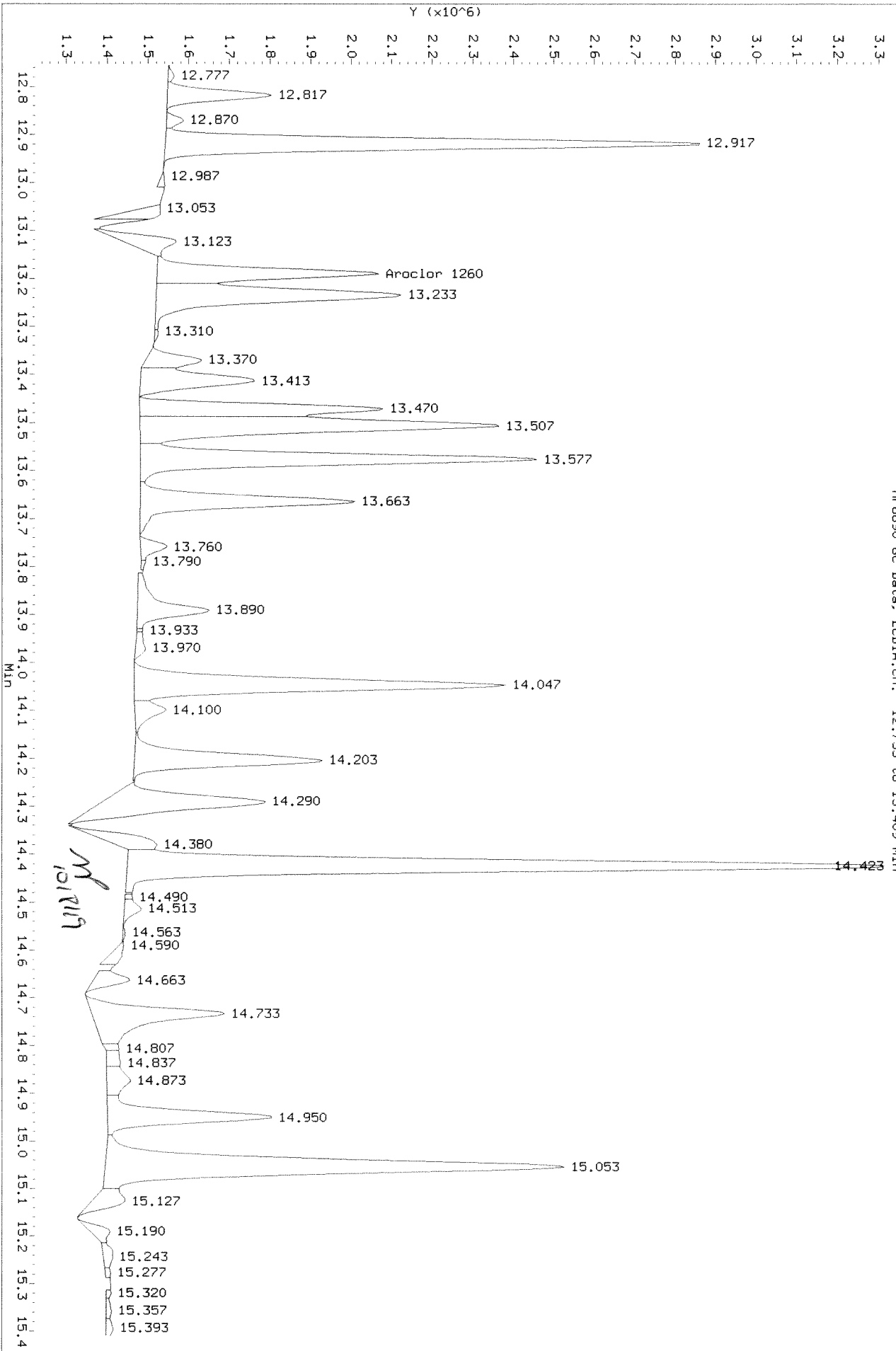
Before



Data File: \\alklsws002\instdata\GC27\Data\100719_b\1007F008.D
Injection Date: 07-OCT-2019 13:09
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 12.755 to 15.409 MIN

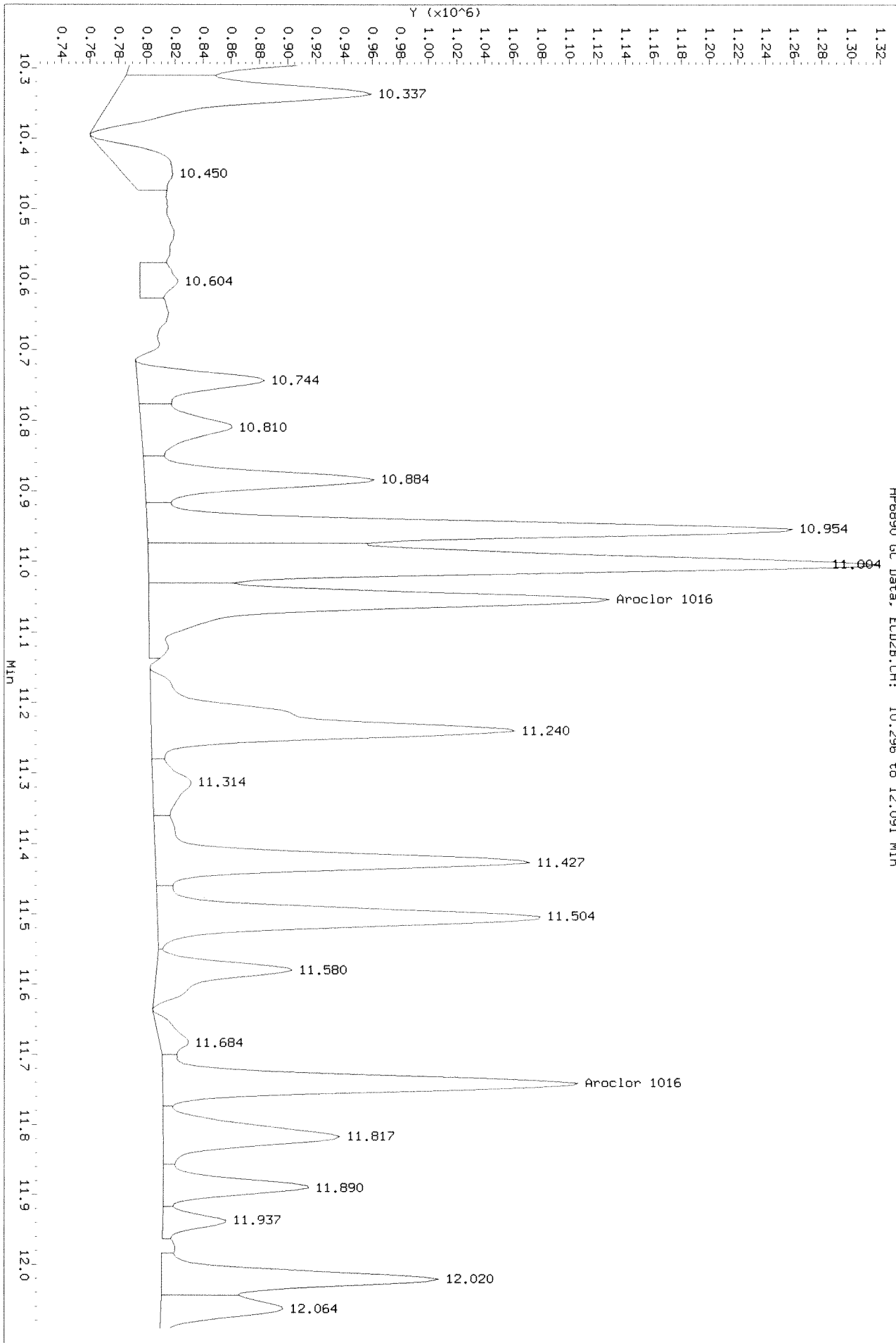
After baseline 10/8/14 SA



Data File: \\alklsm002\instdata\GC27\Data\100719_r.p\1007F008.D
Injection Date: 07-OCT-2019 13:09
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 10.296 to 12.091 Min

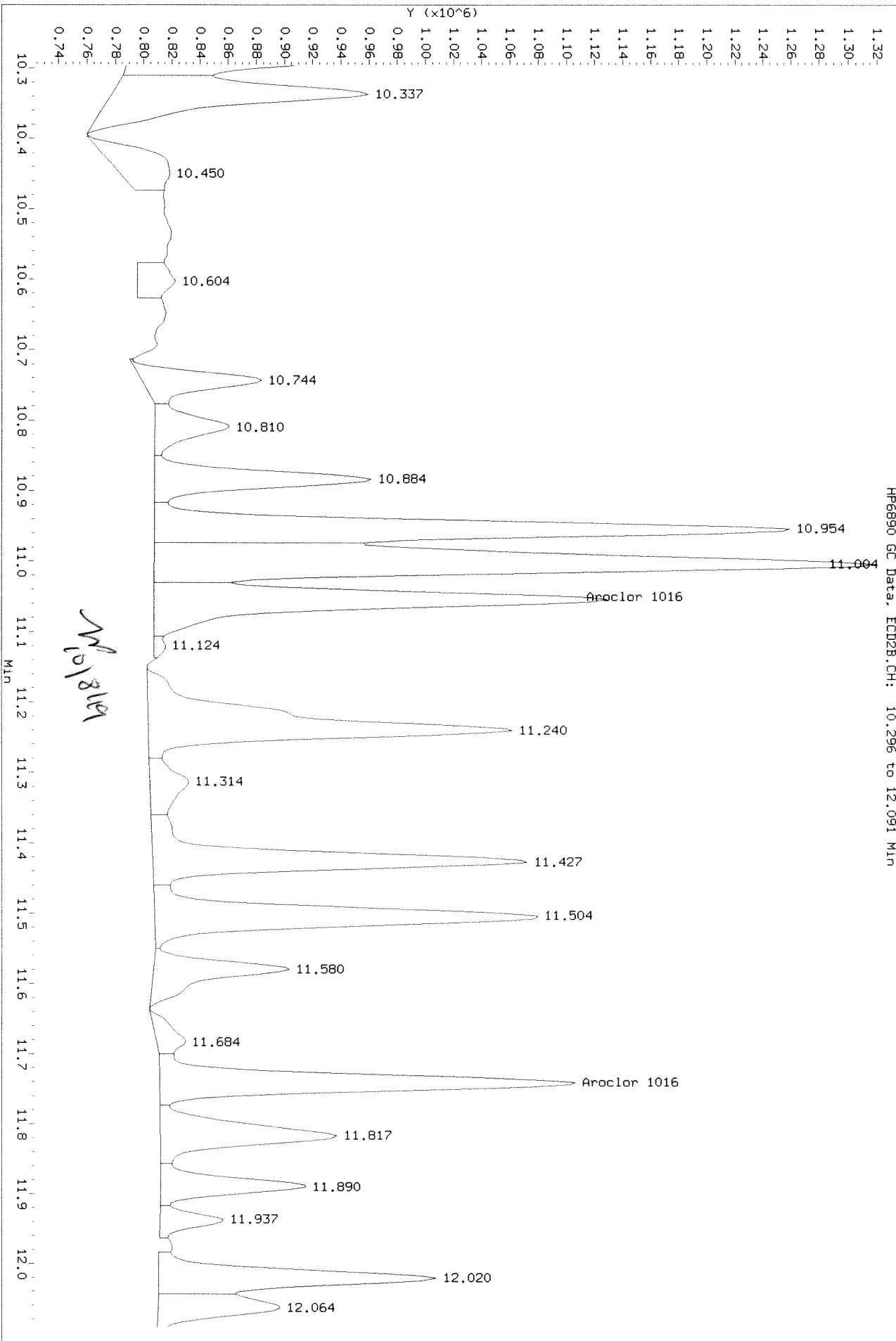
Refer



Data File: \\alklms002\instdata\GC27\Data\100719_r.b\1007F008.D
Injection Date: 07-OCT-2019 13:09
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD8.CH: 10.296 to 12.091 Min

After Basel/shoulder 10/8/19 A



Exception Report

Data File: \\ALKLSWS002\INSTDATA\GC27\DATA\100719.B\1007F009.D
Lab ID: KWG1904339-2 -- K1909014-006DMS
RunType: DMS
Matrix: SOIL

Date Acquired: 10/07/2019 13:40
Date Quantitated: 10/08/2019 09:07
Batch ID: KWG1904382
Analysis Method: 8082A
MethodJoinID: MJ1660

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: SA 10/8/19

Secondary Review: W

Exception Report

Data File: \\ALKLSWS002\INSTDATA\GC27\DATA\100719_R.B\1007F009.D
Lab ID: KWG1904339-2 -- K1909014-006DMS
RunType: DMS
Matrix: SOIL

Date Acquired: 10/07/2019 13:40
Date Quantitated: 10/08/2019 09:07
Batch ID: KWG1904382
Analysis Method: 8082A
MethodJoinID: MJ1660

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA		x
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery (Closing)	Tetrachloro-m-xylene	20.5	NA	20	<i>ML</i>

Primary Review: SA 10/8/19

Secondary Review: *W*

Quantitation Report

Data File #1:	J:\GC27\DATA\100719.B\1007F009.D	Instrument:	GC27.i
Data File #2:	\\alklsws002\instdata\GC27\Data\100719_r.b\1007F009.D	Vial:	7
Acqu Date:	10/07/2019 13:40	Quant Date:	10/08/2019 09:07
Run Type:	DMS	MethodJoinID:	MJ1660
Lab ID:	KWG1904339-2 -- K1909014-006DMS		
Signal #1:	DB-35MS	Signal #2:	DB-XLB

Bottle ID:		Tier:	SOIL
Prod Code:	8082A PCB	Collect Date:	10/05/2019

Analysis Lot:	KWG1904382	Prep Lot:	KWG1904339	Report Group:	
Analysis Method:	8082A	Prep Method:	EPA 3546		
Prep Ref:	1735942	Prep Date:	10/04/2019		

Quant Method:	\\ALKLSWS002\INSTDATA\GC27\DATA\100719.B\090419UL_F.M	Calibration ID:	CAL16127
Title:		Method ID:	MJ1660
MB Ref:	J:\GC27\DATA\100719.B\1007F005.D	Quant based on Method	

Surrogate Compounds

Parameter Name	RT #1	RT #2	Resp #1	Respe #2	ng/mL #1	ng/mL #2			Rpt
Tetrachloro-m-xylene	6.96 ^{+0.00}	8.43 ^{+0.00}	8379706	3872273	4.65	4.66 ^{CCV}			93 OK
			%Recovery =		93 OK	93 OK	Limits =	70-130	
Decachlorobiphenyl	16.85 ^{+0.01}	18.12 ^{+0.00}	4872599	1980502	4.47	4.44			89 OK
			%Recovery =		89 OK	89 OK	Limits =	70-130	

Target Compounds

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ng/mL #1	ng/mL #2	Final Conc. Units: ug/Kg Dry Weight		Rpt
							ug/Kg #1	ug/Kg #2	
Aroclor 1016			0	0	22.14	29.01	90.0	118	90.0
Aroclor 1016 {1}	8.06 ^{+0.01}	9.15 ^{+0.00}	0	438563m	0.0000	29.13	3.0U	118	
Aroclor 1016 {2}	9.30 ^{0.00}	9.90 ^{+0.00}	692654	725816m	24.73	32.87	100	134	
Aroclor 1016 {3}	9.74 ^{+0.00}	11.05 ^{+0.00}	1766574	602667m	20.32	24.99	82.6	102	
Aroclor 1016 {4}	9.92 ^{0.00}	11.51 ^{+0.00}	1144597	503648m	22.31	28.27	90.7	115	
Aroclor 1016 {5}	10.31 ^{+0.00}	11.74 ^{0.00}	744429	501669m	21.18	29.78	86.1	121	
Aroclor 1221			0	0	0.0000	0.0000	3.0U	3.0U	3.0U
Aroclor 1221 {1}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1221 {2}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1221 {3}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1232			0	0	0.0000	0.0000	3.0U	3.0U	3.0U
Aroclor 1232 {1}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1232 {2}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1232 {3}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1232 {4}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1232 {5}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1242			0	0	0.0000	0.0000	3.0U	3.0U	3.0U
Aroclor 1242 {1}			0d	0d	0.0000	0.0000	3.0U	3.0U	

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File #1:	J:\GC27\DATA\100719.B\1007F009.D	Instrument:	GC27.i
Data File #2:	\\alklsws002\instdata\GC27\Data\100719_r.b\1007F009.D	Vial:	7
Acqu Date:	10/07/2019 13:40	Quant Date:	10/08/2019 09:07
Run Type:	DMS	MethodJoinID:	MJ1660
Lab ID:	KWG1904339-2 -- K1909014-006DMS	Soln Conc. Units:	ng/mL
Signal #1:	DB-35MS	Signal #2:	DB-XLB

Target Compounds

Final Conc. Units: ug/Kg Dry Weight

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ng/mL #1	ng/mL #2	ug/Kg #1	ug/Kg #2	Rpt
Aroclor 1242 {2}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1242 {3}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1242 {4}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1242 {5}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1248			0	0	0.0000	0.0000	3.0U	3.0U	3.0U
Aroclor 1248 {1}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1248 {2}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1248 {3}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1248 {4}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1248 {5}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1254			0	0	0.0000	0.0000	3.0U	3.0U	3.0U
Aroclor 1254 {1}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1254 {2}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1254 {3}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1254 {4}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1254 {5}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclors, Total	1.00	1.00	2929001	1380460	51.04	59.51	207J	242J	207J
Aroclor 1260			0	0	28.91	30.50	117	124	117
Aroclor 1260 {1}	13.19 ^{+0.00}	13.54 ^{+0.00}	799368m	443384m	23.86	31.24	97.0	127	
Aroclor 1260 {2}	13.58 ^{+0.01}	14.78 ^{+0.00}	1494230m	700056m	32.06	30.53	130	124	
Aroclor 1260 {3}	14.05 ^{+0.00}	15.15 ^{+0.00}	1559476m	713138m	31.09	31.70	126	129	
Aroclor 1260 {4}	14.42 ^{+0.00}	15.68 ^{+0.00}	3134421m	1405278m	29.53	29.57	120	120	
Aroclor 1260 {5}	15.05 ^{+0.00}	16.18 ^{+0.00}	2222194m	868083m	28.00	29.48	114	120	
Aroclor 1262			0	0	0.0000	0.0000	3.0U	3.0U	3.0U
Aroclor 1262 {1}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1262 {2}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1262 {3}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1262 {4}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1262 {5}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1268			0	0	0.0000	0.0000	3.0U	3.0U	3.0U
Aroclor 1268 {1}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1268 {2}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1268 {3}			0d	0d	0.0000	0.0000	3.0U	3.0U	
Aroclor 1268 {4}			0d	0d	0.0000	0.0000	3.0U	3.0U	

The +/- after Retention Time symbolize the direction of the RT shift

Prep Amount: 2.072 g **Dilution:** 1.0
Prep Final Vol: 8 mL **Unit Factor:** 1
Solids: 95 %

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / (Prep Amount x Solids)) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\100719.b\1007F009.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\100719_r.b\1007F009.D
 Inj Date : 07-OCT-2019 13:40
 Sample Info: K1909014-006 DMS
 Misc Info :
 Cal Date : 07-OCT-2019 11:35
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\100719.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\100719_r.b\090419_r.m
 Sub List #1 : ALL.SUB
 Sub List #2 : ALL.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

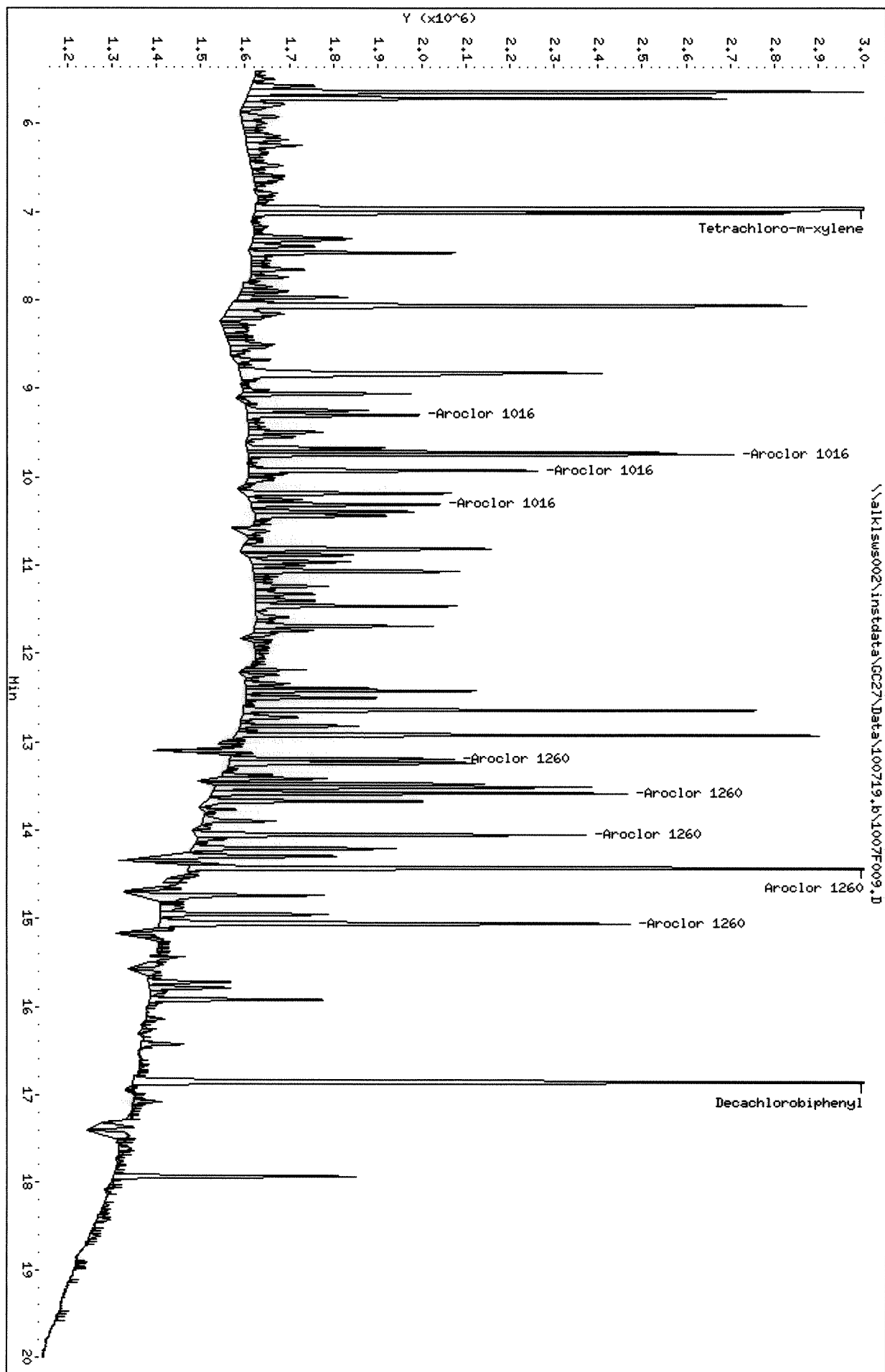
Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.963	8.427	8379706	3872273	4.65	4.66		100.00 (R)
Aroclor 1016	8.060	9.153		438563		29.1	80.00- 120.00	100.00
	9.297	9.903	692654	725816	24.7	32.9	65.14- 97.71	24.59
	9.740	11.053	1766574	602667	20.3	25.0	186.93- 280.39	62.71
	9.920	11.507	1144597	503648	22.3	28.3	111.40- 167.10	40.63
	10.307	11.740	744429	501669	21.2	29.8	80.81- 121.21	26.43
	Average of Peak Amounts =				22.1	29.0		
Aroclor 1260	13.190	13.537	799368	443384	23.9	31.2	80.00- 120.00	100.00 (M)
	13.577	14.780	1494230	700056	32.1	30.5	120.26- 180.40	186.93 (M)
	14.047	15.150	1559476	713138	31.1	31.7	128.27- 192.40	195.09 (M)
	14.423	15.680	3134421	1405278	29.5	29.6	269.79- 404.69	392.11 (M)
	15.053	16.180	2222194	868083	28.0	29.5	198.82- 298.22	277.99 (M)
	Average of Peak Amounts =				28.9	30.5		
Decachlorobiphenyl	16.853	18.123	4872599	1980502	4.47	4.44		100.00 (R)
Aroclors, Total	1.000	1.000	2929001	1380460	51.0	59.5		0.00

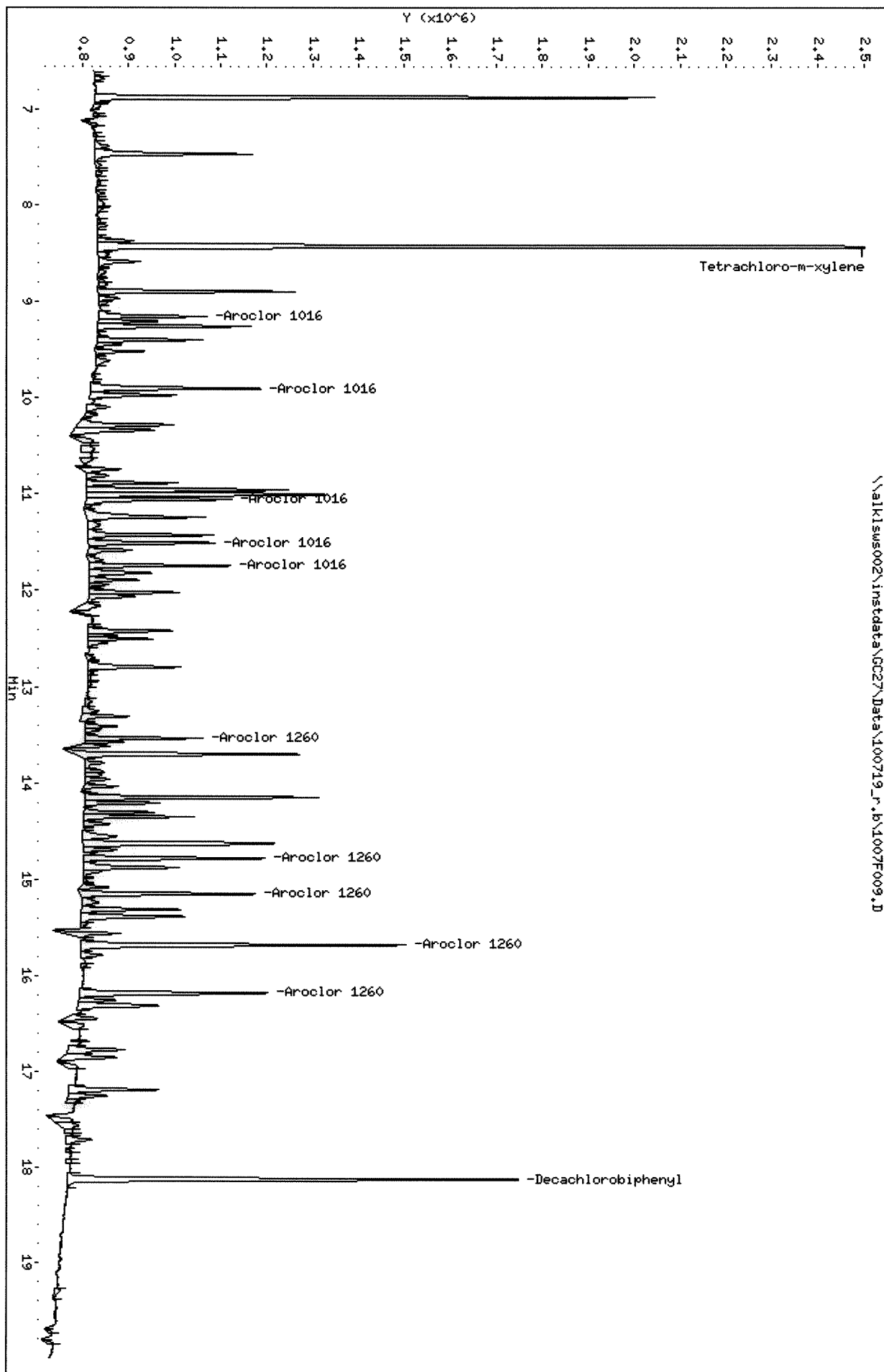
QC Flag Legend

R - Spike/Surrogate failed recovery limits.
 M - Compound response manually integrated.

Data File: \\alkl1sus002\instdata\GC27\Data\100719.6\1007F009.D
Date : 07-OCT-2019 13:40
Client ID:
Sample Info: K1909014-006 DHS
Column phase: DB-39MS

Instrument: GC27.i
Operator: SAA
Column diameter: 0.32

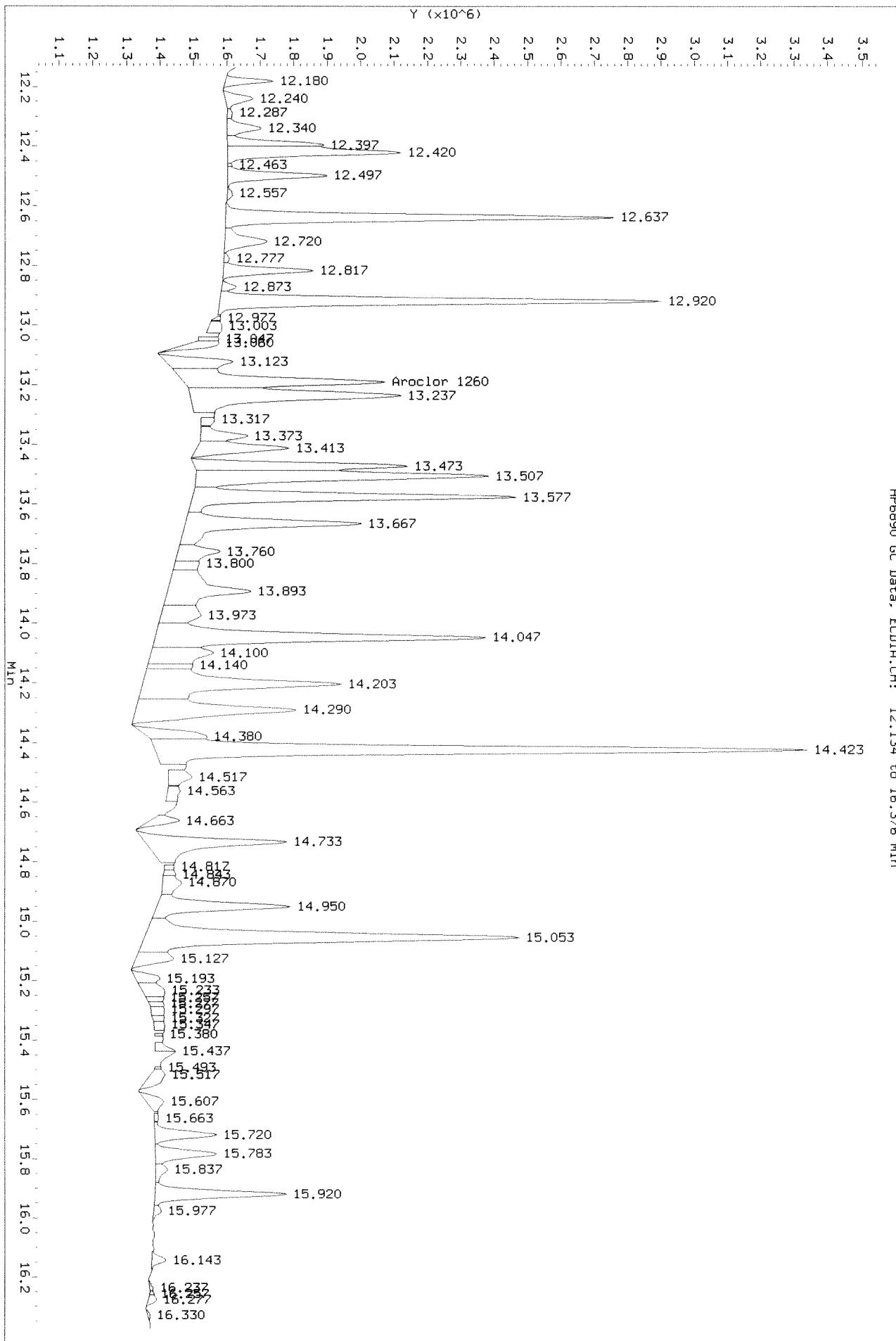




Data File: \\alklsws002\insdata\GC27\Data\100719_1\1007F009.D
Injection Date: 07-OCT-2019 13:40
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 12.134 to 16.376 MIN

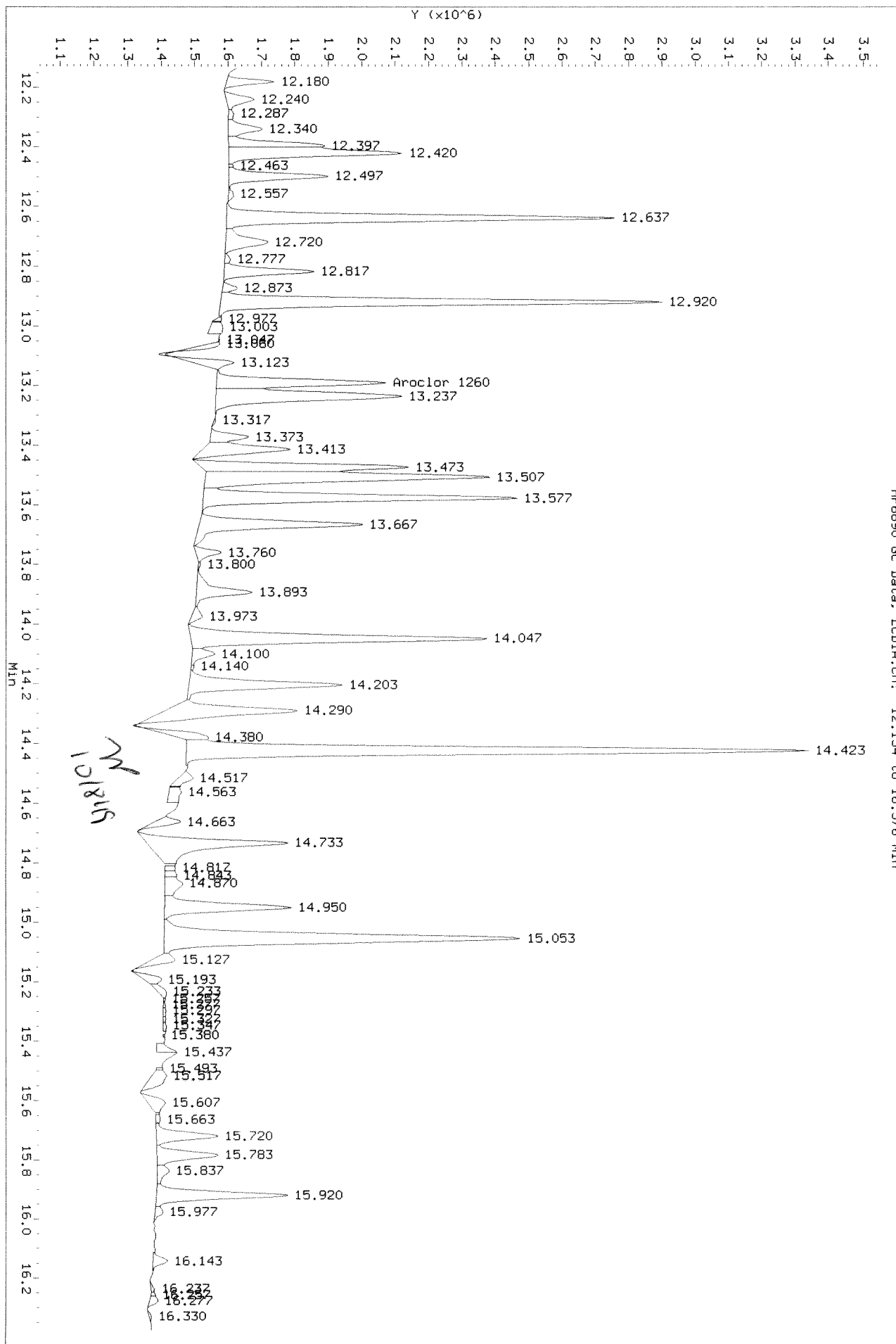
Before



Data File: \\alkisw002\instdata\GC27\Data\100719.b\1007F009.D
Injection Date: 07-OCT-2019 13:40
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 12.134 to 16.376 MIN

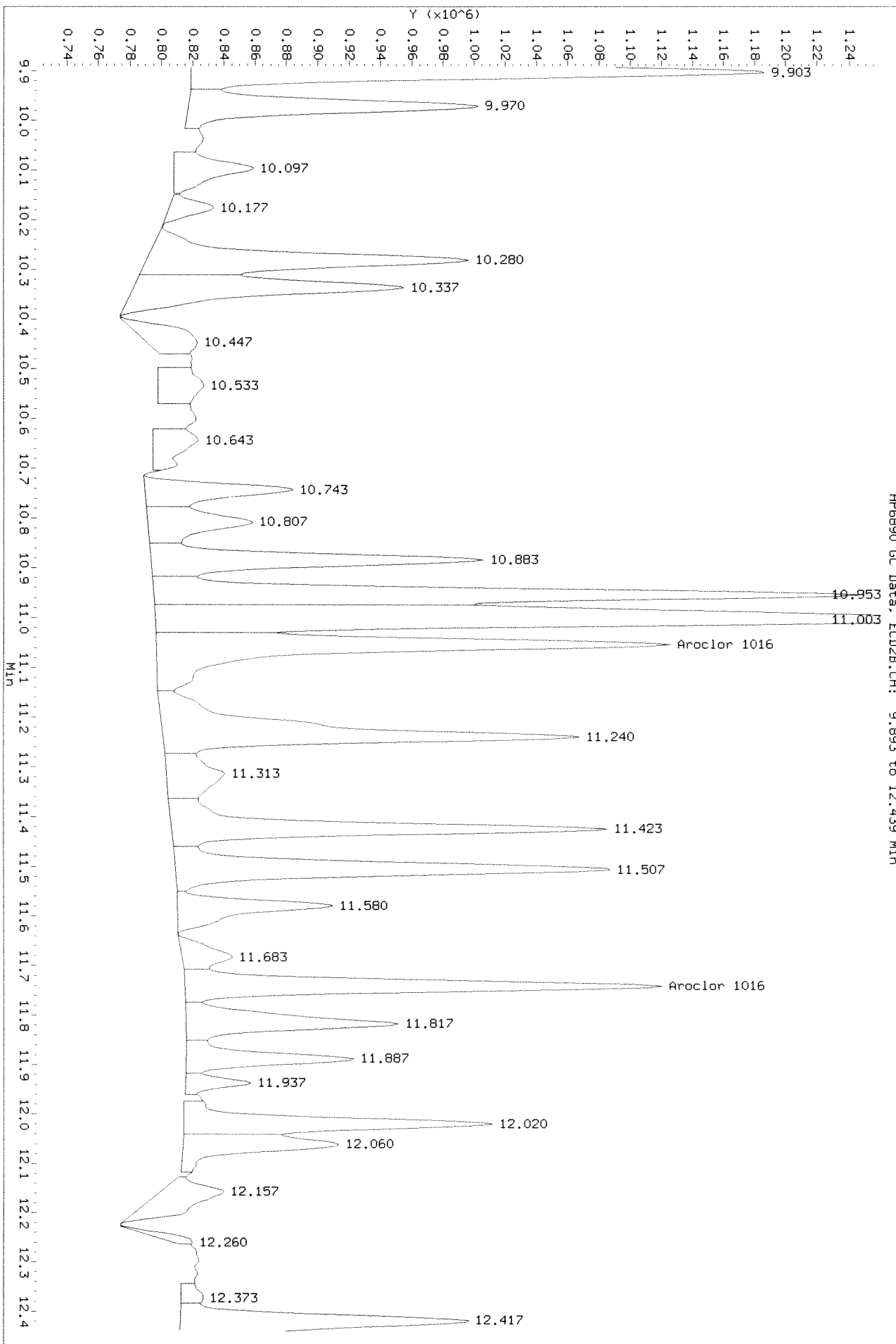
After baseline 10/8/19 SA



Data File: \\alkjsws002\inst\data\GC27\Data\100719_r_b\1007F009.D
Injection Date: 07-Oct-2019 13:40
Instrument: GC27.1
Client Sample ID:

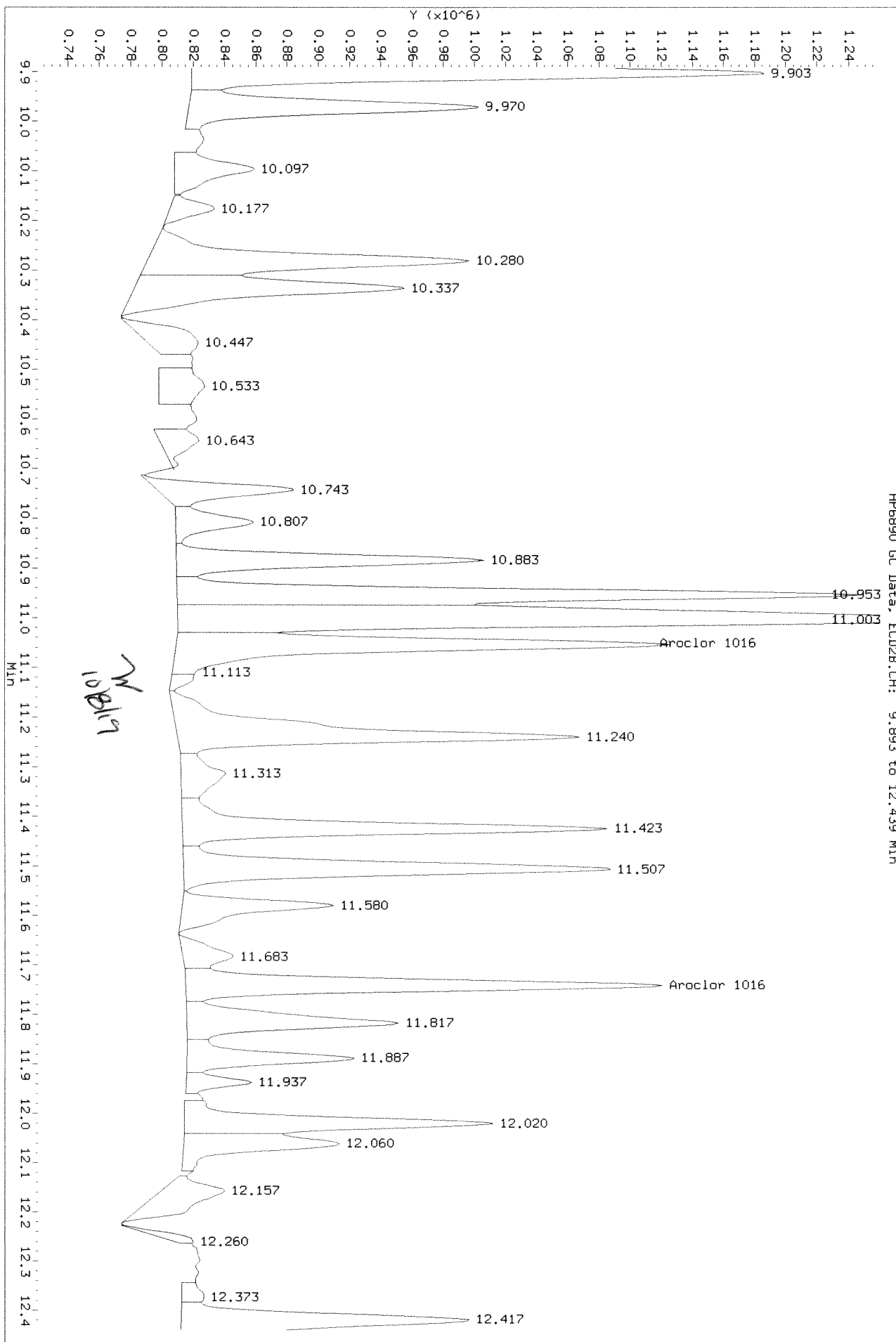
HP6890 GC Data, ECD2B.CH: 9.893 to 12.439 Min

Before



Data File: \\alkjsws002\instdata\GC27\Data\100719_r_b\1007F009.D
Injection Date: 07-OCT-2019 13:40
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 9.893 to 12.439 Min

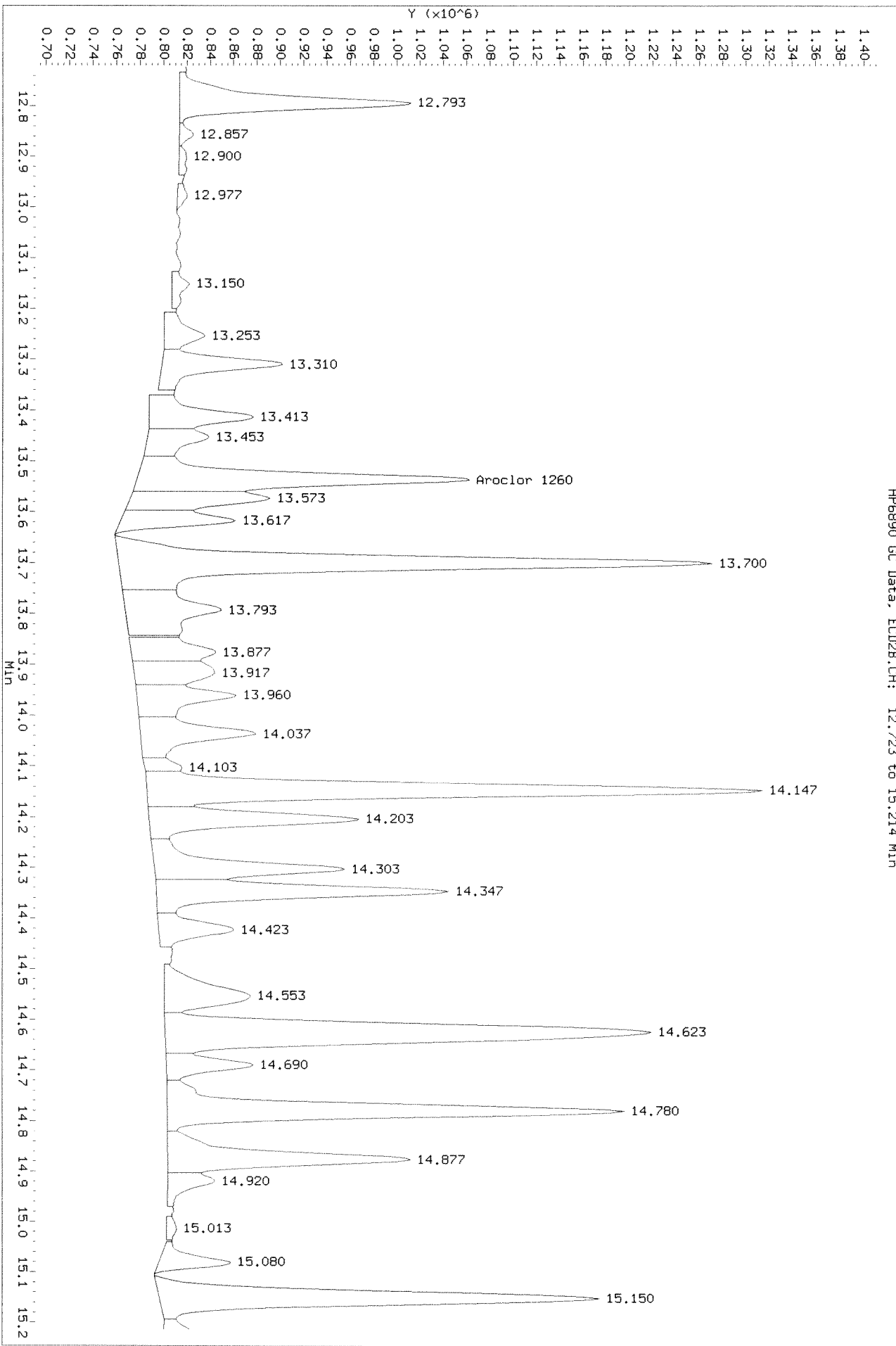


After baseline / shoulder 10/18/19 ST

Data File: \\alkisw002\inetdata\GC27\Data\100719_r_b\1007F009.D
Injection Date: 07-OCT-2019 13:40
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 12.723 to 15.214 Min

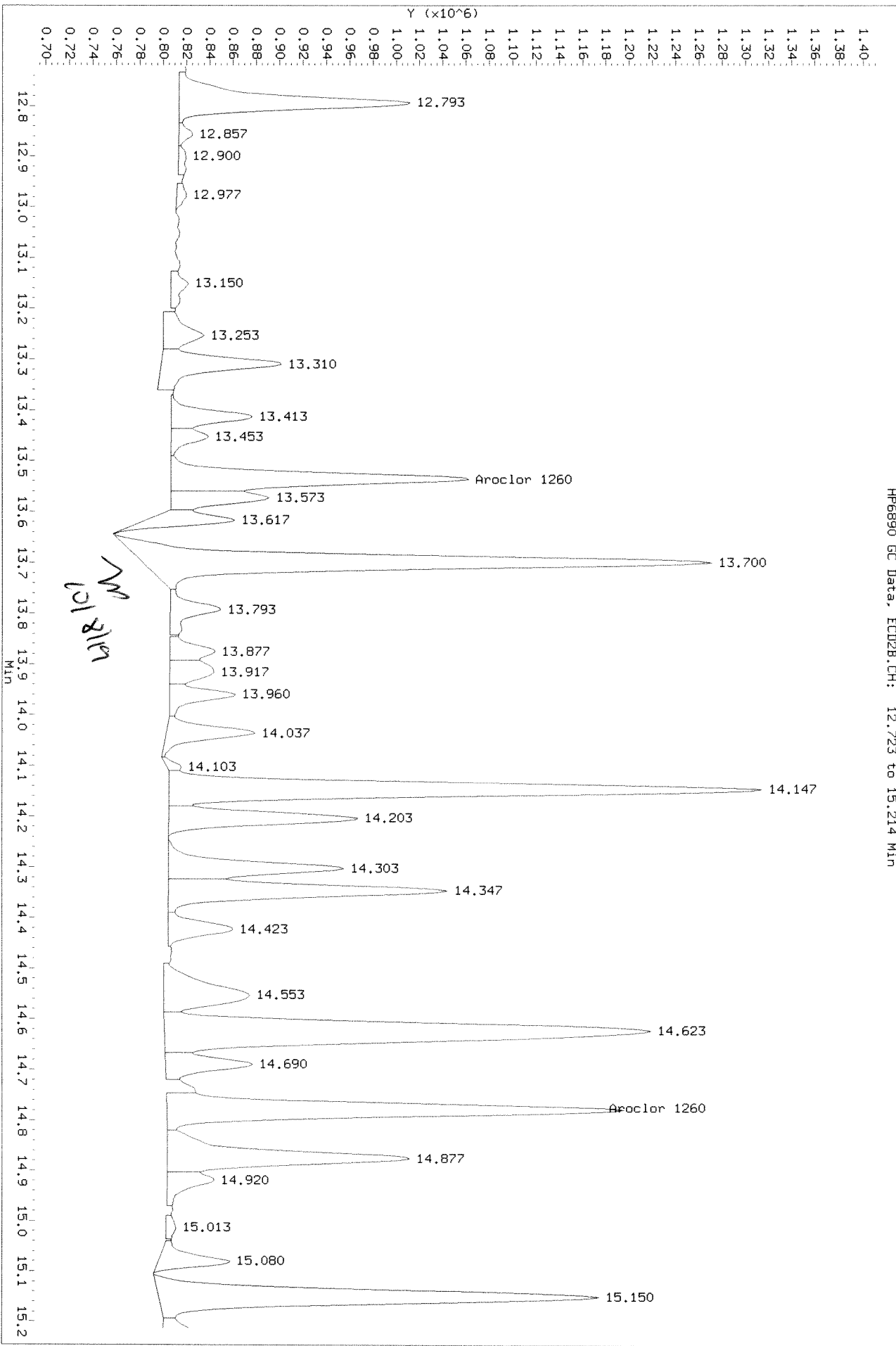
Before



Data File: \\alkjms002\instdata\GC27\Data\100719_r_b\1007F009.D
Injection Date: 07-OCT-2019 13:40
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 12.723 to 15.214 Min

After baseline shoulder 10/8/19 A



Exception Report

Data File: \\ALKLSWS002\INSTDATA\GC27\DATA\100719.B\1007F006.D
Lab ID: KWG1904339-3
RunType: LCS
Matrix: SOIL

Date Acquired: 10/07/2019 12:05
Date Quantitated: 10/08/2019 09:07
Batch ID: KWG1904382
Analysis Method: 8082A
MethodJoinID: MJ1660

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: SA 10/8/19

Secondary Review: W

Exception Report

Data File: \\ALKLSWS002\INSTDATA\GC27\DATA\100719_R.B\1007F006.D
Lab ID: KWG1904339-3
RunType: LCS
Matrix: SOIL

Date Acquired: 10/07/2019 12:05
Date Quantitated: 10/08/2019 09:07
Batch ID: KWG1904382
Analysis Method: 8082A
MethodJoinID: MJ1660

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA		x
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery (Closing)	Tetrachloro-m-xylene	20.5	NA	20	<i>ML</i>

Primary Review: *SA 10/8/19*
 Secondary Review: *W*

Quantitation Report

Data File #1:	J:\GC27\DATA\100719.B\1007F006.D	Instrument:	GC27.i
Data File #2:	\\alklsws002\instdata\GC27\Data\100719_r.b\1007F006.D	Vial:	4
Acqu Date:	10/07/2019 12:05	Quant Date:	10/08/2019 09:07
Run Type:	LCS	MethodJoinID:	MJ1660
Lab ID:	KWG1904339-3	Soln Conc. Units:	ng/mL
Signal #1:	DB-35MS	Signal #2:	DB-XLB

Bottle ID:		Tier:		Matrix:	SOIL
Prod Code:	8082A PCB	Collect Date:		Receive Date:	10/05/2019

Analysis Lot:	KWG1904382	Prep Lot:	KWG1904339	Report Group:	
Analysis Method:	8082A	Prep Method:	EPA 3546		
Prep Ref:	1735943	Prep Date:	10/04/2019		

Quant Method:	\\ALKLSWS002\INSTDATA\GC27\DATA\100719.B\090419UL_F.M	Calibration ID:	CAL16127
Title:		Method ID:	MJ1660
MB Ref:	J:\GC27\DATA\100719.B\1007F005.D	Quant based on Method	

Surrogate Compounds

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ng/mL #1	ng/mL #2			Rpt
Tetrachloro-m-xylene	6.97 ^{+0.01}	8.43 ^{+0.00}	7867973	3572622	4.37	4.30 ^{CCV}			87 OK
			%Recovery =		87 OK	86 OK	Limits =	70-130	
Decachlorobiphenyl	16.85 ^{+0.00}	18.12 ^{+0.00}	4082928	1688849	3.75	3.78			76 OK
			%Recovery =		75 OK	76 OK	Limits =	70-130	

Target Compounds

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	Final Conc. Units:		ug/Kg Wet Weight		Rpt
					ng/mL #1	ng/mL #2	ug/Kg #1	ug/Kg #2	
Aroclor 1016			0	0	20.05	22.76	80.2	91.1	80.2
Aroclor 1016 {1}	8.05 ^{+0.00}	9.16 ^{+0.01}	772439m	384638	22.63	25.55	90.5	102	
Aroclor 1016 {2}	9.30 ^{+0.00}	9.91 ^{+0.01}	564788m	516303	20.16	23.38	80.6	93.5	
Aroclor 1016 {3}	9.74 ^{+0.00}	11.06 ^{+0.01}	1574762m	516381	18.12	21.42	72.5	85.7	
Aroclor 1016 {4}	9.92 ^{+0.00}	11.51 ^{+0.00}	1004677m	380299	19.59	21.35	78.3	85.4	
Aroclor 1016 {5}	10.31 ^{+0.00}	11.74 ^{+0.00}	694725m	372772	19.77	22.13	79.1	88.5	
Aroclor 1221			0	0	0.0000	0.0000	2.9U	2.9U	2.9U
Aroclor 1221 {1}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1221 {2}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1221 {3}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1232			0	0	0.0000	0.0000	2.9U	2.9U	2.9U
Aroclor 1232 {1}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1232 {2}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1232 {3}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1232 {4}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1232 {5}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1242			0	0	0.0000	0.0000	2.9U	2.9U	2.9U
Aroclor 1242 {1}			0d	0d	0.0000	0.0000	2.9U	2.9U	

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File #1:	J:\GC27\DATA\100719.B\1007F006.D	Instrument:	GC27.i
Data File #2:	\\alklsws002\instdata\GC27\Data\100719_r_b\1007F006.D	Vial:	4
Acqu Date:	10/07/2019 12:05	Quant Date:	10/08/2019 09:07
Run Type:	LCS	MethodJoinID:	MJ1660
Lab ID:	KWG1904339-3	Soln Conc. Units:	ng/mL
Signal #1:	DB-35MS	Signal #2:	DB-XLB

Target Compounds

Final Conc. Units: ug/Kg Wet Weight

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ng/mL #1	ng/mL #2	ug/Kg #1	ug/Kg #2	Rpt
Aroclor 1242 {2}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1242 {3}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1242 {4}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1242 {5}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1248			0	0	0.0000	0.0000	2.9U	2.9U	2.9U
Aroclor 1248 {1}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1248 {2}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1248 {3}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1248 {4}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1248 {5}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1254			0	0	0.0000	0.0000	2.9U	2.9U	2.9U
Aroclor 1254 {1}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1254 {2}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1254 {3}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1254 {4}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1254 {5}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclors, Total	1.00	1.00	2455891	1108529	44.06	47.49	176J	190J	176J
Aroclor 1260			0	0	24.01	24.73	96.0	98.9	96.0
Aroclor 1260 {1}	13.19 ^{+0.00}	13.54 ^{+0.00}	679783	349336	20.29	24.61	81.2	98.4	
Aroclor 1260 {2}	13.58 ^{+0.01}	14.78 ^{+0.00}	1217496	573584	26.12	25.01	104	100	
Aroclor 1260 {3}	14.05 ^{+0.00}	15.15 ^{+0.00}	1262960	560628	25.18	24.92	101	99.7	
Aroclor 1260 {4}	14.42 ^{+0.00}	15.68 ^{+0.00}	2623569	1162508	24.72	24.46	98.9	97.8	
Aroclor 1260 {5}	15.05 ^{+0.00}	16.18 ^{+0.00}	1884258	726200	23.74	24.66	95.0	98.6	
Aroclor 1262			0	0	0.0000	0.0000	2.9U	2.9U	2.9U
Aroclor 1262 {1}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1262 {2}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1262 {3}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1262 {4}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1262 {5}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1268			0	0	0.0000	0.0000	2.9U	2.9U	2.9U
Aroclor 1268 {1}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1268 {2}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1268 {3}			0d	0d	0.0000	0.0000	2.9U	2.9U	
Aroclor 1268 {4}			0d	0d	0.0000	0.0000	2.9U	2.9U	

The +/- after Retention Time symbolize the direction of the RT shift

Prep Amount: 2.000 g **Dilution:** 1.0
Prep Final Vol: 8 mL **Unit Factor:** 1
Solids: %

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / (Prep Amount x Solids)) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\100719.b\1007F006.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\100719_r.b\1007F006.D
 Inj Date : 07-OCT-2019 12:05
 Sample Info: KWG1904339-003 LCS
 Misc Info :
 Cal Date : 07-OCT-2019 11:35
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\100719.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\100719_r.b\090419_r.m
 Sub List #1 : ALL.SUB
 Sub List #2 : ALL.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.966	8.429	7867973	3572622	4.37	4.30		100.00 (R)
Aroclor 1016	8.052	9.156	772439	384638	22.6	25.5	80.00- 120.00	100.00 (M)
	9.299	9.906	564788	516303	20.2	23.4	65.14- 97.71	67.11 (M)
	9.742	11.056	1574762	516381	18.1	21.4	186.93- 280.39	187.11 (M)
	9.922	11.506	1004677	380299	19.6	21.3	111.40- 167.10	119.37 (M)
	10.309	11.742	694725	372772	19.8	22.1	80.81- 121.21	82.55 (M)
	Average of Peak Amounts =				20.1	22.7		
Aroclor 1260	13.189	13.536	679783	349336	20.3	24.6	80.00- 120.00	100.00
	13.576	14.779	1217496	573584	26.1	25.0	120.26- 180.40	179.10
	14.049	15.149	1262960	560628	25.2	24.9	128.27- 192.40	185.79
	14.422	15.679	2623569	1162508	24.7	24.5	269.79- 404.69	385.94
	15.052	16.182	1884258	726200	23.7	24.7	198.82- 298.22	277.19
	Average of Peak Amounts =				24.0	24.7		
Decachlorobiphenyl	16.852	18.122	4082928	1688849	3.75	3.78		100.00 (R)
Aroclors, Total	1.000	1.000	2455891	1108529	44.1	47.5		0.00

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
 M - Compound response manually integrated.

Data File: \\alkl1s02\instdata\GC27\Data\100719_b\1007F006.D

Date : 07-OCT-2019 12:05

Client ID:

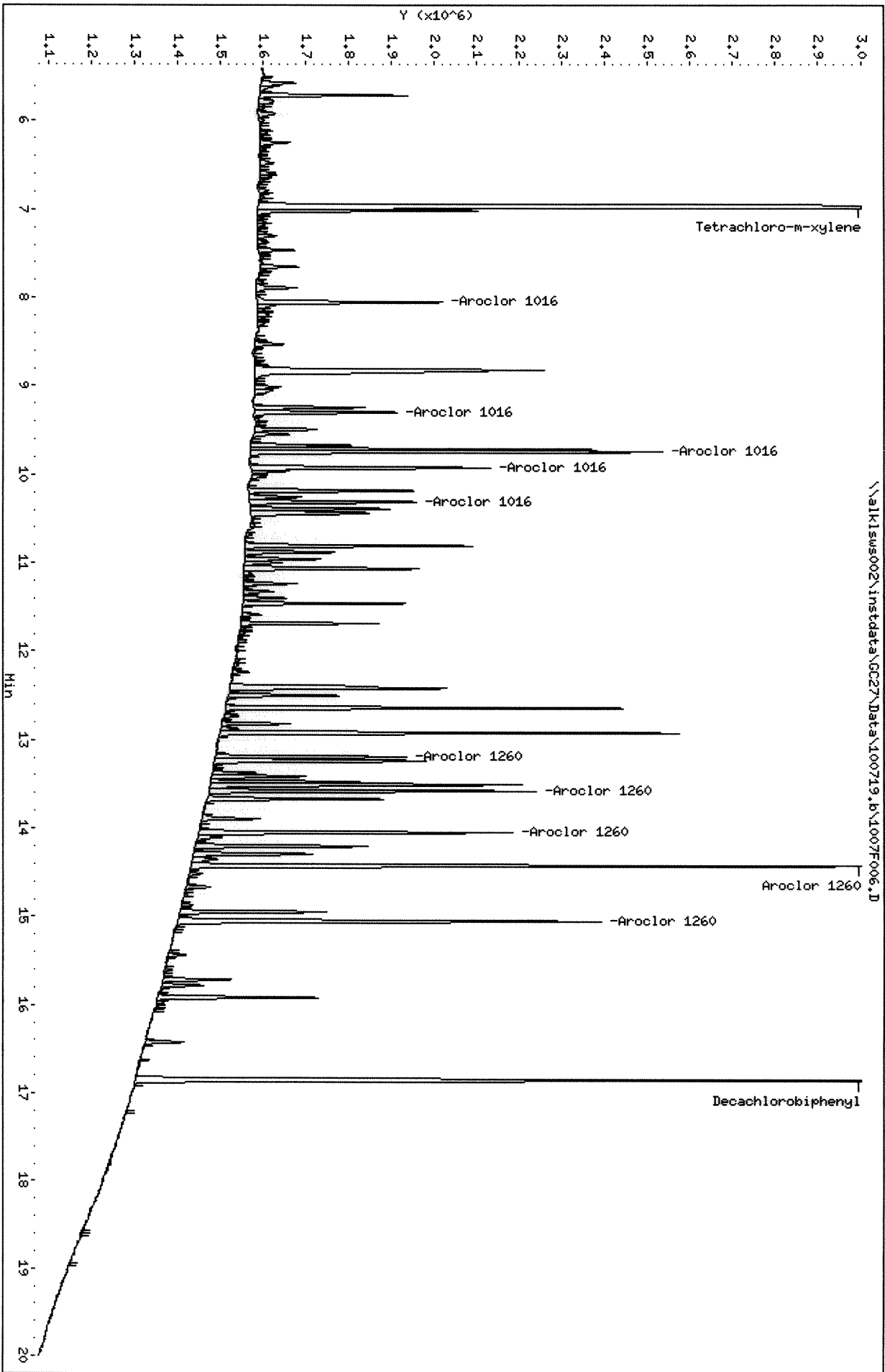
Sample Info: KMG1904339-003 LCS

Column phase: DB-35MS

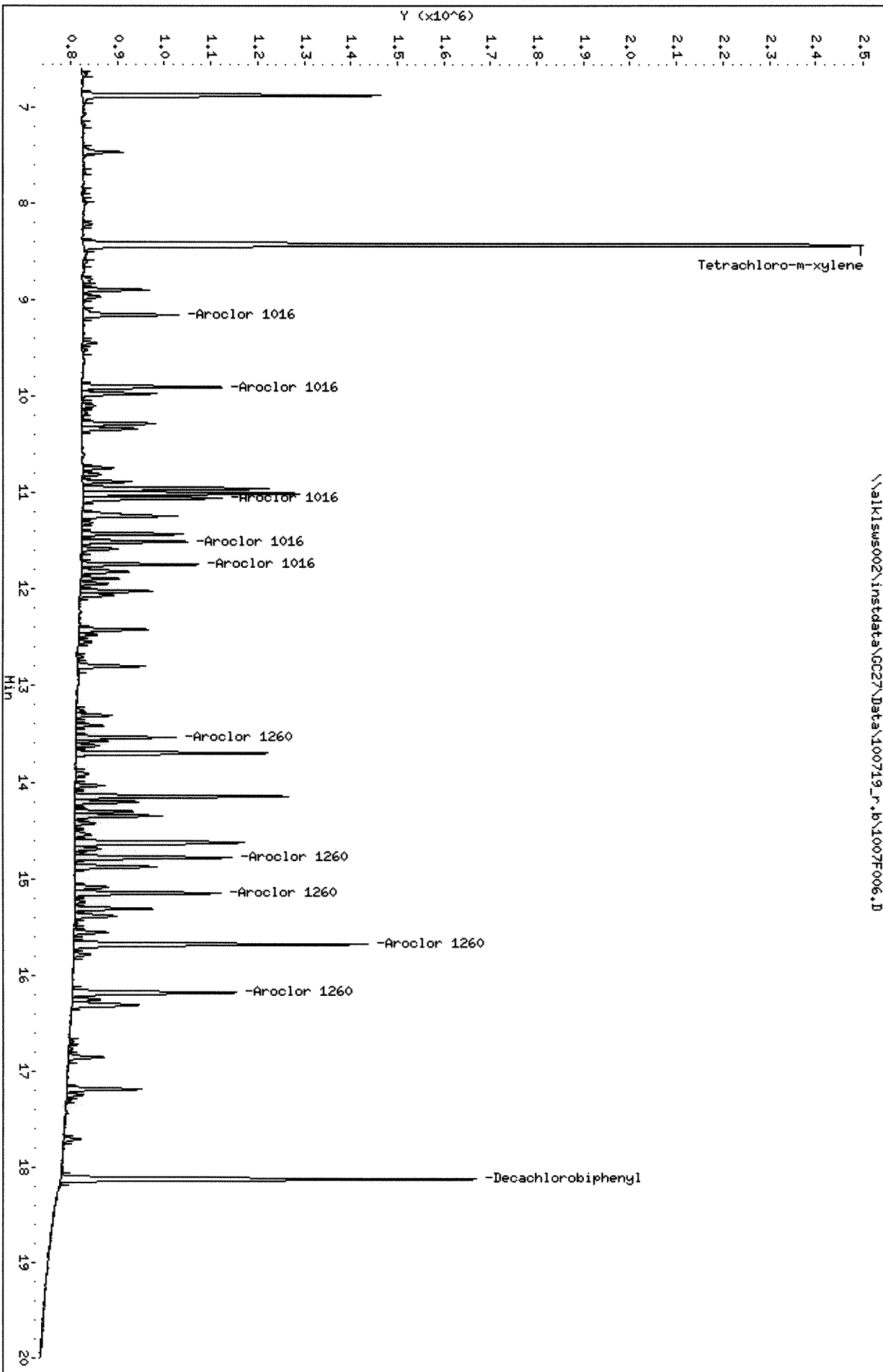
Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



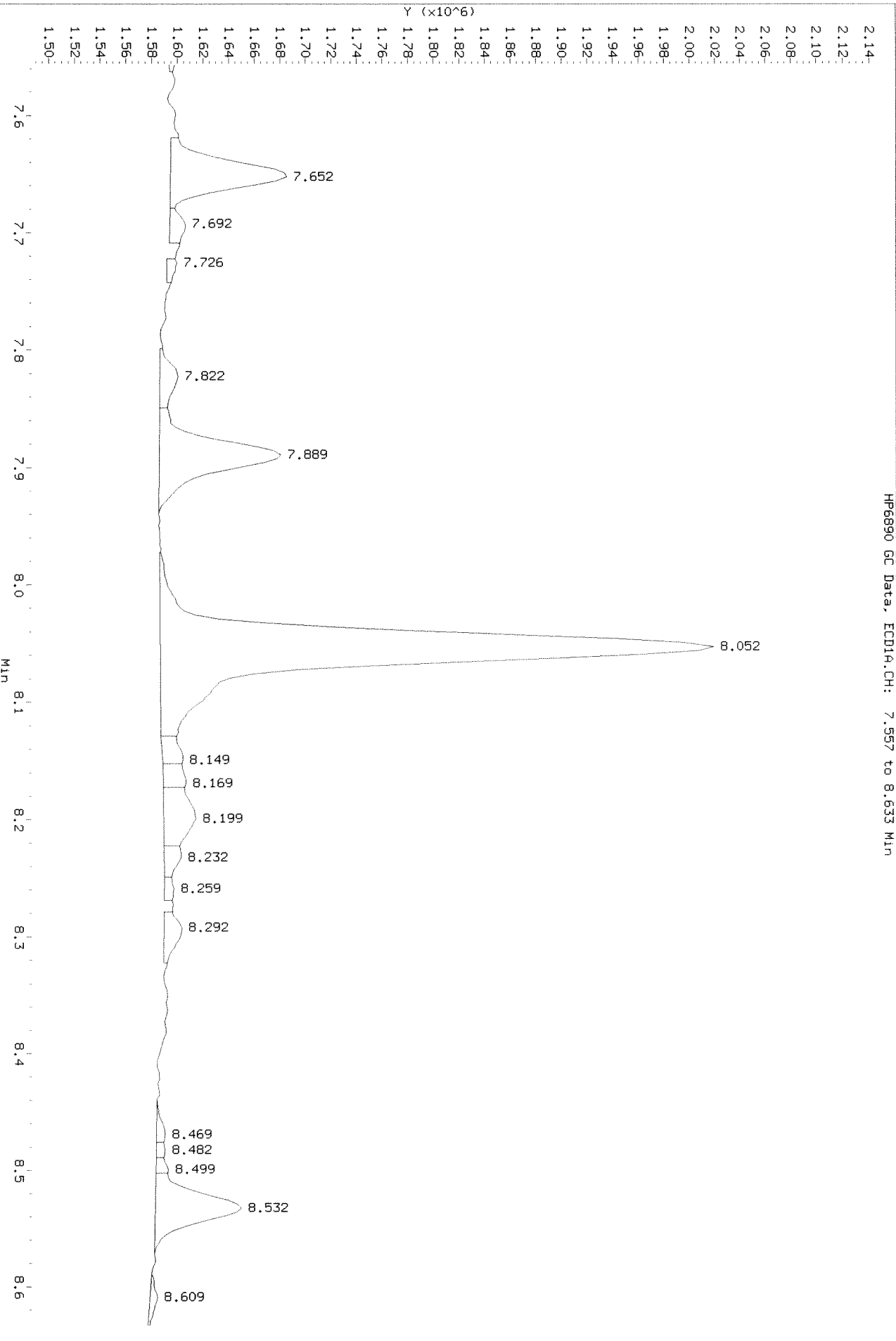
\\alk1s002\instdata\GC27\Data\100719_r.b\1007F006.D



Data File: \\alklsws002\instdata\GC27\Data\100719.b\1007F006.D
Injection Date: 07-OCT-2019 12:05
Instrument: GC27.i
Client Sample ID:

Before

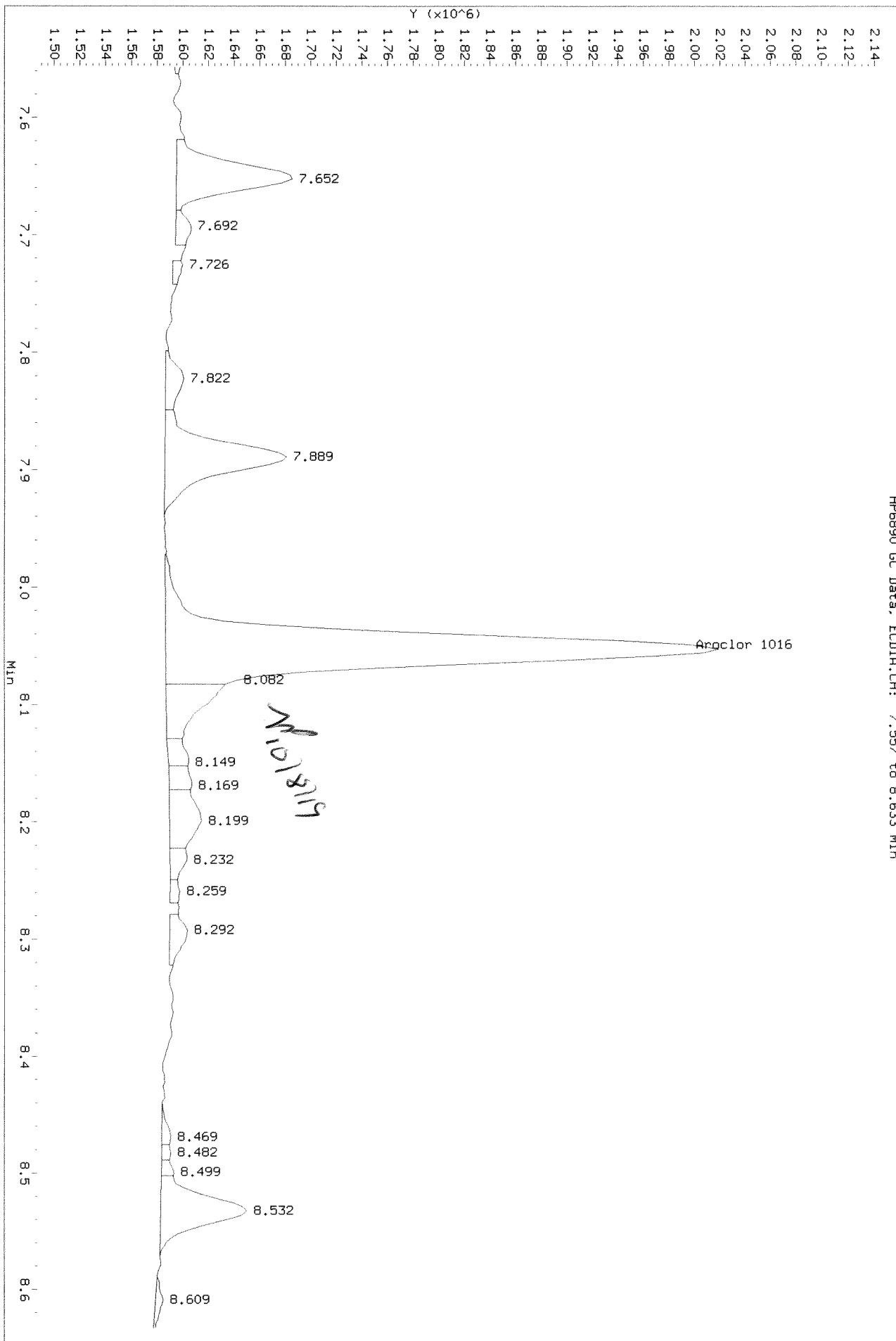
HP6890 GC Data, ECD1A.CH: 7.557 to 8.633 Min



Data File: \\alklsws002\instdata\GC27\Data\100719.b\1007F006.D
Injection Date: 07-OCT-2019 12:05
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 7.557 to 8.633 Min

After Shoulder OK/NA SA



Exception Report

Data File: \\ALKLSWS002\INSTDATA\GC27\DATA\101019B.B\1010F006.D
Lab ID: KWG1904387-1
RunType: LCS
Matrix: SOIL

Date Acquired: 10/10/2019 12:56
Date Quantitated: 10/10/2019 15:53
Batch ID: KWG1904425
Analysis Method: 8082A
MethodJoinID: MJ1677

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: SA 10/10/19

Secondary Review: W

Exception Report

Data File: \\ALKLSWS002\INSTDATA\GC27\DATA\101019B_R.B\1010F006.E
Lab ID: KWG1904387-1
RunType: LCS
Matrix: SOIL

Date Acquired: 10/10/2019 12:56
Date Quantitated: 10/10/2019 15:53
Batch ID: KWG1904425
Analysis Method: 8082A
MethodJoinID: MJ1677

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: SA 10/10/19

Secondary Review: W

Quantitation Report

Data File #1:	J:\GC27\DATA\101019B.B\1010F006.D	Instrument:	GC27.i
Data File #2:	\\alklsws002\instdata\GC27\Data\101019B_r.b\1010F006.D	Vial:	4
Acqu Date:	10/10/2019 12:56	Quant Date:	10/10/2019 15:53
Run Type:	LCS	MethodJoinID:	MJ1677
Lab ID:	KWG1904387-1	Soln Conc. Units:	ng/mL
Signal #1:	DB-35MS	Signal #2:	DB-XLB

Bottle ID:		Tier:	SOIL
Prod Code:	8082A PCB	Collect Date:	10/09/2019

Analysis Lot:	KWG1904425	Prep Lot:	KWG1904387	Report Group:	
Analysis Method:	8082A	Prep Method:	EPA 3541		
Prep Ref:	1736379	Prep Date:	10/09/2019		

Quant Method:	\\ALKLSWS002\INSTDATA\GC27\DATA\101019B.B\090419UL_F.M	Calibration ID:	CAL16127
Title:		Method ID:	MJ1677
MB Ref:	J:\GC27\DATA\101019B.B\1010F005.D	Quant based on Method	

Surrogate Compounds

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ng/mL #1	ng/mL #2	Final Conc. Units: ug/Kg Wet Weight		Rpt	
Tetrachloro-m-xylene	6.96 ^{+0.00}	8.42 ^{+0.00}	8700188	3838807	4.83	4.62	97 OK	92 OK	Limits = 10-135	97 OK
			%Recovery =		97 OK	92 OK				
Decachlorobiphenyl	16.84	18.12 ^{+0.00}	4579034	1805091	4.20	4.04	84 OK	81 OK	Limits = 43-148	84 OK
			%Recovery =		84 OK	81 OK				

Target Compounds

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ng/mL #1	ng/mL #2	ug/Kg #1	ug/Kg #2	Rpt
Aroclor 1016			0	0	40.87	44.65	163	179	163
Aroclor 1016 {1}	8.05 ^{+0.00}	9.15 ^{0.00}	0	726011	0.0000	48.22	10U	193	
Aroclor 1016 {2}	9.29 ^{+0.00}	9.90 ^{+0.00}	1201833	1007681	42.90	45.63	172	183	
Aroclor 1016 {3}	9.74 ^{+0.00}	11.05 ^{0.00}	3391144	1028239	39.01	42.64	156	171	
Aroclor 1016 {4}	9.92 ^{+0.00}	11.50 ^{0.00}	2066150	750623	40.28	42.13	161	169	
Aroclor 1016 {5}	10.30 ^{+0.01}	11.74	1451617	752116	41.31	44.64	165	179	
Aroclor 1221			0	0	0.0000	0.0000	20U	20U	20U
Aroclor 1221 {1}			0d	0d	0.0000	0.0000	20U	20U	
Aroclor 1221 {2}			0d	0d	0.0000	0.0000	20U	20U	
Aroclor 1221 {3}			0d	0d	0.0000	0.0000	20U	20U	
Aroclor 1232			0	0	0.0000	0.0000	10U	10U	10U
Aroclor 1232 {1}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1232 {2}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1232 {3}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1232 {4}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1232 {5}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1242			0	0	0.0000	0.0000	10U	10U	10U
Aroclor 1242 {1}			0d	0d	0.0000	0.0000	10U	10U	

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ? : Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File #1:	J:\GC27\DATA\101019B.B\1010F006.D	Instrument:	GC27.i
Data File #2:	\\alklsws002\instdata\GC27\Data\101019B_r.b\1010F006.D	Vial:	4
Acqu Date:	10/10/2019 12:56	Quant Date:	10/10/2019 15:53
Run Type:	LCS	MethodJoinID:	MJ1677
Lab ID:	KWG1904387-1	Soln Conc. Units:	ng/mL
Signal #1:	DB-35MS	Signal #2:	DB-XLB

Target Compounds

Final Conc. Units: ug/Kg Wet Weight

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ng/mL #1	ng/mL #2	ug/Kg #1	ug/Kg #2	Rpt
Aroclor 1242 {2}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1242 {3}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1242 {4}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1242 {5}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1248			0	0	0.0000	0.0000	10U	10U	10U
Aroclor 1248 {1}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1248 {2}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1248 {3}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1248 {4}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1248 {5}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1254			0	0	0.0000	0.0000	10U	10U	10U
Aroclor 1254 {1}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1254 {2}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1254 {3}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1254 {4}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1254 {5}			0d	0d	0.0000	0.0000	10U	10U	
Aroclors, Total	1.00	1.00	5198583	2144558	90.42	92.18	362J	369J	362J
Aroclor 1260			0	0	49.54	47.52	198	190	190
Aroclor 1260 {1}	13.18 ^{+0.00}	13.53 ^{0.00}	1371271	676968	40.93	47.69	164	191	
Aroclor 1260 {2}	13.57	14.77 ^{+0.00}	2521133	1102813	54.10	48.09	216	192	
Aroclor 1260 {3}	14.04 ^{+0.00}	15.14	2601887	1084160	51.88	48.19	208	193	
Aroclor 1260 {4}	14.42 ^{+0.00}	15.67	5385510	2198590	50.74	46.26	203	185	
Aroclor 1260 {5}	15.04 ^{0.00}	16.18	3974686	1395590	50.07	47.39	200	190	
Aroclor 1262			0	0	0.0000	0.0000	10U	10U	10U
Aroclor 1262 {1}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1262 {2}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1262 {3}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1262 {4}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1262 {5}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1268			0	0	0.0000	0.0000	10U	10U	10U
Aroclor 1268 {1}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1268 {2}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1268 {3}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1268 {4}			0d	0d	0.0000	0.0000	10U	10U	

The +/- after Retention Time symbolize the direction of the RT shift

Prep Amount: 2.000 g **Dilution:** 1.0
Prep Final Vol: 8 mL **Unit Factor:** 1
Solids: %

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / (Prep Amount x Solids)) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\101019B.b\1010F006.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\101019B_r.b\1010F006.D
 Inj Date : 10-OCT-2019 12:56
 Sample Info: KWG1904387-001 LCS
 Misc Info :
 Cal Date : 10-OCT-2019 12:42
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\101019B.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\101019B_r.b\090419_r.m
 Sub List #1 : ALL.SUB
 Sub List #2 : ALL.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.960	8.424	8700188	3838807	4.83	4.62		100.00 (R)
Aroclor 1016	8.047	9.150		726011		48.2	80.00- 120.00	100.00
	9.293	9.900	1201833	1007681	42.9	45.6	66.60- 99.90	74.64
	9.737	11.050	3391144	1028239	39.0	42.6	193.39- 290.08	210.62
	9.917	11.500	2066150	750623	40.3	42.1	115.83- 173.74	128.33
	10.303	11.737	1451617	752116	41.3	44.6	82.13- 123.20	90.16
	Average of Peak Amounts =				40.9	44.6		
Aroclor 1260	13.183	13.530	1371271	676968	40.9	47.7	80.00- 120.00	100.00
	13.567	14.774	2521133	1102813	54.1	48.1	119.24- 178.87	183.85
	14.040	15.144	2601887	1084160	51.9	48.2	128.83- 193.24	189.74
	14.417	15.674	5385510	2198590	50.7	46.3	267.27- 400.91	392.74
	15.043	16.177	3974686	1395590	50.1	47.4	196.57- 294.86	289.85
	Average of Peak Amounts =				49.5	47.5		
Decachlorobiphenyl	16.840	18.117	4579034	1805091	4.20	4.04		100.00 (R)
Aroclors, Total	1.000	1.000	5198583	2144558	90.4	92.2		0.00

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: \\alki\sws002\inst\data\GC27\Data\101019B.b\101010F006.D

Date: 10-OCT-2019 12:56

Client ID:

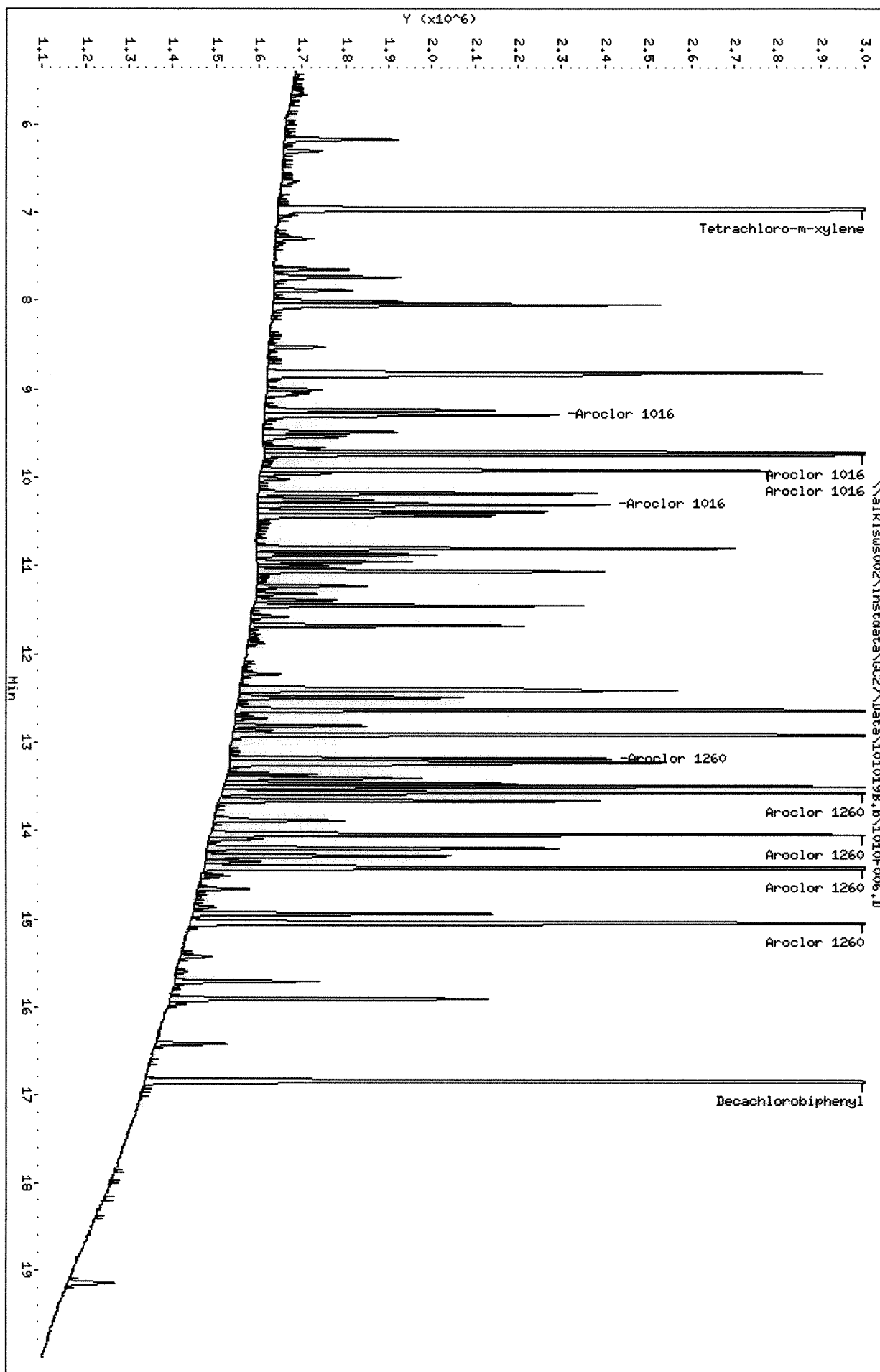
Sample Info: KMG1904387-001 LCS

Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Data File: \\alkisus002\instdata\GC27\Data\1010198_r_b\1010F006.D

Date: 10-OCT-2019 12:56

Client ID:

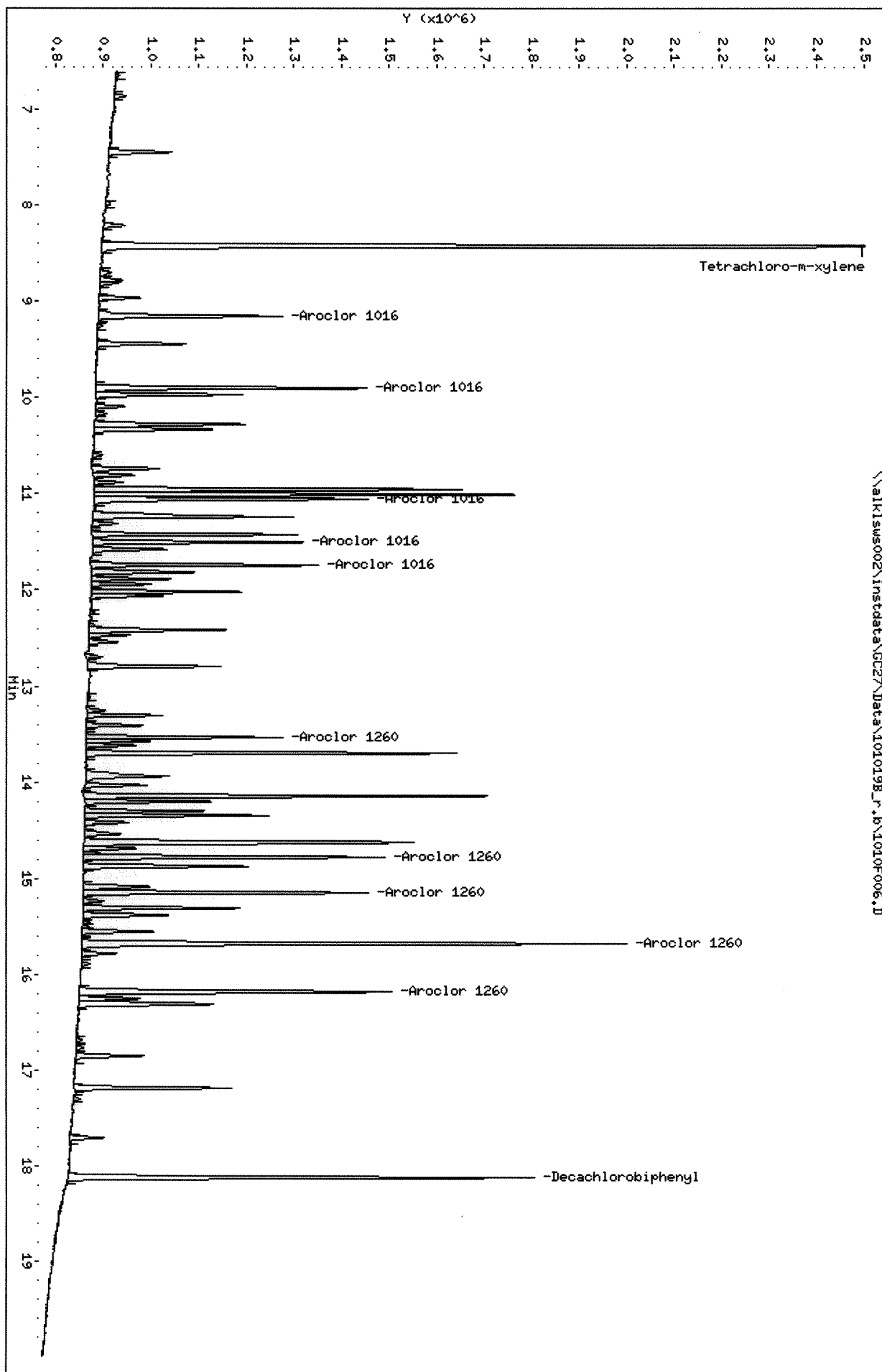
Sample Info: KMG1904387-001 LCS

Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Exception Report

Data File: \\ALKLSWS002\INSTDATA\GC27\DATA\101019B.B\1010F007.D
Lab ID: KWG1904387-2
RunType: DLCS
Matrix: SOIL

Date Acquired: 10/10/2019 13:27
Date Quantitated: 10/10/2019 15:53
Batch ID: KWG1904425
Analysis Method: 8082A
MethodJoinID: MJ1677

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: SA 10/19/19

Secondary Review: W

Exception Report


Data File: \\ALKLSWS002\INSTDATA\GC27\DATA\101019B_R.B\1010F007.E
Lab ID: KWG1904387-2
RunType: DLCS
Matrix: SOIL

Date Acquired: 10/10/2019 13:27
Date Quantitated: 10/10/2019 15:53
Batch ID: KWG1904425
Analysis Method: 8082A
MethodJoinID: MJ1677

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: SA 10/10/19

Secondary Review: 

Quantitation Report

Data File #1:	J:\GC27\DATA\101019B.B\1010F007.D	Instrument:	GC27.i
Data File #2:	\\alklsws002\instdata\GC27\Data\101019B_r.b\1010F007.D	Vial:	5
Acqu Date:	10/10/2019 13:27	Quant Date:	10/10/2019 15:53
Run Type:	DLCS	MethodJoinID:	MJ1677
Lab ID:	KWG1904387-2	Soln Conc. Units:	ng/mL
Signal #1:	DB-35MS	Signal #2:	DB-XLB

Bottle ID:		Tier:		Matrix:	SOIL
Prod Code:	8082A PCB	Collect Date:		Receive Date:	10/09/2019

Analysis Lot:	KWG1904425	Prep Lot:	KWG1904387	Report Group:	
Analysis Method:	8082A	Prep Method:	EPA 3541		
Prep Ref:	1736380	Prep Date:	10/09/2019		

Quant Method:	\\ALKLSWS002\INSTDATA\GC27\DATA\101019B.B\090419UL_F.M	Calibration ID:	CAL16127
Title:		Method ID:	MJ1677
MB Ref:	J:\GC27\DATA\101019B.B\1010F005.D	Quant based on Method	

Surrogate Compounds

Parameter Name	RT #1	RT #2	Resp #1	Respe #2	ng/mL #1	ng/mL #2			Rpt
Tetrachloro-m-xylene	6.96 ^{+0.00}	8.43 ^{+0.00}	8666635	3823598	4.81	4.60			96 OK
			%Recovery =		96 OK	92 OK	Limits =	10-135	
Decachlorobiphenyl	16.84 ^{+0.00}	18.12 ^{+0.00}	4576805	1822518	4.20	4.08			84 OK
			%Recovery =		84 OK	82 OK	Limits =	43-148	

Target Compounds

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	Final Conc. Units: ug/Kg Wet Weight				Rpt
					ng/mL #1	ng/mL #2	ug/Kg #1	ug/Kg #2	
Aroclor 1016			0	0	42.34	44.80	169	179	169
Aroclor 1016 {1}	8.04	9.15	1646665	724480	48.25	48.11	193	192	
Aroclor 1016 {2}	9.29 ^{+0.00}	9.90 ^{+0.00}	1210077	1005615	43.20	45.54	173	182	
Aroclor 1016 {3}	9.73	11.05	3305131	1029402	38.02	42.69	152	171	
Aroclor 1016 {4}	9.91	11.50	2083288	762402	40.61	42.80	162	171	
Aroclor 1016 {5}	10.30 ^{+0.00}	11.74 ^{+0.00}	1463440	755632	41.64	44.85	167	179	
Aroclor 1221			0	0	0.0000	0.0000	20U	20U	20U
Aroclor 1221 {1}			0d	0d	0.0000	0.0000	20U	20U	
Aroclor 1221 {2}			0d	0d	0.0000	0.0000	20U	20U	
Aroclor 1221 {3}			0d	0d	0.0000	0.0000	20U	20U	
Aroclor 1232			0	0	0.0000	0.0000	10U	10U	10U
Aroclor 1232 {1}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1232 {2}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1232 {3}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1232 {4}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1232 {5}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1242			0	0	0.0000	0.0000	10U	10U	10U
Aroclor 1242 {1}			0d	0d	0.0000	0.0000	10U	10U	

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File #1:	J:\GC27\DATA\101019B.B\1010F007.D	Instrument:	GC27.i
Data File #2:	\\alklsws002\instdata\GC27\Data\101019B_r.b\1010F007.D	Vial:	5
Acqu Date:	10/10/2019 13:27	Quant Date:	10/10/2019 15:53
Run Type:	DLCS	MethodJoinID:	MJ1677
Lab ID:	KWG1904387-2	Soln Conc. Units:	ng/mL
Signal #1:	DB-35MS	Signal #2:	DB-XLB

Target Compounds

Final Conc. Units: ug/Kg Wet Weight

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ng/mL #1	ng/mL #2	ug/Kg #1	ug/Kg #2	Rpt
Aroclor 1242 {2}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1242 {3}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1242 {4}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1242 {5}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1248			0	0	0.0000	0.0000	10U	10U	10U
Aroclor 1248 {1}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1248 {2}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1248 {3}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1248 {4}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1248 {5}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1254			0	0	0.0000	0.0000	10U	10U	10U
Aroclor 1254 {1}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1254 {2}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1254 {3}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1254 {4}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1254 {5}			0d	0d	0.0000	0.0000	10U	10U	
Aroclors, Total	1.00	1.00	5111922	2162774	91.95	92.92	368J	372J	368J
Aroclor 1260			0	0	49.61	48.12	198	192	192
Aroclor 1260 {1}	13.18 ^{+0.00}	13.53	1395744	691530	41.66	48.72	167	195	
Aroclor 1260 {2}	13.57 ^{+0.00}	14.78 ^{+0.00}	2511696	1111064	53.89	48.45	216	194	
Aroclor 1260 {3}	14.04 ^{+0.00}	15.15 ^{+0.00}	2588488	1093074	51.61	48.58	206	194	
Aroclor 1260 {4}	14.41	15.68 ^{+0.00}	5342483	2226448	50.33	46.85	201	187	
Aroclor 1260 {5}	15.04	16.18 ^{+0.00}	4012601	1414223	50.55	48.02	202	192	
Aroclor 1262			0	0	0.0000	0.0000	10U	10U	10U
Aroclor 1262 {1}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1262 {2}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1262 {3}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1262 {4}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1262 {5}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1268			0	0	0.0000	0.0000	10U	10U	10U
Aroclor 1268 {1}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1268 {2}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1268 {3}			0d	0d	0.0000	0.0000	10U	10U	
Aroclor 1268 {4}			0d	0d	0.0000	0.0000	10U	10U	

The +/- after Retention Time symbolize the direction of the RT shift

Prep Amount: 2.000 g **Dilution:** 1.0
Prep Final Vol: 8 mL **Unit Factor:** 1
Solids: %

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / (Prep Amount x Solids)) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\101019B.b\1010F007.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\101019B_r.b\1010F007.D
 Inj Date : 10-OCT-2019 13:27
 Sample Info: KWG1904387-002 DLCS
 Misc Info :
 Cal Date : 10-OCT-2019 12:42
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\101019B.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\101019B_r.b\090419_r.m
 Sub List #1 : ALL.SUB
 Sub List #2 : ALL.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.958	8.425	8666635	3823598	4.81	4.60		100.00 (R)
Aroclor 1016	8.044	9.151	1646665	724480	48.3	48.1	80.00- 120.00	100.00
	9.291	9.898	1210077	1005615	43.2	45.5	66.60- 99.90	73.49
	9.734	11.051	3305131	1029402	38.0	42.7	193.39- 290.08	200.72
	9.914	11.501	2083288	762402	40.6	42.8	115.83- 173.74	126.52
	10.301	11.738	1463440	755632	41.6	44.8	82.13- 123.20	88.87
	Average of Peak Amounts =				42.3	44.8		
Aroclor 1260	13.184	13.531	1395744	691530	41.7	48.7	80.00- 120.00	100.00
	13.568	14.775	2511696	1111064	53.9	48.4	119.24- 178.87	179.95
	14.038	15.145	2588488	1093074	51.6	48.6	128.83- 193.24	185.46
	14.414	15.675	5342483	2226448	50.3	46.8	267.27- 400.91	382.77
	15.044	16.178	4012601	1414223	50.6	48.0	196.57- 294.86	287.49
	Average of Peak Amounts =				49.6	48.1		
Decachlorobiphenyl	16.841	18.118	4576805	1822518	4.20	4.08		100.00 (R)
Aroclors, Total	1.000	1.000	5111922	2162774	92.0	92.9		0.00

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: \\alklms002\instdata\GC27\Data\1010198.b\1010F007.D

Date : 10-OCT-2019 13:27

Client ID:

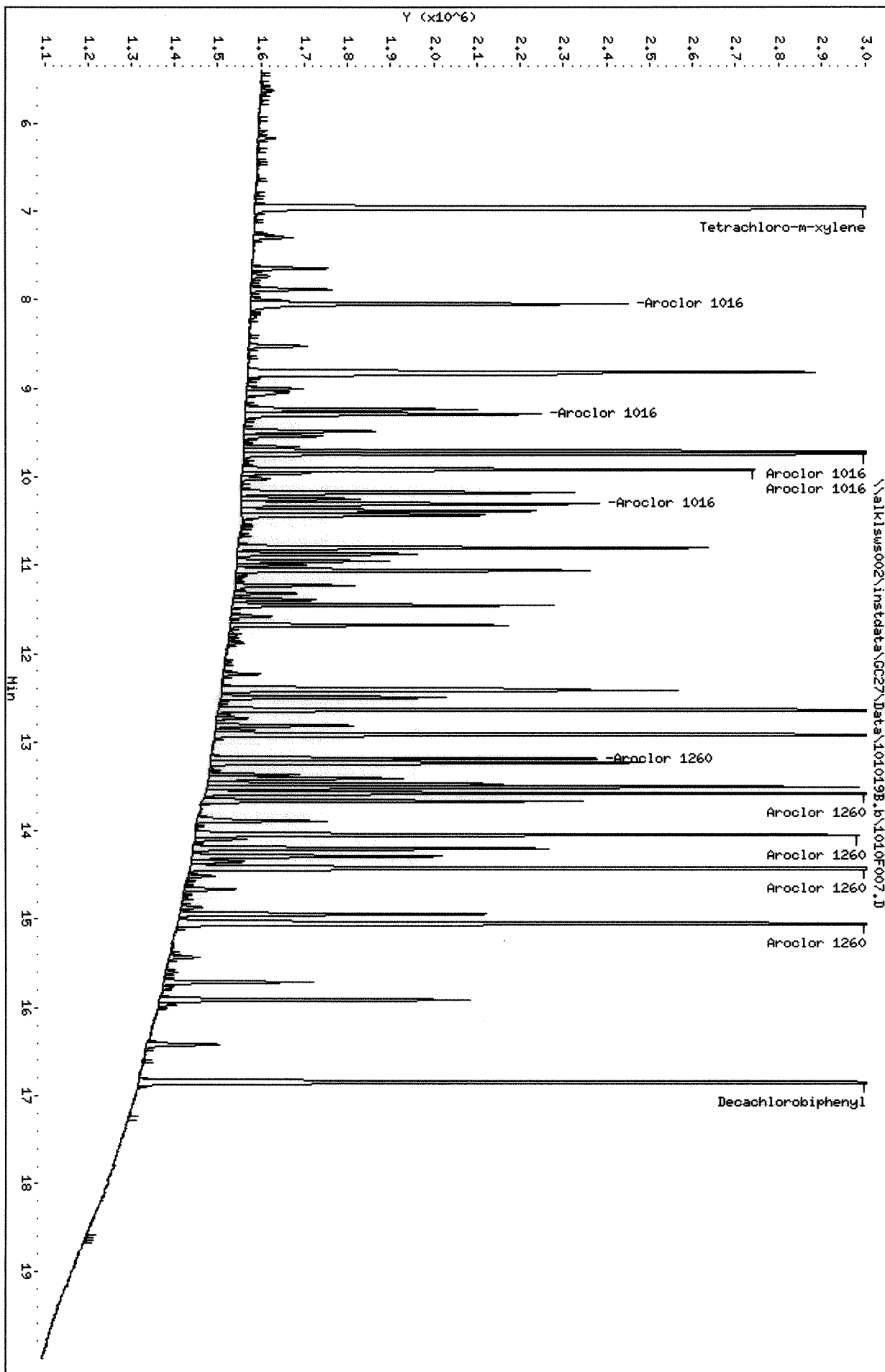
Sample Info: KMG1904387-002 DLCS

Column phase: DB-35MS

Instrument: GC27.i

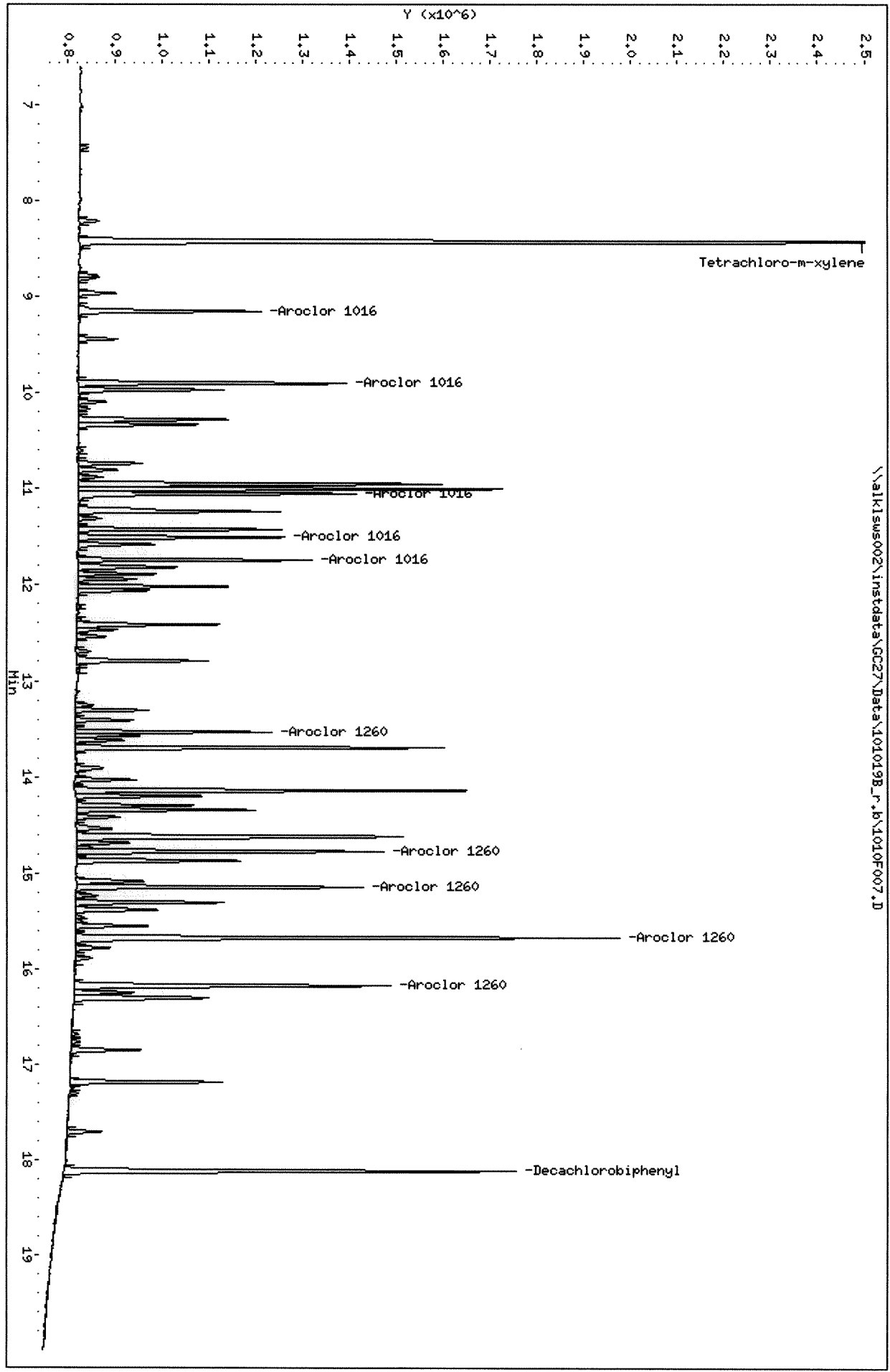
Operator: SAA

Column diameter: 0.32



Data File: \\alkisw002\instdata\GC27\Data\101019B_r.b\1010F007.D
Date: 10-OCT-2019 13:27
Client ID:
Sample Info: KMG1904387-002 DLCS
Column phase: DB-XLB

Instrument: GC27.1
Operator: SAA
Column diameter: 0.32



Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	100	1007F001.D	1.	PRIMER		10/07/22019 9:27:4
2	100	1007F002.D	1.	PRIMER		10/07/22019 9:59:1
3	1	1007F003.D	1.	PCB8-017N 1660 @ 2-20 PPB <i>ok</i>		10/07/22019 10:30:4
4	2	1007F004.D	1.	IB		10/07/22019 11:02:2
5	3	1007F005.D	1.	KWG1904339-004 MB		10/07/22019 11:34:1
6	4	1007F006.D	1.	KWG1904339-003 LCS	<i>Knn:654361</i>	10/07/22019 12:05:5
7	5	1007F007.D	1.	K1909014-006	<i>cal: 16127</i>	10/07/22019 12:37:3
8	6	1007F008.D	1.	K1909014-006 MS		10/07/22019 1:09:0
9	7	1007F009.D	1.	K1909014-006 DMS	<i>KW61904382</i>	10/07/22019 1:40:3
10	1	1007F010.D	1.	PCB8-017N 1660 @ 2-20 PPB <i>ok</i>		10/07/22019 2:12:0
11	2	1007F011.D	1.	IB		10/07/22019 2:43:5
12	8	1007F012.D	1.	KWG1904300-004 MB		10/07/22019 3:15:3
13	9	1007F013.D	1.	KWG1904300-003 LCS		10/07/22019 3:47:0
14	10	1007F014.D	1.	K1908958-019 <i>-c.u.</i>		10/07/22019 4:18:3
15	11	1007F015.D	1.	K1908958-025		10/07/22019 4:50:0
16	12	1007F016.D	1.	K1908958-026		10/07/22019 5:21:3
17	13	1007F017.D	1.	K1908958-027 <i>-c.u.</i>		10/07/22019 5:53:2
18	14	1007F018.D	1.	K1908958-027 MS <i>-c.u.</i>		10/07/22019 6:25:0
19	15	1007F019.D	1.	K1908958-027 DMS <i>-c.u.</i>		10/07/22019 6:56:4
20	1	1007F020.D	1.	PCB8-017N 1660 @ 2-20 PPB <i>ok</i>		10/07/22019 7:28:1
21	2	1007F021.D	1.	IB		10/07/22019 7:59:4

Exception Report

Data File: \\ALKLSWS002\INSTDATA\GC27\DATA\100719.B\1007F003.D
Lab ID: KWG1904382-1
RunType: CCV
Matrix: NOT APPLICABLE

Date Acquired: 10/07/2019 10:30
Date Quantitated: 10/08/2019 09:07
Batch ID: KWG1904382
Analysis Method: 8082A
MethodJoinID: MJ1660

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: SA 10/8/19

Secondary Review: W

Exception Report

Data File: \\ALKLSWS002\INSTDATA\GC27\DATA\100719_R.B\1007F003.D
Lab ID: KWG1904382-1
RunType: CCV
Matrix: NOT APPLICABLE

Date Acquired: 10/07/2019 10:30
Date Quantitated: 10/08/2019 09:07
Batch ID: KWG1904382
Analysis Method: 8082A
MethodJoinID: MJ1660

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: AT 10/8/19
Secondary Review: [Signature]

Quantitation Report

Data File #1:	J:\GC27\DATA\100719.B\1007F003.D	Instrument:	GC27.i
Data File #2:	\\alklsws002\instdata\GC27\Data\100719_r.b\1007F003.D	Vial:	1
Acqu Date:	10/07/2019 10:30	Quant Date:	10/08/2019 09:07
Run Type:	CCV	MethodJoinID:	MJ1660
Lab ID:	KWG1904382-1	Solu Conc. Units:	ng/mL
Signal #1:	DB-35MS	Signal #2:	DB-XLB

Bottle ID:		Tier:		Matrix:	NOT APPLICABLE
Prod Code:	8082A PCB	Collect Date:		Receive Date:	10/08/2019

Analysis Lot:	KWG1904382	Prep Lot:		Report Group:	
Analysis Method:	8082A	Prep Method:			
Prep Ref:		Prep Date:			

Quant Method:	\\ALKLSWS002\INSTDATA\GC27\DATA\100719.B\090419UL_F.M	Calibration ID:	CAL16127
Title:		Method ID:	MJ1660
MB Ref:		Quant based on Method	

Surrogate Compounds

Parameter Name	RT #1	RT #2	Resp #1	Respe #2	ng/mL #1	ng/mL #2	Final Conc. Units:		Rpt
Tetrachloro-m-xylene	6.96	8.43	3977364	1896237	2.21	2.28			NA
			%Recovery =		NA	NA	Limits =	70-130	
Decachlorobiphenyl	16.85	18.12	2113688	902642	1.94	2.02			NA
			%Recovery =		NA	NA	Limits =	70-130	

Target Compounds

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ng/mL #1	ng/mL #2	ug/Kg #1	ug/Kg #2	Rpt
Aroclor 1016			0	0	19.54	20.84			
Aroclor 1016 {1}	8.05	9.15	687715	304269	20.15	20.21			
Aroclor 1016 {2}	9.30	9.90	572335	503420	20.43	22.80			
Aroclor 1016 {3}	9.74	11.05	1568083	486392	18.04	20.17			
Aroclor 1016 {4}	9.92	11.51	987700	358583	19.25	20.13			
Aroclor 1016 {5}	10.31	11.74	697314	351851	19.84	20.88			
Aroclor 1260			0	0	20.64	21.09			
Aroclor 1260 {1}	13.19	13.54	663648	314830	19.81	22.18			
Aroclor 1260 {2}	13.57	14.78	986732	469606	21.17	20.48			
Aroclor 1260 {3}	14.05	15.15	1064367	476731	21.22	21.19			
Aroclor 1260 {4}	14.42	15.68	2179372	970329	20.53	20.42			
Aroclor 1260 {5}	15.05	16.18	1625962	624271	20.48	21.20			

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ? : Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Calibration Verification Report

Calibration ID: CAL16127

Method ID: MJ1660

DataFile: \\ALKLSWS002\INSTDATA\GC27\DATA\100719.B\1007F003.D

<u>Parameter Name</u>	<u>Type</u>	<u>PARM Type</u>	<u>Curve Fit</u>	<u>Method Criteria</u>	<u>Min RF</u>	<u>ICAL RF</u>	<u>CCV RF</u>	<u>%Diff</u>	<u>Sol'n Conc.</u>	<u>True Value</u>	<u>% Drift</u>
Aroclor 1016		MS	NA	20					19.54	20.00	-2
Aroclor 1260		MS	NA	20					20.64	20.00	3
Tetrachloro-m-xylene		SURR	AverageRF	20		1.8E+6	2.0E+6	10			
Aroclor 1016 {1}		MULTI	AverageRF	100		3.4E+4	3.4E+4	1			
Aroclor 1016 {2}		MULTI	AverageRF	100		2.8E+4	2.9E+4	2			
Aroclor 1016 {3}		MULTI	AverageRF	100		8.7E+4	7.8E+4	-10			
Aroclor 1016 {4}		MULTI	AverageRF	100		5.1E+4	4.9E+4	-4			
Aroclor 1016 {5}		MULTI	AverageRF	100		3.5E+4	3.5E+4	-1			
Aroclor 1260 {1}		MULTI	AverageRF	100		3.4E+4	3.3E+4	-1			
Aroclor 1260 {2}		MULTI	AverageRF	100		4.7E+4	4.9E+4	6			
Aroclor 1260 {3}		MULTI	AverageRF	100		5.0E+4	5.3E+4	6			
Aroclor 1260 {4}		MULTI	AverageRF	100		1.1E+5	1.1E+5	3			
Aroclor 1260 {5}		MULTI	AverageRF	100		7.9E+4	8.1E+4	2			
Decachlorobiphenyl		SURR	AverageRF	20		1.1E+6	1.1E+6	-3			

Calibration Verification Report

Calibration ID: CAL16127

Method ID: MJ1660

DataFile: \\ALKLSWS002\INSTDATA\GC27\DATA\100719_R.B\1007F003.D

<u>Parameter Name</u>	<u>Type</u>	<u>PARM Type</u>	<u>Curve Fit</u>	<u>Method Criteria</u>	<u>Min RF</u>	<u>ICAL RF</u>	<u>CCV RF</u>	<u>%Diff</u>	<u>Sol'n Conc.</u>	<u>True Value</u>	<u>% Drift</u>
Aroclor 1016		MS	NA	20					20.84	20.00	4
Aroclor 1260		MS	NA	20					21.09	20.00	5
Tetrachloro-m-xylene		SURR	AverageRF	20		8.3E+5	9.5E+5	14			
Aroclor 1016 {1}		MULTI	AverageRF	100		1.5E+4	1.5E+4	1			
Aroclor 1016 {2}		MULTI	AverageRF	100		2.2E+4	2.5E+4	14			
Aroclor 1016 {3}		MULTI	AverageRF	100		2.4E+4	2.4E+4	1			
Aroclor 1016 {4}		MULTI	AverageRF	100		1.8E+4	1.8E+4	1			
Aroclor 1016 {5}		MULTI	AverageRF	100		1.7E+4	1.8E+4	4			
Aroclor 1260 {1}		MULTI	AverageRF	100		1.4E+4	1.6E+4	11			
Aroclor 1260 {2}		MULTI	AverageRF	100		2.3E+4	2.3E+4	2			
Aroclor 1260 {3}		MULTI	AverageRF	100		2.2E+4	2.4E+4	6			
Aroclor 1260 {4}		MULTI	AverageRF	100		4.8E+4	4.9E+4	2			
Aroclor 1260 {5}		MULTI	AverageRF	100		2.9E+4	3.1E+4	6			
Decachlorobiphenyl		SURR	AverageRF	20		4.5E+5	4.5E+5	1			

ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\100719.b\1007F003.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\100719_r.b\1007F003.D
 Inj Date : 07-OCT-2019 10:30
 Sample Info: PCB8-017N 1660 @ 2-20 PPB
 Misc Info :
 Cal Date : 07-OCT-2019 11:35
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\100719.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\100719_r.b\090419_r.m
 Sub List #1 : 1660.SUB
 Sub List #2 : 1660.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.961	8.425	3977364	1896237	2.21	2.28		100.00
Aroclor 1016	8.048	9.151	687715	304269	20.2	20.2	80.00- 120.00	100.00
	9.298	9.901	572335	503420	20.4	22.8	65.14- 97.71	83.22
	9.738	11.051	1568083	486392	18.0	20.2	186.93- 280.39	228.01
	9.921	11.505	987700	358583	19.3	20.1	111.40- 167.10	143.62
	10.305	11.741	697314	351851	19.8	20.9	80.81- 121.21	101.40
	Average of Peak Amounts =				19.5	20.8		
Aroclor 1260	13.188	13.535	663648	314830	19.8	22.2	80.00- 120.00	100.00
	13.571	14.778	986732	469606	21.2	20.5	120.26- 180.40	148.68
	14.045	15.148	1064367	476731	21.2	21.2	128.27- 192.40	160.38
	14.421	15.678	2179372	970329	20.5	20.4	269.79- 404.69	328.39
	15.051	16.178	1625962	624271	20.5	21.2	198.82- 298.22	245.00
	Average of Peak Amounts =				20.6	21.1		
Decachlorobiphenyl	16.848	18.121	2113688	902642	1.94	2.02		100.00

Data File: \\alk1sus002\instdata\GC27\Data\100719_16\1007F003.D

Date: 07-OCT-2019 10:30

Client ID:

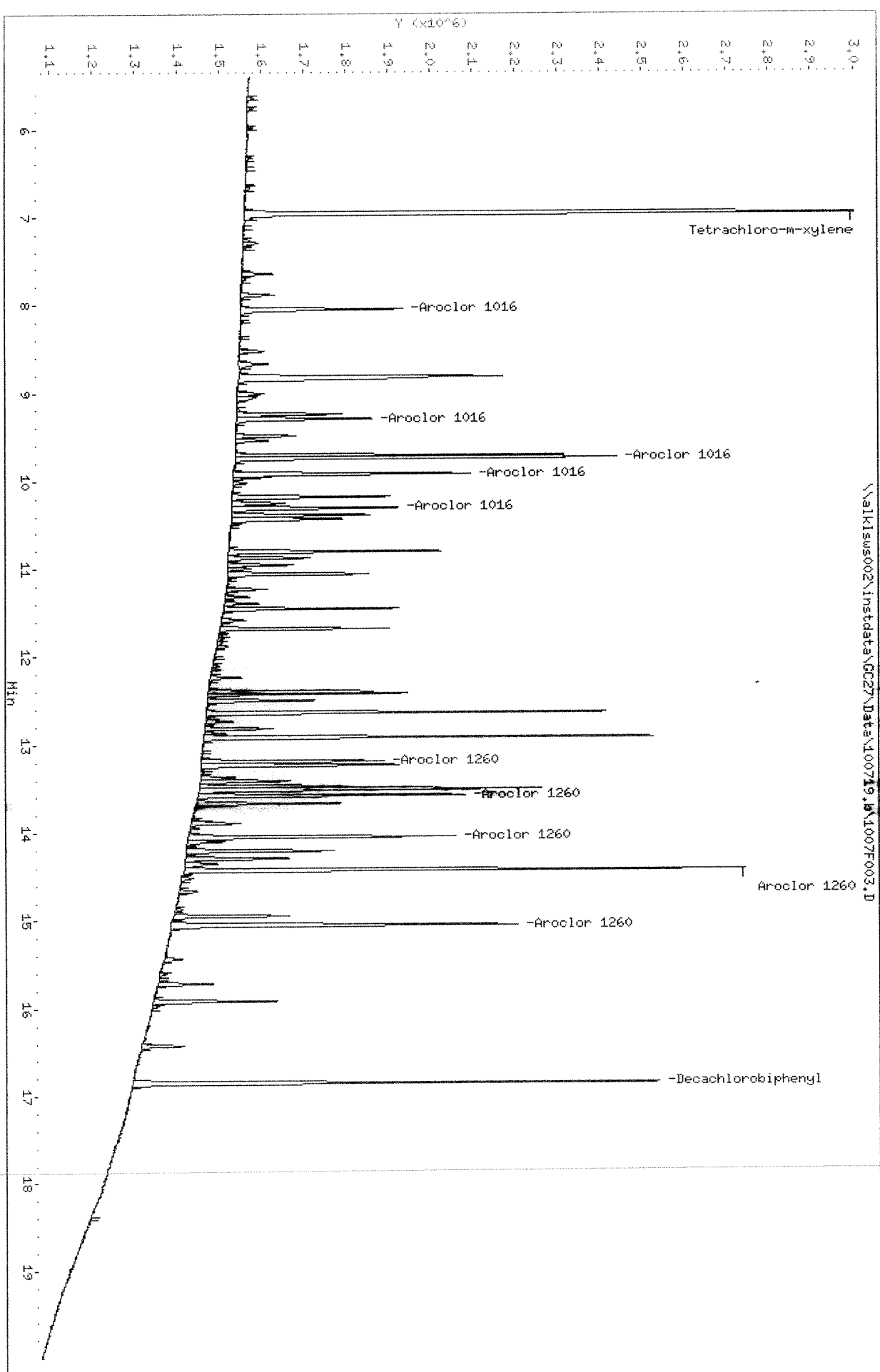
Sample Info: PCB8-017N 1660 @ 2-20 PPB

Column phase: DB-35MS

Instrument: GC27.1

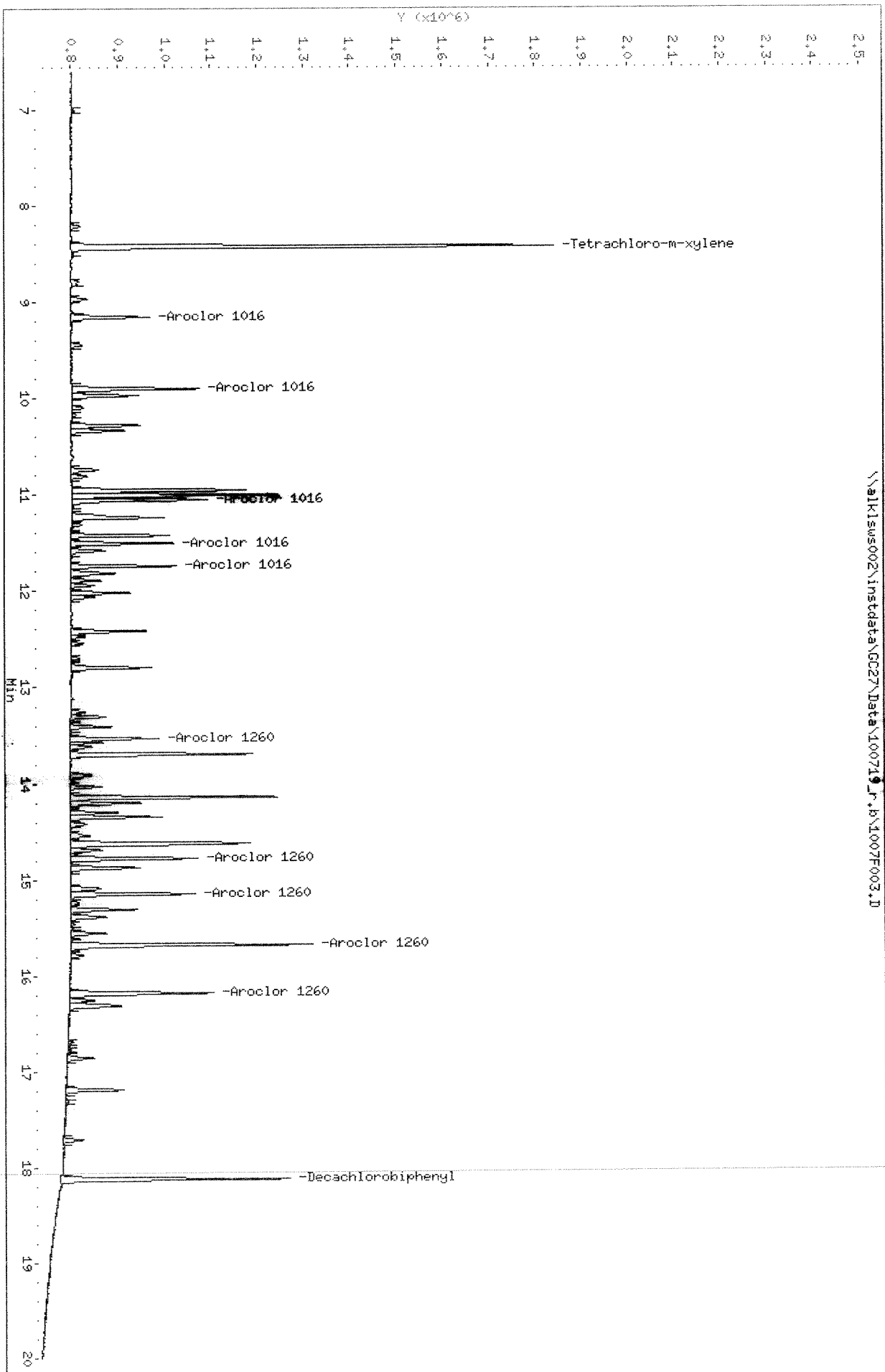
Operator: SAA

Column diameter: 0.32



Data File: \\alkisw002\instdata\GC27\Data\100719_LP\1007F003.D
Date: 07-OCT-2019 10:30
Client ID:
Sample Info: PCB8-017N 1660 @ 2-20 PPB
Column phase: DB-XLB

Instrument: GC27.1
Operator: SMA
Column diameter: 0.32



Exception Report

Data File: \\ALKLSWS002\INSTDATA\GC27\DATA\100719.B\1007F004.D
Lab ID: KWG1904382-2
Run Type: IB
Matrix: NOT APPLICABLE

Date Acquired: 10/07/2019 11:02
Date Quantitated: 10/08/2019 09:07
Batch ID: KWG1904382
Analysis Method: 8082A
MethodJoinID: MJ1660

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: SA 10/8/19
Secondary Review: [Signature]

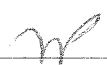
Exception Report

Data File: \\ALKLSWS002\INSTDATA\GC27\DATA\100719_R.B\1007F004.D
Lab ID: KWG1904382-2
RunType: IB
Matrix: NOT APPLICABLE

Date Acquired: 10/07/2019 11:02
Date Quantitated: 10/08/2019 09:07
Batch ID: KWG1904382
Analysis Method: 8082A
MethodJoinID: MJ1660

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: SA 10/8/19
Secondary Review: 

Quantitation Report

Data File #1:	J:\GC27\DATA\100719.B\1007F004.D	Instrument:	GC27.i
Data File #2:	\\alklsws002\instdata\GC27\Data\100719_r.b\1007F004.D	Vial:	2
Acqu Date:	10/07/2019 11:02	Quant Date:	10/08/2019 09:07
Run Type:	IB	MethodJoinID:	MJ1660
Lab ID:	KWG1904382-2	Soln Conc. Units:	ng/mL
Signal #1:	DB-35MS	Signal #2:	DB-XLB

Bottle ID:		Tier:		Matrix:	NOT APPLICABLE
Prod Code:	8082A PCB	Collect Date:		Receive Date:	10/08/2019

Analysis Lot:	KWG1904382	Prep Lot:		Report Group:	
Analysis Method:	8082A	Prep Method:			
Prep Ref:		Prep Date:			

Quant Method:	\\ALKLSWS002\INSTDATA\GC27\DATA\100719.B\090419UL_F.M	Calibration ID:	CAL16127
Title:		Method ID:	MJ1660
MB Ref:		Quant based on Method	

Surrogate Compounds

Parameter Name	RT #1	RT #2	Resp #1	Respe #2	ng/mL #1	ng/mL #2				Rpt
Tetrachloro-m-xylene	6.98		9338	0	0.0050	0.0000				NA
			%Recovery =		NA	NA	Limits =	70-130		
Decachlorobiphenyl	0.00		0	0		0.0000				NA
			%Recovery =		NA	NA	Limits =	70-130		

Target Compounds

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	Final Conc. Units:				Rpt
					ng/mL #1	ng/mL #2	ug/Kg #1	ug/Kg #2	
Aroclor 1016			0	0	0.0000	0.0000			
Aroclor 1016 {1}			0	0	0.0000	0.0000			
Aroclor 1016 {2}			0	0	0.0000	0.0000			
Aroclor 1016 {3}			0	0	0.0000	0.0000			
Aroclor 1016 {4}			0	0	0.0000	0.0000			
Aroclor 1016 {5}			0	0	0.0000	0.0000			
Aroclor 1221			0	0	0.0000	0.0000			
Aroclor 1221 {1}			0	0	0.0000	0.0000			
Aroclor 1221 {2}			0	0	0.0000	0.0000			
Aroclor 1221 {3}			0	0	0.0000	0.0000			
Aroclor 1232			0	0	0.0000	0.0000			
Aroclor 1232 {1}			0	0	0.0000	0.0000			
Aroclor 1232 {2}			0	0	0.0000	0.0000			
Aroclor 1232 {3}			0	0	0.0000	0.0000			
Aroclor 1232 {4}			0	0	0.0000	0.0000			
Aroclor 1232 {5}			0	0	0.0000	0.0000			
Aroclor 1242			0	0	0.0000	0.0000			
Aroclor 1242 {1}			0	0	0.0000	0.0000			

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ? : Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File #1:	J:\GC27\DATA\100719.B\1007F004.D	Instrument:	GC27.i
Data File #2:	\\alklsws002\instdata\GC27\Data\100719_r.b\1007F004.D	Vial:	2
Acqu Date:	10/07/2019 11:02	Quant Date:	10/08/2019 09:07
Run Type:	IB	Method.JoinID:	MJ1660
Lab ID:	KWG1904382-2	Soln Conc. Units:	ng/mL
Signal #1:	DB-35MS	Signal #2:	DB-XLB

Target Compounds

Final Conc. Units:

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ng/mL #1	ng/mL #2	ug/Kg #1	ug/Kg #2	Rpt
Aroclor 1242 {2}			0	0	0.0000	0.0000			
Aroclor 1242 {3}			0	0	0.0000	0.0000			
Aroclor 1242 {4}			0	0	0.0000	0.0000			
Aroclor 1242 {5}			0	0	0.0000	0.0000			
Aroclor 1248			0	0	0.0000	0.0000			
Aroclor 1248 {1}			0	0	0.0000	0.0000			
Aroclor 1248 {2}			0	0	0.0000	0.0000			
Aroclor 1248 {3}			0	0	0.0000	0.0000			
Aroclor 1248 {4}			0	0	0.0000	0.0000			
Aroclor 1248 {5}			0	0	0.0000	0.0000			
Aroclor 1254			0	0	0.0000	0.0000			
Aroclor 1254 {1}			0	0	0.0000	0.0000			
Aroclor 1254 {2}			0	0	0.0000	0.0000			
Aroclor 1254 {3}			0	0	0.0000	0.0000			
Aroclor 1254 {4}			0	0	0.0000	0.0000			
Aroclor 1254 {5}			0	0	0.0000	0.0000			
Aroclors, Total			0	0	0.0000	0.0000	J	J	
Aroclor 1260			0	0	0.0000	0.0000			
Aroclor 1260 {1}			0	0	0.0000	0.0000			
Aroclor 1260 {2}			0	0	0.0000	0.0000			
Aroclor 1260 {3}			0	0	0.0000	0.0000			
Aroclor 1260 {4}			0	0	0.0000	0.0000			
Aroclor 1260 {5}			0	0	0.0000	0.0000			
Aroclor 1262			0	0	0.0000	0.0000			
Aroclor 1262 {1}			0	0	0.0000	0.0000			
Aroclor 1262 {2}			0	0	0.0000	0.0000			
Aroclor 1262 {3}			0	0	0.0000	0.0000			
Aroclor 1262 {4}			0	0	0.0000	0.0000			
Aroclor 1262 {5}			0	0	0.0000	0.0000			
Aroclor 1268			0	0	0.0000	0.0000			
Aroclor 1268 {1}			0	0	0.0000	0.0000			
Aroclor 1268 {2}			0	0	0.0000	0.0000			
Aroclor 1268 {3}			0	0	0.0000	0.0000			
Aroclor 1268 {4}			0	0	0.0000	0.0000			

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL, also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\100719.b\1007F004.D
Sample #2 : \\alklsws002\instdata\GC27\Data\100719_r.b\1007F004.D
Inj Date : 07-OCT-2019 11:02
Sample Info: IB
Misc Info :
Cal Date : 07-OCT-2019 11:35
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\100719.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\100719_r.b\090419_r.m
Sub List #1 : ALL.SUB
Sub List #2 : ALL.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.978	0.000	9338	0	0.00518	0.000		100.00 (R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: \\ajik1sws002\instdata\GC27\Data\100719,b\1007F004.D
Date: 07-OCT-2019 11:02

Client ID:

Sample Info: IB

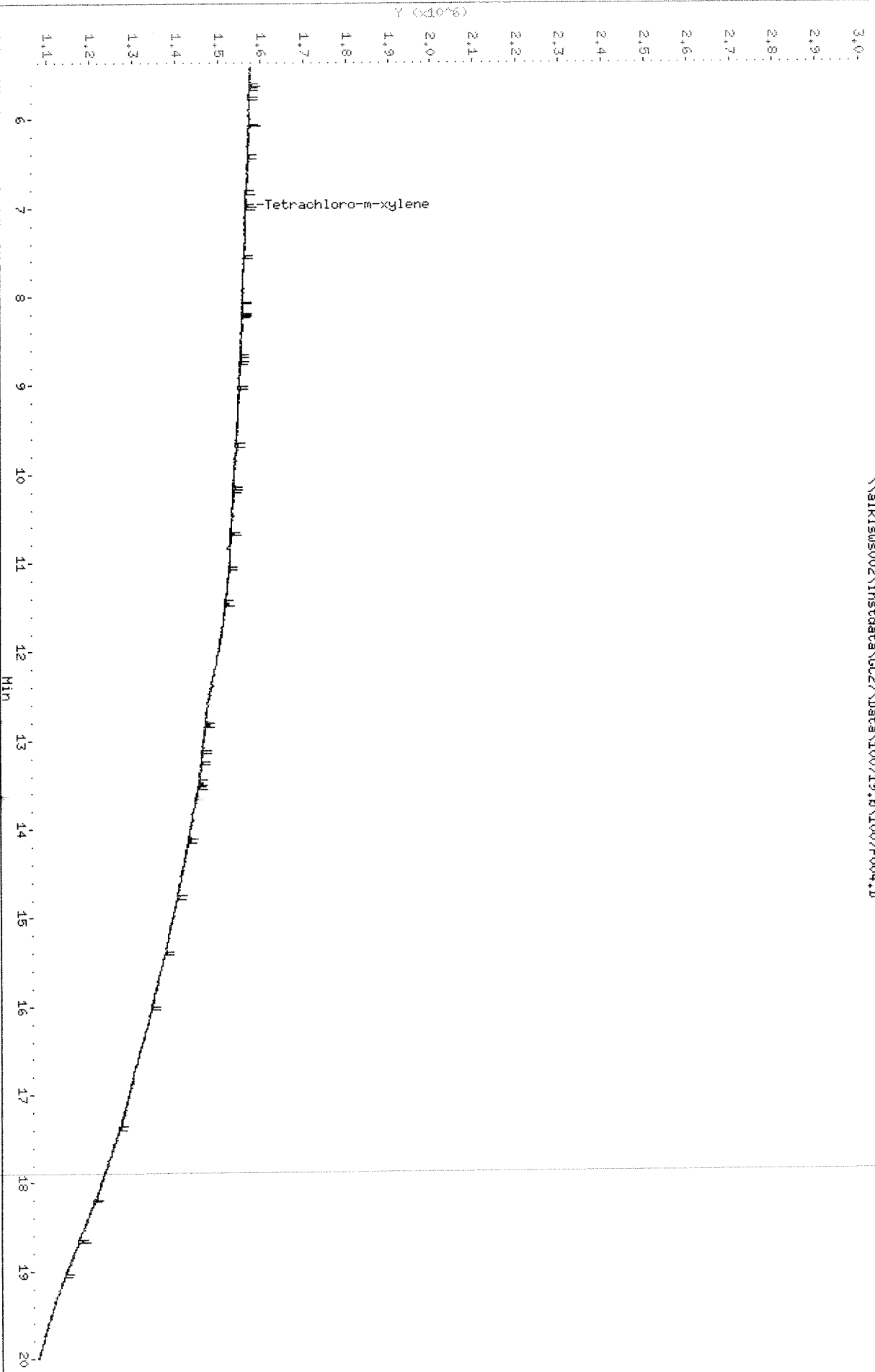
Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

Column phase: DB-35MS

\\ajik1sws002\instdata\GC27\Data\100719,b\1007F004.D



Data File: \\alk1sws002\instdata\GC27\Data\100719_r.b\1007F004.D

Date: 07-OCT-2019 11:02

Client ID:

Sample Info: IB

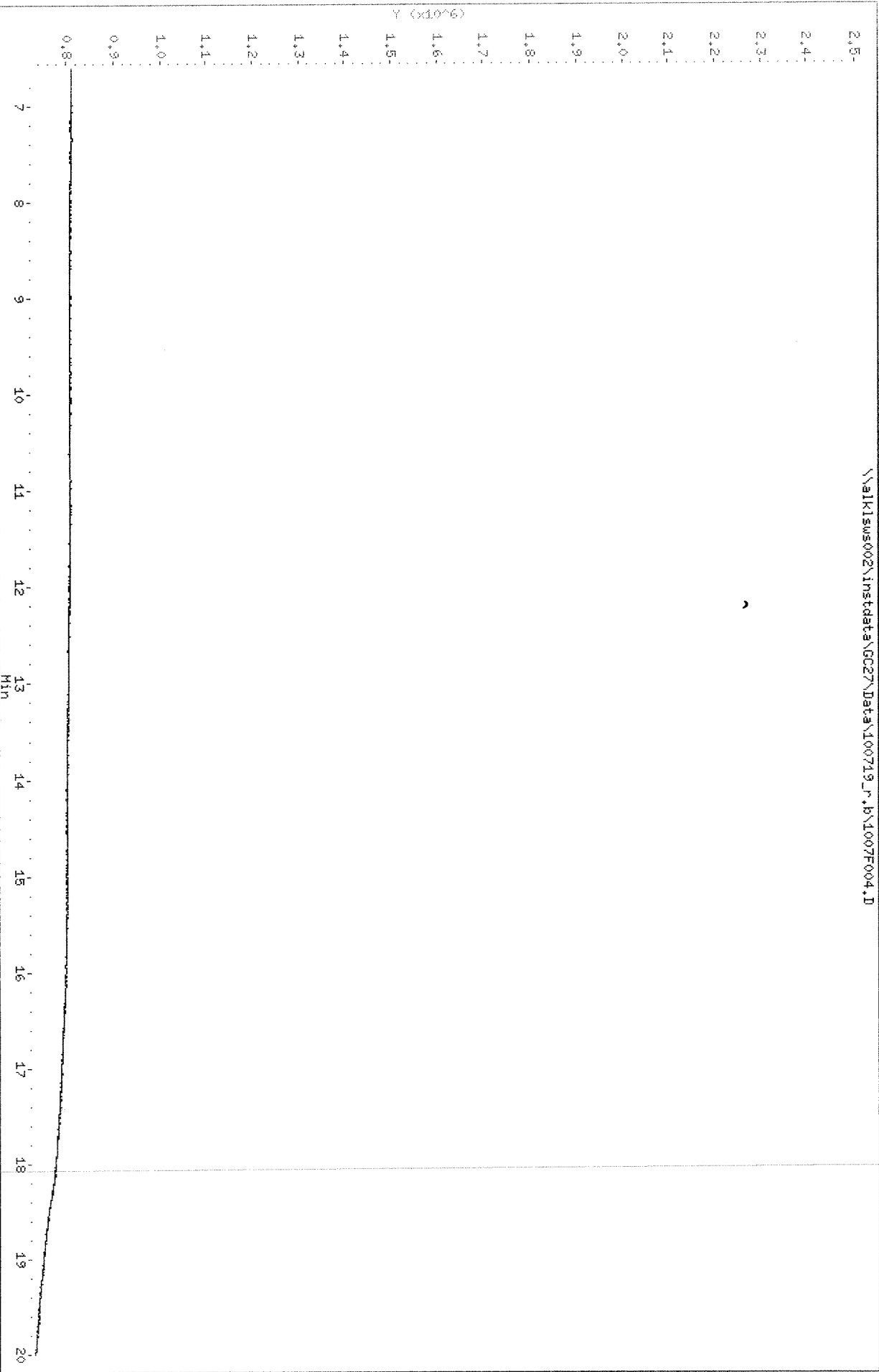
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alk1sws002\instdata\GC27\Data\100719_r.b\1007F004.D



Exception Report

Data File: \\ALKLSWS002\INSTDATA\GC27\DATA\100719.B\1007F005.D
Lab ID: KWG1904339-4
RunType: MB
Matrix: SOIL

Date Acquired: 10/07/2019 11:34
Date Quantitated: 10/08/2019 09:07
Batch ID: KWG1904382
Analysis Method: 8082A
MethodJoinID: MJ1660

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: SA 10/8/19
Secondary Review: [Signature]

Exception Report

Data File: \\ALKLSWS002\INSTDATA\GC27\DATA\100719.B\1007F010.D
Lab ID: KWG1904382-3
RunType: CCV
Matrix: NOT APPLICABLE

Date Acquired: 10/07/2019 14:12
Date Quantitated: 10/08/2019 09:07
Batch ID: KWG1904382
Analysis Method: 8082A
MethodJoinID: MJ1660

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: SA 10/8/19
Secondary Review: W

Exception Report

Data File: \\ALKLSWS002\INSTDATA\GC27\DATA\100719_R.B\1007F010.D
Lab ID: KWG1904382-3
RunType: CCV
Matrix: NOT APPLICABLE

Date Acquired: 10/07/2019 14:12
Date Quantitated: 10/08/2019 09:07
Batch ID: KWG1904382
Analysis Method: 8082A
MethodJoinID: MJ1660

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: AT 10/8/19

Secondary Review: [Signature]

Quantitation Report

Data File #1:	J:\GC27\DATA\100719.B\1007F010.D	Instrument:	GC27.i
Data File #2:	\\alklsws002\instdata\GC27\Data\100719_r.b\1007F010.D	Vial:	1
Acqu Date:	10/07/2019 14:12	Quant Date:	10/08/2019 09:07
Run Type:	CCV	MethodJoinID:	MJ1660
Lab ID:	KWG1904382-3	Solu Conc. Units:	ng/mL
Signal #1:	DB-35MS	Signal #2:	DB-XLB

Bottle ID:		Tier:		Matrix:	NOT APPLICABLE
Prod Code:	8082A PCB	Collect Date:		Receive Date:	10/08/2019

Analysis Lot:	KWG1904382	Prep Lot:		Report Group:	
Analysis Method:	8082A	Prep Method:			
Prep Ref:		Prep Date:			

Quant Method:	\\ALKLSWS002\INSTDATA\GC27\DATA\100719.B\090419UL_F.M	Calibration ID:	CAL16127
Title:		Method ID:	MJ1660
MB Ref:		Quant based on Method	

Surrogate Compounds

Parameter Name	RT #1	RT #2	Resp #1	Respe #2	ng/mL #1	ng/mL #2			Rpt
Tetrachloro-m-xylene	6.97	8.43	4208092	2002380	2.34	2.41			NA
			%Recovery =		NA	NA	Limits =	70-130	
Decachlorobiphenyl	16.85	18.12	2238112	921232	2.05	2.06			NA
			%Recovery =		NA	NA	Limits =	70-130	

Target Compounds

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	Final Conc. Units:				Rpt
					ng/mL #1	ng/mL #2	ug/Kg #1	ug/Kg #2	
Aroclor 1016			0	0	20.77	22.77			
Aroclor 1016 {1}	8.05	9.16	721677m	341480	21.15	22.68			
Aroclor 1016 {2}	9.30	9.90	610813m	551436	21.81	24.97			
Aroclor 1016 {3}	9.74	11.05	1667974m	530415	19.19	22.00			
Aroclor 1016 {4}	9.92	11.51	1055306m	384375	20.57	21.58			
Aroclor 1016 {5}	10.31	11.74	742678m	381074	21.13	22.62			
Aroclor 1260			0	0	21.55	21.96			
Aroclor 1260 {1}	13.19	13.54	693648	332910	20.70	23.45			
Aroclor 1260 {2}	13.58	14.78	1034332	482221	22.19	21.03			
Aroclor 1260 {3}	14.05	15.15	1102822	493317	21.99	21.93			
Aroclor 1260 {4}	14.42	15.68	2286250	1002678	21.54	21.10			
Aroclor 1260 {5}	15.05	16.18	1691173	655845	21.31	22.27			

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Calibration Verification Report

Calibration ID: CAL16127

Method ID: MJ1660

DataFile: \\ALKLSWS002\INSTDATA\GC27\DATA\100719.B\1007F010.D

<u>Parameter Name</u>	<u>Type</u>	<u>PARM Type</u>	<u>Curve Fit</u>	<u>Method Criteria</u>	<u>Min RF</u>	<u>ICAL RF</u>	<u>CCV RF</u>	<u>%Diff</u>	<u>Sol'n Conc.</u>	<u>True Value</u>	<u>% Drift</u>
Aroclor 1016		MS	NA	20					20.77	20.00	4
Aroclor 1260		MS	NA	20					21.55	20.00	8
Tetrachloro-m-xylene		SURR	AverageRF	20		1.8E+6	2.1E+6	17			
Aroclor 1016 {1}		MULTI	AverageRF	100		3.4E+4	3.6E+4	6			
Aroclor 1016 {2}		MULTI	AverageRF	100		2.8E+4	3.1E+4	9			
Aroclor 1016 {3}		MULTI	AverageRF	100		8.7E+4	8.3E+4	-4			
Aroclor 1016 {4}		MULTI	AverageRF	100		5.1E+4	5.3E+4	3			
Aroclor 1016 {5}		MULTI	AverageRF	100		3.5E+4	3.7E+4	6			
Aroclor 1260 {1}		MULTI	AverageRF	100		3.4E+4	3.5E+4	4			
Aroclor 1260 {2}		MULTI	AverageRF	100		4.7E+4	5.2E+4	11			
Aroclor 1260 {3}		MULTI	AverageRF	100		5.0E+4	5.5E+4	10			
Aroclor 1260 {4}		MULTI	AverageRF	100		1.1E+5	1.1E+5	8			
Aroclor 1260 {5}		MULTI	AverageRF	100		7.9E+4	8.5E+4	7			
Decachlorobiphenyl		SURR	AverageRF	20		1.1E+6	1.1E+6	3			

Calibration Verification Report

Calibration ID: CAL16127

Method ID: MJ1660

DataFile: \\ALKLSWS002\INSTDATA\GC27\DATA\100719_R.B\1007F010.D

<u>Parameter Name</u>	<u>Type</u>	<u>PARM Type</u>	<u>Curve Fit</u>	<u>Method Criteria</u>	<u>Min RF</u>	<u>ICAL RF</u>	<u>CCV RF</u>	<u>%Diff</u>	<u>Sol'n Conc.</u>	<u>True Value</u>	<u>% Drift</u>
Aroclor 1016		MS	NA	20					22.77	20.00	14
Aroclor 1260		MS	NA	20					21.96	20.00	10
Tetrachloro-m-xylene		SURR	AverageRF	20		8.3E+5	1.0E+6	21 *			
Aroclor 1016 {1}		MULTI	AverageRF	100		1.5E+4	1.7E+4	13			
Aroclor 1016 {2}		MULTI	AverageRF	100		2.2E+4	2.8E+4	25			
Aroclor 1016 {3}		MULTI	AverageRF	100		2.4E+4	2.7E+4	10			
Aroclor 1016 {4}		MULTI	AverageRF	100		1.8E+4	1.9E+4	8			
Aroclor 1016 {5}		MULTI	AverageRF	100		1.7E+4	1.9E+4	13			
Aroclor 1260 {1}		MULTI	AverageRF	100		1.4E+4	1.7E+4	17			
Aroclor 1260 {2}		MULTI	AverageRF	100		2.3E+4	2.4E+4	5			
Aroclor 1260 {3}		MULTI	AverageRF	100		2.2E+4	2.5E+4	10			
Aroclor 1260 {4}		MULTI	AverageRF	100		4.8E+4	5.0E+4	5			
Aroclor 1260 {5}		MULTI	AverageRF	100		2.9E+4	3.3E+4	11			
Decachlorobiphenyl		SURR	AverageRF	20		4.5E+5	4.6E+5	3			

1 Compounds Failed CCV Criteria (8.33 Percent)

ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\100719.b\1007F010.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\100719_r.b\1007F010.D
 Inj Date : 07-OCT-2019 14:12
 Sample Info: PCB8-017N 1660 @ 2-20 PPB
 Misc Info :
 Cal Date : 07-OCT-2019 15:08
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\100719.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\100719_r.b\090419_r.m
 Sub List #1 : 1660.SUB
 Sub List #2 : 1660.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.965	8.425	4208092	2002380	2.34	2.41		100.00
Aroclor 1016	8.052	9.155	721677	341480	21.1	22.7	80.00- 120.00	100.00 (M)
	9.295	9.902	610813	551436	21.8	25.0	65.14- 97.71	84.64 (M)
	9.739	11.052	1667974	530415	19.2	22.0	186.93- 280.39	231.12 (M)
	9.922	11.505	1055306	384375	20.6	21.6	111.40- 167.10	146.23 (M)
	10.305	11.742	742678	381074	21.1	22.6	80.81- 121.21	102.91 (M)
	Average of Peak Amounts =				20.8	22.8		
Aroclor 1260	13.189	13.535	693648	332910	20.7	23.5	80.00- 120.00	100.00
	13.575	14.779	1034332	482221	22.2	21.0	120.26- 180.40	149.11
	14.045	15.149	1102822	493317	22.0	21.9	128.27- 192.40	158.99
	14.422	15.679	2286250	1002678	21.5	21.1	269.79- 404.69	329.60
	15.052	16.182	1691173	655845	21.3	22.3	198.82- 298.22	243.81
	Average of Peak Amounts =				21.5	22.0		
Decachlorobiphenyl	16.852	18.122	2238112	921232	2.05	2.06		100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: \\alkisw002\instdata\GC27\Data\100719,6\1007F010.D
Date: 07-OCT-2019 14:12

Client ID:

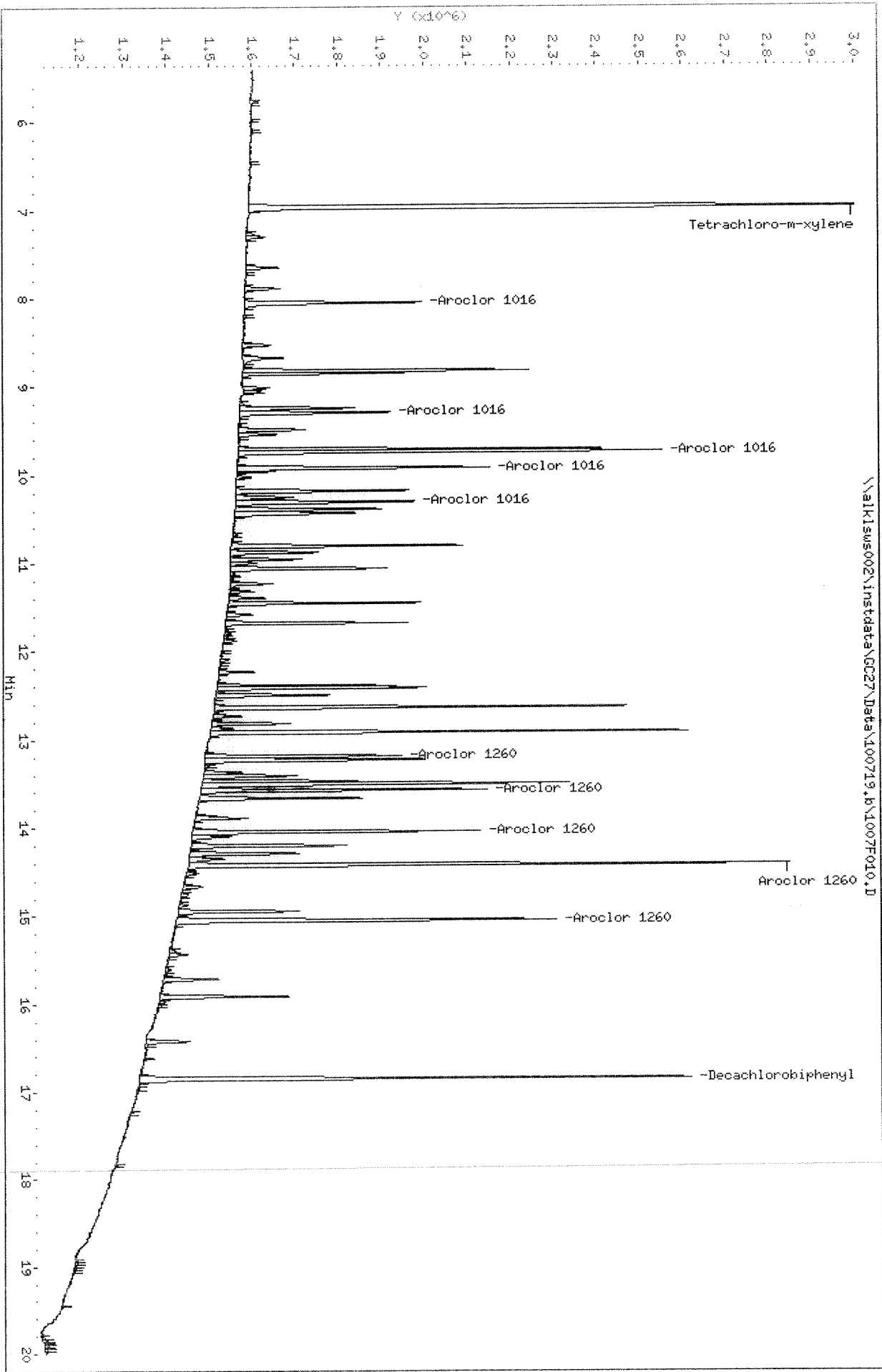
Sample Info: PCB8-017N 1660 @ 2-20 PPS

Column phase: DB-35MS

Instrument: GC27.1

Operator: SAA

Column diameter: 0.32



Data File: \\alk1sus002\instdata\GC27\Data\100719_r.b\1007F010.D

Date: 07-OCT-2019 14:12

Client ID:

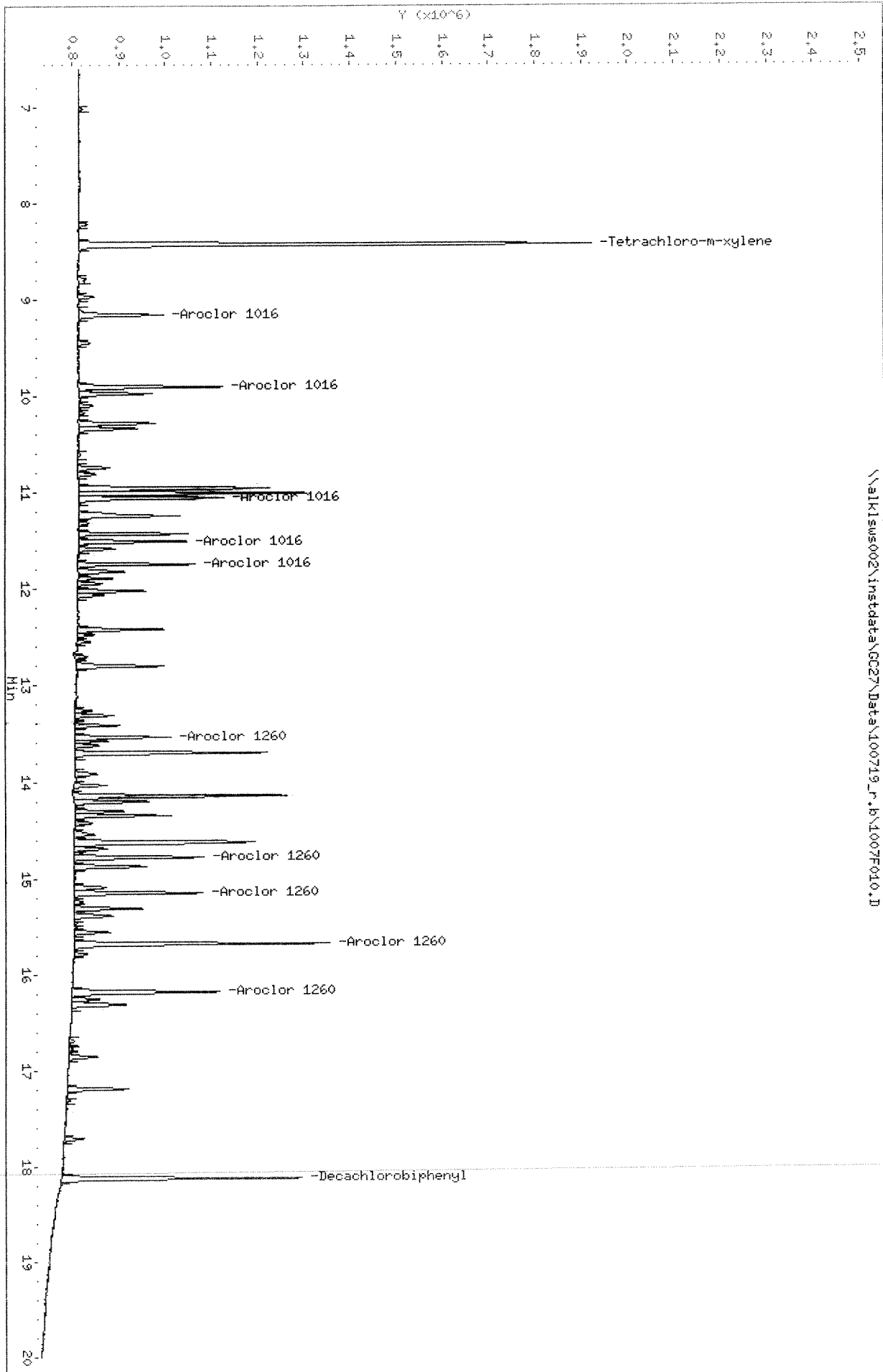
Sample Info: PCB8-017N 1660 @ 2-20 PPB

Column phase: DB-XLB

Instrument: GC27.1

Operator: SQA

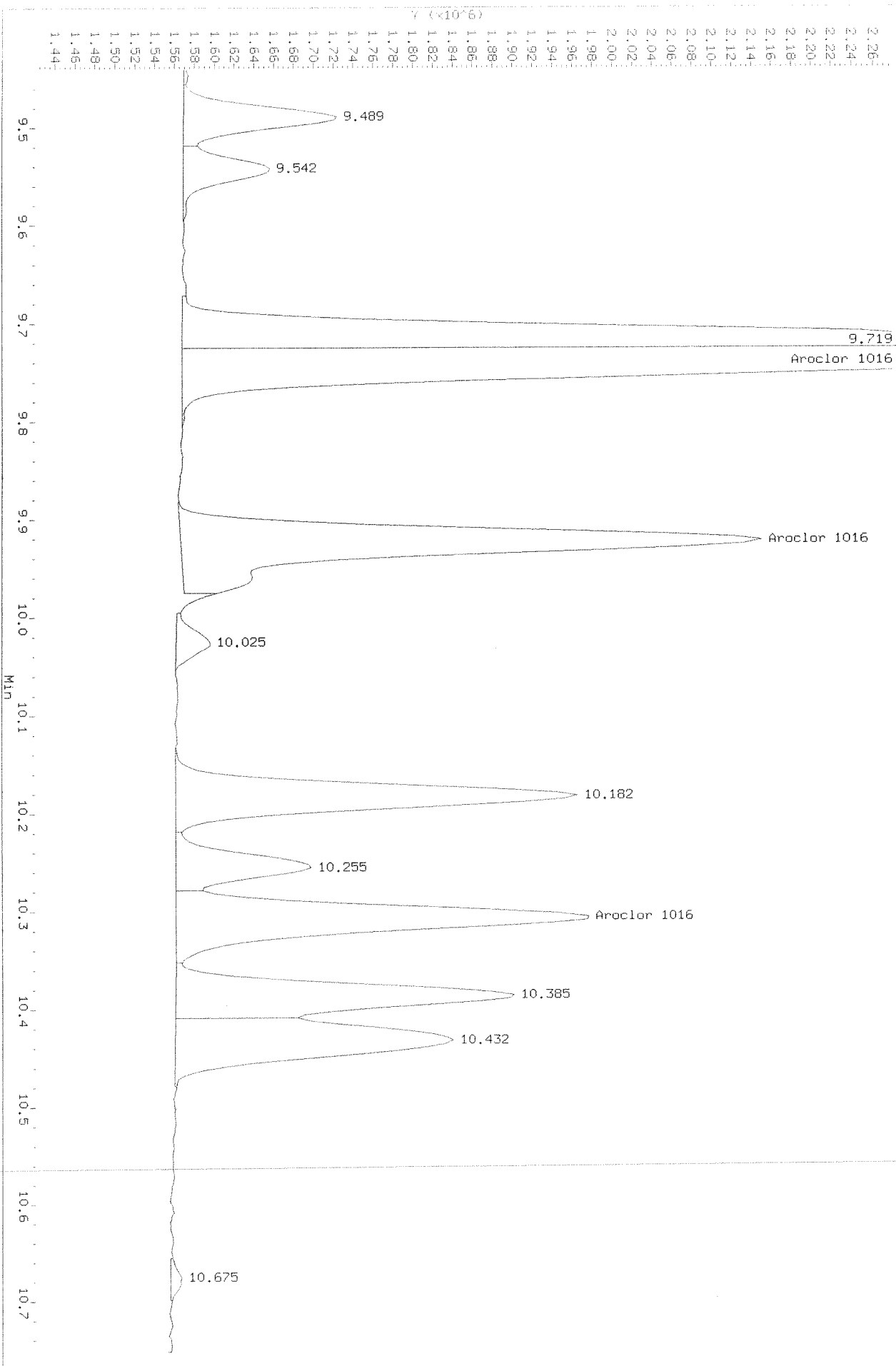
Column diameter: 0.32



Data File: \\alklms002\instdata\GC27\Data\100719.b\1007F010.D
Injection Date: 07-OCT-2019 14:12
Instrument: GC27.1
Client Sample ID:

Before

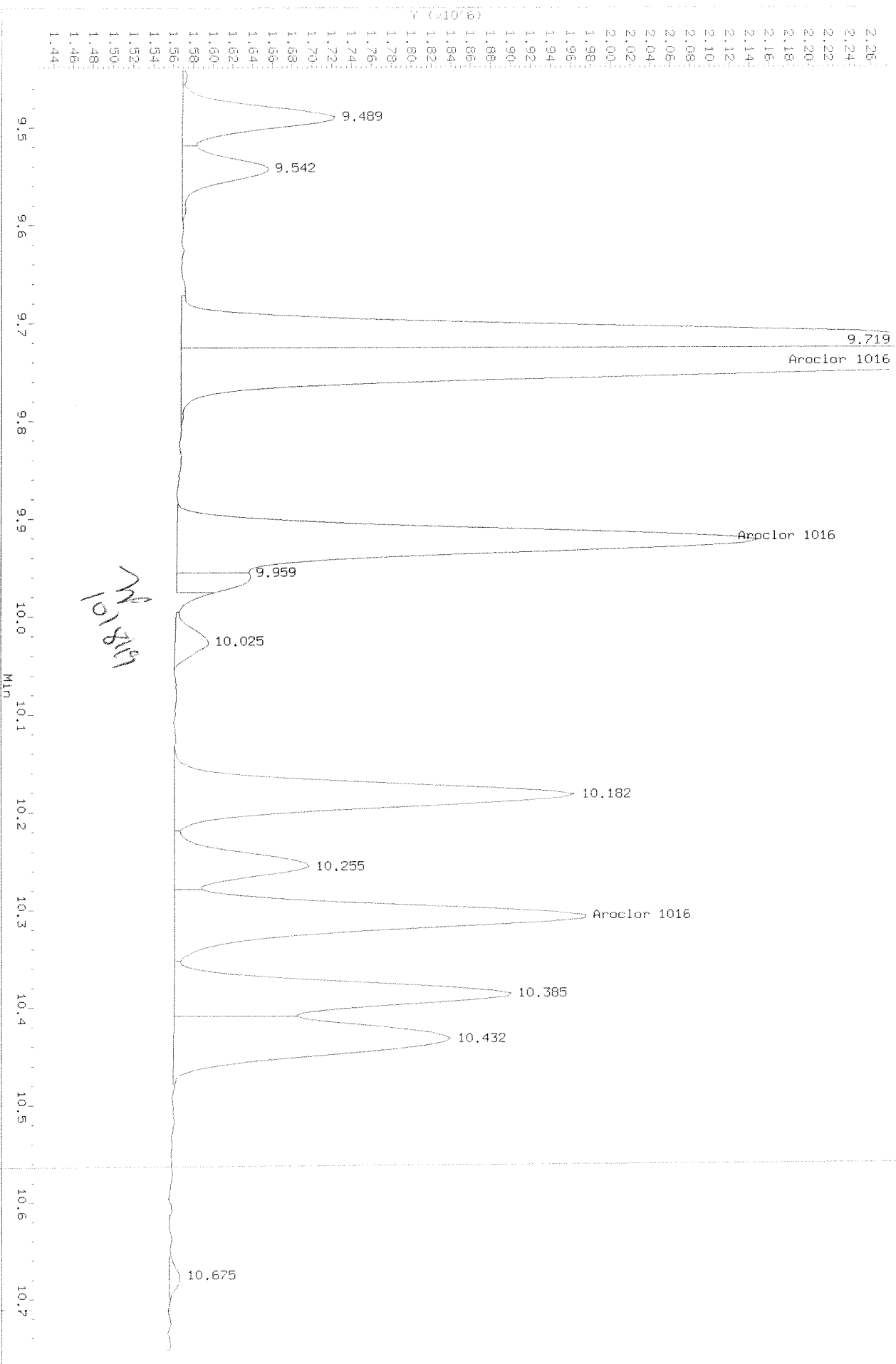
HP6890 GC Data, ECD1A.CH: 9.440 to 10.752 Min



Data File: \\alkisw002\inst\data\GC27\Data\100719.B\1007F010.D
Injection Date: 07-OCT-2019 14:12
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD19.CH: 9.440 to 10.752 MIN

After shoulder 10/8/19



Exception Report

Data File: WALKLSWS002\INSTDATA\GC27\DATA\100719.B\1007F011.D
Lab ID: KWG1904382-4
RunType: IB
Matrix: NOT APPLICABLE

Date Acquired: 10/07/2019 14:43
Date Quantitated: 10/08/2019 09:07
Batch ID: KWG1904382
Analysis Method: 8082A
MethodJoinID: MJ1660

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: SA 10/8/19

Secondary Review: W

Exception Report

Data File: \\ALKLSWS002\INSTDATA\GC27\DATA\100719_R.B\1007F011.D
Lab ID: KWG1904382-4
RunType: IB
Matrix: NOT APPLICABLE

Date Acquired: 10/07/2019 14:43
Date Quantitated: 10/08/2019 09:07
Batch ID: KWG1904382
Analysis Method: 8082A
MethodJoinID: MJ1660

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: SA 10/8/19

Secondary Review: W

Quantitation Report

Data File #1:	J:\GC27\DATA\100719.B\1007F011.D	Instrument:	GC27.i
Data File #2:	\\alklsws002\instdata\GC27\Data\100719_r.b\1007F011.D	Vial:	2
Acqu Date:	10/07/2019 14:43	Quant Date:	10/08/2019 09:07
Run Type:	IB	MethodJoinID:	MJ1660
Lab ID:	KWG1904382-4	Soln Conc. Units:	ng/mL
Signal #1:	DB-35MS	Signal #2:	DB-XLB

Bottle ID:		Tier:		Matrix:	NOT APPLICABLE
Prod Code:	8082A PCB	Collect Date:		Receive Date:	10/08/2019

Analysis Lot:	KWG1904382	Prep Lot:	KWG1904300	Report Group:	
Analysis Method:	8082A	Prep Method:	EPA 3546		
Prep Ref:	1735651	Prep Date:	10/01/2019		

Quant Method:	\\ALKLSWS002\INSTDATA\GC27\DATA\100719.B\090419UL_F.M	Calibration ID:	CAL16127
Title:		Method ID:	MJ1660
MB Ref:		Quant based on Method	

Surrogate Compounds

Parameter Name	RT #1	RT #2	Resp #1	Respe #2	ng/mL #1	ng/mL #2			Rpt
Tetrachloro-m-xylene	6.98		6348	0	0.0040	0.0000			NA
			%Recovery =		NA	NA	Limits =	70-130	
Decachlorobiphenyl	0.00		0	0		0.0000			NA
			%Recovery =		NA	NA	Limits =	70-130	

Target Compounds

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	Final Conc. Units:		ug/Kg Wet Weight		Rpt
					ng/mL #1	ng/mL #2	ug/Kg #1	ug/Kg #2	
Aroclor 1016			0	0	0.0000	0.0000			
Aroclor 1016 {1}			0	0	0.0000	0.0000			
Aroclor 1016 {2}			0	0	0.0000	0.0000			
Aroclor 1016 {3}			0	0	0.0000	0.0000			
Aroclor 1016 {4}			0	0	0.0000	0.0000			
Aroclor 1016 {5}			0	0	0.0000	0.0000			
Aroclor 1221			0	0	0.0000	0.0000			
Aroclor 1221 {1}			0	0	0.0000	0.0000			
Aroclor 1221 {2}			0	0	0.0000	0.0000			
Aroclor 1221 {3}			0	0	0.0000	0.0000			
Aroclor 1232			0	0	0.0000	0.0000			
Aroclor 1232 {1}			0	0	0.0000	0.0000			
Aroclor 1232 {2}			0	0	0.0000	0.0000			
Aroclor 1232 {3}			0	0	0.0000	0.0000			
Aroclor 1232 {4}			0	0	0.0000	0.0000			
Aroclor 1232 {5}			0	0	0.0000	0.0000			
Aroclor 1242			0	0	0.0000	0.0000			
Aroclor 1242 {1}			0	0	0.0000	0.0000			

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ? : Insufficient information to determine acceptance
 c: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File #1:	J:\GC27\DATA\100719.B\1007F011.D	Instrument:	GC27.i
Data File #2:	\\alklsws002\instdata\GC27\Data\100719_r.b\1007F011.D	Vial:	2
Acqu Date:	10/07/2019 14:43	Quant Date:	10/08/2019 09:07
Run Type:	IB	MethodJoinID:	MJ1660
Lab ID:	KWG1904382-4	Soln Conc. Units:	ng/mL
Signal #1:	DB-35MS	Signal #2:	DB-XLB

Parameter Name	RT		Resp		ng/mL		ug/Kg		Rpt
	#1	#2	#1	#2	#1	#2	#1	#2	
Aroclor 1242 {2}			0	0	0.0000	0.0000			
Aroclor 1242 {3}			0	0	0.0000	0.0000			
Aroclor 1242 {4}			0	0	0.0000	0.0000			
Aroclor 1242 {5}			0	0	0.0000	0.0000			
Aroclor 1248			0d	0	0.0000	0.0000			
Aroclor 1248 {1}			0d	0	0.0000	0.0000			
Aroclor 1248 {2}			0d	0	0.0000	0.0000			
Aroclor 1248 {3}			0d	0	0.0000	0.0000			
Aroclor 1248 {4}			0d	0	0.0000	0.0000			
Aroclor 1248 {5}			0d	0	0.0000	0.0000			
Aroclor 1254			0	0	0.0000	0.0000			
Aroclor 1254 {1}			0	0	0.0000	0.0000			
Aroclor 1254 {2}			0	0	0.0000	0.0000			
Aroclor 1254 {3}			0	0	0.0000	0.0000			
Aroclor 1254 {4}			0	0	0.0000	0.0000			
Aroclor 1254 {5}			0	0	0.0000	0.0000			
Aroclors, Total			0	0	0.0000	0.0000	J	J	
Aroclor 1260			0	0	0.0000	0.0000			
Aroclor 1260 {1}			0	0	0.0000	0.0000			
Aroclor 1260 {2}			0	0	0.0000	0.0000			
Aroclor 1260 {3}			0	0	0.0000	0.0000			
Aroclor 1260 {4}			0	0	0.0000	0.0000			
Aroclor 1260 {5}			0	0	0.0000	0.0000			
Aroclor 1262			0	0	0.0000	0.0000			
Aroclor 1262 {1}			0	0	0.0000	0.0000			
Aroclor 1262 {2}			0	0	0.0000	0.0000			
Aroclor 1262 {3}			0	0	0.0000	0.0000			
Aroclor 1262 {4}			0	0	0.0000	0.0000			
Aroclor 1262 {5}			0	0	0.0000	0.0000			
Aroclor 1268			0	0	0.0000	0.0000			
Aroclor 1268 {1}			0	0	0.0000	0.0000			
Aroclor 1268 {2}			0	0	0.0000	0.0000			
Aroclor 1268 {3}			0	0	0.0000	0.0000			
Aroclor 1268 {4}			0	0	0.0000	0.0000			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\100719.b\1007F011.D
Sample #2 : \\alklsws002\instdata\GC27\Data\100719_r.b\1007F011.D
Inj Date : 07-OCT-2019 14:43
Sample Info: IB
Misc Info :
Cal Date : 07-OCT-2019 15:08
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\100719.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\100719_r.b\090419_r.m
Sub List #1 : ALL.SUB
Sub List #2 : ALL.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.980	0.000	6348	0	0.00352	0.000		100.00 (R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: \\alkisus002\instdata\GC27\Data\100719.b\1007F011.D

Date: 07-OCT-2019 14:43

Client ID:

Sample Info: IB

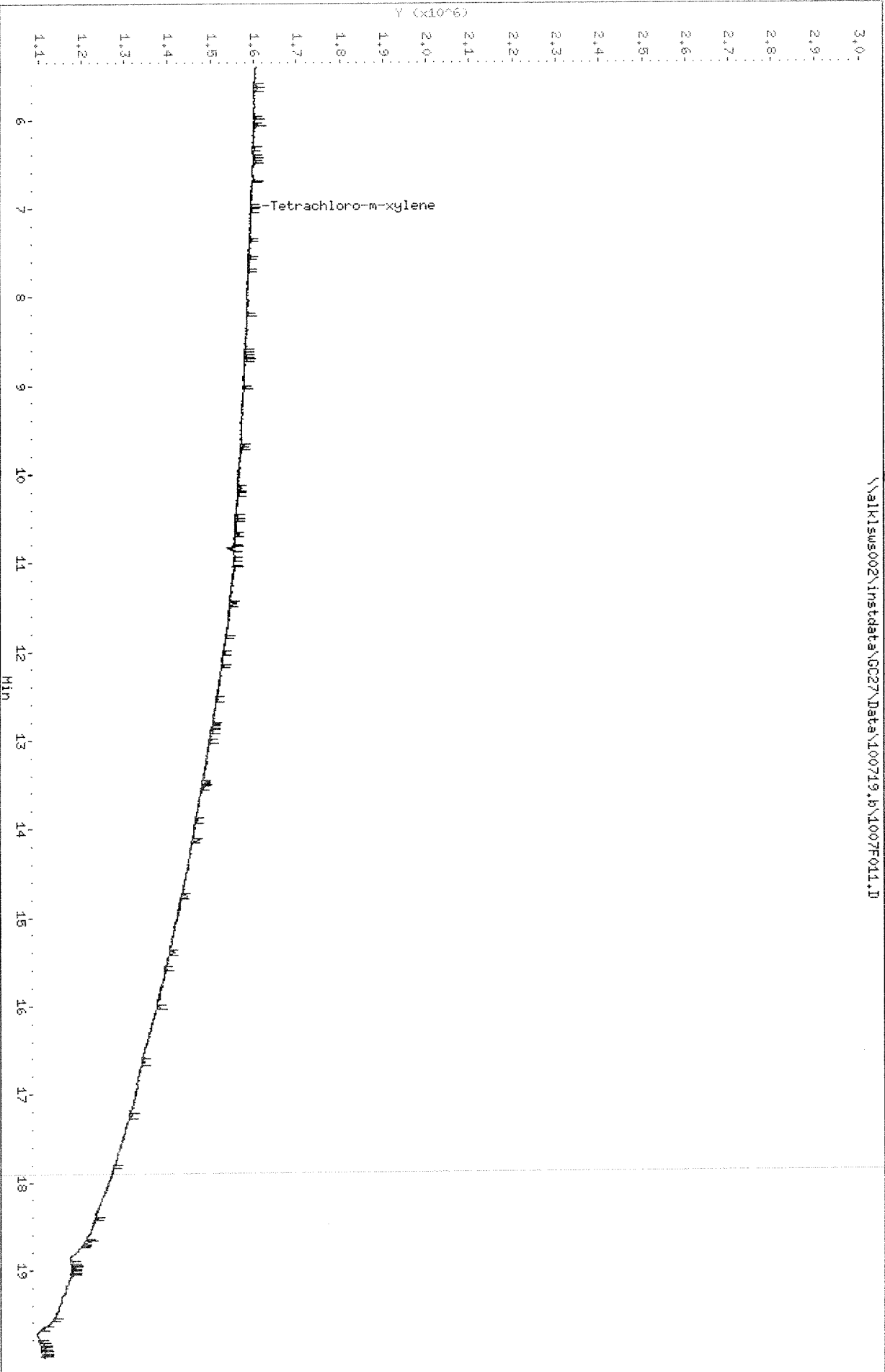
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\100719.b\1007F011.D



Data File: \\alk1sws002\inst\data\GC27\Data\100719_r.b\1007F011.D
Date: 07-OCT-2019 14:43

Client ID:
Sample Info: IB

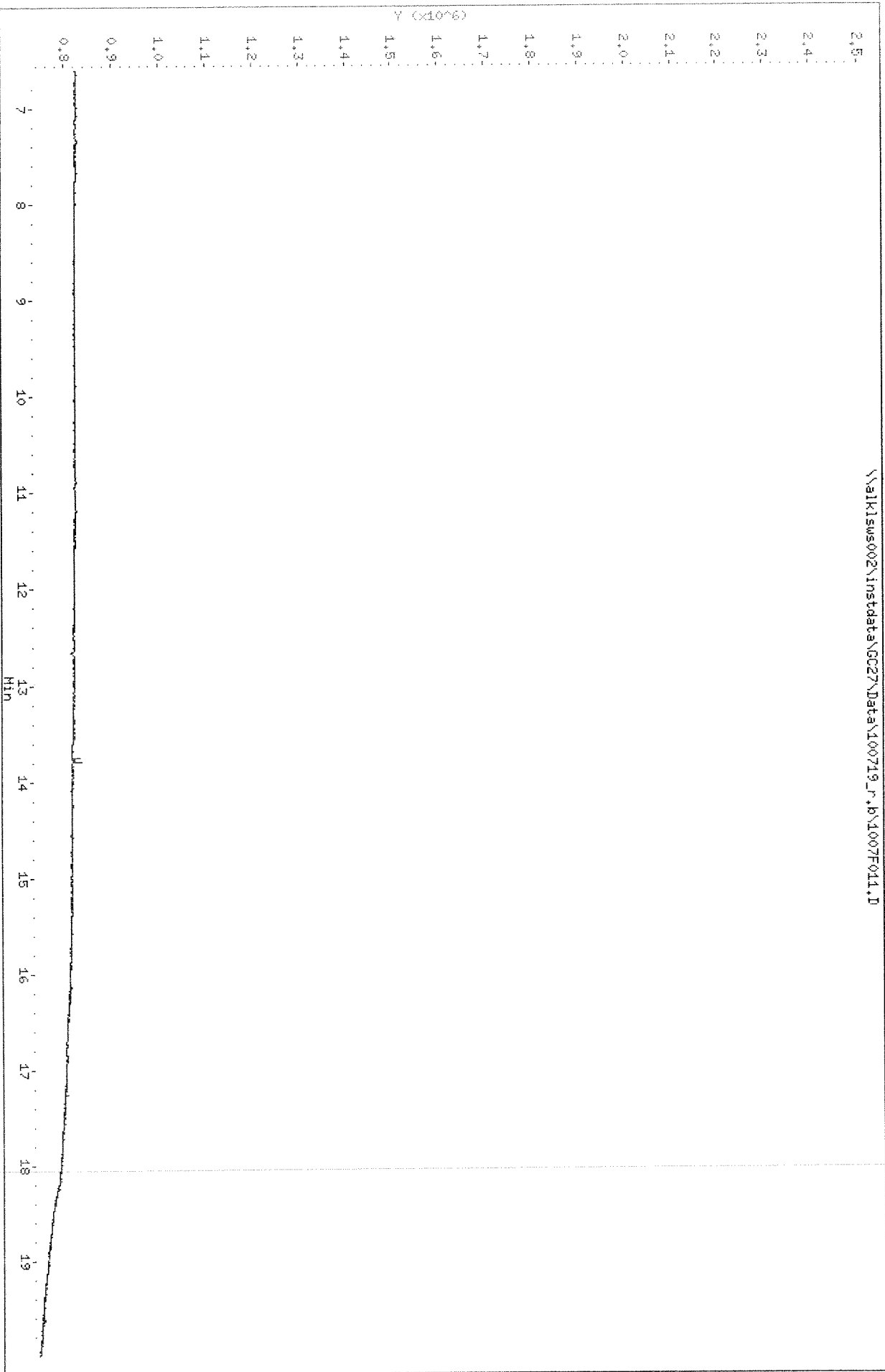
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alk1sws002\inst\data\GC27\Data\100719_r.b\1007F011.D



Exception Report

Data File: \\ALKLSWS002\INSTDATA\GC27\DATA\100719.B\1007F012.D
Lab ID: KWG1904300-4
Run Type: MB
Matrix: SEDIMENT

Date Acquired: 10/07/2019 15:15
Date Quantitated: 10/08/2019 09:07
Batch ID: KWG1904382
Analysis Method: 8082A
MethodJoinID: MJ1660

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: SA 10/8/19
 Secondary Review: W

Exception Report

Data File: \\ALKLSWS002\INSTDATA\GC27\DATA\100719.B\1007F020.D
Lab ID: KWG1904382-5
Run Type: CCV
Matrix: NOT APPLICABLE

Date Acquired: 10/07/2019 19:28
Date Quantitated: 10/08/2019 09:07
Batch ID: KWG1904382
Analysis Method: 8082A
MethodJoinID: MJ1660

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: SA 10/8/19
Secondary Review: SA

Exception Report

Data File: \\WALKLSWS002\INSTDATA\GC27\DATA\100719_R.B\1007F020.D
Lab ID: KWG1904382-5
RunType: CCV
Matrix: NOT APPLICABLE

Date Acquired: 10/07/2019 19:28
Date Quantitated: 10/08/2019 09:07
Batch ID: KWG1904382
Analysis Method: 8082A
MethodJoinID: MJ1660

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: SA 10/8/19

Secondary Review: W

Quantitation Report

Data File #1:	J:\GC27\DATA\100719.B\1007F020.D	Instrument:	GC27.i
Data File #2:	\\alklsws002\instdata\GC27\Data\100719_r.b\1007F020.D	Vial:	1
Acqu Date:	10/07/2019 19:28	Quant Date:	10/08/2019 09:07
Run Type:	CCV	MethodJoinID:	MJ1660
Lab ID:	KWG1904382-5	Solu Conc. Units:	ng/mL
Signal #1:	DB-35MS	Signal #2:	DB-XLB

Bottle ID:		Tier:		Matrix:	NOT APPLICABLE
Prod Code:	8082A PCB	Collect Date:		Receive Date:	10/08/2019

Analysis Lot:	KWG1904382	Prep Lot:		Report Group:	
Analysis Method:	8082A	Prep Method:			
Prep Ref:		Prep Date:			

Quant Method:	\\ALKLSWS002\INSTDATA\GC27\DATA\100719.B\090419UL_F.M	Calibration ID:	CAL16127
Title:		Method ID:	MJ1660
MB Ref:		Quant based on Method	

Surrogate Compounds

Parameter Name	RT #1	RT #2	Resp #1	Respe #2	ng/mL #1	ng/mL #2	Final Conc. Units:		Rpt
Tetrachloro-m-xylene	6.97	8.43	4254598	1996398	2.36	2.40			NA
			%Recovery =		NA	NA	Limits =	70-130	
Decachlorobiphenyl	16.85	18.12	2272933	950683	2.09	2.13			NA
			%Recovery =		NA	NA	Limits =	70-130	

Target Compounds

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ng/mL #1	ng/mL #2	ug/Kg #1	ug/Kg #2	Rpt
Aroclor 1016			0	0	20.92	22.29			
Aroclor 1016 {1}	8.05	9.15	741218	336771	21.72	22.37			
Aroclor 1016 {2}	9.30	9.90	603548	520944	21.55	23.59			
Aroclor 1016 {3}	9.74	11.05	1731940	524546	19.93	21.75			
Aroclor 1016 {4}	9.92	11.51	1032174	381023	20.12	21.39			
Aroclor 1016 {5}	10.31	11.74	748678	376466	21.30	22.35			
Aroclor 1260			0	0	21.79	22.31			
Aroclor 1260 {1}	13.19	13.54	693293	337805	20.69	23.80			
Aroclor 1260 {2}	13.58	14.78	1042226	494643	22.36	21.57			
Aroclor 1260 {3}	14.05	15.15	1111566	494996	22.16	22.00			
Aroclor 1260 {4}	14.42	15.68	2338062	1027951	22.03	21.63			
Aroclor 1260 {5}	15.05	16.18	1722974	664085	21.71	22.55			

U: Undetected at or above MDL
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 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ? : Insufficient information to determine acceptance
 c: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Calibration Verification Report

Calibration ID: CAL16127

Method ID: MJ1660

DataFile: \\ALKLSWS002\INSTDATA\GC27\DATA\100719.B\1007F020.D

<u>Parameter Name</u>	<u>Type</u>	<u>PARM Type</u>	<u>Curve Fit</u>	<u>Method Criteria</u>	<u>Min RF</u>	<u>ICAL RF</u>	<u>CCV RF</u>	<u>%Diff</u>	<u>Sol'n Conc.</u>	<u>True Value</u>	<u>% Drift</u>
Aroclor 1016		MS	NA	20					20.92	20.00	5
Aroclor 1260		MS	NA	20					21.79	20.00	9
Tetrachloro-m-xylene		SURR	AverageRF	20		1.8E+6	2.1E+6	18			
Aroclor 1016 {1}		MULTI	AverageRF	100		3.4E+4	3.7E+4	9			
Aroclor 1016 {2}		MULTI	AverageRF	100		2.8E+4	3.0E+4	8			
Aroclor 1016 {3}		MULTI	AverageRF	100		8.7E+4	8.7E+4	0			
Aroclor 1016 {4}		MULTI	AverageRF	100		5.1E+4	5.2E+4	1			
Aroclor 1016 {5}		MULTI	AverageRF	100		3.5E+4	3.7E+4	7			
Aroclor 1260 {1}		MULTI	AverageRF	100		3.4E+4	3.5E+4	3			
Aroclor 1260 {2}		MULTI	AverageRF	100		4.7E+4	5.2E+4	12			
Aroclor 1260 {3}		MULTI	AverageRF	100		5.0E+4	5.6E+4	11			
Aroclor 1260 {4}		MULTI	AverageRF	100		1.1E+5	1.2E+5	10			
Aroclor 1260 {5}		MULTI	AverageRF	100		7.9E+4	8.6E+4	9			
Decachlorobiphenyl		SURR	AverageRF	20		1.1E+6	1.1E+6	4			

Calibration Verification Report

Calibration ID: CAL16127

Method ID: MJ1660

DataFile: \\ALKLSWS002\INSTDATA\GC27\DATA\100719_R.B\1007F020.D

<u>Parameter Name</u>	<u>Type</u>	<u>PARM Type</u>	<u>Curve Fit</u>	<u>Method Criteria</u>	<u>Min RF</u>	<u>ICAL RF</u>	<u>CCV RF</u>	<u>%Diff</u>	<u>Sol'n Conc.</u>	<u>True Value</u>	<u>% Drift</u>
Aroclor 1016		MS	NA	20					22.29	20.00	11
Aroclor 1260		MS	NA	20					22.31	20.00	12
Tetrachloro-m-xylene		SURR	AverageRF	20		8.3E+5	1.0E+6	20			
Aroclor 1016 {1}		MULTI	AverageRF	100		1.5E+4	1.7E+4	12			
Aroclor 1016 {2}		MULTI	AverageRF	100		2.2E+4	2.6E+4	18			
Aroclor 1016 {3}		MULTI	AverageRF	100		2.4E+4	2.6E+4	9			
Aroclor 1016 {4}		MULTI	AverageRF	100		1.8E+4	1.9E+4	7			
Aroclor 1016 {5}		MULTI	AverageRF	100		1.7E+4	1.9E+4	12			
Aroclor 1260 {1}		MULTI	AverageRF	100		1.4E+4	1.7E+4	19			
Aroclor 1260 {2}		MULTI	AverageRF	100		2.3E+4	2.5E+4	8			
Aroclor 1260 {3}		MULTI	AverageRF	100		2.2E+4	2.5E+4	10			
Aroclor 1260 {4}		MULTI	AverageRF	100		4.8E+4	5.1E+4	8			
Aroclor 1260 {5}		MULTI	AverageRF	100		2.9E+4	3.3E+4	13			
Decachlorobiphenyl		SURR	AverageRF	20		4.5E+5	4.8E+5	6			

ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\100719.b\1007F020.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\100719_r.b\1007F020.D
 Inj Date : 07-OCT-2019 19:28
 Sample Info: PCB8-017N 1660 @ 2-20 PPB
 Misc Info :
 Cal Date : 08-OCT-2019 08:23
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\100719.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\100719_r.b\090419_r.m
 Sub List #1 : 1660.SUB
 Sub List #2 : 1660.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.967	8.427	4254598	1996398	2.36	2.40		100.00
Aroclor 1016	8.054	9.154	741218	336771	21.7	22.4	80.00- 120.00	100.00
	9.300	9.904	603548	520944	21.5	23.6	65.14- 97.71	81.43
	9.744	11.054	1731940	524546	19.9	21.8	186.93- 280.39	233.66
	9.924	11.507	1032174	381023	20.1	21.4	111.40- 167.10	139.25
	10.310	11.740	748678	376466	21.3	22.3	80.81- 121.21	101.01
	Average of Peak Amounts =				20.9	22.3		
Aroclor 1260	13.190	13.537	693293	337805	20.7	23.8	80.00- 120.00	100.00
	13.577	14.780	1042226	494643	22.4	21.6	120.26- 180.40	150.33
	14.047	15.150	1111566	494996	22.2	22.0	128.27- 192.40	160.33
	14.424	15.680	2338062	1027951	22.0	21.6	269.79- 404.69	337.24
	15.054	16.184	1722974	664085	21.7	22.6	198.82- 298.22	248.52
	Average of Peak Amounts =				21.8	22.3		
Decachlorobiphenyl	16.854	18.124	2272933	950683	2.09	2.13		100.00

Data File: \\alkisus002\instdata\GC27\Data\100719.b\1007F020.D

Date: 07-OCT-2019 19:28

Client ID:

Sample Info: PCB8-017N 1660 @ 2-20 PPB

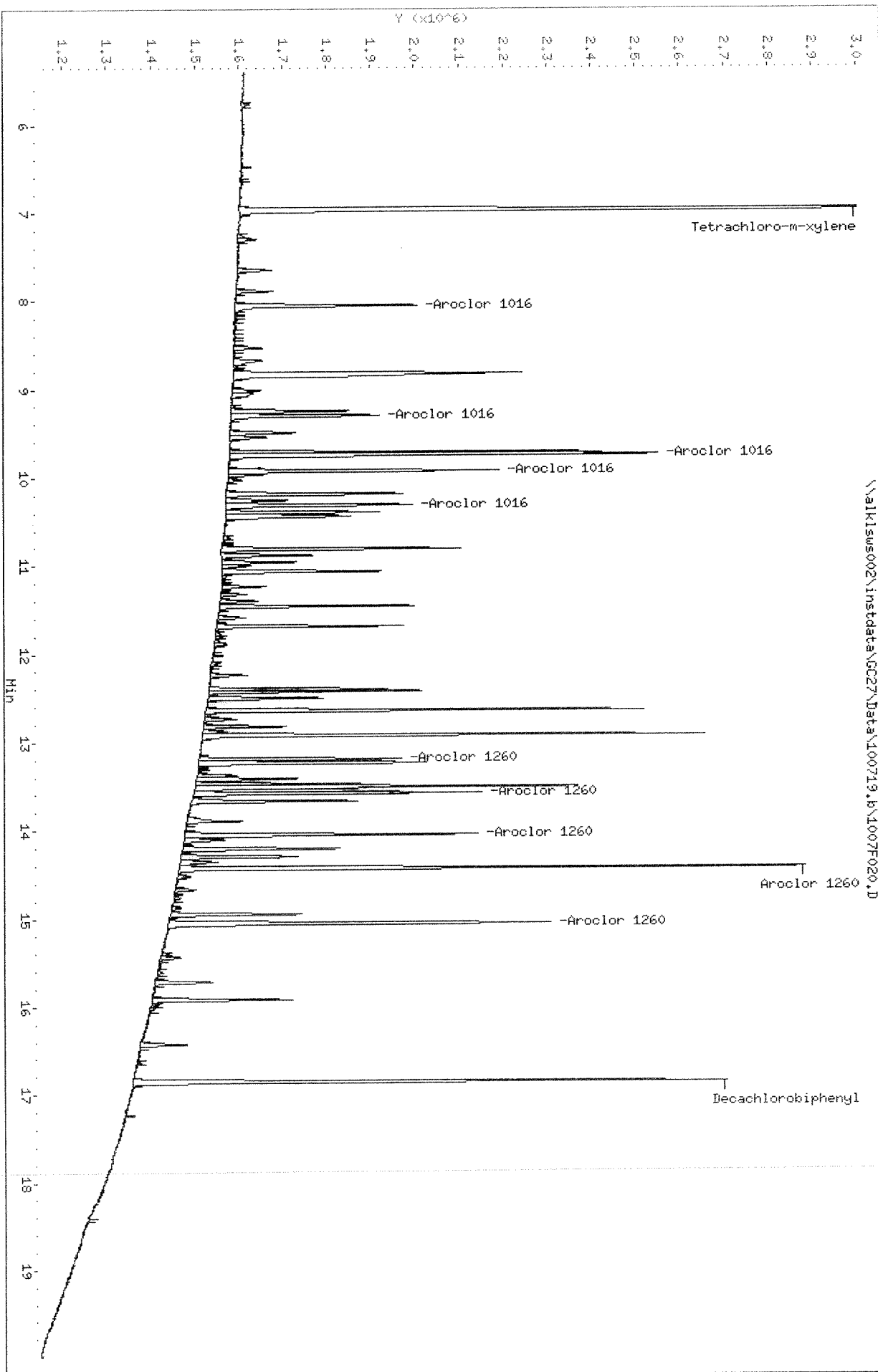
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\100719.b\1007F020.D



Data File: \\alk1sws002\instdata\GC27\Data\100719_1.r\1007F020.D
Date: 07-OCT-2019 19:28
Client ID:

Sample Info: PCB8-017N 1660 @ 2-20 PPB

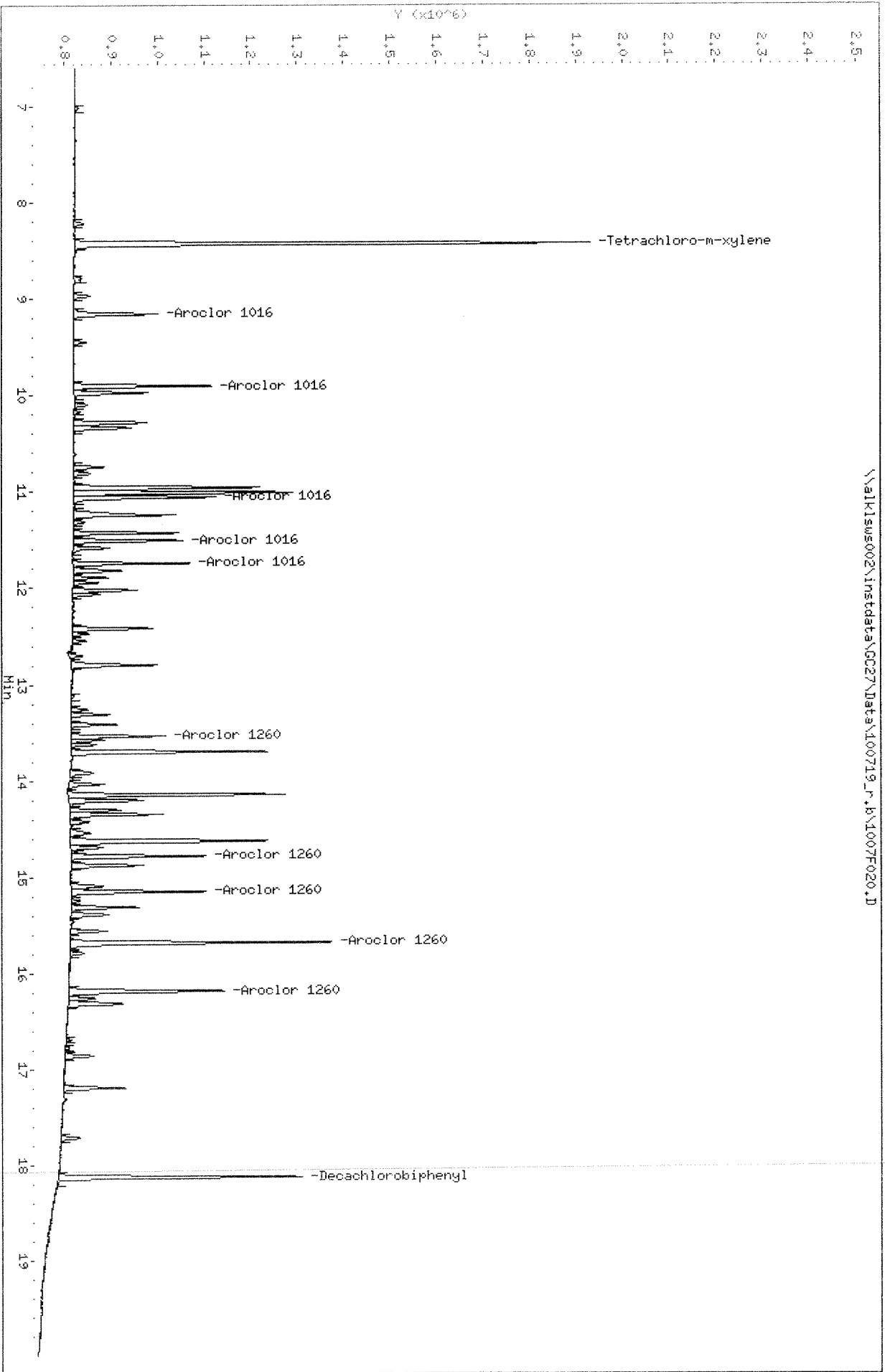
Column phase: DB-XLB

Instrument: GC27.1

Operator: SQA

Column diameter: 0.32

\\alk1sws002\instdata\GC27\Data\100719_1.r\1007F020.D



Exception Report

Data File: \\ALKLSWS002\INSTDATA\GC27\DATA\100719.B\1007F021.D
Lab ID: KWG1904382-6
RunType: IB
Matrix: NOT APPLICABLE

Date Acquired: 10/07/2019 19:59
Date Quantitated: 10/08/2019 09:07
Batch ID: KWG1904382
Analysis Method: 8082A
MethodJoinID: MJ1660

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: SA 10/8/19

Secondary Review: W

Exception Report

Data File: \\ALKLSWS002\INSTDATA\GC27\DATA\100719_R.B\1007F021.D
Lab ID: KWG1904382-6
RunType: IB
Matrix: NOT APPLICABLE

Date Acquired: 10/07/2019 19:59
Date Quantitated: 10/08/2019 09:07
Batch ID: KWG1904382
Analysis Method: 8082A
MethodJoinID: MJ1660

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: A 10/8/19
Secondary Review: [Signature]

Quantitation Report

Data File #1:	J:\GC27\DATA\100719.B\1007F021.D	Instrument:	GC27.i
Data File #2:	\\alklsws002\instdata\GC27\Data\100719_r.b\1007F021.D	Vial:	2
Acqu Date:	10/07/2019 19:59	Quant Date:	10/08/2019 09:07
Run Type:	IB	MethodJoinID:	MJ1660
Lab ID:	KWG1904382-6	Soft Conc. Units:	ng/mL
Signal #1:	DB-35MS	Signal #2:	DB-XLB

Bottle ID:		Tier:		Matrix:	NOT APPLICABLE
Prod Code:	8082A PCB	Collect Date:		Receive Date:	10/08/2019

Analysis Lot:	KWG1904382	Prep Lot:		Report Group:	
Analysis Method:	8082A	Prep Method:			
Prep Ref:		Prep Date:			

Quant Method:	\\ALKLSWS002\INSTDATA\GC27\DATA\100719.B\090419UL_F.M	Calibration ID:	CAL16127
Title:		Method ID:	MJ1660
MB Ref:		Quant based on Method	

Surrogate Compounds

Parameter Name	RT #1	RT #2	Resp #1	Respe #2	ng/mL #1	ng/mL #2	Final Conc. Units:		Rpt
Tetrachloro-m-xylene	6.98		8301	0	0.0050	0.0000			NA
			%Recovery =		NA	NA	Limits =	70-130	
Decachlorobiphenyl	0.00		0	0		0.0000			NA
			%Recovery =		NA	NA	Limits =	70-130	

Target Compounds

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ng/mL #1	ng/mL #2	ug/Kg #1	ug/Kg #2	Rpt
Aroclor 1016			0	0	0.0000	0.0000			
Aroclor 1016 {1}			0	0	0.0000	0.0000			
Aroclor 1016 {2}			0	0	0.0000	0.0000			
Aroclor 1016 {3}			0	0	0.0000	0.0000			
Aroclor 1016 {4}			0	0	0.0000	0.0000			
Aroclor 1016 {5}			0	0	0.0000	0.0000			
Aroclor 1221			0	0	0.0000	0.0000			
Aroclor 1221 {1}			0	0	0.0000	0.0000			
Aroclor 1221 {2}			0	0	0.0000	0.0000			
Aroclor 1221 {3}			0	0	0.0000	0.0000			
Aroclor 1232			0	0	0.0000	0.0000			
Aroclor 1232 {1}			0	0	0.0000	0.0000			
Aroclor 1232 {2}			0	0	0.0000	0.0000			
Aroclor 1232 {3}			0	0	0.0000	0.0000			
Aroclor 1232 {4}			0	0	0.0000	0.0000			
Aroclor 1232 {5}			0	0	0.0000	0.0000			
Aroclor 1242			0	0	0.0000	0.0000			
Aroclor 1242 {1}			0	0	0.0000	0.0000			

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ? Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File #1:	J:\GC27\DATA\100719.B\1007F021.D	Instrument:	GC27.i
Data File #2:	\\alkisws002\instdata\GC27\Data\100719_r.b\1007F021.D	Vial:	2
Acqu Date:	10/07/2019 19:59	Quant Date:	10/08/2019 09:07
Run Type:	IB	MethodJoinID:	M11660
Lab ID:	KWG1904382-6	Soln Conc. Units:	ng/mL
Signal #1:	DB-35MS	Signal #2:	DB-XLB

Target Compounds

Final Conc. Units:

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ng/mL #1	ng/mL #2	ug/Kg #1	ug/Kg #2	Rpt
Aroclor 1242 {2}			0	0	0.0000	0.0000			
Aroclor 1242 {3}			0	0	0.0000	0.0000			
Aroclor 1242 {4}			0	0	0.0000	0.0000			
Aroclor 1242 {5}			0	0	0.0000	0.0000			
Aroclor 1248			0	0	0.0000	0.0000			
Aroclor 1248 {1}			0	0	0.0000	0.0000			
Aroclor 1248 {2}			0	0	0.0000	0.0000			
Aroclor 1248 {3}			0	0	0.0000	0.0000			
Aroclor 1248 {4}			0	0	0.0000	0.0000			
Aroclor 1248 {5}			0	0	0.0000	0.0000			
Aroclor 1254			0	0	0.0000	0.0000			
Aroclor 1254 {1}			0	0	0.0000	0.0000			
Aroclor 1254 {2}			0	0	0.0000	0.0000			
Aroclor 1254 {3}			0	0	0.0000	0.0000			
Aroclor 1254 {4}			0	0	0.0000	0.0000			
Aroclor 1254 {5}			0	0	0.0000	0.0000			
Aroclors, Total			0	0	0.0000	0.0000	J	J	
Aroclor 1260			0	0	0.0000	0.0000			
Aroclor 1260 {1}			0	0	0.0000	0.0000			
Aroclor 1260 {2}			0	0	0.0000	0.0000			
Aroclor 1260 {3}			0	0	0.0000	0.0000			
Aroclor 1260 {4}			0	0	0.0000	0.0000			
Aroclor 1260 {5}			0	0	0.0000	0.0000			
Aroclor 1262			0	0	0.0000	0.0000			
Aroclor 1262 {1}			0	0	0.0000	0.0000			
Aroclor 1262 {2}			0	0	0.0000	0.0000			
Aroclor 1262 {3}			0	0	0.0000	0.0000			
Aroclor 1262 {4}			0	0	0.0000	0.0000			
Aroclor 1262 {5}			0	0	0.0000	0.0000			
Aroclor 1268			0	0	0.0000	0.0000			
Aroclor 1268 {1}			0	0	0.0000	0.0000			
Aroclor 1268 {2}			0	0	0.0000	0.0000			
Aroclor 1268 {3}			0	0	0.0000	0.0000			
Aroclor 1268 {4}			0	0	0.0000	0.0000			

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound
 D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analyst
 *: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\100719.b\1007F021.D
Sample #2 : \\alklsws002\instdata\GC27\Data\100719_r.b\1007F021.D
Inj Date : 07-OCT-2019 19:59
Sample Info: IB
Misc Info :
Cal Date : 08-OCT-2019 08:23
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\100719.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\100719_r.b\090419_r.m
Sub List #1 : ALL.SUB
Sub List #2 : ALL.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.977	0.000	8301	0	0.00461	0.000		100.00 (R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: \\ajk1sws002\instdata\GC27\Data\100719.b\1007F021.D

Date: 07-OCT-2019 19:59

Client ID:

Sample Info: IB

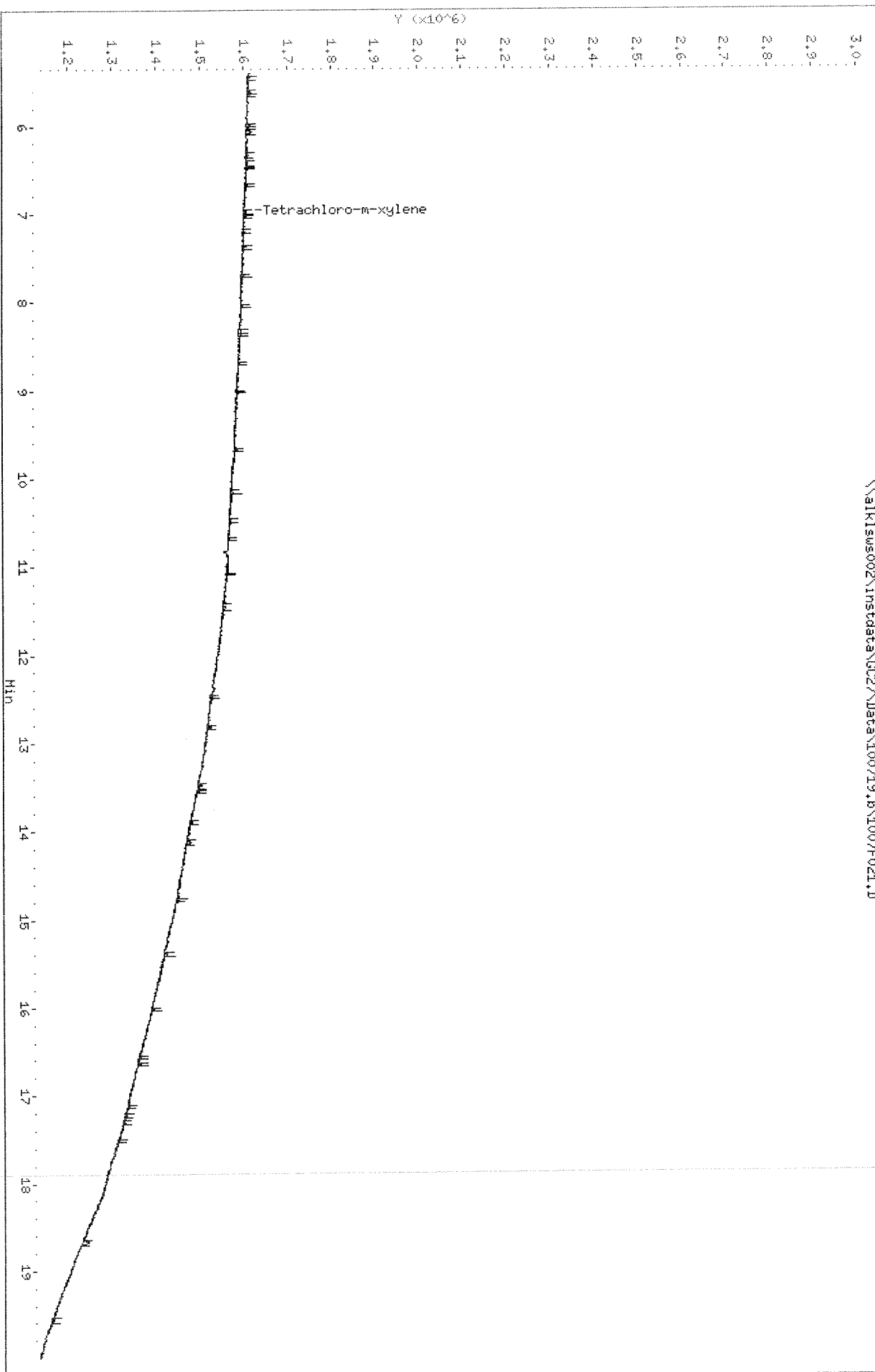
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\ajk1sws002\instdata\GC27\Data\100719.b\1007F021.D



Data File: \\AIK1sws002\instdata\GC27\Data\100719_r.b\1007F021.D
Date : 07-OCT-2019 19:59

Client ID:
Sample Info: 1B

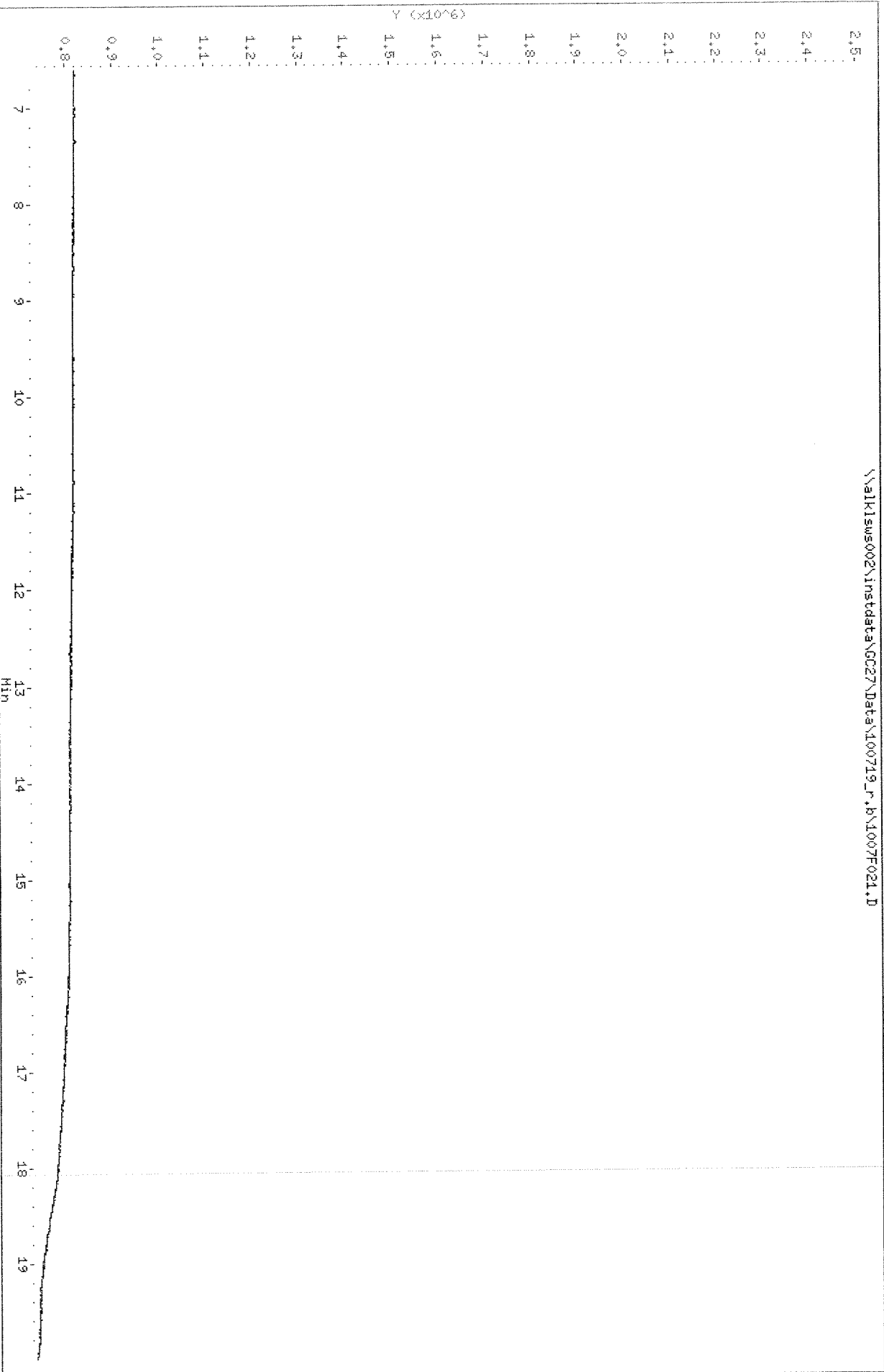
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\AIK1sws002\instdata\GC27\Data\100719_r.b\1007F021.D



Injection Log

Directory: j:\GC27\Data\101019B

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	100	1010F001.D	1.	PRIMER		10/10/22019 10:18:5
2	100	1010F002.D	1.	PRIMER		10/10/22019 10:50:2
3	1	1010F003.D	1.	PCB8-017N 1660 @ 2-20 PPB <i>ok,ok</i>		10/10/22019 11:21:4
4	2	1010F004.D	1.	IB	<i>run: 654924</i>	10/10/22019 11:53:1
5	3	1010F005.D	1.	KWG1904387-003 MB	<i>cal: 16127</i>	10/10/22019 12:24:4
6	4	1010F006.D	1.	KWG1904387-001 LCS	<i>kw 61904425</i>	10/10/22019 12:56:1
7	5	1010F007.D	1.	KWG1904387-002 DLCS		10/10/22019 1:27:4
8	6	1010F008.D	1.	K1909014-007		10/10/22019 1:59:3
9	1	1010F009.D	1.	PCB8-017N 1660 @ 2-20 PPB <i>ok,ok</i>		10/10/22019 2:31:0
10	2	1010F010.D	1.	IB		10/10/22019 3:02:3

Exception Report

Data File: \\ALKLSWS002\INSTDATA\GC27\DATA\101019B.B\1010F003.D
Lab ID: KWG1904425-1
RunType: CCV
Matrix: NOT APPLICABLE

Date Acquired: 10/10/2019 11:21
Date Quantitated: 10/10/2019 15:52
Batch ID: KWG1904425
Analysis Method: 8082A
MethodJoinID: MJ1677

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: SA 10/10/19
Secondary Review: W

Exception Report

Data File: \\ALKLSWS002\INSTDATA\GC27\DATA\101019B_R.B\1010F003.E
Lab ID: KWG1904425-1
RunType: CCV
Matrix: NOT APPLICABLE

Date Acquired: 10/10/2019 11:21
Date Quantitated: 10/10/2019 15:53
Batch ID: KWG1904425
Analysis Method: 8082A
MethodJoinID: MJ1677

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: SA 10/10/19
Secondary Review: W

Quantitation Report

Data File #1:	J:\GC27\DATA\101019B.B\1010F003.D	Instrument:	GC27.i
Data File #2:	\\alklsws002\instdata\GC27\Data\101019B_r.b\1010F003.D	Vial:	1
Acqu Date:	10/10/2019 11:21	Quant Date:	10/10/2019 15:52
Run Type:	CCV	MethodJoinID:	MJ1677
Lab ID:	KWG1904425-1	Soln Conc. Units:	ng/mL
Signal #1:	DB-35MS	Signal #2:	DB-XLB

Bottle ID:		Tier:		Matrix:	NOT APPLICABLE
Prod Code:	8082A PCB	Collect Date:		Receive Date:	10/10/2019

Analysis Lot:	KWG1904425	Prep Lot:		Report Group:	
Analysis Method:	8082A	Prep Method:			
Prep Ref:		Prep Date:			

Quant Method:	\\ALKLSWS002\INSTDATA\GC27\DATA\101019B.B\090419UL_F.M	Calibration ID:	CAL16127
Title:		Method ID:	MJ1677
MB Ref:		Quant based on Method	

Surrogate Compounds

Parameter Name	RT #1	RT #2	Resp #1	Respe #2	ng/mL #1	ng/mL #2	Final Conc. Units:		Rpt
Tetrachloro-m-xylene	6.96	8.42	4013028	1845437	2.23	2.22			NA
			%Recovery =		NA	NA	Limits =	10-135	
Decachlorobiphenyl	16.84	18.11	2146123	907600	1.97	2.03			NA
			%Recovery =		NA	NA	Limits =	43-148	

Target Compounds

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ng/mL #1	ng/mL #2	ug/Kg #1	ug/Kg #2	Rpt
Aroclor 1016			0	0	19.54	20.05			
Aroclor 1016 {1}	8.04	9.15	678216	296725	19.87	19.71			
Aroclor 1016 {2}	9.29	9.90	570637	481774	20.37	21.82			
Aroclor 1016 {3}	9.73	11.05	1589160	466194	18.28	19.33			
Aroclor 1016 {4}	9.91	11.50	977626	344230	19.06	19.32			
Aroclor 1016 {5}	10.30	11.74	706180	338411	20.09	20.09			
Aroclor 1260			0	0	20.60	21.01			
Aroclor 1260 {1}	13.18	13.53	657639	307427	19.63	21.66			
Aroclor 1260 {2}	13.57	14.77	986144	462588	21.16	20.17			
Aroclor 1260 {3}	14.04	15.14	1058819	477598	21.11	21.23			
Aroclor 1260 {4}	14.41	15.67	2193311	977370	20.66	20.56			
Aroclor 1260 {5}	15.04	16.18	1623031	630710	20.45	21.42			

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 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Calibration Verification Report

Calibration ID: CAL16127

Method ID: MJ1677

DataFile: \\ALKLSWS002\INSTDATA\GC27\DATA\101019B.B\1010F003.D

<u>Parameter Name</u>	<u>Type</u>	<u>PARM Type</u>	<u>Curve Fit</u>	<u>Method Criteria</u>	<u>Min RF</u>	<u>ICAL RF</u>	<u>CCV RF</u>	<u>%Diff</u>	<u>Sol'n Conc.</u>	<u>True Value</u>	<u>% Drift</u>
Aroclor 1016		MS	NA	20					19.54	20.00	-2
Aroclor 1260		MS	NA	20					20.60	20.00	3
Tetrachloro-m-xylene		SURR	AverageRF	20		1.8E+6	2.0E+6	11			
Aroclor 1016 {1}		MULTI	AverageRF	100		3.4E+4	3.4E+4	-1			
Aroclor 1016 {2}		MULTI	AverageRF	100		2.8E+4	2.9E+4	2			
Aroclor 1016 {3}		MULTI	AverageRF	100		8.7E+4	7.9E+4	-9			
Aroclor 1016 {4}		MULTI	AverageRF	100		5.1E+4	4.9E+4	-5			
Aroclor 1016 {5}		MULTI	AverageRF	100		3.5E+4	3.5E+4	0			
Aroclor 1260 {1}		MULTI	AverageRF	100		3.4E+4	3.3E+4	-2			
Aroclor 1260 {2}		MULTI	AverageRF	100		4.7E+4	4.9E+4	6			
Aroclor 1260 {3}		MULTI	AverageRF	100		5.0E+4	5.3E+4	6			
Aroclor 1260 {4}		MULTI	AverageRF	100		1.1E+5	1.1E+5	3			
Aroclor 1260 {5}		MULTI	AverageRF	100		7.9E+4	8.1E+4	2			
Decachlorobiphenyl		SURR	AverageRF	20		1.1E+6	1.1E+6	-2			

Calibration Verification Report

Calibration ID: CAL16127

Method ID: MJ1677

DataFile: \\ALKLSWS002\INSTDATA\GC27\DATA\101019B_R.B\1010F003.D

<u>Parameter Name</u>	<u>Type</u>	<u>PARM Type</u>	<u>Curve Fit</u>	<u>Method Criteria</u>	<u>Min RF</u>	<u>ICAL RF</u>	<u>CCV RF</u>	<u>%Diff</u>	<u>Sol'n Conc.</u>	<u>True Value</u>	<u>% Drift</u>
Aroclor 1016		MS	NA	20					20.05	20.00	0
Aroclor 1260		MS	NA	20					21.01	20.00	5
Tetrachloro-m-xylene		SURR	AverageRF	20		8.3E+5	9.2E+5	11			
Aroclor 1016 {1}		MULTI	AverageRF	100		1.5E+4	1.5E+4	-1			
Aroclor 1016 {2}		MULTI	AverageRF	100		2.2E+4	2.4E+4	9			
Aroclor 1016 {3}		MULTI	AverageRF	100		2.4E+4	2.3E+4	-3			
Aroclor 1016 {4}		MULTI	AverageRF	100		1.8E+4	1.7E+4	-3			
Aroclor 1016 {5}		MULTI	AverageRF	100		1.7E+4	1.7E+4	0			
Aroclor 1260 {1}		MULTI	AverageRF	100		1.4E+4	1.5E+4	8			
Aroclor 1260 {2}		MULTI	AverageRF	100		2.3E+4	2.3E+4	1			
Aroclor 1260 {3}		MULTI	AverageRF	100		2.2E+4	2.4E+4	6			
Aroclor 1260 {4}		MULTI	AverageRF	100		4.8E+4	4.9E+4	3			
Aroclor 1260 {5}		MULTI	AverageRF	100		2.9E+4	3.2E+4	7			
Decachlorobiphenyl		SURR	AverageRF	20		4.5E+5	4.5E+5	2			

ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\101019B.b\1010F003.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\101019B_r.b\1010F003.D
 Inj Date : 10-OCT-2019 11:21
 Sample Info: PCB8-017N 1660 @ 2-20 PPB
 Misc Info :
 Cal Date : 10-OCT-2019 12:42
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\101019B.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\101019B_r.b\090419_r.m
 Sub List #1 : 1660.SUB
 Sub List #2 : 1660.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.957	8.421	4013028	1845437	2.23	2.22		100.00
Aroclor 1016	8.044	9.151	678216	296725	19.9	19.7	80.00- 120.00	100.00
	9.290	9.897	570637	481774	20.4	21.8	66.60- 99.90	84.14
	9.734	11.051	1589160	466194	18.3	19.3	193.39- 290.08	234.31
	9.914	11.501	977626	344230	19.1	19.3	115.83- 173.74	144.15
	10.297	11.737	706180	338411	20.1	20.1	82.13- 123.20	104.12
	Average of Peak Amounts =				19.6	20.0		
Aroclor 1260	13.180	13.531	657639	307427	19.6	21.7	80.00- 120.00	100.00
	13.567	14.771	986144	462588	21.2	20.2	119.24- 178.87	149.95
	14.037	15.144	1058819	477598	21.1	21.2	128.83- 193.24	161.00
	14.414	15.674	2193311	977370	20.7	20.6	267.27- 400.91	333.51
	15.044	16.177	1623031	630710	20.4	21.4	196.57- 294.86	246.80
	Average of Peak Amounts =				20.6	21.0		
Decachlorobiphenyl	16.840	18.114	2146123	907600	1.97	2.03		100.00

Data File: \\alk1sus002\instdata\GC27\Data\101019B.b\1010F003.D

Date: 10-OCT-2019 14:21

Client ID:

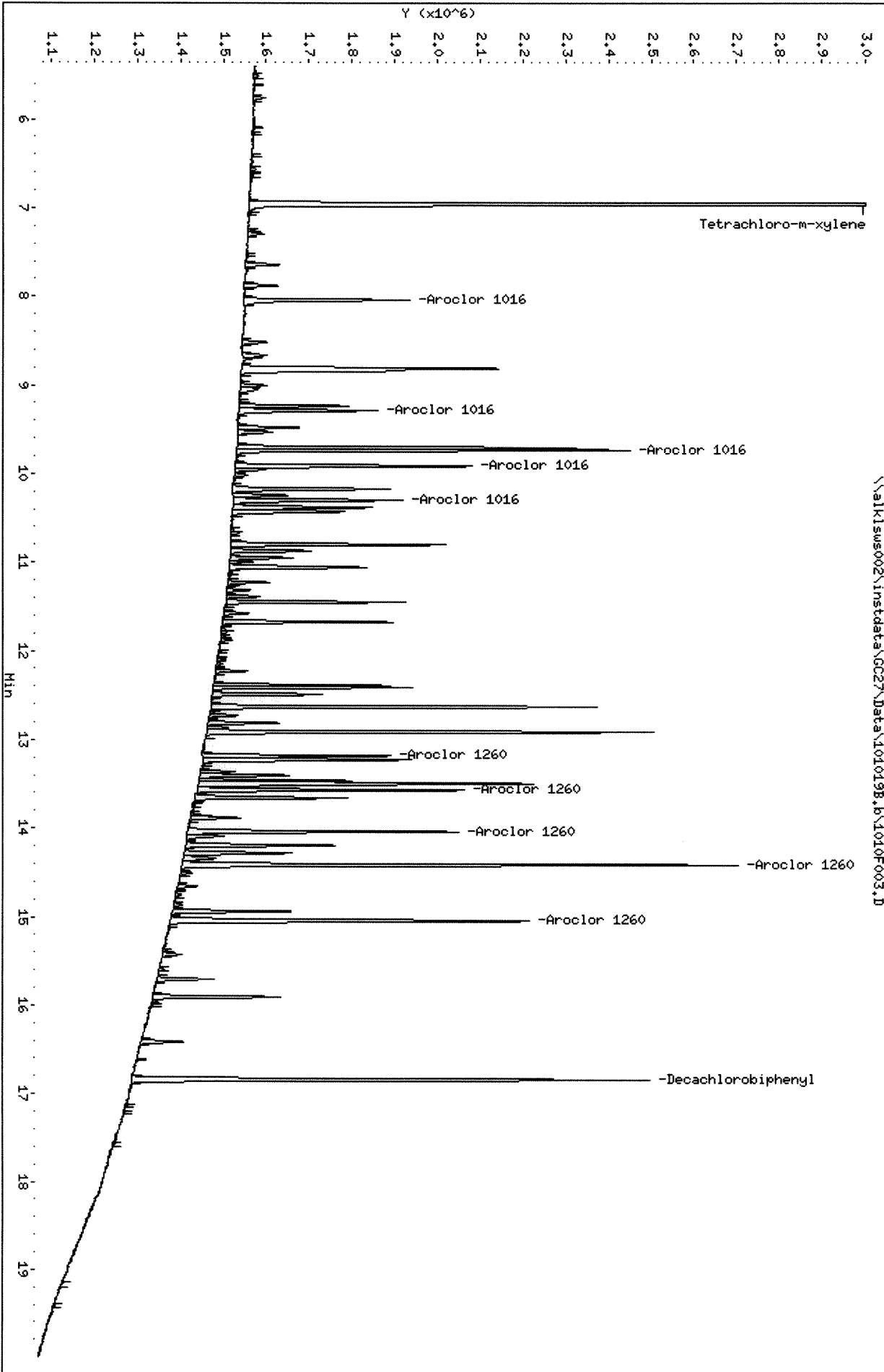
Sample Info: PCB8-017N 1660 @ 2-20 PPS

Column phase: DB-35MS

Instrument: GC27.1

Operator: SAA

Column diameter: 0.32



Data File: \\alkisus002\instdata\GC27\Data\101019B_r.b\1010F003.D

Date: 10-OCT-2019 11:21

Client ID:

Sample Info: PCB8-017N 1660 @ 2-20 PPS

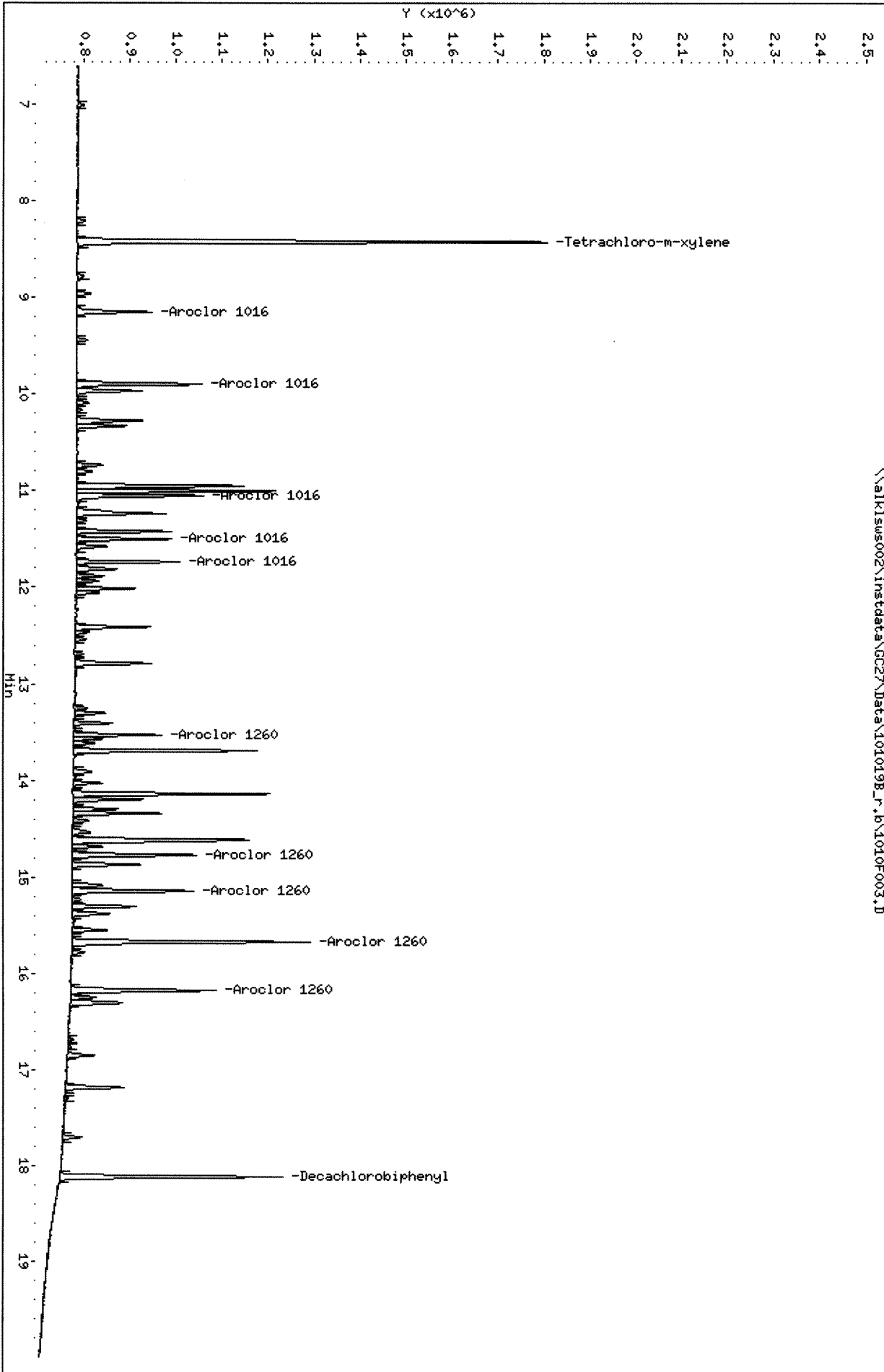
Column phase: DB-XLB

Instrument: GC27.1

Operator: SAA

Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\101019B_r.b\1010F003.D



Exception Report

Data File: \\ALKLSWS002\INSTDATA\GC27\DATA\101019B.B\1010F004.D
Lab ID: KWG1904425-2
RunType: IB
Matrix: NOT APPLICABLE

Date Acquired: 10/10/2019 11:53
Date Quantitated: 10/10/2019 15:52
Batch ID: KWG1904425
Analysis Method: 8082A
MethodJoinID: MJ1677

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: SA 10/10/19

Secondary Review: W

Exception Report

Data File: \\ALKLSWS002\INSTDATA\GC27\DATA\101019B_R.B\1010F004.E
Lab ID: KWG1904425-2
RunType: IB
Matrix: NOT APPLICABLE

Date Acquired: 10/10/2019 11:53
Date Quantitated: 10/10/2019 15:53
Batch ID: KWG1904425
Analysis Method: 8082A
MethodJoinID: MJ1677

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: A 10/10/19
Secondary Review: W

Quantitation Report

Data File #1:	J:\GC27\DATA\101019B.B\1010F004.D	Instrument:	GC27.i
Data File #2:	\\alklsws002\instdata\GC27\Data\101019B_r.b\1010F004.D	Vial:	2
Acqu Date:	10/10/2019 11:53	Quant Date:	10/10/2019 15:52
Run Type:	IB	MethodJoinID:	MJ1677
Lab ID:	KWG1904425-2	Soln Conc. Units:	ng/mL
Signal #1:	DB-35MS	Signal #2:	DB-XLB

Bottle ID:		Tier:	NOT APPLICABLE
Prod Code:	8082A PCB	Collect Date:	10/10/2019

Analysis Lot:	KWG1904425	Prep Lot:		Report Group:	
Analysis Method:	8082A	Prep Method:			
Prep Ref:		Prep Date:			

Quant Method:	\\ALKLSWS002\INSTDATA\GC27\DATA\101019B.B\090419UL_F.M	Calibration ID:	CAL16127
Title:		Method ID:	MJ1677
MB Ref:		Quant based on Method	

Surrogate Compounds

Parameter Name	RT #1	RT #2	Resp #1	Respe #2	ng/mL #1	ng/mL #2			Rpt
Tetrachloro-m-xylene	6.98		6791	0	0.0040	0.0000			NA
			%Recovery =		NA	NA	Limits =	10-135	
Decachlorobiphenyl	0.00		0	0		0.0000			NA
			%Recovery =		NA	NA	Limits =	43-148	

Target Compounds

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	Final Conc. Units:				Rpt
					ng/mL #1	ng/mL #2	ug/Kg #1	ug/Kg #2	
Aroclor 1016			0	0	0.0000	0.0000			
Aroclor 1016 {1}			0d	0	0.0000	0.0000			
Aroclor 1016 {2}			0d	0	0.0000	0.0000			
Aroclor 1016 {3}			0d	0	0.0000	0.0000			
Aroclor 1016 {4}			0d	0	0.0000	0.0000			
Aroclor 1016 {5}			0d	0	0.0000	0.0000			
Aroclor 1221			0	0	0.0000	0.0000			
Aroclor 1221 {1}			0	0	0.0000	0.0000			
Aroclor 1221 {2}			0	0	0.0000	0.0000			
Aroclor 1221 {3}			0	0	0.0000	0.0000			
Aroclor 1232			0	0	0.0000	0.0000			
Aroclor 1232 {1}			0d	0	0.0000	0.0000			
Aroclor 1232 {2}			0d	0	0.0000	0.0000			
Aroclor 1232 {3}			0d	0	0.0000	0.0000			
Aroclor 1232 {4}			0d	0	0.0000	0.0000			
Aroclor 1232 {5}			0d	0	0.0000	0.0000			
Aroclor 1242			0	0	0.0000	0.0000			
Aroclor 1242 {1}			0d	0	0.0000	0.0000			

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File #1:	J:\GC27\DATA\101019B.B\1010F004.D	Instrument:	GC27.i
Data File #2:	\\alklsws002\instdata\GC27\Data\101019B_r.b\1010F004.D	Vial:	2
Acqu Date:	10/10/2019 11:53	Quant Date:	10/10/2019 15:52
Run Type:	IB	MethodJoinID:	MJ1677
Lab ID:	KWG1904425-2	Soln Conc. Units:	ng/mL
Signal #1:	DB-35MS	Signal #2:	DB-XLB

Target Compounds

Final Conc. Units:

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ng/mL #1	ng/mL #2	ug/Kg #1	ug/Kg #2	Rpt
Aroclor 1242 {2}			0d	0	0.0000	0.0000			
Aroclor 1242 {3}			0d	0	0.0000	0.0000			
Aroclor 1242 {4}			0d	0	0.0000	0.0000			
Aroclor 1242 {5}			0d	0	0.0000	0.0000			
Aroclor 1248			0	0	0.0000	0.0000			
Aroclor 1248 {1}			0d	0	0.0000	0.0000			
Aroclor 1248 {2}			0d	0	0.0000	0.0000			
Aroclor 1248 {3}			0d	0	0.0000	0.0000			
Aroclor 1248 {4}			0d	0	0.0000	0.0000			
Aroclor 1248 {5}			0d	0	0.0000	0.0000			
Aroclor 1254			0	0	0.0000	0.0000			
Aroclor 1254 {1}			0	0	0.0000	0.0000			
Aroclor 1254 {2}			0	0	0.0000	0.0000			
Aroclor 1254 {3}			0	0	0.0000	0.0000			
Aroclor 1254 {4}			0	0	0.0000	0.0000			
Aroclor 1254 {5}			0	0	0.0000	0.0000			
Aroclors, Total			0	0	0.0000	0.0000	J	J	
Aroclor 1260			0	0	0.0000	0.0000			
Aroclor 1260 {1}			0	0	0.0000	0.0000			
Aroclor 1260 {2}			0	0	0.0000	0.0000			
Aroclor 1260 {3}			0	0	0.0000	0.0000			
Aroclor 1260 {4}			0	0	0.0000	0.0000			
Aroclor 1260 {5}			0	0	0.0000	0.0000			
Aroclor 1262			0	0	0.0000	0.0000			
Aroclor 1262 {1}			0	0	0.0000	0.0000			
Aroclor 1262 {2}			0	0	0.0000	0.0000			
Aroclor 1262 {3}			0	0	0.0000	0.0000			
Aroclor 1262 {4}			0	0	0.0000	0.0000			
Aroclor 1262 {5}			0	0	0.0000	0.0000			
Aroclor 1268			0	0	0.0000	0.0000			
Aroclor 1268 {1}			0	0	0.0000	0.0000			
Aroclor 1268 {2}			0	0	0.0000	0.0000			
Aroclor 1268 {3}			0	0	0.0000	0.0000			
Aroclor 1268 {4}			0	0	0.0000	0.0000			

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\101019B.b\1010F004.D
Sample #2 : \\alklsws002\instdata\GC27\Data\101019B_r.b\1010F004.D
Inj Date : 10-OCT-2019 11:53
Sample Info: IB
Misc Info :
Cal Date : 10-OCT-2019 12:42
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\101019B.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\101019B_r.b\090419_r.m
Sub List #1 : ALL.SUB
Sub List #2 : ALL.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.977	0.000	6791	0	0.00377	0.000		100.00 (R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: \\alk1s02\instdata\GC27\Data\101019B.b\1010F004.D

Date: 10-OCT-2019 11:53

Client ID:

Sample Info: IB

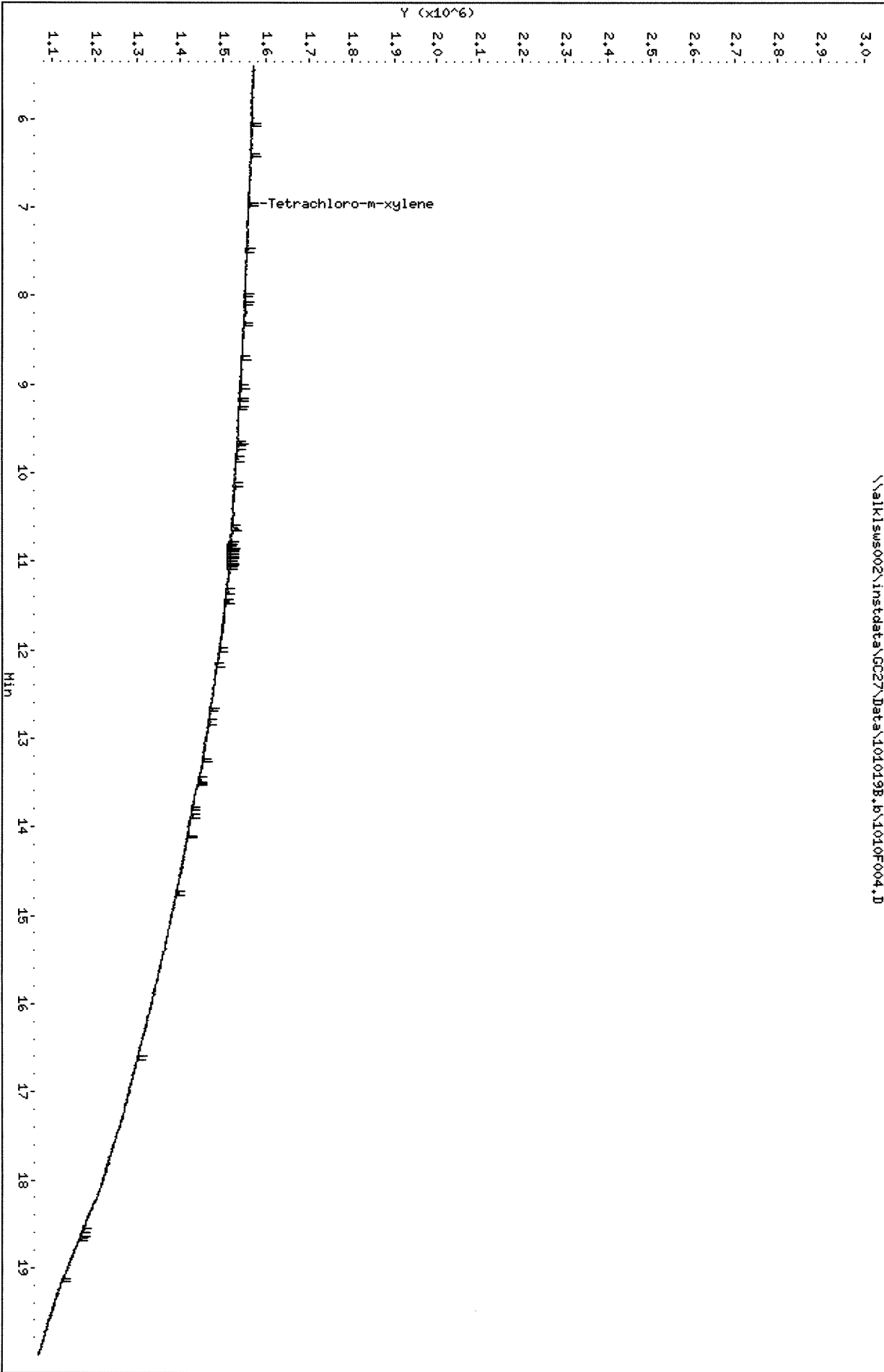
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alk1s02\instdata\GC27\Data\101019B.b\1010F004.D



Data File: \\alkisus002\instdata\GC27\Data\101019B_r.b\1010F004.D

Date : 10-OCT-2019 11:53

Client ID:

Sample Info: IB

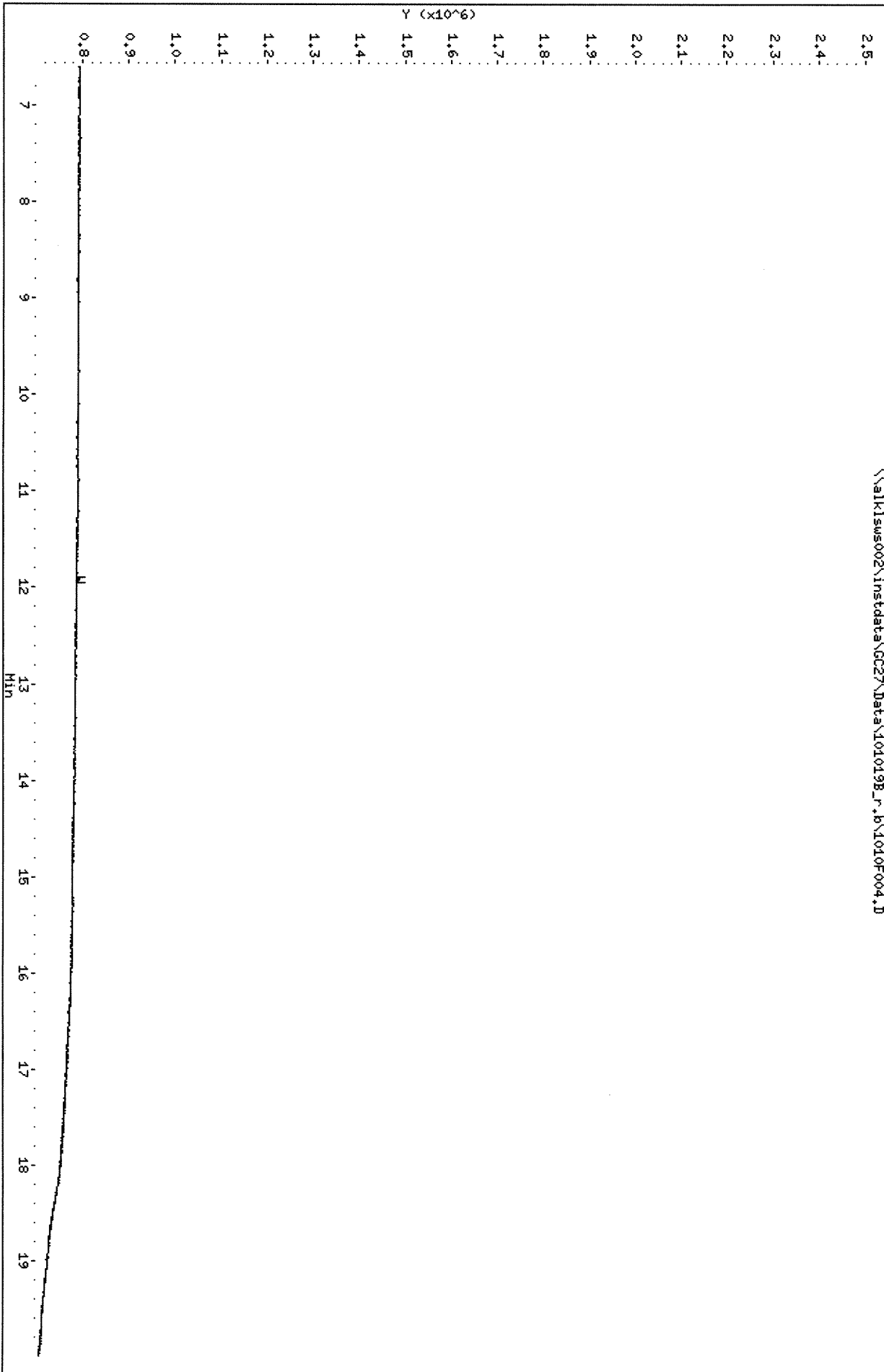
Instrument: GC27.1

Operator: SAH

Column diameter: 0.32

Column phase: DB-XLB

\\alkisus002\instdata\GC27\Data\101019B_r.b\1010F004.D



Exception Report

Data File: \\ALKLSWS002\INSTDATA\GC27\DATA\101019B.B\1010F005.D
Lab ID: KWG1904387-3
RunType: MB
Matrix: SOIL

Date Acquired: 10/10/2019 12:24
Date Quantitated: 10/10/2019 15:52
Batch ID: KWG1904425
Analysis Method: 8082A
MethodJoinID: MJ1677

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: SA 10/10/19

Secondary Review: [Signature]

Exception Report

Data File: \\ALKLSWS002\INSTDATA\GC27\DATA\101019B_R.B\1010F009.E
Lab ID: KWG1904425-3
RunType: CCV
Matrix: NOT APPLICABLE

Date Acquired: 10/10/2019 14:31
Date Quantitated: 10/10/2019 15:53
Batch ID: KWG1904425
Analysis Method: 8082A
MethodJoinID: MJ1677

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: SA 10/10/19
Secondary Review: [Signature]

Quantitation Report

Data File #1:	J:\GC27\DATA\101019B.B\1010F009.D	Instrument:	GC27.i
Data File #2:	\\alklsws002\instdata\GC27\Data\101019B_r.b\1010F009.D	Vial:	1
Acqu Date:	10/10/2019 14:31	Quant Date:	10/10/2019 15:53
Run Type:	CCV	MethodJoinID:	MJ1677
Lab ID:	KWG1904425-3	Soln Conc. Units:	ng/mL
Signal #1:	DB-35MS	Signal #2:	DB-XLB

Bottle ID:		Tier:		Matrix:	NOT APPLICABLE
Prod Code:	8082A PCB	Collect Date:		Receive Date:	10/10/2019

Analysis Lot:	KWG1904425	Prep Lot:		Report Group:	
Analysis Method:	8082A	Prep Method:			
Prep Ref:		Prep Date:			

Quant Method:	\\ALKLSWS002\INSTDATA\GC27\DATA\101019B.B\090419UL_F.M	Calibration ID:	CAL16127
Title:		Method ID:	MJ1677
MB Ref:		Quant based on Method	

Surrogate Compounds

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ng/mL #1	ng/mL #2	Final Conc. Units:		Rpt
Tetrachloro-m-xylene	6.96	8.43	3984775	1875229	2.21	2.26			NA
			%Recovery =		NA	NA	Limits =	10-135	
Decachlorobiphenyl	16.85	18.12	2211945	900818	2.03	2.02			NA
			%Recovery =		NA	NA	Limits =	43-148	

Target Compounds

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ng/mL #1	ng/mL #2	ug/Kg #1	ug/Kg #2	Rpt
Aroclor 1016			0	0	19.68	20.92			
Aroclor 1016 {1}	8.05	9.16	682215	312491	19.99	20.75			
Aroclor 1016 {2}	9.30	9.90	567949	499876	20.28	22.64			
Aroclor 1016 {3}	9.74	11.05	1649168	488108	18.97	20.24			
Aroclor 1016 {4}	9.92	11.51	987732	356146	19.26	19.99			
Aroclor 1016 {5}	10.31	11.74	700418	353070	19.93	20.96			
Aroclor 1260			0	0	20.85	20.93			
Aroclor 1260 {1}	13.19	13.54	666780	316473	19.90	22.30			
Aroclor 1260 {2}	13.57	14.78	993865	455394	21.33	19.86			
Aroclor 1260 {3}	14.04	15.15	1073762	471812	21.41	20.97			
Aroclor 1260 {4}	14.42	15.68	2227650	968836	20.99	20.39			
Aroclor 1260 {5}	15.05	16.18	1638398	622713	20.64	21.15			

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 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Calibration Verification Report

Calibration ID: CAL16127

Method ID: MJ1677

DataFile: \\ALKLSWS002\INSTDATA\GC27\DATA\101019B.B\1010F009.D

<u>Parameter Name</u>	<u>Type</u>	<u>PARM Type</u>	<u>Curve Fit</u>	<u>Method Criteria</u>	<u>Min RF</u>	<u>ICAL RF</u>	<u>CCV RF</u>	<u>%Diff</u>	<u>Sol'n Conc.</u>	<u>True Value</u>	<u>% Drift</u>
Aroclor 1016		MS	NA	20					19.68	20.00	-2
Aroclor 1260		MS	NA	20					20.85	20.00	4
Tetrachloro-m-xylene		SURR	AverageRF	20		1.8E+6	2.0E+6	11			
Aroclor 1016 {1}		MULTI	AverageRF	100		3.4E+4	3.4E+4	0			
Aroclor 1016 {2}		MULTI	AverageRF	100		2.8E+4	2.8E+4	1			
Aroclor 1016 {3}		MULTI	AverageRF	100		8.7E+4	8.2E+4	-5			
Aroclor 1016 {4}		MULTI	AverageRF	100		5.1E+4	4.9E+4	-4			
Aroclor 1016 {5}		MULTI	AverageRF	100		3.5E+4	3.5E+4	0			
Aroclor 1260 {1}		MULTI	AverageRF	100		3.4E+4	3.3E+4	0			
Aroclor 1260 {2}		MULTI	AverageRF	100		4.7E+4	5.0E+4	7			
Aroclor 1260 {3}		MULTI	AverageRF	100		5.0E+4	5.4E+4	7			
Aroclor 1260 {4}		MULTI	AverageRF	100		1.1E+5	1.1E+5	5			
Aroclor 1260 {5}		MULTI	AverageRF	100		7.9E+4	8.2E+4	3			
Decachlorobiphenyl		SURR	AverageRF	20		1.1E+6	1.1E+6	1			

Calibration Verification Report

Calibration ID: CAL16127

Method ID: MJ1677

DataFile: \\ALKLSWS002\INSTDATA\GC27\DATA\101019B_R.B\1010F009.D

<u>Parameter Name</u>	<u>Type</u>	<u>PARM Type</u>	<u>Curve Fit</u>	<u>Method Criteria</u>	<u>Min RF</u>	<u>ICAL RF</u>	<u>CCV RF</u>	<u>%Diff</u>	<u>Sol'n Conc.</u>	<u>True Value</u>	<u>% Drift</u>
Aroclor 1016		MS	NA	20					20.92	20.00	5
Aroclor 1260		MS	NA	20					20.93	20.00	5
Tetrachloro-m-xylene		SURR	AverageRF	20		8.3E+5	9.4E+5	13			
Aroclor 1016 {1}		MULTI	AverageRF	100		1.5E+4	1.6E+4	4			
Aroclor 1016 {2}		MULTI	AverageRF	100		2.2E+4	2.5E+4	13			
Aroclor 1016 {3}		MULTI	AverageRF	100		2.4E+4	2.4E+4	1			
Aroclor 1016 {4}		MULTI	AverageRF	100		1.8E+4	1.8E+4	0			
Aroclor 1016 {5}		MULTI	AverageRF	100		1.7E+4	1.8E+4	5			
Aroclor 1260 {1}		MULTI	AverageRF	100		1.4E+4	1.6E+4	11			
Aroclor 1260 {2}		MULTI	AverageRF	100		2.3E+4	2.3E+4	-1			
Aroclor 1260 {3}		MULTI	AverageRF	100		2.2E+4	2.4E+4	5			
Aroclor 1260 {4}		MULTI	AverageRF	100		4.8E+4	4.8E+4	2			
Aroclor 1260 {5}		MULTI	AverageRF	100		2.9E+4	3.1E+4	6			
Decachlorobiphenyl		SURR	AverageRF	20		4.5E+5	4.5E+5	1			

ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\101019B.b\1010F009.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\101019B_r.b\1010F009.D
 Inj Date : 10-OCT-2019 14:31
 Sample Info: PCB8-017N 1660 @ 2-20 PPB
 Misc Info :
 Cal Date : 10-OCT-2019 15:46
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\101019B.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\101019B_r.b\090419_r.m
 Sub List #1 : 1660.SUB
 Sub List #2 : 1660.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.962	8.425	3984775	1875229	2.21	2.26		100.00
Aroclor 1016	8.049	9.155	682215	312491	20.0	20.8	80.00- 120.00	100.00
	9.295	9.902	567949	499876	20.3	22.6	66.60- 99.90	83.25
	9.739	11.052	1649168	488108	19.0	20.2	193.39- 290.08	241.74
	9.919	11.505	987732	356146	19.3	20.0	115.83- 173.74	144.78
	10.305	11.739	700418	353070	19.9	21.0	82.13- 123.20	102.67
	Average of Peak Amounts =				19.7	20.9		
Aroclor 1260	13.185	13.535	666780	316473	19.9	22.3	80.00- 120.00	100.00
	13.572	14.779	993865	455394	21.3	19.9	119.24- 178.87	149.05
	14.042	15.149	1073762	471812	21.4	21.0	128.83- 193.24	161.04
	14.419	15.679	2227650	968836	21.0	20.4	267.27- 400.91	334.09
	15.045	16.179	1638398	622713	20.6	21.1	196.57- 294.86	245.72
	Average of Peak Amounts =				20.8	20.9		
Decachlorobiphenyl	16.845	18.119	2211945	900818	2.03	2.02		100.00

Data File: \\alkisus002\instdata\GC27\Data\101019B.b\1010F009.D
Date: 10-OCT-2019 14:31

Client ID:

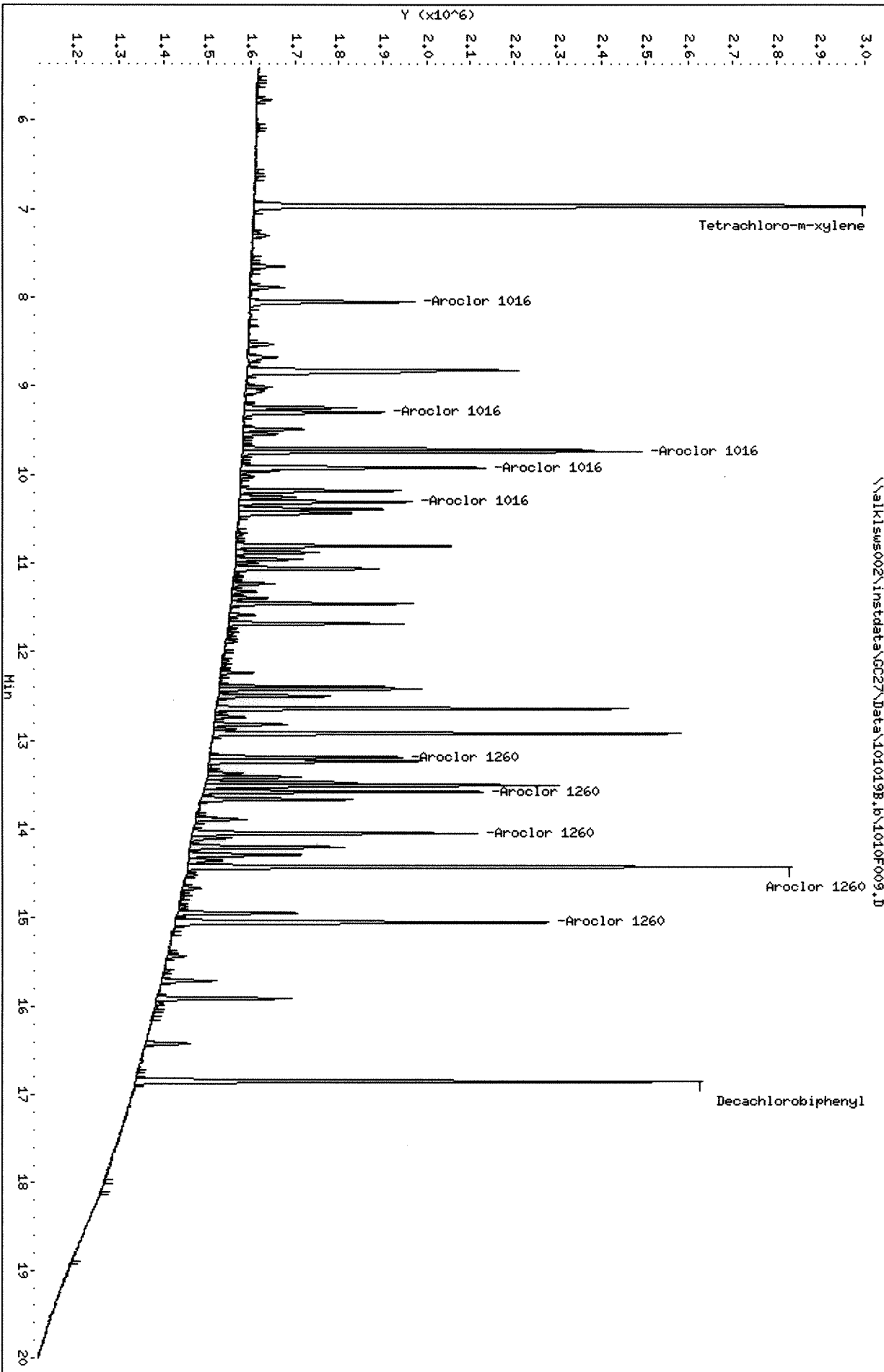
Sample Info: PCB8-017N 1660 @ 2-20 PPS

Column phase: DB-35MS

Instrument: GC27.1

Operator: SAA

Column diameter: 0.32



Data File: \\alkl1sus002\inst\data\GC27\Data\101019B_r.b\1010F009.D

Date: 10-OCT-2019 14:34

Client ID:

Sample Info: PCB8-017N 1660 @ 2-20 PPS

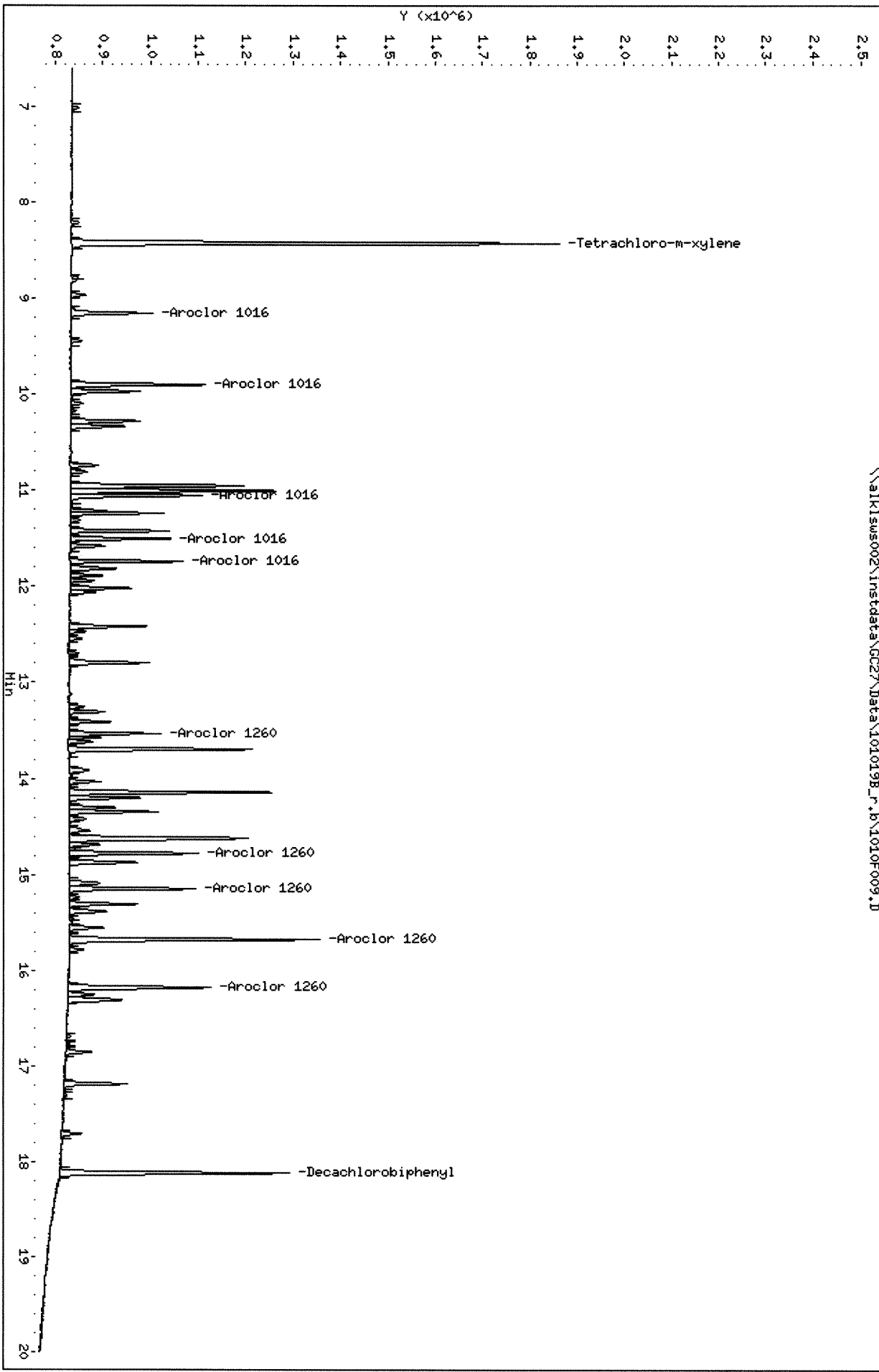
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alkl1sus002\inst\data\GC27\Data\101019B_r.b\1010F009.D



Exception Report

Data File: \\ALKLSWS002\INSTDATA\GC27\DATA\101019B.B\1010F010.D
Lab ID: KWG1904425-4
RunType: IB
Matrix: NOT APPLICABLE

Date Acquired: 10/10/2019 15:02
Date Quantitated: 10/10/2019 15:53
Batch ID: KWG1904425
Analysis Method: 8082A
MethodJoinID: MJ1677

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: SA 10/10/19
Secondary Review: W

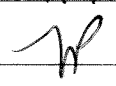
Exception Report

Data File: \\ALKLSWS002\INSTDATA\GC27\DATA\101019B_R.B\1010F010.E
Lab ID: KWG1904425-4
RunType: IB
Matrix: NOT APPLICABLE

Date Acquired: 10/10/2019 15:02
Date Quantitated: 10/10/2019 15:53
Batch ID: KWG1904425
Analysis Method: 8082A
MethodJoinID: MJ1677

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: SA 10/10/19
Secondary Review: 

Quantitation Report

Data File #1:	J:\GC27\DATA\101019B.B\1010F010.D	Instrument:	GC27.i
Data File #2:	\\alklsws002\instdata\GC27\Data\101019B_r.b\1010F010.D	Vial:	2
Acqu Date:	10/10/2019 15:02	Quant Date:	10/10/2019 15:53
Run Type:	IB	MethodJoinID:	MJ1677
Lab ID:	KWG1904425-4	Soln Conc. Units:	ng/mL
Signal #1:	DB-35MS	Signal #2:	DB-XLB

Bottle ID:		Tier:		Matrix:	NOT APPLICABLE
Prod Code:	8082A PCB	Collect Date:		Receive Date:	10/10/2019

Analysis Lot:	KWG1904425	Prep Lot:		Report Group:	
Analysis Method:	8082A	Prep Method:			
Prep Ref:		Prep Date:			

Quant Method:	\\ALKLSWS002\INSTDATA\GC27\DATA\101019B.B\090419UL_F.M	Calibration ID:	CAL16127
Title:		Method ID:	MJ1677
MB Ref:		Quant based on Method	

Surrogate Compounds

Parameter Name	RT #1	RT #2	Resp #1	Respe #2	ng/mL #1	ng/mL #2	Final Conc. Units:		Rpt
Tetrachloro-m-xylene	6.98		5708	0	0.0030	0.0000			NA
			%Recovery =		NA	NA	Limits =	10-135	
Decachlorobiphenyl	0.00		0	0	0.0000	0.0000			NA
			%Recovery =		NA	NA	Limits =	43-148	

Target Compounds

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ng/mL #1	ng/mL #2	ug/Kg #1	ug/Kg #2	Rpt
Aroclor 1016			0	0	0.0000	0.0000			
Aroclor 1016 {1}			0d	0	0.0000	0.0000			
Aroclor 1016 {2}			0d	0	0.0000	0.0000			
Aroclor 1016 {3}			0d	0	0.0000	0.0000			
Aroclor 1016 {4}			0d	0	0.0000	0.0000			
Aroclor 1016 {5}			0d	0	0.0000	0.0000			
Aroclor 1221			0	0	0.0000	0.0000			
Aroclor 1221 {1}			0	0	0.0000	0.0000			
Aroclor 1221 {2}			0	0	0.0000	0.0000			
Aroclor 1221 {3}			0	0	0.0000	0.0000			
Aroclor 1232			0	0	0.0000	0.0000			
Aroclor 1232 {1}			0d	0	0.0000	0.0000			
Aroclor 1232 {2}			0d	0	0.0000	0.0000			
Aroclor 1232 {3}			0d	0	0.0000	0.0000			
Aroclor 1232 {4}			0d	0	0.0000	0.0000			
Aroclor 1232 {5}			0d	0	0.0000	0.0000			
Aroclor 1242			0	0	0.0000	0.0000			
Aroclor 1242 {1}			0d	0	0.0000	0.0000			

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File #1:	J:\GC27\DATA\101019B.B\1010F010.D	Instrument:	GC27.i
Data File #2:	\\alklsws002\instdata\GC27\Data\101019B_r.b\1010F010.D	Vial:	2
Acqu Date:	10/10/2019 15:02	Quant Date:	10/10/2019 15:53
Run Type:	IB	MethodJoinID:	MJ1677
Lab ID:	KWG1904425-4	Soln Conc. Units:	ng/mL
Signal #1:	DB-35MS	Signal #2:	DB-XLB

Target Compounds

Final Conc. Units:

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ng/mL #1	ng/mL #2	ug/Kg #1	ug/Kg #2	Rpt
Aroclor 1242 {2}			0d	0	0.0000	0.0000			
Aroclor 1242 {3}			0d	0	0.0000	0.0000			
Aroclor 1242 {4}			0d	0	0.0000	0.0000			
Aroclor 1242 {5}			0d	0	0.0000	0.0000			
Aroclor 1248			0	0	0.0000	0.0000			
Aroclor 1248 {1}			0d	0	0.0000	0.0000			
Aroclor 1248 {2}			0d	0	0.0000	0.0000			
Aroclor 1248 {3}			0d	0	0.0000	0.0000			
Aroclor 1248 {4}			0d	0	0.0000	0.0000			
Aroclor 1248 {5}			0d	0	0.0000	0.0000			
Aroclor 1254			0	0	0.0000	0.0000			
Aroclor 1254 {1}			0	0	0.0000	0.0000			
Aroclor 1254 {2}			0	0	0.0000	0.0000			
Aroclor 1254 {3}			0	0	0.0000	0.0000			
Aroclor 1254 {4}			0	0	0.0000	0.0000			
Aroclor 1254 {5}			0	0	0.0000	0.0000			
Aroclors, Total			0	0	0.0000	0.0000	J	J	
Aroclor 1260			0	0	0.0000	0.0000			
Aroclor 1260 {1}			0	0	0.0000	0.0000			
Aroclor 1260 {2}			0	0	0.0000	0.0000			
Aroclor 1260 {3}			0	0	0.0000	0.0000			
Aroclor 1260 {4}			0	0	0.0000	0.0000			
Aroclor 1260 {5}			0	0	0.0000	0.0000			
Aroclor 1262			0	0	0.0000	0.0000			
Aroclor 1262 {1}			0	0	0.0000	0.0000			
Aroclor 1262 {2}			0	0	0.0000	0.0000			
Aroclor 1262 {3}			0	0	0.0000	0.0000			
Aroclor 1262 {4}			0	0	0.0000	0.0000			
Aroclor 1262 {5}			0	0	0.0000	0.0000			
Aroclor 1268			0	0	0.0000	0.0000			
Aroclor 1268 {1}			0	0	0.0000	0.0000			
Aroclor 1268 {2}			0	0	0.0000	0.0000			
Aroclor 1268 {3}			0	0	0.0000	0.0000			
Aroclor 1268 {4}			0	0	0.0000	0.0000			

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\101019B.b\1010F010.D
Sample #2 : \\alklsws002\instdata\GC27\Data\101019B_r.b\1010F010.D
Inj Date : 10-OCT-2019 15:02
Sample Info: IB
Misc Info :
Cal Date : 10-OCT-2019 15:46
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\101019B.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\101019B_r.b\090419_r.m
Sub List #1 : ALL.SUB
Sub List #2 : ALL.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.978	0.000	5708	0	0.00317	0.000		100.00 (R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: \\alk1sus002\instdata\GC27\Data\101019B.b\1010F010.D
Date : 10-OCT-2019 15:02

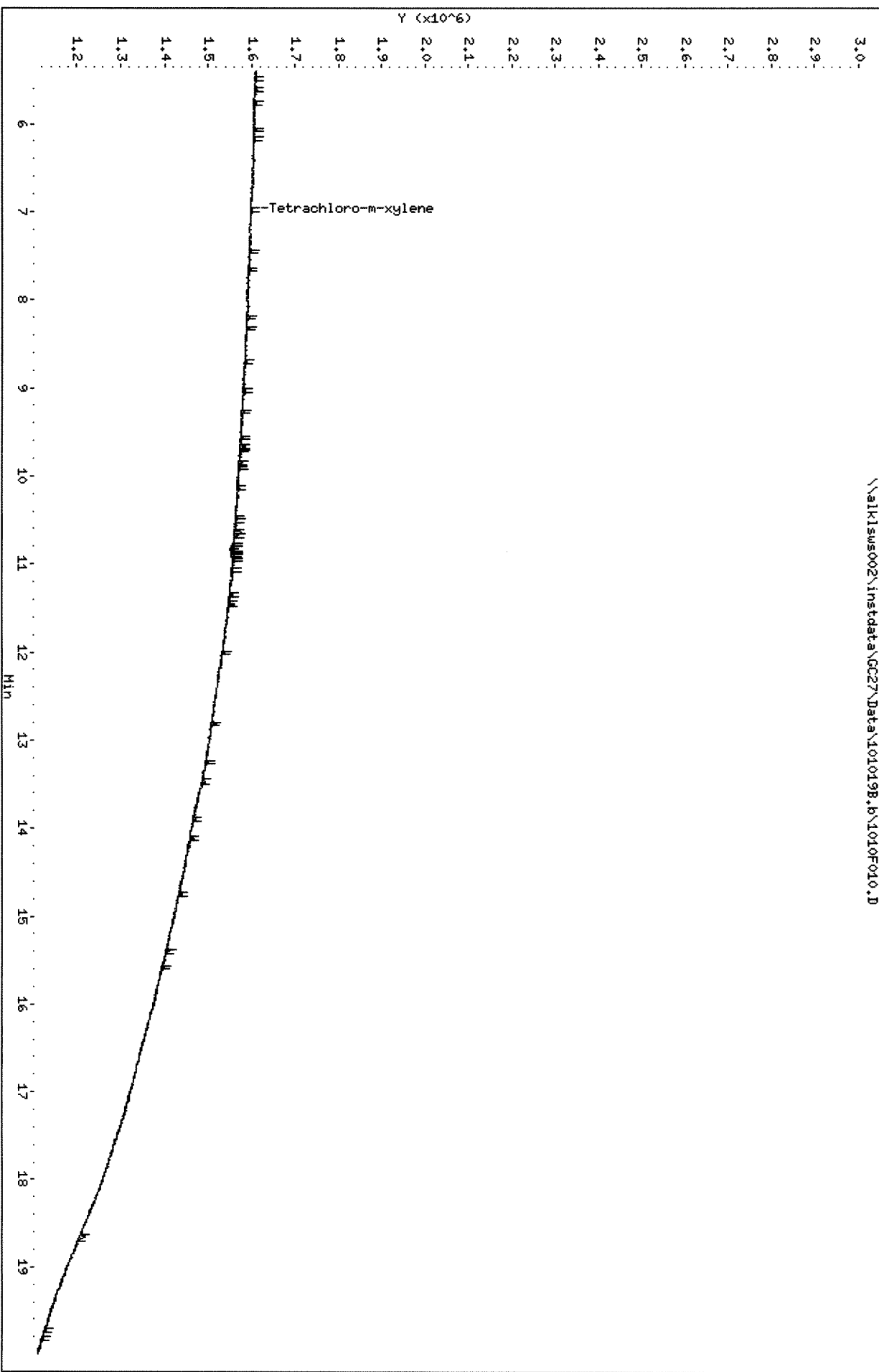
Client ID:
Sample Info: IB

Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA
Column diameter: 0.32

\\alk1sus002\instdata\GC27\Data\101019B.b\1010F010.D



Data File: \\alkisw002\instdata\GC27\Data\101019B_r.b\1010F010.D
Date : 10-OCT-2019 15:02

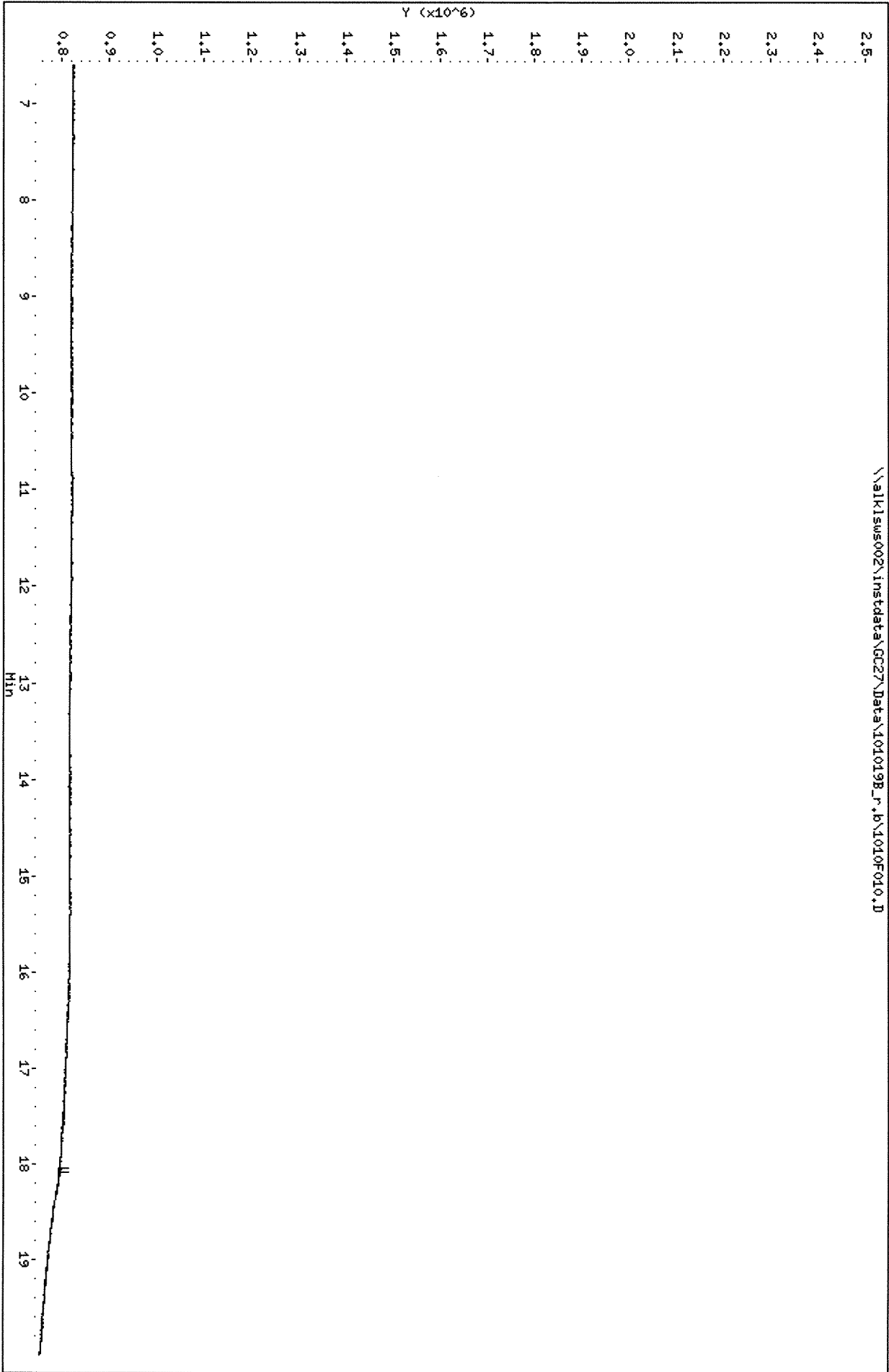
Client ID:
Sample Info: IB

Column phase: DB-XLB

Instrument: GC27.1

Operator: SAH
Column diameter: 0.32

\\alkisw002\instdata\GC27\Data\101019B_r.b\1010F010.D



Preparation Information

Group ID: KWG1904339	Prep Method: EPA 3546	Prep Date: 10/04/19 01:07
Department: Semivoa GC		

Lab Code	Client ID	Product	Matrix	Amt. Ext.	Final Vol.	Solids
K1909014-006	PS-GNB-052619	8082A PCB	SOIL	2.113g	8mL	
K1909014-007	Black Owl Biochar	8082A PCB	SOIL	2.031g	8mL	
KWG1904339-1	Matrix Spike	8082A PCB	SOIL	2.057g	8mL	
KWG1904339-2	Duplicate Matrix Spike	8082A PCB	SOIL	2.072g	8mL	
KWG1904339-3	Lab Control Sample	8082A PCB	SOIL	2.000g	8mL	
KWG1904339-4	Method Blank	8082A PCB	SOIL	2.113g	8mL	

Lab Code	Parent Lab Code	Comments
KWG1904339-1	K1909014-006	KQ1914328-01
KWG1904339-2	K1909014-006	KQ1914328-02
KWG1904339-3		KQ1914328-03
KWG1904339-4		KQ1914328-04

Lab Code	Prep Event ID	Surrogate Solution ID	Amount Added	Spike Solution ID	Amount Added	Witness
K1909014-006	1735939					
K1909014-007	1735940					
KWG1904339-1	1735941					
KWG1904339-2	1735942					
KWG1904339-3	1735943					
KWG1904339-4	1735944					

Comments: _____

Started By: KVAN Assisted By: _____ Training: Yes No

Completed By: TMirenta Assisted By: _____ Training: Yes No

Reviewed By: SA Date: 10/7/19 Storage: Wedding A1-A5

Chain of Custody

Relinquished By: <u>TMirenta</u>	Date: <u>10/5/19</u>	Extracts Examined
Received By: <u>SA</u>	Date: <u>10/7/19</u>	Yes <input checked="" type="radio"/> No <input type="radio"/>

Preparation Information

Group ID: KWG1904339	Prep Method: EPA 3546	Prep Date: 10/04/19 00:00
Department: Semivoa GC		

#	Lab Code	Client ID	B#	✓	Product	Matrix	Amt. Ext.	pH	Int. Vol.	Final Vol.	Surr. Added	Spike Added
1	K1909014-006	PS-GNB-052619	.cl	✓	8082A PCB	SOIL	g 40*	n/A	ml 40	ml 8	ul 50	ul -
2	K1909014-007	Black Owl Biochar		✓	8082A PCB	SOIL	40*		40			
3	KWG1904339-1	Matrix Spike K1909014-6	.cl	✓	8082A PCB	SOIL	40*		40	8		200
4	KWG1904339-2	Duplicate Matrix Spike K1909014-6	.cl	✓	8082A PCB	SOIL	40*		40	8		
5	KWG1904339-3	Lab Control Sample	-	-	8082A PCB	SOIL	200		40	8		
6	KWG1904339-4	Method Blank	-	-	8082A PCB	SOIL	2.113	1	40	8		

Comments: * See prep prep information bench sheet. KV 10/4/19 Preprun: 34583;
 Sample vented and went dry due to matrix. Sample will be extracted by 3541. KV 10/4/19

Surrogate ID: PCB88-12I 0.8ppm 50ul xp: 2/29/20 epp: 4I

Spike ID: PCB88-GF 1ppm 200ul xp: 1/29/20

Witness: J.D. [Signature] 10-4-19

Started By: KVAN Assisted By: —

Completed By: JMwenta Assisted By: —

Pre-Prep Information Benchsheet

Prep Run #: 345832

Container Lot No: 072219-1BNU

Prep Due Date: Oct-08-2019

#	Lab Code	Bottle	Test Name	Weight	Sample Comments	Test Comments
1	K1909014-006	.01	PCB : 8082A	2.113g	8270 reduced due to high organic matter in sample as per JW 10/3/19, no MS/DMS	TANDREWS K-Balance-47
2	K1909014-006 MS	.01	PCB : 8082A	2.057g		TANDREWS K-Balance-47
3	K1909014-006 DMS	.01	PCB : 8082A	2.072g		TANDREWS K-Balance-47
4	K1909014-007	.01	PCB : 8082A	2.057g	8270 reduced due to high organic matter in sample as per JW 10/3/19, no MS/DMS	TANDREWS K-Balance-47

* Sample removed from prep run to be extracted by 3541. HV 10/4/19

Relinquished By:	TA	Date/Time:	10/10/19
Received By:	Kossidy Yan	Date/Time:	Oct 15 10/14/19

Additional Prep Information for EPA 3546
Pest/PCB/Con in Soil/Paperboard/Wipes/Tissues

Service Request # 11909014 Work Group # Pest: —
PCB: 11904339

4:1 Hexane:Acetone Lot # 18 EXT-03-2P Sulfate Lot # 2019010772

Extraction Start (time/date/initial): 1307 10/4/19 KV

Pipette (5 mL) Lot # 22918647 Pipette (2 mL) Lot # —

N-Evap (time/date/initial): 1722 10/4/19 BG N-Evap Thermometer ID: X-SM-010

Temp as measured: 20 °C Correction factor: 0.0 °C Adjusted temp: 20.0 °C

Solvent Exchange to Hexane (time/date/initial): 0820 10/5/19 TM Hexane Lot# 223810

Carbon Clean-up (Ext-Car) (time/date/initial): — Carbon Lot # —

Hexane 1:1 DCM Lot # —

Turbovap (time/date/initial): — Turbovap Thermometer ID: —

Temp as measured: — °C Correction factor: — °C Adjusted temp: — °C

Overnight Florisil Clean-up (Ext-Flor)(time/date/initial): —

Florisil Lot # —

Sulfuric Acid Clean-up (3665)(time/date/initial): 1100 10/5/19 TM Acid Lot # 54344

Other Clean-up (type/time/date/initial) —
Lot # —

Pipette (2 mL) Lot # 20717646 Pipette (1 mL) Lot # 28517645

Pest Vial: — Vial Storage: —

PCB Vial: green Vial Storage: Ludwig A1-A5

Archived Extract Storage: RICK

Additional Comments —
—
—

Bench Sheet Review Check List	
<input type="checkbox"/>	Hold times met; if no, reason: _____
<input type="checkbox"/>	Prep date, time, method, department, product code correct
<input type="checkbox"/>	Spike information and Q.C. correct (insufficient volume or mass recorded if no Q.C.)
<input type="checkbox"/>	Weights/Volumes and units correct on raw and final bench sheets
<input type="checkbox"/>	Sample IDs have been checked - bottle numbers appended if required
<input type="checkbox"/>	Names present for: started by, completed by, relinquished by, and witnessed by
<input type="checkbox"/>	Extract storage recorded
<input type="checkbox"/>	Additional prep sheet completely filled out (NA or line out blanks)
<input type="checkbox"/>	All clean-ups have been noted on additional prep sheet

Preparation Information

Group ID: KWG1904387	Prep Method: EPA 3541	Prep Date: 10/09/19 08:43
Department: Semivoa GC		

Lab Code	Client ID	Product	Matrix	Amt. Ext.	Final Vol.	Solids
K1909014-007	Black Owl Biochar	8082A PCB	SOIL	2.012g	8mL	100
KWG1904387-1	Lab Control Sample	8082A PCB	SOIL	2.000g	8mL	
KWG1904387-2	Duplicate Lab Control Sample	8082A PCB	SOIL	2.000g	8mL	
KWG1904387-3	Method Blank	8082A PCB	SOIL	2.012g	8mL	

Lab Code	Parent Lab Code	Comments
KWG1904387-1		KQ1914624-01
KWG1904387-2		KQ1914624-02
KWG1904387-3		KQ1914624-03

Lab Code	Prep Event ID	Surrogate Solution ID	Amount Added	Spike Solution ID	Amount Added	Witness
K1909014-007	1736378					
KWG1904387-1	1736379					
KWG1904387-2	1736380					
KWG1904387-3	1736381					

Comments: _____

Started By: KVAN Assisted By: _____ Training: Yes No
 Completed By: BGreer Assisted By: _____ Yes No
 Reviewed By: _____ Date: _____ Storage: Ludwig E1-E4

Chain of Custody

Relinquished By: <u>BGreer</u>	Date: <u>10/9/19</u>	Extracts Examined
Received By: _____	Date: _____	Yes <input type="checkbox"/> No <input type="checkbox"/>

Preparation Information

Group ID: KWG1904387	Prep Method: EPA 3541	Prep Date: 10/09/19 08:43
Department: Semivoa GC		

Lab Code	Client ID	Product	Matrix	Amt. Ext.	Final Vol.	Solids
K1909014-007	Black Owl Biochar	8082A PCB	SOIL	2.012g	8mL	100
KWG1904387-1	Lab Control Sample	8082A PCB	SOIL	2.000g	8mL	
KWG1904387-2	Duplicate Lab Control Sample	8082A PCB	SOIL	2.000g	8mL	
KWG1904387-3	Method Blank	8082A PCB	SOIL	2.012g	8mL	

Lab Code	Parent Lab Code	Comments
KWG1904387-1		KQ1914624-01
KWG1904387-2		KQ1914624-02
KWG1904387-3		KQ1914624-03

Lab Code	Prep Event ID	Surrogate Solution ID	Amount Added	Spike Solution ID	Amount Added	Witness
K1909014-007	1736378					
KWG1904387-1	1736379					
KWG1904387-2	1736380					
KWG1904387-3	1736381					

Comments: _____

Started By: KVAN Assisted By: _____ Training Yes No
 Completed By: BGreer Assisted By: _____ Yes No
 Reviewed By: Williams Date: 10-10-19 Storage: Ludwig E1-E4

Chain of Custody

Relinquished By: <u>BGreer</u>	Date: <u>10/9/19</u>	Extracts Examined
Received By: <u>SA</u>	Date: <u>10/10/19</u>	<input checked="" type="radio"/> Yes <input type="radio"/> No

Preparation Information

Group ID: KWG1904387	Prep Method: EPA 3541	Prep Date: 10/09/19 00:00
Department: Semivoa GC		

#	Lab Code	Client ID	B#	√	Product	Matrix	Amt. Ext.	pH	Int. Vol.	Final Vol.	Surr. Add'd	Spike Add'd
1	K1909014-007	Black Owl Biochar			8082A PCB	SOIL	2.012	n/a	20	8	50	-
2	KWG1904387-1	Lab Control Sample			8082A PCB	SOIL	2.000		20	8		400
3	KWG1904387-2	Duplicate Lab Control Sample			8082A PCB	SOIL	2.000		20	8		
4	KWG1904387-3	Method Blank			8082A PCB	SOIL	2.012		20	8		-

Comments: _____ Prep: 346181

Surrogate ID: PCB 8:12I 0.8 ppm 50ul xp: 2/29/20 exp: 4I

Spike ID: PCB 8:GE 1ppm 400ul xp: 1/29/20

Witness: [Signature] 10-9-19

Started By: KVAN Assisted By: _____

Completed By: BG Assisted By: _____

Additional Prep Information for EPA 3541
Pest/PCB/Con in Soil

Service Request # 119014 11909014 Work Group # Pest: —
 PCB: HW 11904387

Weighed (time/date/initial): 0800 10/9/19 KV Balance ID: K-Bal-03 Calibration Verified

Storage Location (if not extracted same day): —

DCM Lot # DW292 Sulfate Lot # 20190072 Matrix Lot # 012418 Glass Wool Lot # 2131779
21317999

Soxtherm Start (time/date/initial): 0843 10/9/19 KV

Soxtherm Stop (time/date/initial): 1150 10/9/19 KV

Pipette (5 mL) Lot # 22918647

N-Evap (time/date/initial): 1440 10/9/19 BG N-Evap Thermometer ID: X-SVM-010
 Temp as measured: 20 °C Correction factor: 0.0 °C Adjusted temp: 20.0 °C

Solvent Exchange to Hexane (time/date/initial): 1515 10/9/19 BG/TM Hexane Lot # 223810

S-Evap (time/date/initial): — S-Evap Thermometer ID: —
 Temp as measured: — °C Correction factor: — °C Adjusted temp: — °C

N-Evap (time/date/initial): — N-Evap Thermometer ID: —
 Temp as measured: — °C Correction factor: — °C Adjusted temp: — °C

Carbon Clean-up (Ext-Car) (time/date/initial): — Carbon Lot # —

Hexane 1:1 DCM Lot # —
 N-Evap (time/date/initial): — N-Evap Thermometer ID: —
 Temp as measured: — °C Correction factor: — °C Adjusted temp: — °C

Florisil Clean-up (Ext-Flor)(time/date/initial): — Florisil Lot # —

Hexane 1:1 Acetone Lot # — Hexane 9:1 Acetone Lot # —
 N-Evap (time/date/initial): — N-Evap Thermometer ID: —
 Temp as measured: — °C Correction factor: — °C Adjusted temp: — °C

Sulfuric Acid Clean-up (3665)(time/date/initial): 1718 10/9/19 BG Acid Lot # 54344

Other Clean-up: — all samples some samples: —

Pipette (2 mL) Lot # 20717646 Pipette (1 mL) Lot # —

Pest Vial: — Vial Storage: —
 PCB Vial: Green Vial Storage: Ludwig E1-E4

Archived Extract Storage: Hi Mom

Additional Comments:

Bench Sheet Review Check List	
<input checked="" type="checkbox"/>	Hold times met; if no, reason: <u>—</u>
<input checked="" type="checkbox"/>	Prep date, time, method, department, product code correct
<input checked="" type="checkbox"/>	Spike information and Q.C. correct (insufficient volume or mass recorded if no Q.C.)
<input checked="" type="checkbox"/>	Weights/Volumes and units correct on raw and final bench sheets
<input checked="" type="checkbox"/>	Sample IDs have been checked - bottle numbers appended if required
<input checked="" type="checkbox"/>	Names present for: started by, completed by, relinquished by, and witnessed by
<input checked="" type="checkbox"/>	Extract storage recorded
<input checked="" type="checkbox"/>	Additional prep sheet completely filled out (NA or line out blanks)
<input checked="" type="checkbox"/>	All clean-ups have been noted on additional prep sheet

Comment: Ultra Low Level PCB Aroclors by EPA 8082A
Operator: SAA
Data Path: C:\GC27\DATA\090419ICAL\
Pre-Seq Cmd:
Post-Seq Cmd:

CAL 16/27

Method Sections To Run On A Barcode Mismatch
(X) Full Method (X) Inject Anyway
() Reprocessing Only () Don't Inject

Line Type	Vial	DataFile	Method	Sample Name
1 SOLV	100	0904F001	ULSPLT	PRIMER
2 SOLV	100	0904F002	ULSPLT	PRIMER
3 SOLV	1	0904F003	ULSPLT	DDX MARKER
4 IB	2	0904F004	ULSPLT	IB
5 ICAL	3	0904F005	ULSPLT	PCB8-12K 1660 @ 0.1-1 PPB
6 ICAL	4	0904F006	ULSPLT	PCB8-12L 1660 @ 0.2-2 PPB
7 ICAL	5	0904F007	ULSPLT	PCB8-12M 1660 @ 0.5-5 PPB
8 ICAL	6	0904F008	ULSPLT	PCB8-12N 1660 @ 1-10 PPB
9 ICAL	7	0904F009	ULSPLT	PCB7-91B 1660 @ 2-20 PPB
10 ICAL	8	0904F010	ULSPLT	PCB7-91C 1660 @ 5-50 PPB
11 ICAL	9	0904F011	ULSPLT	PCB7-91D 1660 @ 10-100 PPB
12 ICAL	10	0904F012	ULSPLT	PCB8-11K1660 @ 20-200 PPB
13 ICAL	11	0904F013	ULSPLT	PCB8-13A 2154 @ 1-2 PPB
14 ICAL	12	0904F014	ULSPLT	PCB8-13B 2154 @ 2-4 PPB
15 ICAL	13	0904F015	ULSPLT	PCB8-13C 2154 @ 5-10 PPB
16 ICAL	14	0904F016	ULSPLT	PCB8-13D 2154 @ 10-20 PPB
17 ICAL	15	0904F017	ULSPLT	PCB7-91E 2154 @ 20-40 PPB
18 ICAL	16	0904F018	ULSPLT	PCB7-91F 2154 @ 50-100 PPB
19 ICAL	17	0904F019	ULSPLT	PCB7-91G 2154 @ 100-200 PPB
20 ICAL	18	0904F020	ULSPLT	PCB7-90H 2154 @ 200-400 PPB
21 ICAL	19	0904F021	ULSPLT	PCB8-13E 3262 @ 1 PPB
22 ICAL	20	0904F022	ULSPLT	PCB8-13F 3262 @ 2 PPB
23 ICAL	21	0904F023	ULSPLT	PCB8-13G 3262 @ 5 PPB
24 ICAL	22	0904F024	ULSPLT	PCB8-13H 3262 @ 10 PPB
25 ICAL	23	0904F025	ULSPLT	PCB7-91H 3262 @ 20 PPB
26 ICAL	24	0904F026	ULSPLT	PCB7-91I 3262 @ 50 PPB
27 ICAL	25	0904F027	ULSPLT	PCB7-91J 3262 @ 100 PPB
28 ICAL	26	0904F028	ULSPLT	PCB7-90I 3262 @ 200 PPB
29 ICAL	27	0904F029	ULSPLT	PCB8-13I 4268 @ 1 PPB
30 ICAL	28	0904F030	ULSPLT	PCB8-13J 4268 @ 2 PPB
31 ICAL	29	0904F031	ULSPLT	PCB8-13K 4268 @ 5 PPB
32 ICAL	30	0904F032	ULSPLT	PCB8-13L 4268 @ 10 PPB
33 ICAL	31	0904F033	ULSPLT	PCB8-4H 4268 @ 20 PPB
34 ICAL	32	0904F034	ULSPLT	PCB8-4F 4268 @ 50 PPB
35 ICAL	33	0904F035	ULSPLT	PCB8-4G 4268 @ 100 PPB
36 ICAL	34	0904F036	ULSPLT	PCB8-4E 4268 @ 200 PPB
37 ICAL	35	0904F037	ULSPLT	PCB8-13M 1248 @ 1 PPB
38 ICAL	36	0904F038	ULSPLT	PCB8-13N 1248 @ 2 PPB
39 ICAL	37	0904F039	ULSPLT	PCB8-14A 1248 @ 5 PPB
40 ICAL	38	0904F040	ULSPLT	PCB8-14B 1248 @ 10 PPB
41 ICAL	39	0904F041	ULSPLT	PCB7-91N 1248 @ 20 PPB
42 ICAL	40	0904F042	ULSPLT	PCB7-91O 1248 @ 50 PPB
43 ICAL	41	0904F043	ULSPLT	PCB7-92A 1248 @ 100 PPB

Line Type	Vial	DataFile	Method	Sample Name
44 ICAL	42	0904F044	ULSPLT	PCB7-91A 1248 @ 200 PPB
45 ICV	43	0904F045	ULSPLT	PCB8-14C 1016 ICV @ 20 PPB
46 ICV	44	0904F046	ULSPLT	PCB8-14D 1221 ICV @ 20 PPB
47 ICV	45	0904F047	ULSPLT	PCB8-14E 1232 ICV @ 20 PPB
48 ICV	46	0904F048	ULSPLT	PCB8-14F 1242 ICV @ 20 PPB
49 ICV	47	0904F049	ULSPLT	PCB8-14G 1248 ICV @ 20 PPB
50 ICV	48	0904F050	ULSPLT	PCB8-14H 1254 ICV @ 20 PPB
51 ICV	49	0904F051	ULSPLT	PCB8-14I 1260 ICV @ 20 PPB
52 ICV	50	0904F052	ULSPLT	PCB8-14J 1262 ICV @ 20 PPB
53 ICV	51	0904F053	ULSPLT	PCB8-14K 1268 ICV @ 20 PPB

Injection Log

Directory: j:\GC27\Data\090919

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	100	0909F001.D	1.	PRIMER		09/09/22019 10:49:0
2	100	0909F002.D	1.	PRIMER		09/09/22019 11:20:3
3	1	0909F003.D	1.	IB		09/09/22019 11:52:0
4	2	0909F004.D	1.	PCB8-015A 4268 @ 1 PPB		09/09/22019 12:23:4
5	3	0909F005.D	1.	PCB8-015B 4268 @ 2 PPB		09/09/22019 12:55:2
6	4	0909F006.D	1.	PCB8-015C 4268 @ 5 PPB		09/09/22019 1:27:1
7	5	0909F007.D	1.	PCB8-015D 4268 @ 10 PPB		09/09/22019 1:58:4
8	6	0909F008.D	1.	PCB8-015E 1242 ICV @ 20 PPB		09/09/22019 2:30:2
9	7	0909F009.D	1.	PCB8-015H 4268 @ 1 PPB		09/09/22019 3:02:1
10	8	0909F010.D	1.	PCB8-015I 4268 @ 2 PPB		09/09/22019 3:33:5
11	9	0909F011.D	1.	PCB8-015J 4268 @ 5 PPB		09/09/22019 4:05:3
12	10	0909F012.D	1.	PCB8-015K 4268 @ 10 PPB		09/09/22019 4:37:0
13	11	0909F013.D	1.	PCB8-015E 1242 ICV @ 20 PPB		09/09/22019 5:08:4
14	12	0909F014.D	1.	PCB8-015F 1268 ICV @ 20 PPB		09/09/22019 5:40:1

ALS-Kelso
Initial Calibration Checklist GC

Method: 8082A PCB
ICAL ID or Date: CAL16127
Instrument: GC 27

Primary Secondary

- The new ICAL is saved with a unique ID.
- ICAL was performed continuously (i.e. not interrupted by maintenance event).
- All analytes in blank are $< \frac{1}{2}$ MRL.
- ICAL contains minimum number of concentrations.
- No internal levels excluded for any analytes.
- Retention times updated using a midpoint of the calibration. Secondary reviewer double check peak IDs.
- Calibration files quantitated with new method.
- Check integrations. Primary reviewer must check all integrations electronically. Secondary reviewer will check low point and high point electronically.
- ICAL files added to calibration table.
- The average RF or COD meets method criteria for all analytes.
- ICV is quantitated against new ICAL.
- ICV meets method criteria.
- Linked in Stealth to an appropriate method. An appropriate method will be one that contains all analytes that were analyzed.
- All calibration reports included: ICAL SUMMARY, ICAL DETAILED, ICV SUMMARY.
- Enviroquant/Target responses match those in Stealth.
- All quant reports and manual integrations initialed and dated.

Data packet should be in the following order: Sequence log, Calibration Review, Stealth ICAL reports, and quant reports.

Primary: SA

Date: 9/11/19

Secondary: [Signature]

Date: 9/12/19

Initial Calibration - Summary Report

Calibration ID: CAL16127
Method ID: MJ706

Instrument ID: GC27.i
Column Name: DB-35MS

Parameter Name	Type	Curve Fit	Min RF	Mean RF	Max %RSD	%RSD	Min COD	COD	MRL Check	Conc ½ Low pt.
Aroclor 1221 {1}	MULTI	AverageRF		2.3E+4	20	10.7			OK	
Aroclor 1221 {2}	MULTI	AverageRF		1.5E+4	20	10.9			OK	
Aroclor 1221 {3}	MULTI	AverageRF		5.5E+4	20	10.1			OK	
Aroclor 1232 {1}	MULTI	AverageRF		1.6E+4	20	12.2			OK	
Aroclor 1232 {2}	MULTI	AverageRF		4.7E+4	20	12.4			OK	
Aroclor 1232 {3}	MULTI	AverageRF		3.8E+4	20	10.7			OK	
Aroclor 1232 {4}	MULTI	AverageRF		1.4E+4	20	8.8			OK	
Aroclor 1232 {5}	MULTI	AverageRF		2.6E+4	20	12.7			OK	
Aroclor 1242 {1}	MULTI	AverageRF		3.0E+4	20	8.7			OK	
Aroclor 1242 {2}	MULTI	AverageRF		2.3E+4	20	5.4			OK	
Aroclor 1242 {3}	MULTI	AverageRF		6.8E+4	20	6.7			OK	
Aroclor 1242 {4}	MULTI	AverageRF		4.1E+4	20	5.7			OK	
Aroclor 1242 {5}	MULTI	AverageRF		2.8E+4	20	5.5			OK	
Aroclor 1248 {1}	MULTI	AverageRF		4.2E+4	20	12.9			OK	
Aroclor 1248 {2}	MULTI	AverageRF		2.8E+4	20	10.5			OK	
Aroclor 1248 {3}	MULTI	AverageRF		5.3E+4	20	13.7			OK	
Aroclor 1248 {4}	MULTI	AverageRF		3.8E+4	20	9.2			OK	
Aroclor 1248 {5}	MULTI	AverageRF		3.3E+4	20	10.6			OK	
Aroclor 1254 {1}	MULTI	AverageRF		3.6E+4	20	10.1			OK	
Aroclor 1254 {2}	MULTI	AverageRF		6.3E+4	20	10.8			OK	
Aroclor 1254 {3}	MULTI	AverageRF		1.2E+5	20	11.8			OK	
Aroclor 1254 {4}	MULTI	AverageRF		7.3E+4	20	9.6			OK	
Aroclor 1254 {5}	MULTI	AverageRF		4.6E+4	20	8.2			OK	
Aroclor 1262 {1}	MULTI	AverageRF		9.4E+4	20	10.5			OK	
Aroclor 1262 {2}	MULTI	AverageRF		8.3E+4	20	10.9			OK	
Aroclor 1262 {3}	MULTI	AverageRF		1.5E+5	20	10.1			OK	
Aroclor 1262 {4}	MULTI	AverageRF		1.1E+5	20	10.5			OK	
Aroclor 1262 {5}	MULTI	AverageRF		4.8E+4	20	8.4			OK	
Aroclor 1268 {1}	MULTI	AverageRF		1.6E+5	20	5.8			OK	
Aroclor 1268 {2}	MULTI	AverageRF		1.5E+5	20	7.0			OK	
Aroclor 1268 {3}	MULTI	AverageRF		1.2E+5	20	5.9			OK	
Aroclor 1268 {4}	MULTI	AverageRF		3.5E+5	20	7.1			OK	
Tetrachloro-m-xylene	SURR	AverageRF		1.8E+6	20	3.7			NA	
Decachlorobiphenyl	SURR	AverageRF		1.1E+6	20	8.4			NA	
Aroclor 1016 {1}	MULTI	AverageRF		3.4E+4	20	8.5			OK	
Aroclor 1016 {2}	MULTI	AverageRF		2.8E+4	20	7.5			OK	
Aroclor 1016 {3}	MULTI	AverageRF		8.7E+4	20	7.2			OK	
Aroclor 1016 {4}	MULTI	AverageRF		5.1E+4	20	5.8			OK	
Aroclor 1016 {5}	MULTI	AverageRF		3.5E+4	20	5.1			OK	
Aroclor 1260 {1}	MULTI	AverageRF		3.4E+4	20	4.9			OK	
Aroclor 1260 {2}	MULTI	AverageRF		4.7E+4	20	4.6			OK	
Aroclor 1260 {3}	MULTI	AverageRF		5.0E+4	20	5.3			OK	
Aroclor 1260 {4}	MULTI	AverageRF		1.1E+5	20	6.7			OK	
Aroclor 1260 {5}	MULTI	AverageRF		7.9E+4	20	6.9			OK	

Initial Calibration - Summary Report

Calibration ID: CAL16127
Method ID: MJ706

Instrument ID: GC27.i
Column Name: DB-XLB

Parameter Name	Type	Curve Fit	Min RF	Mean RF	Max %RSD	%RSD	Min COD	COD	MRL Check	Conc ½ Low pt.
Aroclor 1221 {1}	MULTI	AverageRF		6.5E+3	20	7.8			OK	
Aroclor 1221 {2}	MULTI	AverageRF		6.5E+3	20	4.5			OK	
Aroclor 1221 {3}	MULTI	AverageRF		2.5E+4	20	8.6			OK	
Aroclor 1232 {1}	MULTI	AverageRF		2.0E+4	20	7.5			OK	
Aroclor 1232 {2}	MULTI	AverageRF		1.1E+4	20	5.6			OK	
Aroclor 1232 {3}	MULTI	AverageRF		7.3E+3	20	7.2			OK	
Aroclor 1232 {4}	MULTI	AverageRF		1.5E+4	20	7.5			OK	
Aroclor 1232 {5}	MULTI	AverageRF		1.8E+4	20	6.6			OK	
Aroclor 1242 {1}	MULTI	AverageRF		1.3E+4	20	11.9			OK	
Aroclor 1242 {2}	MULTI	AverageRF		1.8E+4	20	7.4			OK	
Aroclor 1242 {3}	MULTI	AverageRF		2.6E+4	20	4.9			OK	
Aroclor 1242 {4}	MULTI	AverageRF		2.9E+4	20	5.5			OK	
Aroclor 1242 {5}	MULTI	AverageRF		1.6E+4	20	9.8			OK	
Aroclor 1248 {1}	MULTI	AverageRF		2.1E+4	20	7.6			OK	
Aroclor 1248 {2}	MULTI	AverageRF		1.8E+4	20	8.3			OK	
Aroclor 1248 {3}	MULTI	AverageRF		2.4E+4	20	11.8			OK	
Aroclor 1248 {4}	MULTI	AverageRF		1.9E+4	20	9.9			OK	
Aroclor 1248 {5}	MULTI	AverageRF		2.9E+4	20	9.7			OK	
Aroclor 1254 {1}	MULTI	AverageRF		3.2E+4	20	9.6			OK	
Aroclor 1254 {2}	MULTI	AverageRF		1.7E+4	20	7.2			OK	
Aroclor 1254 {3}	MULTI	AverageRF		4.9E+4	20	11.2			OK	
Aroclor 1254 {4}	MULTI	AverageRF		1.5E+4	20	9.1			OK	
Aroclor 1254 {5}	MULTI	AverageRF		2.4E+4	20	10.5			OK	
Aroclor 1262 {1}	MULTI	AverageRF		4.2E+4	20	15.0			OK	
Aroclor 1262 {2}	MULTI	AverageRF		3.2E+4	20	14.6			OK	
Aroclor 1262 {3}	MULTI	AverageRF		6.6E+4	20	17.0			OK	
Aroclor 1262 {4}	MULTI	AverageRF		4.4E+4	20	14.1			OK	
Aroclor 1262 {5}	MULTI	AverageRF		2.3E+4	20	13.1			OK	
Aroclor 1268 {1}	MULTI	AverageRF		7.1E+4	20	9.2			OK	
Aroclor 1268 {2}	MULTI	AverageRF		6.3E+4	20	7.5			OK	
Aroclor 1268 {3}	MULTI	AverageRF		5.4E+4	20	6.5			OK	
Aroclor 1268 {4}	MULTI	AverageRF		1.5E+5	20	9.3			OK	
Tetrachloro-m-xylene	SURR	AverageRF		8.3E+5	20	7.2			NA	
Decachlorobiphenyl	SURR	AverageRF		4.5E+5	20	11.3			NA	
Aroclor 1016 {1}	MULTI	AverageRF		1.5E+4	20	6.8			OK	
Aroclor 1016 {2}	MULTI	AverageRF		2.2E+4	20	7.8			OK	
Aroclor 1016 {3}	MULTI	AverageRF		2.4E+4	20	7.8			OK	
Aroclor 1016 {4}	MULTI	AverageRF		1.8E+4	20	9.0			OK	
Aroclor 1016 {5}	MULTI	AverageRF		1.7E+4	20	7.5			OK	
Aroclor 1260 {1}	MULTI	AverageRF		1.4E+4	20	7.1			OK	
Aroclor 1260 {2}	MULTI	AverageRF		2.3E+4	20	15.6			OK	
Aroclor 1260 {3}	MULTI	AverageRF		2.2E+4	20	12.1			OK	
Aroclor 1260 {4}	MULTI	AverageRF		4.8E+4	20	14.2			OK	
Aroclor 1260 {5}	MULTI	AverageRF		2.9E+4	20	9.8			OK	

Initial Calibration - Detailed Report

Calibration ID:	CAL16127	Instrument ID:	GC27.i
Method ID:	MJ706	Column Name:	DB-35MS
		Calibration Fit:	AverageRF

#	FileID	File Location	Acquisition Date	Quantitation Date	Last Updated
1	289595	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F005.D	09/04/2019 18:32	09/11/2019 09:52	09/11/2019 13:26
2	289597	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F006.D	09/04/2019 19:04	09/11/2019 09:52	09/11/2019 13:26
3	289599	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F007.D	09/04/2019 19:35	09/11/2019 09:52	09/11/2019 13:26
4	289601	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F008.D	09/04/2019 20:07	09/11/2019 09:52	09/11/2019 13:26
5	289603	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F009.D	09/04/2019 20:39	09/11/2019 09:52	09/11/2019 13:26
6	289605	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F010.D	09/04/2019 21:10	09/11/2019 09:52	09/11/2019 13:26
7	289607	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F011.D	09/04/2019 21:42	09/11/2019 09:52	09/11/2019 13:26
8	289609	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F012.D	09/04/2019 22:13	09/11/2019 09:52	09/11/2019 13:26
9	289611	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F013.D	09/04/2019 22:45	09/11/2019 09:52	09/11/2019 13:26
10	289613	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F014.D	09/04/2019 23:17	09/11/2019 09:52	09/11/2019 13:26
11	289615	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F015.D	09/04/2019 23:48	09/11/2019 09:53	09/11/2019 13:26
12	289617	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F016.D	09/05/2019 00:20	09/11/2019 09:53	09/11/2019 13:26
13	289619	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F017.D	09/05/2019 00:51	09/11/2019 09:53	09/11/2019 13:26
14	289621	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F018.D	09/05/2019 01:23	09/11/2019 09:53	09/11/2019 13:26
15	289623	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F019.D	09/05/2019 01:55	09/11/2019 09:53	09/11/2019 13:26
16	289625	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F020.D	09/05/2019 02:26	09/11/2019 09:53	09/11/2019 13:26
17	289627	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F021.D	09/05/2019 02:58	09/11/2019 09:53	09/11/2019 13:26
18	289629	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F022.D	09/05/2019 03:29	09/11/2019 09:53	09/11/2019 13:26
19	289631	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F023.D	09/05/2019 04:01	09/11/2019 09:53	09/11/2019 13:26
20	289633	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F024.D	09/05/2019 04:32	09/11/2019 09:53	09/11/2019 13:26
21	289635	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F025.D	09/05/2019 05:04	09/11/2019 09:53	09/11/2019 13:26
22	289637	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F026.D	09/05/2019 05:35	09/11/2019 09:53	09/11/2019 13:26
23	289639	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F027.D	09/05/2019 06:07	09/11/2019 09:53	09/11/2019 13:26
24	289641	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F028.D	09/05/2019 06:38	09/11/2019 09:53	09/11/2019 13:27
25	289643	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F033.D	09/05/2019 09:16	09/11/2019 09:53	09/11/2019 13:27
26	289645	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F034.D	09/05/2019 09:48	09/11/2019 09:53	09/11/2019 13:27
27	289647	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F035.D	09/05/2019 10:20	09/11/2019 09:53	09/11/2019 13:27
28	289649	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F036.D	09/05/2019 10:52	09/11/2019 09:53	09/11/2019 13:27
29	289651	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F037.D	09/05/2019 11:23	09/11/2019 09:53	09/11/2019 13:27
30	289653	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F038.D	09/05/2019 11:55	09/11/2019 09:53	09/11/2019 13:27
31	289655	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F039.D	09/05/2019 12:26	09/11/2019 09:53	09/11/2019 13:27
32	289657	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F040.D	09/05/2019 12:58	09/11/2019 09:53	09/11/2019 13:27
33	289659	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F041.D	09/05/2019 13:30	09/11/2019 09:53	09/11/2019 13:27
34	289661	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F042.D	09/05/2019 14:02	09/11/2019 09:53	09/11/2019 13:27
35	289663	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F043.D	09/05/2019 14:33	09/11/2019 09:53	09/11/2019 13:27
36	289665	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F044.D	09/05/2019 15:05	09/11/2019 09:53	09/11/2019 13:27
37	289681	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F009.D	09/09/2019 15:02	09/11/2019 09:54	09/11/2019 13:27
38	289683	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F010.D	09/09/2019 15:33	09/11/2019 09:54	09/11/2019 13:27
39	289685	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F011.D	09/09/2019 16:05	09/11/2019 09:54	09/11/2019 13:27
40	289687	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F012.D	09/09/2019 16:37	09/11/2019 09:54	09/11/2019 13:27

Parameter Name	#	RF	#	RF	#	RF	#	RF	#	RF	#	RF	Mean RF	%RSD
Tetrachloro-m-xylene	1	1.9E+6	2	1.9E+6	3	1.7E+6	4	1.8E+6	5	1.9E+6	6	1.8E+6	1.8E+6	3.7
	7	1.7E+6	8	1.7E+6										
Decachlorobiphenyl	1	1.2E+6	2	1.2E+6	3	1.1E+6	4	1.1E+6	5	1.1E+6	6	1.0E+6	1.1E+6	8.4
	7	9.8E+5	8	9.5E+5										
Aroclor 1016 {1}	1	3.9E+4	2	3.5E+4	3	3.3E+4	4	3.5E+4	5	3.6E+4	6	3.3E+4	3.4E+4	8.5
	7	3.1E+4	8	3.0E+4										

Initial Calibration - Detailed Report

Initial Calibration - Detailed Report

Calibration ID: CAL16127
Method ID: MJ706

Instrument ID: GC27.i
Column Name: DB-35MS
Calibration Fit: AverageRF

Parameter Name	#	RF	#	RF	#	RF	#	RF	#	RF	#	RF	Mean RF	%RSD
Aroclor 1016 {2}	1	3.2E+4	2	2.9E+4	3	2.7E+4	4	2.8E+4	5	2.9E+4	6	2.8E+4	2.8E+4	7.5
	7	2.6E+4	8	2.5E+4										
Aroclor 1016 {3}	1	9.3E+4	2	9.8E+4	3	8.4E+4	4	8.5E+4	5	9.0E+4	6	8.6E+4	8.7E+4	7.2
	7	8.0E+4	8	8.0E+4										
Aroclor 1016 {4}	1	5.1E+4	2	5.3E+4	3	5.3E+4	4	5.3E+4	5	5.5E+4	6	5.1E+4	5.1E+4	5.8
	7	4.8E+4	8	4.6E+4										
Aroclor 1016 {5}	1	3.6E+4	2	3.5E+4	3	3.6E+4	4	3.7E+4	5	3.8E+4	6	3.5E+4	3.5E+4	5.1
	7	3.3E+4	8	3.2E+4										
Aroclor 1221 {1}					9	2.5E+4	10	2.6E+4	11	2.5E+4	12	2.5E+4	2.3E+4	10.7
	13	2.2E+4	14	2.0E+4	15	2.0E+4	16	2.1E+4						
Aroclor 1221 {2}					9	1.7E+4	10	1.6E+4	11	1.5E+4	12	1.5E+4	1.5E+4	10.9
	13	1.4E+4	14	1.3E+4	15	1.3E+4	16	1.4E+4						
Aroclor 1221 {3}					9	6.0E+4	10	6.2E+4	11	5.8E+4	12	5.8E+4	5.5E+4	10.1
	13	5.3E+4	14	4.9E+4	15	4.7E+4	16	5.1E+4						
Aroclor 1232 {1}									17	1.9E+4	18	1.7E+4	1.6E+4	12.2
	19	1.6E+4	20	1.6E+4	21	1.5E+4	22	1.4E+4	23	1.3E+4	24	1.5E+4		
Aroclor 1232 {2}									17	5.7E+4	18	4.8E+4	4.7E+4	12.4
	19	5.1E+4	20	5.1E+4	21	4.4E+4	22	4.2E+4	23	3.9E+4	24	4.3E+4		
Aroclor 1232 {3}									17	3.1E+4	18	4.3E+4	3.8E+4	10.7
	19	4.0E+4	20	4.2E+4	21	4.0E+4	22	3.7E+4	23	3.4E+4	24	3.8E+4		
Aroclor 1232 {4}									17	1.2E+4	18	1.5E+4	1.4E+4	8.8
	19	1.5E+4	20	1.5E+4	21	1.4E+4	22	1.3E+4	23	1.2E+4	24	1.4E+4		
Aroclor 1232 {5}									17	3.3E+4	18	2.9E+4	2.6E+4	12.7
	19	2.6E+4	20	2.8E+4	21	2.4E+4	22	2.4E+4	23	2.2E+4	24	2.5E+4		
Aroclor 1242 {1}					25	3.0E+4	26	3.0E+4	27	2.8E+4	28	3.1E+4	3.0E+4	8.7
					37	3.5E+4	38	3.1E+4	39	2.7E+4	40	2.7E+4		
Aroclor 1242 {2}					25	2.3E+4	26	2.4E+4	27	2.2E+4	28	2.4E+4	2.3E+4	5.4
					37	2.2E+4	38	2.4E+4	39	2.1E+4	40	2.2E+4		
Aroclor 1242 {3}					25	6.9E+4	26	7.2E+4	27	6.8E+4	28	7.1E+4	6.8E+4	6.7
					37	7.5E+4	38	6.7E+4	39	6.3E+4	40	6.2E+4		
Aroclor 1242 {4}					25	4.2E+4	26	4.3E+4	27	4.0E+4	28	4.5E+4	4.1E+4	5.7
					37	3.9E+4	38	3.9E+4	39	4.0E+4	40	3.9E+4		
Aroclor 1242 {5}					25	2.8E+4	26	2.8E+4	27	2.7E+4	28	3.1E+4	2.8E+4	5.5
					37	2.8E+4	38	3.0E+4	39	2.7E+4	40	2.6E+4		
Aroclor 1248 {1}									29	5.1E+4	30	4.5E+4	4.2E+4	12.9
	31	4.6E+4	32	4.2E+4	33	3.8E+4	34	3.6E+4	35	3.6E+4	36	3.9E+4		
Aroclor 1248 {2}									29	3.3E+4	30	3.1E+4	2.8E+4	10.5
	31	2.9E+4	32	3.1E+4	33	2.5E+4	34	2.6E+4	35	2.5E+4	36	2.7E+4		
Aroclor 1248 {3}									29	6.1E+4	30	6.2E+4	5.3E+4	13.7
	31	5.5E+4	32	5.5E+4	33	4.9E+4	34	4.6E+4	35	4.3E+4	36	4.9E+4		
Aroclor 1248 {4}									29	3.8E+4	30	4.2E+4	3.8E+4	9.2
	31	4.1E+4	32	4.0E+4	33	3.6E+4	34	3.4E+4	35	3.2E+4	36	3.7E+4		
Aroclor 1248 {5}									29	3.5E+4	30	3.6E+4	3.3E+4	10.6
	31	3.7E+4	32	3.6E+4	33	3.1E+4	34	2.9E+4	35	2.8E+4	36	3.3E+4		
Aroclor 1254 {1}					9	4.0E+4	10	4.0E+4	11	3.7E+4	12	4.0E+4	3.6E+4	10.1
	13	3.5E+4	14	3.2E+4	15	3.1E+4	16	3.6E+4						
Aroclor 1254 {2}					9	7.1E+4	10	7.0E+4	11	6.4E+4	12	6.7E+4	6.3E+4	10.8
	13	5.8E+4	14	5.5E+4	15	5.3E+4	16	6.2E+4						

Initial Calibration - Detailed Report

Initial Calibration - Detailed Report

Calibration ID: CAL16127	Instrument ID: GC27.i
Method ID: MJ706	Column Name: DB-35MS
	Calibration Fit: AverageRF

Parameter Name	#	RF	#	RF	#	RF	#	RF	#	RF	#	RF	Mean RF	%RSD
Aroclor 1254 {3}			9	1.4E+5	10	1.4E+5	11	1.3E+5	12	1.3E+5			1.2E+5	11.8
	13	1.1E+5	14	1.1E+5	15	1.0E+5	16	1.2E+5						
Aroclor 1254 {4}			9	7.5E+4	10	8.2E+4	11	7.6E+4	12	8.1E+4			7.3E+4	9.6
	13	6.8E+4	14	6.5E+4	15	6.3E+4	16	7.4E+4						
Aroclor 1254 {5}			9	4.3E+4	10	4.9E+4	11	4.9E+4	12	5.0E+4			4.6E+4	8.2
	13	4.5E+4	14	4.2E+4	15	4.0E+4	16	4.7E+4						
Aroclor 1260 {1}	1	3.5E+4	2	3.5E+4	3	3.2E+4	4	3.4E+4	5	3.5E+4	6	3.3E+4	3.4E+4	4.9
	7	3.2E+4	8	3.2E+4										
Aroclor 1260 {2}	1	4.8E+4	2	4.6E+4	3	4.5E+4	4	4.7E+4	5	5.0E+4	6	4.7E+4	4.7E+4	4.6
	7	4.5E+4	8	4.4E+4										
Aroclor 1260 {3}	1	5.4E+4	2	5.0E+4	3	4.9E+4	4	5.2E+4	5	5.3E+4	6	5.0E+4	5.0E+4	5.3
	7	4.7E+4	8	4.6E+4										
Aroclor 1260 {4}	1	1.2E+5	2	1.1E+5	3	1.0E+5	4	1.1E+5	5	1.1E+5	6	1.0E+5	1.1E+5	6.7
	7	9.9E+4	8	9.9E+4										
Aroclor 1260 {5}	1	9.0E+4	2	8.2E+4	3	7.8E+4	4	8.1E+4	5	8.1E+4	6	7.7E+4	7.9E+4	6.9
	7	7.3E+4	8	7.3E+4										
Aroclor 1262 {1}									17	1.0E+5	18	1.0E+5	9.4E+4	10.5
	19	1.0E+5	20	1.0E+5	21	8.8E+4	22	8.4E+4	23	7.8E+4	24	9.1E+4		
Aroclor 1262 {2}									17	9.7E+4	18	8.8E+4	8.3E+4	10.9
	19	8.5E+4	20	9.0E+4	21	7.8E+4	22	7.5E+4	23	6.9E+4	24	8.1E+4		
Aroclor 1262 {3}									17	1.7E+5	18	1.7E+5	1.5E+5	10.1
	19	1.6E+5	20	1.6E+5	21	1.4E+5	22	1.4E+5	23	1.3E+5	24	1.5E+5		
Aroclor 1262 {4}									17	1.2E+5	18	1.2E+5	1.1E+5	10.5
	19	1.1E+5	20	1.2E+5	21	1.0E+5	22	9.8E+4	23	9.2E+4	24	1.1E+5		
Aroclor 1262 {5}									17	5.0E+4	18	5.1E+4	4.8E+4	8.4
	19	4.9E+4	20	5.2E+4	21	4.5E+4	22	4.4E+4	23	4.1E+4	24	4.9E+4		
Aroclor 1268 {1}	25	1.6E+5	26	1.6E+5	27	1.6E+5	28	1.8E+5					1.6E+5	5.8
	37	1.7E+5	38	1.7E+5	39	1.6E+5	40	1.5E+5						
Aroclor 1268 {2}	25	1.4E+5	26	1.5E+5	27	1.4E+5	28	1.7E+5					1.5E+5	7.0
	37	1.6E+5	38	1.4E+5	39	1.4E+5	40	1.4E+5						
Aroclor 1268 {3}	25	1.2E+5	26	1.3E+5	27	1.2E+5	28	1.4E+5					1.2E+5	5.9
	37	1.2E+5	38	1.2E+5	39	1.2E+5	40	1.2E+5						
Aroclor 1268 {4}	25	3.4E+5	26	3.6E+5	27	3.4E+5	28	4.1E+5					3.5E+5	7.1
	37	3.5E+5	38	3.5E+5	39	3.3E+5	40	3.3E+5						

Calibration ID:	CAL16127	Instrument ID:	GC27.i
Method ID:	MJ706	Column Name:	DB-35MS

#	FileID	File Location	Acquisition Date	Quantitation Date	Last Updated
1	289595	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F005.D	09/04/2019 18:32	09/11/2019 09:52	09/11/2019 13:26
2	289597	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F006.D	09/04/2019 19:04	09/11/2019 09:52	09/11/2019 13:26
3	289599	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F007.D	09/04/2019 19:35	09/11/2019 09:52	09/11/2019 13:26
4	289601	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F008.D	09/04/2019 20:07	09/11/2019 09:52	09/11/2019 13:26
5	289603	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F009.D	09/04/2019 20:39	09/11/2019 09:52	09/11/2019 13:26
6	289605	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F010.D	09/04/2019 21:10	09/11/2019 09:52	09/11/2019 13:26
7	289607	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F011.D	09/04/2019 21:42	09/11/2019 09:52	09/11/2019 13:26
8	289609	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F012.D	09/04/2019 22:13	09/11/2019 09:52	09/11/2019 13:26
9	289611	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F013.D	09/04/2019 22:45	09/11/2019 09:52	09/11/2019 13:26
10	289613	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F014.D	09/04/2019 23:17	09/11/2019 09:52	09/11/2019 13:26
11	289615	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F015.D	09/04/2019 23:48	09/11/2019 09:53	09/11/2019 13:26
12	289617	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F016.D	09/05/2019 00:20	09/11/2019 09:53	09/11/2019 13:26
13	289619	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F017.D	09/05/2019 00:51	09/11/2019 09:53	09/11/2019 13:26
14	289621	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F018.D	09/05/2019 01:23	09/11/2019 09:53	09/11/2019 13:26
15	289623	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F019.D	09/05/2019 01:55	09/11/2019 09:53	09/11/2019 13:26
16	289625	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F020.D	09/05/2019 02:26	09/11/2019 09:53	09/11/2019 13:26
17	289627	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F021.D	09/05/2019 02:58	09/11/2019 09:53	09/11/2019 13:26
18	289629	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F022.D	09/05/2019 03:29	09/11/2019 09:53	09/11/2019 13:26
19	289631	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F023.D	09/05/2019 04:01	09/11/2019 09:53	09/11/2019 13:26
20	289633	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F024.D	09/05/2019 04:32	09/11/2019 09:53	09/11/2019 13:26
21	289635	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F025.D	09/05/2019 05:04	09/11/2019 09:53	09/11/2019 13:26
22	289637	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F026.D	09/05/2019 05:35	09/11/2019 09:53	09/11/2019 13:26
23	289639	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F027.D	09/05/2019 06:07	09/11/2019 09:53	09/11/2019 13:26
24	289641	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F028.D	09/05/2019 06:38	09/11/2019 09:53	09/11/2019 13:27
25	289643	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F033.D	09/05/2019 09:16	09/11/2019 09:53	09/11/2019 13:27
26	289645	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F034.D	09/05/2019 09:48	09/11/2019 09:53	09/11/2019 13:27
27	289647	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F035.D	09/05/2019 10:20	09/11/2019 09:53	09/11/2019 13:27
28	289649	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F036.D	09/05/2019 10:52	09/11/2019 09:53	09/11/2019 13:27
29	289651	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F037.D	09/05/2019 11:23	09/11/2019 09:53	09/11/2019 13:27
30	289653	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F038.D	09/05/2019 11:55	09/11/2019 09:53	09/11/2019 13:27
31	289655	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F039.D	09/05/2019 12:26	09/11/2019 09:53	09/11/2019 13:27
32	289657	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F040.D	09/05/2019 12:58	09/11/2019 09:53	09/11/2019 13:27
33	289659	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F041.D	09/05/2019 13:30	09/11/2019 09:53	09/11/2019 13:27
34	289661	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F042.D	09/05/2019 14:02	09/11/2019 09:53	09/11/2019 13:27
35	289663	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F043.D	09/05/2019 14:33	09/11/2019 09:53	09/11/2019 13:27
36	289665	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F044.D	09/05/2019 15:05	09/11/2019 09:53	09/11/2019 13:27
37	289681	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F009.D	09/09/2019 15:02	09/11/2019 09:54	09/11/2019 13:27
38	289683	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F010.D	09/09/2019 15:33	09/11/2019 09:54	09/11/2019 13:27
39	289685	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F011.D	09/09/2019 16:05	09/11/2019 09:54	09/11/2019 13:27
40	289687	\\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F012.D	09/09/2019 16:37	09/11/2019 09:54	09/11/2019 13:27

Parameter Name	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D
Tetrachloro-m-xylene	1	0.1	0.1059	5.9	2	0.2	0.2063	3.2	3	0.5	0.4839	-3.2
	4	1	0.9930	-0.7	5	2	2.064	3.2	6	5	4.940	-1.2
	7	10	9.640	-3.6	8	20	19.28	-3.6				

Initial Calibration - Detailed Report

Calibration ID: CAL16127
Method ID: MJ706

Instrument ID: GC27.i
Column Name: DB-35MS

Parameter Name	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D
Decachlorobiphenyl	1	0.1	0.1124	12.4	2	0.2	0.2138	6.9	3	0.5	0.5063	1.3
	4	1	1.018	1.8	5	2	2.085	4.3	6	5	4.794	-4.1
	7	10	9.023	-9.8	8	20	17.46	-12.7				
Aroclor 1016 {1}	1	1	1.155	15.5	2	2	2.079	4.0	3	5	4.767	-4.7
	4	10	10.33	3.3	5	20	20.94	4.7	6	50	48.25	-3.5
	7	100	91.87	-8.1	8	200	177.8	-11.1				
Aroclor 1016 {2}	1	1	1.132	13.2	2	2	2.083	4.2	3	5	4.803	-3.9
	4	10	10.12	1.2	5	20	20.91	4.5	6	50	49.11	-1.8
	7	100	93.26	-6.7	8	200	178.8	-10.6				
Aroclor 1016 {3}	1	1	1.067	6.7	2	2	2.251	12.6	3	5	4.820	-3.6
	4	10	9.783	-2.2	5	20	20.71	3.6	6	50	49.60	-0.8
	7	100	92.10	-7.9	8	200	183.3	-8.3				
Aroclor 1016 {4}	1	1	1.000	0.0	2	2	2.081	4.0	3	5	5.122	2.4
	4	10	10.40	4.0	5	20	21.40	7.0	6	50	49.71	-0.6
	7	100	92.70	-7.3	8	200	180.7	-9.7				
Aroclor 1016 {5}	1	1	1.024	2.4	2	2	1.985	-0.8	3	5	5.067	1.3
	4	10	10.45	4.5	5	20	21.38	6.9	6	50	49.89	-0.2
	7	100	94.52	-5.5	8	200	182.5	-8.7				
Aroclor 1221 {1}									9	2	2.199	9.9
	10	4	4.536	13.4	11	10	10.80	8.0	12	20	21.27	6.3
	13	40	38.41	-4.0	14	100	88.56	-11.4	15	200	171.2	-14.4
	16	400	368.7	-7.8								
Aroclor 1221 {2}									9	2	2.353	17.7
	10	4	4.421	10.5	11	10	10.11	1.1	12	20	21.14	5.7
	13	40	38.94	-2.7	14	100	88.87	-11.1	15	200	172.7	-13.7
	16	400	370.0	-7.5								
Aroclor 1221 {3}									9	2	2.198	9.9
	10	4	4.518	13.0	11	10	10.55	5.5	12	20	21.35	6.8
	13	40	38.88	-2.8	14	100	89.45	-10.5	15	200	171.9	-14.1
	16	400	369.5	-7.6								
Aroclor 1232 {1}					17	1	1.231	23.1	18	2	2.177	8.9
	19	5	5.011	0.2	20	10	10.45	4.5	21	20	19.05	-4.7
	22	50	44.95	-10.1	23	100	84.17	-15.8	24	200	187.9	-6.1
Aroclor 1232 {2}					17	1	1.210	21.0	18	2	2.054	2.7
	19	5	5.409	8.2	20	10	10.87	8.7	21	20	18.94	-5.3
	22	50	45.04	-9.9	23	100	83.19	-16.8	24	200	183.0	-8.5
Aroclor 1232 {3}					17	1	0.8195	-18.0	18	2	2.245	12.2
	19	5	5.245	4.9	20	10	11.10	11.0	21	20	21.12	5.6
	22	50	48.38	-3.2	23	100	88.32	-11.7	24	200	198.4	-0.8

Initial Calibration - Detailed Report

Calibration ID:	CAL16127	Instrument ID:	GC27.i
Method ID:	MJ706	Column Name:	DB-35MS

Parameter Name	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D
Aroclor 1232 {4}												
					17	1	0.8727	-12.7	18	2	2.236	11.8
	19	5	5.344	6.9	20	10	10.76	7.6	21	20	20.02	0.1
	22	50	48.07	-3.9	23	100	89.25	-10.8	24	200	201.9	0.9
Aroclor 1232 {5}												
					17	1	1.246	24.6	18	2	2.166	8.3
	19	5	4.979	-0.4	20	10	10.49	4.9	21	20	18.57	-7.2
	22	50	45.38	-9.2	23	100	83.39	-16.6	24	200	191.3	-4.3
Aroclor 1242 {1}												
	25	20	19.87	-0.6	26	50	50.08	0.2	27	100	94.97	-5.0
	28	200	205.6	2.8								
	37	1	1.177	17.7	38	2	2.073	3.6	39	5	4.529	-9.4
	40	10	9.074	-9.3								
Aroclor 1242 {2}												
	25	20	20.05	0.2	26	50	52.02	4.0	27	100	97.76	-2.2
	28	200	213.9	7.0								
	37	1	0.9620	-3.8	38	2	2.136	6.8	39	5	4.634	-7.3
	40	10	9.530	-4.7								
Aroclor 1242 {3}												
	25	20	20.07	0.4	26	50	52.86	5.7	27	100	99.81	-0.2
	28	200	208.0	4.0								
	37	1	1.099	9.9	38	2	1.961	-1.9	39	5	4.598	-8.0
	40	10	9.017	-9.8								
Aroclor 1242 {4}												
	25	20	20.45	2.3	26	50	52.61	5.2	27	100	98.51	-1.5
	28	200	221.8	10.9								
	37	1	0.9631	-3.7	38	2	1.904	-4.8	39	5	4.843	-3.1
	40	10	9.474	-5.3								
Aroclor 1242 {5}												
	25	20	20.05	0.2	26	50	50.07	0.1	27	100	96.25	-3.8
	28	200	217.2	8.6								
	37	1	1.002	0.2	38	2	2.133	6.7	39	5	4.783	-4.3
	40	10	9.223	-7.8								
Aroclor 1248 {1}												
					29	1	1.216	21.6	30	2	2.171	8.6
	31	5	5.541	10.8	32	10	10.16	1.6	33	20	18.34	-8.3
	34	50	43.36	-13.3	35	100	84.96	-15.0	36	200	188.1	-6.0
Aroclor 1248 {2}												
					29	1	1.150	15.0	30	2	2.213	10.6
	31	5	5.050	1.0	32	10	10.83	8.3	33	20	17.93	-10.4
	34	50	46.24	-7.5	35	100	86.26	-13.7	36	200	193.2	-3.4
Aroclor 1248 {3}												
					29	1	1.168	16.8	30	2	2.378	18.9
	31	5	5.261	5.2	32	10	10.45	4.5	33	20	18.67	-6.6
	34	50	43.48	-13.0	35	100	81.09	-18.9	36	200	186.4	-6.8
Aroclor 1248 {4}												
					29	1	1.009	0.9	30	2	2.245	12.2
	31	5	5.445	8.9	32	10	10.68	6.8	33	20	19.24	-3.8
	34	50	45.70	-8.6	35	100	85.24	-14.8	36	200	196.5	-1.7
Aroclor 1248 {5}												
					29	1	1.045	4.5	30	2	2.200	10.0
	31	5	5.630	12.6	32	10	10.92	9.2	33	20	18.42	-7.9
	34	50	44.40	-11.2	35	100	84.61	-15.4	36	200	196.4	-1.8

Initial Calibration - Detailed Report

Calibration ID: CAL16127	Instrument ID: GC27.i
Method ID: MJ706	Column Name: DB-35MS

Parameter Name	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D
Aroclor 1254 {1}									9	1	1.094	9.4
	10	2	2.237	11.8	11	5	5.072	1.4	12	10	10.97	9.7
	13	20	19.13	-4.4	14	50	44.20	-11.6	15	100	84.80	-15.2
	16	200	197.7	-1.2								
Aroclor 1254 {2}									9	1	1.136	13.6
	10	2	2.245	12.3	11	5	5.125	2.5	12	10	10.73	7.3
	13	20	18.65	-6.8	14	50	43.80	-12.4	15	100	85.04	-15.0
	16	200	196.8	-1.6								
Aroclor 1254 {3}									9	1	1.147	14.7
	10	2	2.258	12.9	11	5	5.193	3.9	12	10	10.82	8.2
	13	20	18.64	-6.8	14	50	43.13	-13.7	15	100	83.53	-16.5
	16	200	194.6	-2.7								
Aroclor 1254 {4}									9	1	1.034	3.4
	10	2	2.253	12.7	11	5	5.178	3.6	12	10	11.06	10.6
	13	20	18.74	-6.3	14	50	44.21	-11.6	15	100	86.92	-13.1
	16	200	201.5	0.8								
Aroclor 1254 {5}									9	1	0.9372	-6.3
	10	2	2.145	7.3	11	5	5.334	6.7	12	10	11.04	10.4
	13	20	19.59	-2.1	14	50	45.53	-8.9	15	100	88.77	-11.2
	16	200	208.3	4.2								
Aroclor 1260 {1}	1	1	1.056	5.6	2	2	2.115	5.8	3	5	4.756	-4.9
	4	10	10.13	1.3	5	20	20.85	4.3	6	50	49.11	-1.8
	7	100	95.48	-4.5	8	200	188.5	-5.8				
Aroclor 1260 {2}	1	1	1.040	4.0	2	2	1.973	-1.4	3	5	4.792	-4.2
	4	10	10.15	1.5	5	20	21.56	7.8	6	50	50.79	1.6
	7	100	96.33	-3.7	8	200	188.6	-5.7				
Aroclor 1260 {3}	1	1	1.078	7.8	2	2	2.011	0.5	3	5	4.902	-2.0
	4	10	10.31	3.1	5	20	21.03	5.1	6	50	49.45	-1.1
	7	100	94.24	-5.8	8	200	184.4	-7.8				
Aroclor 1260 {4}	1	1	1.139	13.9	2	2	2.012	0.6	3	5	4.832	-3.4
	4	10	10.12	1.2	5	20	20.74	3.7	6	50	48.56	-2.9
	7	100	93.46	-6.5	8	200	186.8	-6.6				
Aroclor 1260 {5}	1	1	1.131	13.1	2	2	2.062	3.1	3	5	4.909	-1.8
	4	10	10.21	2.1	5	20	20.48	2.4	6	50	48.47	-3.1
	7	100	92.58	-7.4	8	200	183.3	-8.4				
Aroclor 1262 {1}					17	1	1.068	6.8	18	2	2.222	11.1
	19	5	5.381	7.6	20	10	11.02	10.2	21	20	18.80	-6.0
	22	50	44.90	-10.2	23	100	82.98	-17.0	24	200	194.9	-2.5
Aroclor 1262 {2}					17	1	1.168	16.8	18	2	2.126	6.3
	19	5	5.144	2.9	20	10	10.88	8.8	21	20	18.73	-6.4
	22	50	44.99	-10.0	23	100	83.31	-16.7	24	200	196.4	-1.8

Initial Calibration - Detailed Report

Calibration ID: CAL16127
Method ID: MJ706

Instrument ID: GC27.i
Column Name: DB-35MS

Parameter Name	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D
Aroclor 1262 {3}					17	1	1.101	10.1	18	2	2.199	9.9
	19	5	5.189	3.8	20	10	10.85	8.5	21	20	18.53	-7.4
	22	50	44.58	-10.8	23	100	84.02	-16.0	24	200	203.6	1.8
Aroclor 1262 {4}					17	1	1.089	8.9	18	2	2.247	12.3
	19	5	5.210	4.2	20	10	10.90	9.0	21	20	18.65	-6.7
	22	50	44.54	-10.9	23	100	83.24	-16.8	24	200	200.0	0.0
Aroclor 1262 {5}					17	1	1.052	5.2	18	2	2.151	7.6
	19	5	5.172	3.4	20	10	10.96	9.6	21	20	18.86	-5.7
	22	50	45.78	-8.4	23	100	85.85	-14.2	24	200	205.0	2.5
Aroclor 1268 {1}	25	20	19.76	-1.2	26	50	50.12	0.2	27	100	95.01	-5.0
	28	200	222.6	11.3								
	37	1	1.037	3.7	38	2	2.045	2.3	39	5	4.751	-5.0
	40	10	9.358	-6.4								
Aroclor 1268 {2}	25	20	19.73	-1.4	26	50	50.62	1.2	27	100	95.92	-4.1
	28	200	227.1	13.5								
	37	1	1.067	6.7	38	2	1.940	-3.0	39	5	4.684	-6.3
	40	10	9.333	-6.7								
Aroclor 1268 {3}	25	20	19.99	0.0	26	50	50.76	1.5	27	100	96.39	-3.6
	28	200	226.9	13.5								
	37	1	1.001	0.1	38	2	1.937	-3.1	39	5	4.839	-3.2
	40	10	9.489	-5.1								
Aroclor 1268 {4}	25	20	19.68	-1.6	26	50	50.87	1.7	27	100	97.05	-2.9
	28	200	232.7	16.4								
	37	1	0.9955	-0.4	38	2	1.978	-1.1	39	5	4.720	-5.6
	40	10	9.362	-6.4								

Initial Calibration - Detailed Report

Calibration ID: CAL16127	Instrument ID: GC27.i
Method ID: MJ706	Column Name: DB-XLB
	Calibration Fit: AverageRF

#	FileID	File Location	Acquisition Date	Quantitation Date	Last Updated
1	289596	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F005.D	09/04/2019 18:32	09/11/2019 09:54	09/11/2019 13:26
2	289598	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F006.D	09/04/2019 19:04	09/11/2019 09:54	09/11/2019 13:26
3	289600	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F007.D	09/04/2019 19:35	09/11/2019 09:54	09/11/2019 13:26
4	289602	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F008.D	09/04/2019 20:07	09/11/2019 09:54	09/11/2019 13:26
5	289604	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F009.D	09/04/2019 20:39	09/11/2019 09:54	09/11/2019 13:26
6	289606	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F010.D	09/04/2019 21:10	09/11/2019 09:54	09/11/2019 13:26
7	289608	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F011.D	09/04/2019 21:42	09/11/2019 09:54	09/11/2019 13:26
8	289610	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F012.D	09/04/2019 22:13	09/11/2019 09:54	09/11/2019 13:26
9	289612	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F013.D	09/04/2019 22:45	09/11/2019 09:54	09/11/2019 13:26
10	289614	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F014.D	09/04/2019 23:17	09/11/2019 09:54	09/11/2019 13:26
11	289616	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F015.D	09/04/2019 23:48	09/11/2019 09:54	09/11/2019 13:26
12	289618	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F016.D	09/05/2019 00:20	09/11/2019 09:54	09/11/2019 13:26
13	289620	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F017.D	09/05/2019 00:51	09/11/2019 09:54	09/11/2019 13:26
14	289622	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F018.D	09/05/2019 01:23	09/11/2019 09:54	09/11/2019 13:26
15	289624	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F019.D	09/05/2019 01:55	09/11/2019 09:54	09/11/2019 13:26
16	289626	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F020.D	09/05/2019 02:26	09/11/2019 09:54	09/11/2019 13:26
17	289628	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F021.D	09/05/2019 02:58	09/11/2019 09:54	09/11/2019 13:26
18	289630	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F022.D	09/05/2019 03:29	09/11/2019 09:54	09/11/2019 13:26
19	289632	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F023.D	09/05/2019 04:01	09/11/2019 09:54	09/11/2019 13:26
20	289634	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F024.D	09/05/2019 04:32	09/11/2019 09:54	09/11/2019 13:26
21	289636	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F025.D	09/05/2019 05:04	09/11/2019 09:54	09/11/2019 13:26
22	289638	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F026.D	09/05/2019 05:35	09/11/2019 09:54	09/11/2019 13:26
23	289640	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F027.D	09/05/2019 06:07	09/11/2019 09:54	09/11/2019 13:27
24	289642	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F028.D	09/05/2019 06:38	09/11/2019 09:54	09/11/2019 13:27
25	289644	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F033.D	09/05/2019 09:16	09/11/2019 09:54	09/11/2019 13:27
26	289646	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F034.D	09/05/2019 09:48	09/11/2019 09:54	09/11/2019 13:27
27	289648	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F035.D	09/05/2019 10:20	09/11/2019 09:55	09/11/2019 13:27
28	289650	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F036.D	09/05/2019 10:52	09/11/2019 09:55	09/11/2019 13:27
29	289652	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F037.D	09/05/2019 11:23	09/11/2019 09:55	09/11/2019 13:27
30	289654	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F038.D	09/05/2019 11:55	09/11/2019 09:55	09/11/2019 13:27
31	289656	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F039.D	09/05/2019 12:26	09/11/2019 09:55	09/11/2019 13:27
32	289658	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F040.D	09/05/2019 12:58	09/11/2019 09:55	09/11/2019 13:27
33	289660	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F041.D	09/05/2019 13:30	09/11/2019 09:55	09/11/2019 13:27
34	289662	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F042.D	09/05/2019 14:02	09/11/2019 09:55	09/11/2019 13:27
35	289664	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F043.D	09/05/2019 14:33	09/11/2019 09:55	09/11/2019 13:27
36	289666	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F044.D	09/05/2019 15:05	09/11/2019 09:55	09/11/2019 13:27
37	289682	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F009.D	09/09/2019 15:02	09/11/2019 09:55	09/11/2019 13:27
38	289684	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F010.D	09/09/2019 15:33	09/11/2019 09:55	09/11/2019 13:27
39	289686	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F011.D	09/09/2019 16:05	09/11/2019 09:55	09/11/2019 13:27
40	289688	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F012.D	09/09/2019 16:37	09/11/2019 09:55	09/11/2019 13:27

Parameter Name	#	RF	#	RF	#	RF	#	RF	#	RF	#	RF	Mean RF	%RSD
Tetrachloro-m-xylene	1	8.5E+5	2	8.6E+5	3	8.5E+5	4	8.9E+5	5	9.0E+5	6	8.0E+5	8.3E+5	7.2
	7	7.5E+5	8	7.4E+5										
Decachlorobiphenyl	1	4.6E+5	2	5.0E+5	3	4.5E+5	4	4.8E+5	5	5.0E+5	6	4.3E+5	4.5E+5	11.3
	7	3.9E+5	8	3.6E+5										
Aroclor 1016 {1}	1	1.6E+4	2	1.4E+4	3	1.4E+4	4	1.5E+4	5	1.7E+4	6	1.6E+4	1.5E+4	6.8
	7	1.5E+4	8	1.4E+4										

Initial Calibration - Detailed Report

Calibration ID: CAL16127	Instrument ID: GC27.i	Column Name: DB-XLB	Calibration Fit: AverageRF
Method ID: MJ706			

Parameter Name	#	RF	#	RF	#	RF	#	RF	#	RF	#	RF	Mean RF	%RSD	
Aroclor 1016 {2}	1	2.4E+4	2	2.2E+4	3	2.1E+4	4	2.3E+4	5	2.4E+4	6	2.2E+4	2.2E+4	7.8	
	7	2.1E+4	8	1.9E+4											
Aroclor 1016 {3}	1	2.2E+4	2	2.4E+4	3	2.4E+4	4	2.6E+4	5	2.7E+4	6	2.5E+4	2.4E+4	7.8	
	7	2.3E+4	8	2.2E+4											
Aroclor 1016 {4}	1	2.0E+4	2	1.8E+4	3	1.7E+4	4	1.8E+4	5	1.9E+4	6	1.8E+4	1.8E+4	9.0	
	7	1.6E+4	8	1.5E+4											
Aroclor 1016 {5}	1	1.8E+4	2	1.6E+4	3	1.6E+4	4	1.7E+4	5	1.9E+4	6	1.7E+4	1.7E+4	7.5	
	7	1.6E+4	8	1.5E+4											
Aroclor 1221 {1}					9	7.5E+3	10	6.0E+3	11	6.0E+3	12	6.8E+3	6.5E+3	7.8	
					13	6.7E+3	14	6.3E+3	15	6.2E+3	16	6.5E+3			
Aroclor 1221 {2}					9	6.0E+3	10	6.8E+3	11	6.5E+3	12	6.8E+3	6.5E+3	4.5	
					13	6.6E+3	14	6.4E+3	15	6.2E+3	16	6.4E+3			
Aroclor 1221 {3}					9	2.6E+4	10	2.6E+4	11	2.5E+4	12	2.8E+4	2.5E+4	8.6	
					13	2.6E+4	14	2.3E+4	15	2.2E+4	16	2.2E+4			
Aroclor 1232 {1}									17	1.7E+4	18	1.9E+4	2.0E+4	7.5	
					19	2.0E+4	20	2.1E+4	21	2.1E+4	22	2.0E+4	23	1.9E+4	24
Aroclor 1232 {2}									17	1.2E+4	18	1.1E+4	1.1E+4	5.6	
					19	1.0E+4	20	1.1E+4	21	1.1E+4	22	1.1E+4	23	1.0E+4	24
Aroclor 1232 {3}									17	7.0E+3	18	6.5E+3	7.3E+3	7.2	
					19	7.3E+3	20	7.7E+3	21	7.1E+3	22	7.5E+3	23	7.3E+3	24
Aroclor 1232 {4}									17	1.4E+4	18	1.7E+4	1.5E+4	7.5	
					19	1.5E+4	20	1.7E+4	21	1.6E+4	22	1.5E+4	23	1.4E+4	24
Aroclor 1232 {5}									17	1.6E+4	18	1.8E+4	1.8E+4	6.6	
					19	1.8E+4	20	2.0E+4	21	1.8E+4	22	1.8E+4	23	1.6E+4	24
Aroclor 1242 {1}					25	1.4E+4	26	1.5E+4	27	1.4E+4	28	1.4E+4	1.3E+4	11.9	
					37	1.1E+4	38	1.1E+4	39	1.1E+4	40	1.2E+4			
Aroclor 1242 {2}					25	1.9E+4	26	2.0E+4	27	1.8E+4	28	1.9E+4	1.8E+4	7.4	
					37	2.0E+4	38	1.7E+4	39	1.6E+4	40	1.8E+4			
Aroclor 1242 {3}					25	2.7E+4	26	2.7E+4	27	2.5E+4	28	2.6E+4	2.6E+4	4.9	
					37	2.7E+4	38	2.5E+4	39	2.4E+4	40	2.5E+4			
Aroclor 1242 {4}					25	3.1E+4	26	3.2E+4	27	2.8E+4	28	3.0E+4	2.9E+4	5.5	
					37	3.0E+4	38	2.8E+4	39	2.7E+4	40	2.8E+4			
Aroclor 1242 {5}					25	1.6E+4	26	1.8E+4	27	1.7E+4	28	1.8E+4	1.6E+4	9.8	
					37	1.6E+4	38	1.4E+4	39	1.4E+4	40	1.5E+4			
Aroclor 1248 {1}									29	2.0E+4	30	2.2E+4	2.1E+4	7.6	
					31	2.2E+4	32	2.4E+4	33	2.3E+4	34	2.1E+4	35	1.9E+4	36
Aroclor 1248 {2}									29	1.6E+4	30	1.9E+4	1.8E+4	8.3	
					31	1.9E+4	32	2.1E+4	33	1.9E+4	34	1.9E+4	35	1.6E+4	36
Aroclor 1248 {3}									29	2.7E+4	30	2.7E+4	2.4E+4	11.8	
					31	2.5E+4	32	2.6E+4	33	2.4E+4	34	2.2E+4	35	2.0E+4	36
Aroclor 1248 {4}									29	2.1E+4	30	2.1E+4	1.9E+4	9.9	
					31	2.0E+4	32	2.0E+4	33	1.8E+4	34	1.8E+4	35	1.6E+4	36
Aroclor 1248 {5}									29	2.8E+4	30	3.0E+4	2.9E+4	9.7	
					31	3.0E+4	32	3.3E+4	33	3.0E+4	34	2.7E+4	35	2.4E+4	36
Aroclor 1254 {1}					9	3.4E+4	10	3.3E+4	11	3.4E+4	12	3.7E+4	3.2E+4	9.6	
					13	3.3E+4	14	3.0E+4	15	2.7E+4	16	3.0E+4			
Aroclor 1254 {2}					9	1.6E+4	10	1.6E+4	11	1.7E+4	12	2.0E+4	1.7E+4	7.2	
					13	1.8E+4	14	1.7E+4	15	1.6E+4	16	1.7E+4			

Initial Calibration - Detailed Report

Calibration ID: CAL16127	Instrument ID: GC27.i
Method ID: MJ706	Column Name: DB-XLB
	Calibration Fit: AverageRF

Parameter Name	#	RF	#	RF	#	RF	#	RF	#	RF	#	RF	Mean RF	%RSD
Aroclor 1254 {3}			9	5.3E+4	10	5.4E+4	11	5.2E+4	12	5.7E+4			4.9E+4	11.2
	13	5.0E+4	14	4.5E+4	15	4.1E+4	16	4.4E+4						
Aroclor 1254 {4}			9	1.8E+4	10	1.4E+4	11	1.5E+4	12	1.7E+4			1.5E+4	9.1
	13	1.5E+4	14	1.5E+4	15	1.4E+4	16	1.5E+4						
Aroclor 1254 {5}			9	2.5E+4	10	2.8E+4	11	2.5E+4	12	2.8E+4			2.4E+4	10.5
	13	2.3E+4	14	2.2E+4	15	2.1E+4	16	2.3E+4						
Aroclor 1260 {1}	1	1.3E+4	2	1.3E+4	3	1.4E+4	4	1.5E+4	5	1.6E+4	6	1.5E+4	1.4E+4	7.1
	7	1.4E+4	8	1.3E+4										
Aroclor 1260 {2}	1	2.9E+4	2	2.7E+4	3	2.2E+4	4	2.3E+4	5	2.3E+4	6	2.1E+4	2.3E+4	15.6
	7	1.9E+4	8	1.9E+4										
Aroclor 1260 {3}	1	2.7E+4	2	2.4E+4	3	2.3E+4	4	2.3E+4	5	2.4E+4	6	2.2E+4	2.2E+4	12.1
	7	1.9E+4	8	1.8E+4										
Aroclor 1260 {4}	1	5.7E+4	2	5.2E+4	3	5.0E+4	4	5.0E+4	5	5.0E+4	6	4.4E+4	4.8E+4	14.2
	7	4.0E+4	8	3.7E+4										
Aroclor 1260 {5}	1	3.1E+4	2	2.8E+4	3	3.1E+4	4	3.2E+4	5	3.3E+4	6	3.0E+4	2.9E+4	9.8
	7	2.7E+4	8	2.5E+4										
Aroclor 1262 {1}			17	4.8E+4	18	4.8E+4							4.2E+4	15.0
	19	4.6E+4	20	4.9E+4	21	4.1E+4	22	3.8E+4	23	3.3E+4	24	3.6E+4		
Aroclor 1262 {2}			17	3.6E+4	18	3.7E+4							3.2E+4	14.6
	19	3.5E+4	20	3.7E+4	21	3.1E+4	22	2.9E+4	23	2.5E+4	24	2.8E+4		
Aroclor 1262 {3}			17	7.7E+4	18	7.7E+4							6.6E+4	17.0
	19	7.3E+4	20	7.5E+4	21	6.2E+4	22	5.6E+4	23	5.0E+4	24	5.5E+4		
Aroclor 1262 {4}			17	5.0E+4	18	4.8E+4							4.4E+4	14.1
	19	4.8E+4	20	5.1E+4	21	4.3E+4	22	3.9E+4	23	3.5E+4	24	3.8E+4		
Aroclor 1262 {5}			17	2.5E+4	18	2.7E+4							2.3E+4	13.1
	19	2.4E+4	20	2.5E+4	21	2.1E+4	22	2.0E+4	23	1.8E+4	24	2.0E+4		
Aroclor 1268 {1}	25	7.3E+4	26	6.8E+4	27	6.1E+4	28	6.5E+4					7.1E+4	9.2
	37	7.9E+4	38	8.0E+4	39	7.4E+4	40	7.3E+4						
Aroclor 1268 {2}	25	6.4E+4	26	6.1E+4	27	5.5E+4	28	5.9E+4					6.3E+4	7.5
	37	6.9E+4	38	6.8E+4	39	6.3E+4	40	6.3E+4						
Aroclor 1268 {3}	25	5.6E+4	26	5.3E+4	27	4.7E+4	28	5.1E+4					5.4E+4	6.5
	37	5.9E+4	38	5.6E+4	39	5.5E+4	40	5.4E+4						
Aroclor 1268 {4}	25	1.5E+5	26	1.4E+5	27	1.2E+5	28	1.4E+5					1.5E+5	9.3
	37	1.6E+5	38	1.6E+5	39	1.5E+5	40	1.5E+5						

Initial Calibration - Detailed Report

Calibration ID: CAL16127	Instrument ID: GC27.i
Method ID: MJ706	Column Name: DB-XLB

#	FileID	File Location	Acquisition Date	Quantitation Date	Last Updated
1	289596	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F005.D	09/04/2019 18:32	09/11/2019 09:54	09/11/2019 13:26
2	289598	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F006.D	09/04/2019 19:04	09/11/2019 09:54	09/11/2019 13:26
3	289600	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F007.D	09/04/2019 19:35	09/11/2019 09:54	09/11/2019 13:26
4	289602	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F008.D	09/04/2019 20:07	09/11/2019 09:54	09/11/2019 13:26
5	289604	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F009.D	09/04/2019 20:39	09/11/2019 09:54	09/11/2019 13:26
6	289606	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F010.D	09/04/2019 21:10	09/11/2019 09:54	09/11/2019 13:26
7	289608	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F011.D	09/04/2019 21:42	09/11/2019 09:54	09/11/2019 13:26
8	289610	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F012.D	09/04/2019 22:13	09/11/2019 09:54	09/11/2019 13:26
9	289612	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F013.D	09/04/2019 22:45	09/11/2019 09:54	09/11/2019 13:26
10	289614	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F014.D	09/04/2019 23:17	09/11/2019 09:54	09/11/2019 13:26
11	289616	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F015.D	09/04/2019 23:48	09/11/2019 09:54	09/11/2019 13:26
12	289618	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F016.D	09/05/2019 00:20	09/11/2019 09:54	09/11/2019 13:26
13	289620	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F017.D	09/05/2019 00:51	09/11/2019 09:54	09/11/2019 13:26
14	289622	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F018.D	09/05/2019 01:23	09/11/2019 09:54	09/11/2019 13:26
15	289624	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F019.D	09/05/2019 01:55	09/11/2019 09:54	09/11/2019 13:26
16	289626	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F020.D	09/05/2019 02:26	09/11/2019 09:54	09/11/2019 13:26
17	289628	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F021.D	09/05/2019 02:58	09/11/2019 09:54	09/11/2019 13:26
18	289630	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F022.D	09/05/2019 03:29	09/11/2019 09:54	09/11/2019 13:26
19	289632	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F023.D	09/05/2019 04:01	09/11/2019 09:54	09/11/2019 13:26
20	289634	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F024.D	09/05/2019 04:32	09/11/2019 09:54	09/11/2019 13:26
21	289636	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F025.D	09/05/2019 05:04	09/11/2019 09:54	09/11/2019 13:26
22	289638	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F026.D	09/05/2019 05:35	09/11/2019 09:54	09/11/2019 13:26
23	289640	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F027.D	09/05/2019 06:07	09/11/2019 09:54	09/11/2019 13:27
24	289642	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F028.D	09/05/2019 06:38	09/11/2019 09:54	09/11/2019 13:27
25	289644	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F033.D	09/05/2019 09:16	09/11/2019 09:54	09/11/2019 13:27
26	289646	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F034.D	09/05/2019 09:48	09/11/2019 09:54	09/11/2019 13:27
27	289648	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F035.D	09/05/2019 10:20	09/11/2019 09:55	09/11/2019 13:27
28	289650	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F036.D	09/05/2019 10:52	09/11/2019 09:55	09/11/2019 13:27
29	289652	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F037.D	09/05/2019 11:23	09/11/2019 09:55	09/11/2019 13:27
30	289654	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F038.D	09/05/2019 11:55	09/11/2019 09:55	09/11/2019 13:27
31	289656	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F039.D	09/05/2019 12:26	09/11/2019 09:55	09/11/2019 13:27
32	289658	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F040.D	09/05/2019 12:58	09/11/2019 09:55	09/11/2019 13:27
33	289660	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F041.D	09/05/2019 13:30	09/11/2019 09:55	09/11/2019 13:27
34	289662	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F042.D	09/05/2019 14:02	09/11/2019 09:55	09/11/2019 13:27
35	289664	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F043.D	09/05/2019 14:33	09/11/2019 09:55	09/11/2019 13:27
36	289666	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F044.D	09/05/2019 15:05	09/11/2019 09:55	09/11/2019 13:27
37	289682	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F009.D	09/09/2019 15:02	09/11/2019 09:55	09/11/2019 13:27
38	289684	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F010.D	09/09/2019 15:33	09/11/2019 09:55	09/11/2019 13:27
39	289686	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F011.D	09/09/2019 16:05	09/11/2019 09:55	09/11/2019 13:27
40	289688	\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F012.D	09/09/2019 16:37	09/11/2019 09:55	09/11/2019 13:27

Parameter Name	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D
Tetrachloro-m-xylene	1	0.1	0.1019	1.9	2	0.2	0.2060	3.0	3	0.5	0.5140	2.8
	4	1	1.074	7.4	5	2	2.170	8.5	6	5	4.841	-3.2
	7	10	9.062	-9.4	8	20	17.81	-11.0				

Initial Calibration - Detailed Report

Calibration ID: CAL16127
Method ID: MJ706

Instrument ID: GC27.i
Column Name: DB-XLB

Parameter Name	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D
Decachlorobiphenyl	1	0.1	0.1035	3.5	2	0.2	0.2225	11.3	3	0.5	0.5079	1.6
	4	1	1.084	8.4	5	2	2.221	11.1	6	5	4.828	-3.4
	7	10	8.713	-12.9	8	20	16.11	-19.5				
Aroclor 1016 {1}	1	1	1.069	6.9	2	2	1.888	-5.6	3	5	4.595	-8.1
	4	10	9.731	-2.7	5	20	22.10	10.5	6	50	52.61	5.2
	7	100	99.61	-0.4	8	200	188.3	-5.9				
Aroclor 1016 {2}	1	1	1.078	7.8	2	2	2.012	0.6	3	5	4.770	-4.6
	4	10	10.36	3.6	5	20	22.12	10.6	6	50	50.85	1.7
	7	100	93.13	-6.9	8	200	174.4	-12.8				
Aroclor 1016 {3}	1	1	0.9173	-8.3	2	2	1.965	-1.8	3	5	4.907	-1.9
	4	10	10.71	7.1	5	20	22.59	13.0	6	50	52.72	5.4
	7	100	95.50	-4.5	8	200	181.8	-9.1				
Aroclor 1016 {4}	1	1	1.148	14.8	2	2	2.046	2.3	3	5	4.722	-5.6
	4	10	9.977	-0.2	5	20	21.76	8.8	6	50	50.31	0.6
	7	100	92.59	-7.4	8	200	173.4	-13.3				
Aroclor 1016 {5}	1	1	1.089	8.9	2	2	1.898	-5.1	3	5	4.838	-3.2
	4	10	10.37	3.7	5	20	22.05	10.3	6	50	51.10	2.2
	7	100	94.20	-5.8	8	200	178.2	-10.9				
Aroclor 1221 {1}									9	2	2.318	15.9
	10	4	3.704	-7.4	11	10	9.292	-7.1	12	20	20.99	4.9
	13	40	41.09	2.7	14	100	96.29	-3.7	15	200	190.1	-5.0
	16	400	398.4	-0.4								
Aroclor 1221 {2}									9	2	1.848	-7.6
	10	4	4.192	4.8	11	10	10.15	1.5	12	20	21.16	5.8
	13	40	40.82	2.1	14	100	98.51	-1.5	15	200	191.1	-4.4
	16	400	397.4	-0.7								
Aroclor 1221 {3}									9	2	2.123	6.2
	10	4	4.166	4.2	11	10	10.20	2.0	12	20	22.52	12.6
	13	40	41.31	3.3	14	100	94.40	-5.6	15	200	174.0	-13.0
	16	400	361.8	-9.6								
Aroclor 1232 {1}					17	1	0.8504	-15.0	18	2	1.956	-2.2
	19	5	4.997	-0.1	20	10	10.91	9.1	21	20	21.33	6.7
	22	50	51.97	3.9	23	100	95.91	-4.1	24	200	203.1	1.5
Aroclor 1232 {2}					17	1	1.106	10.6	18	2	1.971	-1.5
	19	5	4.776	-4.5	20	10	10.49	4.9	21	20	19.64	-1.8
	22	50	50.09	0.2	23	100	92.58	-7.4	24	200	198.9	-0.5
Aroclor 1232 {3}					17	1	0.9480	-5.2	18	2	1.784	-10.8
	19	5	4.941	-1.2	20	10	10.52	5.2	21	20	19.35	-3.2
	22	50	51.21	2.4	23	100	99.69	-0.3	24	200	226.2	13.1

Initial Calibration - Detailed Report

Calibration ID:	CAL16127	Instrument ID:	GC27.i
Method ID:	MJ706	Column Name:	DB-XLB

Parameter Name	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D
Aroclor 1232 {4}												
					17	1	0.8910	-10.9	18	2	2.180	9.0
	19	5	5.097	1.9	20	10	11.00	10.0	21	20	20.47	2.3
	22	50	49.00	-2.0	23	100	91.14	-8.9	24	200	197.1	-1.4
Aroclor 1232 {5}												
					17	1	0.9185	-8.2	18	2	2.002	0.1
	19	5	5.113	2.3	20	10	11.28	12.8	21	20	20.33	1.7
	22	50	50.22	0.4	23	100	91.94	-8.1	24	200	198.0	-1.0
Aroclor 1242 {1}												
	25	20	21.51	7.6	26	50	57.08	14.2	27	100	108.3	8.3
	28	200	223.9	11.9								
	37	1	0.8622	-13.8	38	2	1.726	-13.7	39	5	4.429	-11.4
	40	10	9.693	-3.1								
Aroclor 1242 {2}												
	25	20	21.02	5.1	26	50	54.08	8.2	27	100	99.07	-0.9
	28	200	204.5	2.2								
	37	1	1.085	8.5	38	2	1.845	-7.7	39	5	4.396	-12.1
	40	10	9.671	-3.3								
Aroclor 1242 {3}												
	25	20	20.95	4.8	26	50	52.45	4.9	27	100	95.95	-4.1
	28	200	200.2	0.1								
	37	1	1.065	6.5	38	2	1.968	-1.6	39	5	4.644	-7.1
	40	10	9.650	-3.5								
Aroclor 1242 {4}												
	25	20	21.16	5.8	26	50	53.80	7.6	27	100	96.18	-3.8
	28	200	208.2	4.1								
	37	1	1.014	1.4	38	2	1.906	-4.7	39	5	4.620	-7.6
	40	10	9.722	-2.8								
Aroclor 1242 {5}												
	25	20	20.78	3.9	26	50	55.70	11.4	27	100	105.0	5.0
	28	200	223.9	11.9								
	37	1	1.002	0.2	38	2	1.746	-12.7	39	5	4.430	-11.4
	40	10	9.171	-8.3								
Aroclor 1248 {1}												
					29	1	0.9229	-7.7	30	2	2.075	3.7
	31	5	5.223	4.5	32	10	11.25	12.5	33	20	21.01	5.1
	34	50	48.88	-2.2	35	100	90.94	-9.1	36	200	186.6	-6.7
Aroclor 1248 {2}												
					29	1	0.8857	-11.4	30	2	2.081	4.1
	31	5	5.279	5.6	32	10	11.33	13.3	33	20	20.29	1.5
	34	50	50.26	0.5	35	100	88.82	-11.2	36	200	195.4	-2.3
Aroclor 1248 {3}												
					29	1	1.121	12.1	30	2	2.275	13.7
	31	5	5.232	4.6	32	10	10.87	8.7	33	20	19.83	-0.9
	34	50	46.19	-7.6	35	100	82.60	-17.4	36	200	173.5	-13.2
Aroclor 1248 {4}												
					29	1	1.104	10.4	30	2	2.214	10.7
	31	5	5.213	4.3	32	10	10.81	8.1	33	20	19.58	-2.1
	34	50	46.99	-6.0	35	100	84.47	-15.5	36	200	180.5	-9.7
Aroclor 1248 {5}												
					29	1	0.9884	-1.2	30	2	2.097	4.8
	31	5	5.301	6.0	32	10	11.52	15.2	33	20	20.93	4.7
	34	50	47.02	-6.0	35	100	84.51	-15.5	36	200	183.8	-8.1

Initial Calibration - Detailed Report

Calibration ID:	CAL16127	Instrument ID:	GC27.i
Method ID:	MJ706	Column Name:	DB-XLB

Parameter Name	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D
Aroclor 1254 {1}					9	1	1.043	4.3				
	10	2	2.069	3.5	11	5	5.292	5.8	12	10	11.52	15.2
	13	20	20.28	1.4	14	50	46.66	-6.7	15	100	84.98	-15.0
	16	200	183.1	-8.5								
Aroclor 1254 {2}					9	1	0.9497	-5.0				
	10	2	1.871	-6.5	11	5	4.966	-0.7	12	10	11.53	15.3
	13	20	21.03	5.1	14	50	49.55	-0.9	15	100	94.26	-5.7
	16	200	196.7	-1.6								
Aroclor 1254 {3}					9	1	1.068	6.8				
	10	2	2.178	8.9	11	5	5.283	5.7	12	10	11.52	15.2
	13	20	20.13	0.7	14	50	45.61	-8.8	15	100	83.04	-17.0
	16	200	177.1	-11.4								
Aroclor 1254 {4}					9	1	1.145	14.5				
	10	2	1.786	-10.7	11	5	4.841	-3.2	12	10	11.22	12.2
	13	20	20.16	0.8	14	50	48.03	-3.9	15	100	91.30	-8.7
	16	200	198.0	-1.0								
Aroclor 1254 {5}					9	1	1.036	3.6				
	10	2	2.268	13.4	11	5	5.187	3.7	12	10	11.40	14.0
	13	20	19.29	-3.6	14	50	45.38	-9.2	15	100	85.14	-14.9
	16	200	186.0	-7.0								
Aroclor 1260 {1}	1	1	0.9276	-7.2	2	2	1.894	-5.3	3	5	4.943	-1.1
	4	10	10.66	6.6	5	20	22.22	11.1	6	50	53.28	6.6
	7	100	96.85	-3.2	8	200	185.2	-7.4				
Aroclor 1260 {2}	1	1	1.272	27.2	2	2	2.330	16.5	3	5	4.905	-1.9
	4	10	9.916	-0.8	5	20	20.37	1.8	6	50	46.32	-7.4
	7	100	83.74	-16.3	8	200	161.6	-19.2				
Aroclor 1260 {3}	1	1	1.189	18.9	2	2	2.170	8.5	3	5	5.085	1.7
	4	10	10.29	2.9	5	20	20.95	4.8	6	50	47.90	-4.2
	7	100	86.67	-13.3	8	200	161.5	-19.2				
Aroclor 1260 {4}	1	1	1.202	20.2	2	2	2.183	9.1	3	5	5.237	4.7
	4	10	10.58	5.8	5	20	21.22	6.1	6	50	46.55	-6.9
	7	100	83.24	-16.8	8	200	155.4	-22.3				
Aroclor 1260 {5}	1	1	1.050	5.0	2	2	1.890	-5.5	3	5	5.228	4.6
	4	10	10.96	9.6	5	20	22.41	12.0	6	50	50.12	0.2
	7	100	90.71	-9.3	8	200	166.7	-16.7				
Aroclor 1262 {1}					17	1	1.140	14.0	18	2	2.249	12.5
	19	5	5.471	9.4	20	10	11.60	16.0	21	20	19.44	-2.8
	22	50	44.35	-11.3	23	100	77.69	-22.3	24	200	168.9	-15.6
Aroclor 1262 {2}					17	1	1.123	12.3	18	2	2.301	15.1
	19	5	5.417	8.3	20	10	11.50	15.0	21	20	19.33	-3.3
	22	50	44.61	-10.8	23	100	78.47	-21.5	24	200	170.0	-15.0

Initial Calibration - Detailed Report

Calibration ID: CAL16127
Method ID: MJ706

Instrument ID: GC27.i
Column Name: DB-XLB

Parameter Name	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D	#	Cal Amt	Calc Conc	% D
Aroclor 1262 {3}												
					17	1	1.166	16.6	18	2	2.355	17.7
	19	5	5.568	11.4	20	10	11.46	14.6	21	20	18.97	-5.2
	22	50	42.73	-14.5	23	100	75.98	-24.0	24	200	166.8	-16.6
Aroclor 1262 {4}												
					17	1	1.139	13.9	18	2	2.185	9.2
	19	5	5.462	9.2	20	10	11.61	16.1	21	20	19.44	-2.8
	22	50	44.80	-10.4	23	100	78.80	-21.2	24	200	171.8	-14.1
Aroclor 1262 {5}												
					17	1	1.091	9.1	18	2	2.361	18.0
	19	5	5.321	6.4	20	10	11.22	12.2	21	20	18.81	-6.0
	22	50	45.00	-10.0	23	100	81.03	-19.0	24	200	178.4	-10.8
Aroclor 1268 {1}												
	25	20	20.43	2.1	26	50	47.84	-4.3	27	100	84.63	-15.4
	28	200	181.2	-9.4								
	37	1	1.098	9.8	38	2	2.227	11.4	39	5	5.185	3.7
	40	10	10.20	2.0								
Aroclor 1268 {2}												
	25	20	20.44	2.2	26	50	48.72	-2.6	27	100	87.19	-12.8
	28	200	187.3	-6.3								
	37	1	1.097	9.7	38	2	2.178	8.9	39	5	4.995	-0.1
	40	10	10.10	1.0								
Aroclor 1268 {3}												
	25	20	20.62	3.1	26	50	49.30	-1.4	27	100	87.86	-12.1
	28	200	188.3	-5.9								
	37	1	1.089	8.9	38	2	2.095	4.8	39	5	5.078	1.6
	40	10	10.11	1.1								
Aroclor 1268 {4}												
	25	20	19.88	-0.6	26	50	47.01	-6.0	27	100	84.27	-15.7
	28	200	186.4	-6.8								
	37	1	1.105	10.5	38	2	2.238	11.9	39	5	5.259	5.2
	40	10	10.15	1.5								

Second Source Calibration Verification Summary

CalibrationID: CAL16127 Units: ppb
Method ID: MJ706 Column: DB-35MS
DataFile Location: \\ALKLSWS002\INSTDATA\GC27\DATA\090419ICAL.B\0904F

Parameter Name	File ID	Curve Fit	Method Criteria	AveRF	SSV RF	% Diff	True Value	Sol'n Conc	% Drift
Aroclor 1016	289667	NA	20				20.00	18.5	-7.6
Aroclor 1016 {1}	289667	AverageRF	100	3.4E+4	3.3E+4	-2.1	20.00	19.6	
Aroclor 1016 {2}	289667	AverageRF	100	2.8E+4	2.6E+4	-8.5	20.00	18.3	
Aroclor 1016 {3}	289667	AverageRF	100	8.7E+4	7.9E+4	-9.4	20.00	18.1	
Aroclor 1016 {4}	289667	AverageRF	100	5.1E+4	4.7E+4	-8.2	20.00	18.4	
Aroclor 1016 {5}	289667	AverageRF	100	3.5E+4	3.2E+4	-9.8	20.00	18.0	
Aroclor 1221	289669	NA	20				20.00	19.6	-2.2
Aroclor 1221 {1}	289669	AverageRF	100	2.3E+4	2.3E+4	-2.1	20.00	19.6	
Aroclor 1221 {2}	289669	AverageRF	100	1.5E+4	1.4E+4	-1.6	20.00	19.7	
Aroclor 1221 {3}	289669	AverageRF	100	5.5E+4	5.3E+4	-2.8	20.00	19.4	
Aroclor 1232	289671	NA	20				20.00	17.7	-11.6
Aroclor 1232 {1}	289671	AverageRF	100	1.6E+4	1.2E+4	-20.6	20.00	15.9	
Aroclor 1232 {2}	289671	AverageRF	100	4.7E+4	4.0E+4	-14.9	20.00	17.0	
Aroclor 1232 {3}	289671	AverageRF	100	3.8E+4	3.6E+4	-6.1	20.00	18.8	
Aroclor 1232 {4}	289671	AverageRF	100	1.4E+4	1.3E+4	-6.1	20.00	18.8	
Aroclor 1232 {5}	289671	AverageRF	100	2.6E+4	2.4E+4	-10.4	20.00	17.9	
Aroclor 1242	289689	NA	20				20.00	20.8	4.2
Aroclor 1242 {1}	289689	AverageRF	100	3.0E+4	3.1E+4	4.5	20.00	20.9	
Aroclor 1242 {2}	289689	AverageRF	100	2.3E+4	2.4E+4	4.2	20.00	20.8	
Aroclor 1242 {3}	289689	AverageRF	100	6.8E+4	6.9E+4	1.1	20.00	20.2	
Aroclor 1242 {4}	289689	AverageRF	100	4.1E+4	4.4E+4	7.5	20.00	21.5	
Aroclor 1242 {5}	289689	AverageRF	100	2.8E+4	2.9E+4	3.5	20.00	20.7	
Aroclor 1248	289673	NA	20				20.00	17.6	-12.2
Aroclor 1248 {1}	289673	AverageRF	100	4.2E+4	3.7E+4	-11.2	20.00	17.8	
Aroclor 1248 {2}	289673	AverageRF	100	2.8E+4	2.7E+4	-6.6	20.00	18.7	
Aroclor 1248 {3}	289673	AverageRF	100	5.3E+4	4.5E+4	-13.6	20.00	17.3	
Aroclor 1248 {4}	289673	AverageRF	100	3.8E+4	3.2E+4	-14.1	20.00	17.2	
Aroclor 1248 {5}	289673	AverageRF	100	3.3E+4	2.8E+4	-15.7	20.00	16.9	
Aroclor 1254	289675	NA	20				20.00	19.7	-1.6
Aroclor 1254 {1}	289675	AverageRF	100	3.6E+4	3.7E+4	2.4	20.00	20.5	
Aroclor 1254 {2}	289675	AverageRF	100	6.3E+4	6.8E+4	8.2	20.00	21.6	
Aroclor 1254 {3}	289675	AverageRF	100	1.2E+5	1.1E+5	-8.3	20.00	18.3	
Aroclor 1254 {4}	289675	AverageRF	100	7.3E+4	7.0E+4	-4.7	20.00	19.1	
Aroclor 1254 {5}	289675	AverageRF	100	4.6E+4	4.3E+4	-5.5	20.00	18.9	
Aroclor 1260	289677	NA	20				20.00	19.8	-1.2
Aroclor 1260 {1}	289677	AverageRF	100	3.4E+4	2.9E+4	-13.8	20.00	17.2	
Aroclor 1260 {2}	289677	AverageRF	100	4.7E+4	5.1E+4	8.4	20.00	21.7	
Aroclor 1260 {3}	289677	AverageRF	100	5.0E+4	5.1E+4	2.2	20.00	20.4	
Aroclor 1260 {4}	289677	AverageRF	100	1.1E+5	1.1E+5	0.3	20.00	20.1	
Aroclor 1260 {5}	289677	AverageRF	100	7.9E+4	7.7E+4	-3.3	20.00	19.3	
Aroclor 1262	289679	NA	20				20.00	19.3	-3.5
Aroclor 1262 {1}	289679	AverageRF	100	9.4E+4	9.0E+4	-4.0	20.00	19.2	
Aroclor 1262 {2}	289679	AverageRF	100	8.3E+4	8.1E+4	-2.8	20.00	19.4	
Aroclor 1262 {3}	289679	AverageRF	100	1.5E+5	1.4E+5	-5.0	20.00	19.0	
Aroclor 1262 {4}	289679	AverageRF	100	1.1E+5	1.1E+5	-3.5	20.00	19.3	
Aroclor 1262 {5}	289679	AverageRF	100	4.8E+4	4.7E+4	-2.5	20.00	19.5	
Aroclor 1268	289691	NA	20				20.00	19.8	-1.2

Second Source Calibration Verification Summary

CalibrationID: CAL16127

Units: ppb

Method ID: MJ706

Column: DB-35MS

DataFile Location: \\ALKLSWS002\INSTDATA\GC27\DATA\090419\CAL.B\0909F

Parameter Name	File ID	Curve Fit	Method Criteria	AveRF	SSV RF	% Diff	True Value	Sol'n Conc	% Drift
Aroclor 1268 {1}	289691	AverageRF	100	1.6E+5	1.7E+5	2.2	20.00	20.4	
Aroclor 1268 {2}	289691	AverageRF	100	1.5E+5	1.7E+5	13.7	20.00	22.7	
Aroclor 1268 {3}	289691	AverageRF	100	1.2E+5	1.1E+5	-8.2	20.00	18.4	
Aroclor 1268 {4}	289691	AverageRF	100	3.5E+5	3.1E+5	-12.7	20.00	17.5	

Second Source Calibration Verification Summary

CalibrationID: CAL16127

Units: ppb

Method ID: MJ706

Column: DB-XLB

DataFile Location: \\ALKLSWS002\INSTDATA\GC27\DATA\090419ICAL_R.B\090

Parameter Name	File ID	Curve Fit	Method Criteria	AveRF	SSV RF	% Diff	True Value	Sol'n Conc	% Drift
Aroclor 1016	289668	NA	20				20.00	19.9	-0.7
Aroclor 1016 {1}	289668	AverageRF	100	1.5E+4	1.6E+4	3.1	20.00	20.6	
Aroclor 1016 {2}	289668	AverageRF	100	2.2E+4	2.2E+4	-2.2	20.00	19.6	
Aroclor 1016 {3}	289668	AverageRF	100	2.4E+4	2.4E+4	0.2	20.00	20.0	
Aroclor 1016 {4}	289668	AverageRF	100	1.8E+4	1.7E+4	-4.5	20.00	19.1	
Aroclor 1016 {5}	289668	AverageRF	100	1.7E+4	1.7E+4	0.0	20.00	20.0	
Aroclor 1221	289670	NA	20				20.00	20.3	1.7
Aroclor 1221 {1}	289670	AverageRF	100	6.5E+3	6.4E+3	-1.9	20.00	19.6	
Aroclor 1221 {2}	289670	AverageRF	100	6.5E+3	6.6E+3	3.1	20.00	20.6	
Aroclor 1221 {3}	289670	AverageRF	100	2.5E+4	2.6E+4	4.0	20.00	20.8	
Aroclor 1232	289672	NA	20				20.00	19.6	-1.8
Aroclor 1232 {1}	289672	AverageRF	100	2.0E+4	1.9E+4	-3.7	20.00	19.3	
Aroclor 1232 {2}	289672	AverageRF	100	1.1E+4	1.1E+4	-1.1	20.00	19.8	
Aroclor 1232 {3}	289672	AverageRF	100	7.3E+3	7.2E+3	-2.5	20.00	19.5	
Aroclor 1232 {4}	289672	AverageRF	100	1.5E+4	1.5E+4	-0.6	20.00	19.9	
Aroclor 1232 {5}	289672	AverageRF	100	1.8E+4	1.7E+4	-1.0	20.00	19.8	
Aroclor 1242	289690	NA	20				20.00	22.2	11.1
Aroclor 1242 {1}	289690	AverageRF	100	1.3E+4	1.4E+4	9.6	20.00	21.9	
Aroclor 1242 {2}	289690	AverageRF	100	1.8E+4	2.0E+4	11.7	20.00	22.3	
Aroclor 1242 {3}	289690	AverageRF	100	2.6E+4	2.9E+4	11.3	20.00	22.3	
Aroclor 1242 {4}	289690	AverageRF	100	2.9E+4	3.3E+4	11.5	20.00	22.3	
Aroclor 1242 {5}	289690	AverageRF	100	1.6E+4	1.8E+4	11.4	20.00	22.3	
Aroclor 1248	289674	NA	20				20.00	19.3	-3.7
Aroclor 1248 {1}	289674	AverageRF	100	2.1E+4	2.1E+4	0.3	20.00	20.1	
Aroclor 1248 {2}	289674	AverageRF	100	1.8E+4	1.9E+4	3.5	20.00	20.7	
Aroclor 1248 {3}	289674	AverageRF	100	2.4E+4	2.3E+4	-6.4	20.00	18.7	
Aroclor 1248 {4}	289674	AverageRF	100	1.9E+4	1.7E+4	-8.3	20.00	18.3	
Aroclor 1248 {5}	289674	AverageRF	100	2.9E+4	2.6E+4	-7.8	20.00	18.4	
Aroclor 1254	289676	NA	20				20.00	19.5	-2.5
Aroclor 1254 {1}	289676	AverageRF	100	3.2E+4	3.2E+4	-2.2	20.00	19.6	
Aroclor 1254 {2}	289676	AverageRF	100	1.7E+4	1.5E+4	-14.0	20.00	17.2	
Aroclor 1254 {3}	289676	AverageRF	100	4.9E+4	4.8E+4	-1.8	20.00	19.6	
Aroclor 1254 {4}	289676	AverageRF	100	1.5E+4	1.6E+4	5.0	20.00	21.0	
Aroclor 1254 {5}	289676	AverageRF	100	2.4E+4	2.4E+4	0.3	20.00	20.1	
Aroclor 1260	289678	NA	20				20.00	20.9	4.3
Aroclor 1260 {1}	289678	AverageRF	100	1.4E+4	1.5E+4	5.7	20.00	21.1	
Aroclor 1260 {2}	289678	AverageRF	100	2.3E+4	2.5E+4	7.4	20.00	21.5	
Aroclor 1260 {3}	289678	AverageRF	100	2.2E+4	2.3E+4	3.8	20.00	20.8	
Aroclor 1260 {4}	289678	AverageRF	100	4.8E+4	4.9E+4	2.4	20.00	20.5	
Aroclor 1260 {5}	289678	AverageRF	100	2.9E+4	3.0E+4	2.0	20.00	20.4	
Aroclor 1262	289680	NA	20				20.00	20.1	0.3
Aroclor 1262 {1}	289680	AverageRF	100	4.2E+4	4.2E+4	-1.4	20.00	19.7	
Aroclor 1262 {2}	289680	AverageRF	100	3.2E+4	3.3E+4	2.6	20.00	20.5	
Aroclor 1262 {3}	289680	AverageRF	100	6.6E+4	6.5E+4	-1.6	20.00	19.7	
Aroclor 1262 {4}	289680	AverageRF	100	4.4E+4	4.5E+4	2.5	20.00	20.5	
Aroclor 1262 {5}	289680	AverageRF	100	2.3E+4	2.3E+4	-0.8	20.00	19.8	
Aroclor 1268	289692	NA	20				20.00	20.4	1.9

Second Source Calibration Verification Summary

CalibrationID: CAL16127

Units: ppb

Method ID: MJ706

Column: DB-XLB

DataFile Location: \\ALKLSWS002\INSTDATA\GC27\DATA\090419\ICAL_R.B\090

Parameter Name	File ID	Curve Fit	Method Criteria	AveRF	SSV RF	% Diff	True Value	Sol'n Conc	% Drift
Aroclor 1268 {1}	289692	AverageRF	100	7.1E+4	7.6E+4	5.9	20.00	21.2	
Aroclor 1268 {2}	289692	AverageRF	100	6.3E+4	7.4E+4	17.2	20.00	23.4	
Aroclor 1268 {3}	289692	AverageRF	100	5.4E+4	5.1E+4	-4.9	20.00	19.0	
Aroclor 1268 {4}	289692	AverageRF	100	1.5E+5	1.3E+5	-10.6	20.00	17.9	

ALS Environmental - Kelso
 INITIAL CALIBRATION DATA

Start Cal Date : 04-SEP-2019 18:32
 End Cal Date : 09-SEP-2019 16:37
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 4.04
 Integrator : Falcon
 Method file : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Cal Date : 11-Sep-2019 09:38 stephenie.andrews
 Curve Type : Average

Calibration File Names:

Level 1: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F037.D
 Level 2: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F038.D
 Level 3: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F039.D
 Level 4: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F040.D
 Level 5: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F041.D
 Level 6: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F042.D
 Level 7: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F043.D
 Level 8: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F044.D

Compound	1.000	2.000	5.000	10.000	20.000	50.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	100.000	200.000						
	Level 7	Level 8						
2 Aroclor 1016 (1)	39400 31352	35481 30335	32536	35243	35735	32935	34127	8.543
(2)	31706 26126	29178 25049	26907	28336	29286	27515	28013	7.456
(3)	92717 80056	97851 79685	83798	85035	90017	86236	86924	7.223
(4)	51318 47553	53369 46346	52545	53358	54893	50996	51297	5.785
(5)	36002 33217	34881 32076	35617	36727	37567	35068	35144	5.106
3 Aroclor 1221 (1)	25348 19735	26146 21255	24903	24519	22142	20422	23059	10.673
(2)	17213 12630	16168 13531	14788	15459	14240	13000	14629	10.889
(3)	60161 47046	61843 50568	57737	58454	53211	48974	54749	10.118

ALS Environmental - Kelso
 INITIAL CALIBRATION DATA

Start Cal Date : 04-SEP-2019 18:32
 End Cal Date : 09-SEP-2019 16:37
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 4.04
 Integrator : Falcon
 Method file : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Cal Date : 11-Sep-2019 09:38 stephenie.andrews
 Curve Type : Average

Compound	1.000	2.000	5.000	10.000	20.000	50.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	100.000	200.000						
	Level 7	Level 8						
4 Aroclor 1232 (1)	19213 13133	16986 14656	15638	16311	14864	14027	15603	12.226
(2)	56739 39010	48158 42915	50729	50954	44400	42242	46893	12.371
(3)	31107 33524	42598 37659	39814	42134	40089	36730	37957	10.685
(4)	12043 12316	15426 13928	14749	14855	13815	13267	13800	8.768
(5)	32879 22001	28572 25241	26275	27668	24498	23947	26385	12.703
5 Aroclor 1242 (1)	34993 28228	30805 30557	26922	26970	29530	29770	29722	8.749
(2)	21742 22095	24138 24174	20948	21537	22655	23516	22601	5.428
(3)	75132 68246	67048 71122	62881	61657	68629	72292	68376	6.673
(4)	39369 40268	38905 45340	39593	38726	41797	43012	40876	5.710
(5)	28378 27250	30201 30746	27083	26114	28379	28355	28313	5.499

ALS Environmental - Kelso

INITIAL CALIBRATION DATA

Start Cal Date : 04-SEP-2019 18:32
 End Cal Date : 09-SEP-2019 16:37
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 4.04
 Integrator : Falcon
 Method file : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Cal Date : 11-Sep-2019 09:38 stephenie.andrews
 Curve Type : Average

Compound	1.000	2.000	5.000	10.000	20.000	50.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	100.000	200.000						
	Level 7	Level 8						
6 Aroclor 1248(1)	50810	45364	46307	42457	38328	36241		
	35501	39298					41788	12.903
(2)	32701	31454	28715	30795	25486	26290		
	24522	27468					28429	10.510
(3)	61351	62439	55261	54856	49030	45673		
	42585	48950					52518	13.652
(4)	37952	42224	40962	40191	36188	34381		
	32064	36966					37616	9.150
(5)	34640	36487	37342	36202	30551	29451		
	28060	32565					33162	10.627
7 Aroclor 1254(1)	39510	40398	36641	39628	34545	31937		
	30635	35702					36124	10.069
(2)	71048	70214	64108	67135	58318	54791		
	53183	61524					62540	10.833
(3)	141481	139215	128062	133428	114932	106372		
	103004	119966					123308	11.827
(4)	75413	82203	75558	80728	68358	64524		
	63425	73526					72967	9.581
(5)	42724	48901	48630	50336	44645	41515		
	40470	47483					45588	8.218

ALS Environmental - Kelso

INITIAL CALIBRATION DATA

Start Cal Date : 04-SEP-2019 18:32
 End Cal Date : 09-SEP-2019 16:37
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 4.04
 Integrator : Falcon
 Method file : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Cal Date : 11-Sep-2019 09:38 stephenie.andrews
 Curve Type : Average

Compound	1.000	2.000	5.000	10.000	20.000	50.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	100.000	200.000						
	Level 7	Level 8						
8 Aroclor 1260(1)	35380	35440	31871	33943	34938	32910		
	31991	31579					33506	4.856
(2)	48458	45971	44666	47320	50243	47343		
	44896	43946					46605	4.579
(3)	54080	50431	49169	51725	52732	49608		
	47266	46243					50157	5.302
(4)	120908	106796	102574	107419	110051	103085		
	99207	99118					106145	6.708
(5)	89767	81841	77927	81033	81276	76945		
	73487	72740					79377	6.853
9 Aroclor 1262(1)	99950	103939	100680	103083	87956	84001		
	77629	91170					93551	10.475
(2)	96868	88129	85293	90222	77623	74592		
	69063	81420					82901	10.907
(3)	167071	166766	157402	164613	140496	135236		
	127443	154380					151676	10.136
(4)	120058	123876	114903	120223	102837	98223		
	91790	110255					110271	10.528
(5)	50324	51444	49477	52439	45096	43791		
	41061	49018					47831	8.447

ALS Environmental - Kelso
INITIAL CALIBRATION DATA

Start Cal Date : 04-SEP-2019 18:32
 End Cal Date : 09-SEP-2019 16:37
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 4.04
 Integrator : Falcon
 Method file : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Cal Date : 11-Sep-2019 09:38 stephenie.andrews
 Curve Type : Average

Compound	1.000	2.000	5.000	10.000	20.000	50.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	100.000	200.000						
	Level 7	Level 8						
10 Aroclor 1268(1)	169676	167277	155429	153064	161633	163952		
	155400	182032					163558	5.842
(2)	155852	141718	136877	136355	144098	147906		
	140136	165868					146101	6.980
(3)	124219	120195	120085	117734	124036	125965		
	119598	140768					124075	5.887
(4)	348997	346692	330941	328207	344893	356681		
	340233	407884					350566	7.122
M 75 Aroclors, Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
\$ 1 Tetrachloro-m-xylene	1907640	1858185	1743106	1788482	1858760	1779238		
	1736100	1736606					1801015	3.654
\$ 11 Decachlorobiphenyl	1225750	1165365	1103794	1109360	1136485	1045118		
	983592	951410					1090109	8.449

ALS Environmental - Kelso

INITIAL CALIBRATION DATA

Start Cal Date : 04-SEP-2019 18:32
 End Cal Date : 09-SEP-2019 16:37
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 4.04
 Integrator : Falcon
 Method file : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Cal Date : 11-Sep-2019 09:50 stephenie.andrews
 Curve Type : Average

Calibration File Names:

Level 1: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F037.D
 Level 2: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F038.D
 Level 3: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F039.D
 Level 4: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F040.D
 Level 5: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F041.D
 Level 6: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F042.D
 Level 7: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F043.D
 Level 8: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F044.D

Compound	1.000	2.000	5.000	10.000	20.000	50.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	100.000	200.000						
	Level 7	Level 8						
=====	=====	=====	=====	=====	=====	=====	=====	=====
2 Aroclor 1016(1)	16102	14211	13838	14653	16638	15844		
	14998	14176					15058	6.809
(2)	23810	22211	21066	22872	24429	22456		
	20566	19251					22083	7.772
(3)	22120	23688	23664	25829	27236	25427		
	23028	21914					24113	7.805
(4)	20451	18221	16824	17773	19384	17925		
	16495	15447					17815	8.981
(5)	18348	15991	16302	17464	18577	17220		
	15871	15011					16848	7.480
3 Aroclor 1221(1)	7535	6022	6042	6822	6680	6261		
	6180	6476					6502	7.814
(2)	5961	6760	6546	6826	6583	6354		
	6165	6408					6450	4.523
(3)	26403	25905	25359	28008	25684	23478		
	21633	22493					24870	8.628

ALS Environmental - Kelso
 INITIAL CALIBRATION DATA

Start Cal Date : 04-SEP-2019 18:32
 End Cal Date : 09-SEP-2019 16:37
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 4.04
 Integrator : Falcon
 Method file : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Cal Date : 11-Sep-2019 09:50 stephenie.andrews
 Curve Type : Average

Compound	1.000	2.000	5.000	10.000	20.000	50.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	100.000	200.000						
	Level 7	Level 8						
4 Aroclor 1232 (1)	16743	19256	19676	21488	21002	20464		
	18884	19993					19688	7.476
(2)	12087	10767	10438	11465	10731	10948		
	10117	10870					10928	5.575
(3)	6960	6549	7256	7724	7103	7519		
	7319	8303					7342	7.173
(4)	13507	16520	15454	16669	15512	14856		
	13816	14942					15159	7.486
(5)	16086	17530	17910	19751	17806	17590		
	16101	17335					17514	6.589
5 Aroclor 1242 (1)	11033	11045	11335	12404	13764	14609		
	13855	14325					12796	11.869
(2)	19732	16777	15987	17586	19116	19668		
	18014	18590					18184	7.444
(3)	27331	25259	23835	24766	26886	26924		
	24625	25687					25664	4.941
(4)	29709	27922	27071	28484	30996	31524		
	28179	30500					29298	5.506
(5)	15907	13865	14072	14564	16498	17691		
	16674	17776					15881	9.798

ALS Environmental - Kelso
 INITIAL CALIBRATION DATA

Start Cal Date : 04-SEP-2019 18:32
 End Cal Date : 09-SEP-2019 16:37
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 4.04
 Integrator : Falcon
 Method file : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Cal Date : 11-Sep-2019 09:50 stephenie.andrews
 Curve Type : Average

Compound	1.000	2.000	5.000	10.000	20.000	50.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	100.000	200.000						
	Level 7	Level 8						
6 Aroclor 1248(1)	19785	22237	22394	24110	22523	20956		
	19494	19998					21437	7.622
(2)	16327	19184	19463	20883	18703	18529		
	16372	18005					18433	8.348
(3)	26968	27374	25182	26161	23861	22234		
	19880	20880					24067	11.759
(4)	20734	20793	19589	20309	18388	17657		
	15868	16957					18787	9.872
(5)	28321	30039	30376	33005	29992	26948		
	24213	26330					28653	9.671
7 Aroclor 1254(1)	33696	33428	34197	37209	32764	30151		
	27455	29572					32309	9.552
(2)	16138	15893	16877	19594	17863	16840		
	16017	16714					16992	7.219
(3)	52699	53720	52131	56813	49668	45002		
	40971	43692					49337	11.232
(4)	17591	13724	14882	17252	15492	14765		
	14032	15218					15369	9.075
(5)	25148	27531	25184	27669	23411	22032		
	20669	22576					24278	10.487

ALS Environmental - Kelso

INITIAL CALIBRATION DATA

Start Cal Date : 04-SEP-2019 18:32
 End Cal Date : 09-SEP-2019 16:37
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 4.04
 Integrator : Falcon
 Method file : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Cal Date : 11-Sep-2019 09:50 stephenie.andrews
 Curve Type : Average

Compound	1.000	2.000	5.000	10.000	20.000	50.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	100.000	200.000						
	Level 7	Level 8						
8 Aroclor 1260 (1)	13166	13446	14031	15125	15770	15124		
	13747	13145					14194	7.125
(2)	29181	26714	22497	22739	23356	21245		
	19204	18526					22933	15.628
(3)	26758	24407	22884	23156	23569	21553		
	19499	18170					22500	12.129
(4)	57128	51872	49776	50288	50419	44250		
	39561	36924					47527	14.198
(5)	30924	27829	30792	32278	32995	29520		
	26713	24540					29449	9.839
9 Aroclor 1262 (1)	48433	47758	46472	49270	41286	37668		
	32992	35864					42468	14.991
(2)	36415	37319	35138	37283	31352	28939		
	25449	27565					32432	14.576
(3)	76536	77284	73091	75226	62242	56098		
	49870	54747					65637	17.001
(4)	50041	48013	48018	51044	42728	39384		
	34633	37764					43953	14.074
(5)	24800	26831	24192	25497	21378	20461		
	18420	20282					22733	13.138

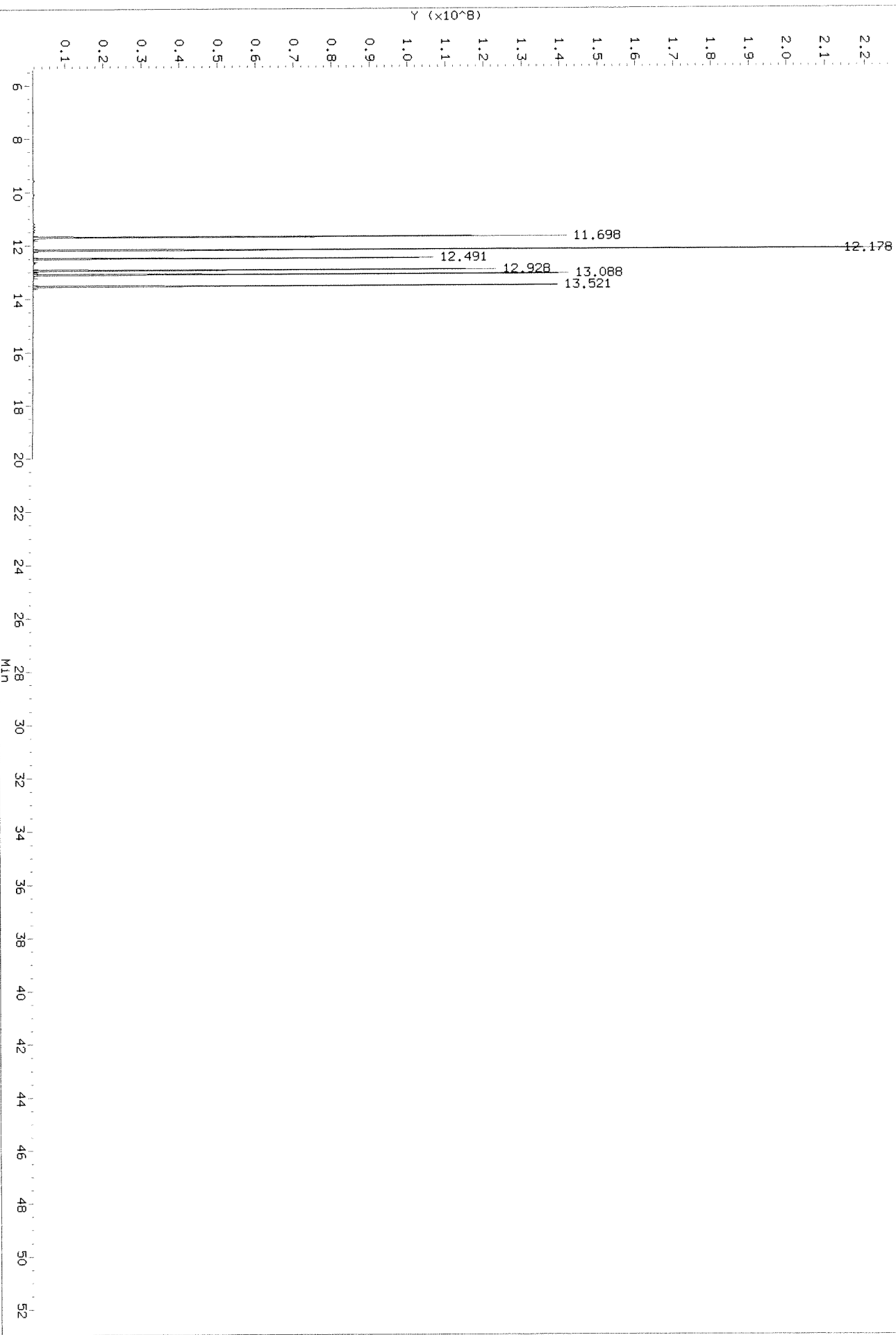
ALS Environmental - Kelso
 INITIAL CALIBRATION DATA

Start Cal Date : 04-SEP-2019 18:32
 End Cal Date : 09-SEP-2019 16:37
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 4.04
 Integrator : Falcon
 Method file : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Cal Date : 11-Sep-2019 09:50 stephenie.andrews
 Curve Type : Average

Compound	1.000	2.000	5.000	10.000	20.000	50.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	100.000	200.000						
	Level 7	Level 8						
10 Aroclor 1268(1)	78515 60501	79608 64781	74140	72934	73025	68402	71488	9.188
(2)	68850 54699	68303 58760	62669	63335	64127	61129	62734	7.468
(3)	58656 47325	56426 50702	54706	54465	55538	53114	53867	6.534
(4)	161279 122981	163316 136010	153505	148114	145062	137200	145933	9.346
M 75 Aroclors, Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
\$ 1 Tetrachloro-m-xylene	846440 752891	855870 739701	854112	891940	901415	804378	830843	7.223
\$ 11 Decachlorobiphenyl	462000 388952	496710 359578	453428	483785	495841	431051	446418	11.277

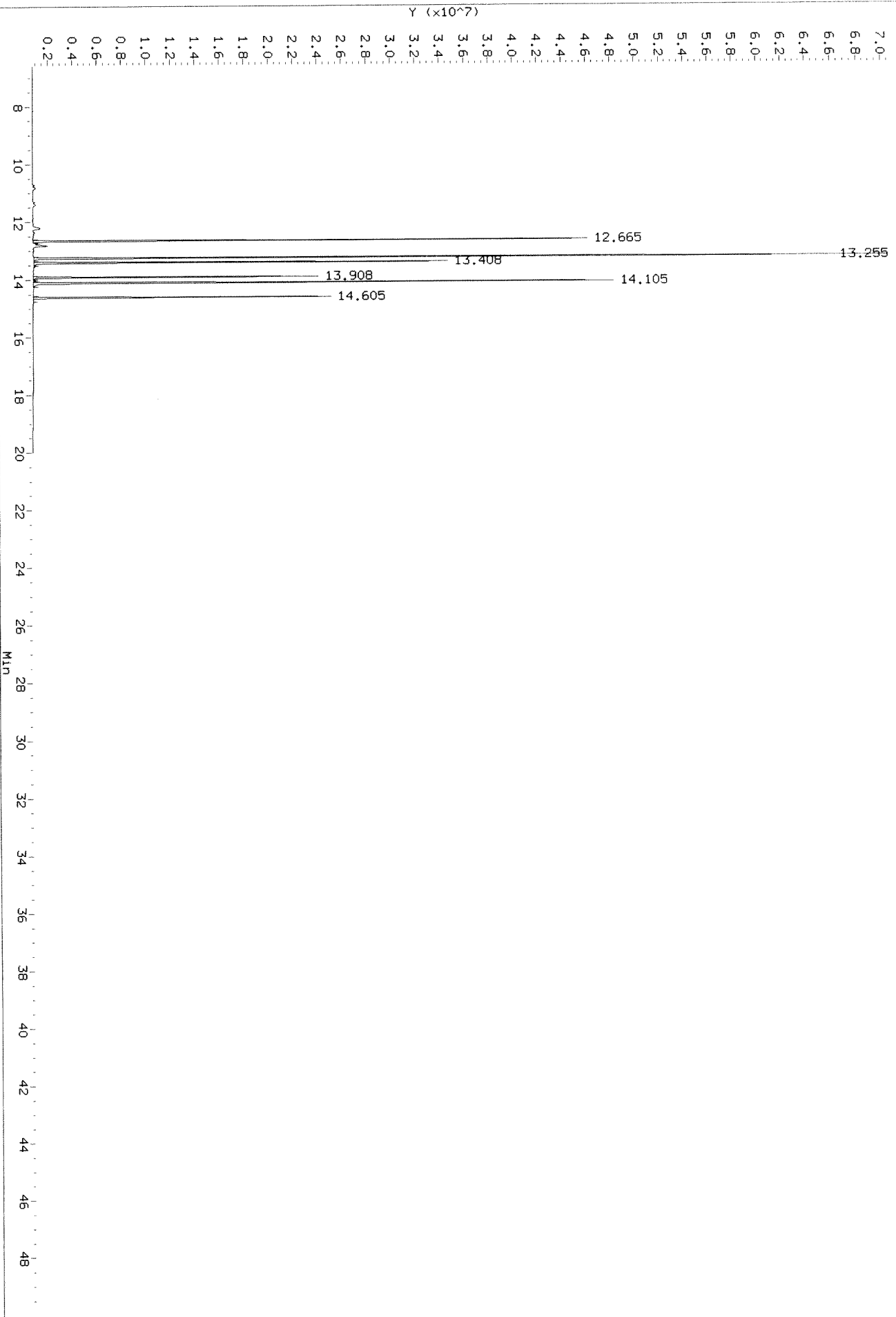
Front	TCMX	1016	1221	1232	1242	1248	1254	1260	1262	1268 DCB	2,4'4,4'-DDX
	6.969	8.056	7.656	7.655	8.053	9.722	11.776	13.196	13.579	14.950	16.859
		9.306	7.892	8.055	9.300	9.928	12.242	13.583	14.049	15.050	12.178
		9.749	8.056	8.825	9.743	11.058	12.399	14.053	14.429	15.440	12.481
		9.929	9.302	9.302	9.926	11.325	12.739	14.429	15.055	16.426	12.928
		10.316	9.929	9.929	10.186	11.802	13.302	15.059	15.922		13.088
											13.521
Rear	TCMX	1016	1221	1232	1242	1248	1254	1260	1262	1268 DCB	2,4'4,4'-DDX
	8.436	9.166	8.826	9.166	9.163	10.965	12.429	13.546	14.789	16.200	18.136
		9.916	8.979	9.916	9.913	11.015	12.482	14.793	15.159	16.326	13.255
		11.066	9.166	10.296	10.963	11.515	12.806	15.163	15.692	16.700	13.408
		11.516		10.966	11.013	12.032	12.899	15.693	16.199	17.720	13.908
		11.753		11.016	11.250	12.555	14.372	16.196	17.202		14.105
											14.605

HP6890 GC Data, ECD1A.CH: 5.401 to 52.351 Min



Data File: \\alk1sws002\Instdata\GC27\Data\090419ICAL_r.b\0904F003.D
Injection Date: 04-SEP-2019 17:29

HP6890 GC Data, ECD2B.CH: 6.601 to 49.689 Min



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F003.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F003.D
Inj Date : 04-SEP-2019 17:29
Sample Info: DDX MARKER
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : ALL.SUB
Sub List #2 : ALL.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.998	0.000	191494	0	0.106	0.000		100.00 (R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

SA 9/11/19
W

Data File: \\alkisus002\instdata\GC27\Data\090419ICAL.p\0904F003.D

Date: 04-SEP-2019 17:29

Client ID:

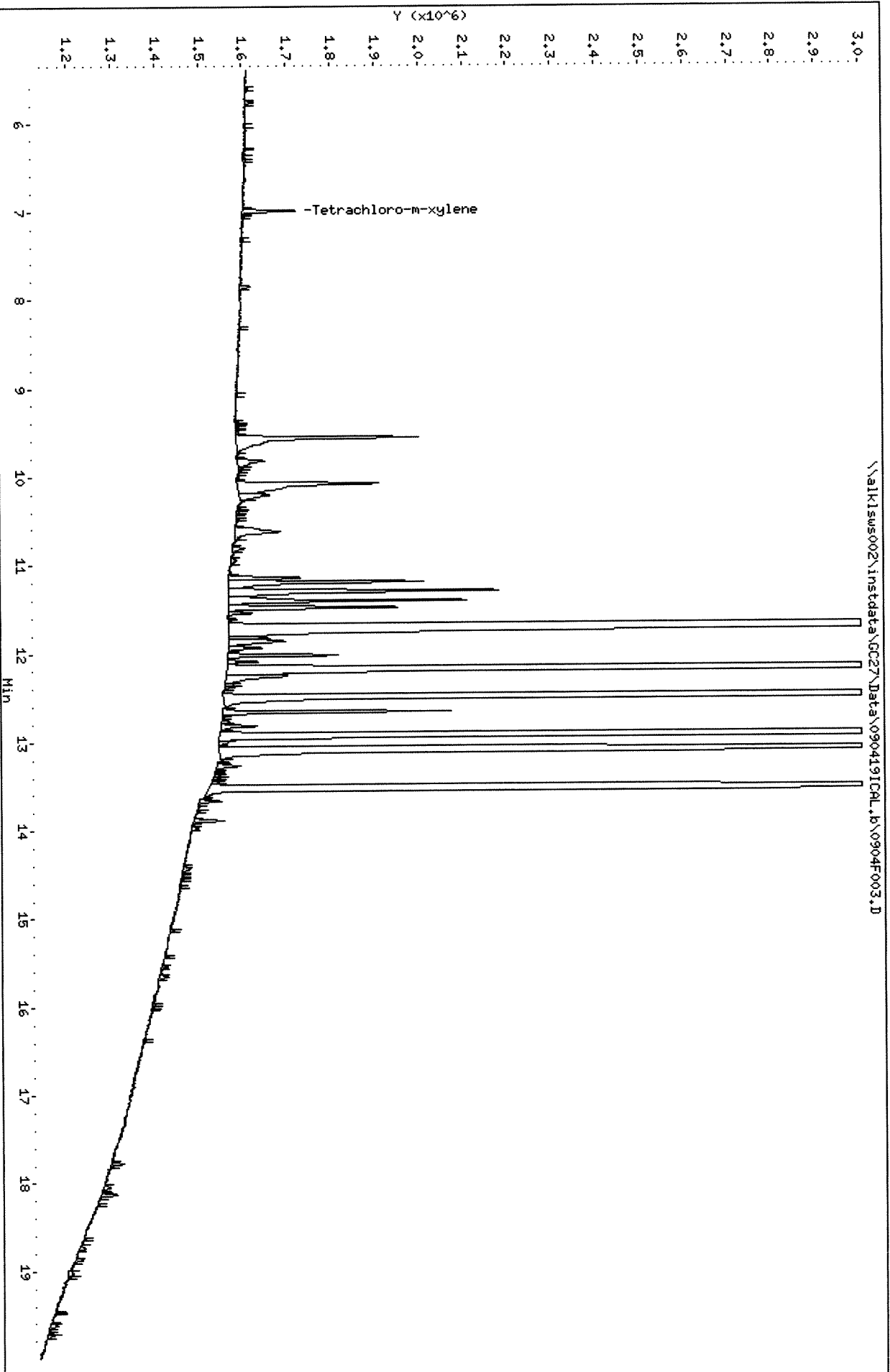
Sample Info: DDV MARKER

Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Data File: \\alkisw5002\instdata\GC27\Data\090419ICL_r.b\0904F003.D

Date: 04-SEP-2019 17:29

Client ID:

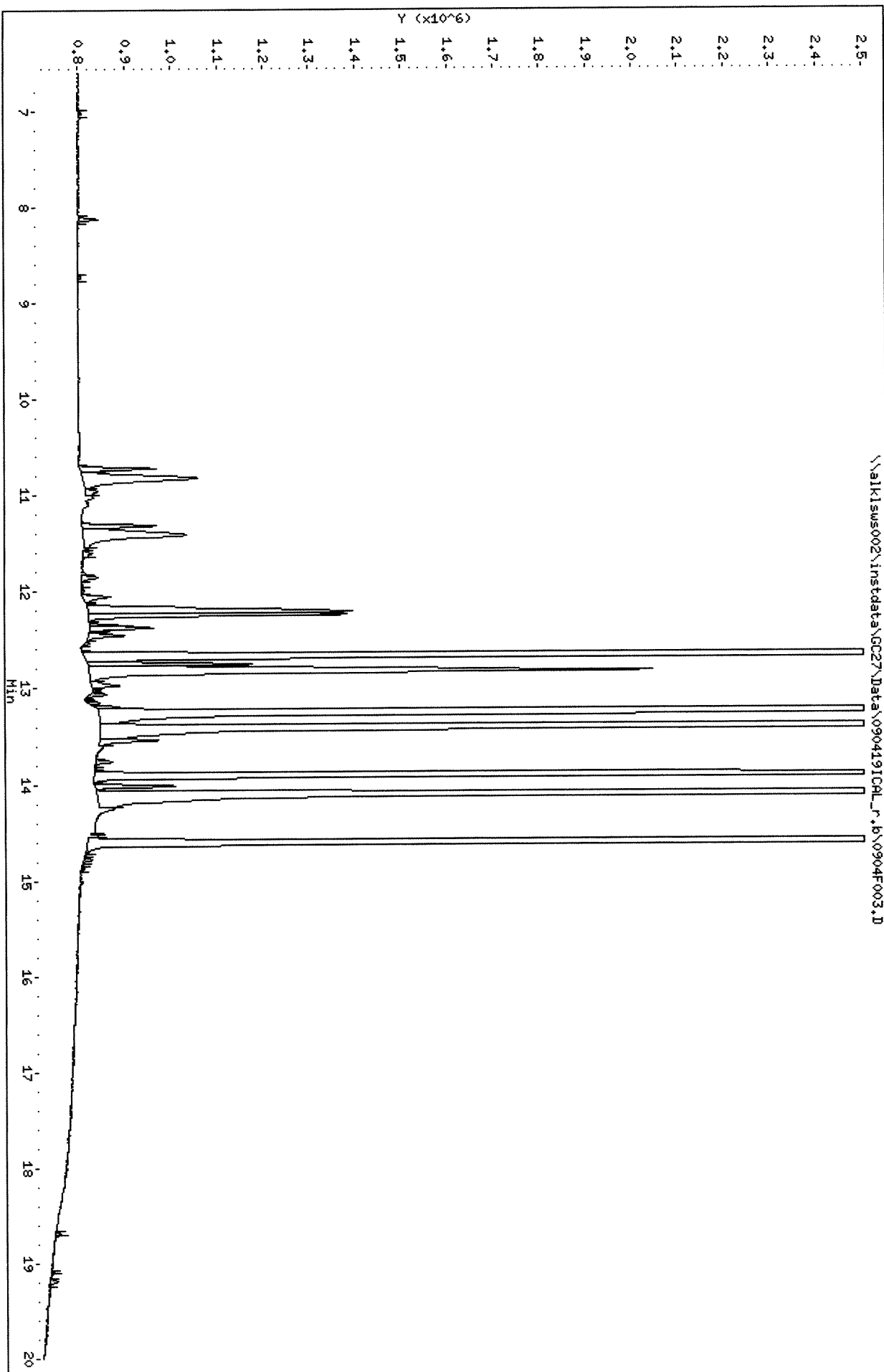
Sample Info: DDV MARKER

Column phase: DB-XLB

Instrument: GC27.i

Operator: SMA

Column diameter: 0.32



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F004.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F004.D
Inj Date : 04-SEP-2019 18:00
Sample Info: IB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : ALL.SUB
Sub List #2 : ALL.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
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SA 9/11/19
W

Data File: \\alk1sus002\instdata\GC27\Data\090419ICAL.b\0904F004.D

Date : 04-SEP-2019 18:00

Client ID:

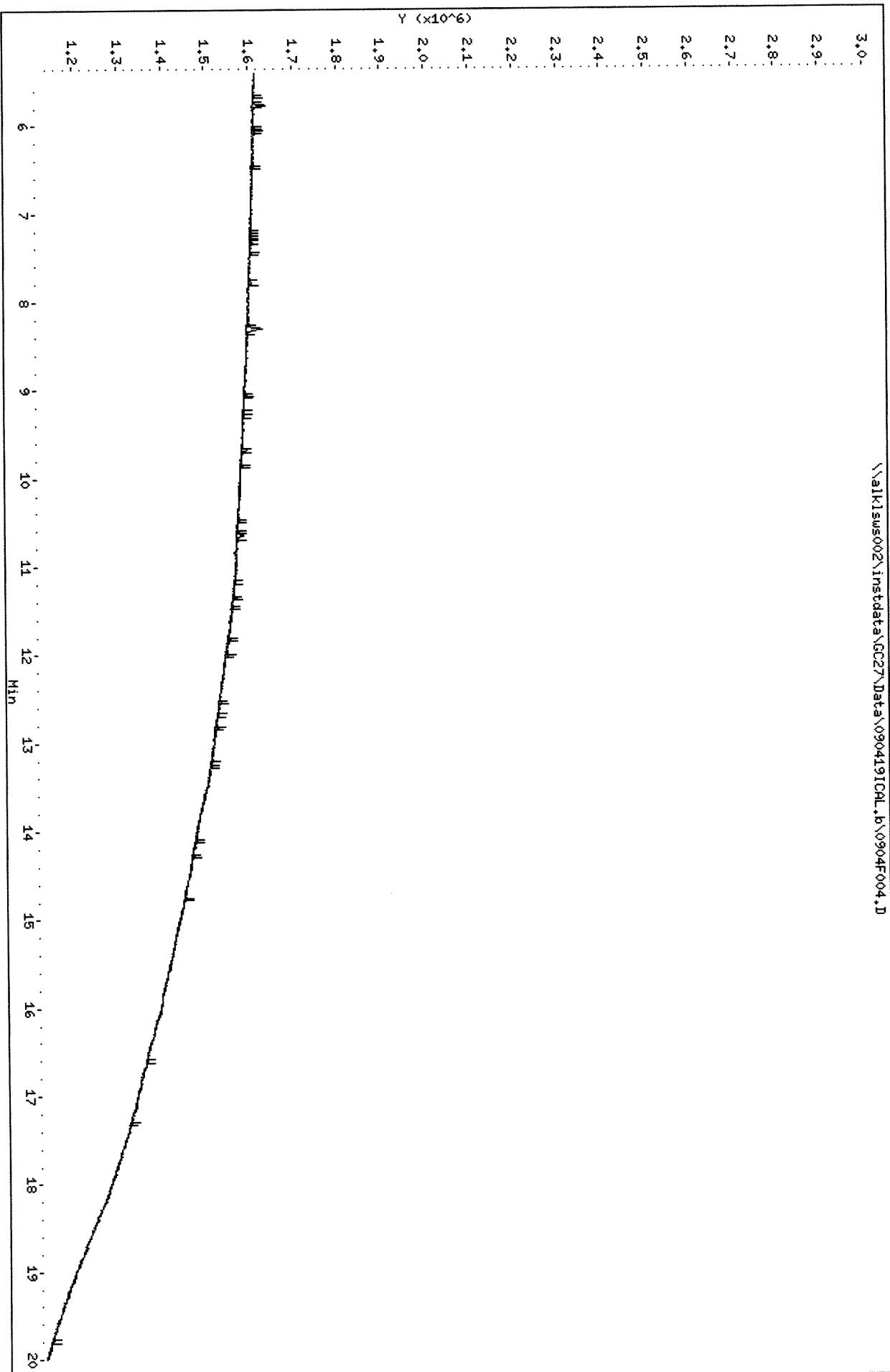
Sample Info: IB

Instrument: GC27.1

Operator: SAA

Column diameter: 0.32

Column phase: DB-35MS



Data File: \\alkisw5002\instdata\GC27\Data\090419ICL_r.b\0904F004.D

Date: 04-SEP-2019 18:00

Client ID:

Sample Info: IB

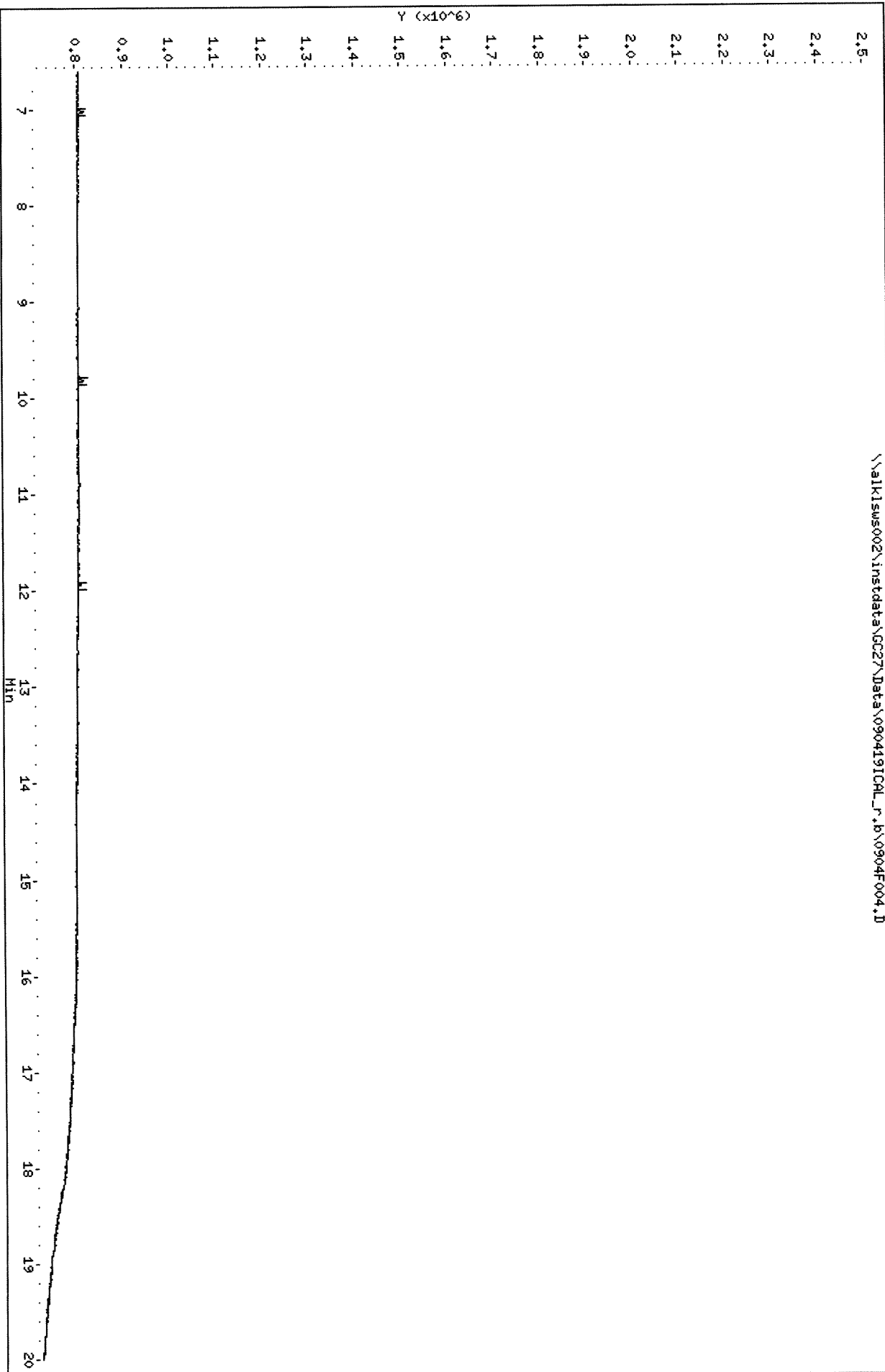
Column phase: DB-XLB

Instrument: GC27.1

Operator: SAA

Column diameter: 0.32

\\alkisw5002\instdata\GC27\Data\090419ICL_r.b\0904F004.D



ALS Environmental - Kelso


Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F005.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F005.D
 Inj Date : 04-SEP-2019 18:32
 Sample Info: PCB8-12K 1660 @ 0.1-1 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 1660.SUB
 Sub List #2 : 1660.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.969	8.436	190764	84644	0.106	0.102		100.00
Aroclor 1016	8.059	9.166	39400	16102	1.15	1.07	80.00- 120.00	100.00 (M)
	9.306	9.912	31706	23810	1.13	1.08	66.06- 99.09	80.47 (M)
	9.749	11.062	92717	22120	1.07	0.917	210.14- 315.22	235.32 (M)
	9.932	11.516	51318	20451	1.00	1.15	122.22- 183.34	130.25 (M)
	10.316	11.752	36002	18348	1.02	1.09	84.59- 126.89	91.38 (M)
	Average of Peak Amounts =				1.07	1.06		
Aroclor 1260	13.202	13.546	35380	13166	1.06	0.928	80.00- 120.00	100.00 (M)
	13.589	14.792	48458	29181	1.04	1.27	111.33- 167.00	136.96 (M)
	14.062	15.159	54080	26758	1.08	1.19	117.15- 175.73	152.85 (M)
	14.439	15.689	120908	57128	1.14	1.20	251.10- 376.65	341.74 (M)
	15.069	16.192	89767	30924	1.13	1.05	184.28- 276.42	253.72 (M)
	Average of Peak Amounts =				1.09	1.13		
Decachlorobiphenyl	16.869	18.136	122575	46200	0.112	0.103		100.00

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19


Data File: \\alkisus002\instdata\GC27\Data\090419ICAL.b\0904F005.D

Date: 04-SEP-2019 18:32

Client ID:

Sample Info: PCB8-12K 1660 @ 0.1-1 PPB

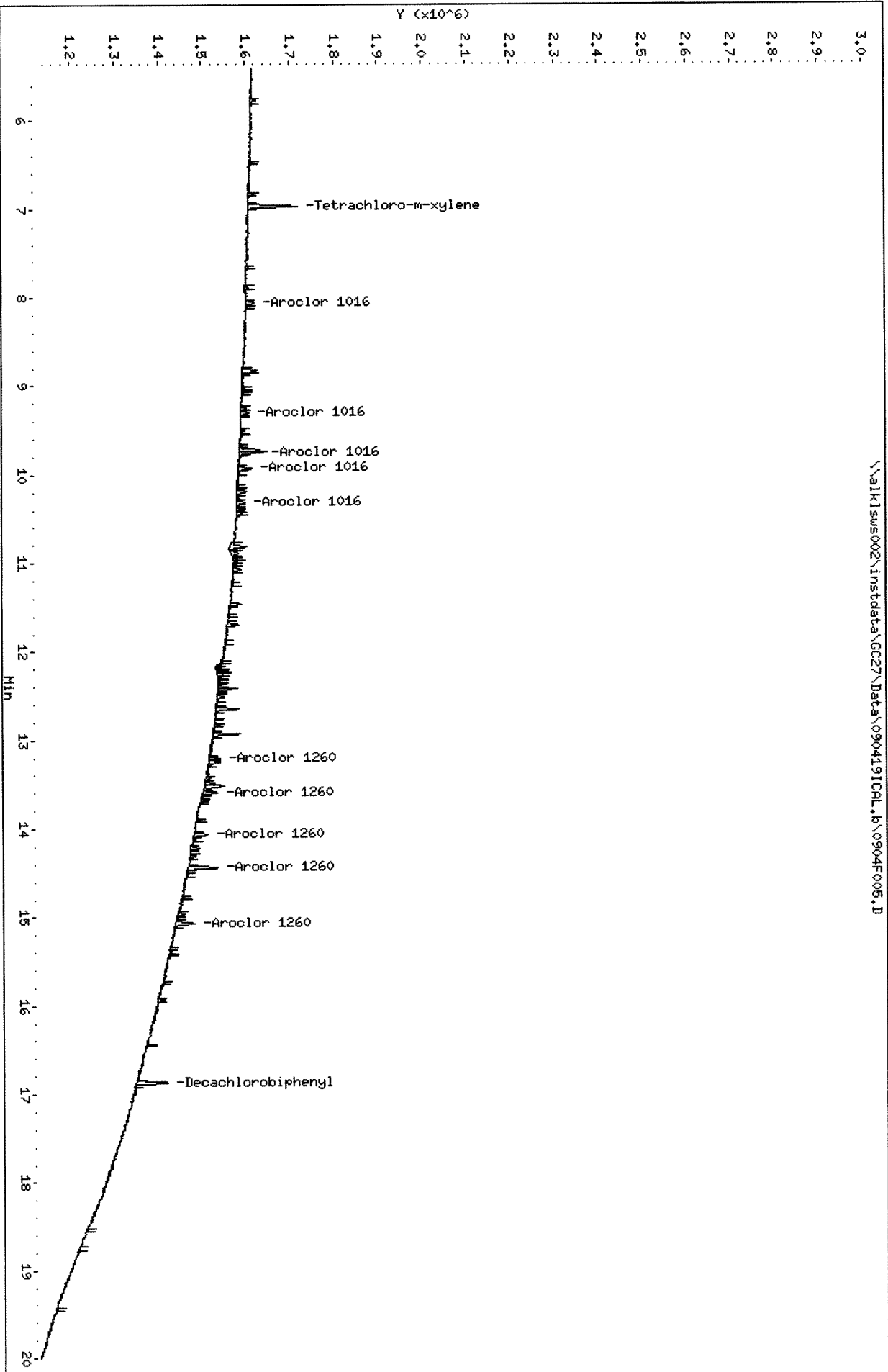
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

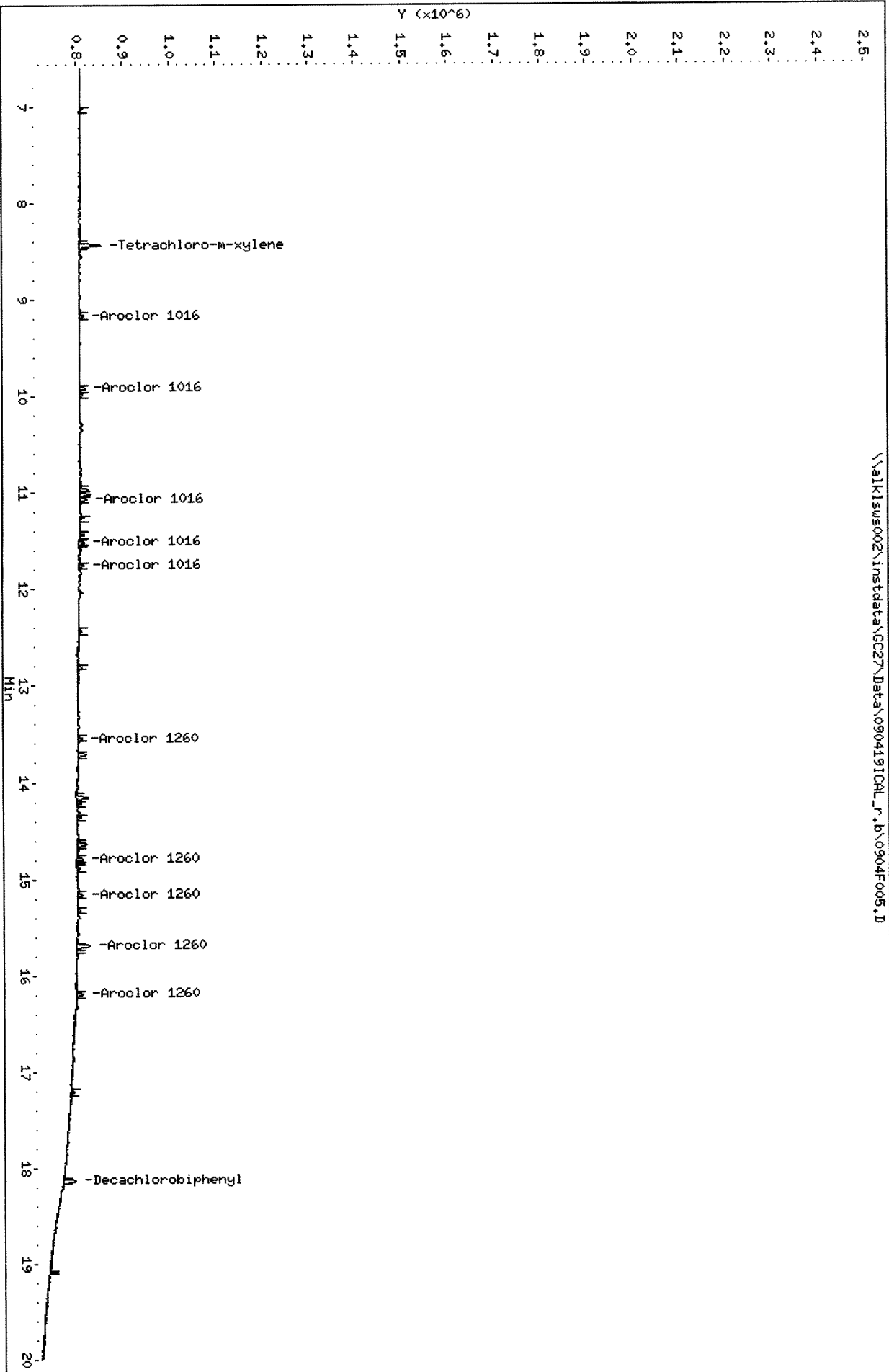
\\alkisus002\instdata\GC27\Data\090419ICAL.b\0904F005.D



Data File: \\alk1sws002\instdata\GC27\Data\090419ICDL_r.b\0904F005.D
Date: 04-SEP-2019 18:32
Client ID:
Sample Info: PCB8-12K 1660 @ 0.1-1 PPS
Column phase: DB-XLB

Instrument: GC27.i
Operator: SAA
Column diameter: 0.32

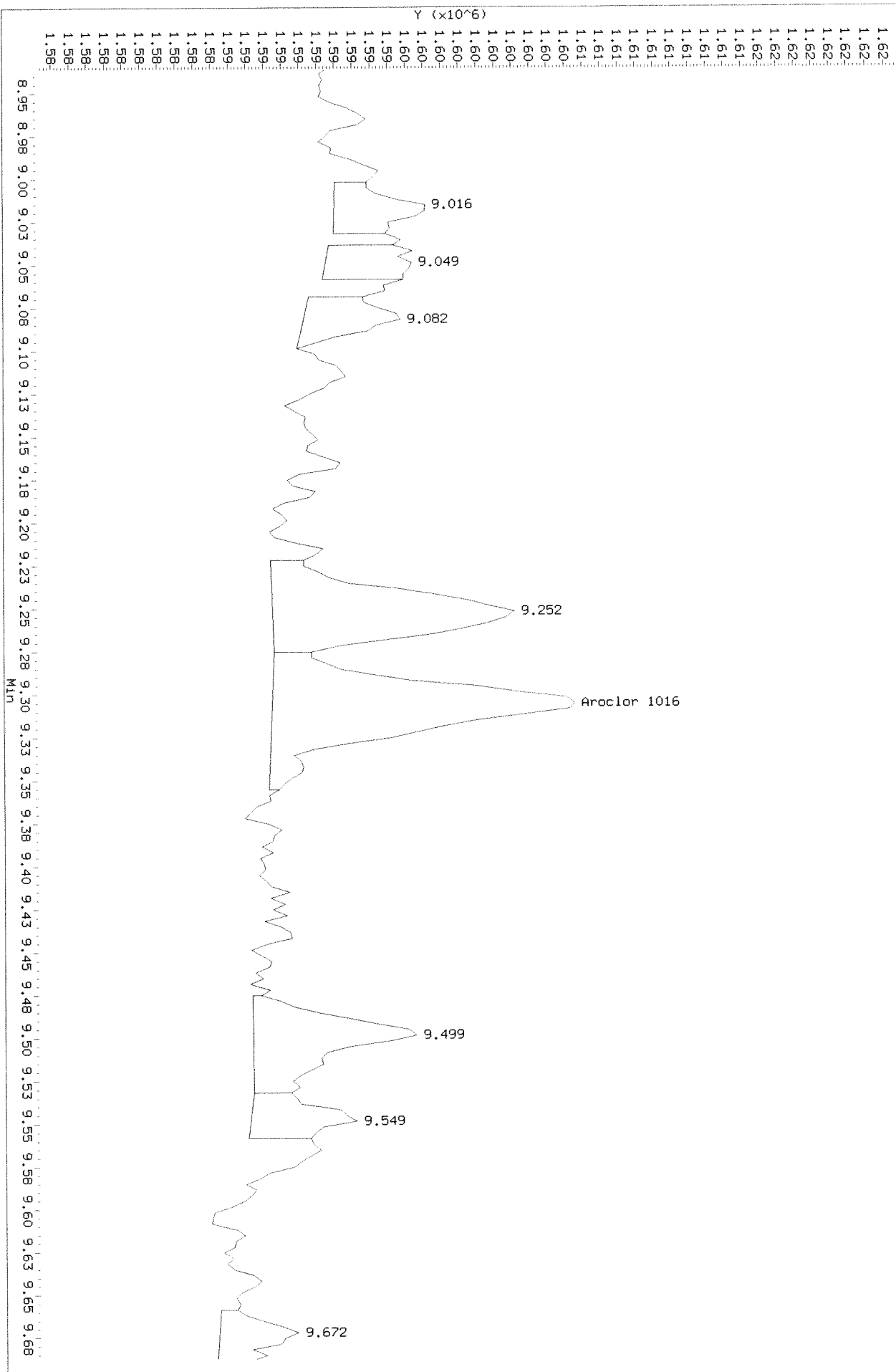
\\alk1sws002\instdata\GC27\Data\090419ICDL_r.b\0904F005.D



Data File: \\alk1sww002\instdata\GC27\Data\090419ICAL.b\0904F005.D
Injection Date: 04-SEP-2019 18:32
Instrument: GC27.1
Client Sample ID:

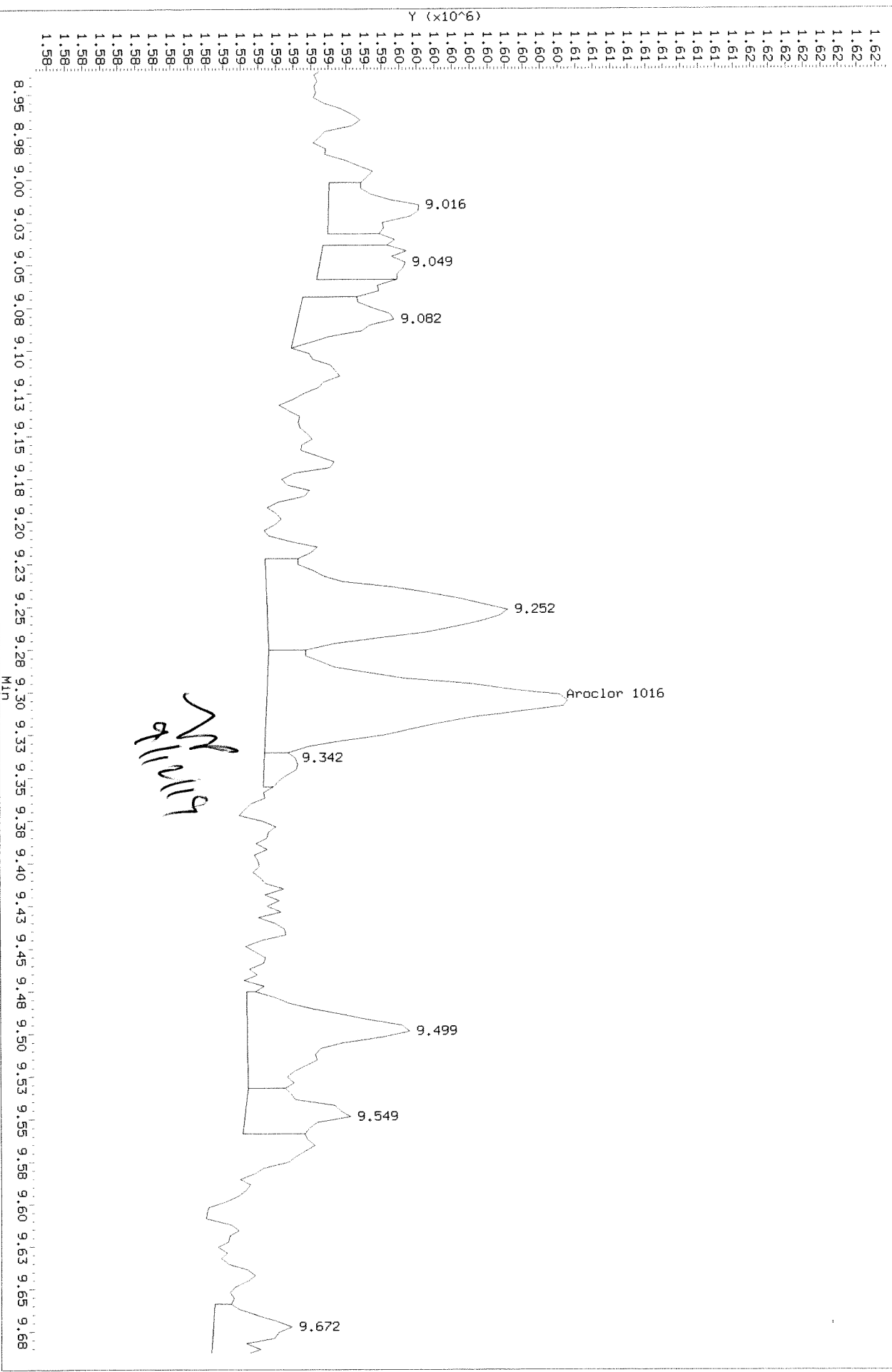
Before

HP6890 GC Data, ECD1A.CH: 8.937 to 9.688 MIN



HP6890 GC Data, ECD1A.CH: 8.937 to 9.688 MIN

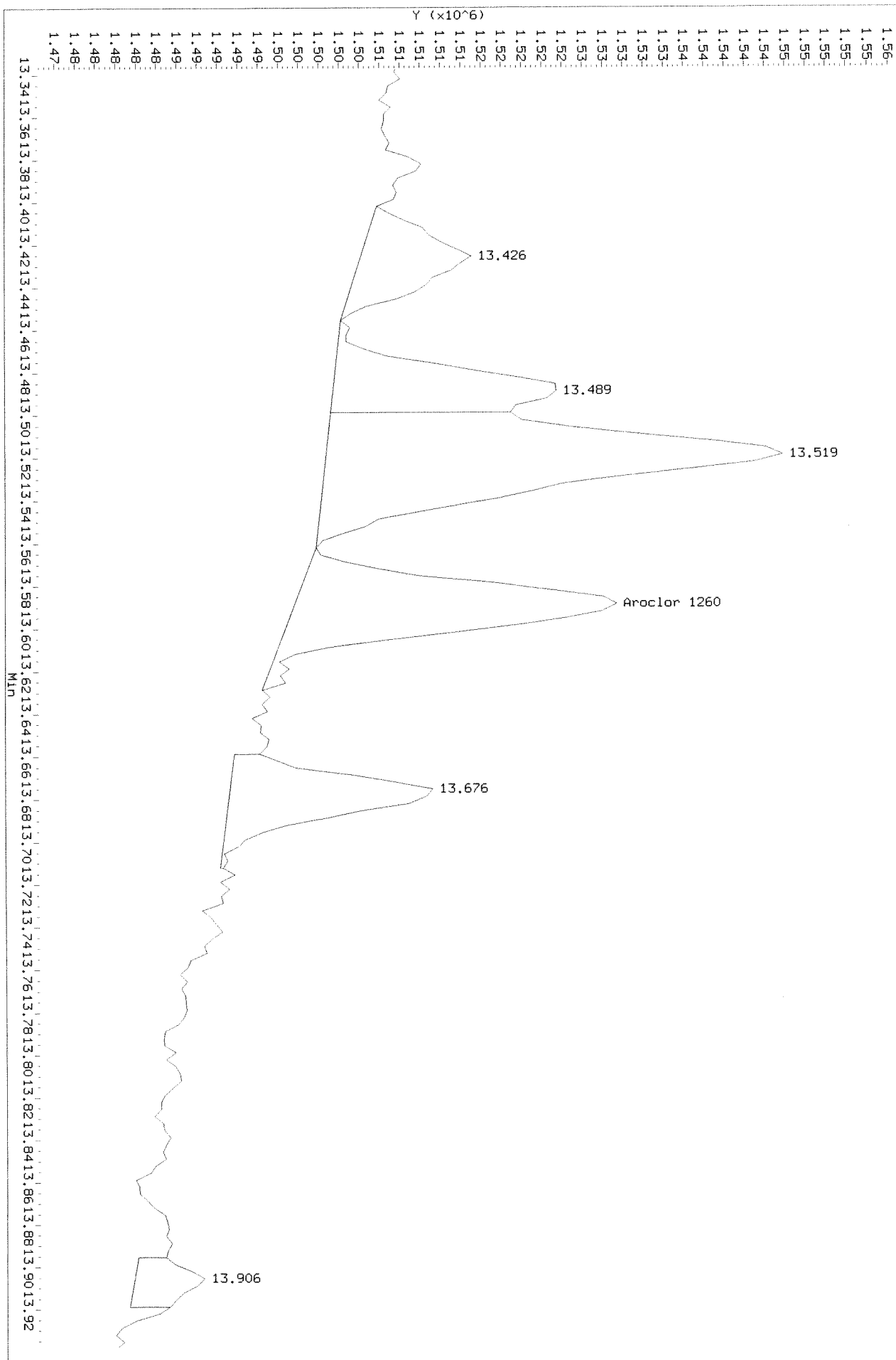
After shoulder 9/11/19 SA



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F005.D
Injection Date: 04-SEP-2019 18:32
Instrument: GC27.1
Client Sample ID:

Before

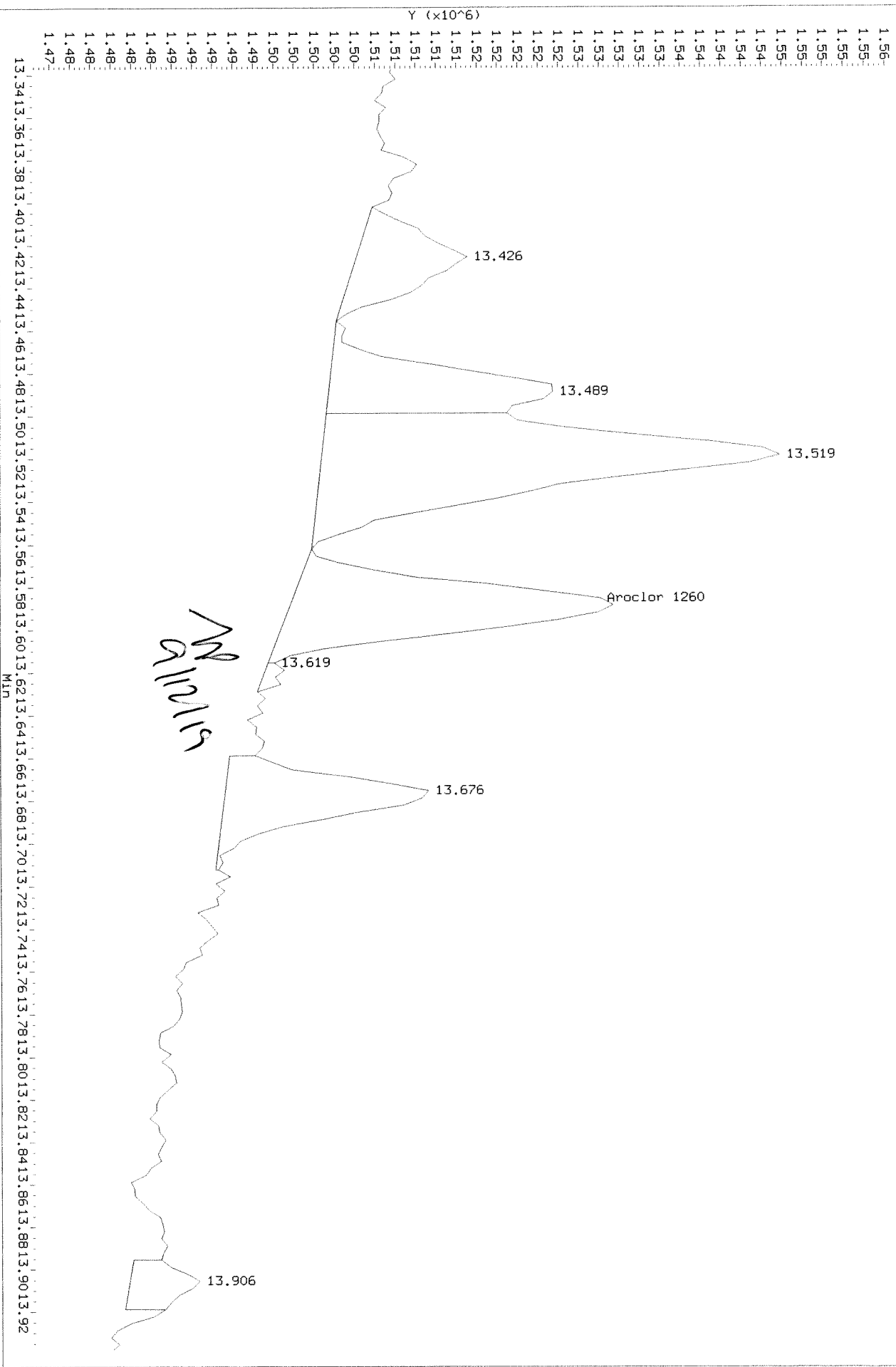
HP6890 GC Data, ECD1A.CH: 13.338 to 13.938 Min



Data File: \\alk1sws002\instdata\GC27\Data\090419ICL.B\0904F005.D
Injection Date: 04-SEP-2019 18:32
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 13.338 to 13.938 MIN

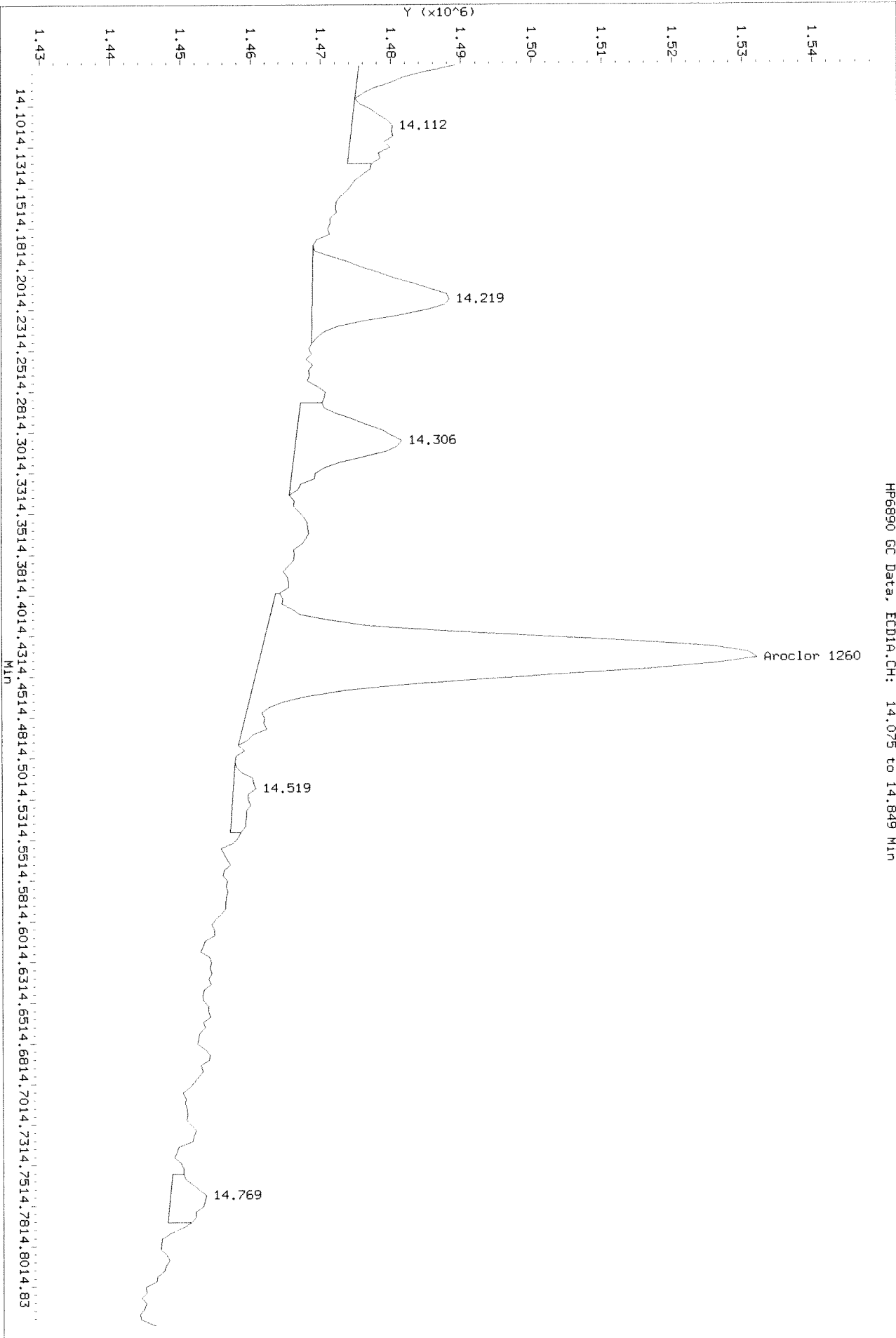
After Shoulder 9/11/19 SA



Data File: \\alk1sws002\instdata\GC27\Data\090419ICAL.B\0904F005.D
Injection Date: 04-SEP-2019 18:32
Instrument: GC27.1
Client Sample ID:

Before

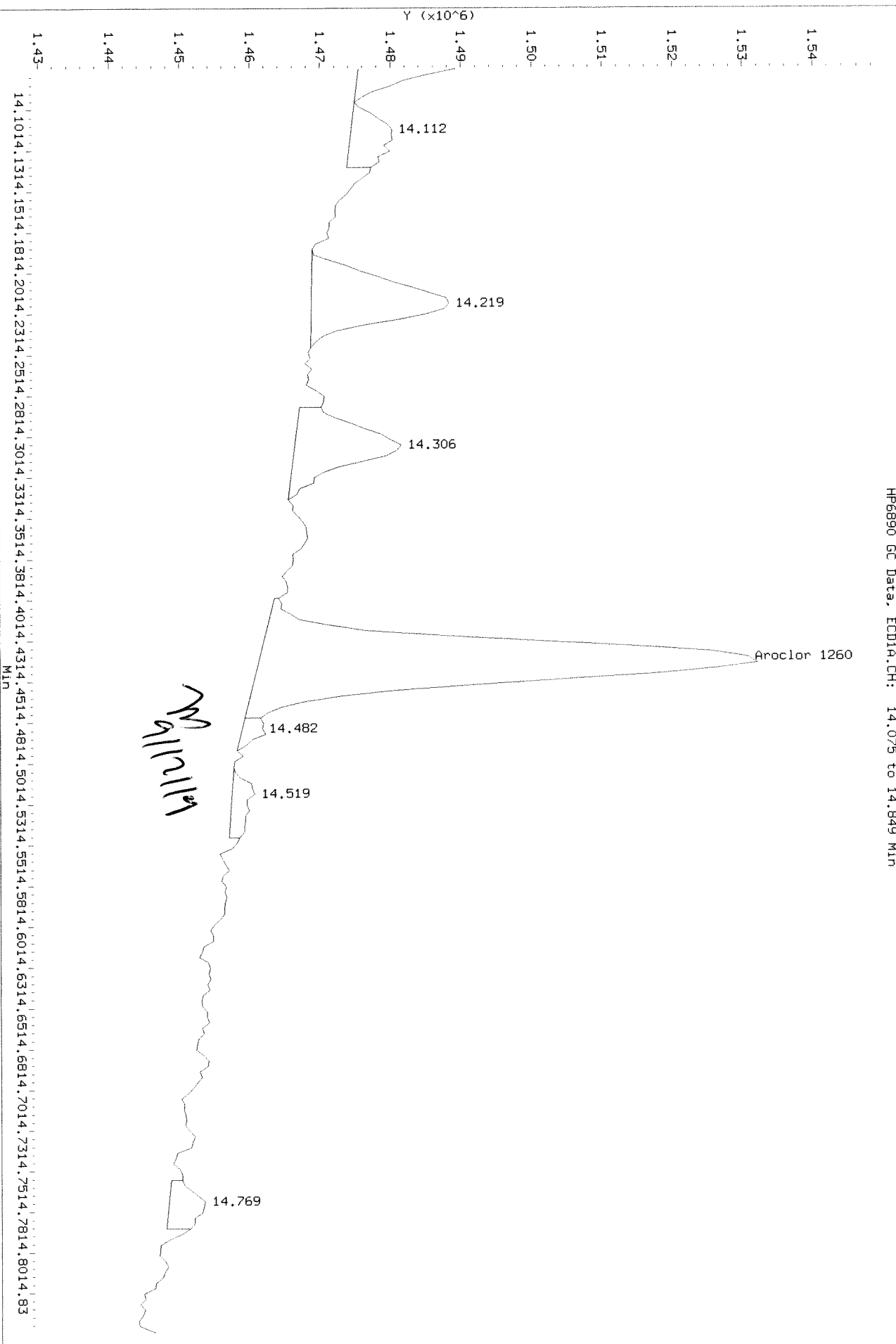
HP6890 GC Data, ECD1A.CH: 14.075 to 14.849 MIN



Data File: \\alk1swws002\instdata\GC27\Data\090419ICAL.b\0904F005.D
Injection Date: 04-SEP-2019 18:32
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 14.075 to 14.849 MIN

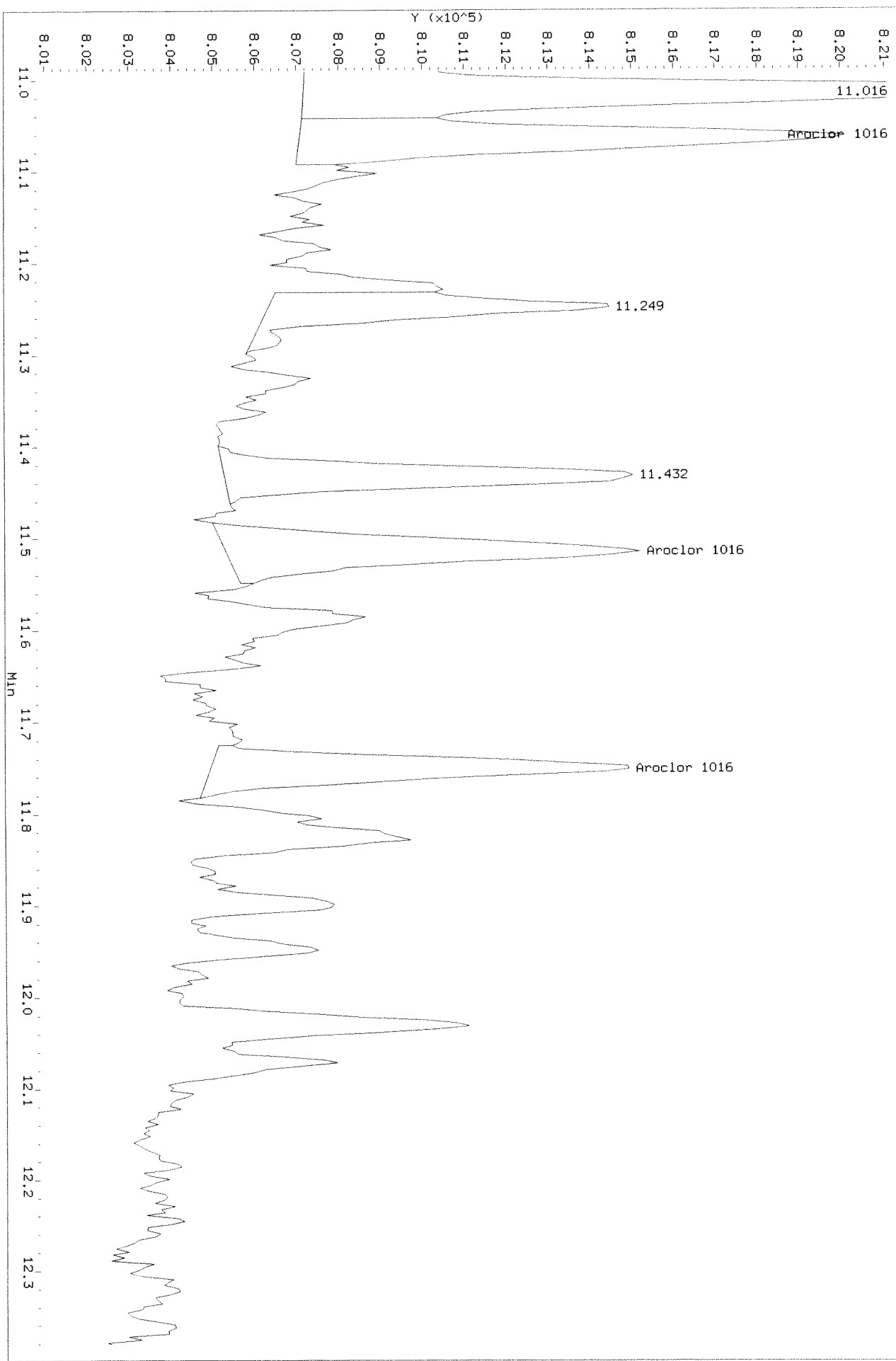
After Sharber 9/11/19 SA



Data File: \\alk1sws002\instdata\GC27\Data\090419ICHL_r.b\0904F005.D
Injection Date: 04-SEP-2019 18:32
Instrument: GC27.1
Client Sample ID:

Refer

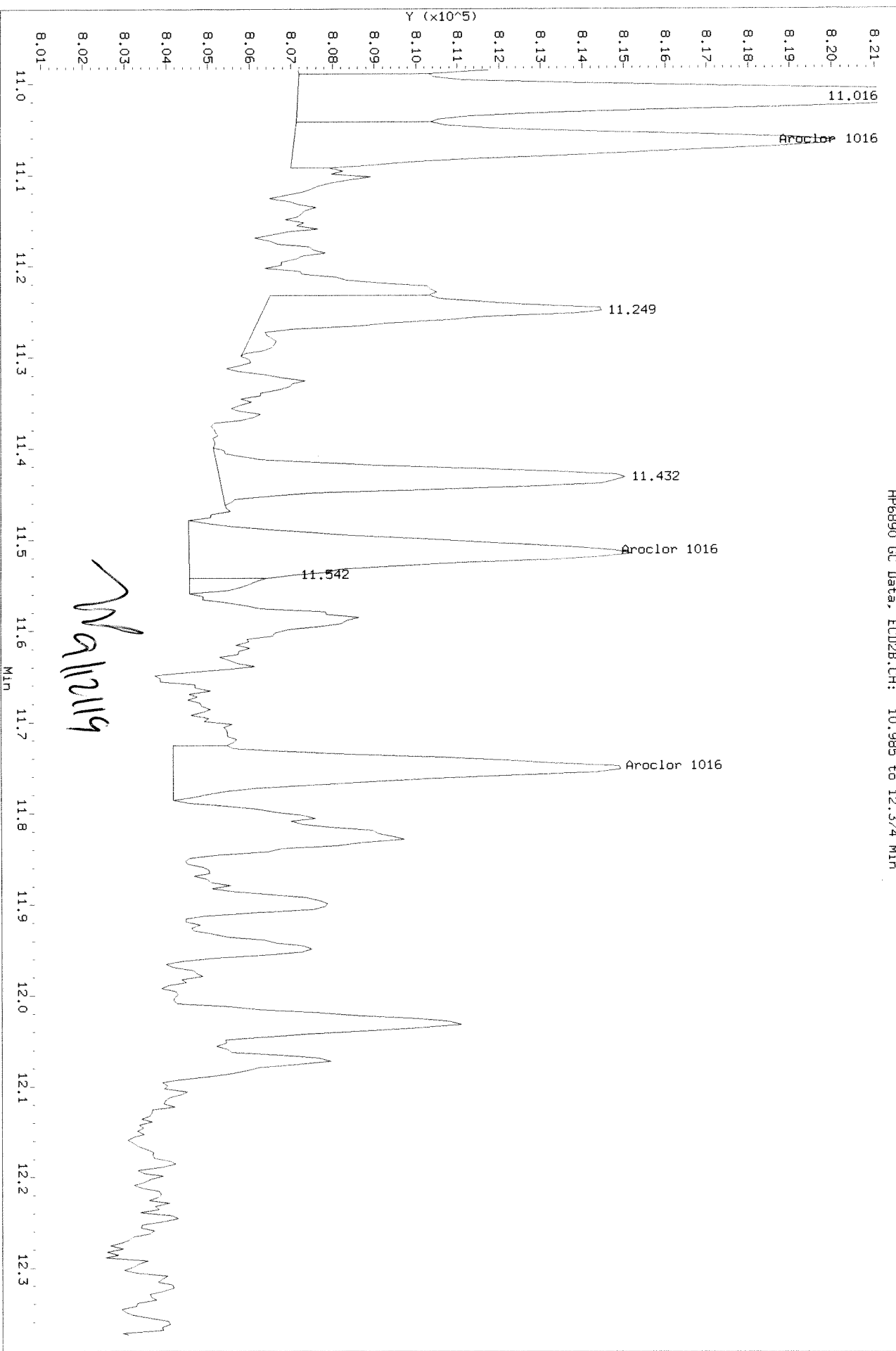
HP6890 GC Data, ECD2B.CH: 10.991 to 12.380 MIN



Data File: \\valkissw002\instdata\GC27\Data\090419ICAL.r.b\0904F005.D
Injection Date: 04-SEP-2019 18:32
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 10.985 to 12.374 Min

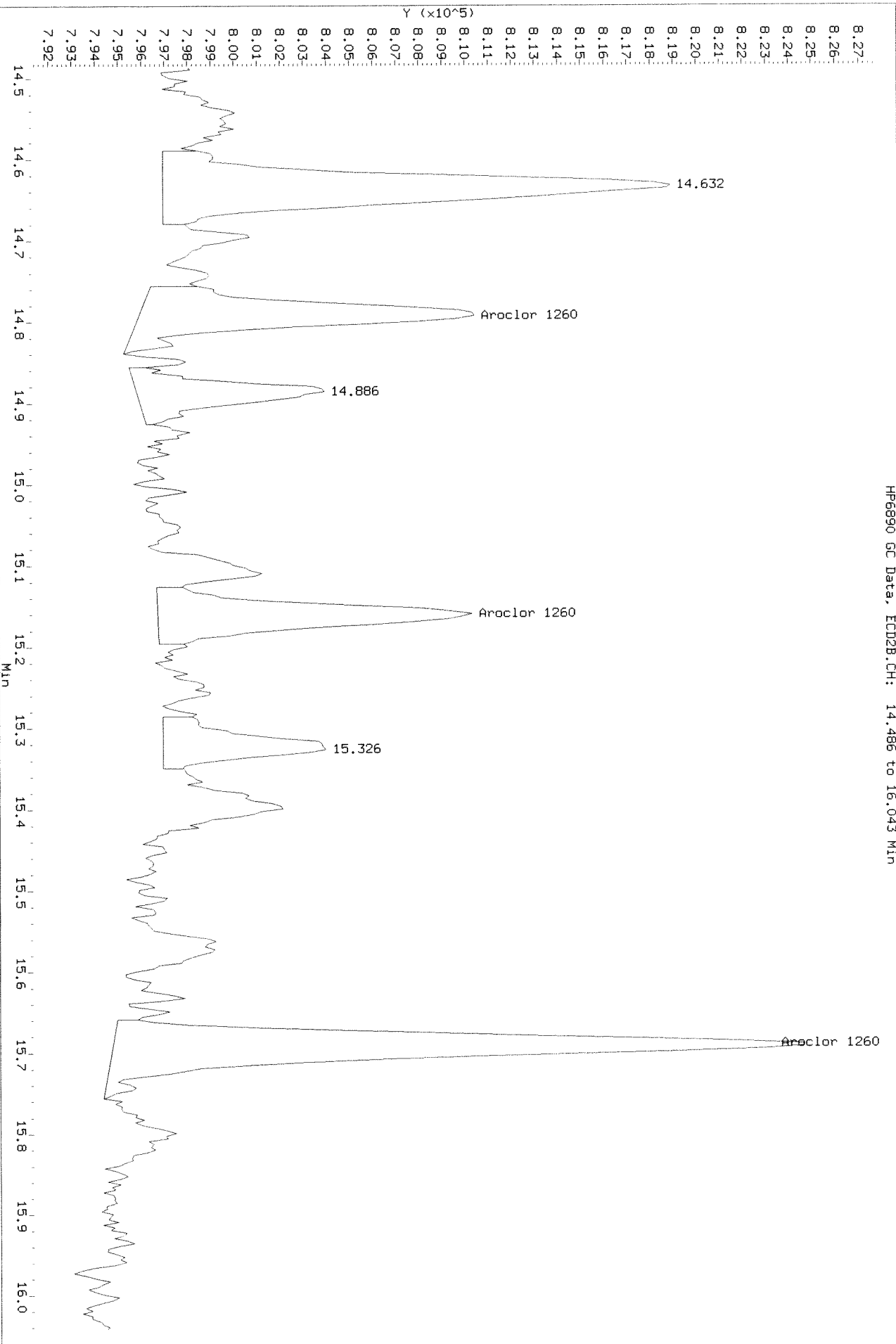
After baseline shoulder 9/11/19 A



Data File: \\alklms002\instdata\GC27\Data\090419ICAL_r.b\0904F005.D
Injection Date: 04-SEP-2019 18:32
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 14.486 to 16.043 Min

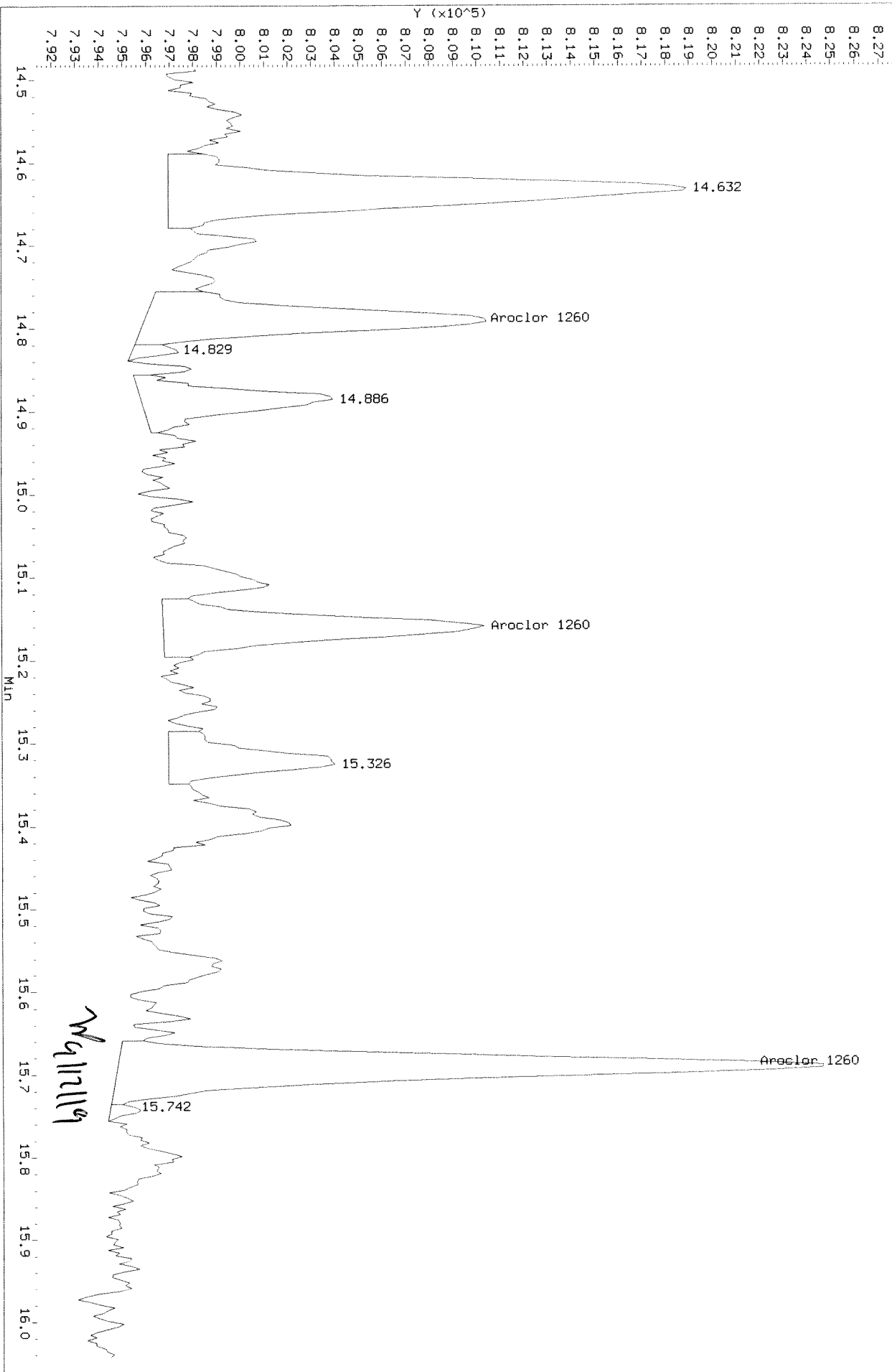
Before



Data File: \\alkisw002\instdata\GC27\Data\090419ICAL_r.b\0904F005.D
Injection Date: 04-SEP-2019 18:32
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 14.486 to 16.043 MIN

After shoulder 9/11/19 SA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F006.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F006.D
 Inj Date : 04-SEP-2019 19:04
 Sample Info: PCB8-12L 1660 @ 0.2-2 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 1660.SUB
 Sub List #2 : 1660.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.971	8.438	371637	171174	0.206	0.206		100.00
Aroclor 1016	8.057	9.168	70961	28422	2.08	1.89	80.00- 120.00	100.00 (M)
	9.304	9.918	58355	44421	2.08	2.01	66.06- 99.09	82.24 (M)
	9.747	11.064	195701	47375	2.25	1.96	210.14- 315.22	275.79 (M)
	9.931	11.518	106737	36442	2.08	2.05	122.22- 183.34	150.42 (M)
	10.314	11.754	69761	31982	1.98	1.90	84.59- 126.89	98.31 (M)
	Average of Peak Amounts =				2.09	1.96		
Aroclor 1260	13.197	13.548	70879	26891	2.12	1.89	80.00- 120.00	100.00
	13.581	14.791	91941	53427	1.97	2.33	111.33- 167.00	129.72
	14.051	15.164	100862	48814	2.01	2.17	117.15- 175.73	142.30
	14.427	15.691	213592	103743	2.01	2.18	251.10- 376.65	301.35
	15.061	16.194	163681	55657	2.06	1.89	184.28- 276.42	230.93
	Average of Peak Amounts =				2.03	2.09		
Decachlorobiphenyl	16.857	18.134	233073	99342	0.214	0.223		100.00

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
 W

Data File: \\alkisws002\instdata\GC27\Data\090419ICAL.b\0904F006.D

Date: 04-SEP-2019 19:04

Client ID:

Sample Info: PCB8-12L 1660 @ 0.2-2 PPB

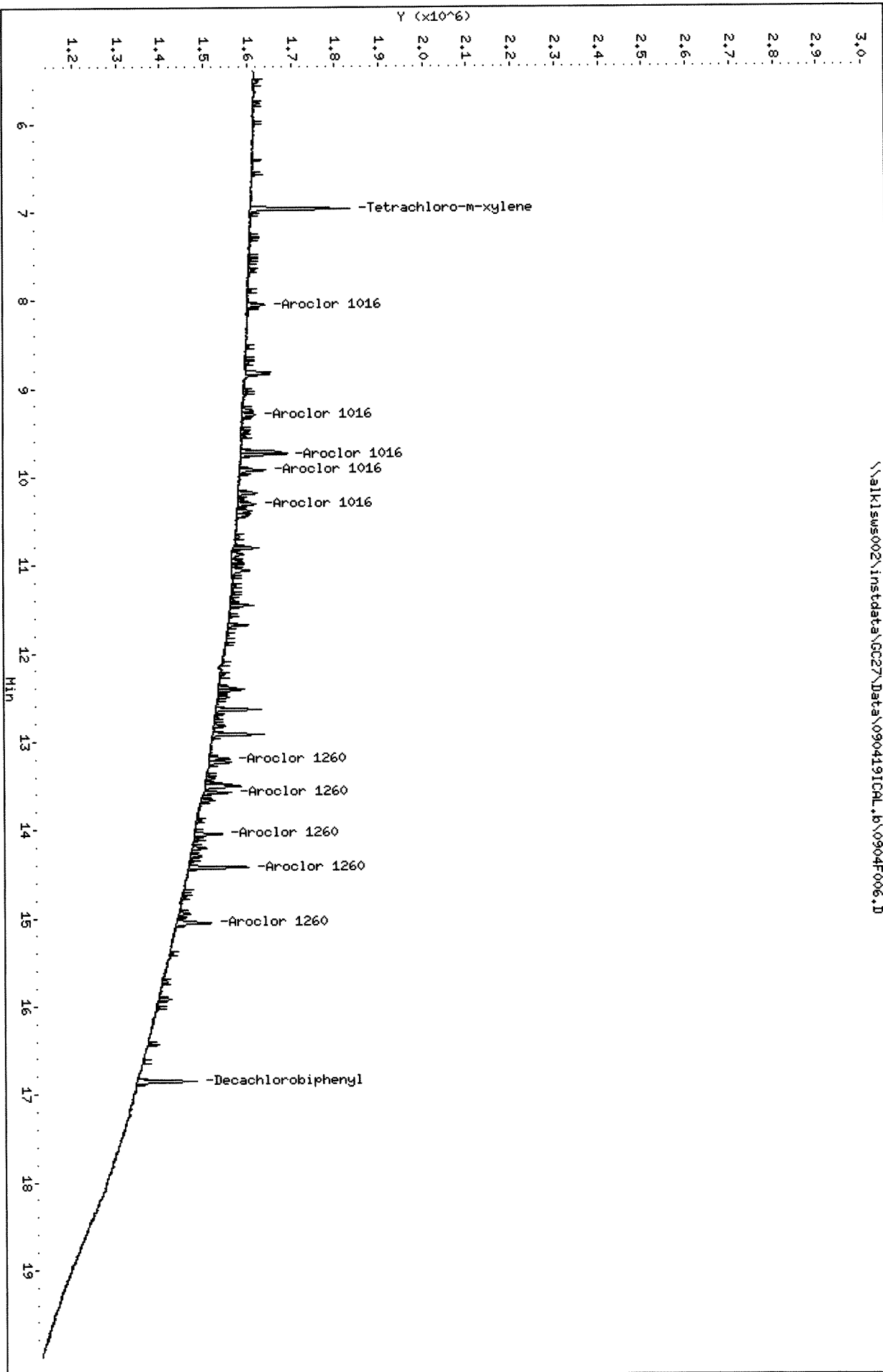
Column phase: DB-35MS

Instrument: GC27.1

Operator: SAH

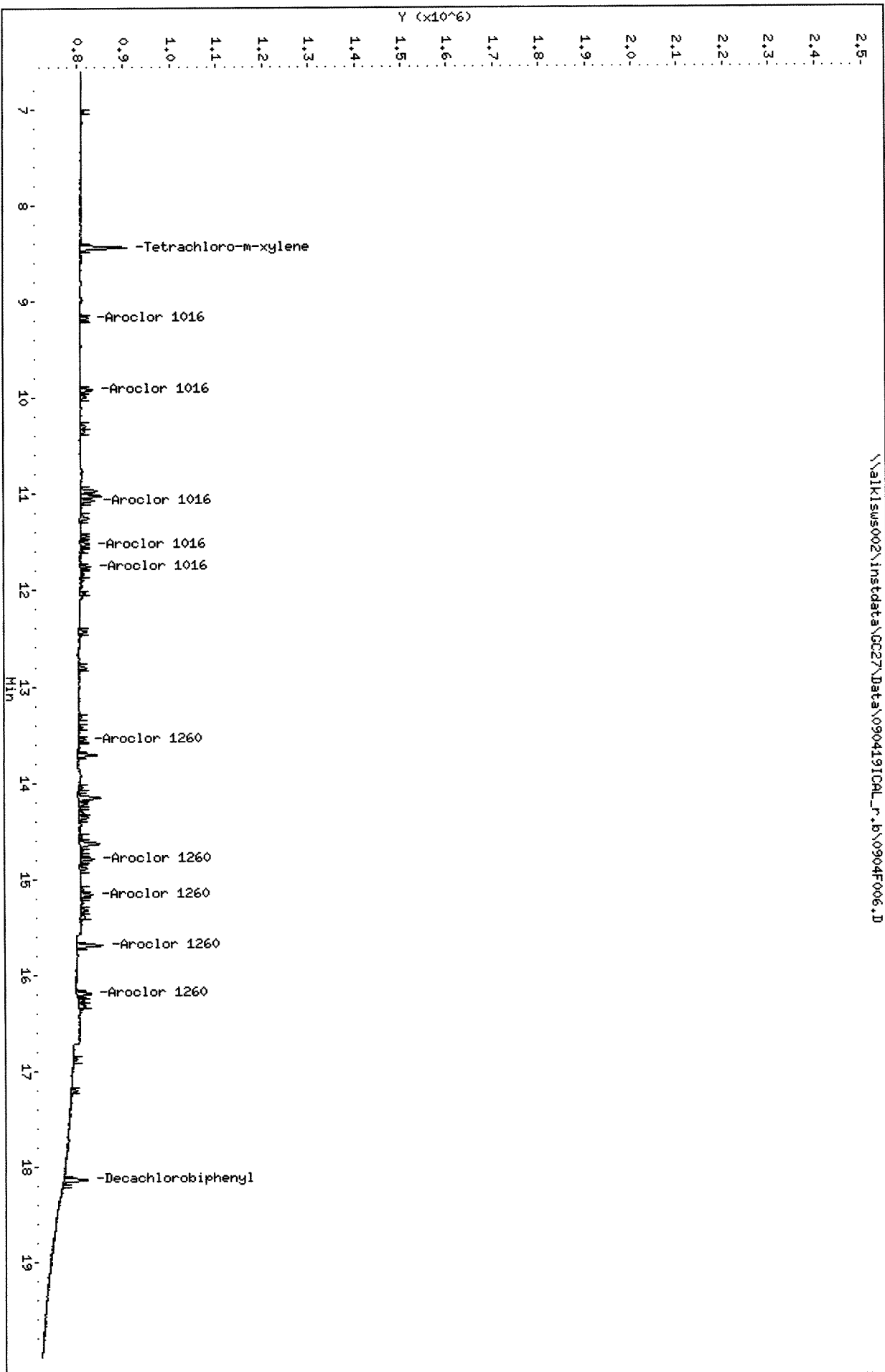
Column diameter: 0.32

\\alkisws002\instdata\GC27\Data\090419ICAL.b\0904F006.D



Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F006.D
Date: 04-SEP-2019 19:04
Client ID:
Sample Info: PCB8-12L 1660 @ 0.2-2 PPB
Column phase: DB-XLB

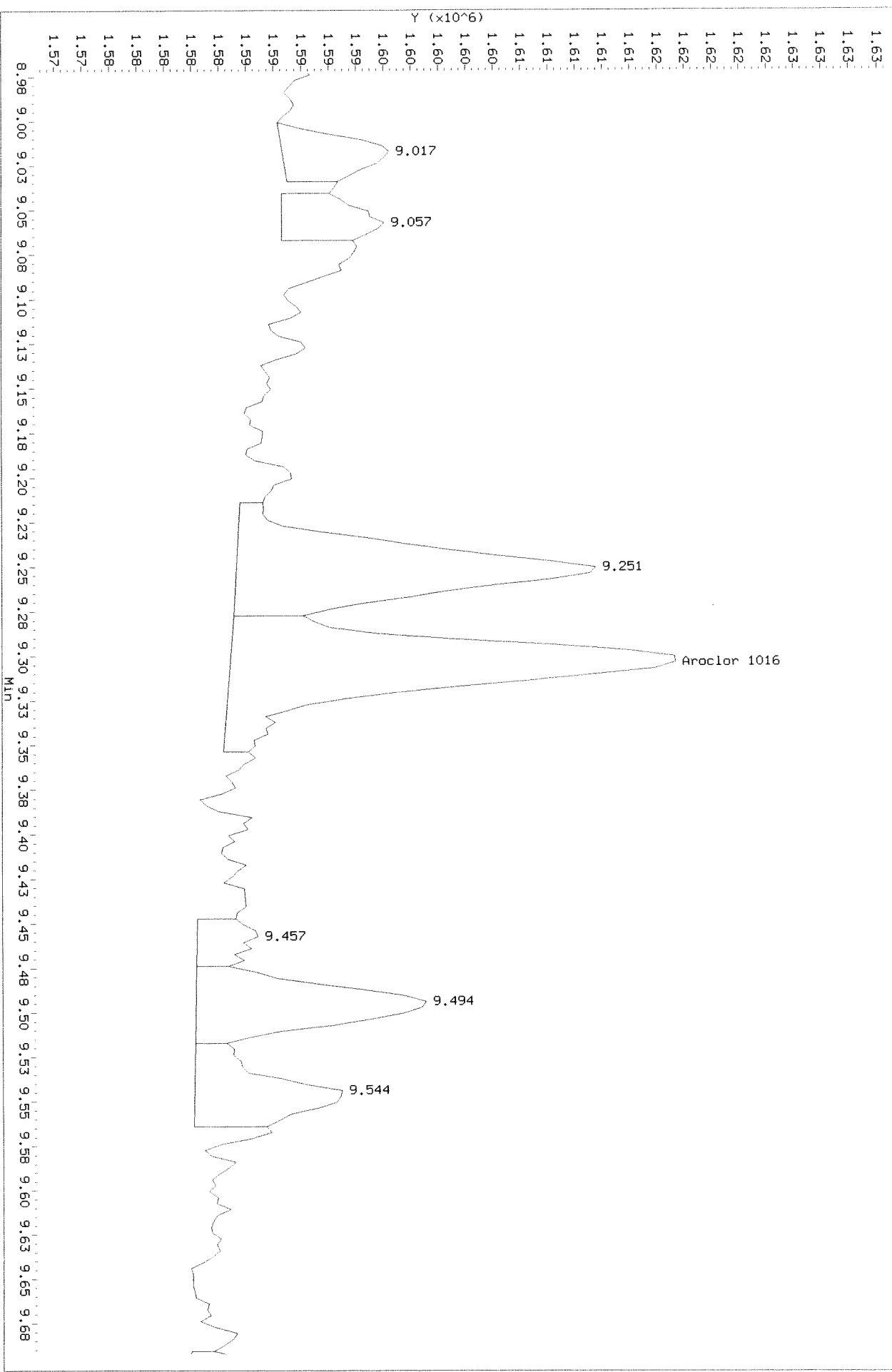
Instrument: GC27.i
Operator: SAA
Column diameter: 0.32



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904f006.D
Injection Date: 04-SEP-2019 19:04
Instrument: GC27.1
Client Sample ID:

Before

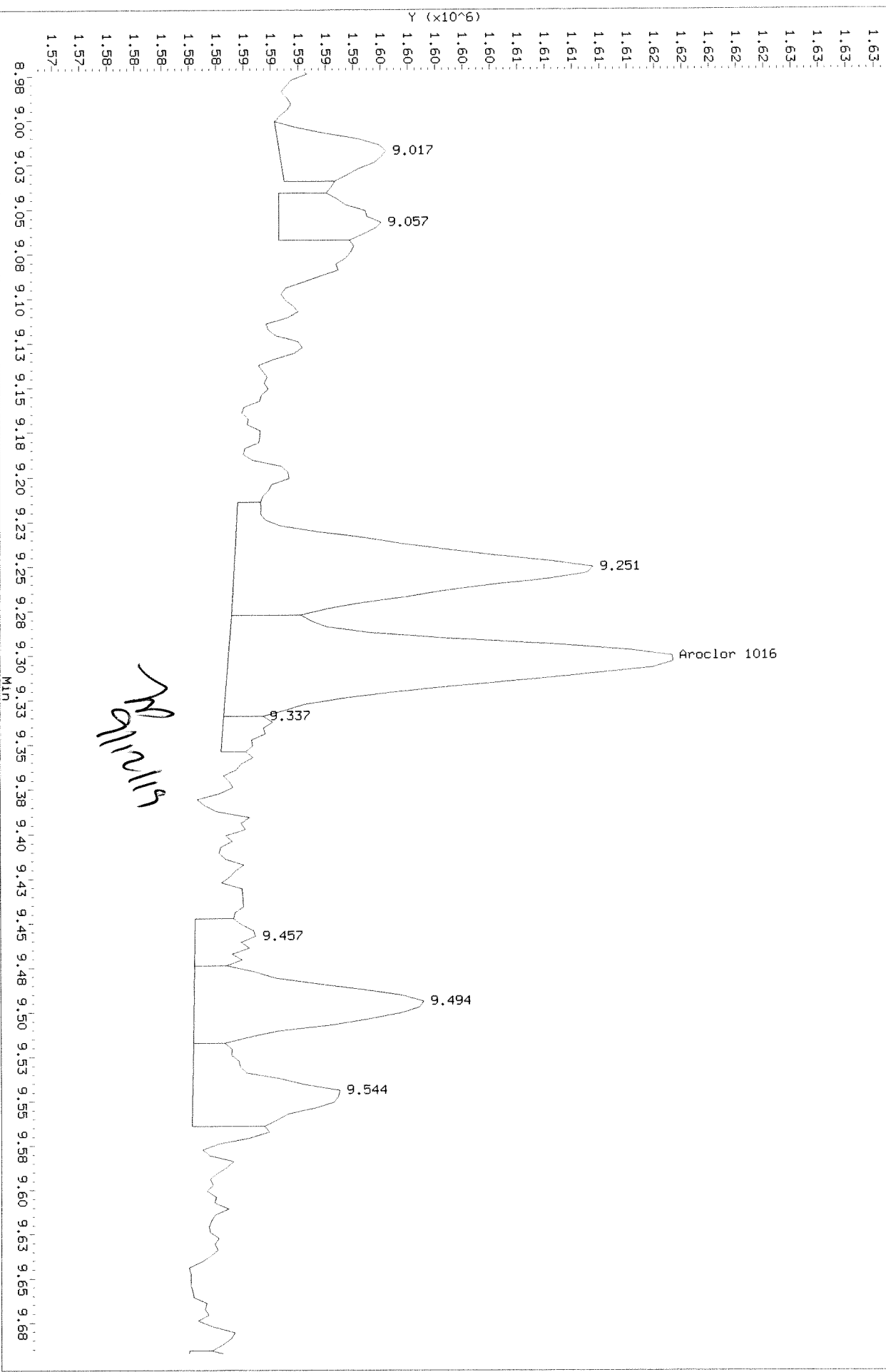
HP6890 GC Data, ECD1A.CH: 8.973 to 9.692 Min



Data File: \\alk1sww002\instdata\GC27\Data\090419ICAL.B\0904F006.D
Injection Date: 04-SEP-2019 19:04
Instrument: GC27.1
Client Sample ID:

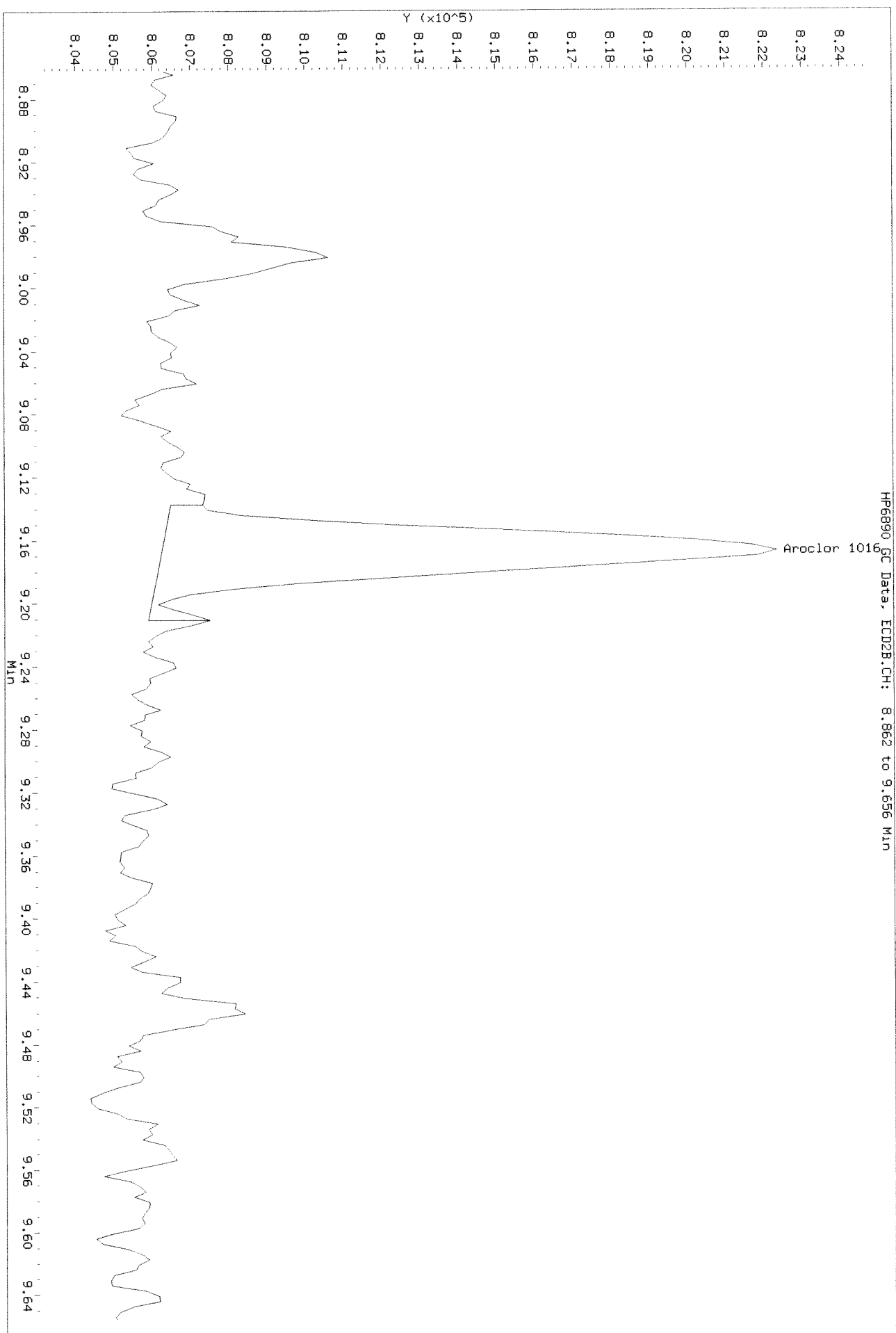
HP6890 GC Data, ECD1A.CH: 8.973 to 9.692 Min

After shoulder 9/11/19 SA



Data File: \\alklsws002\instdata\GC27\Data\090419ICHL_r.b\0904F006.D
Injection Date: 04-SEP-2019 19:04
Instrument: GC27.1
Client Sample ID:

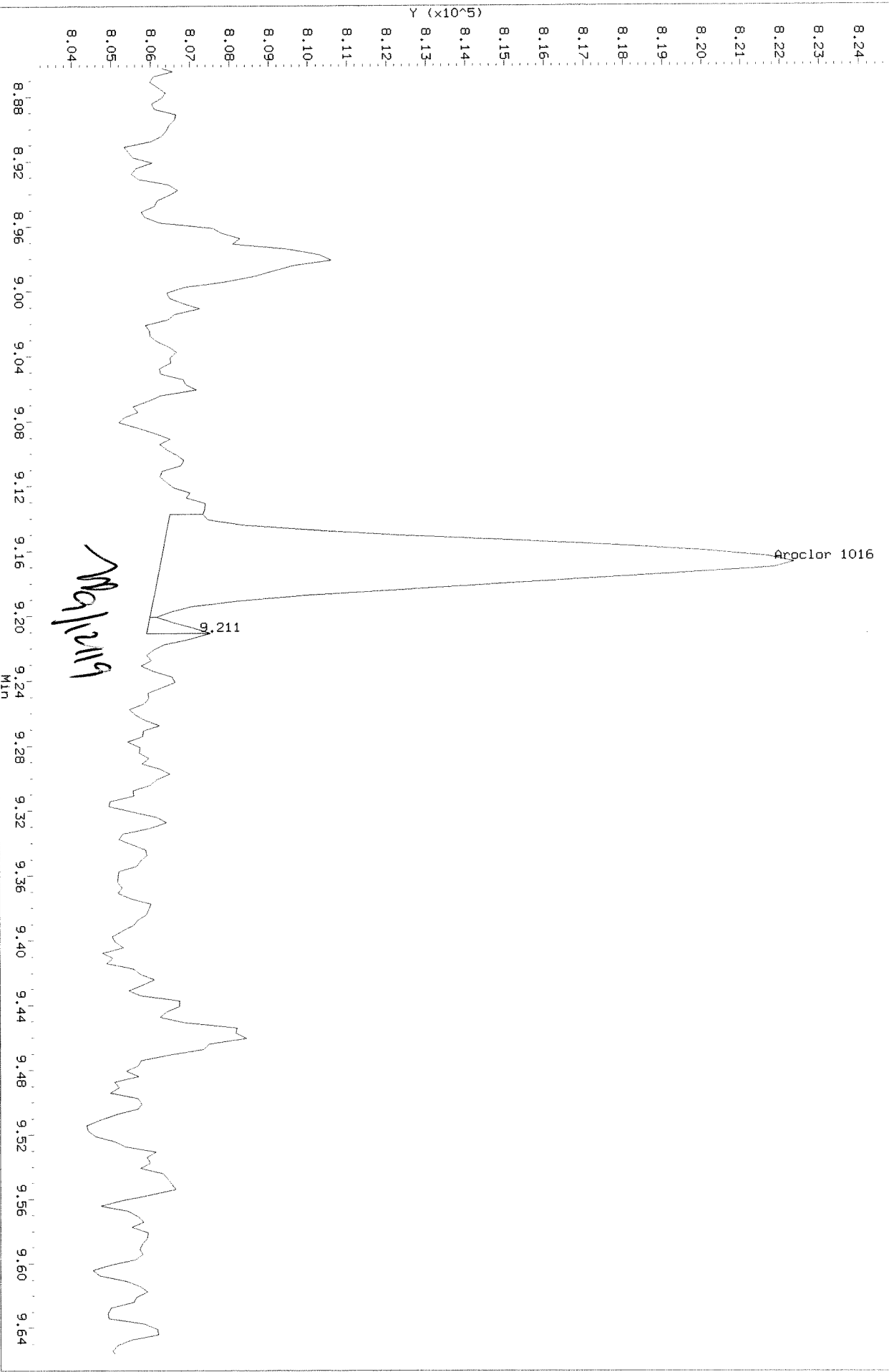
Refer



Data File: \\alklsws002\Instdata\GC27\Data\090419ICALL_r.b\0904F006.D
Injection Date: 04-SEP-2019 19:04
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data: ECD2B.CH: 8.862 to 9.656 MIN

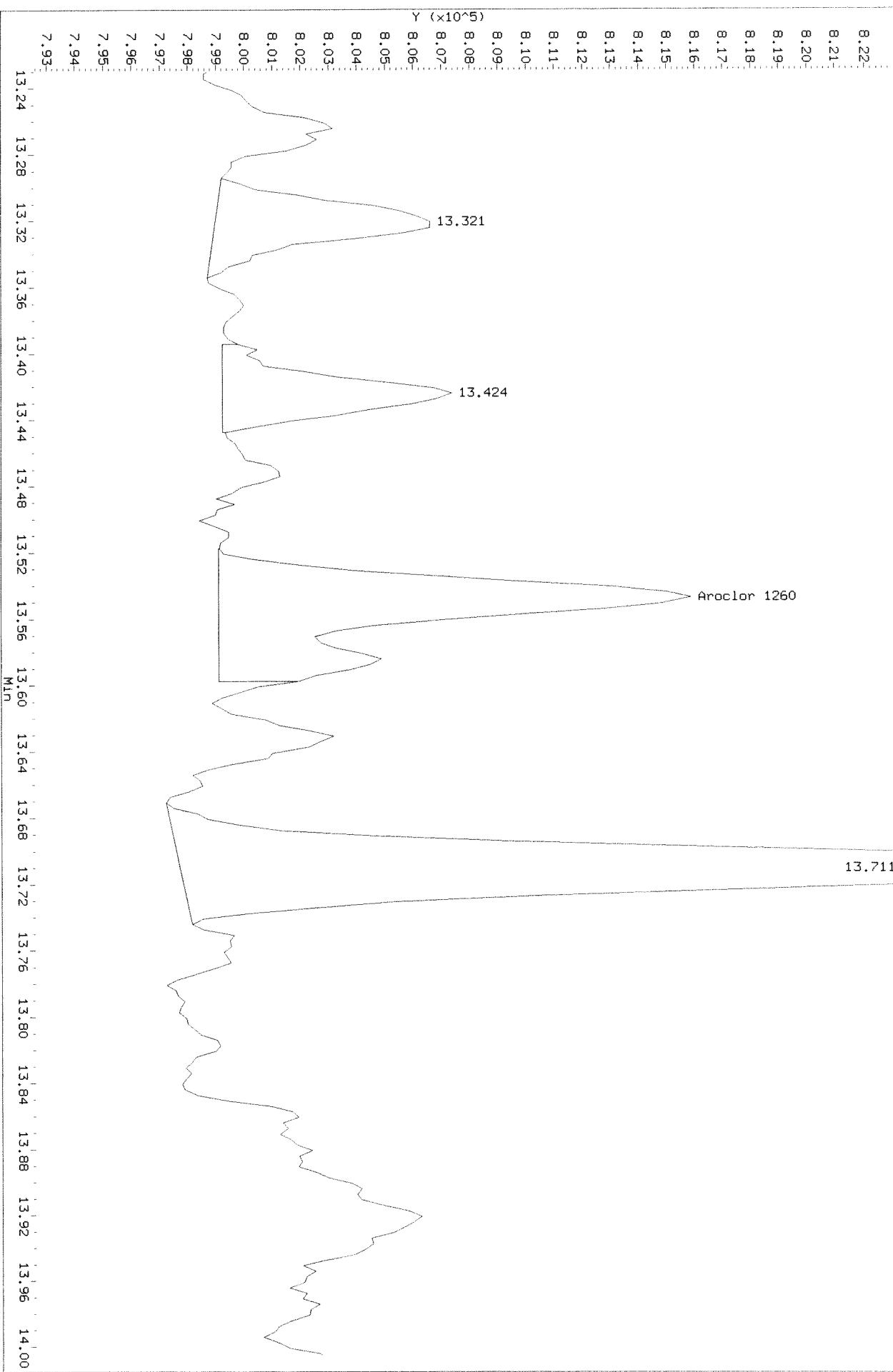
After shoulder 9/11/19 SA



Data File: \\alklsw002\instdata\GC27\Data\090419ICAL_r.b\0904F006.D
Injection Date: 04-SEP-2019 19:04
Instrument: GC27.1
Client Sample ID:

Bellevue

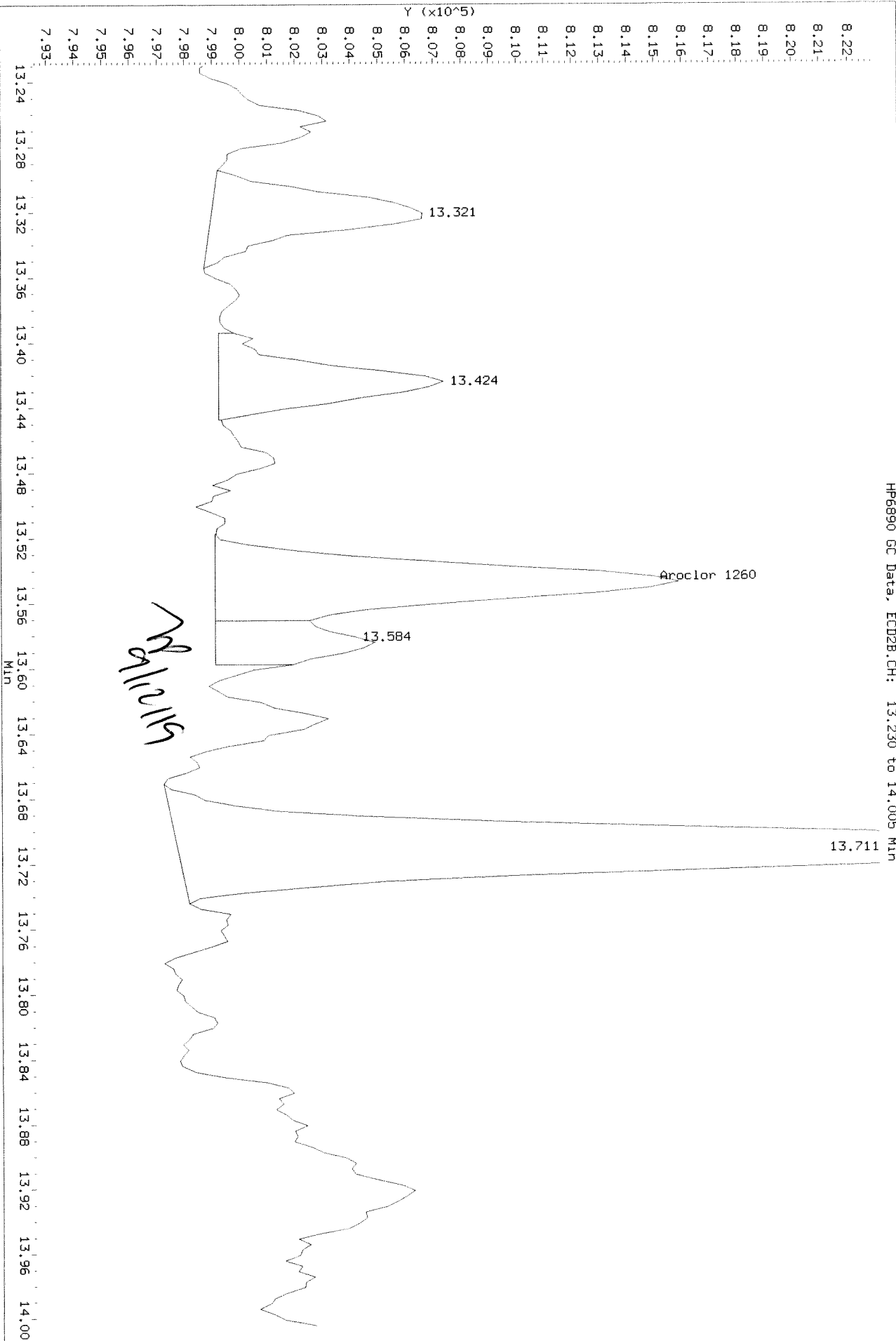
HP6890 GC Data, ECD2B.CH: 13.230 to 14.005 Min



Data File: \\alk1sww002\instdata\GC27\Data\090419ICAL_r.b\0904F006.D
Injection Date: 04-SEP-2019 19:04
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 13.230 to 14.005 Min

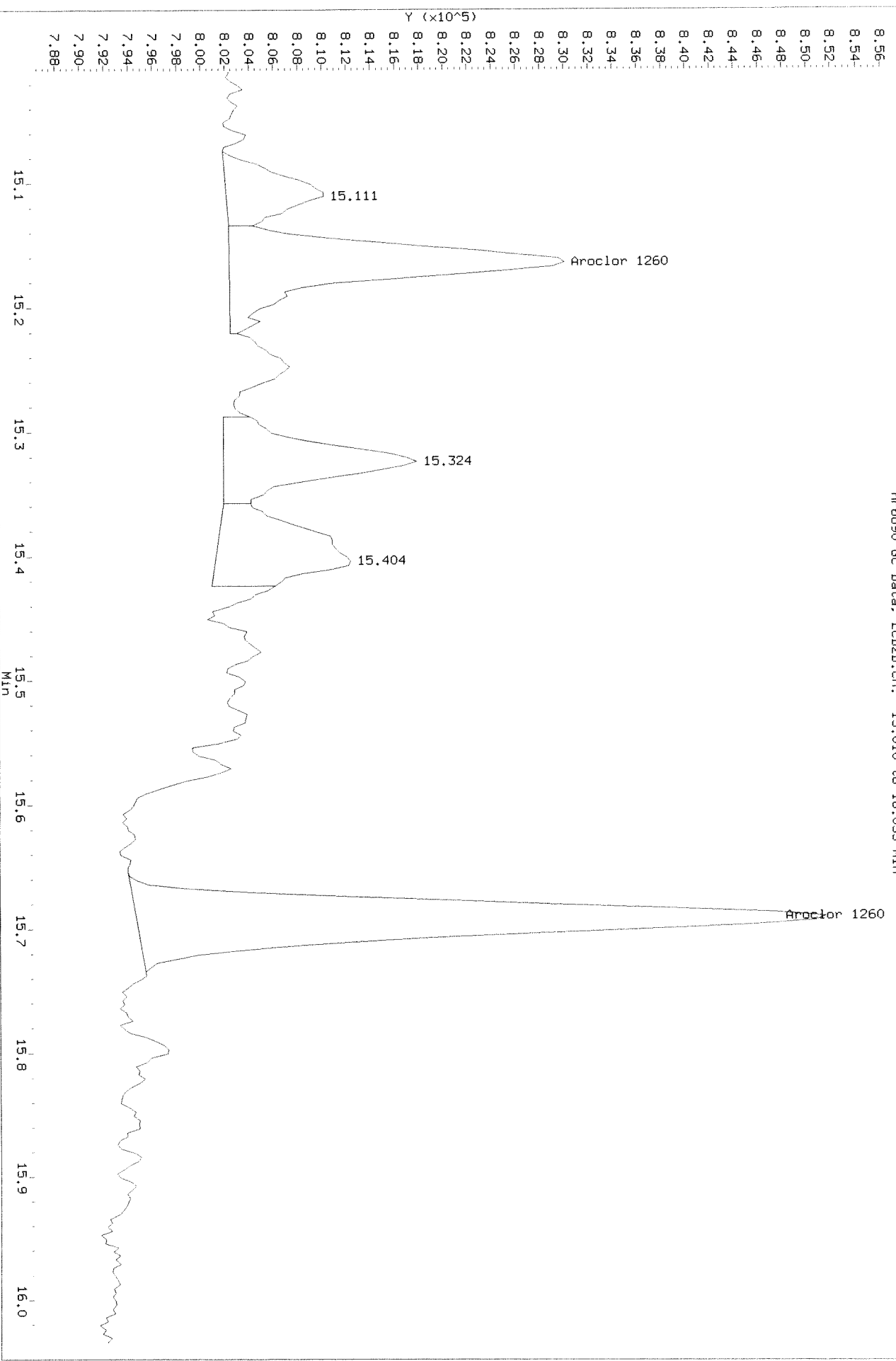
After shoulder 9/11/19



Data File: \\alk1sww002\inetdata\GC27\Data\090419ICAL_r.b\0904F006.D
Injection Date: 04-SEP-2019 19:04
Instrument: GC27.1
Client Sample ID:

Refer

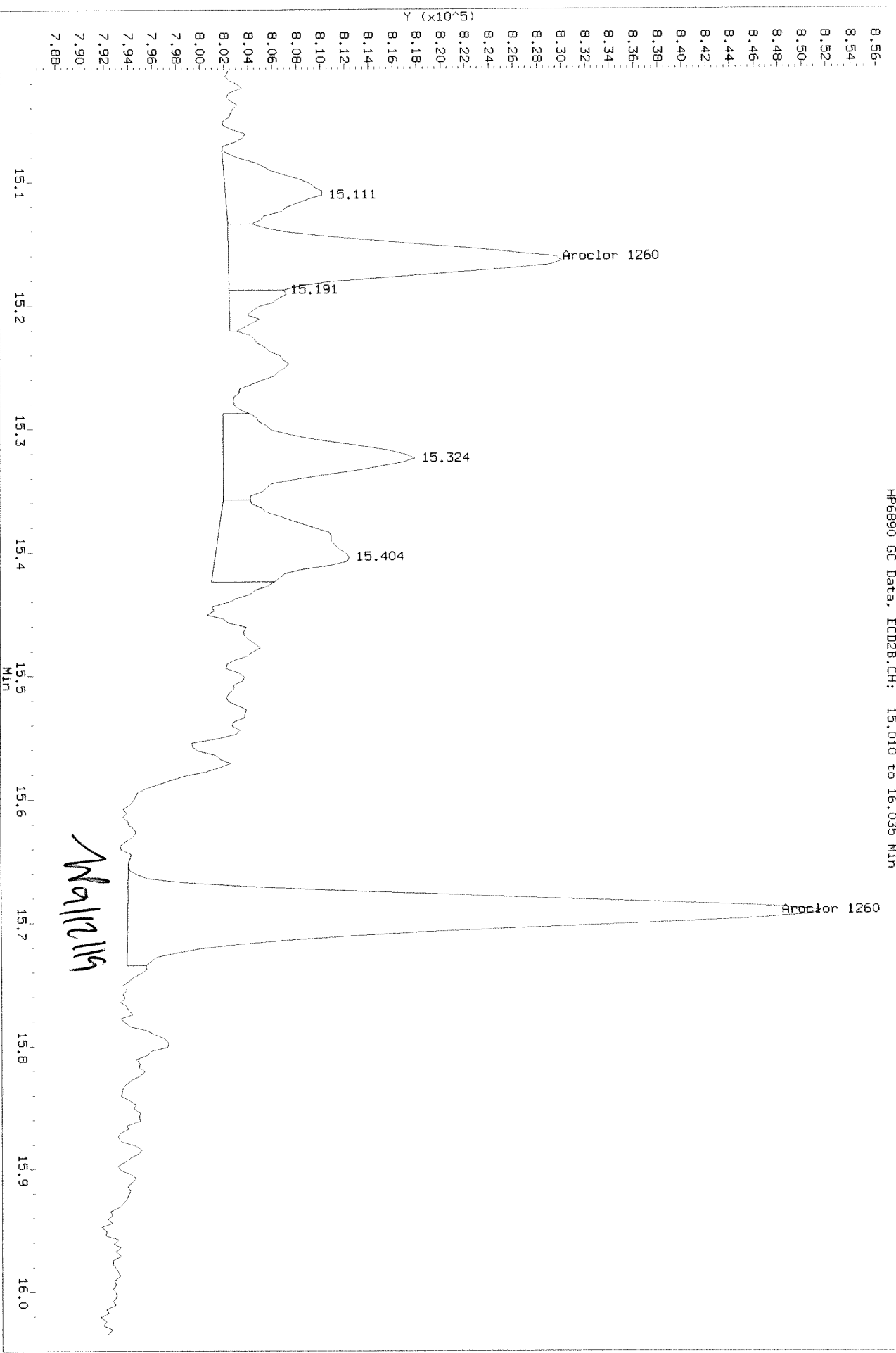
HP6890 GC Data, ECD2B.CH: 15.010 to 16.035 Min



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F006.D
Injection Date: 04-SEP-2019 19:04
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 15.010 to 16.035 Min

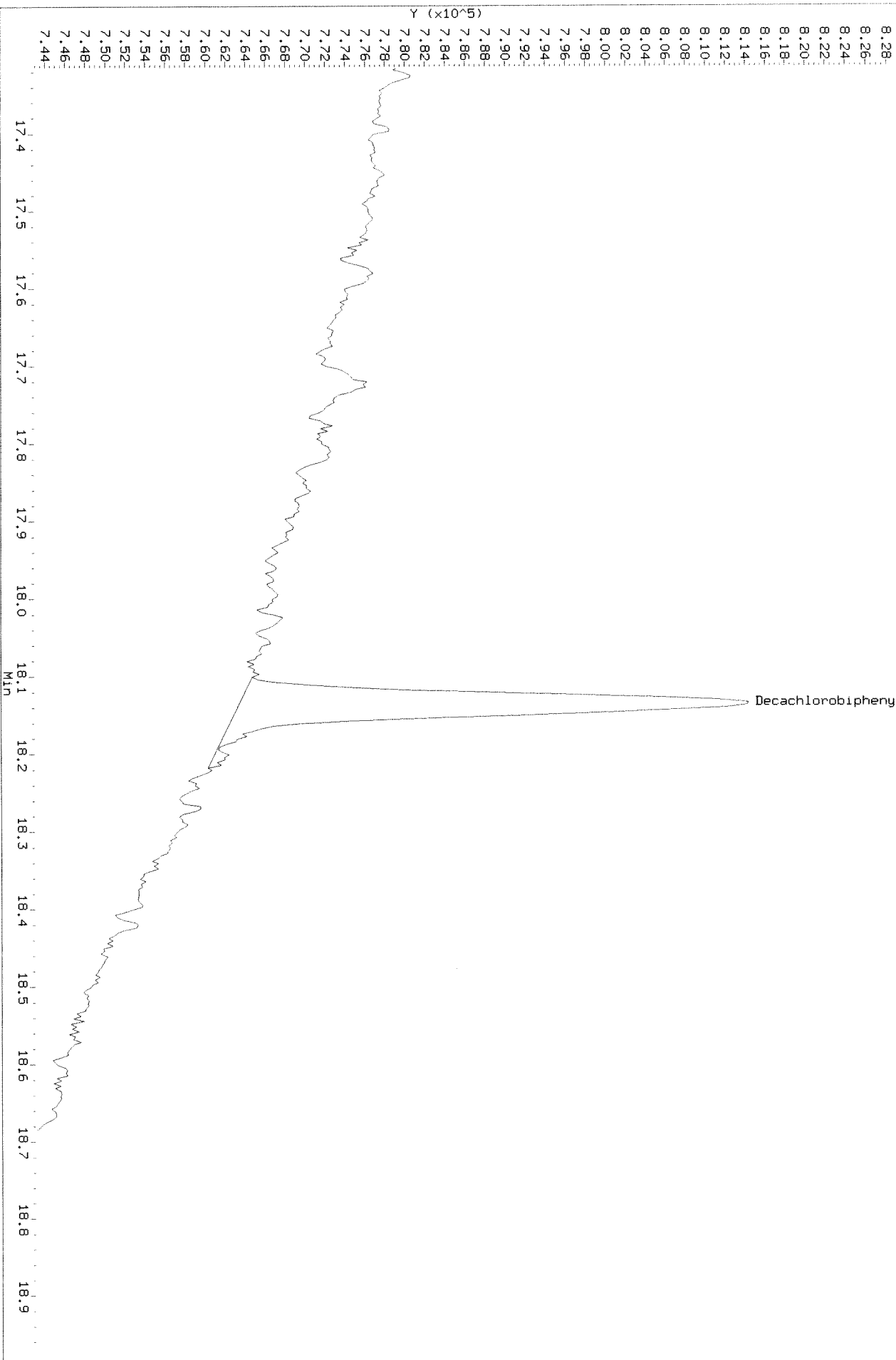
After baseline/shoulder 9/11/19 SA



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.r.b\0904F006.D
Injection Date: 04-SEP-2019 19:04
Instrument: GC27.1
Client Sample ID:

Refer

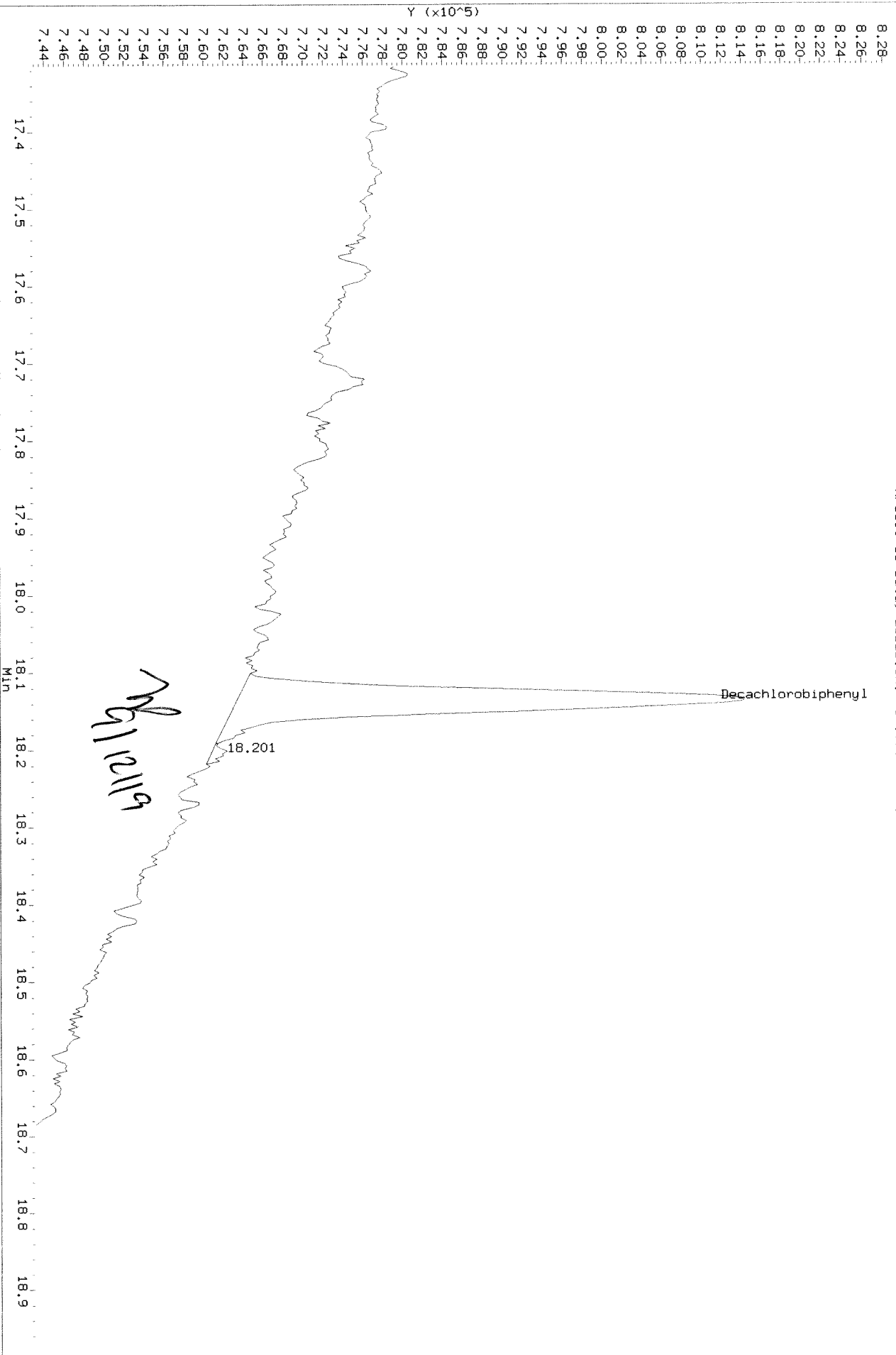
HP6890 GC Data, ECD2B.CH: 17.315 to 18.967 Min



Data File: \\alklsws002\instdata\GC27\Data\090419ICALL_r.b\0904F006.D
Injection Date: 04-SEP-2019 19:04
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 17.315 to 18.967 MIN

After shoulder 11/11/19 A



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F007.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F007.D
 Inj Date : 04-SEP-2019 19:35
 Sample Info: PCB8-12M 1660 @ 0.5-5 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 1660.SUB
 Sub List #2 : 1660.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.968	8.438	871553	427056	0.484	0.514		100.00
Aroclor 1016	8.058	9.171	162681	69188	4.77	4.59	80.00- 120.00	100.00 (M)
	9.304	9.918	134537	105330	4.80	4.77	66.06- 99.09	82.70 (M)
	9.748	11.068	418990	118320	4.82	4.91	210.14- 315.22	257.55 (M)
	9.931	11.518	262724	84122	5.12	4.72	122.22- 183.34	161.50 (M)
	10.314	11.754	178085	81510	5.07	4.84	84.59- 126.89	109.47 (M)
	Average of Peak Amounts =				4.92	4.77		
Aroclor 1260	13.194	13.548	159357	70156	4.76	4.94	80.00- 120.00	100.00
	13.581	14.791	223328	112486	4.79	4.91	111.33- 167.00	140.14
	14.054	15.164	245847	114421	4.90	5.09	117.15- 175.73	154.27
	14.428	15.694	512869	248882	4.83	5.24	251.10- 376.65	321.84
	15.061	16.198	389635	153959	4.91	5.23	184.28- 276.42	244.50
	Average of Peak Amounts =				4.84	5.08		
Decachlorobiphenyl	16.858	18.138	551897	226714	0.506	0.508		100.00

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
W

Data File: \\alkisus002\instdata\GC27\Data\090419ICAL.b\0904F007.D

Date: 04-SEP-2019 19:35

Client ID:

Sample Info: PCB8-12H 1660 @ 0.5-5 PPB

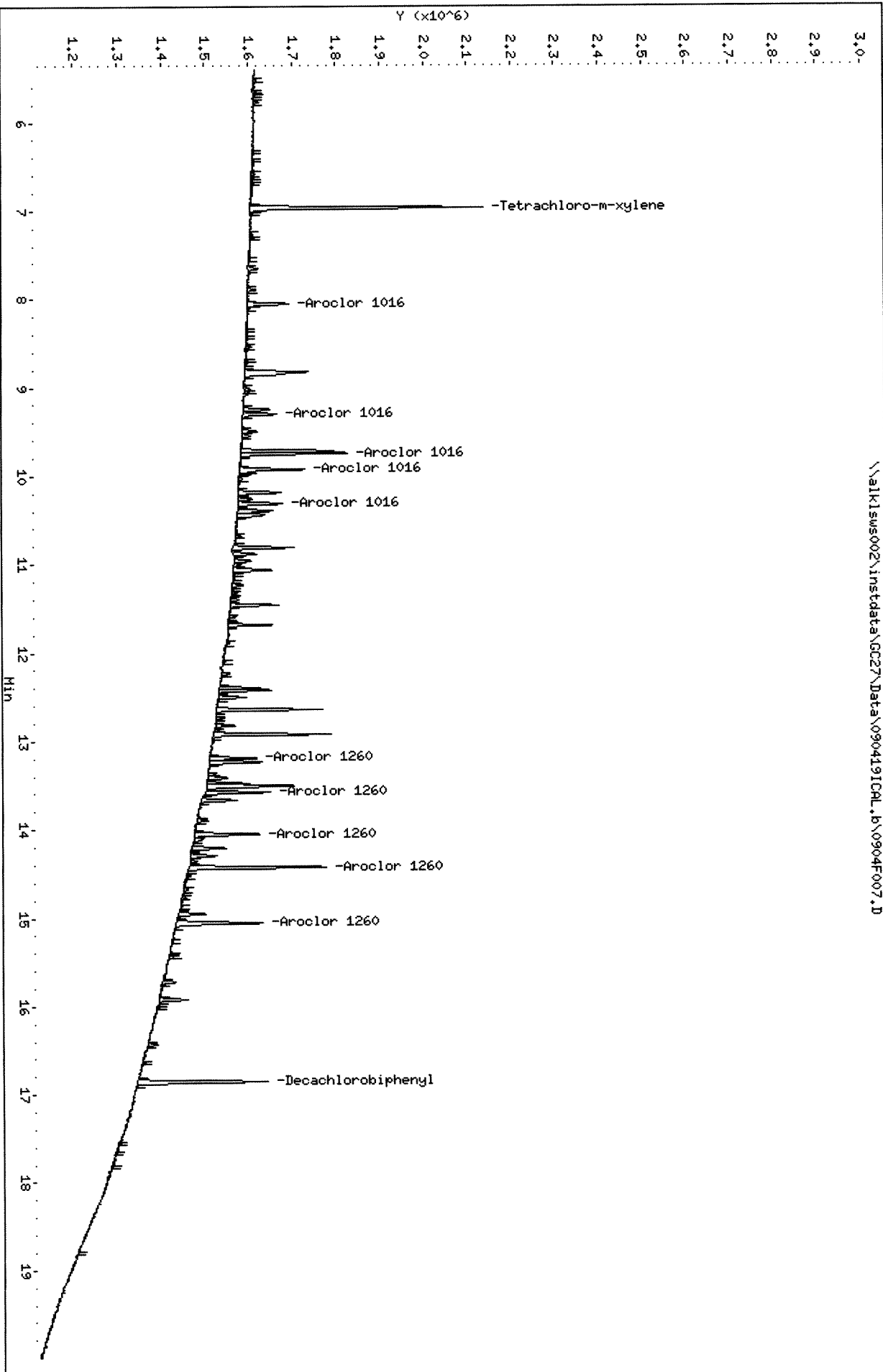
Column phase: DB-35MS

Instrument: GC27.1

Operator: SAA

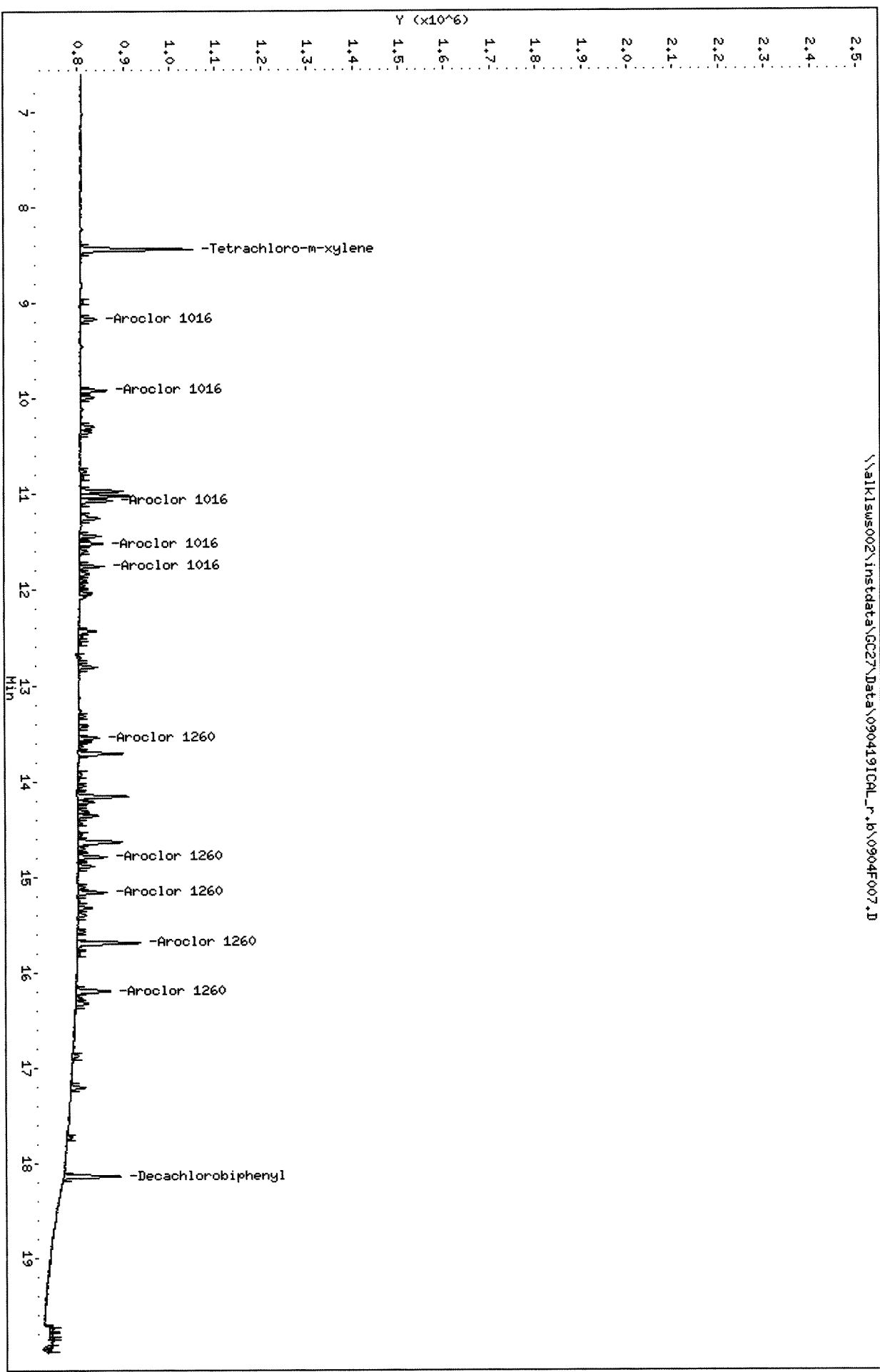
Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL.b\0904F007.D



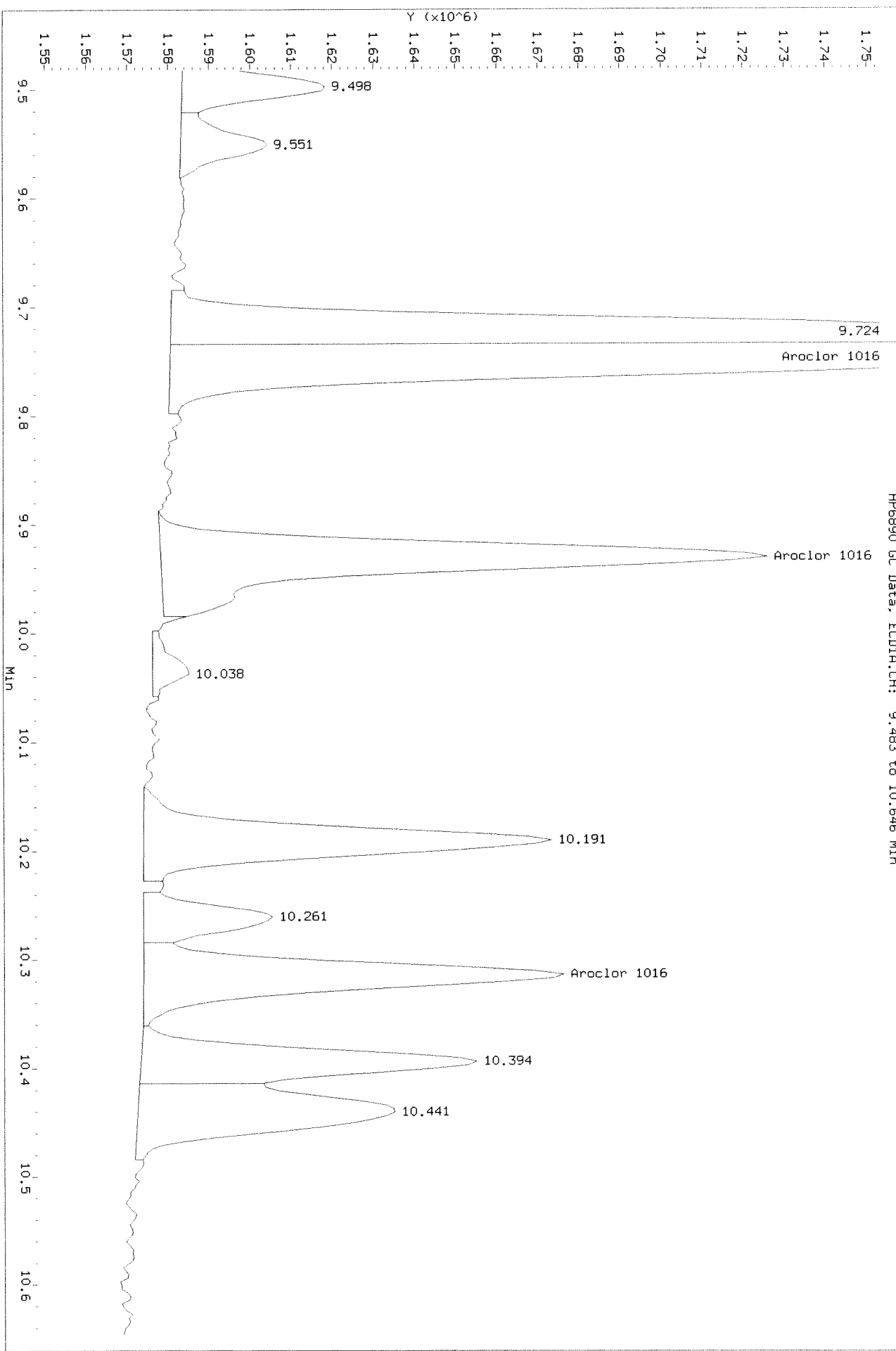
Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F007.D
Date: 04-SEP-2019 19:35
Client ID:
Sample Info: PCB8-12M 1660 @ 0.5-5 PPB
Column phase: DB-XLB

Instrument: GC27.1
Operator: SAA
Column diameter: 0.32



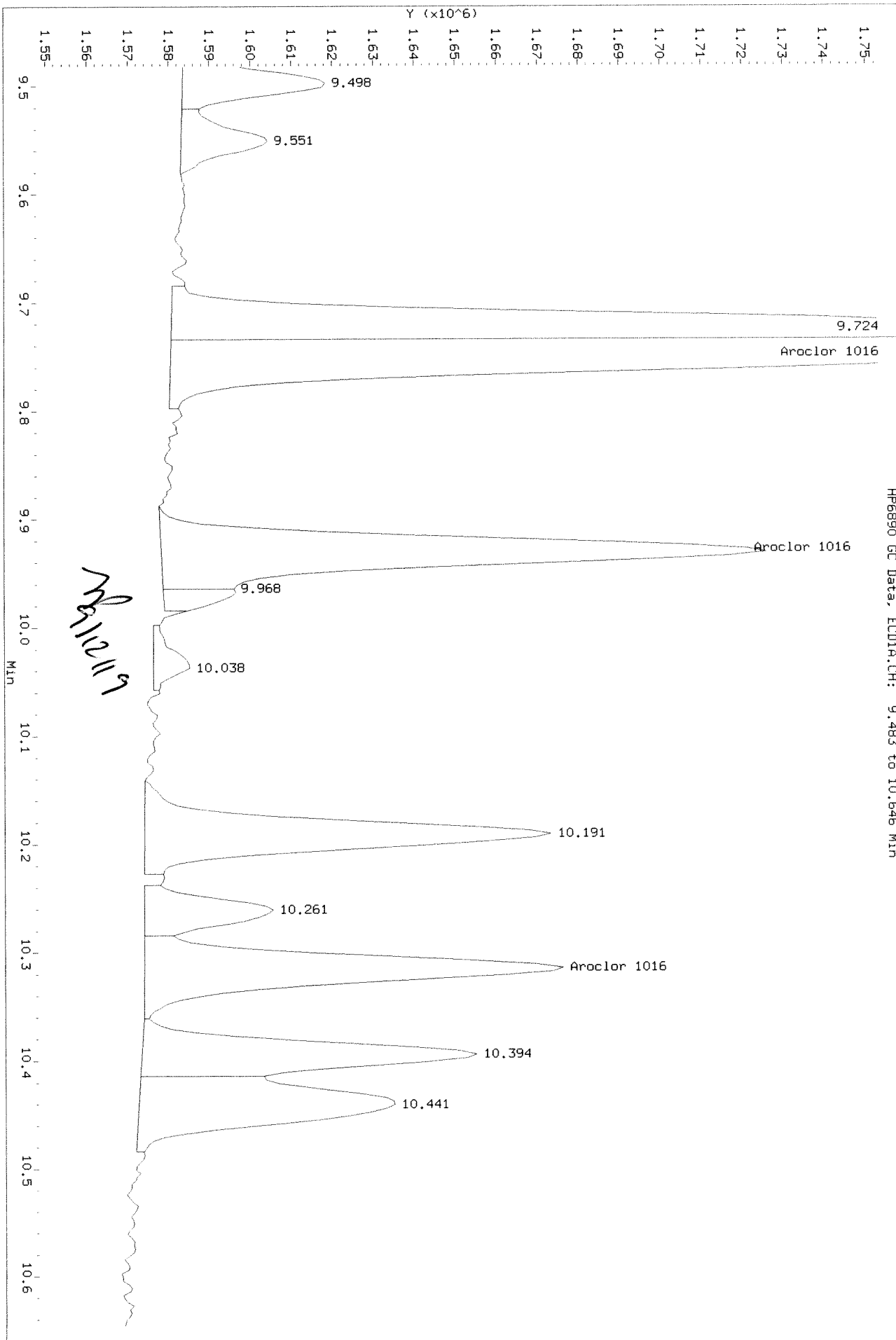
Data File: \\alklsm002\instdata\GC27\Data\090419ICAL.b\0904F007.D
Injection Date: 04-SEP-2019 19:35
Instrument: GC27.1
Client Sample ID:

Before



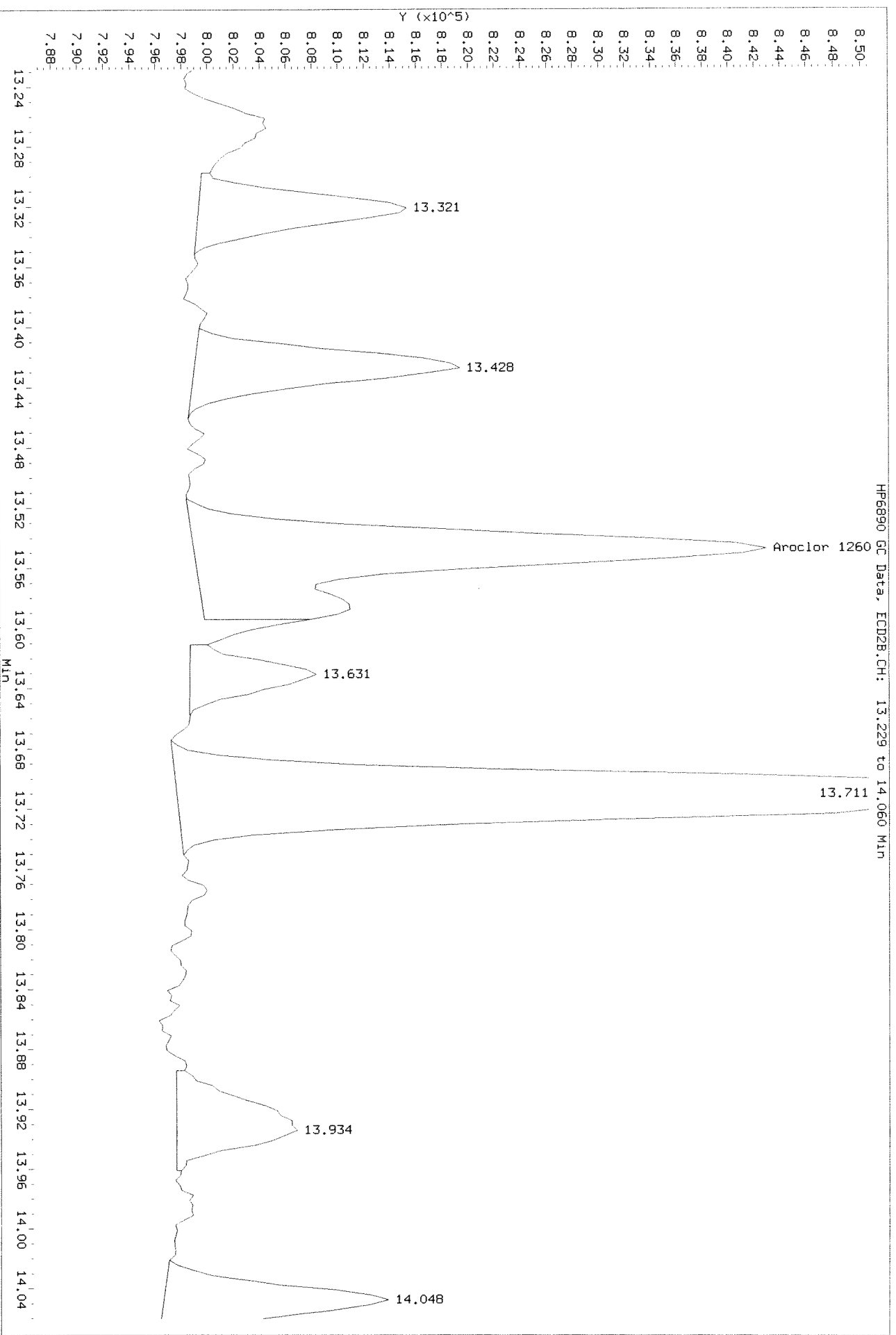
HP6890 GC Data, ECD1A.CH: 9.483 to 10.646 Min

After shoulder 9/11/19 *AS*



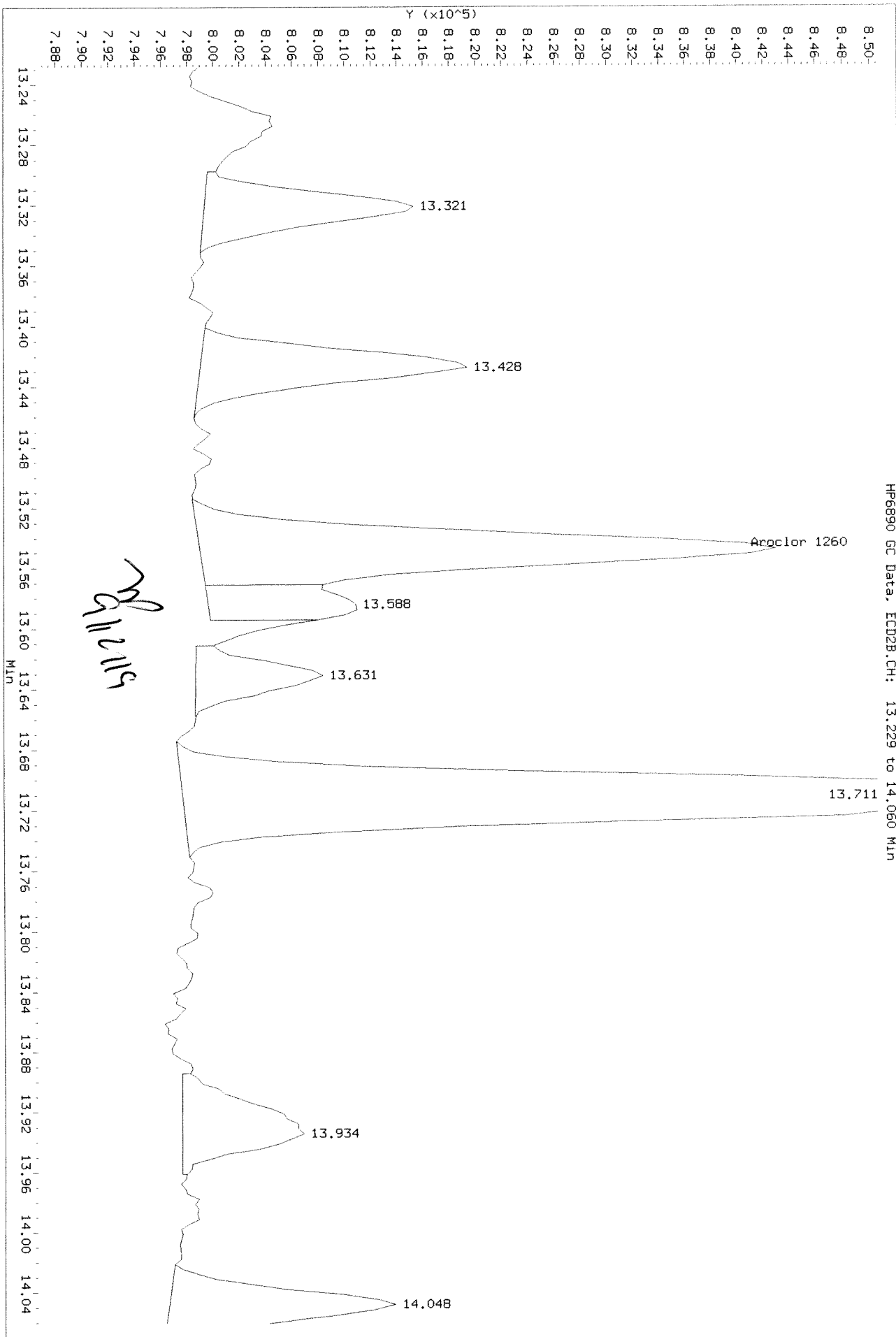
Data File: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F007.D
Injection Date: 04-SEP-2019 19:35
Instrument: GC27.1
Client Sample ID:

Refer



Data File: \\alkisw002\instdata\GC27\Data\090419ICL_r.b\0904F007.D
Injection Date: 04-SEP-2019 19:35
Instrument: GC27.1
Client Sample ID:

After should be 9/11/19 SA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F008.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F008.D
 Inj Date : 04-SEP-2019 20:07
 Sample Info: PCB8-12N 1660 @ 1-10 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 1660.SUB
 Sub List #2 : 1660.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.970	8.437	1788482	891940	0.993	1.07		100.00
Aroclor 1016	8.057	9.167	352429	146530	10.3	9.73	80.00- 120.00	100.00 (M)
	9.304	9.917	283357	228723	10.1	10.4	66.06- 99.09	80.40 (M)
	9.747	11.067	850350	258289	9.78	10.7	210.14- 315.22	241.28 (M)
	9.930	11.517	533581	177734	10.4	9.98	122.22- 183.34	151.40 (M)
	10.314	11.754	367268	174636	10.5	10.4	84.59- 126.89	104.21 (M)
	Average of Peak Amounts =				10.2	10.2		
Aroclor 1260	13.194	13.547	339434	151253	10.1	10.7	80.00- 120.00	100.00
	13.580	14.794	473199	227394	10.2	9.92	111.33- 167.00	139.41
	14.054	15.164	517253	231555	10.3	10.3	117.15- 175.73	152.39
	14.427	15.694	1074187	502884	10.1	10.6	251.10- 376.65	316.46
	15.060	16.194	810326	322776	10.2	11.0	184.28- 276.42	238.73
	Average of Peak Amounts =				10.2	10.5		
Decachlorobiphenyl	16.857	18.137	1109360	483785	1.02	1.08		100.00

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
 TX

Data File: \\alkisus002\instdata\GC27\Data\090419ICL.b\0904F008.D

Date: 04-SEP-2019 20:07

Client ID:

Sample Info: PCB8-12N 1660 @ 1-10 PPB

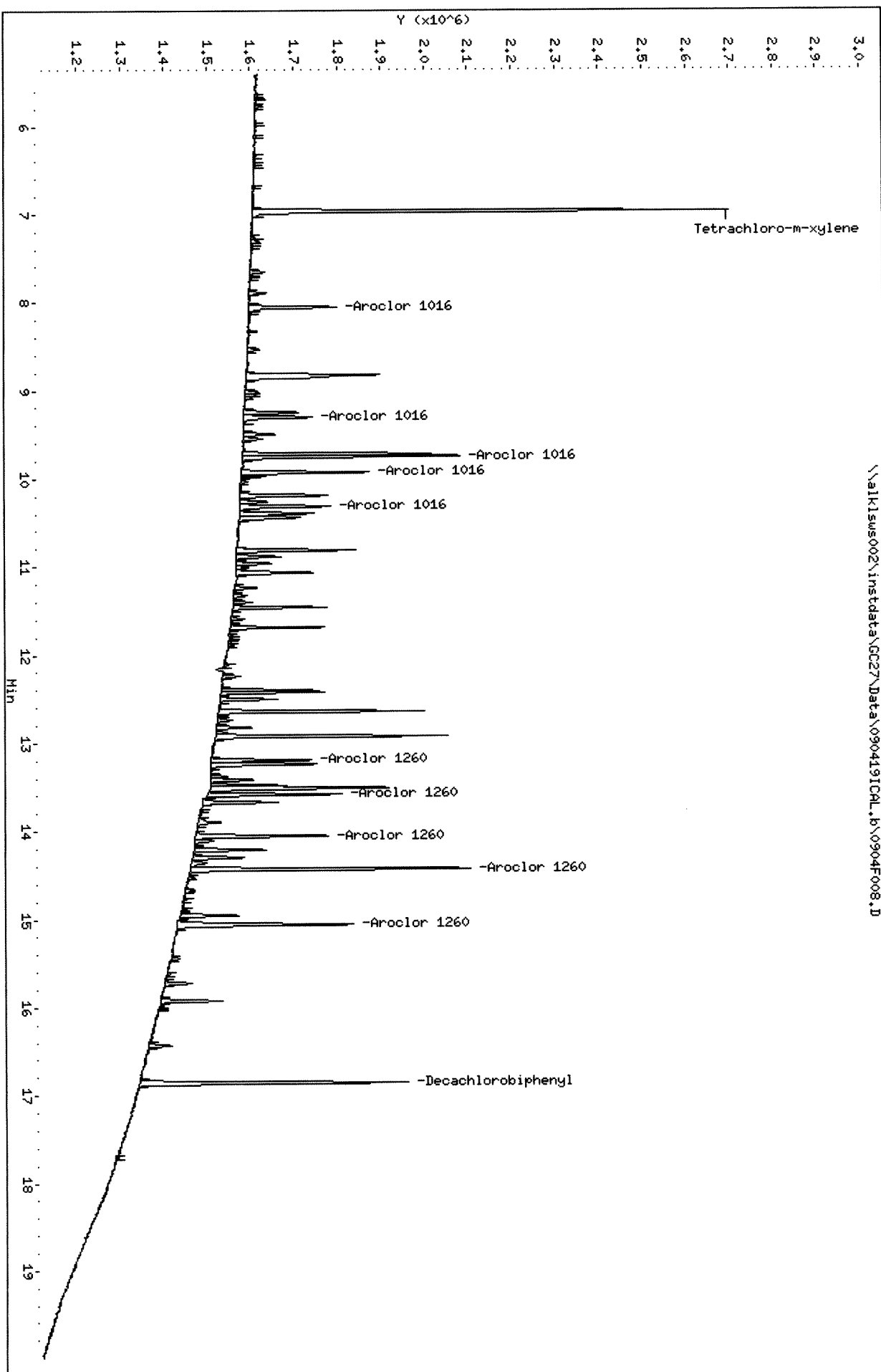
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

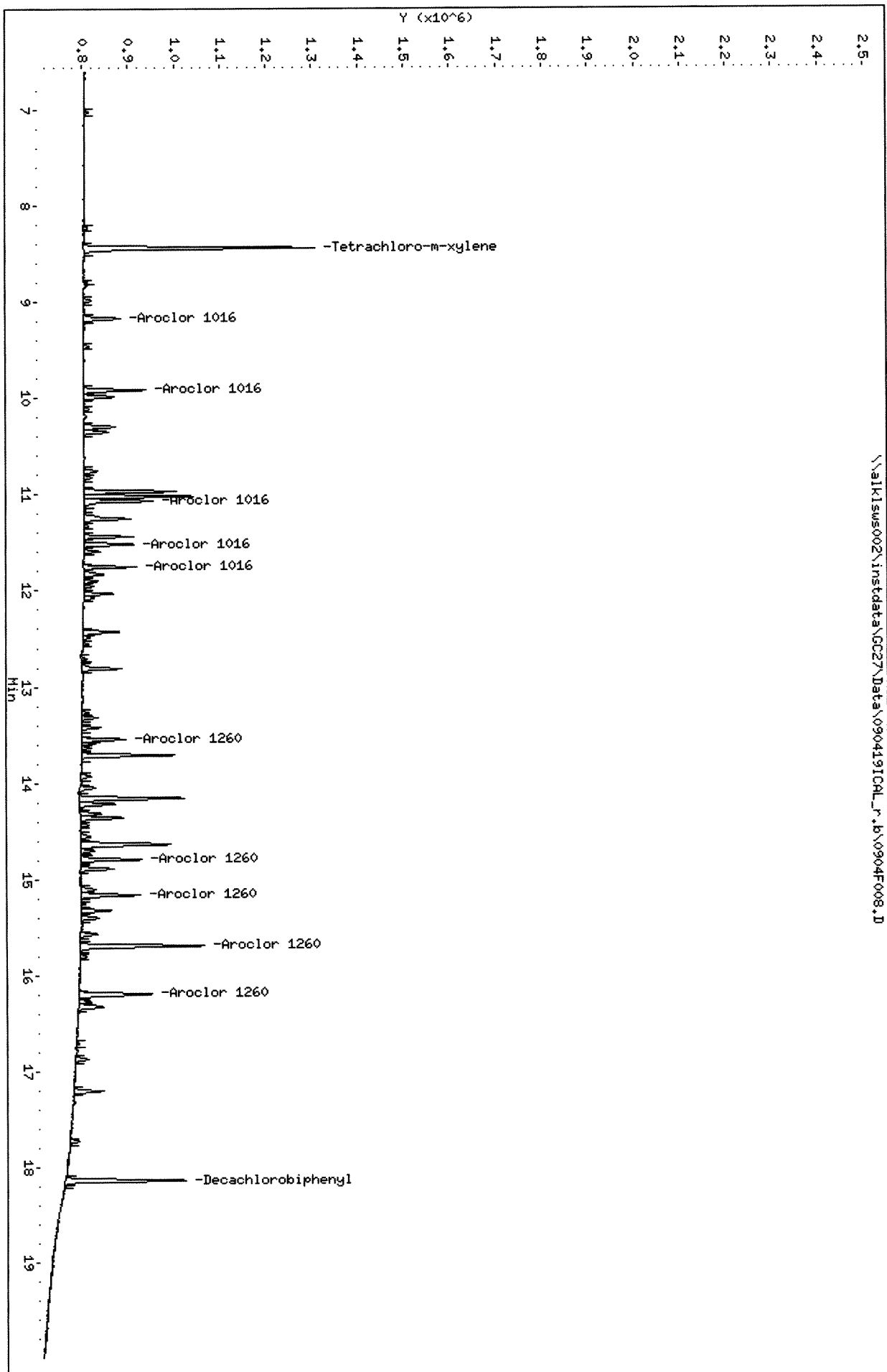
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Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F008.D
Date: 04-SEP-2019 20:07
Client ID:
Sample Info: PCB8-12N 1660 @ 1-10 PPB
Column phase: DB-XLB

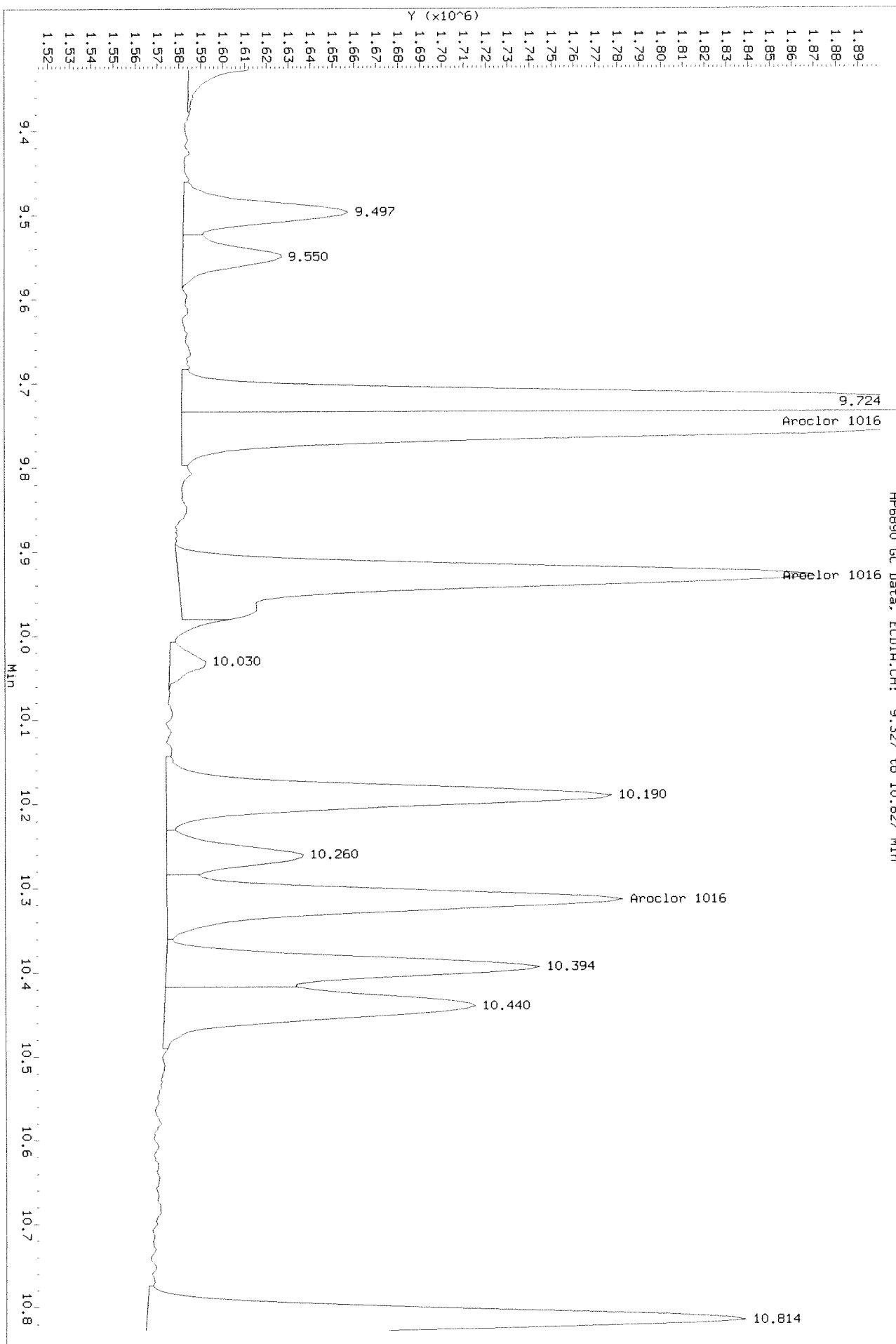
Instrument: GC27.i
Operator: SAA
Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F008.D



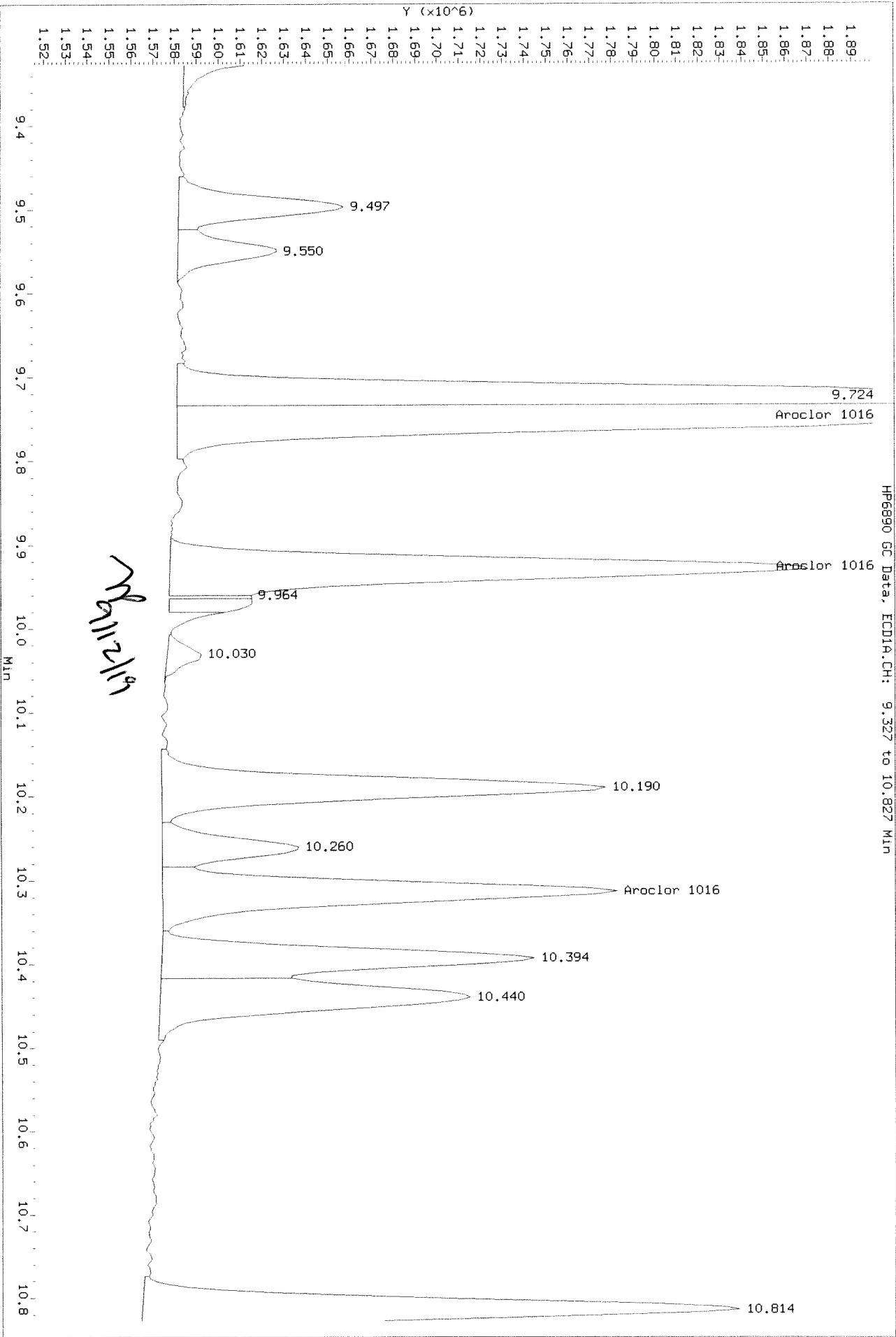
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Injection Date: 04-SEP-2019 20:07
Instrument: GC27.1
Client Sample ID:

Refer



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F008.D
Injection Date: 04-SEP-2019 20:07
Instrument: GC27.1
Client Sample ID:

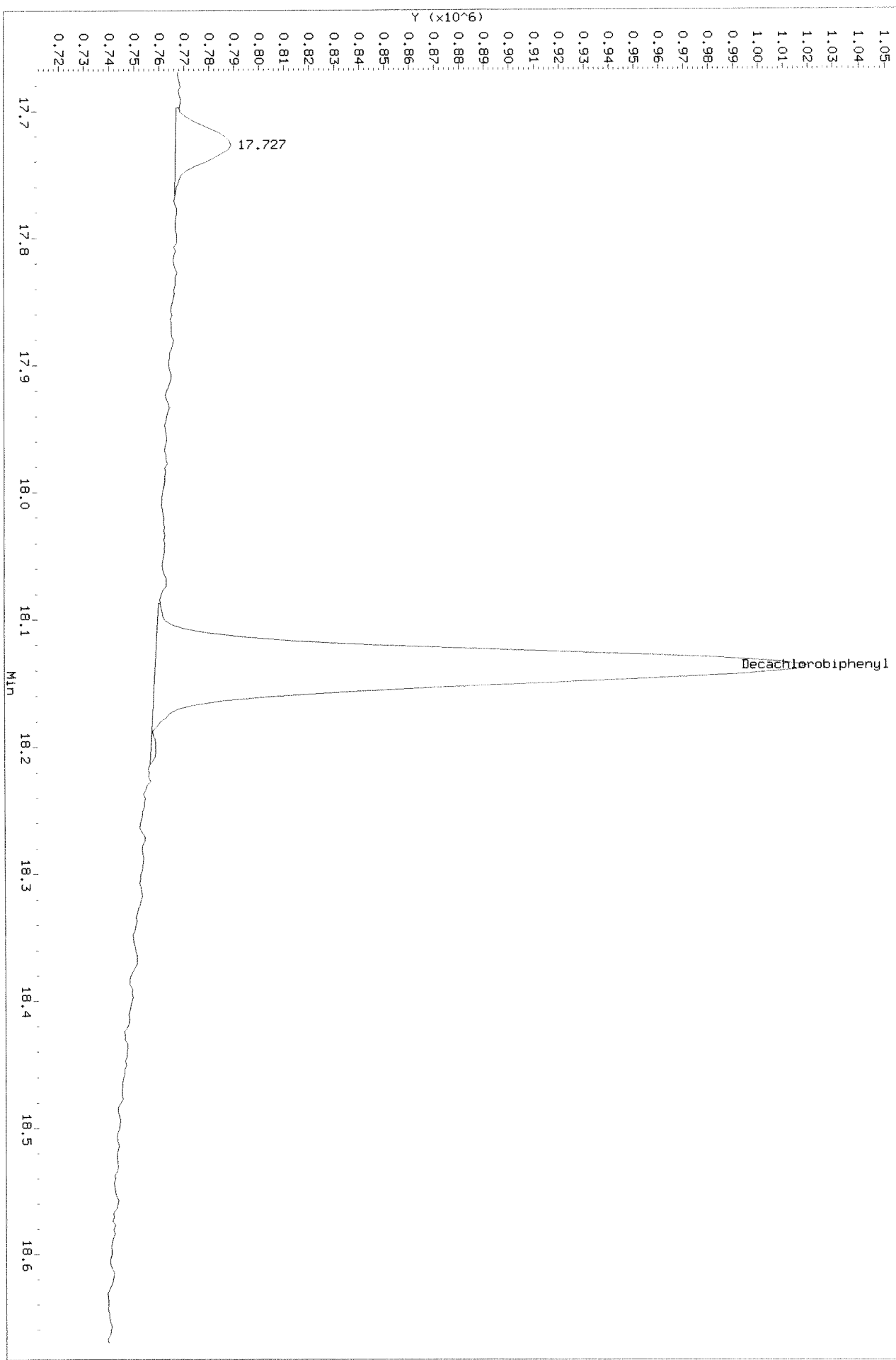
After Shaker 9/11/19 A



Data File: \\alklsws002\instdata\GC27\Data\090419ICALL_r.b\0904F008.D
Injection Date: 04-SEP-2019 20:07
Instrument: GC27.1
Client Sample ID:

Before

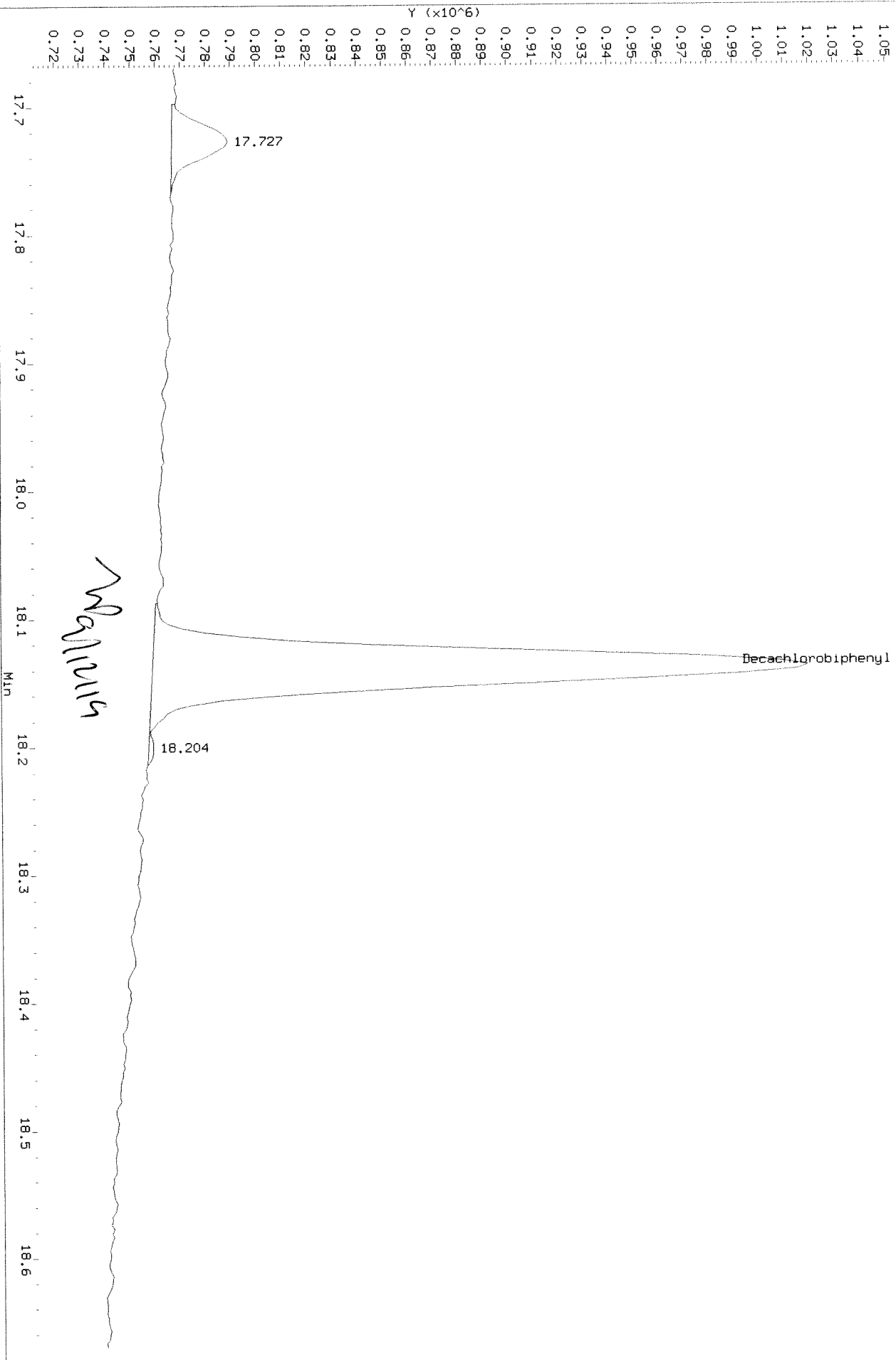
HP6890 GC Data, ECD2B.CH: 17.669 to 18.670 MIN



Data File: \\alklsws002\instdata\GC27\Data\090419ICALL_r.b\0904F008.D
Injection Date: 04-SEP-2019 20:07
Instrument: GC27.1
Client Sample ID:

After Shoulder 9/11/19 SA

HP6890 GC Data, ECD2B.CH: 17.669 to 18.670 MIN



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F009.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F009.D
 Inj Date : 04-SEP-2019 20:39
 Sample Info: PCB7-91B 1660 @ 2-20 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 1660.SUB
 Sub List #2 : 1660.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.969	8.436	3717520	1802829	2.06	2.17		100.00
Aroclor 1016	8.056	9.166	714691	332767	20.9	22.1	80.00- 120.00	100.00 (M)
	9.306	9.916	585721	488572	20.9	22.1	66.06- 99.09	81.95 (M)
	9.749	11.066	1800343	544729	20.7	22.6	210.14- 315.22	251.91 (M)
	9.929	11.516	1097854	387672	21.4	21.8	122.22- 183.34	153.61 (M)
	10.316	11.753	751336	371543	21.4	22.1	84.59- 126.89	105.13 (M)
	Average of Peak Amounts =				21.1	22.1		
Aroclor 1260	13.196	13.546	698763	315400	20.9	22.2	80.00- 120.00	100.00 (M)
	13.583	14.793	1004858	467119	21.6	20.4	111.33- 167.00	143.81 (M)
	14.053	15.163	1054649	471379	21.0	21.0	117.15- 175.73	150.93 (M)
	14.429	15.693	2201022	1008384	20.7	21.2	251.10- 376.65	314.99 (M)
	15.059	16.196	1625528	659897	20.5	22.4	184.28- 276.42	232.63 (M)
	Average of Peak Amounts =				20.9	21.4		
Decachlorobiphenyl	16.859	18.136	2272969	991682	2.09	2.22		100.00

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
W

Data File: \\alkisw002\instdata\GC27\Data\090419ICL.b\0904F009.D

Date : 04-SEP-2019 20:39

Client ID:

Sample Info: PCB7-91B 1660 @ 2-20 PPB

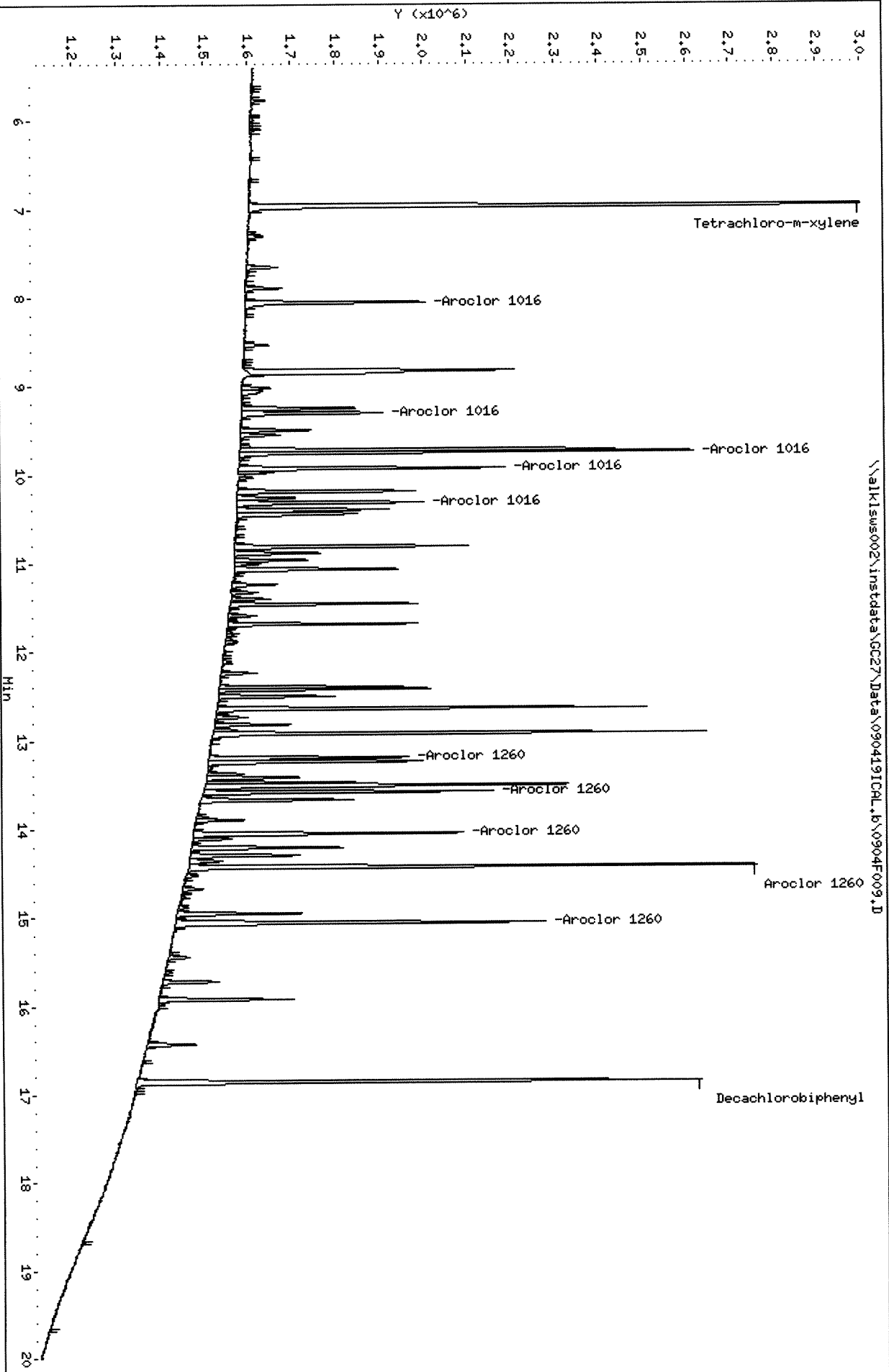
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alkisw002\instdata\GC27\Data\090419ICL.b\0904F009.D



Data File: \\AIK1sus002\instdata\GC27\Data\090419ICAL_r.b\0904F009.D

Date : 04-SEP-2019 20:39

Client ID:

Sample Info: PCB7-91B 1660 @ 2-20 PPB

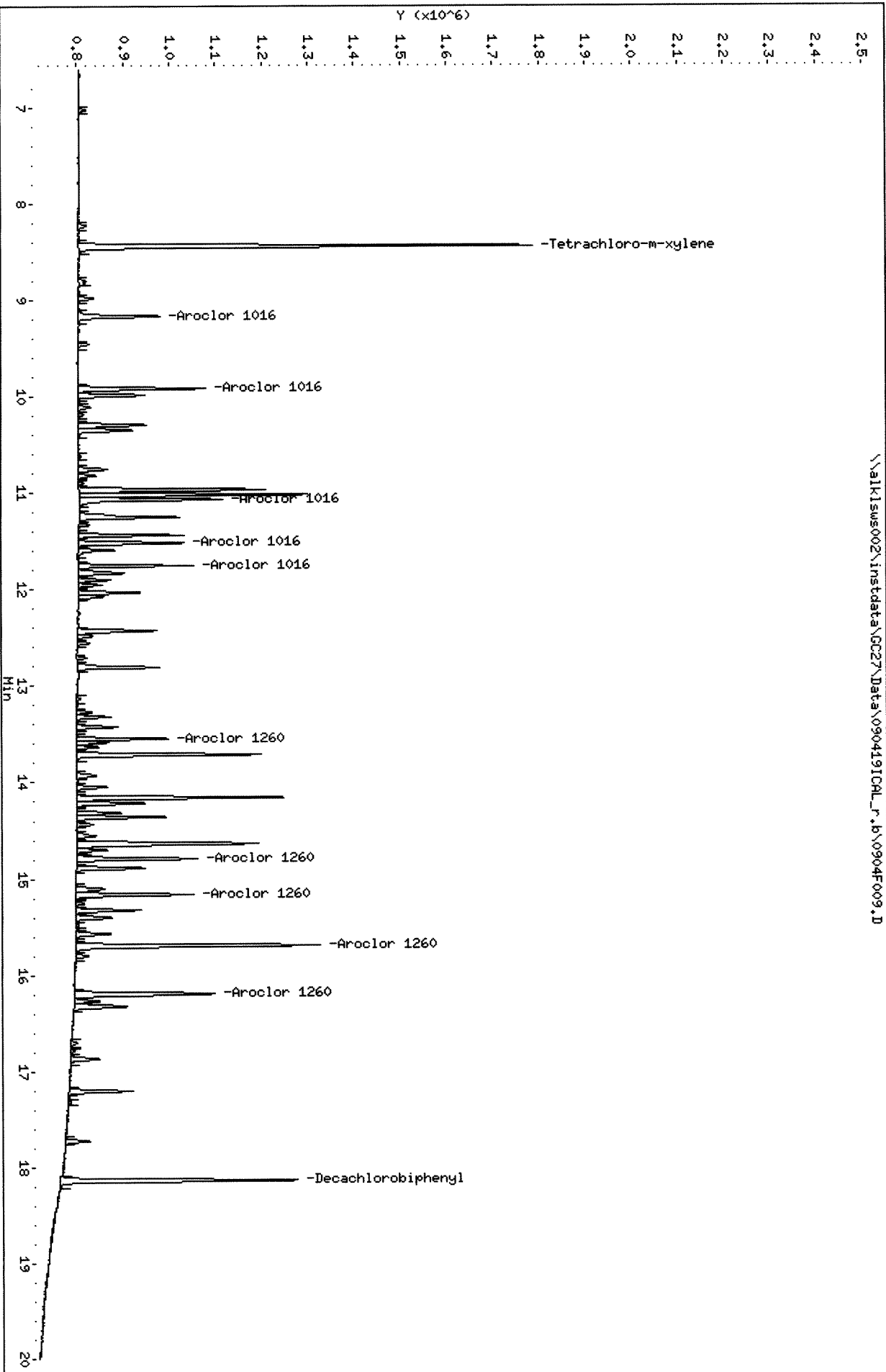
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

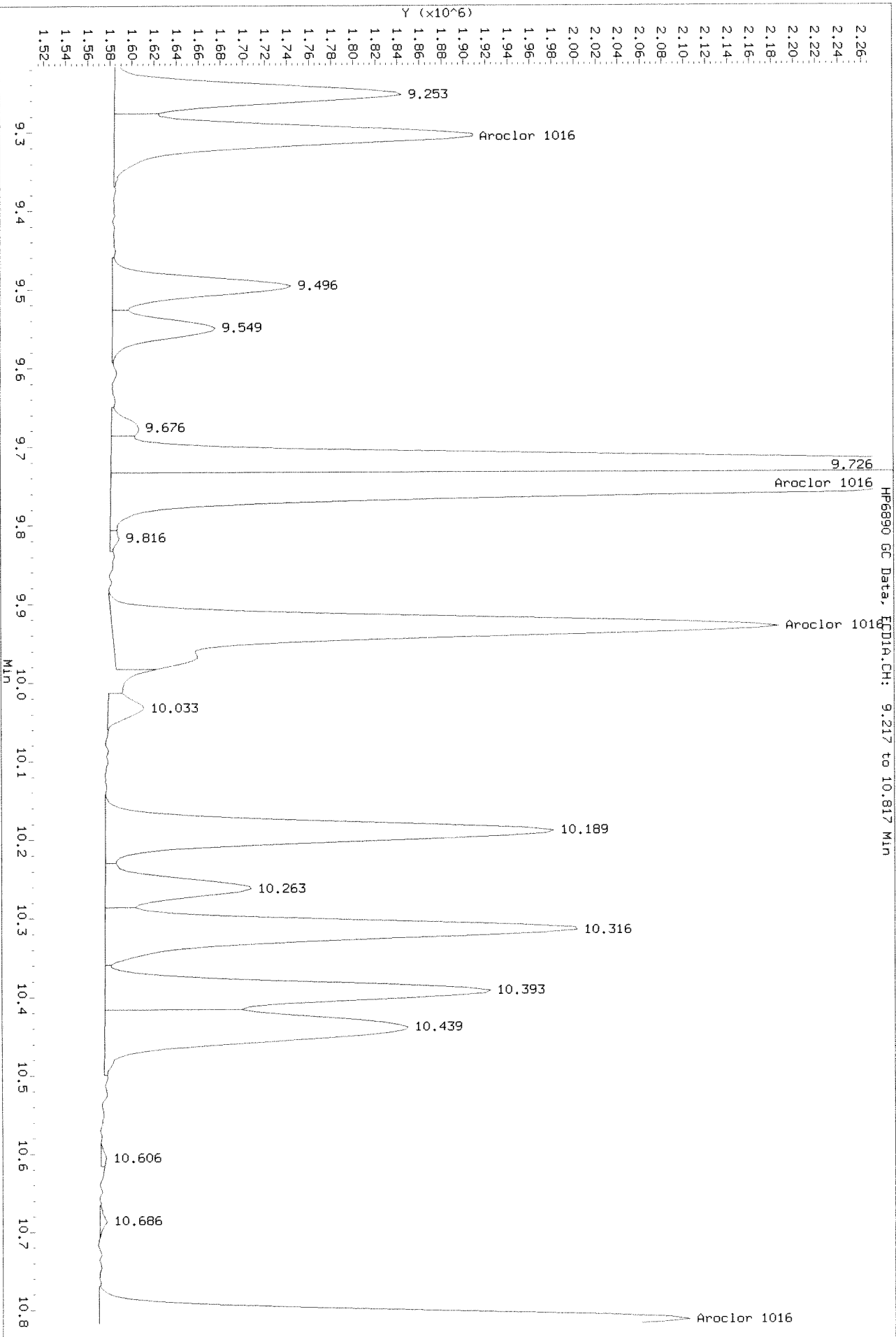
Column diameter: 0.32

\\AIK1sus002\instdata\GC27\Data\090419ICAL_r.b\0904F009.D



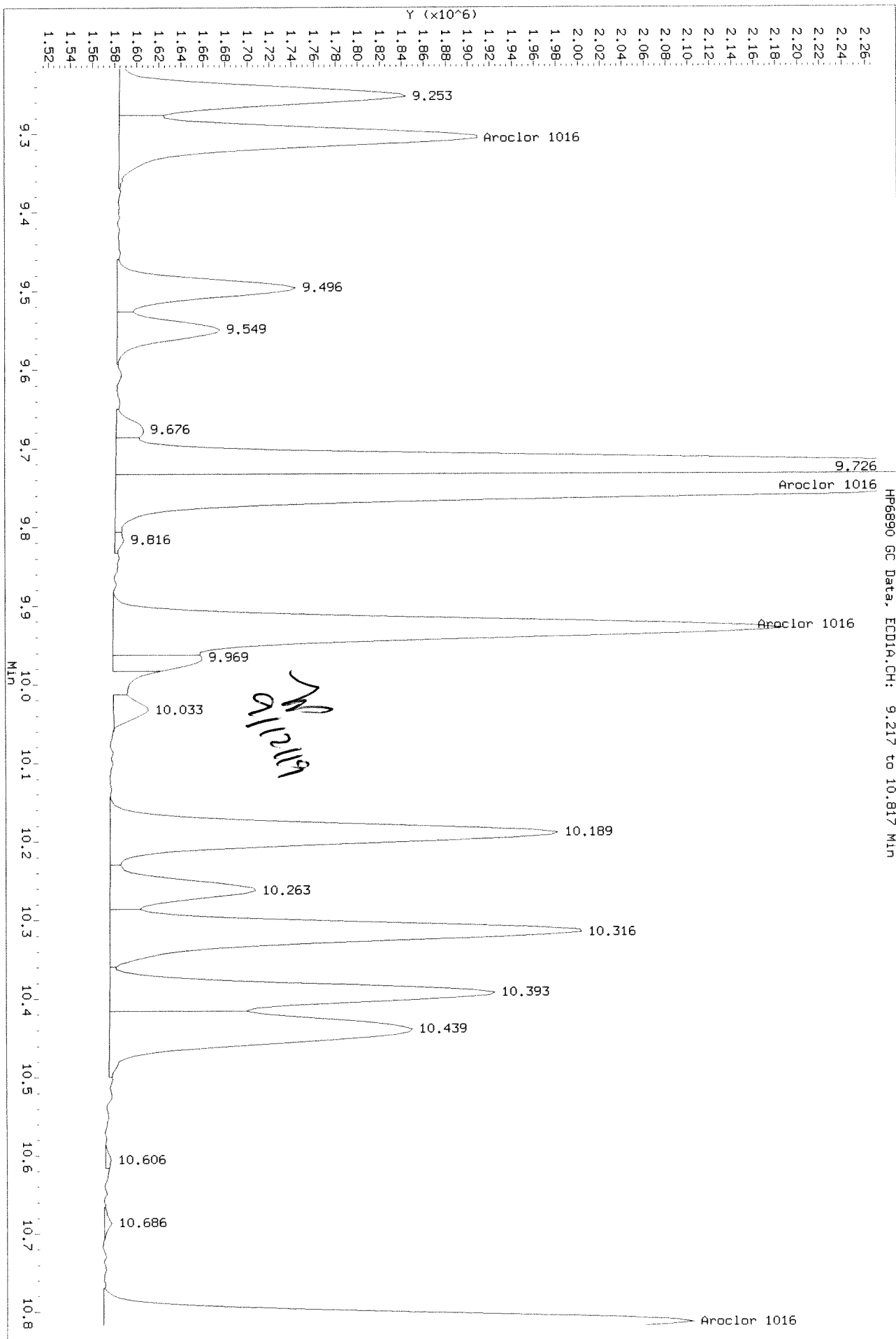
Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F009.D
Injection Date: 04-SEP-2019 20:39
Instrument: GC27.1
Client Sample ID:

Refer



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F009.D
Injection Date: 04-SEP-2019 20:39
Instrument: GC27.1
Client Sample ID:

After shoulder 9/11/19 ST



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F010.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F010.D
 Inj Date : 04-SEP-2019 21:10
 Sample Info: PCB7-91C 1660 @ 5-50 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 1660.SUB
 Sub List #2 : 1660.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.969	8.435	8896188	4021888	4.94	4.84		100.00
Aroclor 1016	8.055	9.165	1646734	792222	48.3	52.6	80.00- 120.00	100.00
	9.305	9.915	1375755	1122809	49.1	50.8	66.06- 99.09	83.54
	9.749	11.065	4311819	1271332	49.6	52.7	210.14- 315.22	261.84
	9.929	11.515	2549815	896272	49.7	50.3	122.22- 183.34	154.84
	10.315	11.752	1753417	860990	49.9	51.1	84.59- 126.89	106.48
	Average of Peak Amounts =				49.3	51.5		
Aroclor 1260	13.195	13.549	1645507	756220	49.1	53.3	80.00- 120.00	100.00
	13.582	14.792	2367135	1062267	50.8	46.3	111.33- 167.00	143.85
	14.052	15.162	2480383	1077657	49.5	47.9	117.15- 175.73	150.74
	14.429	15.692	5154268	2212493	48.6	46.6	251.10- 376.65	313.23
	15.059	16.195	3847249	1475984	48.5	50.1	184.28- 276.42	233.80
	Average of Peak Amounts =				49.3	48.8		
Decachlorobiphenyl	16.855	18.135	5225592	2155257	4.79	4.83		100.00

SA 9/11/19
 JP

Data File: \\alkisw002\instdata\GC27\Data\090419ICL.b\0904F010.D

Date: 04-SEP-2019 21:10

Client ID:

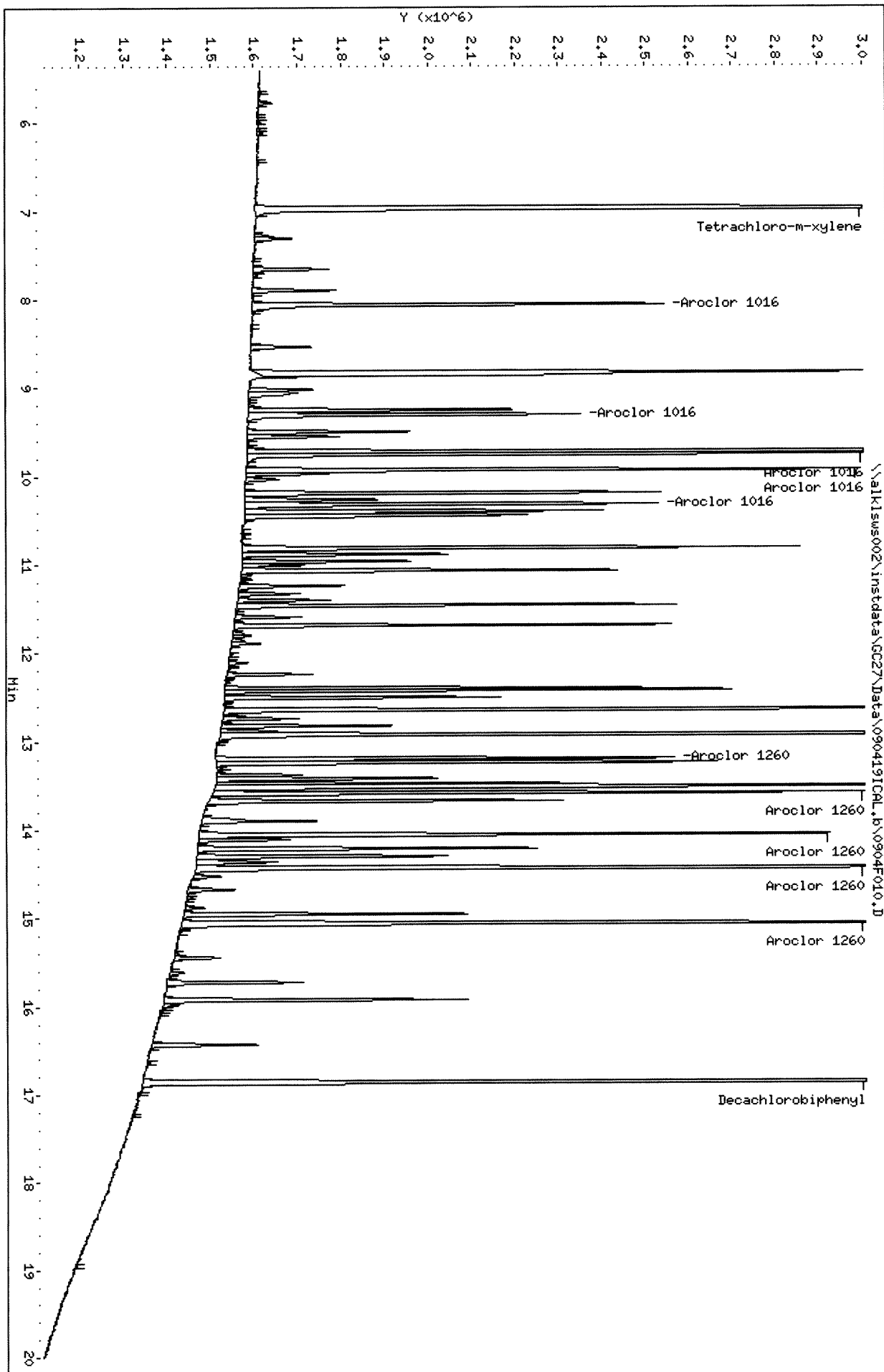
Sample Info: PCB7-91C 1660 @ 5-50 PPB

Column phase: DB-35MS

Instrument: GC27.i

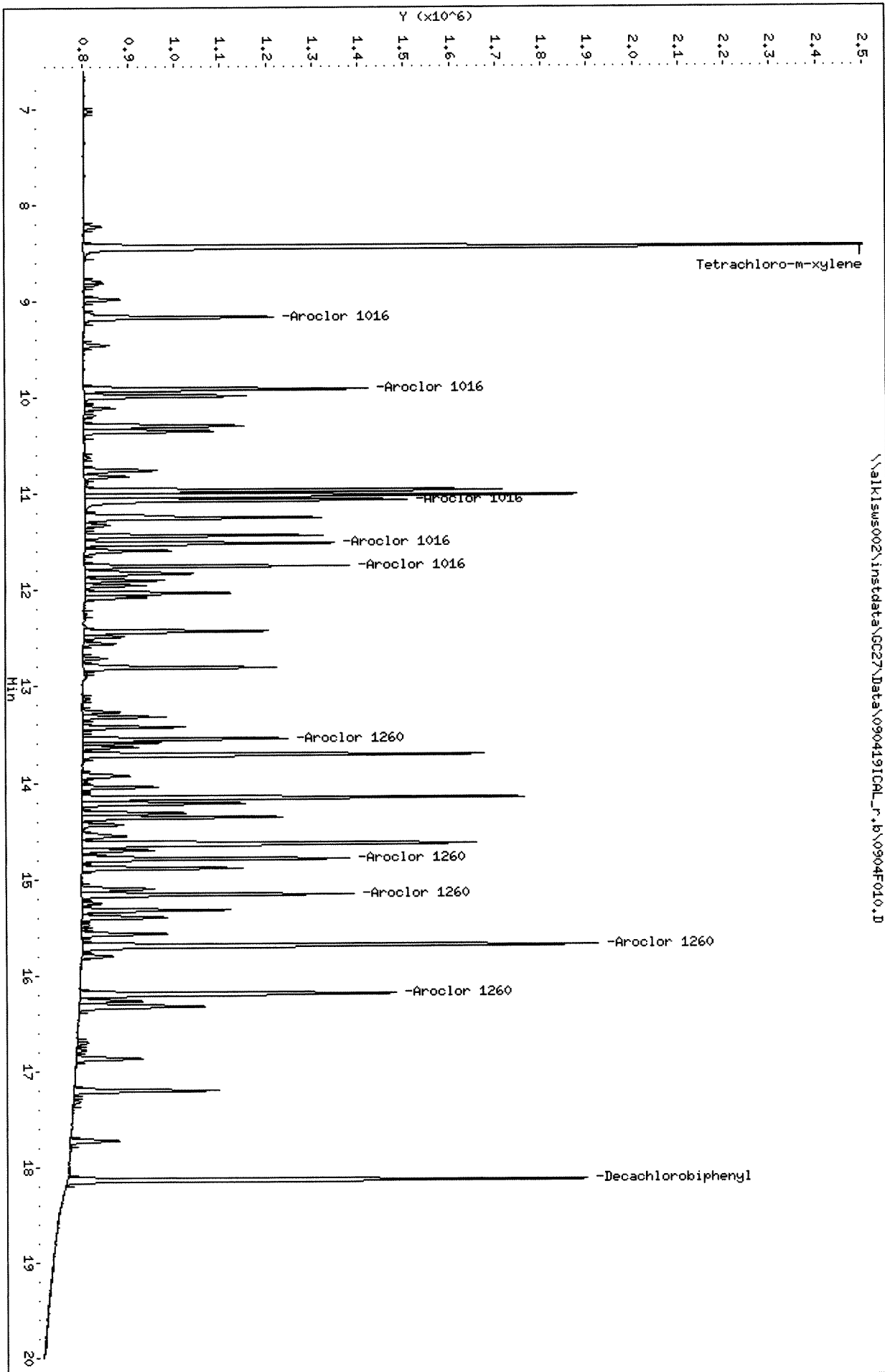
Operator: SAA

Column diameter: 0.32



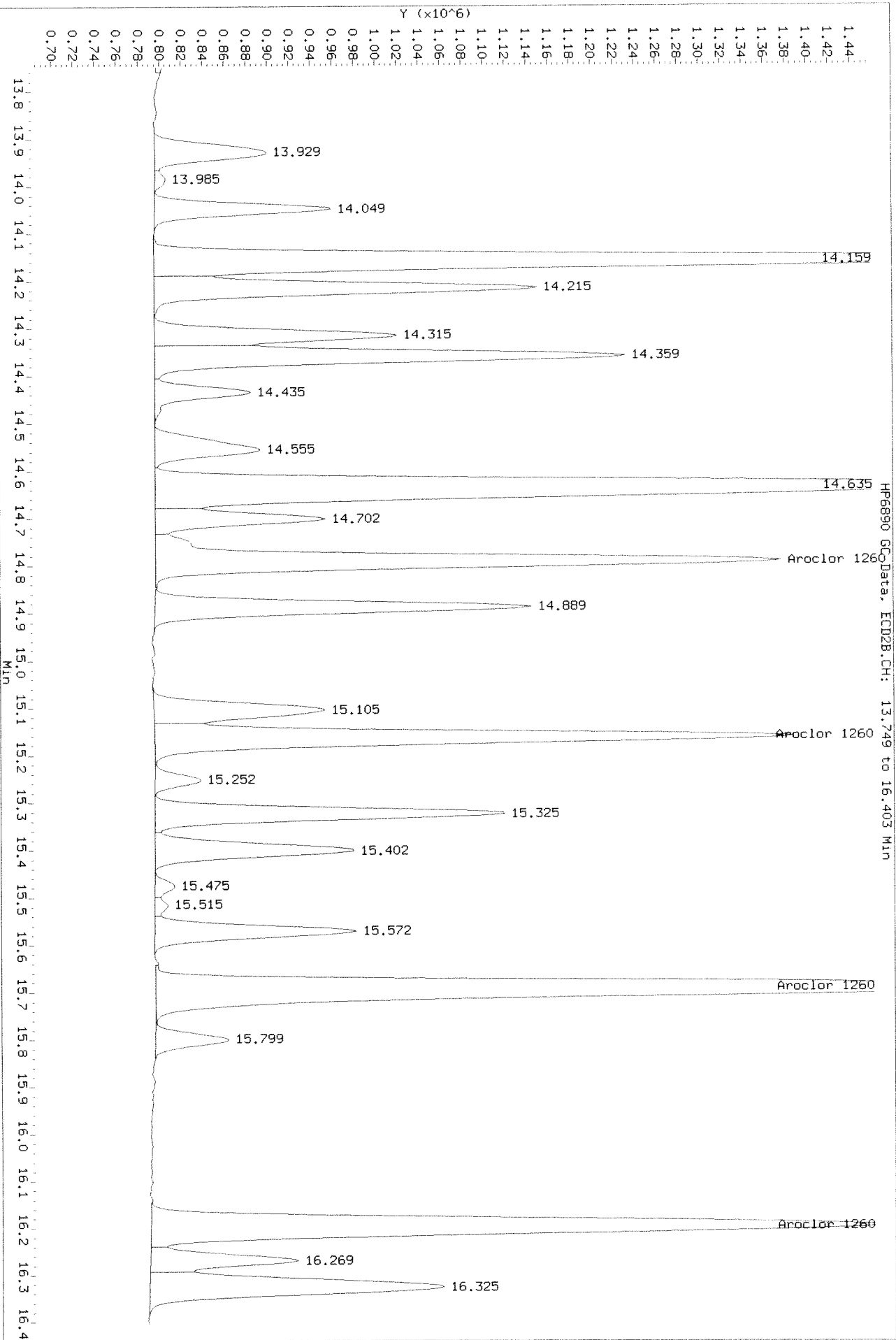
Data File: \\alkisw002\instdata\GC27\Data\090419ICAL_r.b\0904F010.D
Date: 04-SEP-2019 21:10
Client ID:
Sample Info: PCB7-91C 1660 e 5-50 PPB
Column phase: DB-XLB

Instrument: GC27.i
Operator: SMA
Column diameter: 0.32



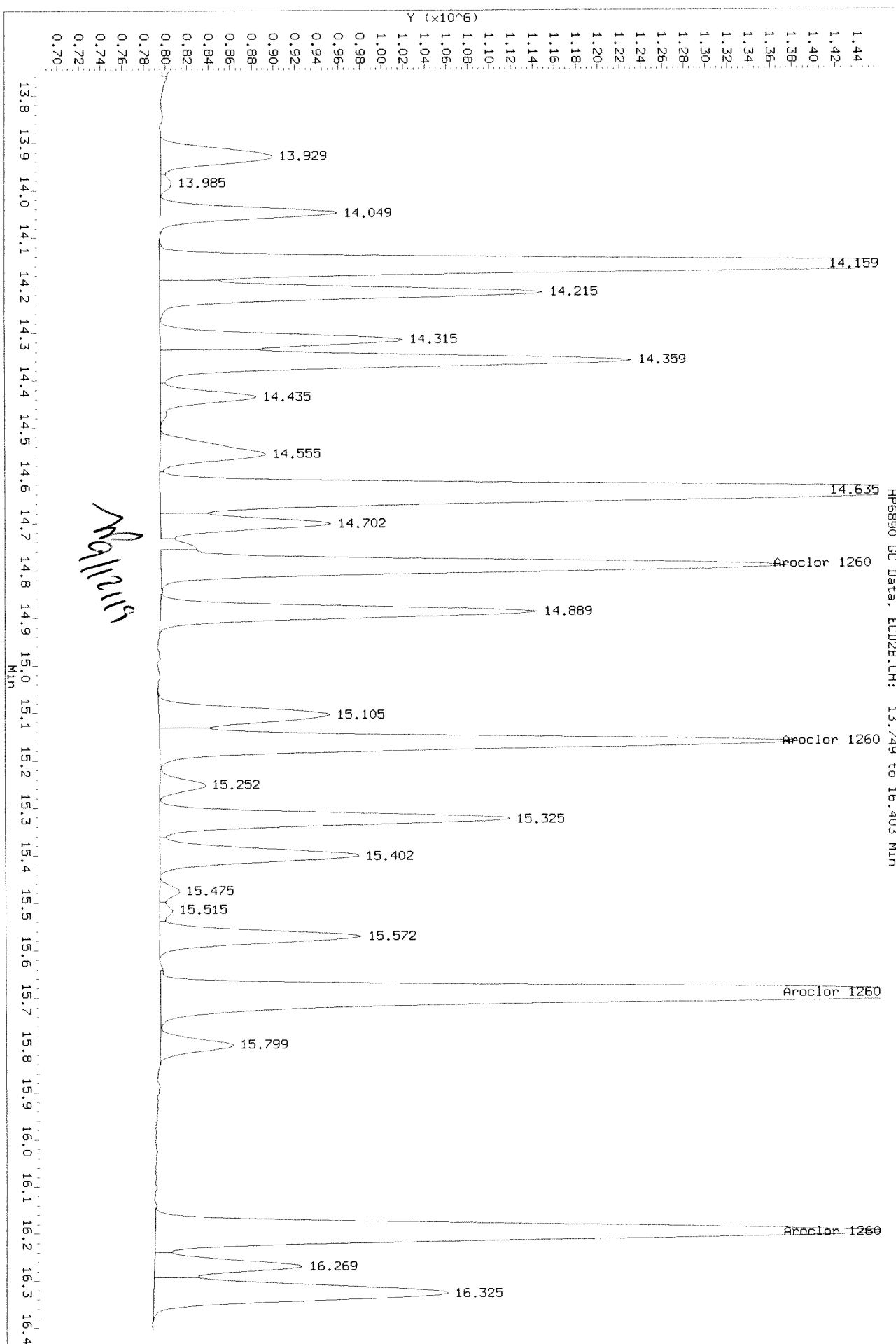
Data File: \\alk1swws002\instdata\GC27\Data\090419ICALL_r.b\0904F010.D
Injection Date: 04-SEP-2019 21:10
Instrument: GC27.1
Client Sample ID:

Refer



Data File: \\alk1sws002\instdata\GC27\Data\090419ICAL_r.b\0904F010.D
Injection Date: 04-SEP-2019 21:10
Instrument: GC27.1
Client Sample ID:

After shoulder 9/11/19 SA




ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F011.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F011.D
 Inj Date : 04-SEP-2019 21:42
 Sample Info: PCB7-91D 1660 @ 10-100 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 1660.SUB
 Sub List #2 : 1660.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.968	8.435	17360995	7528908	9.64	9.06		100.00
Aroclor 1016	8.054	9.165	3135184	1499817	91.9	99.6	80.00- 120.00	100.00
	9.301	9.915	2612611	2056550	93.3	93.1	66.06- 99.09	83.33
	9.748	11.065	8005581	2302843	92.1	95.5	210.14- 315.22	255.35
	9.928	11.515	4755316	1649457	92.7	92.6	122.22- 183.34	151.68
	10.314	11.751	3321662	1587142	94.5	94.2	84.59- 126.89	105.95
	Average of Peak Amounts =				92.9	95.0		
Aroclor 1260	13.194	13.545	3199075	1374717	95.5	96.8	80.00- 120.00	100.00
	13.578	14.791	4489559	1920441	96.3	83.7	111.33- 167.00	140.34
	14.051	15.161	4726617	1949941	94.2	86.7	117.15- 175.73	147.75
	14.424	15.691	9920670	3956077	93.5	83.2	251.10- 376.65	310.11
	15.058	16.191	7348705	2671256	92.6	90.7	184.28- 276.42	229.71
	Average of Peak Amounts =				94.4	88.2		
Decachlorobiphenyl	16.858	18.135	9835921	3889522	9.02	8.71		100.00

SA 9/11/19


Data File: \\aik1s002\instdata\GC27\Data\090419ICL.b\0904F011.D

Date: 04-SEP-2019 21:42

Client ID:

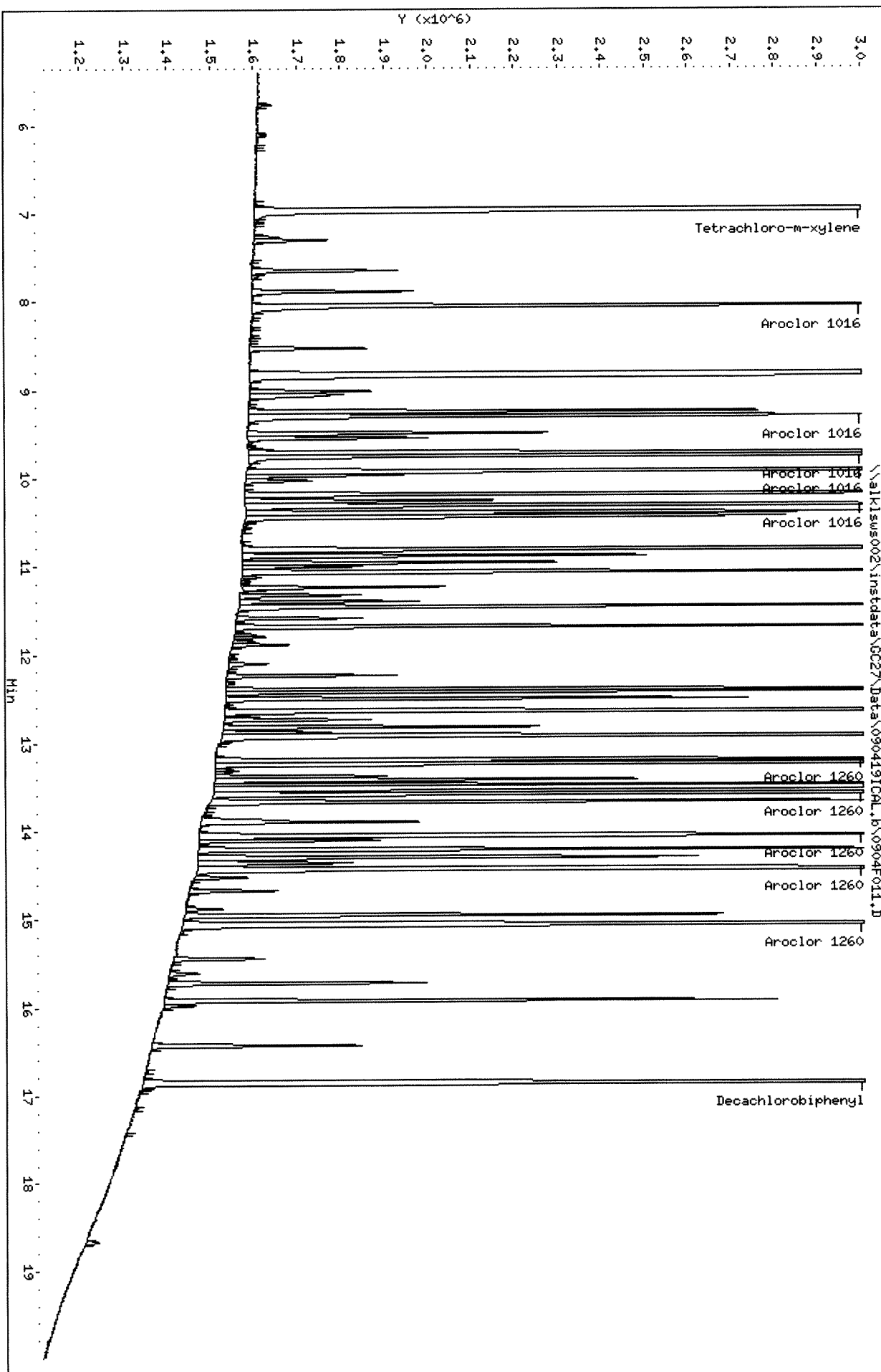
Sample Info: PCB7-91D 1660 @ 10-100 PPS

Column phase: DB-35MS

Instrument: GC27.1

Operator: SAA

Column diameter: 0.32



Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F011.D

Date: 04-SEP-2019 21:42

Client ID:

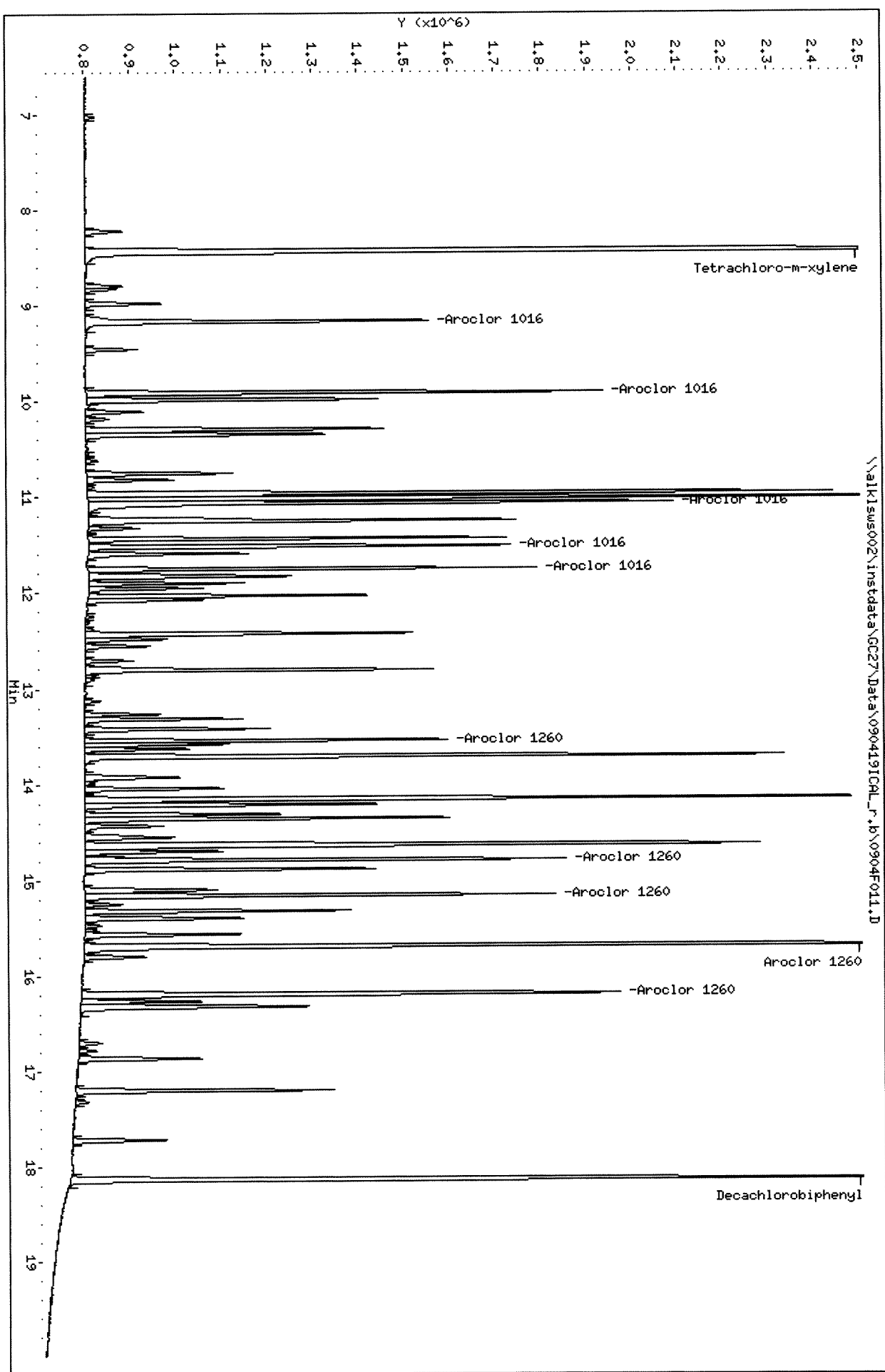
Sample Info: PCB7-91D 1660 @ 10-100 PPB

Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F012.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F012.D
 Inj Date : 04-SEP-2019 22:13
 Sample Info: PCB8-11K1660 @ 20-200 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 1660.SUB
 Sub List #2 : 1660.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.968	8.439	34732123	14794010	19.3	17.8		100.00
Aroclor 1016	8.055	9.169	6067021	2835151	178	188	80.00- 120.00	100.00
	9.305	9.915	5009784	3850240	179	174	66.06- 99.09	82.57
	9.748	11.065	15936918	4382709	183	182	210.14- 315.22	262.68
	9.928	11.515	9269177	3089452	181	173	122.22- 183.34	152.78
	10.315	11.752	6415173	3002232	183	178	84.59- 126.89	105.74
	Average of Peak Amounts =				181	179		
Aroclor 1260	13.195	13.549	6315706	2628978	188	185	80.00- 120.00	100.00
	13.582	14.792	8789170	3705205	189	162	111.33- 167.00	139.16
	14.052	15.162	9248597	3634060	184	162	117.15- 175.73	146.44
	14.428	15.692	19823684	7384751	187	155	251.10- 376.65	313.88
	15.058	16.195	14548081	4907991	183	167	184.28- 276.42	230.35
	Average of Peak Amounts =				186	166		
Decachlorobiphenyl	16.858	18.135	19028191	7191566	17.5	16.1		100.00

SA 9/11/19
 W

Data File: \\aik1s002\instdata\GC27\Data\090419ICL.b\0904F012.D

Date : 04-SEP-2019 22:13

Client ID:

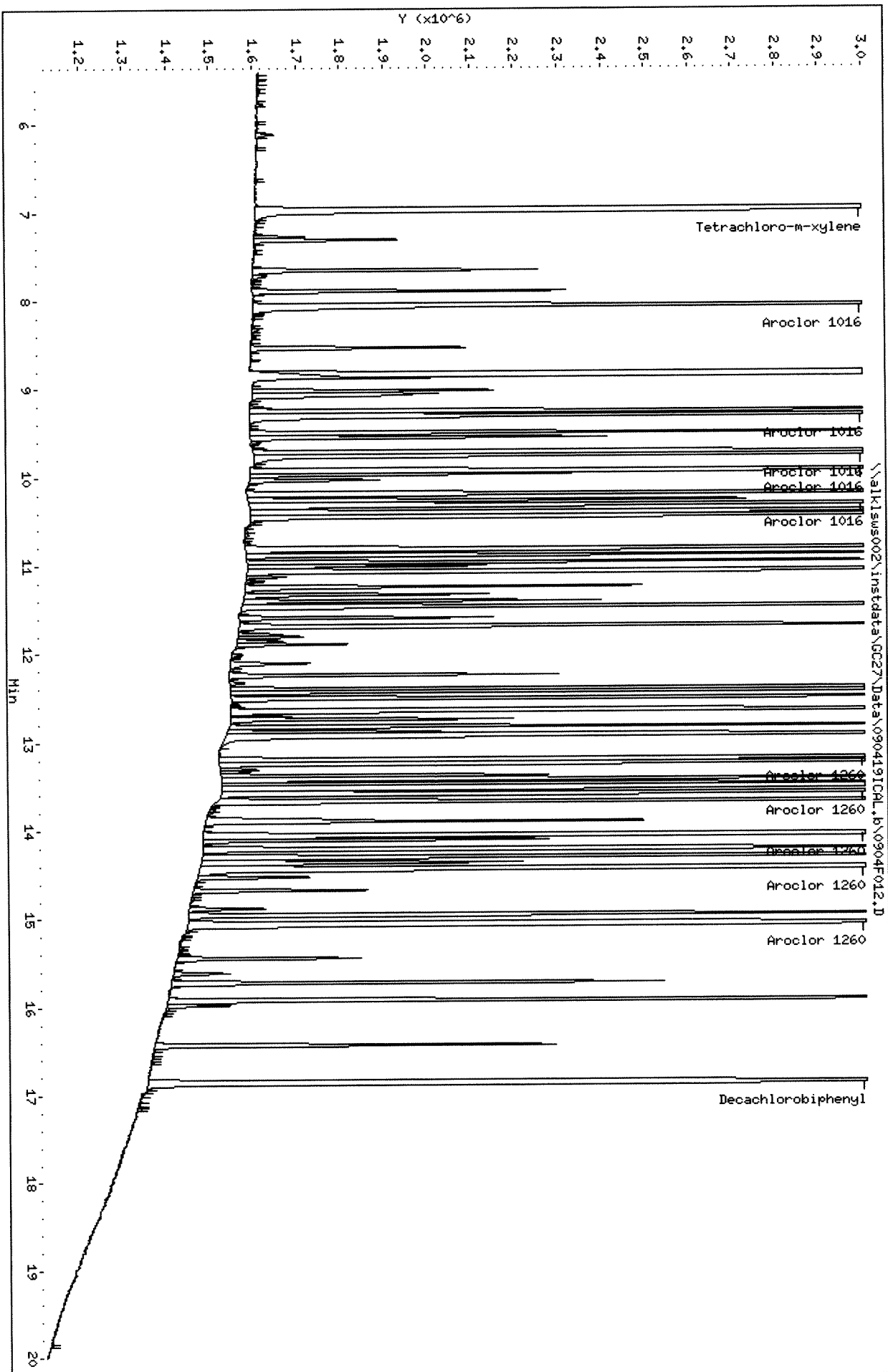
Sample Info: PCB8-14K1660 @ 20-200 PPB

Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F012.D
Date: 04-SEP-2019 22:13

Client ID:

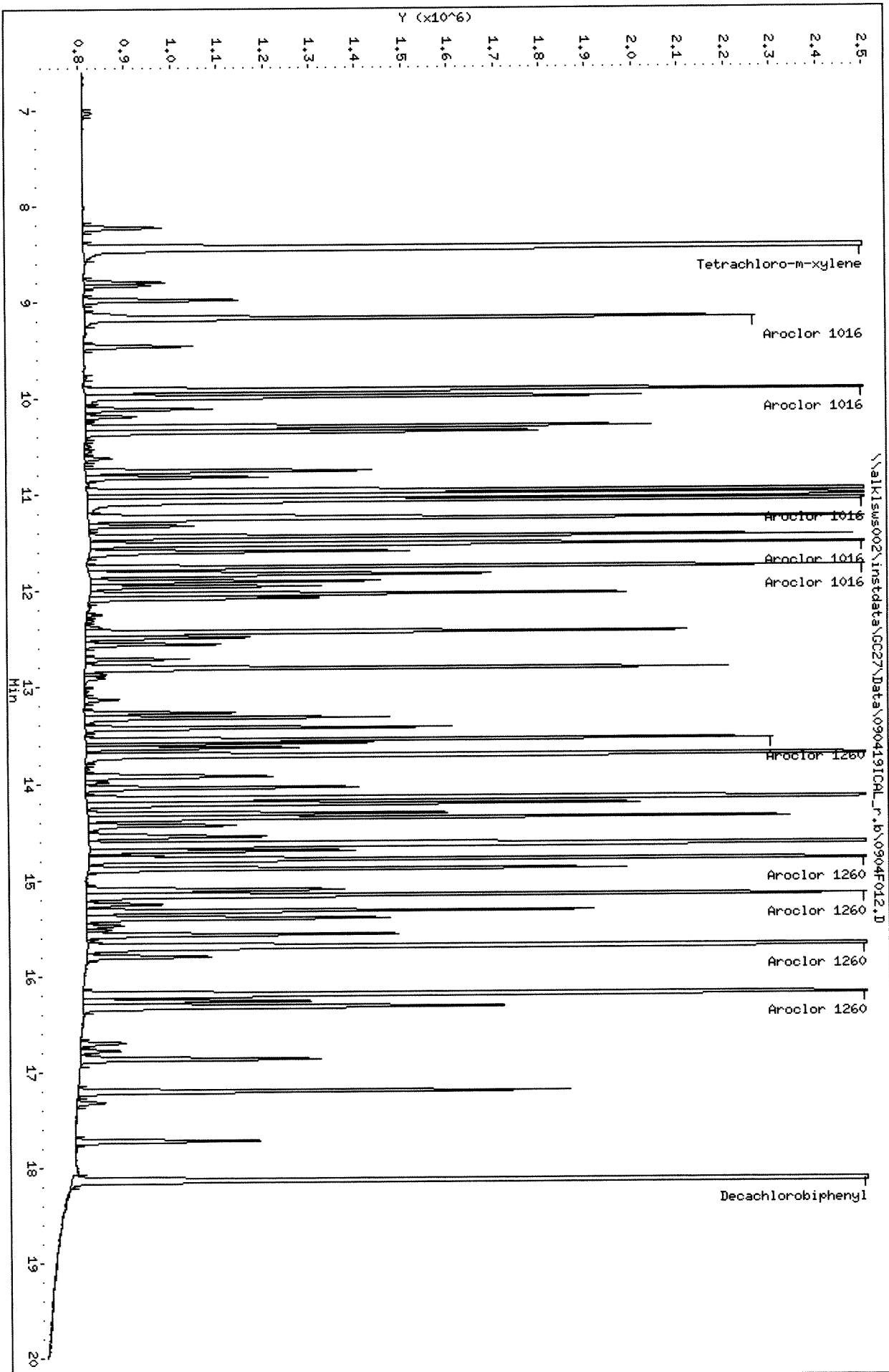
Sample Info: PCB8-11K1660 @ 20-200 PPB

Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F013.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F013.D
 Inj Date : 04-SEP-2019 22:45
 Sample Info: PCB8-13A 2154 @ 1-2 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 2154.sub
 Sub List #2 : 2154.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1221	7.657	8.827	50695	15070	2.20	2.32	80.00- 120.00	100.00 (M)
	7.893	8.980	34425	11922	2.35	1.85	50.93- 76.39	67.91 (M)
	8.060	9.167	120321	52805	2.20	2.12	190.33- 285.49	237.34 (M)
	Average of Peak Amounts =				2.25	2.10		
Aroclor 1254	11.773	12.430	39510	33696	1.09	1.04	80.00- 120.00	100.00 (M)
	12.243	12.483	71048	16138	1.14	0.950	137.86- 206.79	179.82 (M)
	12.400	12.810	141481	52699	1.15	1.07	268.82- 403.23	358.09 (M)
	12.740	12.903	75413	17591	1.03	1.14	164.76- 247.13	190.87 (M)
	13.307	14.377	42724	25148	0.937	1.04	106.40- 159.60	108.13 (M)
	Average of Peak Amounts =				1.07	1.05		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
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Data File: \\aik1s002\instdata\GC27\Data\090419ICL.b\0904F013.D

Date: 04-SEP-2019 22:45

Client ID:

Sample Info: PCB8-138 2154 @ 1-2 PPB

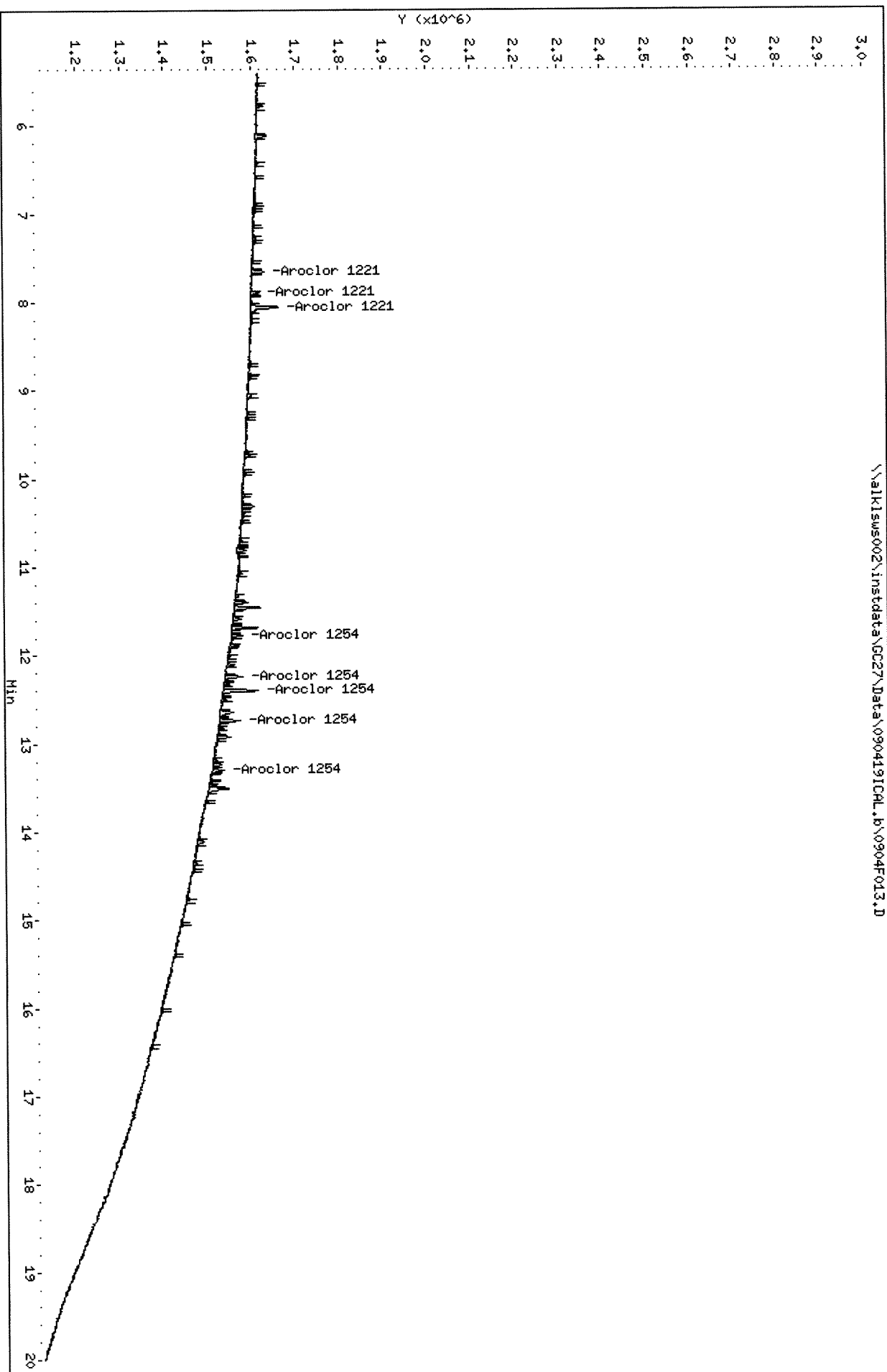
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\aik1s002\instdata\GC27\Data\090419ICL.b\0904F013.D



Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F013.D
Date: 04-SEP-2019 22:45

Client ID:
Sample Info: PCB8-138 2154 @ 1-2 PPB

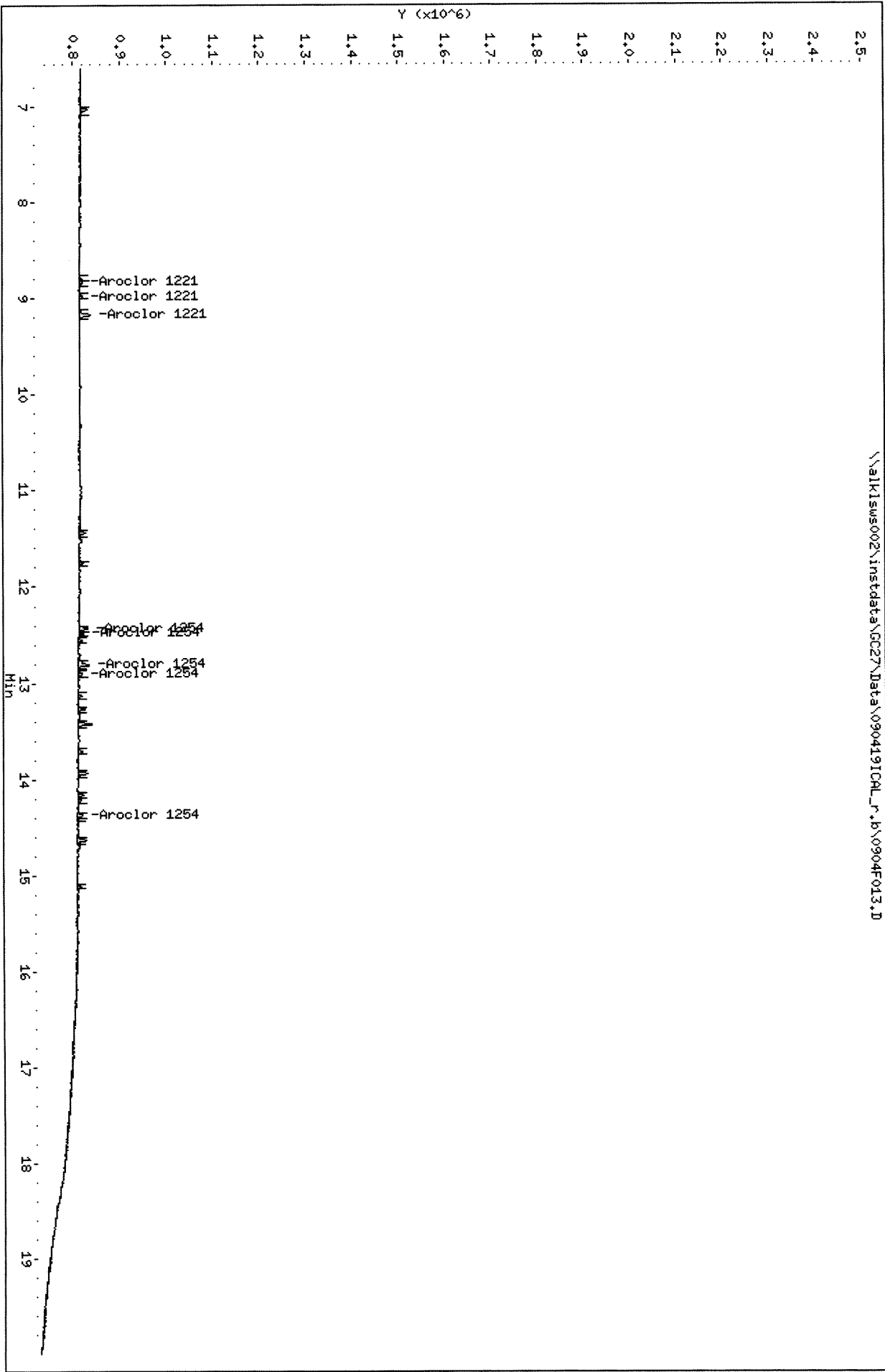
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

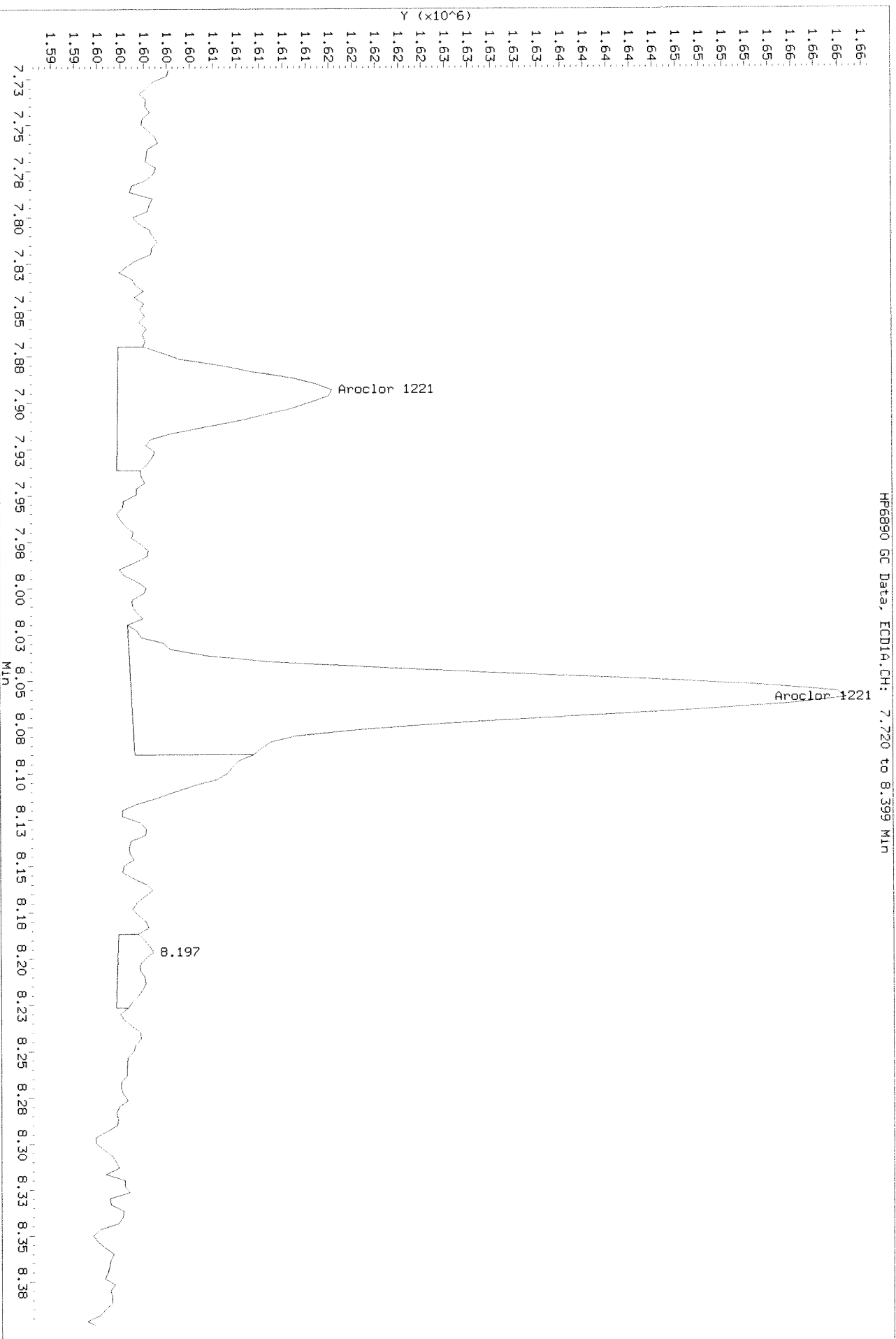
Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F013.D



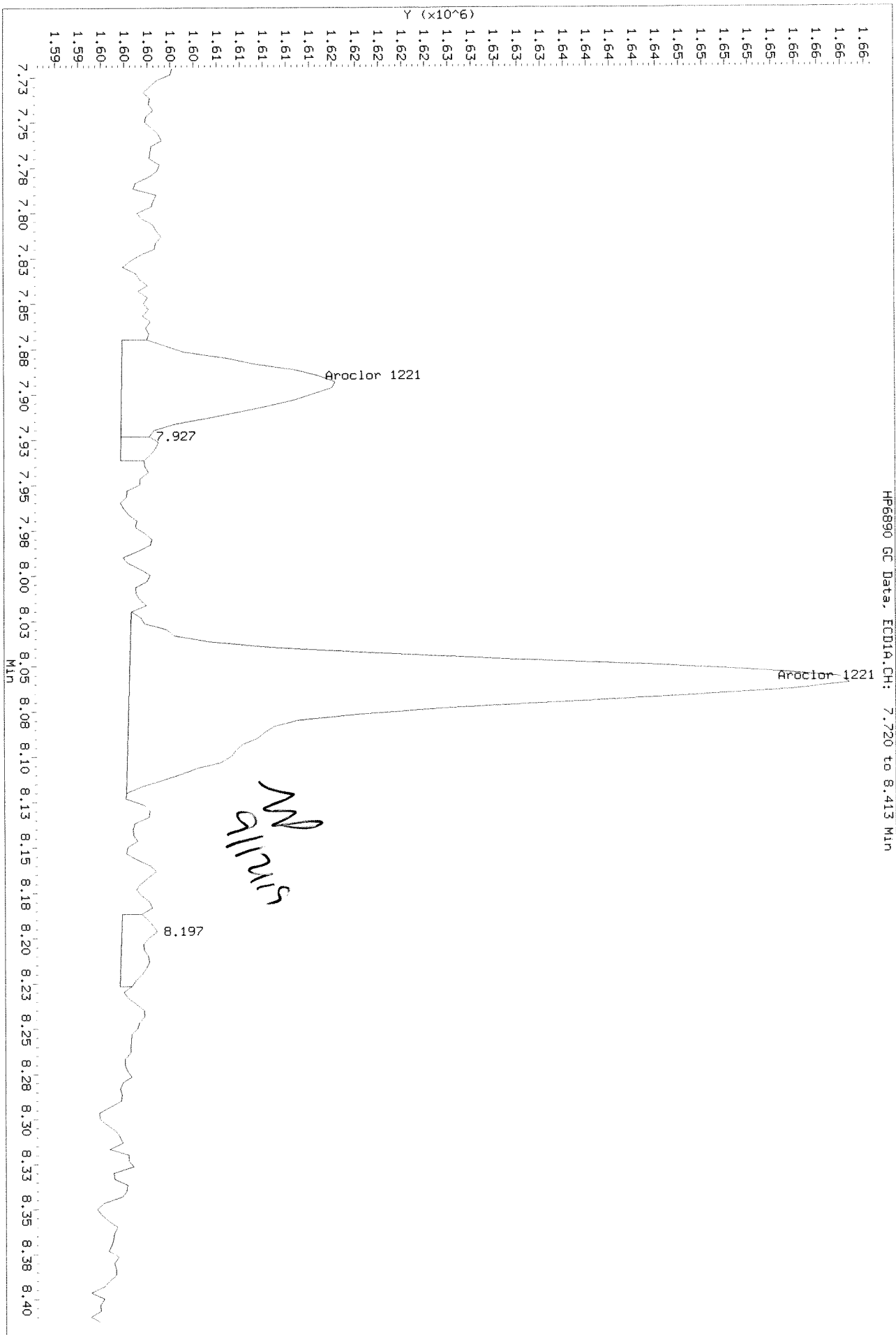
Data File: \\alk1sww002\instdata\GC27\Data\090419ICAL.B\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

Before



Data File: \\alkisws002\instdata\GC27\Data\090419ICHL.B\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

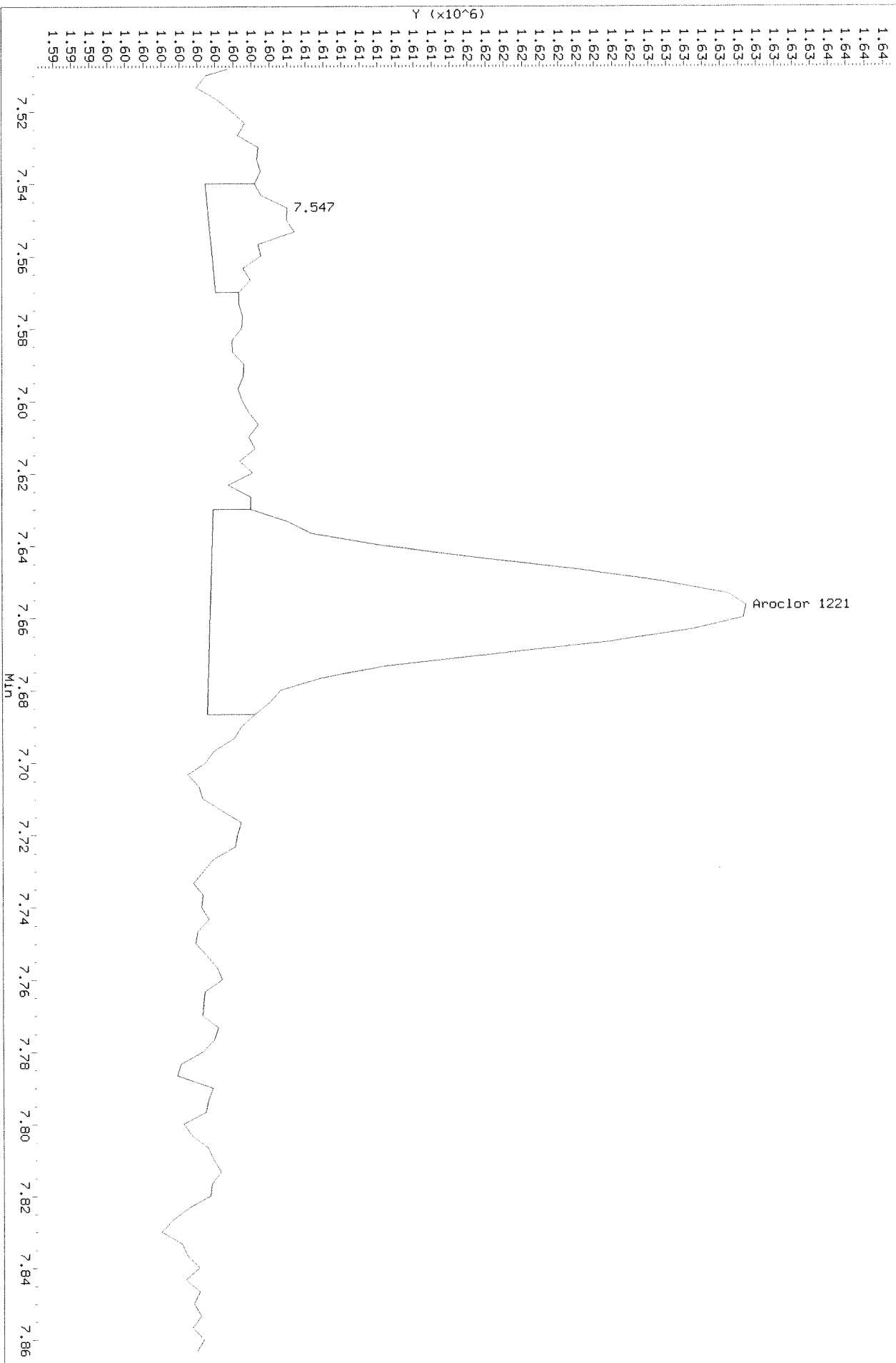
After baseline 9/11/19 A



Data File: \\alkjsws002\inst\data\GC27\Data\090419ICL.b\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 7.508 to 7.863 Min

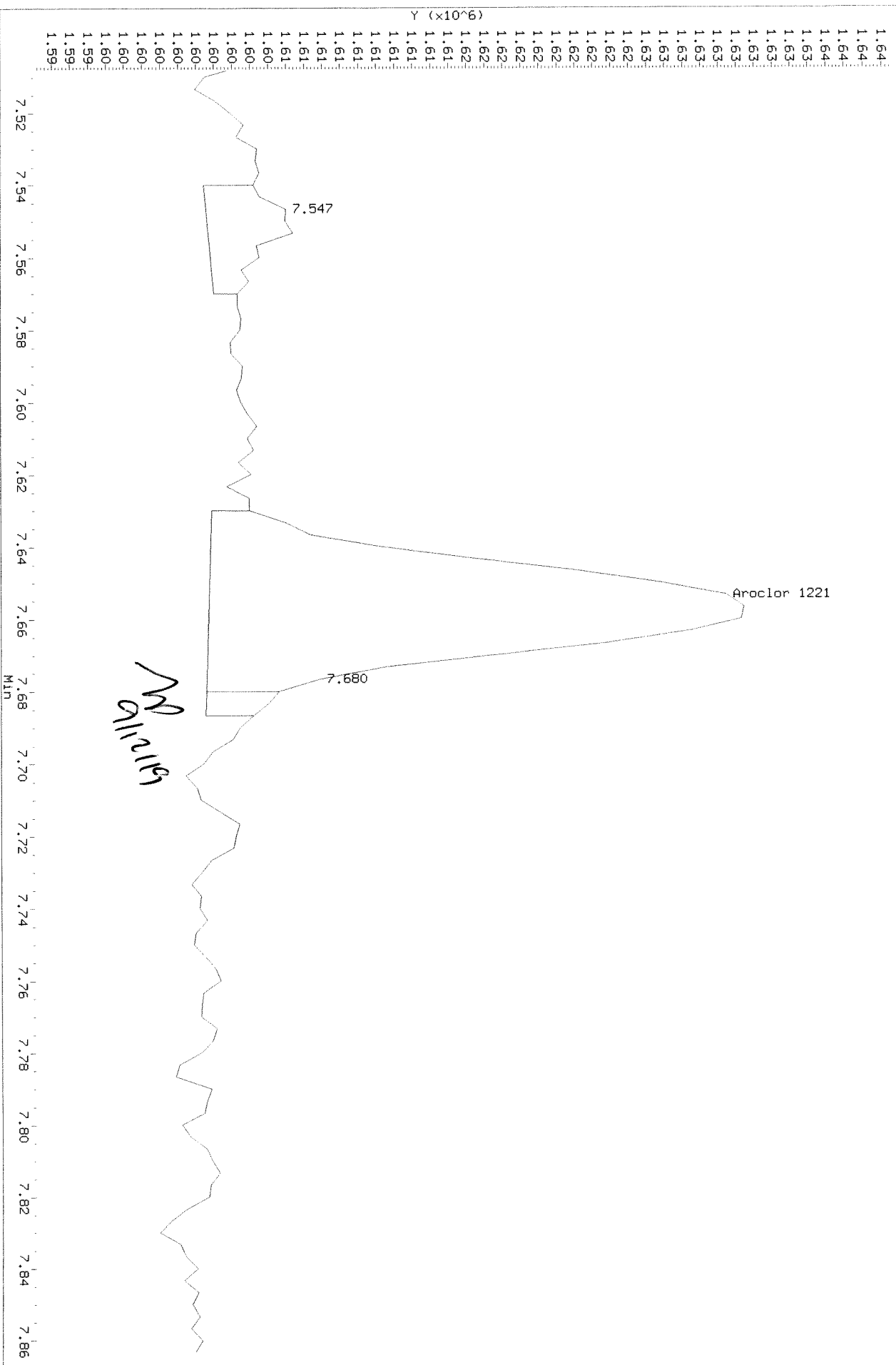
Before



Data File: \\alkjsws002\instdata\GC27\Data\090419ICAL.H\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 7.508 to 7.863 MIN

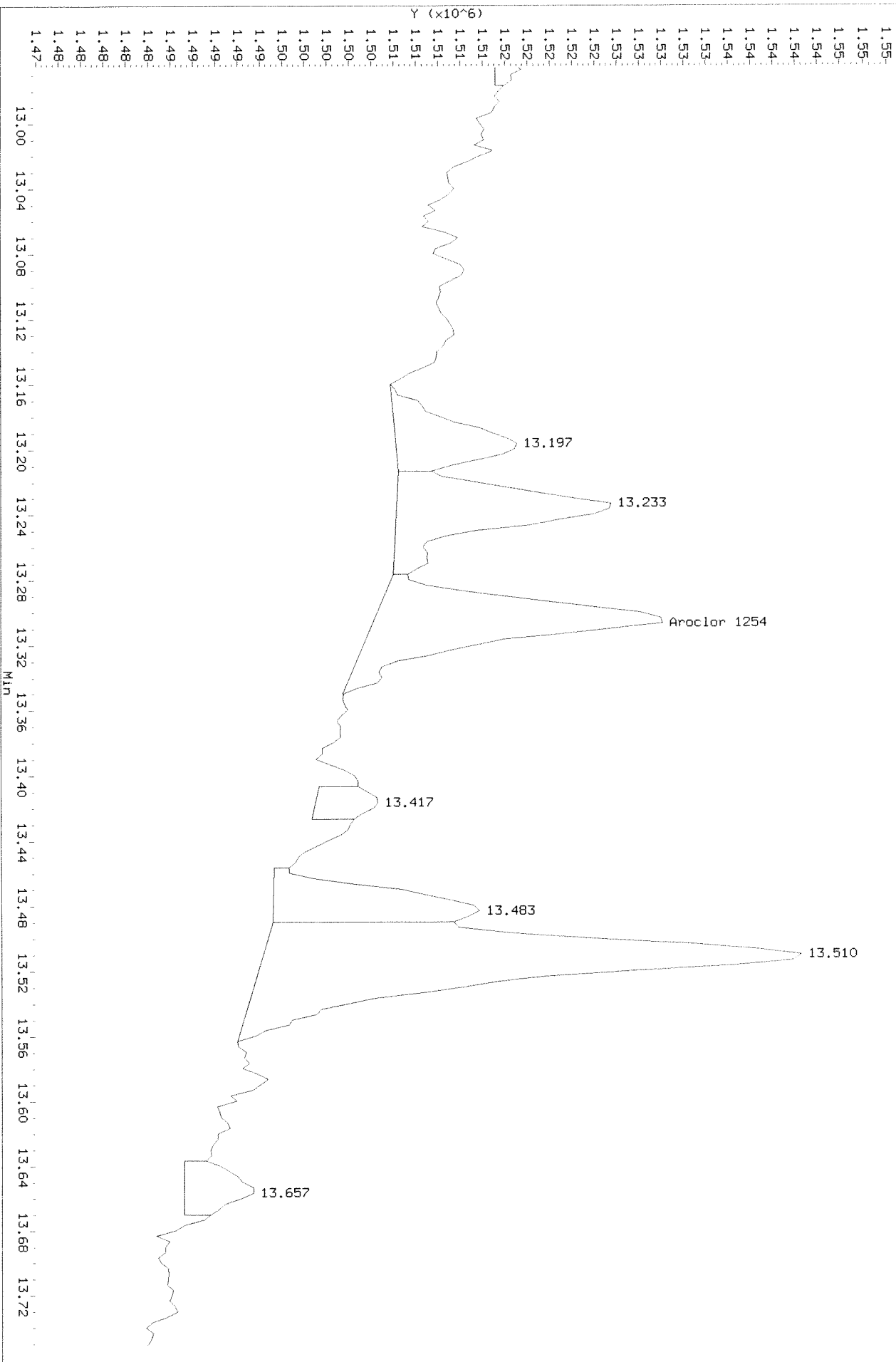
After Shoulder 9/11/19 SA



Data File: \\alkisw002\instdata\GC27\Data\090419ICL.b\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 12.965 to 13.752 Min

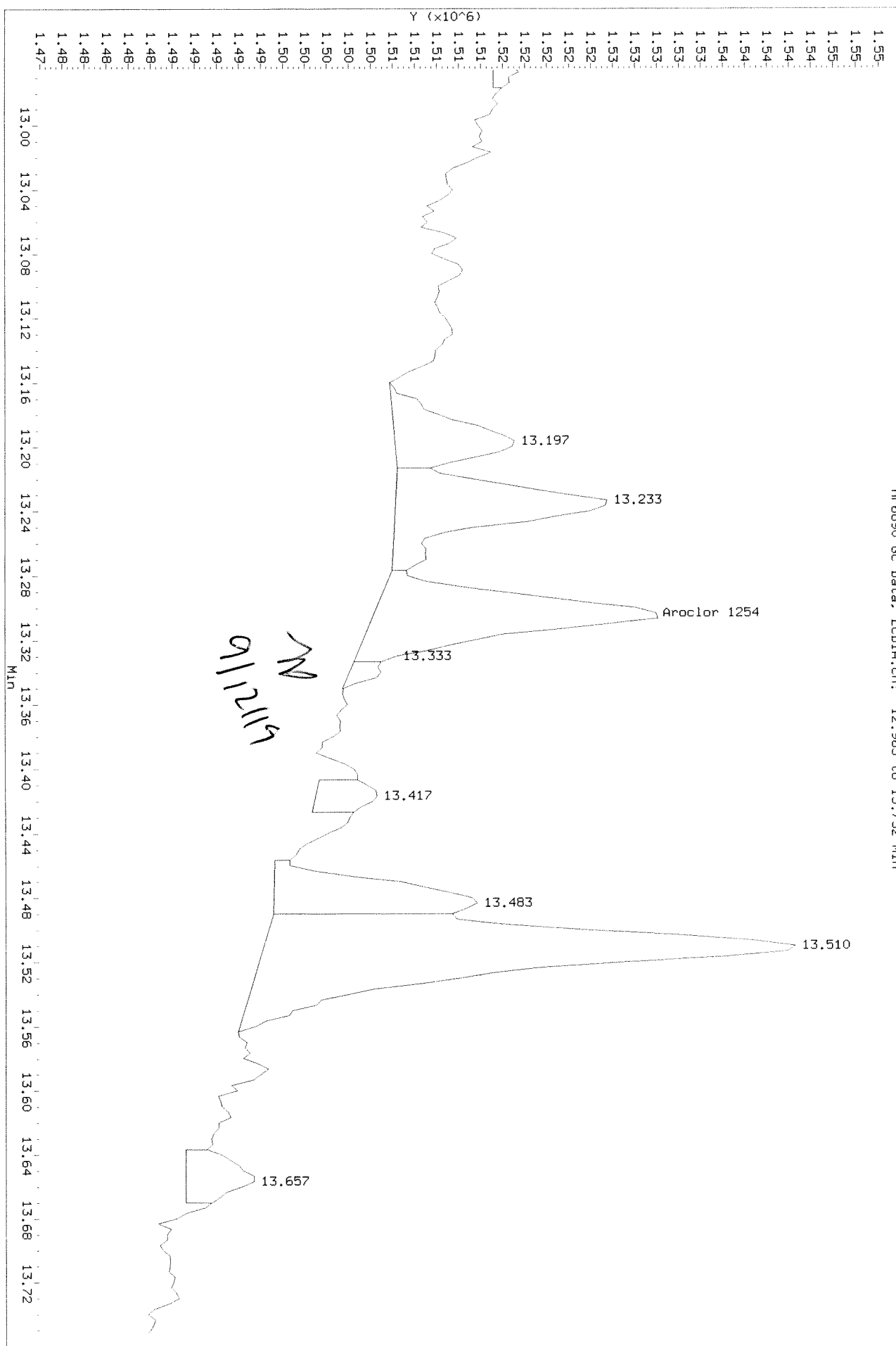
Before



Data File: \\alklsw002\instdata\GC27\Data\090419ICAL.b\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

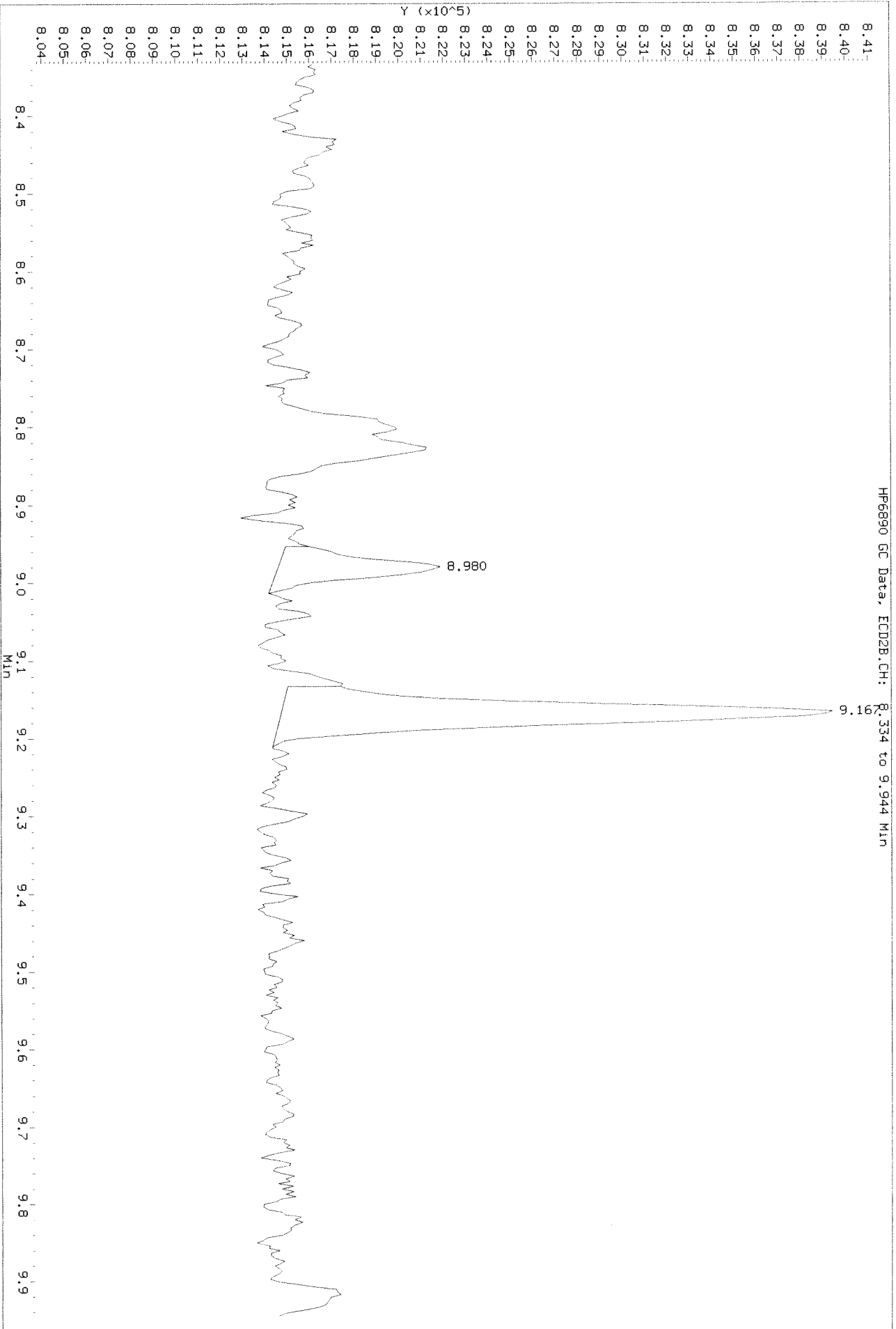
After Shoulder 9/11/19

HP6890 GC Data, ECD1A.CH: 12.965 to 13.752 Min



Data File: \\alk1sws002\instdata\GC27\Data\090419ICHL_r.b\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

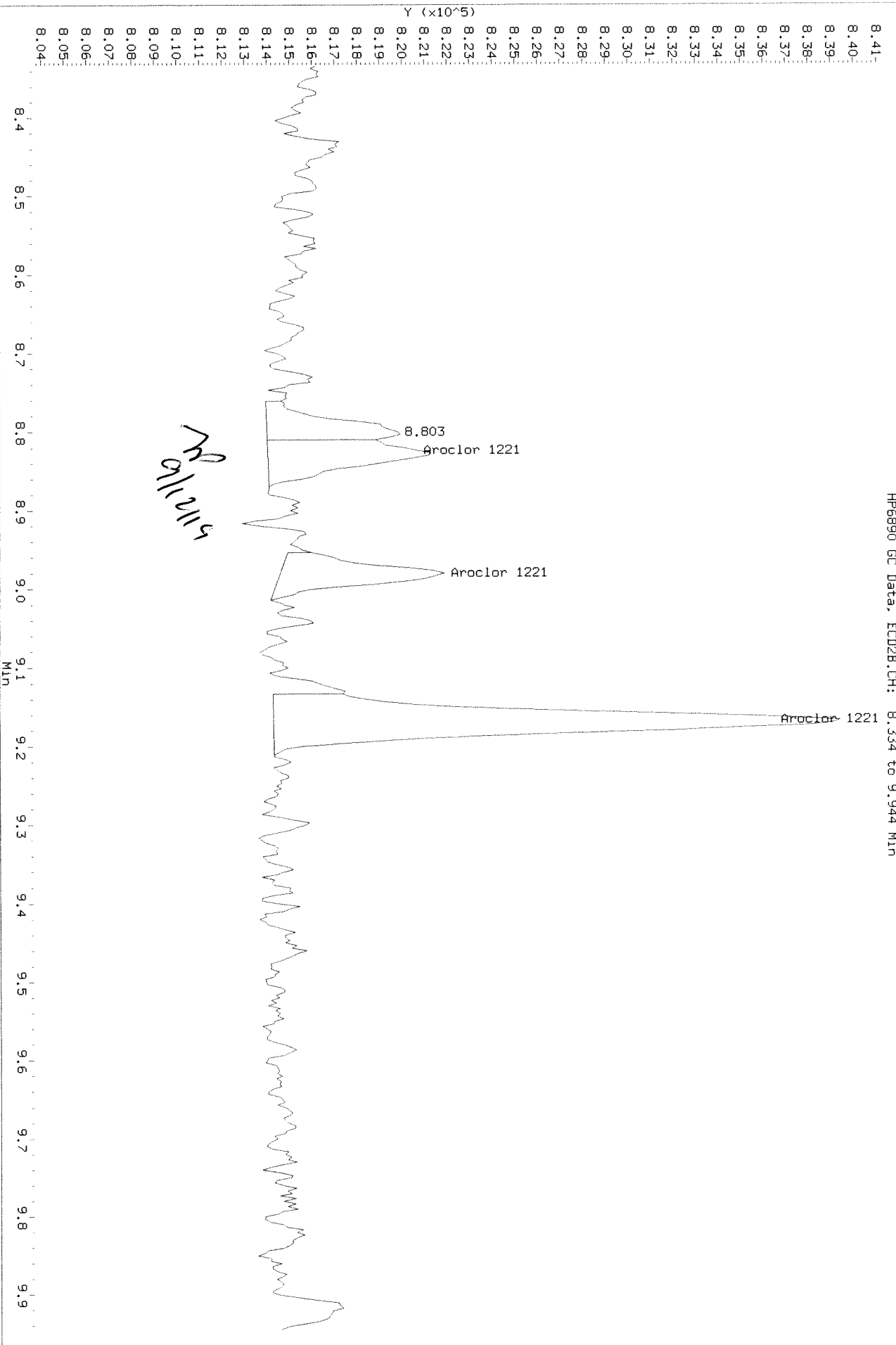
Before



Data File: \\alk1sws002\instdata\GC27\Data\090419ICL_r_b\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 8.334 to 9.944 Min

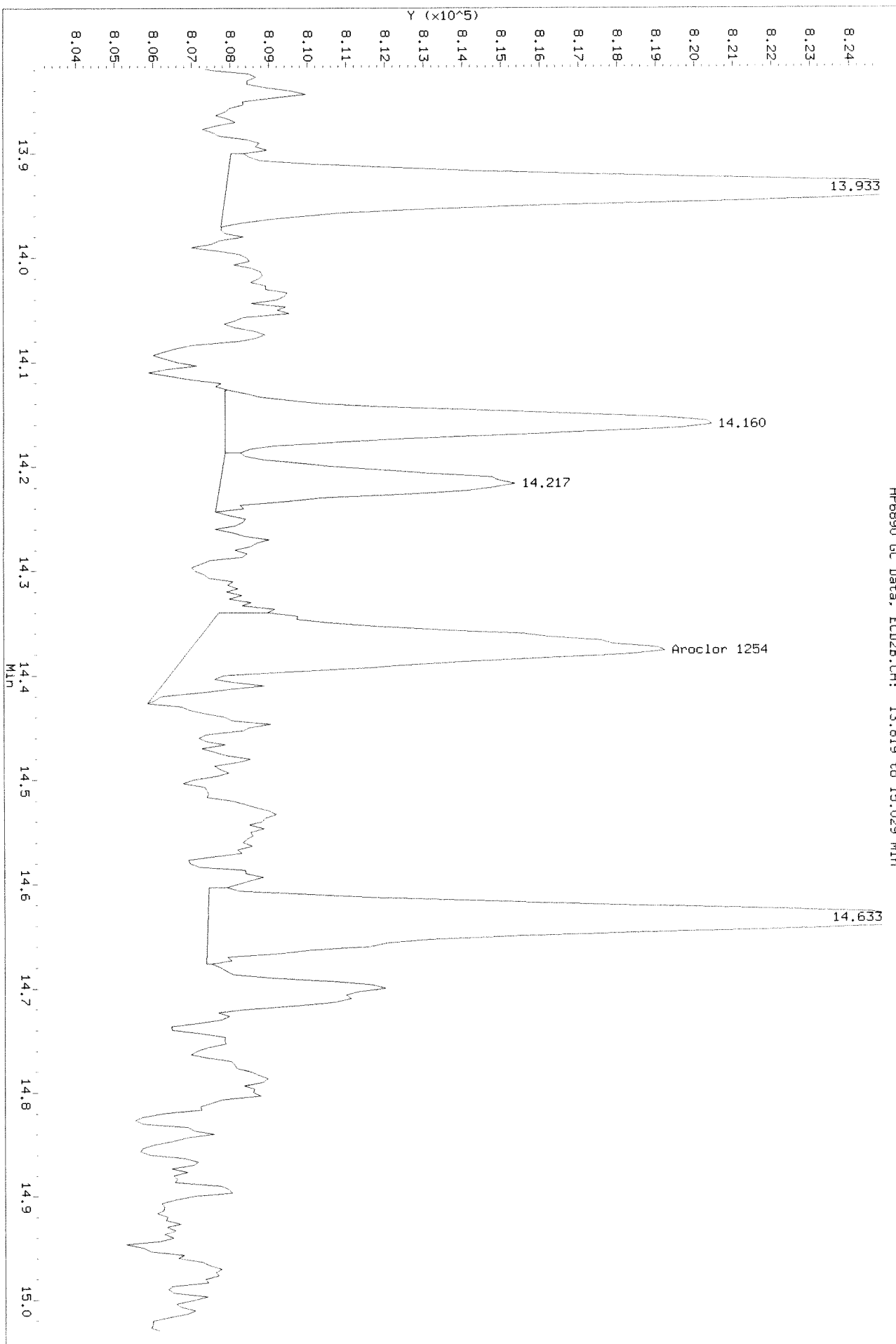
After missed peak 9/11/19 SA



Data File: \\alkisw002\instdata\GC27\Data\090419\ICL-r.b\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

Refer

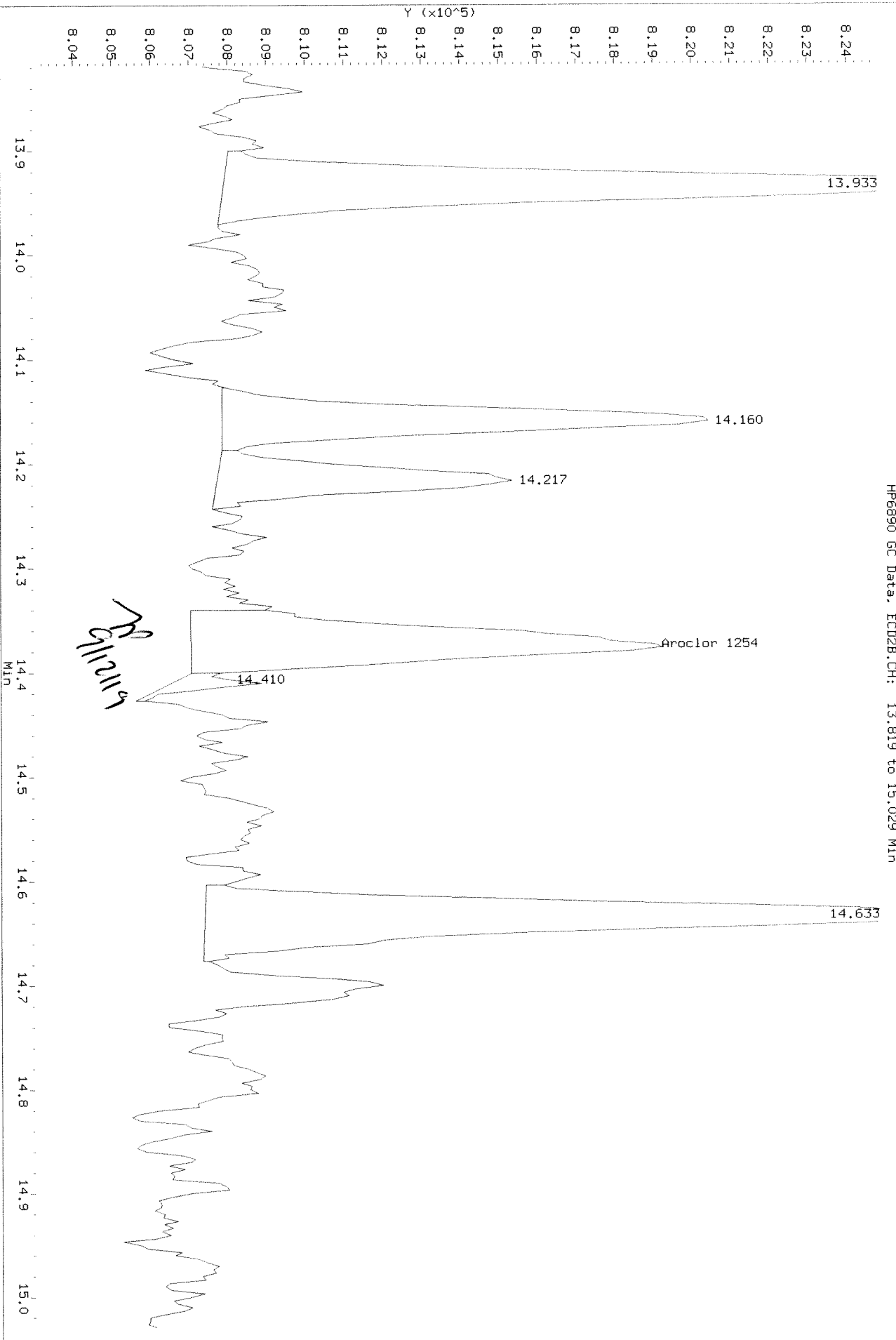
HP6890 GC Data, ECD28.CH: 13.819 to 15.029 Min



Data File: \\alkisw002\instdata\GC27\Data\090419ICALL_r.b\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 13.819 to 15.029 MIN

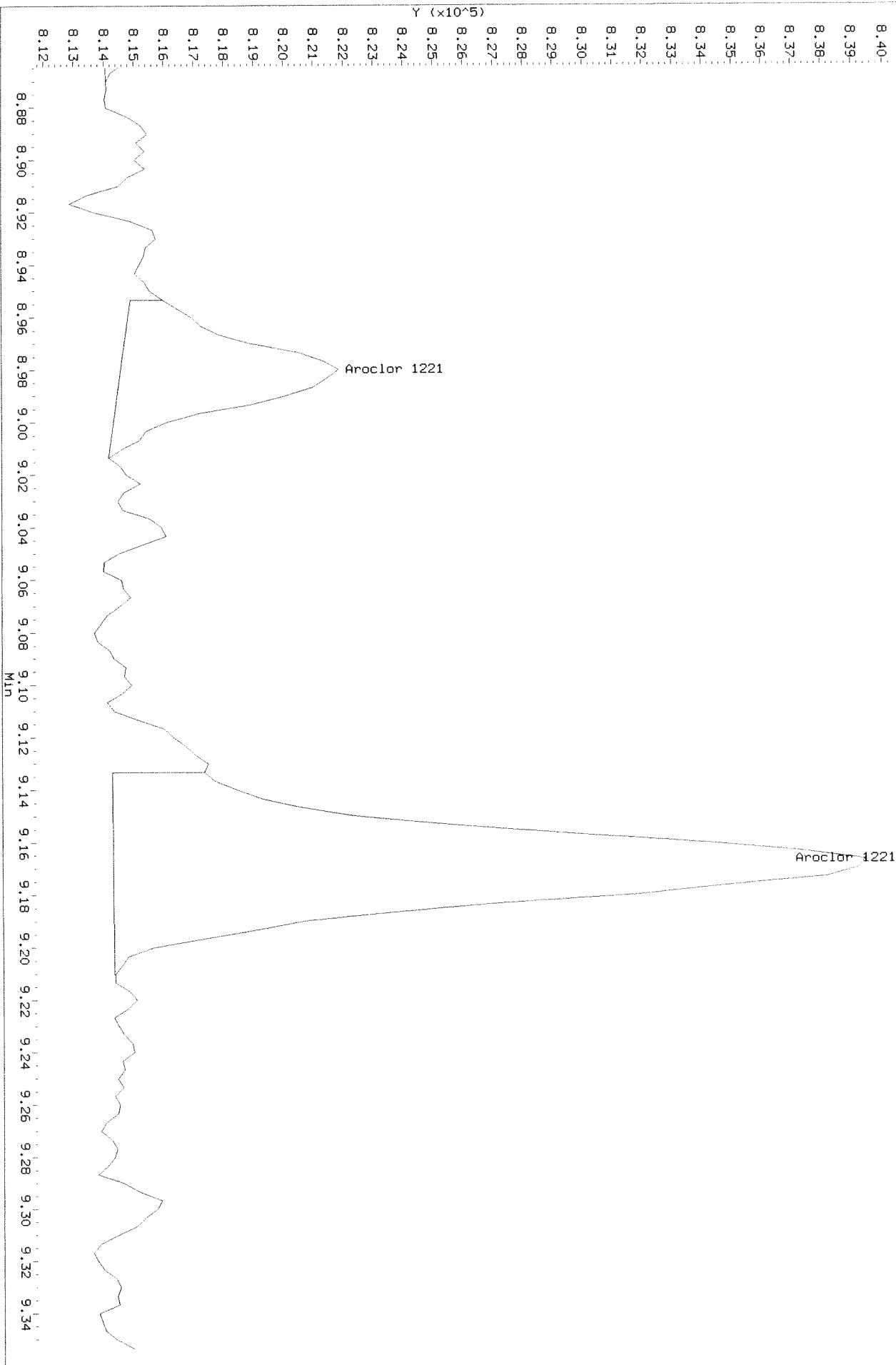
After Shell bar 1/11/11 SA



Data File: \\alkisw002\inetdata\GC27\Data\090419ICALL_r.b\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

Before

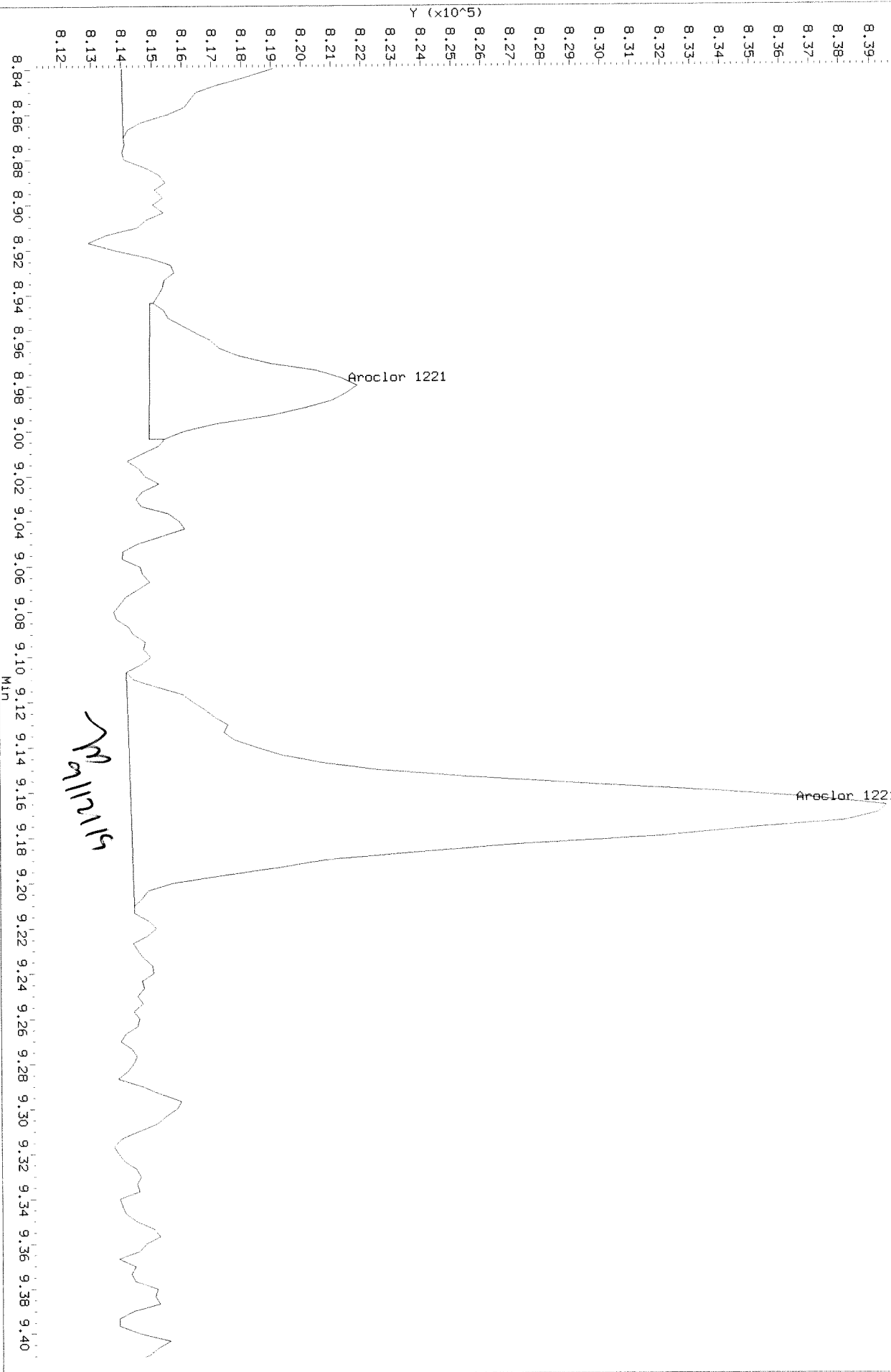
HP6890 GC Data, ECD2B.CH: 8.865 to 9.354 MIN



Data File: \\alkisw002\instdata\GC27\Data\090419ICALL_r.b\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 8.840 to 9.410 MIN

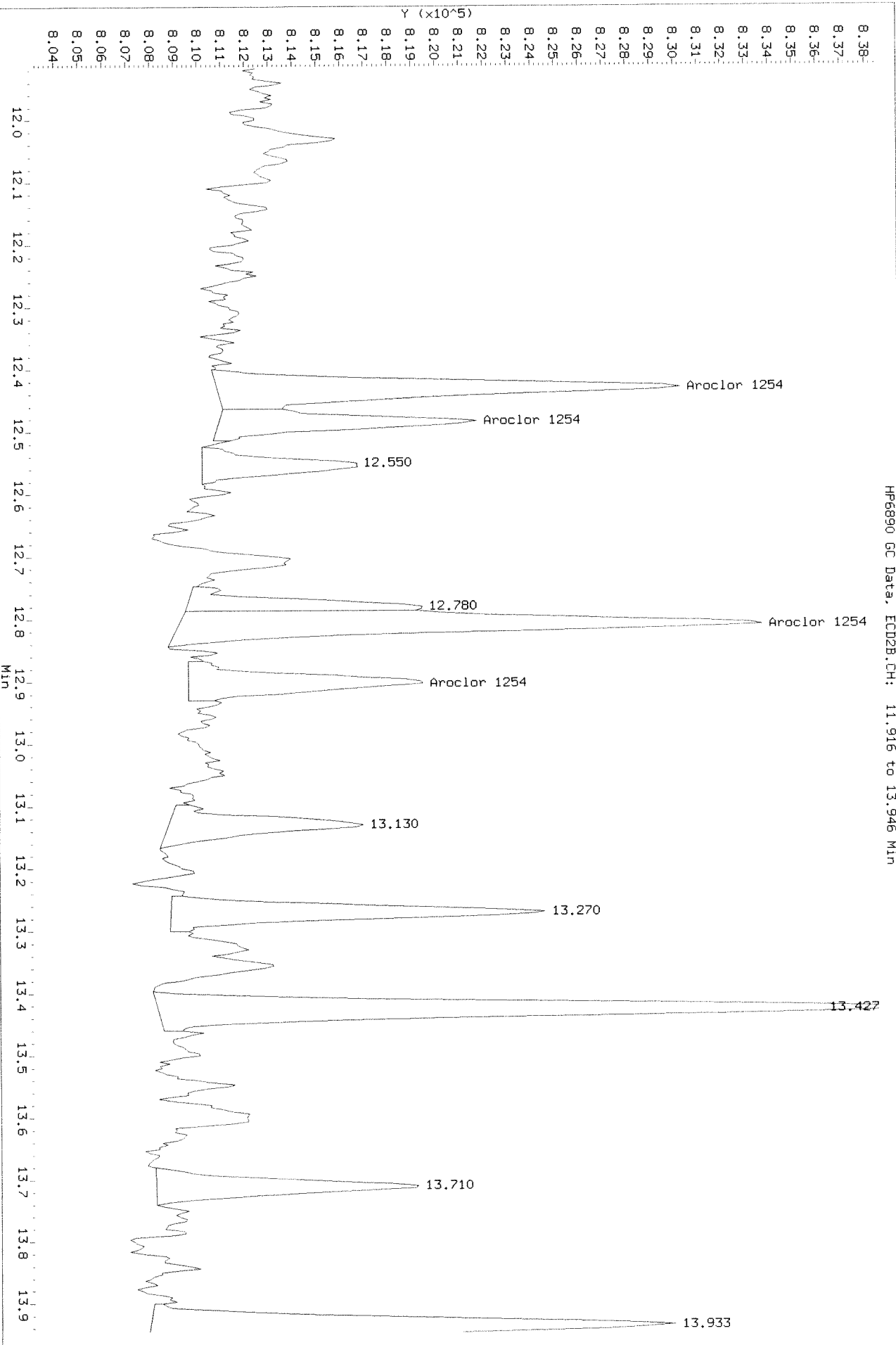
After baseline 9/11/19



Data File: \\alkisw002\instdata\GC27\Data\090419ICAL_r.b\0904F013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

Before

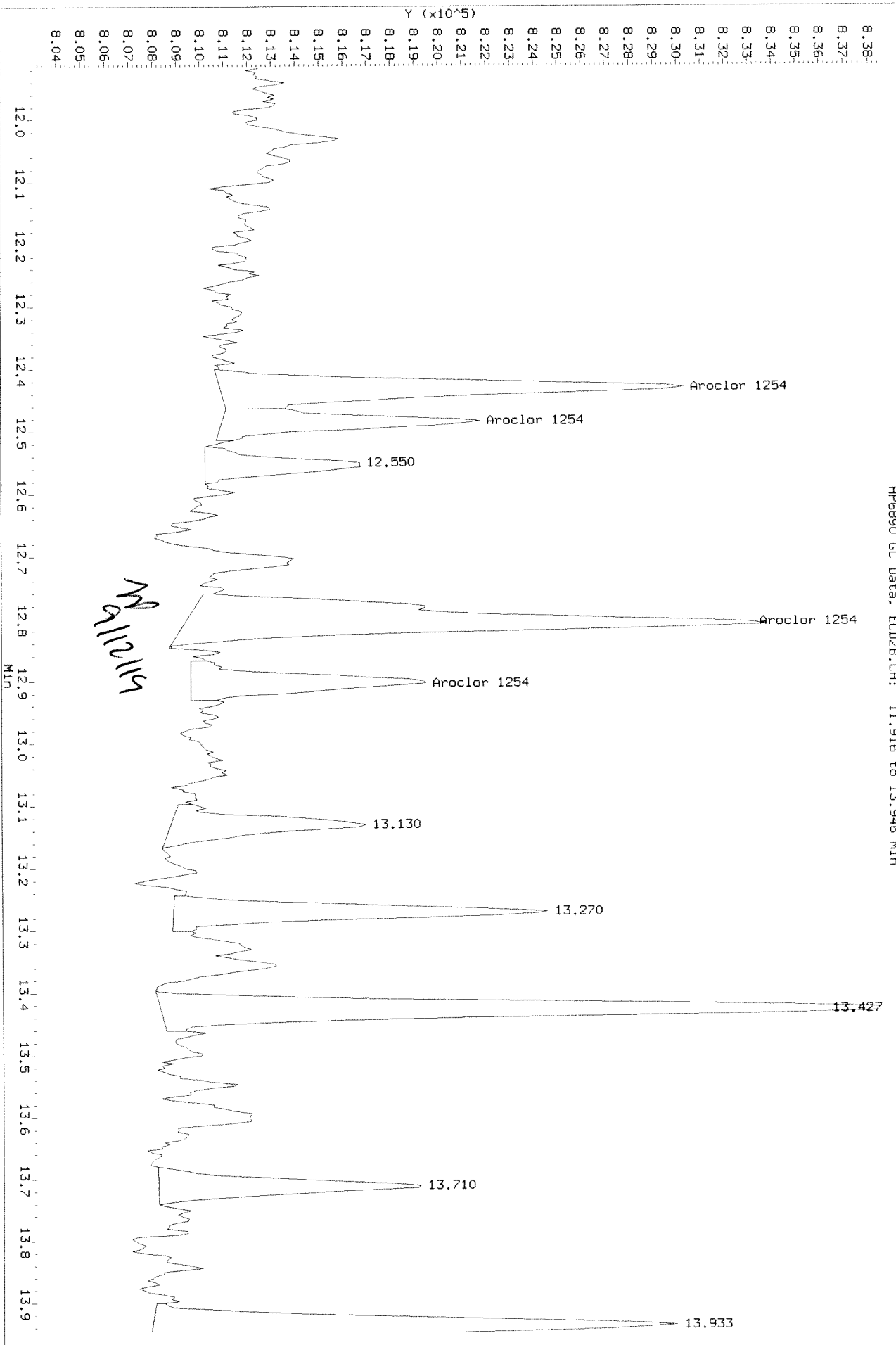
HP6890 GC Data, ECD2B.CH: 11.916 to 13.946 MIN



Data File: \\alklsws002\inst\data\GC27\Data\090419ICL-r.b\09041013.D
Injection Date: 04-SEP-2019 22:45
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.Ch: 11.916 to 13.946 Min

After baseline 9/11/19 RA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F014.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F014.D
 Inj Date : 04-SEP-2019 23:17
 Sample Info: PCB8-13B 2154 @ 2-4 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 2154.sub
 Sub List #2 : 2154.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
=====								
Aroclor 1221	7.655	8.825	104585	24086	4.54	3.70	80.00- 120.00	100.00 (M)
	7.895	8.981	64670	27039	4.42	4.19	50.93- 76.39	61.83 (M)
	8.058	9.168	247372	103619	4.52	4.17	190.33- 285.49	236.53 (M)
	Average of Peak Amounts =				4.49	4.02		
Aroclor 1254	11.771	12.428	80796	66855	2.24	2.07	80.00- 120.00	100.00 (M)
	12.241	12.485	140427	31785	2.25	1.87	137.86- 206.79	173.80 (M)
	12.398	12.808	278429	107440	2.26	2.18	268.82- 403.23	344.61 (M)
	12.738	12.901	164406	27448	2.25	1.79	164.76- 247.13	203.48 (M)
	13.305	14.375	97801	55061	2.15	2.27	106.40- 159.60	121.05 (M)
	Average of Peak Amounts =				2.23	2.04		

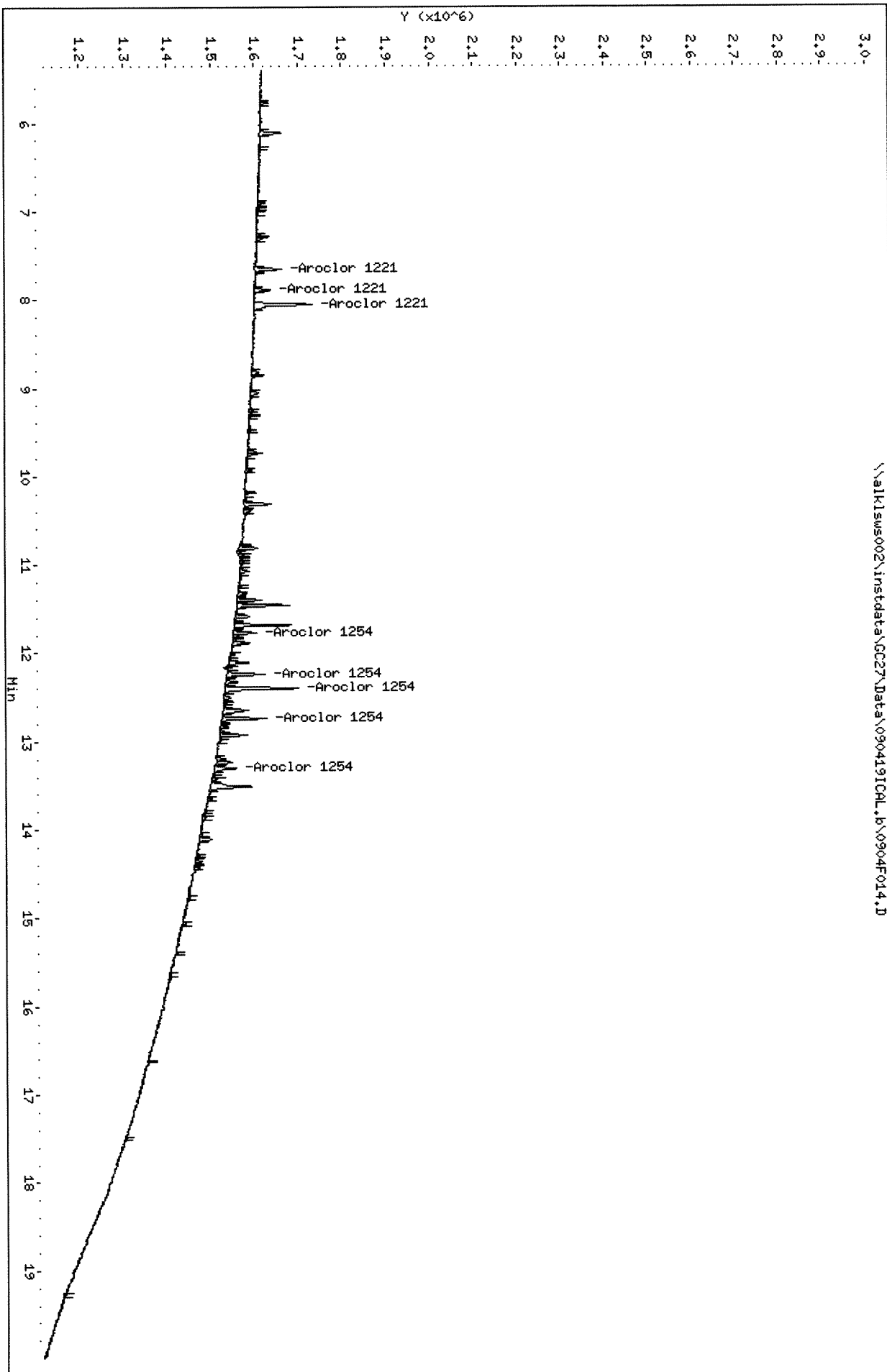
QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
 TR

Data File: \\alk1sws002\instdata\GC27\Data\090419ICAL.b\0904F014.D
Date : 04-SEP-2019 23:17
Client ID:
Sample Info: PCB8-13B 2154 @ 2-4 PPB
Column phase: DB-35MS

Instrument: GC27.i
Operator: SAA
Column diameter: 0.32



Data File: \\alklisms002\instdata\GC27\Data\090419ICAL_r.b\0904F014.D
Date : 04-SEP-2019 23:17

Client ID:

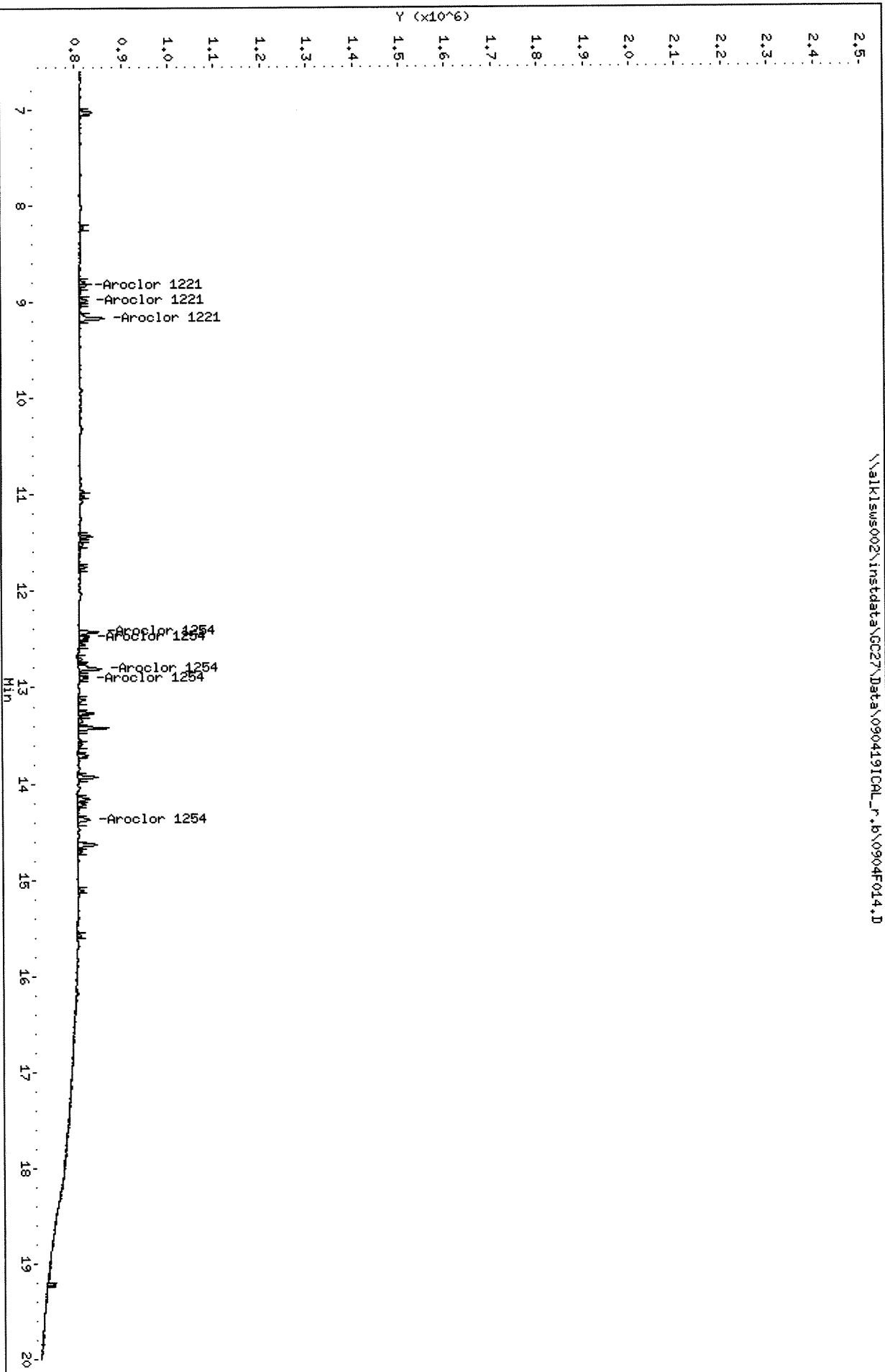
Sample Info: PCB8-13B 2154 @ 2-4 PBB

Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

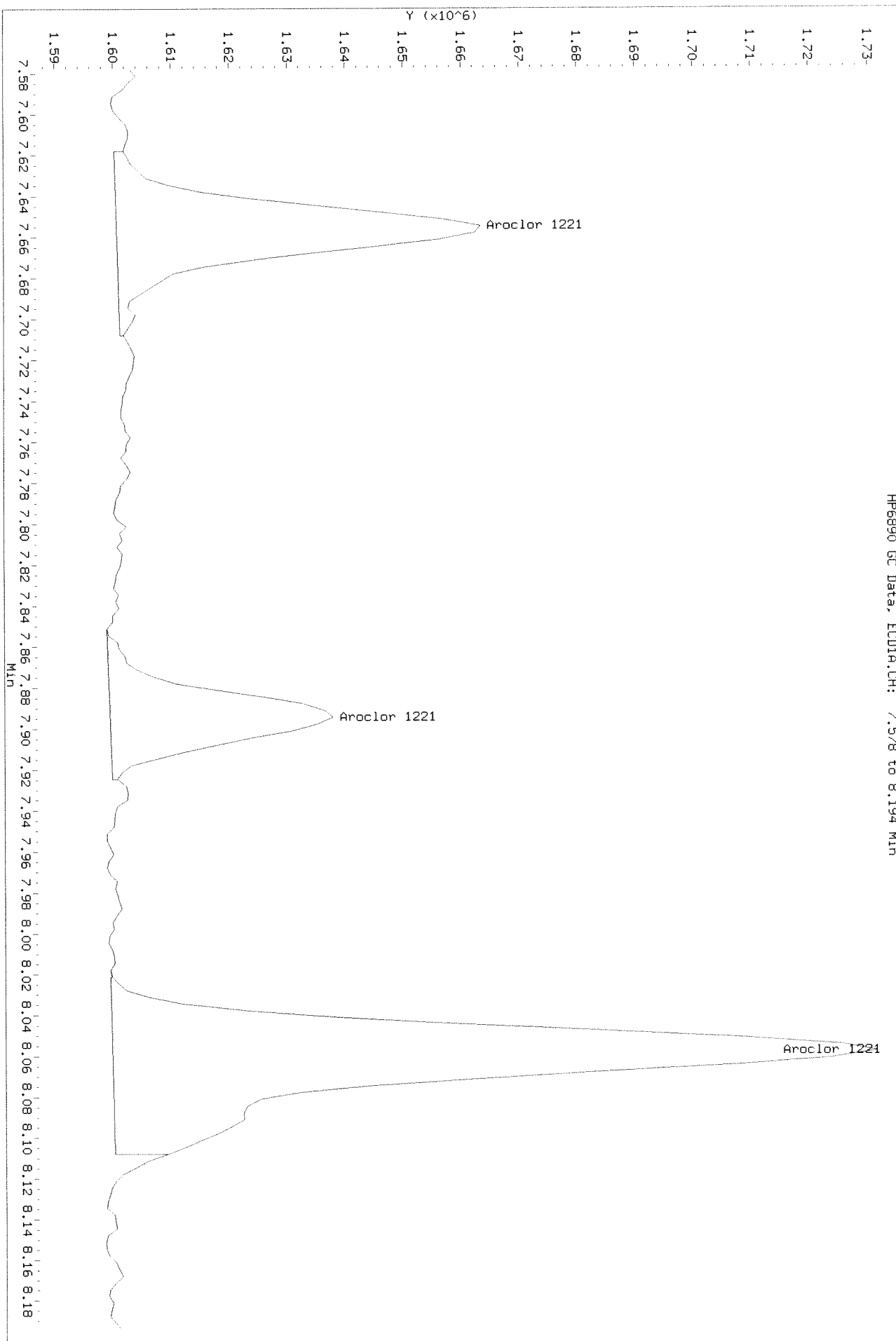
Column diameter: 0.32



Data File: \\alklms002\instdata\GC27\Data\090419ICDL.b\0904F014.D
Injection Date: 04-SEP-2019 23:17
Instrument: GC27.1
Client Sample ID:

Before

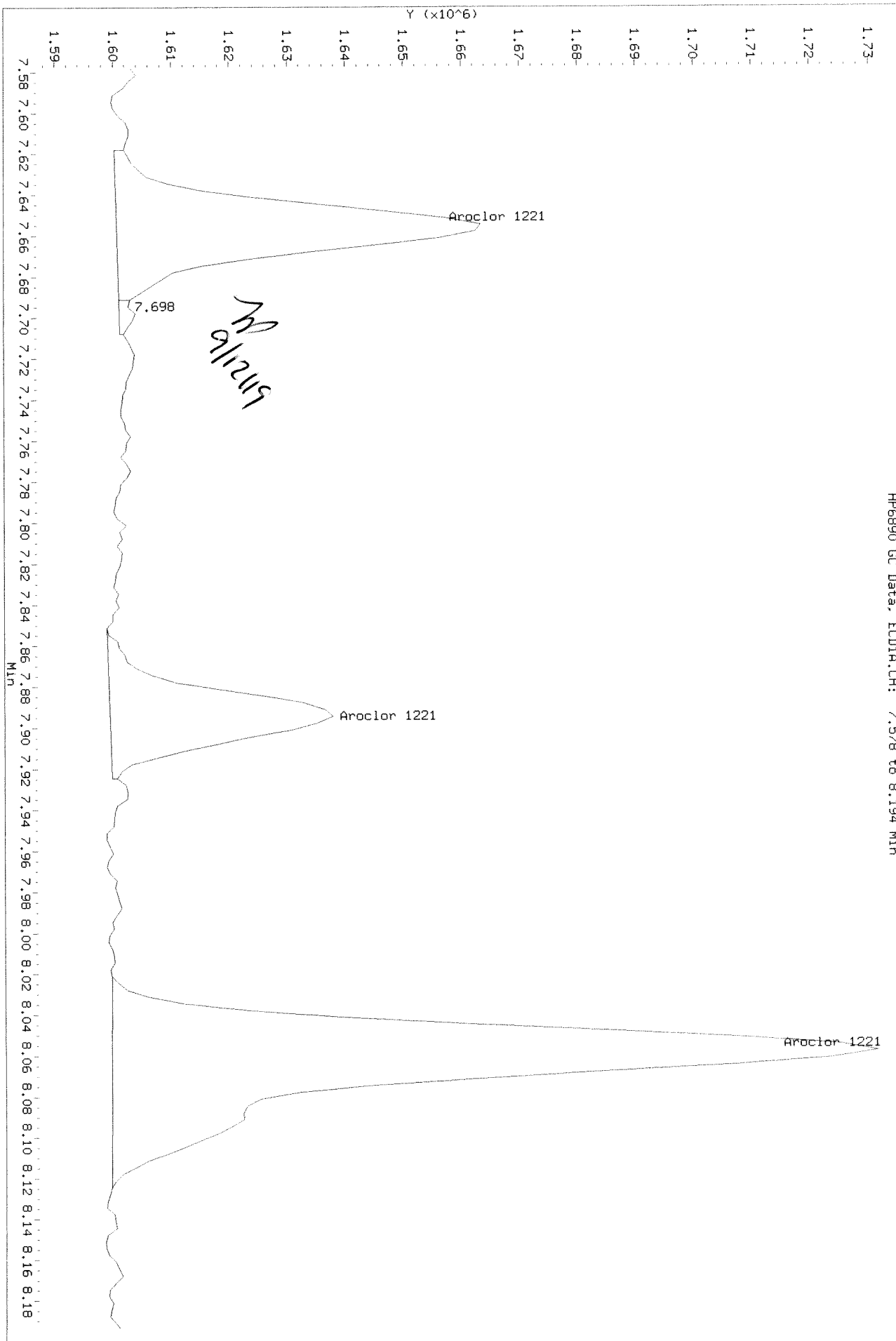
HP6890 GC Data, ECD1A.CH: 7.578 to 8.194 Min



Data File: \\alkjms002\instdata\GC27\Data\090419ICAL.b\0904F014.D
Injection Date: 04-SEP-2019 23:17
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 7.578 to 8.194 Min

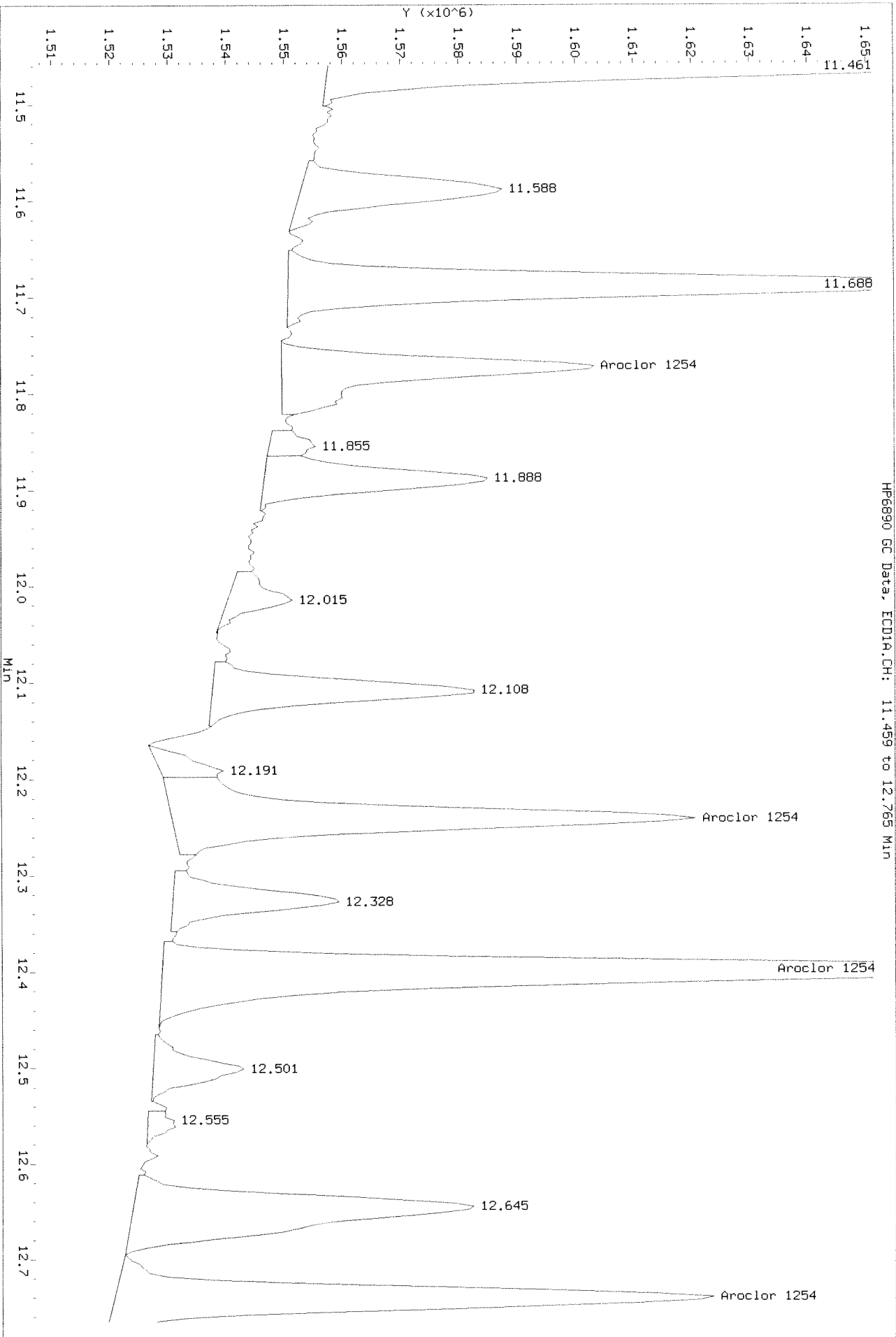
After Gasline/Shoulder 9/11/19 SA



Data File: \\alkjsws002\inst\data\GC27\Data\090419ICL.b\0904F014.D
Injection Date: 04-SEP-2019 23:17
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 11.459 to 12.765 Min

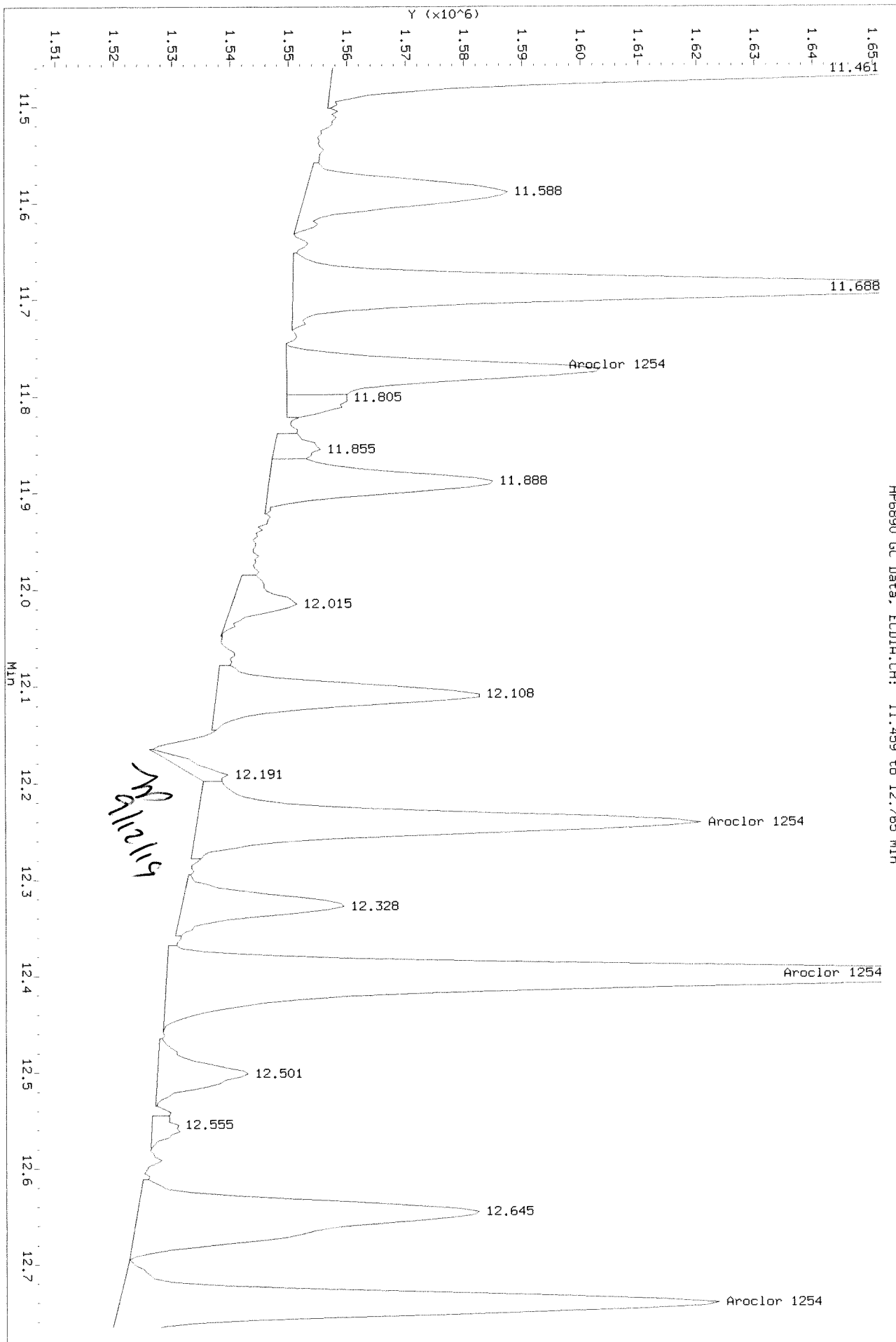
Refer 9/11/19 GA



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F014.D
Injection Date: 04-SEP-2019 23:17
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 11.459 to 12.765 Min

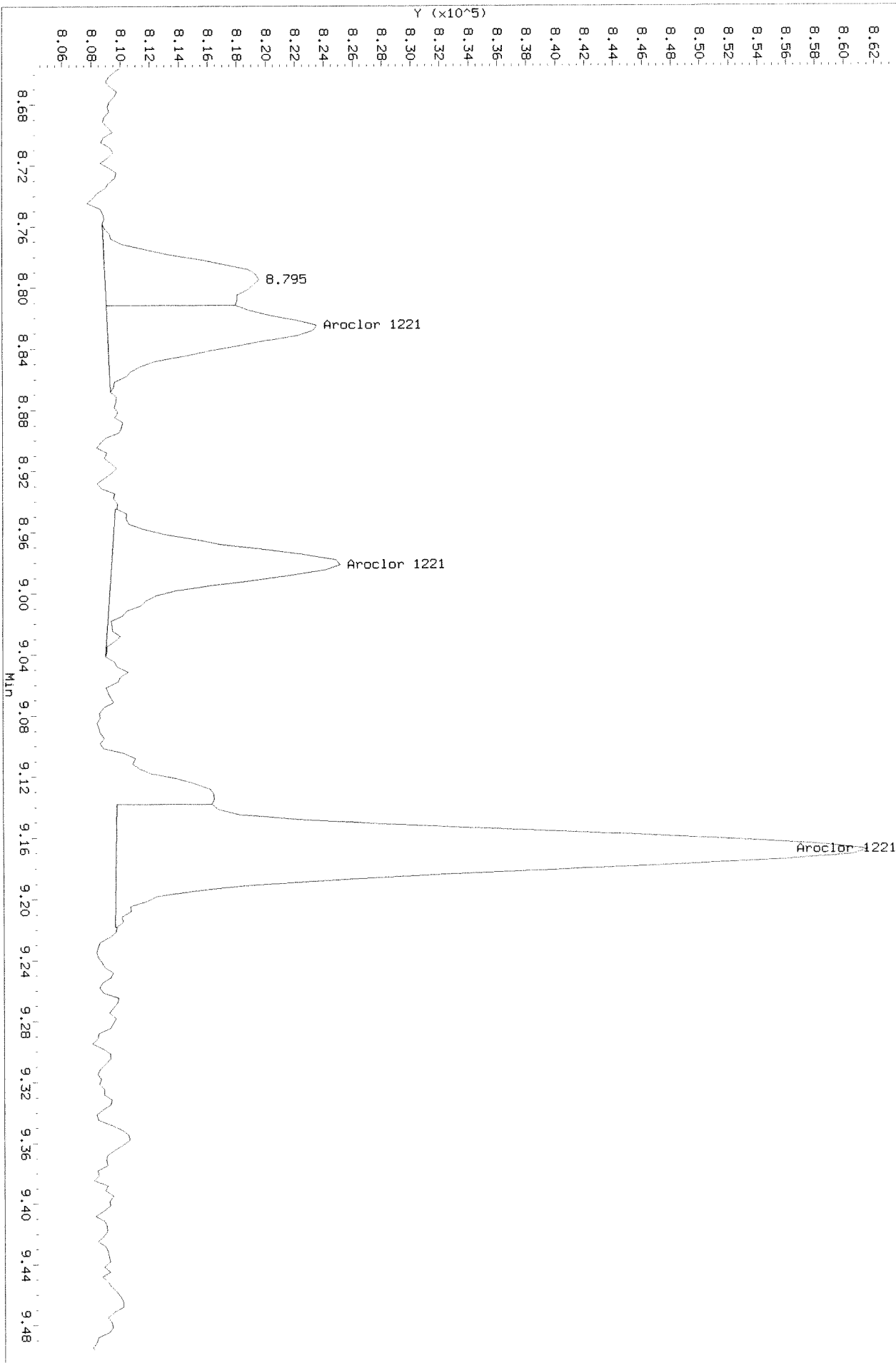
After shoulder 9/11/19



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F014.D
Injection Date: 04-SEP-2019 23:17
Instrument: GC27.1
Client Sample ID:

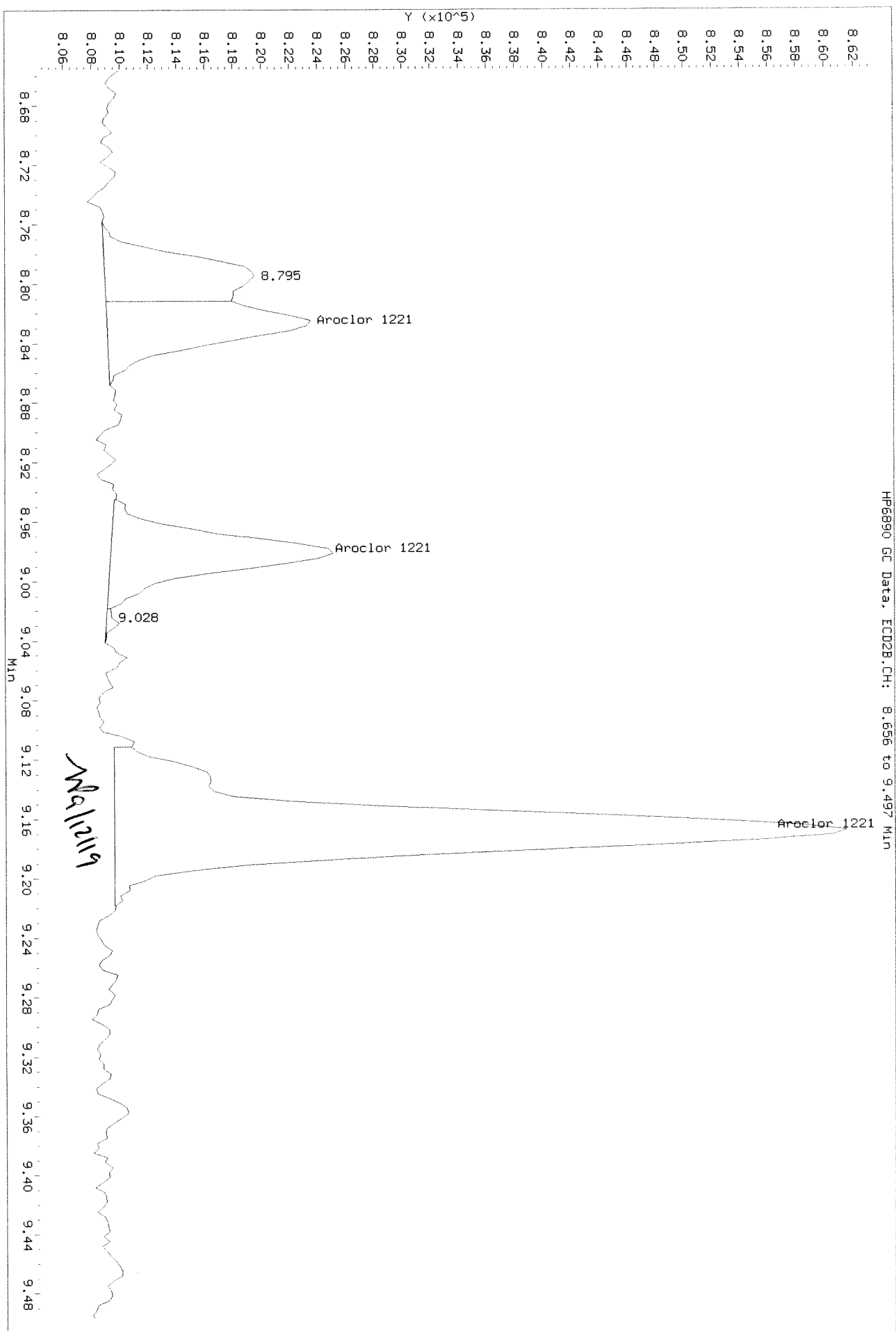
Before

HP6890 GC Data, ECD2B.CH: 8.656 to 9.497 MIN



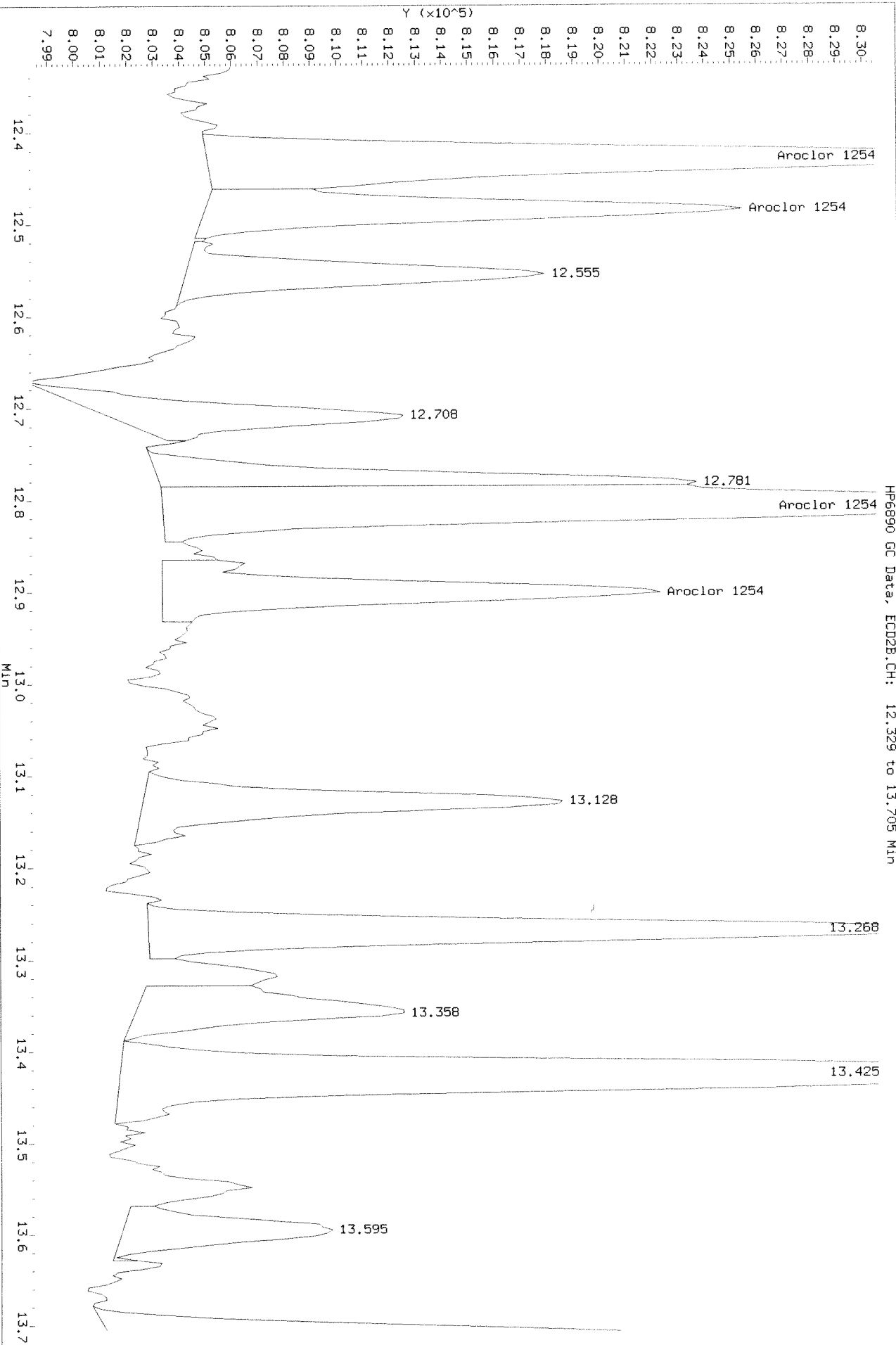
Data File: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F014.D
Injection Date: 04-SEP-2019 23:17
Instrument: GC27.1
Client Sample ID:

After base line should be 9/11/19 SA



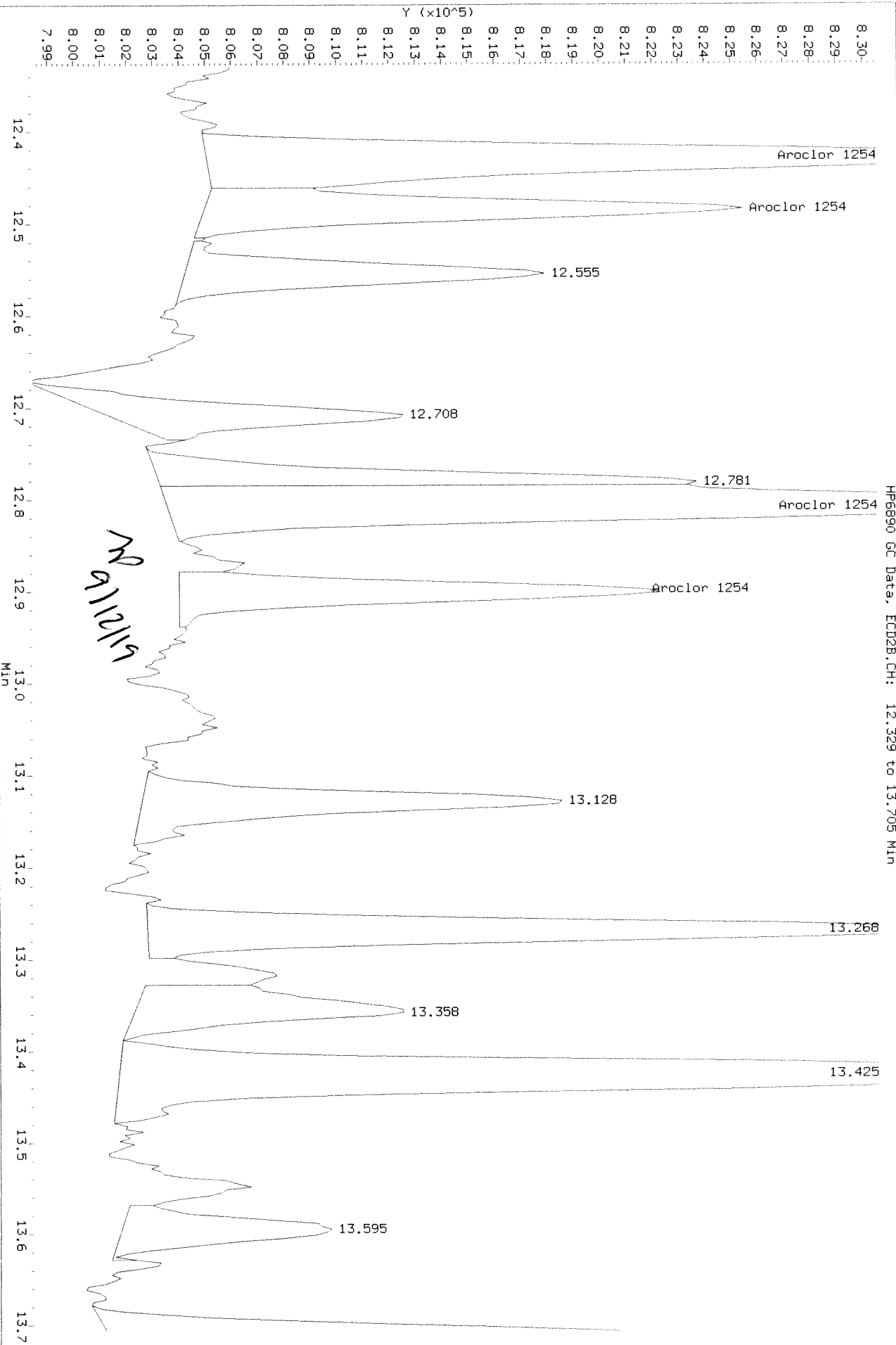
Data File: \\alklsws002\jnetdata\GC27\Data\090419ICAL_r.b\0904F014.D
Injection Date: 04-SEP-2019 23:17
Instrument: GC27.1
Client Sample ID:

Before



Data File: \\alkisw002\instdata\GC27\Data\090419ICALL_r_b\0904F014.D
Injection Date: 04-SEP-2019 23:17
Instrument: GC27.1
Client Sample ID:

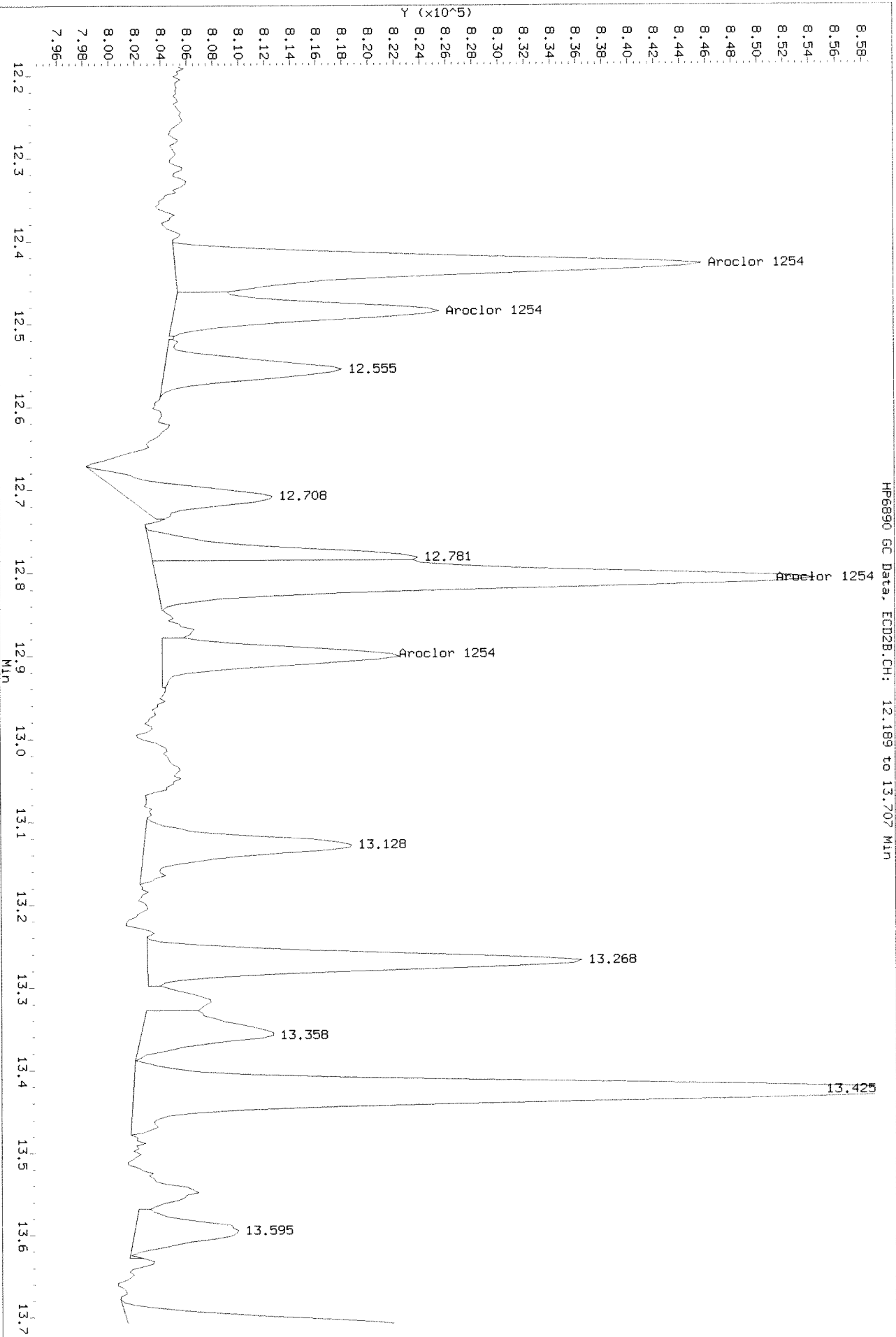
After should be 9/11/19 SA



Data File: \\alklsws002\instdata\GC27\Data\090419ICL-r.b\0904F014.D
Injection Date: 04-SEP-2019 23:17
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 12.189 to 13.707 Min

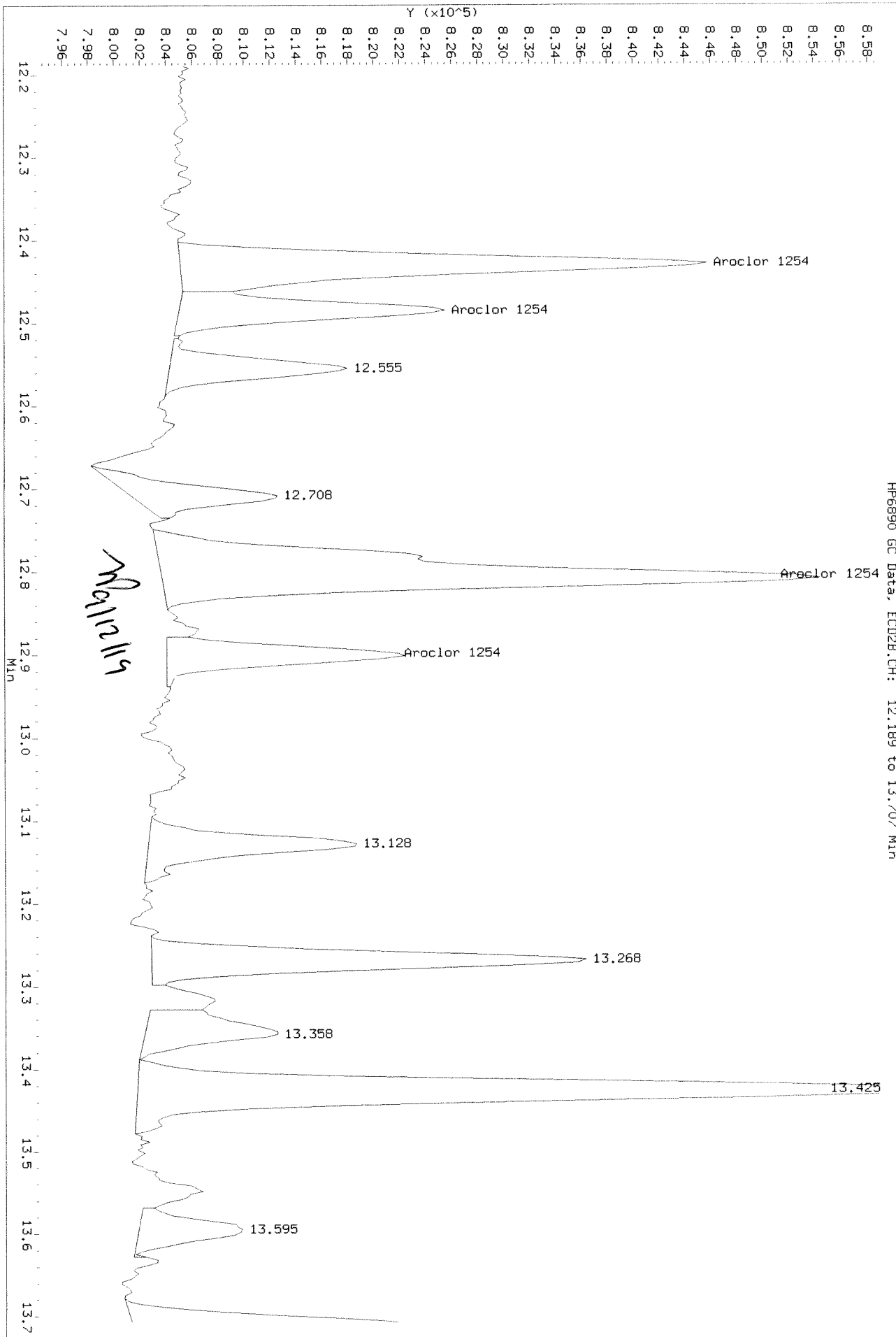
Before



Data File: \\alk1sws002\instdata\GC27\Data\090419ICALL_r.b\0904F014.D
Injection Date: 04-SEP-2019 23:17
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 12.189 to 13.707 Min

After base line 9/11/19 *AS*



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F015.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F015.D
 Inj Date : 04-SEP-2019 23:48
 Sample Info: PCB8-13C 2154 @ 5-10 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 2154.sub
 Sub List #2 : 2154.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1221	7.658	8.824	249026	60415	10.8	9.29	80.00- 120.00	100.00
	7.894	8.981	147882	65463	10.1	10.1	50.93- 76.39	59.38
	8.058	9.168	577373	253591	10.5	10.2	190.33- 285.49	231.85
	Average of Peak Amounts =				10.5	9.86		
Aroclor 1254	11.774	12.428	183207	170987	5.07	5.29	80.00- 120.00	100.00 (M)
	12.241	12.484	320540	84384	5.13	4.97	137.86- 206.79	174.96 (M)
	12.401	12.808	640312	260656	5.19	5.28	268.82- 403.23	349.50 (M)
	12.741	12.901	377788	74408	5.18	4.84	164.76- 247.13	206.21 (M)
	13.301	14.374	243150	125921	5.33	5.19	106.40- 159.60	132.72 (M)
Average of Peak Amounts =				5.18	5.11			

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
W

Data File: \\alki\sw002\inst\data\GC27\Data\090419ICRL.b\0904F015.D

Date : 04-SEP-2019 23:48

Client ID:

Sample Info: PCB8-13C 2154 @ 5-10 PPB

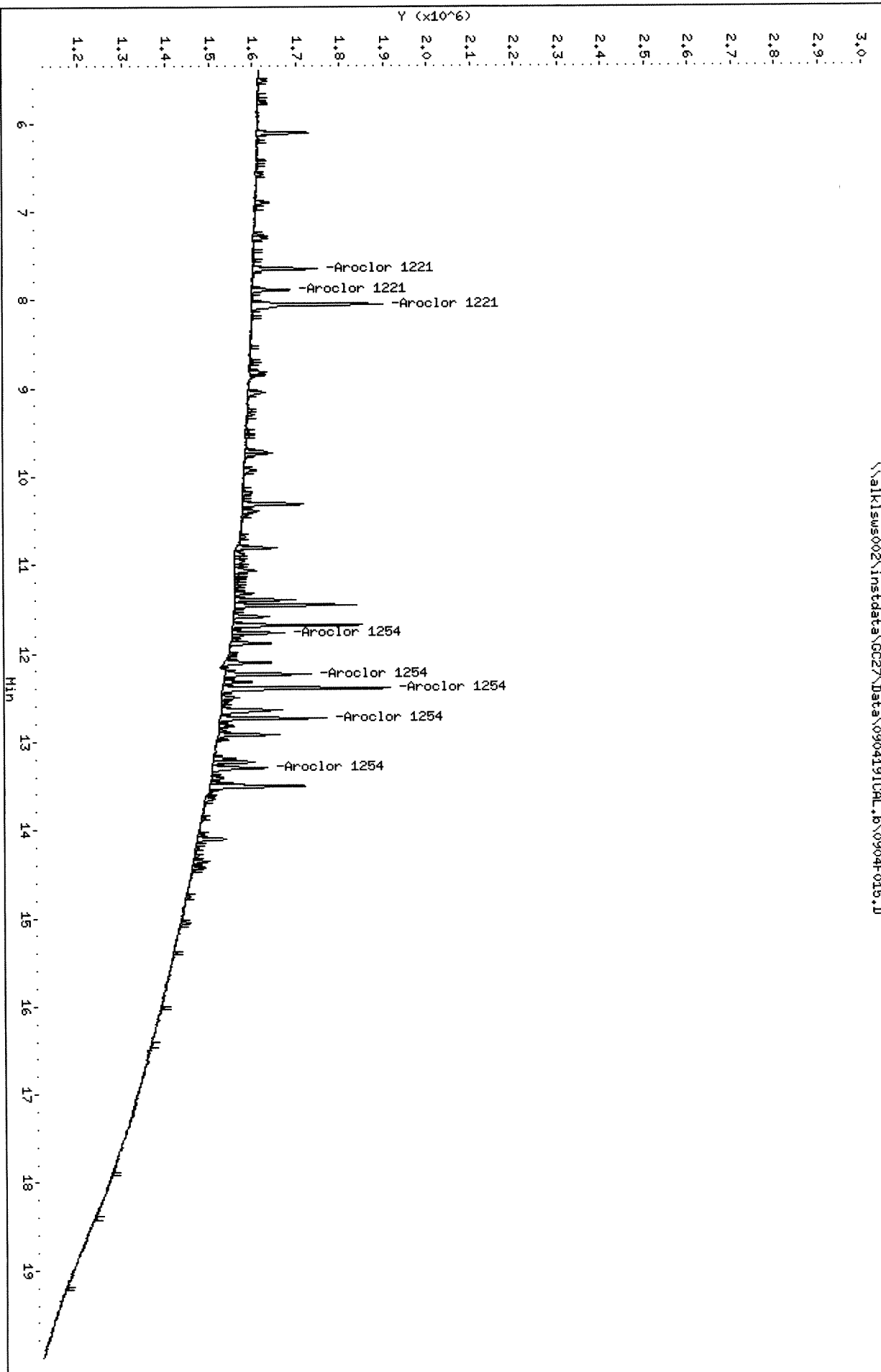
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alki\sw002\inst\data\GC27\Data\090419ICRL.b\0904F015.D



Data File: \\alkisus002\inst\data\GC27\Data\090419ICAL_r.b\0904F015.D

Date: 04-SEP-2019 23:48

Client ID:

Sample Info: PCB8-13C 2154 @ 5-10 PPB

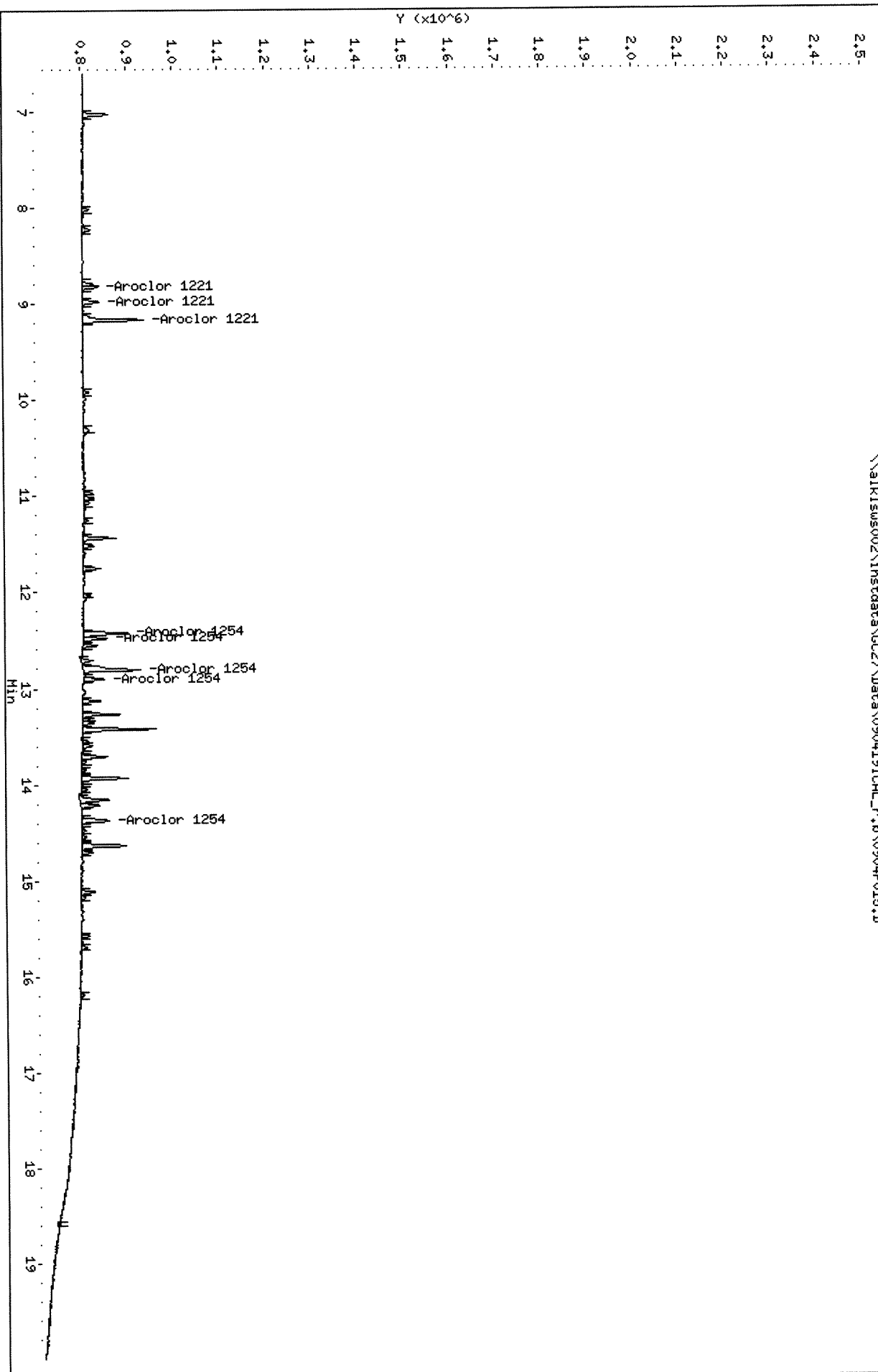
Column phase: DB-XLB

Instrument: GC27.1

Operator: SAA

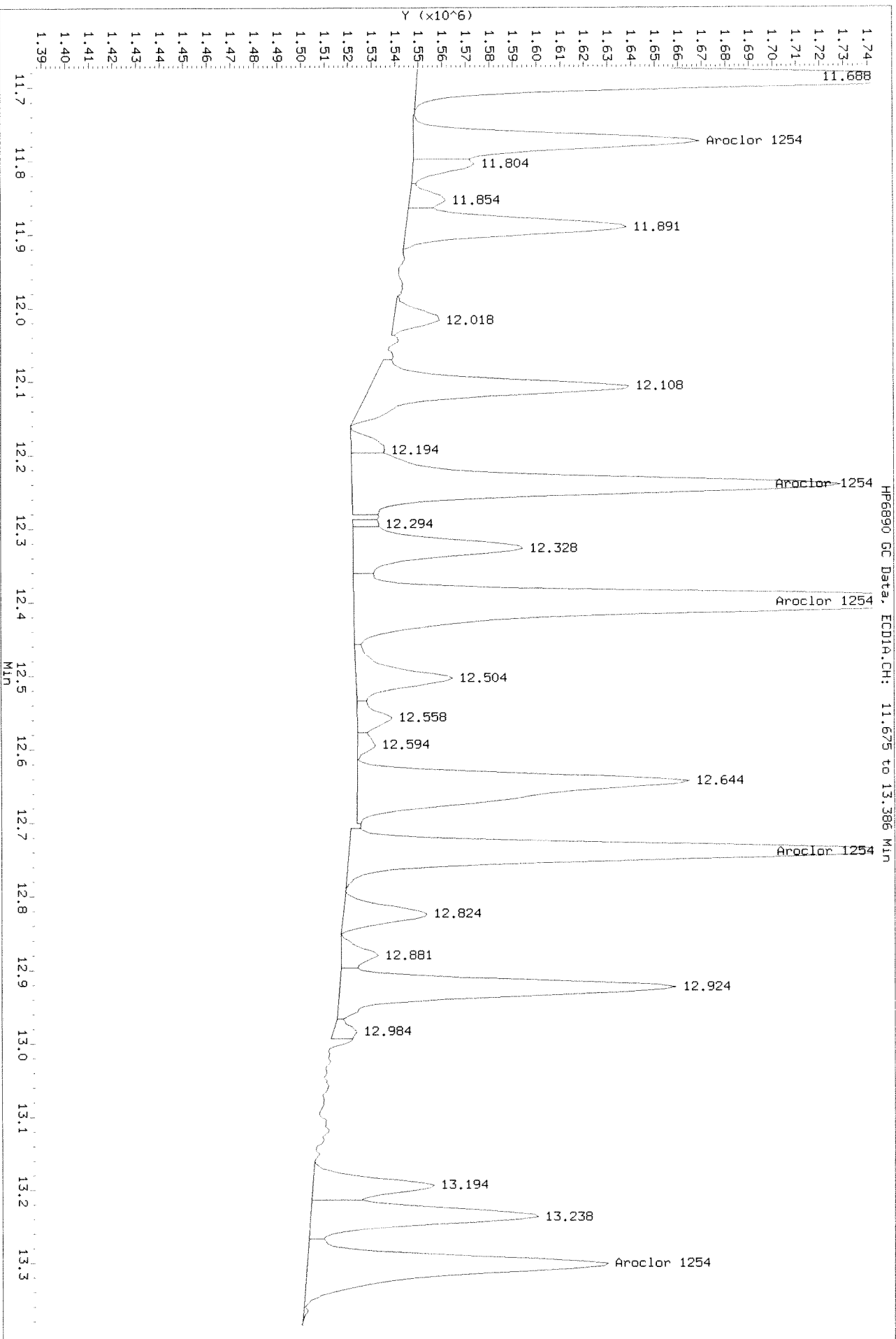
Column diameter: 0.32

\\alkisus002\inst\data\GC27\Data\090419ICAL_r.b\0904F015.D



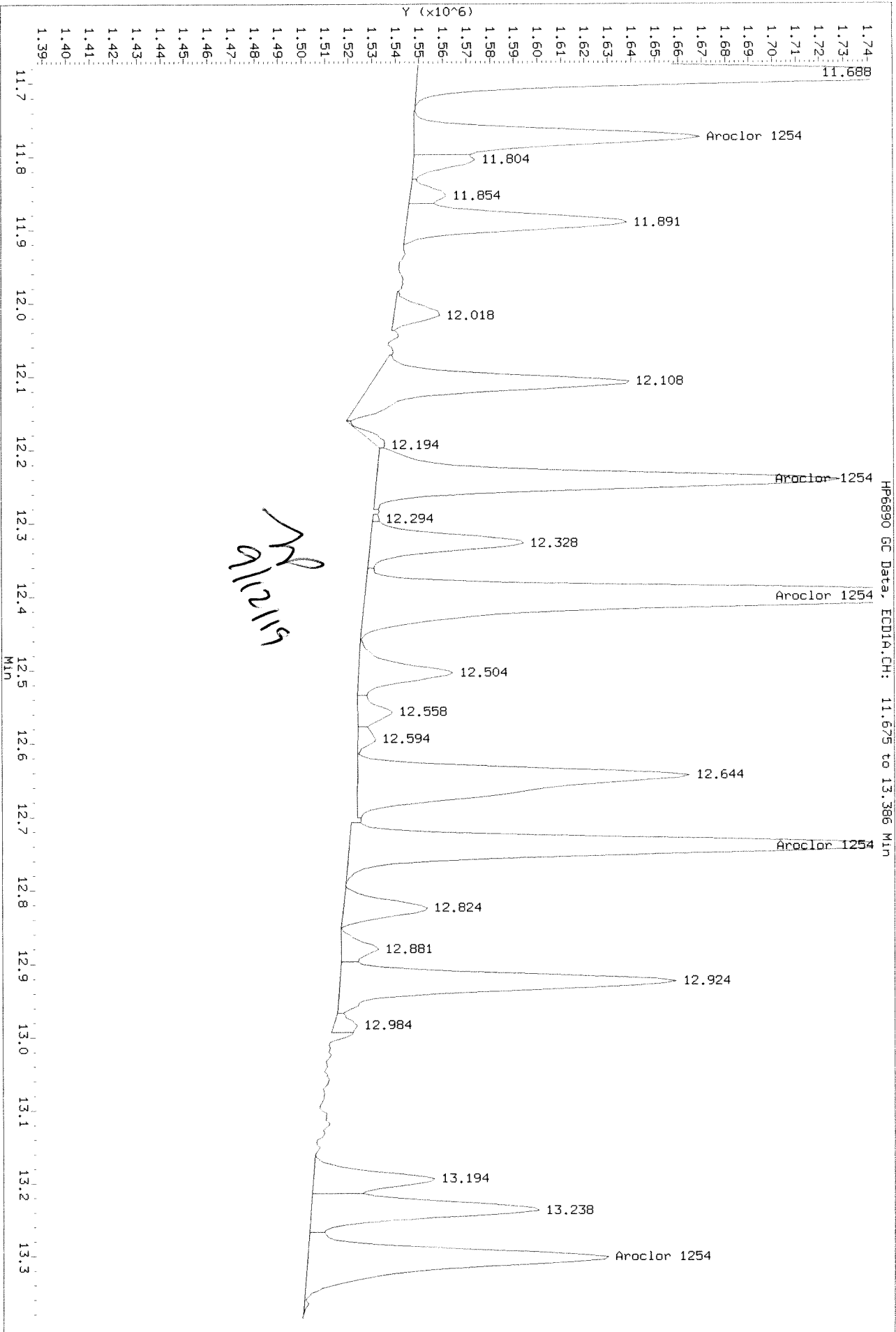
Data File: \\alklms002\instdata\GC27\Data\090419ICAL.P\0904F015.D
Injection Date: 04-SEP-2019 23:48
Instrument: GC27.1
Client Sample ID:

Before



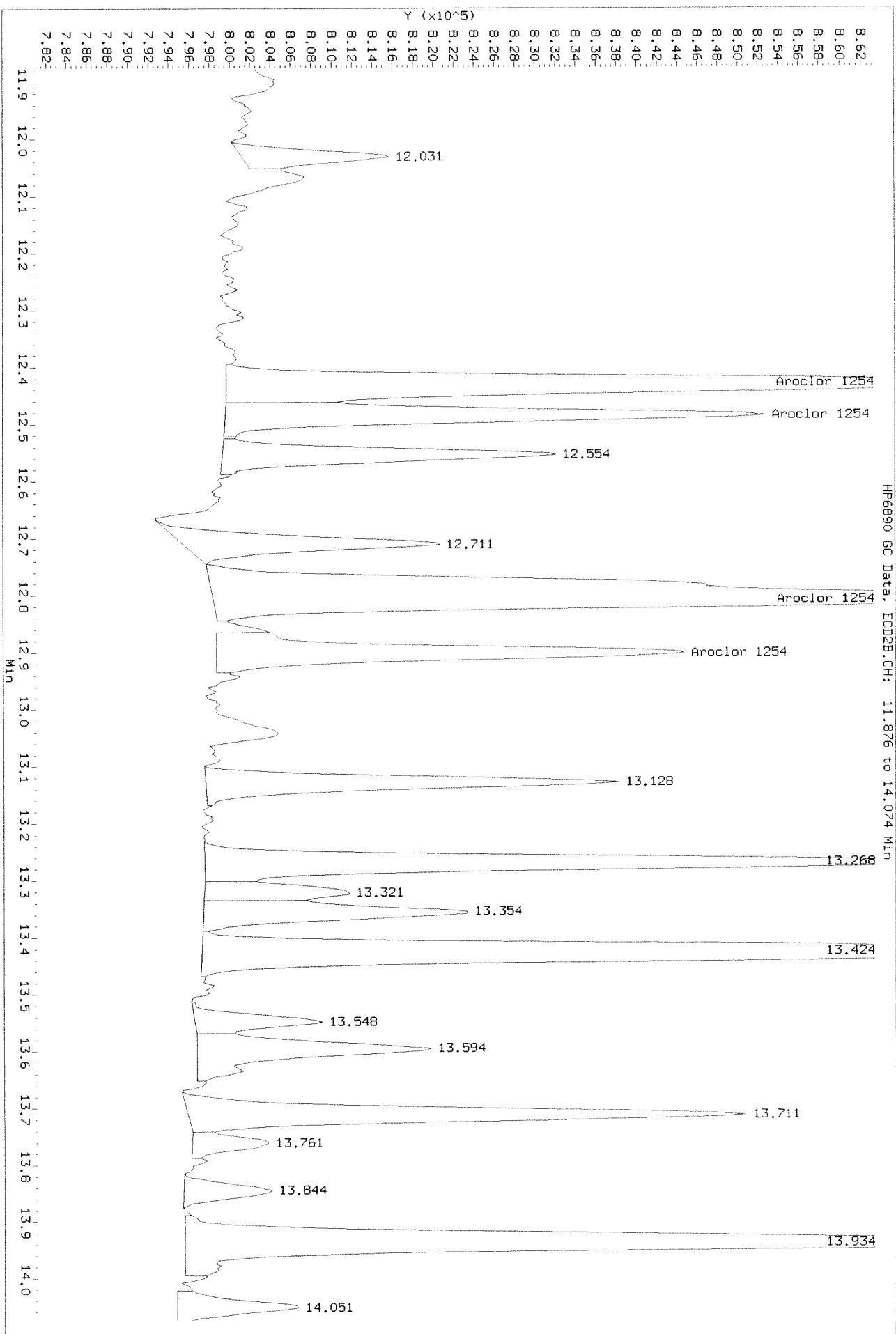
Data File: \\alkisw002\instdata\GC27\Data\090419ICAL.b\0904F015.D
Injection Date: 04-SEP-2019 23:48
Instrument: GC27.1
Client Sample ID:

After base line 9/11/19 A



Data File: \\alkisw002\instdata\GC27\Data\090419ICL_r.b\0904f015.D
Injection Date: 04-SEP-2019 23:48
Instrument: GC27.1
Client Sample ID:

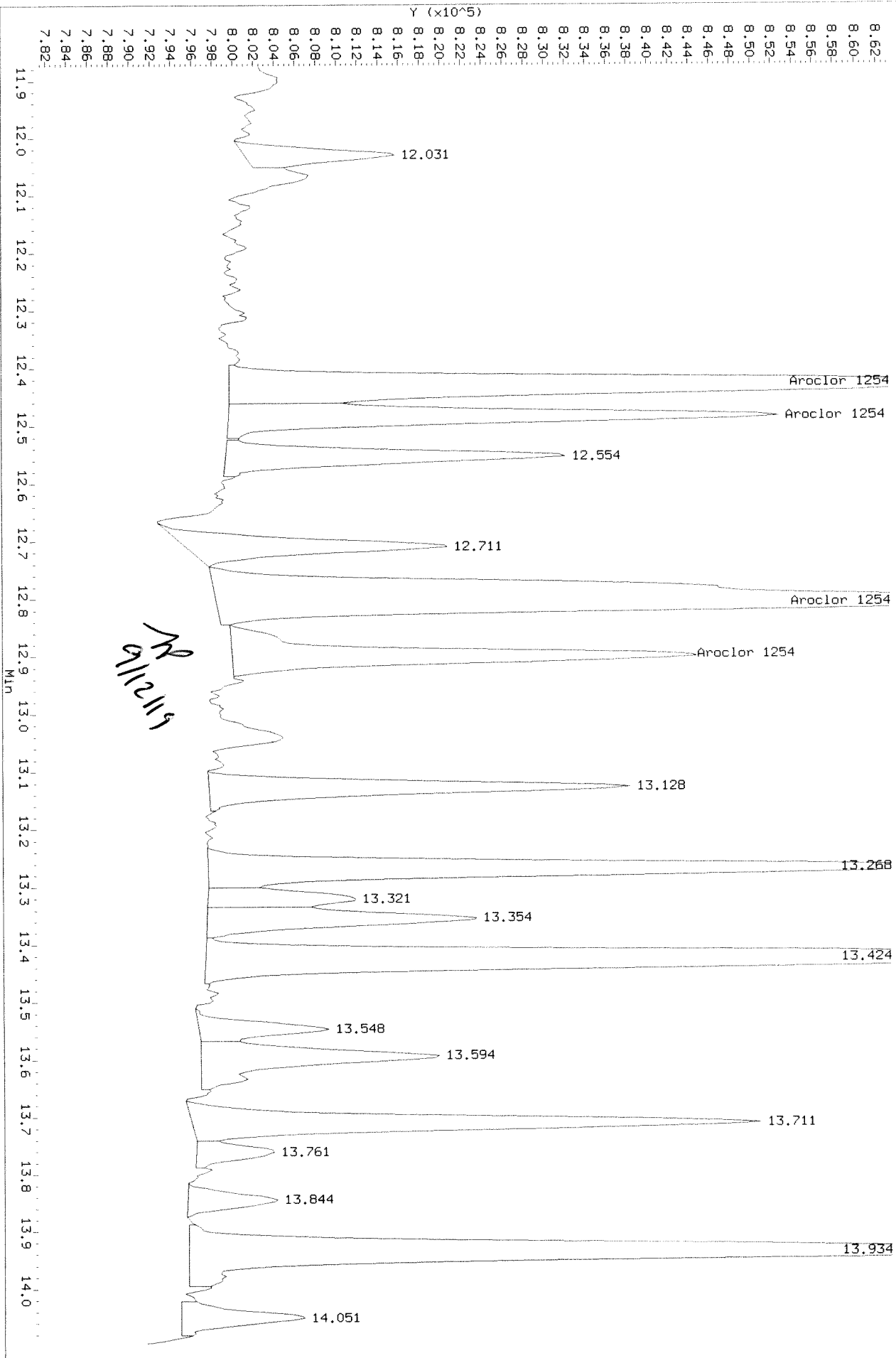
Before



Data File: \\alk1swe002\inetdata\GC27\Data\090419ICAL_r.b\0904F015.D
Injection Date: 04-SEP-2019 23:48
Instrument: GC27.1
Client Sample ID:

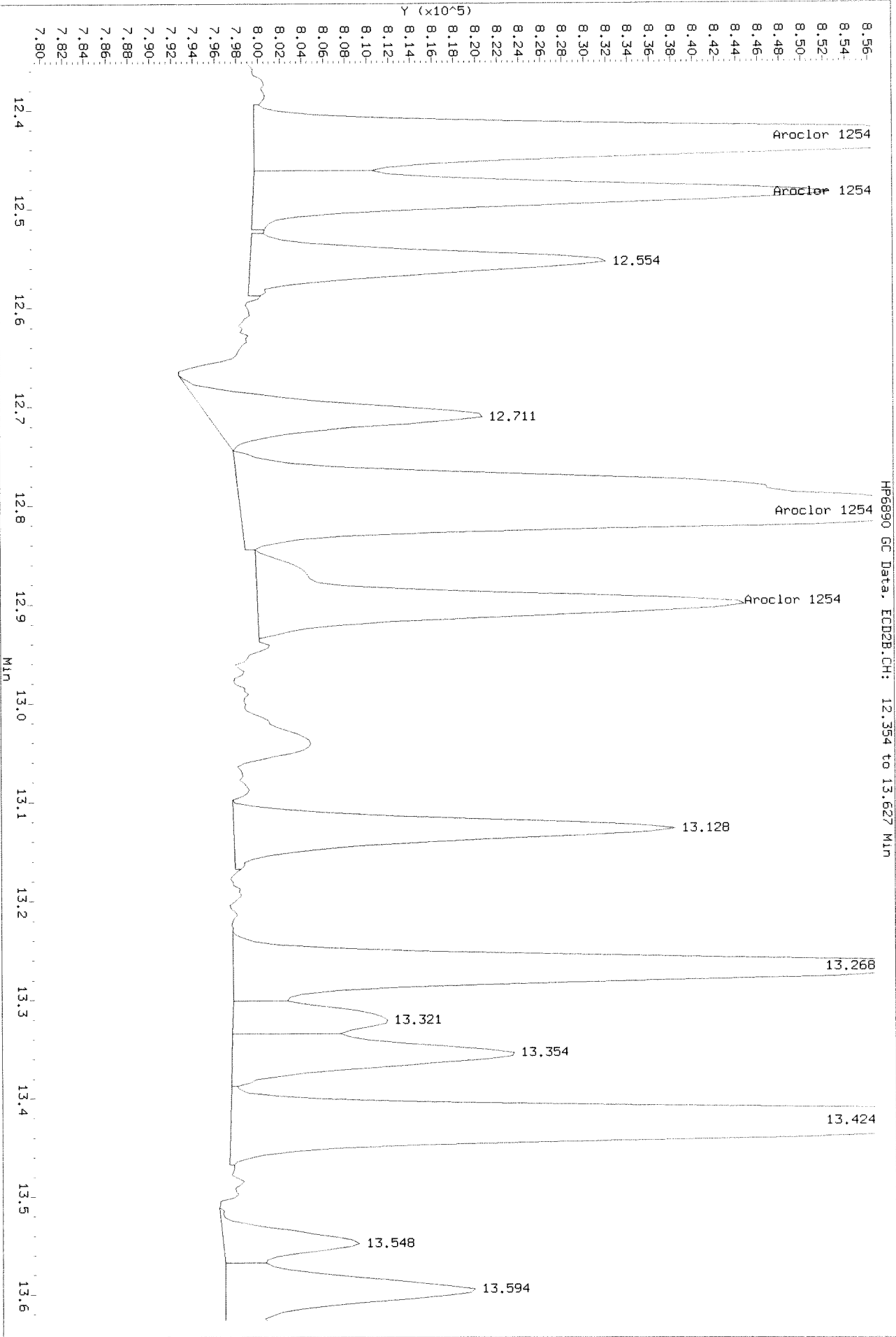
HP6890 GC Data, ECD2B.CH: 11.877 to 14.095 MIN

After baseline 9/11/19 SA



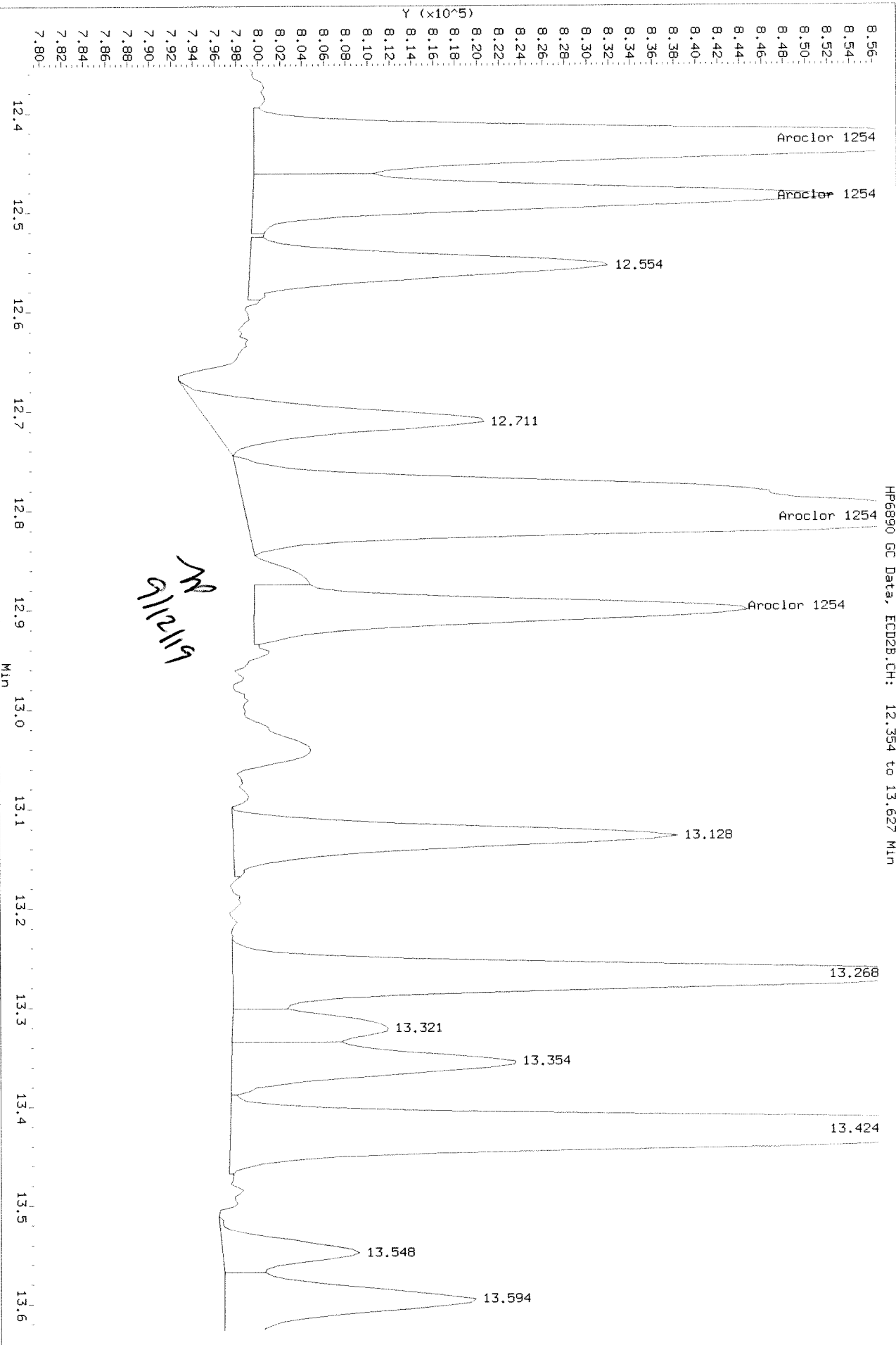
Data File: \\alkisw002\instdata\GC27\Data\090419ICALL_r.b\0904F015.D
Injection Date: 04-SEP-2019 23:48
Instrument: GC27.1
Client Sample ID:

Before



Data File: \\alklsws002\instdata\GC27\Data\090419ICL-r.b\0904F015.D
Injection Date: 04-SEP-2019 23:48
Instrument: GC27.1
Client Sample ID:

After Shoulder 9/11/19 A



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F016.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F016.D
Inj Date : 05-SEP-2019 00:20
Sample Info: PCB8-13D 2154 @ 10-20 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:37
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : 2154.sub
Sub List #2 : 2154.sub
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1221	7.657	8.824	490382	136448	21.3	21.0	80.00- 120.00	100.00
	7.894	8.981	309183	136520	21.1	21.2	50.93- 76.39	63.05
	8.057	9.168	1169089	560156	21.4	22.5	190.33- 285.49	238.40
	Average of Peak Amounts =				21.3	21.6		
Aroclor 1254	11.774	12.428	396281	372091	11.0	11.5	80.00- 120.00	100.00 (M)
	12.241	12.484	671346	195936	10.7	11.5	137.86- 206.79	169.41 (M)
	12.397	12.808	1334279	568132	10.8	11.5	268.82- 403.23	336.70 (M)
	12.741	12.901	807284	172519	11.1	11.2	164.76- 247.13	203.72 (M)
	13.304	14.374	503361	276693	11.0	11.4	106.40- 159.60	127.02 (M)
	Average of Peak Amounts =				10.9	11.4		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
W

Data File: \\a1k1sws002\instdata\GC27\Data\090419ICL.b\0904F016.D

Date : 05-SEP-2019 00:20

Client ID:

Sample Info: PCB8-13D 2154 @ 10-20 PPB

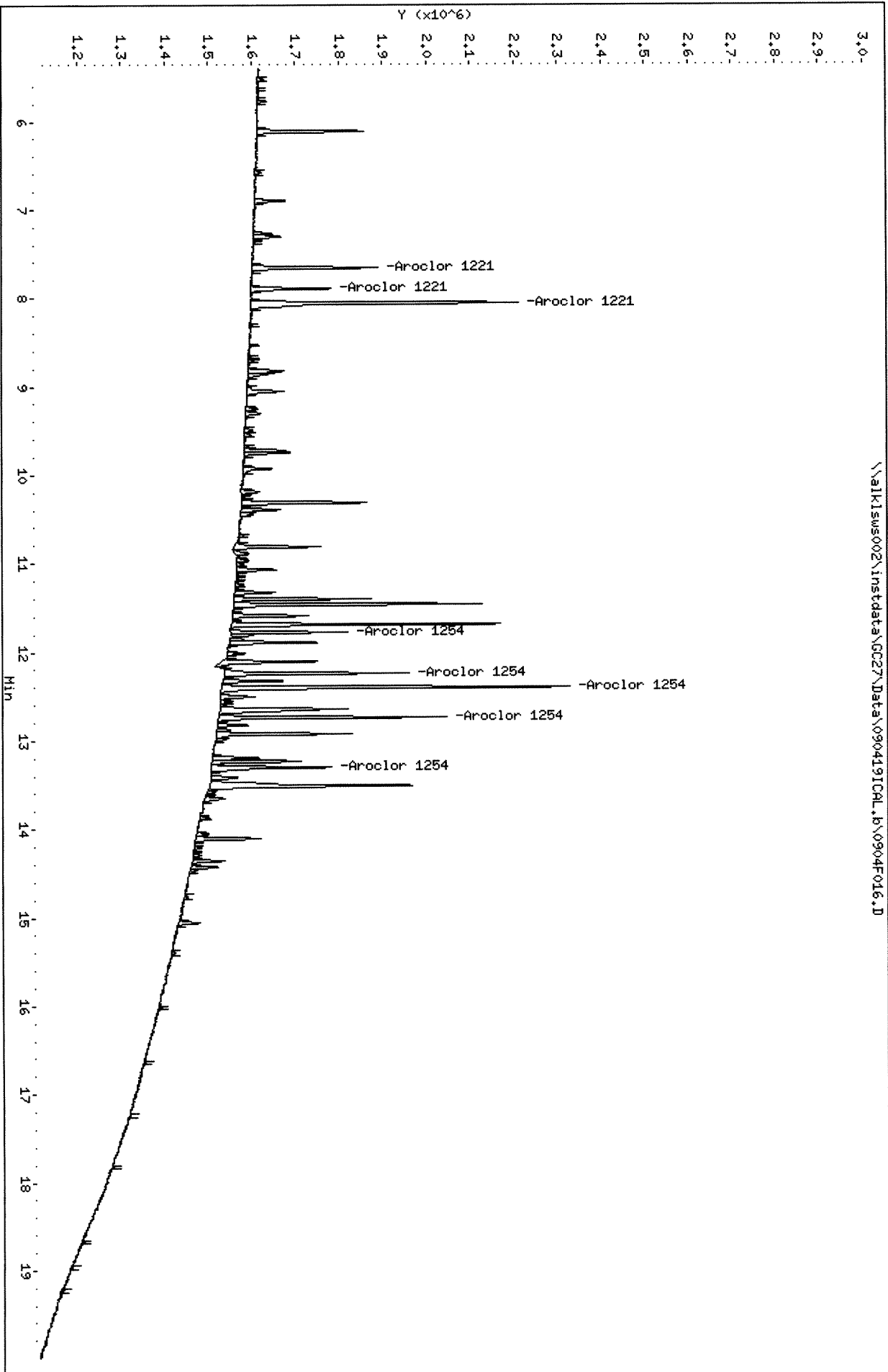
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\a1k1sws002\instdata\GC27\Data\090419ICL.b\0904F016.D



Data File: \\aik1s002\instdata\GC27\Data\090419ICL_r_b\0904F016.D
Date: 05-SEP-2019 00:20

Client ID:

Sample Info: PCB8-13D 2154 @ 10-20 PPB

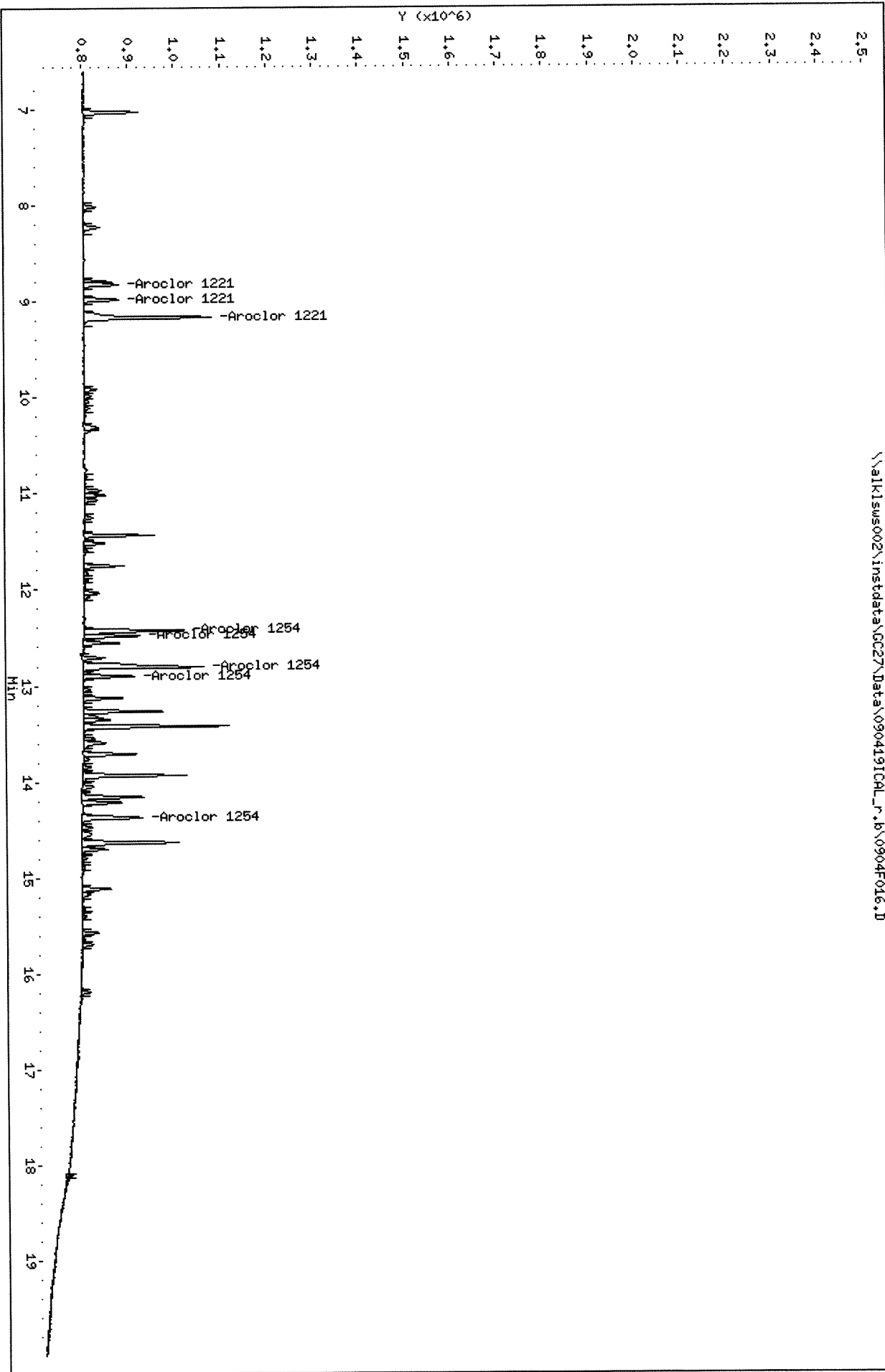
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAH

Column diameter: 0.32

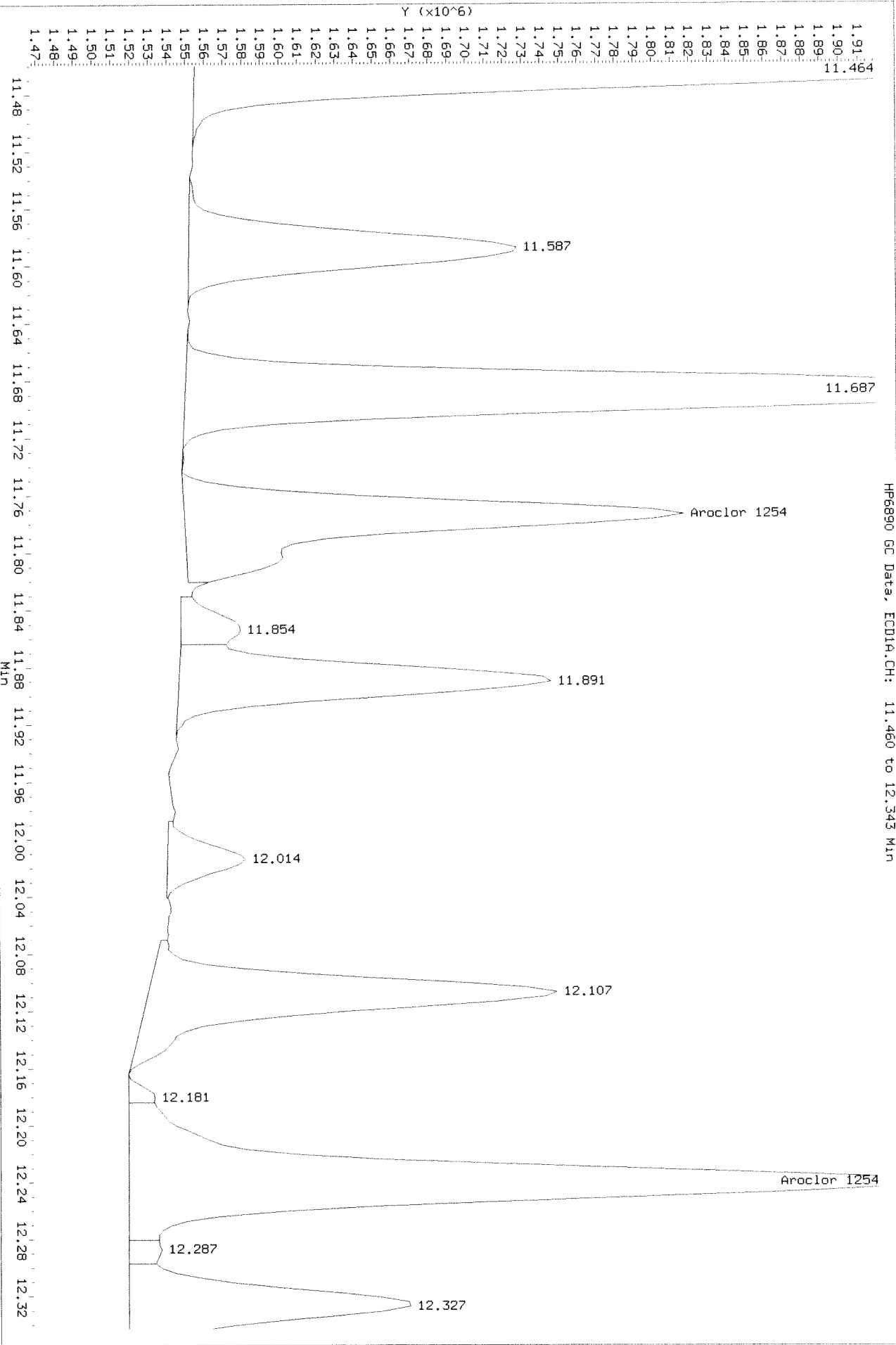
\\aik1s002\instdata\GC27\Data\090419ICL_r_b\0904F016.D



Data File: \\alklms002\instdata\GC27\Data\090419ICAL.P\0904F016.D
Injection Date: 05-SEP-2019 00:20
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 11.460 to 12.343 MIN

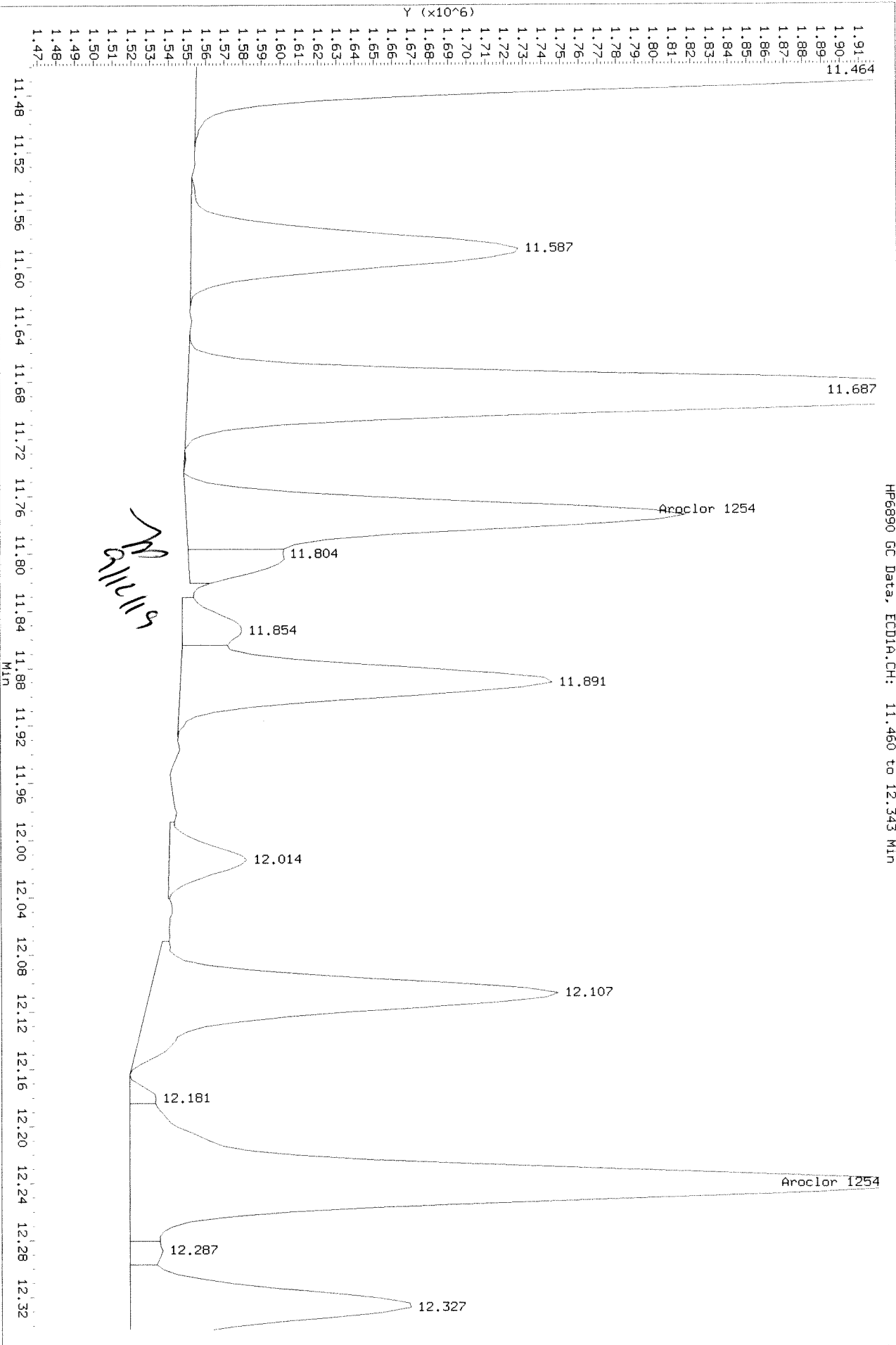
De fare 9/11/19 SA



Data File: \\alklsws002\instdata\GC27\Data\090419ICDL.b\0904F016.D
Injection Date: 05-SEP-2019 00:20
Instrument: GC27.1
Client Sample ID:

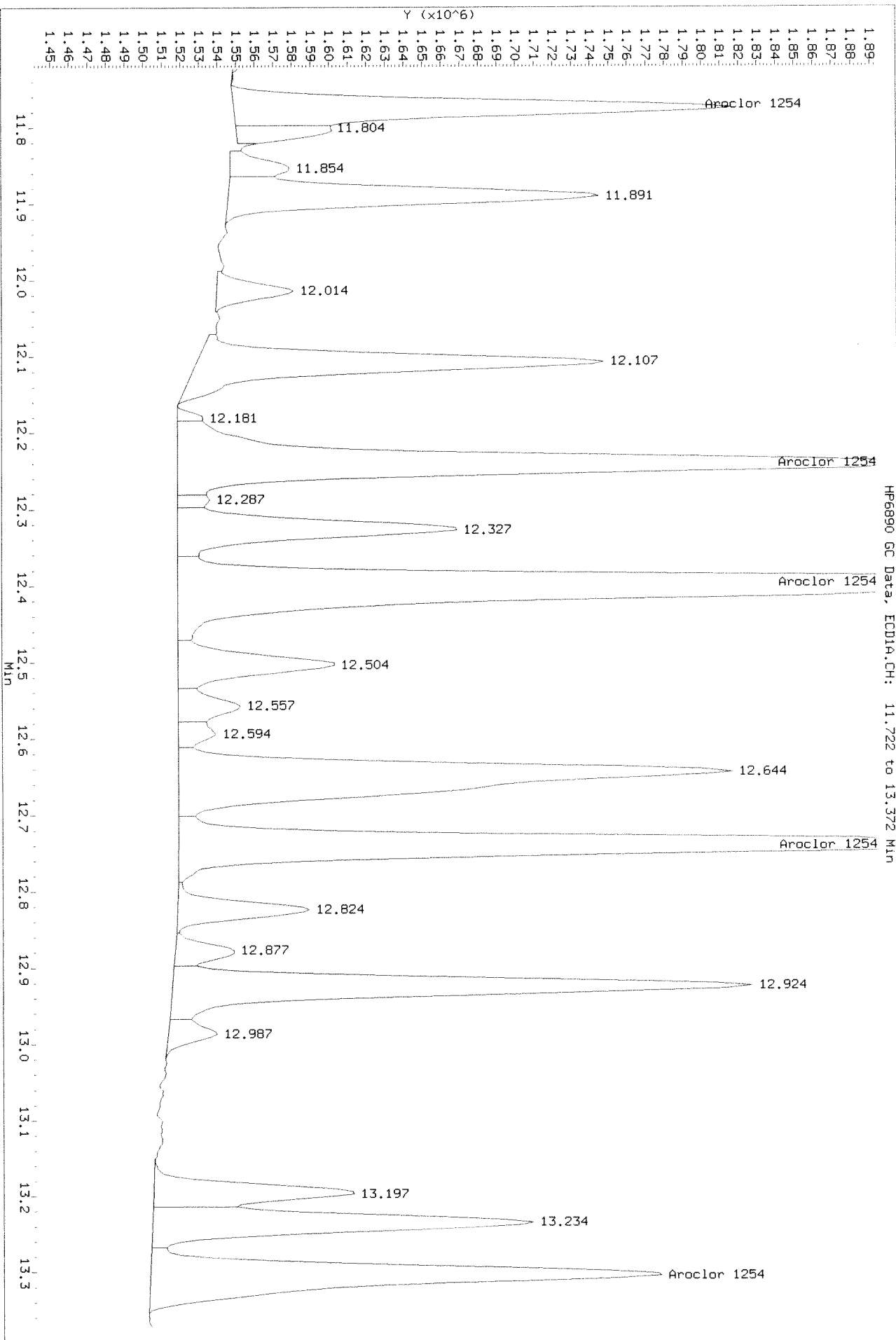
HP6890 GC Data, ECD1A.CH: 11.460 to 12.343 MIN

After Shaker 9/11/19 SA



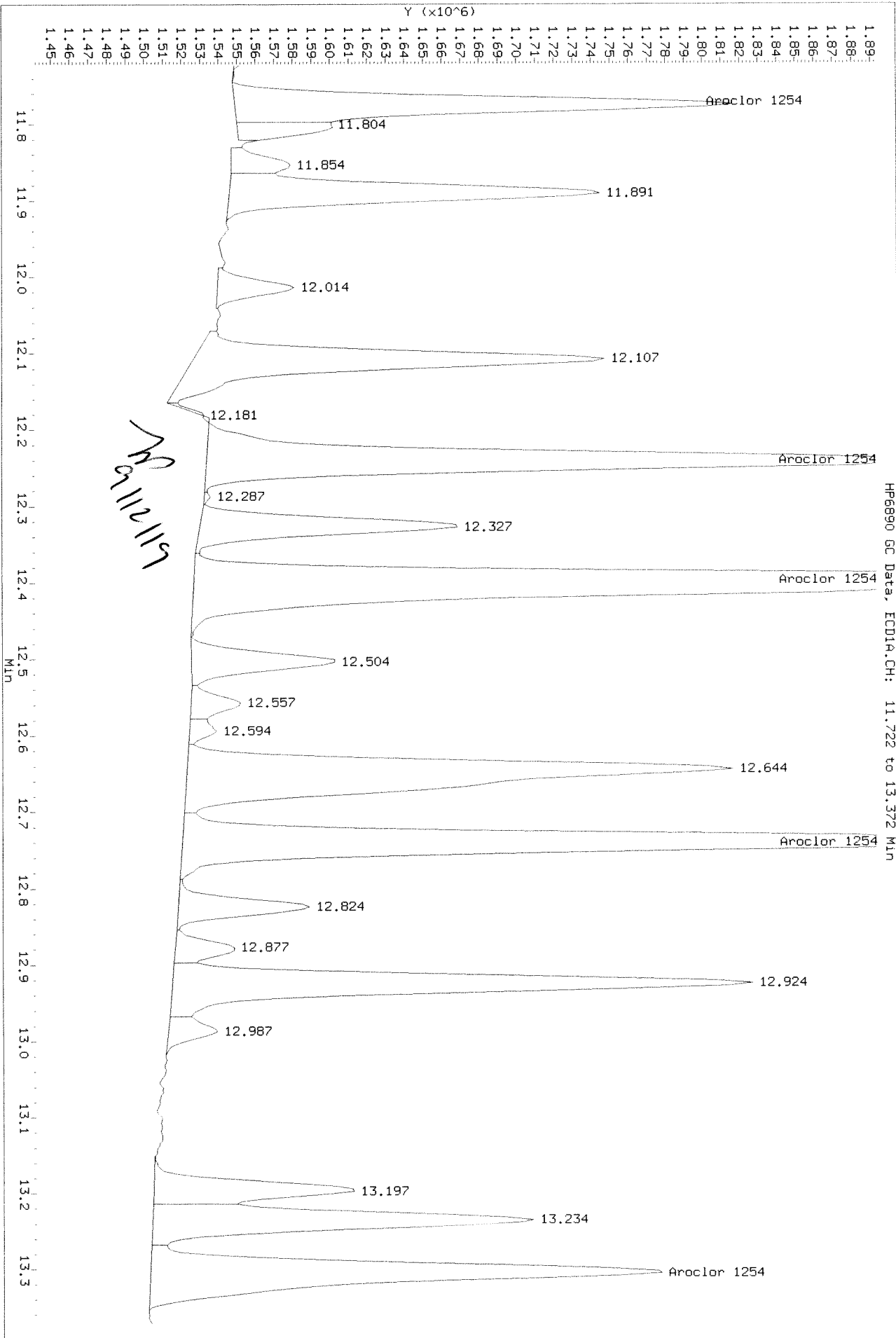
Data File: \\alkisw002\instdata\GC27\Data\090419ICAL.b\0904F016.D
Injection Date: 05-SEP-2019 00:20
Instrument: GC27.1
Client Sample ID:

Before 9/11/19 A



Data File: \\alkisw002\instdata\GC27\Data\090419ICDL.b\0904F016.D
Injection Date: 05-SEP-2019 00:20
Instrument: GC27.1
Client Sample ID:

After baseline 9/11/19



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F017.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F017.D
 Inj Date : 05-SEP-2019 00:51
 Sample Info: PCB7-91E 2154 @ 20-40 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 2154.sub
 Sub List #2 : 2154.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1221	7.656	8.826	885668	267185	38.4	41.1	80.00- 120.00	100.00 (M)
	7.892	8.979	569615	263336	38.9	40.8	50.93- 76.39	64.31 (M)
	8.056	9.166	2128430	1027367	38.9	41.3	190.33- 285.49	240.32 (M)
	Average of Peak Amounts =				38.7	41.1		
Aroclor 1254	11.776	12.429	690894	655289	19.1	20.3	80.00- 120.00	100.00 (M)
	12.242	12.482	1166368	357269	18.6	21.0	137.86- 206.79	168.82 (M)
	12.399	12.806	2298648	993369	18.6	20.1	268.82- 403.23	332.71 (M)
	12.739	12.899	1367151	309841	18.7	20.2	164.76- 247.13	197.88 (M)
	13.302	14.372	892892	468216	19.6	19.3	106.40- 159.60	129.24 (M)
Average of Peak Amounts =				18.9	20.2			

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
 W

Data File: \\alklsws002\instdata\GC27\Data\090419ICQL.b\0904F017.D
Date : 05-SEP-2019 00:51

Client ID:

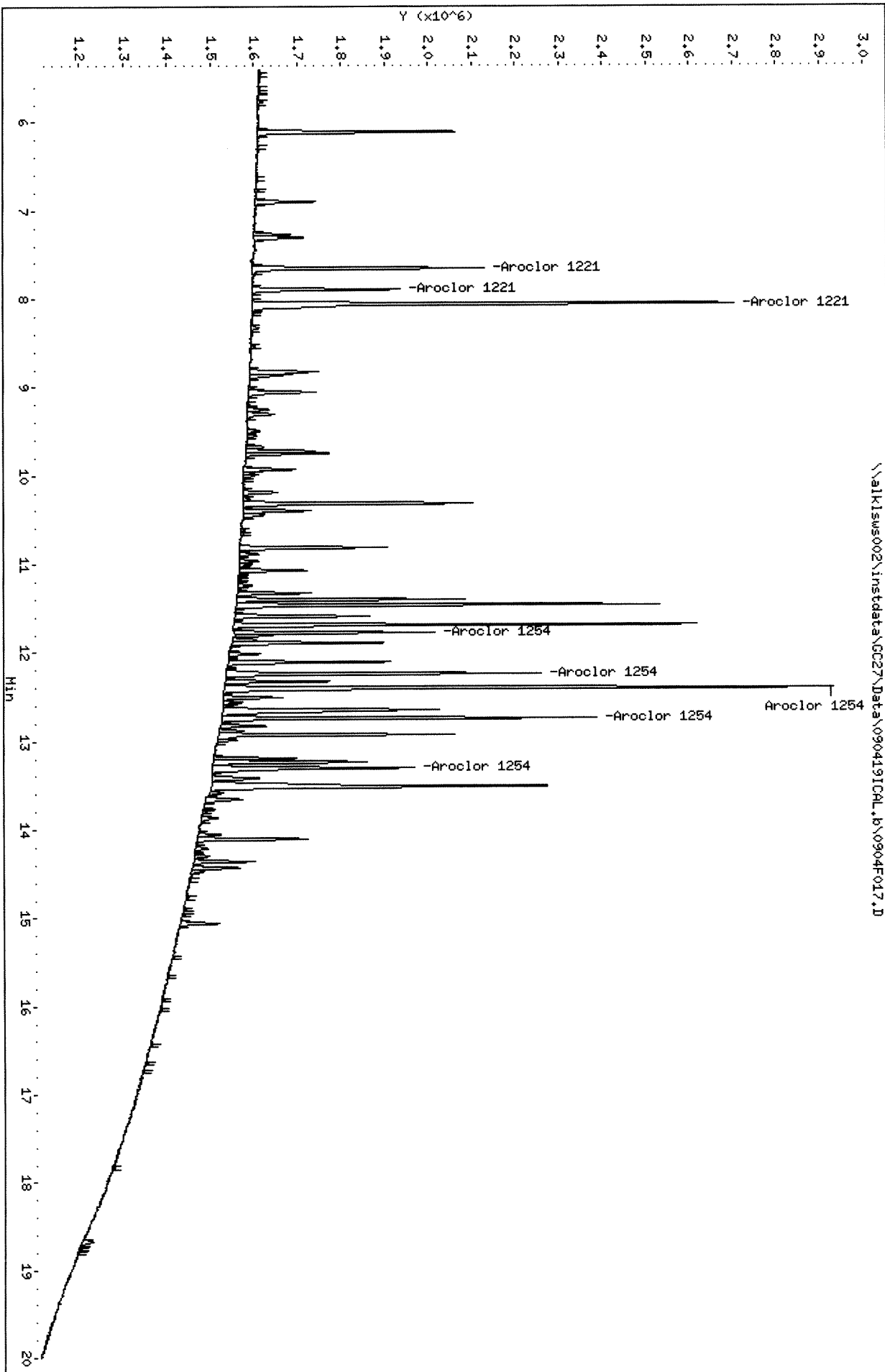
Sample Info: PCB7-91E 2154 @ 20-40 PPB

Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Data File: \\alkl1sus002\instdata\GC27\Data\090419ICL_r.b\0904F017.D
Date : 05-SEP-2019 00:51

Client ID:

Sample Info: PCB7-91E 2154 @ 20-40 PPB

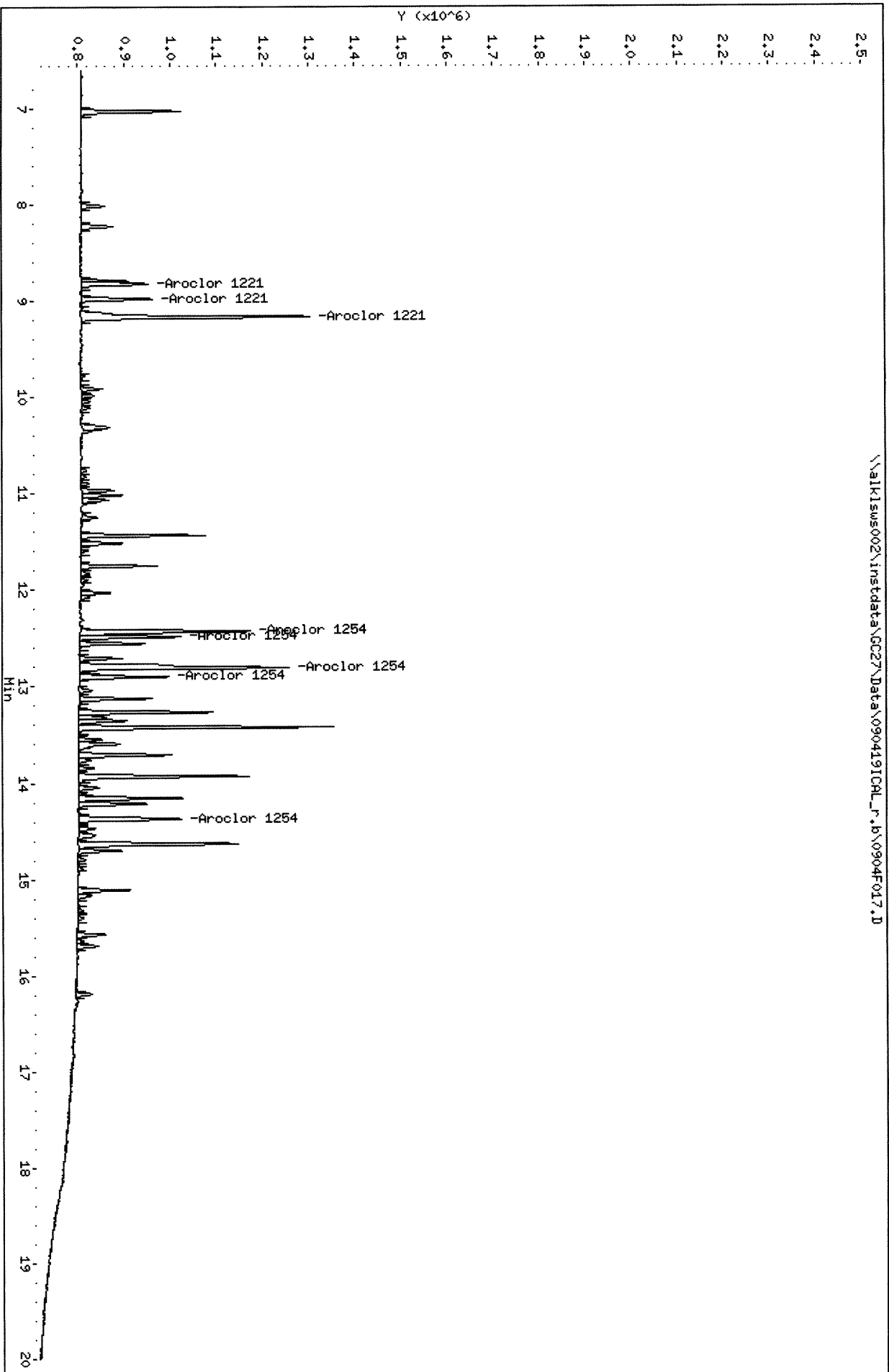
Column phase: DB-XLB

Instrument: GC27.i

Operator: S99

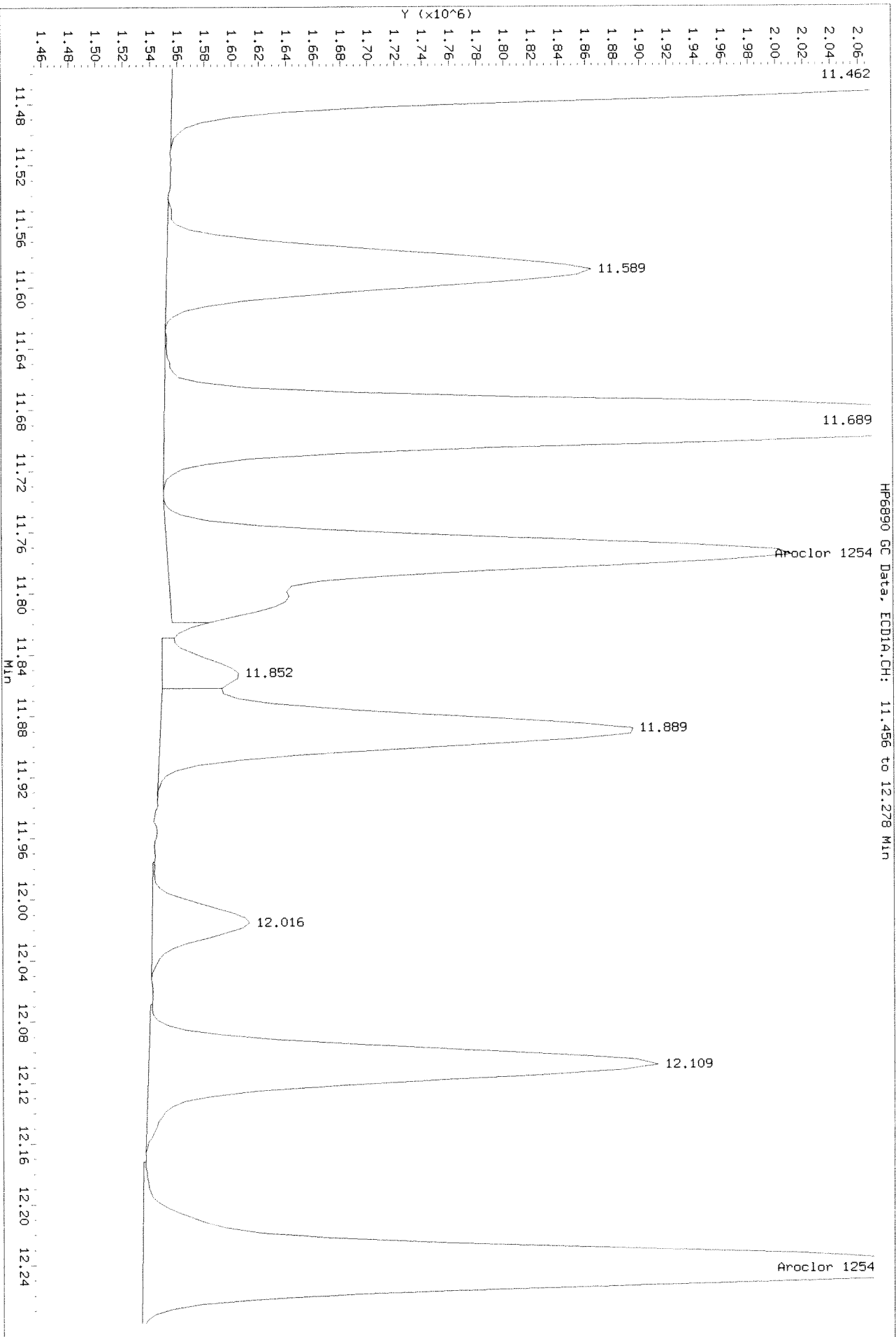
Column diameter: 0.32

\\alkl1sus002\instdata\GC27\Data\090419ICL_r.b\0904F017.D



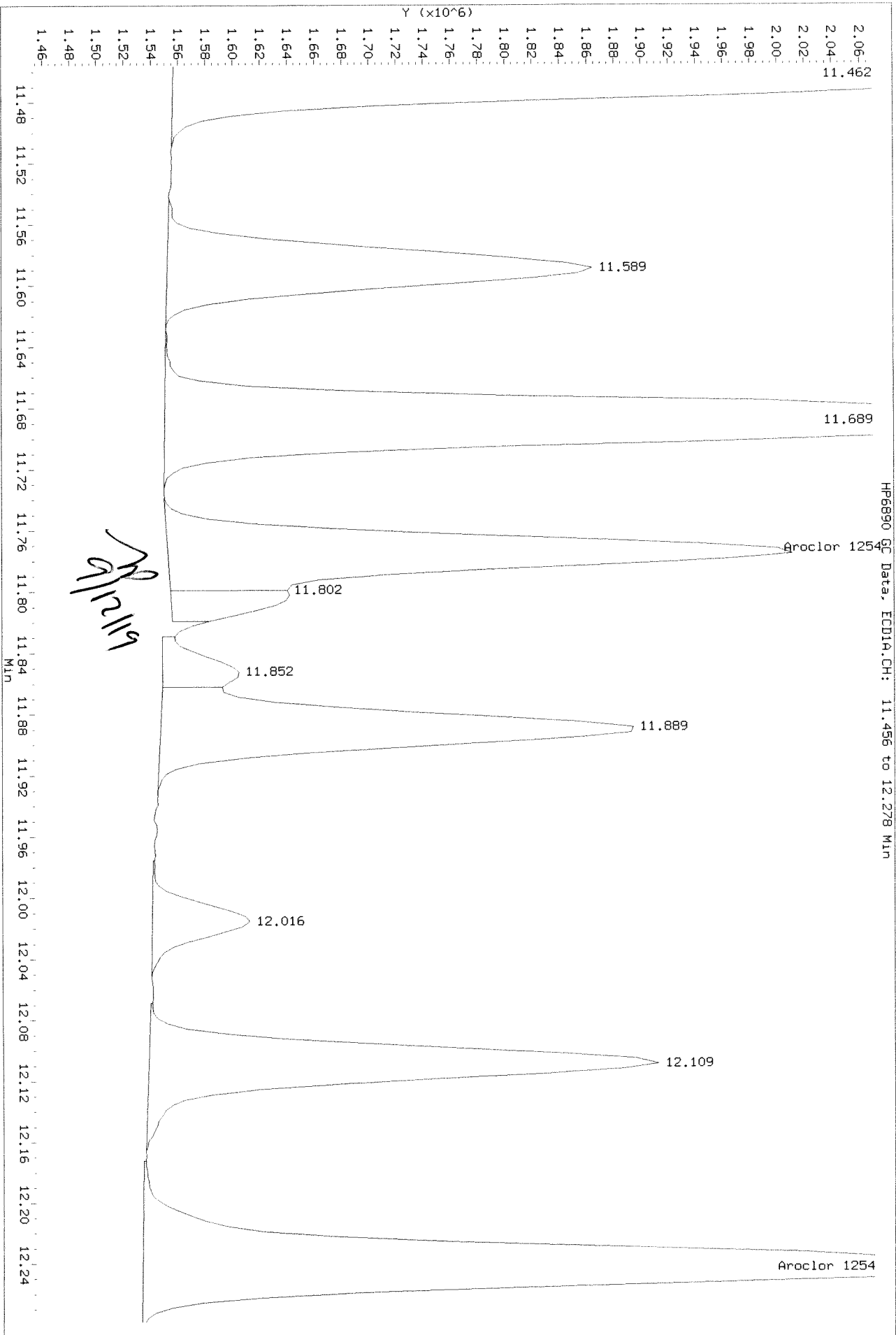
Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F017.D
Injection Date: 05-SEP-2019 00:51
Instrument: GC27.1
Client Sample ID:

Before



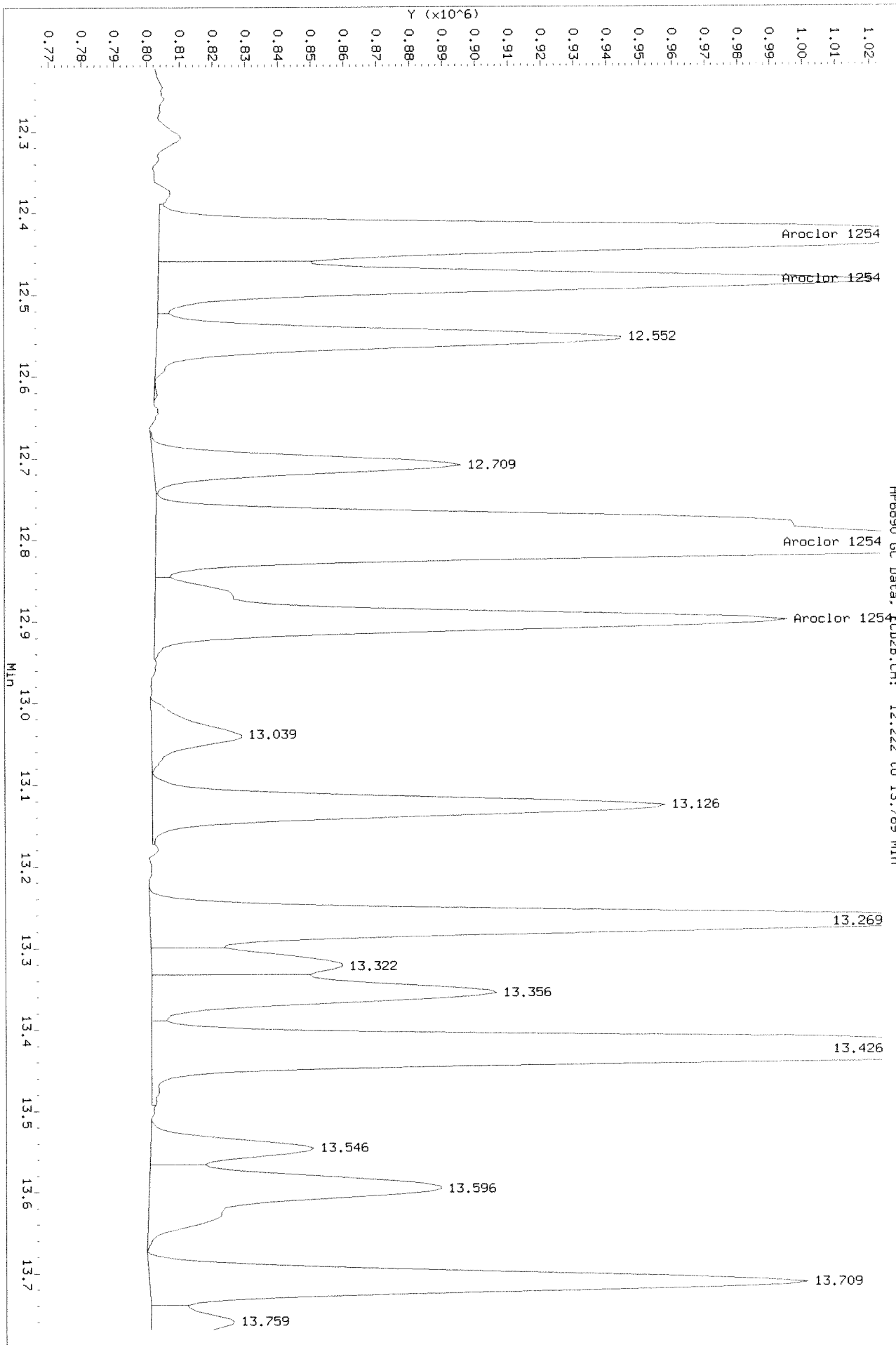
Data File: \\alk1sws002\instdata\GC27\Data\090419ICDL.b\0904F017.D
Injection Date: 05-SEP-2019 00:51
Instrument: GC27.1
Client Sample ID:

After shoulder 9/11/19 SA



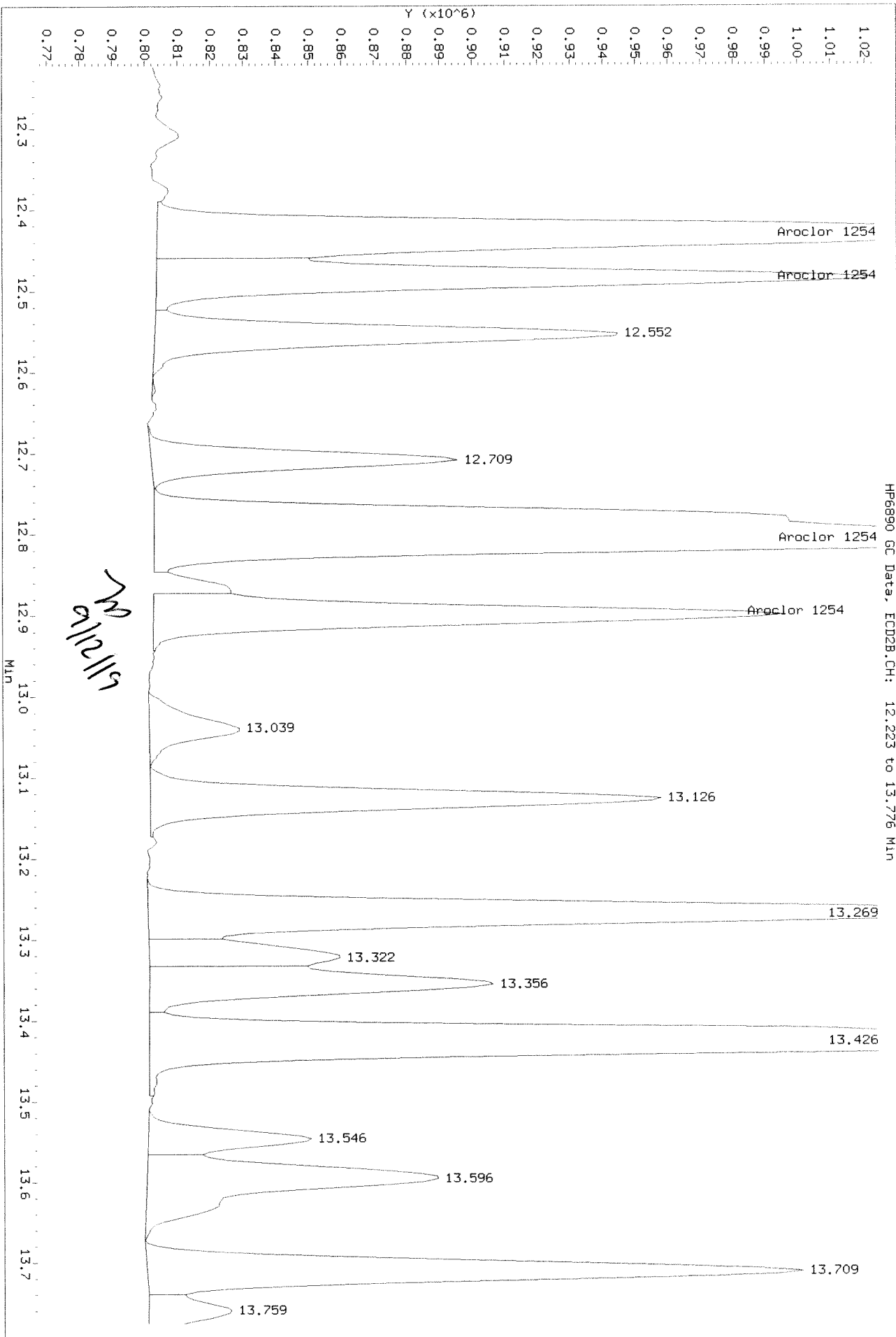
Data File: \\alklsws002\instdata\GC27\Data\090419ICL-r.b\09041917.D
Injection Date: 05-SEP-2019 00:51
Instrument: GC27.1
Client Sample ID:

Before



Data File: \\alk1sew002\instdata\GC27\Data\090419ICAL_r_b\0904F017.D
Injection Date: 05-SEP-2019 00:51
Instrument: GC27.1
Client Sample ID:

After shoulder 9/11/19 SA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F018.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F018.D
 Inj Date : 05-SEP-2019 01:23
 Sample Info: PCB7-91F 2154 @ 50-100 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 2154.sub
 Sub List #2 : 2154.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1221	7.654	8.824	2042183	626054	88.6	96.3	80.00- 120.00	100.00
	7.894	8.980	1299977	635399	88.9	98.5	50.93- 76.39	63.66
	8.057	9.167	4897439	2347785	89.5	94.4	190.33- 285.49	239.81
	Average of Peak Amounts =				89.0	96.4		
Aroclor 1254	11.774	12.430	1596832	1507562	44.2	46.7	80.00- 120.00	100.00
	12.240	12.484	2739541	842019	43.8	49.6	137.86- 206.79	171.56
	12.400	12.807	5318614	2250085	43.1	45.6	268.82- 403.23	333.07
	12.740	12.900	3226215	738225	44.2	48.0	164.76- 247.13	202.04
	13.300	14.374	2075750	1101617	45.5	45.4	106.40- 159.60	129.99
Average of Peak Amounts =				44.2	47.1			

SA 9/11/19
 [Signature]

Data File: \\alk1sus002\instdata\GC27\Data\090419ICAL.b\0904F018.D

Date : 05-SEP-2019 01:23

Client ID:

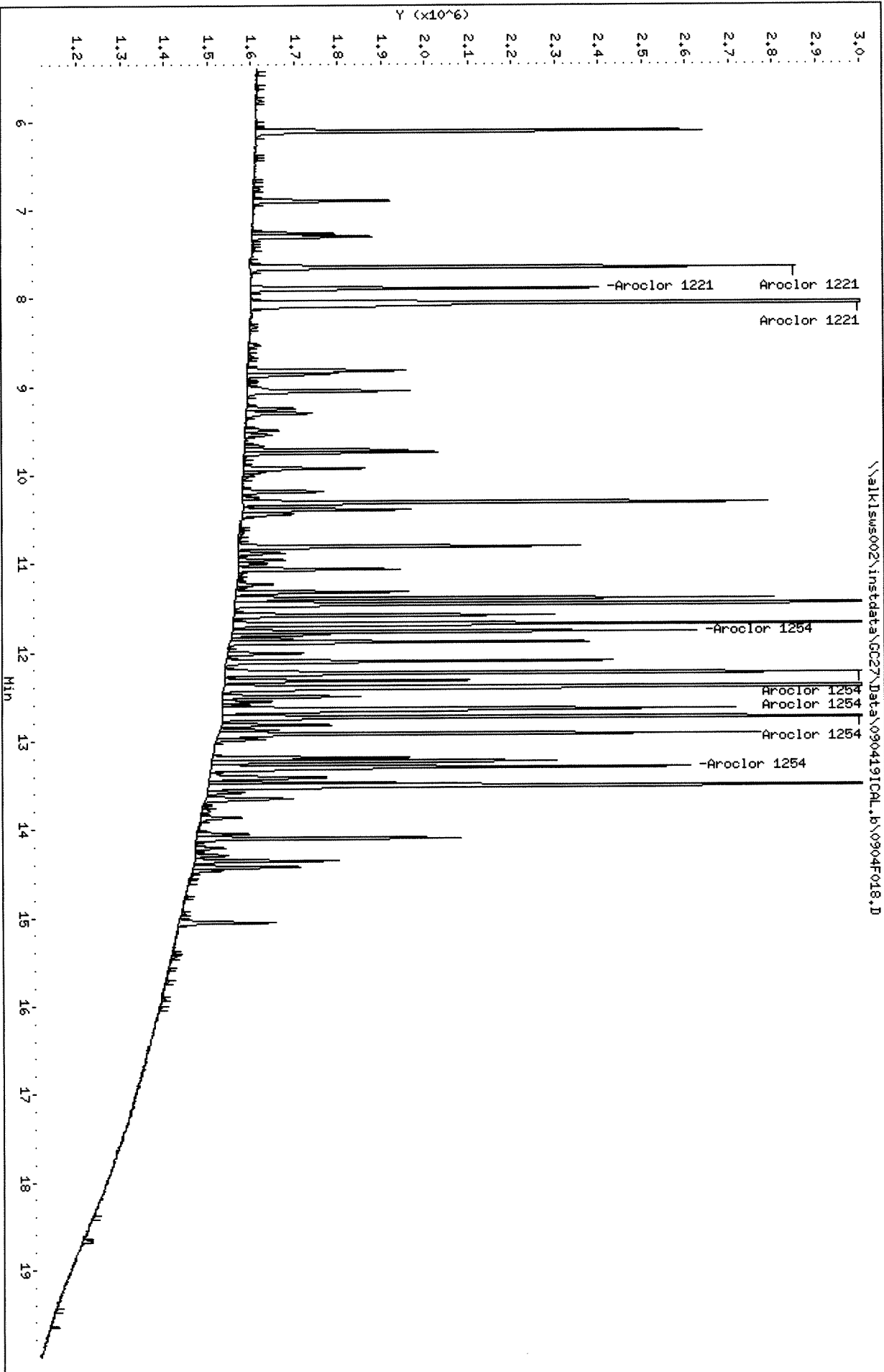
Sample Info: PCB7-9LF 2154 @ 50-100 PPS

Column phase: DB-35MS

Instrument: GC27.i

Operator: SPP

Column diameter: 0.32



Data File: \\alkisws002\instdata\GC27\Data\090419ICAL_r.b\0904F018.D

Date: 06-SEP-2019 01:23

Client ID:

Sample Info: PCB7-94F 2154 @ 50-100 PPB

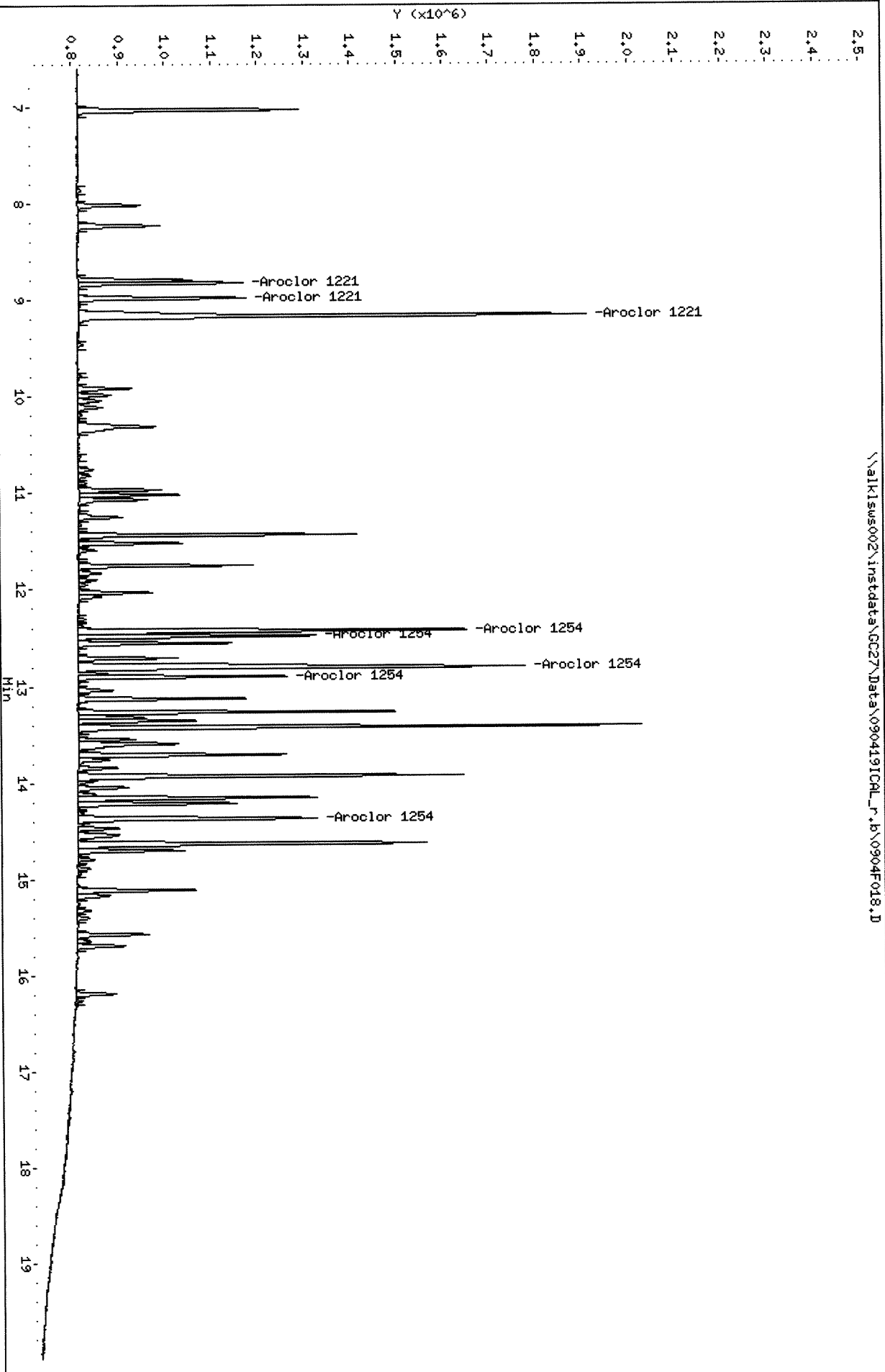
Column phase: DB-XLB

Instrument: GC27.i

Operator: SNA

Column diameter: 0.32

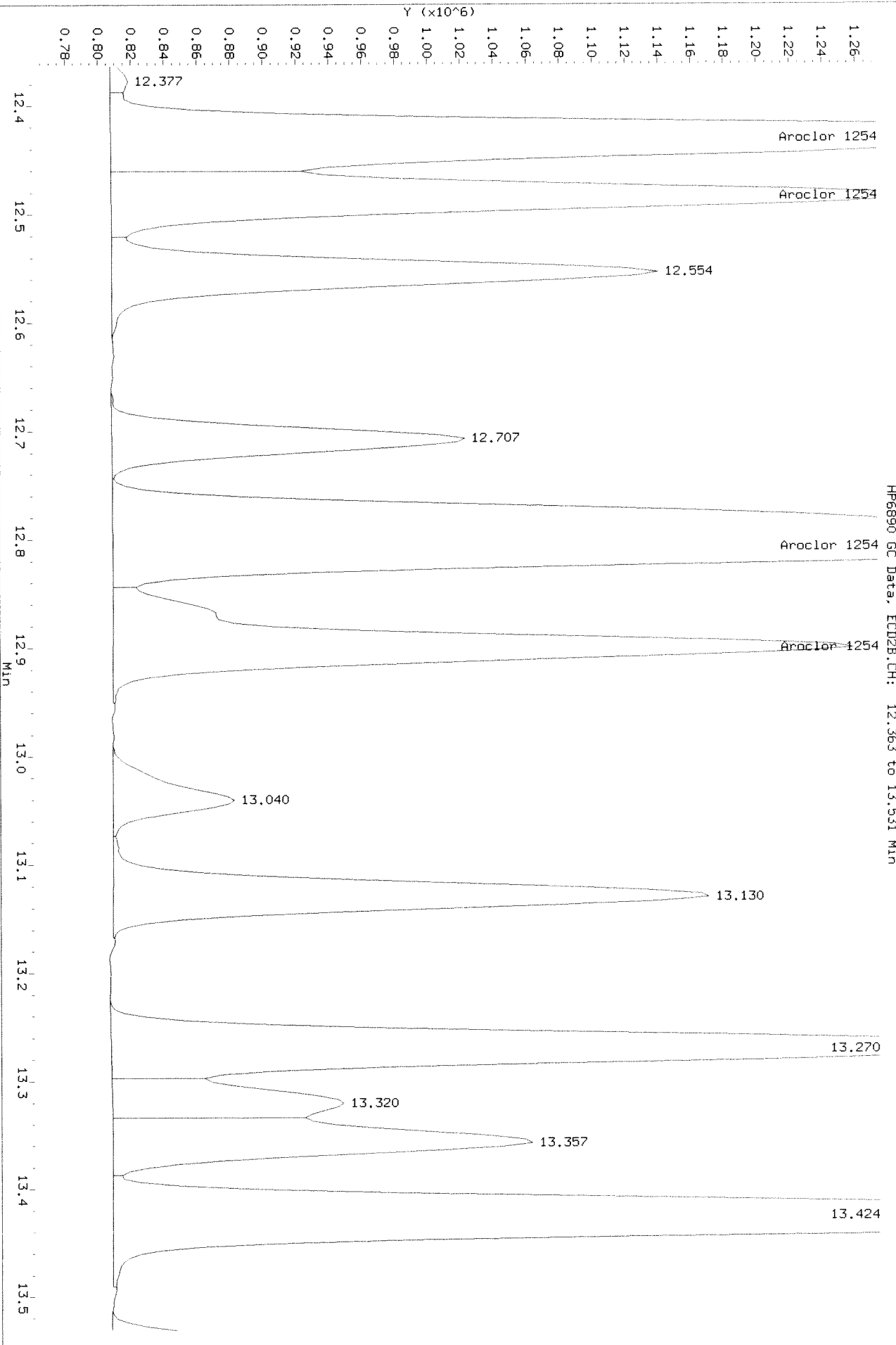
\\alkisws002\instdata\GC27\Data\090419ICAL_r.b\0904F018.D



Data File: \\alkisw002\instdata\GC27\Data\090419ICL_r_b\0904F018.D
Injection Date: 05-SEP-2019 01:23
Instrument: GC27.1
Client Sample ID:

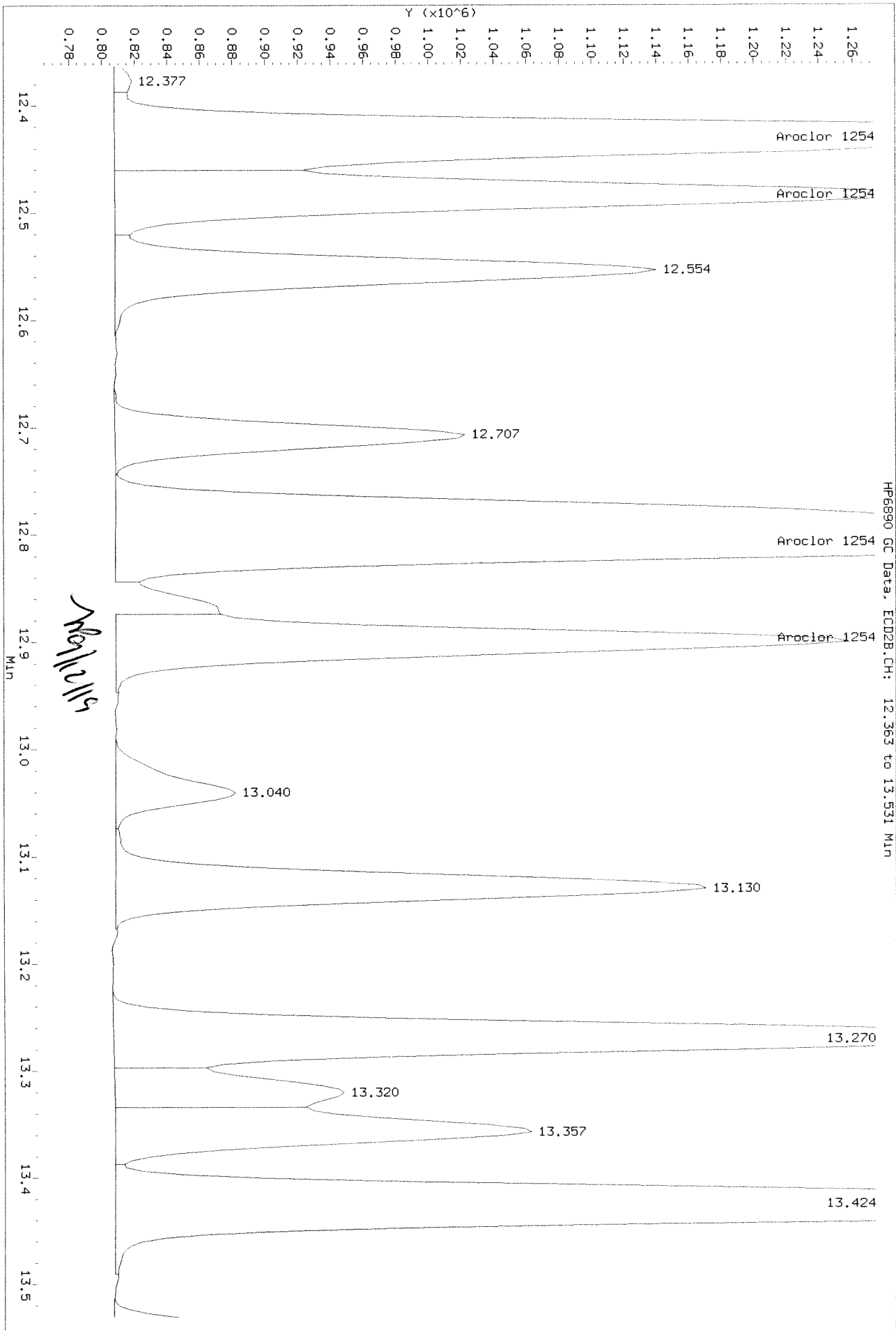
HP6890 GC Data, ECD2B.CH: 12.363 to 13.531 Min

Before



Data File: \\alklsw002\instdata\GC27\Data\090419ICHL_r.b\0904F018.D
Injection Date: 05-SEP-2019 01:23
Instrument: GC27.1
Client Sample ID:

After shoulder 9/11/19 SA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F019.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F019.D
 Inj Date : 05-SEP-2019 01:55
 Sample Info: PCB7-91G 2154 @ 100-200 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 2154.sub
 Sub List #2 : 2154.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1221	7.657	8.827	3947072	1235917	171	190	80.00- 120.00	100.00
	7.897	8.981	2526036	1232962	173	191	50.93- 76.39	64.00
	8.061	9.167	9409159	4326639	172	174	190.33- 285.49	238.38
	Average of Peak Amounts =				172	185		
Aroclor 1254	11.774	12.431	3063510	2745460	84.8	85.0	80.00- 120.00	100.00
	12.244	12.484	5318310	1601662	85.0	94.3	137.86- 206.79	173.60
	12.401	12.807	10300444	4097118	83.5	83.0	268.82- 403.23	336.23
	12.741	12.901	6342526	1403165	86.9	91.3	164.76- 247.13	207.03
	13.304	14.374	4046984	2066908	88.8	85.1	106.40- 159.60	132.10
	Average of Peak Amounts =				85.8	87.7		

SA 9/11/19
W

Data File: \\alkisws002\instdata\GC27\Data\090419ICL.b\0904F019.D

Date : 05-SEP-2019 01:55

Client ID:

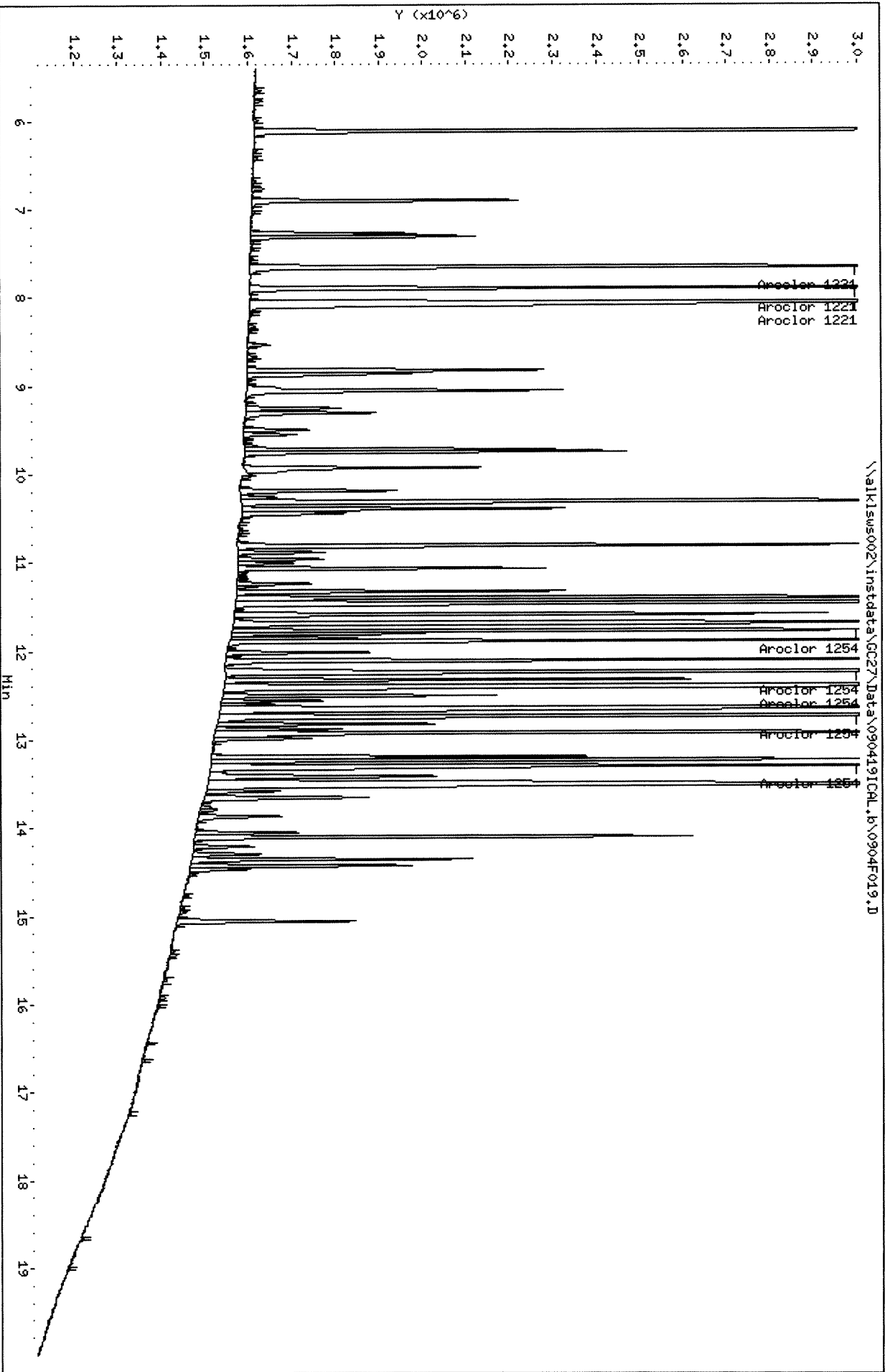
Sample Info: PCB7-91G 2154 @ 100-200 PPB

Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F019.D

Date: 05-SEP-2019 01:55

Client ID:

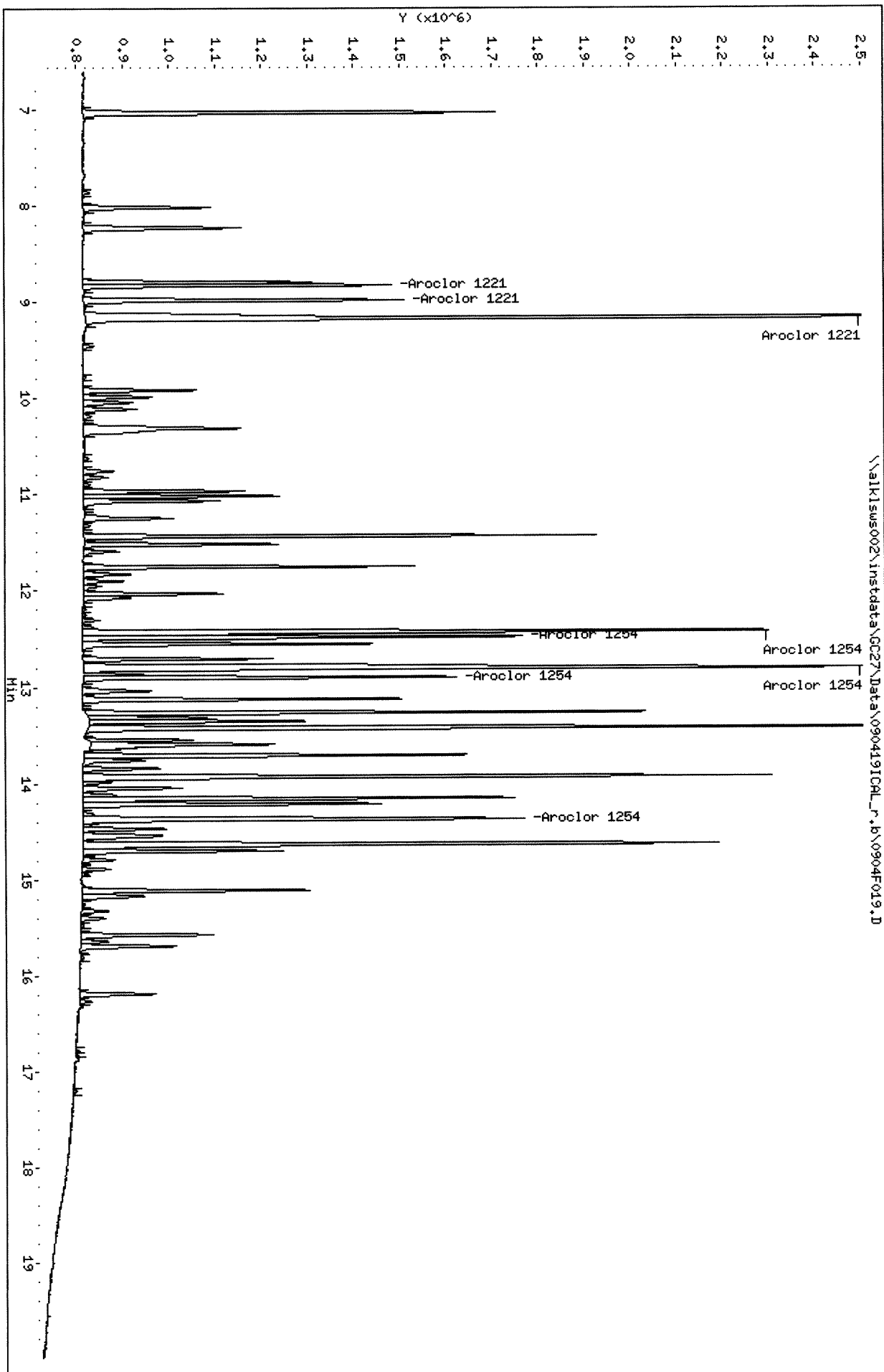
Sample Info: PCB7-91C 2154 @ 100-200 PPB

Column phase: DB-XLB

Instrument: GC27.i

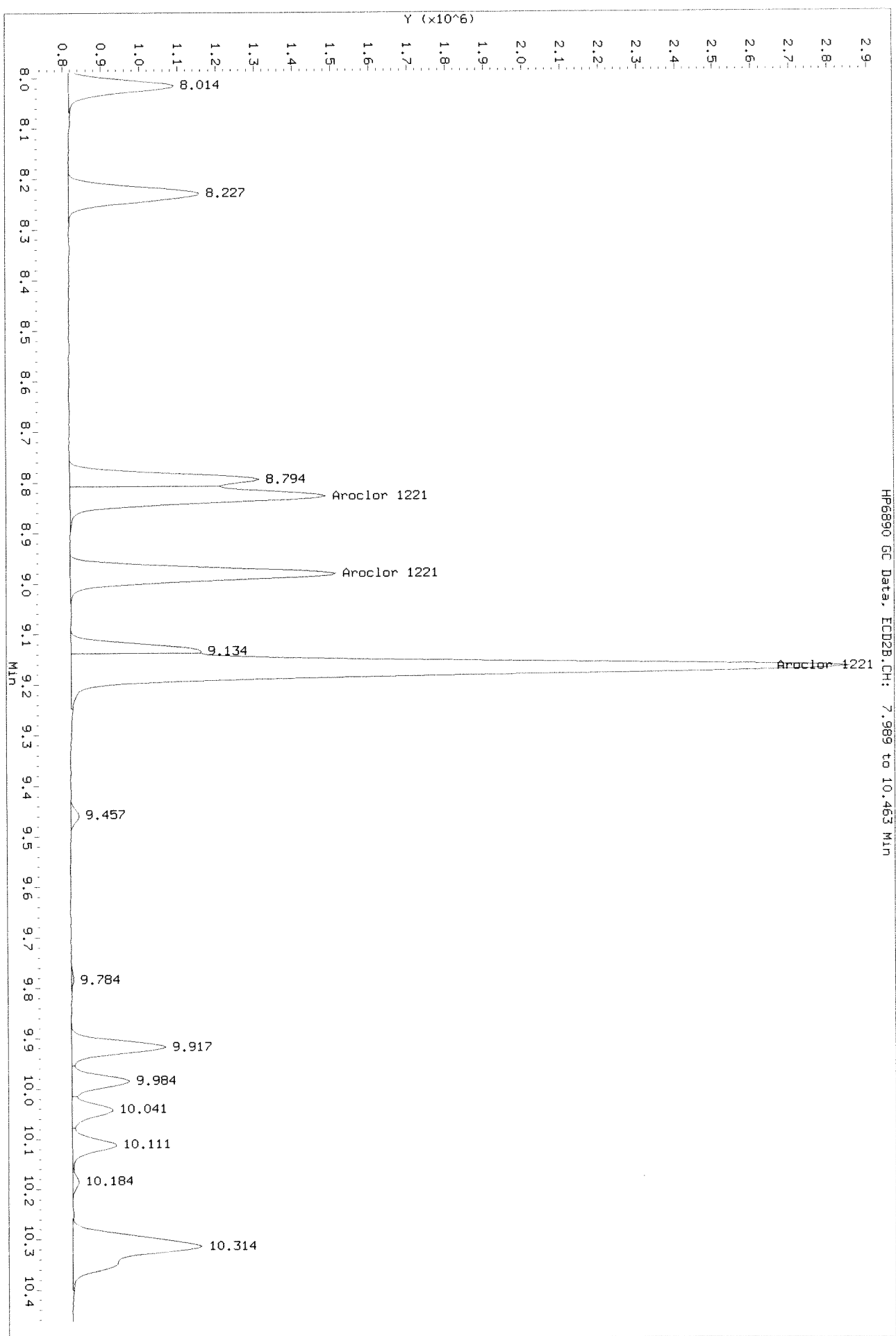
Operator: SAA

Column diameter: 0.32



Data File: \\alkjms002\instdata\GC27\Data\090419ICAL_r.b\0904F019.D
Injection Date: 05-SEP-2019 01:55
Instrument: GC27.1
Client Sample ID:

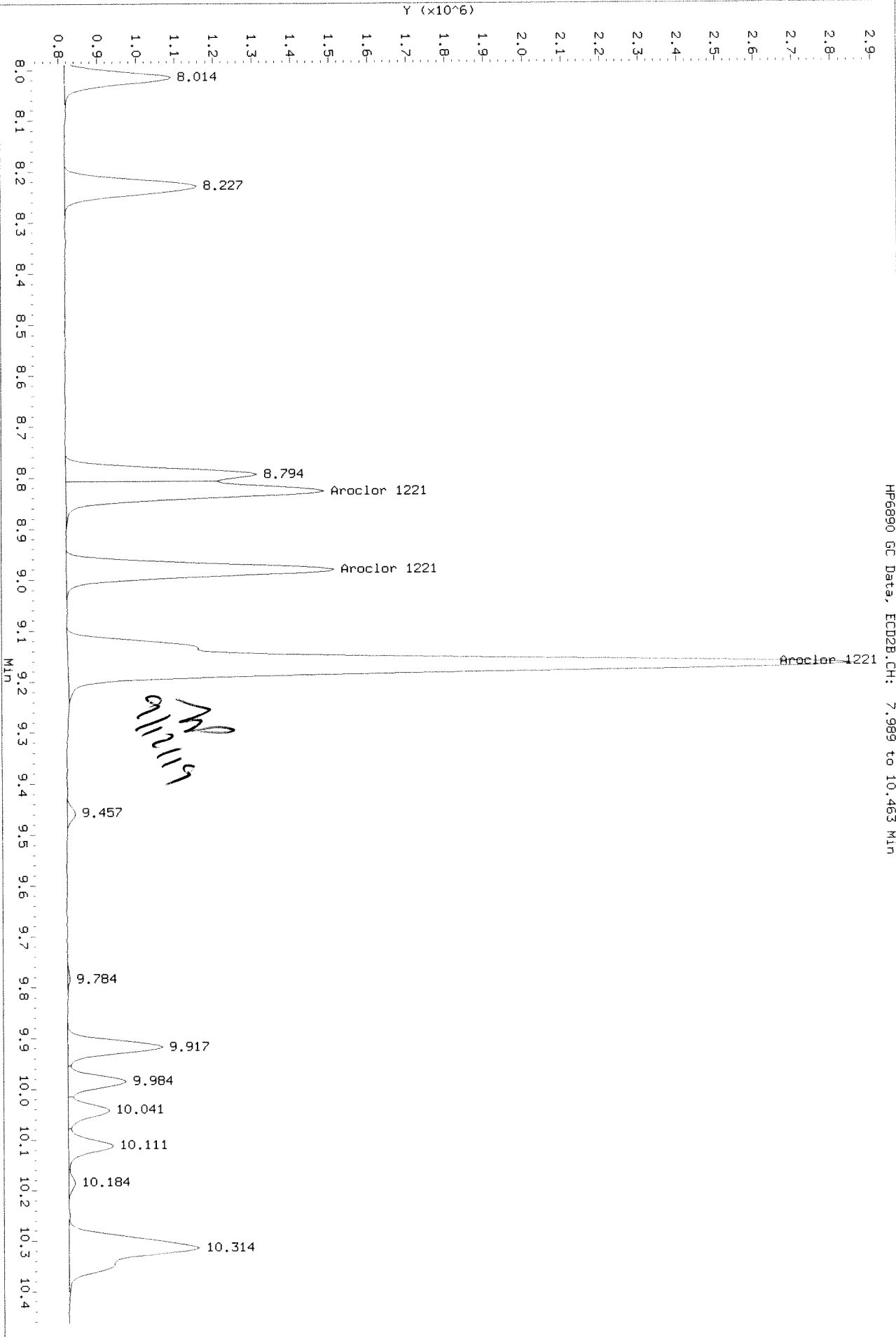
Refer



Data File: \\alkisw002\instdata\GC27\Data\090419ICLL_r.b\0904F019.D
Injection Date: 05-SEP-2019 01:55
Instrument: GC27.1
Client Sample ID:

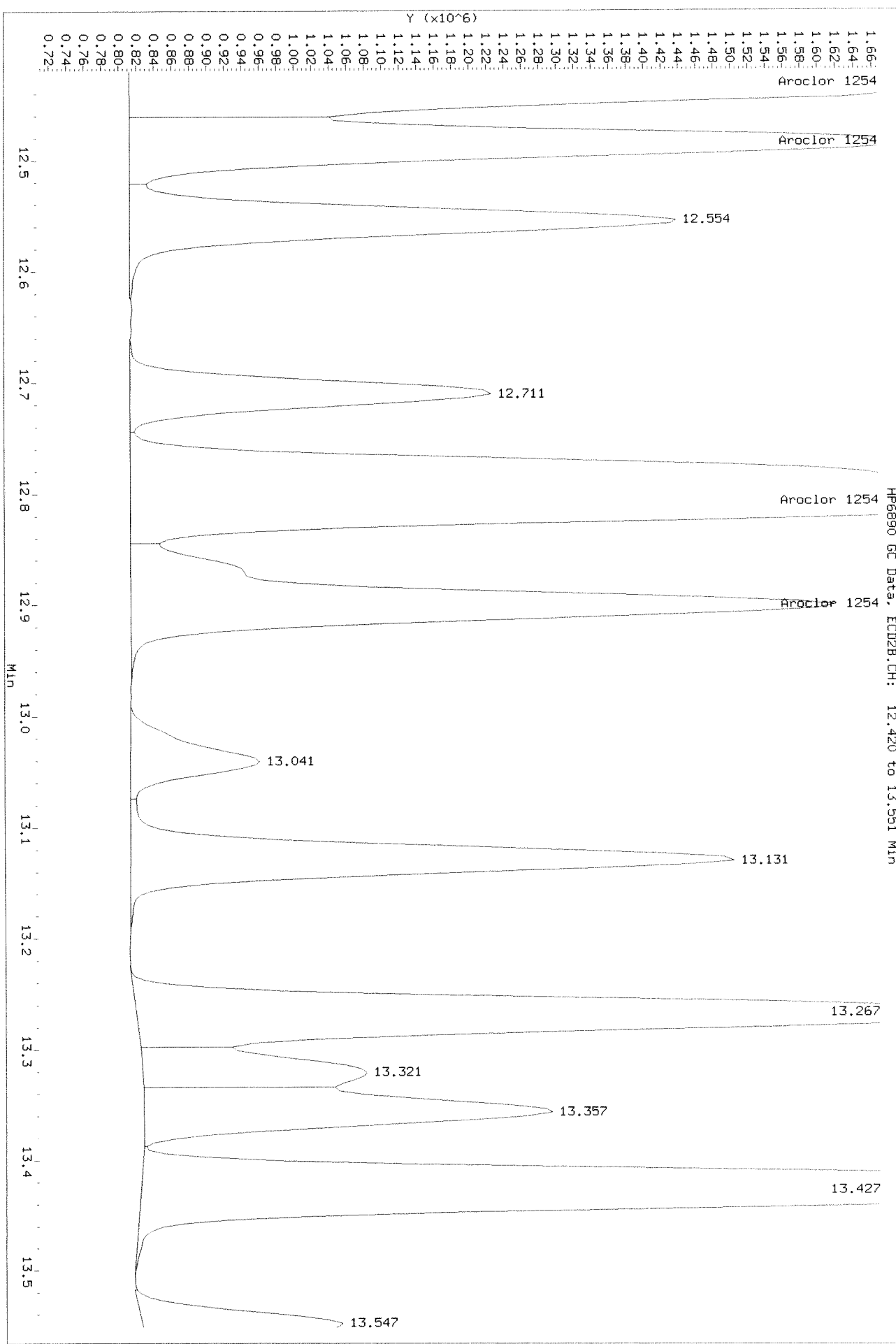
HP6890 GC Data, ECD2B.CH: 7.989 to 10.463 Min

After baseline 9/11/19 A



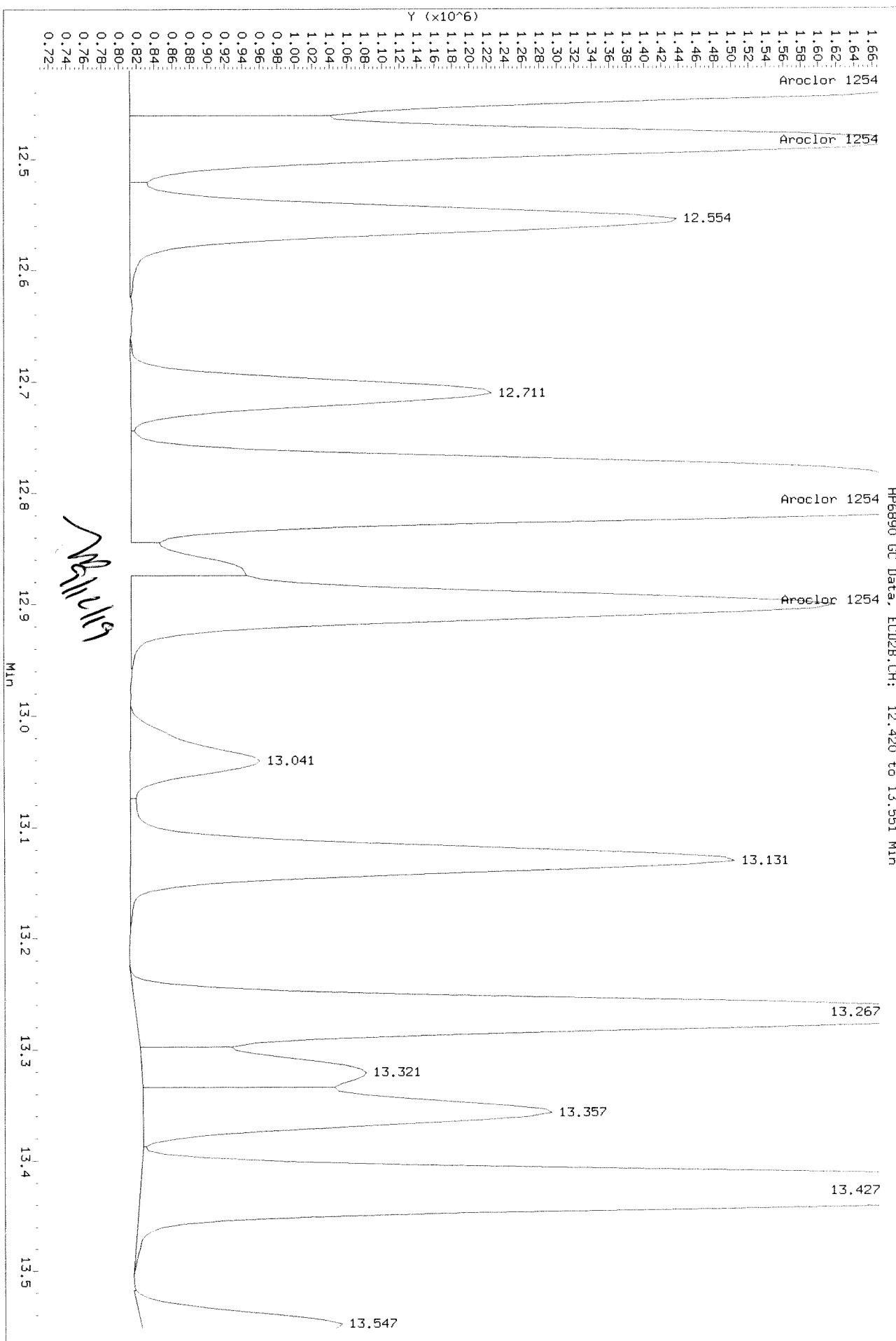
Data File: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F019.D
Injection Date: 05-SEP-2019 01:55
Instrument: GC27.1
Client Sample ID:

Before



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F019.D
Injection Date: 05-SEP-2019 01:55
Instrument: GC27.1
Client Sample ID:

After Shoulder 9/11/19 SA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F020.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F020.D
 Inj Date : 05-SEP-2019 02:26
 Sample Info: PCB7-90H 2154 @ 200-400 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 2154.sub
 Sub List #2 : 2154.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1221	7.656	8.826	8501999	2590550	369	398	80.00- 120.00	100.00
	7.893	8.980	5412435	2563242	370	397	50.93- 76.39	63.66
	8.059	9.166	20227289	8997324	369	362	190.33- 285.49	237.91
	Average of Peak Amounts =				369	386		
Aroclor 1254	11.773	12.430	7140371	5914365	198	183	80.00- 120.00	100.00 (M)
	12.239	12.483	12304857	3342706	197	197	137.86- 206.79	172.33 (M)
	12.399	12.806	23993258	8738338	195	177	268.82- 403.23	336.02 (M)
	12.739	12.900	14705268	3043613	202	198	164.76- 247.13	205.95 (M)
	13.303	14.373	9496593	4515239	208	186	106.40- 159.60	133.00 (M)
	Average of Peak Amounts =				200	188		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
W

Data File: \\alk1sws002\instdata\GC27\Data\090419ICL.b\0904F020.D

Date: 05-SEP-2019 02:26

Client ID:

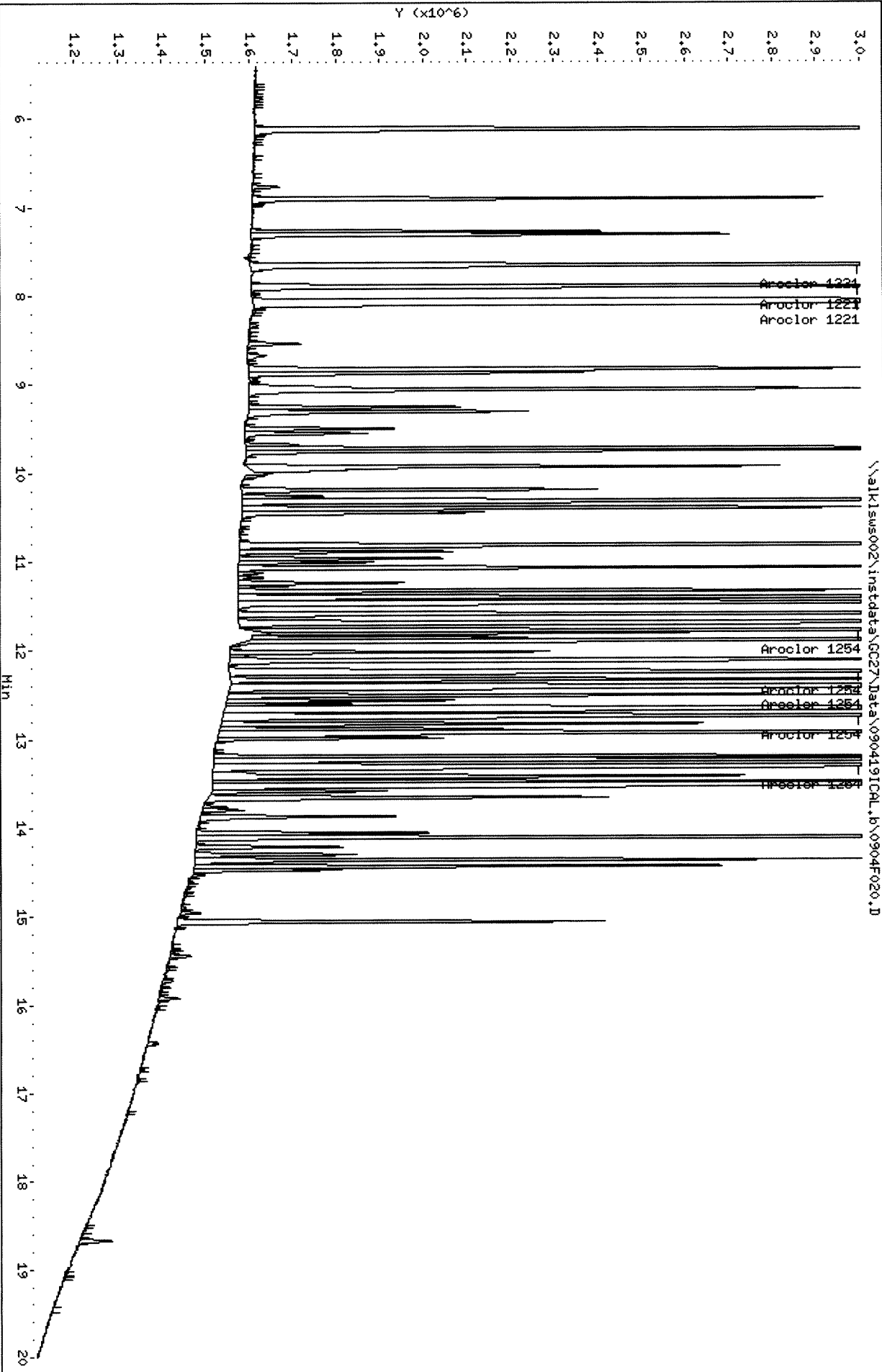
Sample Info: PCB7-90H 2154 @ 200-400 PPB

Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F020.D

Date: 05-SEP-2019 02:26

Client ID:

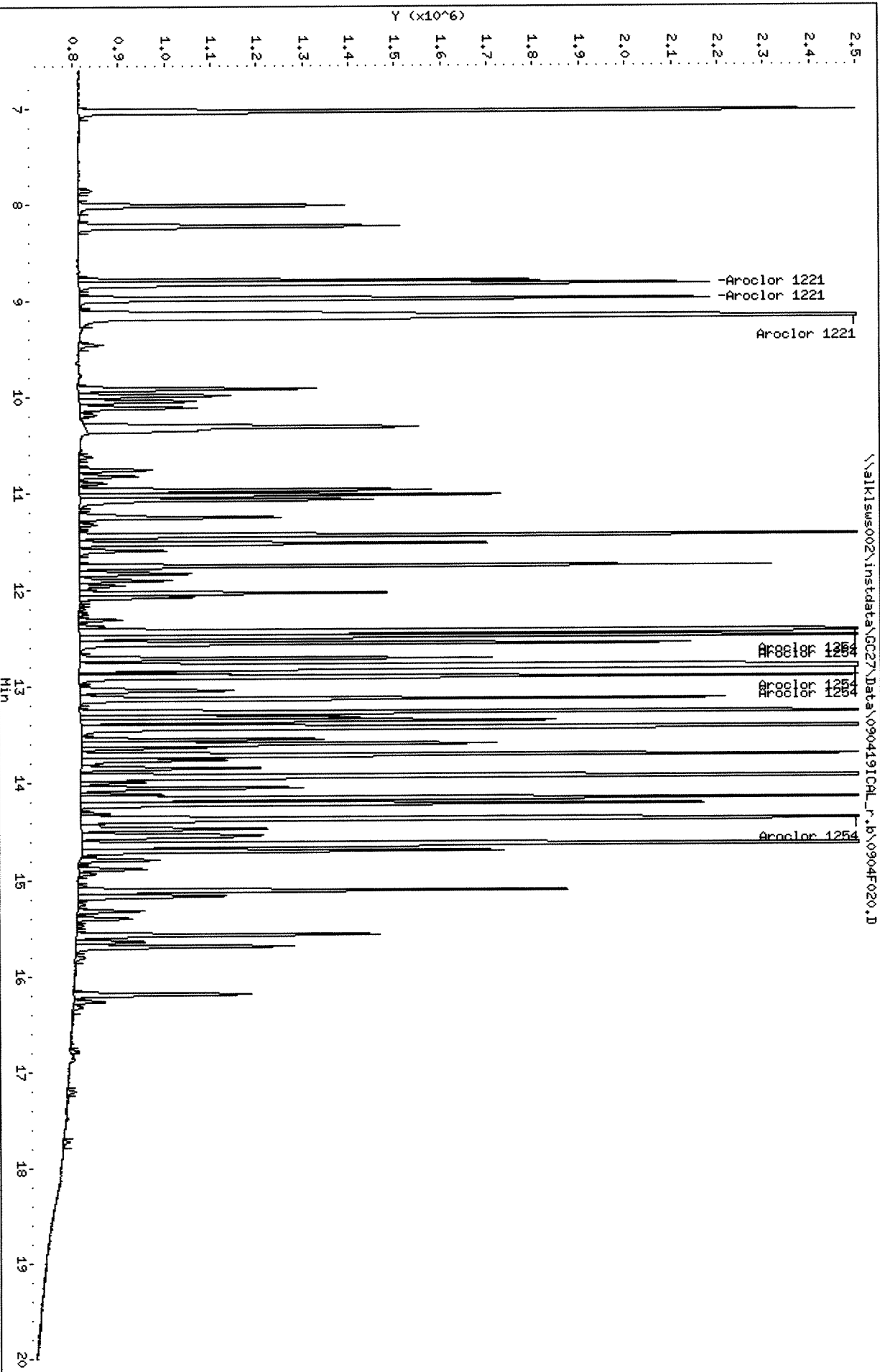
Sample Info: PCB7-90H 2154 @ 200-400 PPB

Column phase: DB-XLB

Instrument: GC27.i

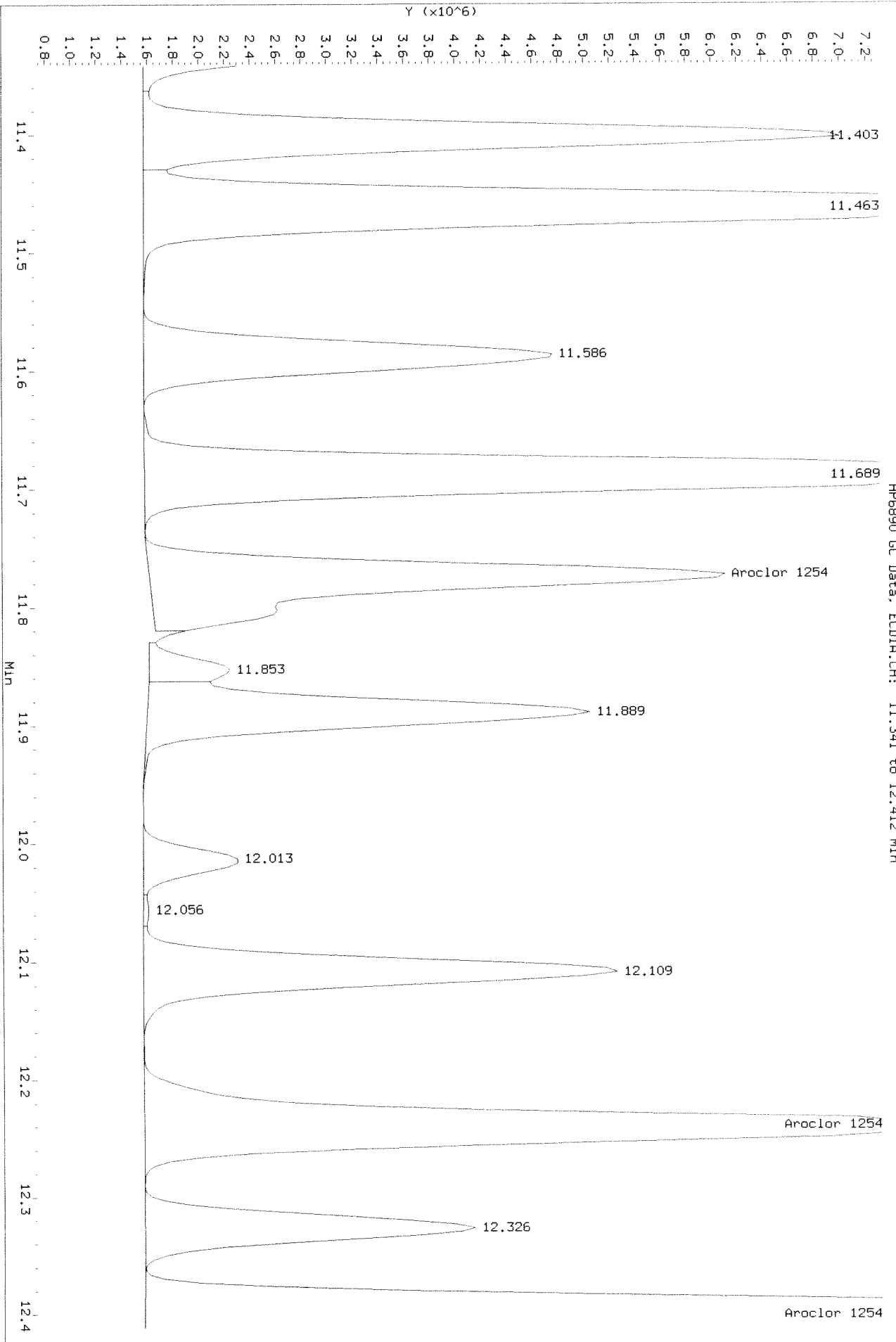
Operator: SAA

Column diameter: 0.32



Data File: \\alkisw002\instdata\GC27\Data\090419ICL.B\0904F020.D
Injection Date: 05-SEP-2019 02:26
Instrument: GC27.1
Client Sample ID:

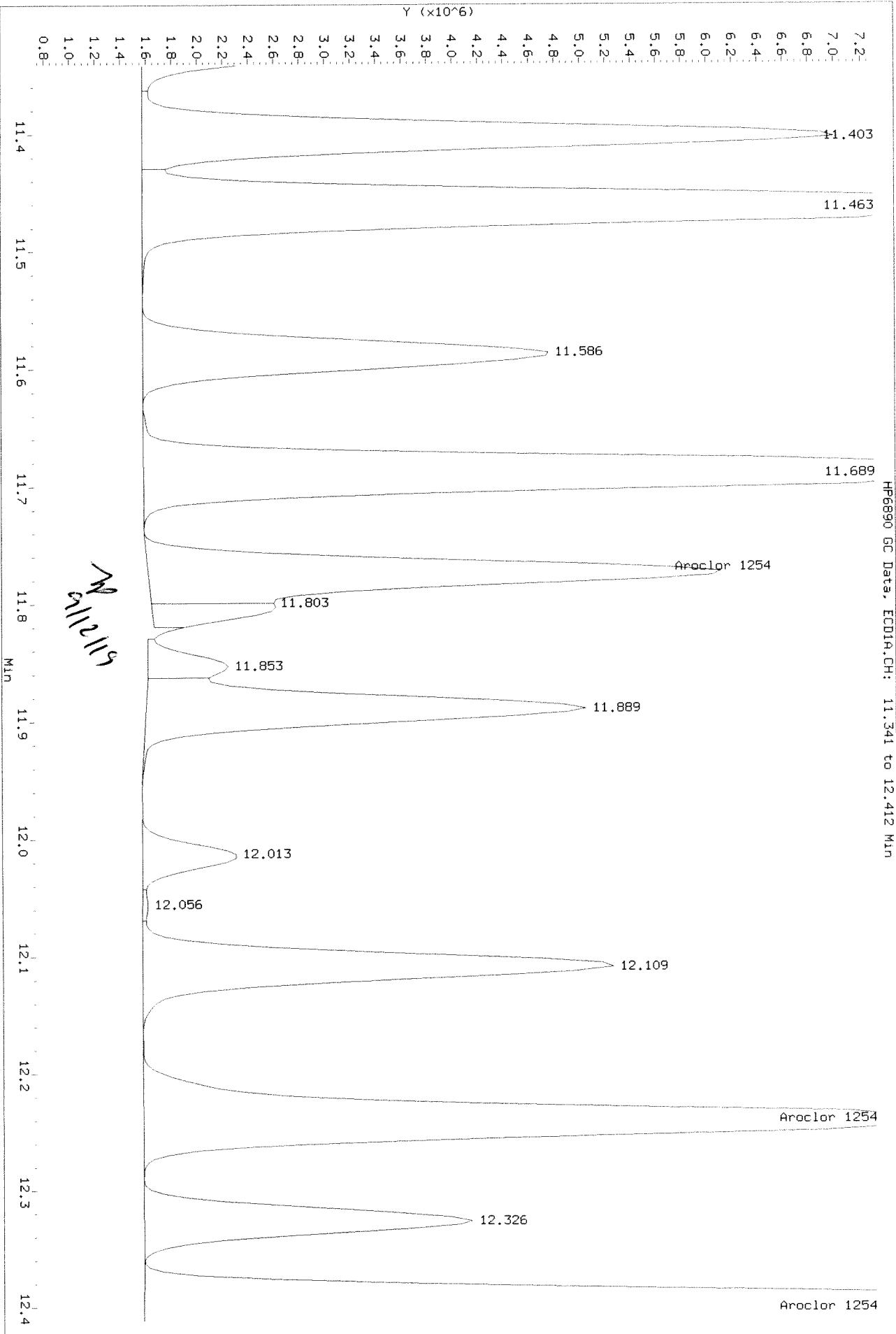
Before



Data File: \\alk1sws002\instdata\GC27\Data\090419ICDL.b\0904F020.D
Injection Date: 05-SEP-2019 02:26
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 11.341 to 12.412 Min

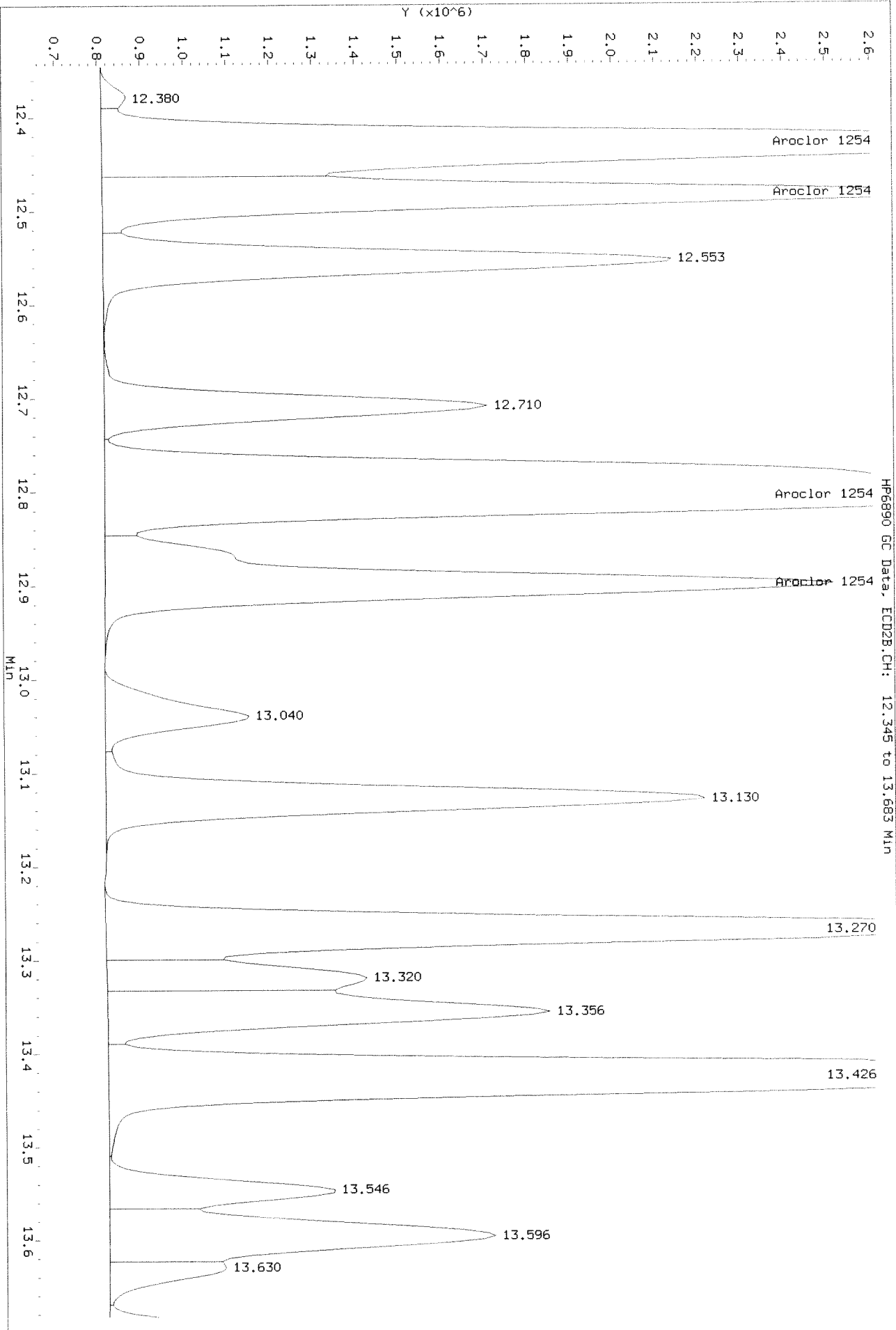
After Shoulder 9/11/19 ST



Data File: \\alkisw002\inst\data\GC27\Data\090419ICAL_r.b\0904F020.D
Injection Date: 05-SEP-2019 02:26
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 12.345 to 13.683 Min

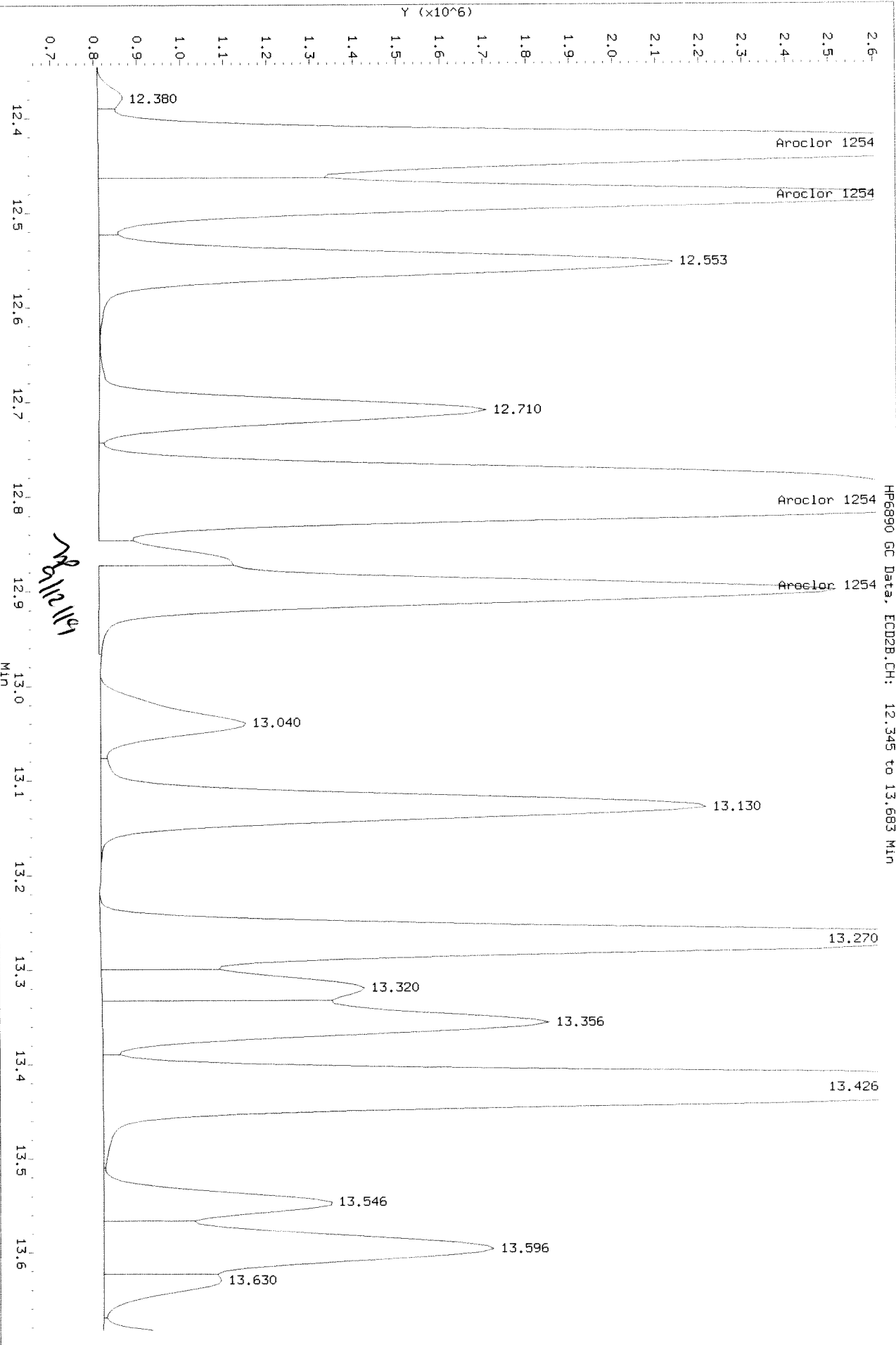
Before 9/11/19 SA



Data File: \\alk1swe002\instdata\GC27\Data\090419ICDL_r.b\0904F020.D
Injection Date: 05-SEP-2019 02:26
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 12.345 to 13.683 MIN

After shoulder 9M/19 SA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F021.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F021.D
 Inj Date : 05-SEP-2019 02:58
 Sample Info: PCB8-13E 3262 @ 1 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 3262.sub
 Sub List #2 : 3262.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1232	7.664	9.165	19213	16743	1.23	0.850	80.00- 120.00	100.00
	8.068	9.915	56739	12087	1.21	1.11	234.25- 351.38	295.32
	8.838	10.288	31107	6960	0.820	0.948	205.56- 308.34	161.91
	9.311	10.965	12043	13507	0.873	0.891	76.03- 114.04	62.68
	9.941	11.018	32879	16086	1.25	0.918	137.78- 206.67	171.13
	Average of Peak Amounts =				1.08	0.943		
Aroclor 1262	13.588	14.791	99950	48433	1.07	1.14	80.00- 120.00	100.00 (M)
	14.061	15.161	96868	36415	1.17	1.12	71.44- 107.17	96.92 (M)
	14.438	15.691	167071	76536	1.10	1.17	135.47- 203.20	167.15 (M)
	15.064	16.201	120058	50041	1.09	1.14	96.75- 145.12	120.12 (M)
	15.931	17.205	50324	24800	1.05	1.09	43.01- 64.52	50.35 (M)
	Average of Peak Amounts =				1.10	1.13		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
W

Data File: \\alk1sws002\instdata\GC27\Data\090419ICL.b\0904F021.D

Date : 05-SEP-2019 02:58

Client ID:

Sample Info: PCB8-13E 3262 @ 1 PPB

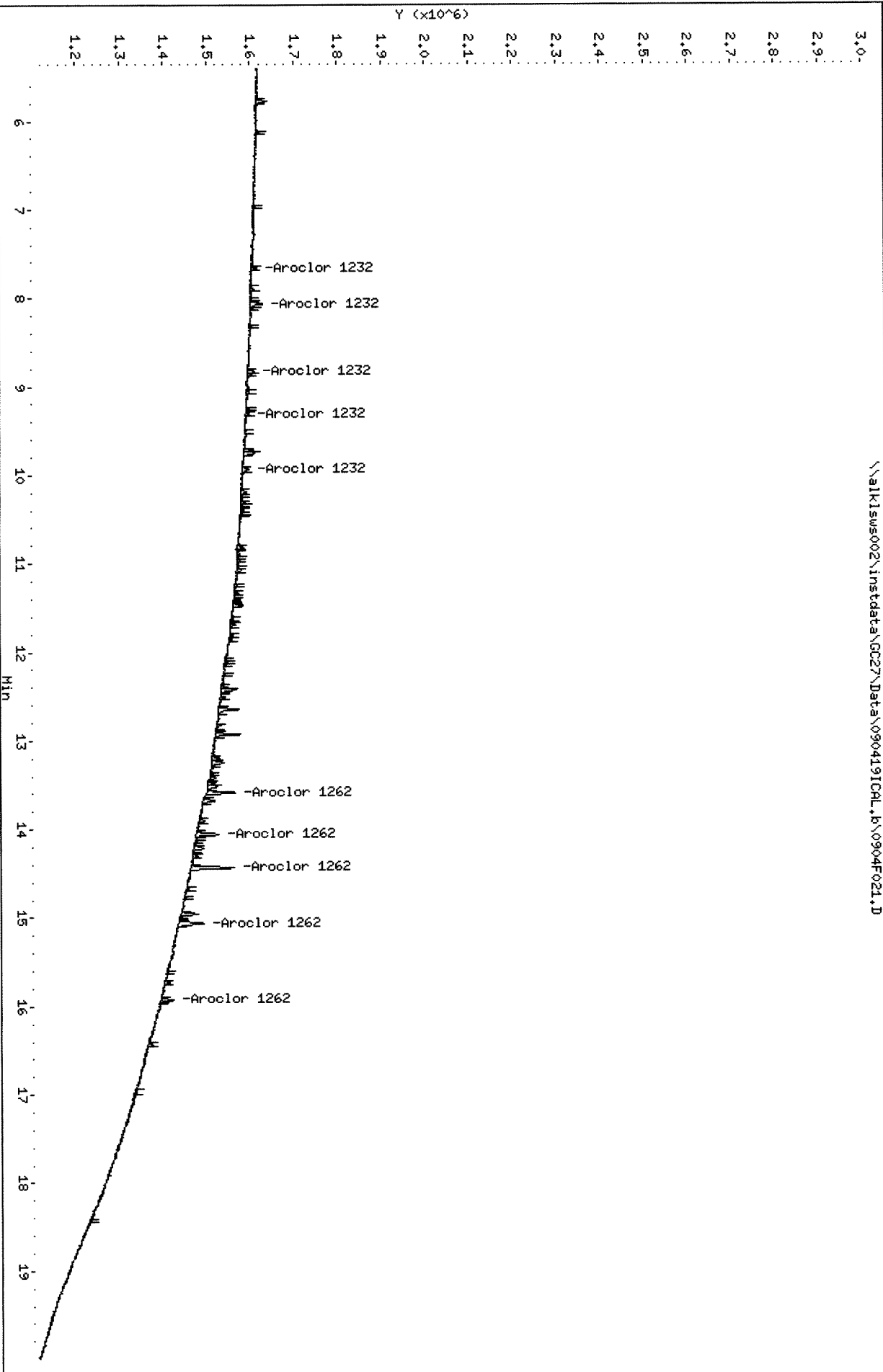
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alk1sws002\instdata\GC27\Data\090419ICL.b\0904F021.D



Data File: \\alklsws002\instdata\GC27\Data\090419ICL_r.b\0904F021.D

Date : 05-SEP-2019 02:58

Client ID:

Sample Info: PCB8-13E 3262 @ 1 PPB

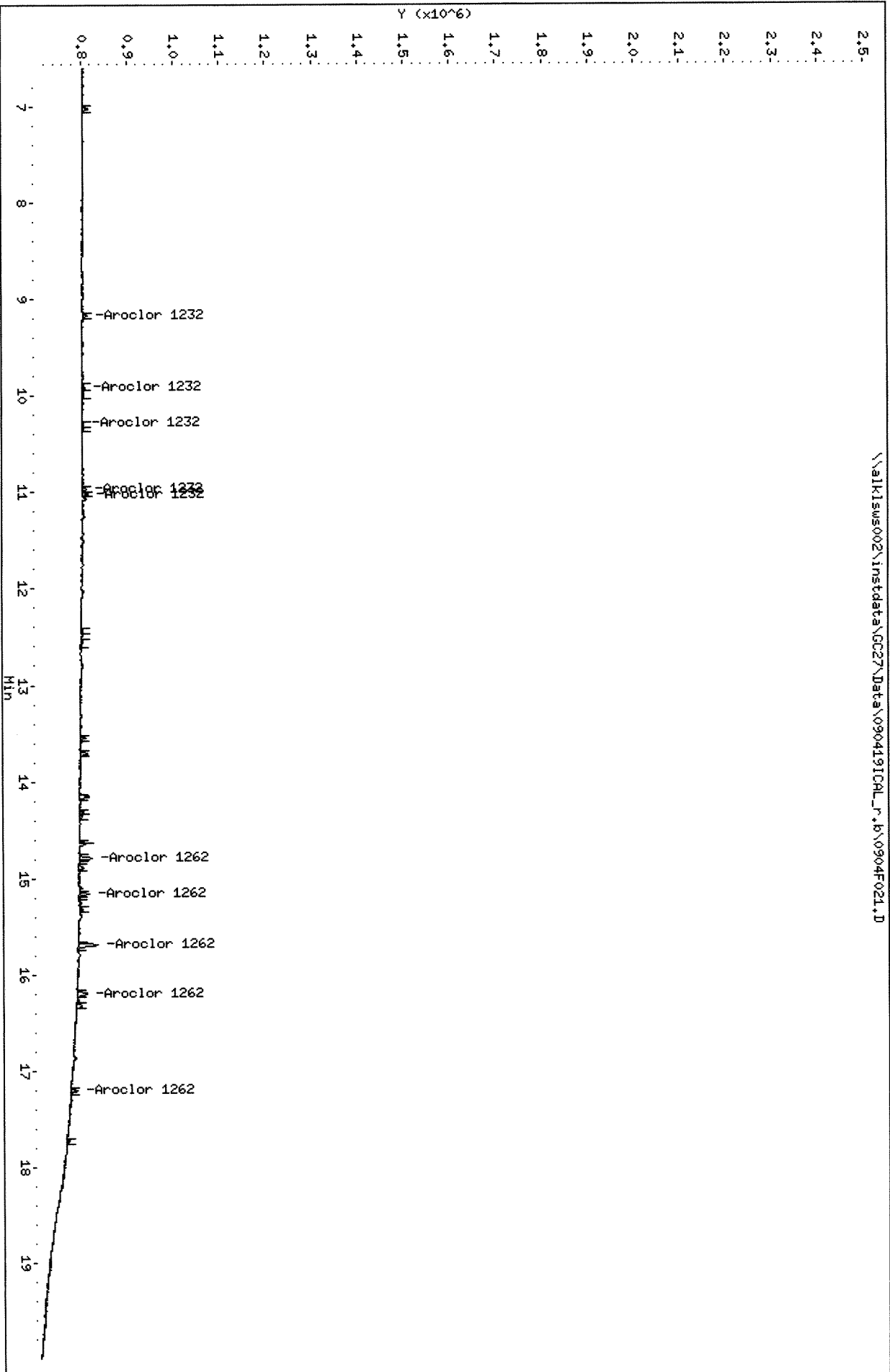
Column phase: DB-XLB

Instrument: GC27.i

Operator: SQA

Column diameter: 0.32

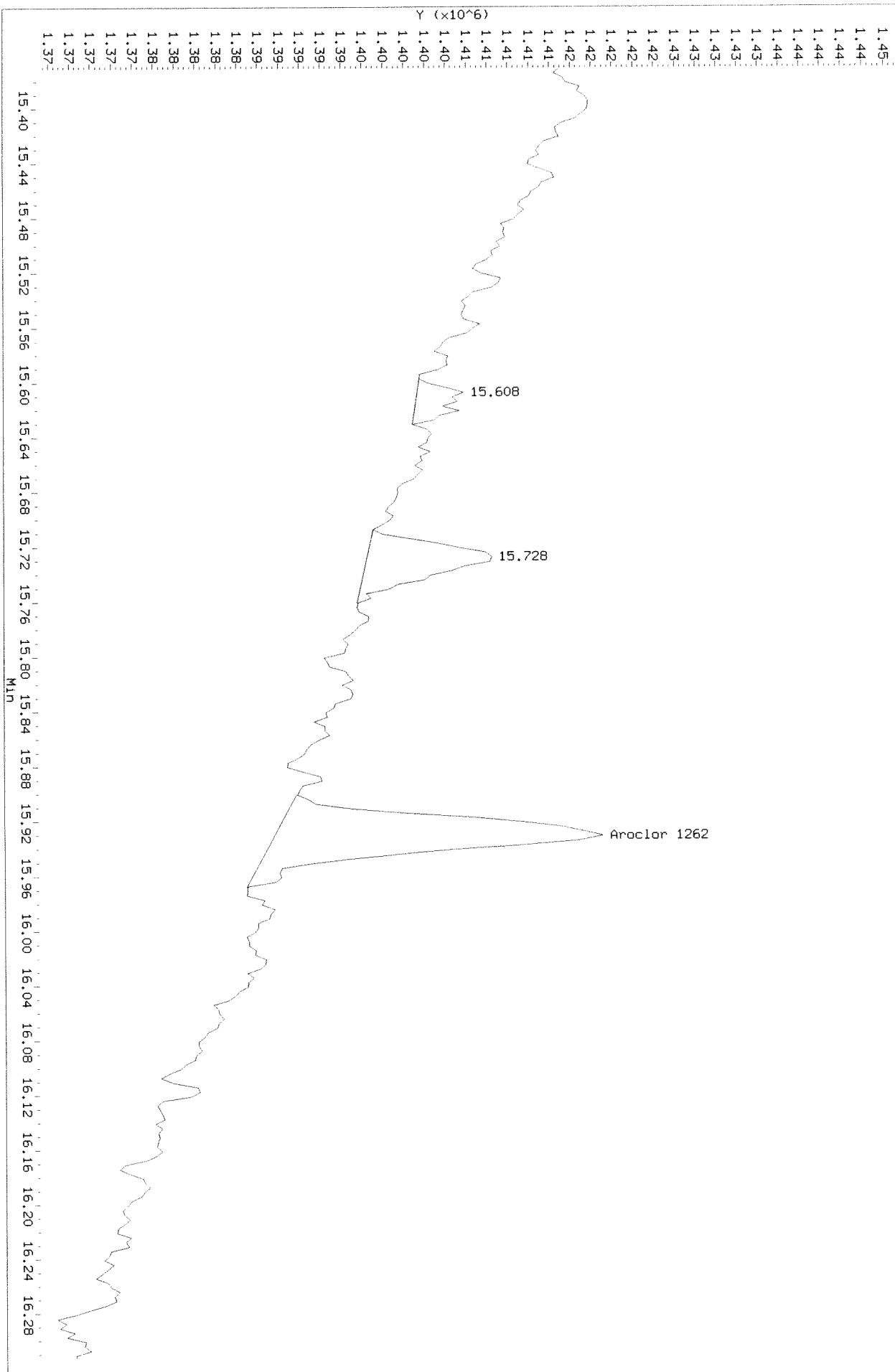
\\alklsws002\instdata\GC27\Data\090419ICL_r.b\0904F021.D



Data File: \\alk1sws002\instdata\GC27\Data\090419ICL.B\0904F021.D
Injection Date: 05-SEP-2019 02:58
Instrument: GC27.1
Client Sample ID:

Before

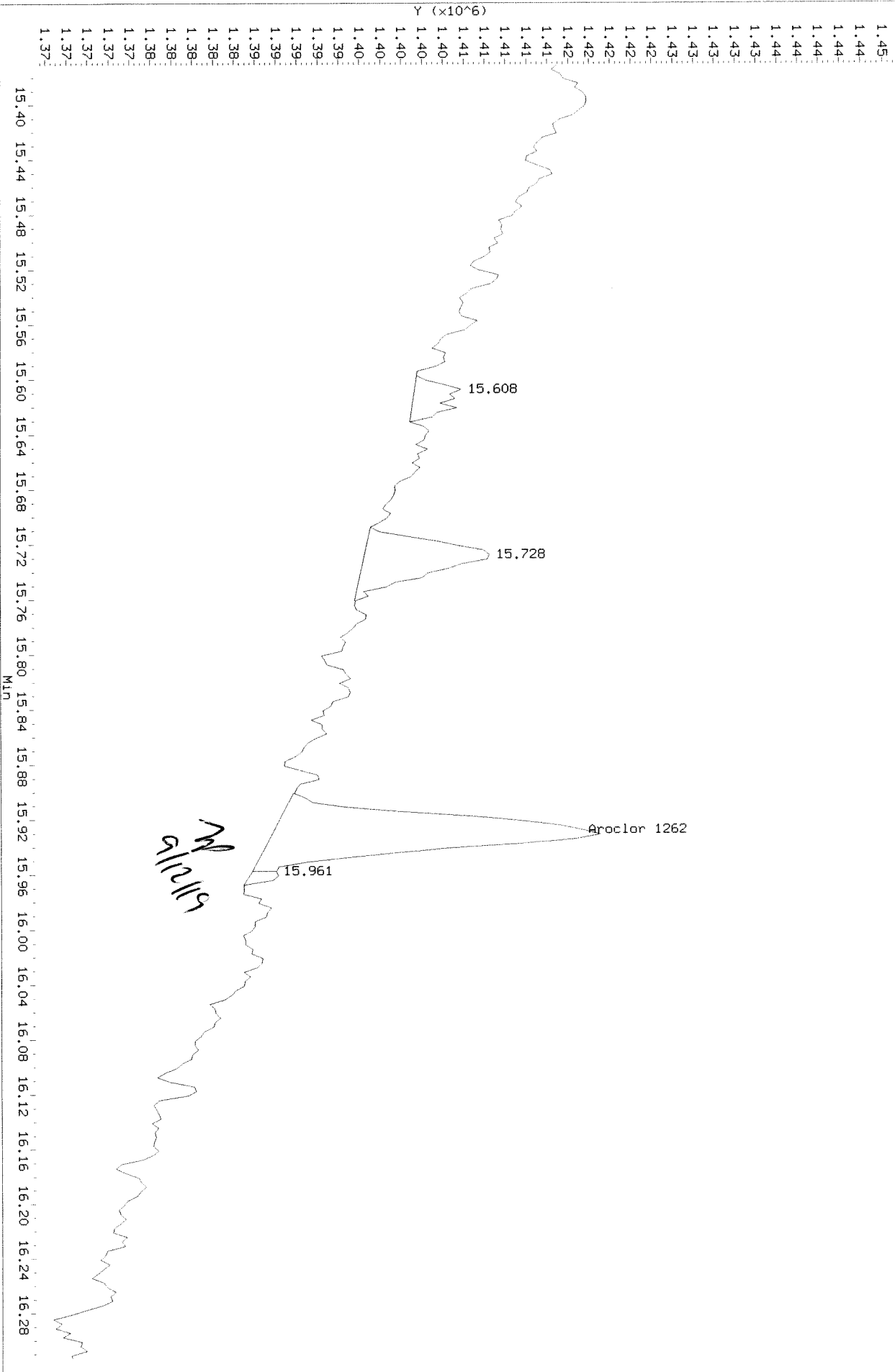
HP6890 GC Data, ECD1A.CH: 15.372 to 16.313 Min



Data File: \\alk1sws002\instdata\GC27\Data\090419ICAL.b\0904F021.D
Injection Date: 05-SFP-2019 02:58
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 15.372 to 16.313 MIN

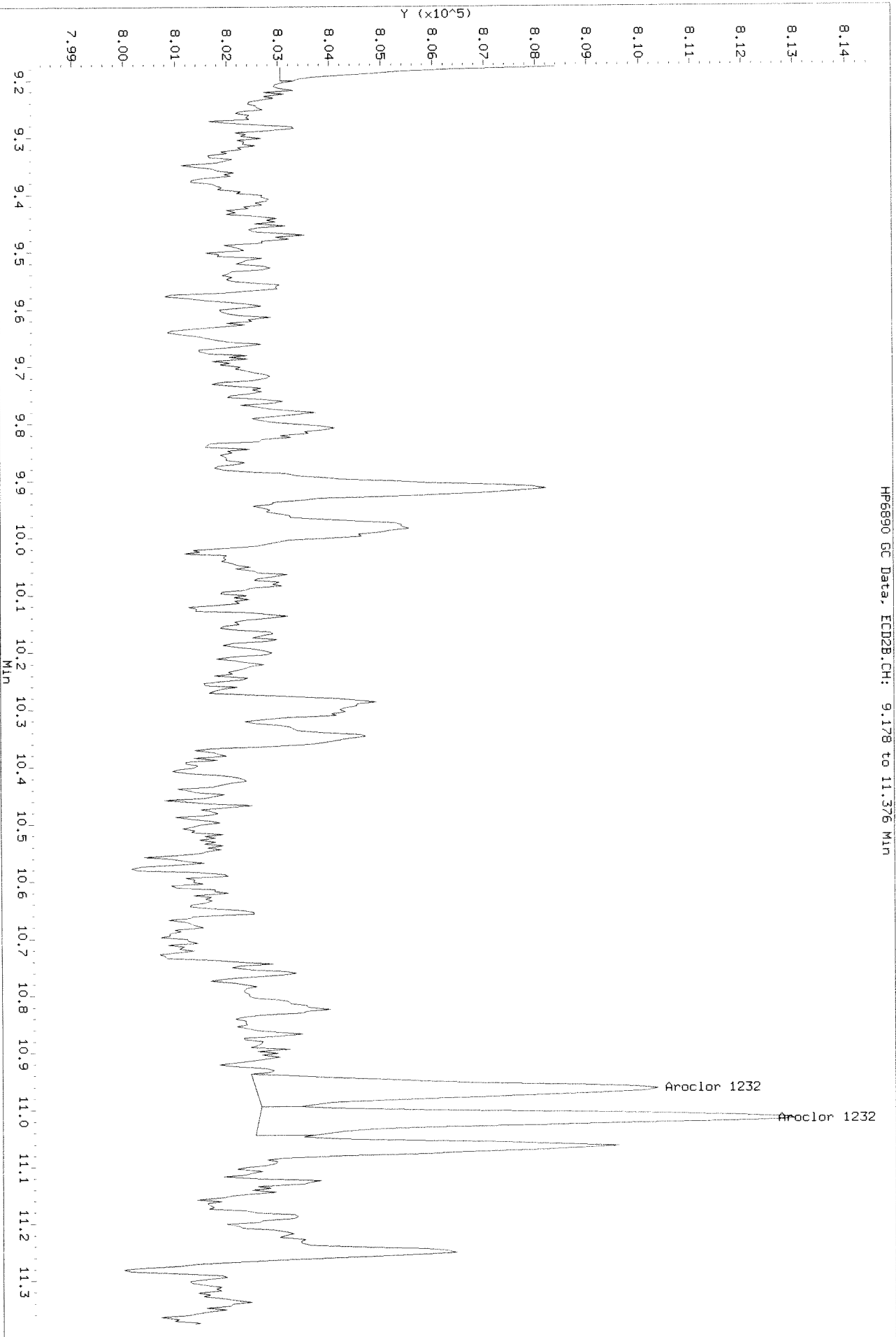
After Shoulder 9/11/19 A



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F021.D
Injection Date: 05-SEP-2019 02:58
Instrument: GC27.1
Client Sample ID:

Refer

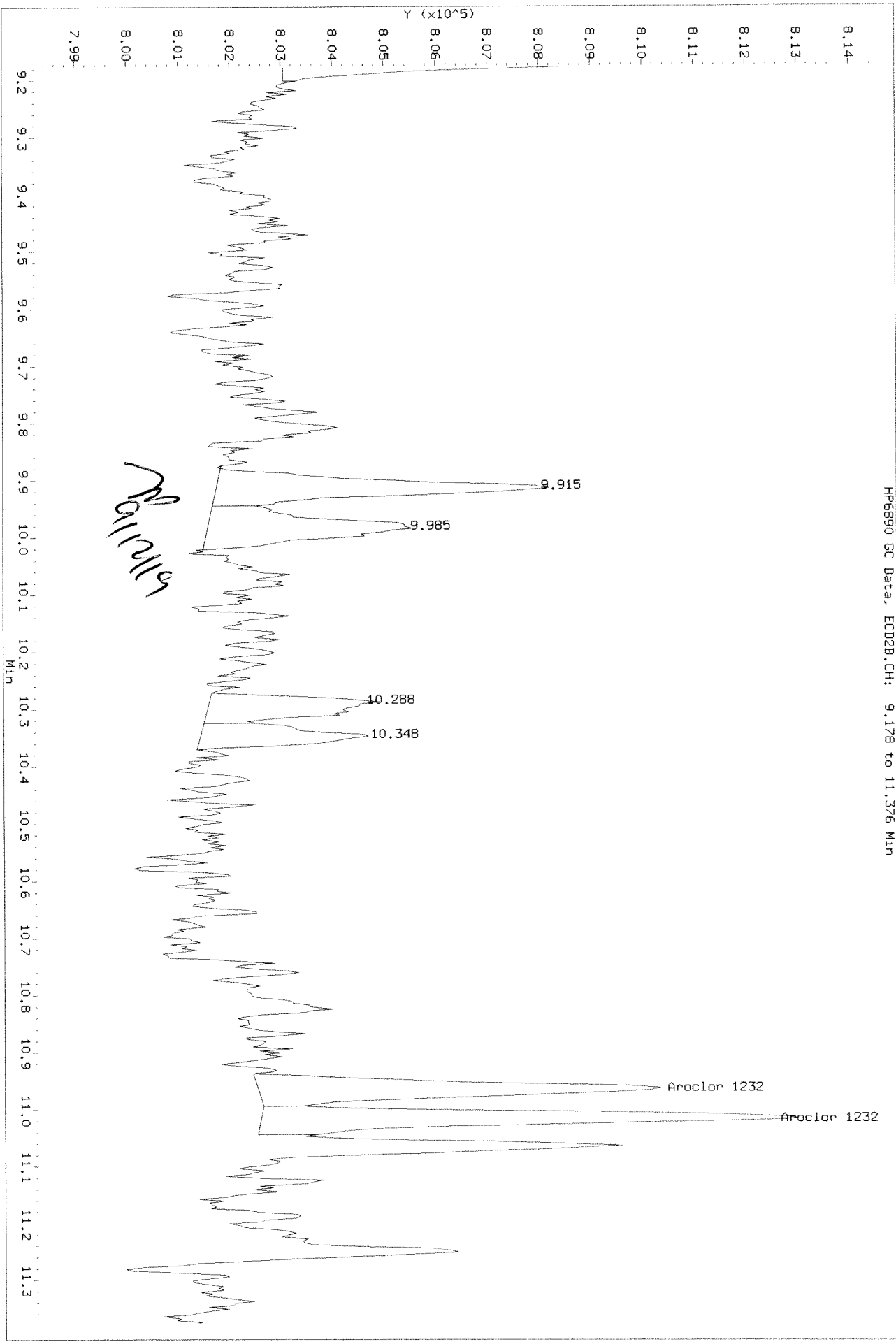
HP6890 GC Data: F021.D:CH: 9.178 to 11.376 Min



Data File: \\alk1sws002\instdata\GC27\Data\090419ICDL_r.b\0904f021.D
Injection Date: 05-SEP-2019 02:58
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 9.178 to 11.376 Min

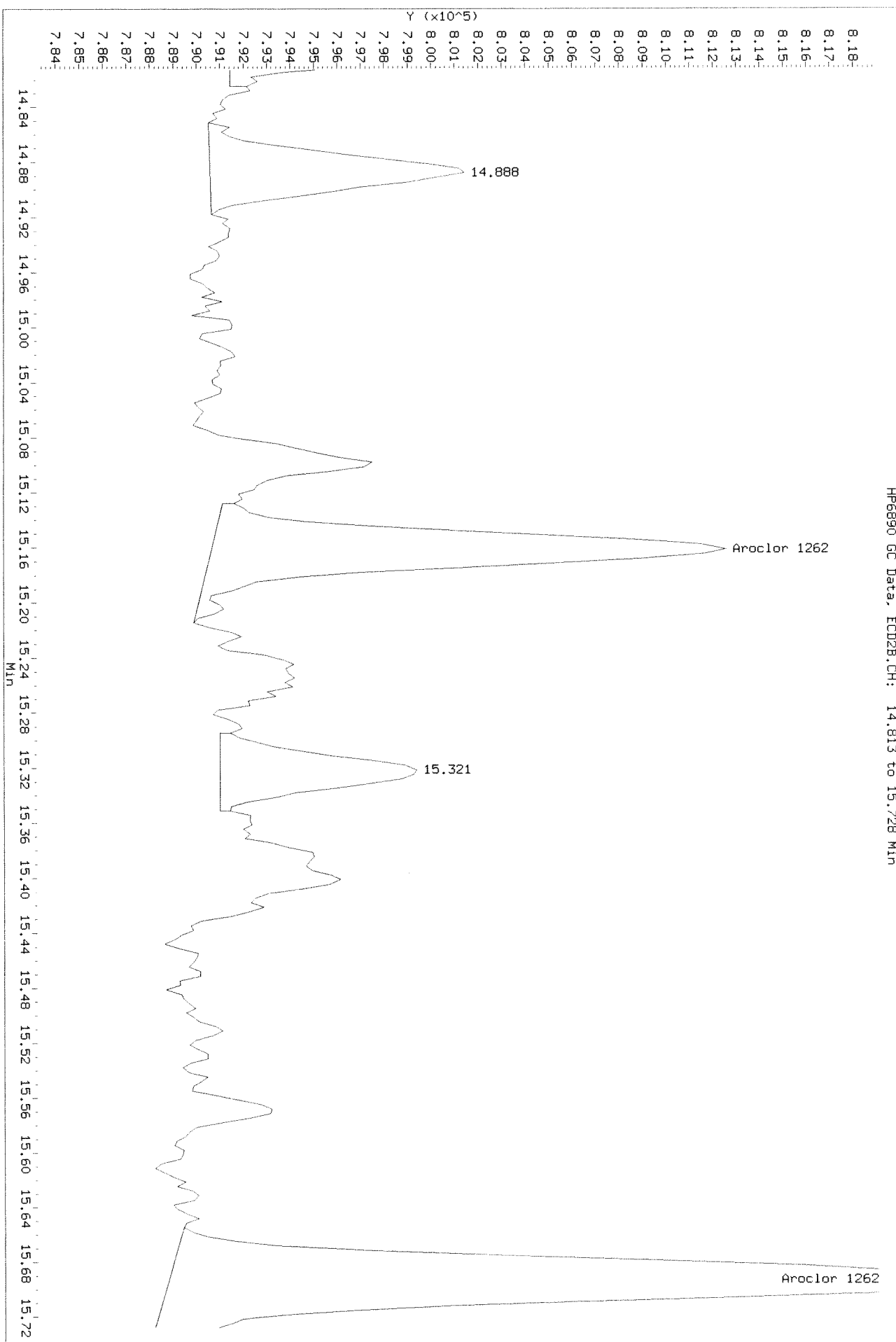
After missed peaks 11/19 A



Data File: \\alkisw002\instdata\GC27\Data\090419ICAL_r.b\0904F021.D
Injection Date: 05-SEP-2019 02:58
Instrument: GC27.1
Client Sample ID:

Before

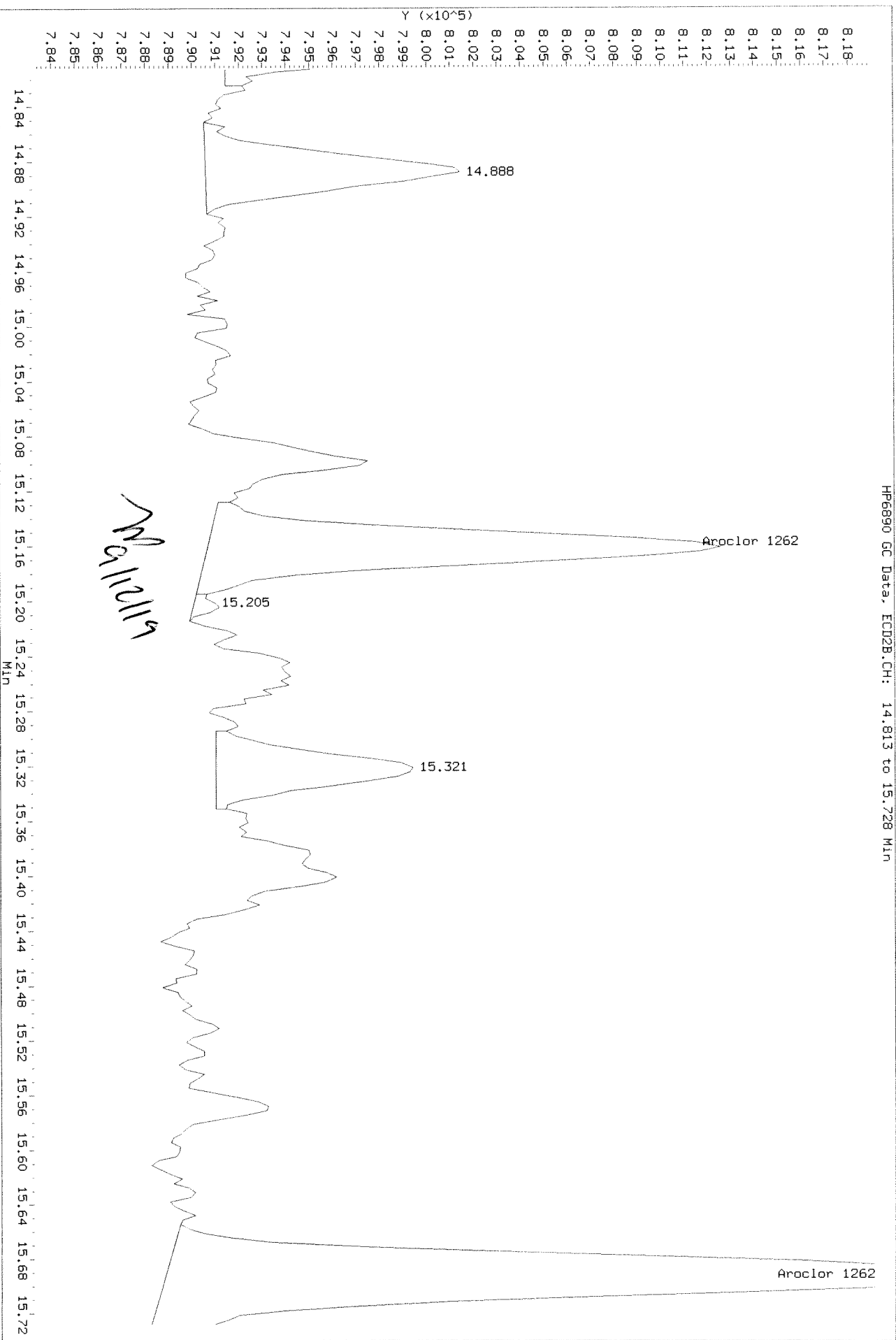
HP6890 GC Data, ECD2B.CH: 14.813 to 15.728 MIN



Data File: \\alklsw002\instdata\GC27\Data\090419ICAL_r.b\0904F021.D
Injection Date: 05-SEP-2019 02:58
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 14.813 to 15.728 MIN

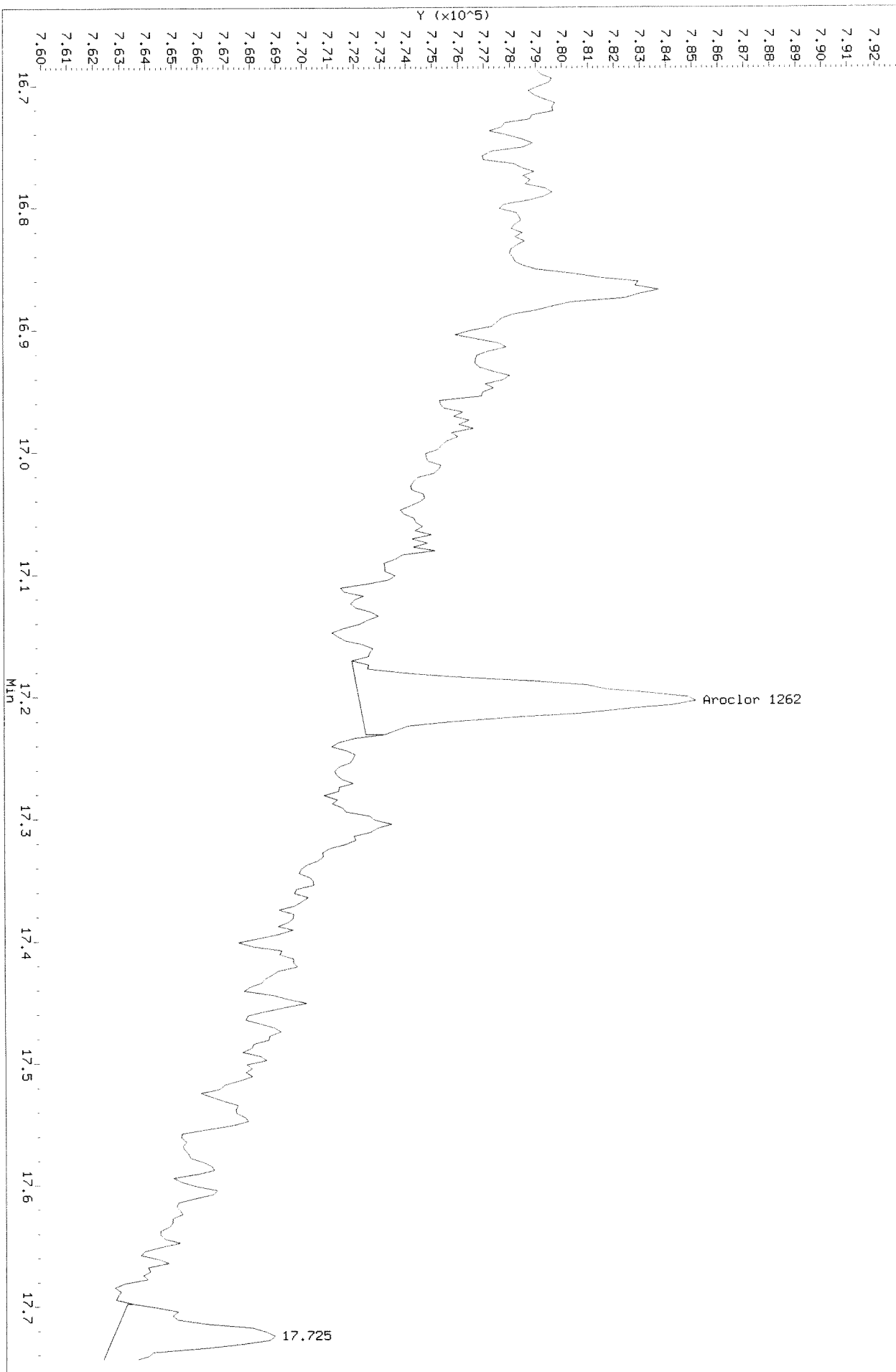
After shoulder 9/11/19 A



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F021.D
Injection Date: 05-SEP-2019 02:58
Instrument: GC27.1
Client Sample ID:

Before

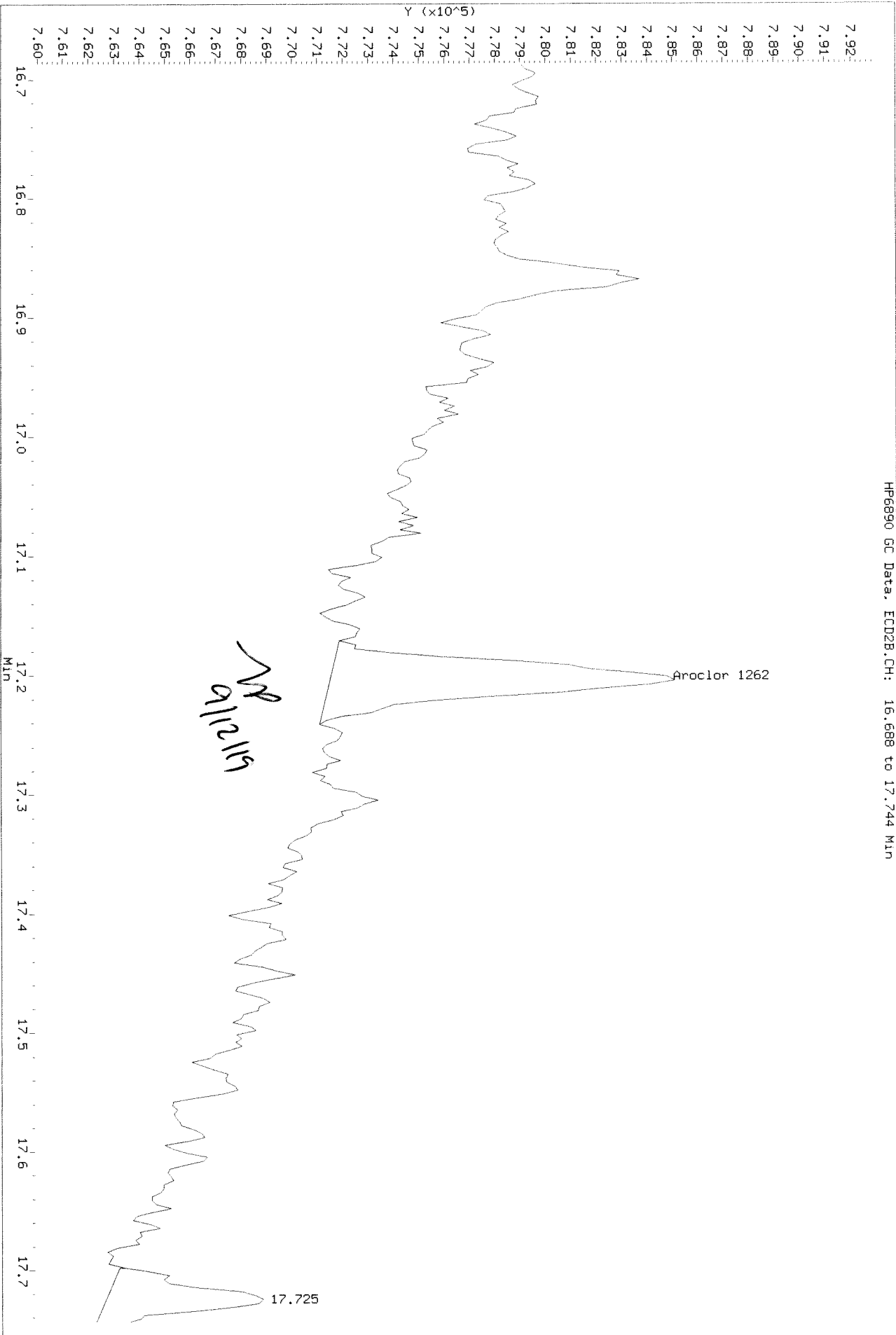
HP6890 GC Data, ECD2B.CH: 16.688 to 17.744 Min



Data File: \\alk1sws002\inetdata\GC27\Data\090419ICALL_r.b\0904F021.D
Injection Date: 05-SEP-2019 02:58
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 16.688 to 17.744 Min

After baseline 9/11/19 ft



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F022.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F022.D
 Inj Date : 05-SEP-2019 03:29
 Sample Info: PCB8-13F 3262 @ 2 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 3262.sub
 Sub List #2 : 3262.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1232	7.660	9.164	33971	38512	2.18	1.96	80.00- 120.00	100.00 (M)
	8.060	9.910	96316	21534	2.05	1.97	234.25- 351.38	283.52 (M)
	8.827	10.294	85195	13097	2.24	1.78	205.56- 308.34	250.79 (M)
	9.307	10.964	30852	33040	2.24	2.18	76.03- 114.04	90.82 (M)
	9.930	11.014	57144	35059	2.17	2.00	137.78- 206.67	168.21 (M)
	Average of Peak Amounts =				2.18	1.98		
Aroclor 1262	13.584	14.790	207877	95516	2.22	2.25	80.00- 120.00	100.00
	14.057	15.160	176258	74638	2.13	2.30	71.44- 107.17	84.79
	14.430	15.690	333532	154568	2.20	2.35	135.47- 203.20	160.45
	15.060	16.197	247752	96025	2.25	2.18	96.75- 145.12	119.18
	15.927	17.204	102888	53661	2.15	2.36	43.01- 64.52	49.49
	Average of Peak Amounts =				2.19	2.29		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
W

Data File: \\aik1sus002\instdata\GC27\Data\090419ICL.b\0904F022.D
Date : 05-SEP-2019 03:29

Client ID:

Sample Info: PCB8-13F 3262 @ 2 PPB

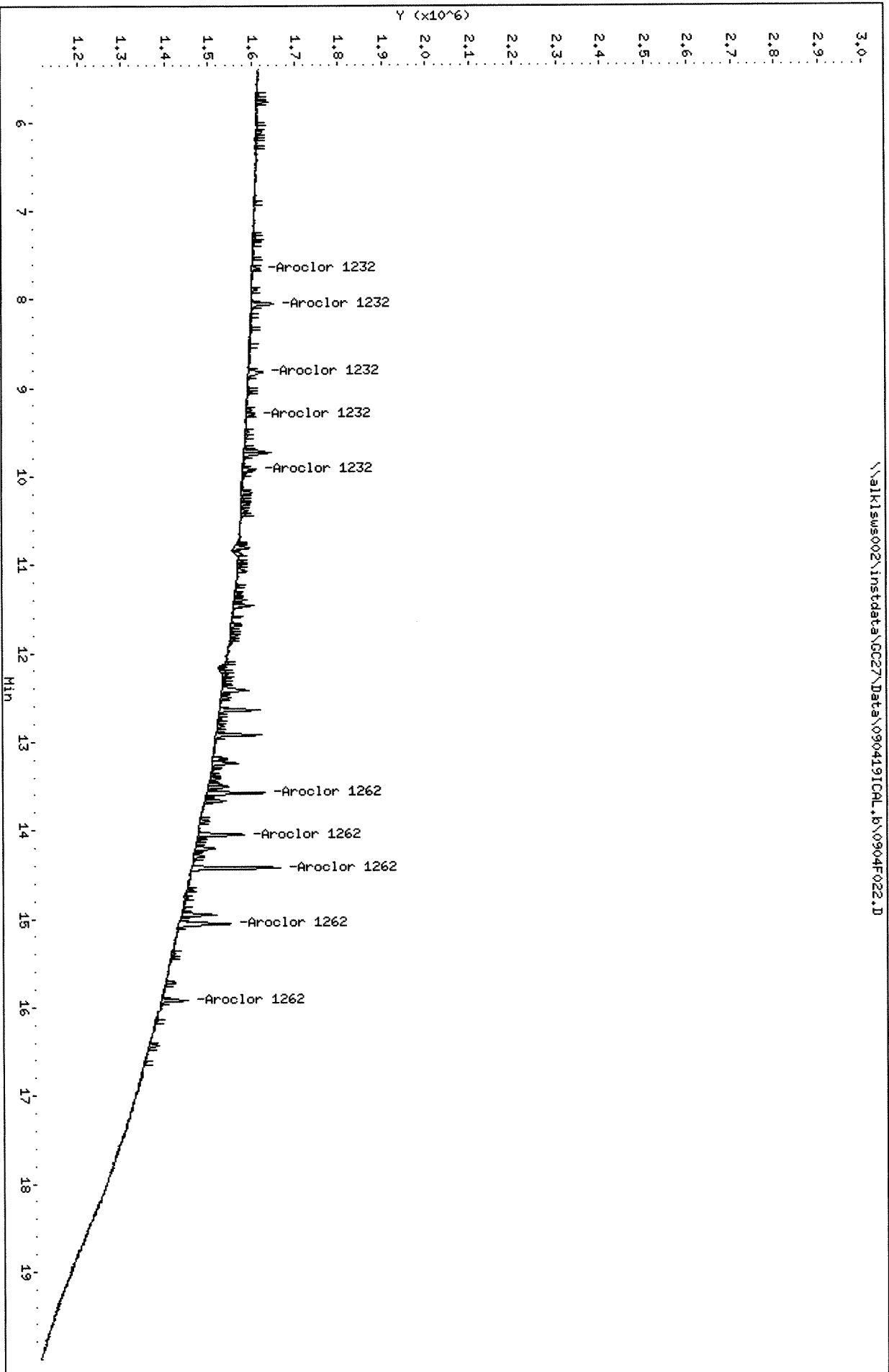
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\aik1sus002\instdata\GC27\Data\090419ICL.b\0904F022.D



Data File: \\alk1s002\instdata\GC27\Data\090419ICAL_r.b\0904F022.D

Date : 05-SEP-2019 03:29

Client ID:

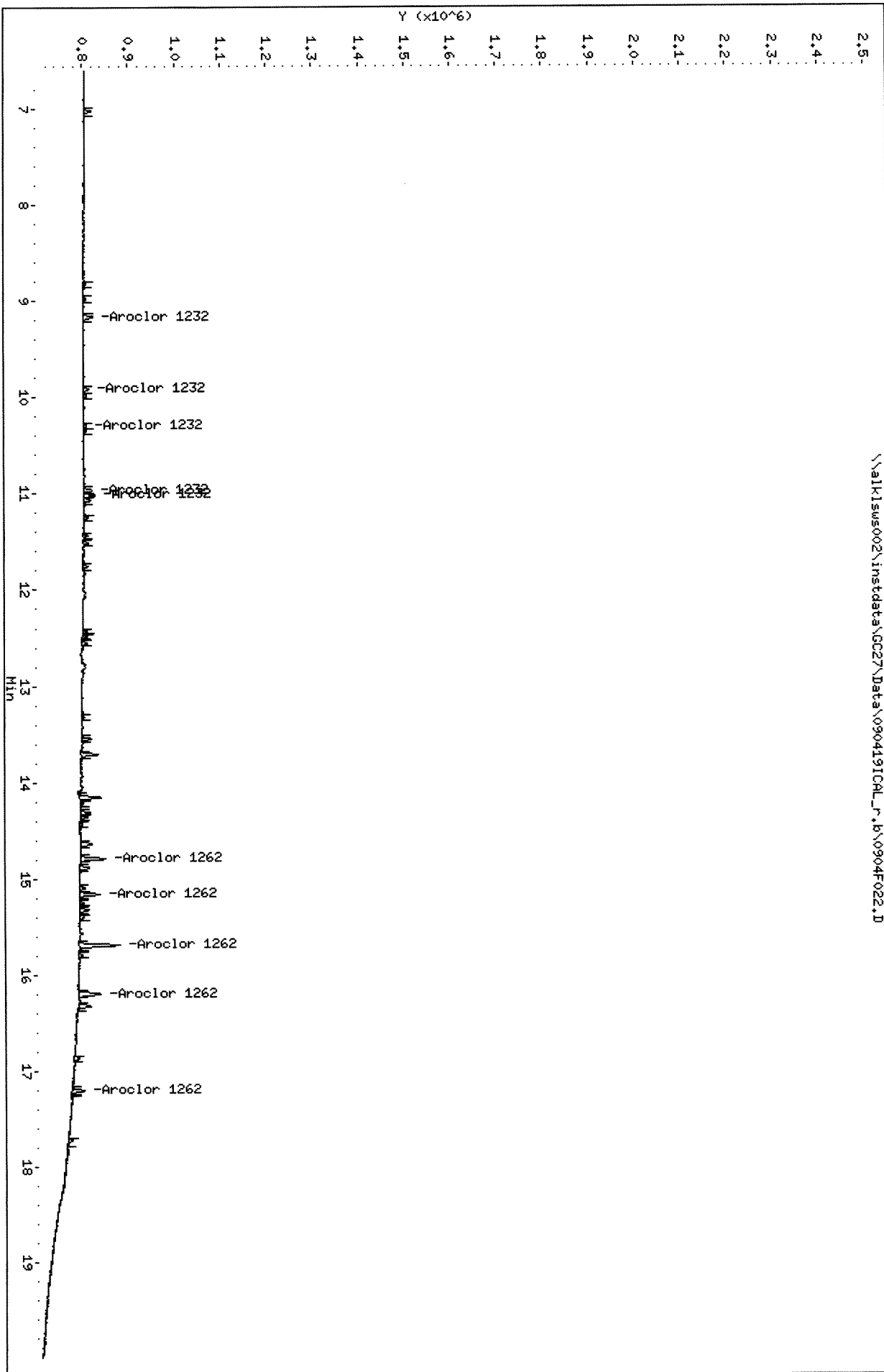
Sample Info: PCB8-13F 3262 @ 2 PPB

Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

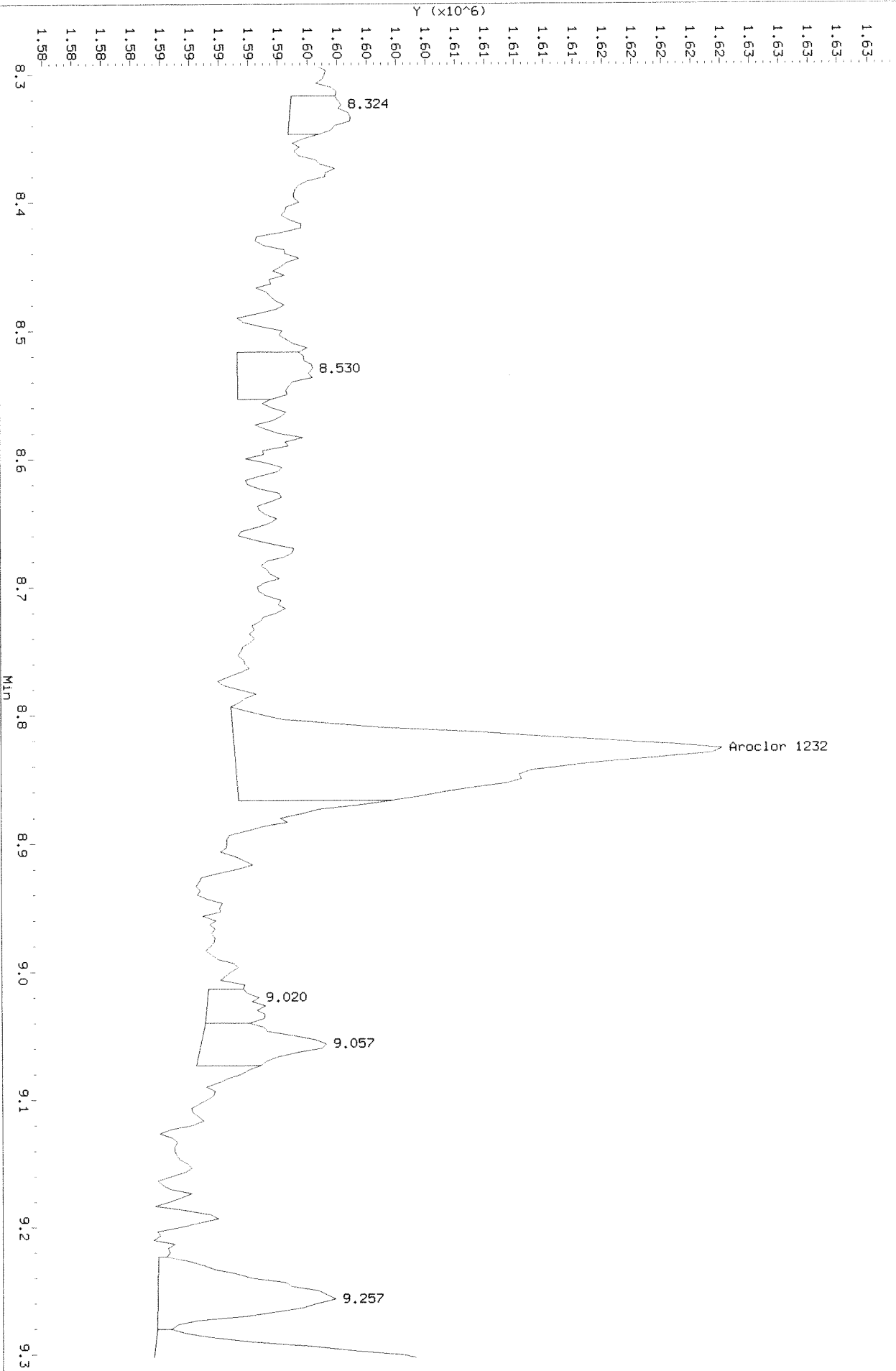
Column diameter: 0.32



Data File: \\alkjms002\instdata\GC27\Data\090419ICAL.P\0904F022.D
Injection Date: 05-SEP-2019 03:29
Instrument: GC27.1
Client Sample ID:

Before

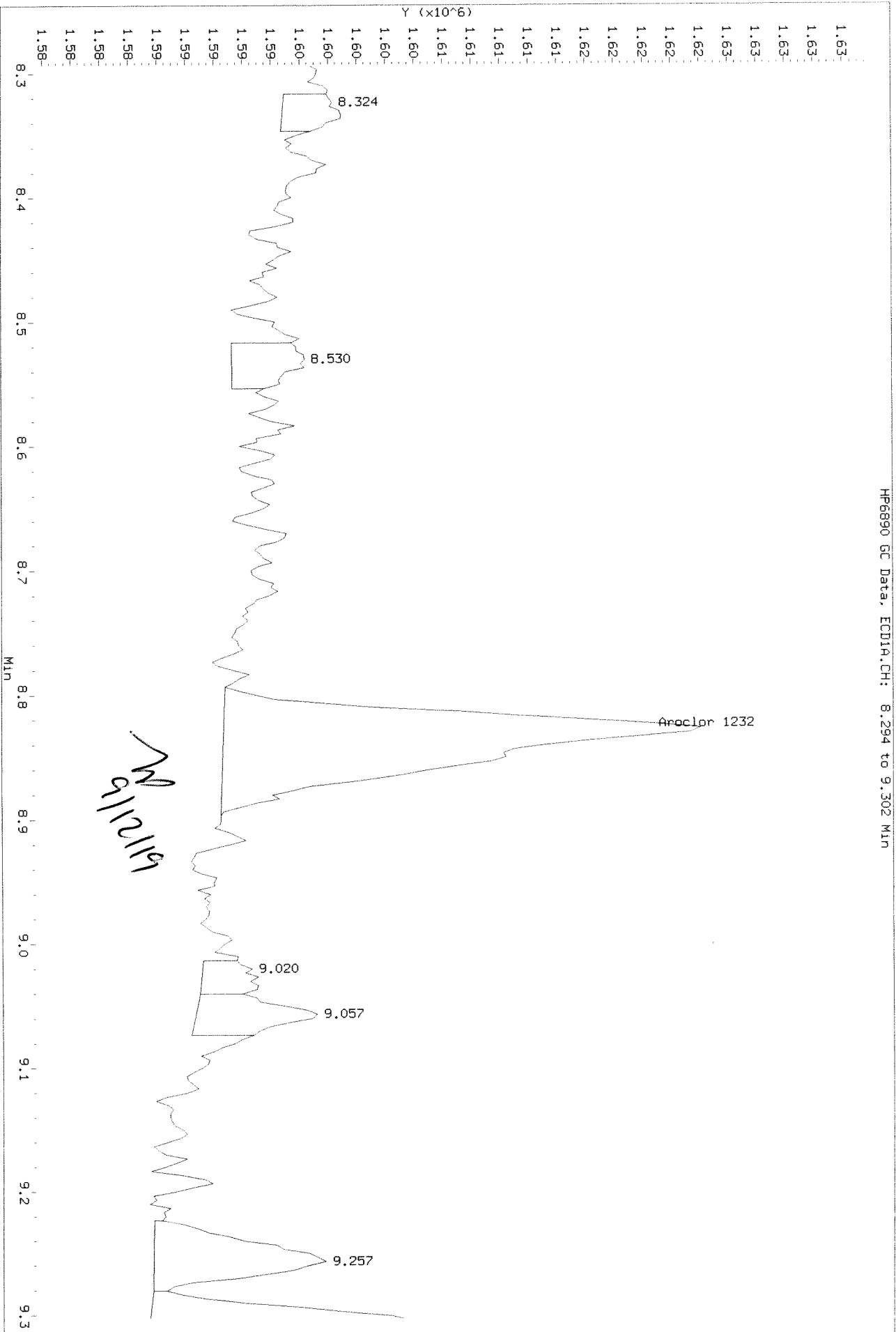
HP6890 GC Data, ECD1A.CH: 8.294 to 9.302 Min



Data File: \\alk1sws002\instdata\GC27\Data\090419ICL.B\0904F022.D
Injection Date: 05-SEP-2019 03:29
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 8.294 to 9.302 MIN

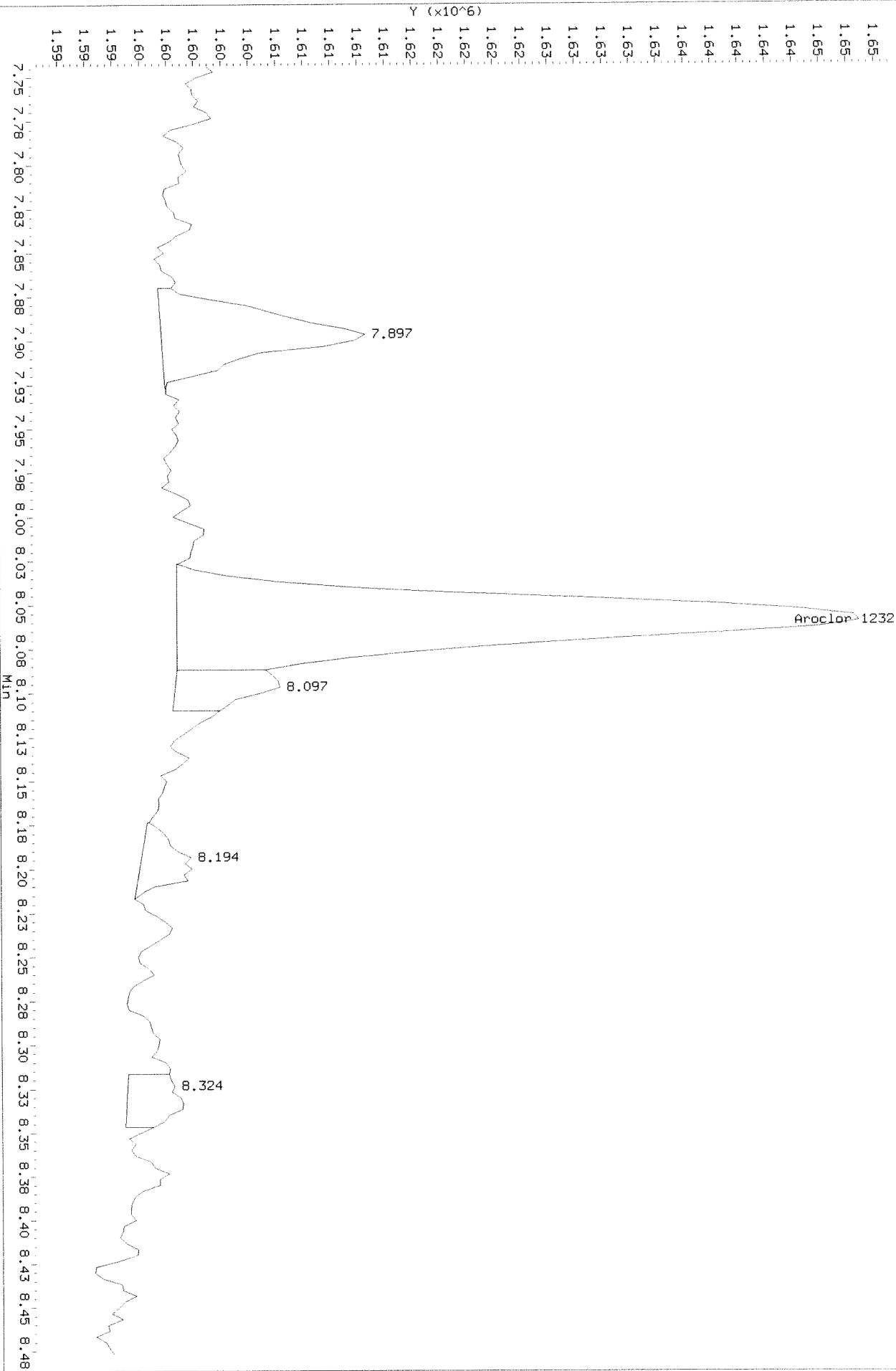
After baseline 9/11/19 A



Data File: \\alklms002\instdata\GC27\Data\090419ICHL.D\0904F022.D
Injection Date: 05-SEP-2019 03:29
Instrument: GC27.1
Client Sample ID:

Before

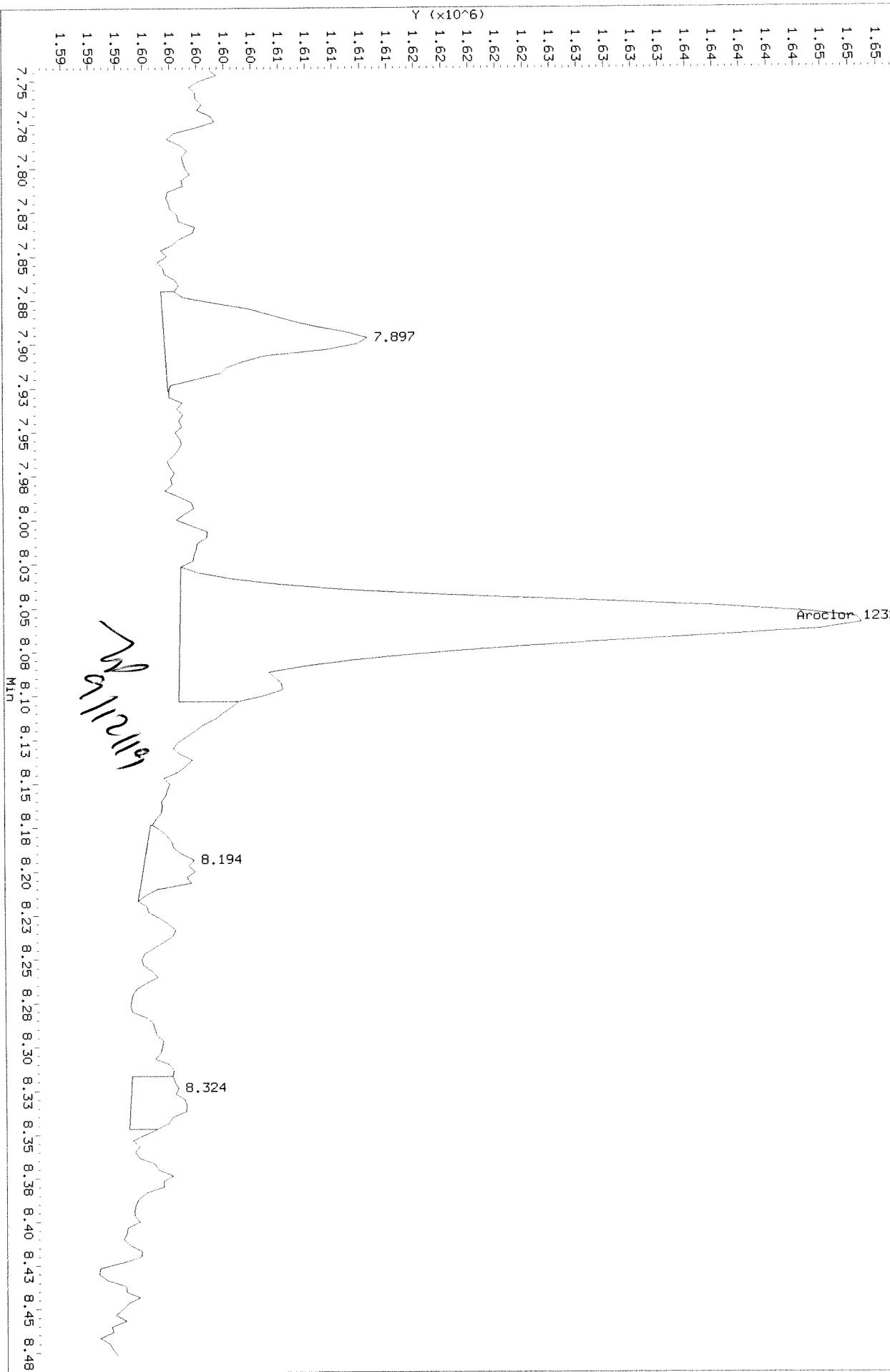
HP6890 GC Data, ECD1A.CH: 7.744 to 8.477 Min



Data File: \\alklsw002\inst\data\GC27\Data\090419ICAL.b\0904f022.D
Injection Date: 09-SEP-2019 03:29
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 7.744 to 8.477 Min

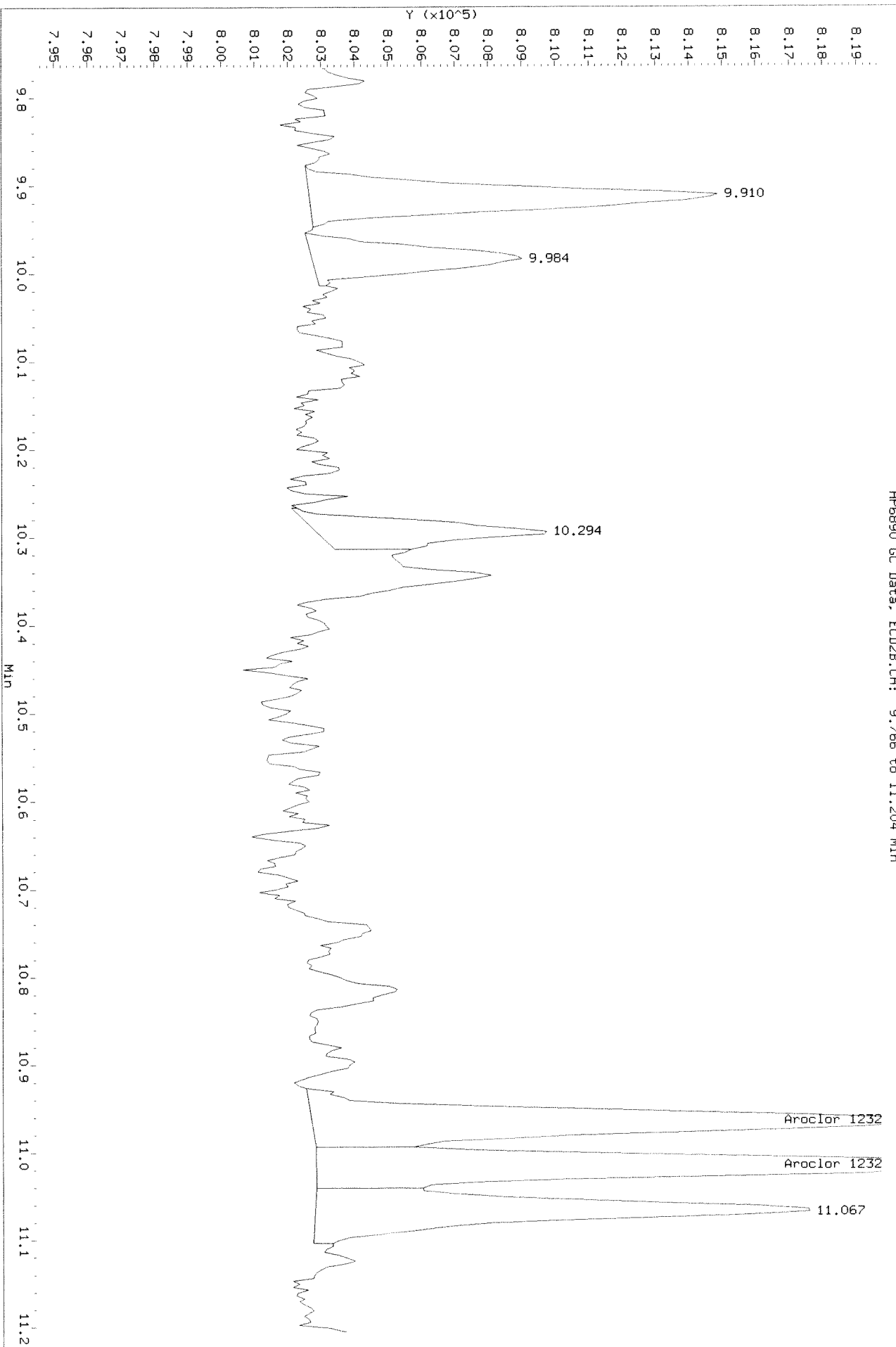
After baseline 9/11/19 *AF*



Data File: \\alkjsw002\instdata\GC27\Data\090419ICALL_r.b\0904F022.D
Injection Date: 05-SEP-2019 03:29
Instrument: GC27.1
Client Sample ID:

Before

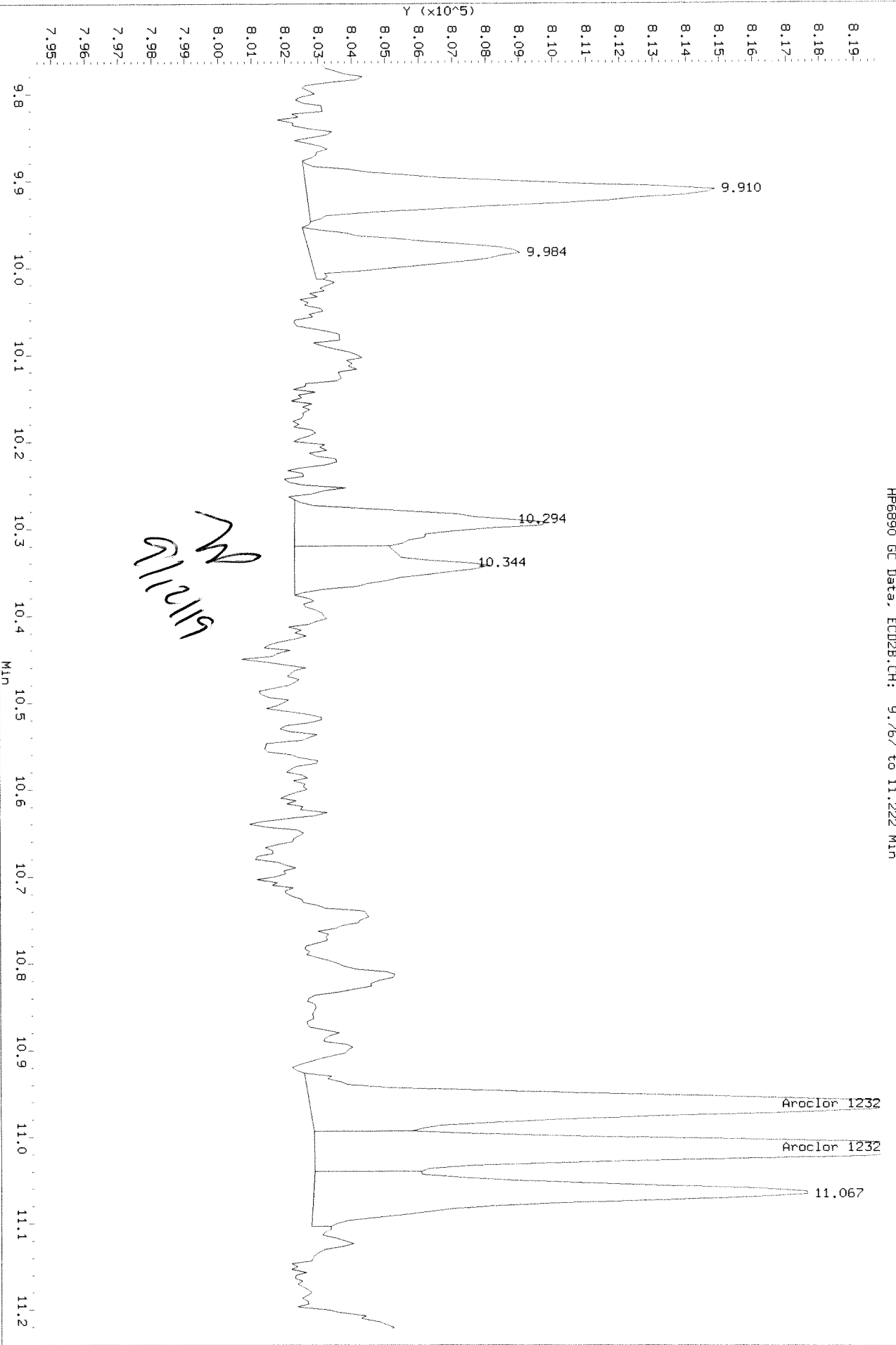
HP6890 GC Data, ECD28.CH: 9.766 to 11.204 Min



Data File: \\alkjsws002\instdata\GC27\Data\090419ICALL_r.b\0904F022.D
Injection Date: 05-SEP-2019 03:29
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECDDB.CH: 9.767 to 11.222 Min

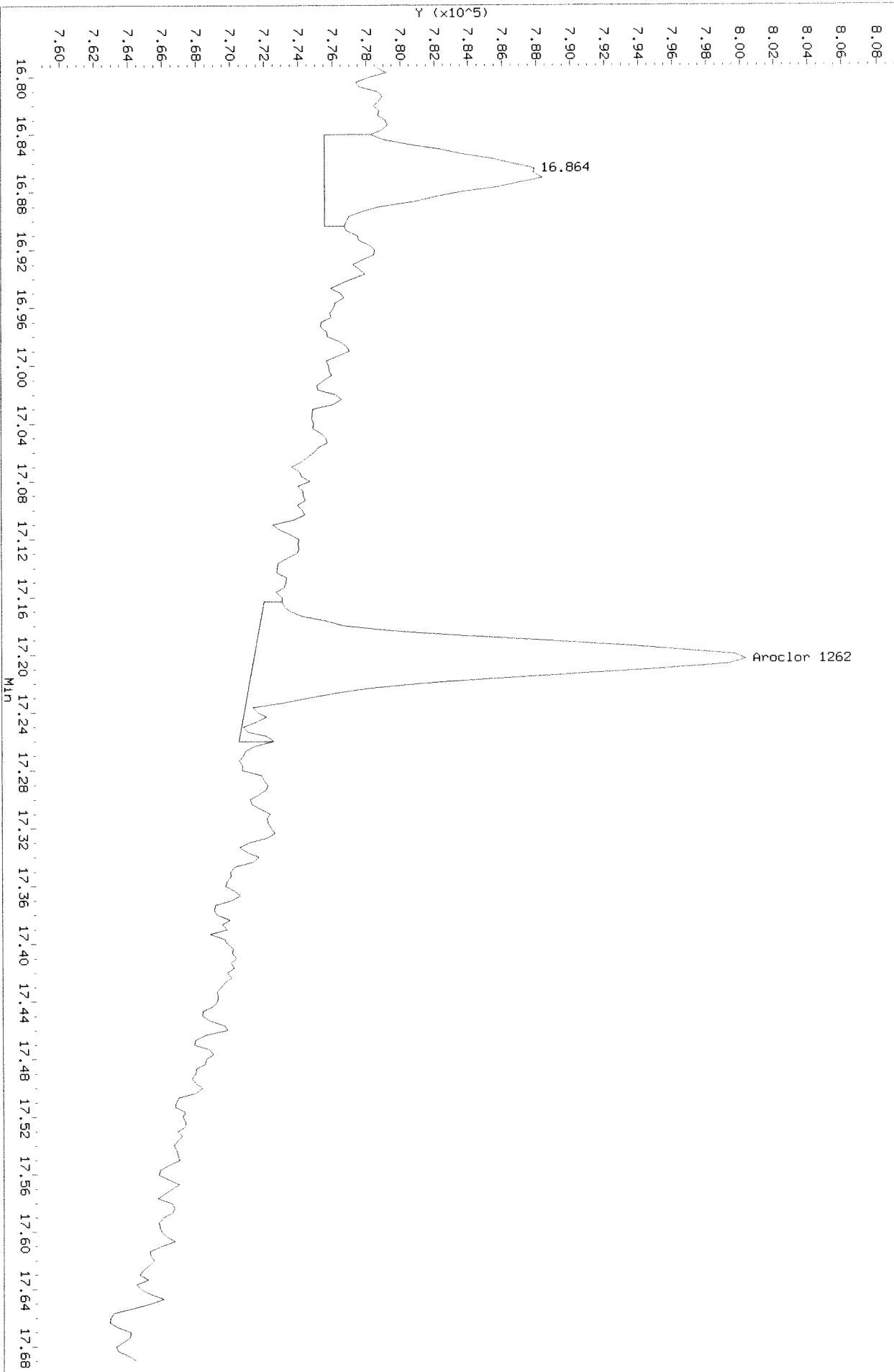
After baseline 7/11/19 ft



Data File: \\alklsws002\instdata\GC27\Data\090419ICALL_r.b\0904F022.D
Injection Date: 05-SEP-2019 03:29
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 16.794 to 17.690 Min

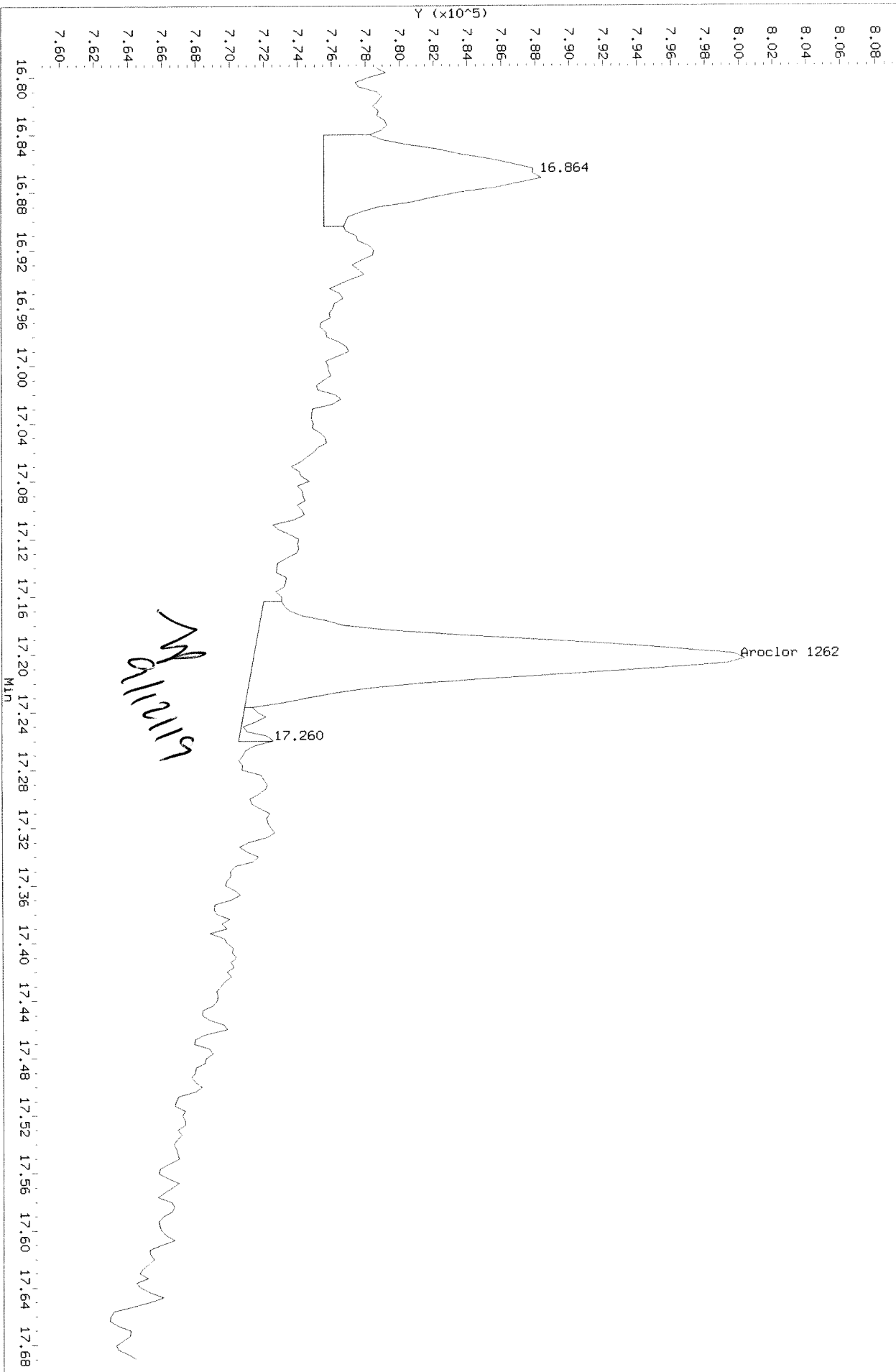
Before



Data File: \\alk1sww002\jinstdata\GC27\Data\090419ICALL_r.b\0904F022.D
Injection Date: 05-SEP-2019 03:29
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 16.794 to 17.690 MIN

After Shoulder 9/11/19 A



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F023.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F023.D
 Inj Date : 05-SEP-2019 04:01
 Sample Info: PCB8-13G 3262 @ 5 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 3262.sub
 Sub List #2 : 3262.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1232	7.659	9.166	78190	98378	5.01	5.00	80.00- 120.00	100.00 (M)
	8.059	9.916	253643	52191	5.41	4.78	234.25- 351.38	324.39 (M)
	8.829	10.293	199072	36278	5.24	4.94	205.56- 308.34	254.60 (M)
	9.306	10.966	73747	77270	5.34	5.10	76.03- 114.04	94.32 (M)
	9.932	11.016	131374	89548	4.98	5.11	137.78- 206.67	168.02 (M)
	Average of Peak Amounts =				5.20	4.99		
Aroclor 1262	13.582	14.793	503399	232359	5.38	5.47	80.00- 120.00	100.00
	14.052	15.163	426464	175690	5.14	5.42	71.44- 107.17	84.72
	14.429	15.689	787008	365455	5.19	5.57	135.47- 203.20	156.34
	15.059	16.199	574517	240089	5.21	5.46	96.75- 145.12	114.13
	15.926	17.203	247383	120962	5.17	5.32	43.01- 64.52	49.14
	Average of Peak Amounts =				5.22	5.45		

QC Flag Legend

M - Compound response manually integrated.

SAA 9/11/19
W

Data File: \\aik1s002\instdata\GC27\Data\090419ICL.b\0904F023.D

Date : 05-SEP-2019 04:01

Client ID:

Sample Info: PCB8-13G 3262 @ 5 PPB

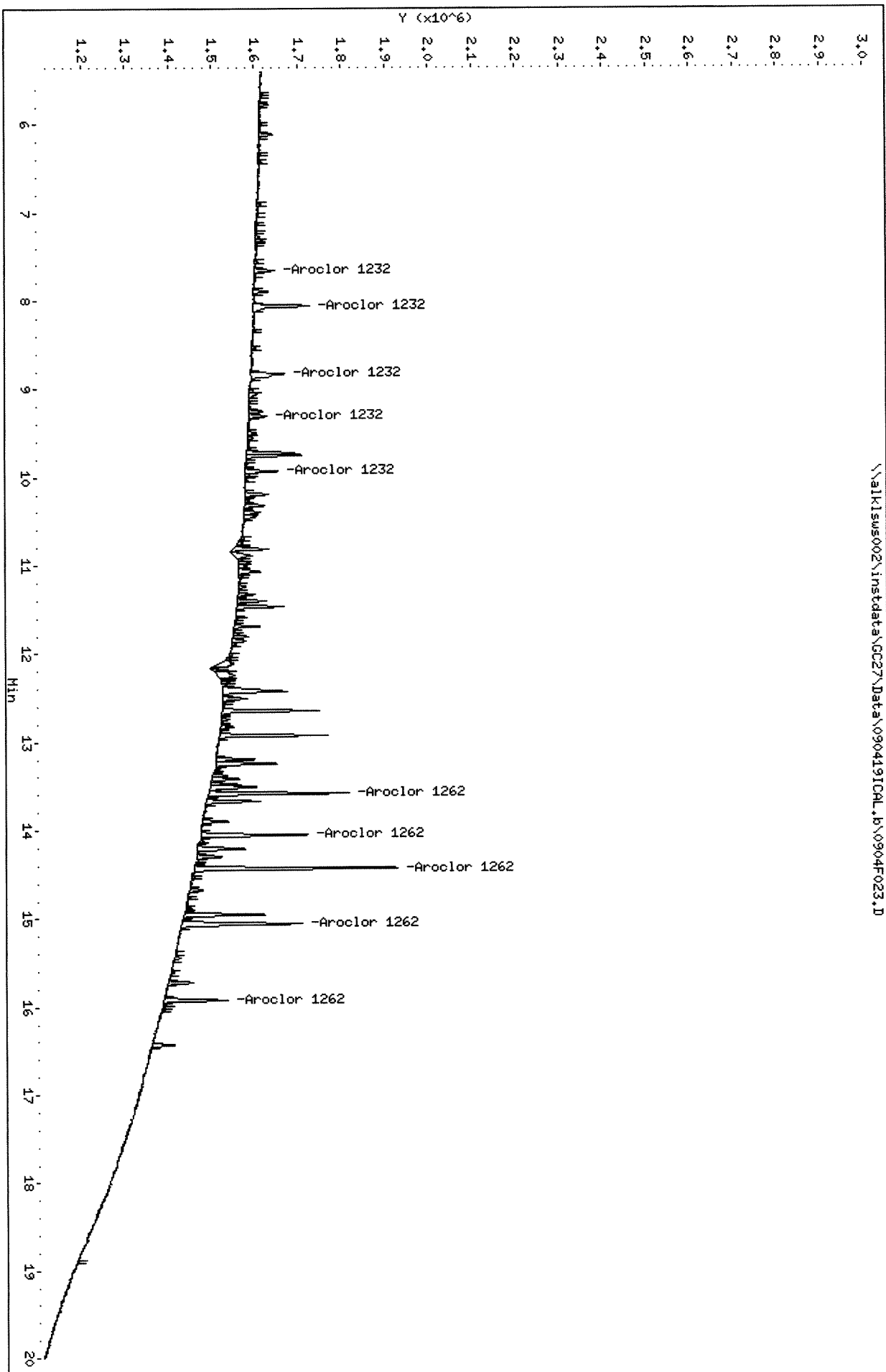
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\aik1s002\instdata\GC27\Data\090419ICL.b\0904F023.D



Data File: \\alk1sws002\instdata\GC27\Data\090419ICAL_r.b\0904F023.D
Date : 05-SEP-2019 04:01

Client ID:

Sample Info: PCB8-13G 3262 @ 5 PPB

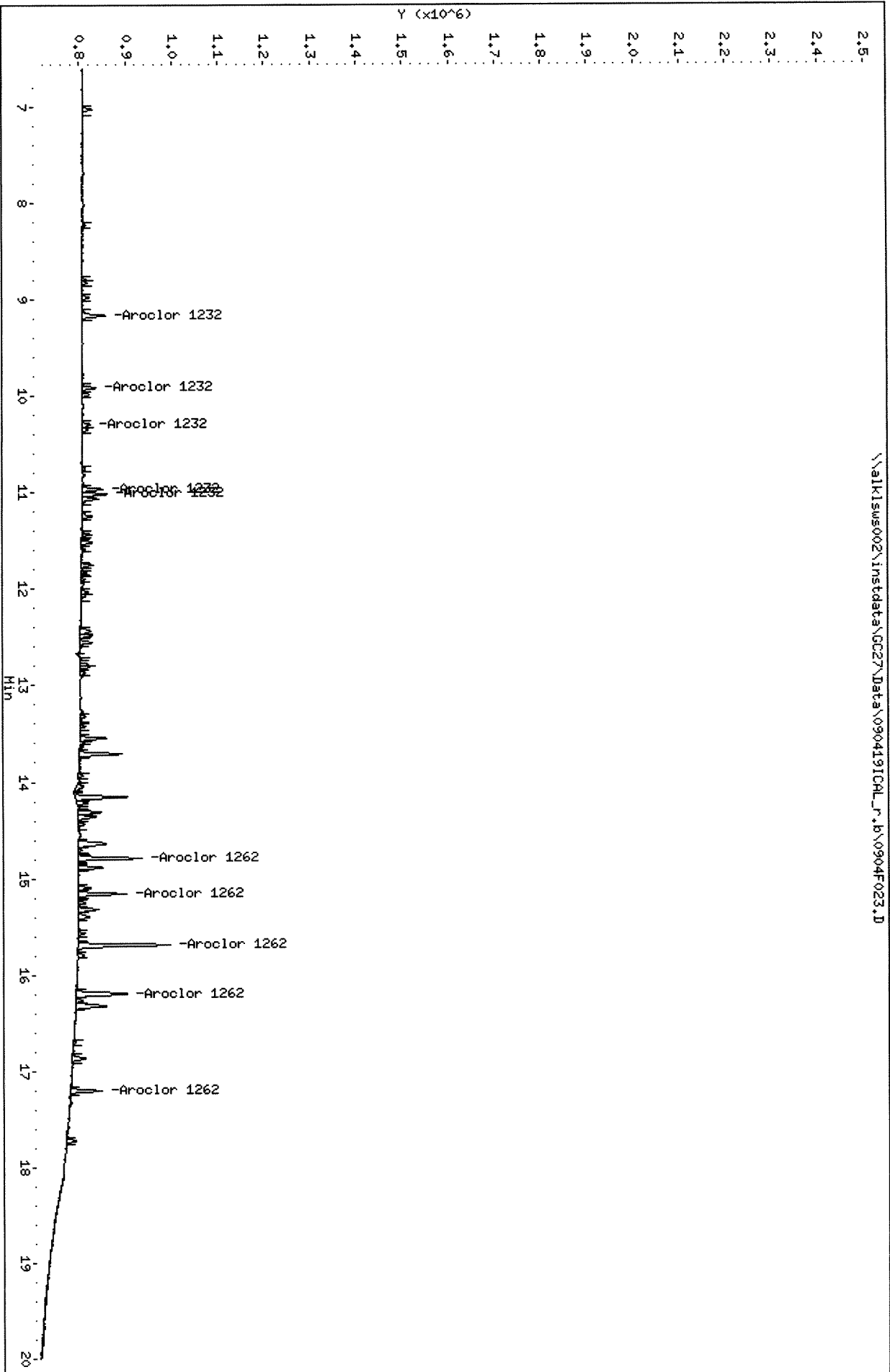
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

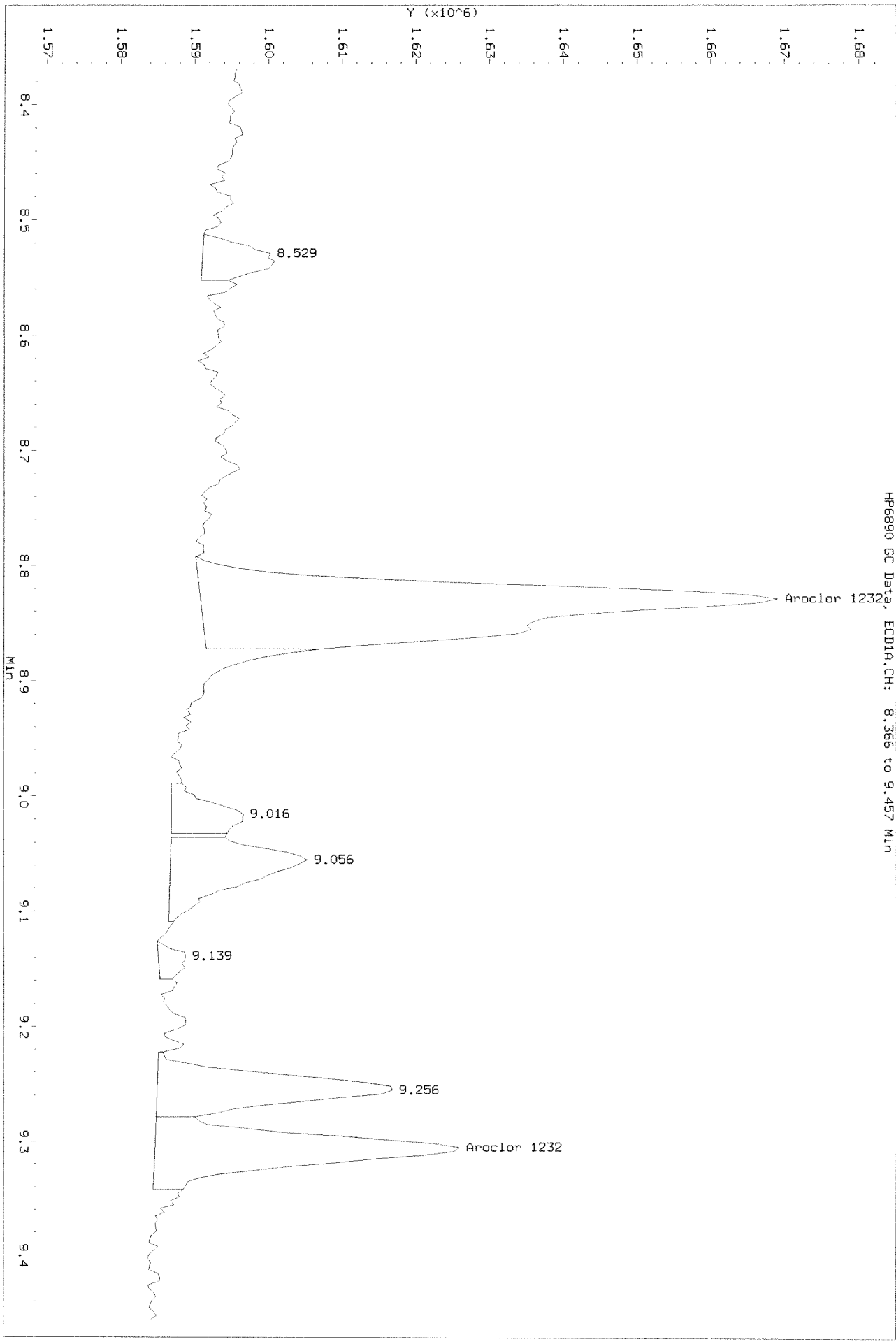
Column diameter: 0.32

\\alk1sws002\instdata\GC27\Data\090419ICAL_r.b\0904F023.D



Data File: \\alkjsws002\instdata\GC27\Data\090419ICAL.b\0904F023.D
Injection Date: 05-SEP-2019 04:01
Instrument: GC27.1
Client Sample ID:

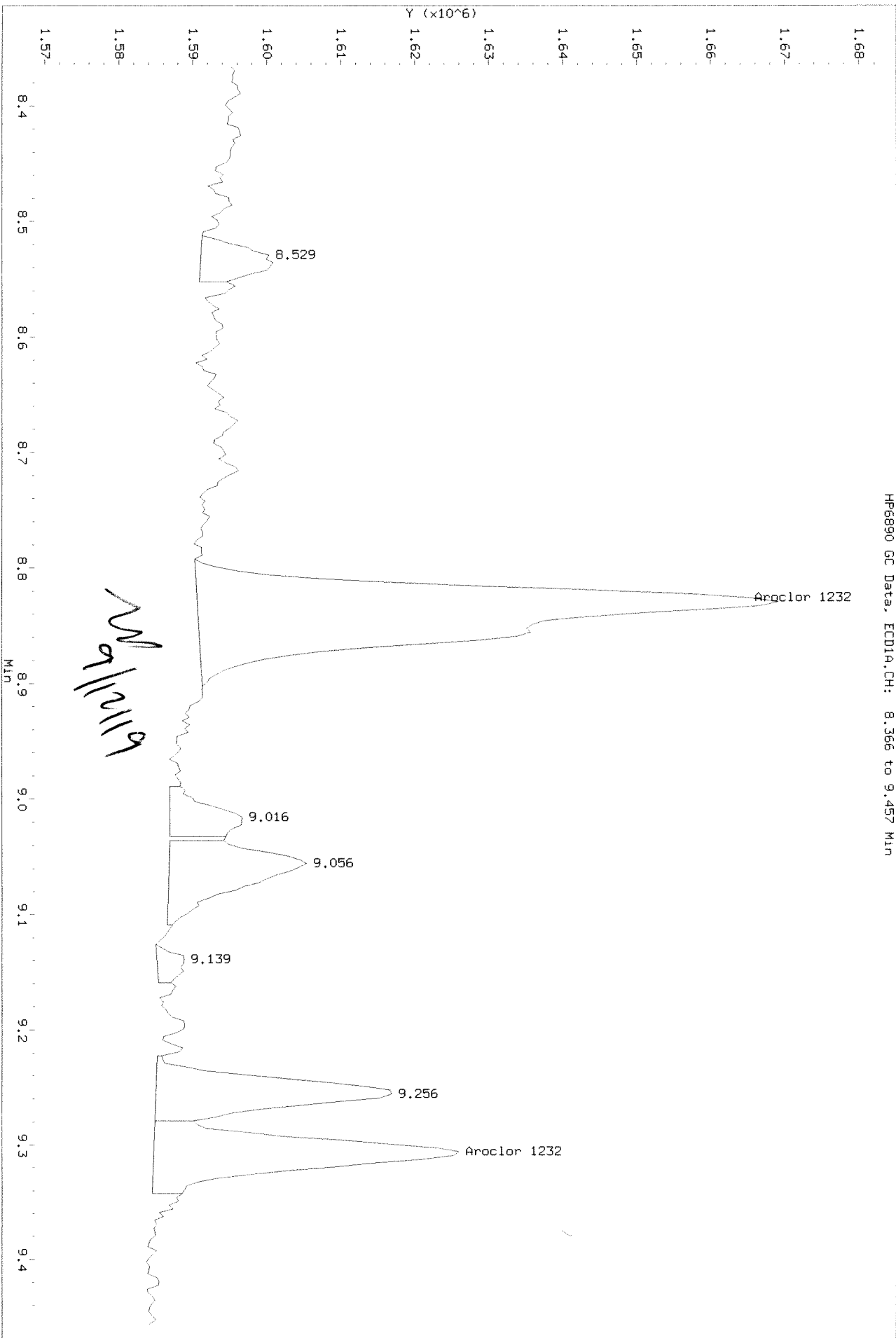
Before



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.B\0904F023.D
Injection Date: 05-SEP-2019 04:01
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 8.366 to 9.457 Min

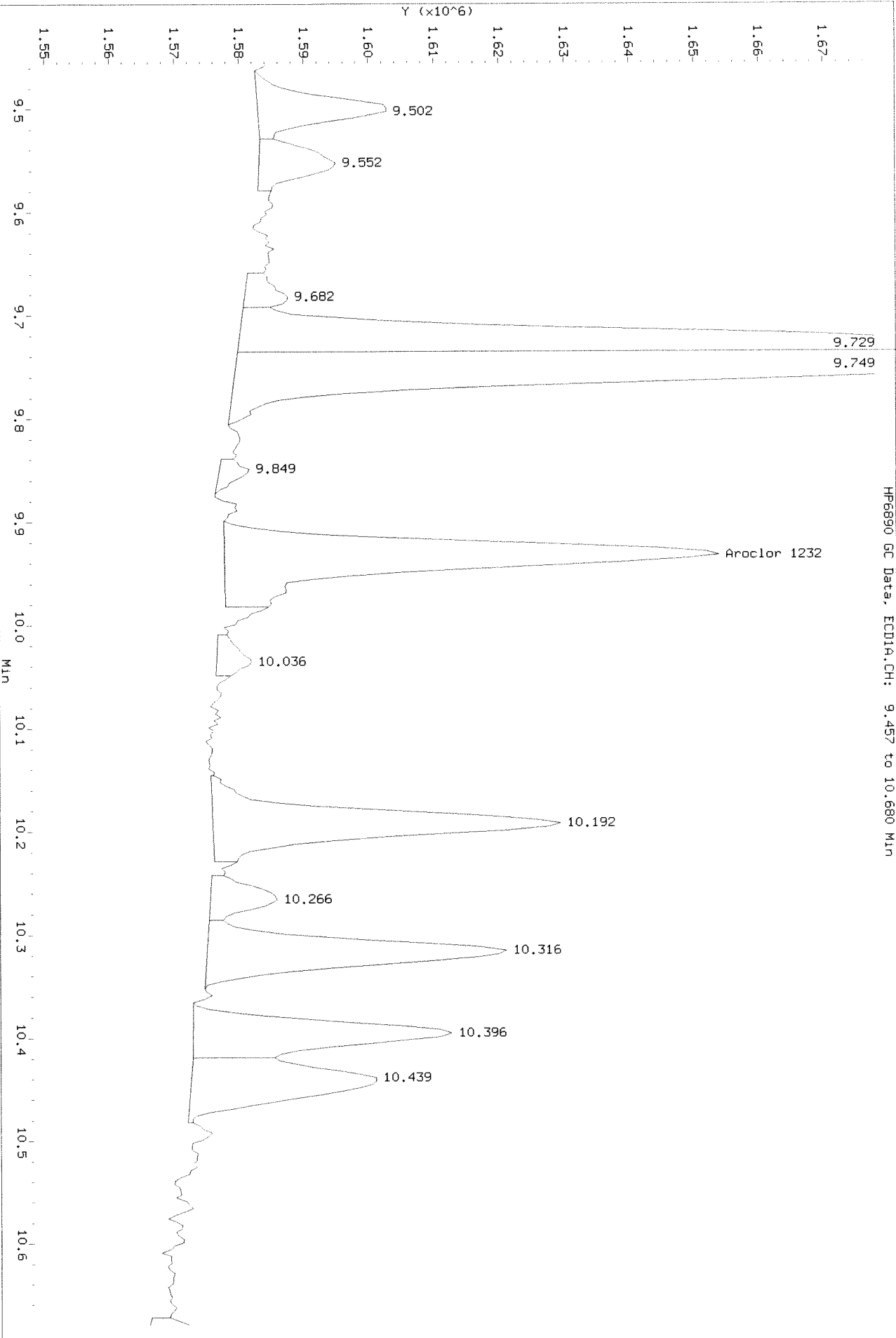
After baseline 9/11/19 A



Data File: \\alklms002\instdata\GC27\Data\090419ICAL.b\0904F023.D
Injection Date: 05-SEP-2019 04:01
Instrument: GC27.1
Client Sample ID:

Before

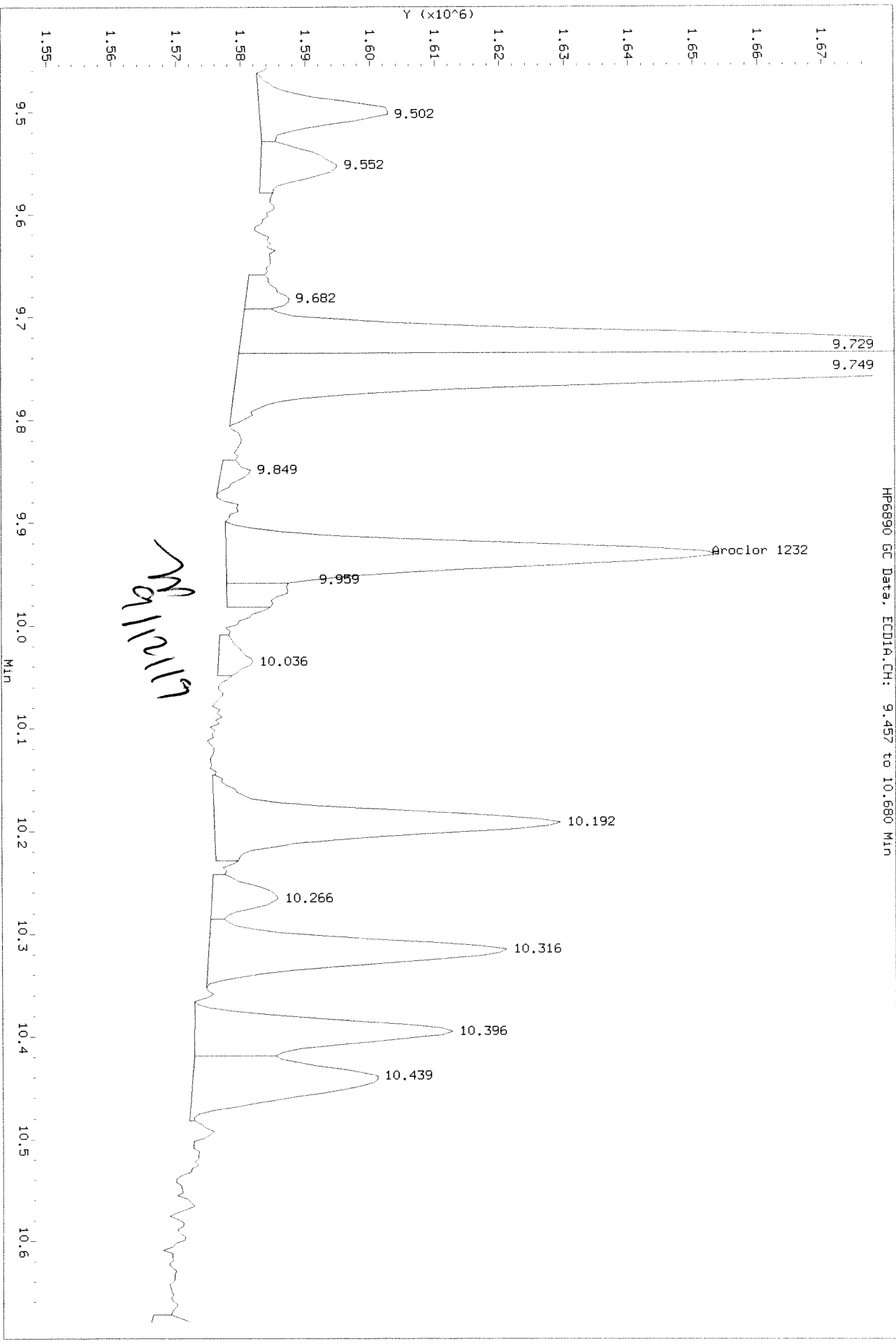
HP6890 GC Data: ECD1A.CH: 9.457 to 10.680 MIN



Data File: \\alk1sww002\instdata\GC27\Data\090419ICAL.b\0904F023.D
Injection Date: 05-SEP-2019 04:01
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 9.457 to 10.680 Min

After Shoulder 9/11/19 SA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F024.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F024.D
 Inj Date : 05-SEP-2019 04:32
 Sample Info: PCB8-13H 3262 @ 10 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 3262.sub
 Sub List #2 : 3262.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1232	7.656	9.166	163107	214876	10.5	10.9	80.00- 120.00	100.00 (M)
	8.056	9.916	509540	114653	10.9	10.5	234.25- 351.38	312.40 (M)
	8.826	10.296	421344	77243	11.1	10.5	205.56- 308.34	258.32 (M)
	9.302	10.966	148552	166685	10.8	11.0	76.03- 114.04	91.08 (M)
	9.929	11.016	276681	197514	10.5	11.3	137.78- 206.67	169.63 (M)
	Average of Peak Amounts =				10.8	10.8		
Aroclor 1262	13.579	14.793	1030827	492700	11.0	11.6	80.00- 120.00	100.00
	14.052	15.163	902216	372834	10.9	11.5	71.44- 107.17	87.52
	14.429	15.693	1646131	752262	10.9	11.5	135.47- 203.20	159.69
	15.056	16.199	1202229	510435	10.9	11.6	96.75- 145.12	116.63
	15.922	17.203	524390	254968	11.0	11.2	43.01- 64.52	50.87
	Average of Peak Amounts =				10.9	11.5		

QC Flag Legend

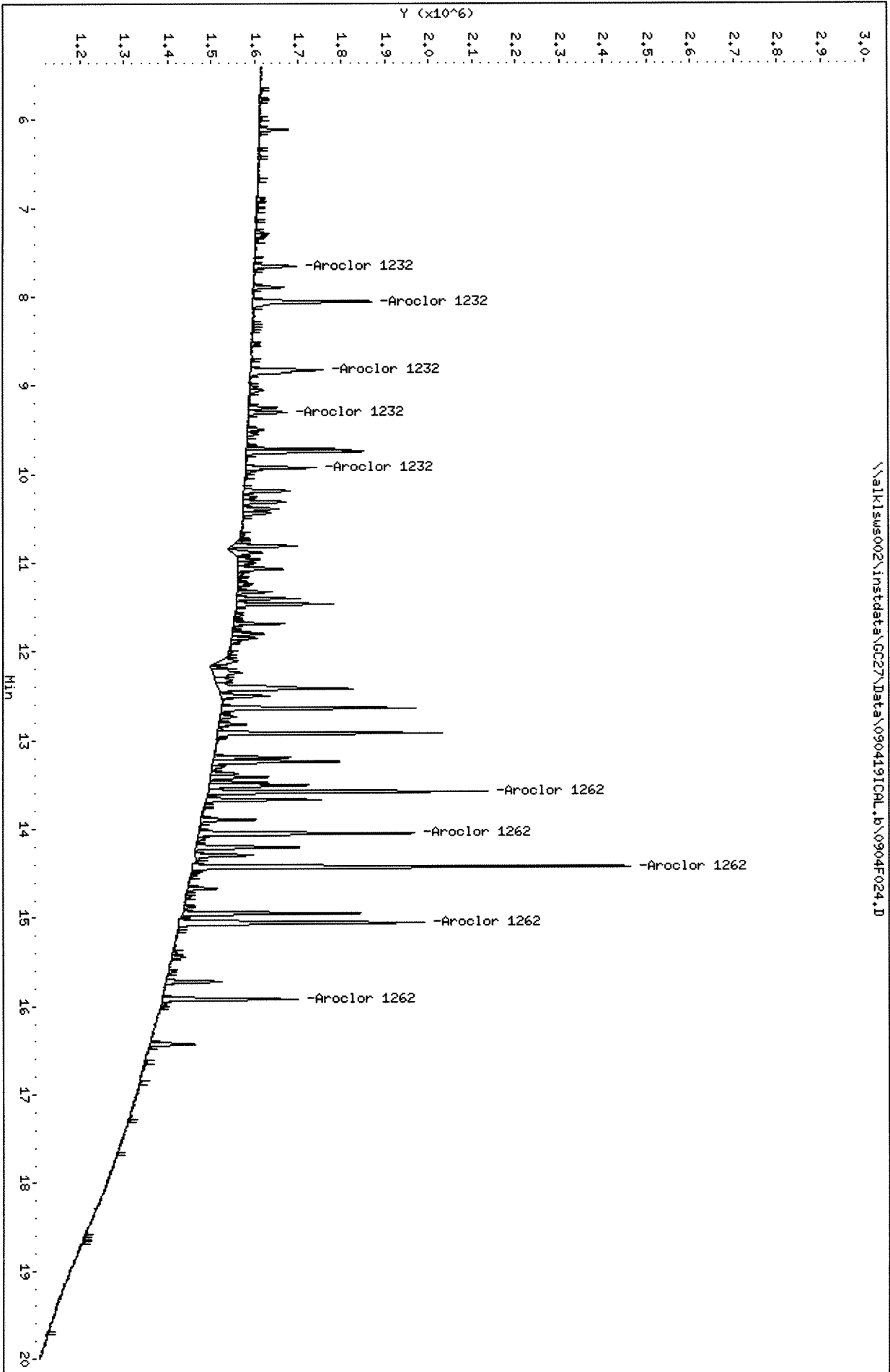
M - Compound response manually integrated.

SA 9/11/19
W

Data File: \\alk1sus002\instdata\GC27\Data\090419ICAL.b\0904f024.D
Date : 05-SEP-2019 04:32
Client ID:
Sample Info: PCB8-13H 3262 @ 10 PPB
Column phase: DB-35MS

Instrument: GC27.i
Operator: SAA
Column diameter: 0.32

\\alk1sus002\instdata\GC27\Data\090419ICAL.b\0904f024.D



Data File: \\alk1s002\instdata\GC27\Data\090419ICAL_r.b\0904F024.D

Date : 05-SEP-2019 04:32

Client ID:

Sample Info: PCB8-13H 3262 @ 10 PPB

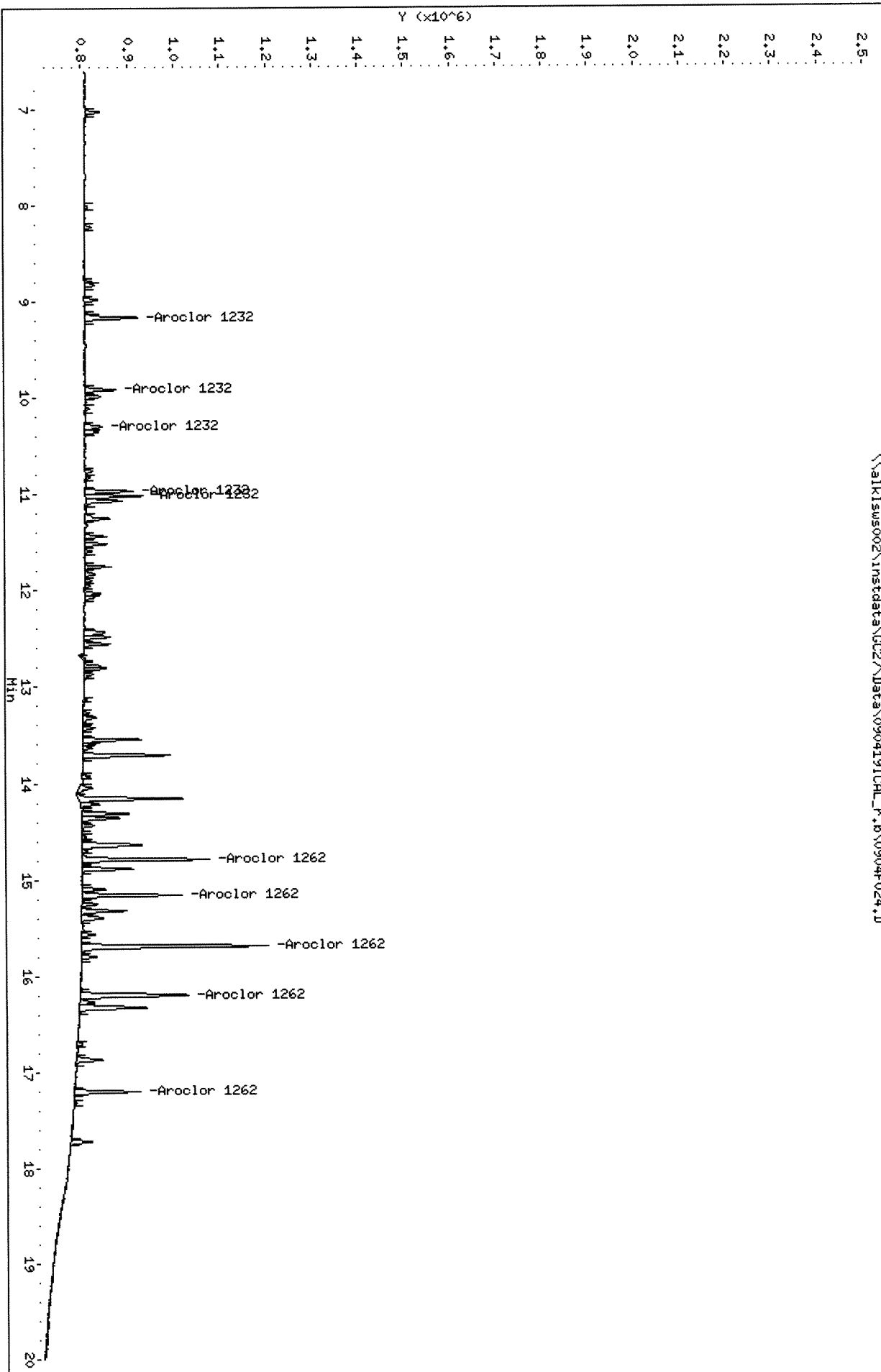
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

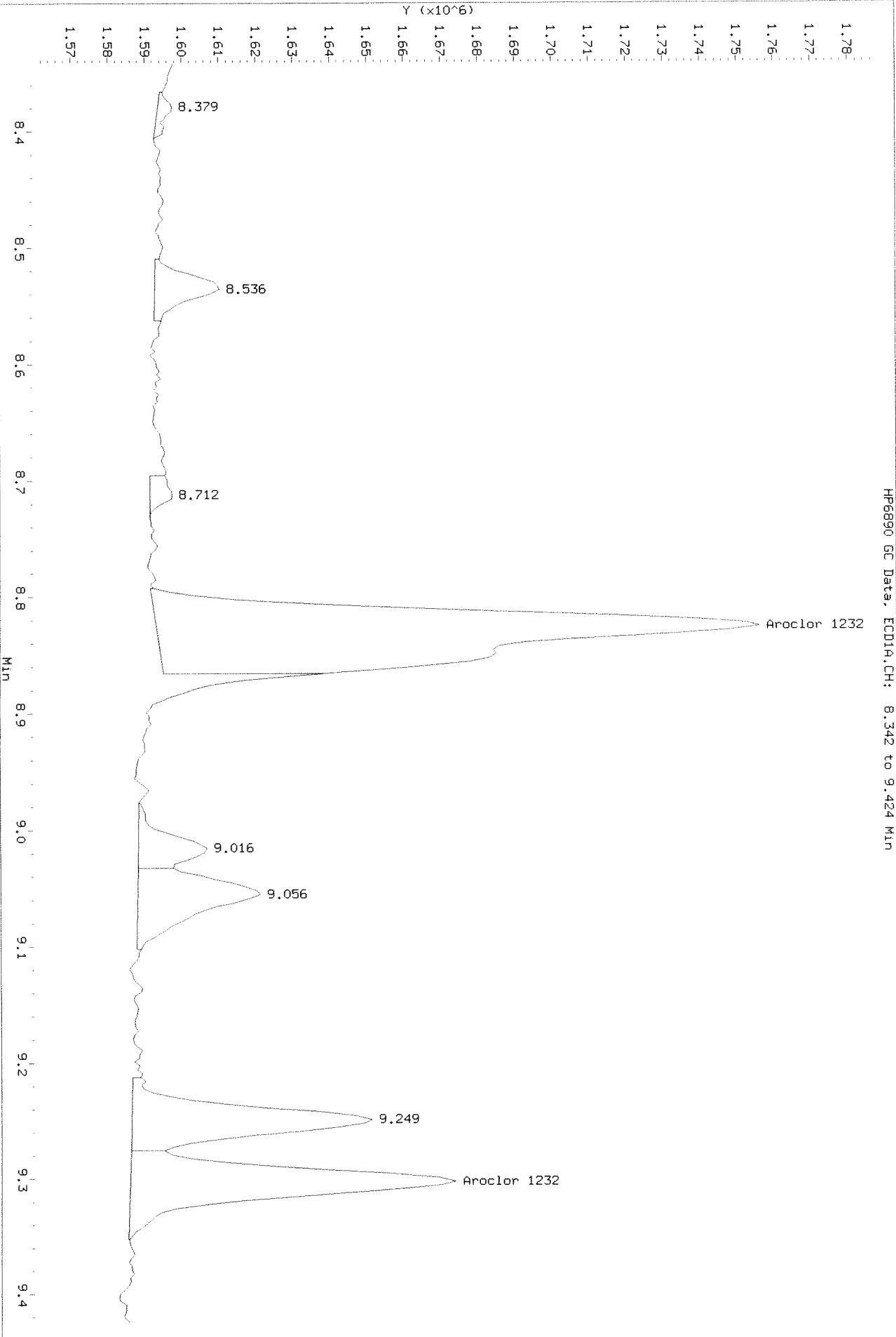
\\alk1s002\instdata\GC27\Data\090419ICAL_r.b\0904F024.D



Data File: \\alklsws002\jnst\data\GC27\Data\090419ICAL.P\0904F024.D
Injection Date: 05-SEP-2019 04:32
Instrument: GC27.1
Client Sample ID:

Before

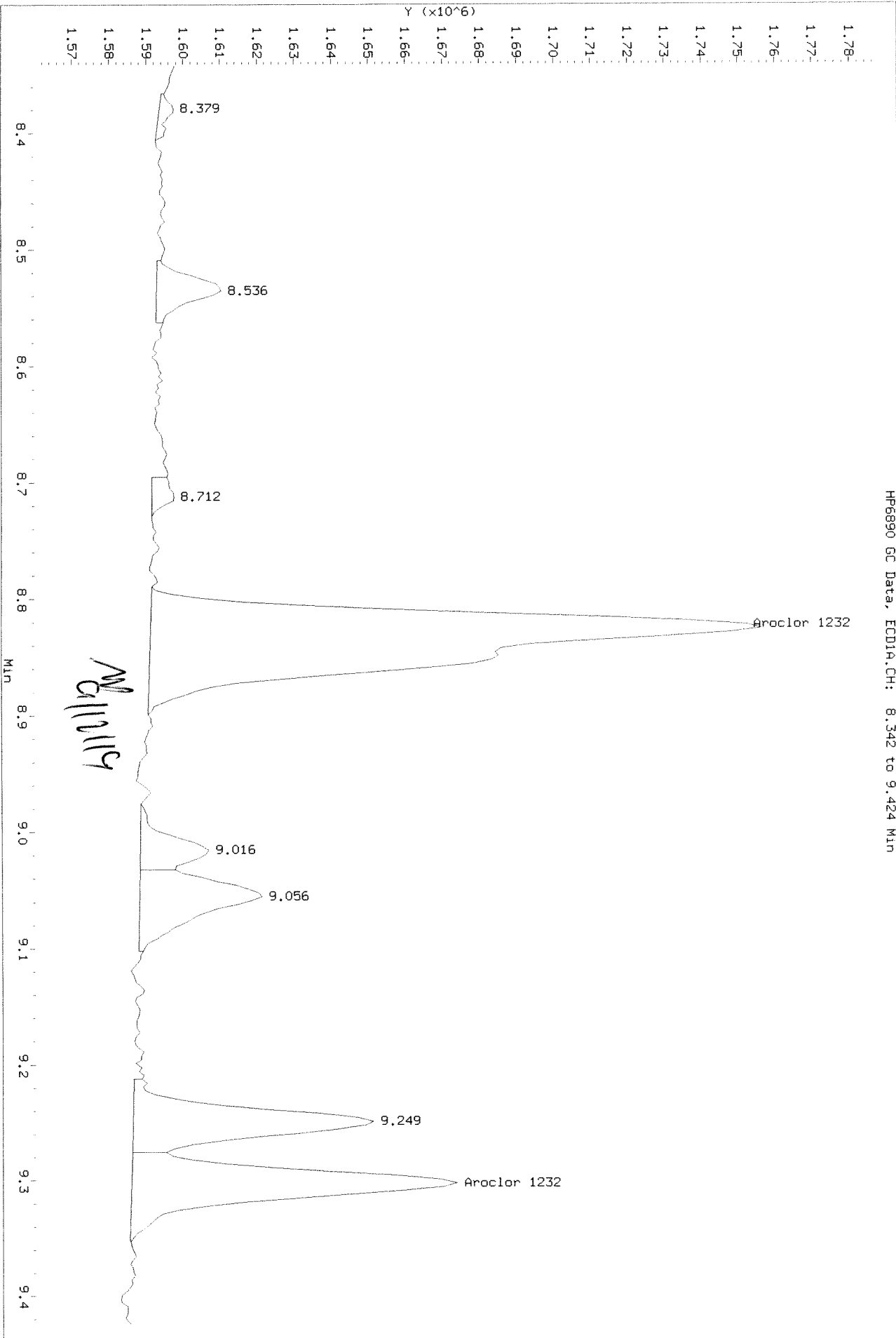
HP6890 GC Data, ECD1A.CH: 8.342 to 9.424 Min



Data File: \\alkisw002\instdata\GC27\Data\090419ICDL.p\0904F024.D
Injection Date: 05-SEP-2019 04:32
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 8.342 to 9.424 Min

After baseline 9/11/19 SA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F025.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F025.D
 Inj Date : 05-SEP-2019 05:04
 Sample Info: PCB7-91H 3262 @ 20 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 3262.sub
 Sub List #2 : 3262.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1232	7.655	9.166	297289	420033	19.1	21.3	80.00- 120.00	100.00 (M)
	8.055	9.916	887996	214617	18.9	19.6	234.25- 351.38	298.70 (M)
	8.825	10.296	801788	142064	21.1	19.4	205.56- 308.34	269.70 (M)
	9.302	10.966	276304	310237	20.0	20.5	76.03- 114.04	92.94 (M)
	9.929	11.016	489964	356114	18.6	20.3	137.78- 206.67	164.81 (M)
	Average of Peak Amounts =				19.5	20.2		
Aroclor 1262	13.579	14.789	1759122	825713	18.8	19.4	80.00- 120.00	100.00 (M)
	14.049	15.159	1552466	627032	18.7	19.3	71.44- 107.17	88.25 (M)
	14.429	15.692	2809925	1244832	18.5	19.0	135.47- 203.20	159.73 (M)
	15.055	16.199	2056744	854558	18.7	19.4	96.75- 145.12	116.92 (M)
	15.922	17.202	901918	427554	18.9	18.8	43.01- 64.52	51.27 (M)
	Average of Peak Amounts =				18.7	19.2		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
W

Data File: \\alklsws002\instdata\GC27\Data\090419ICL.b\0904F025.D

Date : 05-SEP-2019 05:04

Client ID:

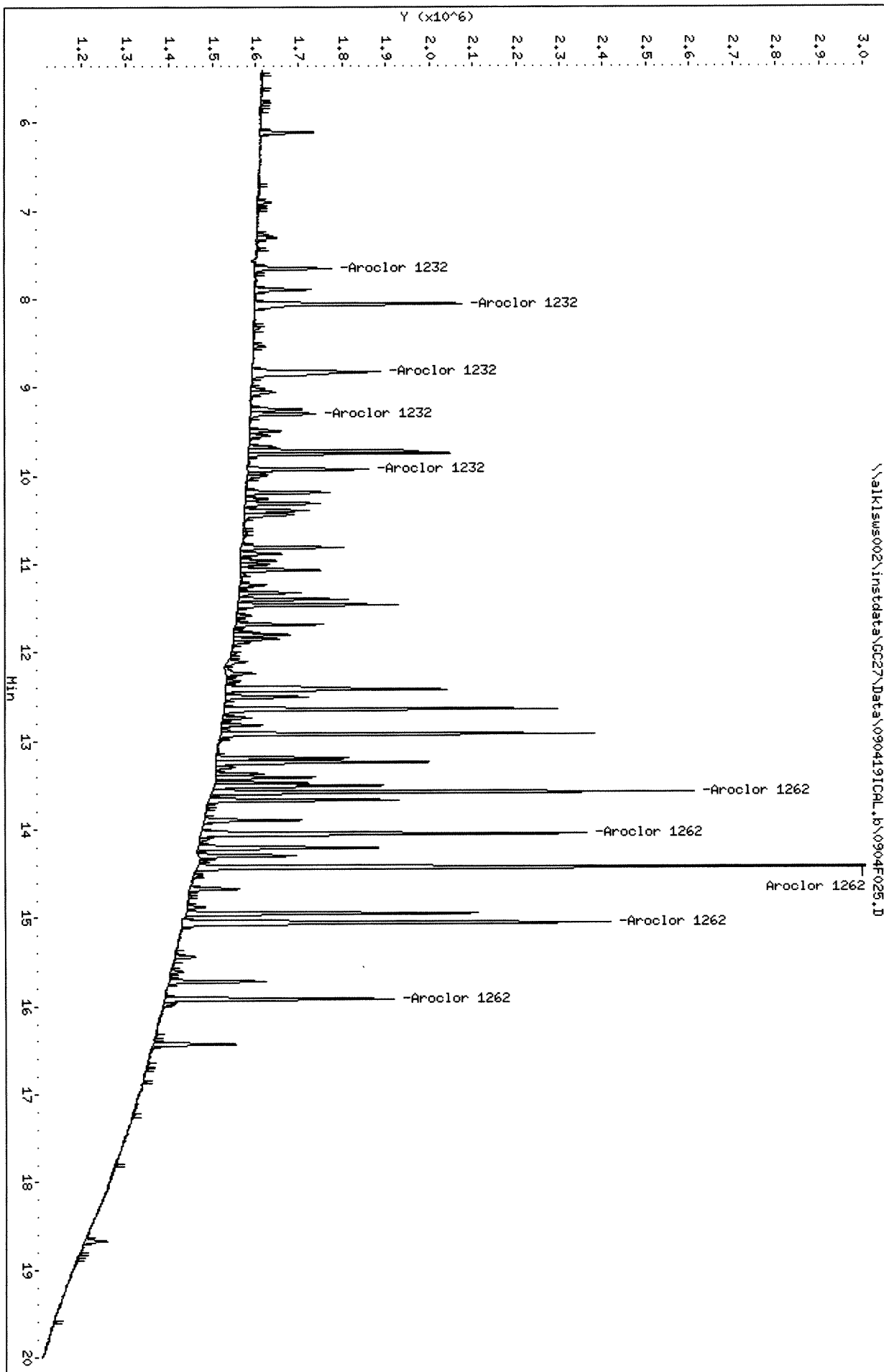
Sample Info: PCB7-91H 3262 @ 20 PPB

Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Data File: \\alkisws002\instdata\GC27\Data\090419ICL_r.b\0904F025.D
Date: 05-SEP-2019 05:04

Client ID:

Sample Info: PCB7-91H 3262 @ 20 PPS

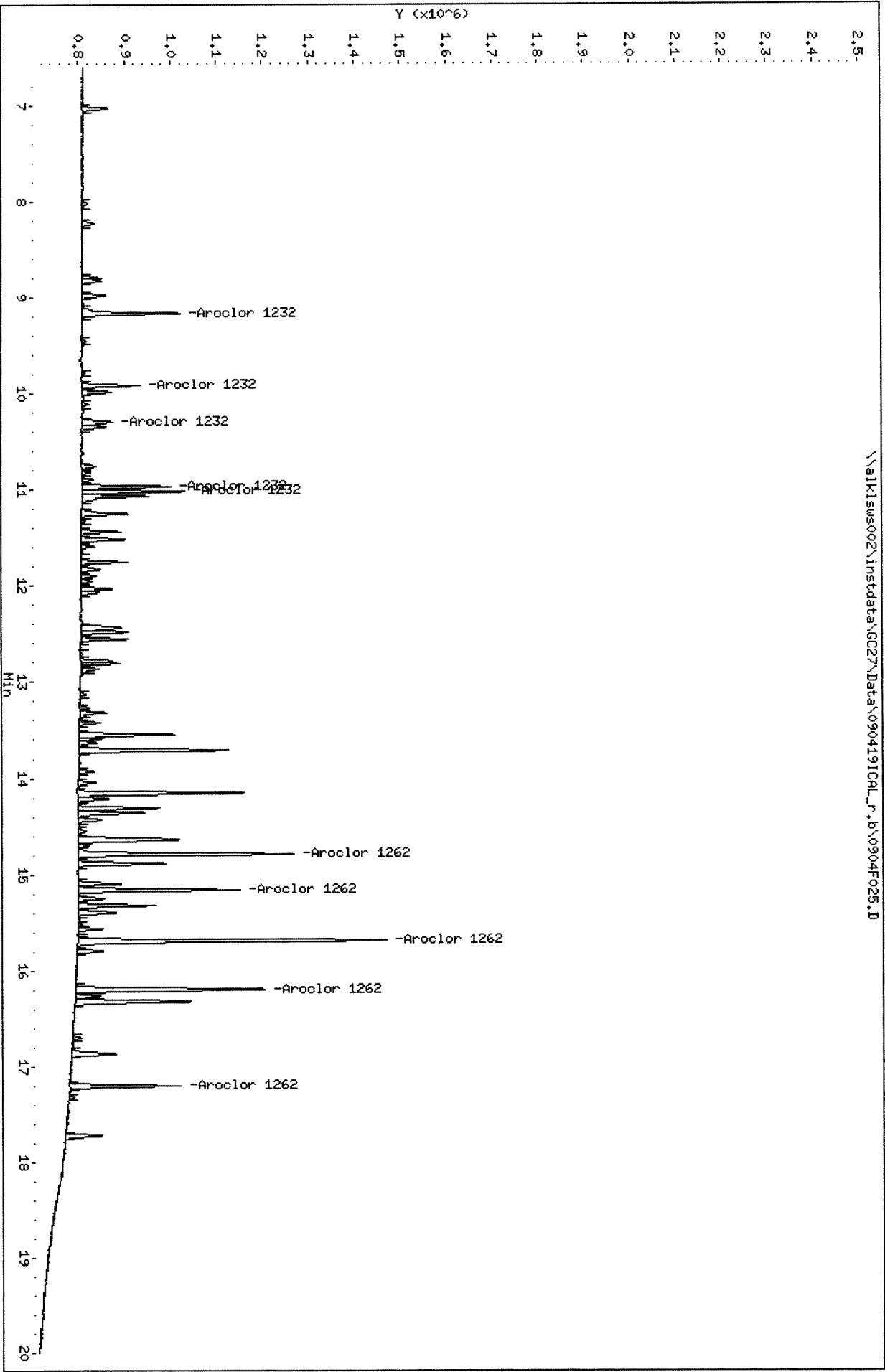
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alkisws002\instdata\GC27\Data\090419ICL_r.b\0904F025.D



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F026.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F026.D
 Inj Date : 05-SEP-2019 05:35
 Sample Info: PCB7-91I 3262 @ 50 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 3262.sub
 Sub List #2 : 3262.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1232	7.657	9.167	701344	1023218	44.9	52.0	80.00- 120.00	100.00
	8.057	9.914	2112082	547384	45.0	50.1	234.25- 351.38	301.15
	8.824	10.294	1836506	375941	48.4	51.2	205.56- 308.34	261.86
	9.304	10.967	663328	742806	48.1	49.0	76.03- 114.04	94.58
	9.927	11.017	1197355	879524	45.4	50.2	137.78- 206.67	170.72
	Average of Peak Amounts =				46.4	50.5		
Aroclor 1262	13.577	14.790	4200046	1883391	44.9	44.3	80.00- 120.00	100.00
	14.050	15.160	3729611	1446952	45.0	44.6	71.44- 107.17	88.80
	14.427	15.694	6761808	2804901	44.6	42.7	135.47- 203.20	160.99
	15.057	16.197	4911153	1969224	44.5	44.8	96.75- 145.12	116.93
	15.920	17.204	2189541	1023062	45.8	45.0	43.01- 64.52	52.13
	Average of Peak Amounts =				45.0	44.3		

CA 9/11/19


Data File: \\alkisw002\instdata\GC27\Data\090419ICL.b\0904F026.D

Date : 05-SEP-2019 05:35

Client ID:

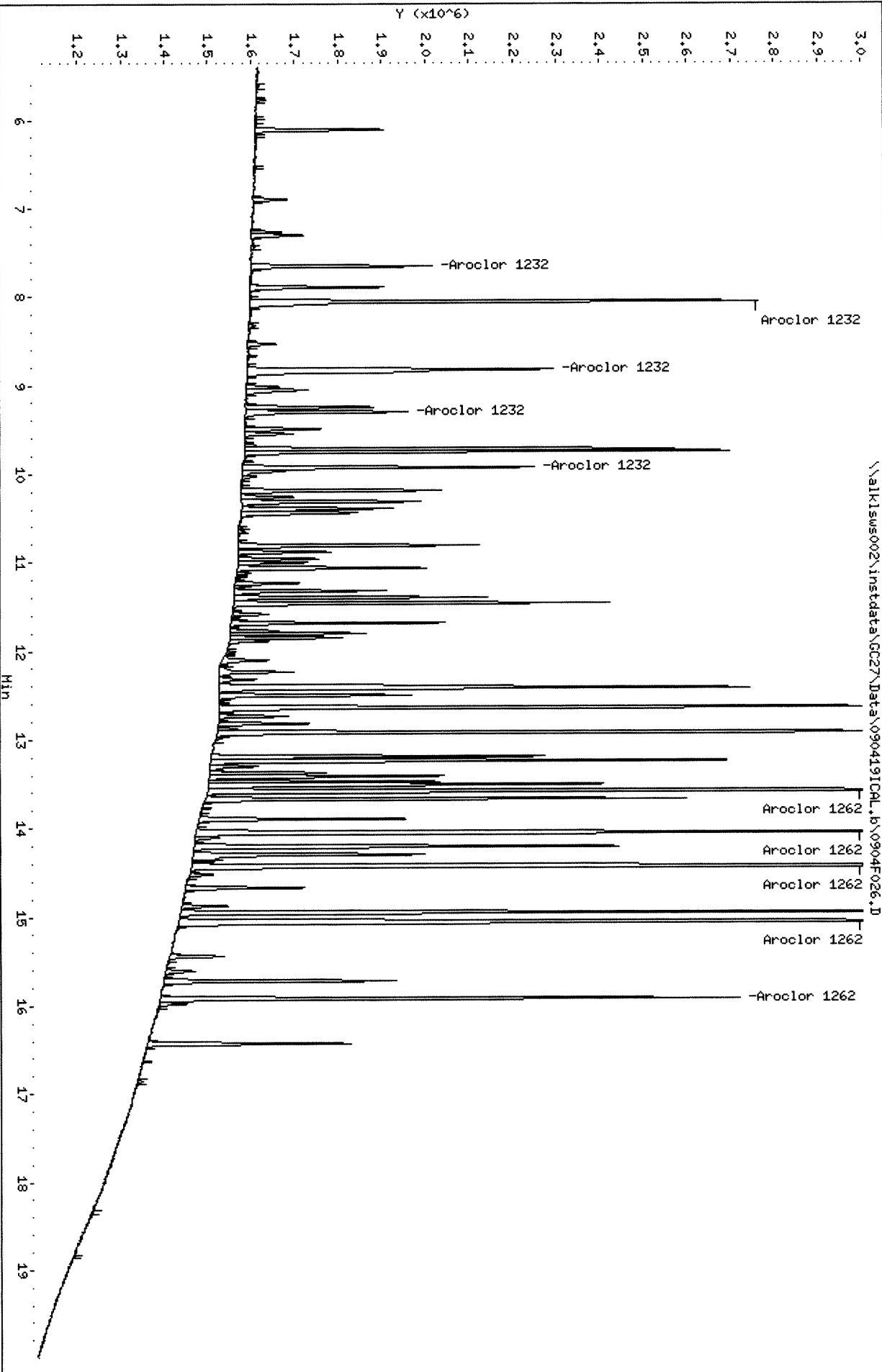
Sample Info: PCB7-911 3262 @ 50 PPB

Column phase: DB-35MS

Instrument: GC27.i

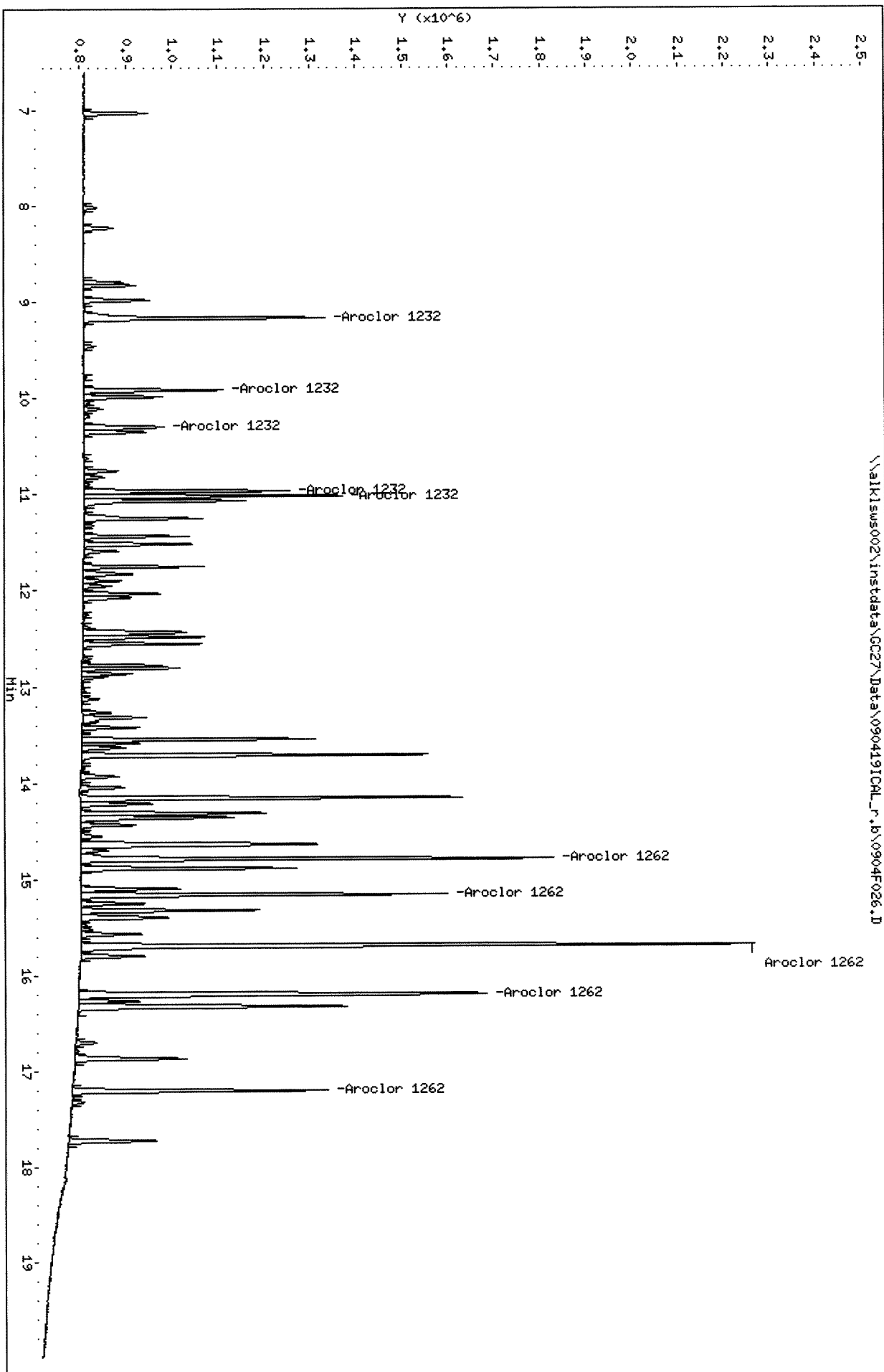
Operator: SAA

Column diameter: 0.32



Data File: \\alkisw002\instdata\GC27\Data\090419ICAL_r.b\0904F026.D
Date: 05-SEP-2019 05:35
Client ID:
Sample Info: PCB7-911 3262 @ 50 PPB
Column phase: DB-XLB

Instrument: GC27.1
Operator: SAA
Column diameter: 0.32



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F027.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F027.D
 Inj Date : 05-SEP-2019 06:07
 Sample Info: PCB7-91J 3262 @ 100 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:37
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 3262.sub
 Sub List #2 : 3262.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1232	7.654	9.167	1313305	1888357	84.2	95.9	80.00- 120.00	100.00 (M)
	8.054	9.917	3900991	1011678	83.2	92.6	234.25- 351.38	297.04 (M)
	8.824	10.297	3352398	731913	88.3	99.7	205.56- 308.34	255.26 (M)
	9.301	10.964	1231613	1381567	89.2	91.1	76.03- 114.04	93.78 (M)
	9.927	11.017	2200141	1610140	83.4	91.9	137.78- 206.67	167.53 (M)
Average of Peak Amounts =					85.7	94.2		
Aroclor 1262	13.581	14.791	7762919	3299183	83.0	77.7	80.00- 120.00	100.00
	14.051	15.161	6906290	2544856	83.3	78.5	71.44- 107.17	88.97
	14.427	15.691	12744340	4987038	84.0	76.0	135.47- 203.20	164.17
	15.054	16.201	9178959	3463302	83.2	78.8	96.75- 145.12	118.24
	15.921	17.204	4106107	1841950	85.8	81.0	43.01- 64.52	52.89
Average of Peak Amounts =					83.9	78.4		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
[Signature]

Data File: \\alkisw002\instdata\GC27\Data\090419ICL.b\0904F027.D

Date: 05-SEP-2019 06:07

Client ID:

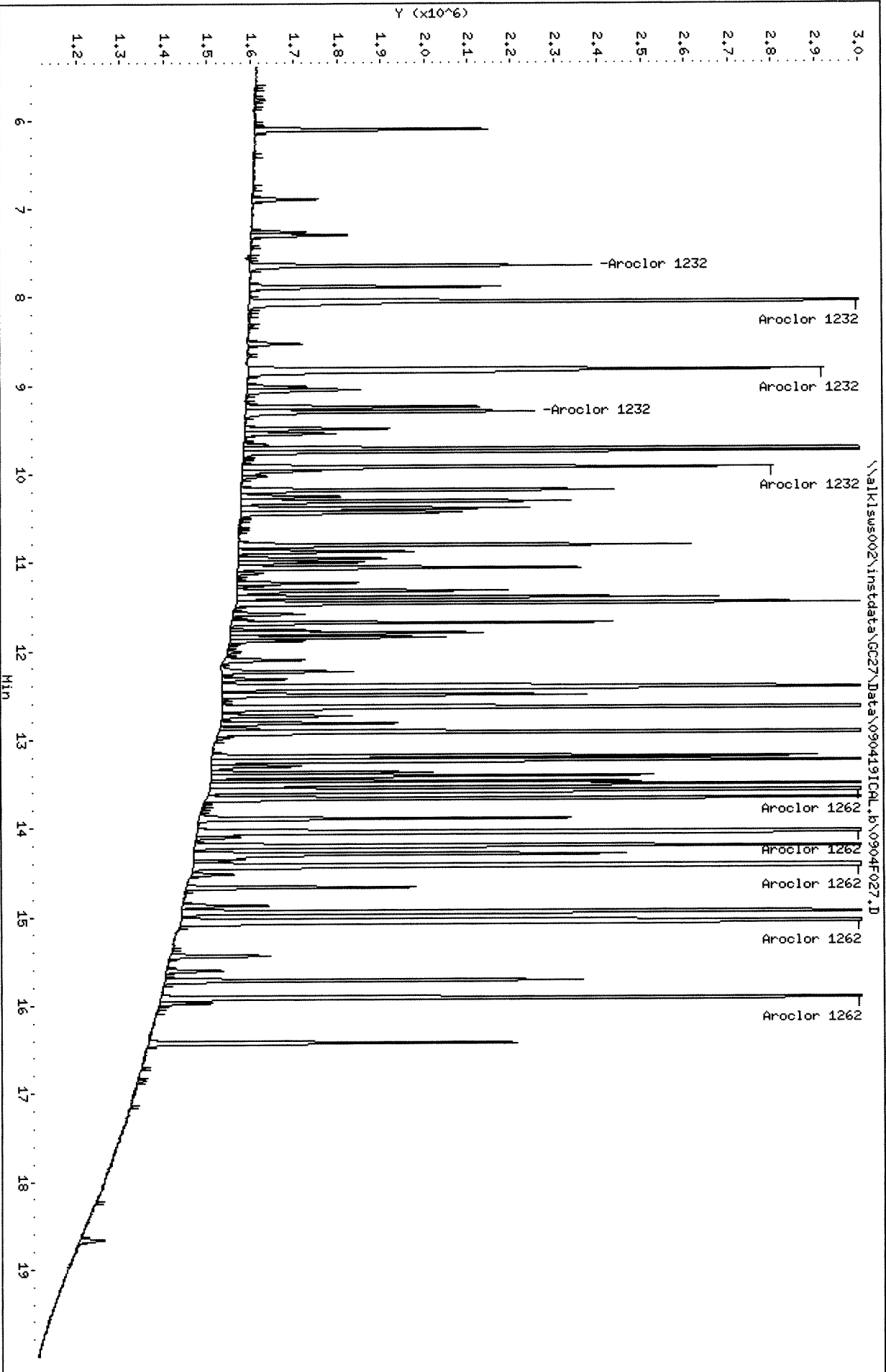
Sample Info: PCB7-91J 3262 @ 100 PPB

Column phase: DB-35MS

Instrument: GC27.i

Operator: SQA

Column diameter: 0.32



Data File: \\aik1swo02\instdata\GC27\Data\090419ICDL_r.b\0904f027.D

Date : 05-SEP-2019 06:07

Client ID:

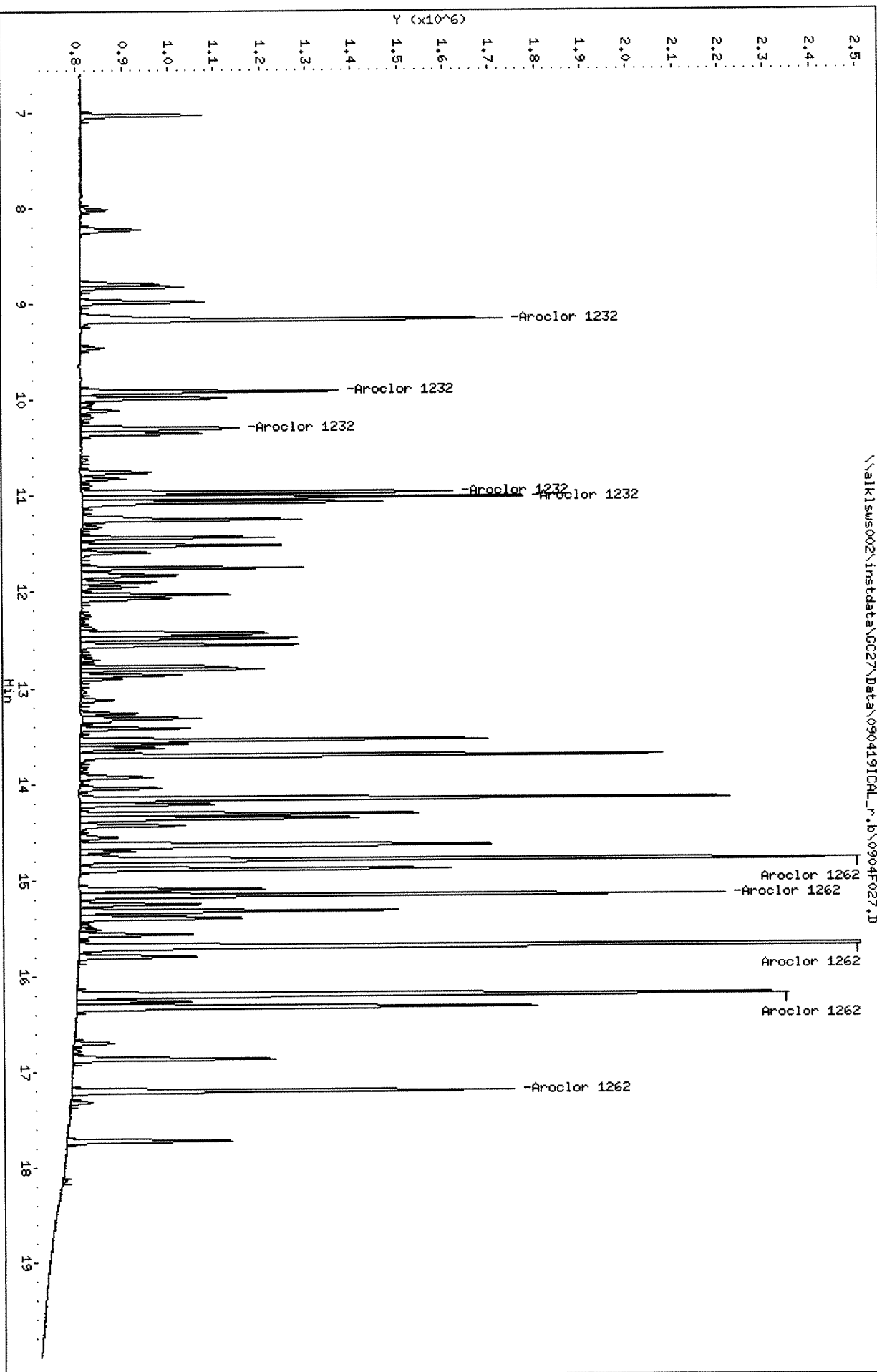
Sample Info: PCB7-91J 3362 @ 100 PPB

Column phase: DB-XLB

Instrument: GC27.i

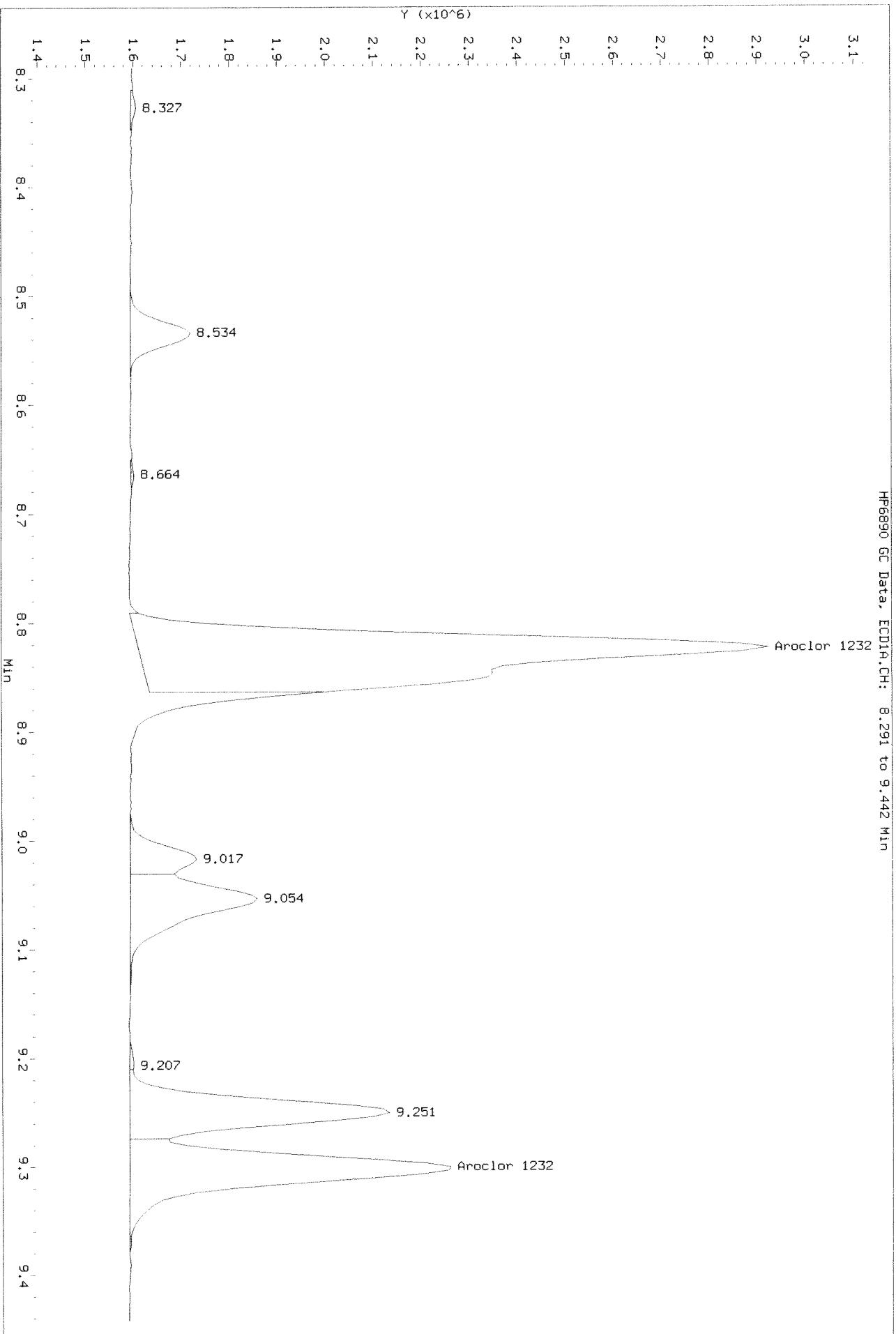
Operator: SAA

Column diameter: 0.32



Data File: \\alkjsws002\instdata\GC27\Data\090419ICAL.P\0904F027.D
Injection Date: 05-SEP-2019 06:07
Instrument: GC27.1
Client Sample ID:

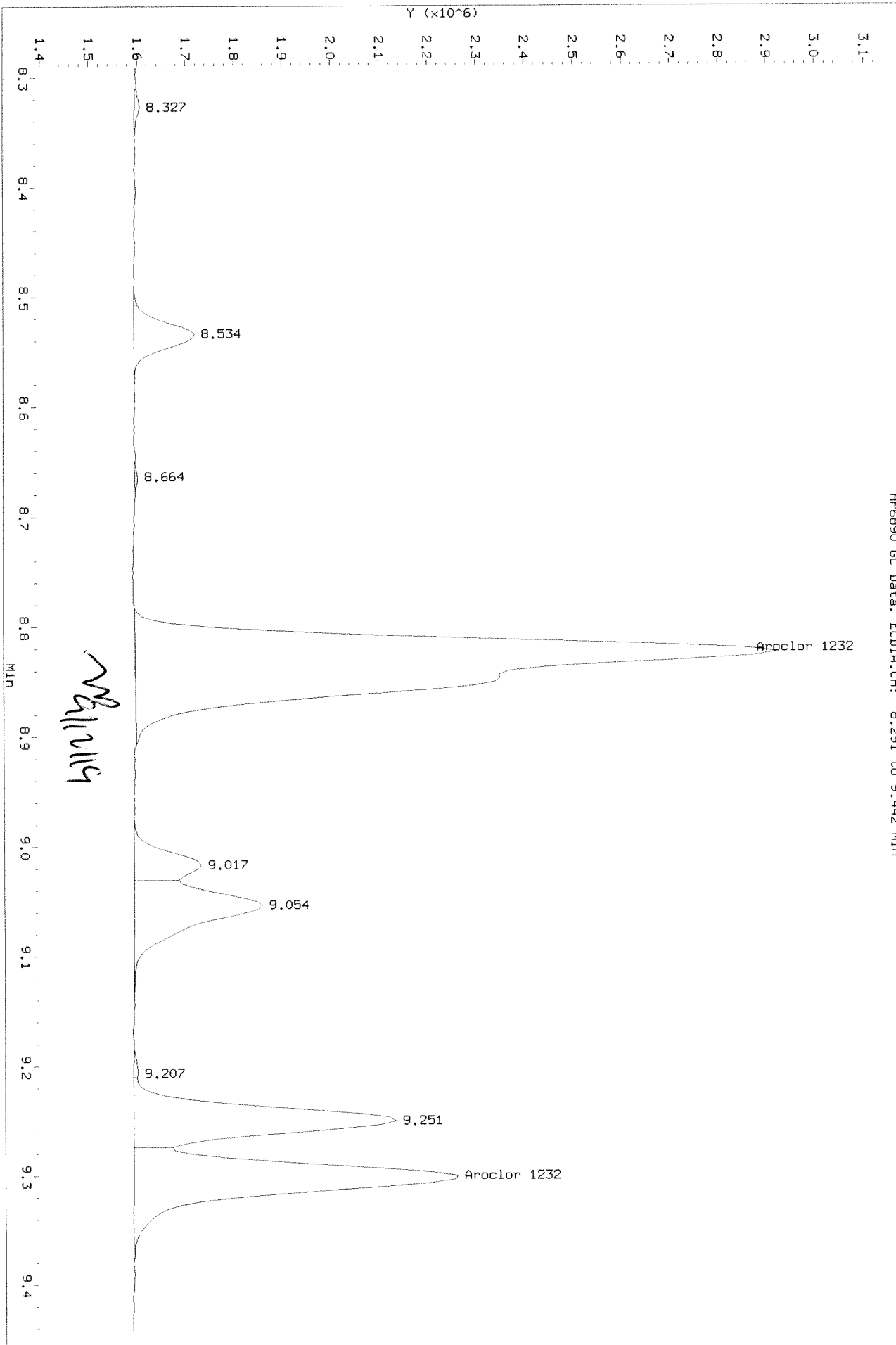
Before



Data File: \\alklsws002\instdata\GC27\Data\090419ICL.b\0904f027.D
Injection Date: 05-SEP-2019 06:07
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 8.291 to 9.442 Min

After baseline 9/11/19 A



ALS Environmental - Kelso


Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F028.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F028.D
 Inj Date : 05-SEP-2019 06:38
 Sample Info: PCB7-90I 3262 @ 200 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:38
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 3262.sub
 Sub List #2 : 3262.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1232	7.656	9.166	2931186	3998570	188	203	80.00- 120.00	100.00 (M)
	8.056	9.916	8583062	2174071	183	199	234.25- 351.38	292.82 (M)
	8.826	10.296	7531757	1660574	198	226	205.56- 308.34	256.95 (M)
	9.302	10.966	2785693	2988337	202	197	76.03- 114.04	95.04 (M)
	9.926	11.016	5048281	3466921	191	198	137.78- 206.67	172.23 (M)
	Average of Peak Amounts =				192	205		
Aroclor 1262	13.579	14.792	18234006	7172700	195	169	80.00- 120.00	100.00
	14.049	15.162	16284065	5513045	196	170	71.44- 107.17	89.31
	14.426	15.692	30876002	10949484	204	167	135.47- 203.20	169.33
	15.056	16.199	22051028	7552817	200	172	96.75- 145.12	120.93
	15.919	17.202	9803674	4056381	205	178	43.01- 64.52	53.77
	Average of Peak Amounts =				200	171		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19


Data File: \\alkisw002\instdata\GC27\Data\090419ICL.b\0904F028.D

Date : 05-SEP-2019 06:38

Client ID:

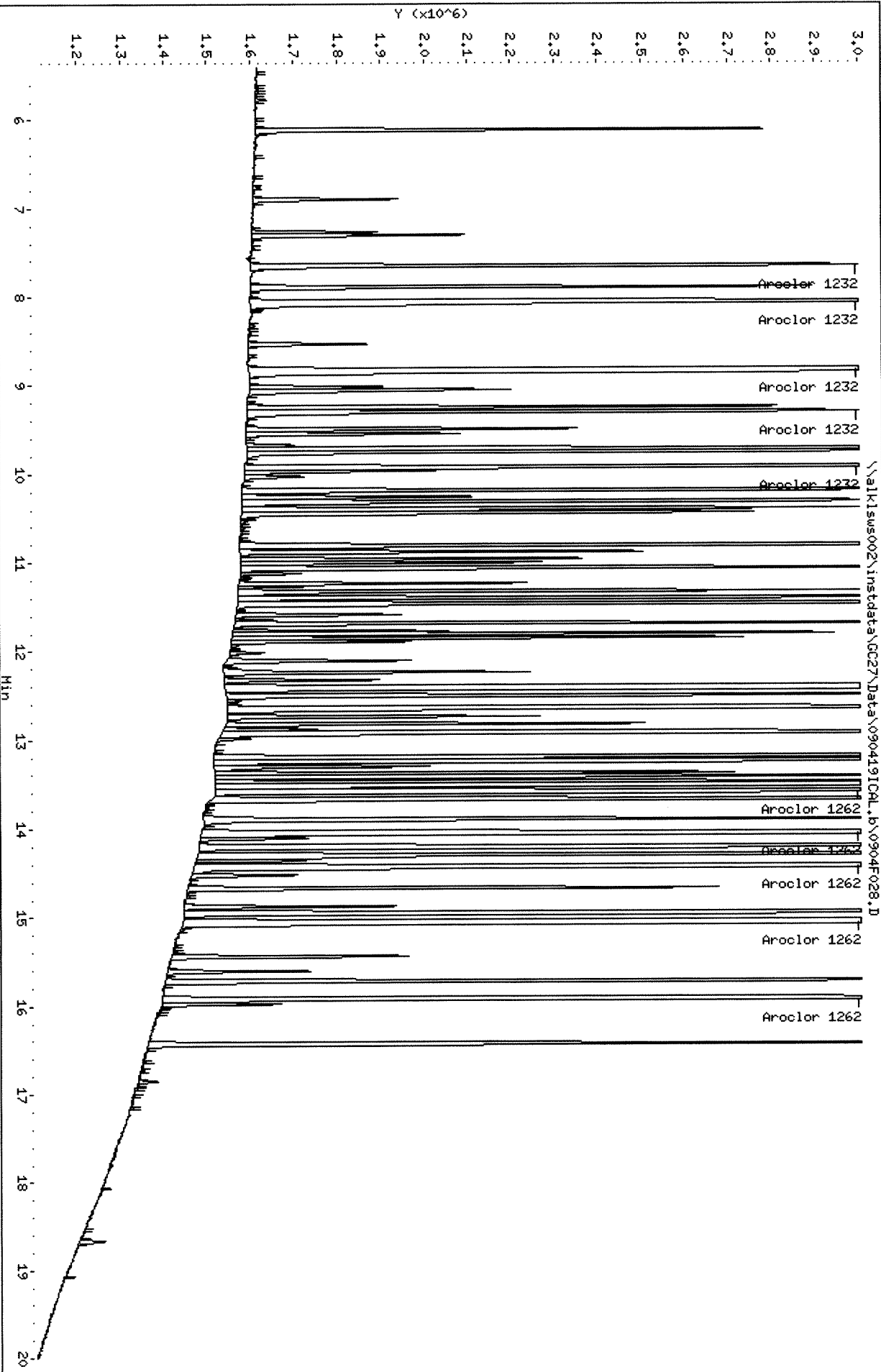
Sample Info: PCB7-901 3262 @ 200 PPB

Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Data File: \\alk1s002\instdata\GC27\Data\0904191CAL_r.jb\0904f028.D

Date : 05-SEP-2019 06:38

Client ID:

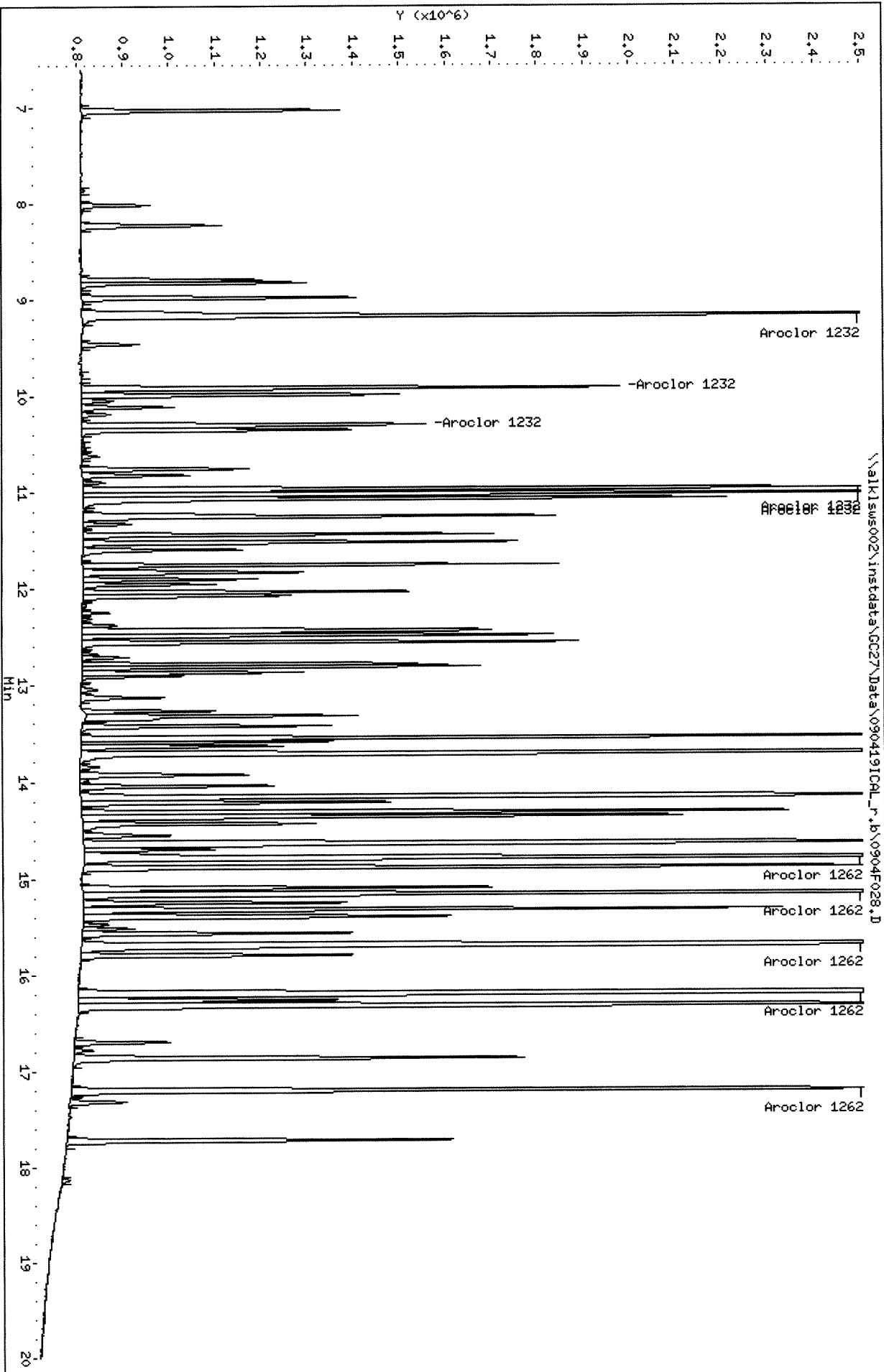
Sample Info: PCB7-901 3262 @ 200 PPB

Column phase: DB-XLB

Instrument: GC27.i

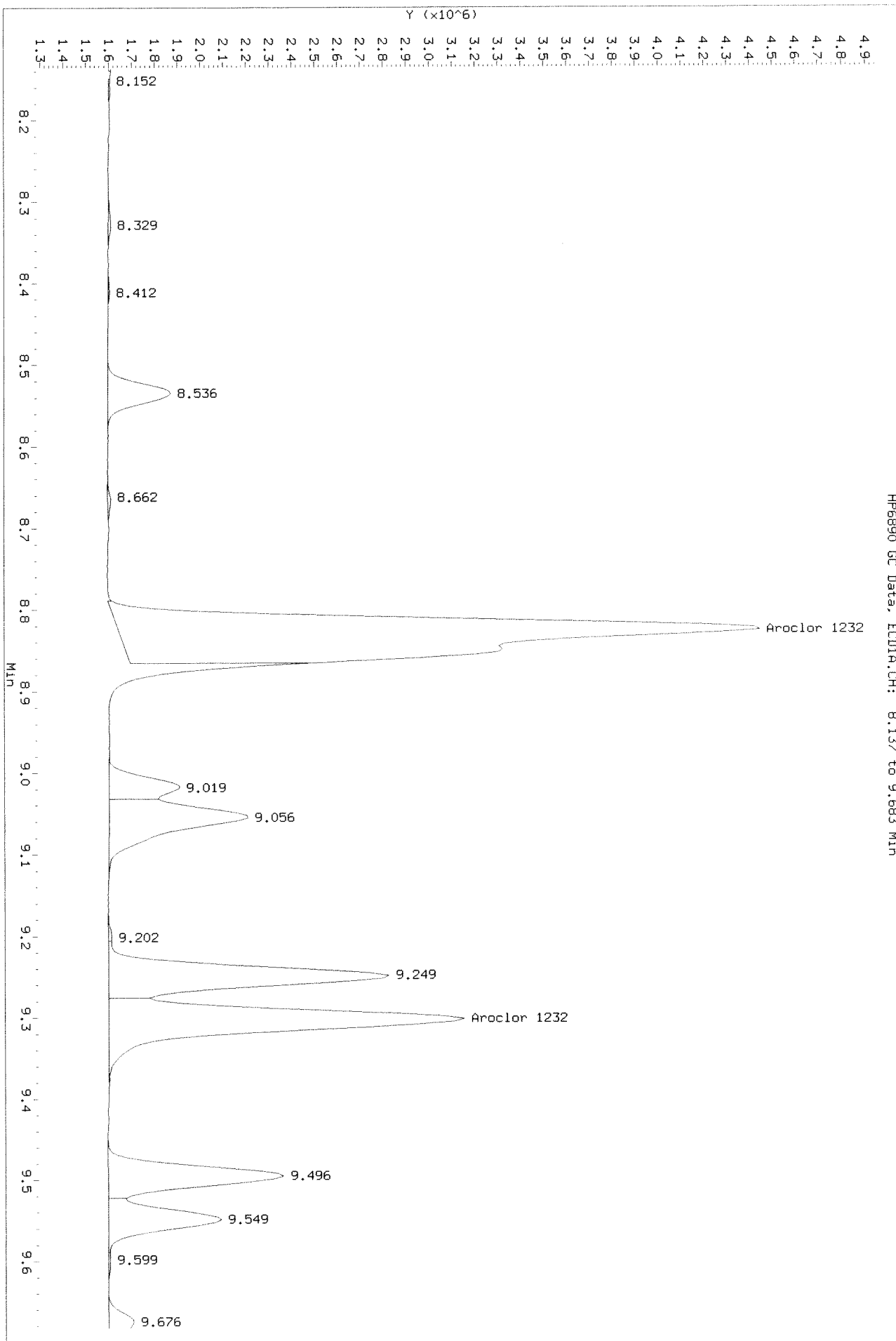
Operator: SAA

Column diameter: 0.32



Data File: \\alklsw002\instdata\GC27\Data\090419ICAL.P\0904F028.D
Injection Date: 05-SEP-2019 06:38
Instrument: GC27.1
Client Sample ID:

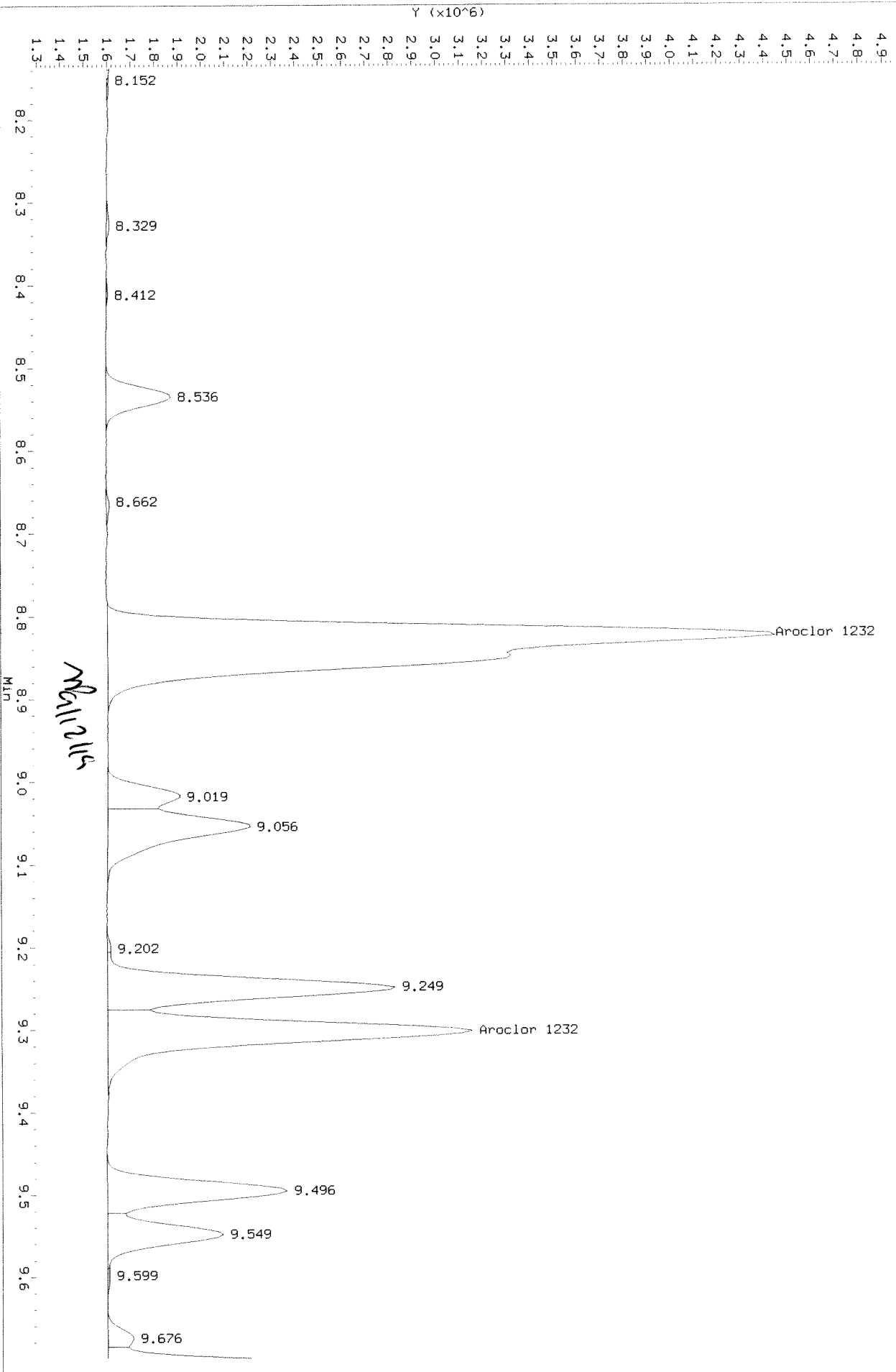
Before



Data File: \\alk1sww002\inst\data\GC27\Data\090419ICDL.B\0904F028.D
Injection Date: 05-SEP-2019 06:38
Instrument: GC27.1
Client Sample ID:

After baseline 9/11/19 A

HP6890 GC Data, ECD1A.CH: 8.137 to 9.699 Min



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F033.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F033.D
 Inj Date : 05-SEP-2019 09:16
 Sample Info: PCB8-4H 4268 @ 20 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:38
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 4268.sub
 Sub List #2 : 4268.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1242	8.053	9.163	590592	275289	19.9	21.5	80.00- 120.00	100.00 (M)
	9.300	9.913	453095	382310	20.0	21.0	63.88- 95.83	76.72 (M)
	9.743	10.963	1372584	537727	20.1	21.0	182.89- 274.33	232.41 (M)
	9.926	11.013	835947	619910	20.5	21.2	114.87- 172.30	141.54 (M)
	10.186	11.250	567577	329968	20.0	20.8	77.46- 116.19	96.10 (M)
	Average of Peak Amounts =				20.1	21.1		
Aroclor 1268	14.950	16.200	3232656	1460490	19.8	20.4	80.00- 120.00	100.00 (M)
	15.050	16.326	2881961	1282540	19.7	20.4	71.27- 106.90	89.15 (M)
	15.440	16.700	2480729	1110765	20.0	20.6	61.53- 92.30	76.74 (M)
	16.426	17.720	6897866	2901230	19.7	19.9	171.54- 257.31	213.38 (M)
		Average of Peak Amounts =				19.8	20.3	

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19


Data File: \\alk1sws002\instdata\GC27\Data\090419ICPL.b\0904F033.D

Date : 05-SEP-2019 09:16

Client ID:

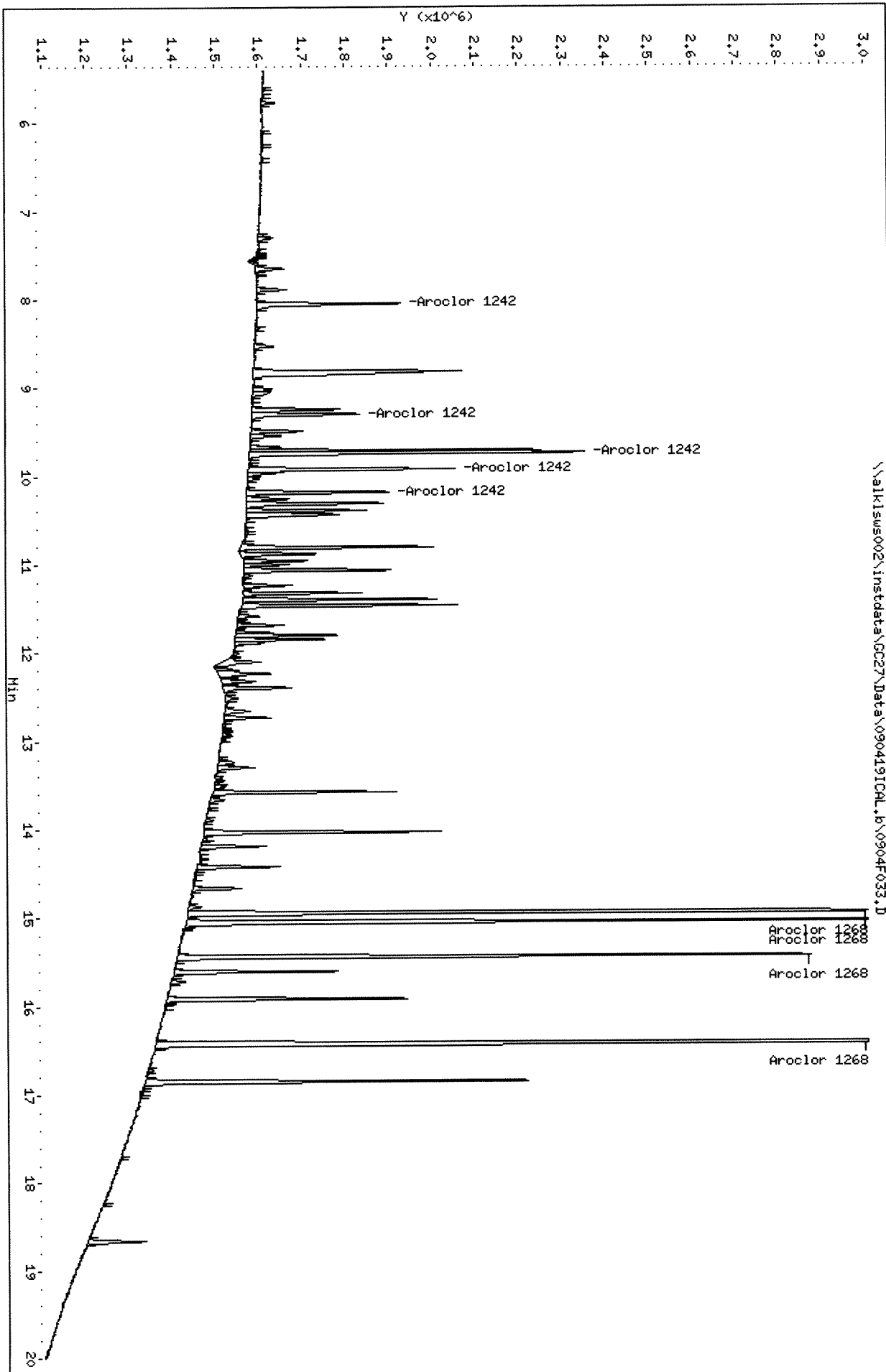
Sample Info: PCB8-4H 4268 @ 20 PPB

Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F033.D
Date: 05-SEP-2019 09:16

Client ID:

Sample Info: PCB8-4H 4268 @ 20 PPB

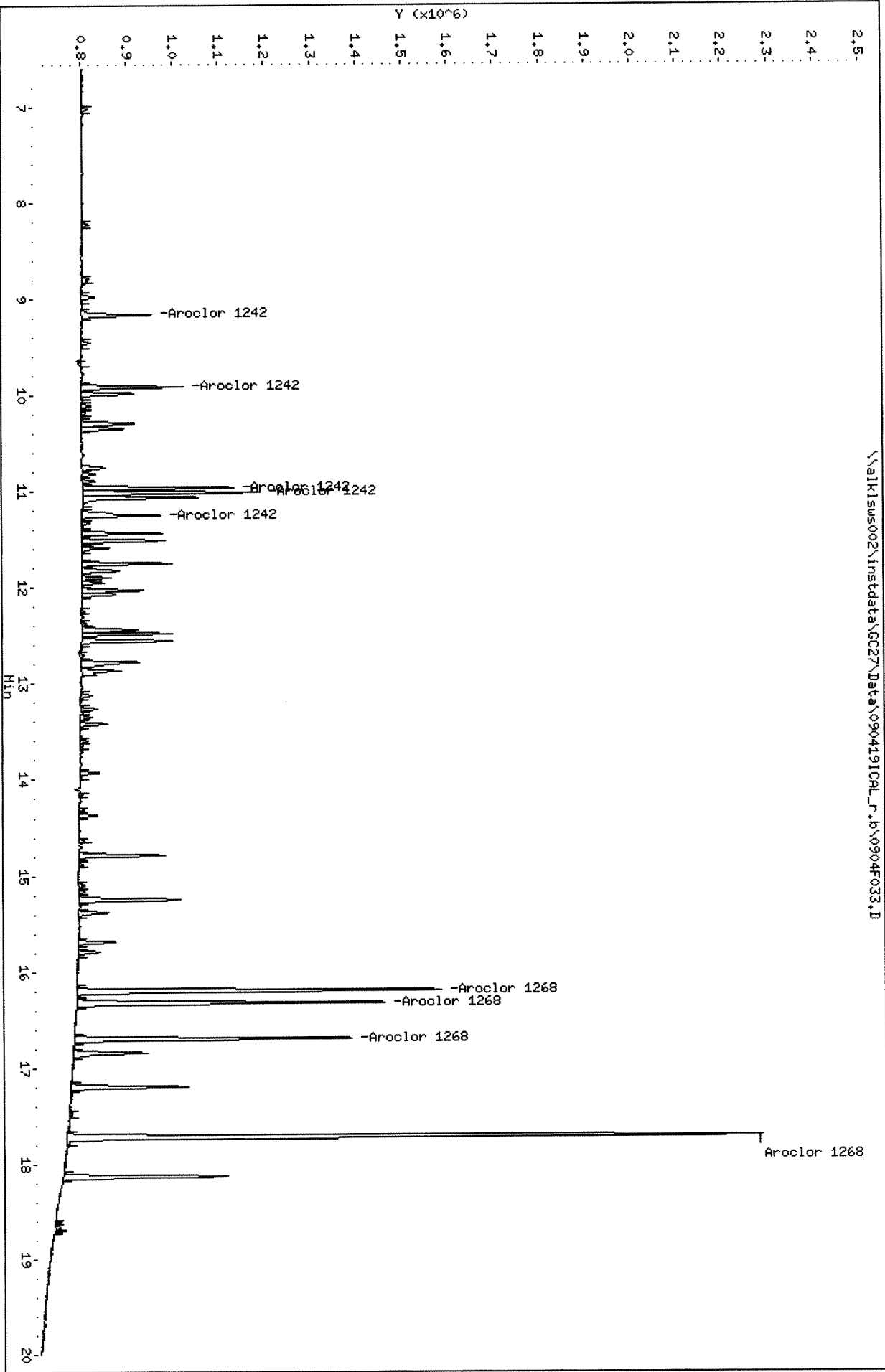
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F033.D



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F034.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F034.D
 Inj Date : 05-SEP-2019 09:48
 Sample Info: PCB8-4F 4268 @ 50 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:38
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 4268.sub
 Sub List #2 : 4268.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1242	8.056	9.166	1488496	730432	50.1	57.1	80.00- 120.00	100.00
	9.302	9.912	1175780	983401	52.0	54.1	63.88- 95.83	78.99
	9.746	10.966	3614612	1346176	52.9	52.5	182.89- 274.33	242.84
	9.926	11.016	2150620	1576207	52.6	53.8	114.87- 172.30	144.48
	10.189	11.249	1417772	884537	50.1	55.7	77.46- 116.19	95.25
	Average of Peak Amounts =				51.5	54.6		
Aroclor 1268	14.949	16.202	8197605	3420110	50.1	47.8	80.00- 120.00	100.00
	15.049	16.329	7395303	3056456	50.6	48.7	71.27- 106.90	90.21
	15.439	16.699	6298242	2655687	50.8	49.3	61.53- 92.30	76.83
	16.429	17.722	17834049	6860011	50.9	47.0	171.54- 257.31	217.55
		Average of Peak Amounts =				50.6	48.2	

SA 9/11/19
22

Data File: \\alk1s002\instdata\GC27\Data\090419ICL.b\0904F034.D

Date : 05-SEP-2019 09:48

Client ID:

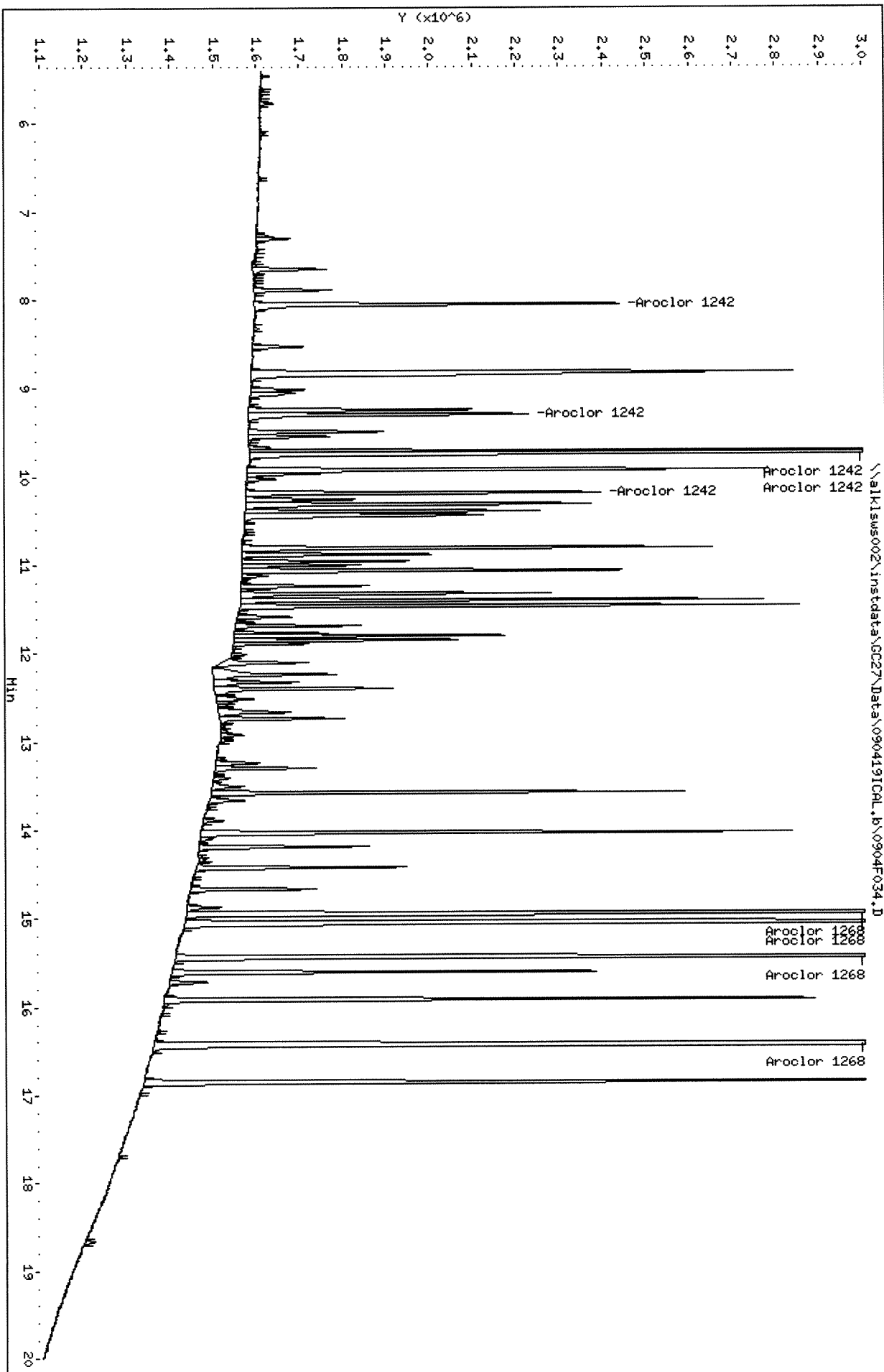
Sample Info: PCB8-4F 4268 @ 50 PPB

Column phase: DB-35HS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Data File: \\alkisws002\instdata\GC27\Data\090419ICAL_r.b\0904F034.D

Date: 05-SEP-2019 09:48

Client ID:

Sample Info: PCB8-4F 4268 @ 50 PPB

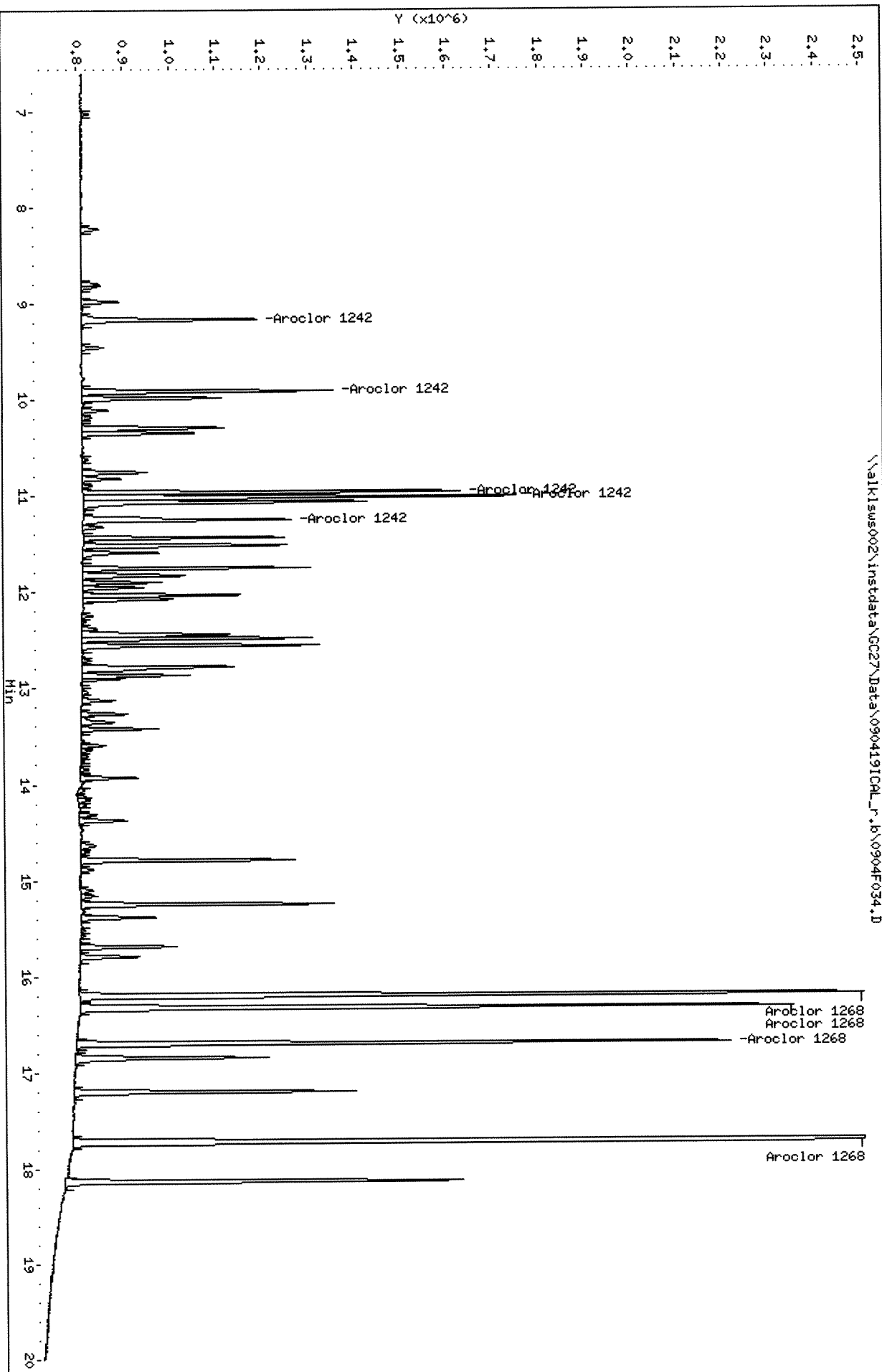
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alkisws002\instdata\GC27\Data\090419ICAL_r.b\0904F034.D




ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F035.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F035.D
 Inj Date : 05-SEP-2019 10:20
 Sample Info: PCB8-4G 4268 @ 100 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:38
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 4268.sub
 Sub List #2 : 4268.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
=====								
Aroclor 1242	8.056	9.166	2822778	1385501	95.0	108	80.00- 120.00	100.00
	9.303	9.916	2209463	1801434	97.8	99.1	63.88- 95.83	78.27
	9.746	10.966	6824568	2462464	99.8	95.9	182.89- 274.33	241.77
	9.926	11.013	4026786	2817911	98.5	96.2	114.87- 172.30	142.65
	10.189	11.246	2725015	1667425	96.2	105	77.46- 116.19	96.54
	Average of Peak Amounts =				97.5	101		
Aroclor 1268	14.949	16.200	15539973	6050128	95.0	84.6	80.00- 120.00	100.00
	15.049	16.326	14013592	5469923	95.9	87.2	71.27- 106.90	90.18
	15.439	16.700	11959803	4732505	96.4	87.9	61.53- 92.30	76.96
	16.429	17.720	34023316	12298100	97.1	84.3	171.54- 257.31	218.94
	Average of Peak Amounts =				96.1	86.0		

SA 9/11/19


Data File: \\alk1sus002\instdata\GC27\Data\090419ICAL.b\0904F035.D

Date : 05-SEP-2019 10:20

Client ID:

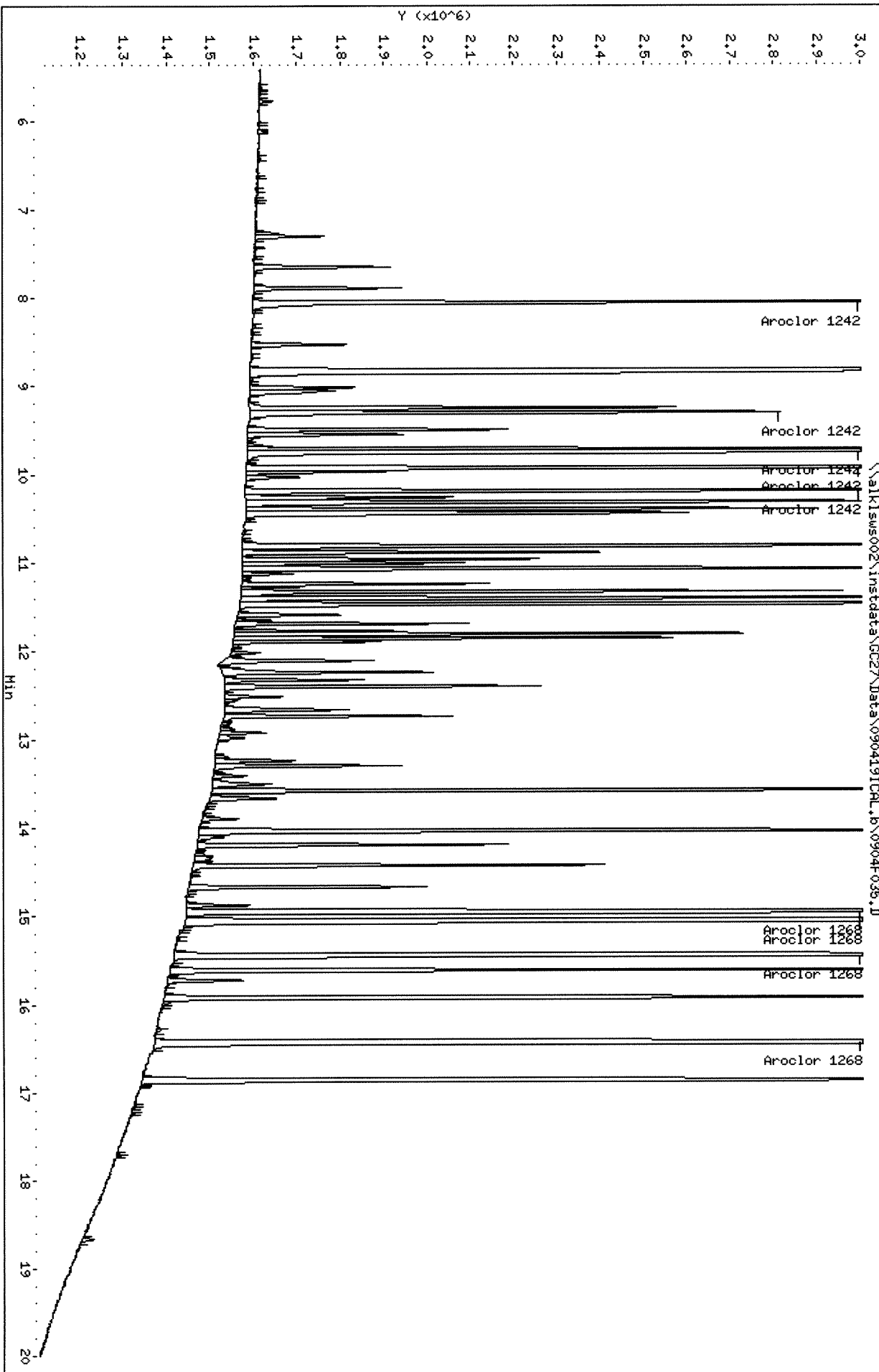
Sample Info: PCB8-4G 4268 @ 100 PPB

Column phase: DB-35MS

Instrument: GC27.1

Operator: SAA

Column diameter: 0.32



Data File: \\alk1sws002\instdata\GC27\Data\090419ICAL_r.b\0904F035.D

Date: 05-SEP-2019 10:20

Client ID:

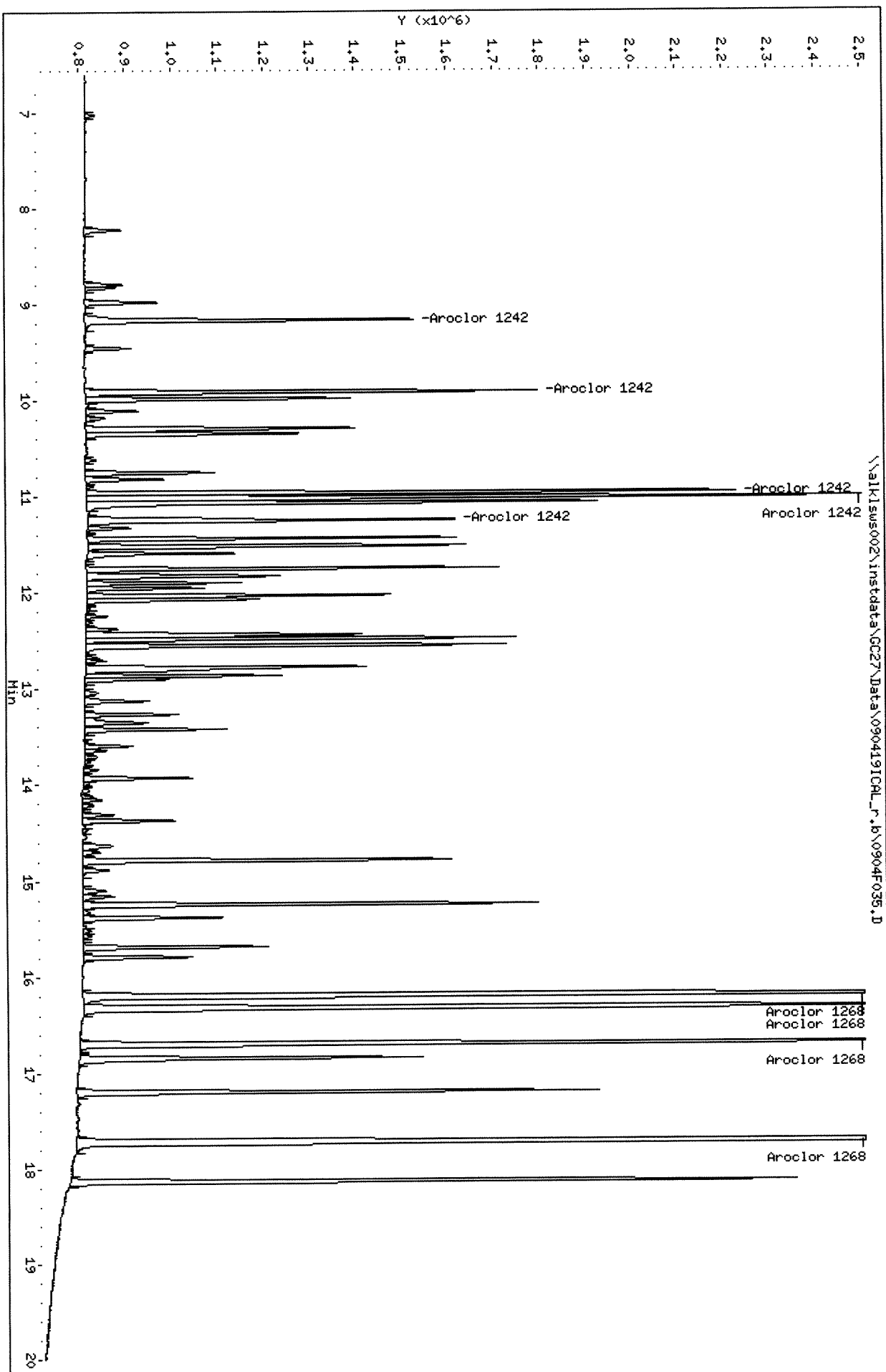
Sample Info: PCB8-4G 4268 @ 100 PPB

Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32




ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F036.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F036.D
 Inj Date : 05-SEP-2019 10:52
 Sample Info: PCB8-4E 4268 @ 200 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:38
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 4268.sub
 Sub List #2 : 4268.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1242	8.055	9.165	6111409	2865057	206	224	80.00- 120.00	100.00
	9.301	9.915	4834894	3718022	214	204	63.88- 95.83	79.11
	9.745	10.965	14224495	5137488	208	200	182.89- 274.33	232.75
	9.925	11.015	9067929	6099918	222	208	114.87- 172.30	148.38
	10.188	11.248	6149179	3555100	217	224	77.46- 116.19	100.62
	Average of Peak Amounts =				213	212		
Aroclor 1268	14.948	16.201	36406451	12956281	223	181	80.00- 120.00	100.00
	15.051	16.328	33173572	11752057	227	187	71.27- 106.90	91.12
	15.438	16.701	28153678	10140422	227	188	61.53- 92.30	77.33
	16.428	17.721	81576702	27201961	233	186	171.54- 257.31	224.07
		Average of Peak Amounts =				228	186	

SA 9/11/19


Data File: \\alklms002\instdata\GC27\Data\090419ICL.b\0904F036.D

Date : 05-SEP-2019 10:52

Client ID:

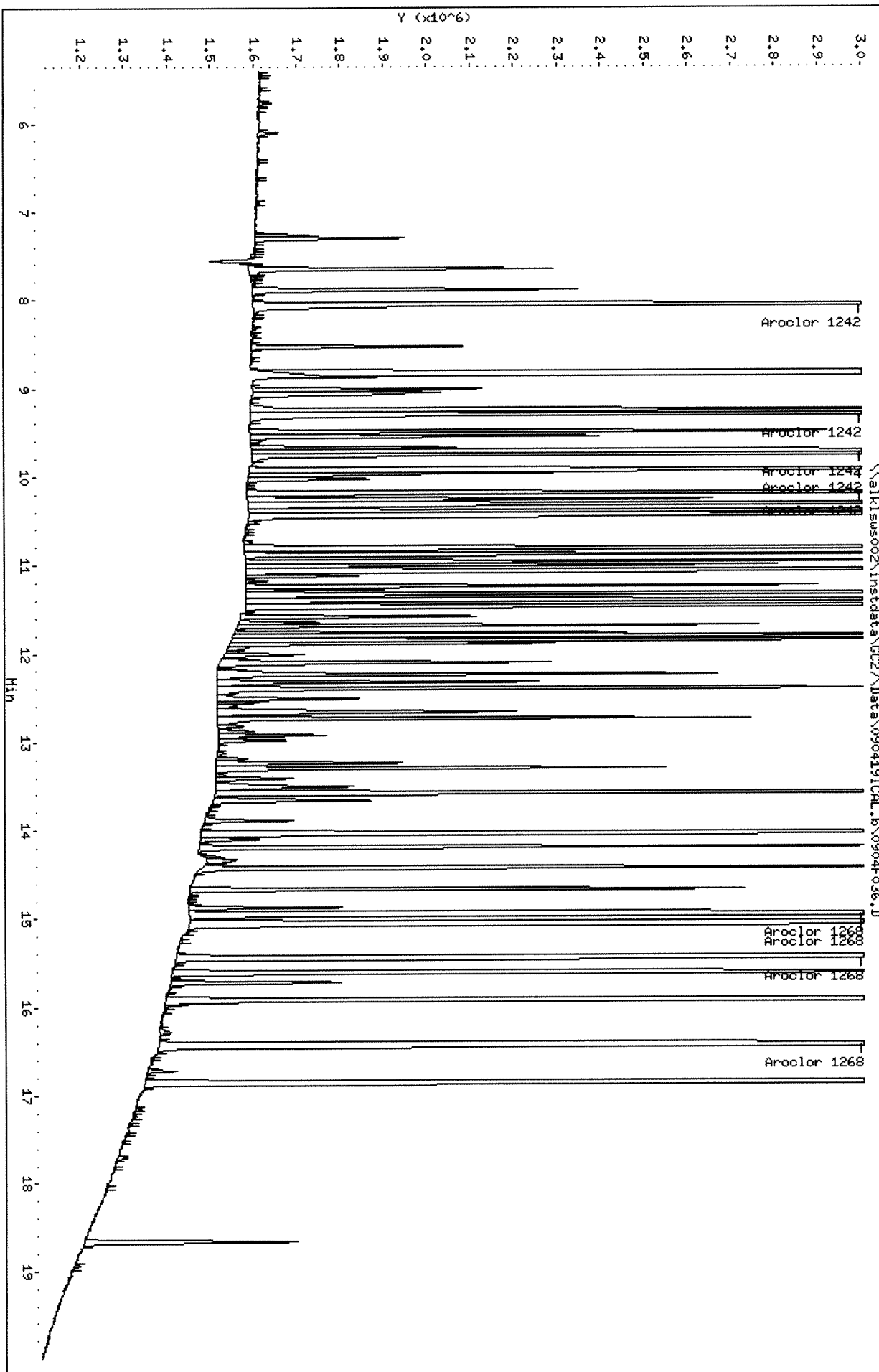
Sample Info: PCB8-4E 4268 @ 200 PPB

Column phase: DB-35MS

Instrument: GC27.1

Operator: SAA

Column diameter: 0.32



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F037.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F037.D
Inj Date : 05-SEP-2019 11:23
Sample Info: PCB8-13M 1248 @ 1 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : 48.SUB
Sub List #2 : 48.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1248	9.746	10.966	50810	19785	1.22	0.923	80.00- 120.00	100.00 (M)
	9.929	11.016	32701	16327	1.15	0.886	55.92- 83.88	64.36 (M)
	11.066	11.516	61351	26968	1.17	1.12	99.65- 149.47	120.75 (M)
	11.326	12.029	37952	20734	1.01	1.10	75.25- 112.88	74.69 (M)
	11.802	12.552	34640	28321	1.04	0.988	66.29- 99.44	68.18 (M)
	Average of Peak Amounts =				1.12	1.00		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
W

Data File: \\alk1sws002\instdata\GC27\Data\090419ICPL.b\0904F037.D

Date : 05-SEP-2019 11:23

Client ID:

Sample Info: PCB8-13H 1248 @ 1 PPB

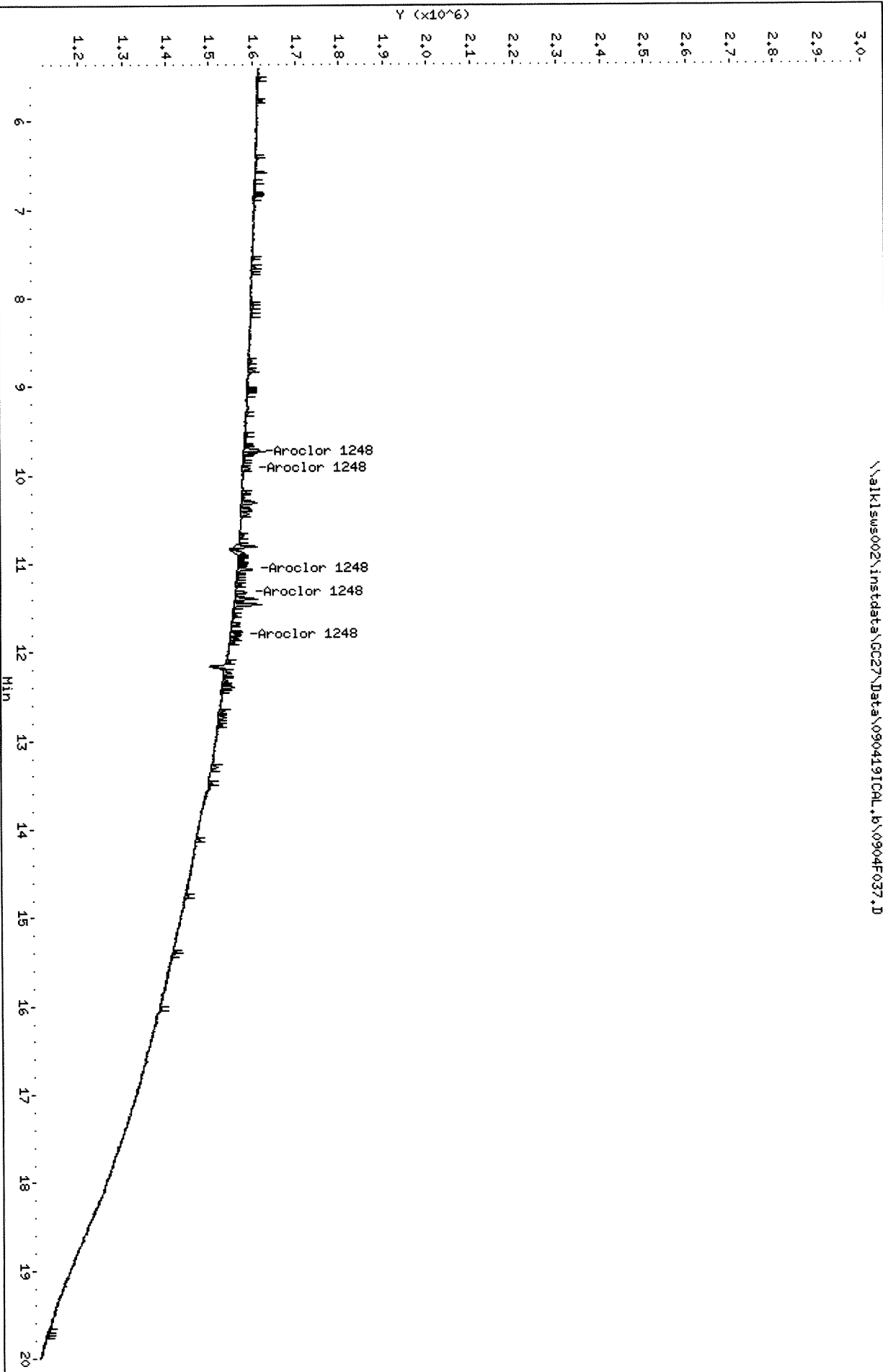
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alk1sws002\instdata\GC27\Data\090419ICPL.b\0904F037.D



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F037.D

Date : 05-SEP-2019 11:23

Client ID:

Sample Info: PCB8-13M 1248 @ 1 PPB

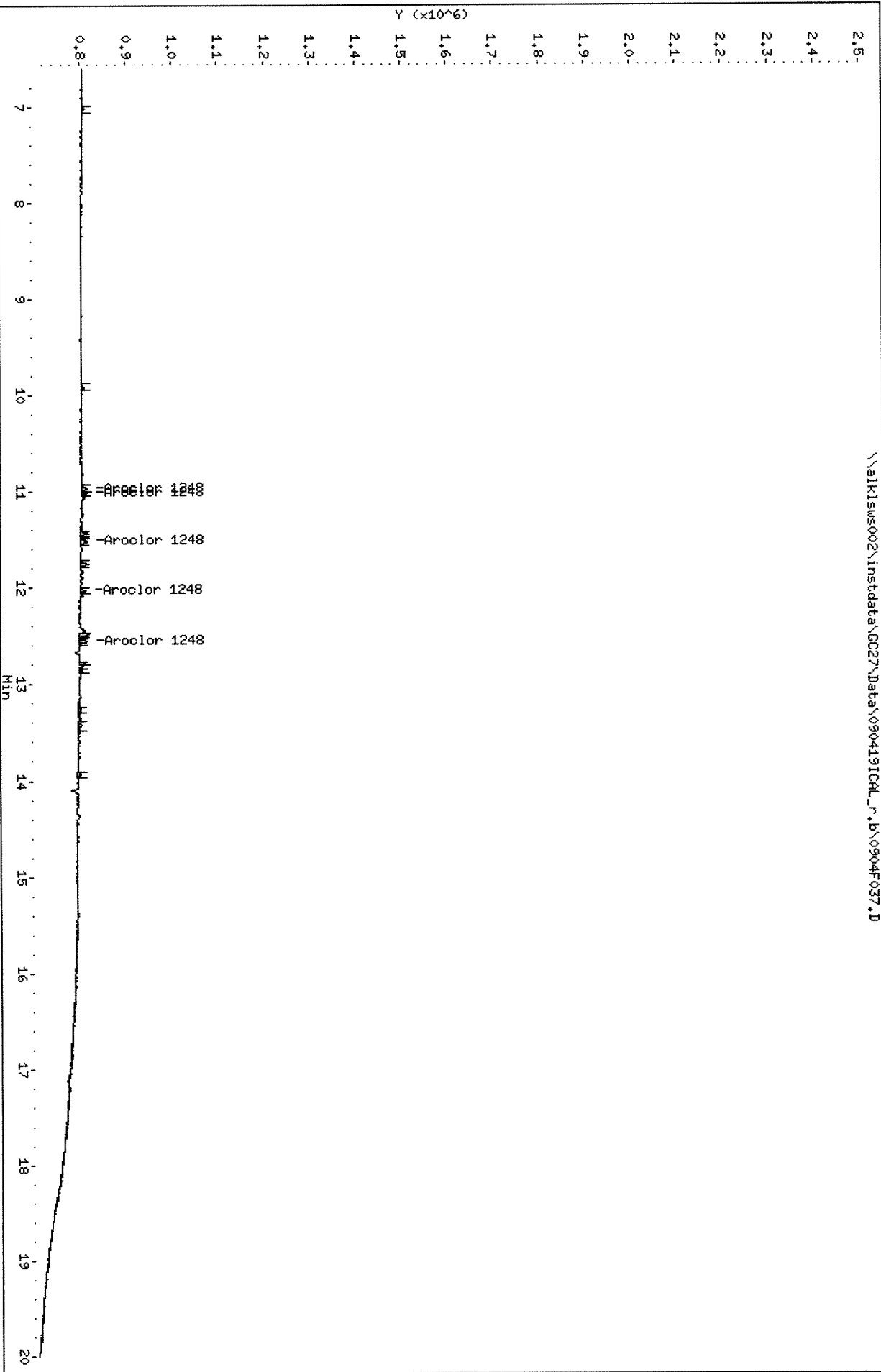
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

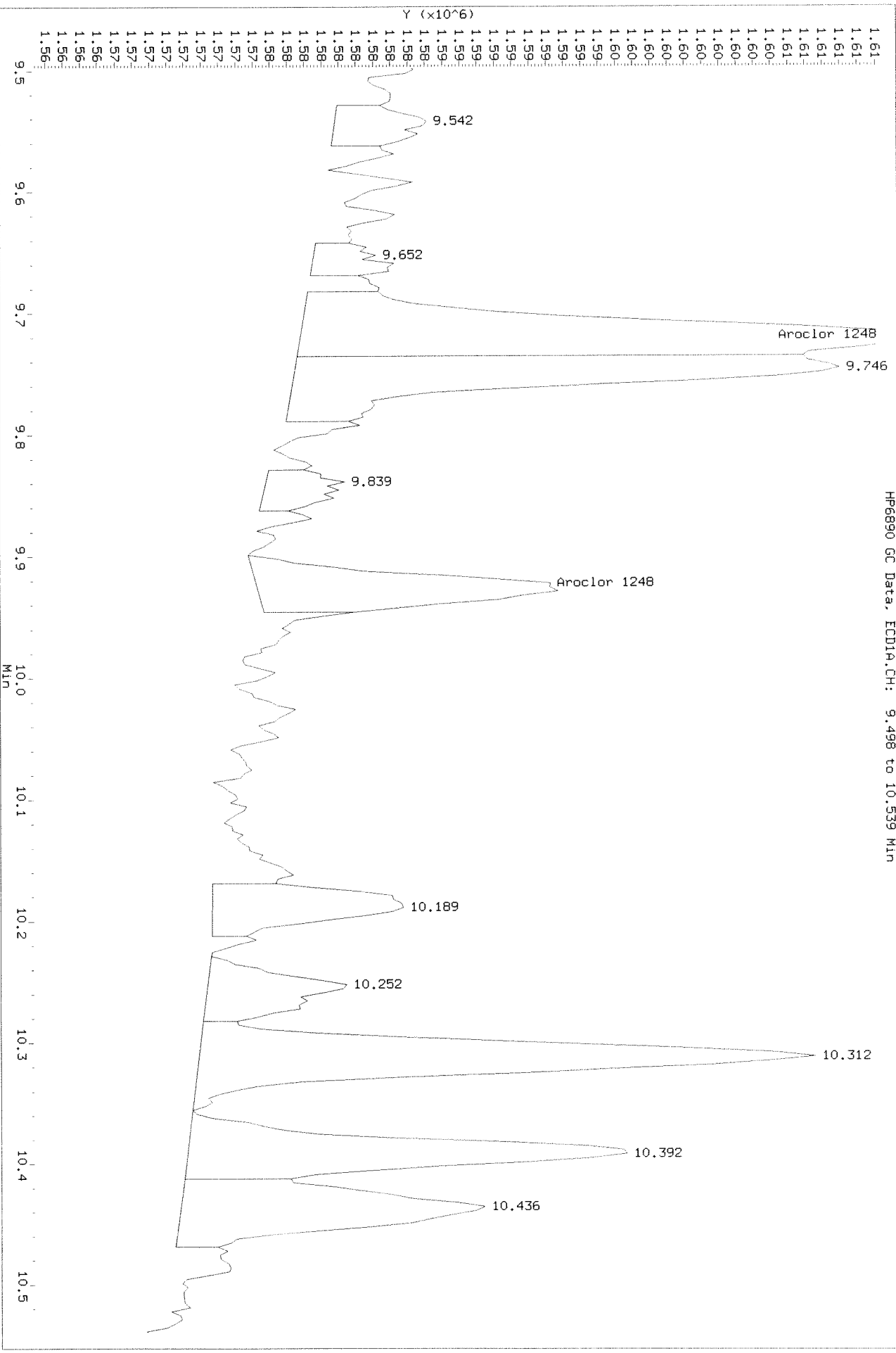
\\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F037.D



Data File: \\alklsw002\instdata\GC27\Data\090419ICL.b\0904F037.D
Injection Date: 05-SEP-2019 11:23
Instrument: GC27.1
Client Sample ID:

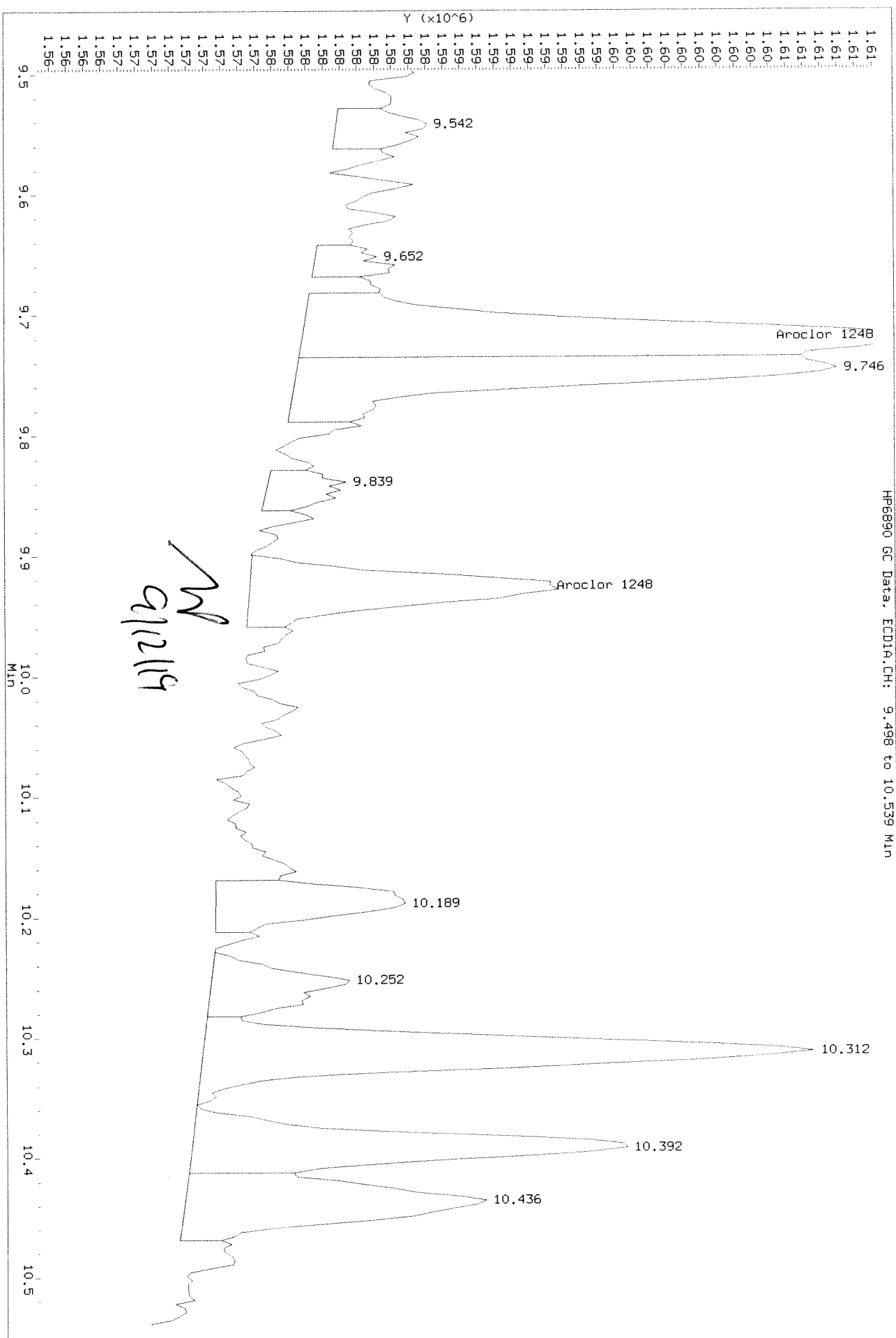
HP6890 GC Data, ECD1A.CH: 9.498 to 10.539 MIN

Refer



Data File: \\alkjms002\instdata\GC27\Data\090419ICAL.b\0904F037.D
Injection Date: 05-SEP-2019 11:23
Instrument: GC27.1
Client Sample ID:

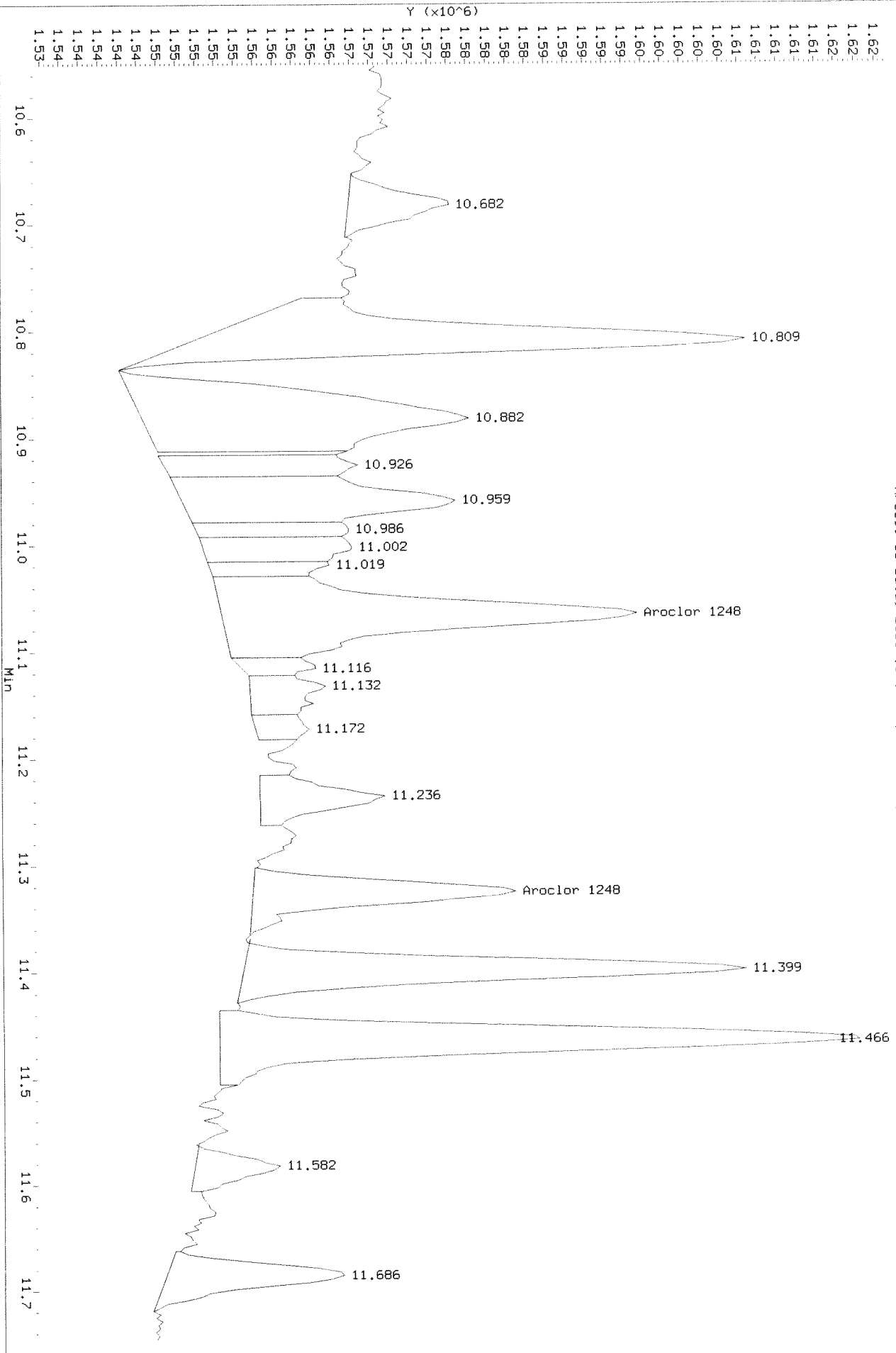
After baseline 9/11/19



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.B\0904F037.D
Injection Date: 05-SEP-2019 11:23
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 10.552 to 11.746 MIN

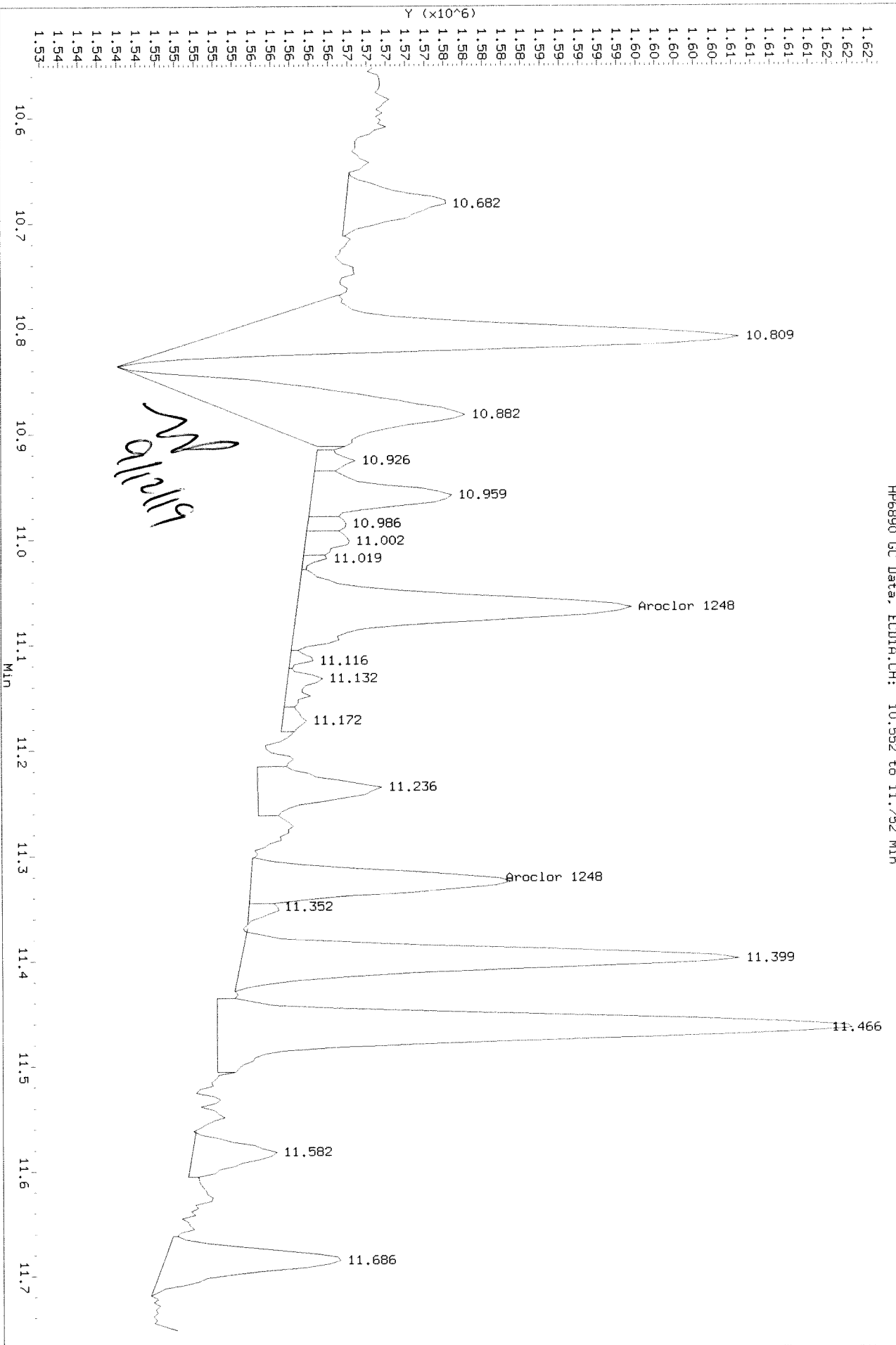
Before



Data File: \\alk1sws002\instdata\GC27\Data\090419ICL.b\0904F037.D
Injection Date: 05-SEP-2019 11:23
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 10.552 to 11.752 Min

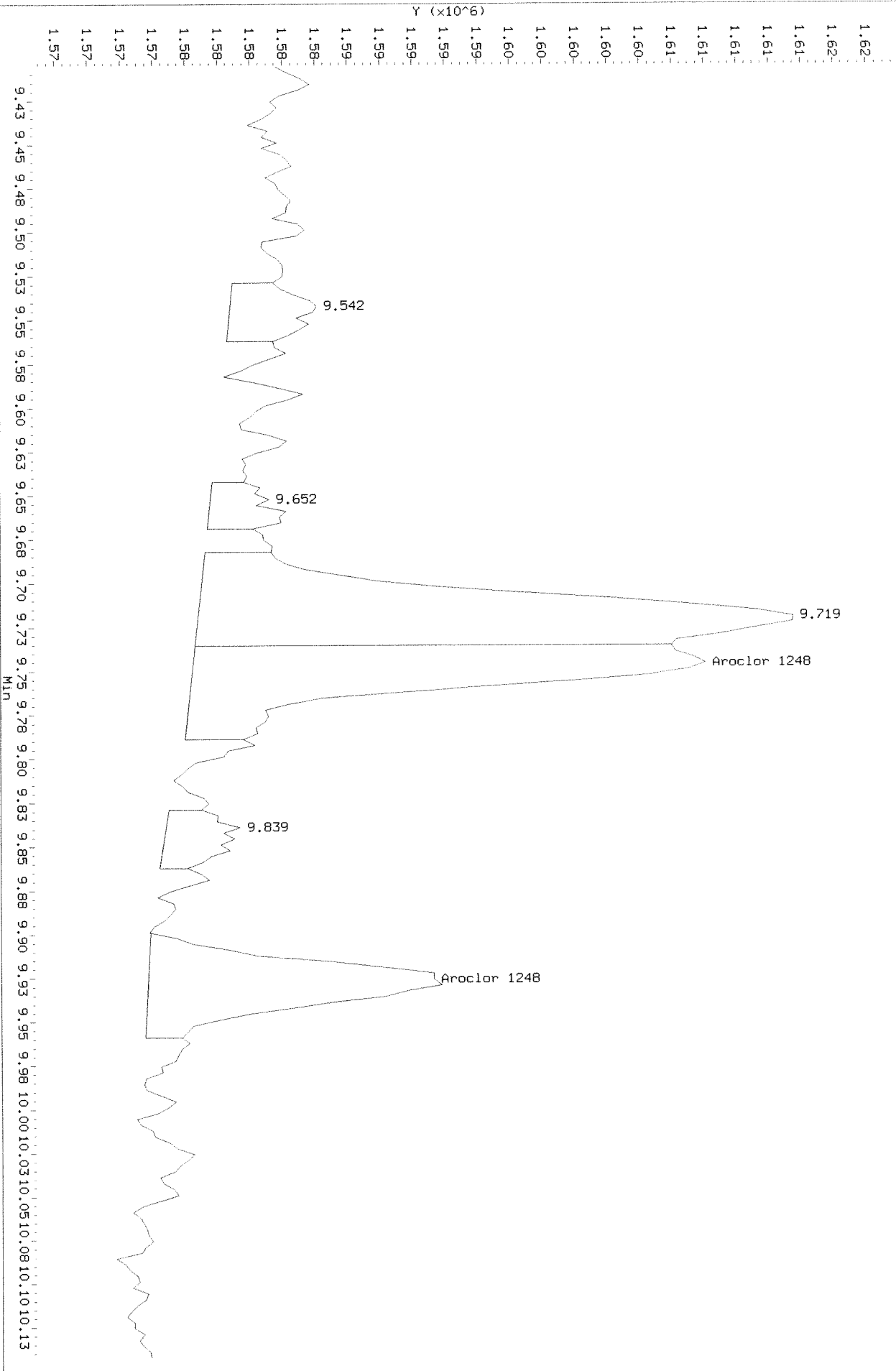
After base line 9/11/19 JT



Data File: \\alkjsws002\instdata\GC27\Data\090419ICDL.B\0904F037.D
Injection Date: 05-SEP-2019 11:23
Instrument: GC27.1
Client Sample ID:

Refer

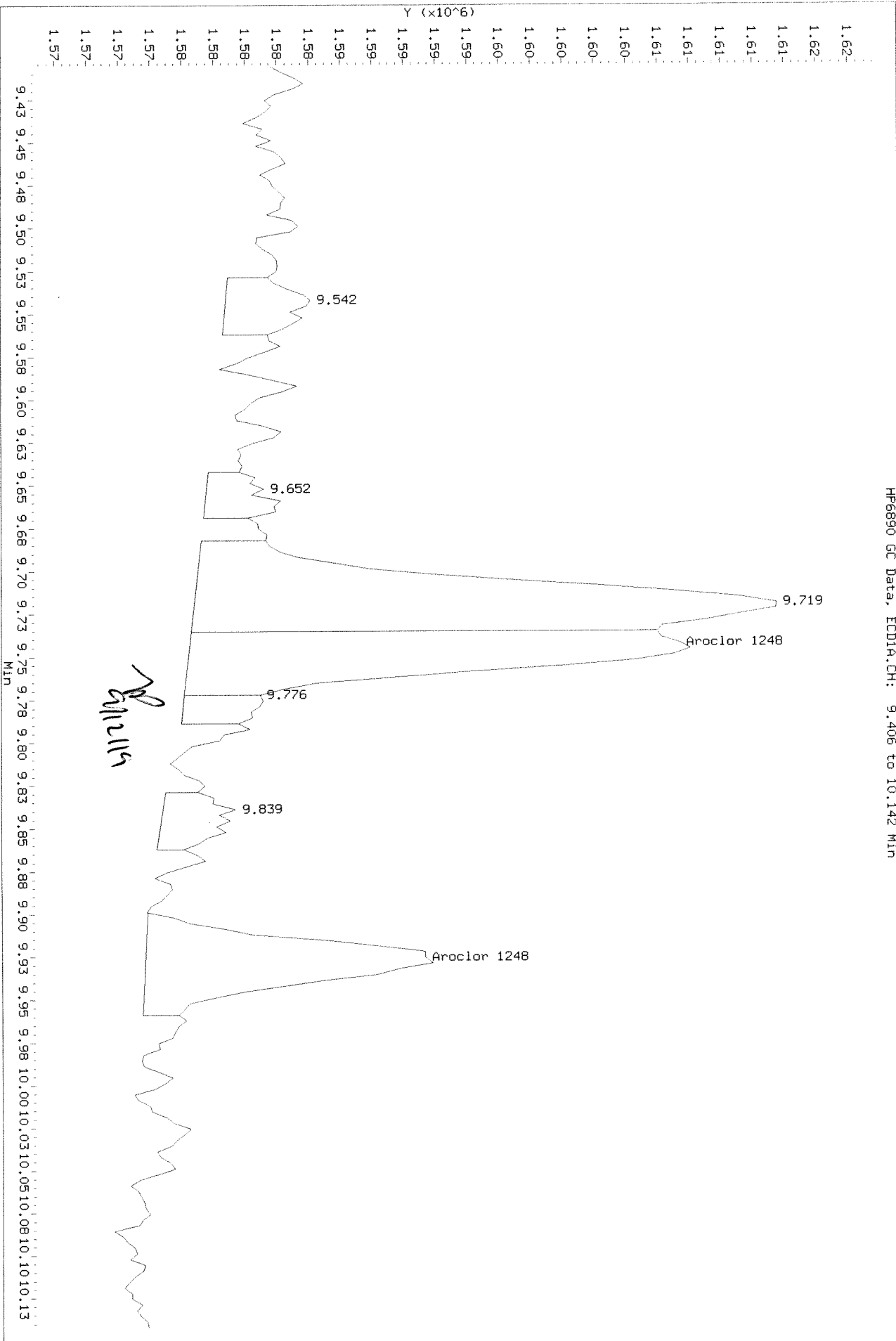
HP6890 GC Data, ECD1A.CH: 9.406 to 10.142 Min



Data File: \\alk1sws002\instdata\GC27\Data\090419ICDL.b\0904F037.D
Injection Date: 05-SEP-2019 11:23
Instrument: GC27.1
Client Sample ID:

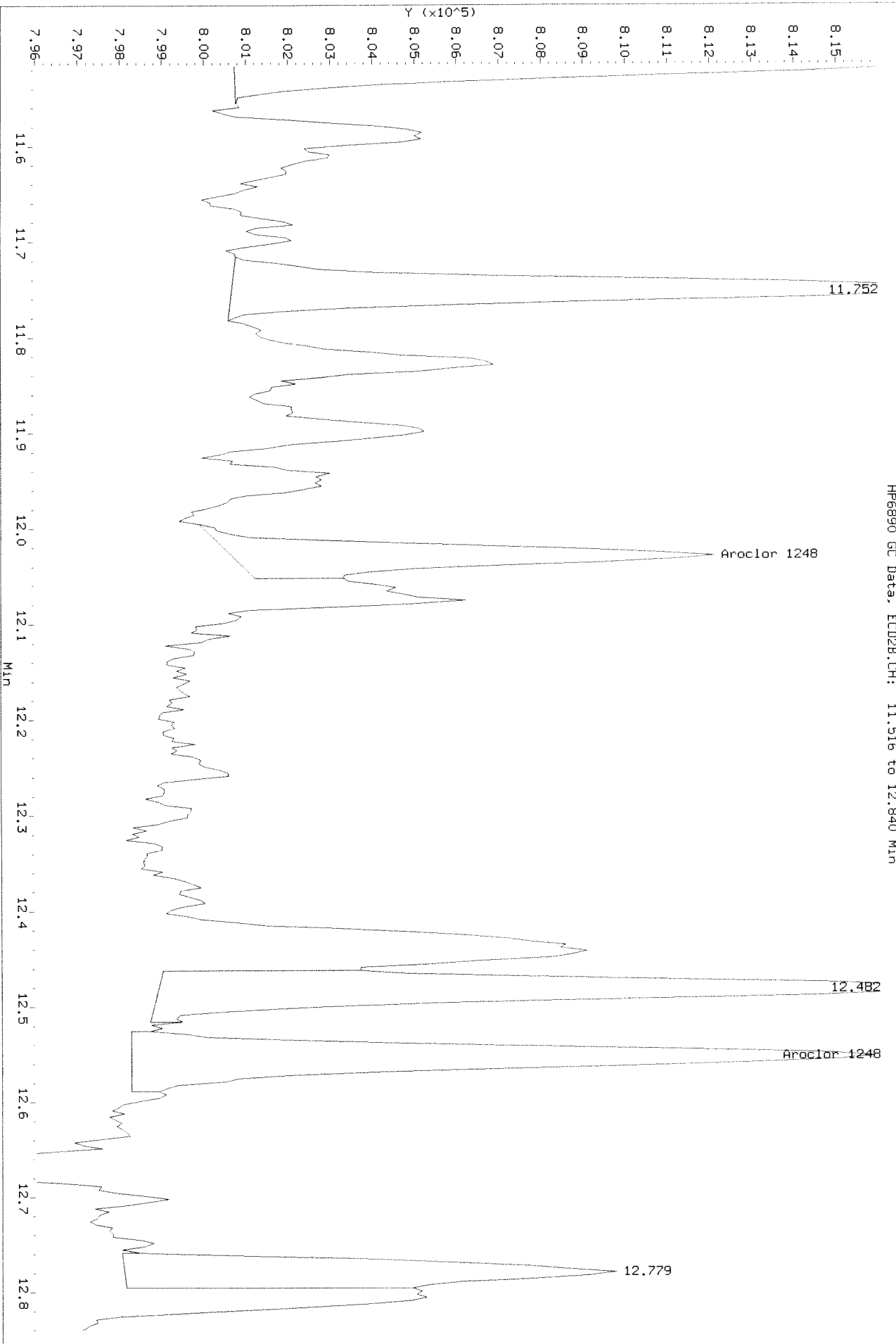
HP6890 GC Data, ECD1A.CH: 9.406 to 10.142 MIN

After Shoulder 9/11/19 SA



Data File: \\alk1sws002\instdata\GC27\Data\090419ICL-r.b\0904F037.D
Injection Date: 05-SEP-2019 11:23
Instrument: GC27.1
Client Sample ID:

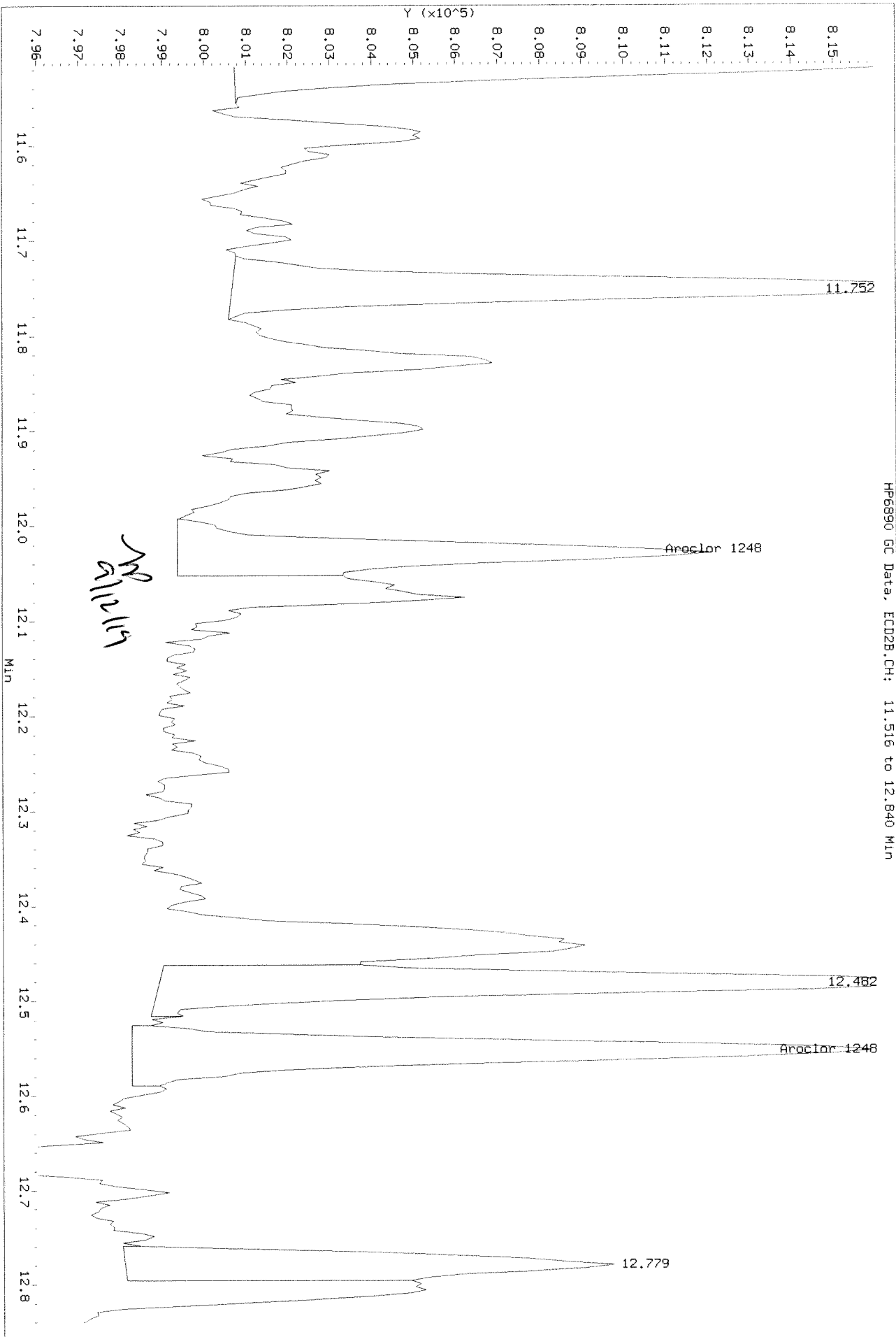
Before



Data File: \\alkisw002\instdata\GC27\Data\090419ICL.r.b\0904F037.D
Injection Date: 05-SEP-2019 11:23
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 11.516 to 12.840 MIN

After baseline 9/11/19



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F038.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F038.D
Inj Date : 05-SEP-2019 11:55
Sample Info: PCB8-13N 1248 @ 2 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : 48.SUB
Sub List #2 : 48.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1248	9.744	10.965	90727	44474	2.17	2.07	80.00- 120.00	100.00
	9.928	11.015	62907	38368	2.21	2.08	55.92- 83.88	69.34
	11.068	11.515	124877	54748	2.38	2.27	99.65- 149.47	137.64
	11.324	12.031	84447	41585	2.24	2.21	75.25- 112.88	93.08
	11.801	12.551	72973	60077	2.20	2.10	66.29- 99.44	80.43
	Average of Peak Amounts =				2.24	2.15		

SA 9/11/19
W

Data File: \\alk1sws002\instdata\GC27\Data\090419ICPL.b\0904F038.D

Date : 05-SEP-2019 11:55

Client ID:

Sample Info: PCB8-13N 1248 @ 2 PPB

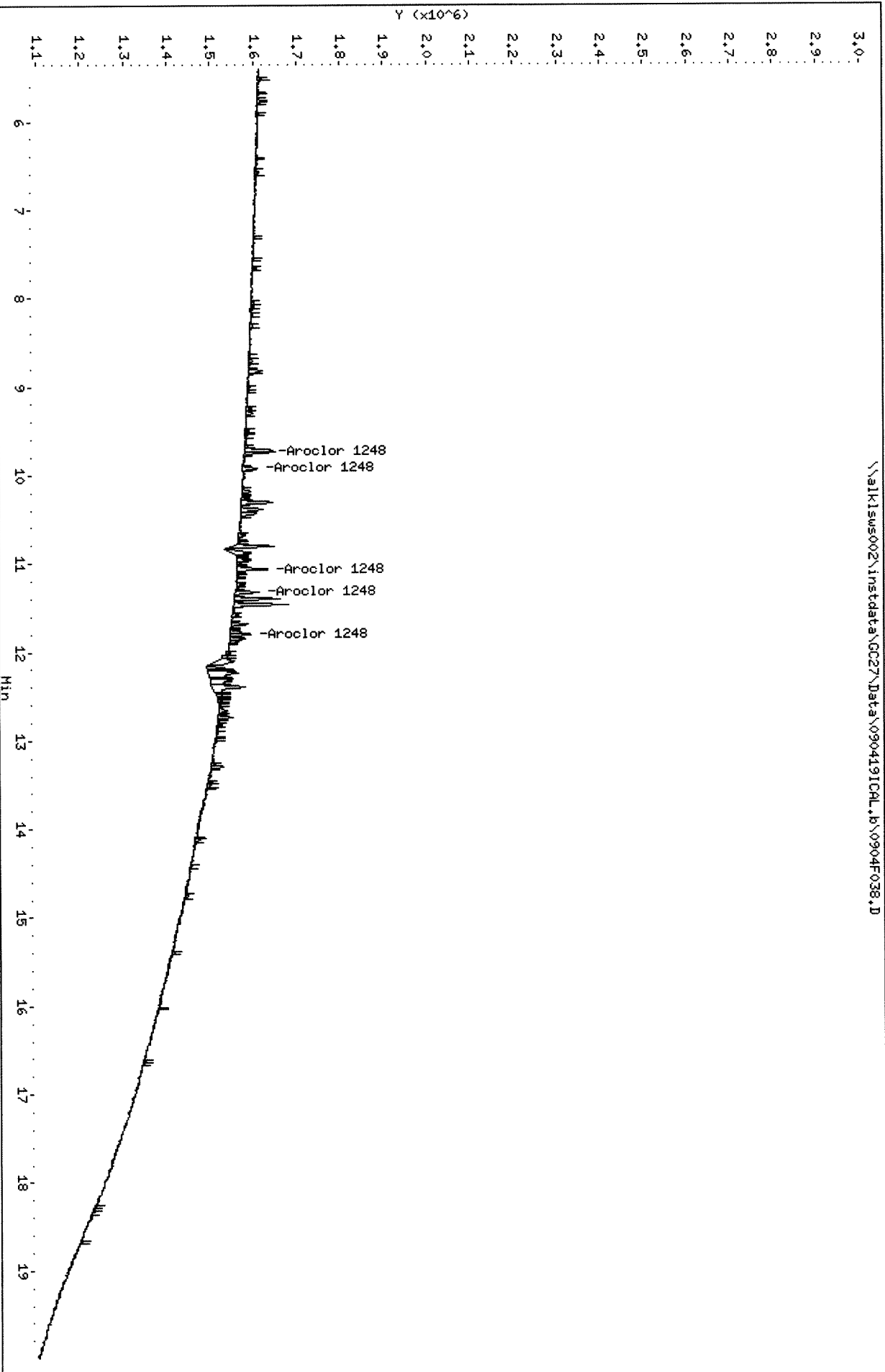
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alk1sws002\instdata\GC27\Data\090419ICPL.b\0904F038.D



Data File: \\alk1s002\instdata\GC27\Data\090419ICL_r.b\0904F038.D

Date : 05-SEP-2019 11:55

Client ID:

Sample Info: PCB8-13N 1248 @ 2 PPB

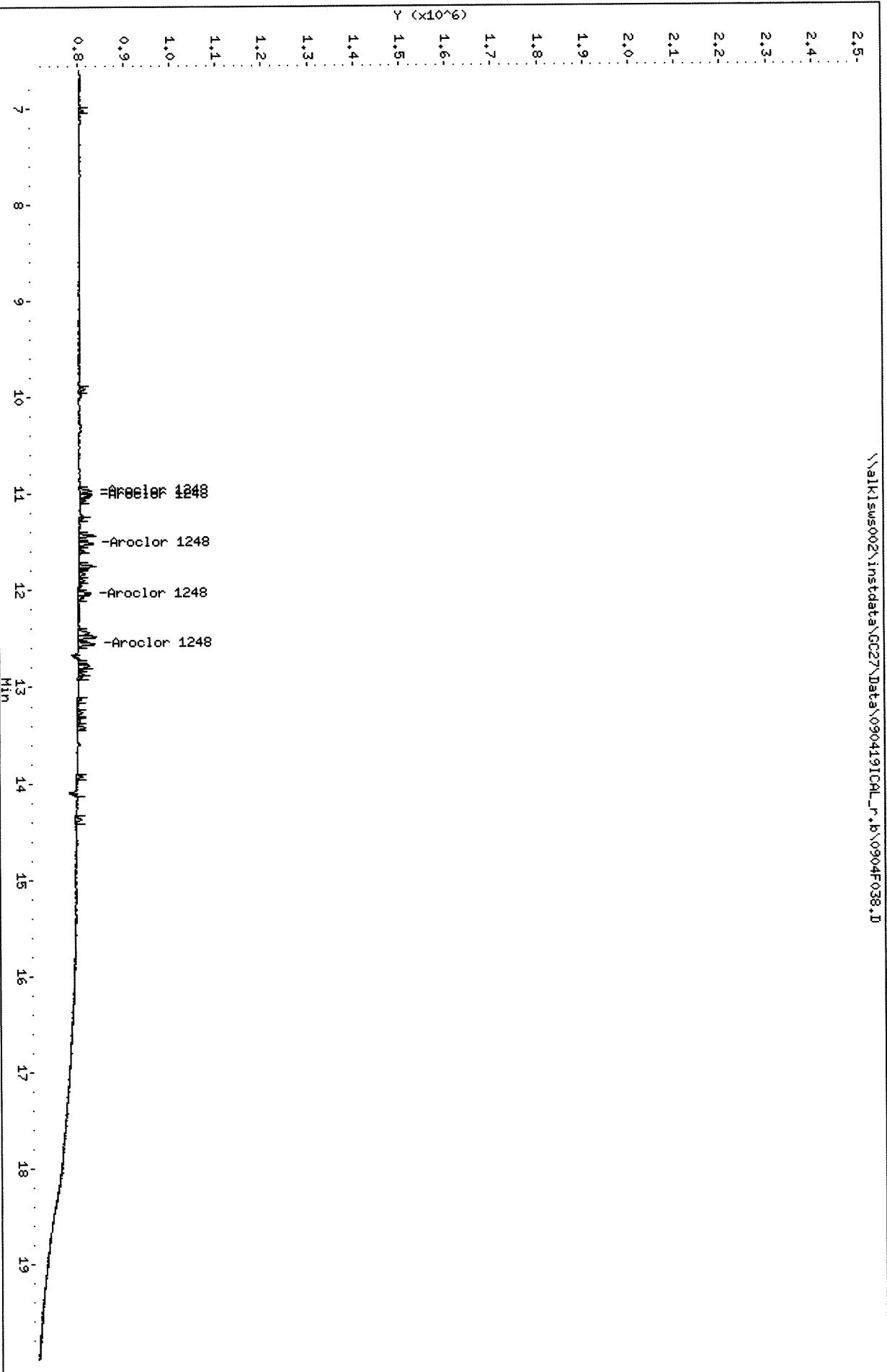
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

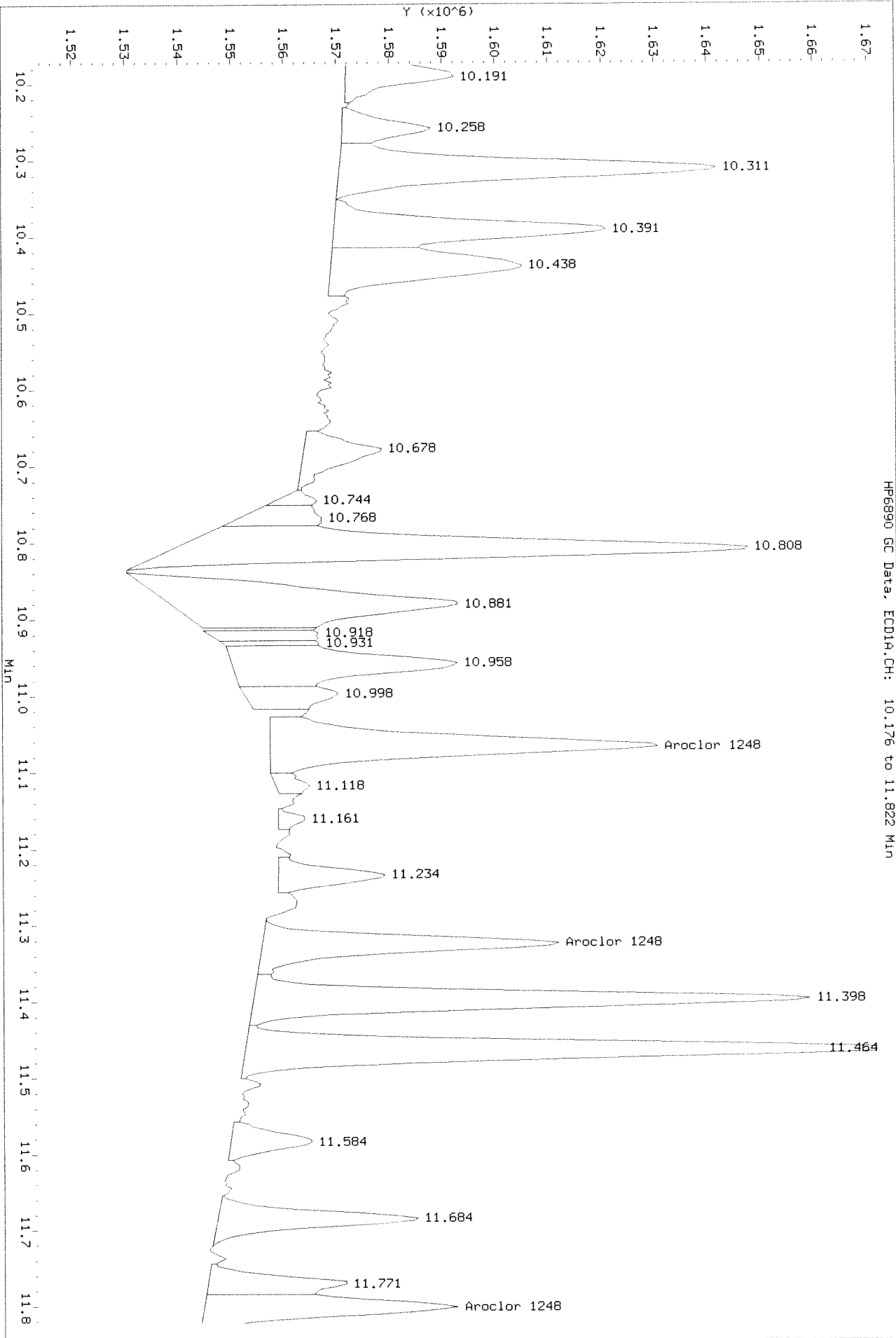
\\alk1s002\instdata\GC27\Data\090419ICL_r.b\0904F038.D



Data File: \\alklsw002\instdata\GC27\Data\090419ICL.b\0904F038.D
Injection Date: 05-SEP-2019 11:55
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 10.176 to 11.822 Min

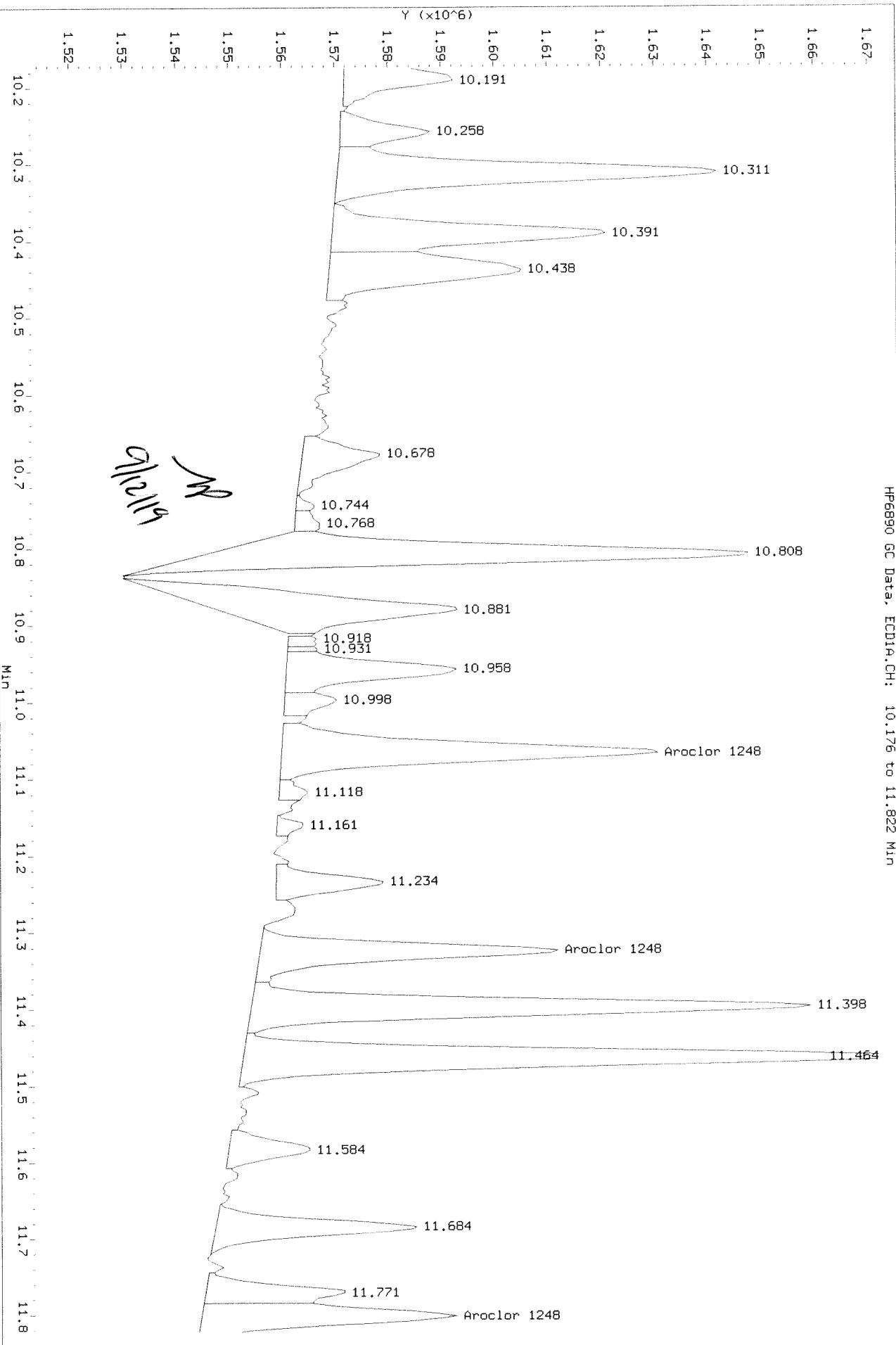
Refer



Data File: \\alk1sew002\instdata\GC27\Data\090419ICAL.b\0904F038.D
Injection Date: 05-SEP-2019 11:55
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 10.176 to 11.822 Min

After baseline 9/11/19 A



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F039.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F039.D
Inj Date : 05-SEP-2019 12:26
Sample Info: PCB8-14A 1248 @ 5 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : 48.SUB
Sub List #2 : 48.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1248	9.744	10.964	231533	111969	5.54	5.22	80.00- 120.00	100.00
	9.924	11.014	143574	97316	5.05	5.28	55.92- 83.88	62.01
	11.067	11.514	276305	125912	5.26	5.23	99.65- 149.47	119.34
	11.324	12.028	204810	97945	5.44	5.21	75.25- 112.88	88.46
	11.801	12.551	186712	151878	5.63	5.30	66.29- 99.44	80.64
			Average of Peak Amounts =		5.38	5.25		

CA 9/11/19
W

Data File: \\alkl1s002\instdata\GC27\Data\090419ICPL.b\0904F039.D

Date : 05-SEP-2019 12:26

Client ID:

Sample Info: PCB8-14A 1248 @ 5 PPB

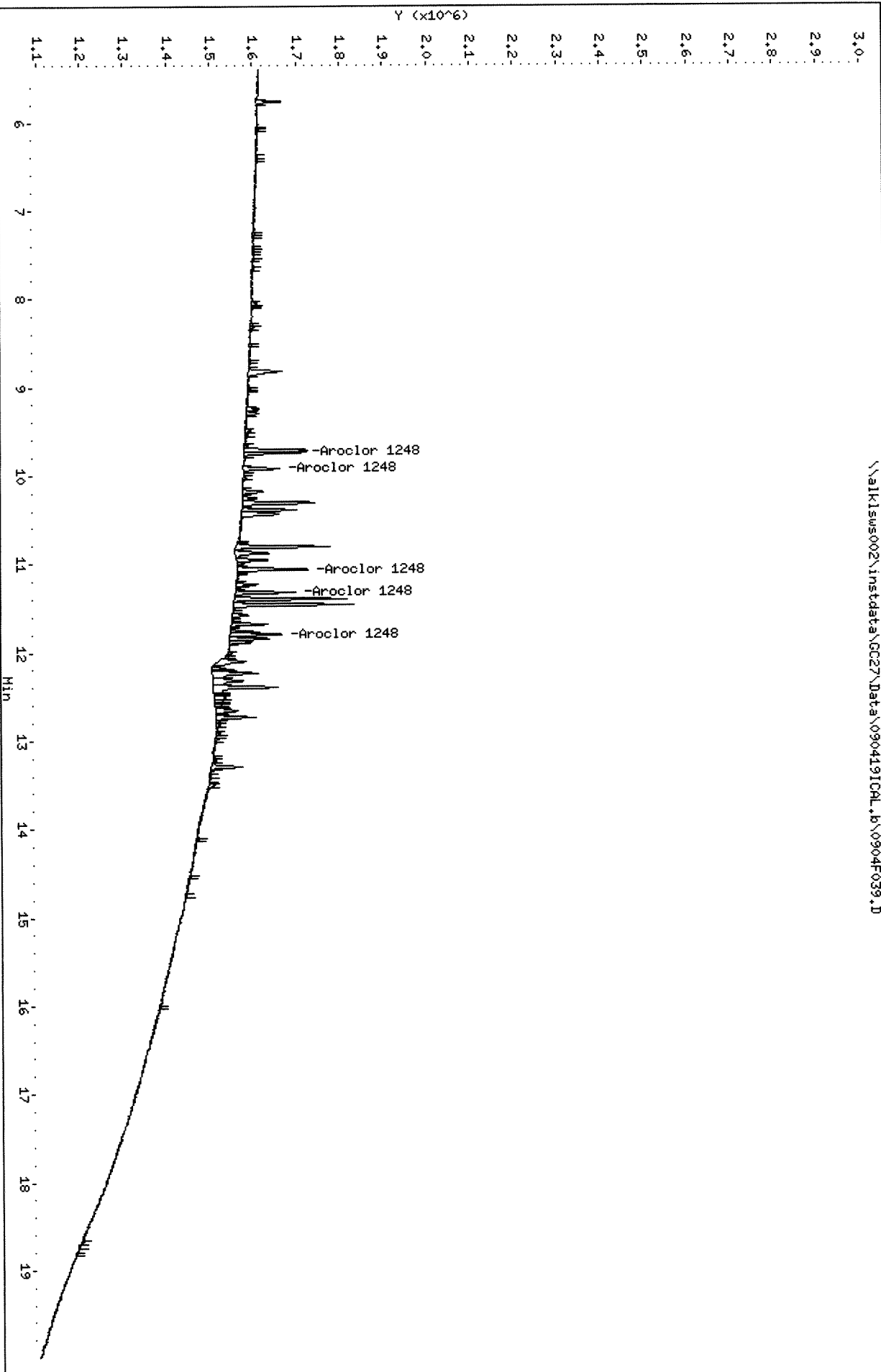
Column phase: DB-35MS

Instrument: GC27.1

Operator: SAA

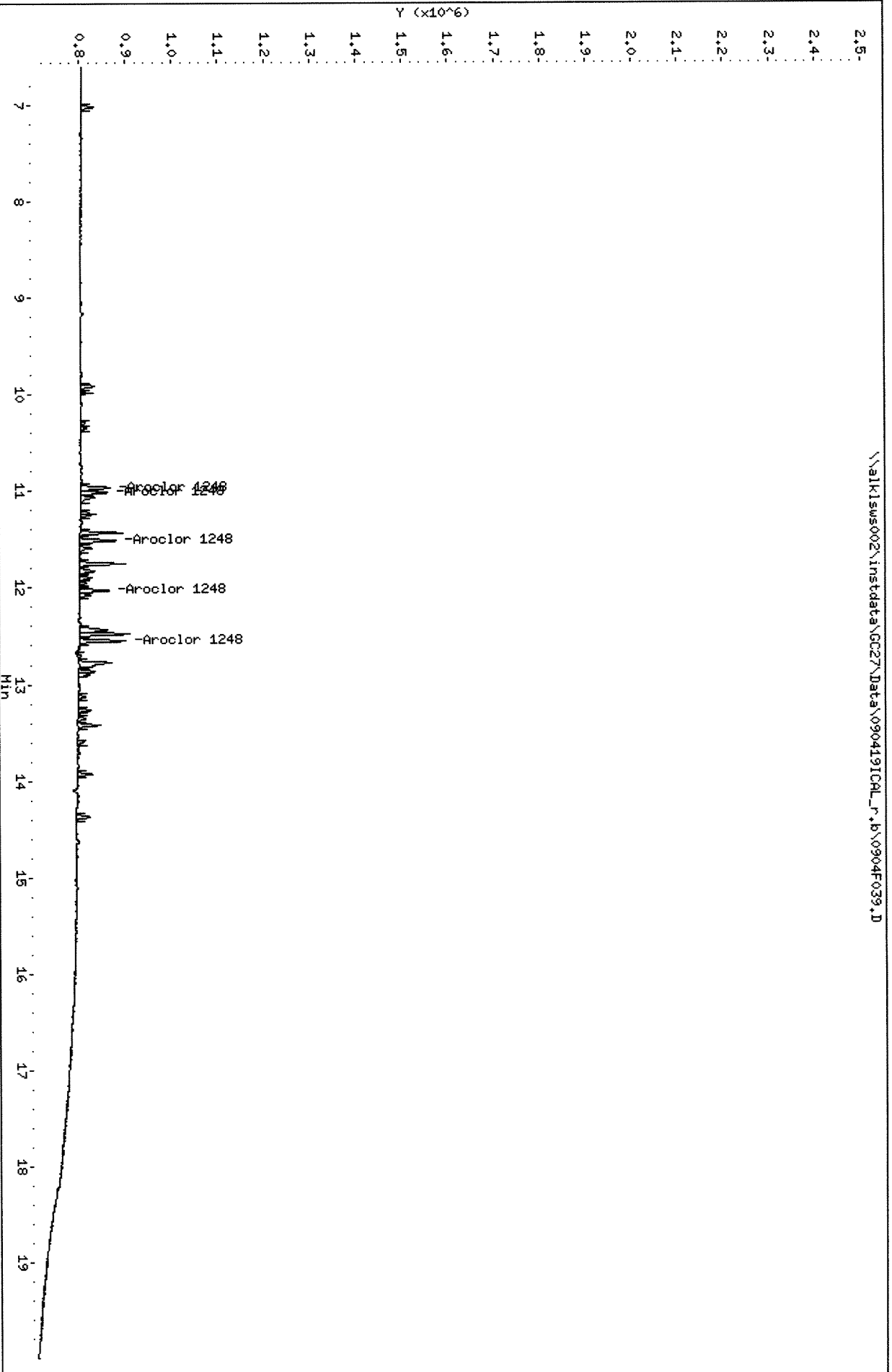
Column diameter: 0.32

\\alkl1s002\instdata\GC27\Data\090419ICPL.b\0904F039.D



Data File: \\alk1s002\instdata\GC27\Data\0904191CAL_r.b\0904F039.D
Date : 05-SEP-2019 12:26
Client ID:
Sample Info: PCB8-14A 1248 @ 5 PPB
Column phase: DB-XLB

Instrument: GC27.1
Operator: SAA
Column diameter: 0.32



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F040.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F040.D
Inj Date : 05-SEP-2019 12:58
Sample Info: PCB8-14B 1248 @ 10 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : 48.SUB
Sub List #2 : 48.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1248	9.745	10.965	424568	241098	10.2	11.2	80.00- 120.00	100.00
	9.928	11.015	307953	208834	10.8	11.3	55.92- 83.88	72.53
	11.068	11.515	548563	261609	10.4	10.9	99.65- 149.47	129.20
	11.325	12.028	401912	203088	10.7	10.8	75.25- 112.88	94.66
	11.801	12.552	362021	330054	10.9	11.5	66.29- 99.44	85.27
	Average of Peak Amounts =				10.6	11.1		

SA 9/11/19
W

Data File: \\alkisus002\instdata\GC27\Data\090419ICAL.b\0904F040.D

Date : 05-SEP-2019 12:58

Client ID:

Sample Info: PCB8-14B 1248 @ 10 PPB

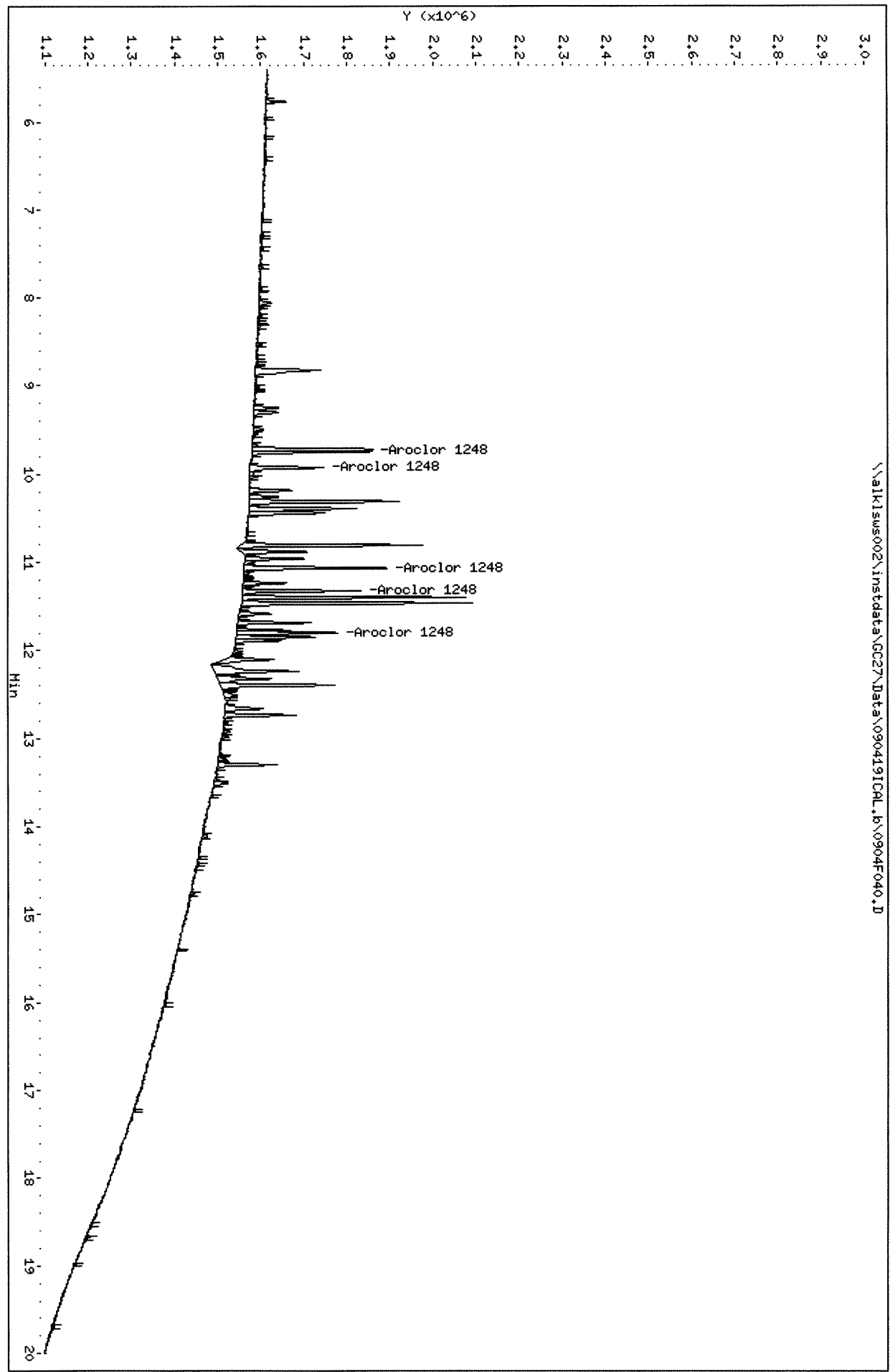
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

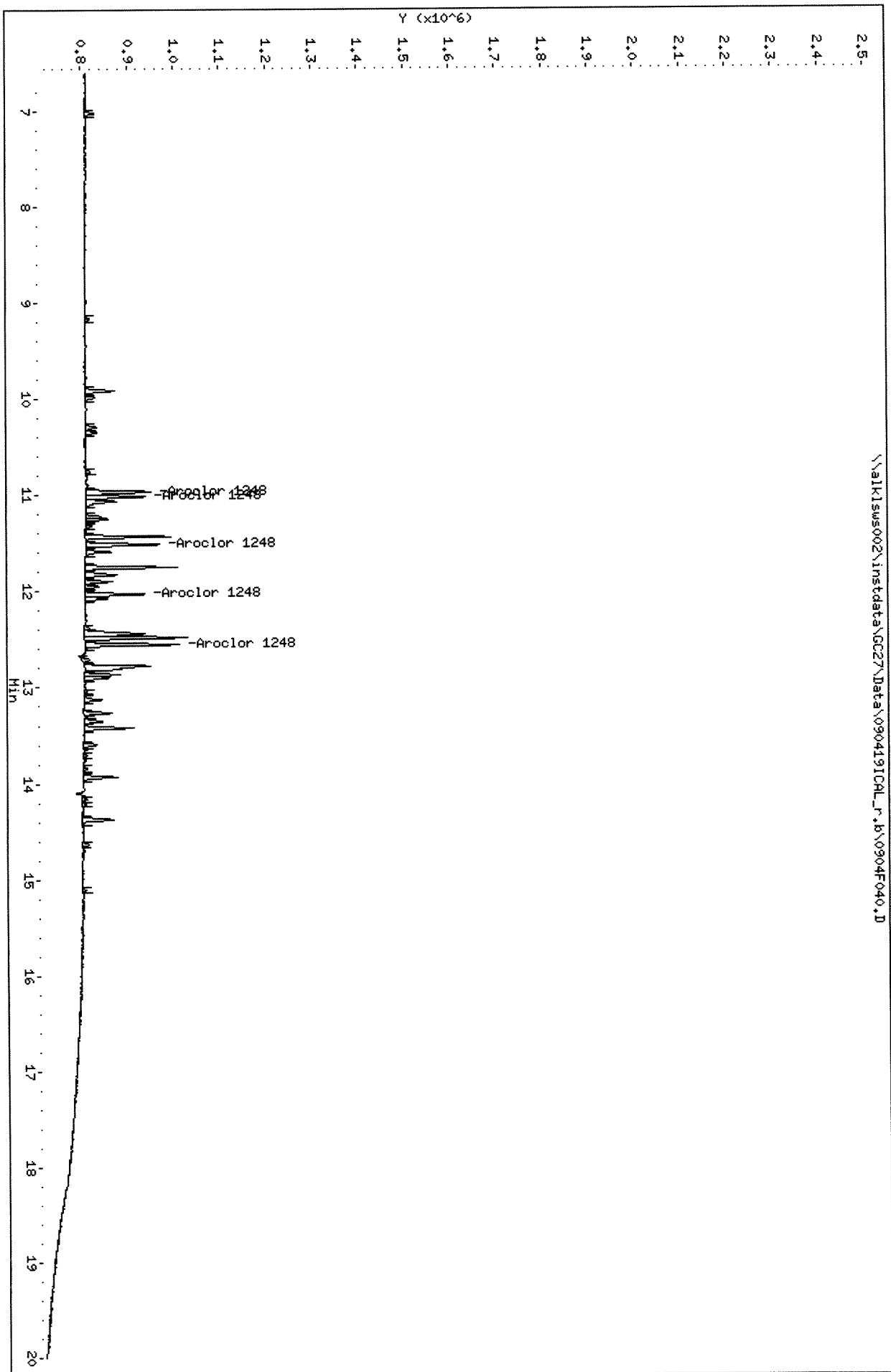
Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL.b\0904F040.D



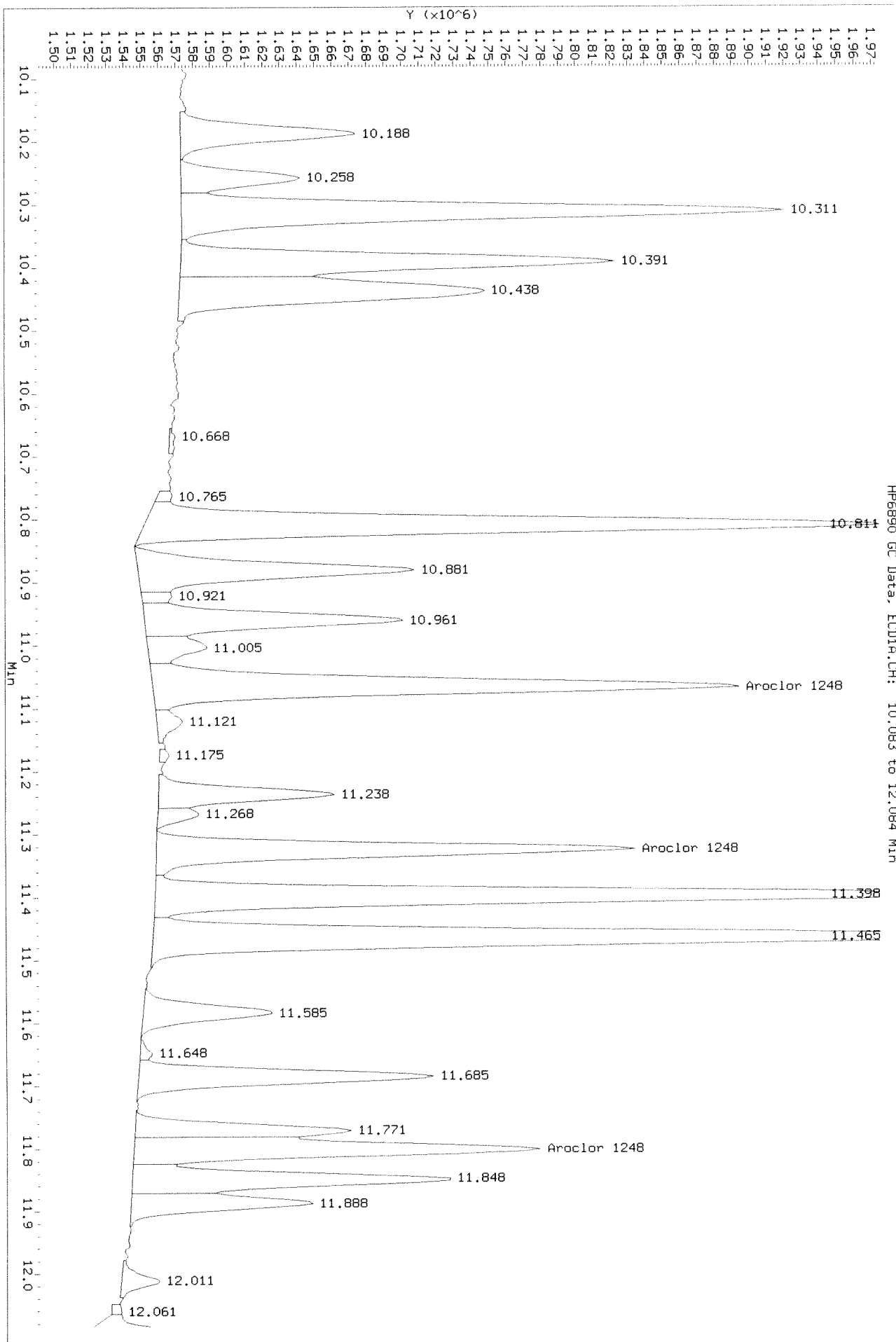
Data File: \\alkisus002\instdata\GC27\Data\090419ICDL_r.b\0904F040.D
Date : 05-SEP-2019 12:58
Client ID:
Sample Info: PCB8-14B 1248 @ 10 PPB
Column phase: DB-XLB

Instrument: GC27.i
Operator: SAA
Column diameter: 0.32



Data File: \\alklsws002\instdata\GC27\Data\090419ICL.b\0904F040.D
 Injection Date: 05-SEP-2019 12:58
 Instrument: GC27.1
 Client Sample ID:

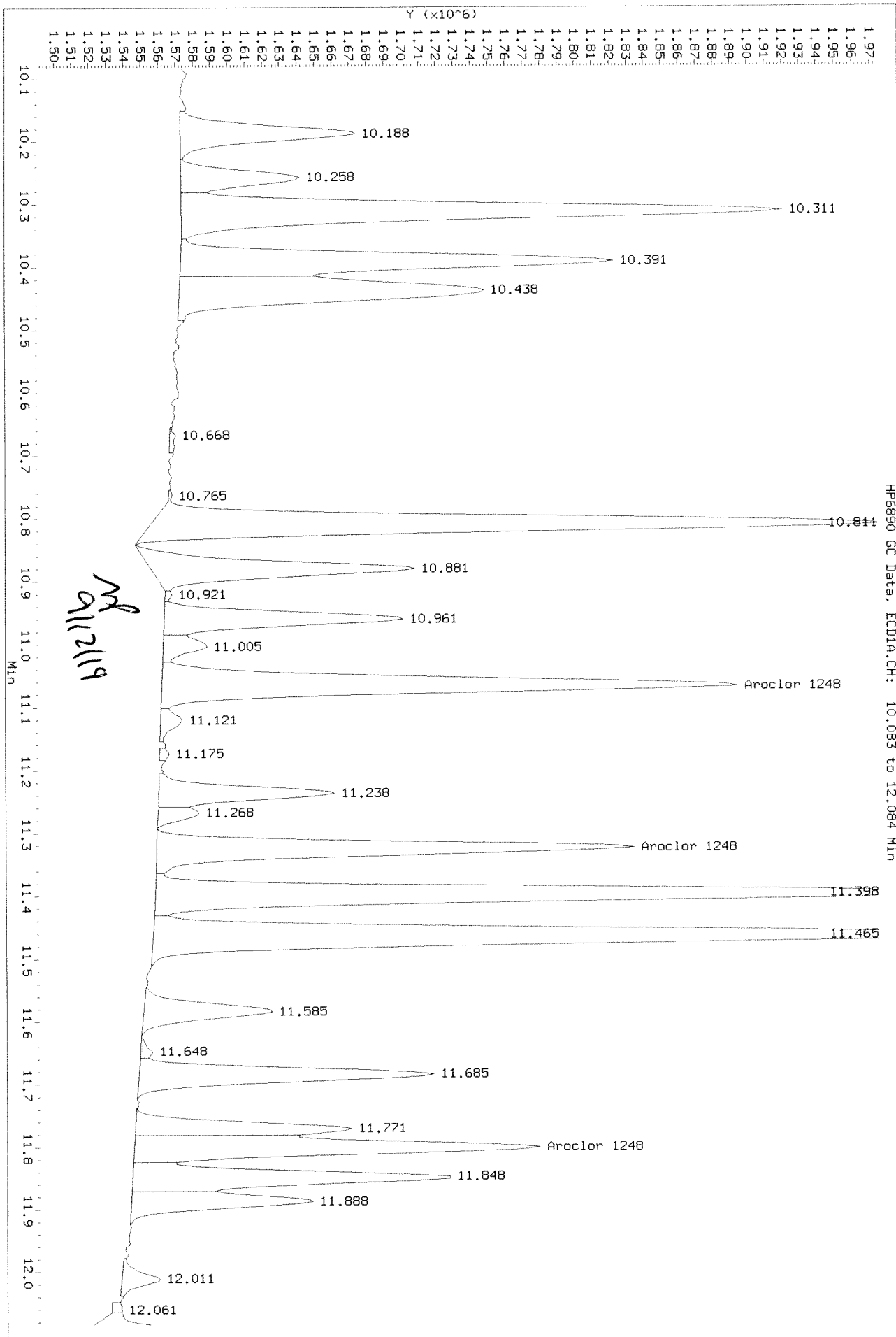
Before



Data File: \\alklms002\instdata\GC27\Data\090419ICL.b\0904F040.D
Injection Date: 05-SEP-2019 12:58
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD1A.CH: 10.083 to 12.084 MIN

After baseline 9/11/19 A



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F041.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F041.D
Inj Date : 05-SEP-2019 13:30
Sample Info: PCB7-91N 1248 @ 20 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : 48.SUB
Sub List #2 : 48.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1248	9.745	10.965	766568	450464	18.3	21.0	80.00- 120.00	100.00 (M)
	9.928	11.015	509729	374054	17.9	20.3	55.92- 83.88	66.49 (M)
	11.068	11.515	980595	477212	18.7	19.8	99.65- 149.47	127.92 (M)
	11.325	12.032	723763	367769	19.2	19.6	75.25- 112.88	94.42 (M)
	11.802	12.555	611012	599845	18.4	20.9	66.29- 99.44	79.71 (M)
	Average of Peak Amounts =				18.5	20.3		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
W

Data File: \\alklsws002\instdata\GC27\Data\090419ICPL.b\0904F041.D

Date : 05-SEP-2019 13:30

Client ID:

Sample Info: PCB7-91N 1248 @ 20 PPB

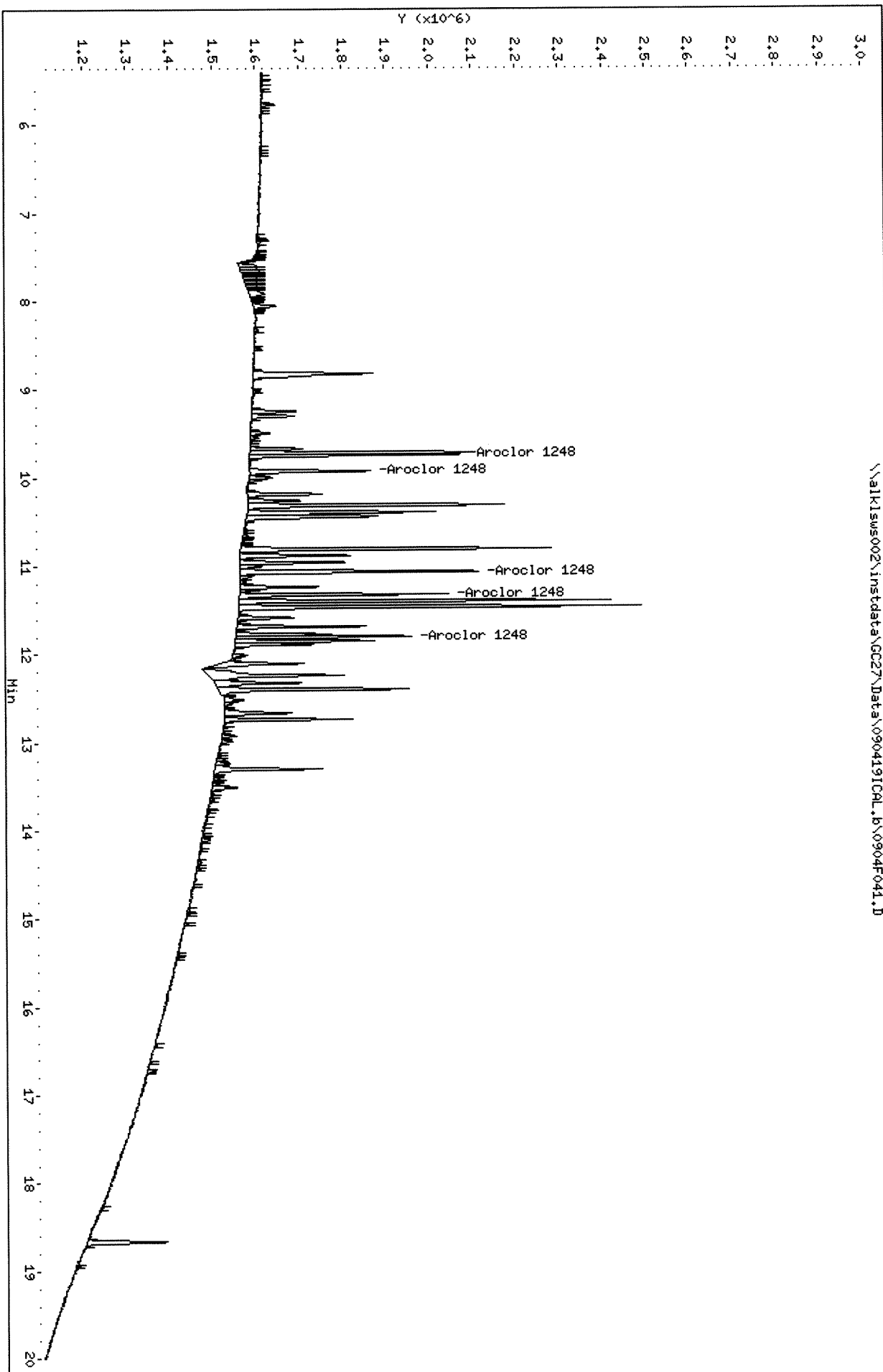
Column phase: DB-35MS

Instrument: GC27.1

Operator: SAA

Column diameter: 0.32

\\alklsws002\instdata\GC27\Data\090419ICPL.b\0904F041.D



Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F041.D

Date: 05-SEP-2019 13:30

Client ID:

Sample Info: PCB7-91N 1248 @ 20 PPB

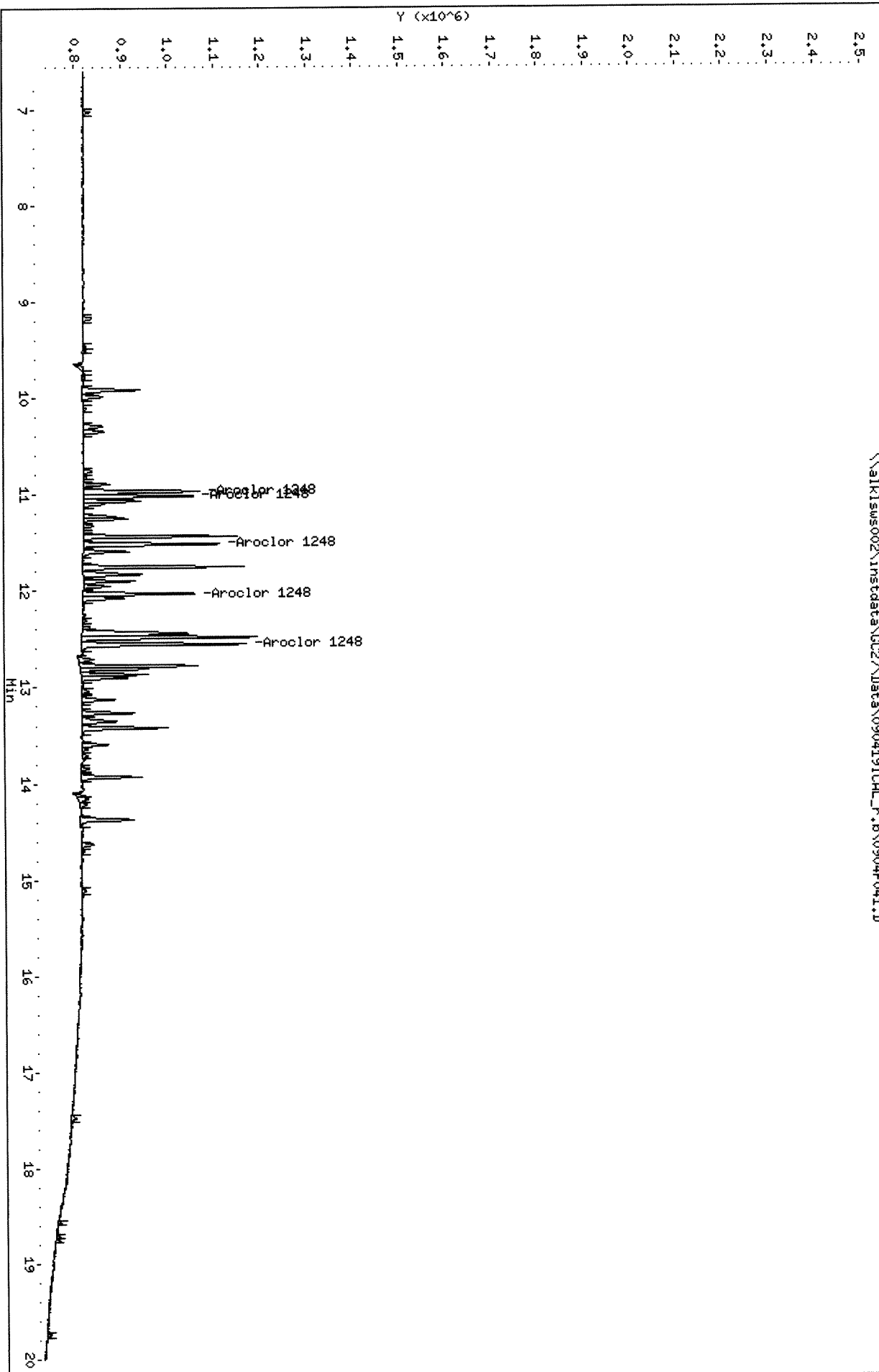
Column phase: DB-XLB

Instrument: GC27.1

Operator: SAA

Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F041.D



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F042.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F042.D
Inj Date : 05-SEP-2019 14:02
Sample Info: PCB7-910 1248 @ 50 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : 48.SUB
Sub List #2 : 48.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1248	9.745	10.965	1812027	1047787	43.4	48.9	80.00- 120.00	100.00
	9.928	11.015	1314513	926449	46.2	50.3	55.92- 83.88	72.54
	11.068	11.515	2283647	1111679	43.5	46.2	99.65- 149.47	126.03
	11.325	12.029	1719034	882846	45.7	47.0	75.25- 112.88	94.87
	11.802	12.552	1472562	1347375	44.4	47.0	66.29- 99.44	81.27
	Average of Peak Amounts =				44.6	47.9		

SA 9/11/19
W

Data File: \\alk1sws002\instdata\GC27\Data\090419ICPL.b\0904F042.D

Date : 05-SEP-2019 14:02

Client ID:

Sample Info: PCB7-910 1248 @ 50 PPB

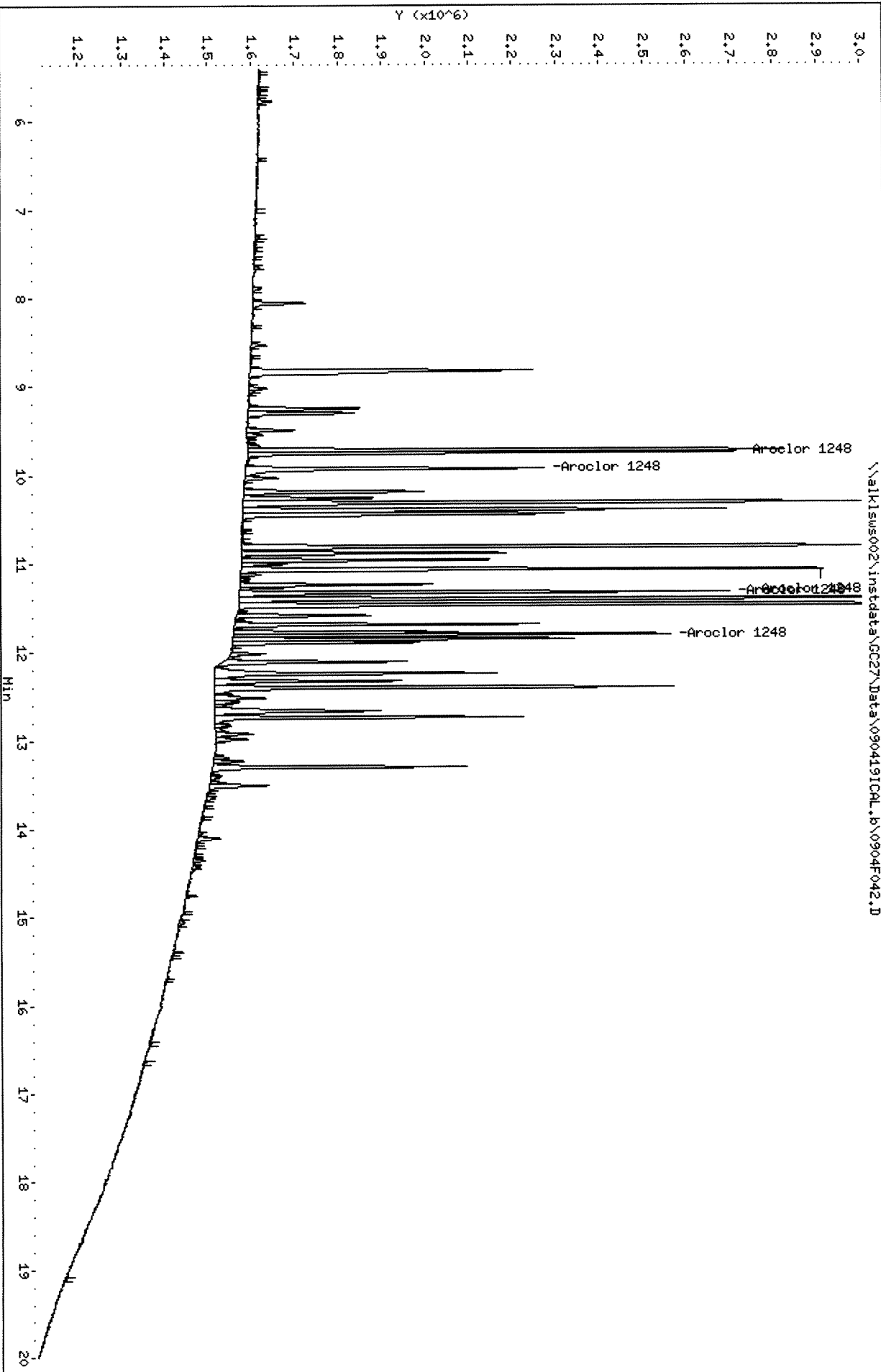
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alk1sws002\instdata\GC27\Data\090419ICPL.b\0904F042.D



Data File: \\alk1s002\instdata\GC27\Data\090419ICAL_r.b\0904F042.D

Date : 05-SEP-2019 14:02

Client ID:

Sample Info: PCB7-910 1248 @ 50 PPB

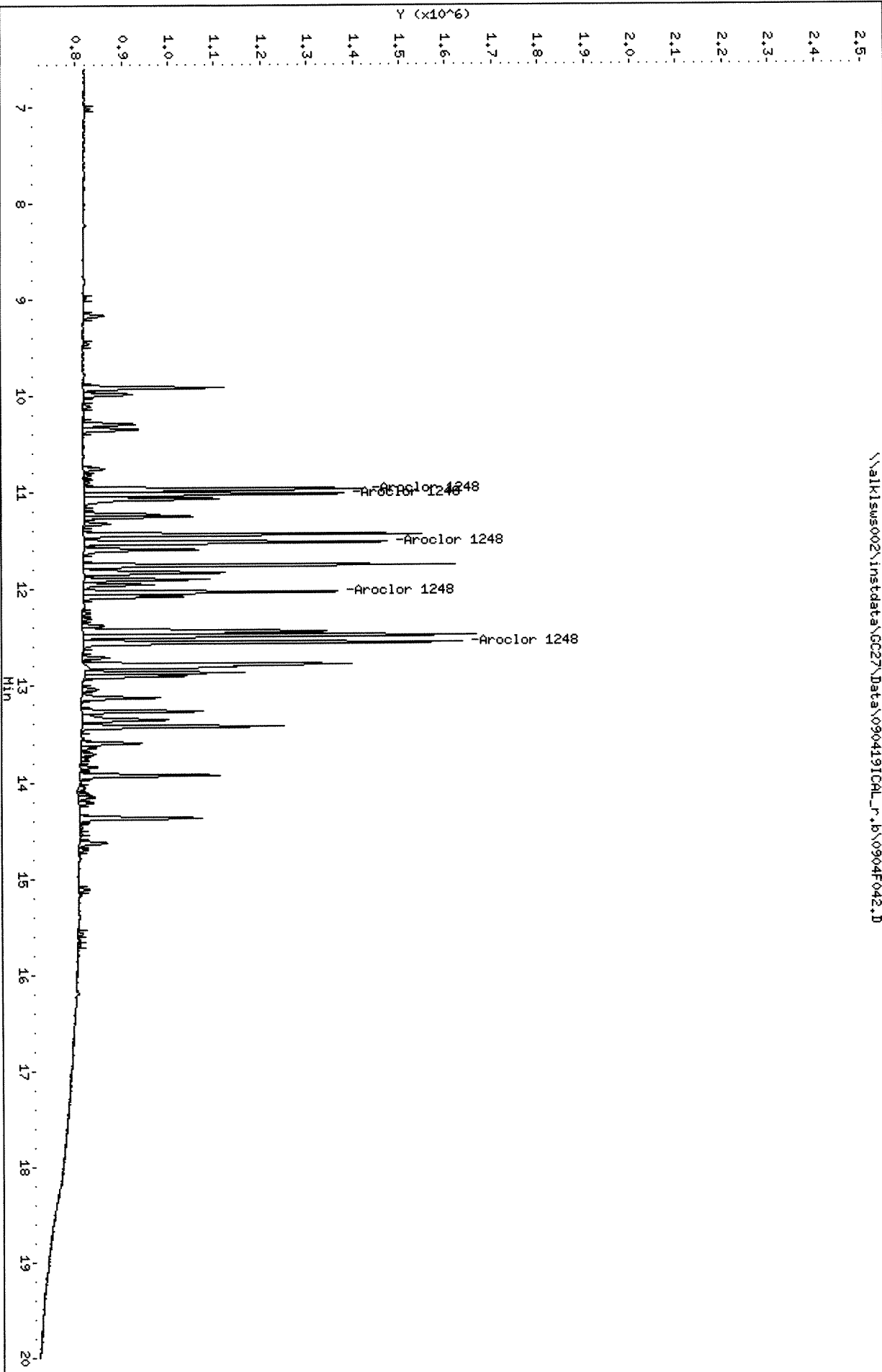
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alk1s002\instdata\GC27\Data\090419ICAL_r.b\0904F042.D



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F043.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F043.D
 Inj Date : 05-SEP-2019 14:33
 Sample Info: PCB7-92A 1248 @ 100 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:38
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

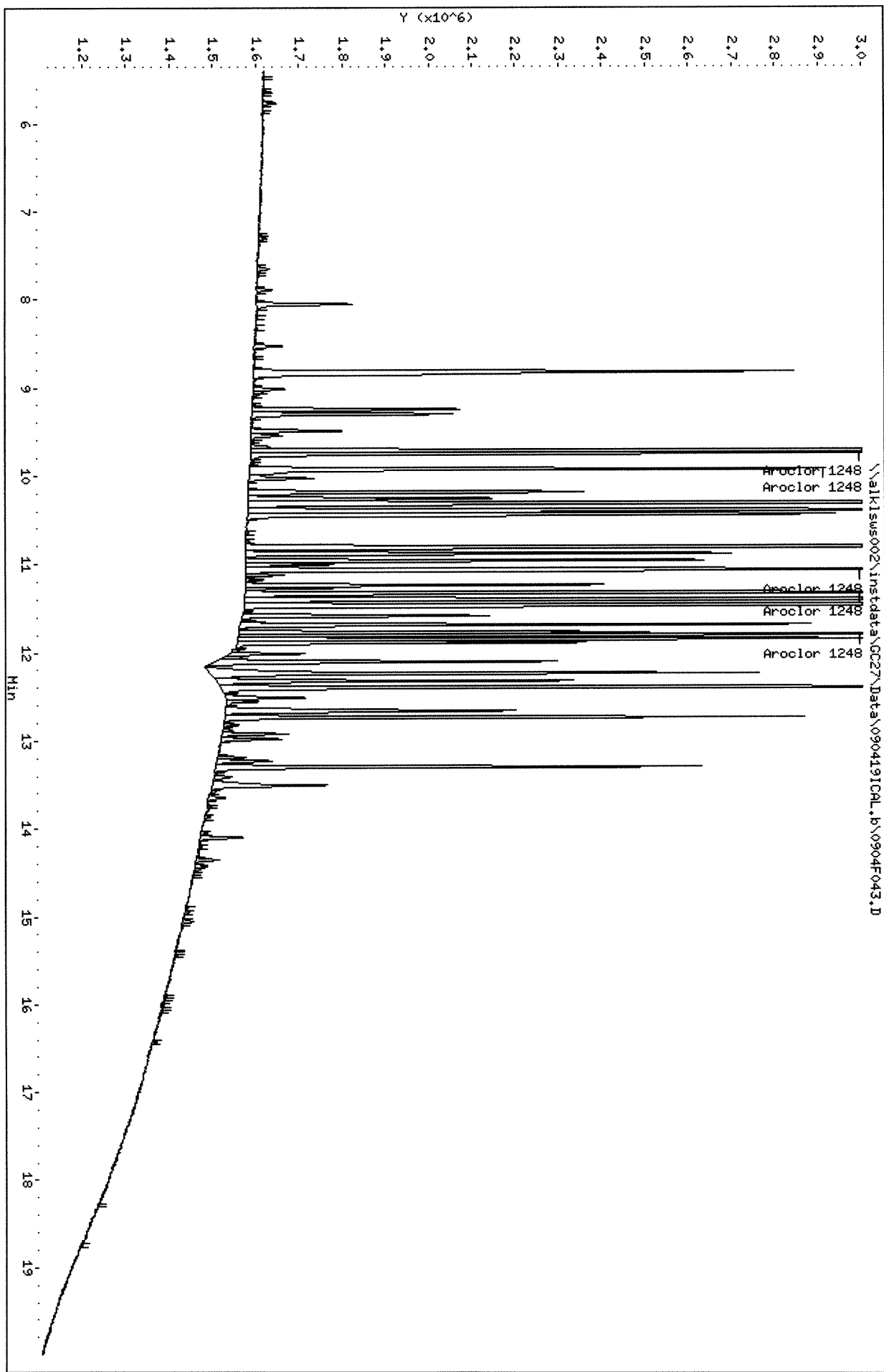
Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 48.SUB
 Sub List #2 : 48.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1248	9.744	10.964	3550142	1949389	85.0	90.9	80.00- 120.00	100.00
	9.928	11.014	2452217	1637198	86.3	88.8	55.92- 83.88	69.07
	11.068	11.514	4258464	1988037	81.1	82.6	99.65- 149.47	119.95
	11.324	12.031	3206351	1586846	85.2	84.5	75.25- 112.88	90.32
	11.801	12.554	2806012	2421338	84.6	84.5	66.29- 99.44	79.04
	Average of Peak Amounts =				84.4	86.3		

SA 9/11/19


Data File: \\alk1sus002\instdata\GC27\Data\090419ICAL.b\0904F043.D
Date: 05-SEP-2019 14:33
Client ID:
Sample Info: PCB7-92A 1248 @ 100 PPB
Column phase: DB-35MS

Instrument: GC27.i
Operator: SAA
Column diameter: 0.32



Data File: \\alk1sus002\instdata\GC27\Data\090419ICAL_r.b\0904F043.D

Date : 05-SEP-2019 14:33

Client ID:

Sample Info: PCB7-92A 1248 @ 100 PPB

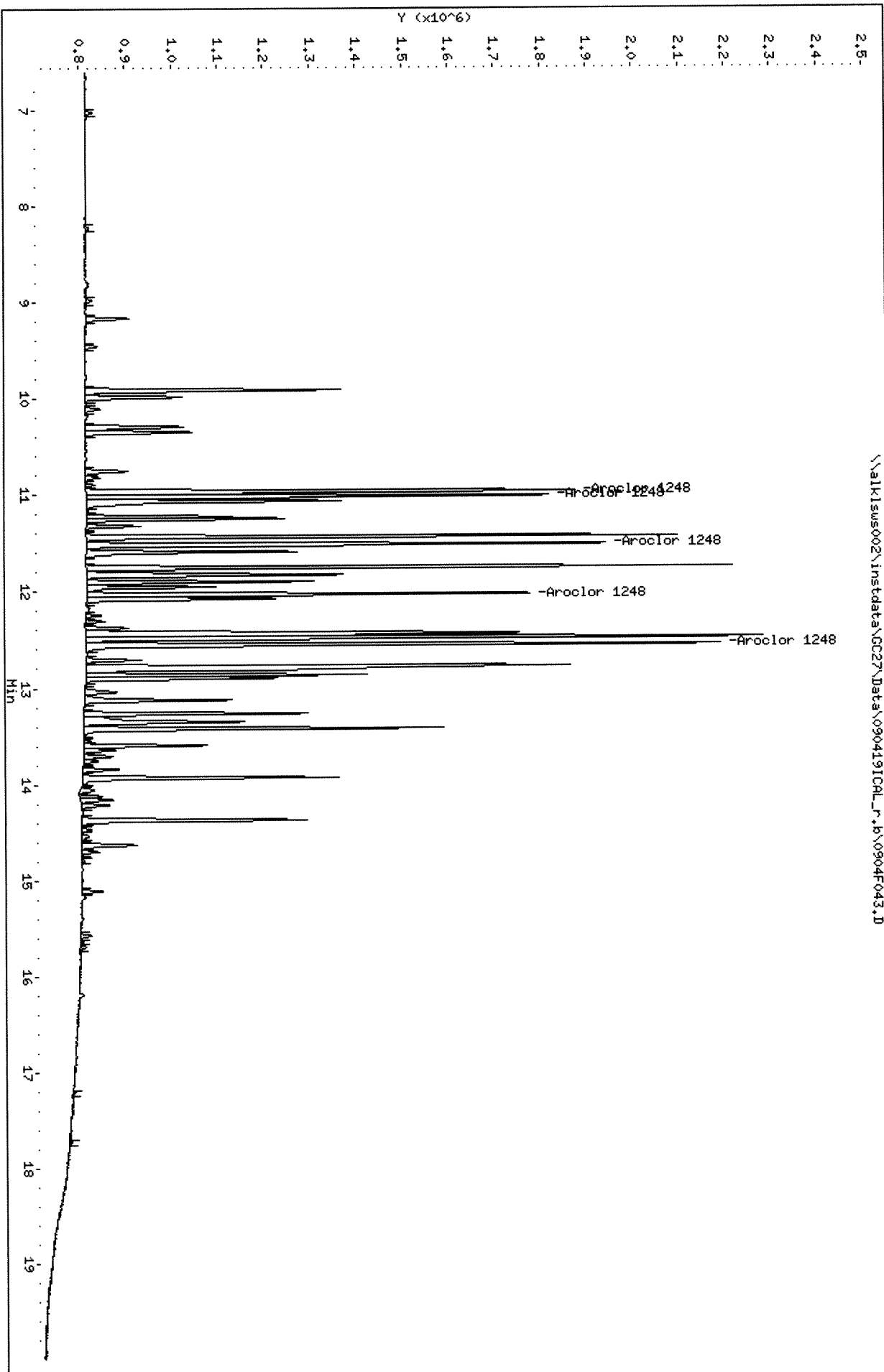
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alk1sus002\instdata\GC27\Data\090419ICAL_r.b\0904F043.D



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F044.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F044.D
Inj Date : 05-SEP-2019 15:05
Sample Info: PCB7-91A 1248 @ 200 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : 48.SUB
Sub List #2 : 48.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1248	9.744	10.964	7859624	3999503	188	187	80.00- 120.00	100.00
	9.927	11.014	5493676	3601096	193	195	55.92- 83.88	69.90
	11.067	11.514	9790019	4175992	186	174	99.65- 149.47	124.56
	11.324	12.028	7393201	3391310	197	181	75.25- 112.88	94.07
	11.801	12.551	6513002	5266045	196	184	66.29- 99.44	82.87
			Average of Peak Amounts =		192	184		

SA 9/11/19
BT

Data File: \\alk1sws002\instdata\GC27\Data\090419ICL.b\0904F044.D

Date: 05-SEP-2019 15:05

Client ID:

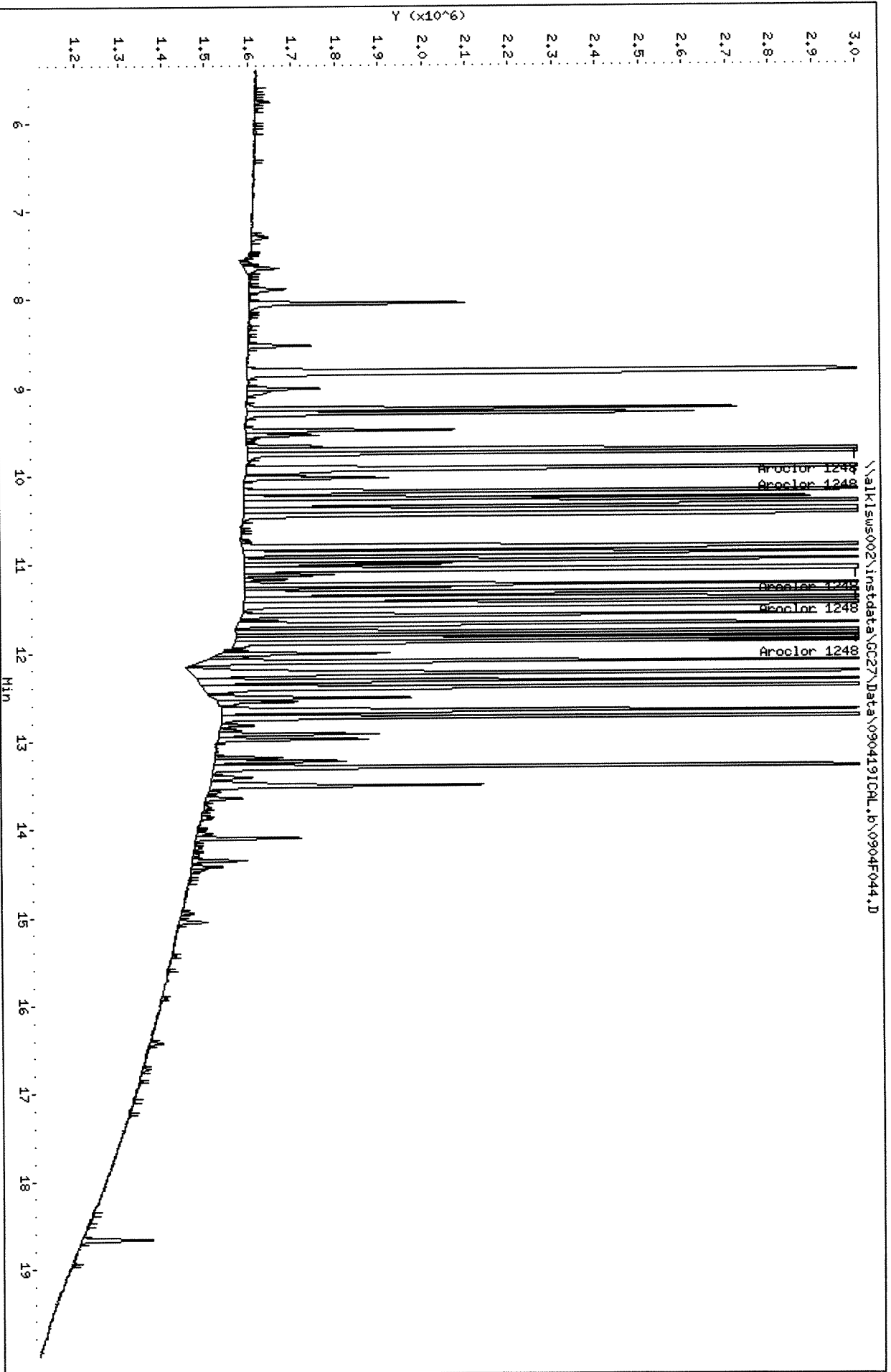
Sample Info: PCB7-91A 1248 @ 200 PPB

Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Data File: \\alk1sus002\instdata\GC27\Data\090419ICL_r.b\0904F044.D

Date: 05-SEP-2019 15:05

Client ID:

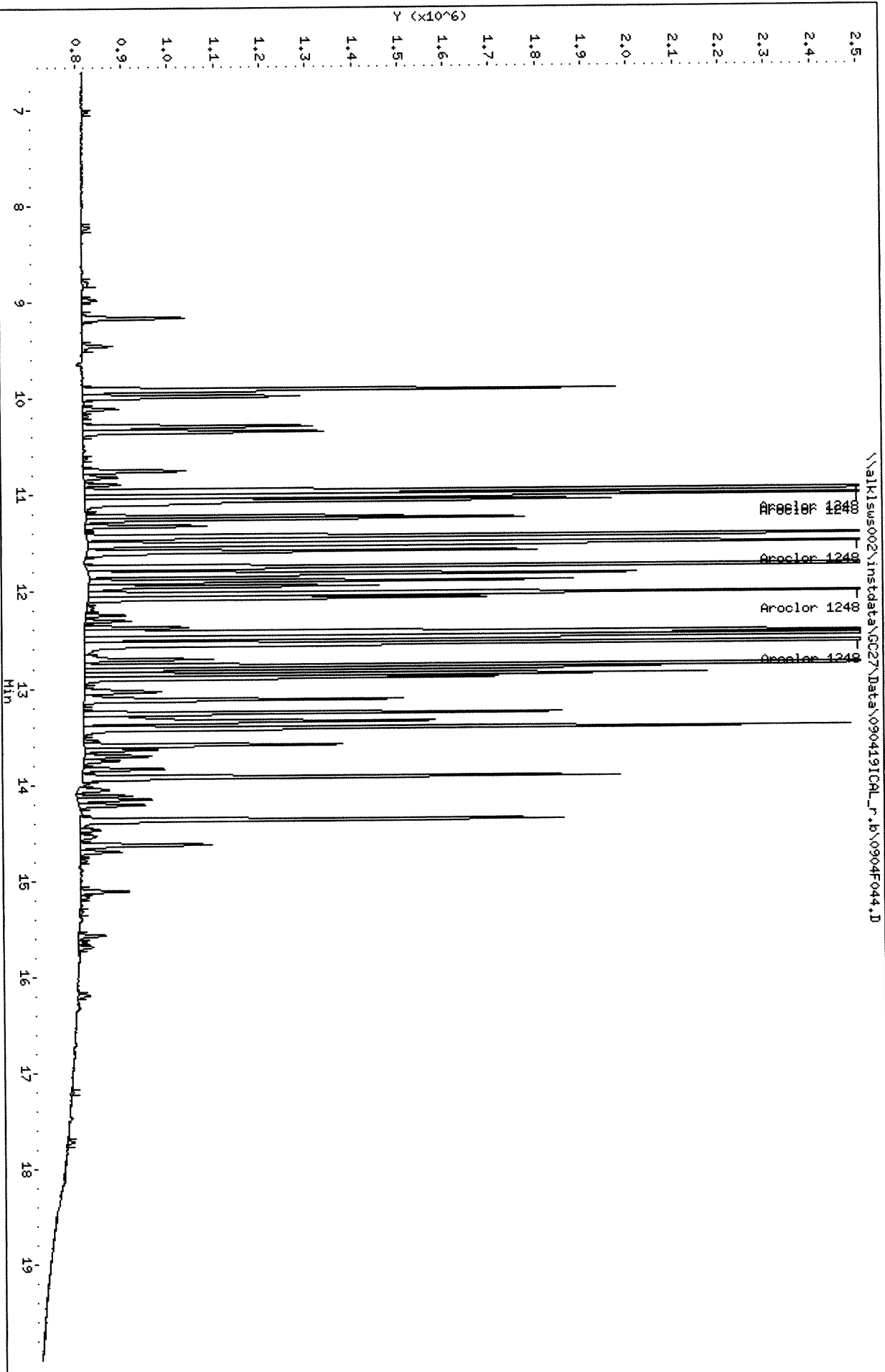
Sample Info: PCB7-91A 1248 @ 200 PPB

Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F045.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F045.D
Inj Date : 05-SEP-2019 15:37
Sample Info: PCB8-14C 1016 ICV @ 20 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : AR1016.sub
Sub List #2 : AR1016.sub
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1016	8.054	9.164	667924	310366	19.6	20.6	80.00- 120.00	100.00
	9.304	9.914	512469	431887	18.3	19.6	66.06- 99.09	76.73
	9.747	11.064	1574315	483142	18.1	20.0	210.14- 315.22	235.70
	9.927	11.514	942012	340281	18.4	19.1	122.22- 183.34	141.04
	10.314	11.751	633823	336966	18.0	20.0	84.59- 126.89	94.89
	Average of Peak Amounts =				18.5	19.9		

SA 9/11/19
W

Data File: \\alklisms002\instdata\GC27\Data\090419ICL.b\0904F045.D

Date : 05-SEP-2019 15:37

Client ID:

Sample Info: PCB8-14C 1016 ICV @ 20 PPB

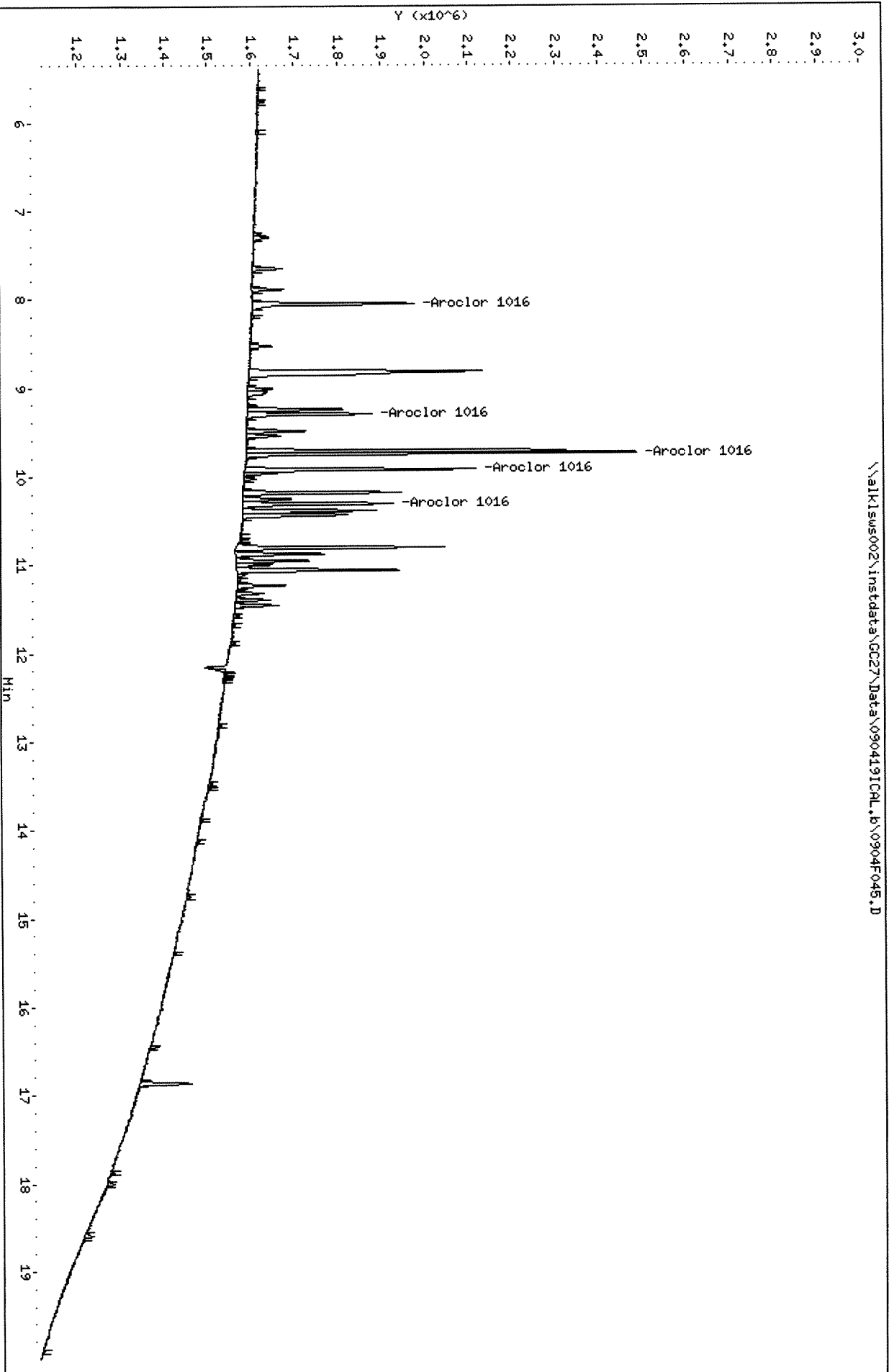
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alklisms002\instdata\GC27\Data\090419ICL.b\0904F045.D



Data File: \\alk1sms002\instdata\GC27\Data\090419ICAL_r.b\0904F045.D

Date : 05-SEP-2019 15:37

Client ID:

Sample Info: PCB8-14C 1016 ICV @ 20 PPB

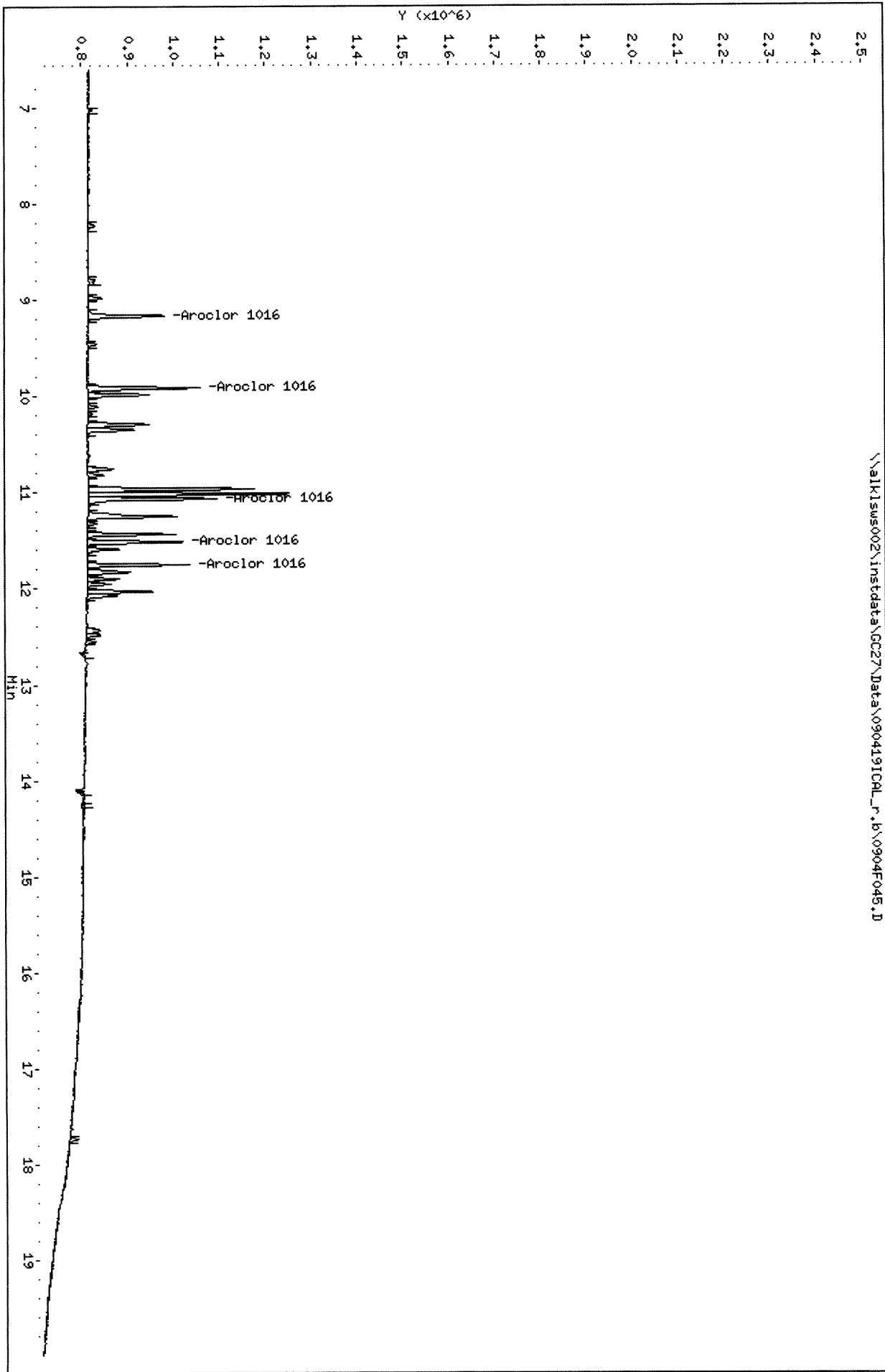
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alk1sms002\instdata\GC27\Data\090419ICAL_r.b\0904F045.D



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F046.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F046.D
Inj Date : 05-SEP-2019 16:08
Sample Info: PCB8-14D 1221 ICV @ 20 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

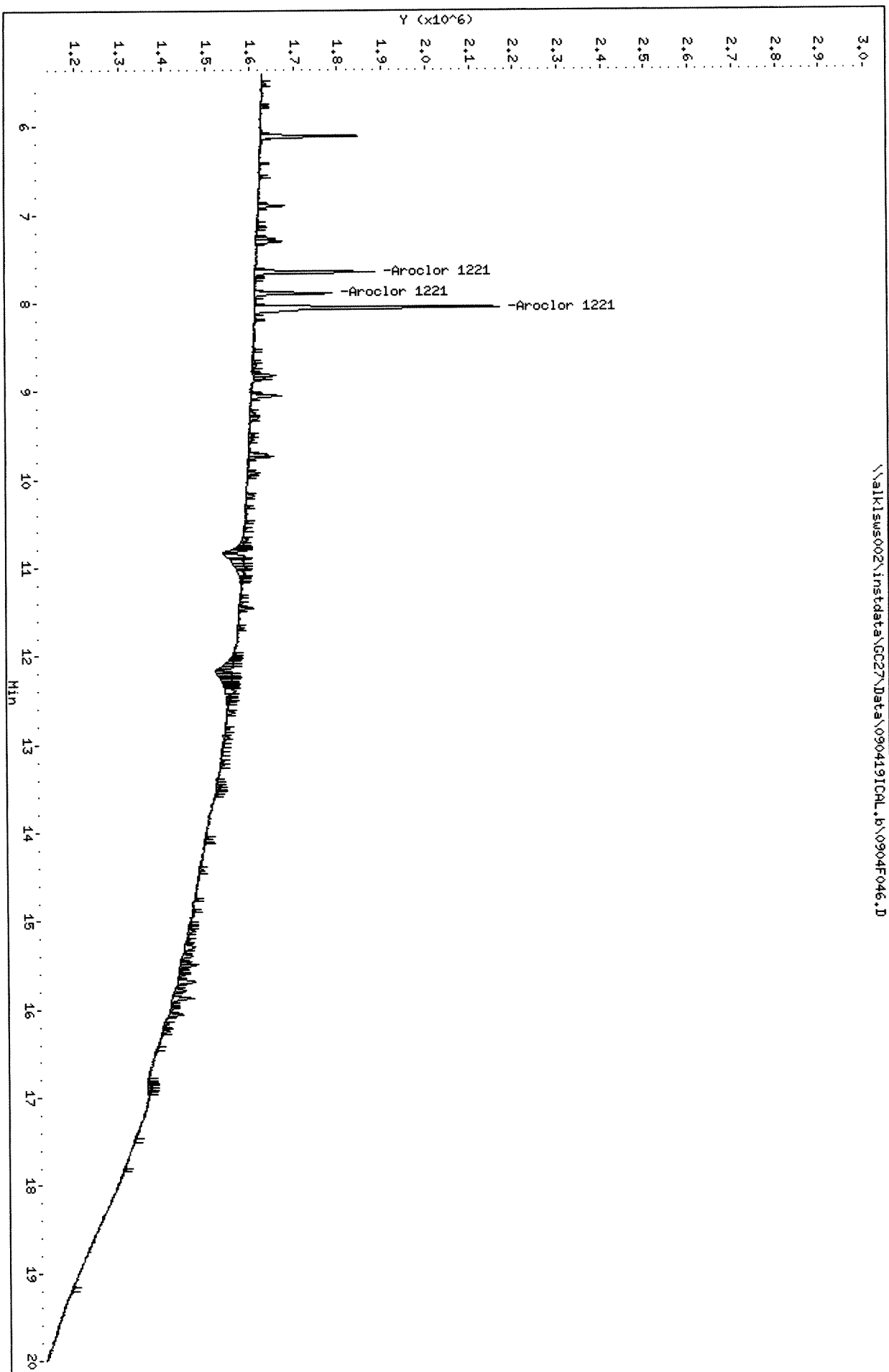
Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : AR1221.SUB
Sub List #2 : AR1221.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1221	7.655	8.825	451477	127589	19.6	19.6	80.00- 120.00	100.00
	7.892	8.979	287870	132945	19.7	20.6	50.93- 76.39	63.76
	8.055	9.165	1064560	517248	19.4	20.8	190.33- 285.49	235.79
	Average of Peak Amounts =				19.6	20.3		

SA 9/11/19
W

Data File: \\alkisw002\instdata\GC27\Data\090419ICAL.b\0904F046.D
Date : 05-SEP-2019 16:08
Client ID:
Sample Info: PCB8-14D 1221 ICV @ 20 PPB
Column phase: DB-35MS

Instrument: GC27.1
Operator: SAA
Column diameter: 0.32



Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F046.D

Date : 05-SEP-2019 16:08

Client ID:

Sample Info: PCB8-14D 1221 ICV @ 20 PPB

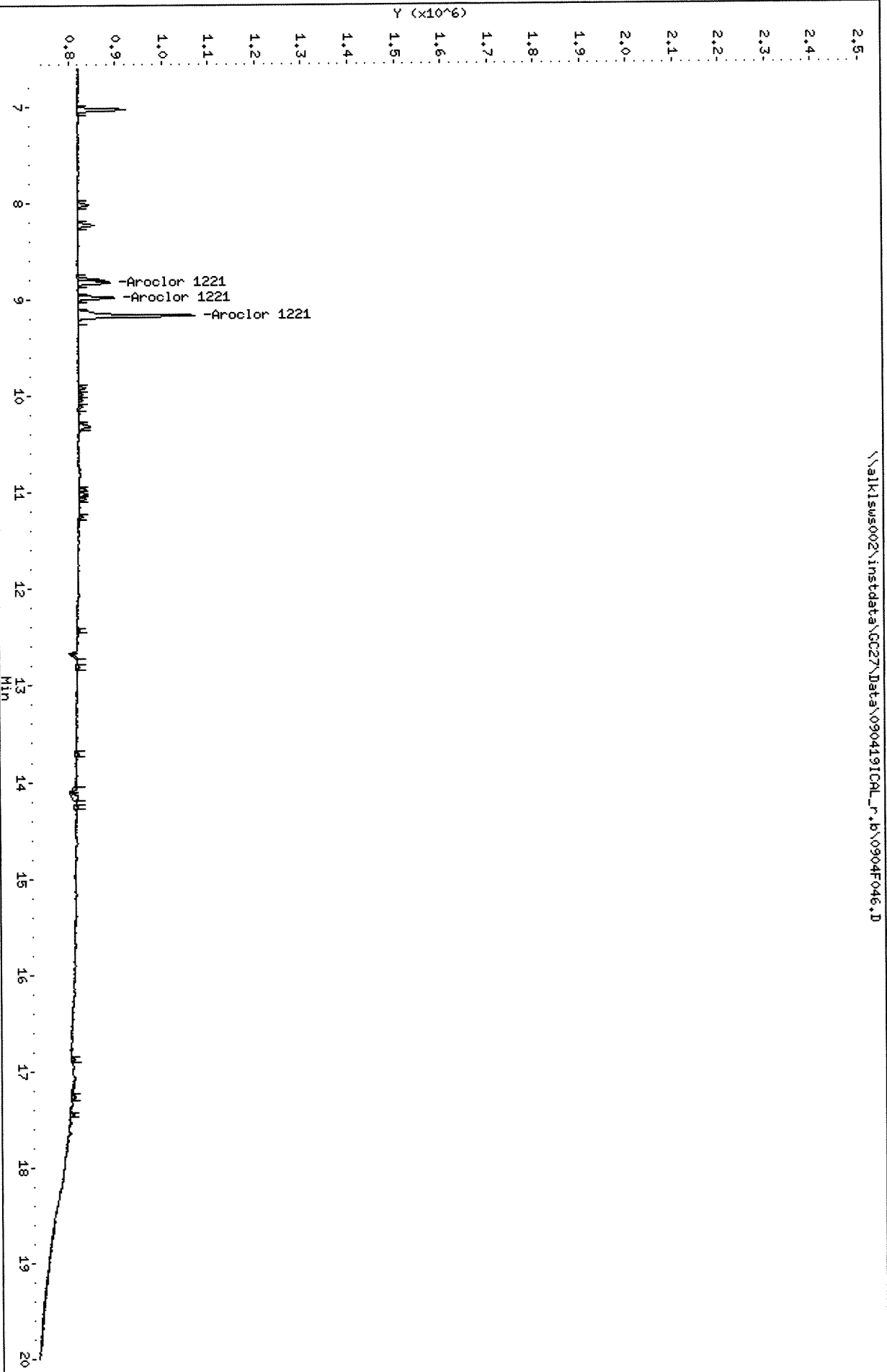
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0904F046.D



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F047.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F047.D
 Inj Date : 05-SEP-2019 16:40
 Sample Info: PCB8-14E 1232 ICV @ 20 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:38
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : AR1232.SUB
 Sub List #2 : AR1232.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1232	7.655	9.169	247910	379287	15.9	19.3	80.00- 120.00	100.00 (M)
	8.059	9.916	797692	216235	17.0	19.8	234.25- 351.38	321.77 (M)
	8.825	10.296	712888	143191	18.8	19.5	205.56- 308.34	287.56 (M)
	9.305	10.966	259047	301237	18.8	19.9	76.03- 114.04	104.49 (M)
	9.929	11.016	472927	346666	17.9	19.8	137.78- 206.67	190.77 (M)
	Average of Peak Amounts =				17.7	19.7		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
W

Data File: \\alkisus002\instdata\GC27\Data\090419ICAL.b\0904F047.D

Date: 05-SEP-2019 16:40

Client ID:

Sample Info: PCB8-14E 1232 ICV @ 20 PPB

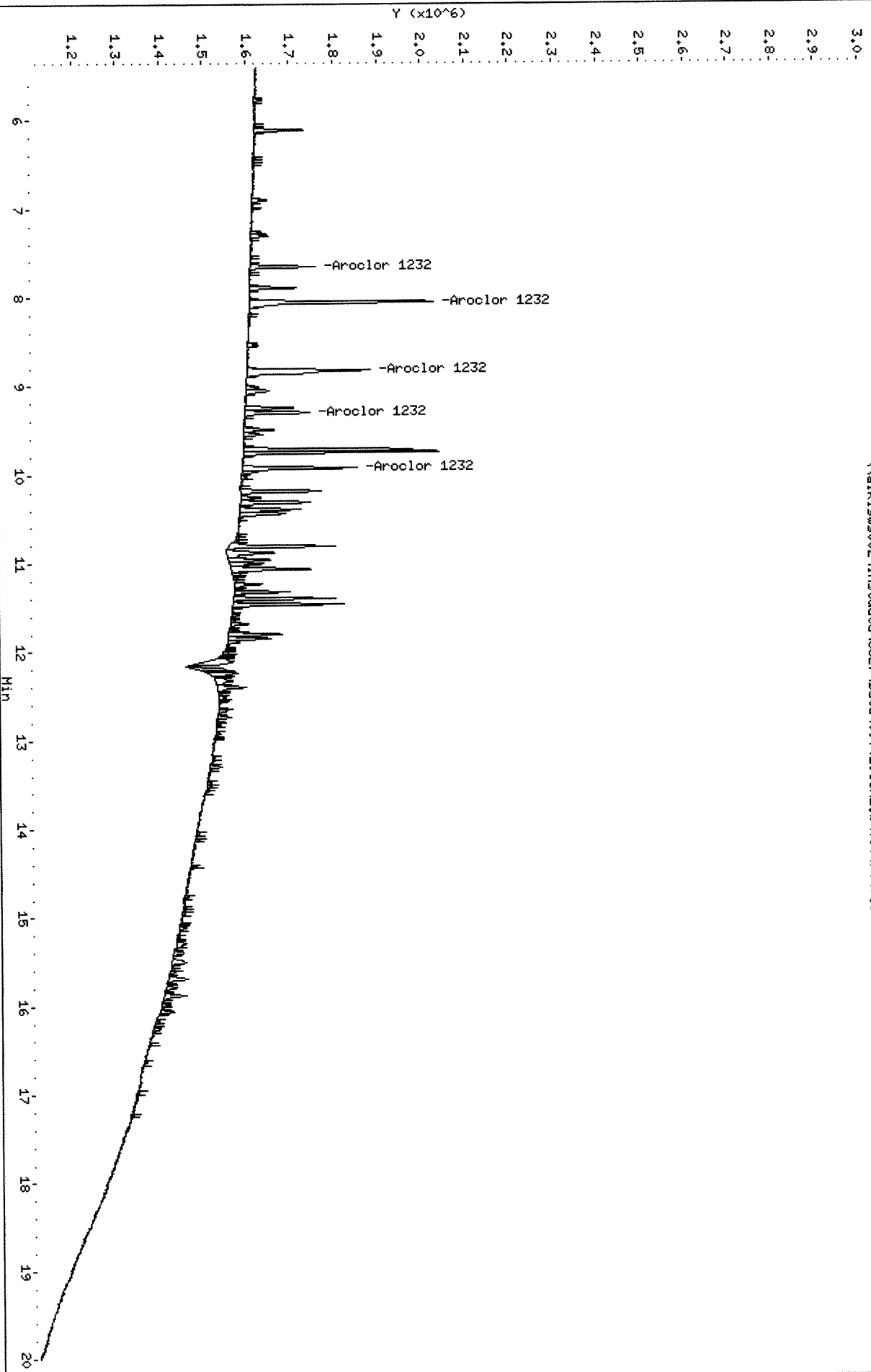
Column phase: DB-35MS

Instrument: GC27.1

Operator: SAA

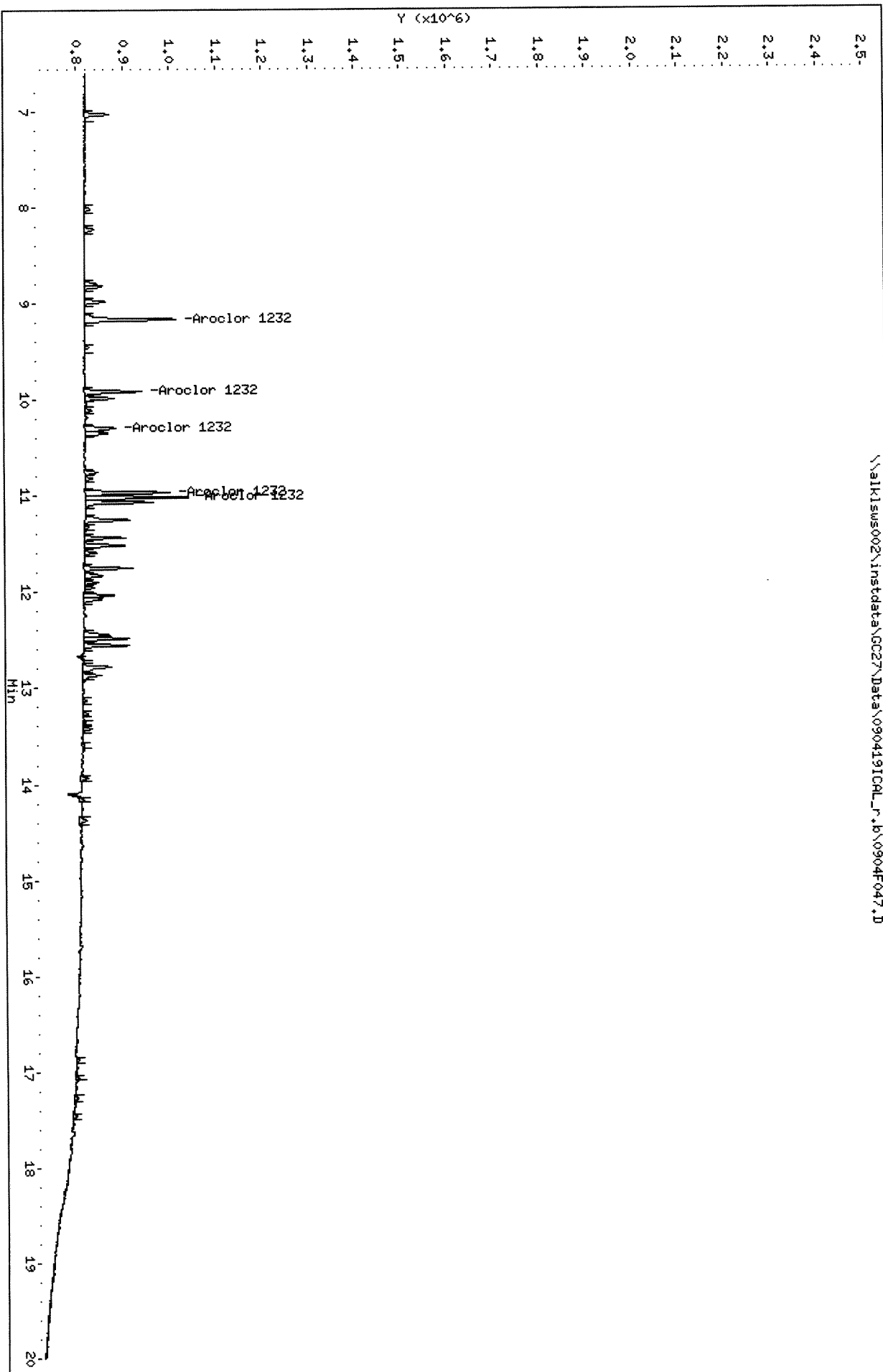
Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL.b\0904F047.D



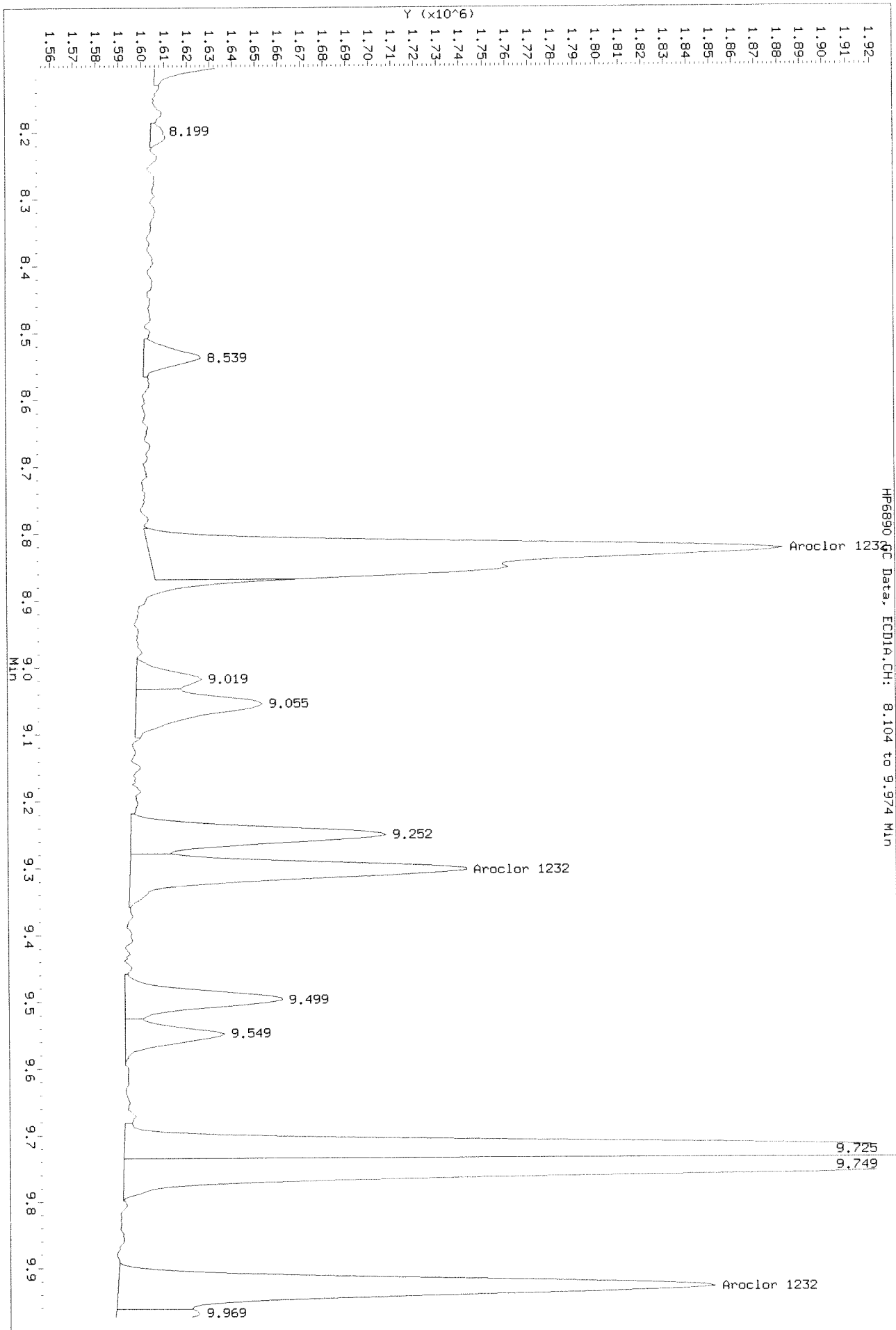
Data File: \\alkisus002\instdata\GC27\Data\090419ICL_r.b\0904F047.D
Date: 05-SEP-2019 16:40
Client ID:
Sample Info: PCB8-14E 1232 ICV @ 20 PPB
Column phase: DB-XLB

Instrument: GC27.1
Operator: SAA
Column diameter: 0.32



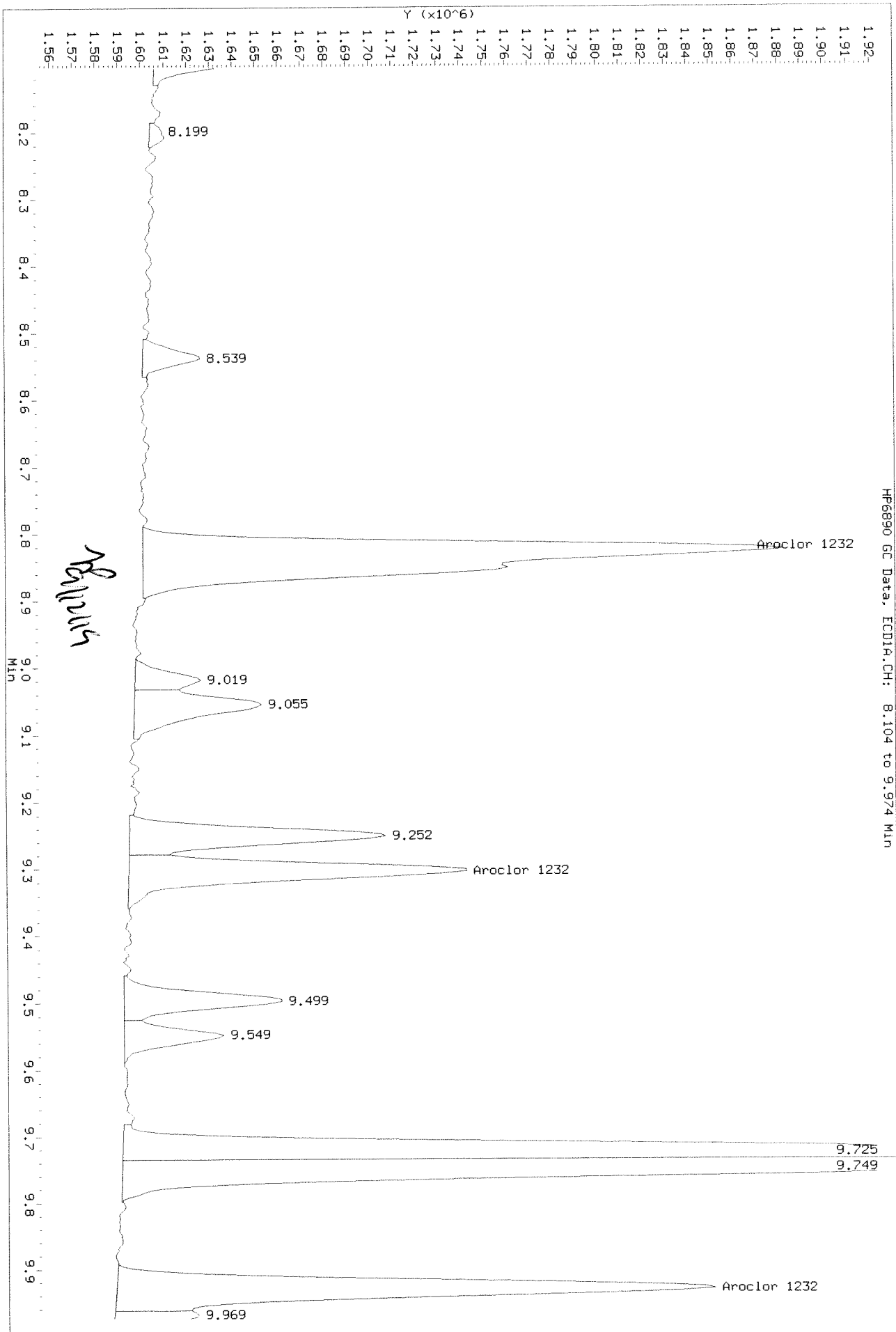
Data File: \\alkisw002\instdata\GC27\Data\090419ICAL.b\0904F047.D
Injection Date: 05-SEP-2019 16:40
Instrument: GC27.1
Client Sample ID:

Before



Data File: \\alkisw002\jnetdata\GC27\Data\090419ICAL.b\0904F047.D
Injection Date: 05-SEP-2019 16:40
Instrument: GC27.1
Client Sample ID:

After baseline 9/11/11 A



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F049.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F049.D
 Inj Date : 05-SEP-2019 17:43
 Sample Info: PCB8-14G 1248 ICV @ 20 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:38
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 48.SUB
 Sub List #2 : 48.SUB
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1248	9.745	10.966	742094	429972	17.8	20.1	80.00- 120.00	100.00 (M)
	9.929	11.016	530847	381747	18.7	20.7	55.92- 83.88	71.53 (M)
	11.065	11.516	907263	450327	17.3	18.7	99.65- 149.47	122.26 (M)
	11.325	12.029	646480	344458	17.2	18.3	75.25- 112.88	87.12 (M)
	11.802	12.552	559096	528325	16.9	18.4	66.29- 99.44	75.34 (M)
Average of Peak Amounts =					17.6	19.2		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
P

Data File: \\alkisus002\instdata\GC27\Data\090419ICAL.b\0904F049.D

Date: 05-SEP-2019 17:43

Client ID:

Sample Info: PCB8-140 1248 ICV @ 20 PPB

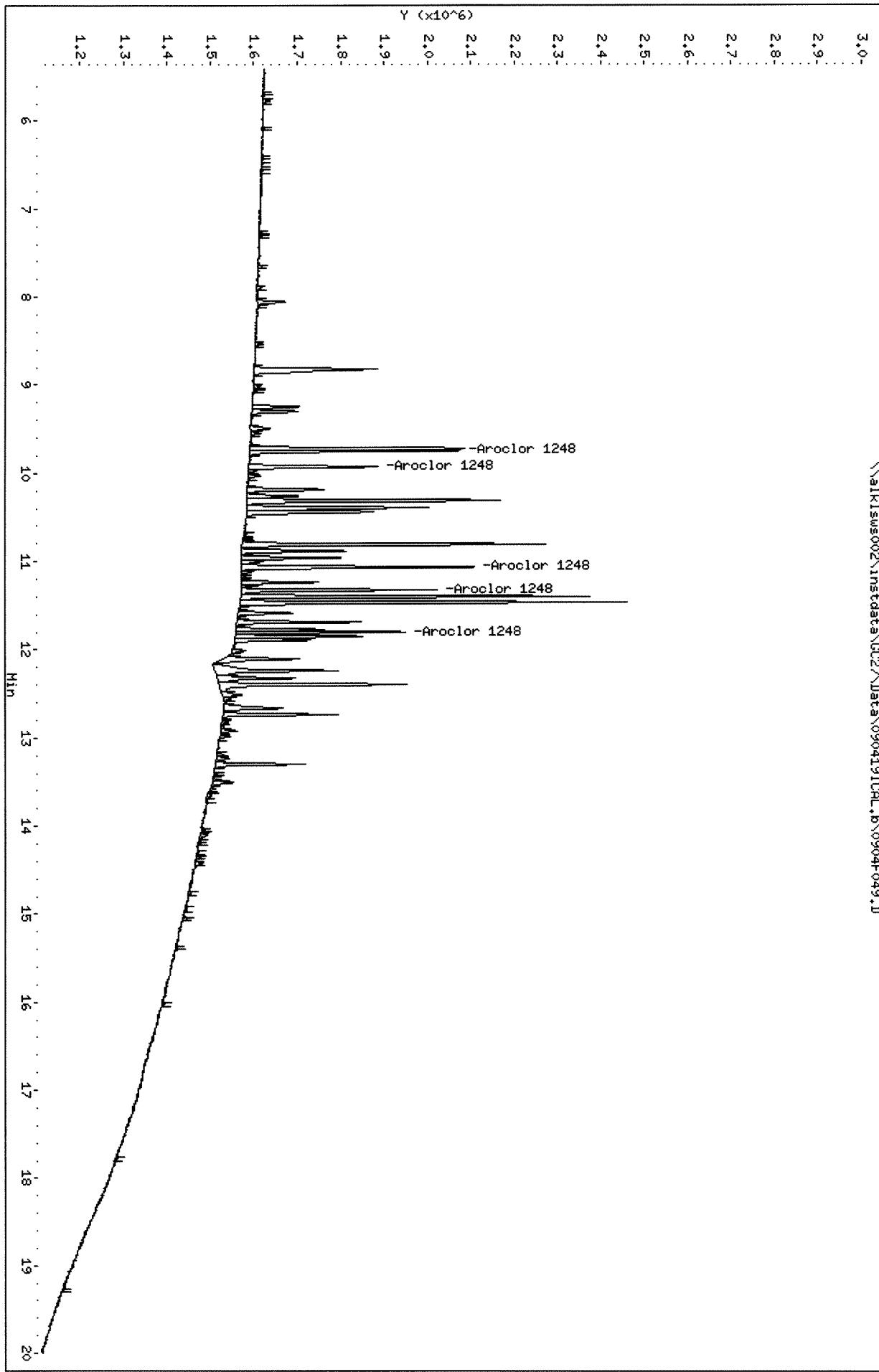
Column phase: DB-35MS

Instrument: GC27.1

Operator: SAA

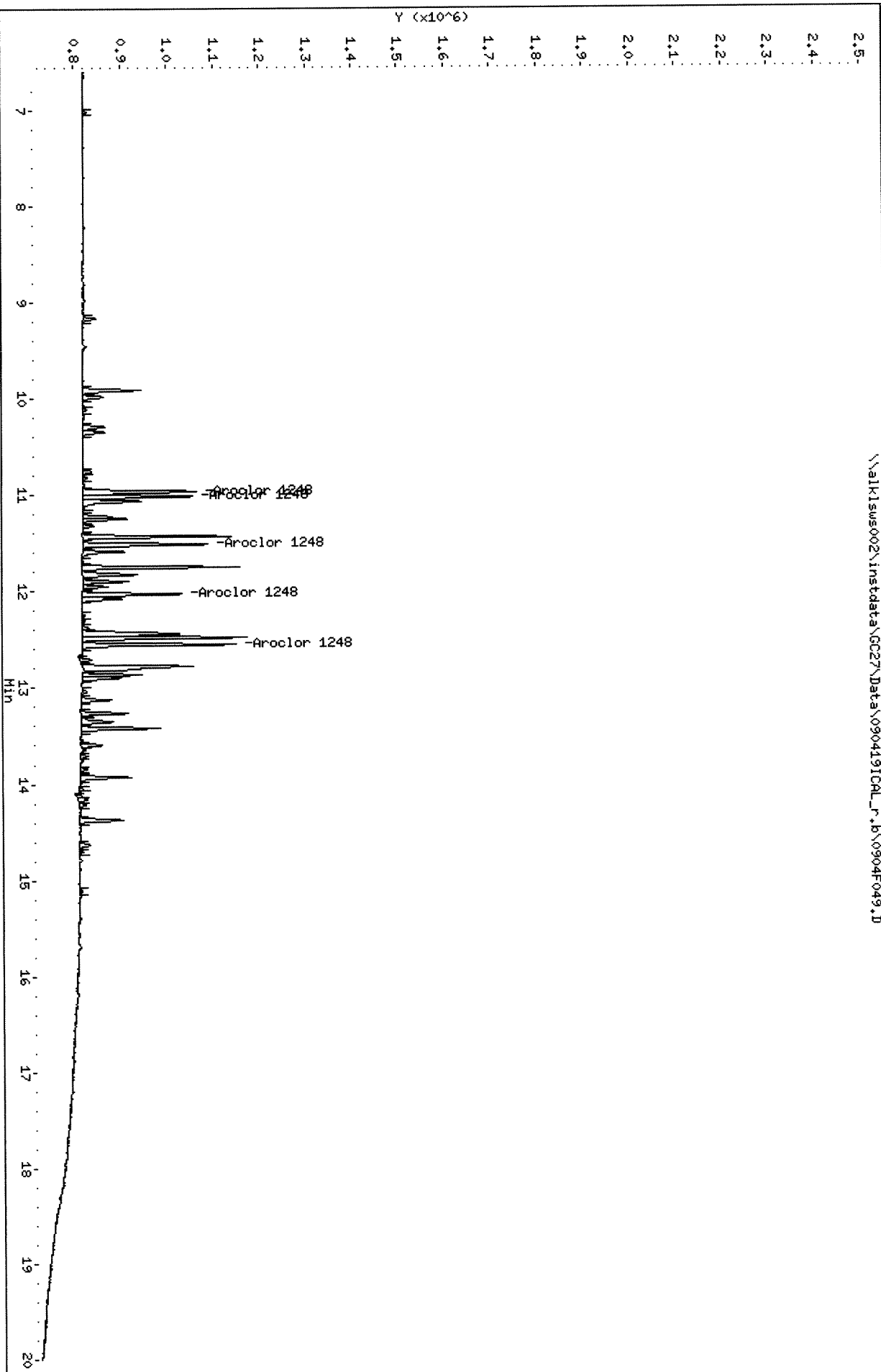
Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL.b\0904F049.D



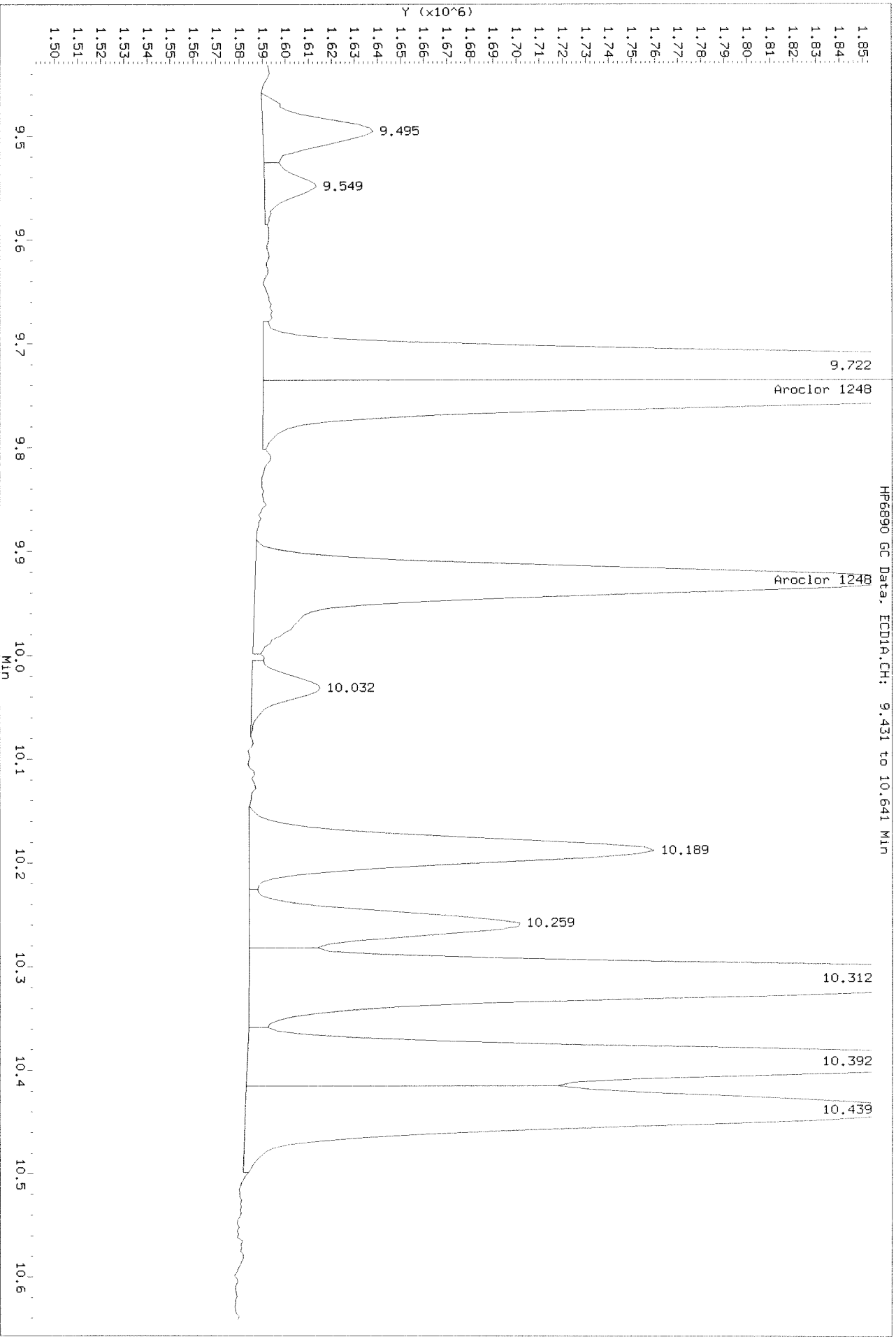
Data File: \\alk1sus002\instdata\GC27\Data\090419ICAL_r.b\0904F049.D
Date : 05-SEP-2019 17:43
Client ID:
Sample Info: PCB8-146 1248 ICV @ 20 PPB
Column phase: DB-XLB

Instrument: GC27.1
Operator: SAA
Column diameter: 0.32



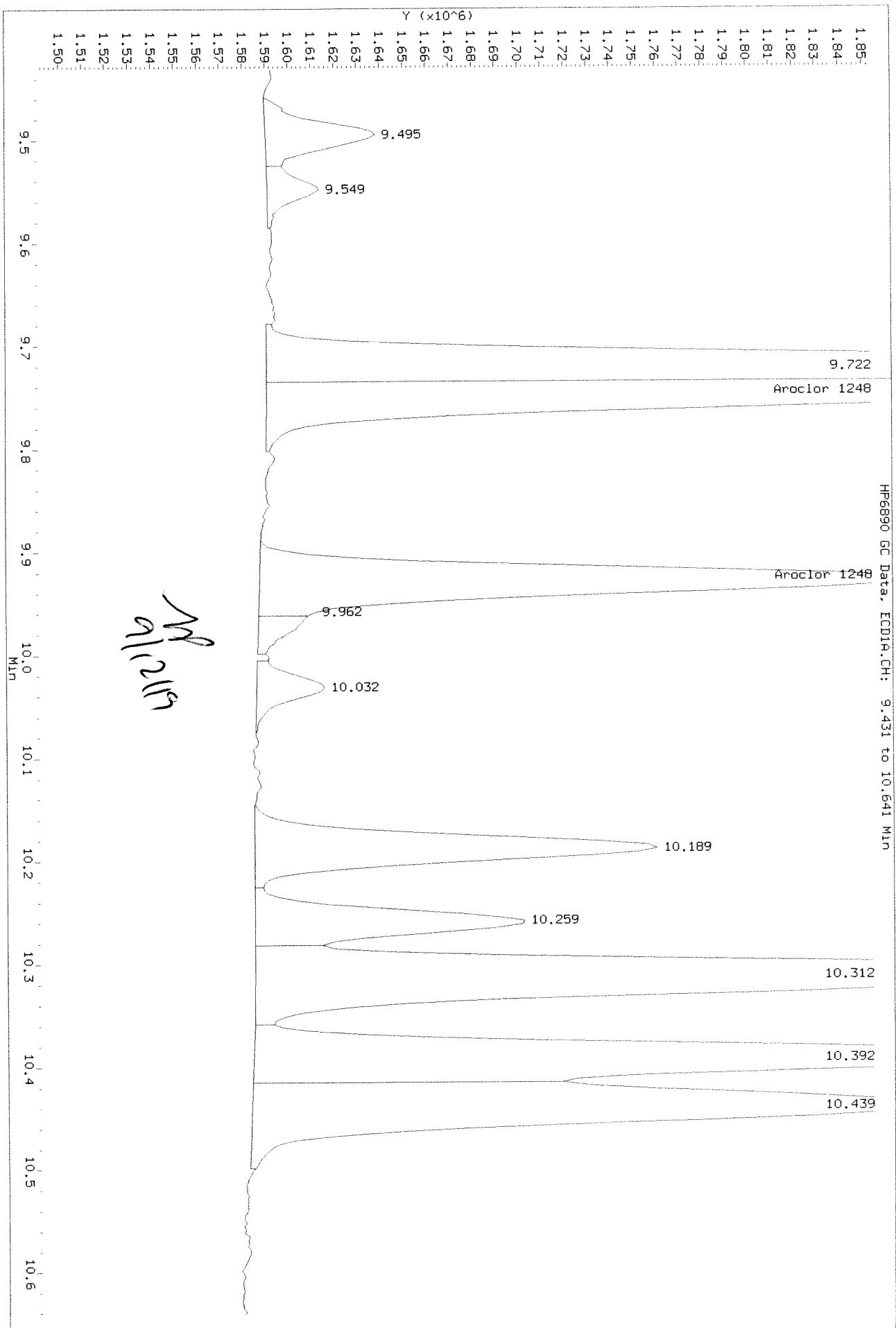
Data File: \\alklsws002\jnet\data\GC27\Data\090419ICAL.b\0904F049.D
Injection Date: 05-SEP-2019 17:43
Instrument: GC27.1
Client Sample ID:

Before



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.P\0904F049.D
Injection Date: 05-SEP-2019 17:43
Instrument: GC27.1
Client Sample ID:

After shoulder 9/11/19 SA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F050.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F050.D
Inj Date : 05-SEP-2019 18:15
Sample Info: PCB8-14H 1254 ICV @ 20 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : AR1254.SUB
Sub List #2 : AR1254.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1254	11.774	12.427	740022	631871	20.5	19.6	80.00- 120.00	100.00 (M)
	12.240	12.484	1352915	292177	21.6	17.2	137.86- 206.79	182.82 (M)
	12.397	12.807	2260556	968629	18.3	19.6	268.82- 403.23	305.47 (M)
	12.737	12.900	1390713	322886	19.1	21.0	164.76- 247.13	187.93 (M)
	13.300	14.374	861656	487038	18.9	20.1	106.40- 159.60	116.44 (M)
			Average of Peak Amounts =		19.7	19.5		

QC Flag Legend

M - Compound response manually integrated.

SA 9/11/19
W

Data File: \\aik1sws002\instdata\GC27\Data\090419ICL.b\0904F050.D

Date : 05-SEP-2019 18:15

Client ID:

Sample Info: PCB8-14H 1254 ICV @ 20 PPB

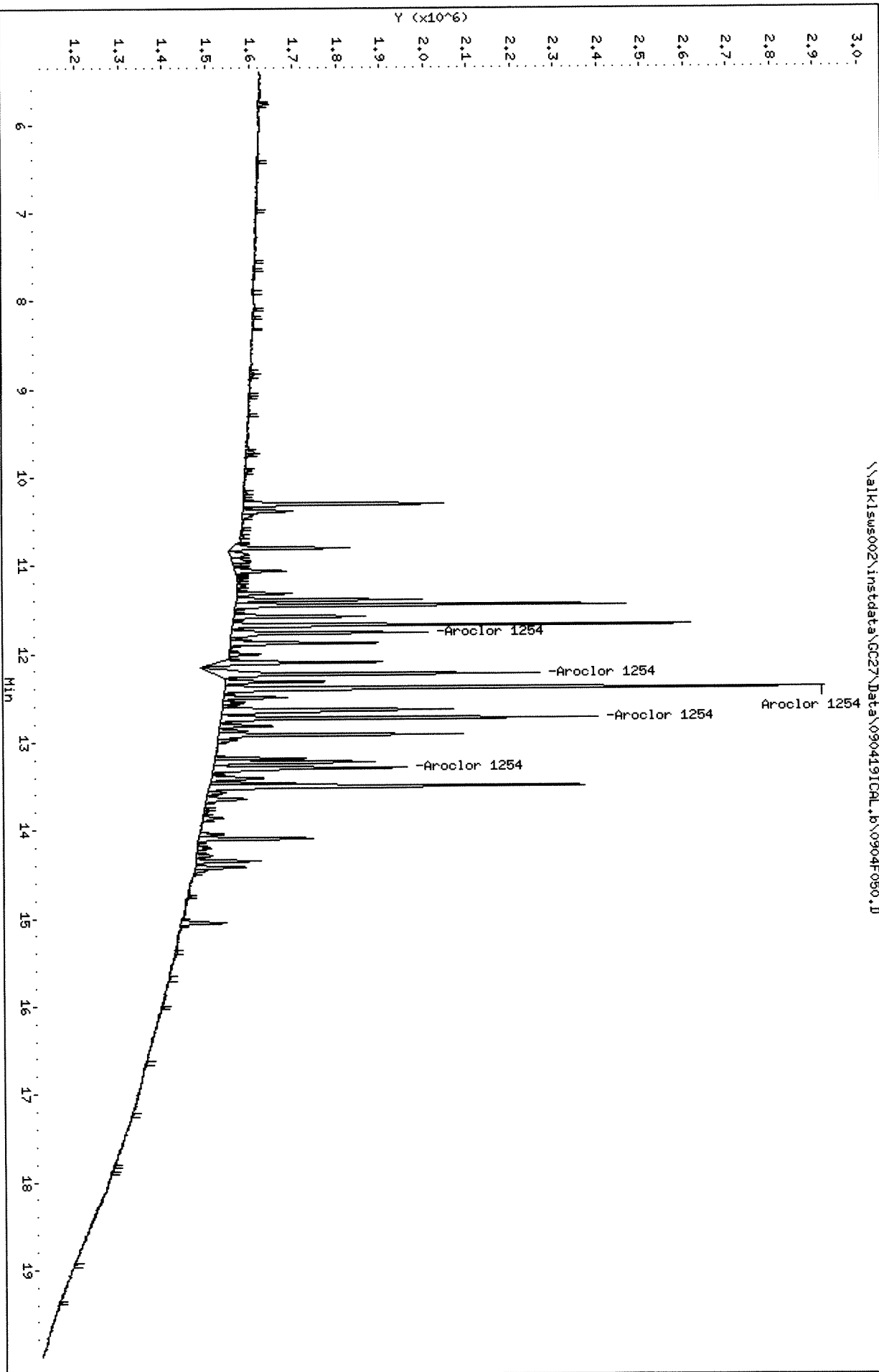
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\aik1sws002\instdata\GC27\Data\090419ICL.b\0904F050.D



Data File: \\alk1sws002\inst\data\GC27\Data\090419ICL_r.b\0904F050.D

Date: 05-SEP-2019 18:15

Client ID:

Sample Info: PCB8-14H 1254 ICV @ 20 PPB

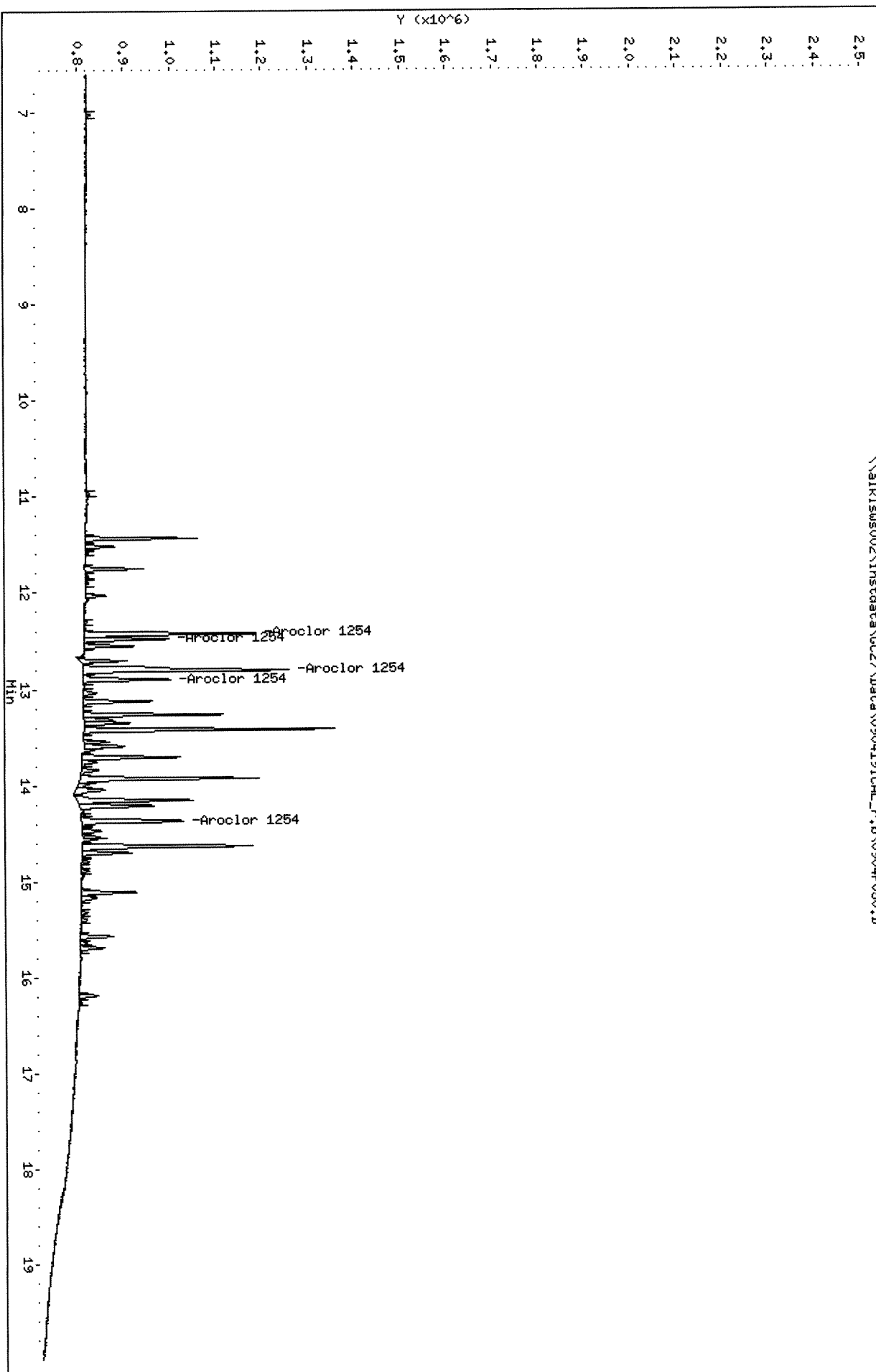
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

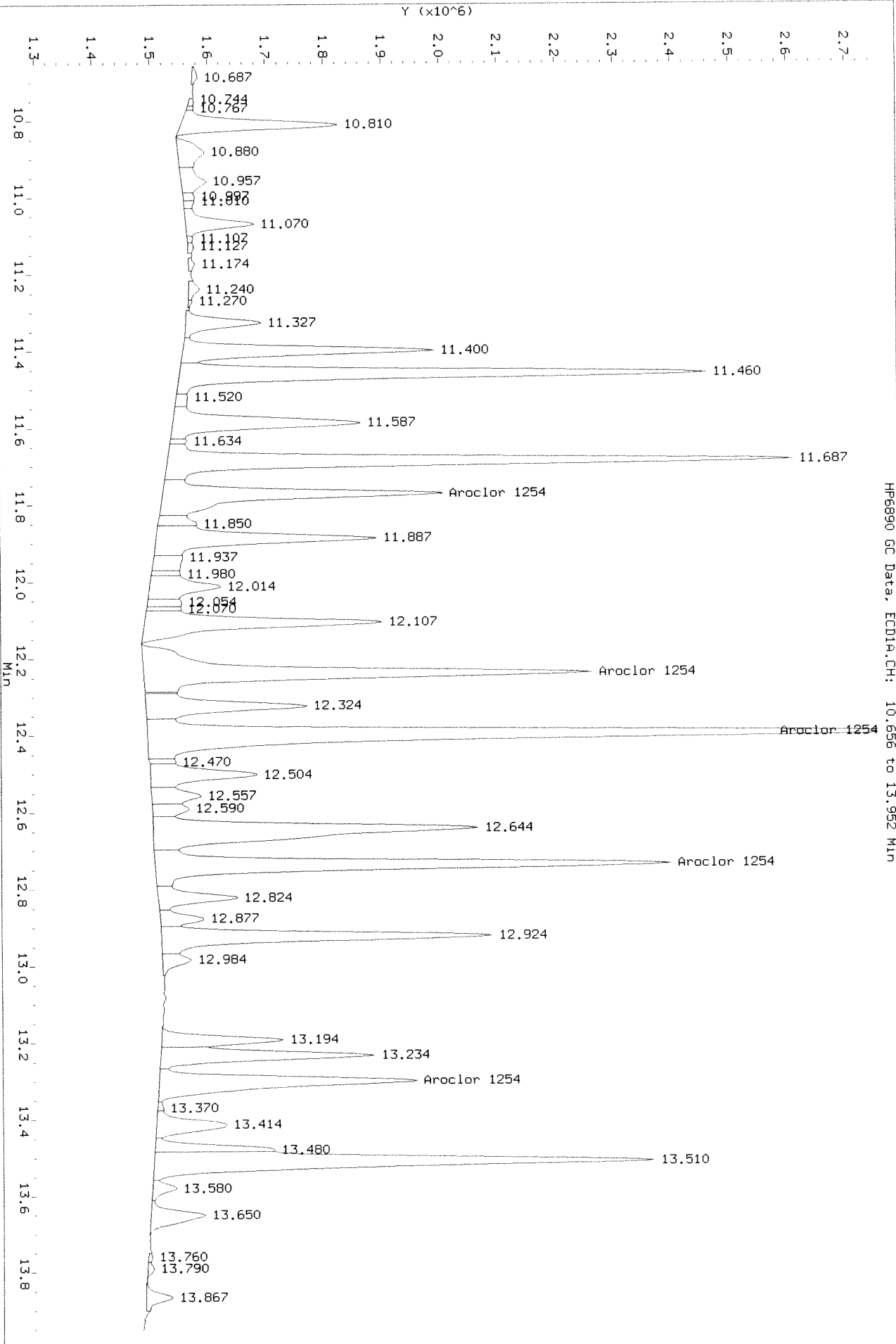
Column diameter: 0.32

\\alk1sws002\inst\data\GC27\Data\090419ICL_r.b\0904F050.D



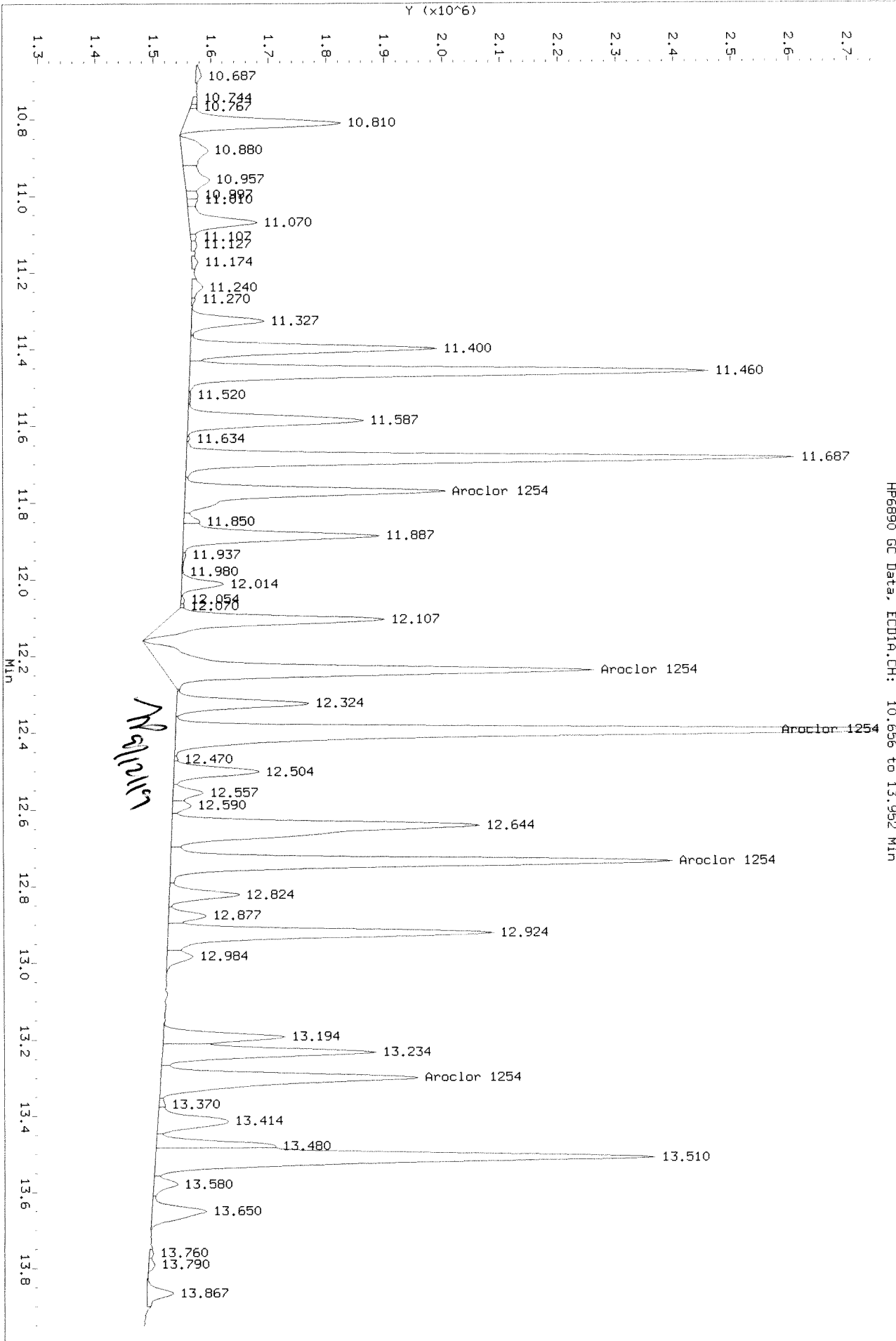
HP6890 GC Data, ECD1A.CH: 10.656 to 13.952 MIN

Before



HP6890 GC Data, ECD1A.CH: 10.656 to 13.952 MIN

After baseline 9/11/19 SA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F051.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F051.D
Inj Date : 05-SEP-2019 18:47
Sample Info: PCB8-14I 1260 ICV @ 20 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : AR1260.sub
Sub List #2 : AR1260.sub
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1260	13.192	13.546	577980	299994	17.2	21.1	80.00- 120.00	100.00
	13.579	14.793	1010369	492571	21.7	21.5	111.33- 167.00	174.81
	14.052	15.163	1024999	467240	20.4	20.8	117.15- 175.73	177.34
	14.426	15.689	2130039	973655	20.1	20.5	251.10- 376.65	368.53
	15.056	16.193	1535033	600740	19.3	20.4	184.28- 276.42	265.59
	Average of Peak Amounts =				19.7	20.9		

SA 9/11/19
W

Data File: \\alk1s002\instdata\GC27\Data\090419ICL.b\0904F051.D
Date : 05-SEP-2019 18:47

Client ID:

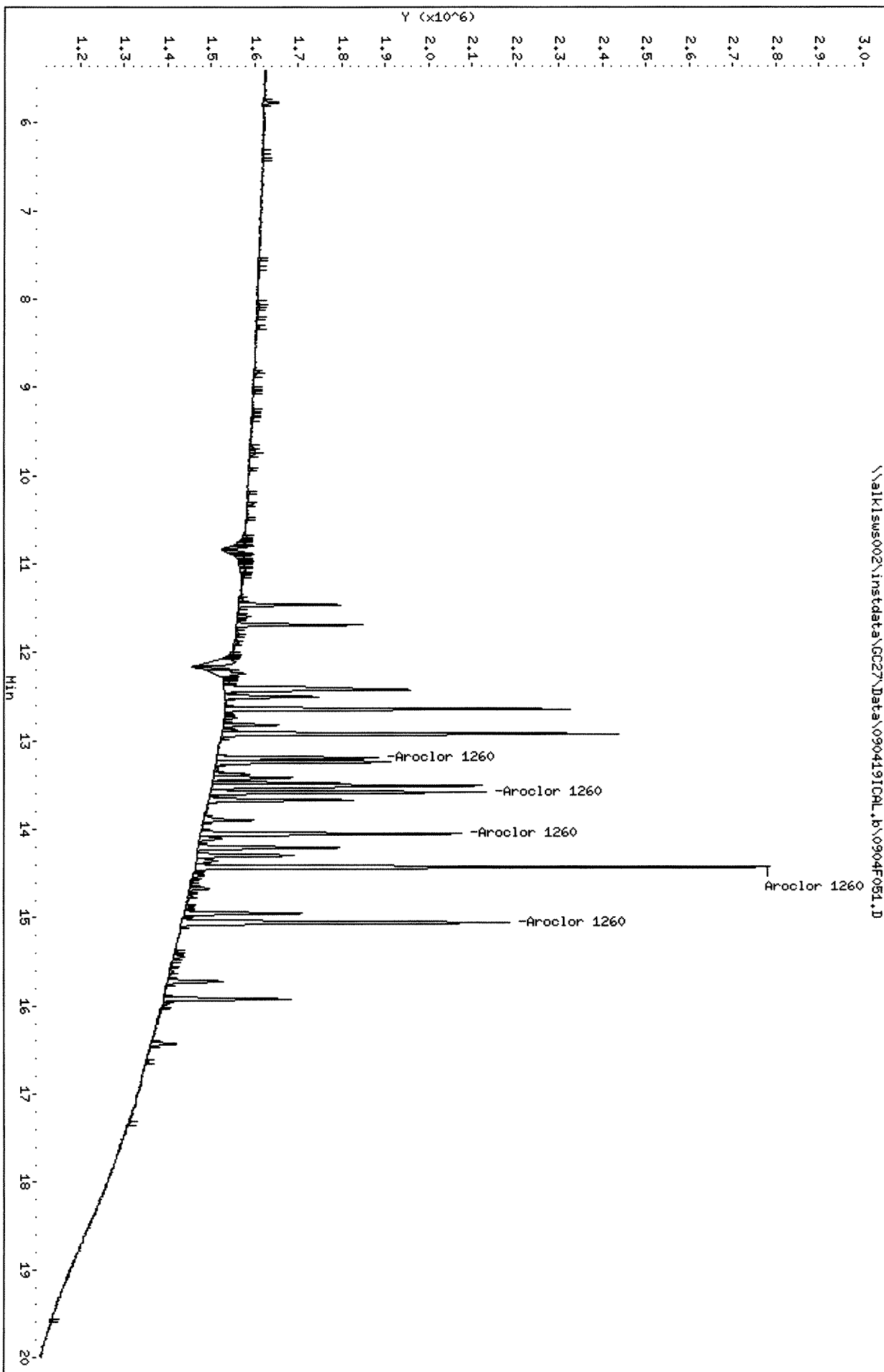
Sample Info: PCB8-141 1260 ICV @ 20 PPB

Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32



Data File: \\alkisus002\instdata\GC27\Data\090419ICL_r.b\0904F051.D

Date: 05-SEP-2019 18:47

Client ID:

Sample Info: PCB8-141 1260 ICV @ 20 PPB

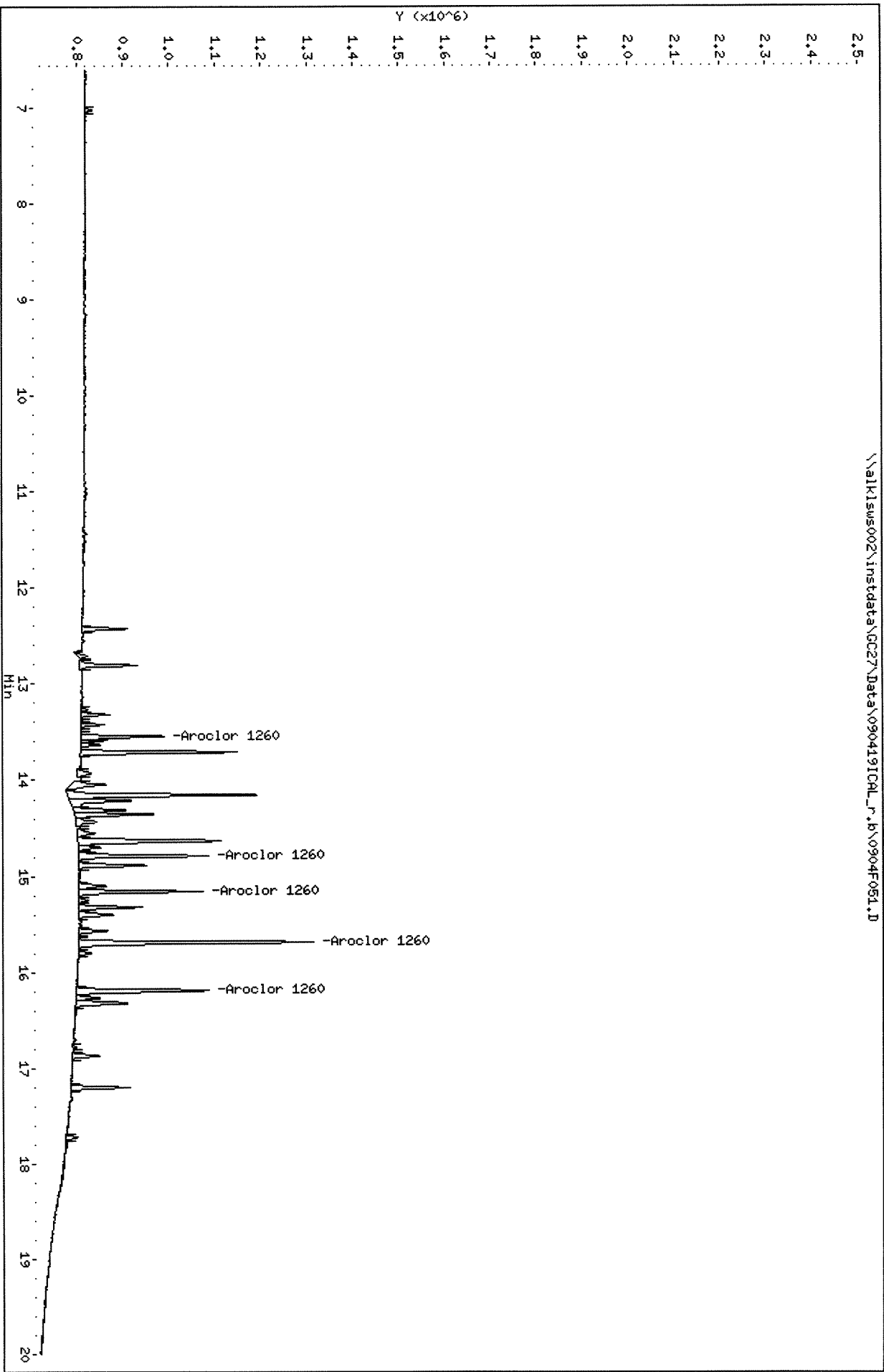
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAH

Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICL_r.b\0904F051.D



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0904F052.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0904F052.D
Inj Date : 05-SEP-2019 19:19
Sample Info: PCB8-14J 1262 ICV @ 20 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

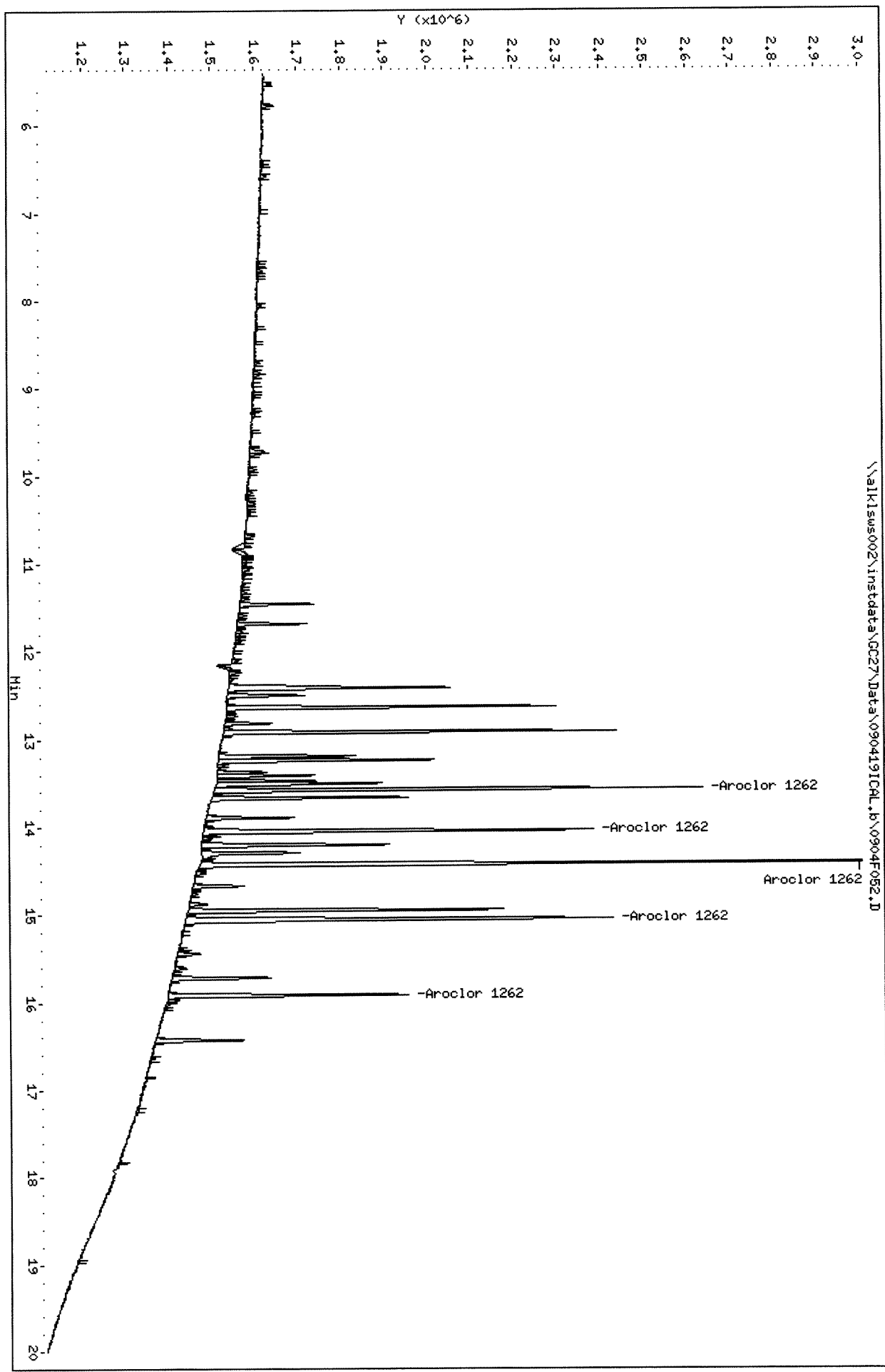
Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : AR1262.SUB
Sub List #2 : AR1262.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1262	13.579	14.789	1796454	837613	19.2	19.7	80.00- 120.00	100.00
	14.049	15.162	1611922	665696	19.4	20.5	71.44- 107.17	89.73
	14.425	15.692	2882581	1291238	19.0	19.7	135.47- 203.20	160.46
	15.052	16.199	2127617	901476	19.3	20.5	96.75- 145.12	118.43
	15.919	17.202	933006	450854	19.5	19.8	43.01- 64.52	51.94
			Average of Peak Amounts =		19.3	20.0		

SA 9/11/19
JP

Data File: \\alkisws002\instdata\GC27\Data\090419ICL.b\0904F052.D
Date : 05-SEP-2019 19:19
Client ID:
Sample Info: PCB8-14J 1262 ICV @ 20 PPB
Column phase: DB-35MS

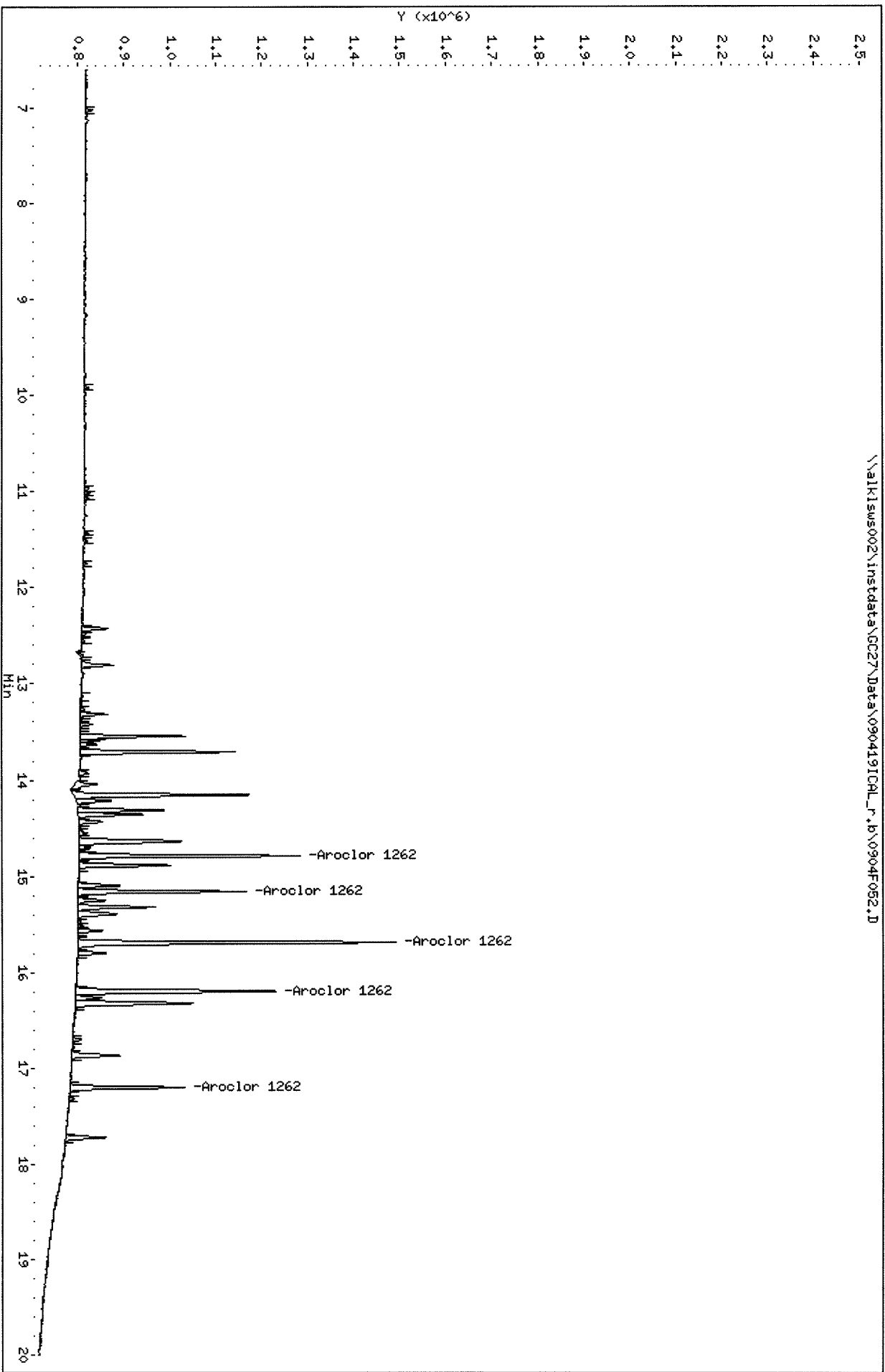
Instrument: GC27.i
Operator: SAA
Column diameter: 0.32



Data File: \\alk1sws002\instdata\GC27\Data\090419ICAL_r.b\0904F052.D
Date: 05-SEP-2019 19:19
Client ID:
Sample Info: PCB8-14J 1262 ICV @ 20 PPB
Column phase: DB-XLB

Instrument: GC27.i
Operator: SAA
Column diameter: 0.32

\\alk1sws002\instdata\GC27\Data\090419ICAL_r.b\0904F052.D



Data File: \\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F003.D
Report Date: 11-Sep-2019 09:54

ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F003.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F003.D
Inj Date : 09-SEP-2019 11:52
Sample Info: IB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : ALL.SUB
Sub List #2 : ALL.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Tetrachloro-m-xylene	6.975	0.000	5506	0	0.00306	0.000		100.00 (R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ST 9/11/19
JK

Data File: \\alk1sus002\instdata\GC27\Data\090419ICAL.b\0909F003.D

Date : 09-SEP-2019 11:52

Client ID:

Sample Info: IB

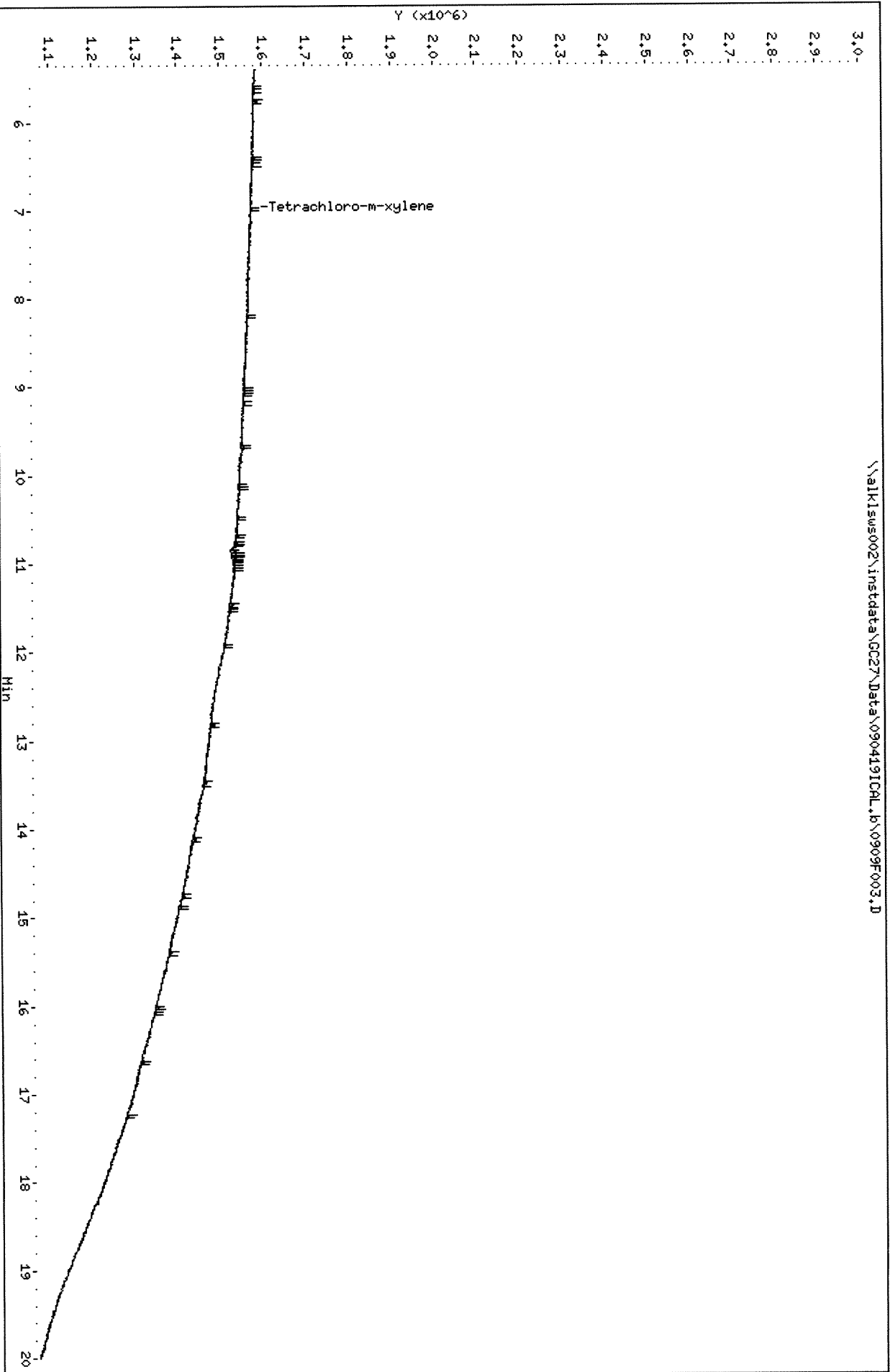
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAH

Column diameter: 0.32

\\alk1sus002\instdata\GC27\Data\090419ICAL.b\0909F003.D



Data File: \\alk1s02\instdata\GC27\Data\090419ICAL_r.b\0909F003.D

Date : 09-SEP-2019 11:52

Client ID:

Sample Info: IB

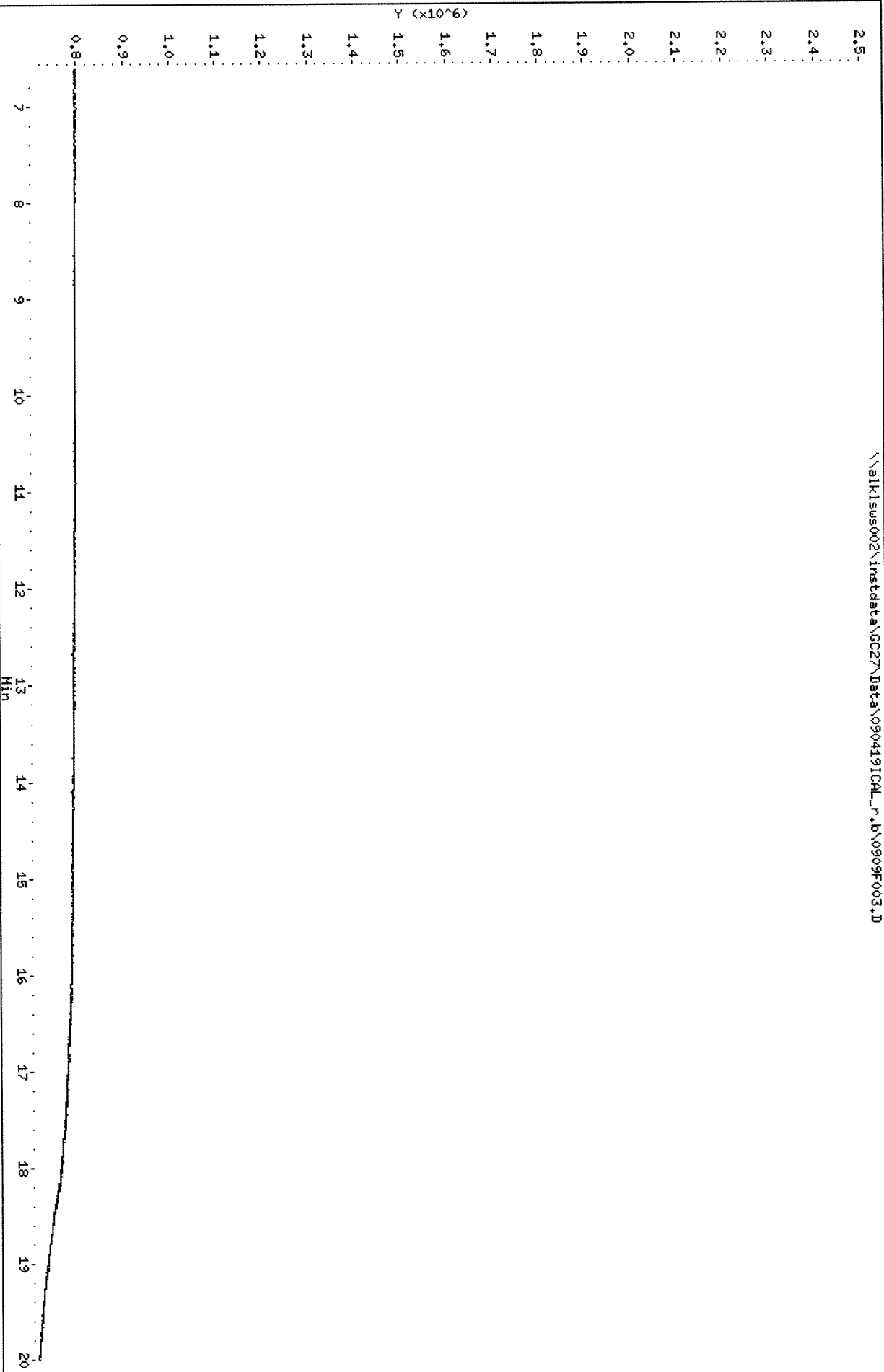
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alk1s02\instdata\GC27\Data\090419ICAL_r.b\0909F003.D



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F009.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F009.D
 Inj Date : 09-SEP-2019 15:02
 Sample Info: PCB8-015H 4268 @ 1 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:38
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 4268.sub
 Sub List #2 : 4268.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1242	8.059	9.166	34993	11033	1.18	0.862	80.00- 120.00	100.00
	9.306	9.916	21742	19732	0.962	1.09	63.88- 95.83	62.13
	9.749	10.966	75132	27331	1.10	1.06	182.89- 274.33	214.71
	9.929	11.016	39369	29709	0.963	1.01	114.87- 172.30	112.51
	10.189	11.249	28378	15907	1.00	1.00	77.46- 116.19	81.10
	Average of Peak Amounts =				1.04	1.00		
Aroclor 1268	14.952	16.202	169676	78515	1.04	1.10	80.00- 120.00	100.00
	15.052	16.329	155852	68850	1.07	1.10	71.27- 106.90	91.85
	15.442	16.702	124219	58656	1.00	1.09	61.53- 92.30	73.21
	16.432	17.726	348997	161279	0.996	1.11	171.54- 257.31	205.68
	Average of Peak Amounts =				1.03	1.10		

SA 9/11/19
 W

Data File: \\alkisus002\instdata\GC27\Data\090419ICAL.b\0909F009.D
Date : 09-SEP-2019 15:02

Client ID:

Sample Info: PCB8-015H 4268 @ 1 PPB

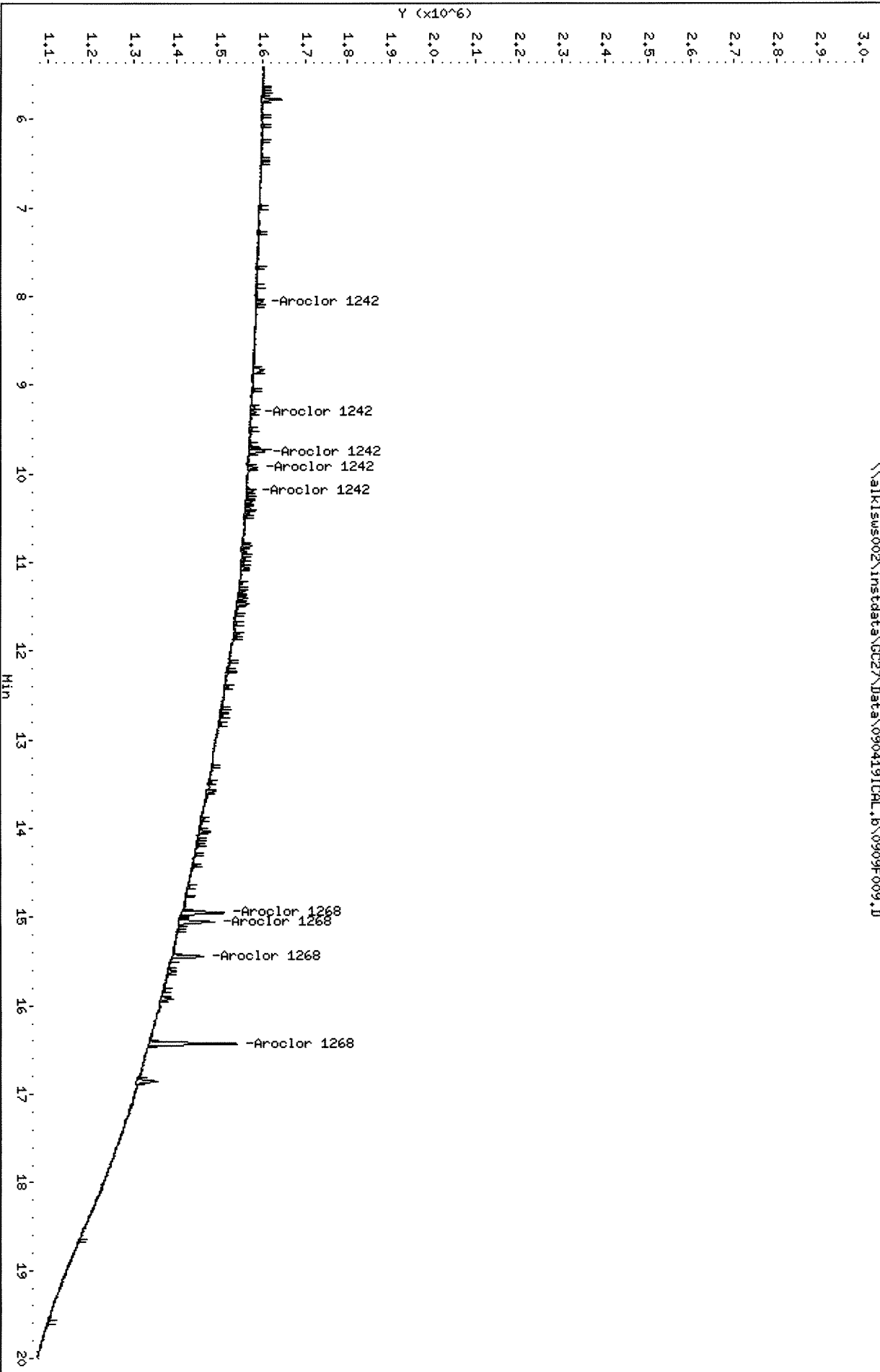
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL.b\0909F009.D



Data File: \\alk1s002\instdata\GC27\Data\090419ICAL_r.b\0909F009.D

Date : 09-SEP-2019 15:02

Client ID:

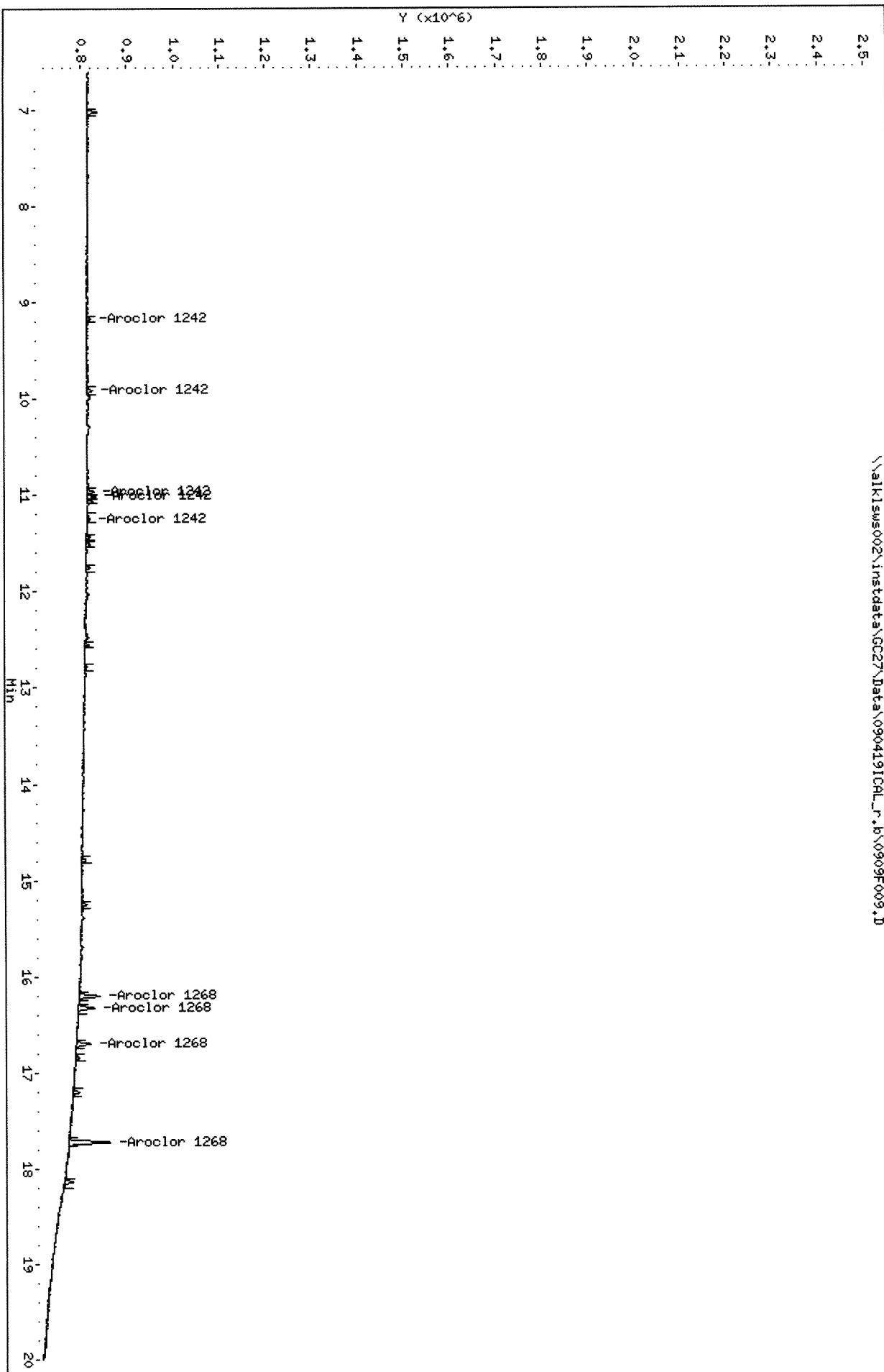
Sample Info: PCB8-015H 4268 @ 1 PPB

Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

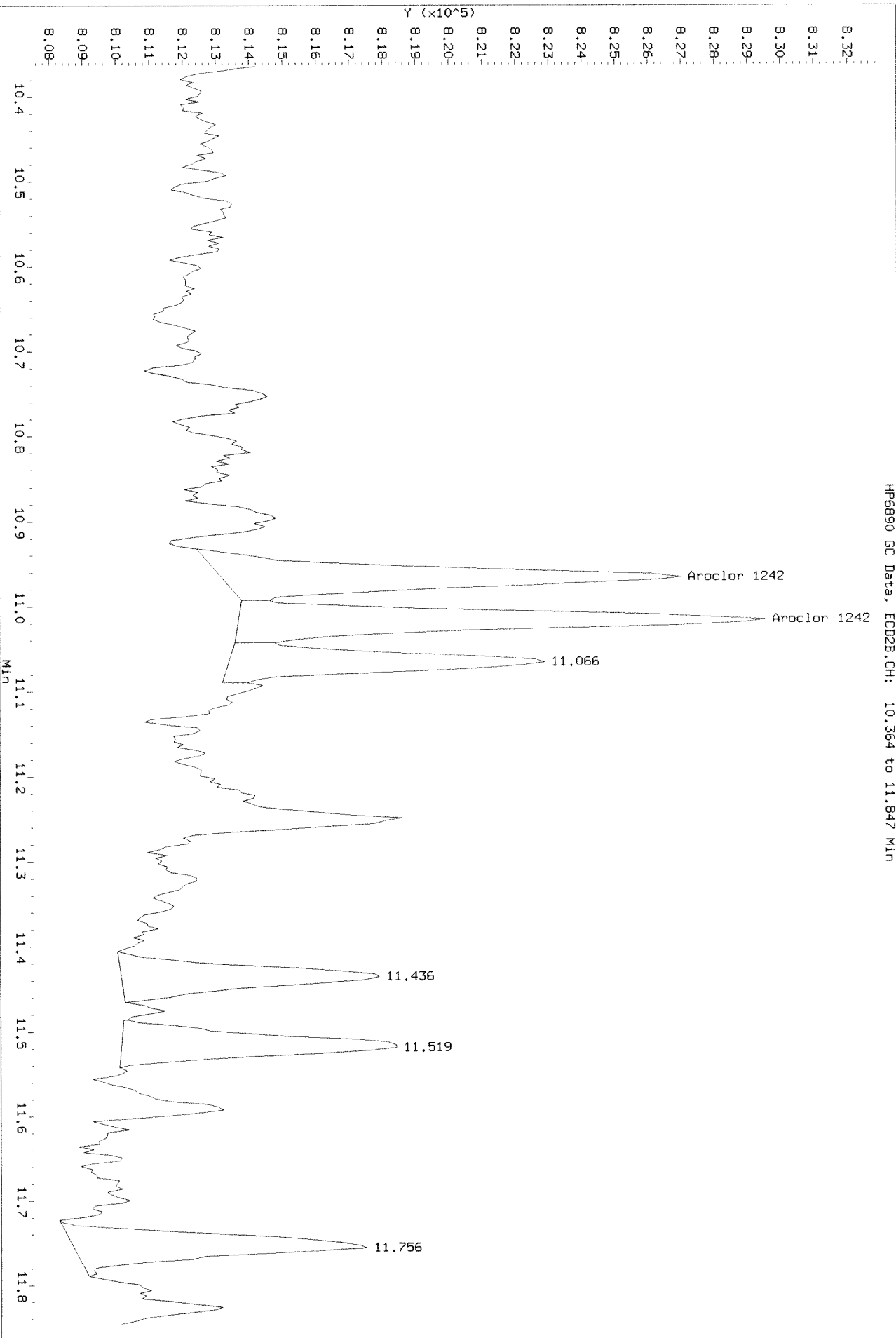
Column diameter: 0.32



Data File: \\alkisw002\instdata\GC27\Data\090419ICL_r.b\0909F009.D
Injection Date: 09-SEP-2019 15:02
Instrument: GC27.1
Client Sample ID:

Refer

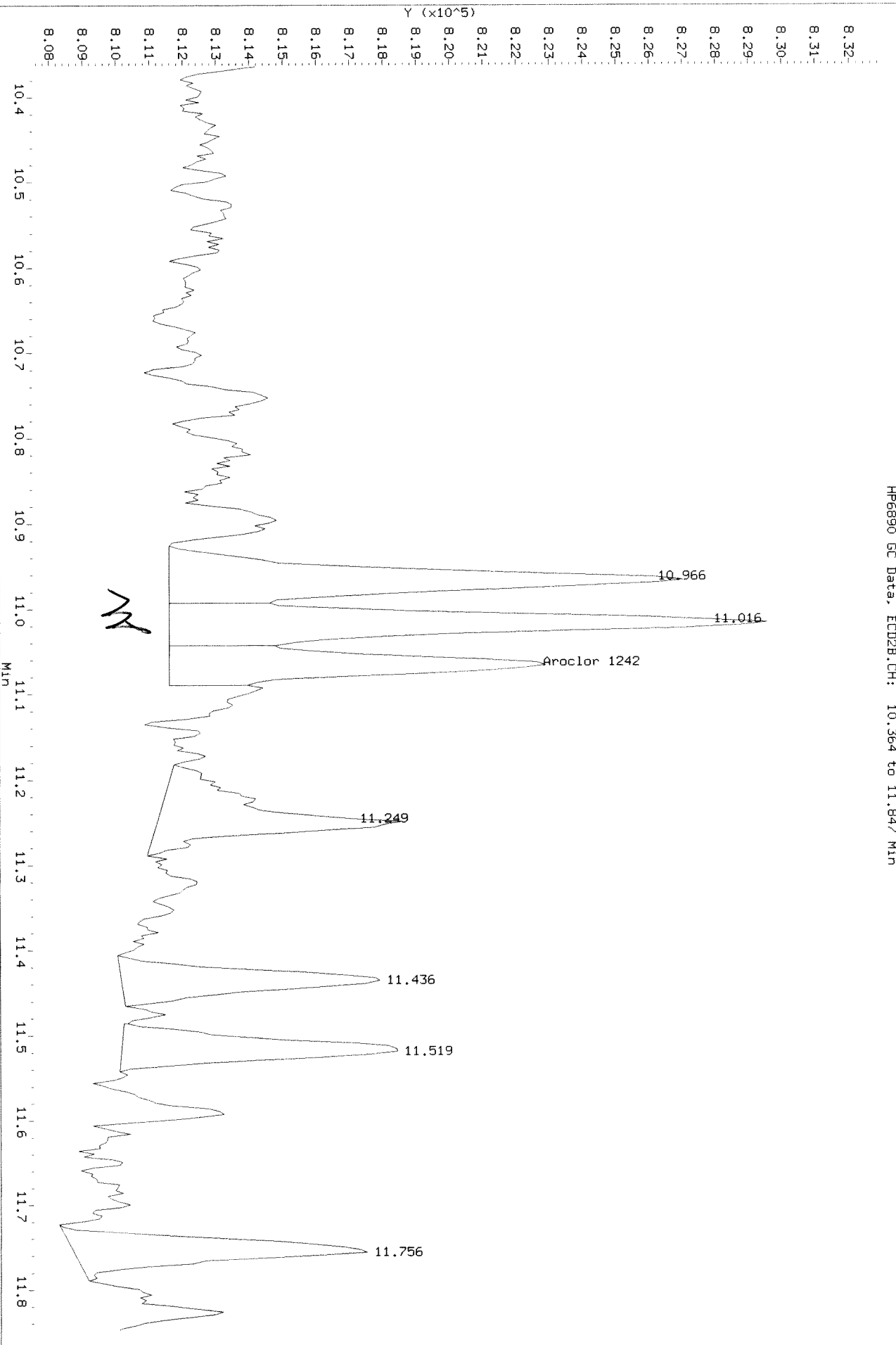
HP6890 GC Data, ECD2B.CH: 10.364 to 11.847 Min



Data File: \\alk1sws002\instdata\GC27\Data\090419ICL-L_r.b\0909F009.D
Injection Date: 09-SEP-2019 15:02
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 10.364 to 11.847 Min

After baseline 9/11/19 PA




ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F010.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F010.D
 Inj Date : 09-SEP-2019 15:33
 Sample Info: PCB8-015I 4268 @ 2 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:38
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

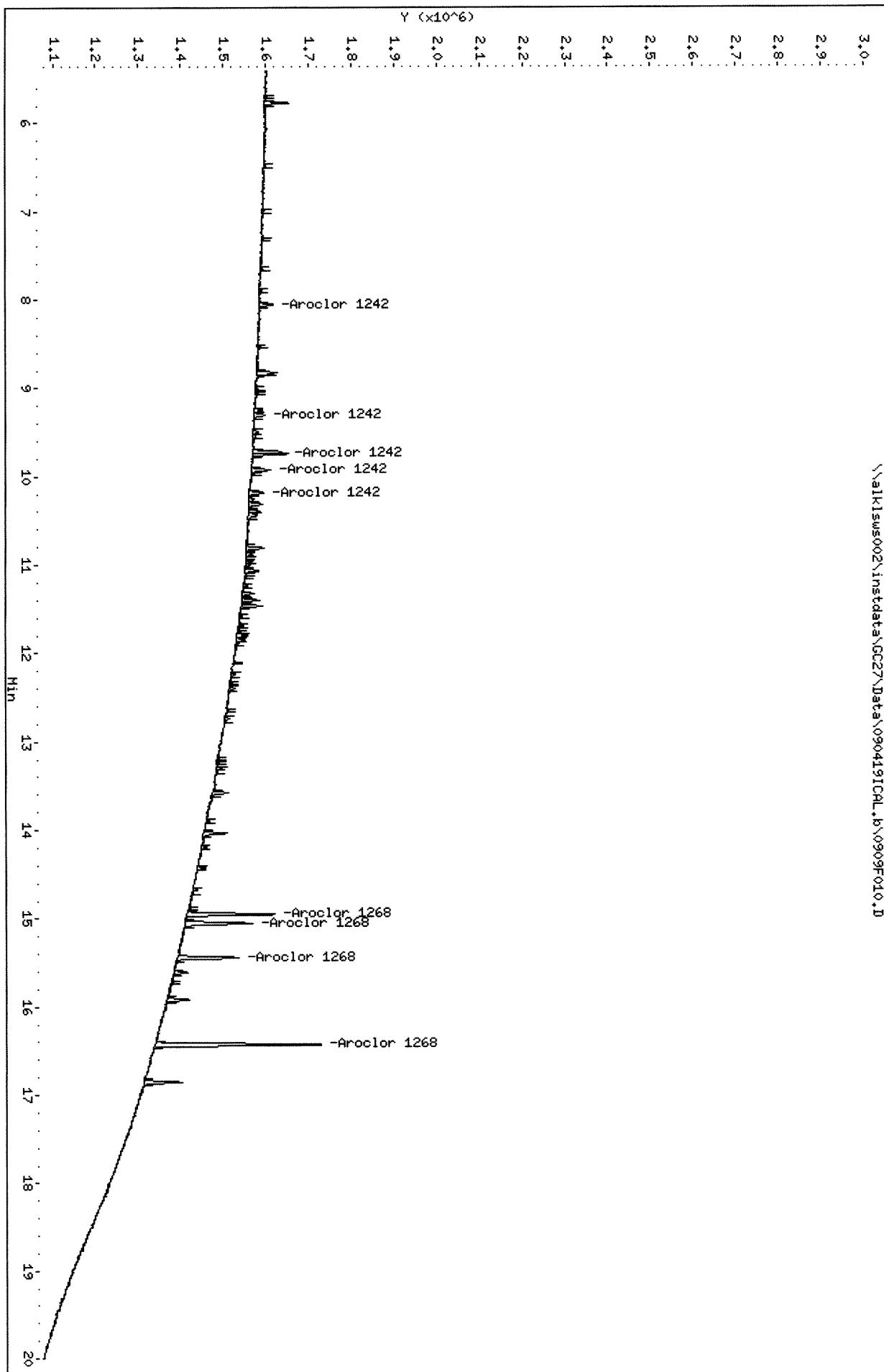
Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 4268.sub
 Sub List #2 : 4268.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1242	8.056	9.166	61609	22089	2.07	1.73	80.00- 120.00	100.00
	9.303	9.913	48275	33553	2.14	1.85	63.88- 95.83	78.36
	9.746	10.966	134095	50518	1.96	1.97	182.89- 274.33	217.65
	9.929	11.016	77809	55843	1.90	1.91	114.87- 172.30	126.29
	10.189	11.250	60401	27730	2.13	1.75	77.46- 116.19	98.04
	Average of Peak Amounts =				2.04	1.84		
Aroclor 1268	14.953	16.203	334554	159216	2.05	2.23	80.00- 120.00	100.00
	15.053	16.330	283435	136606	1.94	2.18	71.27- 106.90	84.72
	15.443	16.703	240389	112852	1.94	2.10	61.53- 92.30	71.85
	16.429	17.723	693383	326632	1.98	2.24	171.54- 257.31	207.26
	Average of Peak Amounts =				1.98	2.19		

SA 9/11/19


Data File: \\alk1sus002\instdata\GC27\Data\090419ICPL.b\0909F010.D
Date : 09-SEP-2019 15:33
Client ID:
Sample Info: PCB8-0151 4268 @ 2 PPB
Column phase: DB-35MS

Instrument: GC27.i
Operator: SAA
Column diameter: 0.32



Data File: \\alk1s002\instdata\GC27\Data\090419ICAL_r.b\0909F010.D
Date : 09-SEP-2019 15:33

Client ID:

Sample Info: PCB8-0151 4268 @ 2 PPB

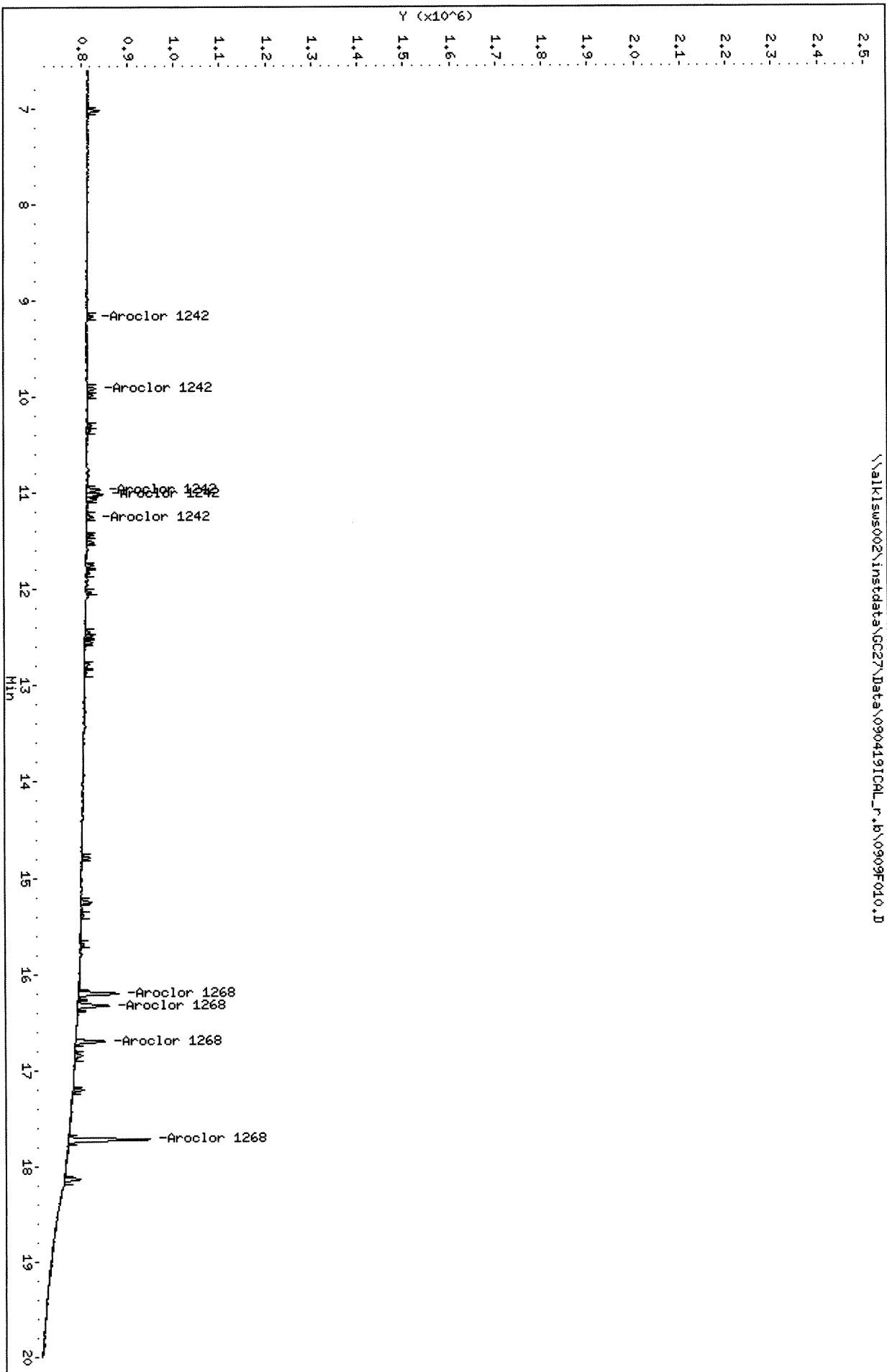
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

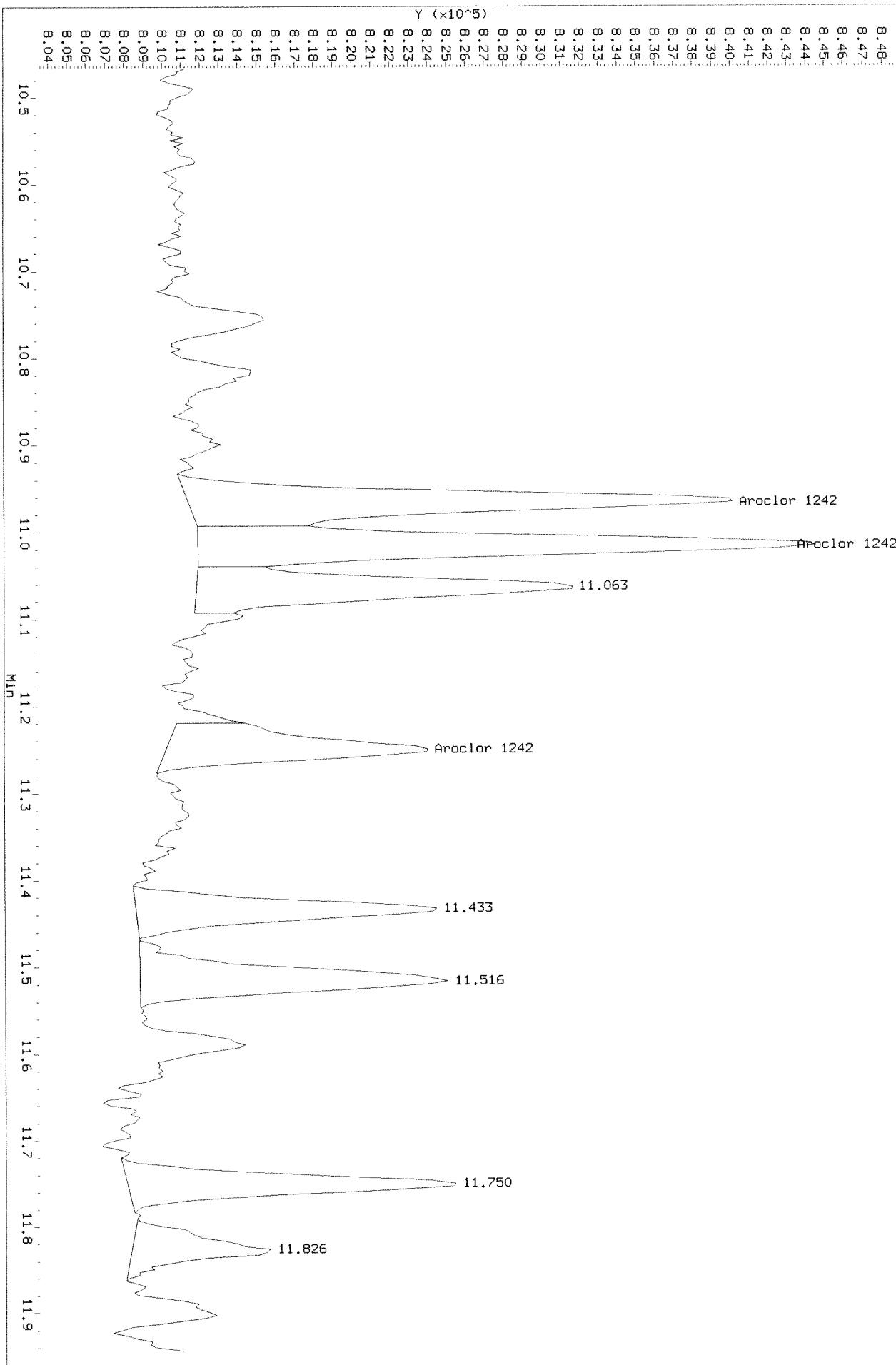
\\alk1s002\instdata\GC27\Data\090419ICAL_r.b\0909F010.D



Data File: \\alklsws002\instdata\GC27\Data\090419ICL-r.b\0909F010.D
Injection Date: 09-SEP-2019 15:33
Instrument: GC27.1
Client Sample ID:

HP6890 GC Data, ECD2B.CH: 10.467 to 11.944 Min

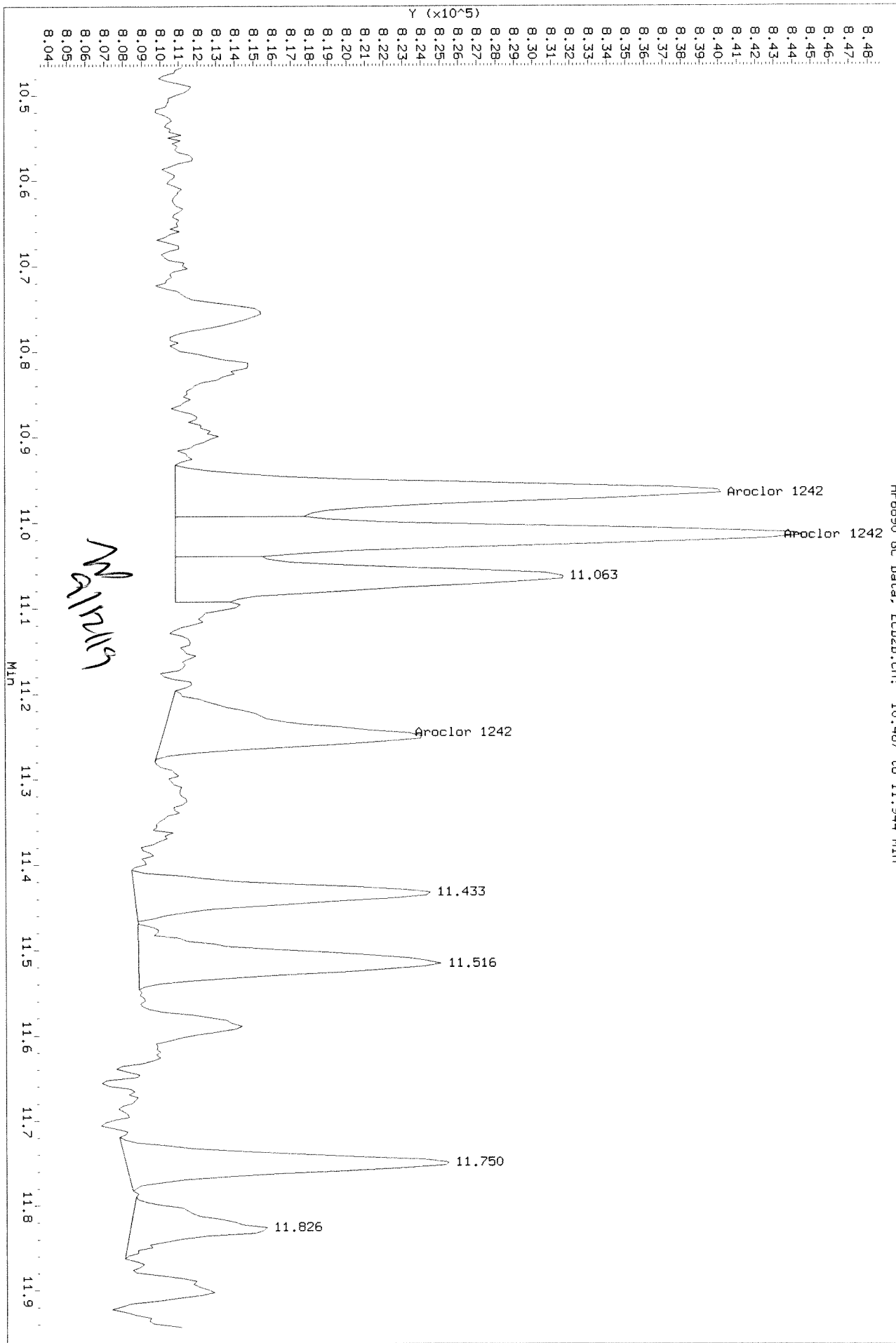
Before



Data File: \\alklsws002\instdata\GC27\Data\090419ICL_r.b\0909f010.D
Injection Date: 09-SEP-2019 15:33
Instrument: GC27.1
Client Sample ID:

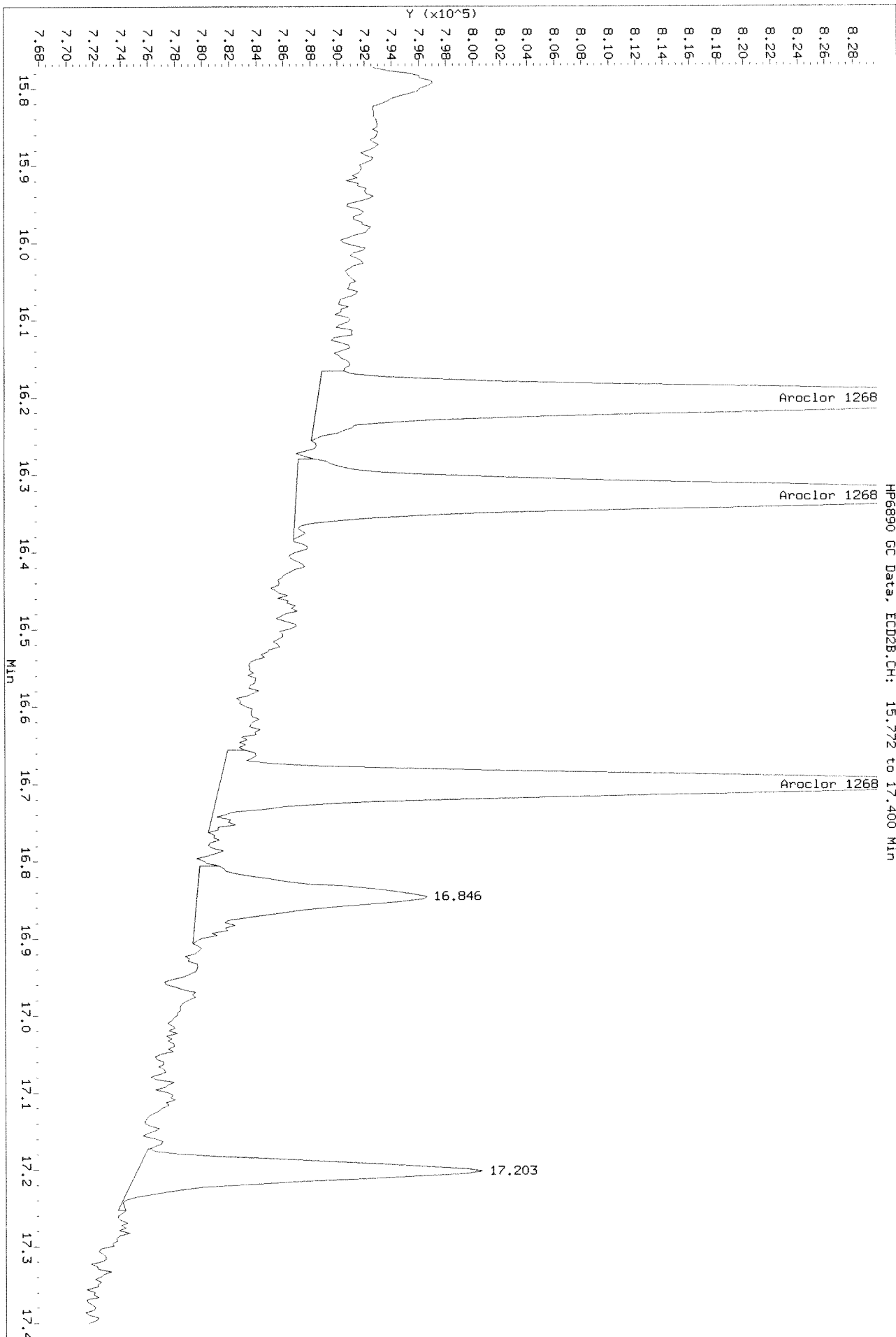
HP6890 GC Data, ECD2B.CH: 10.467 to 11.944 Min

After baseline 9/11/19 R



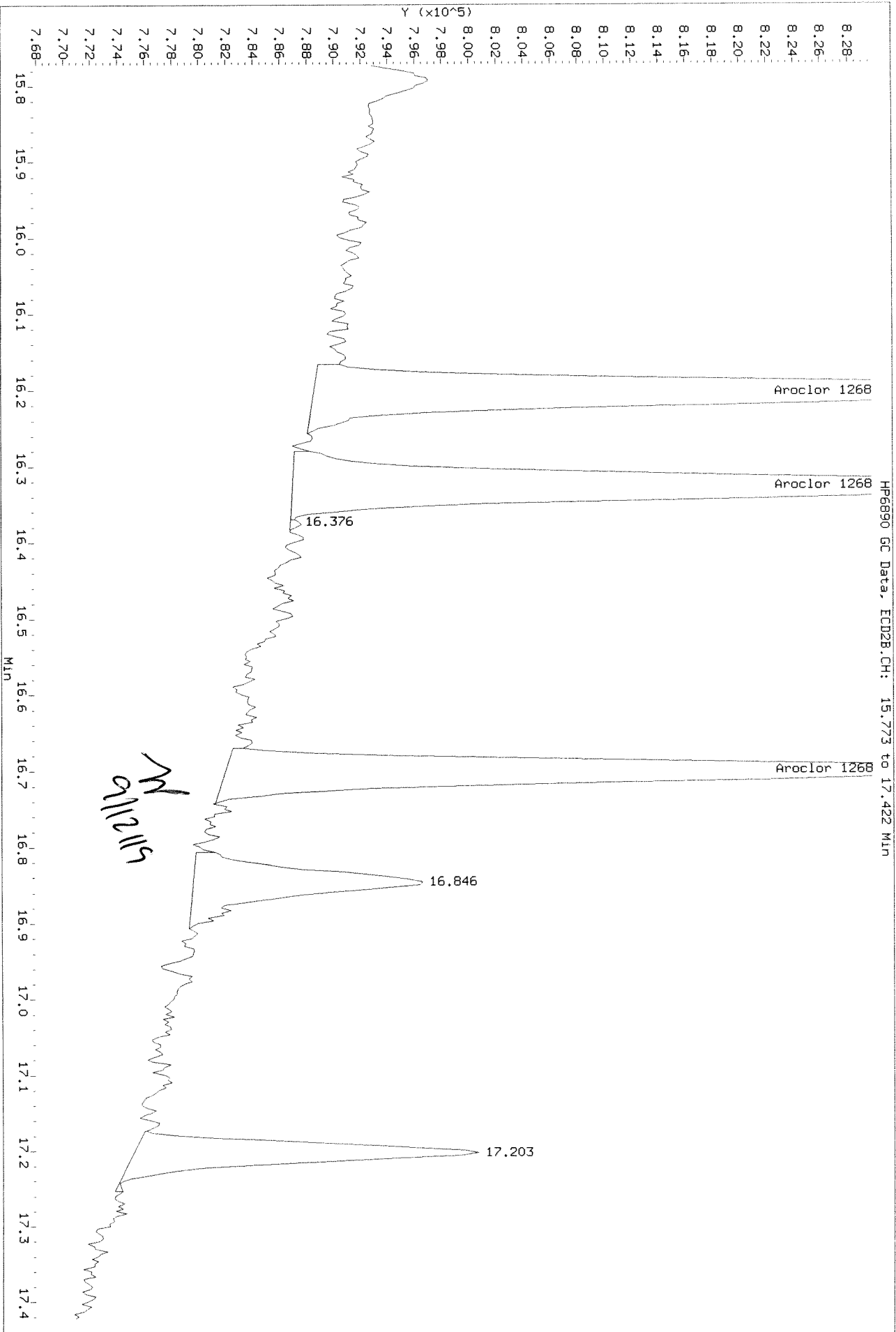
Data File: \\sal\kls002\instdata\GC27\Data\090419ICL-r.b\0909f010.D
Injection Date: 09-SEP-2019 15:33
Instrument: GC27.1
Client Sample ID:

Before



Data File: \\alkjsws002\jinst\data\GC27\Data\090419ICAL_r.b\09090910.1.D
Injection Date: 09-SEP-2019 15:33
Instrument: GC27.1
Client Sample ID:

After baseline / shoulder 9/11/19 SA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F011.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F011.D
 Inj Date : 09-SEP-2019 16:05
 Sample Info: PCB8-015J 4268 @ 5 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:38
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 4268.sub
 Sub List #2 : 4268.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

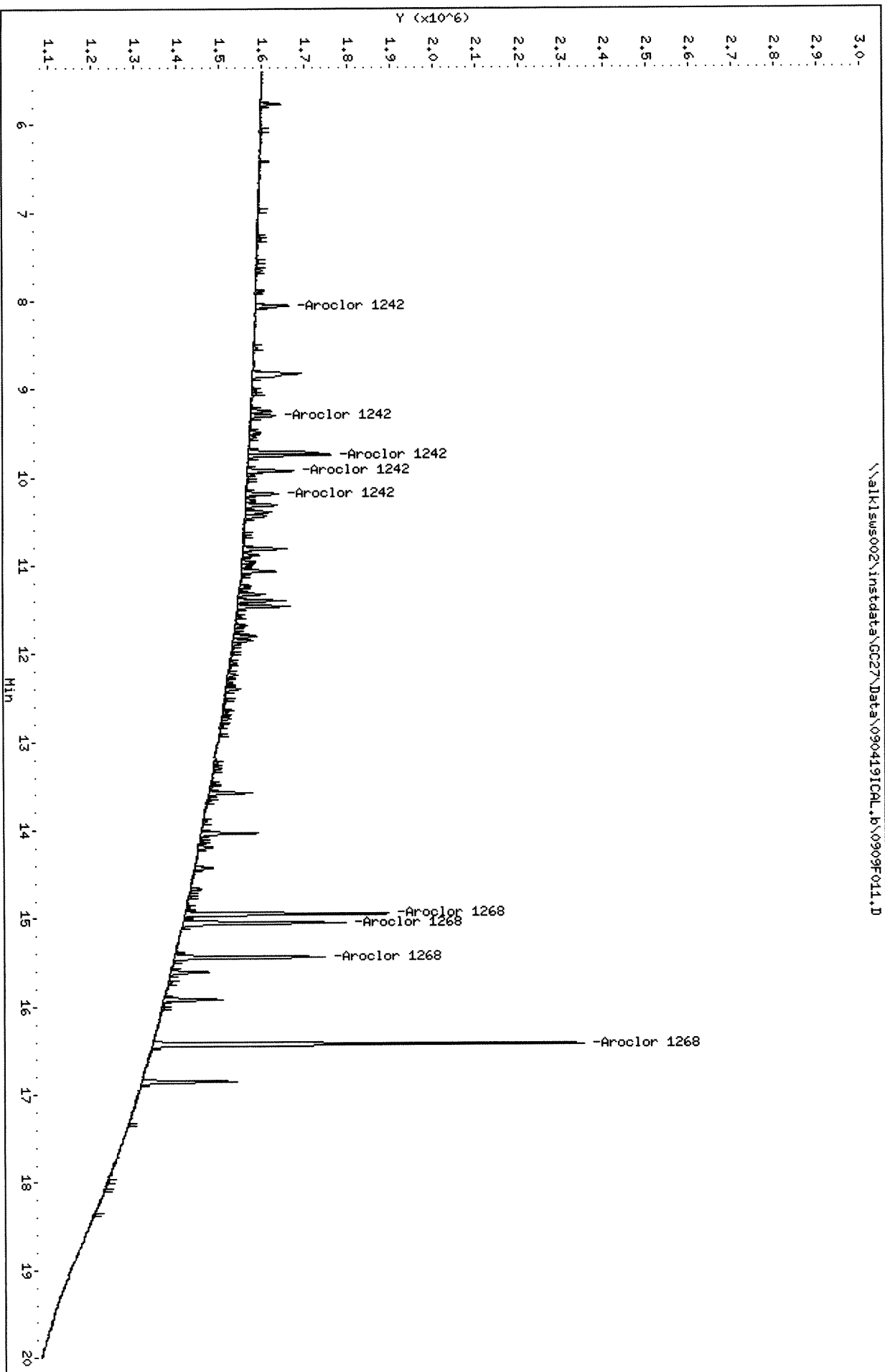
Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1242	8.055	9.165	134612	56676	4.53	4.43	80.00- 120.00	100.00
	9.305	9.915	104739	79936	4.63	4.40	63.88- 95.83	77.81
	9.748	10.965	314405	119177	4.60	4.64	182.89- 274.33	233.56
	9.928	11.015	197966	135357	4.84	4.62	114.87- 172.30	147.06
	10.188	11.249	135416	70359	4.78	4.43	77.46- 116.19	100.60
	Average of Peak Amounts =				4.68	4.50		
Aroclor 1268	14.952	16.205	777145	370699	4.75	5.19	80.00- 120.00	100.00
	15.052	16.329	684383	313347	4.68	4.99	71.27- 106.90	88.06
	15.442	16.702	600425	273531	4.84	5.08	61.53- 92.30	77.26
	16.432	17.722	1654705	767525	4.72	5.26	171.54- 257.31	212.92
	Average of Peak Amounts =				4.75	5.13		

SA 9/11/19
W

Data File: \\alklsws002\instdata\GC27\Data\090419ICL.b\0909F011.D
Date : 09-SEP-2019 16:05
Client ID:
Sample Info: PCB8-015J 4268 @ 5 PPB
Column phase: DB-35MS

Instrument: GC27.i
Operator: SAA
Column diameter: 0.32

\\alklsws002\instdata\GC27\Data\090419ICL.b\0909F011.D



Data File: \\alk1sws002\instdata\GC27\Data\090419ICAL_r.b\0909F011.D

Date : 09-SEP-2019 16:05

Client ID:

Sample Info: PCB8-015J 4268 @ 5 PPB

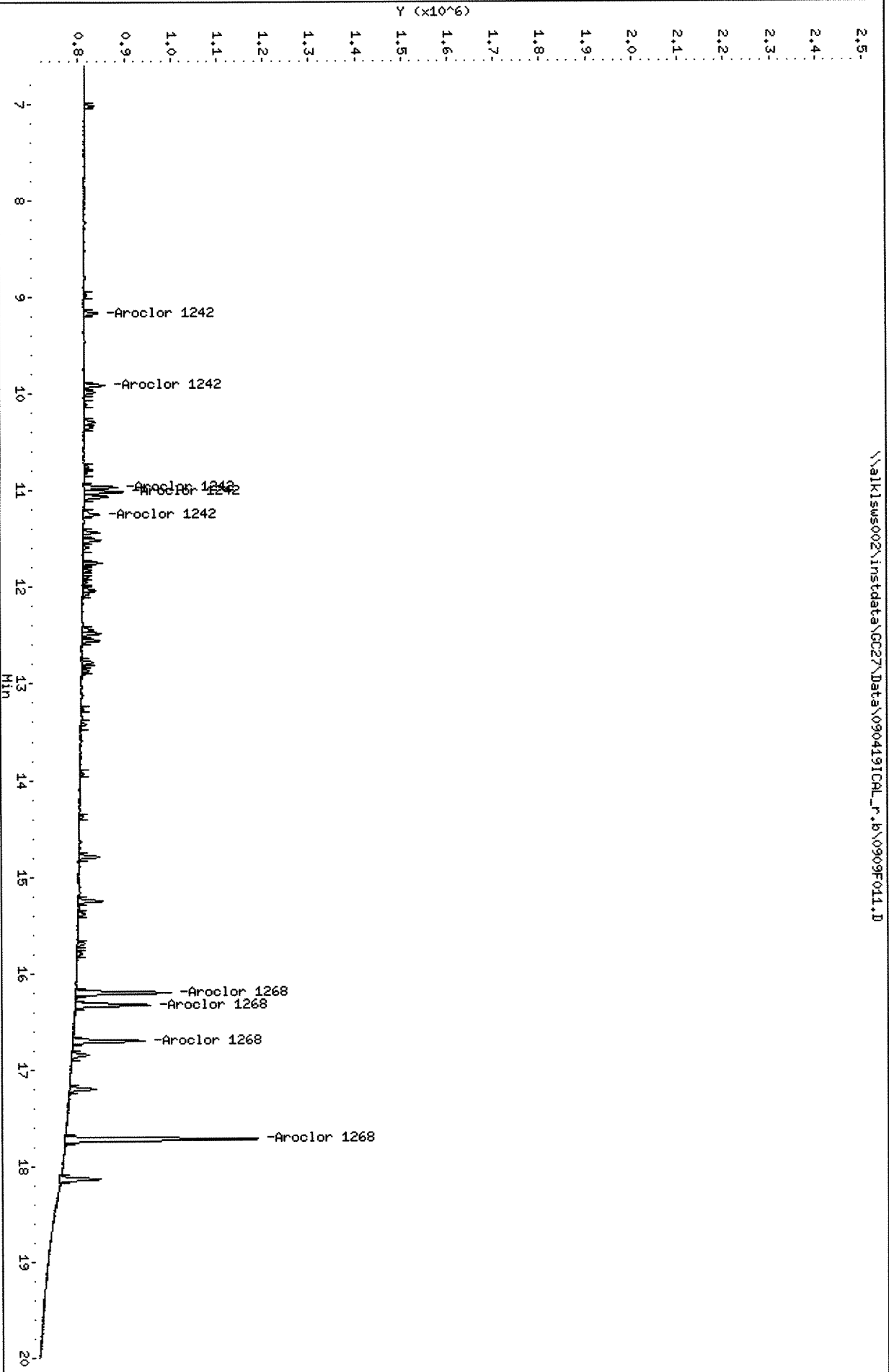
Column phase: DB-XLB

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

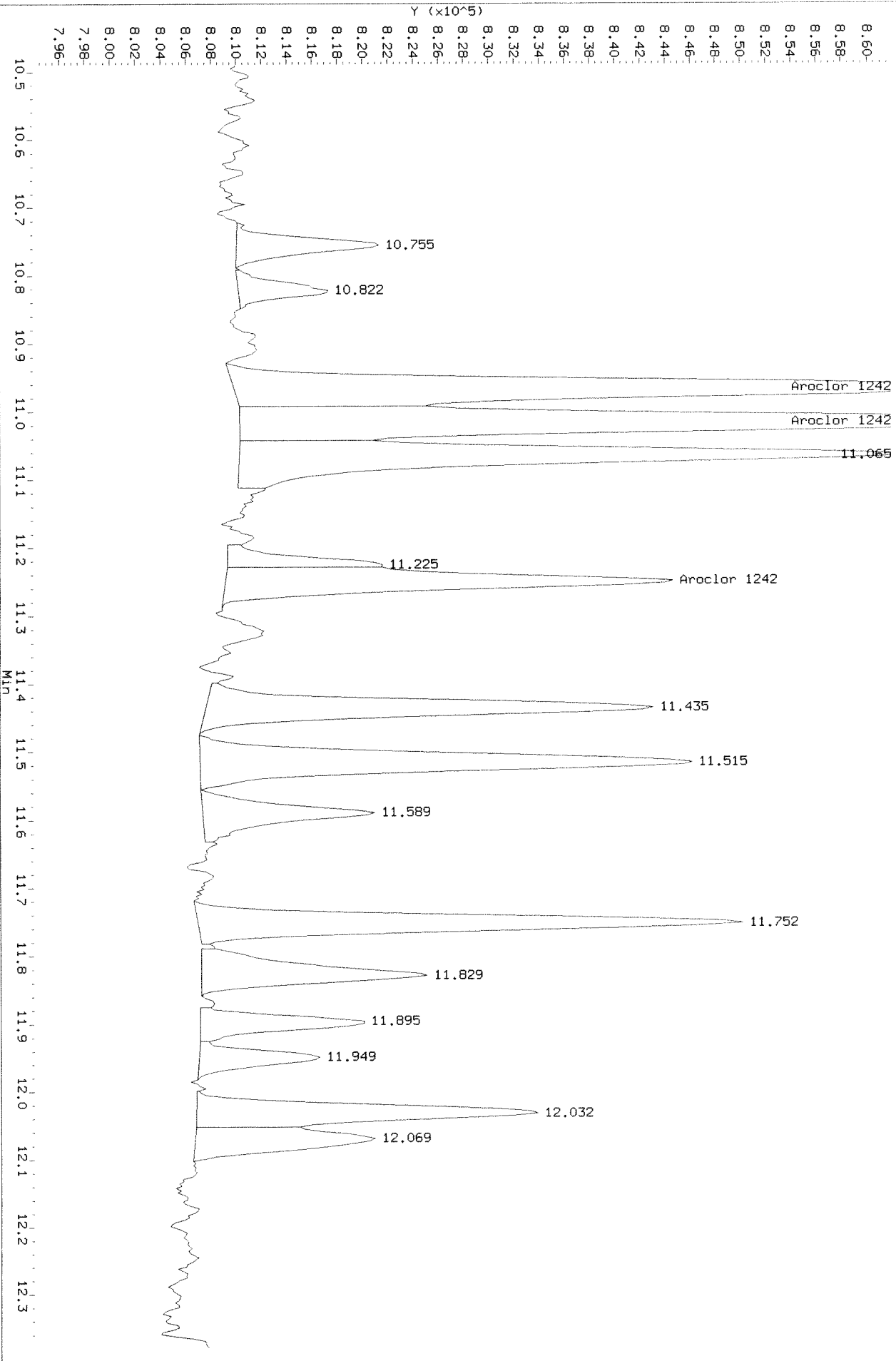
\\alk1sws002\instdata\GC27\Data\090419ICAL_r.b\0909F011.D



Data File: \\alk1sws002\instdata\GC27\Data\090419ICAL_r_b\0909F011.D
Injection Date: 09-SEP-2019 16:05
Instrument: GC27.1
Client Sample ID:

Before

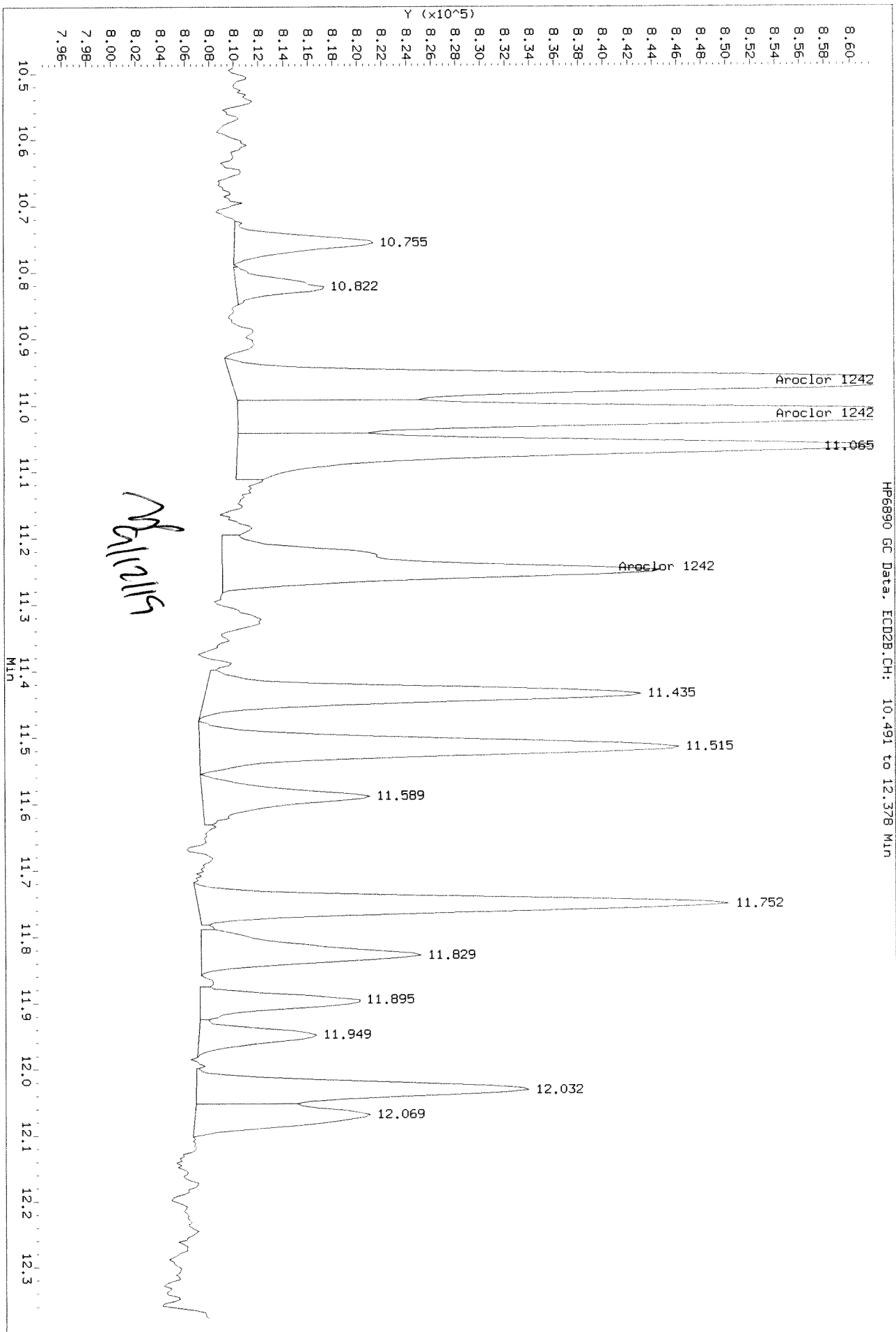
HP6890 GC Data, ECD2B.CH: 10.491 to 12.378 MIN



Data File: \\alklms002\instdata\GC27\Data\090419ICHL_r.b\0909F011.D
Injection Date: 09-SEP-2019 16:05
Instrument: GC27.1
Client Sample ID:

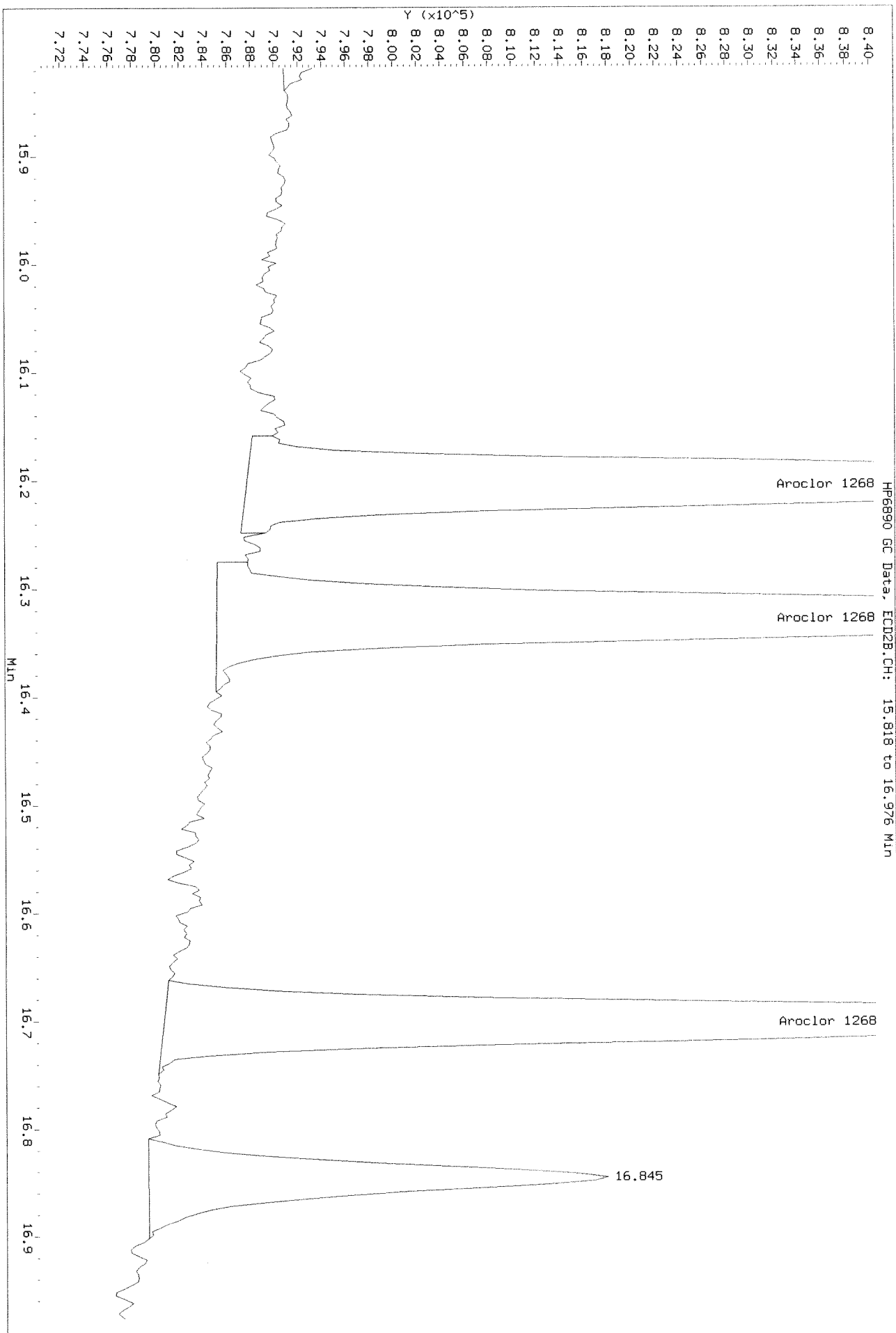
After baseline 9/11/19 A

HP6890 GC Data, ECD2B.CH: 10.491 to 12.378 MIN



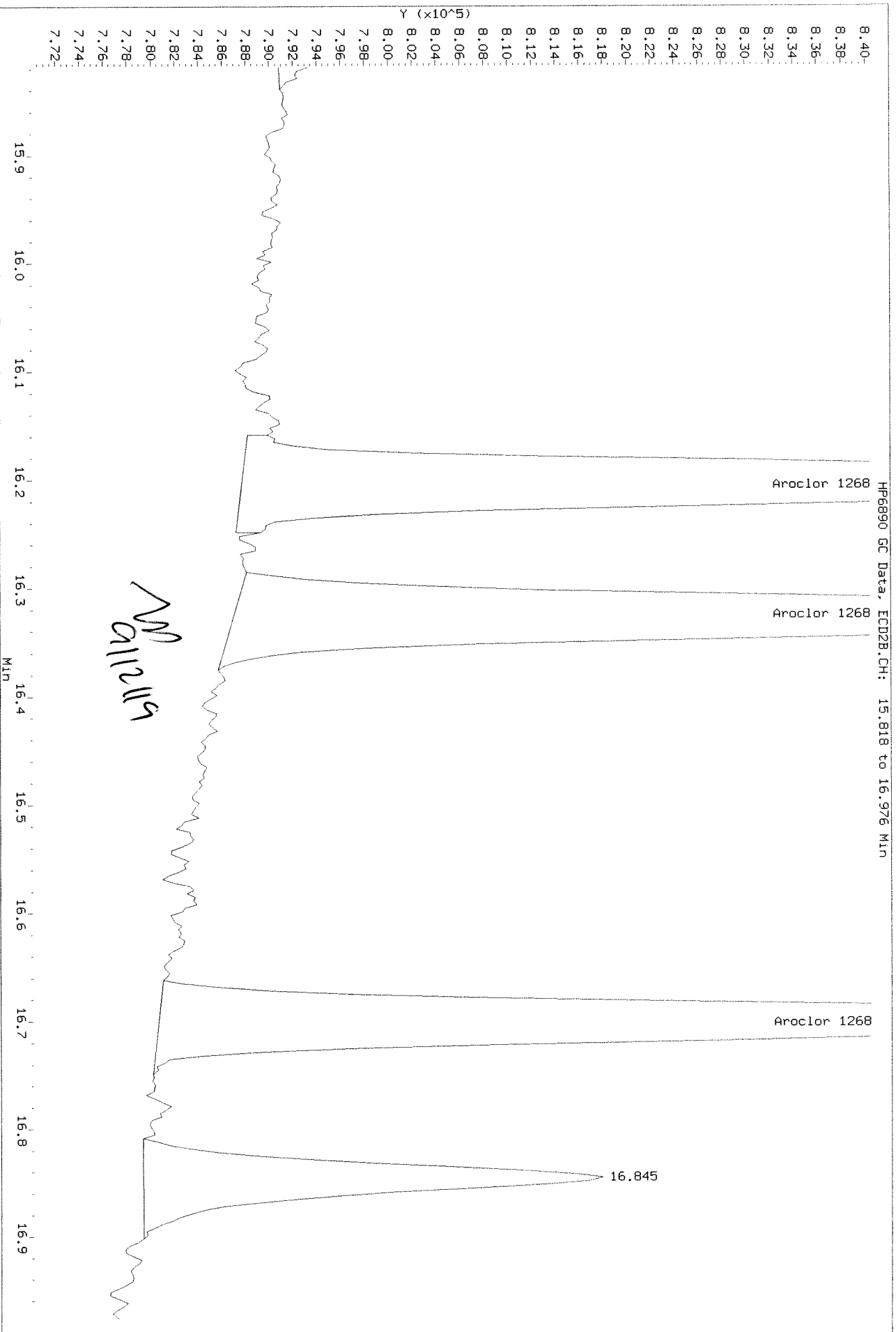
Data File: \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F011.D
Injection Date: 09-SEP-2019 16:05
Instrument: GC27.1
Client Sample ID:

Before



Data File: \\alkisw002\instdata\GC27\Data\090419ICAL_r.b\0909F011.D
Injection Date: 09-SEP-2019 16:05
Instrument: GC27.1
Client Sample ID:

After baseline 9/11/19 SA



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F012.D
 Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F012.D
 Inj Date : 09-SEP-2019 16:37
 Sample Info: PCB8-015K 4268 @ 10 PPB
 Misc Info :
 Cal Date : 11-SEP-2019 09:38
 Operator : SAA
 Inst ID : GC27.i
 Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
 Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
 Sub List #1 : 4268.sub
 Sub List #2 : 4268.sub
 Col #1 Phase : DB-35MS
 Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1242	8.058	9.164	269704	124038	9.07	9.69	80.00- 120.00	100.00
	9.304	9.914	215373	175855	9.53	9.67	63.88- 95.83	79.86
	9.748	10.964	616568	247655	9.02	9.65	182.89- 274.33	228.61
	9.928	11.014	387256	284843	9.47	9.72	114.87- 172.30	143.59
	10.188	11.248	261144	145638	9.22	9.17	77.46- 116.19	96.83
	Average of Peak Amounts =				9.26	9.58		
Aroclor 1268	14.954	16.201	1530639	729336	9.36	10.2	80.00- 120.00	100.00
	15.054	16.328	1363550	633347	9.33	10.1	71.27- 106.90	89.08
	15.441	16.701	1177339	544651	9.49	10.1	61.53- 92.30	76.92
	16.431	17.724	3282073	1481136	9.36	10.1	171.54- 257.31	214.43
	Average of Peak Amounts =				9.39	10.1		

SA 9/11/19
W

Data File: \\alkisus002\instdata\GC27\Data\090419ICAL.b\0909F012.D

Date: 09-SEP-2019 16:37

Client ID:

Sample Info: PCB8-01SK 4268 @ 10 PPB

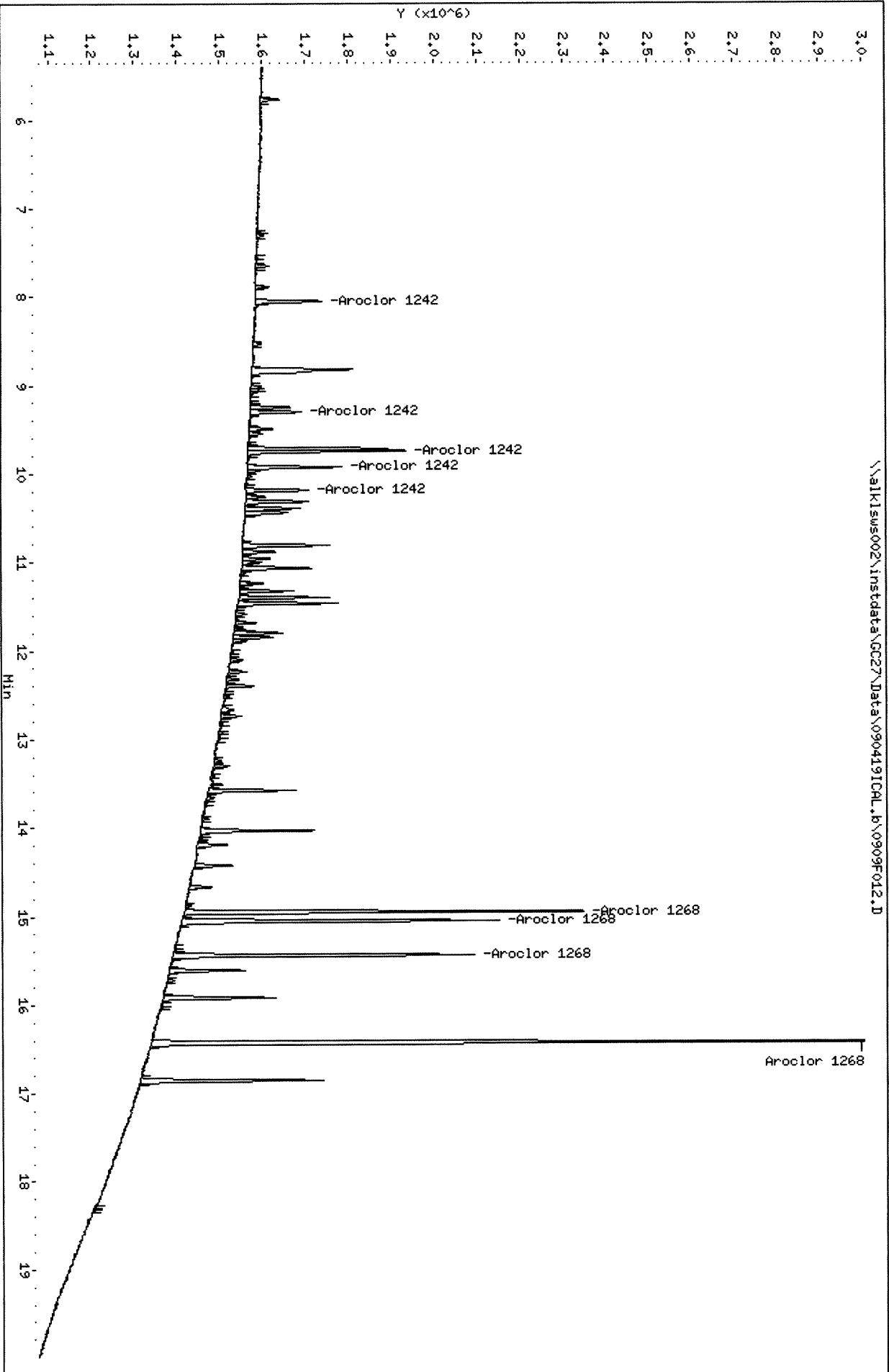
Column phase: DB-35MS

Instrument: GC27.i

Operator: SHH

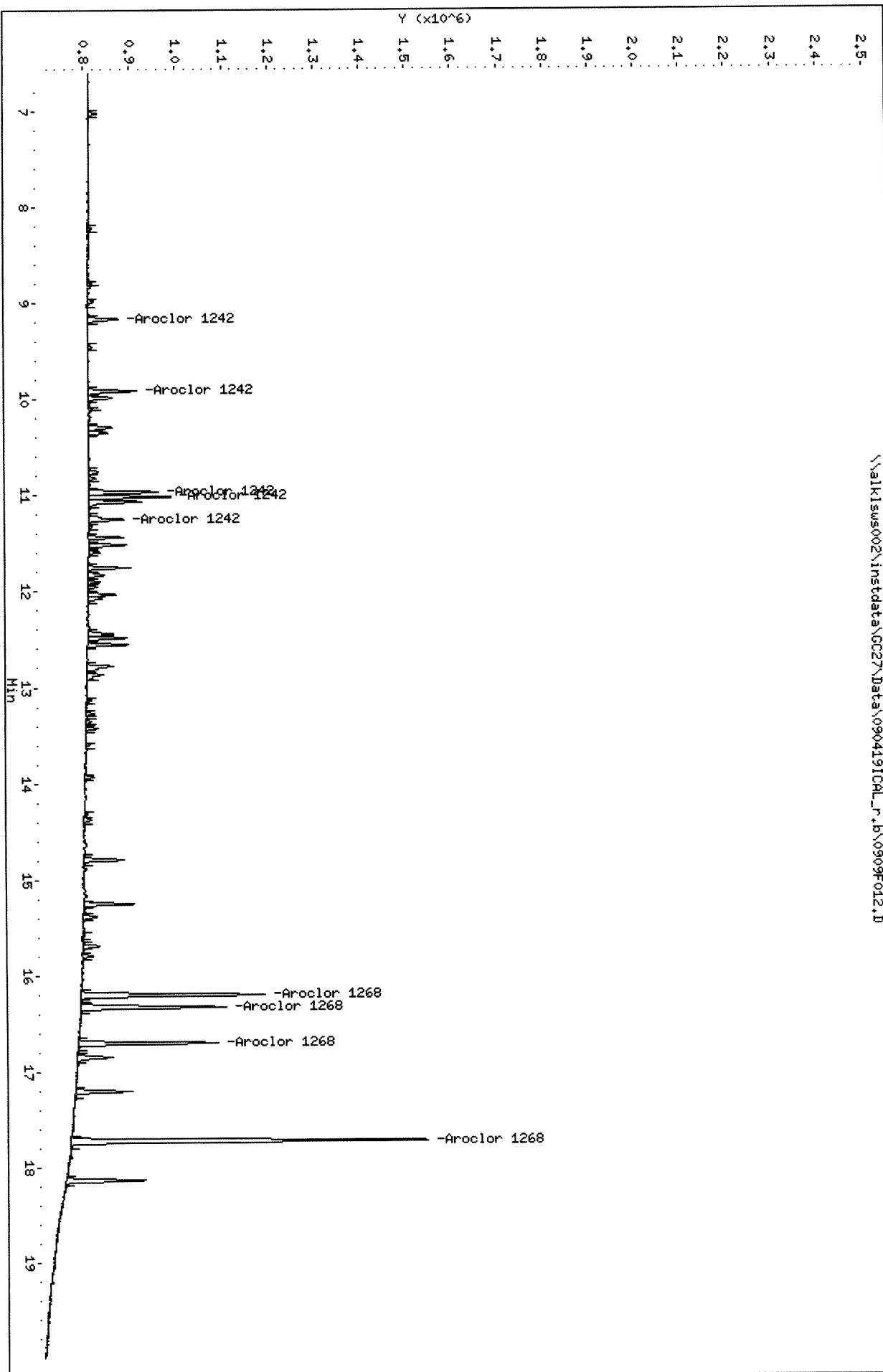
Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL.b\0909F012.D



Data File: \\alkisw002\instdata\GC27\Data\090419ICAL_r.b\0909F012.D
Date: 09-SEP-2019 16:37
Client ID:
Sample Info: PCB8-015K 4268 @ 10 PPB
Column phase: DB-XLB

Instrument: GC27.1
Operator: SAA
Column diameter: 0.32



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F013.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F013.D
Inj Date : 09-SEP-2019 17:08
Sample Info: PCB8-015E 1242 ICV @ 20 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : AR1242.SUB
Sub List #2 : AR1242.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1242	8.057	9.167	621436	280551	20.9	21.9	80.00- 120.00	100.00
	9.304	9.914	470939	406391	20.8	22.3	63.88- 95.83	75.78
	9.747	10.964	1382870	571058	20.2	22.3	182.89- 274.33	222.53
	9.927	11.014	878544	653245	21.5	22.3	114.87- 172.30	141.37
	10.191	11.251	586339	353812	20.7	22.3	77.46- 116.19	94.35
	Average of Peak Amounts =				20.8	22.2		

SA 9/11/19
W

Data File: \\alkisus002\instdata\GC27\Data\090419\CAL.b\0909F013.D

Date: 09-SEP-2019 17:08

Client ID:

Sample Info: PCB8-015E 1242 ICV @ 20 PPB

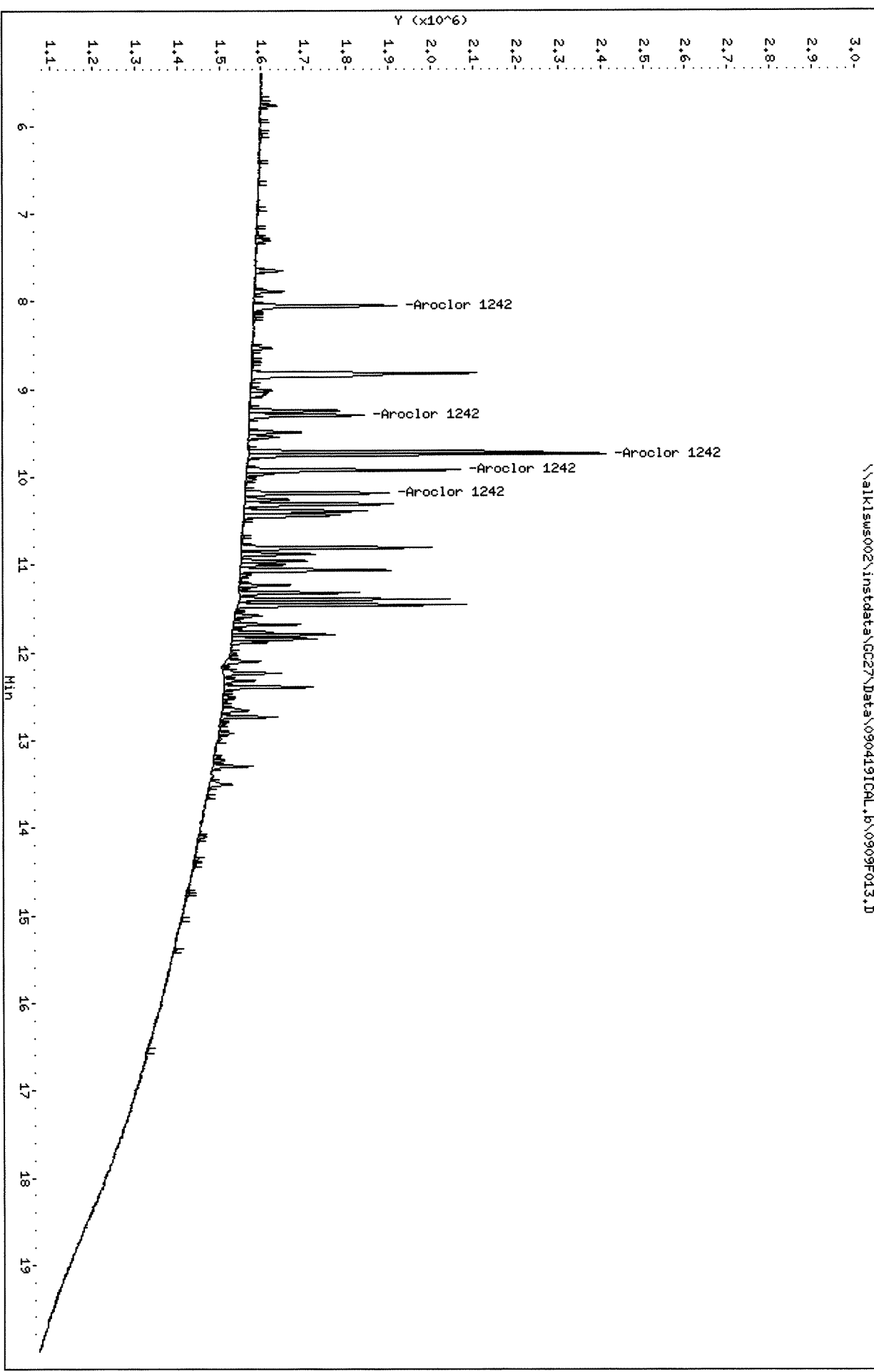
Column phase: DB-35MS

Instrument: GC27.i

Operator: SMA

Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419\CAL.b\0909F013.D



Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0909F013.D

Date: 09-SEP-2019 17:08

Client ID:

Sample Info: PO88-015E 1242 ICV @ 20 PPB

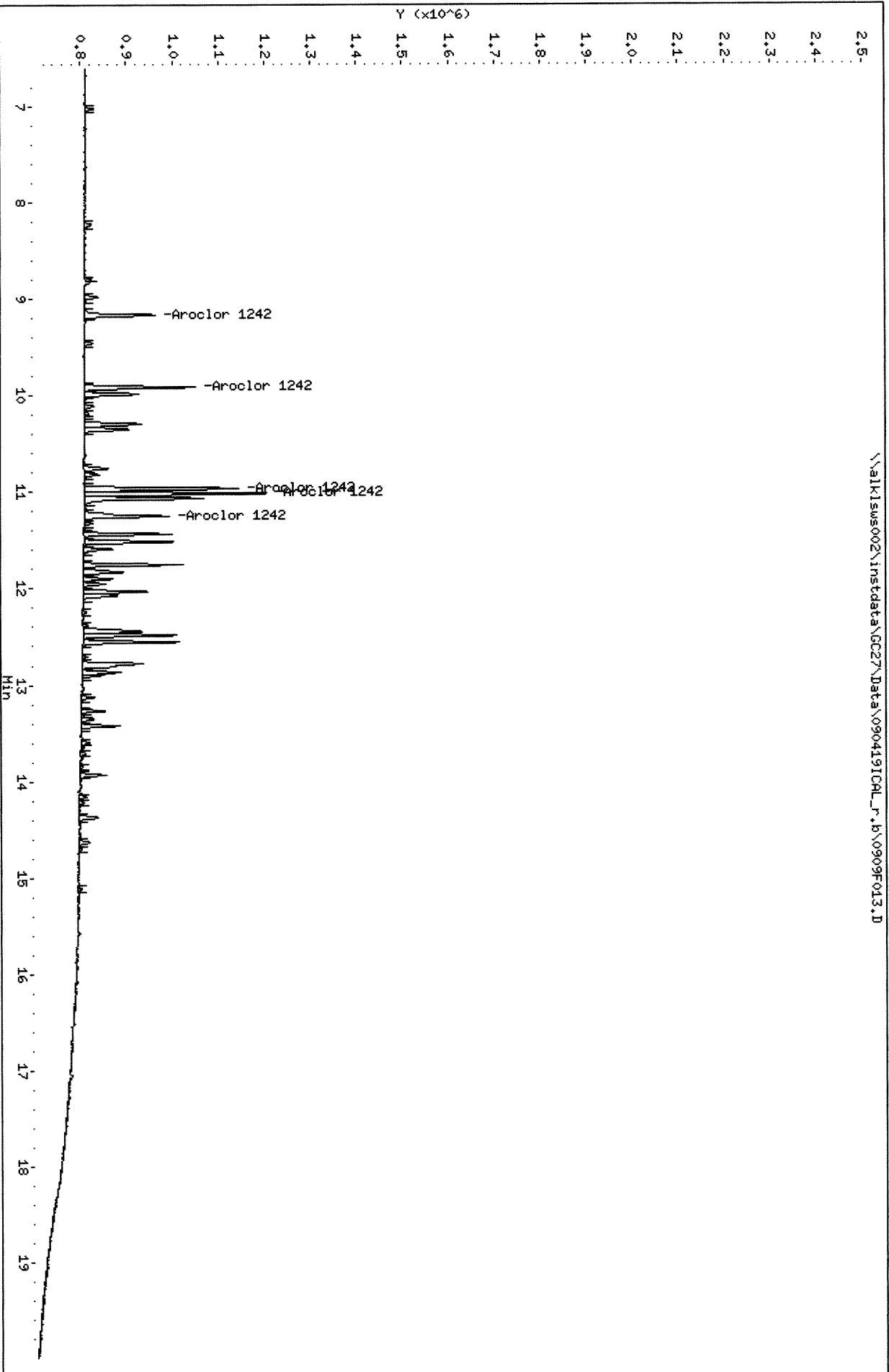
Column phase: DB-XLB

Instrument: GC27.1

Operator: SAA

Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0909F013.D



ALS Environmental - Kelso

Sample #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\0909F014.D
Sample #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\0909F014.D
Inj Date : 09-SEP-2019 17:40
Sample Info: PCB8-015F 1268 ICV @ 20 PPB
Misc Info :
Cal Date : 11-SEP-2019 09:38
Operator : SAA
Inst ID : GC27.i
Dil Factor : 1.000000

Method #1 : \\alklsws002\instdata\GC27\Data\090419ICAL.b\090419ul_f.m
Method #2 : \\alklsws002\instdata\GC27\Data\090419ICAL_r.b\090419_r.m
Sub List #1 : AR1268.SUB
Sub List #2 : AR1268.SUB
Col #1 Phase : DB-35MS
Col #2 Phase : DB-XLB

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
Aroclor 1268	14.951	16.201	3343051	1514696	20.4	21.2	80.00- 120.00	100.00
	15.054	16.328	3323205	1470780	22.7	23.4	71.27- 106.90	99.41
	15.441	16.701	2279185	1024654	18.4	19.0	61.53- 92.30	68.18
	16.431	17.721	6118947	2609351	17.5	17.9	171.54- 257.31	183.03
	Average of Peak Amounts =				19.8	20.4		

SA 9/11/19
W

Data File: \\alkl1s02\instdata\GC27\Data\090419ICAL.b\0909F014.D
Date: 09-SEP-2019 17:40

Client ID:

Sample Info: PCB8-01SF 1268 ICV @ 20 PPB

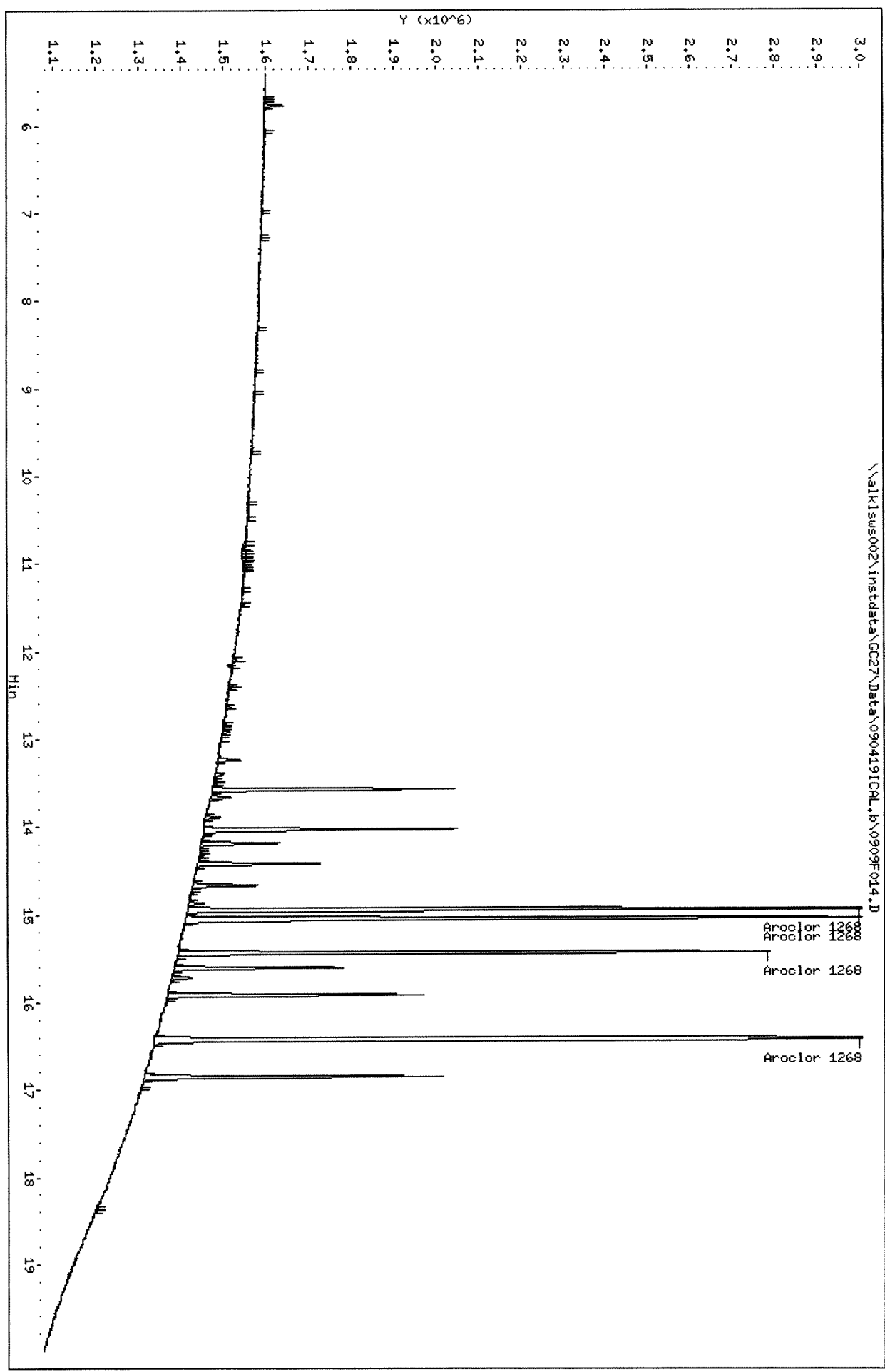
Column phase: DB-35MS

Instrument: GC27.i

Operator: SAA

Column diameter: 0.32

\\alkl1s02\instdata\GC27\Data\090419ICAL.b\0909F014.D



Data File: \\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0909F014.D
Date: 09-SEP-2019 17:40

Client ID:

Sample Info: PCB8-015F 1268 ICV @ 20 PPB

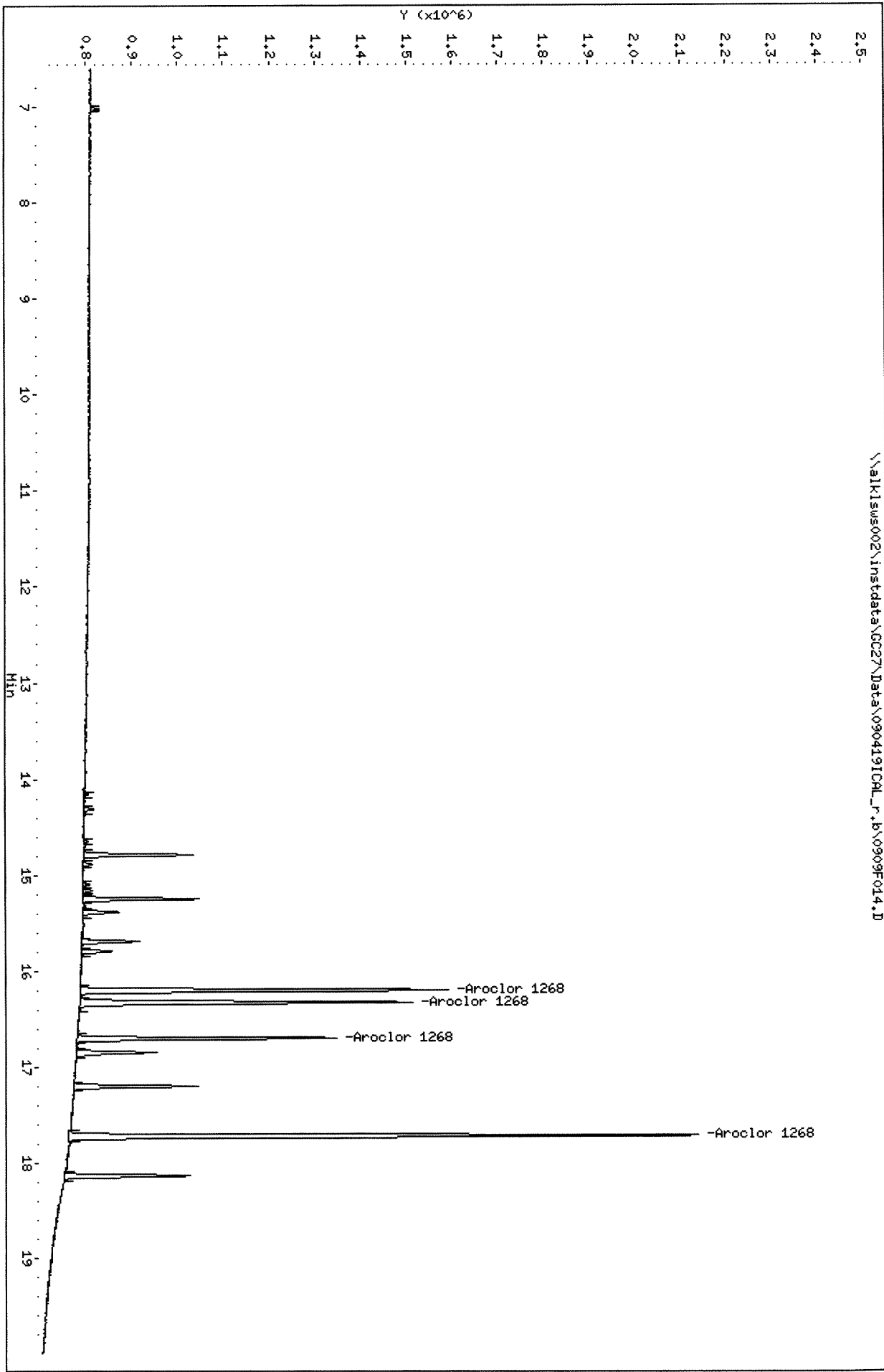
Column phase: DB-XLB

Instrument: GC27.1

Operator: SAA

Column diameter: 0.32

\\alkisus002\instdata\GC27\Data\090419ICAL_r.b\0909F014.D





Volatile Organic Compounds

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Validation Report

1st **KW** 10/08/19
2nd **SK** 10/08/19

Data File: J:\MS24\DATA\100719\1007F011.D\
Lab ID: K1909014-001
RunType: N/A
Matrix: Soil

Date Acquired: 10/7/19 13:23:00
Batch ID: 654417
Analysis Method: 8260C/VOC FP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification		X
Continuing Calibration Recovery		X
Lab Control Sample Recovery	X	
Duplicate Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	Dichlorodifluoromethane	47		30	High bias, narrate
Continuing Calibration Recovery	n-Butylbenzene	23		20	CCVOK
	sec-Butylbenzene	21		20	/
	Chloromethane	-24		20	
	Dichlorodifluoromethane	-30		20	
	Hexachlorobutadiene	24		20	
	Isopropylbenzene	21		20	
	4-Isopropyltoluene	23		20	

Primary Review: _____

Secondary Review: _____

Quantitation Report

1st **KW** 10/08/19
2nd **KW** 10/08/19

Data File: J:\MS24\DATA\100719\1007F011.D\	Instrument: K-MS-24
Acqu Date: 10/7/19 13:23:00	Vial: 6
Run Type: N/A	Dilution: 1
Lab ID: K1909014-001	Raw Units: ppb

Bottle ID: K1909014-001.05	Tier: IV	Matrix: Soil
Prod Code: VOC FP	Collect Date: 9/25/19	Receive Date: 9/27/19

Analysis Lot: 654417	Prep Lot:	Report Group: K1909014
Analysis: 8260C	Prep Method:	
	Prep Date:	

Title: Volatile Organic Compounds by GC/MS	Calibration ID: KC1900275
	Report List ID: 20903

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Chlorobenzene-d5	6.50		55322	50.00	OK
1,4-Dichlorobenzene-d4	8.82		45940	50.00	OK
Fluorobenzene	3.90		147045	50.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
4-Bromofluorobenzene	7.67		45019	48.74	97	88 - 127	Y
Dibromofluoromethane	3.42		37123	51.67	103	82 - 146	Y
Toluene-d8	5.17		138320	54.04	108	90 - 142	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Acetone	1.91		38144	159.40	160		Y
Benzene	3.66	-0.01	28773	8.71	8.9		Y
Bromobenzene	0.00		0	0.00	0	U	Y
Bromochloromethane	0.00		0	0.00	0	U	Y
Bromodichloromethane	0.00		0	0.00	0	U	Y
Bromoform	0.00		0	0.00	0	U	Y
Bromomethane	1.26		1007	1.92	2.0	J	Y
2-Butanone (MEK)	3.11		3068	29.50	30		Y
n-Butylbenzene	0.00		0	0.00	0	U	Y
sec-Butylbenzene	8.60	-0.01	542	0.19	0.19	J	Y
tert-Butylbenzene	0.00		0	0.00	0	U	Y
Carbon Disulfide	1.94		21162	10.80	11		Y
Carbon Tetrachloride	0.00		0	0.00	0	U	Y
Chlorobenzene	0.00		0	0.00	0	U	Y
Chloroethane	1.33		714	1.52	1.6	J	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 10/11/19 8:00

\\alprews001\starlims\LIMSReps\QuantValidation.rpt

Data File: J:\MS24\DATA\100719\1007F011.D\
 Acqu Date: 10/7/19 13:23:00
 Run Type: N/A
 Lab ID: K1909014-001

Instrument: K-MS-24nd **KW** 10/08/19
 Vial: 6
 Dilution: 1
 Raw Units: ppb

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Chloroform	0.00		0	0.00	0	U	Y
Chloromethane	0.98		1642	1.76	1.8	J	Y
2-Chlorotoluene	7.98	-0.01	727	0.34	0.35	J	Y
4-Chlorotoluene	0.00		0	0.00	0	U	Y
1,2-Dibromo-3-chloropropane	0.00		0	0.00	0	U	Y
Dibromochloromethane	0.00		0	0.00	0	U	Y
1,2-Dibromoethane (EDB)	0.00		0	0.00	0	U	Y
Dibromomethane	0.00		0	0.00	0	U	Y
1,2-Dichlorobenzene	0.00		0	0.00	0	U	Y
1,3-Dichlorobenzene	0.00		0	0.00	0	U	Y
1,4-Dichlorobenzene	0.00		0	0.00	0	U	Y
Dichlorodifluoromethane	0.00		0	0.00	0	U	Y
1,1-Dichloroethane	0.00		0	0.00	0	U	Y
1,2-Dichloroethane (EDC)	0.00		0	0.00	0	U	Y
1,1-Dichloroethene	0.00		0	0.00	0	U	Y
cis-1,2-Dichloroethene	0.00		0	0.00	0	U	Y
trans-1,2-Dichloroethene	0.00		0	0.00	0	U	Y
1,2-Dichloropropane	0.00		0	0.00	0	U	Y
1,3-Dichloropropane	0.00		0	0.00	0	U	Y
2,2-Dichloropropane	0.00		0	0.00	0	U	Y
1,1-Dichloropropene	0.00		0	0.00	0	U	Y
cis-1,3-Dichloropropene	0.00		0	0.00	0	U	Y
trans-1,3-Dichloropropene	0.00		0	0.00	0	U	Y
Ethylbenzene	6.61		5389	5.05	5.2		Y
Hexachlorobutadiene	0.00		0	0.00	0	U	Y
2-Hexanone	0.00		0	0.00	0	U	Y
Isopropylbenzene	7.47		1123	0.37	0.38	J	Y
4-Isopropyltoluene	8.76		687	0.29	0.30	J	Y
4-Methyl-2-pentanone (MIBK)	0.00		0	0.00	0	U	Y
Methylene Chloride	2.18		969	1.15	1.2	J	Y
Naphthalene	10.94		2059	0.94	0.96	J	Y
n-Propylbenzene	7.89		2340	0.71	0.73	J	Y
Styrene	7.12	-0.03	314	0.31	0.32	J	Y
1,1,1,2-Tetrachloroethane	0.00		0	0.00	0	U	Y
1,1,2,2-Tetrachloroethane	0.00		0	0.00	0	U	Y
Tetrachloroethene (PCE)	0.00		0	0.00	0	U	Y
Toluene	5.23		19511	10.53	11		Y
1,2,3-Trichlorobenzene	0.00		0	0.00	0	U	Y
1,2,4-Trichlorobenzene	0.00		0	0.00	0	U	Y
1,1,2-Trichloroethane	0.00		0	0.00	0	U	Y
1,1,1-Trichloroethane (TCA)	0.00		0	0.00	0	U	Y

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Printed: 10/11/19 8:00

\alprews001\starlims\LIMSRpts\QuantValidation.rpt

Data File: J:\MS24\DATA\100719\1007F011.D\
Acqu Date: 10/7/19 13:23:00
Run Type: N/A
Lab ID: K1909014-001

Instrument: K-MS-2nd **KW** 10/08/19
Vial: 6
Dilution: 1
Raw Units: ppb

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Trichloroethene (TCE)	0.00		0	0.00	0	U	Y
Trichlorofluoromethane (CFC 11)	0.00		0	0.00	0	U	Y
1,2,3-Trichloropropane	0.00		0	0.00	0	U	Y
1,2,4-Trimethylbenzene	8.45		7719	3.32	3.4	J	Y
1,3,5-Trimethylbenzene	8.08		949	0.42	0.43	J	Y
Vinyl Chloride	0.00		0	0.00	0	U	Y
o-Xylene	7.12		2967	2.36	2.4	J	Y
m,p-Xylenes	6.73		6386	5.04	5.2		Y
Xylenes, Total				2.36	2.41	U	Y

Prep Amount: 5 g **Dilution:** 1
Prep Final Amount: 5.00 mL **Basis Factor:** 97.80

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 10/11/19 8:00

\alprews001\starlims\LIMSReps\QuantValidation.rpt

Data File : J:\MS24\DATA\100719\1007F011.D

Vial: 11

Acq On : 7 Oct 2019 1:23 pm

Operator: KW

Sample : K1909014-001

Inst : MS24

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Oct 07 13:55:51 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

Quant Method : J:\MS24\M...\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)

Title : VOA MS24 EPA Method 8260B

Last Update : Mon Jul 15 14:57:11 2019

Response via : Initial Calibration

DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	3.90	96	147045	50.00	PPB	0.00
58) Chlorobenzene-d5	6.50	82	55322	50.00	PPB	0.00
77) 1,4-Dichlorobenzene-d4	8.82	152	45940	50.00	PPB	0.00

System Monitoring Compounds

39) Dibromofluoromethane	3.42	113	37123	51.67	PPB	0.00
Spiked Amount	50.000		Recovery	=	103.34%	
43) 1,2-Dichloroethane-d4	3.69	65	42901	46.37	PPB	0.00
Spiked Amount	50.000		Recovery	=	92.74%	
56) Toluene-d8	5.17	98	138320	54.04	PPB	0.00
Spiked Amount	50.000		Recovery	=	108.08%	
76) 4-Bromofluorobenzene	7.67	95	45019	48.74	PPB	0.00
Spiked Amount	50.000		Recovery	=	97.48%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
3) Chloromethane	0.98	50	1642	1.76	PPB	99
5) Bromomethane	1.26	96	1007	1.92	PPB	93
6) Chloroethane	1.33	64	714	1.52	PPB	96
12) Acetone	1.91	43	38144	159.40	PPB	99
13) Iodomethane	1.92	142	2865	5.33	PPB	99
14) Carbon Disulfide	1.94	76	21162	10.80	PPB	98
15) 3-Chloro-1-Propane	2.10	TIC	61782m	19.70	PPB	
18) Methylene Chloride	2.18	84	969	1.15	PPB	85
23) Hexane	2.45	57	15616	16.07	PPB	98
24) Diisopropyl Ether	2.65	45	13339	4.90	PPB	93
31) 2-Butanone	3.11	72	3068	29.50	PPB	# 77
37) Cyclohexane	3.36	56	10766	9.83	PPB	78
44) Benzene	3.66	78	28773	8.71	PPB	99
47) Methylcyclohexane	4.24	83	9992	9.32	PPB	95
52) 2-Nitropropane	4.88	41	2157	3.39	PPB	91
57) Toluene	5.23	92	19511	10.53	PPB	88
68) Ethylbenzene	6.61	106	5389	5.05	PPB	99
70) m,p-Xylenes	6.73	106	6386	5.04	PPB	99
71) o-Xylene	7.12	106	2967	2.36	PPB	89
72) Styrene	7.12	103	314m	0.31	PPB	
74) Isopropylbenzene	7.47	105	1123	0.37	PPB	77
81) n-Propylbenzene	7.89	91	2340	0.71	PPB	97
83) 2-Chlorotoluene	7.98	91	727	0.34	PPB	74
84) 1,3,5-Trimethylbenzene	8.08	105	949	0.42	PPB	77
87) 1,2,4-Trimethylbenzene	8.45	105	7719	3.32	PPB	99
88) sec-Butylbenzene	8.60	105	542	0.19	PPB	92
89) p-Isopropyltoluene	8.76	119	687	0.29	PPB	66
98) Naphthalene	10.94	128	2059	0.94	PPB	95

(#) = qualifier out of range (m) = manual integration

1007F011.D 0715DOD19_MS24_FULL_SOIL.M

Page 685 of 1516 Mon Oct 07 14:04:25 2019

Page 1

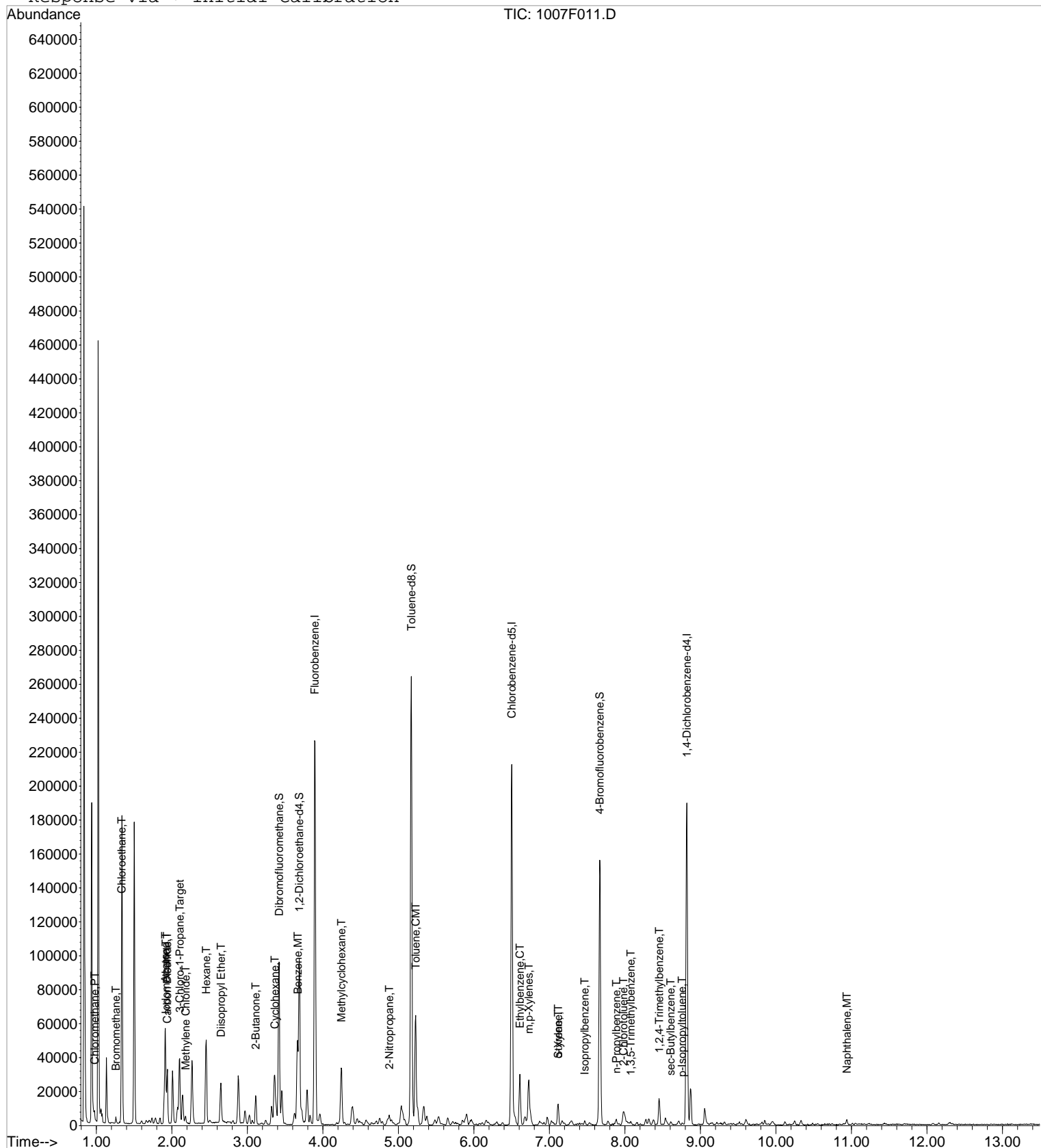
Data File : J:\MS24\DATA\100719\1007F011.D
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 Sample : K1909014-001
 Misc :

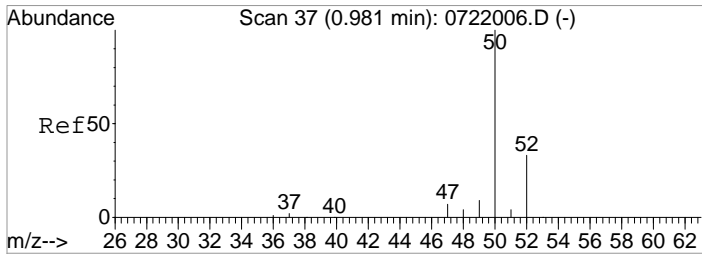
Vial: 11
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 7 14:03 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

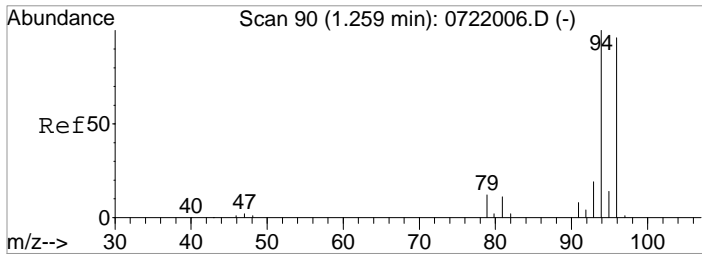
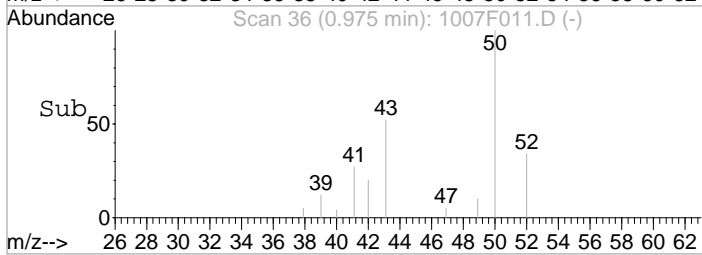
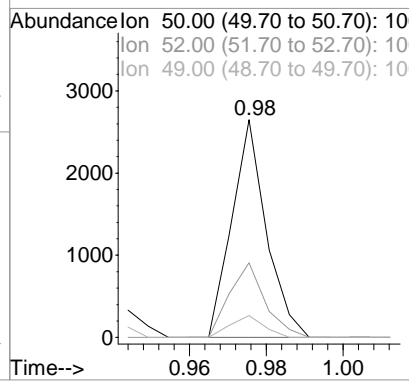
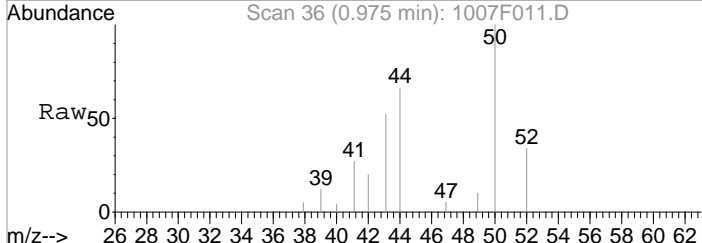
Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 14:57:11 2019
 Response via : Initial Calibration





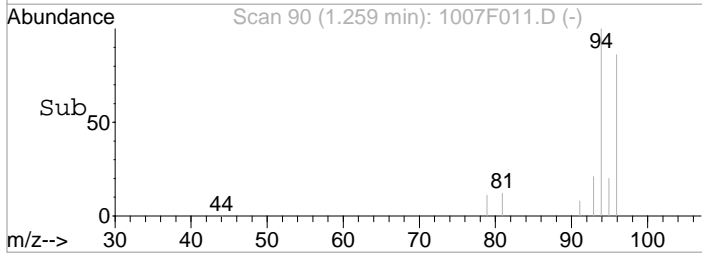
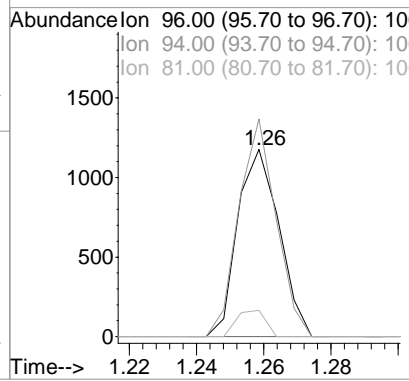
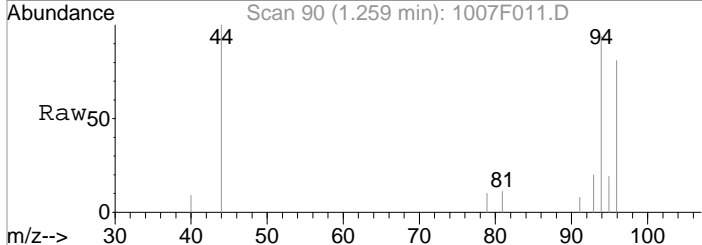
#3
 Chloromethane
 Concen: 1.76 PPB
 RT: 0.98 min Scan# 36
 Delta R.T. -0.00 min
 Lab File: 1007F011.D
 Acq: 7 Oct 2019 1:23 pm

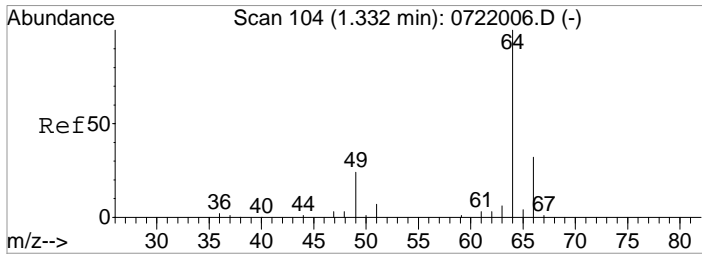
Tgt Ion	Resp	Lower	Upper
50	1642		
52	34.3	3.4	63.4
49	10.0	0.0	40.0



#5
 Bromomethane
 Concen: 1.92 PPB
 RT: 1.26 min Scan# 90
 Delta R.T. 0.00 min
 Lab File: 1007F011.D
 Acq: 7 Oct 2019 1:23 pm

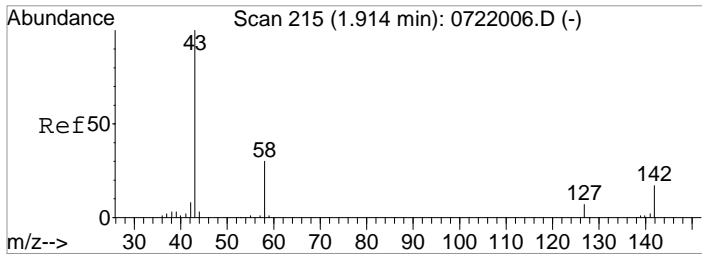
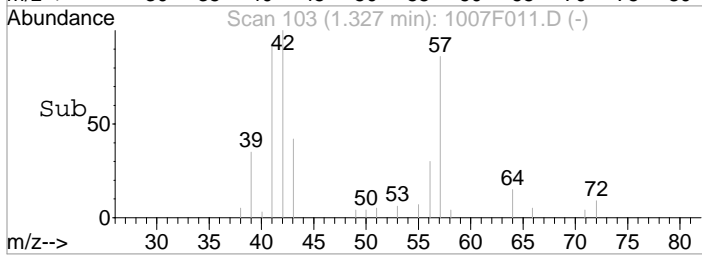
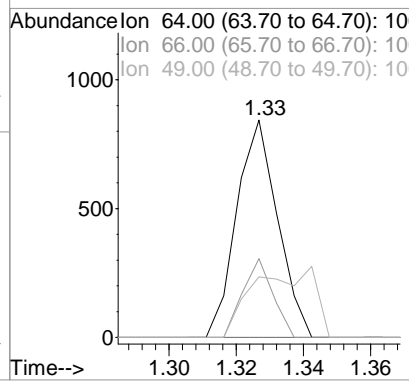
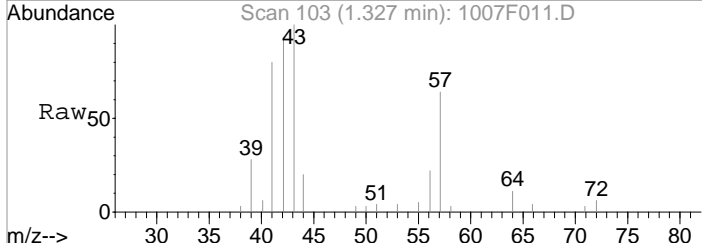
Tgt Ion	Resp	Lower	Upper
96	1007		
94	116.1	78.2	138.2
81	14.0	0.0	42.9





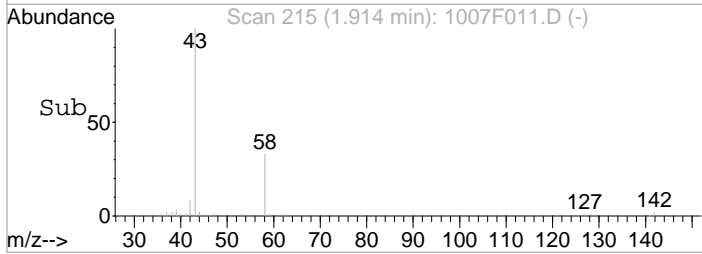
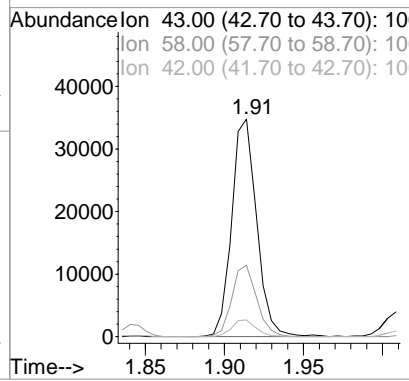
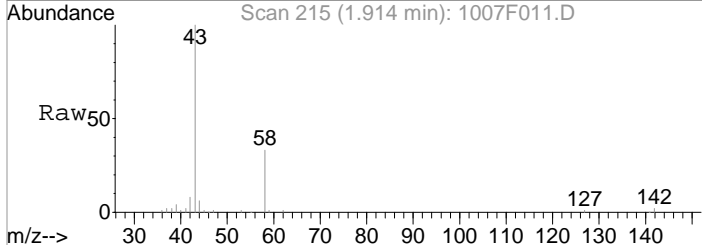
#6
 Chloroethane
 Concen: 1.52 PPB
 RT: 1.33 min Scan# 103
 Delta R.T. -0.00 min
 Lab File: 1007F011.D
 Acq: 7 Oct 2019 1:23 pm

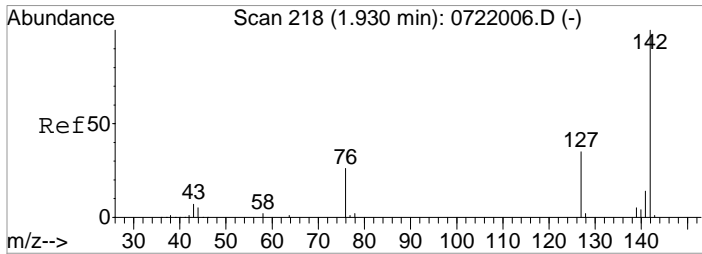
Tgt Ion	Resp	Lower	Upper
64	100		
66	36.3	4.4	64.4
49	27.8	0.0	55.4



#12
 Acetone
 Concen: 159.40 PPB
 RT: 1.91 min Scan# 215
 Delta R.T. -0.00 min
 Lab File: 1007F011.D
 Acq: 7 Oct 2019 1:23 pm

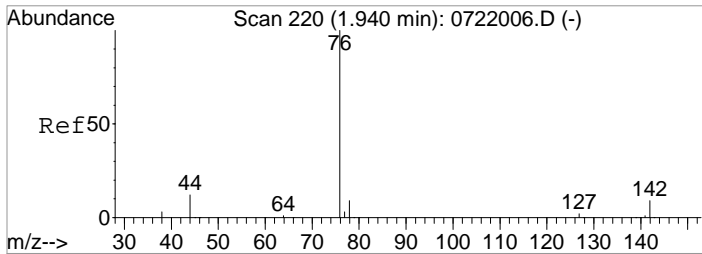
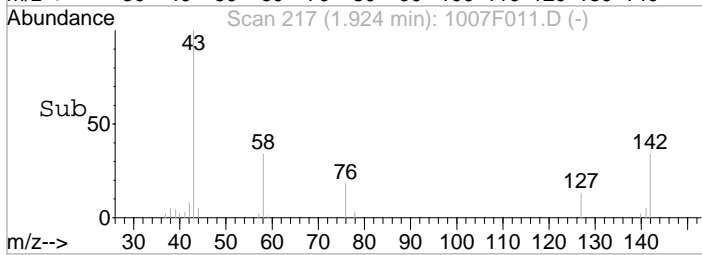
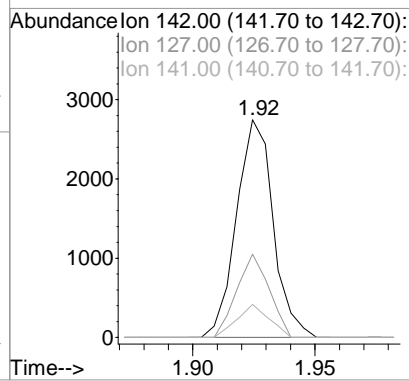
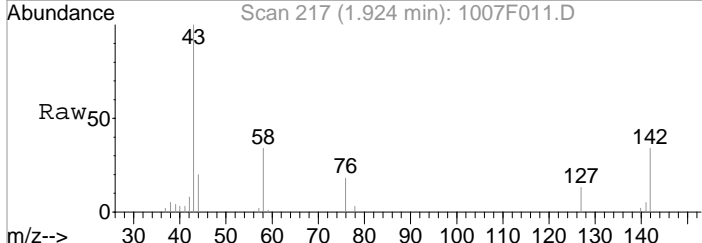
Tgt Ion	Resp	Lower	Upper
43	100		
58	32.8	2.9	62.9
42	7.7	0.0	38.4





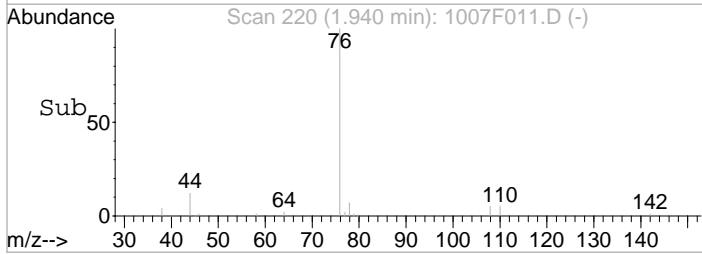
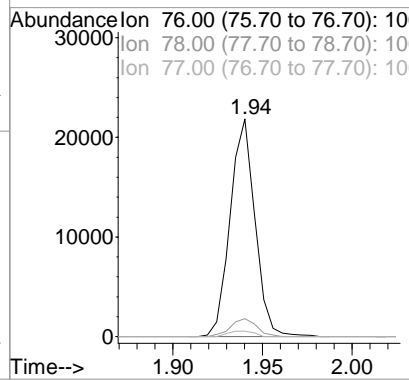
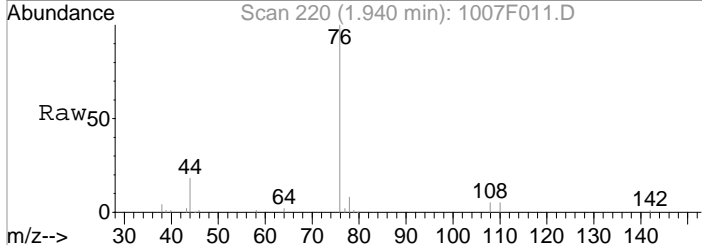
#13
 Iodomethane
 Concen: 5.33 PPB
 RT: 1.92 min Scan# 217
 Delta R.T. 0.00 min
 Lab File: 1007F011.D
 Acq: 7 Oct 2019 1:23 pm

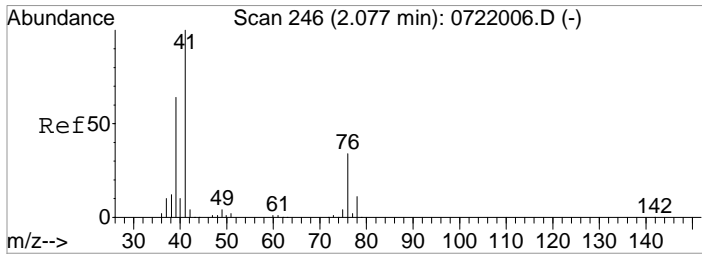
Tgt Ion	Resp	Lower	Upper
142	100		
127	38.2	8.1	68.1
141	15.2	0.0	44.3



#14
 Carbon Disulfide
 Concen: 10.80 PPB
 RT: 1.94 min Scan# 220
 Delta R.T. -0.00 min
 Lab File: 1007F011.D
 Acq: 7 Oct 2019 1:23 pm

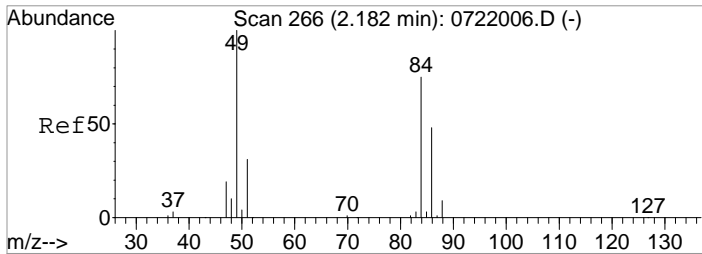
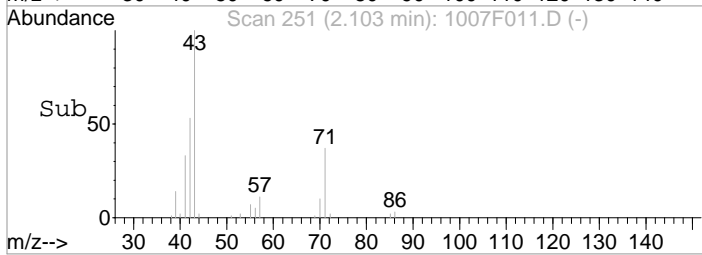
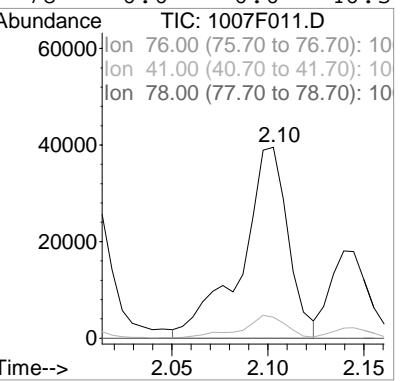
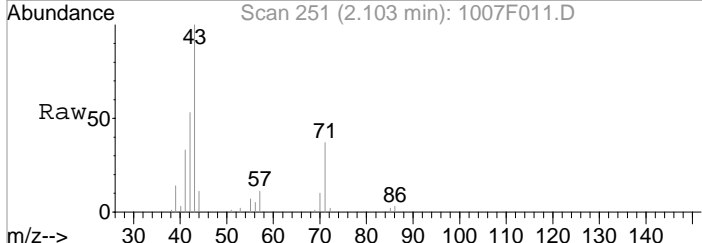
Tgt Ion	Resp	Lower	Upper
76	100		
78	8.3	0.0	39.1
77	2.5	0.0	32.8





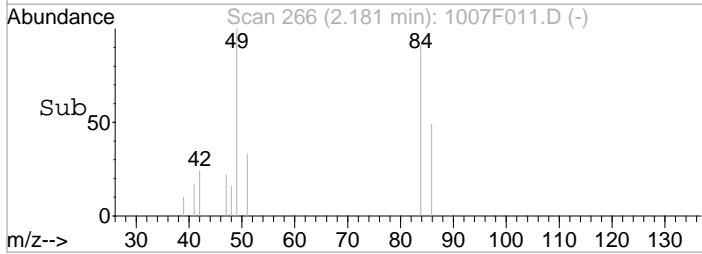
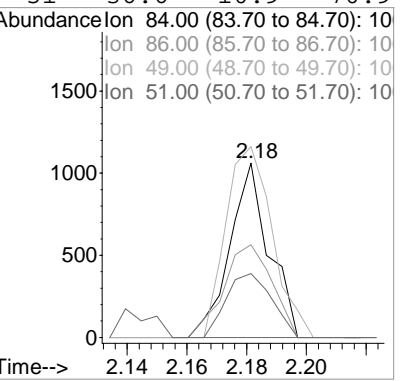
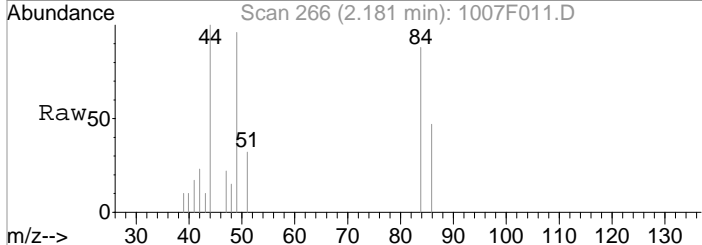
#15
 3-Chloro-1-Propane
 Concen: 19.70 PPB m
 RT: 2.10 min Scan# 251
 Delta R.T. 0.03 min
 Lab File: 1007F011.D
 Acq: 7 Oct 2019 1:23 pm

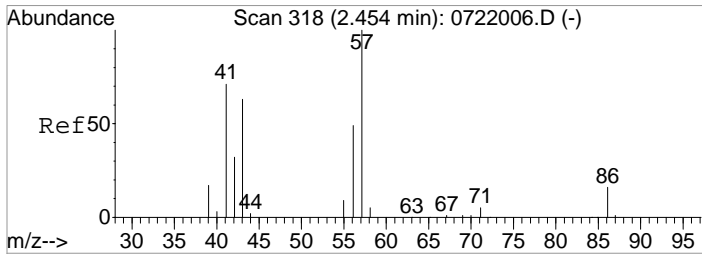
Tgt Ion	TIC Resp	Lower	Upper
76	0.0	0.0	33.0
41	11.3	7.4	67.4
78	0.0	0.0	40.5



#18
 Methylene Chloride
 Concen: 1.15 PPB
 RT: 2.18 min Scan# 266
 Delta R.T. 0.00 min
 Lab File: 1007F011.D
 Acq: 7 Oct 2019 1:23 pm

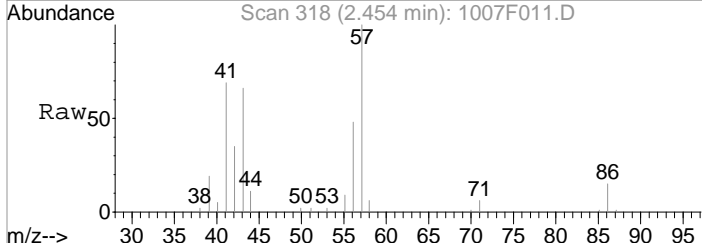
Tgt Ion	Resp	Lower	Upper
84	100		
86	53.3	33.0	93.0
49	109.5	100.8	160.8
51	36.6	10.9	70.9



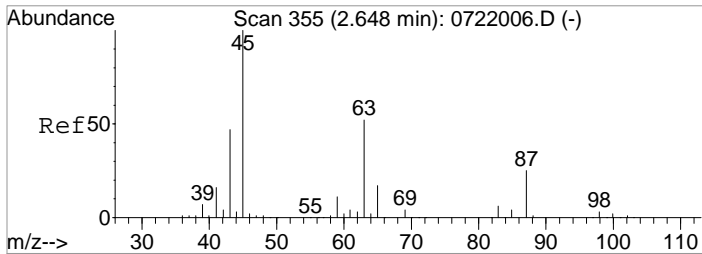
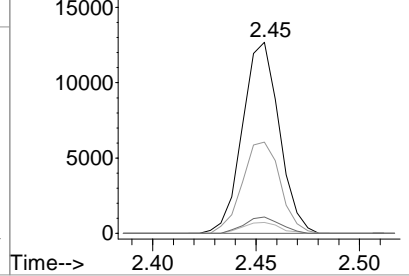
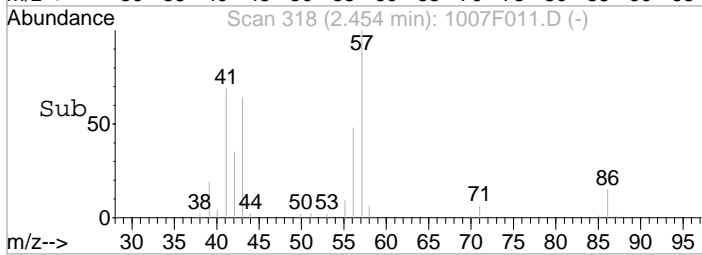


#23
 Hexane
 Concen: 16.07 PPB
 RT: 2.45 min Scan# 318
 Delta R.T. -0.00 min
 Lab File: 1007F011.D
 Acq: 7 Oct 2019 1:23 pm

Tgt Ion	Resp	Lower	Upper
57	100		
56	47.8	19.6	79.6
71	5.6	0.0	35.6
55	8.5	0.0	21.3

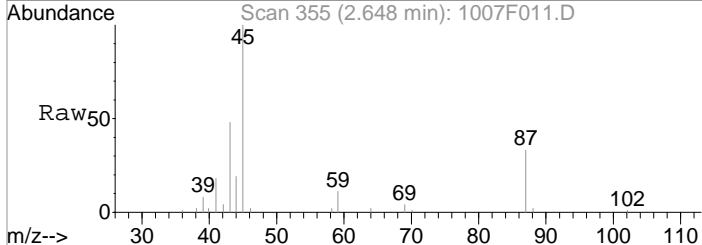


Abundance Ion 57.00 (56.70 to 57.70): 10
 Ion 56.00 (55.70 to 56.70): 10
 Ion 71.00 (70.70 to 71.70): 10
 Ion 55.00 (54.70 to 55.70): 10

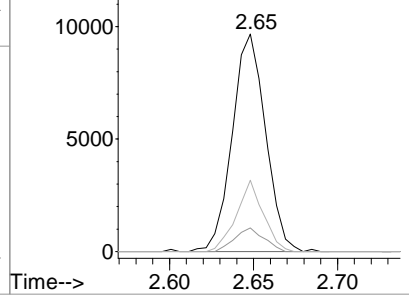
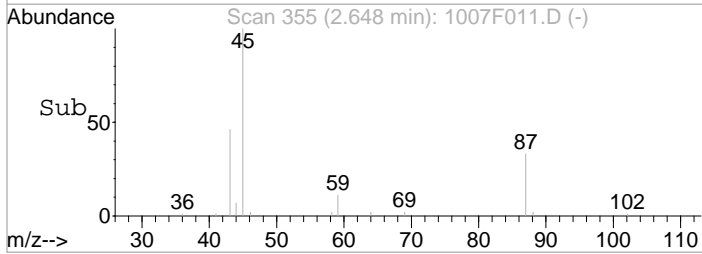


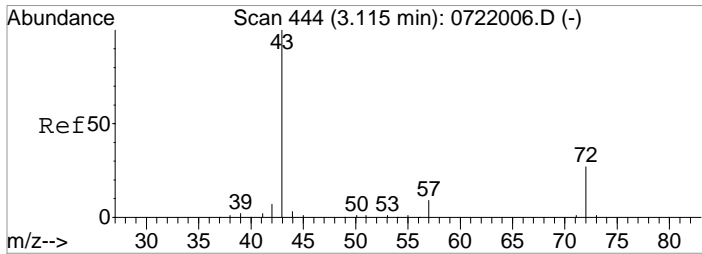
#24
 Diisopropyl Ether
 Concen: 4.90 PPB
 RT: 2.65 min Scan# 355
 Delta R.T. -0.00 min
 Lab File: 1007F011.D
 Acq: 7 Oct 2019 1:23 pm

Tgt Ion	Resp	Lower	Upper
45	100		
59	10.9	0.0	41.3
87	32.8	7.6	47.6



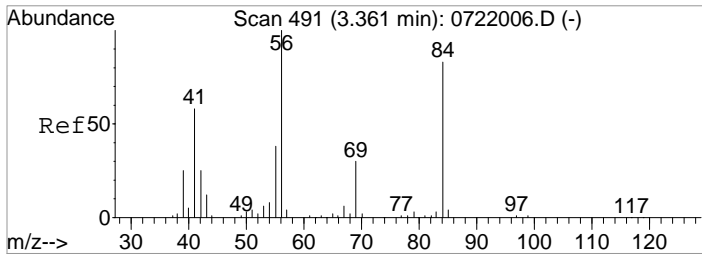
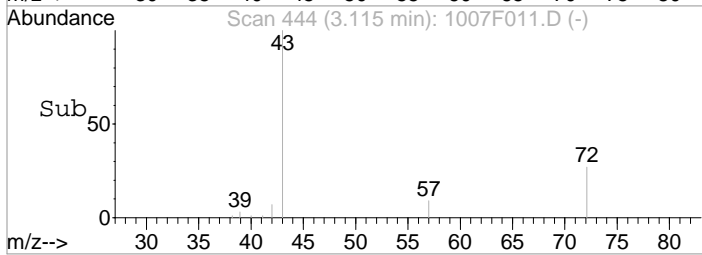
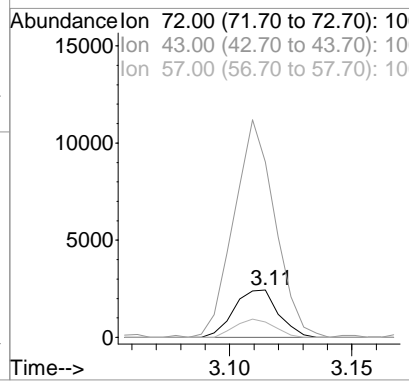
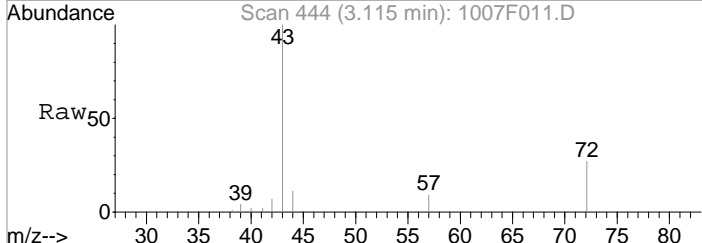
Abundance Ion 45.00 (44.70 to 45.70): 10
 Ion 59.00 (58.70 to 59.70): 10
 Ion 87.00 (86.70 to 87.70): 10





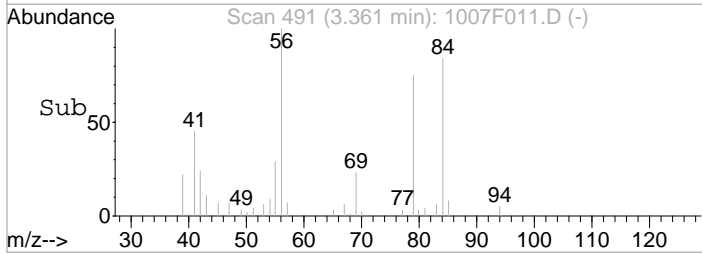
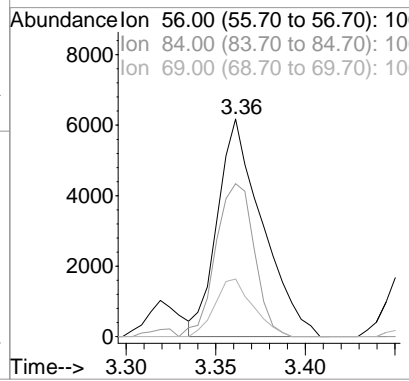
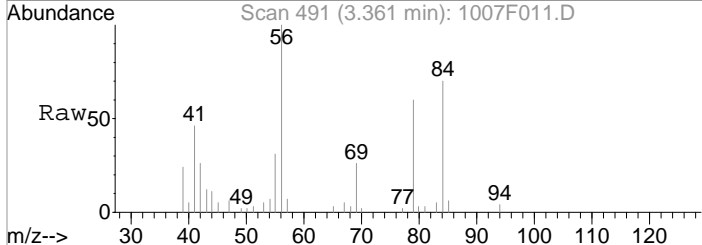
#31
 2-Butanone
 Concen: 29.50 PPB
 RT: 3.11 min Scan# 444
 Delta R.T. 0.01 min
 Lab File: 1007F011.D
 Acq: 7 Oct 2019 1:23 pm

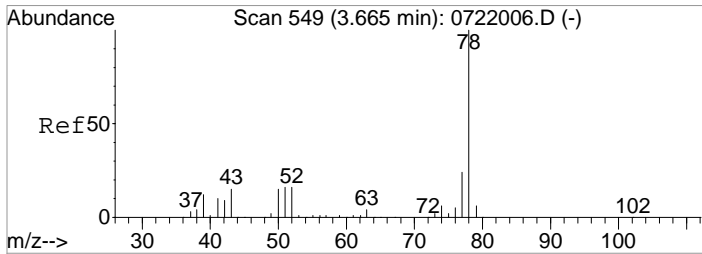
Tgt Ion	Resp	Lower	Upper
72	100		
43	370.6	401.3	461.3# X
57	32.7	4.4	64.4



#37
 Cyclohexane
 Concen: 9.83 PPB
 RT: 3.36 min Scan# 491
 Delta R.T. -0.00 min
 Lab File: 1007F011.D
 Acq: 7 Oct 2019 1:23 pm

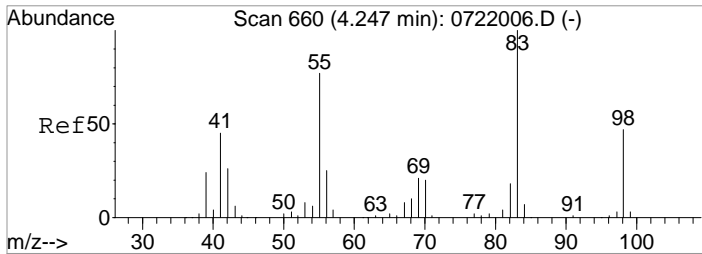
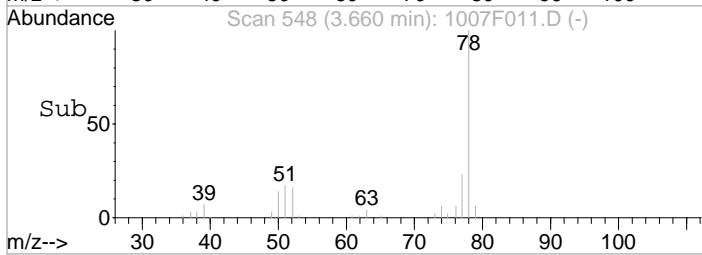
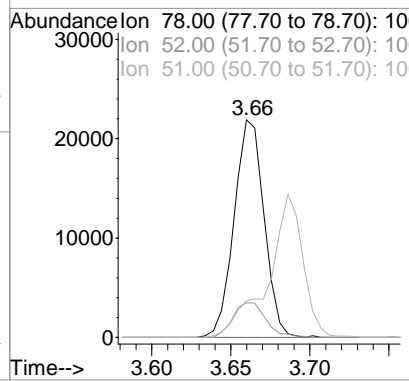
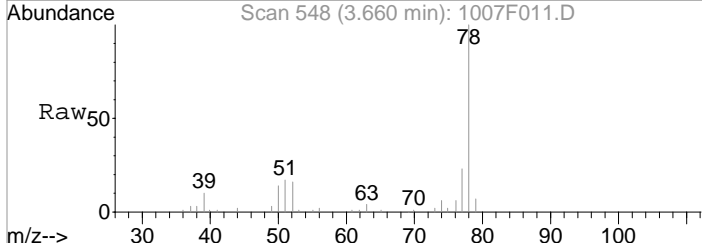
Tgt Ion	Resp	Lower	Upper
56	100		
84	60.5	58.2	108.0
69	22.6	20.6	38.4





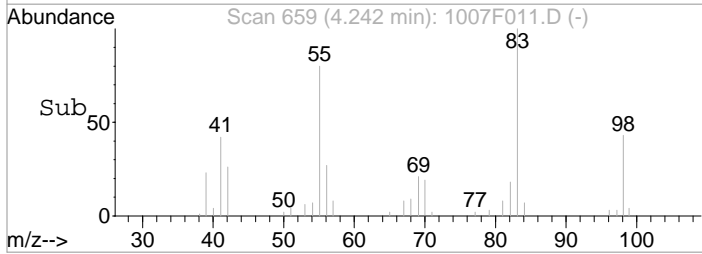
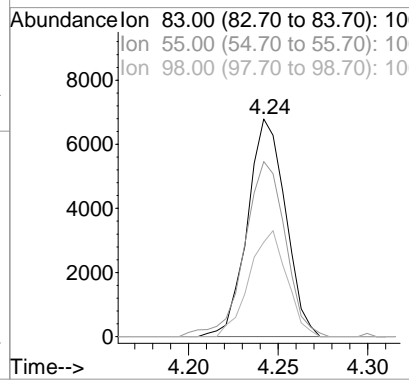
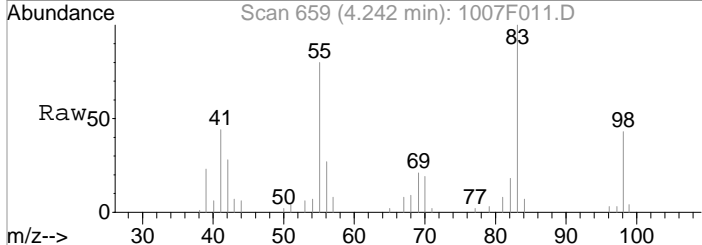
#44
 Benzene
 Concen: 8.71 PPB
 RT: 3.66 min Scan# 548
 Delta R.T. -0.01 min
 Lab File: 1007F011.D
 Acq: 7 Oct 2019 1:23 pm

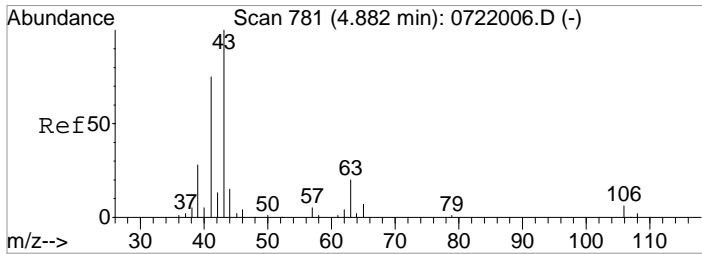
Tgt Ion	Resp	Lower	Upper
78	100		
52	16.0	0.0	46.1
51	16.7	0.0	46.4



#47
 Methylcyclohexane
 Concen: 9.32 PPB
 RT: 4.24 min Scan# 659
 Delta R.T. -0.01 min
 Lab File: 1007F011.D
 Acq: 7 Oct 2019 1:23 pm

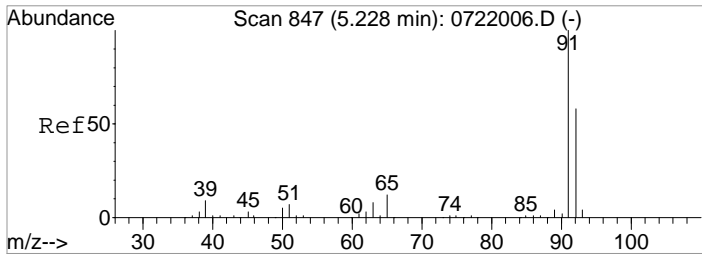
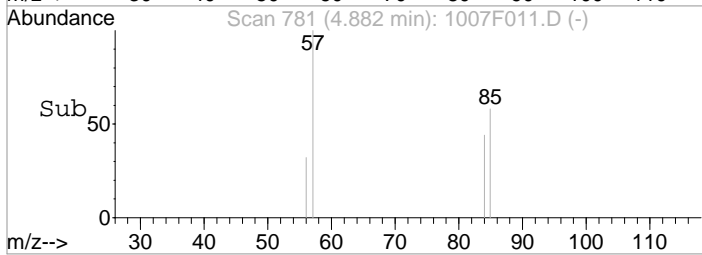
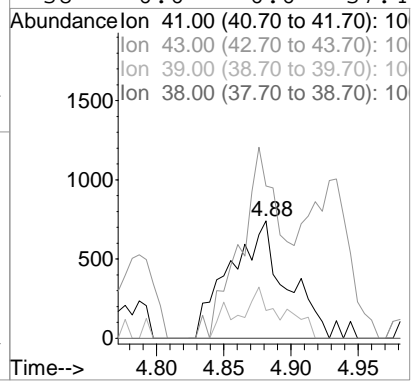
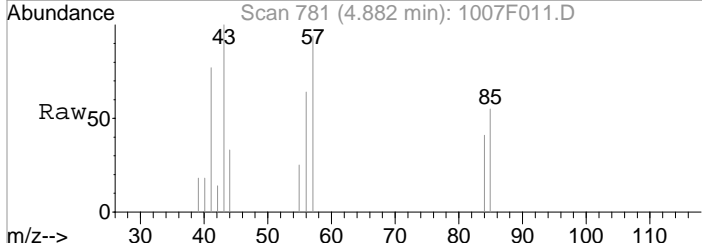
Tgt Ion	Resp	Lower	Upper
83	100		
55	85.8	56.4	104.7
98	48.1	31.8	59.0





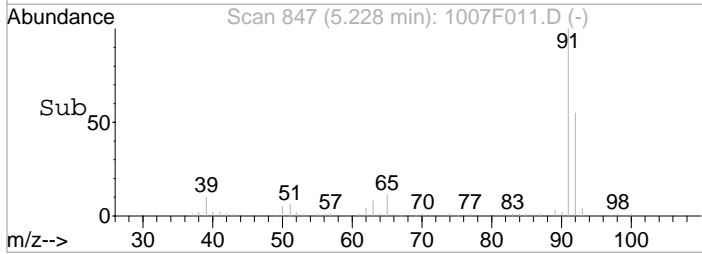
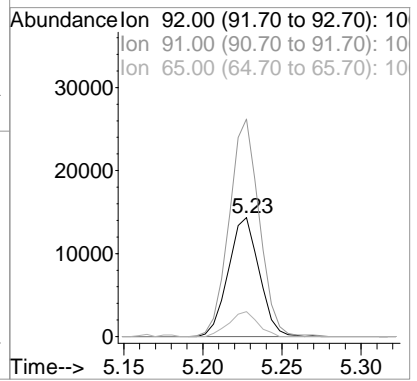
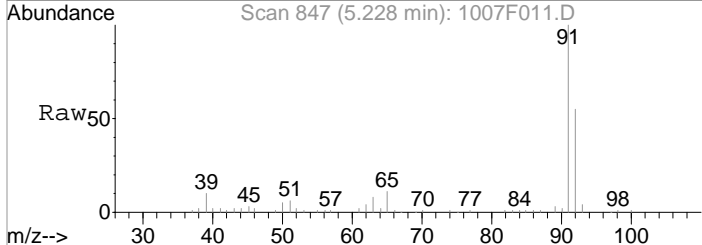
#52
 2-Nitropropane
 Concen: 3.39 PPB
 RT: 4.88 min Scan# 781
 Delta R.T. -0.00 min
 Lab File: 1007F011.D
 Acq: 7 Oct 2019 1:23 pm

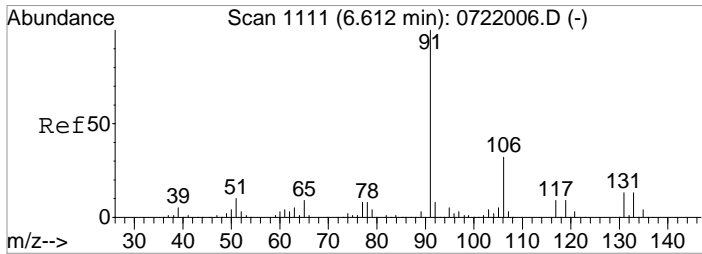
Tgt Ion	Resp	Lower	Upper
41	100		
43	129.8	106.0	166.0
39	23.6	5.5	65.5
38	0.0	0.0	37.4



#57
 Toluene
 Concen: 10.53 PPB
 RT: 5.23 min Scan# 847
 Delta R.T. -0.00 min
 Lab File: 1007F011.D
 Acq: 7 Oct 2019 1:23 pm

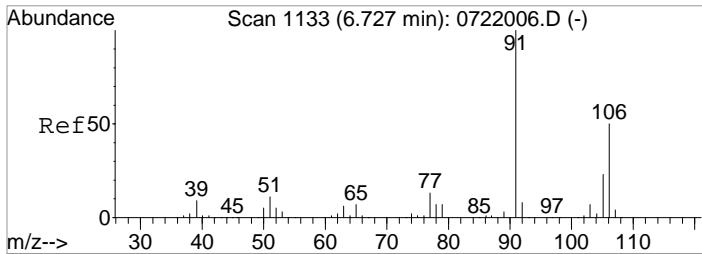
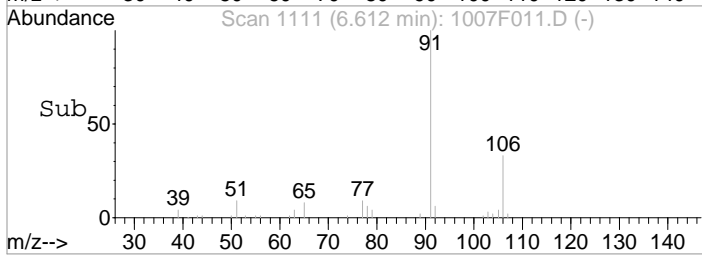
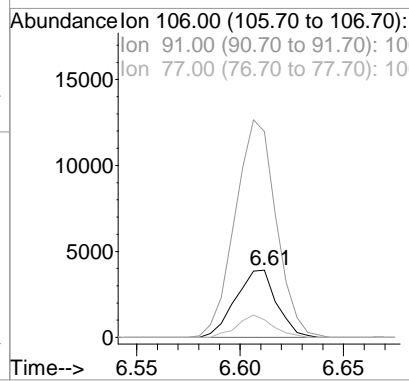
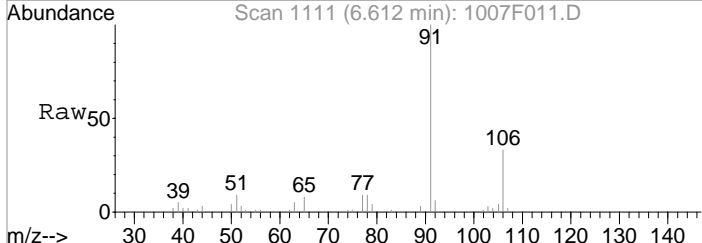
Tgt Ion	Resp	Lower	Upper
92	100		
91	182.5	135.2	195.2
65	21.0	0.0	48.7





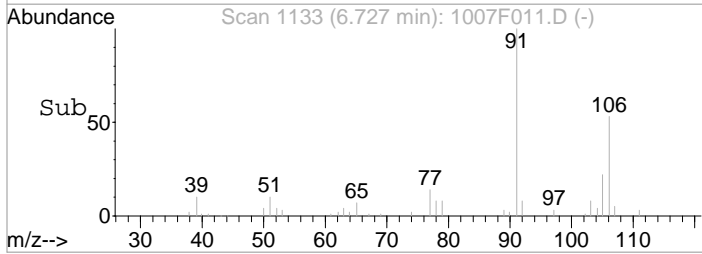
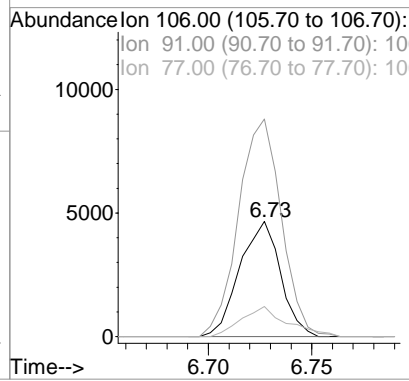
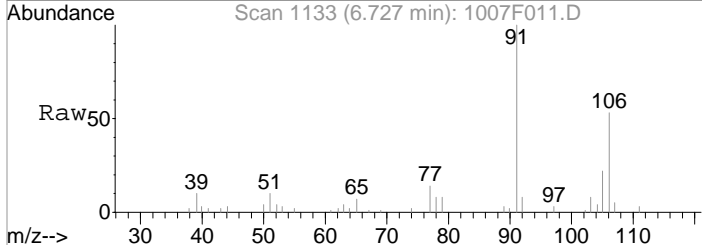
#68
 Ethylbenzene
 Concen: 5.05 PPB
 RT: 6.61 min Scan# 1111
 Delta R.T. -0.00 min
 Lab File: 1007F011.D
 Acq: 7 Oct 2019 1:23 pm

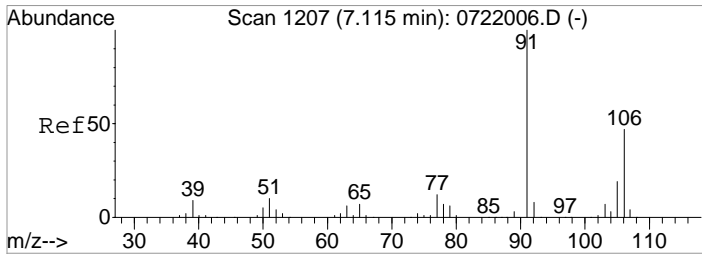
Tgt Ion	Resp	Lower	Upper
106	100		
91	306.2	273.2	333.2
77	26.2	0.0	56.4



#70
 m,p-Xylenes
 Concen: 5.04 PPB
 RT: 6.73 min Scan# 1133
 Delta R.T. -0.00 min
 Lab File: 1007F011.D
 Acq: 7 Oct 2019 1:23 pm

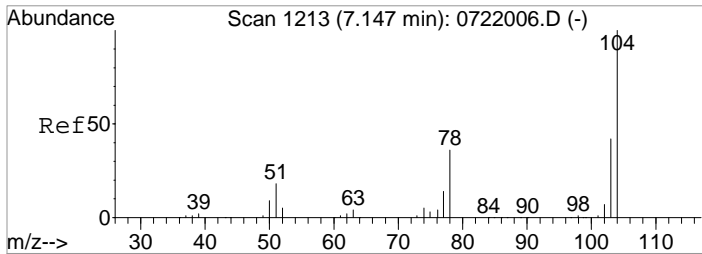
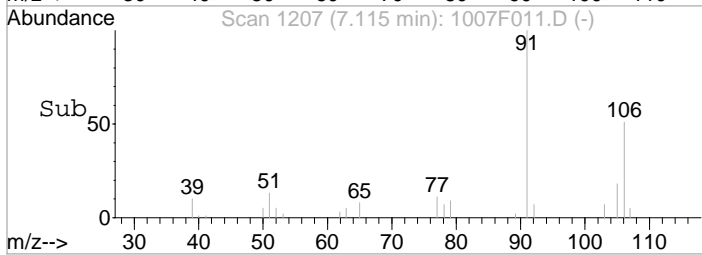
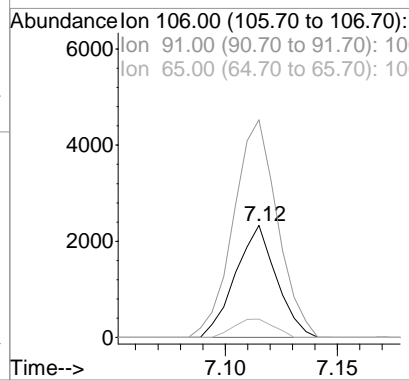
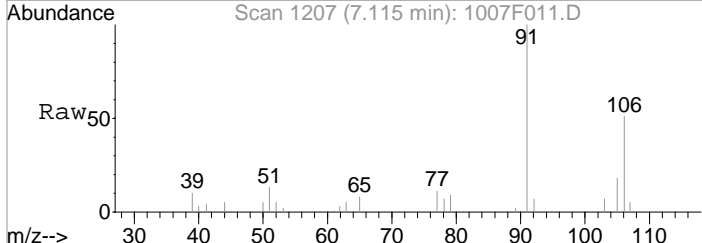
Tgt Ion	Resp	Lower	Upper
106	100		
91	188.6	160.5	220.5
77	26.2	0.0	54.8





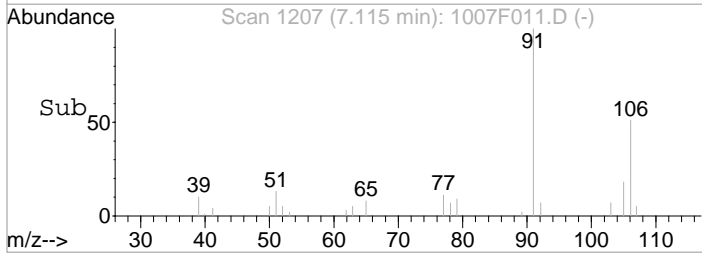
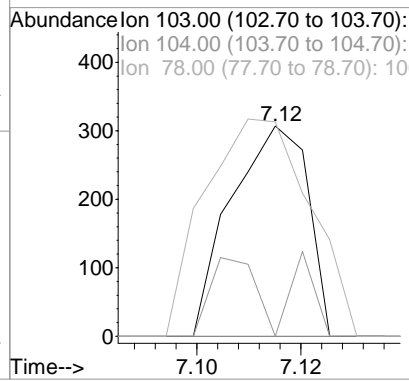
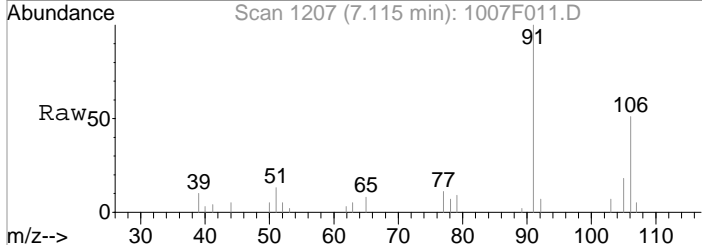
#71
 o-Xylene
 Concen: 2.36 PPB
 RT: 7.12 min Scan# 1207
 Delta R.T. -0.00 min
 Lab File: 1007F011.D
 Acq: 7 Oct 2019 1:23 pm

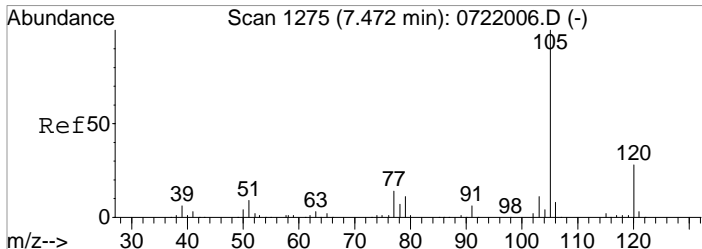
Tgt Ion	Resp	Lower	Upper
106	2967		
106	100		
91	194.3	182.6	242.6
65	16.2	0.0	44.2



#72
 Styrene
 Concen: 0.31 PPB m
 RT: 7.12 min Scan# 1207
 Delta R.T. -0.03 min
 Lab File: 1007F011.D
 Acq: 7 Oct 2019 1:23 pm

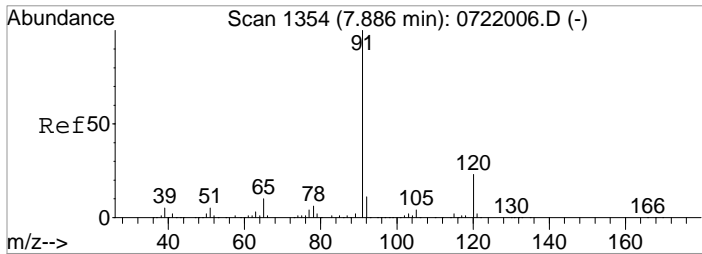
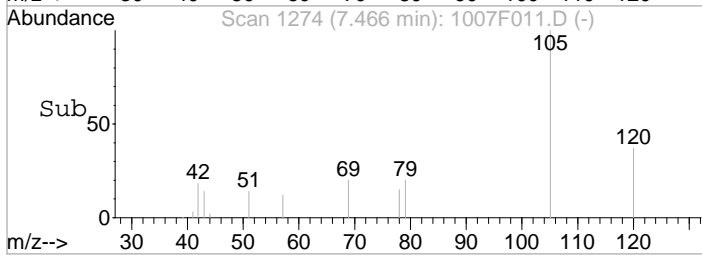
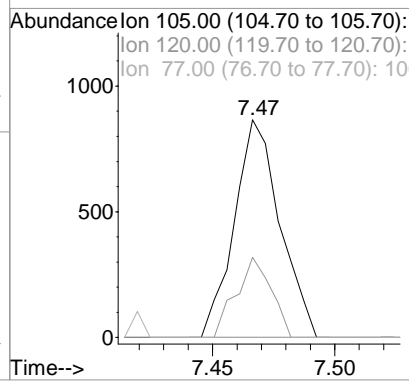
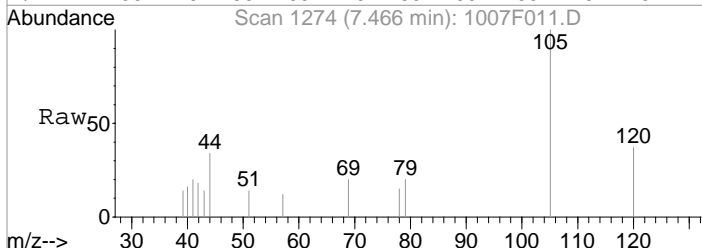
Tgt Ion	Resp	Lower	Upper
103	314		
103	100		
104	0.0	180.3	240.3#
78	102.0	59.9	119.9





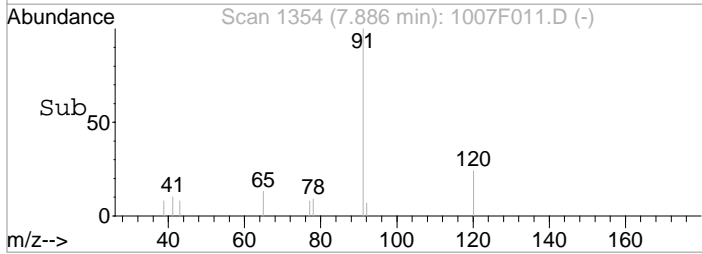
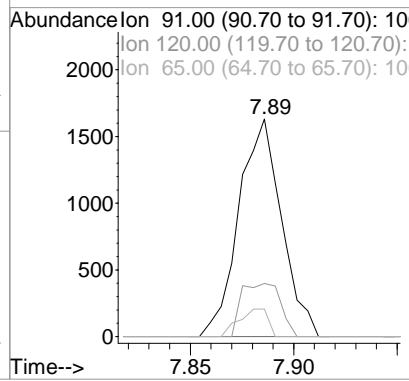
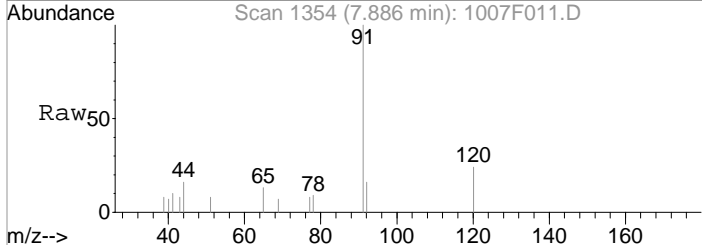
#74
 Isopropylbenzene
 Concen: 0.37 PPB
 RT: 7.47 min Scan# 1274
 Delta R.T. -0.01 min
 Lab File: 1007F011.D
 Acq: 7 Oct 2019 1:23 pm

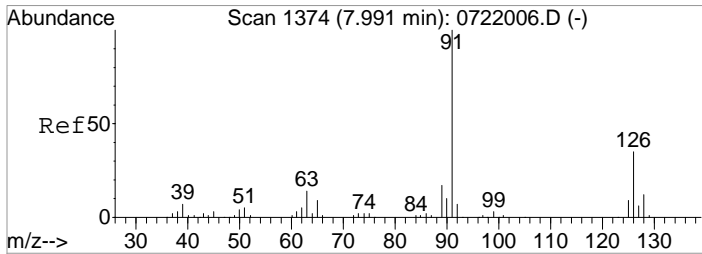
Tgt Ion	Resp	Lower	Upper
105	1123		
120	36.7	0.0	58.3
77	0.0	0.0	44.9



#81
 n-Propylbenzene
 Concen: 0.71 PPB
 RT: 7.89 min Scan# 1354
 Delta R.T. -0.00 min
 Lab File: 1007F011.D
 Acq: 7 Oct 2019 1:23 pm

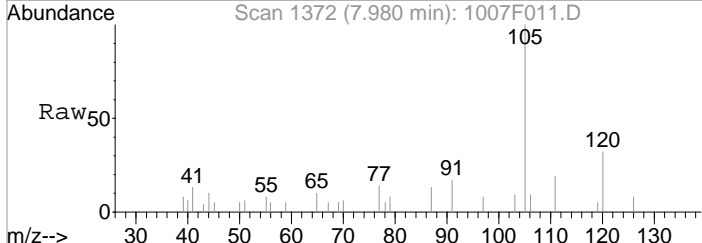
Tgt Ion	Resp	Lower	Upper
91	2340		
120	24.5	0.0	53.7
65	12.7	0.0	40.5



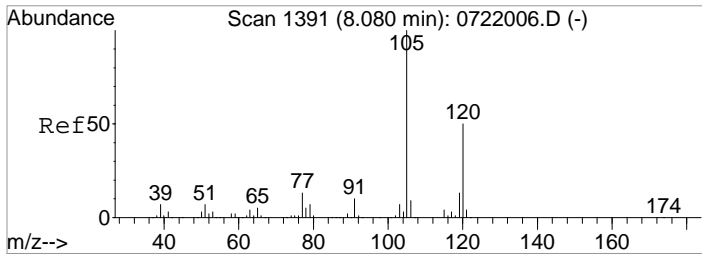
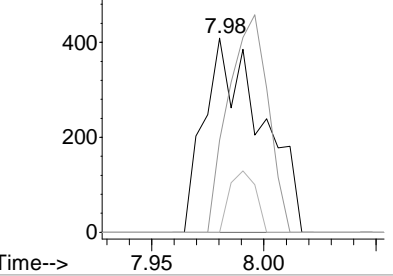
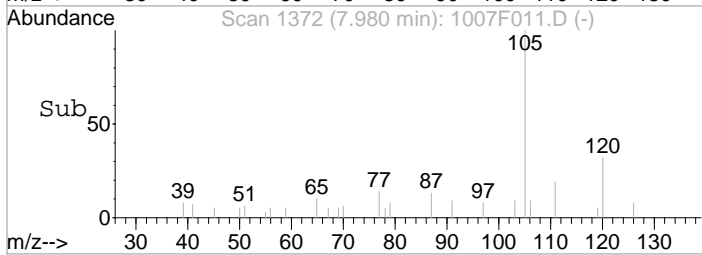


#83
 2-Chlorotoluene
 Concen: 0.34 PPB
 RT: 7.98 min Scan# 1372
 Delta R.T. -0.01 min
 Lab File: 1007F011.D
 Acq: 7 Oct 2019 1:23 pm

Tgt Ion	Resp	Lower	Upper
91	100		
126	47.4	5.1	65.1
63	0.0	0.0	45.9

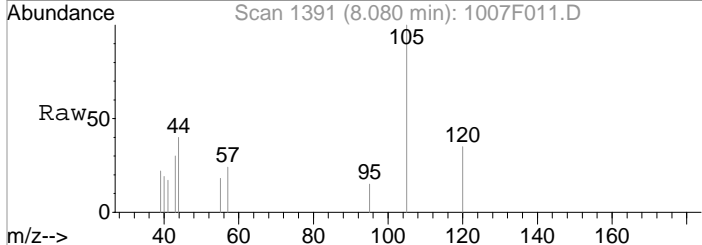


Abundance Ion 91.00 (90.70 to 91.70): 10
 Ion 126.00 (125.70 to 126.70): 10
 Ion 63.00 (62.70 to 63.70): 10

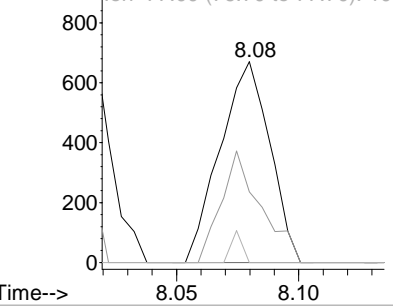
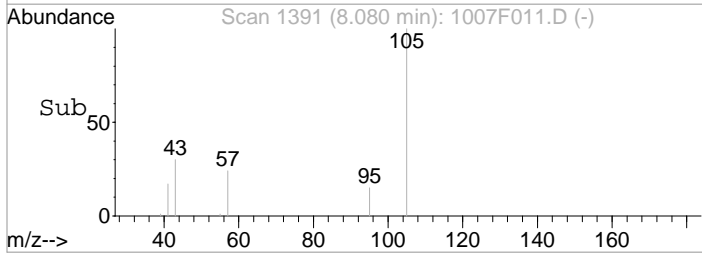


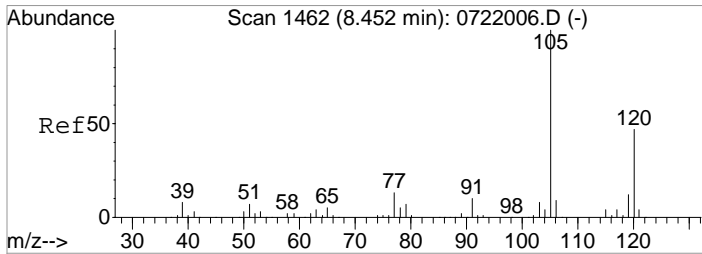
#84
 1,3,5-Trimethylbenzene
 Concen: 0.42 PPB
 RT: 8.08 min Scan# 1391
 Delta R.T. -0.00 min
 Lab File: 1007F011.D
 Acq: 7 Oct 2019 1:23 pm

Tgt Ion	Resp	Lower	Upper
105	100		
120	35.2	18.9	78.9
77	0.0	0.0	43.0



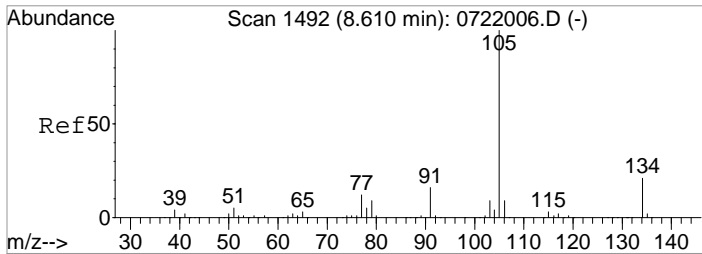
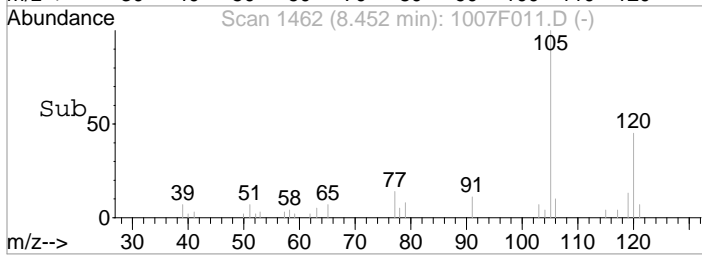
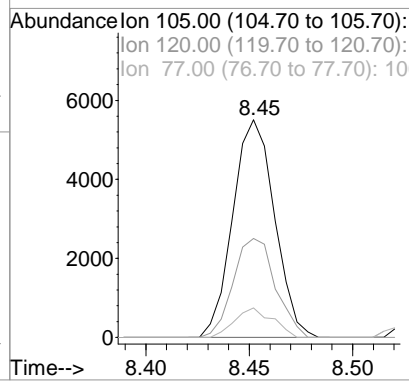
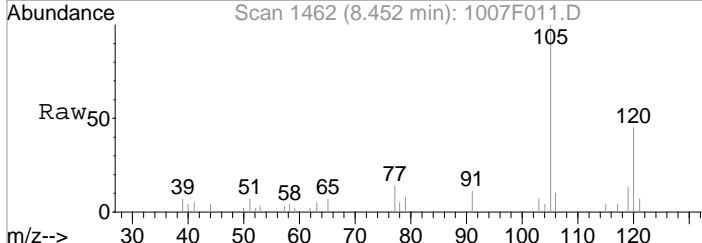
Abundance Ion 105.00 (104.70 to 105.70): 1000
 Ion 120.00 (119.70 to 120.70): 10
 Ion 77.00 (76.70 to 77.70): 10





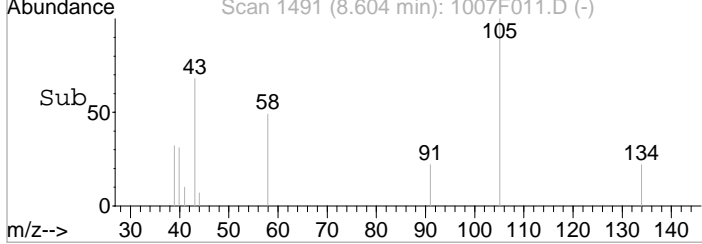
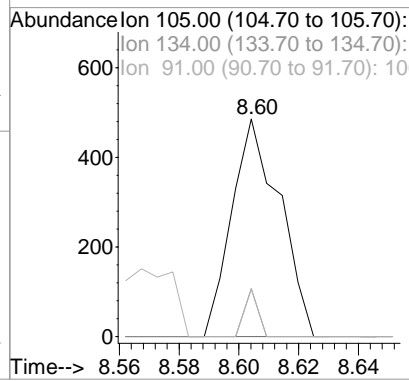
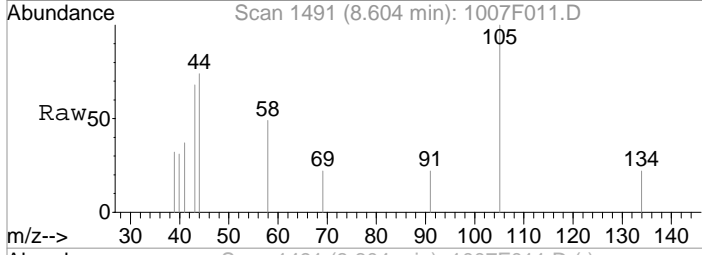
#87
 1,2,4-Trimethylbenzene
 Concen: 3.32 PPB
 RT: 8.45 min Scan# 1462
 Delta R.T. -0.00 min
 Lab File: 1007F011.D
 Acq: 7 Oct 2019 1:23 pm

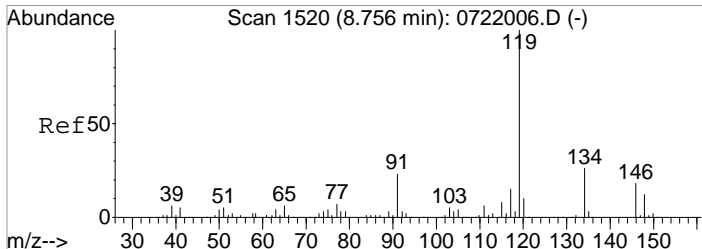
Tgt Ion	Resp	Lower	Upper
105	100		
120	45.4	15.5	75.5
77	13.6	0.0	41.8



#88
 sec-Butylbenzene
 Concen: 0.19 PPB
 RT: 8.60 min Scan# 1491
 Delta R.T. -0.01 min
 Lab File: 1007F011.D
 Acq: 7 Oct 2019 1:23 pm

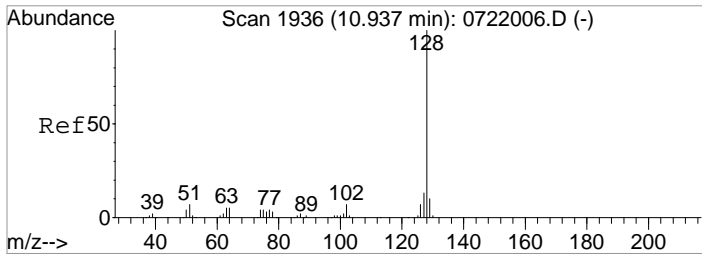
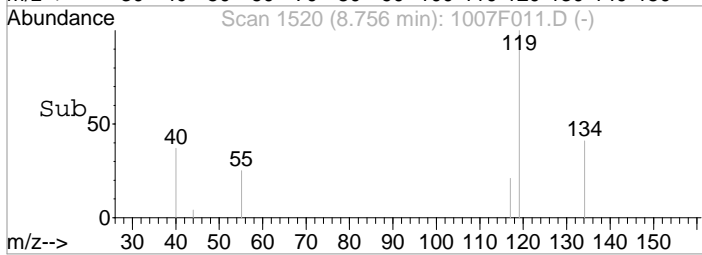
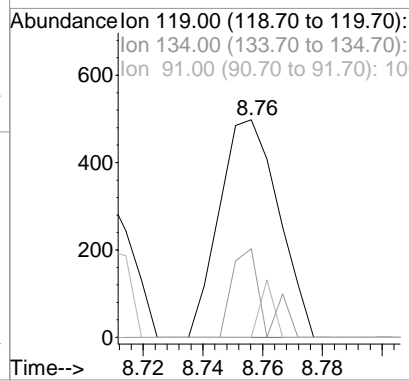
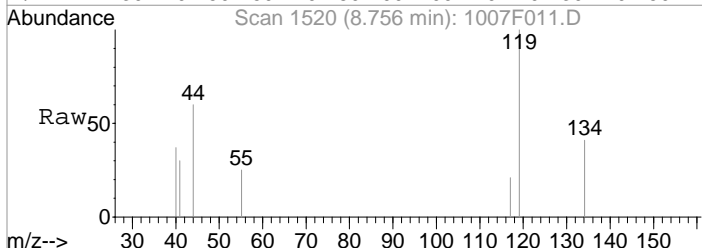
Tgt Ion	Resp	Lower	Upper
105	100		
134	21.8	0.0	50.8
91	22.0	0.0	45.1





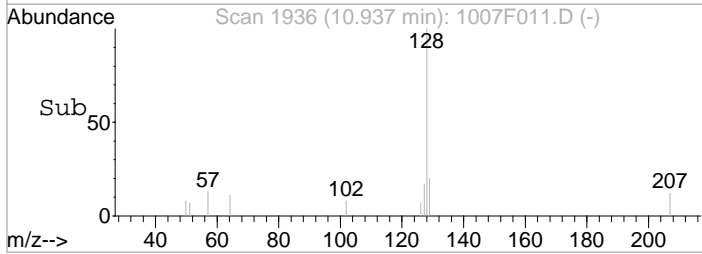
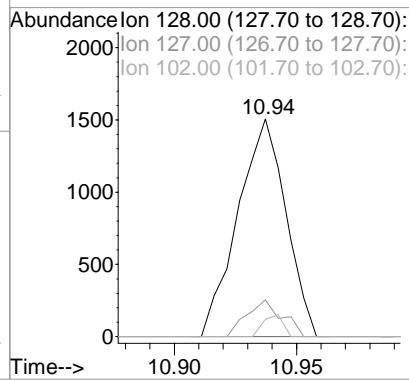
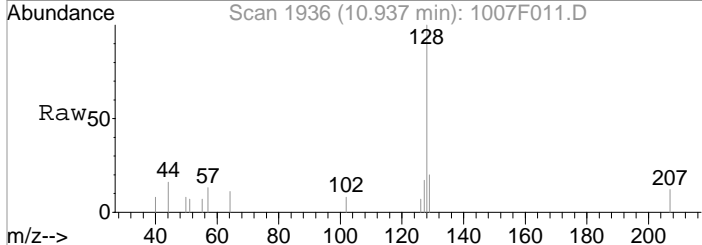
#89
p-Isopropyltoluene
Concen: 0.29 PPB
RT: 8.76 min Scan# 1520
Delta R.T. -0.01 min
Lab File: 1007F011.D
Acq: 7 Oct 2019 1:23 pm

Tgt Ion	Resp	Lower	Upper
119	100		
134	40.8	0.0	58.0
91	0.0	0.0	51.7



#98
Naphthalene
Concen: 0.94 PPB
RT: 10.94 min Scan# 1936
Delta R.T. -0.00 min
Lab File: 1007F011.D
Acq: 7 Oct 2019 1:23 pm

Tgt Ion	Resp	Lower	Upper
128	100		
127	17.0	0.0	43.8
102	8.0	0.0	37.9



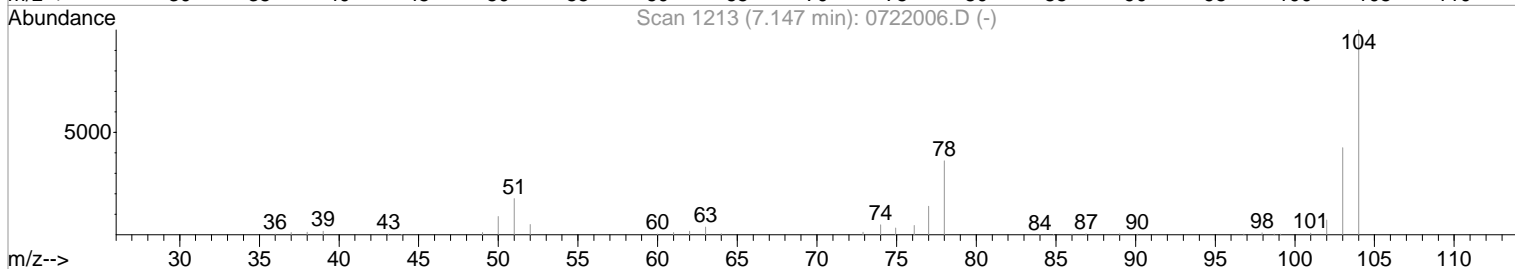
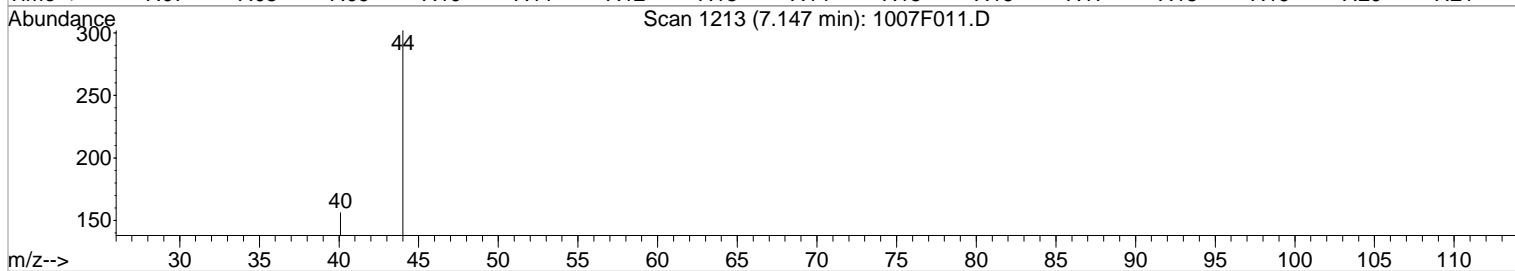
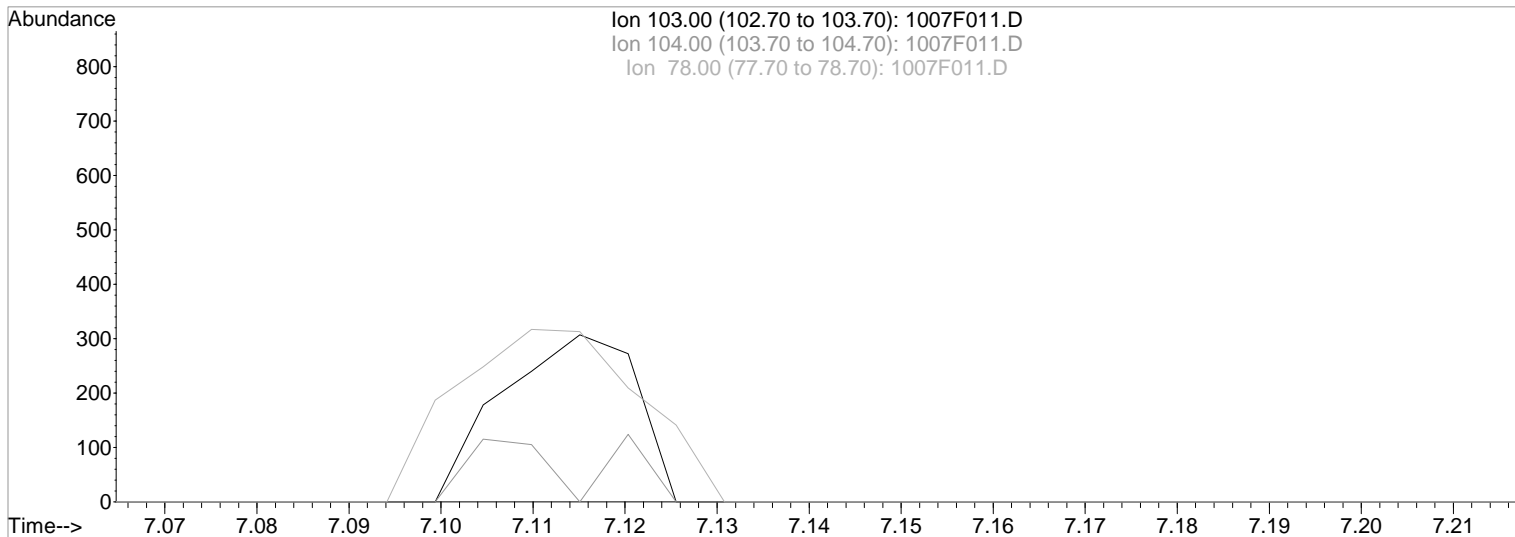
Data File : J:\MS24\DATA\100719\1007F011.D
 Acq On : 7 Oct 2019 1:23 pm
 Sample : K1909014-001
 Misc :

Vial: 11
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 7 14:02 2019

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 14:57:11 2019
 Response via : Multiple Level Calibration



TIC: 1007F011.D

(72) Styrene (T)
 7.15min 0.00PPB
 response 0

Manual Integration:
 Before

Ion	Exp%	Act%
103.00	100	0.00
104.00	210.30	0.00#
78.00	89.90	0.00#
0.00	0.00	0.00

10/07/19

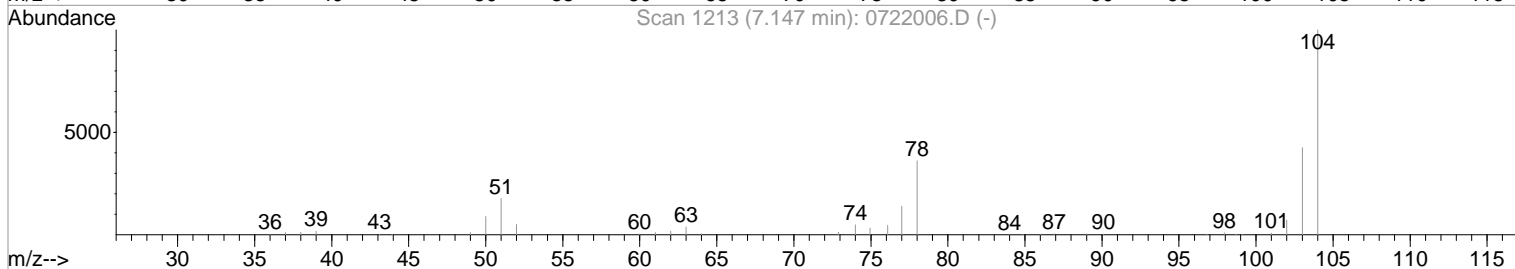
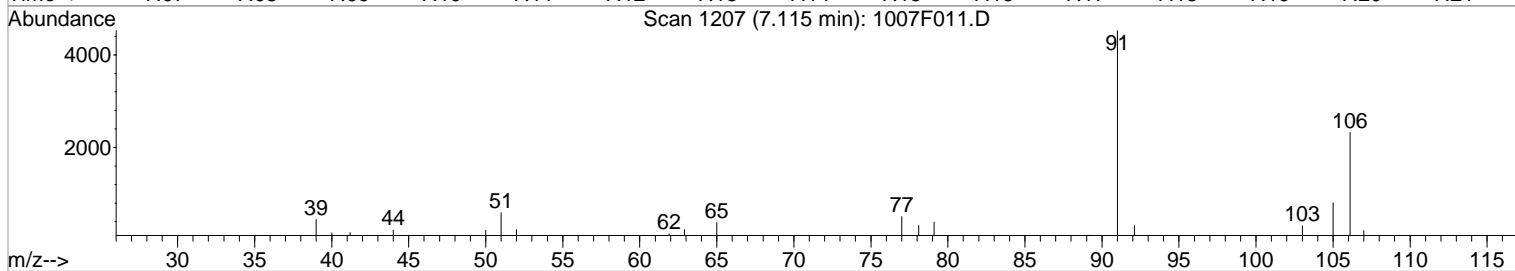
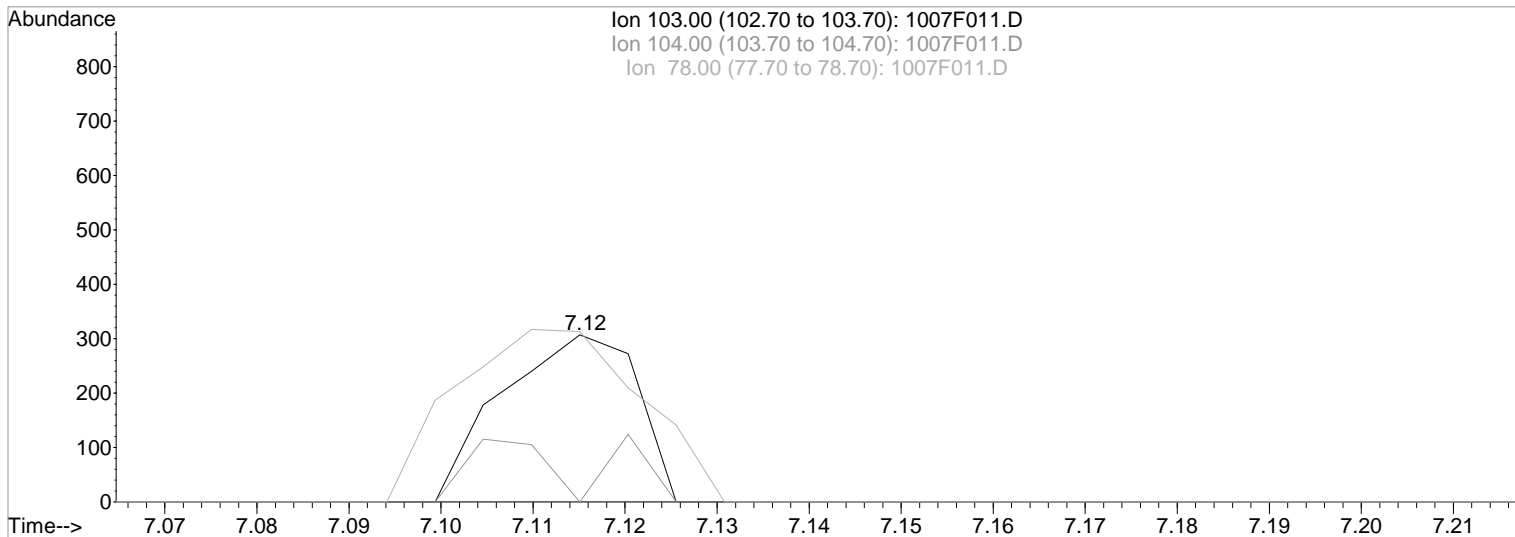
Data File : J:\MS24\DATA\100719\1007F011.D
 Acq On : 7 Oct 2019 1:23 pm
 Sample : K1909014-001
 Misc :

Vial: 11
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 7 14:03 2019

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 14:57:11 2019
 Response via : Multiple Level Calibration



TIC: 1007F011.D

(72) Styrene (T)

Manual Integration:

7.12min 0.31PPB m

After

response 314

Missed peak

10/07/19

Ion	Exp%	Act%
103.00	100	100
104.00	210.30	0.00#
78.00	89.90	101.95
0.00	0.00	0.00

Validation Report

1st **KW** 10/08/19
2nd **SK** 10/08/19

Data File: J:\MS24\DATA\100719\1007F012.D\
Lab ID: K1909014-002
RunType: N/A
Matrix: Soil

Date Acquired: 10/7/19 13:44:00
Batch ID: 654417
Analysis Method: 8260C/VOC FP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification		X
Continuing Calibration Recovery		X
Lab Control Sample Recovery	X	
Duplicate Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards		X
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	Dichlorodifluoromethane	47		30	High bias, narrate
Continuing Calibration Recovery	n-Butylbenzene	23		20	CCVOK
	sec-Butylbenzene	21		20	
	Chloromethane	-24		20	
	Dichlorodifluoromethane	-30		20	
	Hexachlorobutadiene	24		20	
	Isopropylbenzene	21		20	
	4-Isopropyltoluene	23		20	
Internal Standards	1,4-Dichlorobenzene-d4	24458	33672	134688	matrix NR NR

Use Mid Level Result

Primary Review: _____

Secondary Review: _____

Quantitation Report

Data File:	J:\MS24\DATA\100719\1007F012.D\	Instrument:	K-MS-24
Acqu Date:	10/7/19 13:44:00	Vial:	7
Run Type:	N/A	Dilution:	1
Lab ID:	K1909014-002	Raw Units:	ppb

Bottle ID:	K1909014-002.05	Tier:	IV	Matrix:	Soil
Prod Code:	VOC FP	Collect Date:	9/25/19	Receive Date:	9/27/19

Analysis Lot:	654417	Prep Lot:		Report Group:	K1909014
Analysis	8260C	Prep Method:			
		Prep Date:			

Title:	Volatile Organic Compounds by GC/MS	Calibration ID:	KC1900275
		Report List ID:	21320

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Chlorobenzene-d5	6.50		35231	50.00	OK
1,4-Dichlorobenzene-d4	8.82		24458	50.00	* LOW
Fluorobenzene	3.90		121763	50.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
4-Bromofluorobenzene	7.67		27214	46.26	93	88 - 127	Y
Dibromofluoromethane	3.42		32458	54.56	109	82 - 146	Y
Toluene-d8	5.17		100442	47.39	95	90 - 142	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Benzene	3.67		2280	0.83	2.1	J	Y
Bromobenzene	0.00		0	0.00	0	U	Y
Bromochloromethane	0.00		0	0.00	0	U	Y
Bromodichloromethane	0.00		0	0.00	0	U	Y
Bromoform	0.00		0	0.00	0	U	Y
Bromomethane	0.00		0	0.00	0	U	Y
n-Butylbenzene	0.00		0	0.00	0	U	Y
sec-Butylbenzene	0.00		0	0.00	0	U	Y
tert-Butylbenzene	0.00		0	0.00	0	U	Y
Carbon Disulfide	1.95	+0.01	66127	40.74	100		Y
Carbon Tetrachloride	0.00		0	0.00	0	U	Y
Chlorobenzene	0.00		0	0.00	0	U	Y
Chloroethane	0.00		0	0.00	0	U	Y
Chloroform	0.00		0	0.00	0	U	Y
Chloromethane	0.98		891	1.16	2.9	J	Y

U: Undetected at or above MDL

J: Analyte detected above MDL, but below MRL

B: Hit above MRL also found in Method Blank

E: Analyte concentration above high point of ICAL

N: Presumptive evidence of compound

D: Result from dilution

m: Manual integration performed

d: Compound manually deleted

NR: Analyte not reported from this analysis

*: Result fails acceptance criteria

#: Acceptance criteria not applicable

?: Insufficient information to determine acceptance

e: Result >= MRL, but MRL less than low point of ICAL

c: check for co-elution

Printed: 10/11/19 8:00

\\alprews001\starlims\LIMSReps\QuantValidation.rpt

Data File: J:\MS24\DATA\100719\1007F012.D\
 Acqu Date: 10/7/19 13:44:00
 Run Type: N/A
 Lab ID: K1909014-002

Instrument: K-MS-24
 Vial: 7
 Dilution: 1
 Raw Units: ppb

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Chlorotoluene	0.00		0	0.00	0	U	Y
4-Chlorotoluene	0.00		0	0.00	0	U	Y
1,2-Dibromo-3-chloropropane	0.00		0	0.00	0	U	Y
Dibromochloromethane	0.00		0	0.00	0	U	Y
1,2-Dibromoethane (EDB)	0.00		0	0.00	0	U	Y
Dibromomethane	0.00		0	0.00	0	U	Y
1,2-Dichlorobenzene	0.00		0	0.00	0	U	Y
1,3-Dichlorobenzene	0.00		0	0.00	0	U	Y
1,4-Dichlorobenzene	8.85	+0.01	912	1.10	2.8	J	Y
Dichlorodifluoromethane	0.00		0	0.00	0	U	Y
1,1-Dichloroethane	0.00		0	0.00	0	U	Y
1,2-Dichloroethane (EDC)	0.00		0	0.00	0	U	Y
1,1-Dichloroethene	0.00		0	0.00	0	U	Y
cis-1,2-Dichloroethene	0.00		0	0.00	0	U	Y
trans-1,2-Dichloroethene	0.00		0	0.00	0	U	Y
1,2-Dichloropropane	0.00		0	0.00	0	U	Y
1,3-Dichloropropane	0.00		0	0.00	0	U	Y
2,2-Dichloropropane	0.00		0	0.00	0	U	Y
1,1-Dichloropropene	0.00		0	0.00	0	U	Y
cis-1,3-Dichloropropene	0.00		0	0.00	0	U	Y
trans-1,3-Dichloropropene	0.00		0	0.00	0	U	Y
Ethylbenzene	0.00		0	0.00	0	U	Y
Hexachlorobutadiene	0.00		0	0.00	0	U	Y
2-Hexanone	5.88		2356	38.51	98		Y
Isopropylbenzene	0.00		0	0.00	0	U	Y
4-Isopropyltoluene	8.76		23835	19.01	48	J	Y
4-Methyl-2-pentanone (MIBK)	5.14	+0.01	4037	15.56	40	J	Y
Methylene Chloride	2.19	+0.01	935	1.35	3.4	J	Y
Naphthalene	10.93	-0.01	991	0.85	2.2	J	Y
n-Propylbenzene	0.00		0	0.00	0	U	Y
Styrene	7.15		91	0.14	0.36	U	Y
1,1,1,2-Tetrachloroethane	0.00		0	0.00	0	U	Y
1,1,2,2-Tetrachloroethane	0.00		0	0.00	0	U	Y
Tetrachloroethene (PCE)	0.00		0	0.00	0	U	Y
Toluene	5.23		2340	1.52	3.9	J	Y
1,2,3-Trichlorobenzene	0.00		0	0.00	0	U	Y
1,2,4-Trichlorobenzene	0.00		0	0.00	0	U	Y
1,1,2-Trichloroethane	0.00		0	0.00	0	U	Y
1,1,1-Trichloroethane (TCA)	0.00		0	0.00	0	U	Y
Trichloroethene (TCE)	0.00		0	0.00	0	U	Y
Trichlorofluoromethane (CFC 11)	0.00		0	0.00	0	U	Y

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Printed: 10/11/19 8:00

\alprews001\starlims\LIMSRpts\QuantValidation.rpt

Data File: J:\MS24\DATA\100719\1007F012.D\
Acqu Date: 10/7/19 13:44:00
Run Type: N/A
Lab ID: K1909014-002

Instrument: K-MS-24
Vial: 7
Dilution: 1
Raw Units: ppb

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
1,2,3-Trichloropropane	0.00		0	0.00	0	U	Y
1,2,4-Trimethylbenzene	0.00		0	0.00	0	U	Y
1,3,5-Trimethylbenzene	0.00		0	0.00	0	U	Y
Vinyl Chloride	0.00		0	0.00	0	U	Y
o-Xylene	0.00		0	0.00	0	U	Y
m,p-Xylenes	6.72	-0.01	934	1.16	2.9	J	Y
Xylenes, Total				0	0	U	Y

Prep Amount: 2.07 g
Prep Final Amount: 5.00 mL

Dilution: 1
Basis Factor: 95.10

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 10/11/19 8:00

\alprews001\starlims\LIMSReps\QuantValidation.rpt

Data File : J:\MS24\DATA\100719\1007F012.D

Vial: 12

Acq On : 7 Oct 2019 1:44 pm

Operator: KW

2nd **KW** 10/08/19

Sample : K1909014-002

Inst : MS24

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Oct 07 14:17:04 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

Quant Method : J:\MS24\M...\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)

Title : VOA MS24 EPA Method 8260B

Last Update : Mon Jul 15 14:57:11 2019

Response via : Initial Calibration

DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	3.90	96	121763	50.00	PPB	0.00
58) Chlorobenzene-d5	6.50	82	35231	50.00	PPB	0.00
77) 1,4-Dichlorobenzene-d4	8.82	152	24458	50.00	PPB	0.00

System Monitoring Compounds

39) Dibromofluoromethane	3.42	113	32458	54.56	PPB	0.00
Spiked Amount	50.000		Recovery	=	109.12%	
43) 1,2-Dichloroethane-d4	3.69	65	37082	48.41	PPB	0.00
Spiked Amount	50.000		Recovery	=	96.82%	
56) Toluene-d8	5.17	98	100442	47.39	PPB	0.00
Spiked Amount	50.000		Recovery	=	94.78%	
76) 4-Bromofluorobenzene	7.67	95	27214	46.26	PPB	0.00
Spiked Amount	50.000		Recovery	=	92.52%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Chloromethane	0.98	50	891	1.16	PPB	88
9) Acrolein	1.81	56	741	5.79	PPB	89
12) Acetone	1.91	43	985959	5209.81	PPB	98
14) Carbon Disulfide	1.95	76	66127	40.74	PPB	99
15) 3-Chloro-1-Propane	2.16	TIC	52812m	20.33	PPB	
17) Acetonitrile	2.16	40	14832	303.87	PPB	99
18) Methylene Chloride	2.19	84	935	1.35	PPB	93
19) tert-Butyl Alcohol	2.29	59	4728	54.25	PPB	96
31) 2-Butanone	3.11	72	137620	1598.07	PPB	# 88
32) Propionitrile	3.21	54	1520	13.91	PPB	87
42) Isobutyl Alcohol	3.68	43	6734	156.00	PPB	98
44) Benzene	3.67	78	2280	0.83	PPB	87
55) 4-Methyl-2-pentanone (MIBK)	5.14	58	4037	15.56	PPB	89
57) Toluene	5.23	92	2340	1.52	PPB	95
62) 2-Hexanone	5.88	57	2356	38.51	PPB	# 86
70) m,p-Xylenes	6.72	106	934	1.16	PPB	81
72) Styrene	7.15	103	91m	0.14	PPB	
89) p-Isopropyltoluene	8.76	119	23835	19.01	PPB	98
91) 1,4-Dichlorobenzene	8.85	146	912	1.10	PPB	# 60
98) Naphthalene	10.93	128	991	0.85	PPB	89

(#) = qualifier out of range (m) = manual integration

1007F012.D 0715DOD19_MS24_FULL_SOIL.M

Mon Oct 07 14:22:38 2019

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Page 1

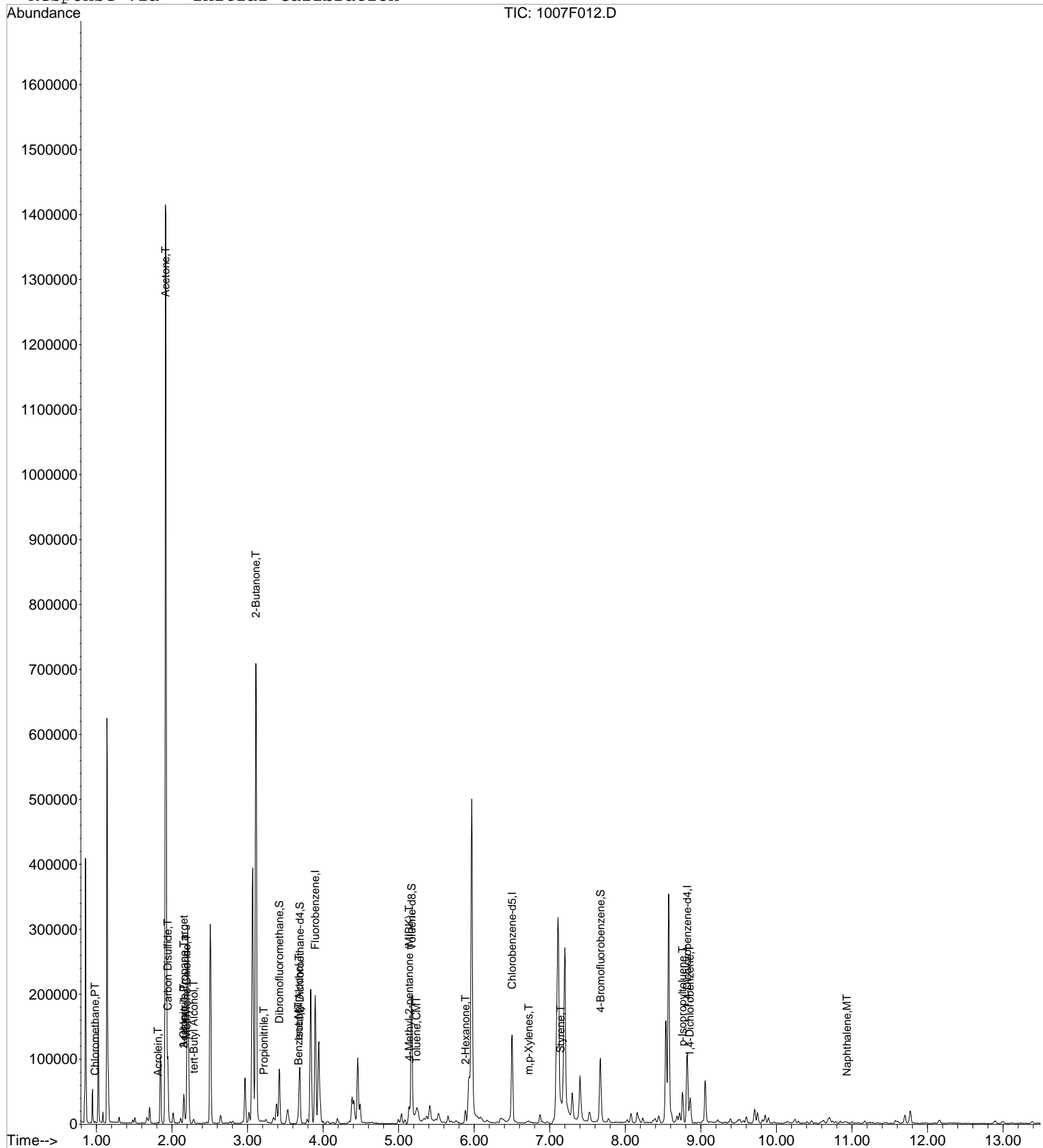
Data File : J:\MS24\DATA\100719\1007F012.D
Acq On : 7 Oct 2019 1:44 pm
Sample : K1909014-002
Misc :

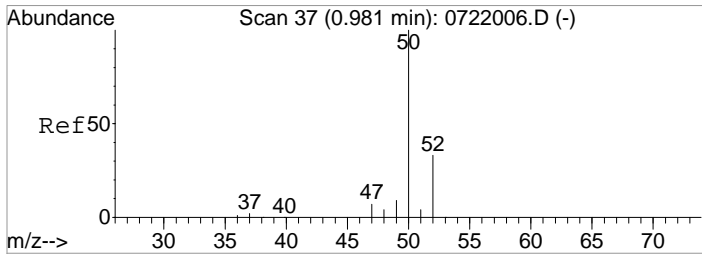
Vial: 12
Operator: KW
Inst : MS24
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Oct 7 14:22 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

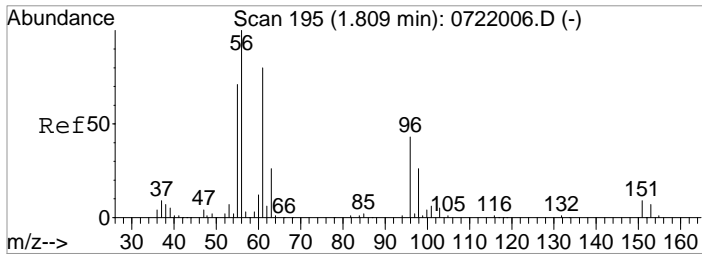
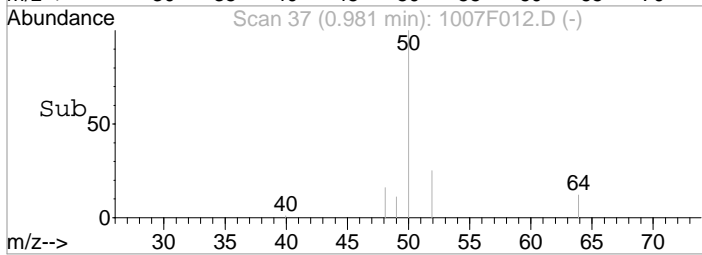
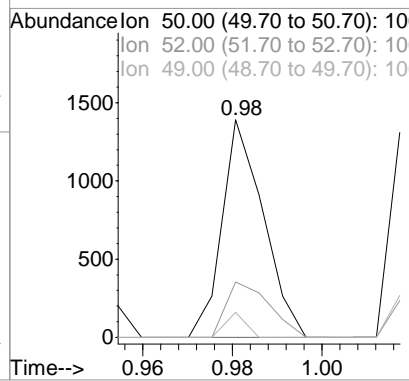
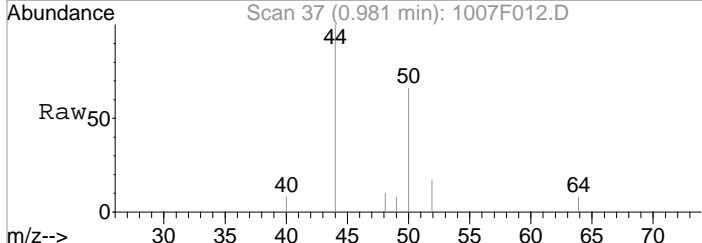
Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
Title : VOA MS24 EPA Method 8260B
Last Update : Mon Jul 15 14:57:11 2019
Response via : Initial Calibration





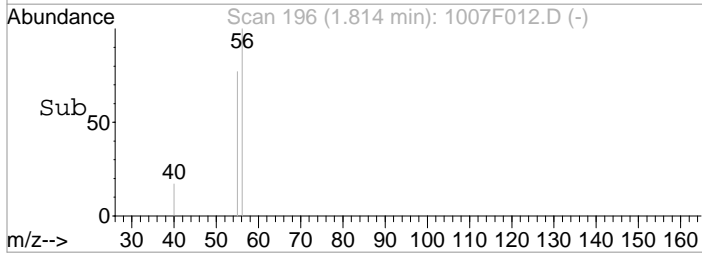
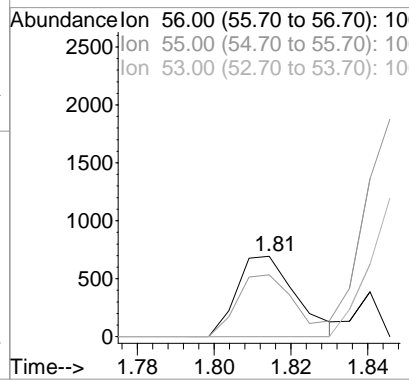
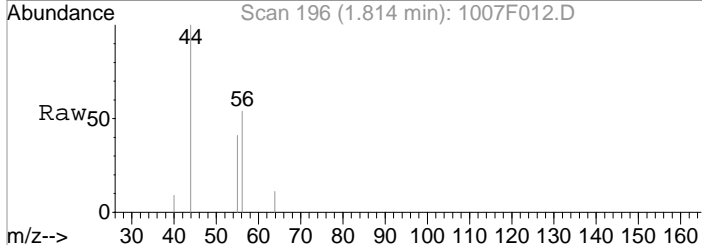
#3
 Chloromethane
 Concen: 1.16 PPB
 RT: 0.98 min Scan# 37
 Delta R.T. 0.01 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 1:44 pm

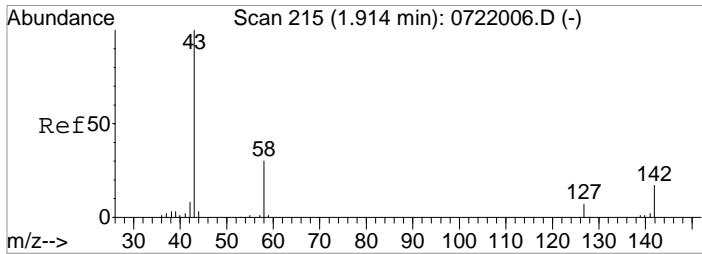
Tgt Ion	Resp	Lower	Upper
50	100		
52	25.4	3.4	63.4
49	11.4	0.0	40.0



#9
 Acrolein
 Concen: 5.79 PPB
 RT: 1.81 min Scan# 196
 Delta R.T. 0.01 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 1:44 pm

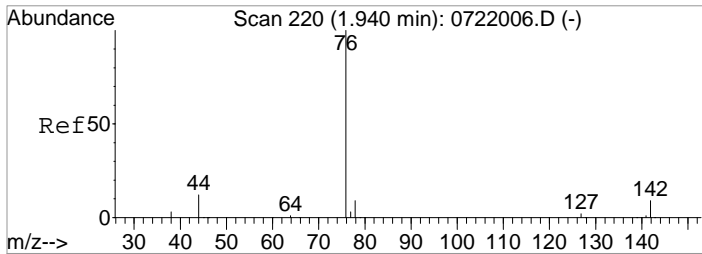
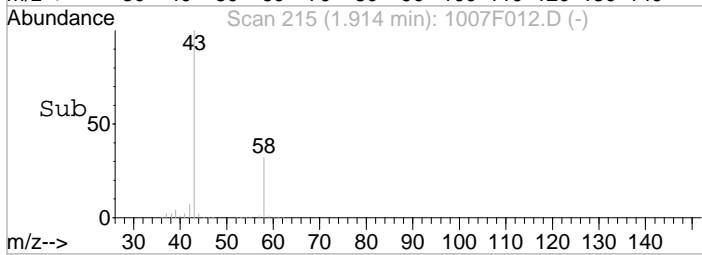
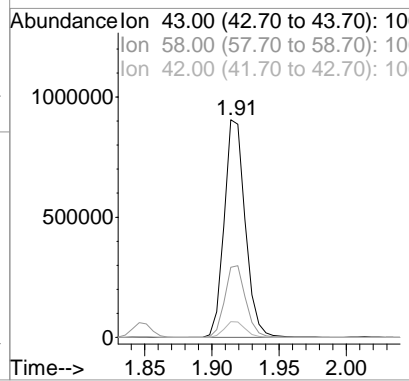
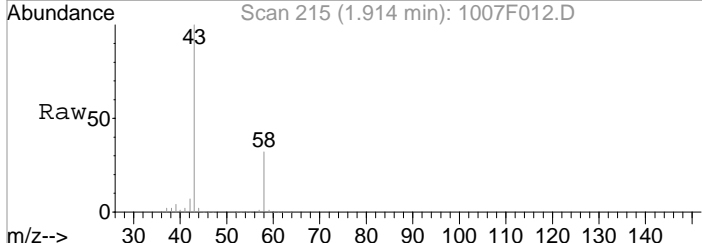
Tgt Ion	Resp	Lower	Upper
56	100		
55	77.1	39.1	99.1
53	0.0	0.0	36.8





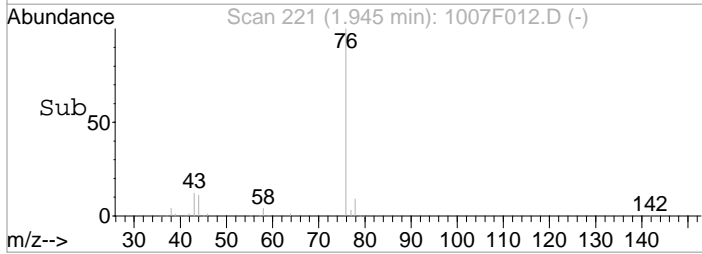
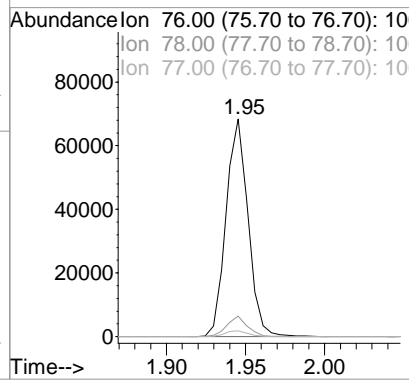
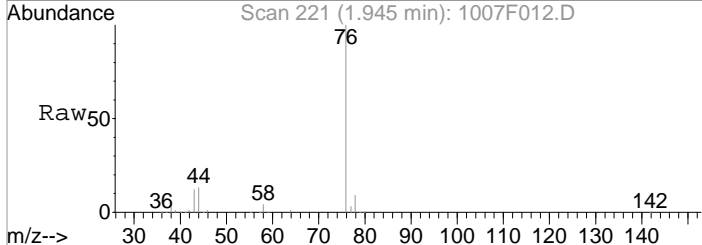
#12
 Acetone
 Concen: 5209.81 PPB
 RT: 1.91 min Scan# 215
 Delta R.T. -0.00 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 1:44 pm

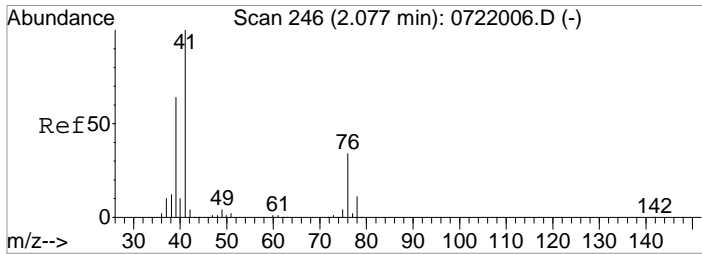
Tgt Ion	Resp	Lower	Upper
43	100		
58	32.2	2.9	62.9
42	7.3	0.0	38.4



#14
 Carbon Disulfide
 Concen: 40.74 PPB
 RT: 1.95 min Scan# 221
 Delta R.T. 0.01 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 1:44 pm

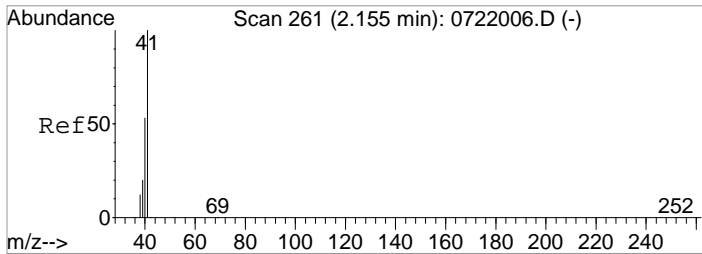
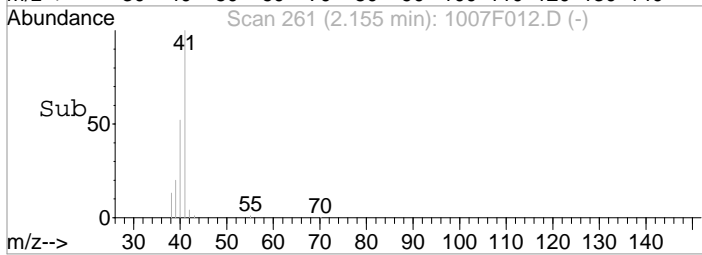
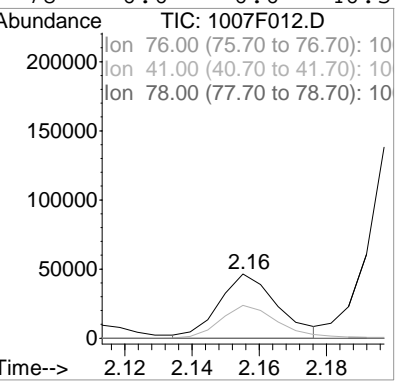
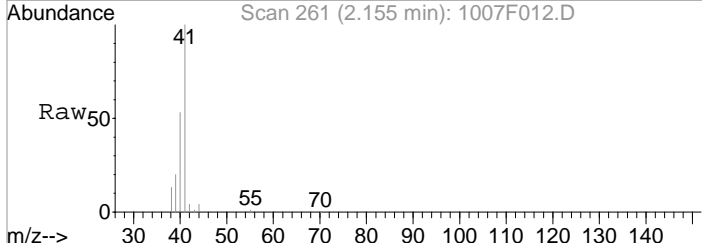
Tgt Ion	Resp	Lower	Upper
76	100		
78	9.5	0.0	39.1
77	2.7	0.0	32.8





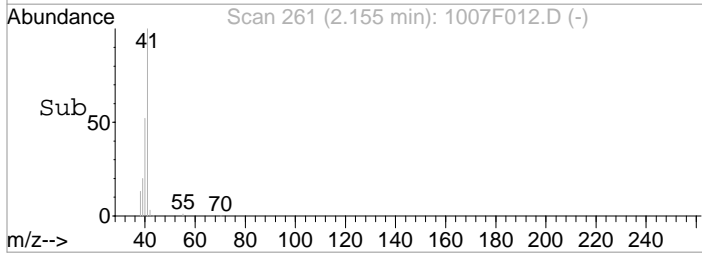
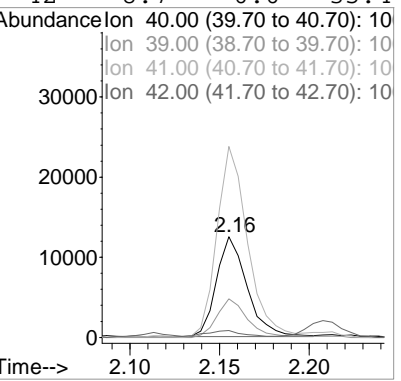
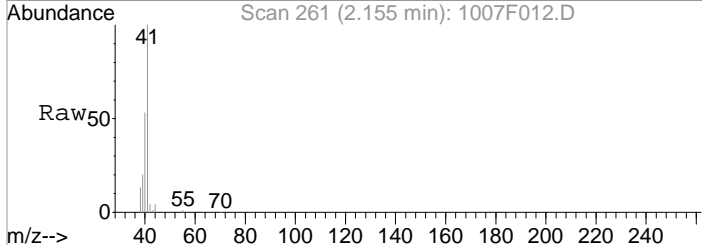
#15
 3-Chloro-1-Propane
 Concen: 20.33 PPB m
 RT: 2.16 min Scan# 261
 Delta R.T. 0.08 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 1:44 pm

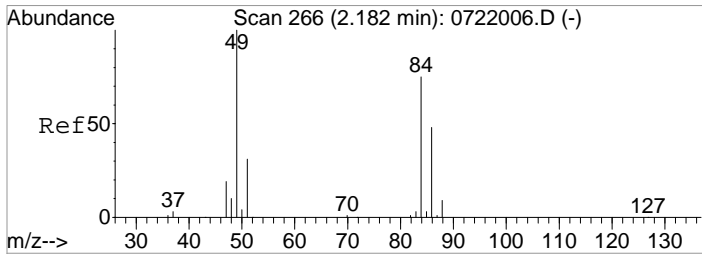
Tgt Ion	TIC Resp	Lower	Upper
76	0.0	0.0	33.0
41	53.3	7.4	67.4
78	0.0	0.0	40.5



#17
 Acetonitrile
 Concen: 303.87 PPB
 RT: 2.16 min Scan# 261
 Delta R.T. 0.01 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 1:44 pm

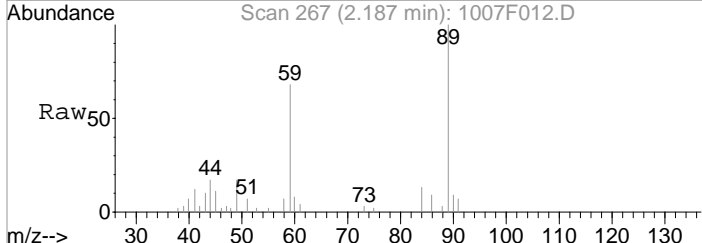
Tgt Ion	Resp	Lower	Upper
40	14832		
40	100		
39	40.2	6.8	66.8
41	192.2	162.3	222.3
42	8.7	0.0	35.4



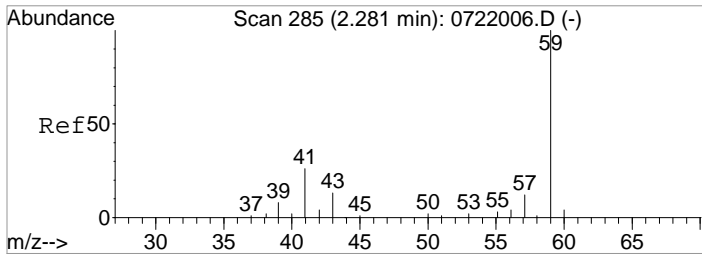
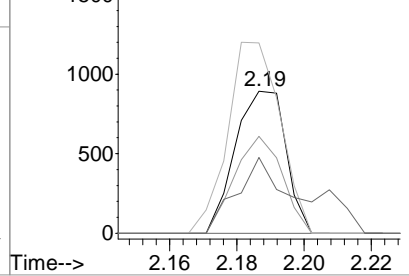
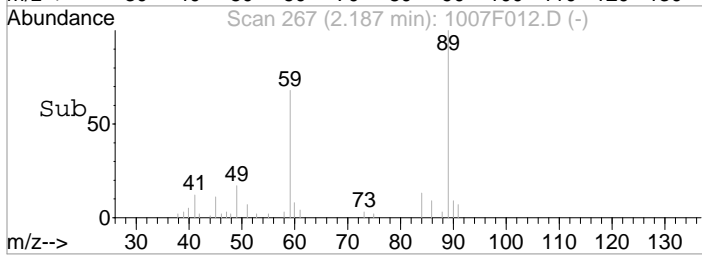


#18
 Methylene Chloride
 Concen: 1.35 PPB
 RT: 2.19 min Scan# 267
 Delta R.T. 0.01 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 1:44 pm

Tgt Ion	Resp	Lower	Upper
84	100		
86	68.3	33.0	93.0
49	134.2	100.8	160.8
51	53.5	10.9	70.9

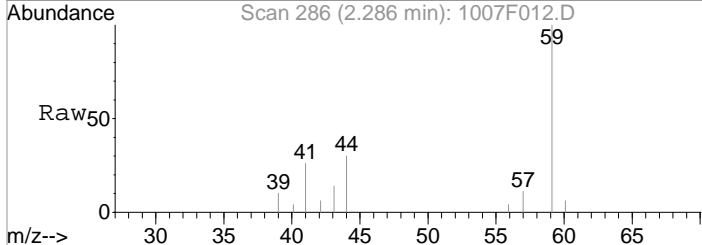


Abundance	Ion	Time Range
10	84.00	(83.70 to 84.70)
10	86.00	(85.70 to 86.70)
10	49.00	(48.70 to 49.70)
10	51.00	(50.70 to 51.70)

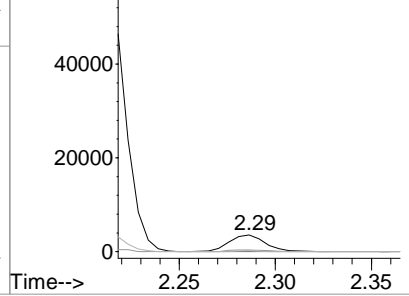
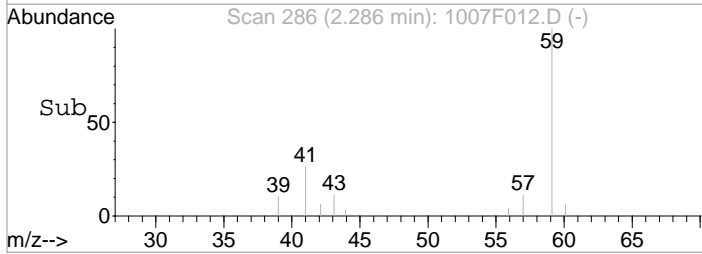


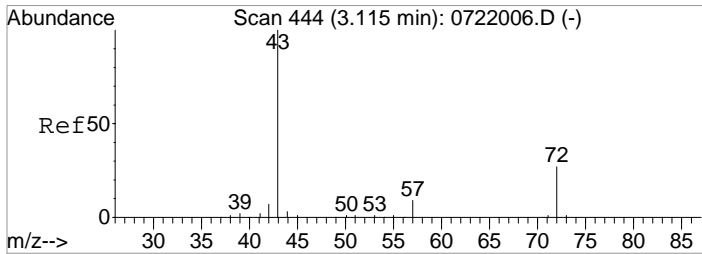
#19
 tert-Butyl Alcohol
 Concen: 54.25 PPB
 RT: 2.29 min Scan# 286
 Delta R.T. 0.01 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 1:44 pm

Tgt Ion	Resp	Lower	Upper
59	100		
57	10.9	0.0	39.8
60	6.1	0.0	33.7



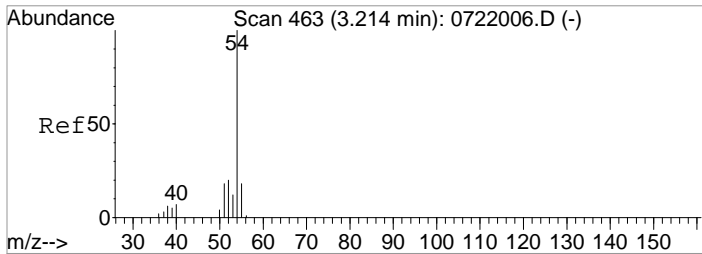
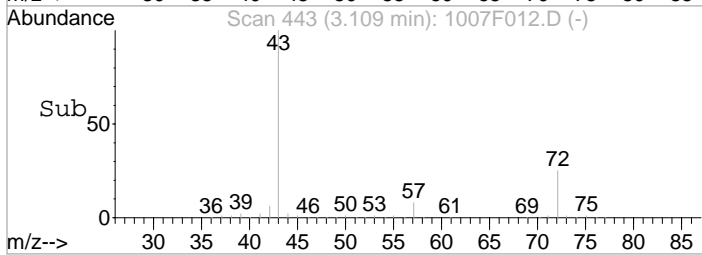
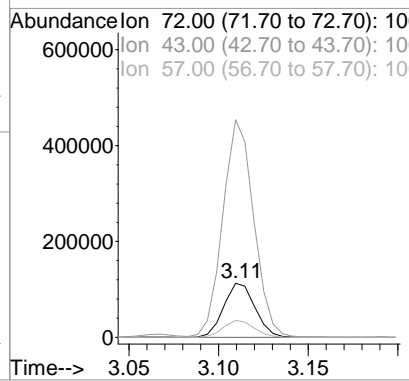
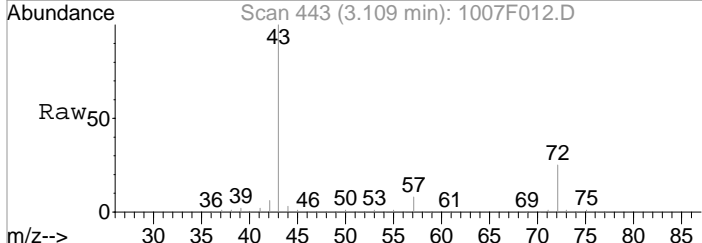
Abundance	Ion	Time Range
10	59.00	(58.70 to 59.70)
10	57.00	(56.70 to 57.70)
10	60.00	(59.70 to 60.70)





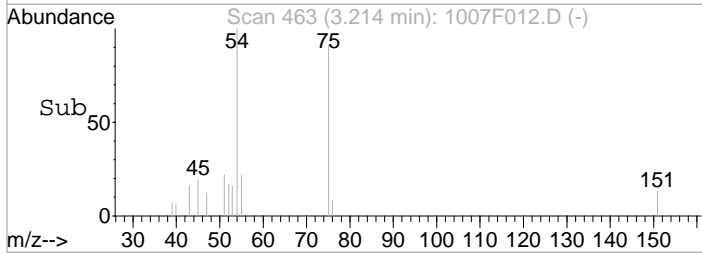
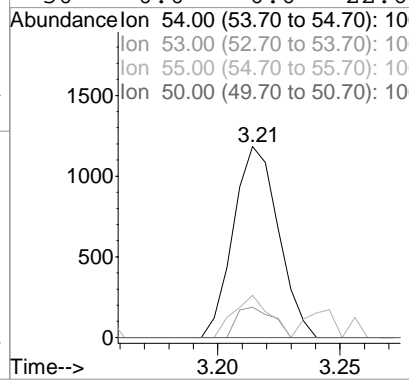
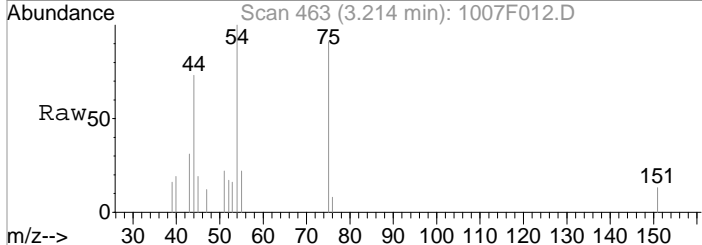
#31
 2-Butanone
 Concen: 1598.07 PPB
 RT: 3.11 min Scan# 443
 Delta R.T. 0.00 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 1:44 pm

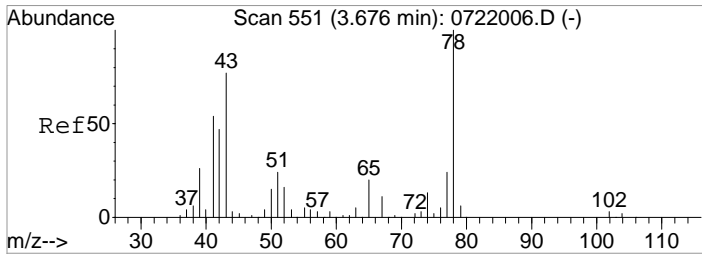
Tgt Ion	Resp	Lower	Upper
72	137620		
72	100		
43	400.7	401.3	461.3#
57	31.7	4.4	64.4



#32
 Propionitrile
 Concen: 13.91 PPB
 RT: 3.21 min Scan# 463
 Delta R.T. -0.00 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 1:44 pm

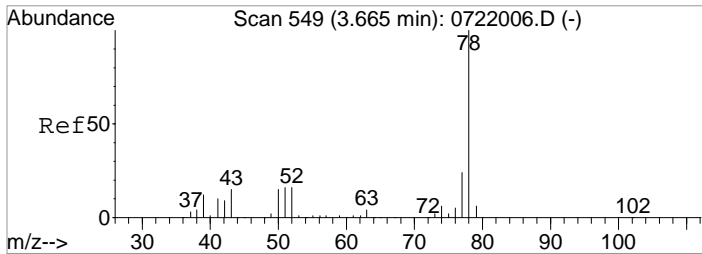
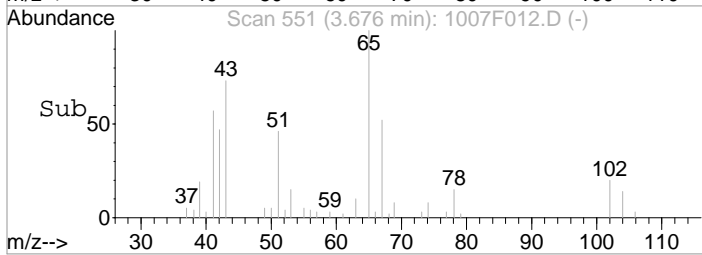
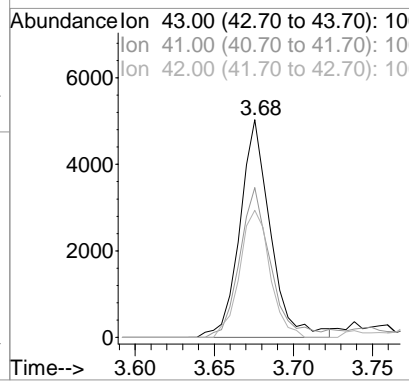
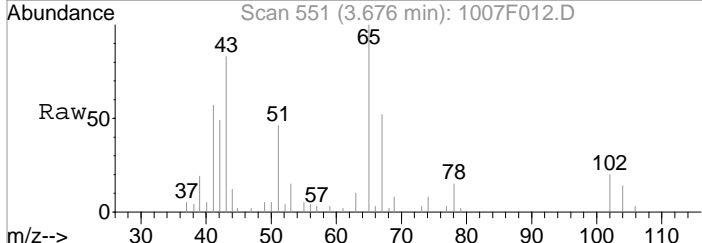
Tgt Ion	Resp	Lower	Upper
54	1520		
54	100		
53	15.9	0.0	41.3
55	22.1	0.0	46.0
50	0.0	0.0	22.6





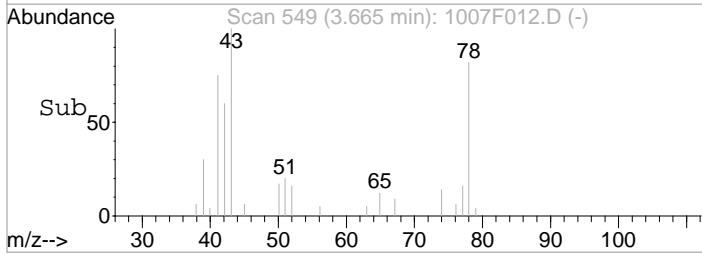
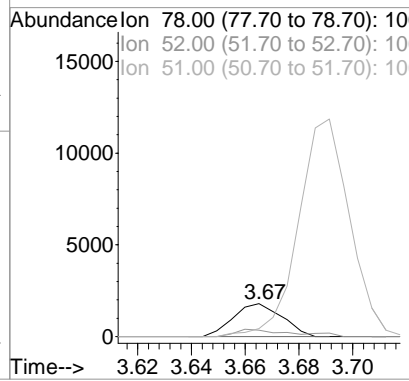
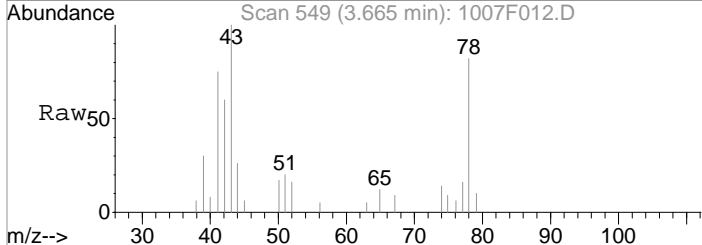
#42
 Isobutyl Alcohol
 Concen: 156.00 PPB
 RT: 3.68 min Scan# 551
 Delta R.T. -0.00 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 1:44 pm

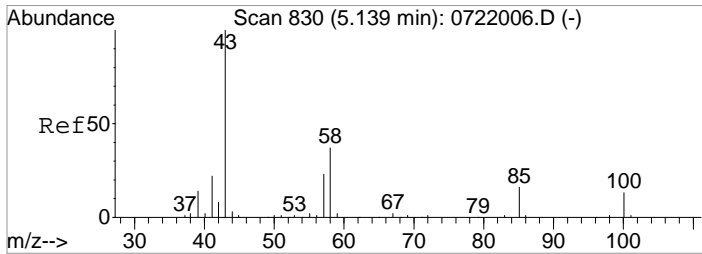
Tgt Ion	Resp	Lower	Upper
43	100		
41	68.8	41.2	101.2
42	58.5	29.5	89.5



#44
 Benzene
 Concen: 0.83 PPB
 RT: 3.67 min Scan# 549
 Delta R.T. -0.00 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 1:44 pm

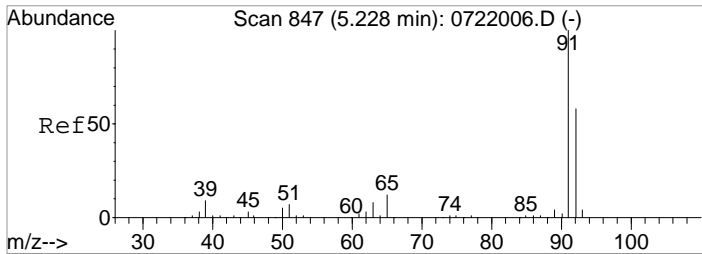
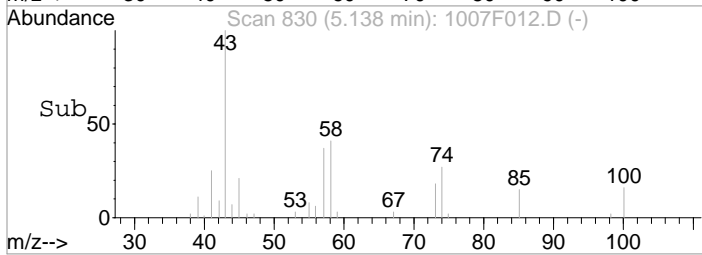
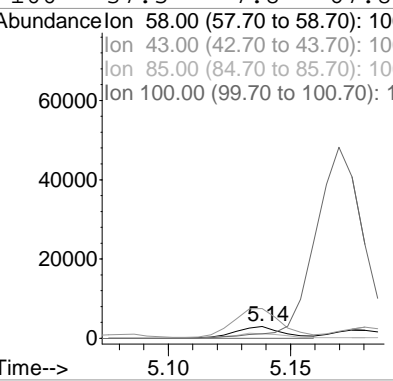
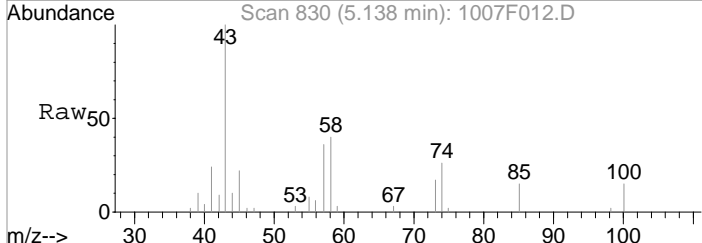
Tgt Ion	Resp	Lower	Upper
78	100		
52	19.1	0.0	46.1
51	24.4	0.0	46.4





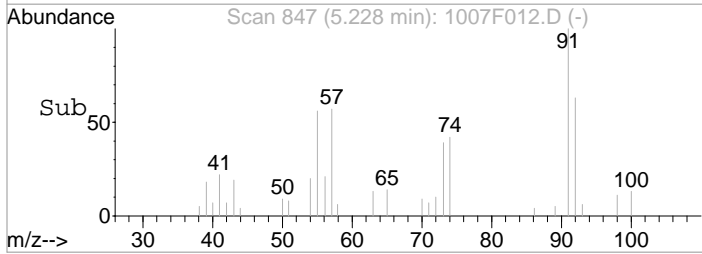
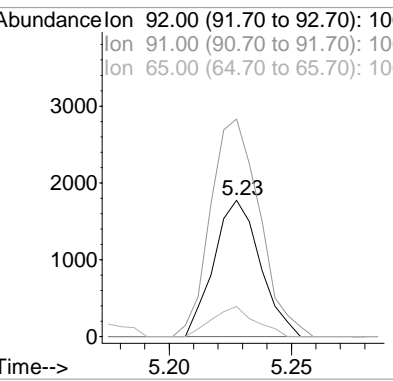
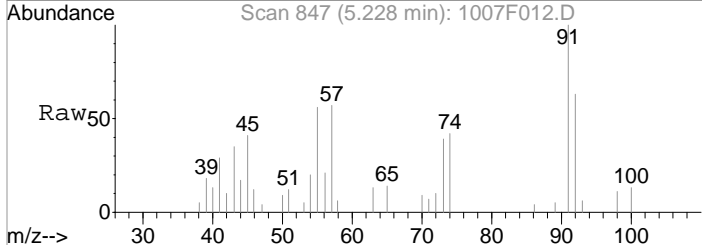
#55
 4-Methyl-2-pentanone (MIBK)
 Concen: 15.56 PPB
 RT: 5.14 min Scan# 830
 Delta R.T. -0.00 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 1:44 pm

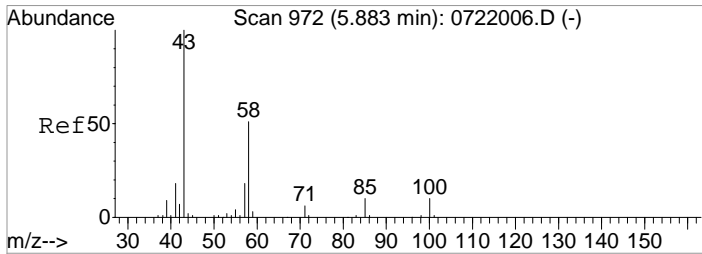
Tgt Ion	Resp	Lower	Upper
58	4037		
58	100		
43	242.8	234.8	294.8
85	36.5	15.9	75.9
100	37.5	7.8	67.8



#57
 Toluene
 Concen: 1.52 PPB
 RT: 5.23 min Scan# 847
 Delta R.T. -0.00 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 1:44 pm

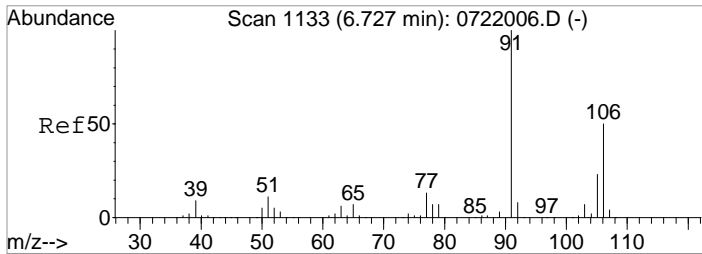
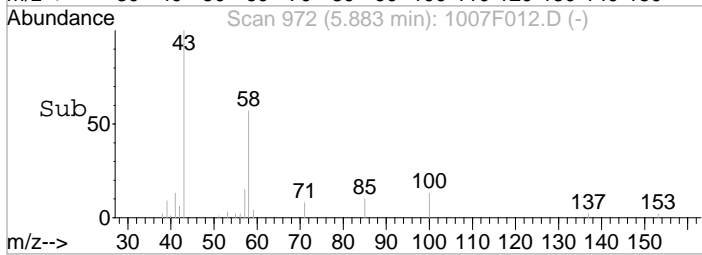
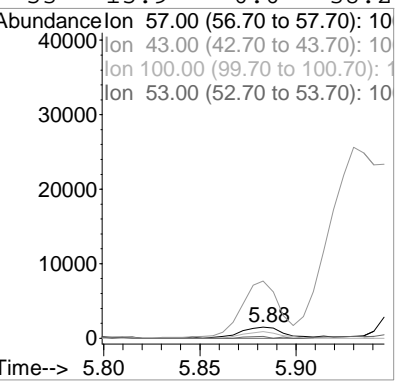
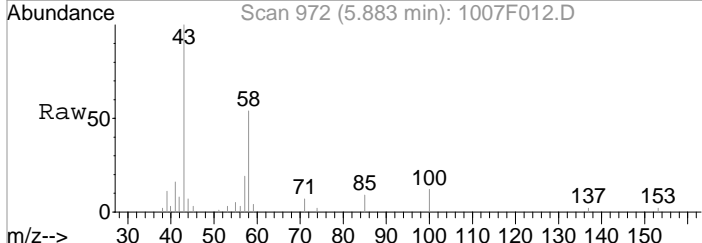
Tgt Ion	Resp	Lower	Upper
92	2340		
92	100		
91	159.6	135.2	195.2
65	22.1	0.0	48.7





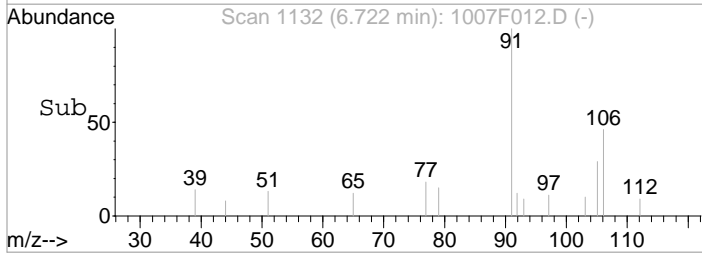
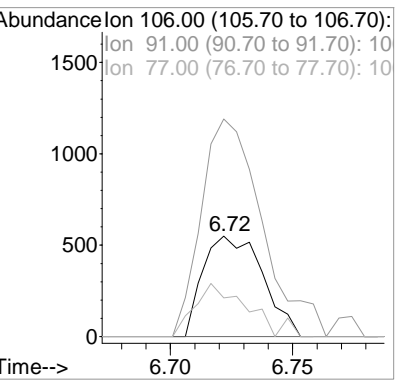
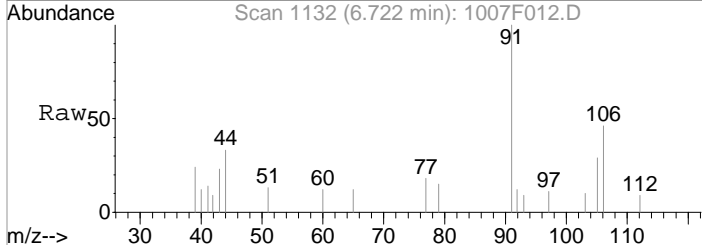
#62
 2-Hexanone
 Concen: 38.51 PPB
 RT: 5.88 min Scan# 972
 Delta R.T. -0.00 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 1:44 pm

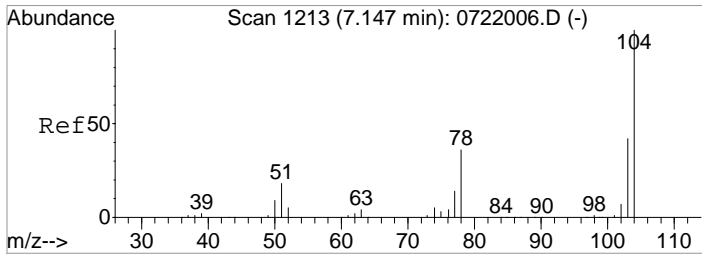
Tgt Ion	Resp	Lower	Upper
57	100		
43	506.7	516.1	576.1# X
100	60.3	18.3	78.3
53	15.9	0.0	38.2



#70
 m,p-Xylenes
 Concen: 1.16 PPB
 RT: 6.72 min Scan# 1132
 Delta R.T. -0.01 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 1:44 pm

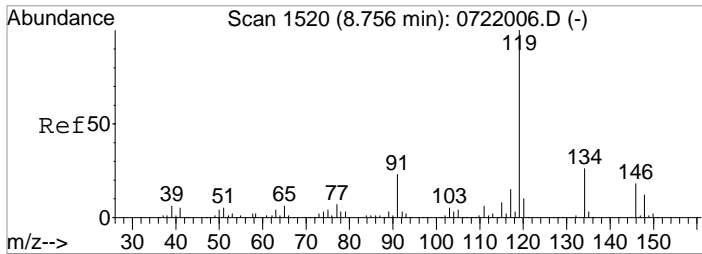
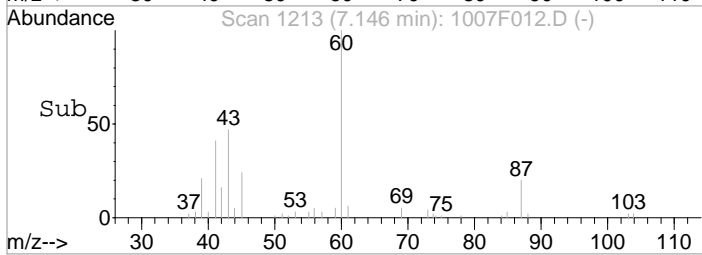
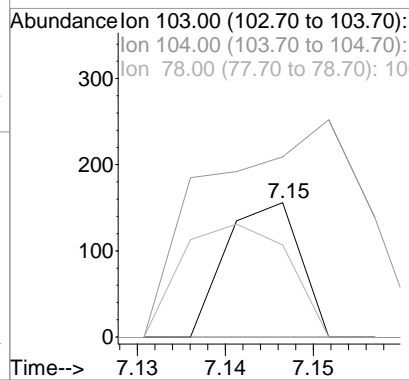
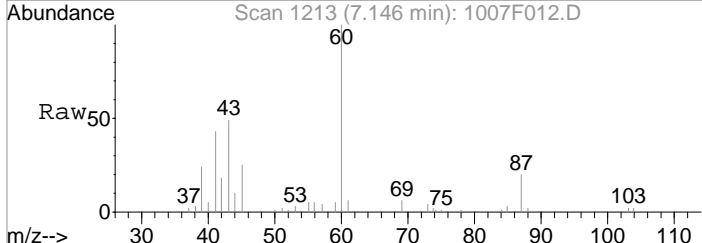
Tgt Ion	Resp	Lower	Upper
106	100		
91	216.4	160.5	220.5
77	38.5	0.0	54.8





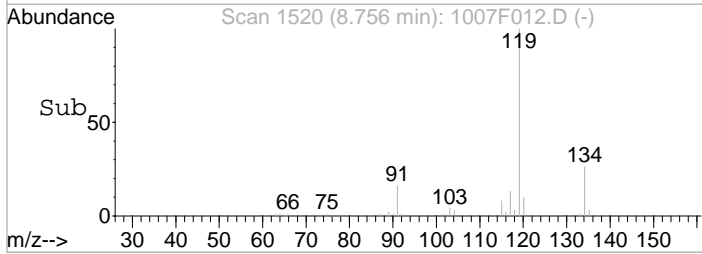
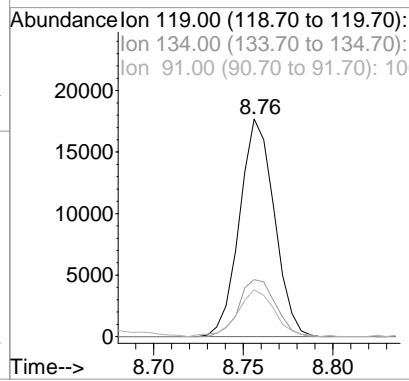
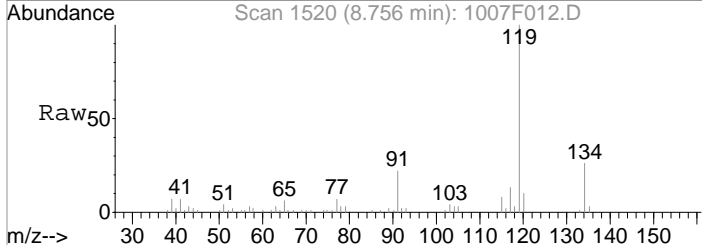
#72
 Styrene
 Concen: 0.14 PPB m
 RT: 7.15 min Scan# 1213
 Delta R.T. -0.00 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 1:44 pm

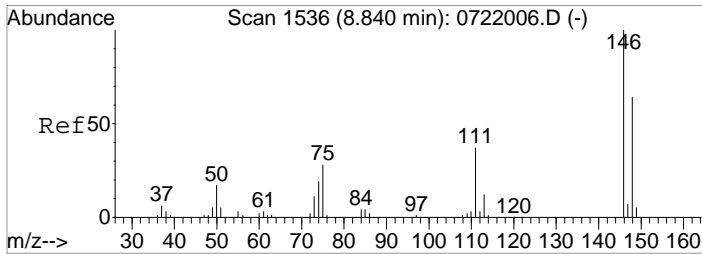
Tgt Ion	Resp	Lower	Upper
103	100		
104	134.0	180.3	240.3#
78	68.6	59.9	119.9



#89
 p-Isopropyltoluene
 Concen: 19.01 PPB
 RT: 8.76 min Scan# 1520
 Delta R.T. -0.01 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 1:44 pm

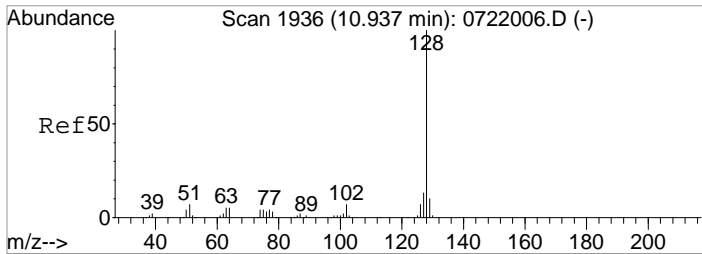
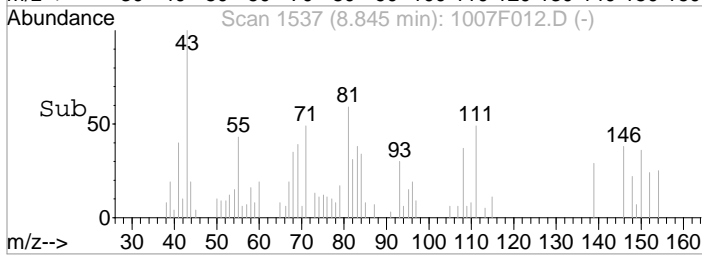
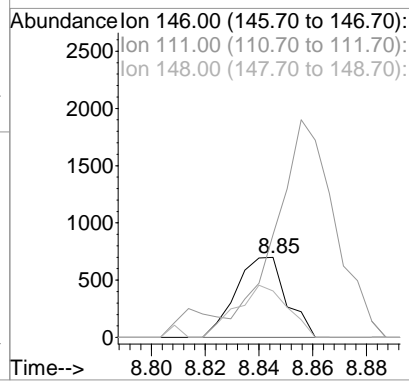
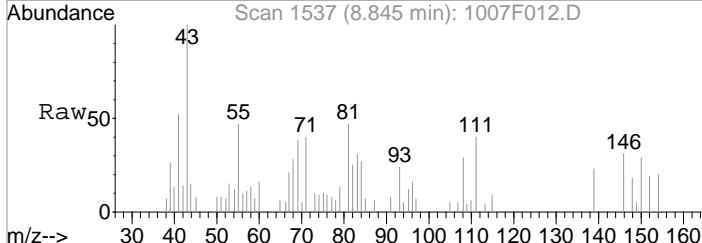
Tgt Ion	Resp	Lower	Upper
119	100		
134	26.2	0.0	58.0
91	21.6	0.0	51.7





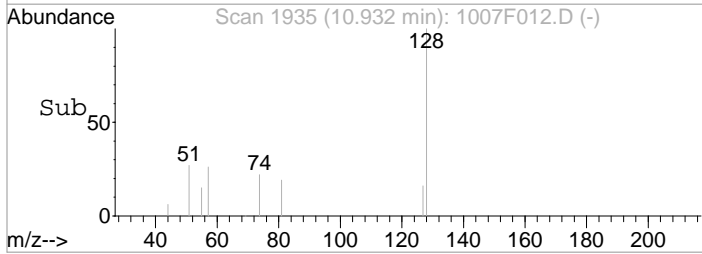
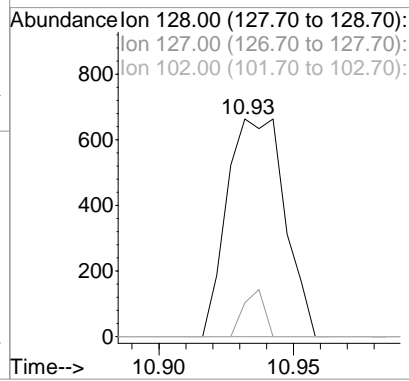
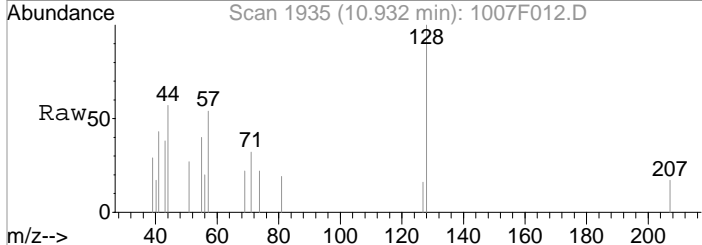
#91
 1,4-Dichlorobenzene
 Concen: 1.10 PPB
 RT: 8.85 min Scan# 1537
 Delta R.T. -0.00 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 1:44 pm

Tgt Ion	Resp	Lower	Upper
146	100		
111	92.6	7.0	67.0#
148	57.9	36.4	96.4



#98
 Naphthalene
 Concen: 0.85 PPB
 RT: 10.93 min Scan# 1935
 Delta R.T. -0.01 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 1:44 pm

Tgt Ion	Resp	Lower	Upper
128	100		
127	15.5	0.0	43.8
102	0.0	0.0	37.9



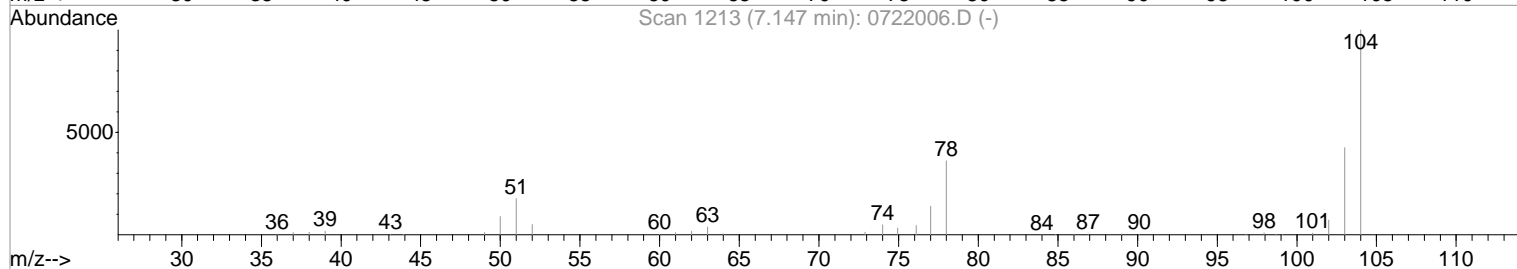
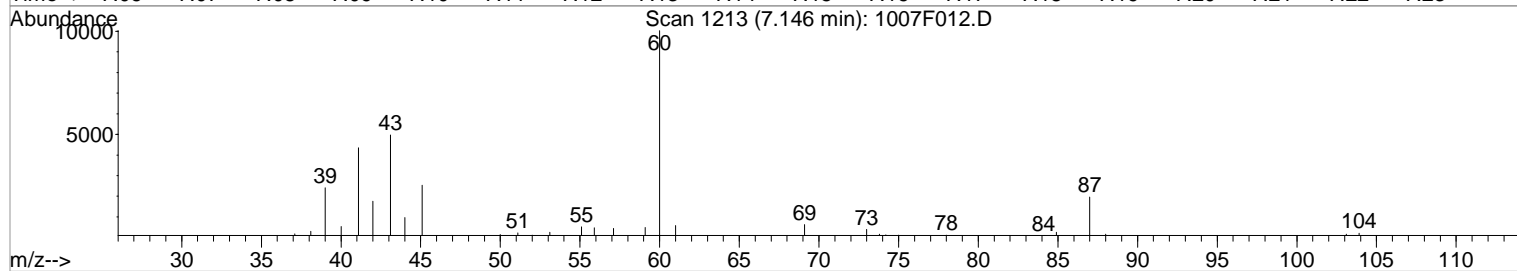
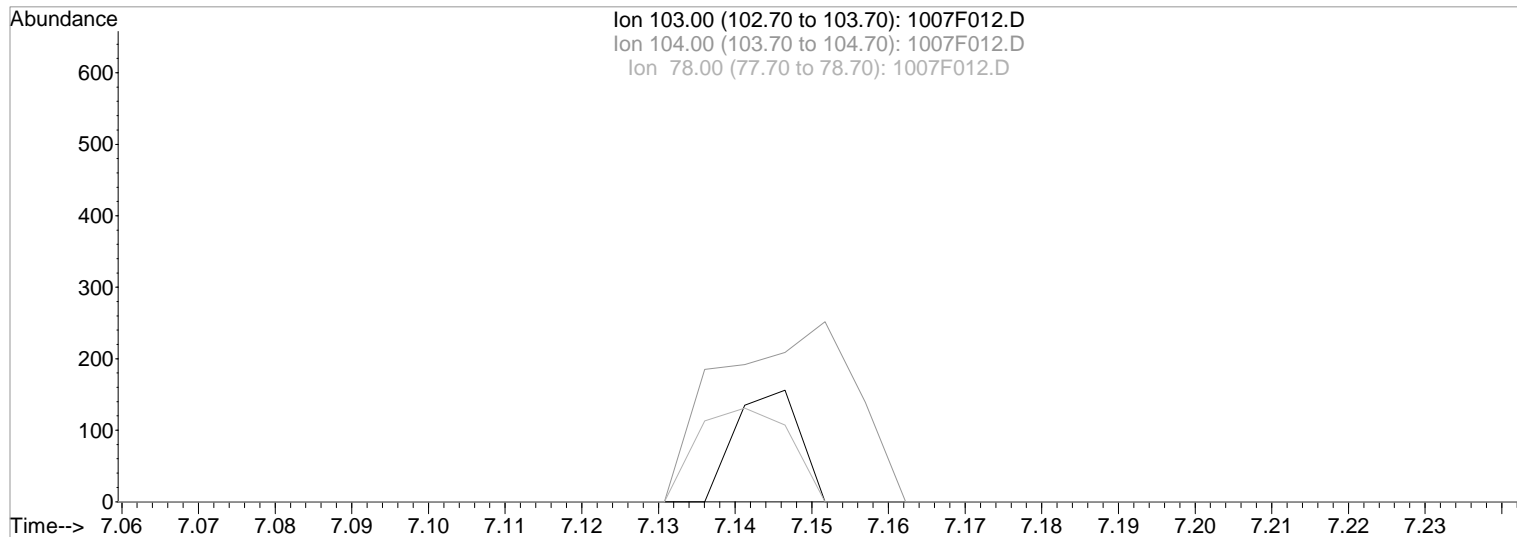
Data File : J:\MS24\DATA\100719\1007F012.D
 Acq On : 7 Oct 2019 1:44 pm
 Sample : K1909014-002
 Misc :

Vial: 12
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 7 14:21 2019

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 14:57:11 2019
 Response via : Multiple Level Calibration



TIC: 1007F012.D

(72) Styrene (T)
 7.15min 0.00PPB
 response 0

Manual Integration:
 Before

Ion	Exp%	Act%
103.00	100	0.00
104.00	210.30	0.00#
78.00	89.90	0.00#
0.00	0.00	0.00

10/07/19

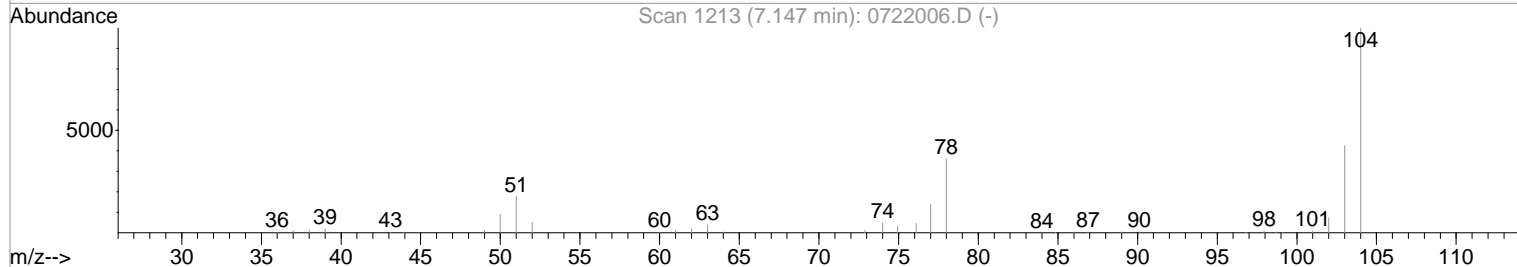
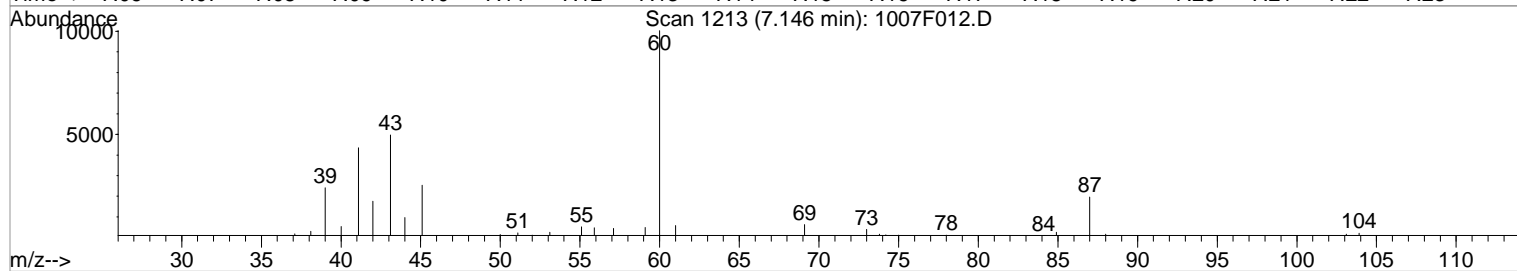
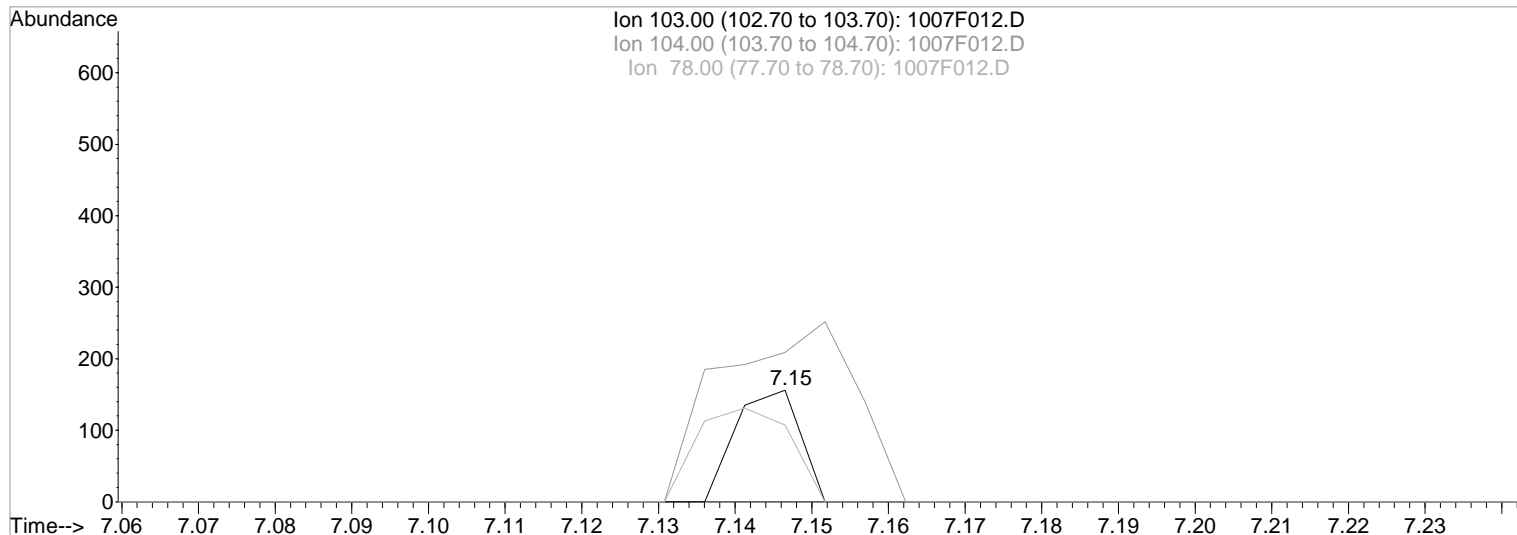
Data File : J:\MS24\DATA\100719\1007F012.D
 Acq On : 7 Oct 2019 1:44 pm
 Sample : K1909014-002
 Misc :

Vial: 12
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 7 14:21 2019

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 14:57:11 2019
 Response via : Multiple Level Calibration



TIC: 1007F012.D

(72) Styrene (T)

7.15min 0.14PPB m
 response 91

Ion	Exp%	Act%
103.00	100	100
104.00	210.30	133.97#
78.00	89.90	68.59
0.00	0.00	0.00

Manual Integration:

After
 Missed peak
 10/07/19

Validation Report

1st **KW** 10/08/19
2nd **SK** 10/08/19

Data File: J:\MS24\DATA\100719\1007F013.D\
Lab ID: K1909014-003
RunType: N/A
Matrix: Soil

Date Acquired: 10/7/19 14:05:00
Batch ID: 654417
Analysis Method: 8260C/VOC FP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification		X
Continuing Calibration Recovery		X
Lab Control Sample Recovery	X	
Duplicate Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	Dichlorodifluoromethane	47		30	High bias, narrate
Continuing Calibration Recovery	n-Butylbenzene	23		20	CCVOK
	sec-Butylbenzene	21		20	
	Chloromethane	-24		20	
	Dichlorodifluoromethane	-30		20	
	Hexachlorobutadiene	24		20	
	Isopropylbenzene	21		20	
	4-Isopropyltoluene	23		20	

Primary Review: _____

Secondary Review: _____

Quantitation Report

1st **KW** 10/08/19
2nd **KW** 10/08/19

Data File: J:\MS24\DATA\100719\1007F013.D\	Instrument: K-MS-24
Acqu Date: 10/7/19 14:05:00	Vial: 8
Run Type: N/A	Dilution: 1
Lab ID: K1909014-003	Raw Units: ppb

Bottle ID: K1909014-003.05	Tier: IV	Matrix: Soil
Prod Code: VOC FP	Collect Date: 9/25/19	Receive Date: 9/27/19

Analysis Lot: 654417	Prep Lot:	Report Group: K1909014
Analysis: 8260C	Prep Method:	
	Prep Date:	

Title: Volatile Organic Compounds by GC/MS	Calibration ID: KC1900275
	Report List ID: 20903

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Chlorobenzene-d5	6.50		66025	50.00	OK
1,4-Dichlorobenzene-d4	8.82		56885	50.00	OK
Fluorobenzene	3.90		163903	50.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
4-Bromofluorobenzene	7.67		56159	50.94	102	88 - 127	Y
Dibromofluoromethane	3.42		42108	52.58	105	82 - 146	Y
Toluene-d8	5.17		162132	56.83	114	90 - 142	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Acetone	1.91		4916	11.57	12	J	Y
Benzene	3.67		2047	0.56	0.56	J	Y
Bromobenzene	0.00		0	0.00	0	U	Y
Bromochloromethane	0.00		0	0.00	0	U	Y
Bromodichloromethane	0.00		0	0.00	0	U	Y
Bromoform	0.00		0	0.00	0	U	Y
Bromomethane	0.00		0	0.00	0	U	Y
2-Butanone (MEK)	0.00		0	0.00	0	U	Y
n-Butylbenzene	0.00		0	0.00	0	U	Y
sec-Butylbenzene	0.00		0	0.00	0	U	Y
tert-Butylbenzene	0.00		0	0.00	0	U	Y
Carbon Disulfide	0.00		0	0.00	0	U	Y
Carbon Tetrachloride	0.00		0	0.00	0	U	Y
Chlorobenzene	0.00		0	0.00	0	U	Y
Chloroethane	0.00		0	0.00	0	U	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 10/11/19 8:00

\\alprews001\starlims\LIMSReps\QuantValidation.rpt

Data File: J:\MS24\DATA\100719\1007F013.D\
 Acqu Date: 10/7/19 14:05:00
 Run Type: N/A
 Lab ID: K1909014-003

Instrument: K-MS-24nd **KW** 10/08/19
 Vial: 8
 Dilution: 1
 Raw Units: ppb

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Chloroform	0.00		0	0.00	0	U	Y
Chloromethane	0.98		780	0.75	0.75	J	Y
2-Chlorotoluene	0.00		0	0.00	0	U	Y
4-Chlorotoluene	0.00		0	0.00	0	U	Y
1,2-Dibromo-3-chloropropane	0.00		0	0.00	0	U	Y
Dibromochloromethane	0.00		0	0.00	0	U	Y
1,2-Dibromoethane (EDB)	0.00		0	0.00	0	U	Y
Dibromomethane	0.00		0	0.00	0	U	Y
1,2-Dichlorobenzene	0.00		0	0.00	0	U	Y
1,3-Dichlorobenzene	0.00		0	0.00	0	U	Y
1,4-Dichlorobenzene	0.00		0	0.00	0	U	Y
Dichlorodifluoromethane	0.00		0	0.00	0	U	Y
1,1-Dichloroethane	0.00		0	0.00	0	U	Y
1,2-Dichloroethane (EDC)	0.00		0	0.00	0	U	Y
1,1-Dichloroethene	0.00		0	0.00	0	U	Y
cis-1,2-Dichloroethene	0.00		0	0.00	0	U	Y
trans-1,2-Dichloroethene	0.00		0	0.00	0	U	Y
1,2-Dichloropropane	0.00		0	0.00	0	U	Y
1,3-Dichloropropane	0.00		0	0.00	0	U	Y
2,2-Dichloropropane	0.00		0	0.00	0	U	Y
1,1-Dichloropropene	0.00		0	0.00	0	U	Y
cis-1,3-Dichloropropene	0.00		0	0.00	0	U	Y
trans-1,3-Dichloropropene	0.00		0	0.00	0	U	Y
Ethylbenzene	6.61		317	0.25	0.25	J	Y
Hexachlorobutadiene	0.00		0	0.00	0	U	Y
2-Hexanone	0.00		0	0.00	0	U	Y
Isopropylbenzene	0.00		0	0.00	0	U	Y
4-Isopropyltoluene	0.00		0	0.00	0	U	Y
4-Methyl-2-pentanone (MIBK)	0.00		0	0.00	0	U	Y
Methylene Chloride	2.18		1124	1.20	1.2	J	Y
Naphthalene	10.94		882	0.33	0.33	J	Y
n-Propylbenzene	0.00		0	0.00	0	U	Y
Styrene	0.00		0	0.00	0	U	Y
1,1,1,2-Tetrachloroethane	0.00		0	0.00	0	U	Y
1,1,2,2-Tetrachloroethane	0.00		0	0.00	0	U	Y
Tetrachloroethene (PCE)	0.00		0	0.00	0	U	Y
Toluene	5.23		2136	1.03	1.0	J	Y
1,2,3-Trichlorobenzene	0.00		0	0.00	0	U	Y
1,2,4-Trichlorobenzene	0.00		0	0.00	0	U	Y
1,1,2-Trichloroethane	0.00		0	0.00	0	U	Y
1,1,1-Trichloroethane (TCA)	0.00		0	0.00	0	U	Y

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 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Printed: 10/11/19 8:00

\alprews001\starlims\LIMSReps\QuantValidation.rpt

Data File: J:\MS24\DATA\100719\1007F013.D\
 Acqu Date: 10/7/19 14:05:00
 Run Type: N/A
 Lab ID: K1909014-003

Instrument: K-MS-2nd **KW** 10/08/19
 Vial: 8
 Dilution: 1
 Raw Units: ppb

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Trichloroethene (TCE)	0.00		0	0.00	0	U	Y
Trichlorofluoromethane (CFC 11)	0.00		0	0.00	0	U	Y
1,2,3-Trichloropropane	0.00		0	0.00	0	U	Y
1,2,4-Trimethylbenzene	0.00		0	0.00	0	U	Y
1,3,5-Trimethylbenzene	0.00		0	0.00	0	U	Y
Vinyl Chloride	0.00		0	0.00	0	U	Y
o-Xylene	0.00		0	0.00	0	U	Y
m,p-Xylenes	6.73		817	0.54	0.54	J	Y
Xylenes, Total				0	0	U	Y

Prep Amount: 5.04 g Dilution: 1
 Prep Final Amount: 5.00 mL Basis Factor: 99.70

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

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 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Printed: 10/11/19 8:00

\alprews001\starlims\LIMSReps\QuantValidation.rpt

Data File : J:\MS24\DATA\100719\1007F013.D
 Acq On : 7 Oct 2019 2:05 pm
 Sample : K1909014-003
 Misc :

Vial: 13
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 07 14:24:35 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

Quant Method : J:\MS24\M...\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 14:57:11 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	3.90	96	163903	50.00	PPB	0.00
58) Chlorobenzene-d5	6.50	82	66025	50.00	PPB	0.00
77) 1,4-Dichlorobenzene-d4	8.82	152	56885	50.00	PPB	0.00

System Monitoring Compounds

39) Dibromofluoromethane	3.42	113	42108	52.58	PPB	0.00
Spiked Amount				50.000		
			Recovery	=	105.16%	
43) 1,2-Dichloroethane-d4	3.69	65	46748	45.33	PPB	0.00
Spiked Amount				50.000		
			Recovery	=	90.66%	
56) Toluene-d8	5.17	98	162132	56.83	PPB	0.00
Spiked Amount				50.000		
			Recovery	=	113.66%	
76) 4-Bromofluorobenzene	7.67	95	56159	50.94	PPB	0.00
Spiked Amount				50.000		
			Recovery	=	101.88%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
3) Chloromethane	0.98	50	780	0.75	PPB	88
12) Acetone	1.91	43	4916	11.57	PPB	95
15) 3-Chloro-1-Propane	2.08	TIC	1697m	0.49	PPB	
18) Methylene Chloride	2.18	84	1124	1.20	PPB	94
19) tert-Butyl Alcohol	2.28	59	1150	9.80	PPB	62
23) Hexane	2.46	57	2604	2.40	PPB	97
44) Benzene	3.67	78	2047	0.56	PPB	84
57) Toluene	5.23	92	2136	1.03	PPB	97
68) Ethylbenzene	6.61	106	317m	0.25	PPB	
70) m,p-Xylenes	6.73	106	817	0.54	PPB	91
98) Naphthalene	10.94	128	882	0.33	PPB	84

(#) = qualifier out of range (m) = manual integration

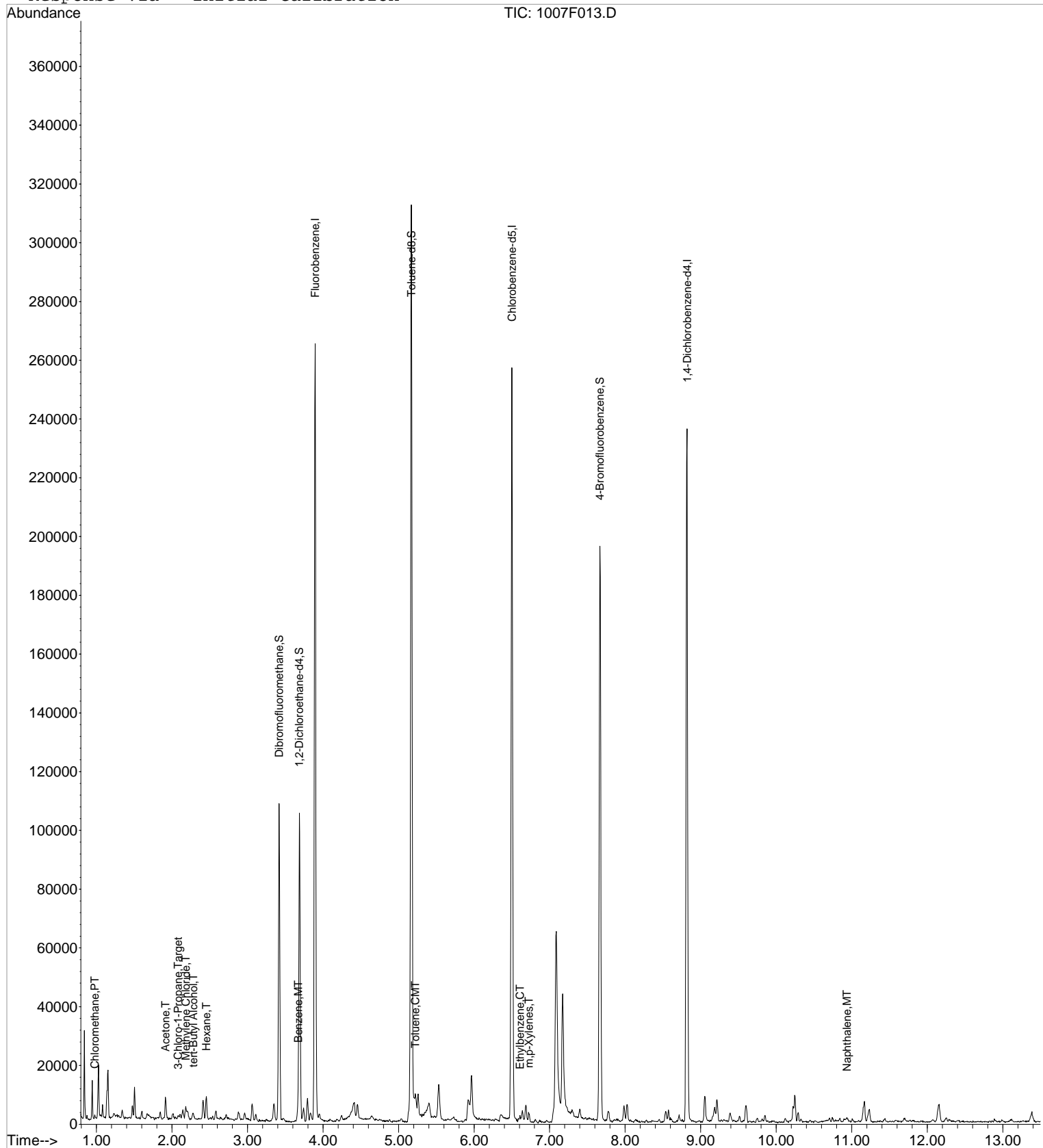
Data File : J:\MS24\DATA\100719\1007F013.D
Acq On : 7 Oct 2019 2:05 pm
Sample : K1909014-003
Misc :

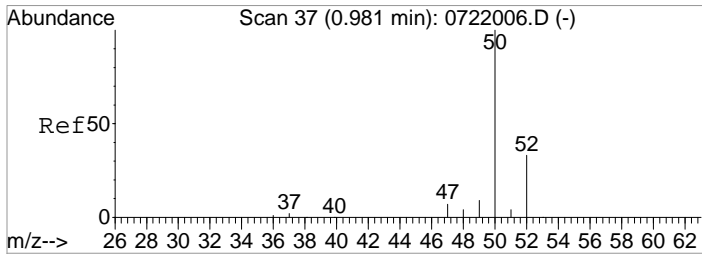
Vial: 13
Operator: KW
Inst : MS24
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Oct 7 14:46 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

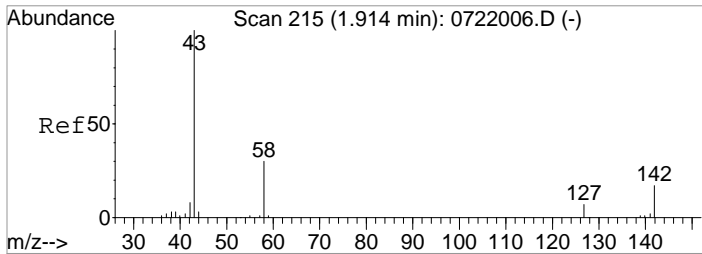
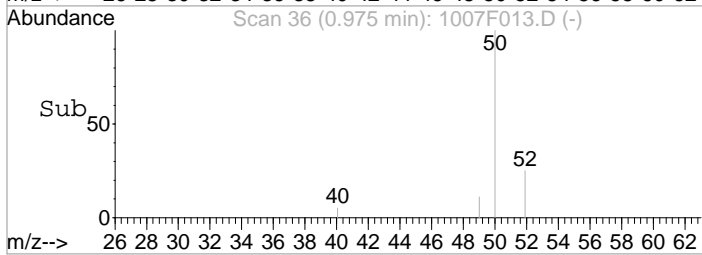
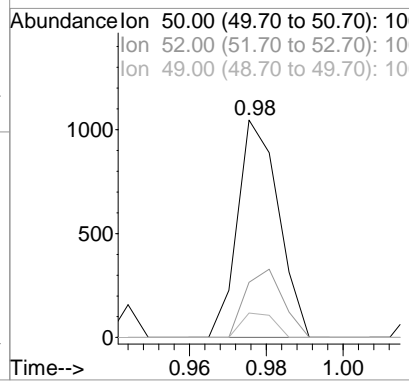
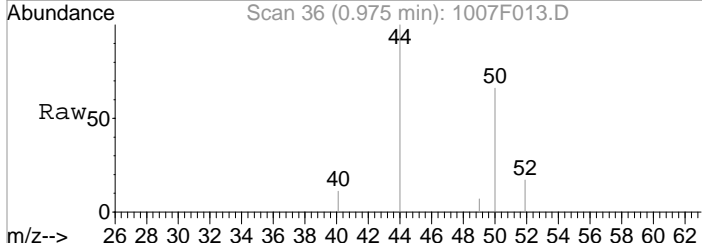
Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
Title : VOA MS24 EPA Method 8260B
Last Update : Mon Jul 15 14:57:11 2019
Response via : Initial Calibration





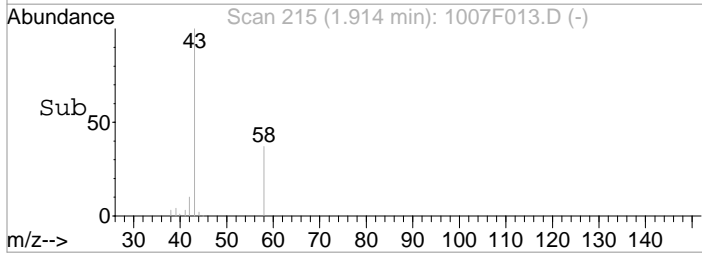
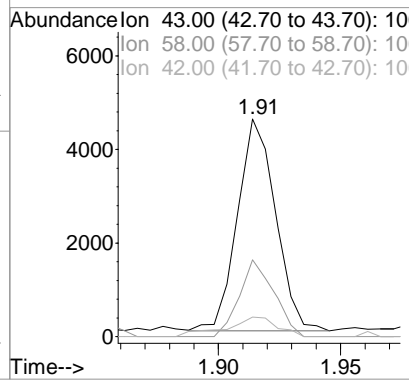
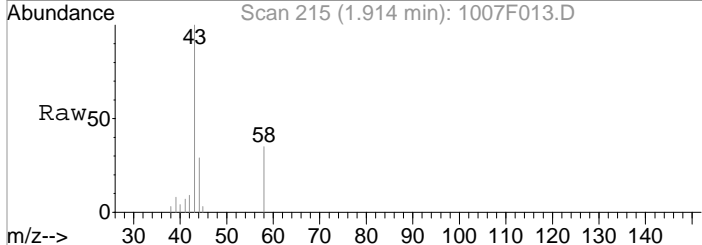
#3
 Chloromethane
 Concen: 0.75 PPB
 RT: 0.98 min Scan# 36
 Delta R.T. -0.00 min
 Lab File: 1007F013.D
 Acq: 7 Oct 2019 2:05 pm

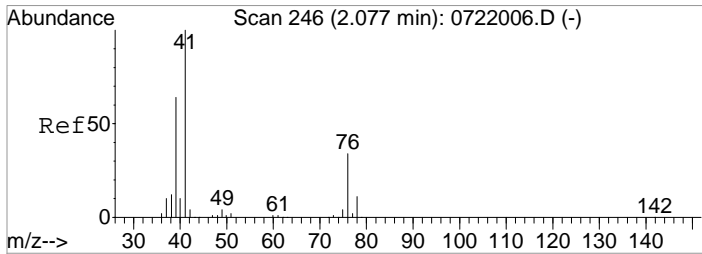
Tgt Ion	Resp	Lower	Upper
50	100		
52	25.3	3.4	63.4
49	11.3	0.0	40.0



#12
 Acetone
 Concen: 11.57 PPB
 RT: 1.91 min Scan# 215
 Delta R.T. -0.00 min
 Lab File: 1007F013.D
 Acq: 7 Oct 2019 2:05 pm

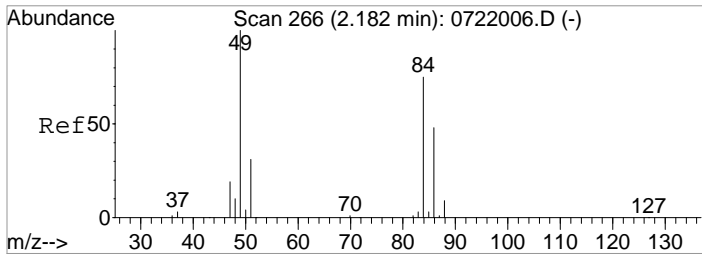
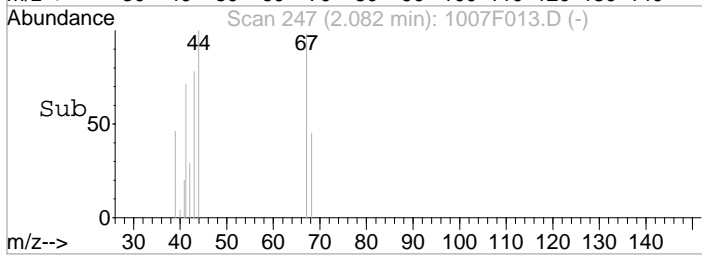
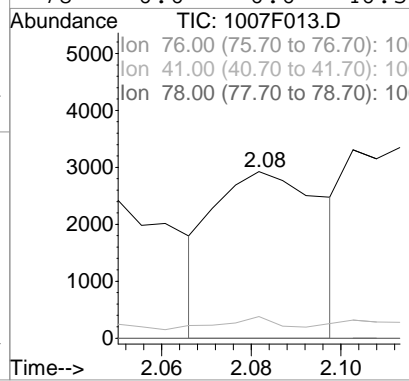
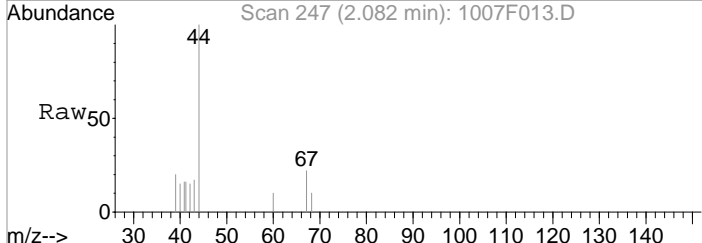
Tgt Ion	Resp	Lower	Upper
43	100		
58	36.4	2.9	62.9
42	9.3	0.0	38.4





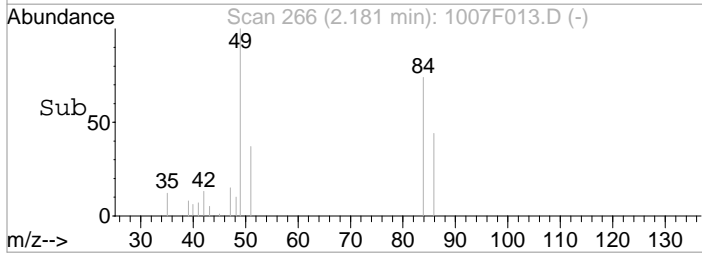
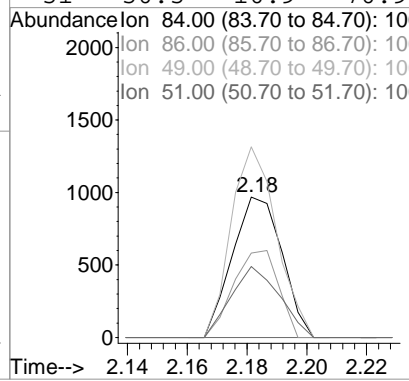
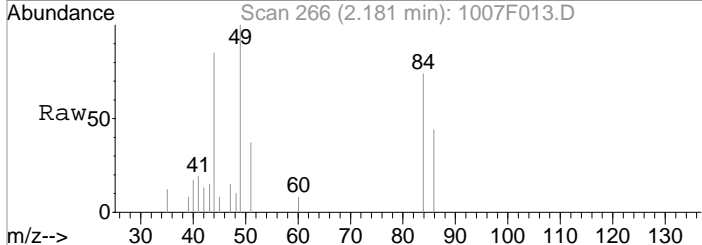
#15
 3-Chloro-1-Propane
 Concen: 0.49 PPB m
 RT: 2.08 min Scan# 247
 Delta R.T. 0.01 min
 Lab File: 1007F013.D
 Acq: 7 Oct 2019 2:05 pm

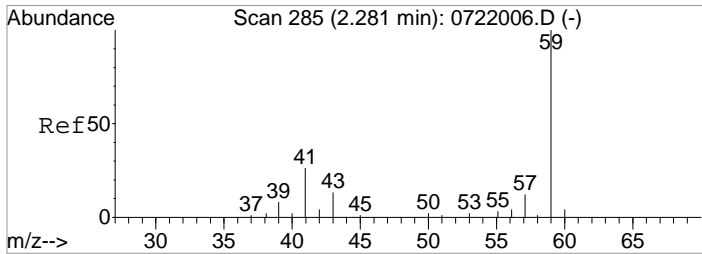
Tgt Ion	TIC Resp	Lower	Upper
76	1697	0.0	33.0
41	100	14.0	67.4
78	100	0.0	40.5



#18
 Methylene Chloride
 Concen: 1.20 PPB
 RT: 2.18 min Scan# 266
 Delta R.T. 0.00 min
 Lab File: 1007F013.D
 Acq: 7 Oct 2019 2:05 pm

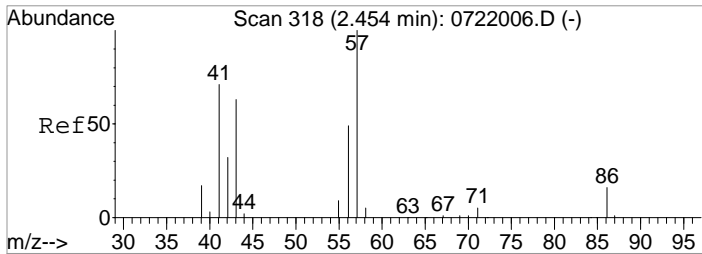
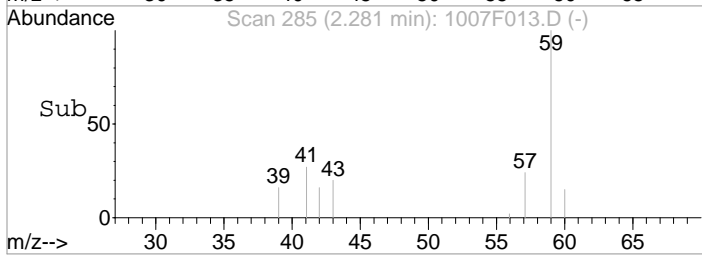
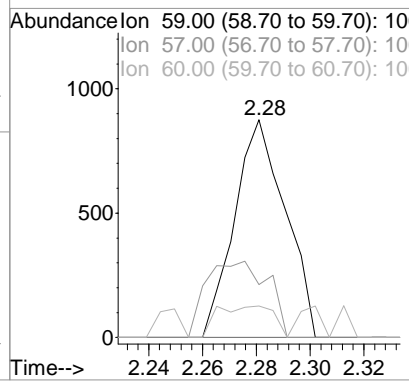
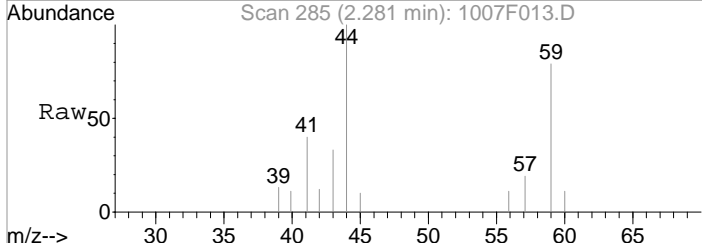
Tgt Ion	Resp	Lower	Upper
84	1124	60.1	93.0
86	100	136.0	160.8
49	100	50.5	70.9





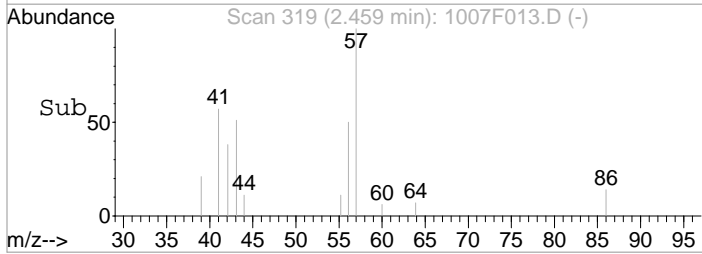
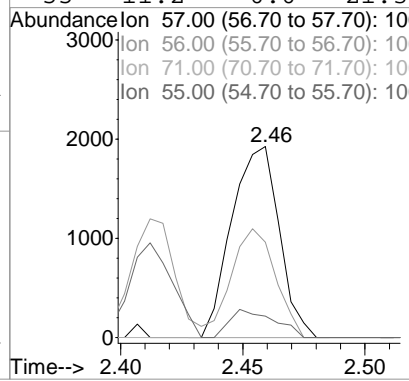
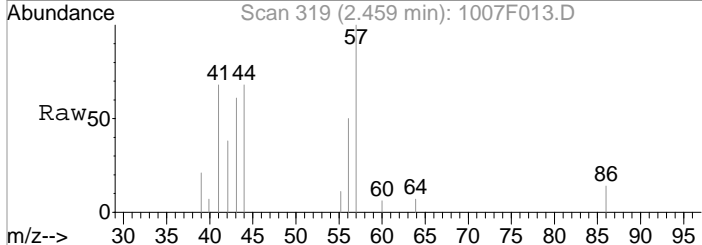
#19
 tert-Butyl Alcohol
 Concen: 9.80 PPB
 RT: 2.28 min Scan# 285
 Delta R.T. 0.01 min
 Lab File: 1007F013.D
 Acq: 7 Oct 2019 2:05 pm

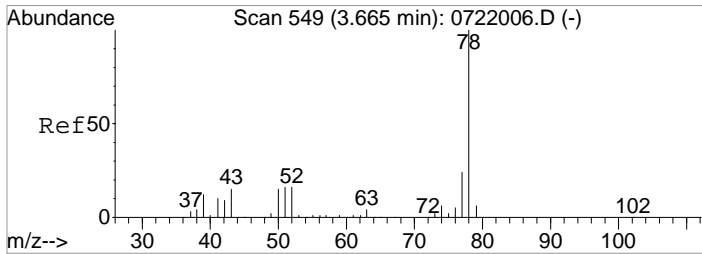
Tgt Ion	Resp	Lower	Upper
59	1150		
57	24.3	0.0	39.8
60	14.5	0.0	33.7



#23
 Hexane
 Concen: 2.40 PPB
 RT: 2.46 min Scan# 319
 Delta R.T. 0.01 min
 Lab File: 1007F013.D
 Acq: 7 Oct 2019 2:05 pm

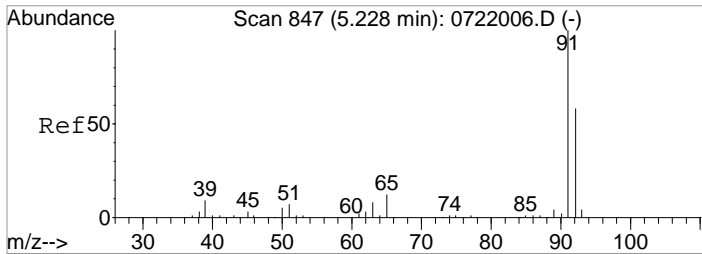
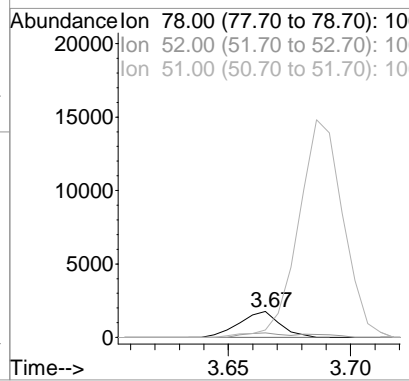
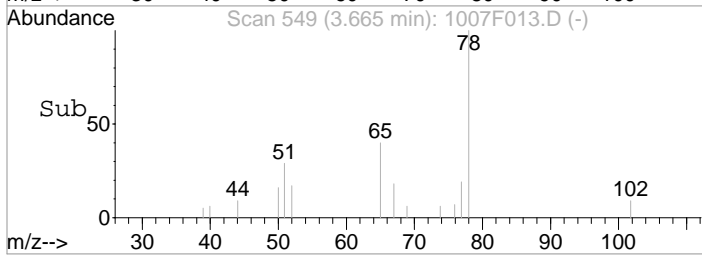
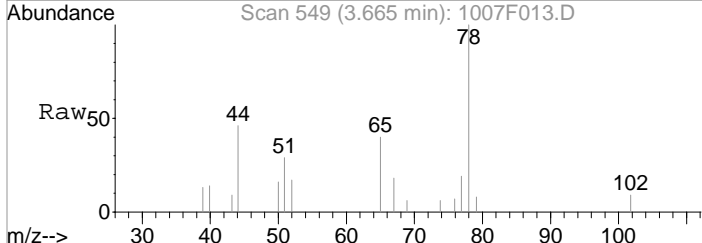
Tgt Ion	Resp	Lower	Upper
57	2604		
56	49.8	19.6	79.6
71	0.0	0.0	35.6
55	11.2	0.0	21.3





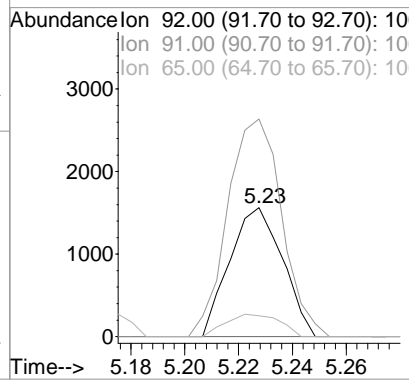
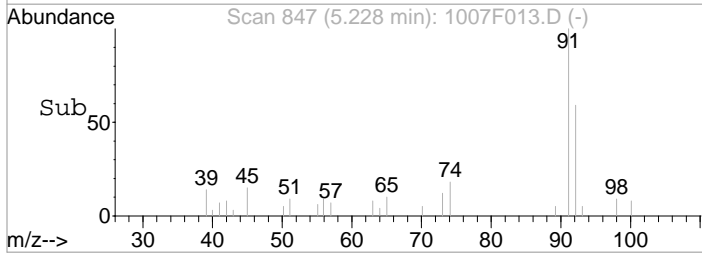
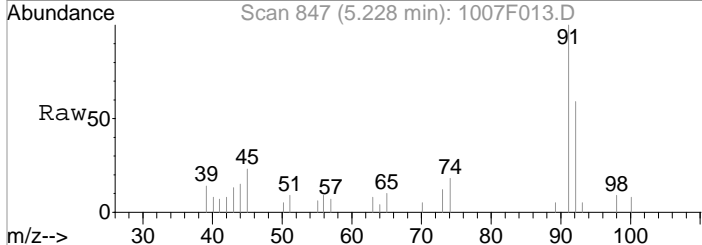
#44
Benzene
Concen: 0.56 PPB
RT: 3.67 min Scan# 549
Delta R.T. -0.00 min
Lab File: 1007F013.D
Acq: 7 Oct 2019 2:05 pm

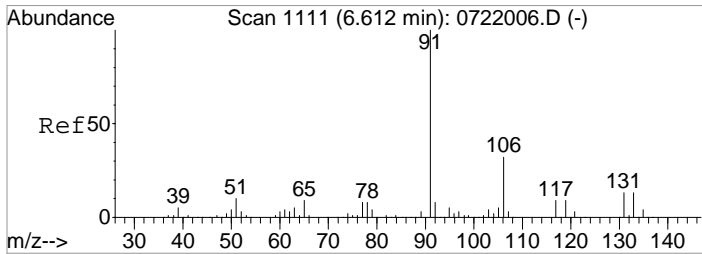
Tgt Ion	Resp	Lower	Upper
78	100		
52	17.1	0.0	46.1
51	29.1	0.0	46.4



#57
Toluene
Concen: 1.03 PPB
RT: 5.23 min Scan# 847
Delta R.T. -0.00 min
Lab File: 1007F013.D
Acq: 7 Oct 2019 2:05 pm

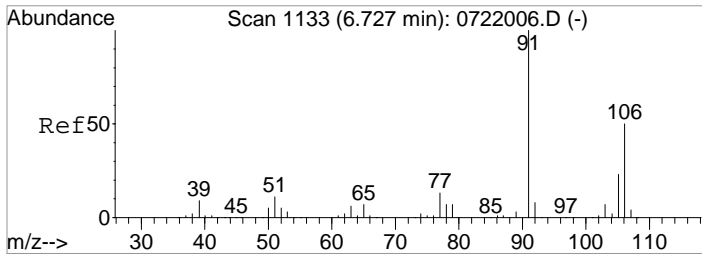
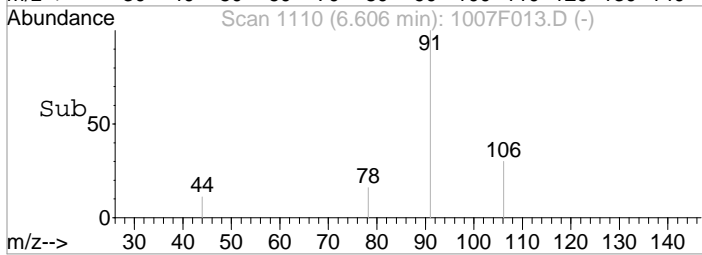
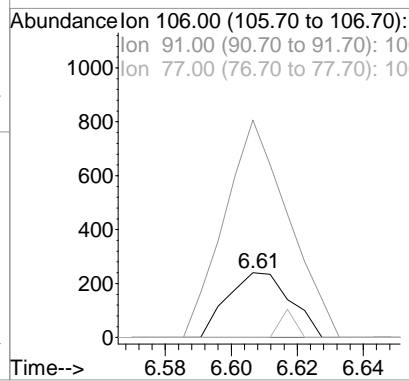
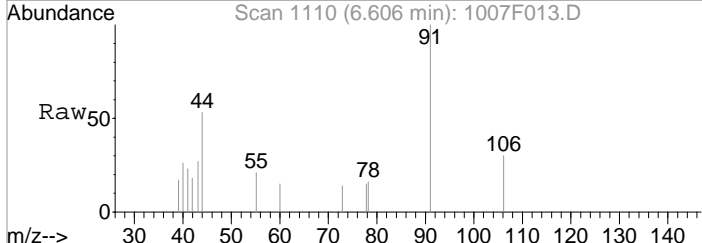
Tgt Ion	Resp	Lower	Upper
92	100		
91	168.4	135.2	195.2
65	16.1	0.0	48.7





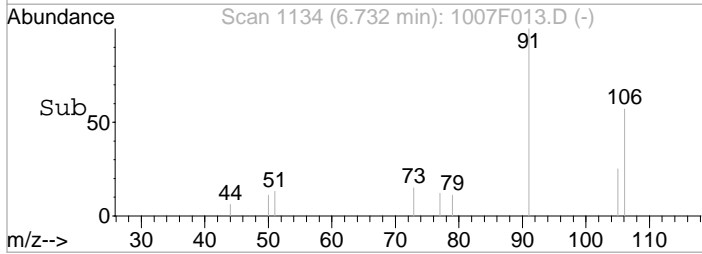
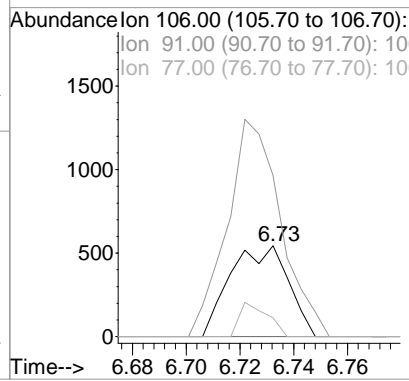
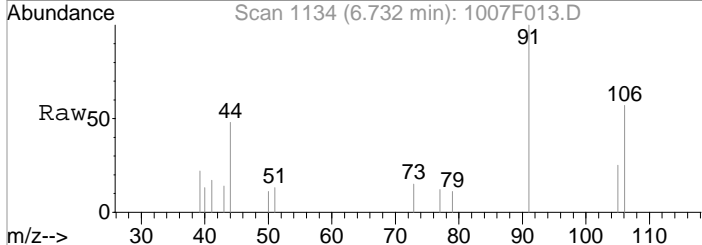
#68
 Ethylbenzene
 Concen: 0.25 PPB m
 RT: 6.61 min Scan# 1110
 Delta R.T. -0.01 min
 Lab File: 1007F013.D
 Acq: 7 Oct 2019 2:05 pm

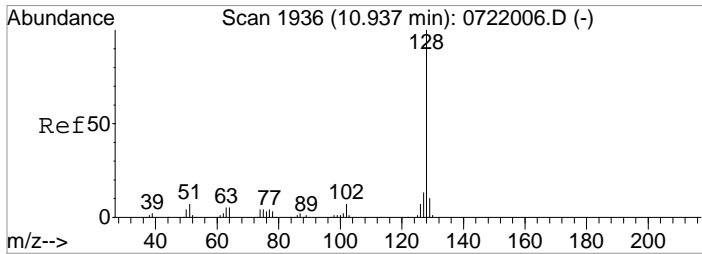
Tgt Ion	Resp	Lower	Upper
106	100		
91	336.3	273.2	333.2# X
77	0.0	0.0	56.4



#70
 m,p-Xylenes
 Concen: 0.54 PPB
 RT: 6.73 min Scan# 1134
 Delta R.T. 0.01 min
 Lab File: 1007F013.D
 Acq: 7 Oct 2019 2:05 pm

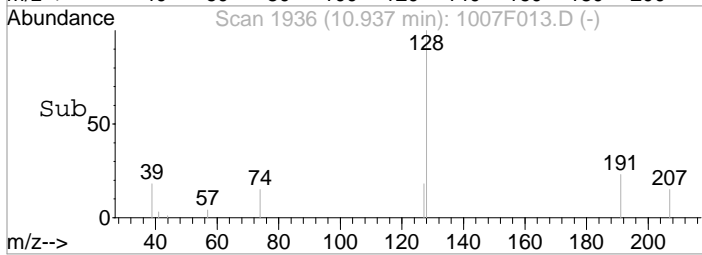
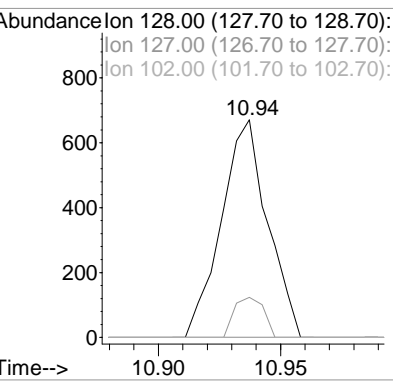
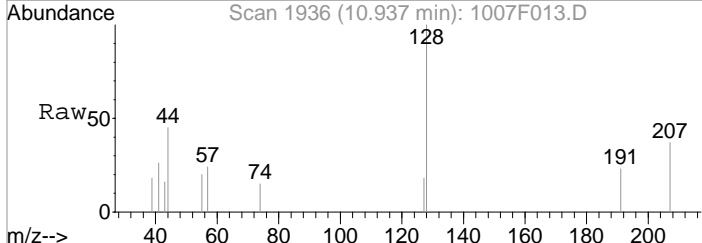
Tgt Ion	Resp	Lower	Upper
106	100		
91	176.7	160.5	220.5
77	20.9	0.0	54.8





#98
Naphthalene
Concen: 0.33 PPB
RT: 10.94 min Scan# 1936
Delta R.T. -0.00 min
Lab File: 1007F013.D
Acq: 7 Oct 2019 2:05 pm

Tgt Ion	Resp	Lower	Upper
128	100		
127	18.5	0.0	43.8
102	0.0	0.0	37.9



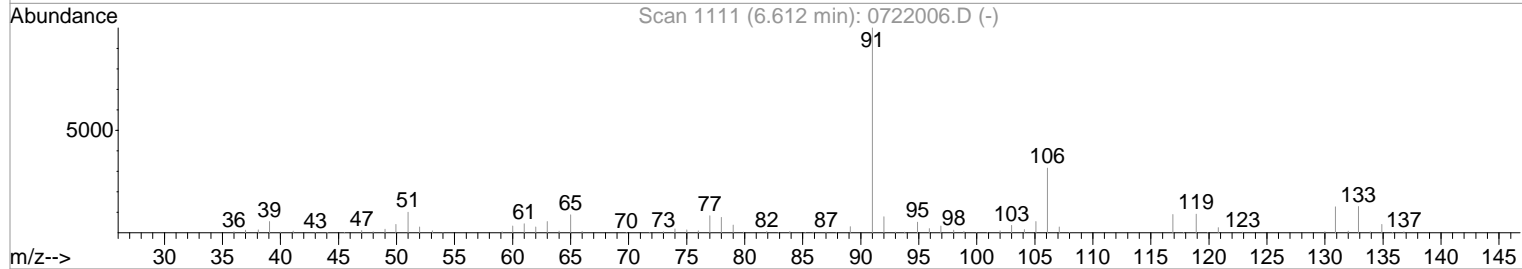
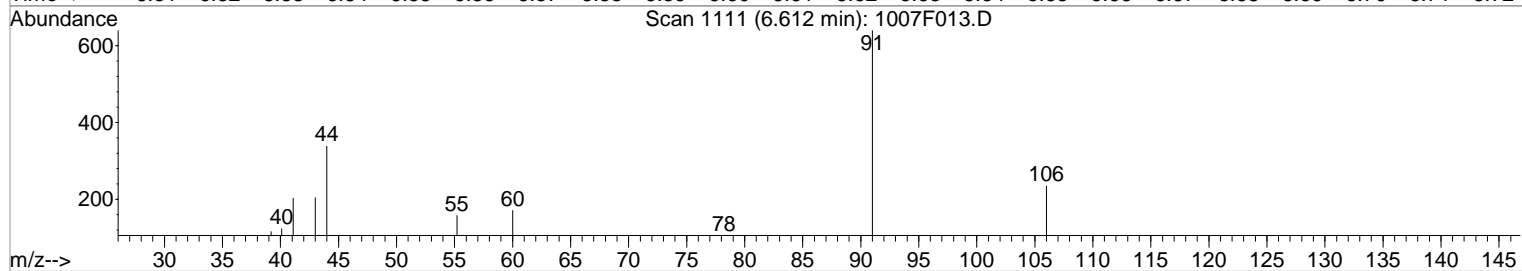
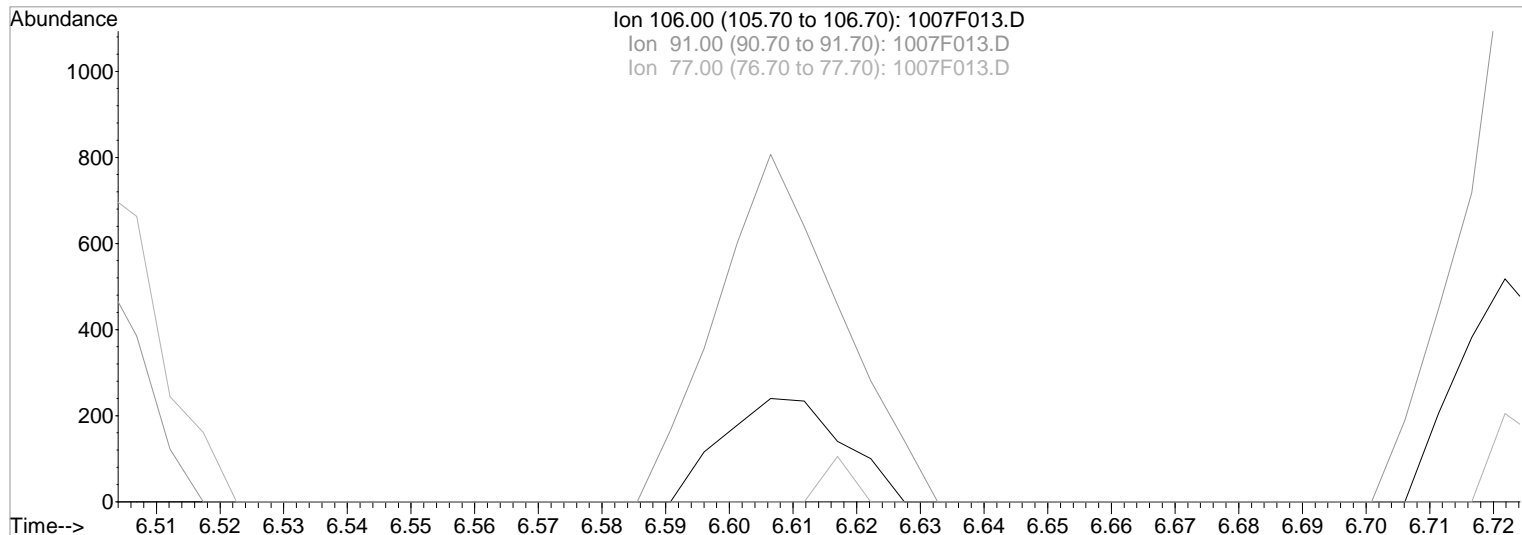
Data File : J:\MS24\DATA\100719\1007F013.D
 Acq On : 7 Oct 2019 2:05 pm
 Sample : K1909014-003
 Misc :

Vial: 13
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 7 14:45 2019

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 14:57:11 2019
 Response via : Multiple Level Calibration



TIC: 1007F013.D

(68) Ethylbenzene (CT)

Manual Integration:

6.61min 0.00PPB

Before

response 0

Ion Exp% Act%

10/07/19

106.00 100 0.00

91.00 303.20 0.00#

77.00 26.40 0.00

0.00 0.00 0.00

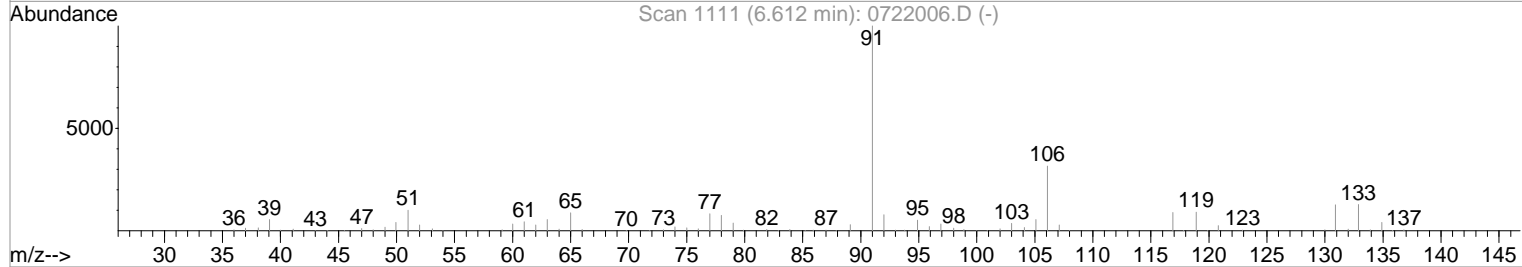
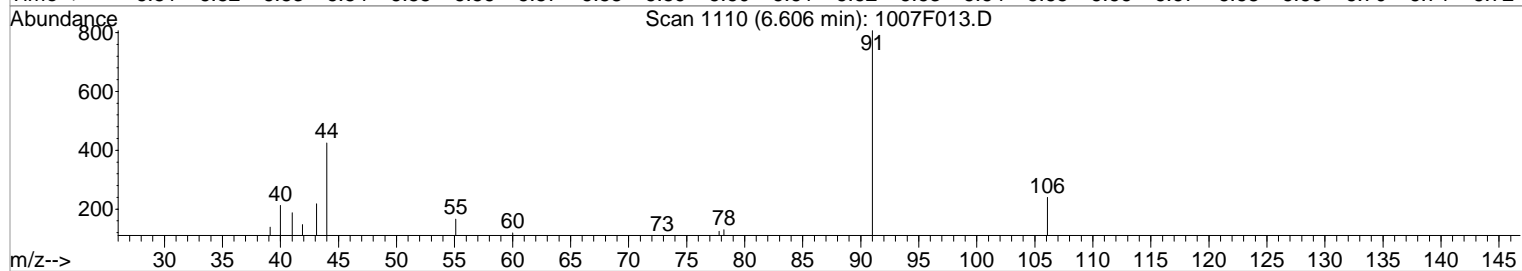
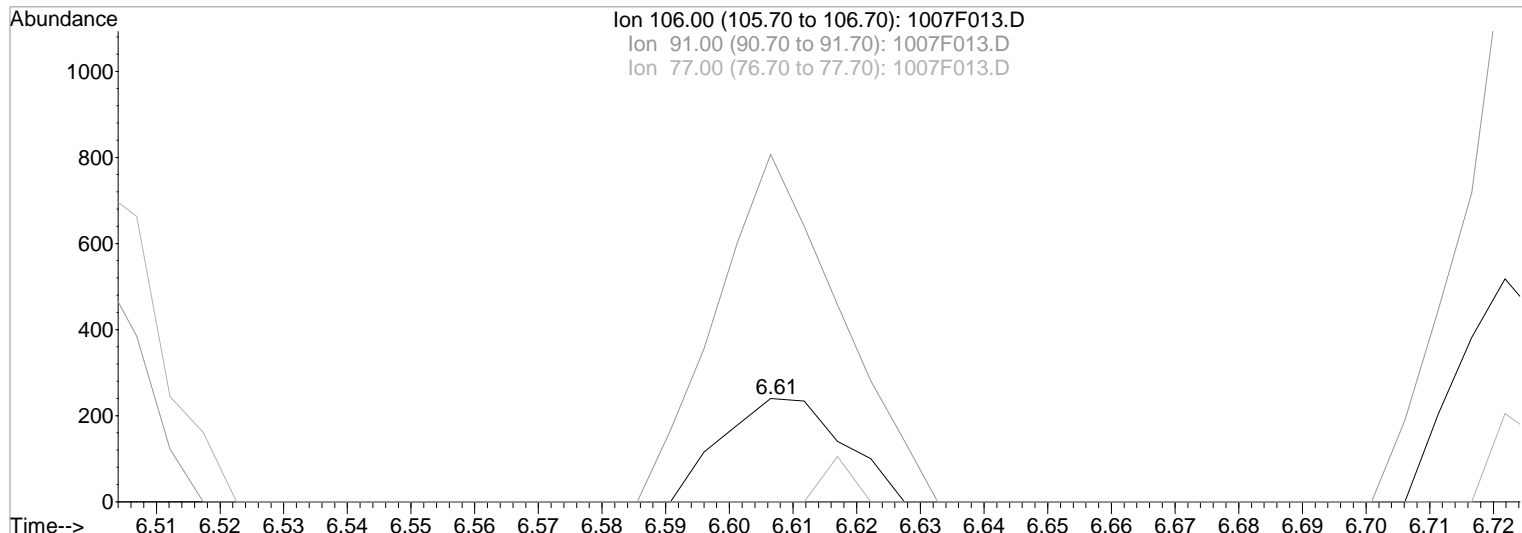
Data File : J:\MS24\DATA\100719\1007F013.D
Acq On : 7 Oct 2019 2:05 pm
Sample : K1909014-003
Misc :

Vial: 13
Operator: KW
Inst : MS24
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Oct 7 14:45 2019

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
Title : VOA MS24 EPA Method 8260B
Last Update : Mon Jul 15 14:57:11 2019
Response via : Multiple Level Calibration



TIC: 1007F013.D

(68) Ethylbenzene (CT)

Manual Integration:

6.61min 0.25PPB m
response 317

After
Missed peak

Ion	Exp%	Act%
106.00	100	100
91.00	303.20	336.25#
77.00	26.40	0.00
0.00	0.00	0.00

10/07/19

Validation Report

1st **KW** 10/08/19
2nd **SK** 10/08/19

Data File: J:\MS24\DATA\100719\1007F014.D
Lab ID: K1909014-004
RunType: N/A
Matrix: Soil

Date Acquired: 10/7/19 14:26:00
Batch ID: 654417
Analysis Method: 8260C/VOC FP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification		X
Continuing Calibration Recovery		X
Lab Control Sample Recovery	X	
Duplicate Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards		X
Surrogates		X
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	Dichlorodifluoromethane	47		30	High bias, narrate
Continuing Calibration Recovery	n-Butylbenzene	23		20	CCVOK
	sec-Butylbenzene	21		20	
	Chloromethane	-24		20	
	Dichlorodifluoromethane	-30		20	
	Hexachlorobutadiene	24		20	
	Isopropylbenzene	21		20	
Internal Standards	4-Isopropyltoluene	23		20	
	Chlorobenzene-d5	3969	35200	140798	matrix
	1,4-Dichlorobenzene-d4	2603	33672	134688	
	Fluorobenzene	23425	86779	347116	
Surrogates	4-Bromofluorobenzene	72	88	127	

RUN 1008F012 CONFIRMS FAILURES

Primary Review: _____

Secondary Review: _____

Quantitation Report

1st **KW** 10/08/19
2nd **KW** 10/08/19

Data File: J:\MS24\DATA\100719\1007F014.D\	Instrument: K-MS-24
Acqu Date: 10/7/19 14:26:00	Vial: 9
Run Type: N/A	Dilution: 1
Lab ID: K1909014-004	Raw Units: ppb

Bottle ID: K1909014-004.05	Tier: IV	Matrix: Soil
Prod Code: VOC FP	Collect Date: 9/25/19	Receive Date: 9/27/19

Analysis Lot: 654417	Prep Lot:	Report Group: K1909014
Analysis: 8260C	Prep Method:	
	Prep Date:	

Title: Volatile Organic Compounds by GC/MS	Calibration ID: KC1900275
	Report List ID: 20903

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Chlorobenzene-d5	6.50		3969	50.00	* LOW
1,4-Dichlorobenzene-d4	8.82		2603	50.00	* LOW
Fluorobenzene	3.90		23425	50.00	* LOW

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
4-Bromofluorobenzene	7.67		2380	35.91	72 *	88 - 127	Y
Dibromofluoromethane	3.42		6164	53.86	108	82 - 146	Y
Toluene-d8	5.17		19560	47.97	96	90 - 142	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Acetone	1.92	+0.01	1481	32.99	130		Y
Benzene	0.00		0	0.00	0	U	Y
Bromobenzene	0.00		0	0.00	0	U	Y
Bromochloromethane	0.00		0	0.00	0	U	Y
Bromodichloromethane	0.00		0	0.00	0	U	Y
Bromoform	0.00		0	0.00	0	U	Y
Bromomethane	0.00		0	0.00	0	U	Y
2-Butanone (MEK)	0.00		0	0.00	0	U	Y
n-Butylbenzene	0.00		0	0.00	0	U	Y
sec-Butylbenzene	0.00		0	0.00	0	U	Y
tert-Butylbenzene	0.00		0	0.00	0	U	Y
Carbon Disulfide	0.00		0	0.00	0	U	Y
Carbon Tetrachloride	0.00		0	0.00	0	U	Y
Chlorobenzene	0.00		0	0.00	0	U	Y
Chloroethane	0.00		0	0.00	0	U	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 10/11/19 8:00

\\alprews001\starlims\LIMSReps\QuantValidation.rpt

Data File: J:\MS24\DATA\100719\1007F014.D\
 Acqu Date: 10/7/19 14:26:00
 Run Type: N/A
 Lab ID: K1909014-004

Instrument: K-MS-24nd **KW** 10/08/19
 Vial: 9
 Dilution: 1
 Raw Units: ppb

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Chloroform	0.00		0	0.00	0	U	Y
Chloromethane	0.00		0	0.00	0	U	Y
2-Chlorotoluene	0.00		0	0.00	0	U	Y
4-Chlorotoluene	0.00		0	0.00	0	U	Y
1,2-Dibromo-3-chloropropane	0.00		0	0.00	0	U	Y
Dibromochloromethane	0.00		0	0.00	0	U	Y
1,2-Dibromoethane (EDB)	0.00		0	0.00	0	U	Y
Dibromomethane	0.00		0	0.00	0	U	Y
1,2-Dichlorobenzene	0.00		0	0.00	0	U	Y
1,3-Dichlorobenzene	0.00		0	0.00	0	U	Y
1,4-Dichlorobenzene	0.00		0	0.00	0	U	Y
Dichlorodifluoromethane	0.00		0	0.00	0	U	Y
1,1-Dichloroethane	0.00		0	0.00	0	U	Y
1,2-Dichloroethane (EDC)	0.00		0	0.00	0	U	Y
1,1-Dichloroethene	0.00		0	0.00	0	U	Y
cis-1,2-Dichloroethene	0.00		0	0.00	0	U	Y
trans-1,2-Dichloroethene	0.00		0	0.00	0	U	Y
1,2-Dichloropropane	0.00		0	0.00	0	U	Y
1,3-Dichloropropane	0.00		0	0.00	0	U	Y
2,2-Dichloropropane	0.00		0	0.00	0	U	Y
1,1-Dichloropropene	0.00		0	0.00	0	U	Y
cis-1,3-Dichloropropene	0.00		0	0.00	0	U	Y
trans-1,3-Dichloropropene	0.00		0	0.00	0	U	Y
Ethylbenzene	0.00		0	0.00	0	U	Y
Hexachlorobutadiene	0.00		0	0.00	0	U	Y
2-Hexanone	0.00		0	0.00	0	U	Y
Isopropylbenzene	0.00		0	0.00	0	U	Y
4-Isopropyltoluene	0.00		0	0.00	0	U	Y
4-Methyl-2-pentanone (MIBK)	0.00		0	0.00	0	U	Y
Methylene Chloride	2.18		323	2.42	9.2	J	Y
Naphthalene	0.00		0	0.00	0	U	Y
n-Propylbenzene	0.00		0	0.00	0	U	Y
Styrene	0.00		0	0.00	0	U	Y
1,1,1,2-Tetrachloroethane	0.00		0	0.00	0	U	Y
1,1,2,2-Tetrachloroethane	0.00		0	0.00	0	U	Y
Tetrachloroethene (PCE)	0.00		0	0.00	0	U	Y
Toluene	0.00		0	0.00	0	U	Y
1,2,3-Trichlorobenzene	0.00		0	0.00	0	U	Y
1,2,4-Trichlorobenzene	0.00		0	0.00	0	U	Y
1,1,2-Trichloroethane	0.00		0	0.00	0	U	Y
1,1,1-Trichloroethane (TCA)	0.00		0	0.00	0	U	Y

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Printed: 10/11/19 8:00

\alprews001\starlims\LIMSReps\QuantValidation.rpt

Data File: J:\MS24\DATA\100719\1007F014.D\
Acqu Date: 10/7/19 14:26:00
Run Type: N/A
Lab ID: K1909014-004

Instrument: K-MS-2nd **KW** 10/08/19
Vial: 9
Dilution: 1
Raw Units: ppb

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Trichloroethene (TCE)	0.00		0	0.00	0	U	Y
Trichlorofluoromethane (CFC 11)	0.00		0	0.00	0	U	Y
1,2,3-Trichloropropane	0.00		0	0.00	0	U	Y
1,2,4-Trimethylbenzene	0.00		0	0.00	0	U	Y
1,3,5-Trimethylbenzene	0.00		0	0.00	0	U	Y
Vinyl Chloride	0.00		0	0.00	0	U	Y
o-Xylene	0.00		0	0.00	0	U	Y
m,p-Xylenes	0.00		0	0.00	0	U	Y
Xylenes, Total				0	0	U	Y

Prep Amount: 1.58 g
Prep Final Amount: 5.00 mL

Dilution: 1
Basis Factor: 83.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 10/11/19 8:00

\alprews001\starlims\LIMSReps\QuantValidation.rpt

Data File : J:\MS24\DATA\100719\1007F014.D

Vial: 14

Acq On : 7 Oct 2019 2:26 pm

Operator: KW

Sample : K1909014-004

Inst : MS24

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Oct 07 15:42:40 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

Quant Method : J:\MS24\M...\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)

Title : VOA MS24 EPA Method 8260B

Last Update : Mon Jul 15 14:57:11 2019

Response via : Initial Calibration

DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	3.90	96	23425	50.00	PPB	0.00
58) Chlorobenzene-d5	6.50	82	3969	50.00	PPB	0.00
77) 1,4-Dichlorobenzene-d4	8.82	152	2603	50.00	PPB	0.00

System Monitoring Compounds

39) Dibromofluoromethane	3.42	113	6164	53.86	PPB	0.00
Spiked Amount	50.000		Recovery	=	107.72%	
43) 1,2-Dichloroethane-d4	3.69	65	4616	31.32	PPB	0.00
Spiked Amount	50.000		Recovery	=	62.64%	
56) Toluene-d8	5.17	98	19560	47.97	PPB	0.00
Spiked Amount	50.000		Recovery	=	95.94%	
76) 4-Bromofluorobenzene	7.67	95	2380	35.91	PPB	0.00
Spiked Amount	50.000		Recovery	=	71.82%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
12) Acetone	1.92	43	1481	32.99	PPB	87
17) Acetonitrile	2.16	40	1201	127.90	PPB	# 68
18) Methylene Chloride	2.18	84	323m	2.42	PPB	

(#) = qualifier out of range (m) = manual integration

1007F014.D 0715DOD19_MS24_FULL_SOIL.M

Mon Oct 07 15:59:24 2019

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Page 1

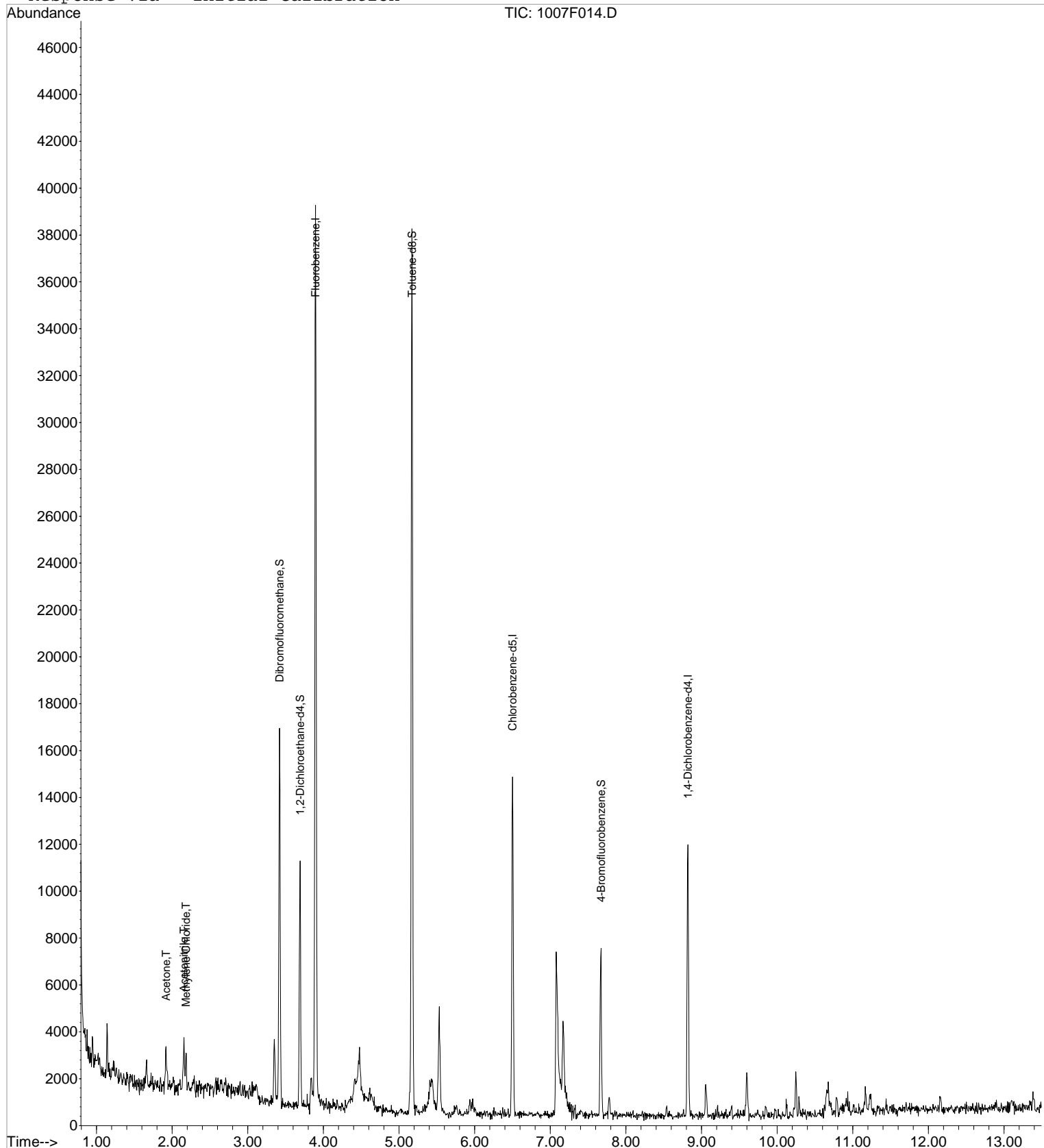
Data File : J:\MS24\DATA\100719\1007F014.D
 Acq On : 7 Oct 2019 2:26 pm
 Sample : K1909014-004
 Misc :

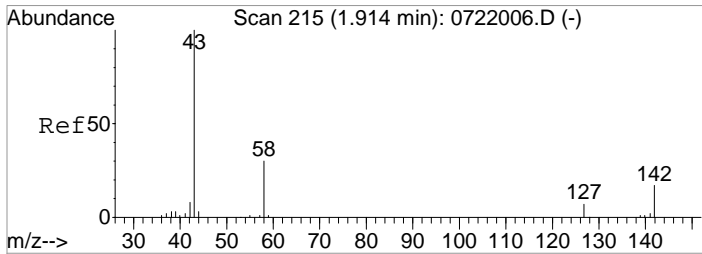
Vial: 14
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 7 15:50 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

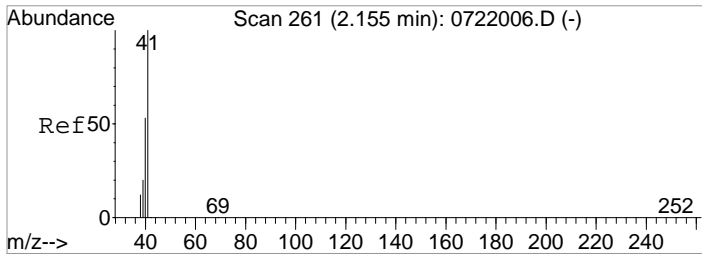
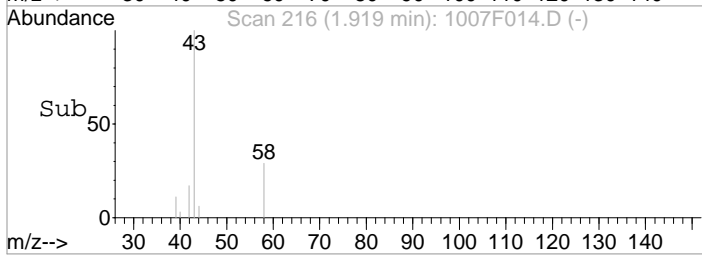
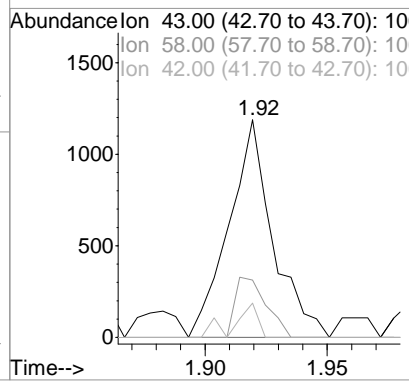
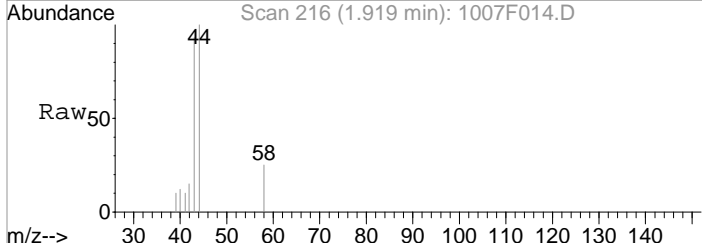
Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 14:57:11 2019
 Response via : Initial Calibration





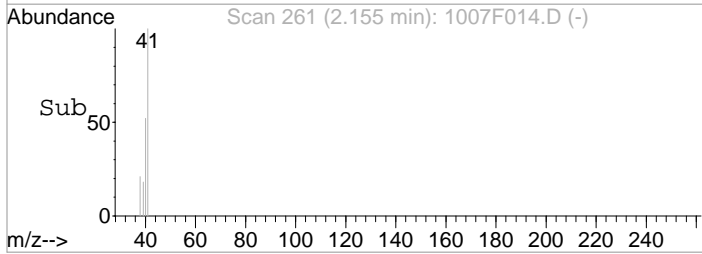
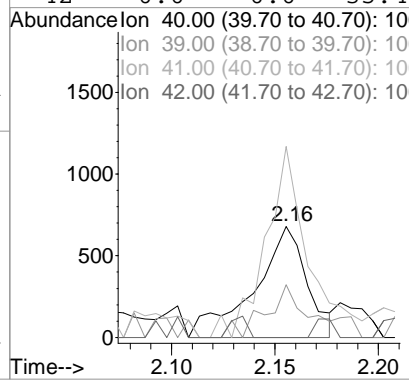
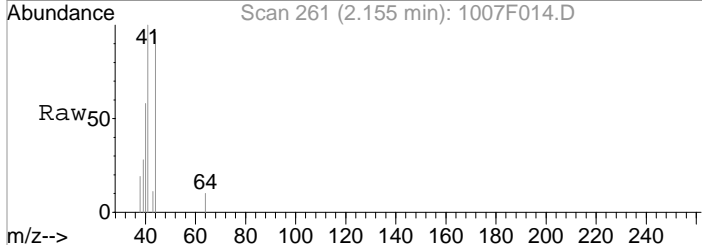
#12
 Acetone
 Concen: 32.99 PPB
 RT: 1.92 min Scan# 216
 Delta R.T. 0.01 min
 Lab File: 1007F014.D
 Acq: 7 Oct 2019 2:26 pm

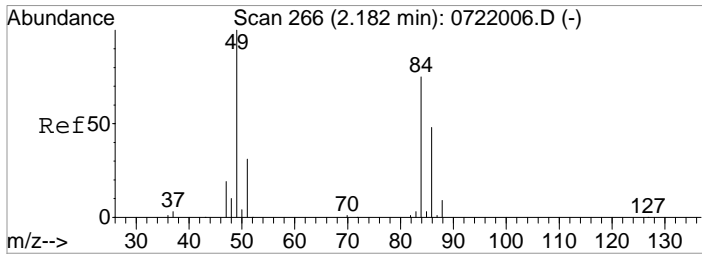
Tgt Ion	Resp	Lower	Upper
43	1481		
58	26.3	2.9	62.9
42	15.7	0.0	38.4



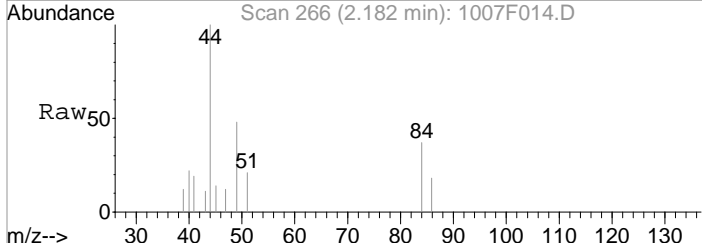
#17
 Acetonitrile
 Concen: 127.90 PPB
 RT: 2.16 min Scan# 261
 Delta R.T. 0.01 min
 Lab File: 1007F014.D
 Acq: 7 Oct 2019 2:26 pm

Tgt Ion	Resp	Lower	Upper
40	1201		
39	43.6	6.8	66.8
41	139.1	162.3	222.3#
42	0.0	0.0	35.4



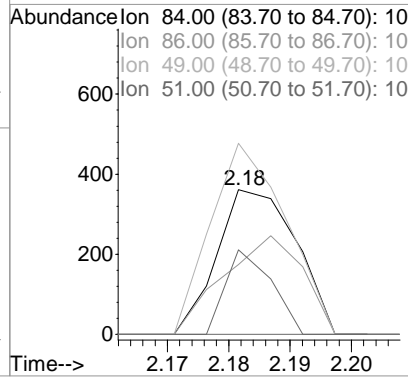
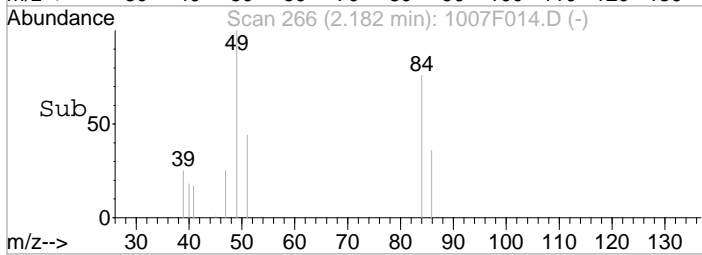


#18
 Methylene Chloride
 Concen: 2.42 PPB m
 RT: 2.18 min Scan# 266
 Delta R.T. 0.00 min
 Lab File: 1007F014.D
 Acq: 7 Oct 2019 2:26 pm



Tgt Ion: 84 Resp: 323

Ion	Ratio	Lower	Upper
84	100		
86	48.2	33.0	93.0
49	132.1	100.8	160.8
51	58.4	10.9	70.9



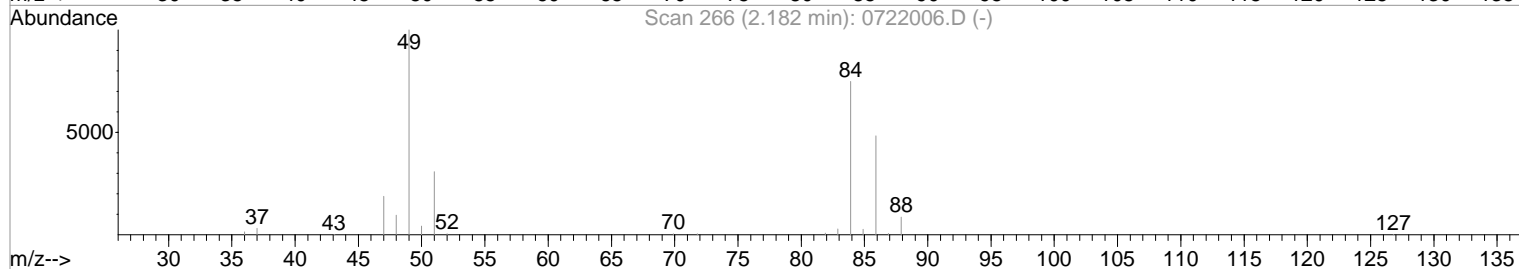
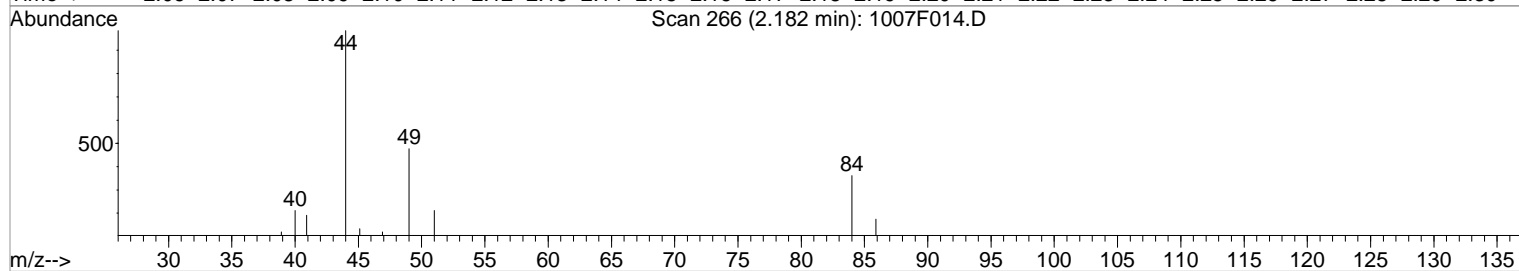
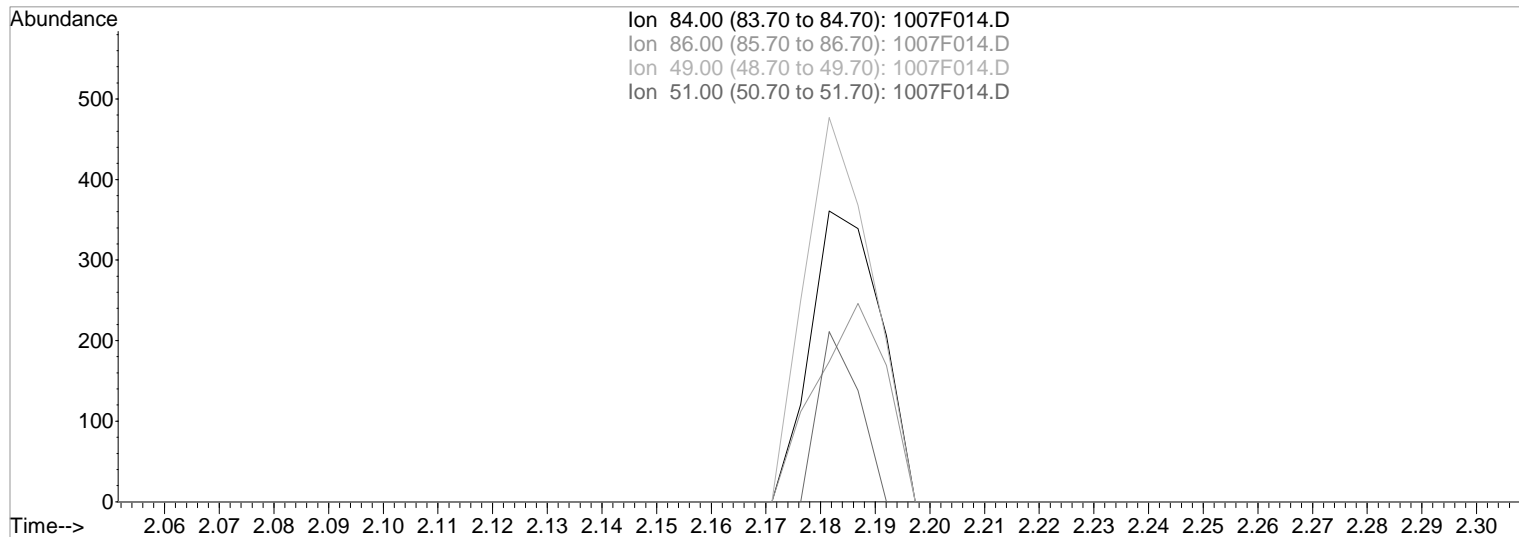
Data File : J:\MS24\DATA\100719\1007F014.D
 Acq On : 7 Oct 2019 2:26 pm
 Sample : K1909014-004
 Misc :

Vial: 14
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 7 15:49 2019

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 14:57:11 2019
 Response via : Multiple Level Calibration



TIC: 1007F014.D

(18) Methylene Chloride (T)

Manual Integration:

2.18min 0.00PPB

Before

response 0

Ion	Exp%	Act%
84.00	100	0.00
86.00	63.00	0.00#
49.00	130.80	0.00#
51.00	40.90	0.00#

10/07/19

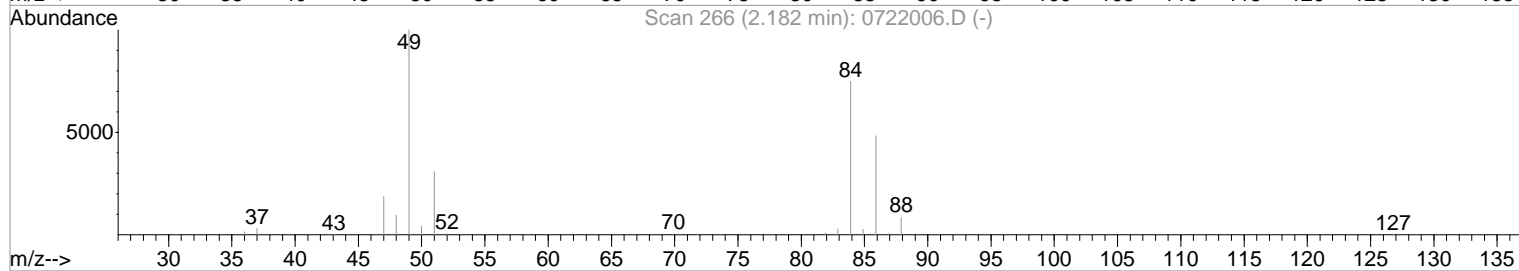
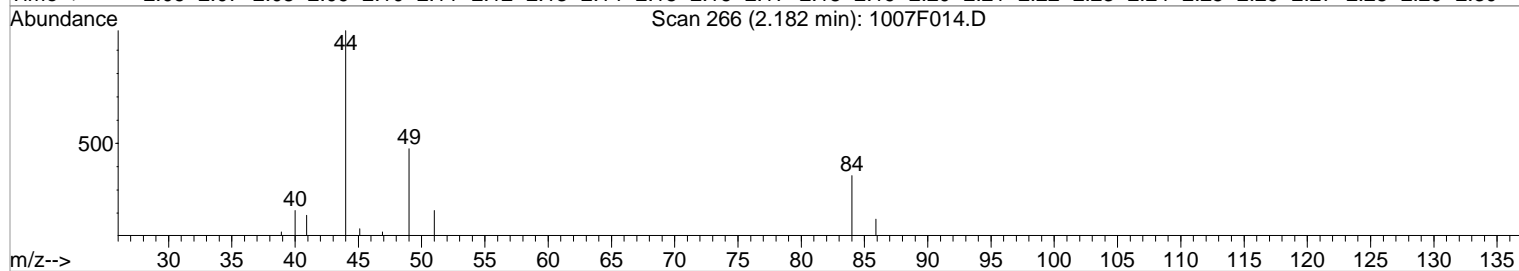
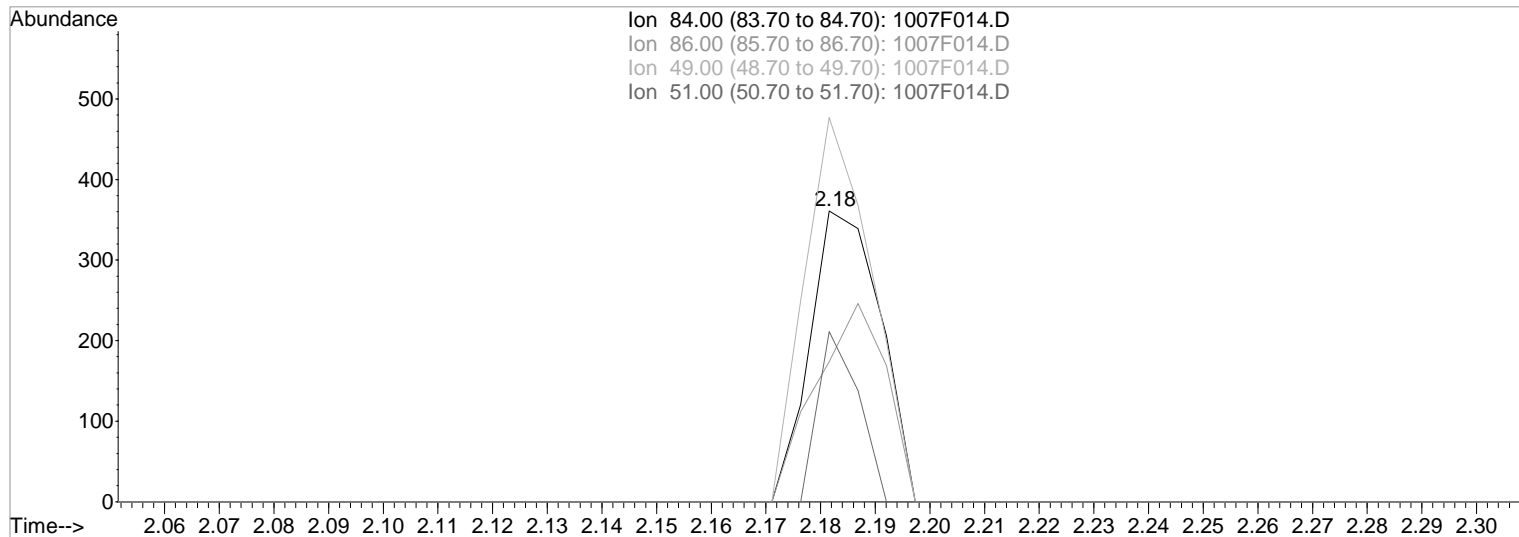
Data File : J:\MS24\DATA\100719\1007F014.D
 Acq On : 7 Oct 2019 2:26 pm
 Sample : K1909014-004
 Misc :

Vial: 14
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 7 15:49 2019

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 14:57:11 2019
 Response via : Multiple Level Calibration



TIC: 1007F014.D

(18) Methylene Chloride (T)

Manual Integration:

2.18min 2.42PPB m
 response 323

After
 Missed peak

Ion	Exp%	Act%
84.00	100	100
86.00	63.00	48.20
49.00	130.80	132.13
51.00	40.90	58.45

10/07/19

Validation Report

1st **KW** 10/08/19
2nd **SK** 10/08/19

Data File: J:\MS24\DATA\100719\1007F015.D\
Lab ID: K1909014-006
RunType: N/A
Matrix: Soil

Date Acquired: 10/7/19 14:47:00
Batch ID: 654417
Analysis Method: 8260C/VOC FP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification		X
Continuing Calibration Recovery		X
Lab Control Sample Recovery	X	
Duplicate Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards		X
Surrogates		X
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	Dichlorodifluoromethane	47		30	High bias, narrate
Continuing Calibration Recovery	n-Butylbenzene	23		20	CCVOK
	sec-Butylbenzene	21		20	
	Chloromethane	-24		20	
	Dichlorodifluoromethane	-30		20	
	Hexachlorobutadiene	24		20	
	Isopropylbenzene	21		20	
	4-Isopropyltoluene	23		20	
Internal Standards	1,4-Dichlorobenzene-d4	27492	33672	134688	
Surrogates	4-Bromofluorobenzene	85	88	127	matrix

RUN 1008F013 CONFIRMS FAILURES

Primary Review: _____

Secondary Review: _____

Quantitation Report

1st **KW** 10/08/19
2nd **KW** 10/08/19

Data File: J:\MS24\DATA\100719\1007F015.D\	Instrument: K-MS-24
Acqu Date: 10/7/19 14:47:00	Vial: 10
Run Type: N/A	Dilution: 1
Lab ID: K1909014-006	Raw Units: ppb

Bottle ID: K1909014-006.05	Tier: IV	Matrix: Soil
Prod Code: VOC FP	Collect Date: 9/25/19	Receive Date: 9/27/19

Analysis Lot: 654417	Prep Lot:	Report Group: K1909014
Analysis: 8260C	Prep Method:	
	Prep Date:	

Title: Volatile Organic Compounds by GC/MS	Calibration ID: KC1900275
	Report List ID: 20903

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Chlorobenzene-d5	6.50		44433	50.00	OK
1,4-Dichlorobenzene-d4	8.82		27492	50.00	* LOW
Fluorobenzene	3.90		142959	50.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
4-Bromofluorobenzene	7.67		31687	42.71	85 *	88 - 127	Y
Dibromofluoromethane	3.42		36530	52.30	105	82 - 146	Y
Toluene-d8	5.17		127152	51.10	102	90 - 142	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Acetone	1.91		125051	555.88	2900		Y
Benzene	0.00		0	0.00	0	U	Y
Bromobenzene	0.00		0	0.00	0	U	Y
Bromochloromethane	0.00		0	0.00	0	U	Y
Bromodichloromethane	0.00		0	0.00	0	U	Y
Bromoform	0.00		0	0.00	0	U	Y
Bromomethane	0.00		0	0.00	0	U	Y
2-Butanone (MEK)	3.11		3032	29.99	150		Y
n-Butylbenzene	0.00		0	0.00	0	U	Y
sec-Butylbenzene	0.00		0	0.00	0	U	Y
tert-Butylbenzene	0.00		0	0.00	0	U	Y
Carbon Disulfide	0.00		0	0.00	0	U	Y
Carbon Tetrachloride	0.00		0	0.00	0	U	Y
Chlorobenzene	0.00		0	0.00	0	U	Y
Chloroethane	0.00		0	0.00	0	U	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 10/11/19 8:00

\\alprews001\starlims\LIMSReps\QuantValidation.rpt

Data File: J:\MS24\DATA\100719\1007F015.D\
 Acqu Date: 10/7/19 14:47:00
 Run Type: N/A
 Lab ID: K1909014-006

Instrument: K-MS-2nd **KW** 10/08/19
 Vial: 10
 Dilution: 1
 Raw Units: ppb

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Chloroform	0.00		0	0.00	0	U	Y
Chloromethane	0.98		2680	2.96	15	J	Y
2-Chlorotoluene	0.00		0	0.00	0	U	Y
4-Chlorotoluene	0.00		0	0.00	0	U	Y
1,2-Dibromo-3-chloropropane	0.00		0	0.00	0	U	Y
Dibromochloromethane	0.00		0	0.00	0	U	Y
1,2-Dibromoethane (EDB)	0.00		0	0.00	0	U	Y
Dibromomethane	0.00		0	0.00	0	U	Y
1,2-Dichlorobenzene	0.00		0	0.00	0	U	Y
1,3-Dichlorobenzene	0.00		0	0.00	0	U	Y
1,4-Dichlorobenzene	0.00		0	0.00	0	U	Y
Dichlorodifluoromethane	0.00		0	0.00	0	U	Y
1,1-Dichloroethane	0.00		0	0.00	0	U	Y
1,2-Dichloroethane (EDC)	0.00		0	0.00	0	U	Y
1,1-Dichloroethene	0.00		0	0.00	0	U	Y
cis-1,2-Dichloroethene	0.00		0	0.00	0	U	Y
trans-1,2-Dichloroethene	0.00		0	0.00	0	U	Y
1,2-Dichloropropane	0.00		0	0.00	0	U	Y
1,3-Dichloropropane	0.00		0	0.00	0	U	Y
2,2-Dichloropropane	0.00		0	0.00	0	U	Y
1,1-Dichloropropene	0.00		0	0.00	0	U	Y
cis-1,3-Dichloropropene	0.00		0	0.00	0	U	Y
trans-1,3-Dichloropropene	0.00		0	0.00	0	U	Y
Ethylbenzene	0.00		0	0.00	0	U	Y
Hexachlorobutadiene	0.00		0	0.00	0	U	Y
2-Hexanone	0.00		0	0.00	0	U	Y
Isopropylbenzene	0.00		0	0.00	0	U	Y
4-Isopropyltoluene	8.76		44338	31.47	160		Y
4-Methyl-2-pentanone (MIBK)	0.00		0	0.00	0	U	Y
Methylene Chloride	2.18		1068	1.31	6.8	J	Y
Naphthalene	0.00		0	0.00	0	U	Y
n-Propylbenzene	0.00		0	0.00	0	U	Y
Styrene	0.00		0	0.00	0	U	Y
1,1,1,2-Tetrachloroethane	0.00		0	0.00	0	U	Y
1,1,2,2-Tetrachloroethane	0.00		0	0.00	0	U	Y
Tetrachloroethene (PCE)	0.00		0	0.00	0	U	Y
Toluene	5.23		9072	5.04	26		Y
1,2,3-Trichlorobenzene	0.00		0	0.00	0	U	Y
1,2,4-Trichlorobenzene	0.00		0	0.00	0	U	Y
1,1,2-Trichloroethane	0.00		0	0.00	0	U	Y
1,1,1-Trichloroethane (TCA)	0.00		0	0.00	0	U	Y

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Printed: 10/11/19 8:00

\alprews001\starlims\LIMSReps\QuantValidation.rpt

Data File: J:\MS24\DATA\100719\1007F015.D\
Acqu Date: 10/7/19 14:47:00
Run Type: N/A
Lab ID: K1909014-006

Instrument: K-MS-2nd **KW** 10/08/19
Vial: 10
Dilution: 1
Raw Units: ppb

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Trichloroethene (TCE)	0.00		0	0.00	0	U	Y
Trichlorofluoromethane (CFC 11)	0.00		0	0.00	0	U	Y
1,2,3-Trichloropropane	0.00		0	0.00	0	U	Y
1,2,4-Trimethylbenzene	0.00		0	0.00	0	U	Y
1,3,5-Trimethylbenzene	0.00		0	0.00	0	U	Y
Vinyl Chloride	0.00		0	0.00	0	U	Y
o-Xylene	0.00		0	0.00	0	U	Y
m,p-Xylenes	0.00		0	0.00	0	U	Y
Xylenes, Total				0	0	U	Y

Prep Amount: 1.02 g **Dilution:** 1
Prep Final Amount: 5.00 mL **Basis Factor:** 95.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 10/11/19 8:00

\alprews001\starlims\LIMSReps\QuantValidation.rpt

Data File : J:\MS24\DATA\100719\1007F015.D
 Acq On : 7 Oct 2019 2:47 pm
 Sample : K1909014-006
 Misc :

Vial: 15
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 07 15:43:06 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

Quant Method : J:\MS24\M...\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 14:57:11 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	3.90	96	142959	50.00	PPB	0.00
58) Chlorobenzene-d5	6.50	82	44433	50.00	PPB	0.00
77) 1,4-Dichlorobenzene-d4	8.82	152	27492	50.00	PPB	0.00

System Monitoring Compounds

39) Dibromofluoromethane	3.42	113	36530	52.30	PPB	0.00
Spiked Amount				50.000		
			Recovery	=	104.60%	
43) 1,2-Dichloroethane-d4	3.69	65	40351	44.86	PPB	0.00
Spiked Amount				50.000		
			Recovery	=	89.72%	
56) Toluene-d8	5.17	98	127152	51.10	PPB	0.00
Spiked Amount				50.000		
			Recovery	=	102.20%	
76) 4-Bromofluorobenzene	7.67	95	31687	42.71	PPB	0.00
Spiked Amount				50.000		
			Recovery	=	85.42%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
3) Chloromethane	0.98	50	2680	2.96	PPB	97
12) Acetone	1.91	43	125051	555.88	PPB	98
16) Methyl Acetate	2.11	43	8698	14.00	PPB	98
18) Methylene Chloride	2.18	84	1068	1.31	PPB	97
31) 2-Butanone	3.11	72	3032	29.99	PPB	# 81
42) Isobutyl Alcohol	3.67	43	3981	78.55	PPB	91
57) Toluene	5.23	92	9072	5.04	PPB	95
89) p-Isopropyltoluene	8.76	119	44338	31.47	PPB	98

(#) = qualifier out of range (m) = manual integration

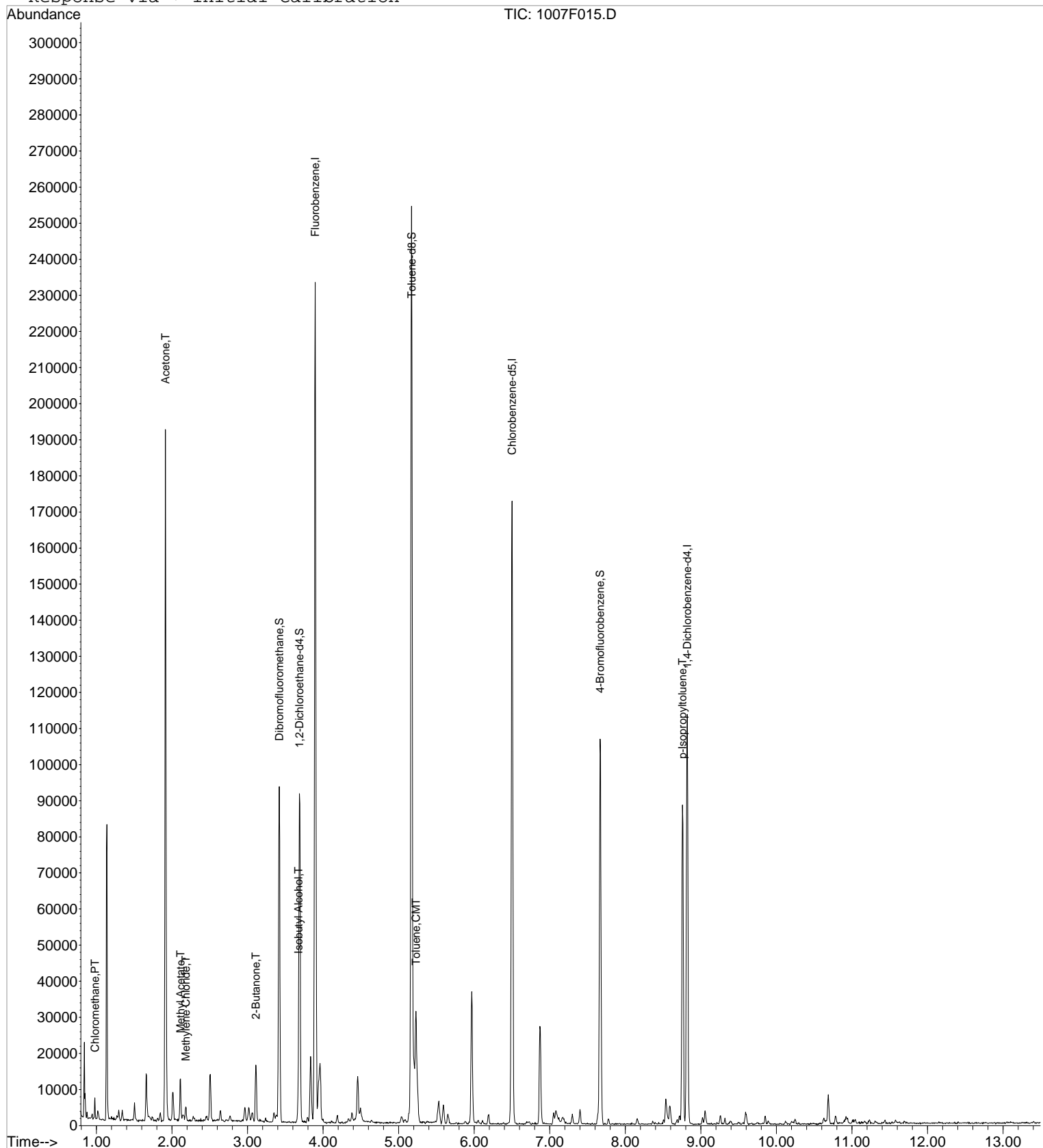
Data File : J:\MS24\DATA\100719\1007F015.D
 Acq On : 7 Oct 2019 2:47 pm
 Sample : K1909014-006
 Misc :

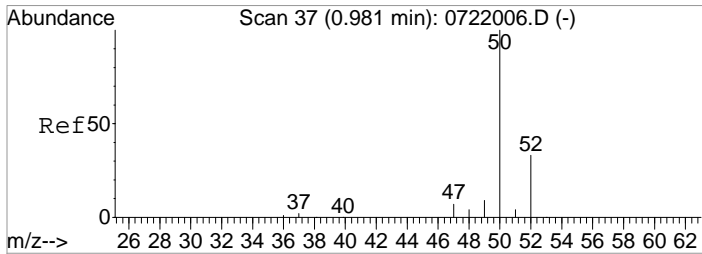
Vial: 15
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 7 15:52 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

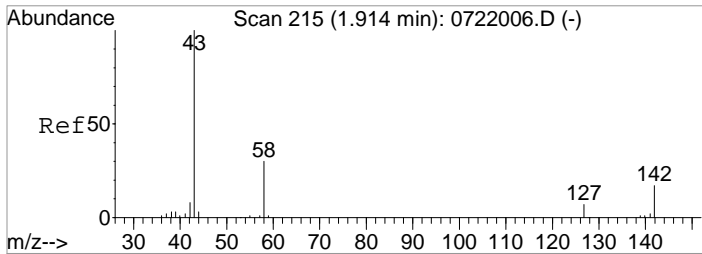
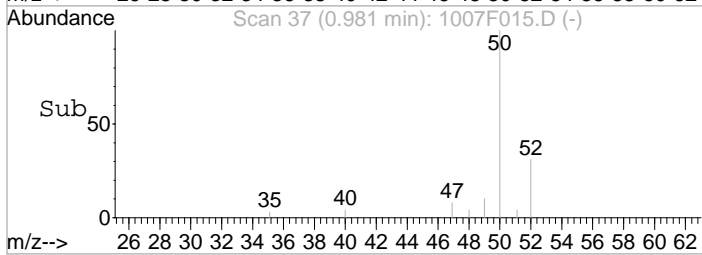
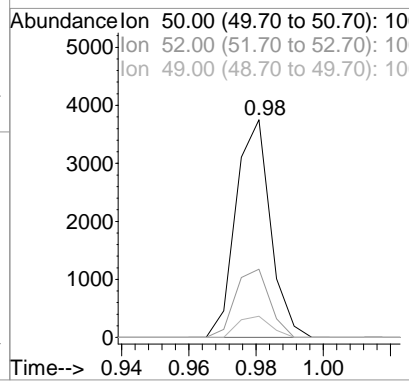
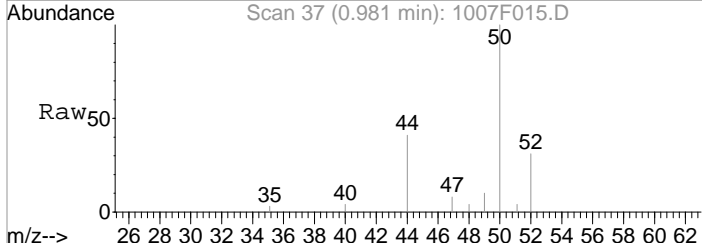
Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 14:57:11 2019
 Response via : Initial Calibration





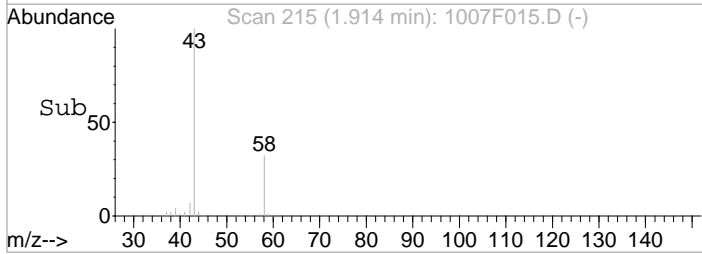
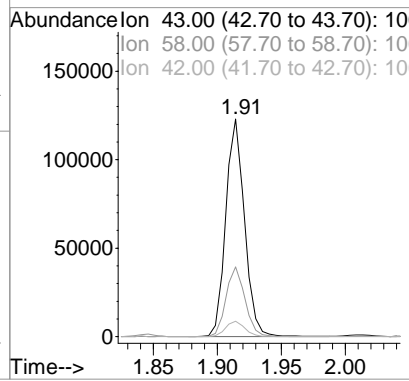
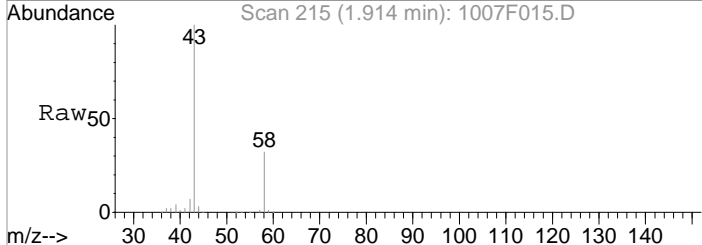
#3
 Chloromethane
 Concen: 2.96 PPB
 RT: 0.98 min Scan# 37
 Delta R.T. 0.01 min
 Lab File: 1007F015.D
 Acq: 7 Oct 2019 2:47 pm

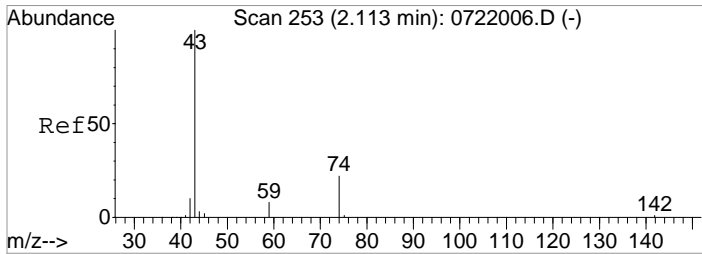
Tgt Ion	Resp	Lower	Upper
50	100		
52	31.4	3.4	63.4
49	9.8	0.0	40.0



#12
 Acetone
 Concen: 555.88 PPB
 RT: 1.91 min Scan# 215
 Delta R.T. 0.00 min
 Lab File: 1007F015.D
 Acq: 7 Oct 2019 2:47 pm

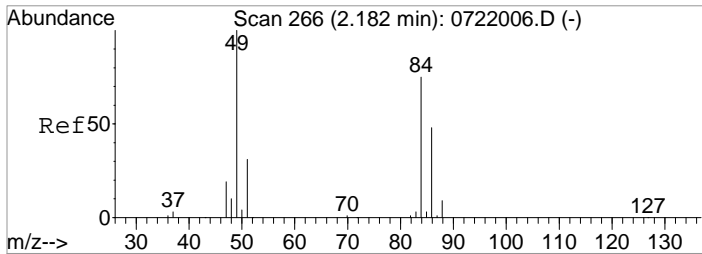
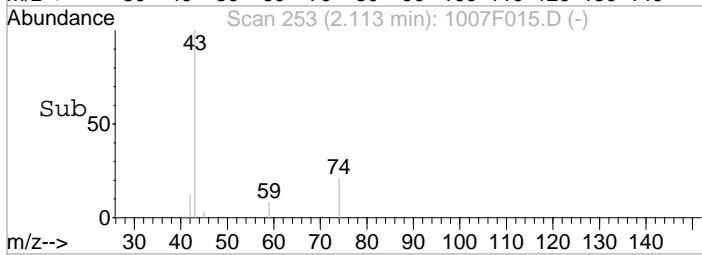
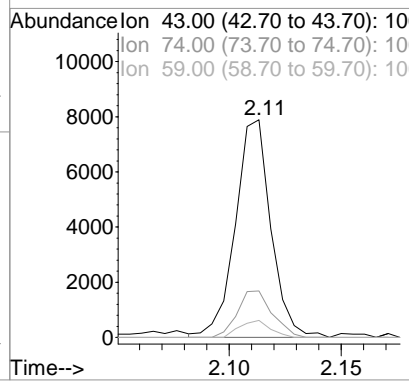
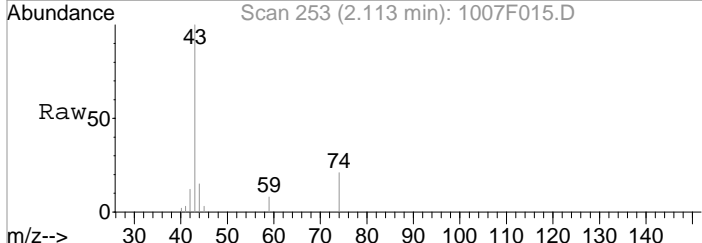
Tgt Ion	Resp	Lower	Upper
43	100		
58	32.1	2.9	62.9
42	7.1	0.0	38.4





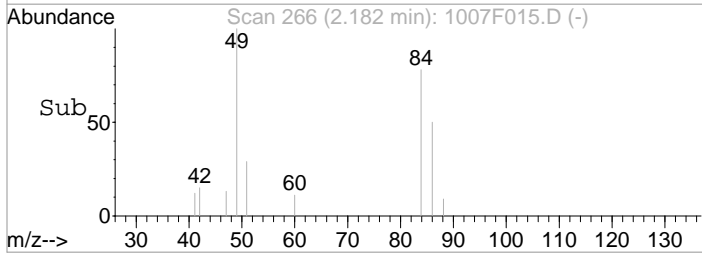
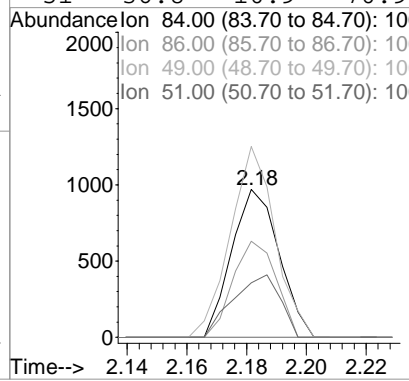
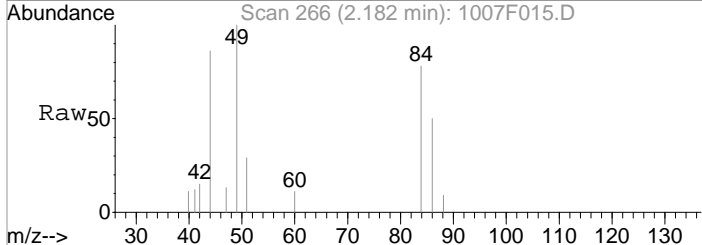
#16
 Methyl Acetate
 Concen: 14.00 PPB
 RT: 2.11 min Scan# 253
 Delta R.T. 0.01 min
 Lab File: 1007F015.D
 Acq: 7 Oct 2019 2:47 pm

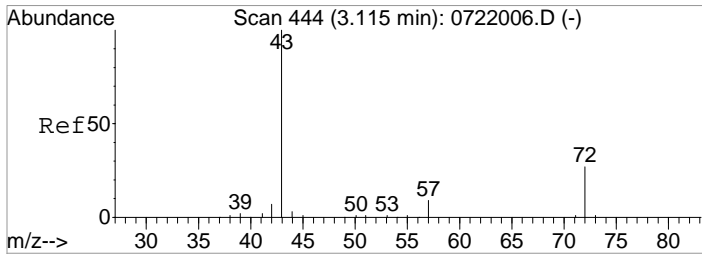
Tgt Ion	Resp	Lower	Upper
43	100		
74	21.0	15.1	28.1
59	6.6	5.3	9.8



#18
 Methylene Chloride
 Concen: 1.31 PPB
 RT: 2.18 min Scan# 266
 Delta R.T. 0.00 min
 Lab File: 1007F015.D
 Acq: 7 Oct 2019 2:47 pm

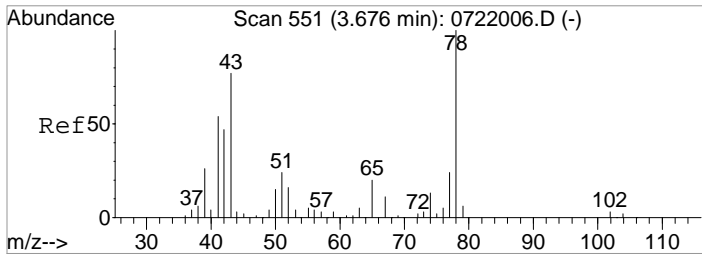
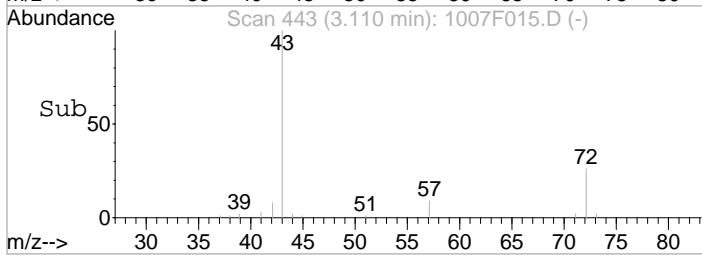
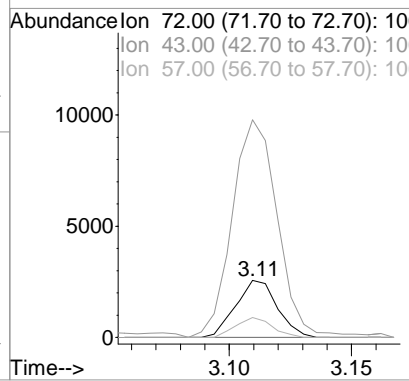
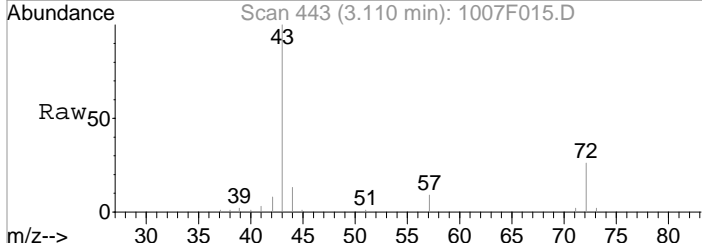
Tgt Ion	Resp	Lower	Upper
84	100		
86	64.9	33.0	93.0
49	128.8	100.8	160.8
51	36.8	10.9	70.9





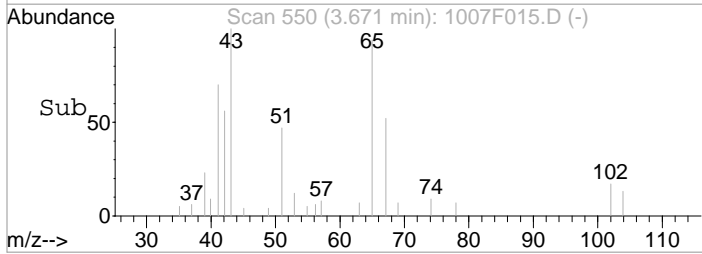
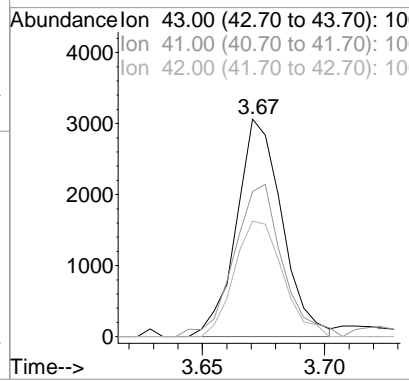
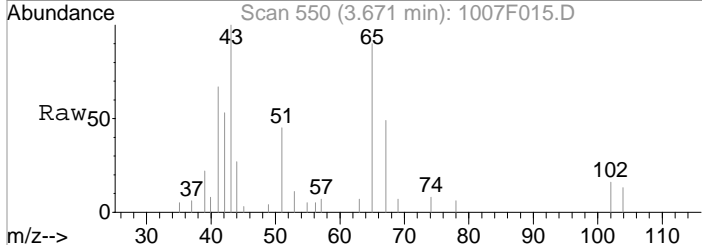
#31
 2-Butanone
 Concen: 29.99 PPB
 RT: 3.11 min Scan# 443
 Delta R.T. 0.00 min
 Lab File: 1007F015.D
 Acq: 7 Oct 2019 2:47 pm

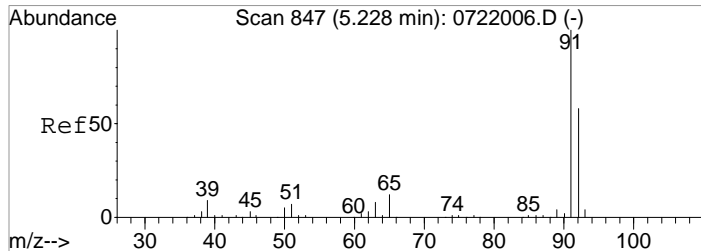
Tgt Ion	Resp	Lower	Upper
72	3032		
72	100		
43	381.6	401.3	461.3# X
57	34.8	4.4	64.4



#42
 Isobutyl Alcohol
 Concen: 78.55 PPB
 RT: 3.67 min Scan# 550
 Delta R.T. -0.01 min
 Lab File: 1007F015.D
 Acq: 7 Oct 2019 2:47 pm

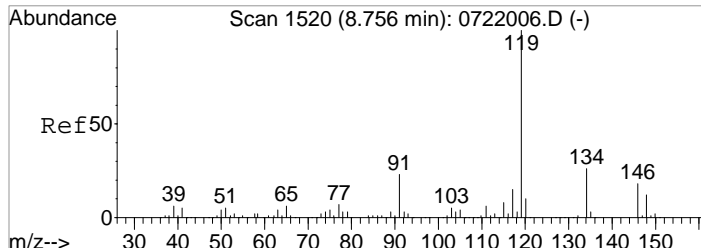
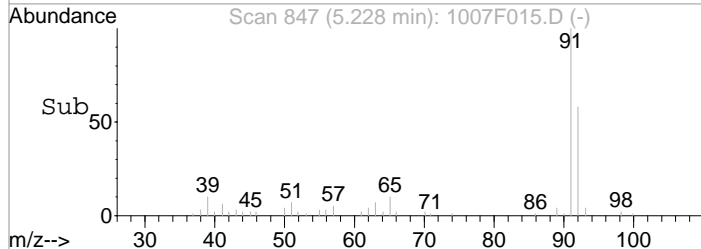
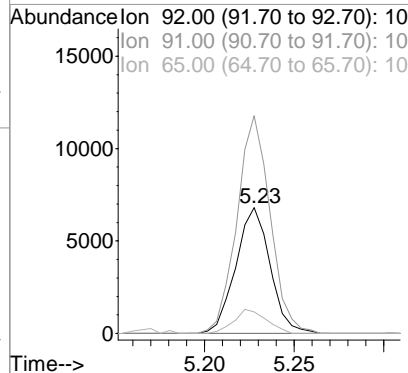
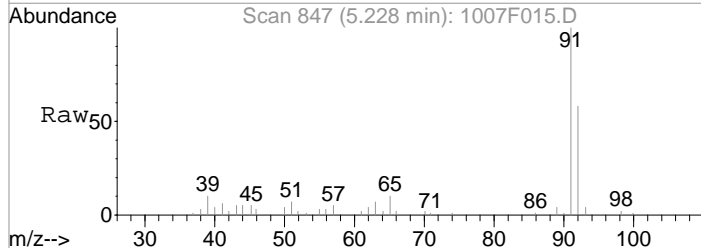
Tgt Ion	Resp	Lower	Upper
43	3981		
43	100		
41	63.2	41.2	101.2
42	53.1	29.5	89.5





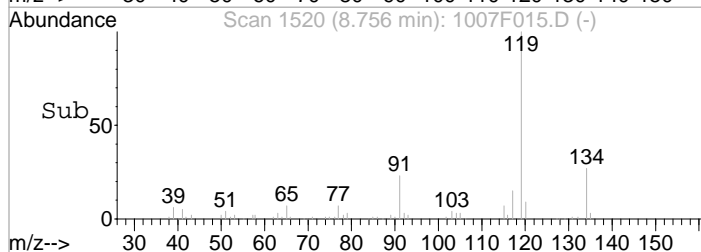
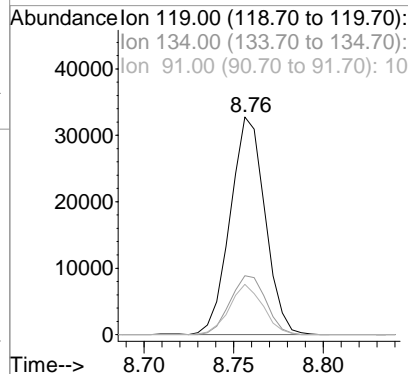
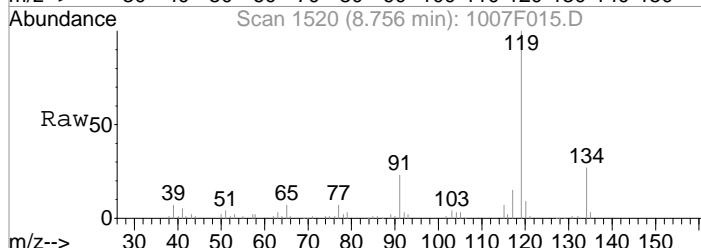
#57
 Toluene
 Concen: 5.04 PPB
 RT: 5.23 min Scan# 847
 Delta R.T. 0.00 min
 Lab File: 1007F015.D
 Acq: 7 Oct 2019 2:47 pm

Tgt Ion	Resp	Lower	Upper
92	9072		
91	172.8	135.2	195.2
65	17.2	0.0	48.7



#89
 p-Isopropyltoluene
 Concen: 31.47 PPB
 RT: 8.76 min Scan# 1520
 Delta R.T. -0.01 min
 Lab File: 1007F015.D
 Acq: 7 Oct 2019 2:47 pm

Tgt Ion	Resp	Lower	Upper
119	44338		
134	27.0	0.0	58.0
91	23.1	0.0	51.7



Validation Report

1st **KW** 10/08/19
2nd **SK** 10/08/19

Data File: J:\MS24\DATA\100719\1007F016.D\
Lab ID: K1909014-007
RunType: N/A
Matrix: Soil

Date Acquired: 10/7/19 15:08:00
Batch ID: 654417
Analysis Method: 8260C/VOC FP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification		X
Continuing Calibration Recovery		X
Lab Control Sample Recovery	X	
Duplicate Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards		X
Surrogates		X
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	Dichlorodifluoromethane	47		30	High bias, narrate
Continuing Calibration Recovery	n-Butylbenzene	23		20	CCVOK
	sec-Butylbenzene	21		20	
	Chloromethane	-24		20	
	Dichlorodifluoromethane	-30		20	
	Hexachlorobutadiene	24		20	
	Isopropylbenzene	21		20	
	4-Isopropyltoluene	23		20	
Internal Standards	Chlorobenzene-d5	1177	35200	140798	matrix
	1,4-Dichlorobenzene-d4	582	33672	134688	
	Fluorobenzene	9713	86779	347116	
Surrogates	4-Bromofluorobenzene	57	88	127	
	Dibromofluoromethane	229	82	146	
	Toluene-d8	66	90	142	

RUN 1008F014 CONFIRMS FAILURES

Primary Review: _____

Secondary Review: _____

Quantitation Report

1st **KW** 10/08/19
2nd **KW** 10/08/19

Data File: J:\MS24\DATA\100719\1007F016.D\	Instrument: K-MS-24
Acqu Date: 10/7/19 15:08:00	Vial: 11
Run Type: N/A	Dilution: 1
Lab ID: K1909014-007	Raw Units: ppb

Bottle ID: K1909014-007.06	Tier: IV	Matrix: Soil
Prod Code: VOC FP	Collect Date: 9/25/19	Receive Date: 9/27/19

Analysis Lot: 654417	Prep Lot:	Report Group: K1909014
Analysis: 8260C	Prep Method:	
	Prep Date:	

Title: Volatile Organic Compounds by GC/MS	Calibration ID: KC1900275
	Report List ID: 20903

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Chlorobenzene-d5	6.50		1177	50.00	* LOW
1,4-Dichlorobenzene-d4	8.81	-0.01	582	50.00	* LOW
Fluorobenzene	3.90		9713	50.00	* LOW

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
4-Bromofluorobenzene	7.67		557	28.34	57 *	88 - 127	Y
Dibromofluoromethane	3.42		5423	114.27	229 *	82 - 146	Y
Toluene-d8	5.17		5606	33.16	66 *	90 - 142	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Acetone	1.92	+0.01	2027	126.72	1800		Y
Benzene	0.00		0	0.00	0	U	Y
Bromobenzene	0.00		0	0.00	0	U	Y
Bromochloromethane	0.00		0	0.00	0	U	Y
Bromodichloromethane	0.00		0	0.00	0	U	Y
Bromoform	0.00		0	0.00	0	U	Y
Bromomethane	0.00		0	0.00	0	U	Y
2-Butanone (MEK)	0.00		0	0.00	0	U	Y
n-Butylbenzene	0.00		0	0.00	0	U	Y
sec-Butylbenzene	0.00		0	0.00	0	U	Y
tert-Butylbenzene	0.00		0	0.00	0	U	Y
Carbon Disulfide	0.00		0	0.00	0	U	Y
Carbon Tetrachloride	0.00		0	0.00	0	U	Y
Chlorobenzene	0.00		0	0.00	0	U	Y
Chloroethane	0.00		0	0.00	0	U	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 10/11/19 8:00

\\alprews001\starlims\LIMSRpts\QuantValidation.rpt

Data File: J:\MS24\DATA\100719\1007F016.D\
 Acqu Date: 10/7/19 15:08:00
 Run Type: N/A
 Lab ID: K1909014-007

Instrument: K-MS-2nd **KW** 10/08/19
 Vial: 11
 Dilution: 1
 Raw Units: ppb

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Chloroform	0.00		0	0.00	0	U	Y
Chloromethane	0.00		0	0.00	0	U	Y
2-Chlorotoluene	0.00		0	0.00	0	U	Y
4-Chlorotoluene	0.00		0	0.00	0	U	Y
1,2-Dibromo-3-chloropropane	0.00		0	0.00	0	U	Y
Dibromochloromethane	0.00		0	0.00	0	U	Y
1,2-Dibromoethane (EDB)	0.00		0	0.00	0	U	Y
Dibromomethane	0.00		0	0.00	0	U	Y
1,2-Dichlorobenzene	0.00		0	0.00	0	U	Y
1,3-Dichlorobenzene	0.00		0	0.00	0	U	Y
1,4-Dichlorobenzene	0.00		0	0.00	0	U	Y
Dichlorodifluoromethane	0.86		675	17.46	240		Y
1,1-Dichloroethane	0.00		0	0.00	0	U	Y
1,2-Dichloroethane (EDC)	0.00		0	0.00	0	U	Y
1,1-Dichloroethene	0.00		0	0.00	0	U	Y
cis-1,2-Dichloroethene	0.00		0	0.00	0	U	Y
trans-1,2-Dichloroethene	0.00		0	0.00	0	U	Y
1,2-Dichloropropane	0.00		0	0.00	0	U	Y
1,3-Dichloropropane	0.00		0	0.00	0	U	Y
2,2-Dichloropropane	0.00		0	0.00	0	U	Y
1,1-Dichloropropene	0.00		0	0.00	0	U	Y
cis-1,3-Dichloropropene	0.00		0	0.00	0	U	Y
trans-1,3-Dichloropropene	0.00		0	0.00	0	U	Y
Ethylbenzene	0.00		0	0.00	0	U	Y
Hexachlorobutadiene	0.00		0	0.00	0	U	Y
2-Hexanone	0.00		0	0.00	0	U	Y
Isopropylbenzene	0.00		0	0.00	0	U	Y
4-Isopropyltoluene	0.00		0	0.00	0	U	Y
4-Methyl-2-pentanone (MIBK)	0.00		0	0.00	0	U	Y
Methylene Chloride	2.19	+0.01	282	5.09	71	J	Y
Naphthalene	0.00		0	0.00	0	U	Y
n-Propylbenzene	0.00		0	0.00	0	U	Y
Styrene	0.00		0	0.00	0	U	Y
1,1,1,2-Tetrachloroethane	0.00		0	0.00	0	U	Y
1,1,2,2-Tetrachloroethane	0.00		0	0.00	0	U	Y
Tetrachloroethene (PCE)	0.00		0	0.00	0	U	Y
Toluene	0.00		0	0.00	0	U	Y
1,2,3-Trichlorobenzene	0.00		0	0.00	0	U	Y
1,2,4-Trichlorobenzene	0.00		0	0.00	0	U	Y
1,1,2-Trichloroethane	0.00		0	0.00	0	U	Y
1,1,1-Trichloroethane (TCA)	0.00		0	0.00	0	U	Y

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Printed: 10/11/19 8:00

\alprews001\starlims\LIMSReps\QuantValidation.rpt

Data File: J:\MS24\DATA\100719\1007F016.D\
Acqu Date: 10/7/19 15:08:00
Run Type: N/A
Lab ID: K1909014-007

Instrument: K-MS-2nd **KW** 10/08/19
Vial: 11
Dilution: 1
Raw Units: ppb

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Trichloroethene (TCE)	0.00		0	0.00	0	U	Y
Trichlorofluoromethane (CFC 11)	1.47		685	10.37	140		Y
1,2,3-Trichloropropane	0.00		0	0.00	0	U	Y
1,2,4-Trimethylbenzene	0.00		0	0.00	0	U	Y
1,3,5-Trimethylbenzene	0.00		0	0.00	0	U	Y
Vinyl Chloride	0.00		0	0.00	0	U	Y
o-Xylene	0.00		0	0.00	0	U	Y
m,p-Xylenes	0.00		0	0.00	0	U	Y
Xylenes, Total				0	0	U	Y

Prep Amount: .36 g
Prep Final Amount: 5.00 mL

Dilution: 1
Basis Factor: 100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 10/11/19 8:00

\alprews001\starlims\LIMSReps\QuantValidation.rpt

Data File : J:\MS24\DATA\100719\1007F016.D
 Acq On : 7 Oct 2019 3:08 pm
 Sample : K1909014-007
 Misc :

Vial: 16
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 07 15:43:24 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

Quant Method : J:\MS24\M...\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 14:57:11 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	3.90	96	9713	50.00	PPB	0.00
58) Chlorobenzene-d5	6.50	82	1177	50.00	PPB	0.00
77) 1,4-Dichlorobenzene-d4	8.81	152	582	50.00	PPB	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Dibromofluoromethane	3.42	113	5423	114.27	PPB	0.00
Spiked Amount				50.000		
				Recovery =	228.54%	
43) 1,2-Dichloroethane-d4	3.69	65	3468	56.75	PPB	0.00
Spiked Amount				50.000		
				Recovery =	113.50%	
56) Toluene-d8	5.17	98	5606	33.16	PPB	0.00
Spiked Amount				50.000		
				Recovery =	66.32%	
76) 4-Bromofluorobenzene	7.67	95	557	28.34	PPB	0.00
Spiked Amount				50.000		
				Recovery =	56.68%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.86	85	675	17.46	PPB	95
8) Trichlorofluoromethane	1.47	101	685	10.37	PPB	80
12) Acetone	1.92	43	2027	126.72	PPB	92
18) Methylene Chloride	2.19	84	282m	5.09	PPB	

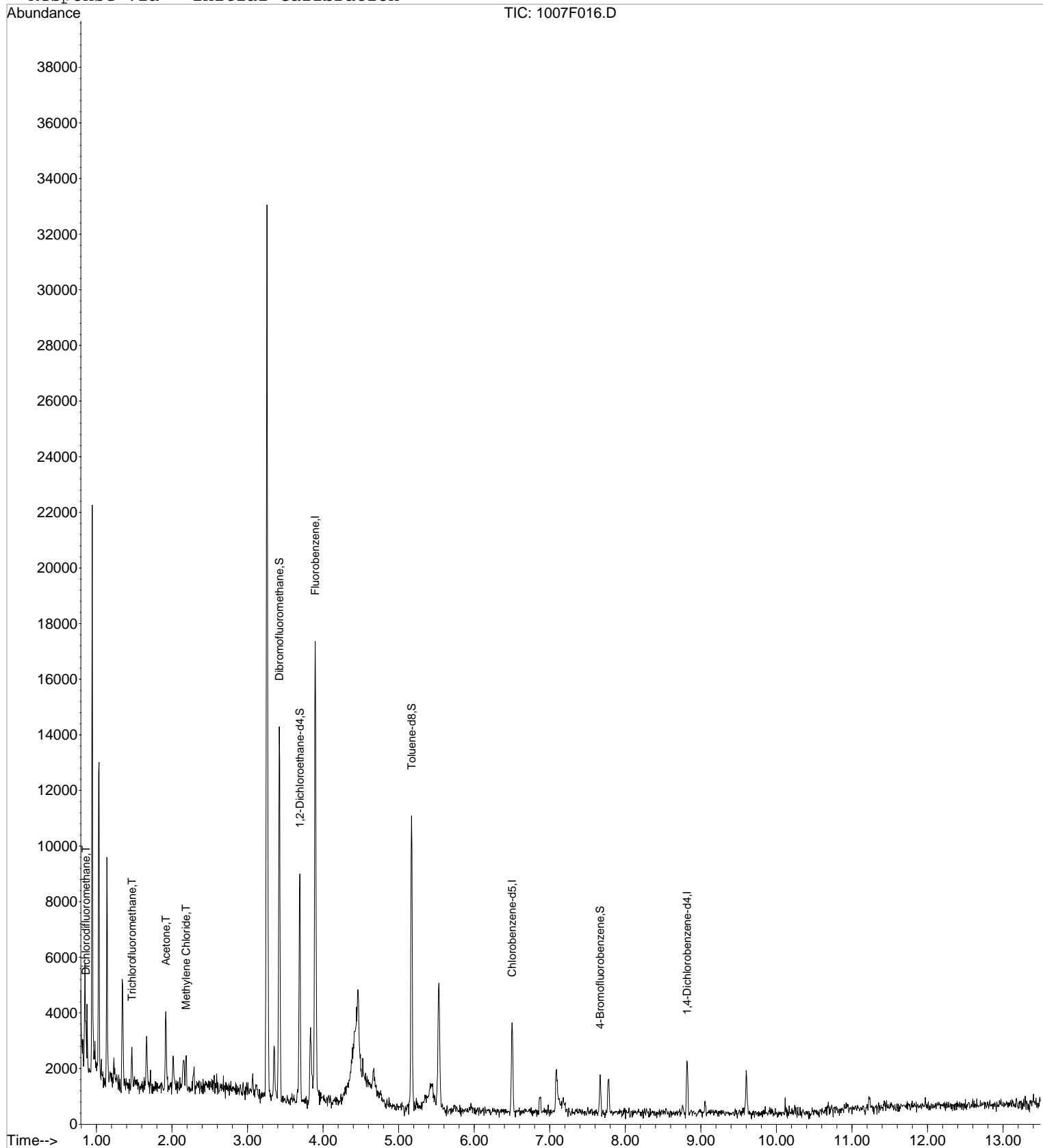
Data File : J:\MS24\DATA\100719\1007F016.D
Acq On : 7 Oct 2019 3:08 pm
Sample : K1909014-007
Misc :

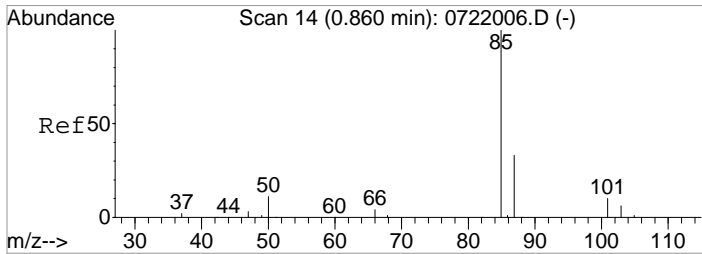
Vial: 16
Operator: KW
Inst : MS24
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Oct 7 15:54 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

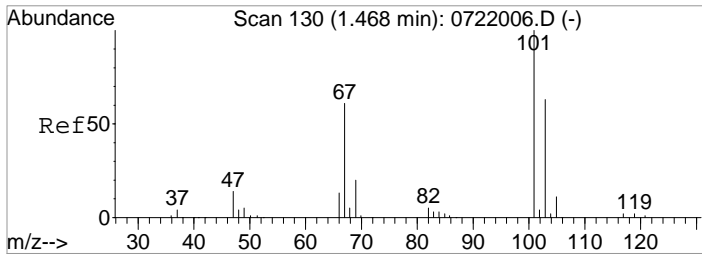
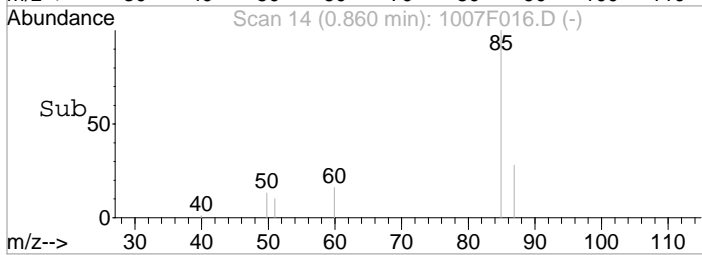
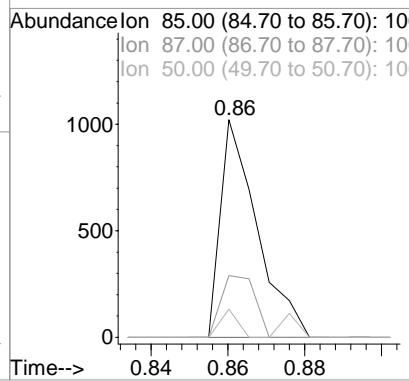
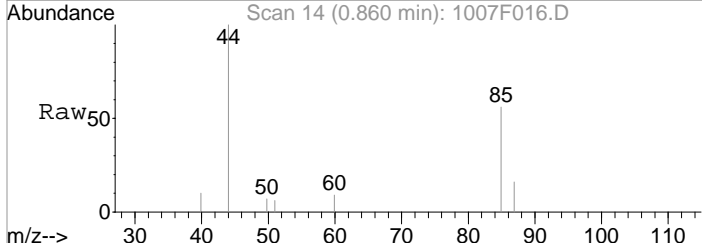
Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
Title : VOA MS24 EPA Method 8260B
Last Update : Mon Jul 15 14:57:11 2019
Response via : Initial Calibration





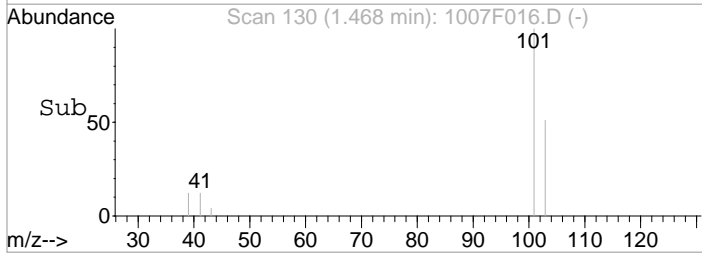
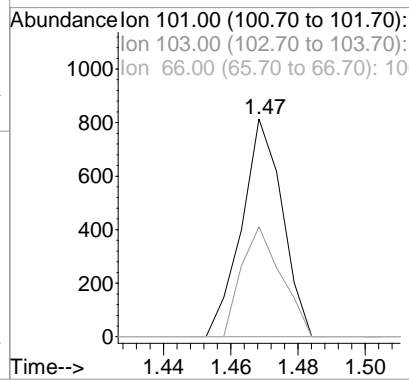
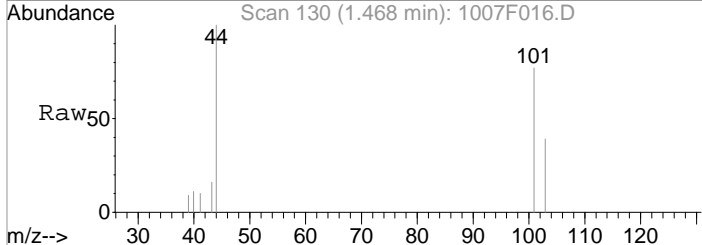
#2
 Dichlorodifluoromethane
 Concen: 17.46 PPB
 RT: 0.86 min Scan# 14
 Delta R.T. 0.01 min
 Lab File: 1007F016.D
 Acq: 7 Oct 2019 3:08 pm

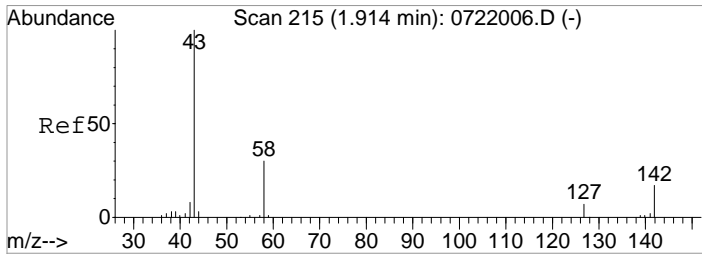
Tgt Ion	Resp	Lower	Upper
85	100		
87	28.3	1.7	61.7
50	12.9	0.0	43.5



#8
 Trichlorofluoromethane
 Concen: 10.37 PPB
 RT: 1.47 min Scan# 130
 Delta R.T. 0.00 min
 Lab File: 1007F016.D
 Acq: 7 Oct 2019 3:08 pm

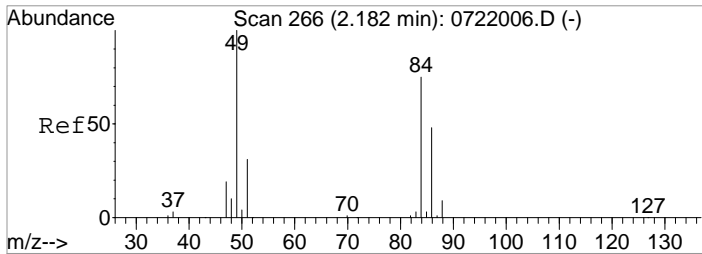
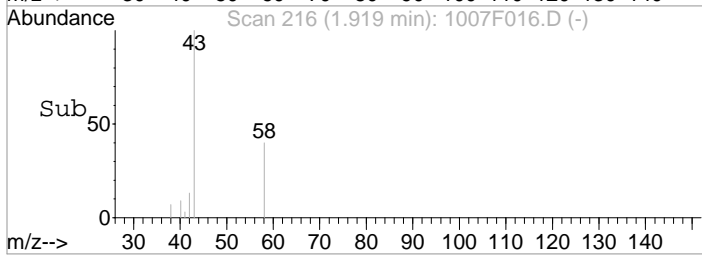
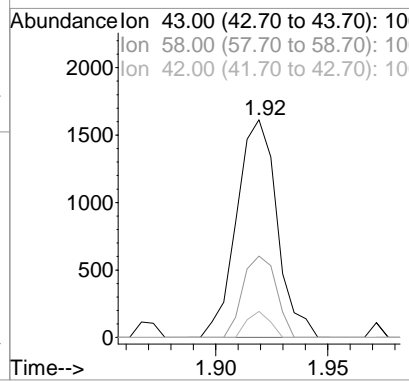
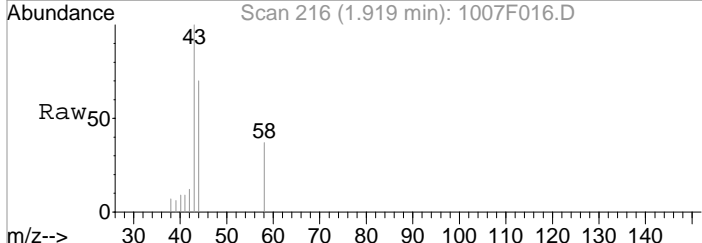
Tgt Ion	Resp	Lower	Upper
101	100		
103	50.6	33.5	93.5
66	0.0	0.0	44.2





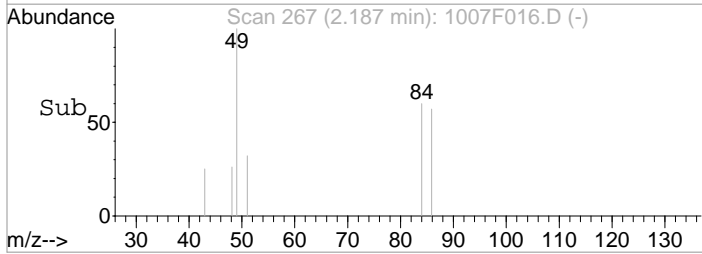
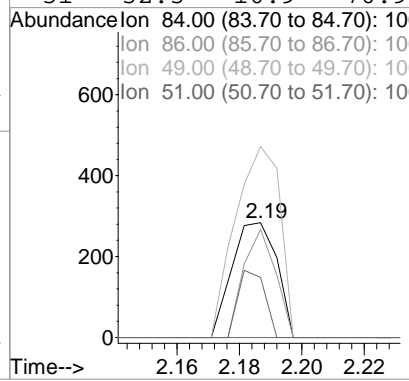
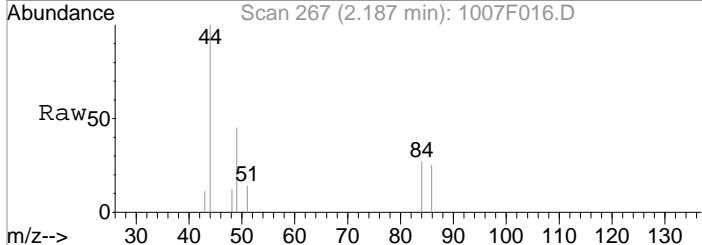
#12
 Acetone
 Concen: 126.72 PPB
 RT: 1.92 min Scan# 216
 Delta R.T. 0.01 min
 Lab File: 1007F016.D
 Acq: 7 Oct 2019 3:08 pm

Tgt Ion	Resp	Lower	Upper
43	100		
58	37.4	2.9	62.9
42	11.9	0.0	38.4



#18
 Methylene Chloride
 Concen: 5.09 PPB m
 RT: 2.19 min Scan# 267
 Delta R.T. 0.01 min
 Lab File: 1007F016.D
 Acq: 7 Oct 2019 3:08 pm

Tgt Ion	Resp	Lower	Upper
84	100		
86	94.0	33.0	93.0#
49	166.2	100.8	160.8#
51	52.5	10.9	70.9



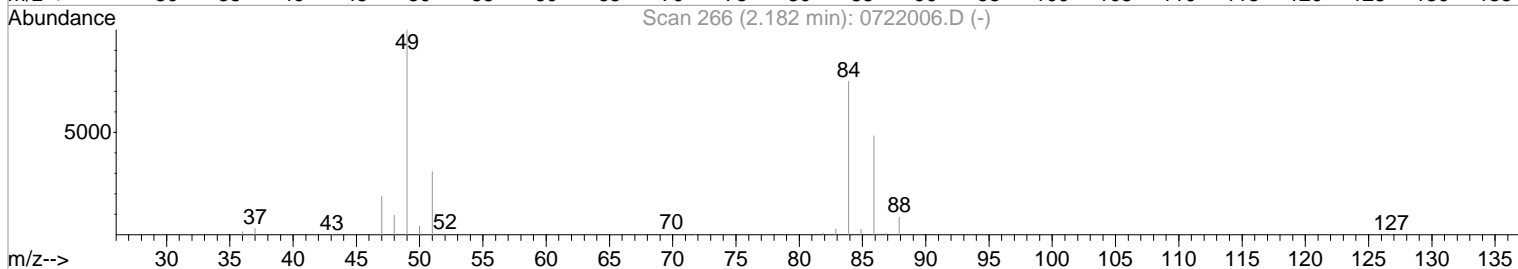
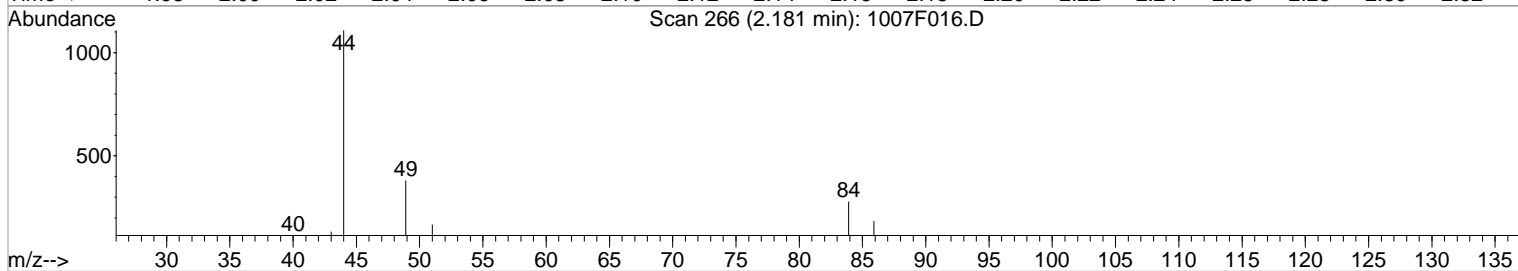
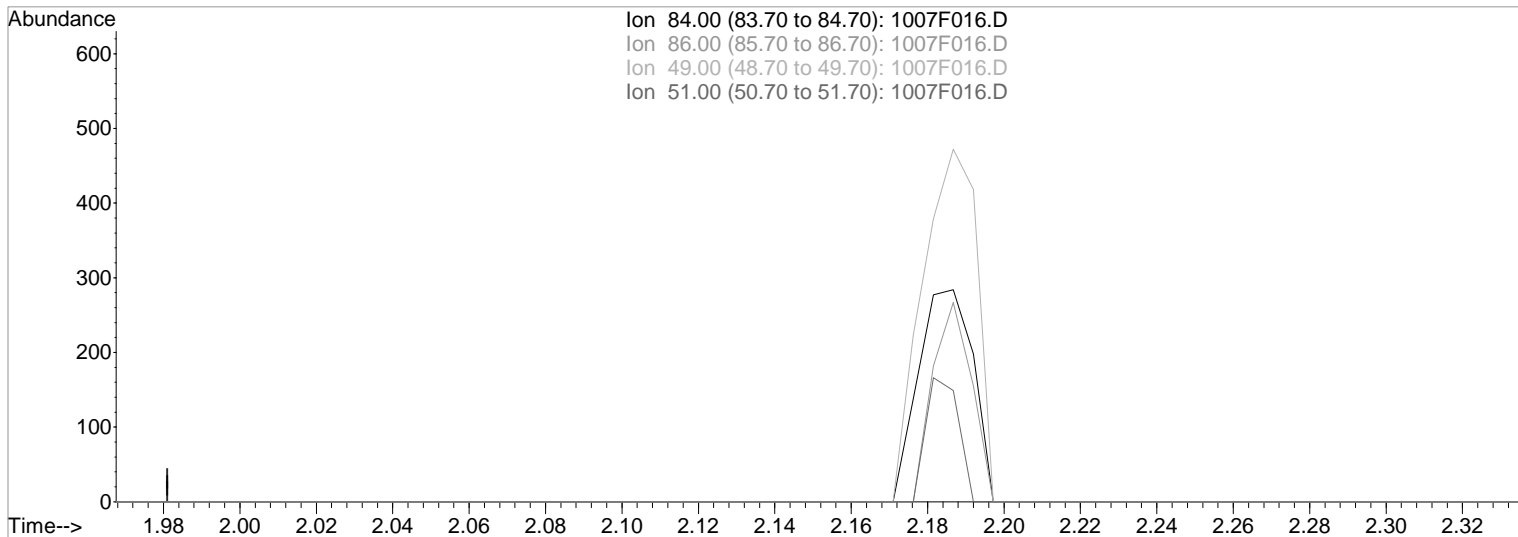
Data File : J:\MS24\DATA\100719\1007F016.D
 Acq On : 7 Oct 2019 3:08 pm
 Sample : K1909014-007
 Misc :

Vial: 16
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 7 15:53 2019

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 14:57:11 2019
 Response via : Multiple Level Calibration



TIC: 1007F016.D

(18) Methylene Chloride (T)

Manual Integration:

2.18min 0.00PPB

Before

response 0

10/07/19

Ion	Exp%	Act%
84.00	100	0.00
86.00	63.00	0.00#
49.00	130.80	0.00#
51.00	40.90	0.00#

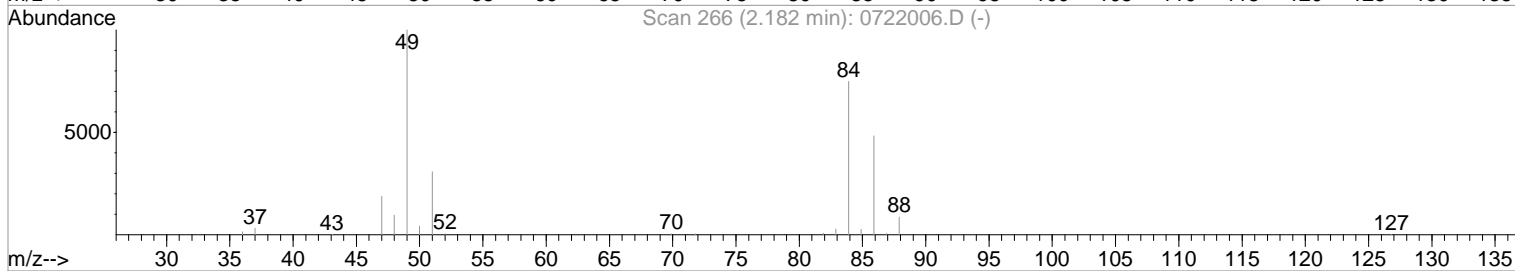
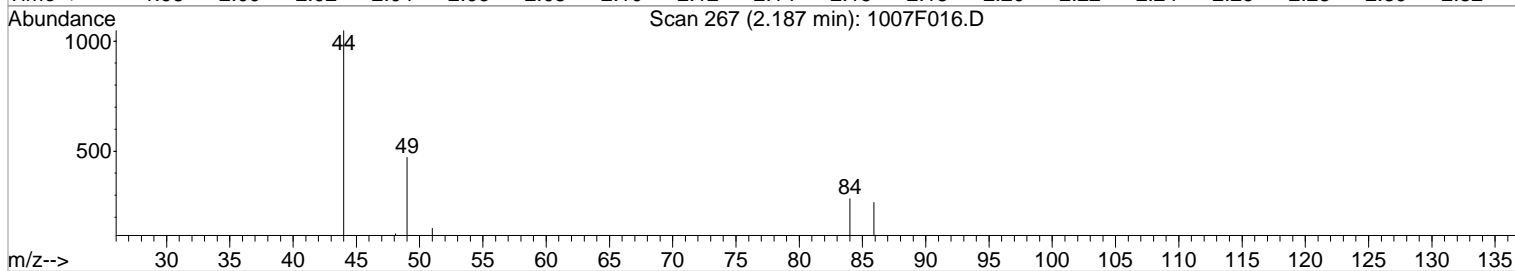
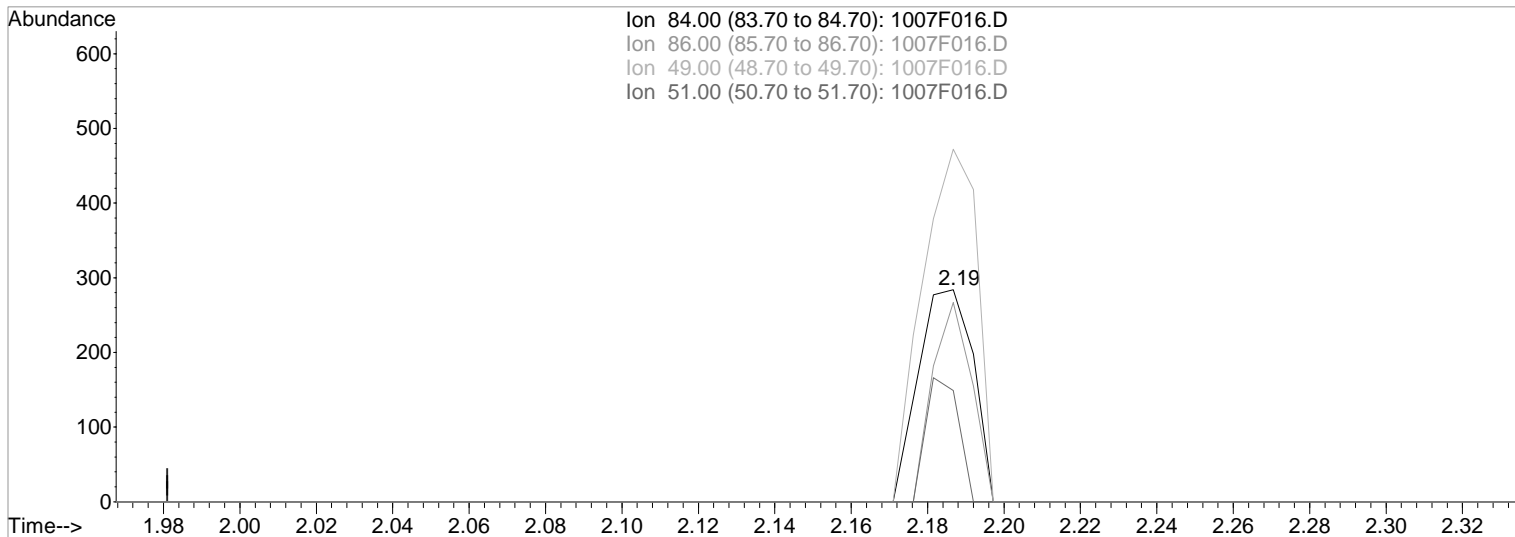
Data File : J:\MS24\DATA\100719\1007F016.D
 Acq On : 7 Oct 2019 3:08 pm
 Sample : K1909014-007
 Misc :

Vial: 16
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 7 15:53 2019

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 14:57:11 2019
 Response via : Multiple Level Calibration



TIC: 1007F016.D

(18) Methylene Chloride (T)

Manual Integration:

2.19min 5.09PPB m

After

response 282

Missed peak

Ion Exp% Act%

10/07/19

84.00 100 100

86.00 63.00 94.01#

49.00 130.80 166.20#

51.00 40.90 52.46

Validation Report

1st **KW** 10/08/19
2nd ~~SK~~ 10/08/19

Data File: J:\MS24\DATA\100719\1007F009.D\
Lab ID: KQ1914491-05
RunType: MB
Matrix: Paperboard

Date Acquired: 10/7/19 12:41:00
Batch ID: 654417
Analysis Method: 8260C/VOC FP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification		X
Continuing Calibration Recovery		X
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	Dichlorodifluoromethane	47		30	High bias, narrate
Continuing Calibration Recovery	n-Butylbenzene	23		20	CCVOK
	sec-Butylbenzene	21		20	
	Chloromethane	-24		20	
	Dichlorodifluoromethane	-30		20	
	Hexachlorobutadiene	24		20	
	Isopropylbenzene	21		20	
	4-Isopropyltoluene	23		20	

Primary Review: _____

Secondary Review: _____

Exception Report

Data File: J:\MS24\DATA\100719\1007F009.D
Lab ID: KWG1904372-3
RunType: MB
Matrix: PAPERBOARD

Date Acquired: 10/07/2019 12:41
Date Quantitated: 10/07/2019 13:58
Batch ID: KWG1904373
Analysis Method: 8260C
MethodJoinID: MJ517

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA		x
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	Dichlorodifluoromethane	47.3	NA	30	High bias, narrate
Continuing Calibration Recovery	Dichlorodifluoromethane	-29.9	NA	20	CCVOK
	Chloromethane	-23.6	NA	20	CCVOK

Primary Review: _____

Secondary Review: _____

Quantitation Report

1st **KW** 10/08/19
2nd **KW** 10/08/19

Data File: J:\MS24\DATA\100719\1007F009.D\	Instrument: K-MS-24
Acqu Date: 10/7/19 12:41:00	Vial: 5
Run Type: MB	Dilution: 1
Lab ID: KQ1914491-05	Raw Units: ppb

Bottle ID:	Tier: I	Matrix: Paperboard
Prod Code: VOC FP	Collect Date: 8/14/19	Receive Date: 9/12/19

Analysis Lot: 654417	Prep Lot:	Report Group: KQ1914491
Analysis: 8260C	Prep Method:	
	Prep Date:	

Title: Volatile Organic Compounds by GC/MS	Calibration ID: KC1900275
	Report List ID: 20903

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Chlorobenzene-d5	6.50		67818	50.00	OK
1,4-Dichlorobenzene-d4	8.82		61832	50.00	OK
Fluorobenzene	3.90		164050	50.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
4-Bromofluorobenzene	7.67		56677	50.05	100	88 - 127	Y
Dibromofluoromethane	3.42		40903	51.03	102	82 - 146	Y
Toluene-d8	5.17		162796	57.01	114	90 - 142	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Acetone	1.91		2097	0.48	0.48	U	Y
Benzene	0.00		0	0.00	0	U	Y
Bromobenzene	0.00		0	0.00	0	U	Y
Bromochloromethane	0.00		0	0.00	0	U	Y
Bromodichloromethane	0.00		0	0.00	0	U	Y
Bromoform	0.00		0	0.00	0	U	Y
Bromomethane	0.00		0	0.00	0	U	Y
2-Butanone (MEK)	0.00		0	0.00	0	U	Y
n-Butylbenzene	0.00		0	0.00	0	U	Y
sec-Butylbenzene	0.00		0	0.00	0	U	Y
tert-Butylbenzene	0.00		0	0.00	0	U	Y
Carbon Disulfide	0.00		0	0.00	0	U	Y
Carbon Tetrachloride	0.00		0	0.00	0	U	Y
Chlorobenzene	0.00		0	0.00	0	U	Y
Chloroethane	0.00		0	0.00	0	U	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 10/11/19 8:00

\\alprews001\starlims\LIMSRpts\QuantValidation.rpt

Data File: J:\MS24\DATA\100719\1007F009.D\
 Acqu Date: 10/7/19 12:41:00
 Run Type: MB
 Lab ID: KQ1914491-05

Instrument: K-MS-2nd **KW** 10/08/19
 Vial: 5
 Dilution: 1
 Raw Units: ppb

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Chloroform	0.00		0	0.00	0	U	Y
Chloromethane	0.00		0	0.00	0	U	Y
2-Chlorotoluene	0.00		0	0.00	0	U	Y
4-Chlorotoluene	0.00		0	0.00	0	U	Y
1,2-Dibromo-3-chloropropane	0.00		0	0.00	0	U	Y
Dibromochloromethane	0.00		0	0.00	0	U	Y
1,2-Dibromoethane (EDB)	0.00		0	0.00	0	U	Y
Dibromomethane	0.00		0	0.00	0	U	Y
1,2-Dichlorobenzene	0.00		0	0.00	0	U	Y
1,3-Dichlorobenzene	0.00		0	0.00	0	U	Y
1,4-Dichlorobenzene	0.00		0	0.00	0	U	Y
Dichlorodifluoromethane	0.00		0	0.00	0	U	Y
1,1-Dichloroethane	0.00		0	0.00	0	U	Y
1,2-Dichloroethane (EDC)	0.00		0	0.00	0	U	Y
1,1-Dichloroethene	0.00		0	0.00	0	U	Y
cis-1,2-Dichloroethene	0.00		0	0.00	0	U	Y
trans-1,2-Dichloroethene	0.00		0	0.00	0	U	Y
1,2-Dichloropropane	0.00		0	0.00	0	U	Y
1,3-Dichloropropane	0.00		0	0.00	0	U	Y
2,2-Dichloropropane	0.00		0	0.00	0	U	Y
1,1-Dichloropropene	0.00		0	0.00	0	U	Y
cis-1,3-Dichloropropene	0.00		0	0.00	0	U	Y
trans-1,3-Dichloropropene	0.00		0	0.00	0	U	Y
Ethylbenzene	0.00		0	0.00	0	U	Y
Hexachlorobutadiene	0.00		0	0.00	0	U	Y
2-Hexanone	0.00		0	0.00	0	U	Y
Isopropylbenzene	0.00		0	0.00	0	U	Y
4-Isopropyltoluene	0.00		0	0.00	0	U	Y
4-Methyl-2-pentanone (MIBK)	0.00		0	0.00	0	U	Y
Methylene Chloride	2.19	+0.01	1701	1.82	1.8	J	Y
Naphthalene	0.00		0	0.00	0	U	Y
n-Propylbenzene	0.00		0	0.00	0	U	Y
Styrene	0.00		0	0.00	0	U	Y
1,1,1,2-Tetrachloroethane	0.00		0	0.00	0	U	Y
1,1,2,2-Tetrachloroethane	0.00		0	0.00	0	U	Y
Tetrachloroethene (PCE)	0.00		0	0.00	0	U	Y
Toluene	0.00		0	0.00	0	U	Y
1,2,3-Trichlorobenzene	0.00		0	0.00	0	U	Y
1,2,4-Trichlorobenzene	0.00		0	0.00	0	U	Y
1,1,2-Trichloroethane	0.00		0	0.00	0	U	Y
1,1,1-Trichloroethane (TCA)	0.00		0	0.00	0	U	Y

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Printed: 10/11/19 8:00

\alprews001\starlims\LIMSReps\QuantValidation.rpt

Data File: J:\MS24\DATA\100719\1007F009.D\
Acqu Date: 10/7/19 12:41:00
Run Type: MB
Lab ID: KQ1914491-05

Instrument: K-MS-2nd **KW** 10/08/19
Vial: 5
Dilution: 1
Raw Units: ppb

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Trichloroethene (TCE)	0.00		0	0.00	0	U	Y
Trichlorofluoromethane (CFC 11)	0.00		0	0.00	0	U	Y
1,2,3-Trichloropropane	0.00		0	0.00	0	U	Y
1,2,4-Trimethylbenzene	0.00		0	0.00	0	U	Y
1,3,5-Trimethylbenzene	0.00		0	0.00	0	U	Y
Vinyl Chloride	0.00		0	0.00	0	U	Y
o-Xylene	0.00		0	0.00	0	U	Y
m,p-Xylenes	0.00		0	0.00	0	U	Y
Xylenes, Total				0	0	U	Y

Prep Amount: 5 g
Prep Final Amount: 5.00 mL

Dilution: 1
Basis Factor: 100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 10/11/19 8:00

\alprews001\starlims\LIMSReps\QuantValidation.rpt

Quantitation Report

Data File:	J:\MS24\DATA\100719\1007F009.D	Instrument:	MS24
Acq Date:	10/07/2019 12:41	Quant Date:	10/07/2019 13:58
Run Type:	MB	MethodJoinID:	MJ517
Lab ID:	KWG1904372-3	Dilution:	1.0
		Soln Conc. Units:	PPB

Bottle ID:		Tier:		Matrix:	PAPERBOARD
Prod Code:	8260C VOC FP	Collect Date:		Receive Date:	10/07/2019

Analysis Lot:	KWG1904373	Prep Lot:	KWG1904372	Report Group:	
Analysis Method:	8260C	Prep Method:	EPA 5035A		
Prep Ref:	1736330	Prep Date:	10/07/2019		

Quant Method:	J:\MS24\METHODS\2010\0715DOD19_MS	Calibration ID:	CAL16091
Title:		Method ID:	MJ517
Tune Ref:	J:\MS24\DATA\100719\1007F003.D	Quant based on Method	
MB Ref:			

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	3.90	0.00	96	164050	50.00	OK
2	Chlorobenzene-d5	6.50	0.00	82	67818	50.00	OK
3	1,4-Dichlorobenzene-d4	8.82	0.00	152	61832	50.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	3.42	0.00	0.00	113	40903	51.03	102	83-128	OK
1	1,2-Dichloroethane-d4	3.69	0.00	0.00	65	45039	43.64	87	71-119	OK
1	Toluene-d8	5.17	0.00	0.00	98	162796	57.01	114	83-135	OK
2	4-Bromofluorobenzene	7.67	0.00	0.00	95	56677	50.05	100	77-124	OK

Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane				85	0		0.00012	U	
1	Chloromethane				50	0		0.00018	U	
1	Vinyl Chloride				62	0		0.00018	U	
1	Bromomethane				96	0		0.00020	U	
1	Chloroethane				64	0		0.00074	U	
1	Trichlorofluoromethane				101	0		0.000085	U	
1	1,1-Dichloroethene				96	0		0.00025	U	
1	Methylene Chloride	2.19	0.01	0.00	84	1701	1.82	0.00182	J	
1	Acrylonitrile				53	0		0.00043	U	
1	trans-1,2-Dichloroethene				96	0		0.00012	U	
1	1,1-Dichloroethane				63	0		0.00012	U	
1	Vinyl Acetate				86	0		0.00031	U	
1	cis-1,2-Dichloroethene				96	0		0.00012	U	

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File: J:\MS24\DATA\100719\1007F009.D
 Acq Date: 10/07/2019 12:41
 Run Type: MB
 Lab ID: KWG1904372-3

Quant Date: 10/07/2019 13:58
 MethodJoinID: MJ517

Instrument: MS
 Vial: 9
 Dilution: 1.0
 Soln Conc. Units: PPB

Target Compounds

Final Conc. Units: mg/Kg Wet Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Bromochloromethane				128	0		0.00024	U	
1	Chloroform				83	0		0.00011	U	
1	Cyclohexane				56	0		0.00015	U	
1	1,1,1-Trichloroethane (TCA)				97	0		0.00011	U	
1	Carbon Tetrachloride				117	0		0.000094	U	
1	Benzene				78	0		0.000054	U	
1	1,2-Dichloroethane (EDC)				62	0d		0.000070	U	
1	Trichloroethene (TCE)				95	0		0.00015	U	
1	1,2-Dichloropropane				63	0		0.00013	U	
1	Dibromomethane				93	0		0.00028	U	
1	Bromodichloromethane				83	0		0.00016	U	
1	cis-1,3-Dichloropropene				75	0		0.000013	U	
1	Toluene				92	0		0.00015	U	
2	trans-1,3-Dichloropropene				75	0		0.00011	U	
2	1,1,2-Trichloroethane				83	0		0.00015	U	
2	Tetrachloroethene (PCE)				164	0		0.00016	U	
2	Dibromochloromethane				129	0		0.00018	U	
2	1,2-Dibromoethane (EDB)				107	0		0.000094	U	
2	Chlorobenzene				112	0		0.000065	U	
2	Ethylbenzene				106	0		0.000094	U	
2	1,1,1,2-Tetrachloroethane				131	0		0.00011	U	
2	m,p-Xylenes				106	0		0.00010	U	
2	o-Xylene				106	0		0.000081	U	
2	Styrene				103	0		0.00014	U	
2	Bromoform				173	0		0.00014	U	
2	Isopropylbenzene				105	0		0.000081	U	
3	1,1,2,2-Tetrachloroethane				83	0		0.00013	U	
3	Bromobenzene				156	0		0.000088	U	
3	n-Propylbenzene				91	0		0.00013	U	
3	1,2,3-Trichloropropane				110	0		0.00045	U	
3	2-Chlorotoluene				91	0		0.00012	U	
3	1,3,5-Trimethylbenzene				105	0		0.000092	U	
3	4-Chlorotoluene				91	0		0.000088	U	
3	tert-Butylbenzene				119	0		0.00014	U	
3	1,2,4-Trimethylbenzene				105	0		0.000054	U	
3	sec-Butylbenzene				105	0		0.000074	U	
3	4-Isopropyltoluene				119	0		0.000064	U	
3	1,3-Dichlorobenzene				146	0		0.000094	U	
3	1,4-Dichlorobenzene				146	0		0.000086	U	
3	n-Butylbenzene				91	0		0.000069	U	
3	1,2-Dichlorobenzene				146	0		0.000077	U	
3	1,2-Dibromo-3-chloropropane				155	0		0.00040	U	

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File: J:\MS24\DATA\100719\1007F009.D
Acqu Date: 10/07/2019 12:41
Run Type: MB
Lab ID: KWG1904372-3

Quant Date: 10/07/2019 13:58
MethodJoinID: MJ517

Instrument: MS
Vial: 9
Dilution: 1.0
Soln Conc. Units: PPB

Target Compounds**Final Conc. Units:** mg/Kg Wet Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Hexachlorobutadiene				225	0		0.00040	U	

Prep Amount: 5.00 g **Dilution:** 1.0
Prep Final Vol: 5.00 ml **Unit Factor:** 0.001
Solids: %

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / (Prep Amount x Solids)) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File : J:\MS24\DATA\100719\1007F009.D

Vial: 9

Acq On : 7 Oct 2019 12:41 pm

Operator: KW

Sample : MB

Inst : MS24

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Oct 07 13:55:29 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

Quant Method : J:\MS24\M...\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)

Title : VOA MS24 EPA Method 8260B

Last Update : Mon Jul 15 14:57:11 2019

Response via : Initial Calibration

DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	3.90	96	164050	50.00	PPB	0.00
58) Chlorobenzene-d5	6.50	82	67818	50.00	PPB	0.00
77) 1,4-Dichlorobenzene-d4	8.82	152	61832	50.00	PPB	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	3.42	113	40903	51.03	PPB	0.00
Spiked Amount	50.000		Recovery	=	102.06%	
43) 1,2-Dichloroethane-d4	3.69	65	45039	43.64	PPB	0.00
Spiked Amount	50.000		Recovery	=	87.28%	
56) Toluene-d8	5.17	98	162796	57.01	PPB	0.00
Spiked Amount	50.000		Recovery	=	114.02%	
76) 4-Bromofluorobenzene	7.67	95	56677	50.05	PPB	0.00
Spiked Amount	50.000		Recovery	=	100.10%	
Target Compounds						
12) Acetone	1.91	43	2097	0.48	PPB	97
18) Methylene Chloride	2.19	84	1701	1.82	PPB	84
23) Hexane	2.45	57	2328	2.15	PPB	95

(#) = qualifier out of range (m) = manual integration

1007F009.D 0715DOD19_MS24_FULL_SOIL.M

Mon Oct 07 14:04:20 2019

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Page 1

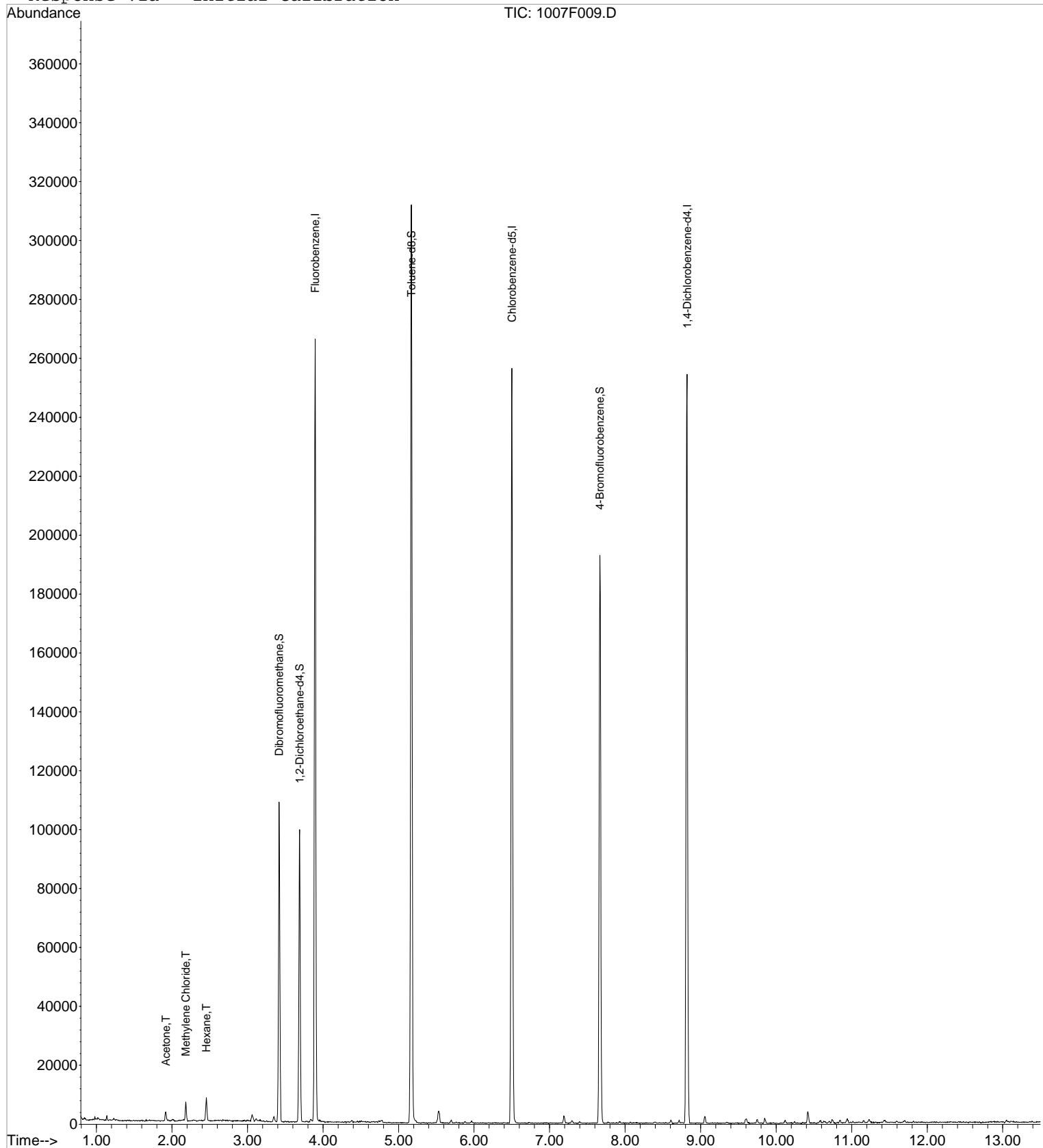
Data File : J:\MS24\DATA\100719\1007F009.D
Acq On : 7 Oct 2019 12:41 pm
Sample : MB
Misc :

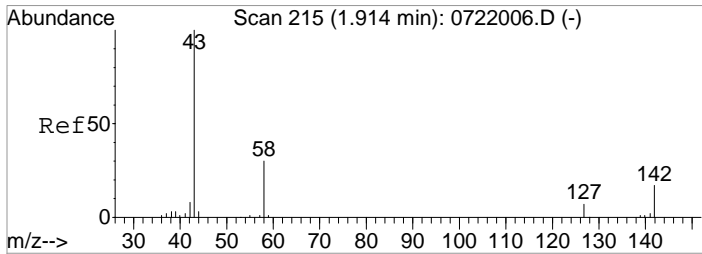
Vial: 9
Operator: KW
Inst : MS24
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Oct 7 13:58 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

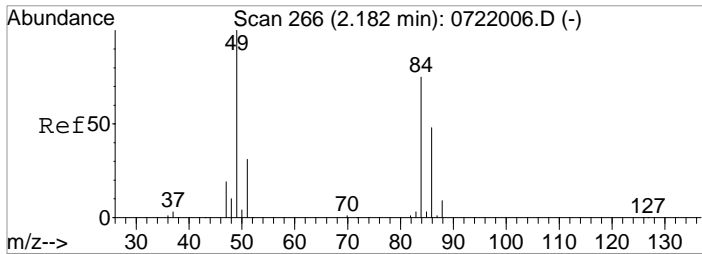
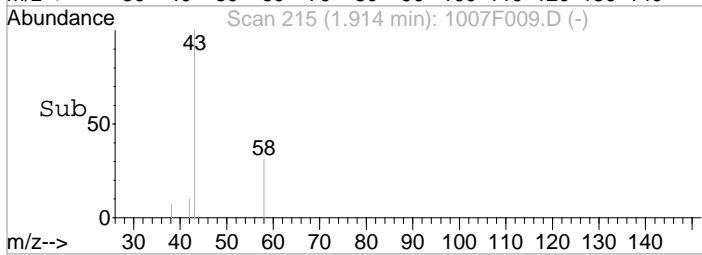
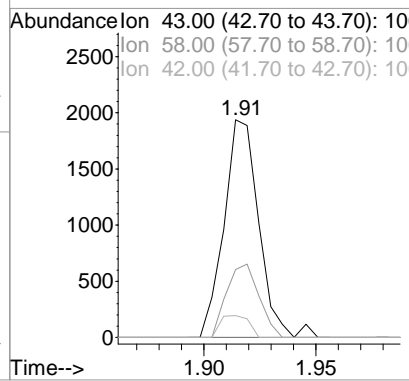
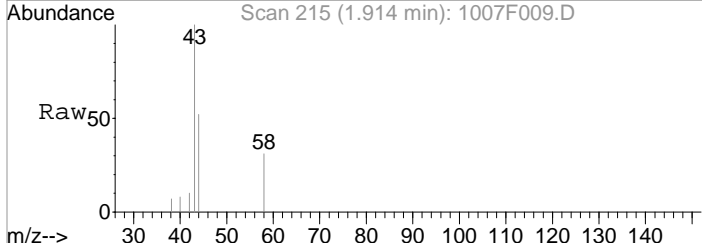
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Title : VOA MS24 EPA Method 8260B
Last Update : Mon Jul 15 14:57:11 2019
Response via : Initial Calibration





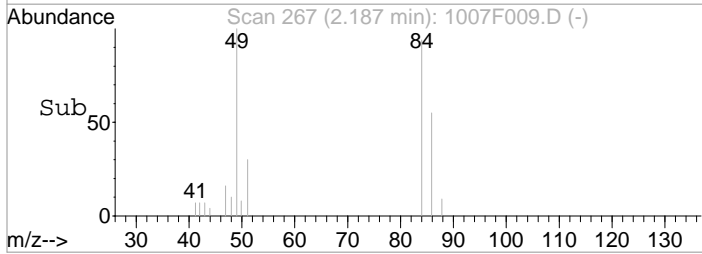
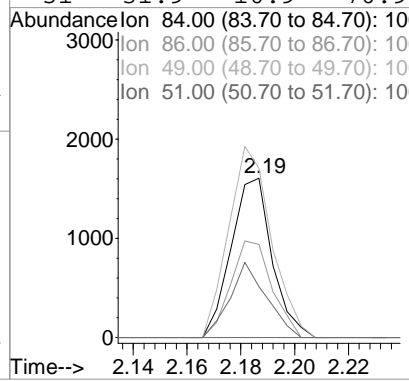
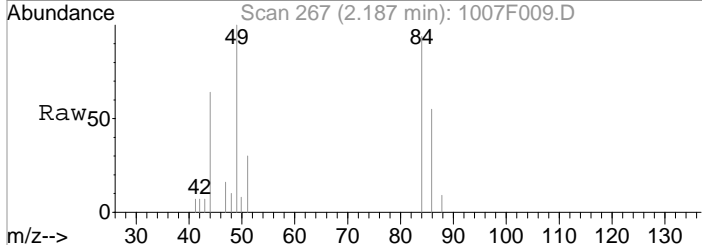
#12
 Acetone
 Concen: 0.48 PPB
 RT: 1.91 min Scan# 215
 Delta R.T. 0.00 min
 Lab File: 1007F009.D
 Acq: 7 Oct 2019 12:41 pm

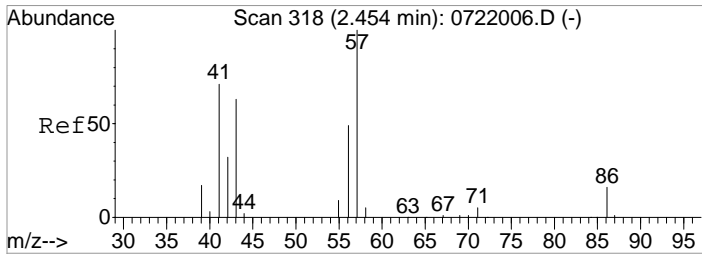
Tgt Ion	Resp	Lower	Upper
43	100		
58	31.2	2.9	62.9
42	10.0	0.0	38.4



#18
 Methylene Chloride
 Concen: 1.82 PPB
 RT: 2.19 min Scan# 267
 Delta R.T. 0.01 min
 Lab File: 1007F009.D
 Acq: 7 Oct 2019 12:41 pm

Tgt Ion	Resp	Lower	Upper
84	100		
86	58.5	33.0	93.0
49	106.4	100.8	160.8
51	31.9	10.9	70.9

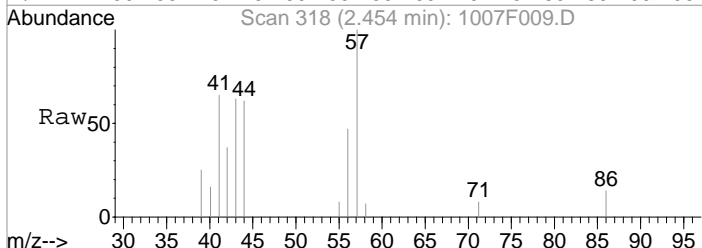




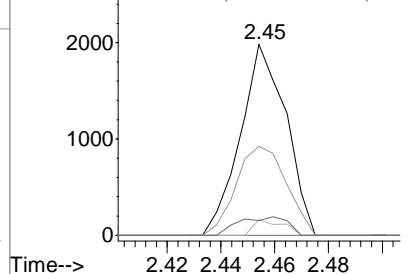
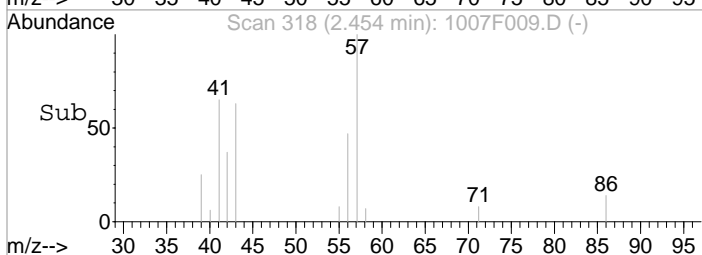
#23
 Hexane
 Concen: 2.15 PPB
 RT: 2.45 min Scan# 318
 Delta R.T. 0.00 min
 Lab File: 1007F009.D
 Acq: 7 Oct 2019 12:41 pm

Tgt Ion: 57 Resp: 2328

Ion	Ratio	Lower	Upper
57	100		
56	46.6	19.6	79.6
71	8.1	0.0	35.6
55	7.6	0.0	21.3



Abundance Ion 57.00 (56.70 to 57.70): 10
 Ion 56.00 (55.70 to 56.70): 10
 Ion 71.00 (70.70 to 71.70): 10
 Ion 55.00 (54.70 to 55.70): 10



Validation Report

1st **KW** 10/08/19
2nd ~~AK~~ 10/08/19

Data File: J:\MS24\DATA\100719\1007F005.D\
Lab ID: KQ1914491-03
RunType: LCS
Matrix: Paperboard

Date Acquired: 10/7/19 11:12:00
Batch ID: 654417
Analysis Method: 8260C/VOC FP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification		X
Continuing Calibration Recovery		X
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	Dichlorodifluoromethane	47		30	High bias, narrate
Continuing Calibration Recovery	n-Butylbenzene	23		20	CCVOK
	sec-Butylbenzene	21		20	
	Chloromethane	-24		20	
	Dichlorodifluoromethane	-30		20	
	Hexachlorobutadiene	24		20	
	Isopropylbenzene	21		20	
	4-Isopropyltoluene	23		20	

Primary Review: _____

Secondary Review: _____

Exception Report

Data File: J:\MS24\DATA\100719\1007F005.D
Lab ID: KWG1904372-1
RunType: LCS
Matrix: PAPERBOARD

Date Acquired: 10/07/2019 11:12
Date Quantitated: 10/07/2019 12:11
Batch ID: KWG1904373
Analysis Method: 8260C
MethodJoinID: MJ517

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA		x
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	Dichlorodifluoromethane	47.3	NA	30	High bias, narrate
Continuing Calibration Recovery	Dichlorodifluoromethane	-29.9	NA	20	CCVOK
	Chloromethane	-23.6	NA	20	
	Isopropylbenzene	21.3	NA	20	
	sec-Butylbenzene	20.9	NA	20	
	4-Isopropyltoluene	23.3	NA	20	
	n-Butylbenzene	23.3	NA	20	
	Hexachlorobutadiene	24.1	NA	20	

Primary Review: _____

Secondary Review: _____

Quantitation Report

1st **KW** 10/08/19
2nd **AK** 10/08/19

Data File: J:\MS24\DATA\100719\1007F005.D\	Instrument: K-MS-24
Acqu Date: 10/7/19 11:12:00	Vial: 3
Run Type: LCS	Dilution: 1
Lab ID: KQ1914491-03	Raw Units: ppb

Bottle ID:	Tier: I	Matrix: Paperboard
Prod Code: VOC FP	Collect Date: 8/14/19	Receive Date: 9/12/19

Analysis Lot: 654417	Prep Lot:	Report Group: KQ1914491
Analysis: 8260C	Prep Method:	
	Prep Date:	

Title: Volatile Organic Compounds by GC/MS	Calibration ID: KC1900275
	Report List ID: 20903

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Chlorobenzene-d5	6.50		69800	50.00	OK
1,4-Dichlorobenzene-d4	8.82		65636	50.00	OK
Fluorobenzene	3.89	-0.01	174571	50.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
4-Bromofluorobenzene	7.67		61035	52.37	105	88 - 127	Y
Dibromofluoromethane	3.42		42483	49.81	100	82 - 146	Y
Toluene-d8	5.17		173171	56.99	114	90 - 142	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Acetone	1.91		59227	210.86	211		Y
Benzene	3.66	-0.01	185843	47.41	47.4		Y
Bromobenzene	7.80		56270	44.87	44.9		Y
Bromochloromethane	3.24	-0.01	22979	43.23	43.2		Y
Bromodichloromethane	4.61		59820	47.69	47.7		Y
Bromoform	7.35		32802	50.56	50.6		Y
Bromomethane	1.26		25085	40.27	40.3		Y
2-Butanone (MEK)	3.11		28237	228.70	229		Y
n-Butylbenzene	9.16		161312	52.80	52.8		Y
sec-Butylbenzene	8.61		217554	52.66	52.7		Y
tert-Butylbenzene	8.38	-0.01	148173	50.74	50.7		Y
Carbon Disulfide	1.94		193098	82.97	83.0		Y
Carbon Tetrachloride	3.47	-0.01	52174	52.15	52.2		Y
Chlorobenzene	6.53		131090	47.65	47.7		Y
Chloroethane	1.33		27511	49.31	49.3		Y

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Data File: J:\MS24\DATA\100719\1007F005.D\
 Acqu Date: 10/7/19 11:12:00
 Run Type: LCS
 Lab ID: KQ1914491-03

Instrument: K-MS-2nd **KW** 10/08/19
 Vial: 3
 Dilution: 1
 Raw Units: ppb

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Chloroform	3.29		76660	45.42	45.4		Y
Chloromethane	0.98		51718	46.81	46.8		Y
2-Chlorotoluene	7.99		141489	46.91	46.9		Y
4-Chlorotoluene	8.11		144413	46.24	46.2		Y
1,2-Dibromo-3-chloropropane	9.98		8315	44.65	44.7		Y
Dibromochloromethane	5.98		48361	47.67	47.7		Y
1,2-Dibromoethane (EDB)	6.09		42022	45.16	45.2		Y
Dibromomethane	4.49		28832	45.78	45.8		Y
1,2-Dichlorobenzene	9.21		97924	45.64	45.6		Y
1,3-Dichlorobenzene	8.74		101774	47.13	47.1		Y
1,4-Dichlorobenzene	8.84		102114	45.81	45.8		Y
Dichlorodifluoromethane	0.86		39138	56.31	56.3		Y
1,1-Dichloroethane	2.65		79006	47.87	47.9		Y
1,2-Dichloroethane (EDC)	3.74	-0.01	58864	40.97	41.0		Y
1,1-Dichloroethene	1.81		33274	49.17	49.2		Y
cis-1,2-Dichloroethene	3.07		47727	44.41	44.4		Y
trans-1,2-Dichloroethene	2.33		40569	47.05	47.1		Y
1,2-Dichloropropane	4.39		52112	49.54	49.5		Y
1,3-Dichloropropane	5.81		74626	45.44	45.4		Y
2,2-Dichloropropane	3.04		58442	46.99	47.0		Y
1,1-Dichloropropene	3.51		59930	50.51	50.5		Y
cis-1,3-Dichloropropene	4.99		77429	50.45	50.5		Y
trans-1,3-Dichloropropene	5.51		67937	46.38	46.4		Y
Ethylbenzene	6.61		68061	50.53	50.5		Y
Hexachlorobutadiene	10.82	+0.01	40660	51.34	51.3		Y
2-Hexanone	5.88		31594	260.68	261		Y
Isopropylbenzene	7.47		205039	53.28	53.3		Y
4-Isopropyltoluene	8.76		183226	54.47	54.5		Y
4-Methyl-2-pentanone (MIBK)	5.13		97092	261.02	261		Y
Methylene Chloride	2.18		43014	43.18	43.2		Y
Naphthalene	10.94		149882	48.07	48.1		Y
n-Propylbenzene	7.89		233615	49.43	49.4		Y
Styrene	7.15		63212	49.13	49.1		Y
1,1,1,2-Tetrachloroethane	6.62		45468	47.68	47.7		Y
1,1,1,2,2-Tetrachloroethane	7.86		52221	43.13	43.1		Y
Tetrachloroethene (PCE)	5.67		38954	53.19	53.2		Y
Toluene	5.23		114712	52.14	52.1		Y
1,2,3-Trichlorobenzene	11.16		65483	48.99	49.0		Y
1,2,4-Trichlorobenzene	10.71		68948	49.99	50.0		Y
1,1,2-Trichloroethane	5.66		37454	45.55	45.6		Y
1,1,1-Trichloroethane (TCA)	3.39		61221	49.06	49.1		Y

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Data File: J:\MS24\DATA\100719\1007F005.D\
Acqu Date: 10/7/19 11:12:00
Run Type: LCS
Lab ID: KQ1914491-03

Instrument: K-MS-2nd **OK** 10/08/19
Vial: 3
Dilution: 1
Raw Units: ppb

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT		Response	Solution	Final	Q	Rpt?
	RT	Dev		Conc	Conc		
Trichloroethene (TCE)	4.16		47351	50.21	50.2		Y
Trichlorofluoromethane (CFC 11)	1.46	-0.01	54099	45.55	45.6		Y
1,2,3-Trichloropropane	7.91		15748	42.09	42.1		Y
1,2,4-Trimethylbenzene	8.45		164080	49.46	49.5		Y
1,3,5-Trimethylbenzene	8.08		160380	49.55	49.6		Y
Vinyl Chloride	1.04	-0.01	47763	49.33	49.3		Y
o-Xylene	7.12		79255	49.86	49.9		Y
m,p-Xylenes	6.73		162223	101.46	101		Y
Xylenes, Total				49.86	49.9		Y

Prep Amount: 5 g **Dilution:** 1
Prep Final Amount: 5.00 mL **Basis Factor:** 100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 10/11/19 8:00

\alprews001\starlims\LIMSReps\QuantValidation.rpt

Quantitation Report

Data File: J:\MS24\DATA\100719\1007F005.D	Instrument: MS24
Acqu Date: 10/07/2019 11:12	Quant Date: 10/07/2019 12:11
Run Type: LCS	Vial: 5
Lab ID: KWG1904372-1	MethodJoinID: MJ517
	Dilution: 1.0
	Soln Conc. Units: PPB

Bottle ID:	Tier:	Matrix: PAPERBOARD
Prod Code: 8260C VOC FP	Collect Date:	Receive Date: 10/07/2019

Analysis Lot: KWG1904373	Prep Lot: KWG1904372	Report Group:
Analysis Method: 8260C	Prep Method: EPA 5035A	
Prep Ref: 1736328	Prep Date: 10/07/2019	

Quant Method: J:\MS24\METHODS\2010\0715DOD19_MS	Calibration ID: CAL16091
Title:	
Tune Ref: J:\MS24\DATA\100719\1007F003.D	Method ID: MJ517
MB Ref: J:\MS24\DATA\100719\1007F009.D	Quant based on Method

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	3.89	-0.01	96	174571	50.00	OK
2	Chlorobenzene-d5	6.50	0.00	82	69800	50.00	OK
3	1,4-Dichlorobenzene-d4	8.82	0.00	152	65636	50.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	3.42	0.00	0.00	113	42483	49.81	100	83-128	OK
1	1,2-Dichloroethane-d4	3.69	0.00	0.00	65	45011	40.98	82	71-119	OK
1	Toluene-d8	5.17	0.00	0.00	98	173171	56.99	114	83-135	OK
2	4-Bromofluorobenzene	7.67	0.00	0.00	95	61035	52.37	105	77-124	OK

Target Compounds

Final Conc. Units: mg/Kg Wet Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	0.86		0.00	85	39138	56.31	0.0563		
1	Chloromethane	0.98		0.00	50	51718	46.81	0.0468		
1	Vinyl Chloride	1.04	-0.01	0.00	62	47763	49.33	0.0493		
1	Bromomethane	1.26		0.00	96	25085	40.27	0.0403		
1	Chloroethane	1.33		0.00	64	27511	49.31	0.0493		
1	Trichlorofluoromethane	1.46	-0.01	0.00	101	54099	45.55	0.0456		
1	1,1-Dichloroethene	1.81		0.00	96	33274	49.17	0.0492		
1	Methylene Chloride	2.18		0.00	84	43014	43.18	0.0432		
1	Acrylonitrile	2.41		0.00	53	40951	106.75	0.107		
1	trans-1,2-Dichloroethene	2.33		0.00	96	40569	47.05	0.0471		
1	1,1-Dichloroethane	2.65		0.00	63	79006	47.87	0.0479		
1	Vinyl Acetate	2.69		0.00	86	29218	158.57	0.159		
1	cis-1,2-Dichloroethene	3.07		0.00	96	47727	44.41	0.0444		

U: Undetected at or above MDL
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 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File:	J:\MS24\DATA\100719\1007F005.D	Instrument:	2nd MS KW 10/08/19
Acq Date:	10/07/2019 11:12	Quant Date:	10/07/2019 12:11
Run Type:	LCS	MethodJoinID:	MJ517
Lab ID:	KWG1904372-1	Vial:	5
		Dilution:	1.0
		Soln Conc. Units:	PPB

Target Compounds Final Conc. Units: mg/Kg Wet Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Bromochloromethane	3.24	-0.01	0.00	128	22979	43.23	0.0432		
1	Chloroform	3.29		0.00	83	76660	45.42	0.0454		
1	Cyclohexane				56	0d		0.00015	U	
1	1,1,1-Trichloroethane (TCA)	3.39		0.00	97	61221	49.06	0.0491		
1	Carbon Tetrachloride	3.47	-0.01	0.00	117	52174	52.15	0.0522		
1	Benzene	3.66	-0.01	0.00	78	185843	47.41	0.0474		
1	1,2-Dichloroethane (EDC)	3.74	-0.01	0.00	62	58864	40.97	0.0410		
1	Trichloroethene (TCE)	4.16		0.00	95	47351	50.21	0.0502		
1	1,2-Dichloropropane	4.39		0.00	63	52112	49.54	0.0495		
1	Dibromomethane	4.49		0.00	93	28832	45.78	0.0458		
1	Bromodichloromethane	4.61		0.00	83	59820	47.69	0.0477		
1	cis-1,3-Dichloropropene	4.99		0.00	75	77429	50.45	0.0505		
1	Toluene	5.23		0.00	92	114712	52.14	0.0521		
2	trans-1,3-Dichloropropene	5.51		0.00	75	67937	46.38	0.0464		
2	1,1,2-Trichloroethane	5.66		0.00	83	37454	45.55	0.0456		
2	Tetrachloroethene (PCE)	5.67		0.00	164	38954	53.19	0.0532		
2	Dibromochloromethane	5.98		0.00	129	48361	47.67	0.0477		
2	1,2-Dibromoethane (EDB)	6.09		0.00	107	42022	45.16	0.0452		
2	Chlorobenzene	6.53		0.00	112	131090	47.65	0.0477		
2	Ethylbenzene	6.61		0.00	106	68061	50.53	0.0505		
2	1,1,1,2-Tetrachloroethane	6.62		0.00	131	45468	47.68	0.0477		
2	m,p-Xylenes	6.73		0.00	106	162223	101.46	0.101		
2	o-Xylene	7.12		0.00	106	79255	49.86	0.0499		
2	Styrene	7.15		0.00	103	63212m	49.13	0.0491		
2	Bromoform	7.35		0.00	173	32802	50.56	0.0506		
2	Isopropylbenzene	7.47		0.00	105	205039	53.28	0.0533		
3	1,1,2,2-Tetrachloroethane	7.86		0.00	83	52221	43.13	0.0431		
3	Bromobenzene	7.80		0.00	156	56270	44.87	0.0449		
3	n-Propylbenzene	7.89		0.00	91	233615	49.43	0.0494		
3	1,2,3-Trichloropropane	7.91		0.00	110	15748	42.09	0.0421		
3	2-Chlorotoluene	7.99		0.00	91	141489	46.91	0.0469		
3	1,3,5-Trimethylbenzene	8.08		0.00	105	160380	49.55	0.0496		
3	4-Chlorotoluene	8.11		0.00	91	144413m	46.24	0.0462		
3	tert-Butylbenzene	8.38	-0.01	0.00	119	148173	50.74	0.0507		
3	1,2,4-Trimethylbenzene	8.45		0.00	105	164080	49.46	0.0495		
3	sec-Butylbenzene	8.61		0.00	105	217554	52.66	0.0527		
3	4-Isopropyltoluene	8.76		0.00	119	183226	54.47	0.0545		
3	1,3-Dichlorobenzene	8.74		0.00	146	101774	47.13	0.0471		
3	1,4-Dichlorobenzene	8.84		0.00	146	102114	45.81	0.0458		
3	n-Butylbenzene	9.16		0.00	91	161312	52.80	0.0528		
3	1,2-Dichlorobenzene	9.21		0.00	146	97924	45.64	0.0456		
3	1,2-Dibromo-3-chloropropane	9.98		0.00	155	8315	44.65	0.0447		

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File: J:\MS24\DATA\100719\1007F005.D**Instrument:****Acqu Date:** 10/07/2019 11:12**Quant Date:** 10/07/2019 12:11**Vial:** 5**Run Type:** LCS**MethodJoinID:** MJ517**Dilution:** 1.0**Lab ID:** KWG1904372-1**Soln Conc. Units:** PPB**Target Compounds****Final Conc. Units:** mg/Kg Wet Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Hexachlorobutadiene	10.82	0.01	0.00	225	40660	51.34	0.0513		

Prep Amount: 5.00 g**Dilution:** 1.0**Prep Final Vol:** 5.00 ml**Unit Factor:** 0.001**Solids:** %
$$\text{Final Concentration} = ((\text{Soln Conc} \times \text{Prep Final Vol} \times \text{Dilution}) / (\text{Prep Amount} \times \text{Solids})) \times \text{Unit Factor}$$

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result \geq MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File : J:\MS24\DATA\100719\1007F005.D
 Acq On : 7 Oct 2019 11:12 am
 Sample : LCS
 Misc :

Vial: 5
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 07 11:43:09 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

Quant Method : J:\MS24\M...\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 14:57:11 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	3.89	96	174571	50.00	PPB	0.00
58) Chlorobenzene-d5	6.50	82	69800	50.00	PPB	0.00
77) 1,4-Dichlorobenzene-d4	8.82	152	65636	50.00	PPB	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Dibromofluoromethane	3.42	113	42483	49.81	PPB	0.00
Spiked Amount				50.000		
Recovery					=	99.62%
43) 1,2-Dichloroethane-d4	3.69	65	45011	40.98	PPB	0.00
Spiked Amount				50.000		
Recovery					=	81.96%
56) Toluene-d8	5.17	98	173171	56.99	PPB	0.00
Spiked Amount				50.000		
Recovery					=	113.98%
76) 4-Bromofluorobenzene	7.67	95	61035	52.37	PPB	0.00
Spiked Amount				50.000		
Recovery					=	104.74%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.86	85	39138	56.31	PPB	95
3) Chloromethane	0.98	50	51718	46.81	PPB	98
4) Vinyl Chloride	1.04	62	47763	49.33	PPB	98
5) Bromomethane	1.26	96	25085	40.27	PPB	99
6) Chloroethane	1.33	64	27511	49.31	PPB	98
7) Dichlorofluoromethane	1.47	67	65890	46.87	PPB	95
8) Trichlorofluoromethane	1.46	101	54099	45.55	PPB	99
9) Acrolein	1.81	56	17596	95.86	PPB	97
10) Trichlorotrifluoroethane	1.79	151	29551	50.16	PPB	98
11) 1,1-Dichloroethene	1.81	96	33274	49.17	PPB	97
12) Acetone	1.91	43	59227	210.86	PPB	99
13) Iodomethane	1.92	142	52470	82.23	PPB	95
14) Carbon Disulfide	1.94	76	193098	82.97	PPB	100
15) 3-Chloro-1-Propane	2.08	TIC	274632m	73.75	PPB	
17) Acetonitrile	2.15	40	43688	624.29	PPB	99
18) Methylene Chloride	2.18	84	43014	43.18	PPB	95
19) tert-Butyl Alcohol	2.28	59	52930	423.62	PPB	100
20) Acrylonitrile	2.41	53	40951	106.75	PPB	94
21) Methyl tert-Butyl Ether	2.32	73	117264	40.68	PPB	98
22) trans-1,2-Dichloroethene	2.33	96	40569	47.05	PPB	95
23) Hexane	2.45	57	89760	77.81	PPB	99
24) Diisopropyl Ether	2.65	45	300652	93.07	PPB	99
25) 1,1-Dichloroethane	2.65	63	79006	47.87	PPB	96
26) Vinyl Acetate	2.69	86	29218	158.57	PPB	98
27) Chloroprene	2.68	53	97122	81.24	PPB	96
28) tert-Butyl Ethyl Ether	2.90	59	255044	82.67	PPB	97
29) 2,2-Dichloropropane	3.04	77	58442	46.99	PPB	99
30) cis-1,2-Dichloroethene	3.07	96	47727	44.41	PPB	94
31) 2-Butanone	3.11	72	28237	228.70	PPB	# 48
32) Propionitrile	3.21	54	10319	65.87	PPB	96
34) Methacrylonitrile	3.29	67	31079	66.33	PPB	93
35) Bromochloromethane	3.24	128	22979	43.23	PPB	93
36) Chloroform	3.29	83	76660	45.42	PPB	96
38) 1,1,1-Trichloroethane	3.39	97	61221	49.06	PPB	96
40) Carbon Tetrachloride	3.47	117	52174	52.15	PPB	95
41) 1,1-Dichloropropene	3.51	75	59930	50.51	PPB	97
42) Isobutyl Alcohol	3.67	43	40071	647.46	PPB	95
44) Benzene	3.66	78	185843	47.41	PPB	99
45) 1,2-Dichloroethane	3.74	62	58864	40.97	PPB	100
46) Trichloroethene	4.16	95	47351	50.21	PPB	93
48) 1,2-Dichloropropane	4.39	63	52112	49.54	PPB	94
49) Dibromomethane	4.49	93	28832	45.78	PPB	91
50) 1,4-Dioxane	4.50	88	8910	772.14	PPB	98

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS24\DATA\100719\1007F005.D
 Acq On : 7 Oct 2019 11:12 am
 Sample : LCS
 Misc :

Vial: 5
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 07 11:43:09 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

Quant Method : J:\MS24\M...\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 14:57:11 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
51) Bromodichloromethane	4.61	83	59820	47.69	PPB	98
52) 2-Nitropropane	4.88	41	17768	23.52	PPB	99
53) 2-Chloroethyl Vinyl Ether	4.88	63	6485	20.60	PPB	90
54) cis-1,3-Dichloropropene	4.99	75	77429	50.45	PPB	94
55) 4-Methyl-2-pentanone (MIBK)	5.13	58	97092	261.02	PPB	95
57) Toluene	5.23	92	114712	52.14	PPB	91
59) trans-1,3-Dichloropropene	5.51	75	67937	46.38	PPB	93
60) 1,1,2-Trichloroethane	5.66	83	37454	45.55	PPB	98
61) Tetrachloroethene	5.67	164	38954	53.19	PPB	96
62) 2-Hexanone	5.88	57	31594	260.68	PPB #	88
63) 1,3-Dichloropropene	5.81	76	74626	45.44	PPB	100
64) Dibromochloromethane	5.98	129	48361	47.67	PPB	99
65) 1,2-Dibromoethane (EDB)	6.09	107	42022	45.16	PPB	90
66) 1-Chlorohexane	6.50	91	58774	57.57	PPB	97
67) Chlorobenzene	6.53	112	131090	47.65	PPB	98
68) Ethylbenzene	6.61	106	68061	50.53	PPB	93
69) 1,1,1,2-Tetrachloroethane	6.62	131	45468	47.68	PPB	95
70) m,p-Xylenes	6.73	106	162223	101.46	PPB	96
71) o-Xylene	7.12	106	79255	49.86	PPB	98
72) Styrene	7.15	103	63212m	49.13	PPB	
73) Bromoform	7.35	173	32802	50.56	PPB	98
74) Isopropylbenzene	7.47	105	205039	53.28	PPB	99
75) cis-1,4-Dichloro-2-butene	7.63	89	12050	79.68	PPB	93
78) 1,1,2,2-Tetrachloroethane	7.86	83	52221	43.13	PPB	97
79) trans-1,4-Dichloro-2-buten	7.94	53	21840	63.75	PPB	88
80) Bromobenzene	7.80	156	56270	44.87	PPB	97
81) n-Propylbenzene	7.89	91	233615	49.43	PPB	100
82) 1,2,3-Trichloropropane	7.91	110	15748	42.09	PPB	90
83) 2-Chlorotoluene	7.99	91	141489	46.91	PPB	97
84) 1,3,5-Trimethylbenzene	8.08	105	160380	49.55	PPB	96
85) 4-Chlorotoluene	8.11	91	144413m	46.24	PPB	
86) tert-Butylbenzene	8.38	119	148173	50.74	PPB	96
87) 1,2,4-Trimethylbenzene	8.45	105	164080	49.46	PPB	98
88) sec-Butylbenzene	8.61	105	217554	52.66	PPB	99
89) p-Isopropyltoluene	8.76	119	183226	54.47	PPB	99
90) 1,3-Dichlorobenzene	8.74	146	101774	47.13	PPB	95
91) 1,4-Dichlorobenzene	8.84	146	102114	45.81	PPB	99
92) n-Butylbenzene	9.16	91	161312	52.80	PPB	98
93) 1,2-Dichlorobenzene	9.21	146	97924	45.64	PPB	100
94) 1,2-Dibromo-3-chloropropan	9.98	155	8315	44.65	PPB	86
95) 1,3,5-Trichlorobenzene	10.11	180	80886	53.63	PPB	98
96) 1,2,4-Trichlorobenzene	10.71	180	68948	49.99	PPB	97
97) Hexachlorobutadiene	10.82	225	40660	51.34	PPB	97
98) Naphthalene	10.94	128	149882	48.07	PPB	99
99) 1,2,3-Trichlorobenzene	11.16	180	65483	48.99	PPB	97

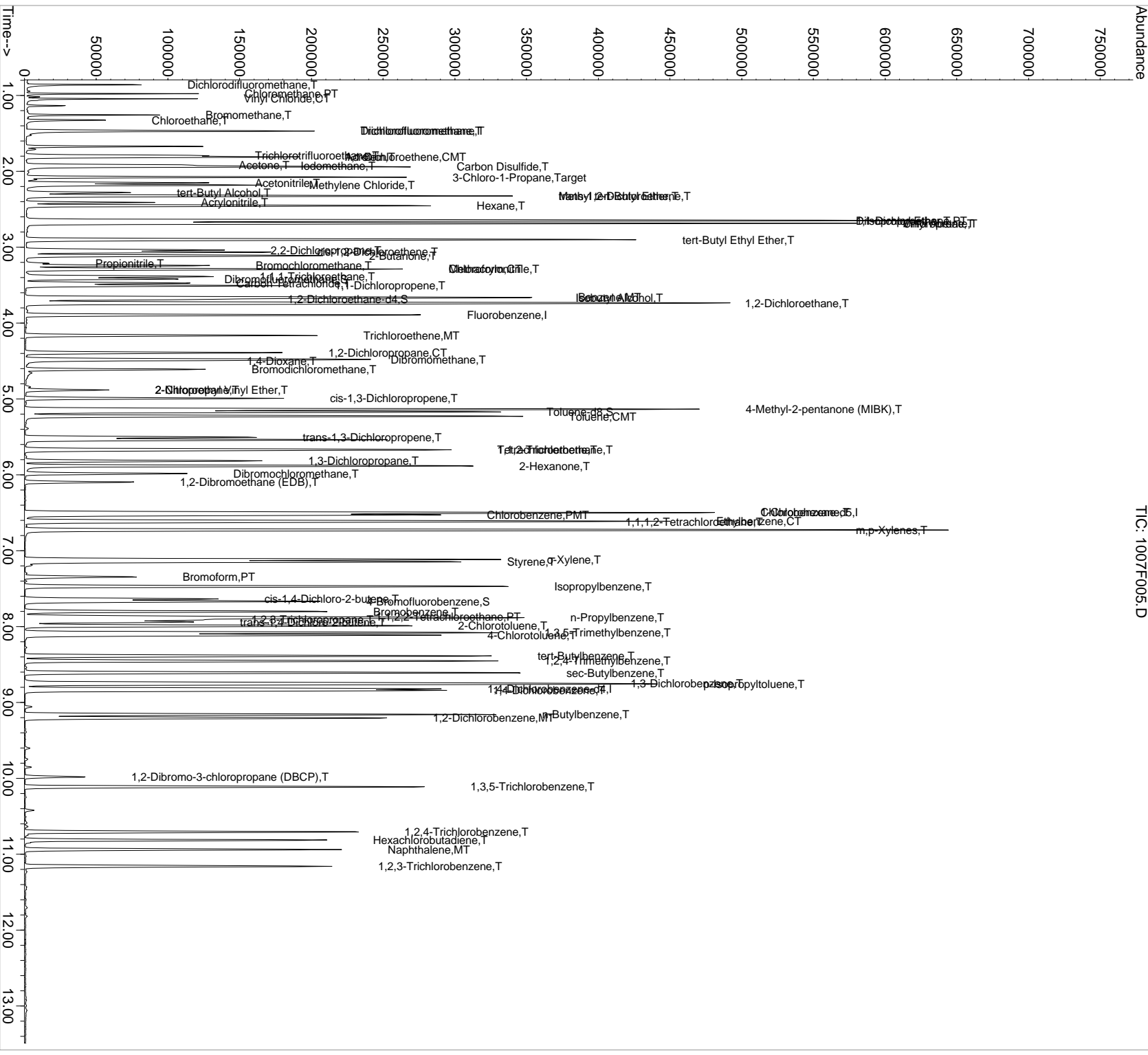
(#) = qualifier out of range (m) = manual integration

Data File : J:\MS24\DATA\100719\1007F005.D
Acq On : 7 Oct 2019 11:12 am
Sample : LCS
Misc :
MS Integration Params: rteint.p
Unit Time: Oct 7 12:11 2019

Vial: 5
Operator: KW
Inst: MS24
Multiplr: 1.00

Quant Results File: 0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
Title : VOA MS24 EPA Method 8260B
Last Update : Mon Jul 15 14:57:11 2019
Response via : Initial Calibration



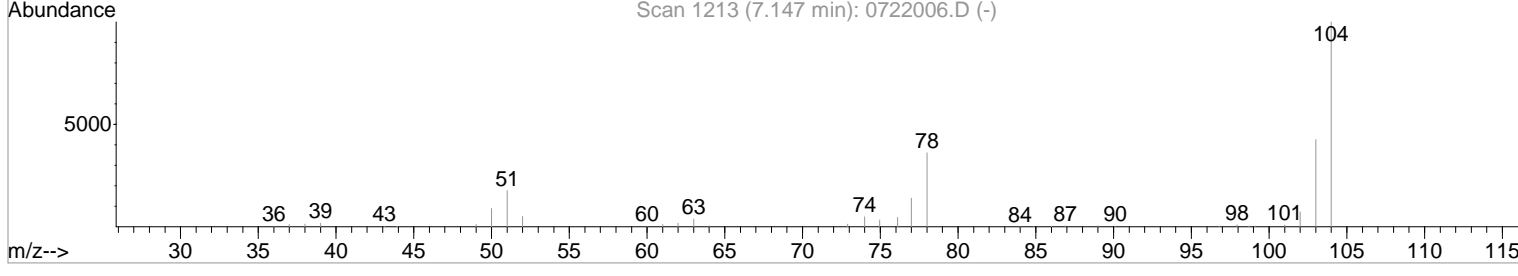
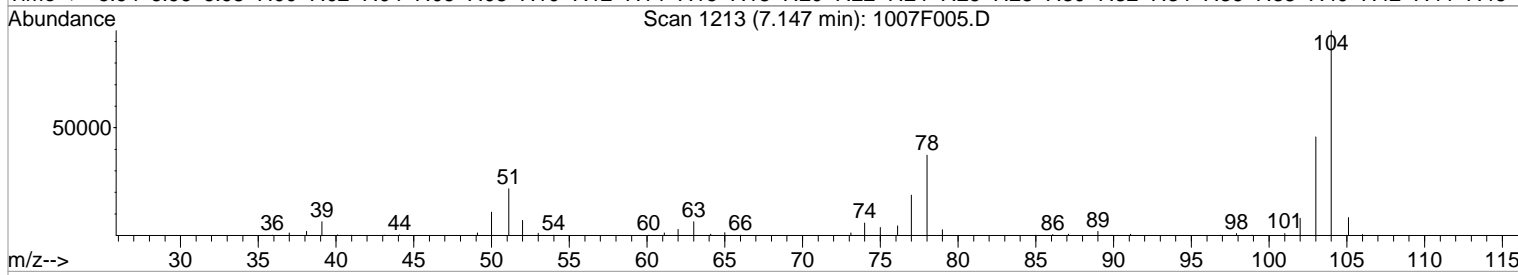
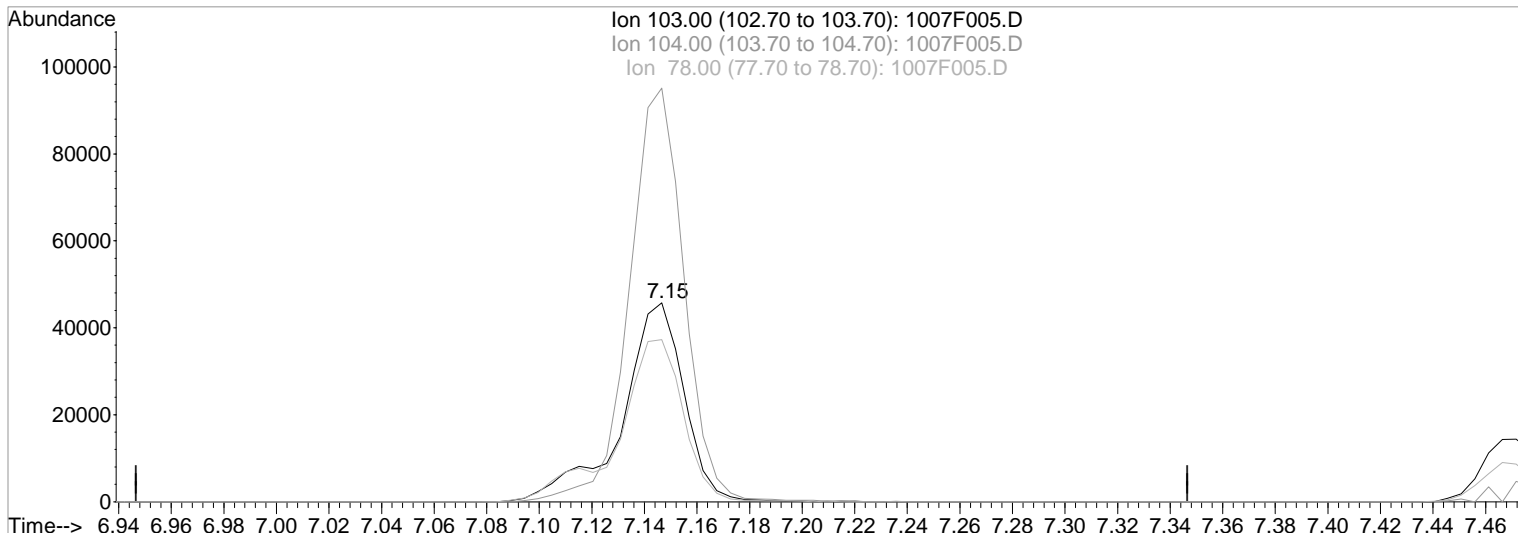
Data File : J:\MS24\DATA\100719\1007F005.D
Acq On : 7 Oct 2019 11:12 am
Sample : LCS
Misc :

Vial: 5
Operator: KW
Inst : MS24
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Oct 7 12:07 2019

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
Title : VOA MS24 EPA Method 8260B
Last Update : Mon Jul 15 14:57:11 2019
Response via : Multiple Level Calibration



TIC: 1007F005.D

(72) Styrene (T)			Manual Integration:
7.15min	58.68PPB		Before
response	75503		
Ion	Exp%	Act%	10/07/19
103.00	100	100	
104.00	210.30	207.81	
78.00	89.90	81.42	
0.00	0.00	0.00	

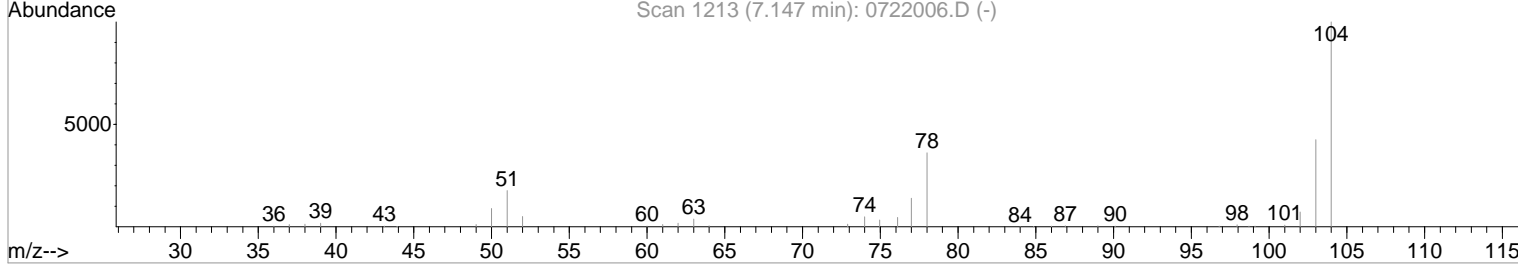
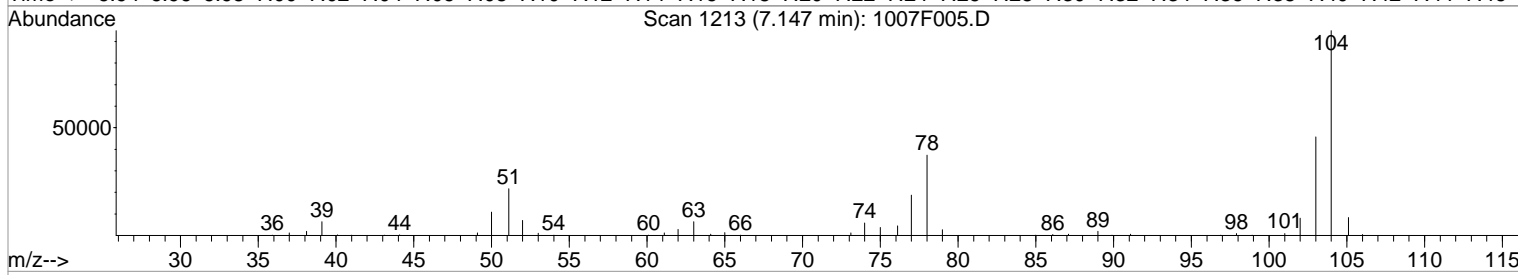
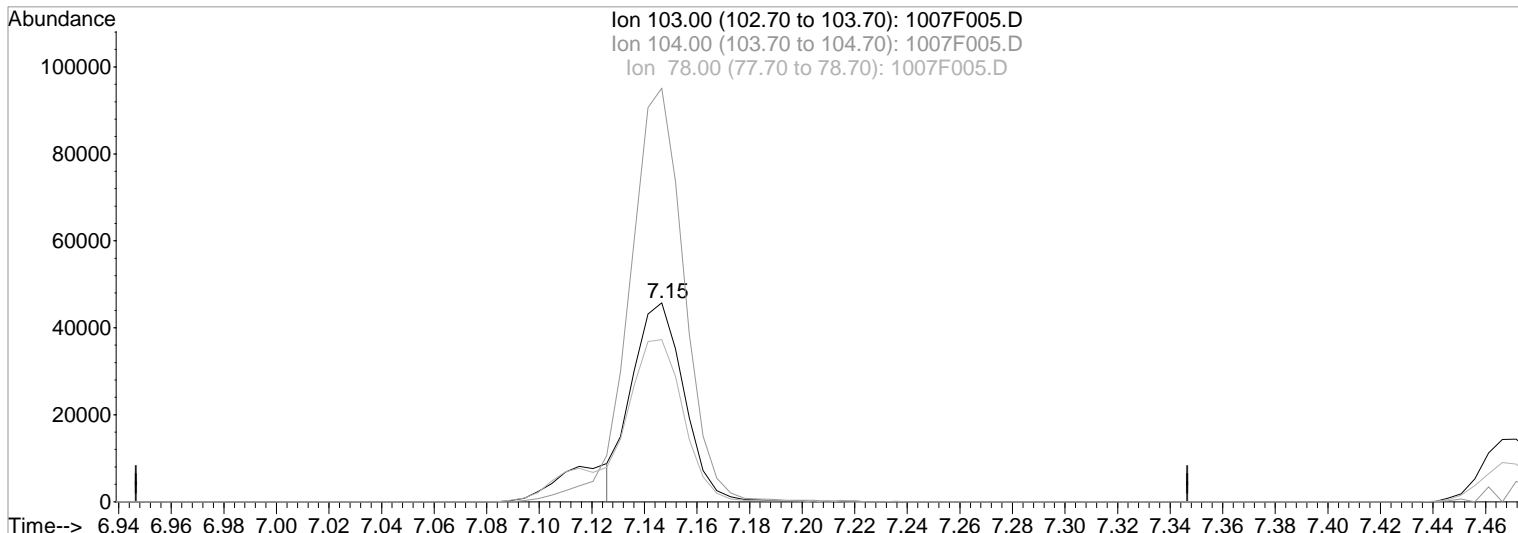
Data File : J:\MS24\DATA\100719\1007F005.D
 Acq On : 7 Oct 2019 11:12 am
 Sample : LCS
 Misc :

Vial: 5
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 7 12:07 2019

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 14:57:11 2019
 Response via : Multiple Level Calibration



TIC: 1007F005.D

(72) Styrene (T)		
7.15min	49.13PPB	m
response	63212	
Ion	Exp%	Act%
103.00	100	100
104.00	210.30	207.81
78.00	89.90	81.42
0.00	0.00	0.00

Manual Integration:
 After
 Shoulder
 10/07/19

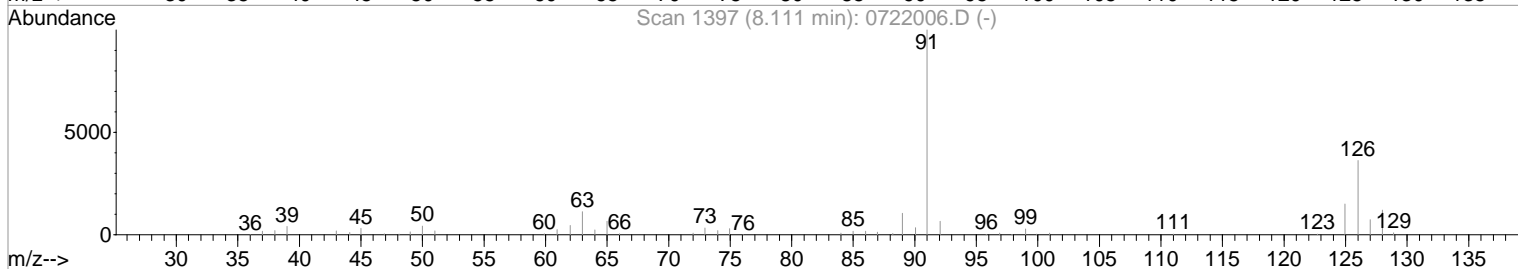
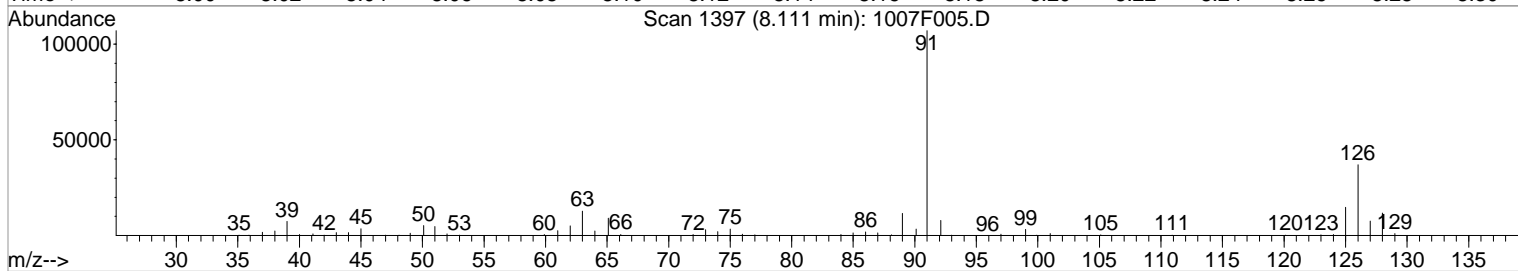
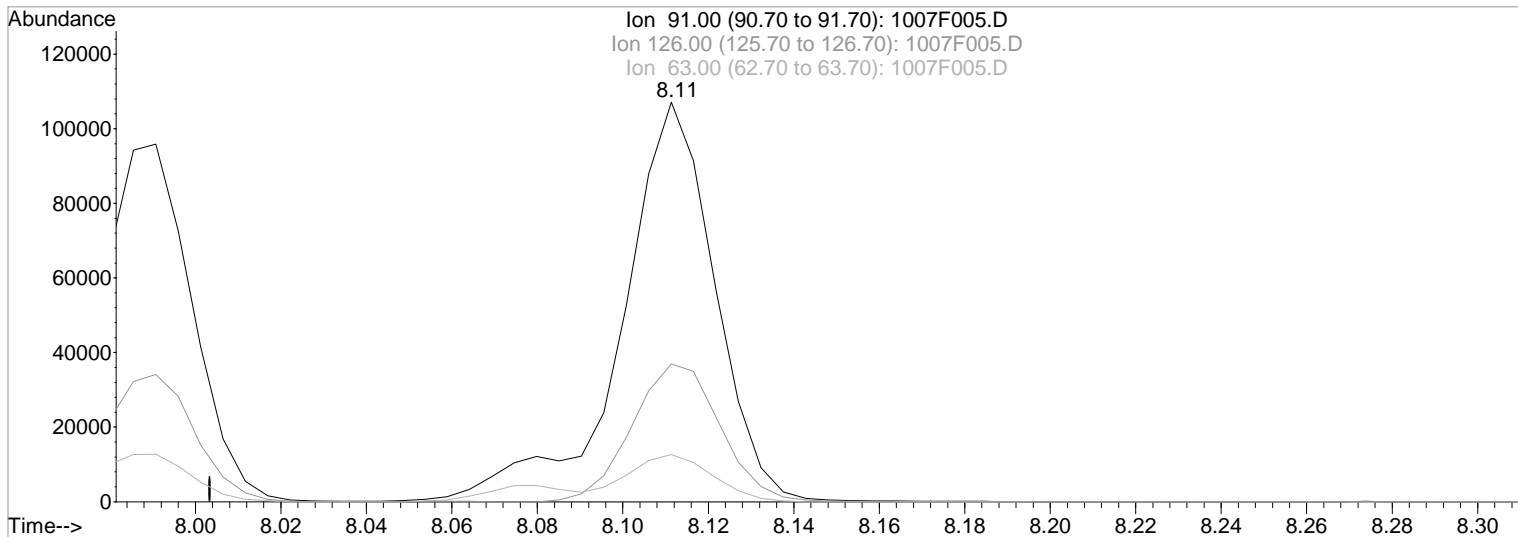
Data File : J:\MS24\DATA\100719\1007F005.D
 Acq On : 7 Oct 2019 11:12 am
 Sample : LCS
 Misc :

Vial: 5
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 7 12:07 2019

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 14:57:11 2019
 Response via : Multiple Level Calibration



TIC: 1007F005.D

(85) 4-Chlorotoluene (T)

Manual Integration:

8.11min 52.28PPB

Before

response 163276

Ion Exp% Act%

10/07/19

91.00 100 100

126.00 32.80 34.48

63.00 12.70 11.84

0.00 0.00 0.00

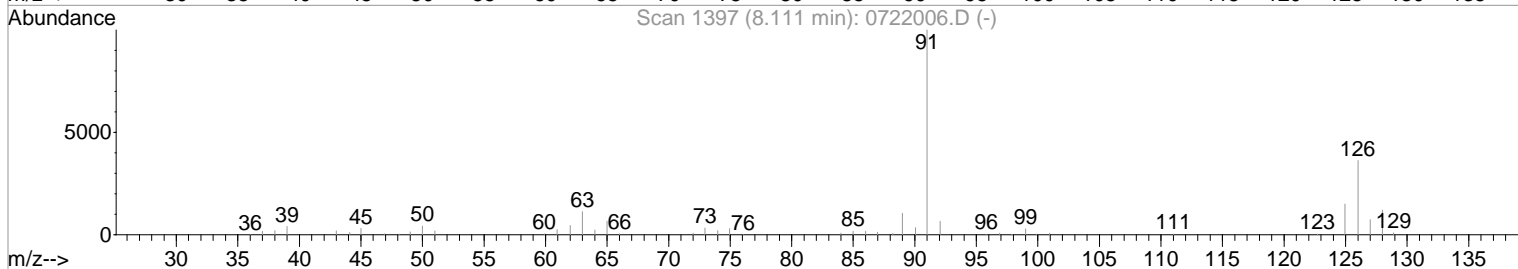
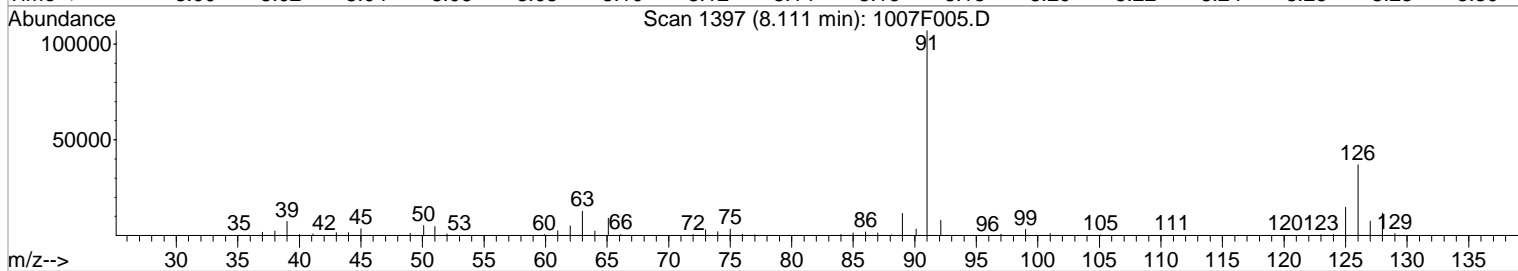
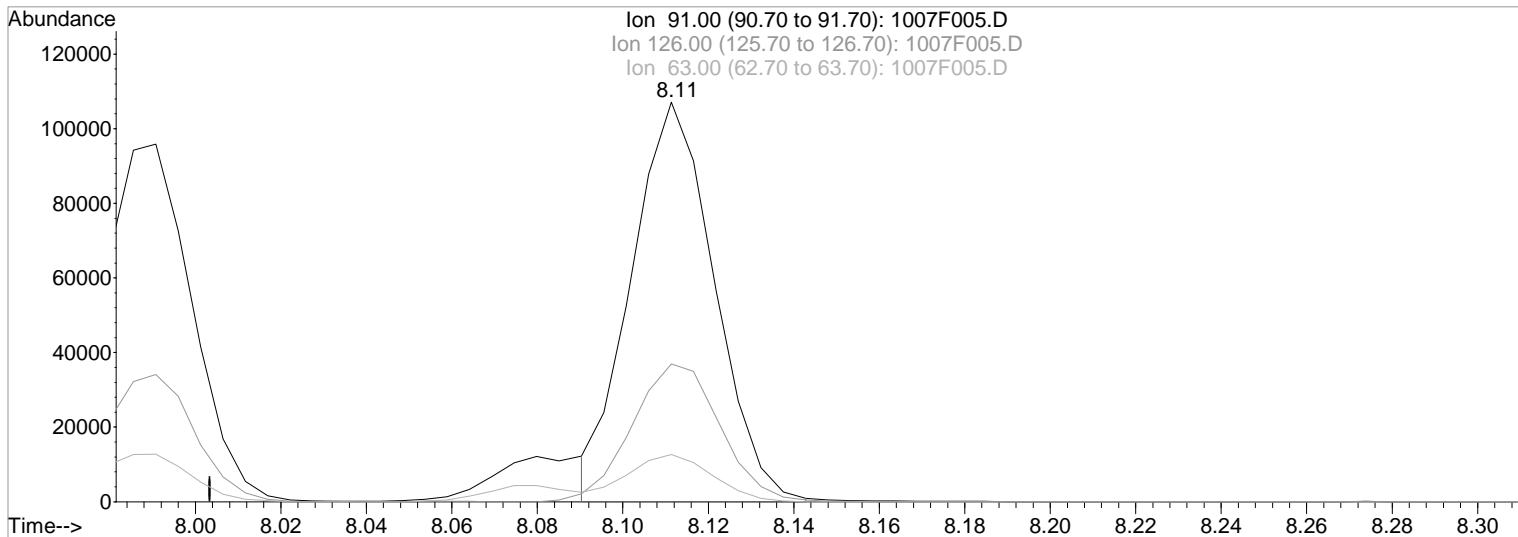
Data File : J:\MS24\DATA\100719\1007F005.D
 Acq On : 7 Oct 2019 11:12 am
 Sample : LCS
 Misc :

Vial: 5
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 7 12:08 2019

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 14:57:11 2019
 Response via : Multiple Level Calibration



TIC: 1007F005.D

(85) 4-Chlorotoluene (T)

Manual Integration:

8.11min 46.24PPB m
 response 144413

After
 Shoulder

Ion	Exp%	Act%
91.00	100	100
126.00	32.80	34.48
63.00	12.70	11.84
0.00	0.00	0.00

10/07/19

Validation Report

1st **KW** 10/08/19
2nd ~~SK~~ 10/08/19

Data File: J:\MS24\DATA\100719\1007F006.D\
Lab ID: KQ1914491-04
RunType: DLCS
Matrix: Paperboard

Date Acquired: 10/7/19 11:33:00
Batch ID: 654417
Analysis Method: 8260C/VOC FP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification		X
Continuing Calibration Recovery		X
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	Dichlorodifluoromethane	47		30	High bias, narrate
Continuing Calibration Recovery	n-Butylbenzene	23		20	CCVOK
	sec-Butylbenzene	21		20	
	Chloromethane	-24		20	
	Dichlorodifluoromethane	-30		20	
	Hexachlorobutadiene	24		20	
	Isopropylbenzene	21		20	
	4-Isopropyltoluene	23		20	

Primary Review: _____

Secondary Review: _____

Exception Report

Data File: J:\MS24\DATA\100719\1007F006.D
Lab ID: KWG1904372-2
RunType: DLCS
Matrix: PAPERBOARD

Date Acquired: 10/07/2019 11:33
Date Quantitated: 10/07/2019 12:09
Batch ID: KWG1904373
Analysis Method: 8260C
MethodJoinID: MJ517

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA		x
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	Dichlorodifluoromethane	47.3	NA	30	High bias, narrate
Continuing Calibration Recovery	Dichlorodifluoromethane	-29.9	NA	20	CCVOK
	Chloromethane	-23.6	NA	20	
	Isopropylbenzene	21.3	NA	20	
	sec-Butylbenzene	20.9	NA	20	
	4-Isopropyltoluene	23.3	NA	20	
	n-Butylbenzene	23.3	NA	20	
	Hexachlorobutadiene	24.1	NA	20	

Primary Review: _____

Secondary Review: _____

Quantitation Report

1st **KW** 10/08/19
2nd **AK** 10/08/19

Data File: J:\MS24\DATA\100719\1007F006.D\	Instrument: K-MS-24
Acqu Date: 10/7/19 11:33:00	Vial: 4
Run Type: DLCS	Dilution: 1
Lab ID: KQ1914491-04	Raw Units: ppb

Bottle ID:	Tier: I	Matrix: Paperboard
Prod Code: VOC FP	Collect Date: 8/14/19	Receive Date: 9/12/19

Analysis Lot: 654417	Prep Lot:	Report Group: KQ1914491
Analysis: 8260C	Prep Method:	
	Prep Date:	

Title: Volatile Organic Compounds by GC/MS	Calibration ID: KC1900275
	Report List ID: 20903

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Chlorobenzene-d5	6.50		71889	50.00	OK
1,4-Dichlorobenzene-d4	8.82		67401	50.00	OK
Fluorobenzene	3.90		170934	50.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
4-Bromofluorobenzene	7.67		61595	51.32	103	88 - 127	Y
Dibromofluoromethane	3.42		43208	51.74	103	82 - 146	Y
Toluene-d8	5.17		173119	58.18	116	90 - 142	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Acetone	1.91		58010	210.92	211		Y
Benzene	3.67		180444	47.02	47.0		Y
Bromobenzene	7.80		55101	42.78	42.8		Y
Bromochloromethane	3.25		22666	43.54	43.5		Y
Bromodichloromethane	4.61		57885	47.13	47.1		Y
Bromoform	7.35		32682	48.91	48.9		Y
Bromomethane	1.26		24265	39.78	39.8		Y
2-Butanone (MEK)	3.11		27391	226.57	227		Y
n-Butylbenzene	9.16		153971	49.08	49.1		Y
sec-Butylbenzene	8.60	-0.01	209269	49.33	49.3		Y
tert-Butylbenzene	8.38	-0.01	140805	46.95	47.0		Y
Carbon Disulfide	1.94		182243	79.97	80.0		Y
Carbon Tetrachloride	3.48		49385	50.41	50.4		Y
Chlorobenzene	6.53		125707	44.36	44.4		Y
Chloroethane	1.33		26528	48.56	48.6		Y

Data File: J:\MS24\DATA\100719\1007F006.D\
 Acqu Date: 10/7/19 11:33:00
 Run Type: DLCS
 Lab ID: KQ1914491-04

Instrument: K-MS-2nd **KW** 10/08/19
 Vial: 4
 Dilution: 1
 Raw Units: ppb

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Chloroform	3.29		74282	44.95	45.0		Y
Chloromethane	0.98		48856	45.16	45.2		Y
2-Chlorotoluene	7.99		136711	44.14	44.1		Y
4-Chlorotoluene	8.11		139519	43.50	43.5		Y
1,2-Dibromo-3-chloropropane	9.98		8427	44.07	44.1		Y
Dibromochloromethane	5.98		47307	45.28	45.3		Y
1,2-Dibromoethane (EDB)	6.09		41451	43.26	43.3		Y
Dibromomethane	4.49		28173	45.69	45.7		Y
1,2-Dichlorobenzene	9.21		96208	43.67	43.7		Y
1,3-Dichlorobenzene	8.74		99252	44.76	44.8		Y
1,4-Dichlorobenzene	8.84		100220	43.79	43.8		Y
Dichlorodifluoromethane	0.86		37135	54.57	54.6		Y
1,1-Dichloroethane	2.65		75826	46.93	46.9		Y
1,2-Dichloroethane (EDC)	3.75		57730	41.03	41.0		Y
1,1-Dichloroethene	1.81		32032	48.34	48.3		Y
cis-1,2-Dichloroethene	3.07		46191	43.89	43.9		Y
trans-1,2-Dichloroethene	2.33		37838	44.82	44.8		Y
1,2-Dichloropropane	4.39		50937	49.45	49.5		Y
1,3-Dichloropropane	5.82	+0.01	72723	42.99	43.0		Y
2,2-Dichloropropane	3.04		54773	44.97	45.0		Y
1,1-Dichloropropene	3.51		56986	49.05	49.1		Y
cis-1,3-Dichloropropene	4.99		72218	48.05	48.1		Y
trans-1,3-Dichloropropene	5.51		65586	43.47	43.5		Y
Ethylbenzene	6.61		65348	47.11	47.1		Y
Hexachlorobutadiene	10.81		39203	48.21	48.2		Y
2-Hexanone	5.88		31357	251.21	251		Y
Isopropylbenzene	7.47		194767	49.14	49.1		Y
4-Isopropyltoluene	8.76		176000	50.95	51.0		Y
4-Methyl-2-pentanone (MIBK)	5.13		93879	257.75	258		Y
Methylene Chloride	2.18		41313	42.35	42.4		Y
Naphthalene	10.94		150649	47.05	47.1		Y
n-Propylbenzene	7.89		226081	46.58	46.6		Y
Styrene	7.15		61767	46.61	46.6		Y
1,1,1,2-Tetrachloroethane	6.62		44768	45.58	45.6		Y
1,1,1,2-Tetrachloroethane	7.87	+0.01	51996	41.82	41.8		Y
Tetrachloroethene (PCE)	5.67		36934	48.96	49.0		Y
Toluene	5.23		110786	51.43	51.4		Y
1,2,3-Trichlorobenzene	11.16		64472	46.97	47.0		Y
1,2,4-Trichlorobenzene	10.71		68315	48.24	48.2		Y
1,1,2-Trichloroethane	5.66		36687	43.32	43.3		Y
1,1,1-Trichloroethane (TCA)	3.39		58402	47.80	47.8		Y

Data File: J:\MS24\DATA\100719\1007F006.D\
 Acqu Date: 10/7/19 11:33:00
 Run Type: DLCS
 Lab ID: KQ1914491-04

Instrument: K-MS-2nd **KW** 10/08/19
 Vial: 4
 Dilution: 1
 Raw Units: ppb

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Trichloroethene (TCE)	4.16		44901	48.63	48.6		Y
Trichlorofluoromethane (CFC 11)	1.46	-0.01	52012	44.72	44.7		Y
1,2,3-Trichloropropane	7.91		15631	40.68	40.7		Y
1,2,4-Trimethylbenzene	8.45		158351	46.49	46.5		Y
1,3,5-Trimethylbenzene	8.08		153469	46.17	46.2		Y
Vinyl Chloride	1.04	-0.01	45246	47.73	47.7		Y
o-Xylene	7.12		73519	44.91	44.9		Y
m,p-Xylenes	6.73		154483	93.81	93.8		Y
Xylenes, Total				44.91	44.9		Y

Prep Amount: 5 g
 Prep Final Amount: 5.00 mL

Dilution: 1
 Basis Factor: 100.00

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Printed: 10/11/19 8:00

\alprews001\starlims\LIMSReps\QuantValidation.rpt

Quantitation Report

Data File:	J:\MS24\DATA\100719\1007F006.D	Instrument:	MS24
Acqu Date:	10/07/2019 11:33	Quant Date:	10/07/2019 12:09
Run Type:	DLCS	MethodJoinID:	MJ517
Lab ID:	KWG1904372-2	Vial:	6
		Dilution:	1.0
		Soln Conc. Units:	PPB

Bottle ID:		Tier:		Matrix:	PAPERBOARD
Prod Code:	8260C VOC FP	Collect Date:		Receive Date:	10/07/2019

Analysis Lot:	KWG1904373	Prep Lot:	KWG1904372	Report Group:	
Analysis Method:	8260C	Prep Method:	EPA 5035A		
Prep Ref:	1736329	Prep Date:	10/07/2019		

Quant Method:	J:\MS24\METHODS\2010\0715DOD19_MS	Calibration ID:	CAL16091
Title:		Method ID:	MJ517
Tune Ref:	J:\MS24\DATA\100719\1007F003.D	Quant based on Method	
MB Ref:	J:\MS24\DATA\100719\1007F009.D		

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	3.90	0.00	96	170934	50.00	OK
2	Chlorobenzene-d5	6.50	0.00	82	71889	50.00	OK
3	1,4-Dichlorobenzene-d4	8.82	0.00	152	67401	50.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	3.42	0.00	0.00	113	43208	51.74	103	83-128	OK
1	1,2-Dichloroethane-d4	3.69	0.00	0.00	65	45635	42.43	85	71-119	OK
1	Toluene-d8	5.17	0.00	0.00	98	173119	58.18	116	83-135	OK
2	4-Bromofluorobenzene	7.67	0.00	0.00	95	61595	51.32	103	77-124	OK

Target Compounds

Final Conc. Units: mg/Kg Wet Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	0.86		0.00	85	37135	54.57	0.0546		
1	Chloromethane	0.98		0.00	50	48856	45.16	0.0452		
1	Vinyl Chloride	1.04	-0.01	0.00	62	45246	47.73	0.0477		
1	Bromomethane	1.26		0.00	96	24265	39.78	0.0398		
1	Chloroethane	1.33		0.00	64	26528	48.56	0.0486		
1	Trichlorofluoromethane	1.46	-0.01	0.00	101	52012	44.72	0.0447		
1	1,1-Dichloroethene	1.81		0.00	96	32032	48.34	0.0483		
1	Methylene Chloride	2.18		0.00	84	41313	42.35	0.0424		
1	Acrylonitrile	2.41		0.00	53	40941	109.00	0.109		
1	trans-1,2-Dichloroethene	2.33		0.00	96	37838	44.82	0.0448		
1	1,1-Dichloroethane	2.65		0.00	63	75826	46.93	0.0469		
1	Vinyl Acetate	2.69		0.00	86	28532	158.14	0.158		
1	cis-1,2-Dichloroethene	3.07		0.00	96	46191	43.89	0.0439		

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File: J:\MS24\DATA\100719\1007F006.D

Instrument: MS

Acq Date: 10/07/2019 11:33

Quant Date: 10/07/2019 12:09

Vial: 6

Run Type: DLCS

MethodJoinID: MJ517

Dilution: 1.0

Lab ID: KWG1904372-2

Soln Conc. Units: PPB

Target Compounds

Final Conc. Units: mg/Kg Wet Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Bromochloromethane	3.25		0.00	128	22666	43.54	0.0435		
1	Chloroform	3.29		0.00	83	74282	44.95	0.0450		
1	Cyclohexane				56	0d		0.00015		U
1	1,1,1-Trichloroethane (TCA)	3.39		0.00	97	58402	47.80	0.0478		
1	Carbon Tetrachloride	3.48		0.00	117	49385	50.41	0.0504		
1	Benzene	3.67		0.00	78	180444	47.02	0.0470		
1	1,2-Dichloroethane (EDC)	3.75		0.00	62	57730	41.03	0.0410		
1	Trichloroethene (TCE)	4.16		0.00	95	44901	48.63	0.0486		
1	1,2-Dichloropropane	4.39		0.00	63	50937	49.45	0.0495		
1	Dibromomethane	4.49		0.00	93	28173	45.69	0.0457		
1	Bromodichloromethane	4.61		0.00	83	57885	47.13	0.0471		
1	cis-1,3-Dichloropropene	4.99		0.00	75	72218	48.05	0.0481		
1	Toluene	5.23		0.00	92	110786	51.43	0.0514		
2	trans-1,3-Dichloropropene	5.51		0.00	75	65586	43.47	0.0435		
2	1,1,2-Trichloroethane	5.66		0.00	83	36687	43.32	0.0433		
2	Tetrachloroethene (PCE)	5.67		0.00	164	36934	48.96	0.0490		
2	Dibromochloromethane	5.98		0.00	129	47307	45.28	0.0453		
2	1,2-Dibromoethane (EDB)	6.09		0.00	107	41451	43.26	0.0433		
2	Chlorobenzene	6.53		0.00	112	125707	44.36	0.0444		
2	Ethylbenzene	6.61		0.00	106	65348	47.11	0.0471		
2	1,1,1,2-Tetrachloroethane	6.62		0.00	131	44768	45.58	0.0456		
2	m,p-Xylenes	6.73		0.00	106	154483	93.81	0.0938		
2	o-Xylene	7.12		0.00	106	73519	44.91	0.0449		
2	Styrene	7.15		0.00	103	61767m	46.61	0.0466		
2	Bromoform	7.35		0.00	173	32682	48.91	0.0489		
2	Isopropylbenzene	7.47		0.00	105	194767	49.14	0.0491		
3	1,1,2,2-Tetrachloroethane	7.87	0.01	0.00	83	51996	41.82	0.0418		
3	Bromobenzene	7.80		0.00	156	55101	42.78	0.0428		
3	n-Propylbenzene	7.89		0.00	91	226081	46.58	0.0466		
3	1,2,3-Trichloropropane	7.91		0.00	110	15631	40.68	0.0407		
3	2-Chlorotoluene	7.99		0.00	91	136711	44.14	0.0441		
3	1,3,5-Trimethylbenzene	8.08		0.00	105	153469	46.17	0.0462		
3	4-Chlorotoluene	8.11		0.00	91	139519m	43.50	0.0435		
3	tert-Butylbenzene	8.38	-0.01	0.00	119	140805	46.95	0.0470		
3	1,2,4-Trimethylbenzene	8.45		0.00	105	158351	46.49	0.0465		
3	sec-Butylbenzene	8.60	-0.01	0.00	105	209269	49.33	0.0493		
3	4-Isopropyltoluene	8.76		0.00	119	176000	50.95	0.0510		
3	1,3-Dichlorobenzene	8.74		0.00	146	99252	44.76	0.0448		
3	1,4-Dichlorobenzene	8.84		0.00	146	100220	43.79	0.0438		
3	n-Butylbenzene	9.16		0.00	91	153971	49.08	0.0491		
3	1,2-Dichlorobenzene	9.21		0.00	146	96208	43.67	0.0437		
3	1,2-Dibromo-3-chloropropane	9.98		0.00	155	8427	44.07	0.0441		

U: Undetected at or above MDL

J: Analyte detected above MDL, but below MRL

B: Hit above MRL also found in Method Blank

E: Analyte concentration above high point of ICAL

N: Presumptive evidence of compound

D: Result from dilution

m: Manual integration performed

d: Compound manually deleted

NR: Analyte not reported from this analysis

*: Result fails acceptance criteria

#: Acceptance criteria not applicable

?: Insufficient information to determine acceptance

e: Result >= MRL, but MRL less than low point of ICAL

c: check for co-elution

Data File:	J:\MS24\DATA\100719\1007F006.D	Instrument:	2nd MS KW 10/08/19
Acqu Date:	10/07/2019 11:33	Quant Date:	10/07/2019 12:09
Run Type:	DLCS	MethodJoinID:	MJ517
Lab ID:	KWG1904372-2	Vial:	6
		Dilution:	1.0
		Soln Conc. Units:	PPB

Target Compounds

Final Conc. Units: mg/Kg Wet Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Hexachlorobutadiene	10.81		0.00	225	39203	48.21	0.0482		

Prep Amount: 5.00 g **Dilution:** 1.0
Prep Final Vol: 5.00 ml **Unit Factor:** 0.001
Solids: %

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / (Prep Amount x Solids)) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File : J:\MS24\DATA\100719\1007F006.D
Acq On : 7 Oct 2019 11:33 am
Sample : DLCS
Misc :

Vial: 6
Operator: KW
Inst : MS24
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Oct 07 12:08:18 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

Quant Method : J:\MS24\M...\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
Title : VOA MS24 EPA Method 8260B
Last Update : Mon Jul 15 14:57:11 2019
Response via : Initial Calibration
DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	3.90	96	170934	50.00	PPB	0.00
58) Chlorobenzene-d5	6.50	82	71889	50.00	PPB	0.00
77) 1,4-Dichlorobenzene-d4	8.82	152	67401	50.00	PPB	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Dibromofluoromethane	3.42	113	43208	51.74	PPB	0.00
Spiked Amount						
						Recovery = 103.48%
43) 1,2-Dichloroethane-d4	3.69	65	45635	42.43	PPB	0.00
Spiked Amount						
						Recovery = 84.86%
56) Toluene-d8	5.17	98	173119	58.18	PPB	0.00
Spiked Amount						
						Recovery = 116.36%
76) 4-Bromofluorobenzene	7.67	95	61595	51.32	PPB	0.00
Spiked Amount						
						Recovery = 102.64%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.86	85	37135	54.57	PPB	97
3) Chloromethane	0.98	50	48856	45.16	PPB	97
4) Vinyl Chloride	1.04	62	45246	47.73	PPB	99
5) Bromomethane	1.26	96	24265	39.78	PPB	99
6) Chloroethane	1.33	64	26528	48.56	PPB	97
7) Dichlorofluoromethane	1.47	67	62551	45.44	PPB	97
8) Trichlorofluoromethane	1.46	101	52012	44.72	PPB	99
9) Acrolein	1.81	56	16689	92.86	PPB	91
10) Trichlorotrifluoroethane	1.79	151	27823	48.23	PPB	99
11) 1,1-Dichloroethene	1.81	96	32032	48.34	PPB	97
12) Acetone	1.91	43	58010	210.92	PPB	98
13) Iodomethane	1.93	142	49877	79.83	PPB	96
14) Carbon Disulfide	1.94	76	182243	79.97	PPB	100
15) 3-Chloro-1-Propene	2.08	TIC	257627m	70.66	PPB	
17) Acetonitrile	2.16	40	42871	625.65	PPB	97
18) Methylene Chloride	2.18	84	41313	42.35	PPB	99
19) tert-Butyl Alcohol	2.28	59	51643	422.11	PPB	97
20) Acrylonitrile	2.41	53	40941	109.00	PPB	95
21) Methyl tert-Butyl Ether	2.32	73	115908	41.07	PPB	97
22) trans-1,2-Dichloroethene	2.33	96	37838	44.82	PPB	96
23) Hexane	2.45	57	84560	74.86	PPB	99
24) Diisopropyl Ether	2.65	45	292362	92.43	PPB	99
25) 1,1-Dichloroethane	2.65	63	75826	46.93	PPB	97
26) Vinyl Acetate	2.69	86	28532	158.14	PPB	100
27) Chloroprene	2.68	53	92403	78.94	PPB	97
28) tert-Butyl Ethyl Ether	2.90	59	250065	82.78	PPB	97
29) 2,2-Dichloropropane	3.04	77	54773	44.97	PPB	98
30) cis-1,2-Dichloroethene	3.07	96	46191	43.89	PPB	96
31) 2-Butanone	3.11	72	27391	226.57	PPB	# 65
32) Propionitrile	3.21	54	9936	64.78	PPB	98
34) Methacrylonitrile	3.29	67	31313	68.25	PPB	98
35) Bromochloromethane	3.25	128	22666	43.54	PPB	95
36) Chloroform	3.29	83	74282	44.95	PPB	98
38) 1,1,1-Trichloroethane	3.39	97	58402	47.80	PPB	97
40) Carbon Tetrachloride	3.48	117	49385	50.41	PPB	96
41) 1,1-Dichloropropene	3.51	75	56986	49.05	PPB	98
42) Isobutyl Alcohol	3.67	43	38835	640.84	PPB	96
44) Benzene	3.67	78	180444	47.02	PPB	99
45) 1,2-Dichloroethane	3.75	62	57730	41.03	PPB	98
46) Trichloroethene	4.16	95	44901	48.63	PPB	95
48) 1,2-Dichloropropane	4.39	63	50937	49.45	PPB	96
49) Dibromomethane	4.49	93	28173	45.69	PPB	93
50) 1,4-Dioxane	4.49	88	8532	755.12	PPB	92

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS24\DATA\100719\1007F006.D

Vial: 6

Acq On : 7 Oct 2019 11:33 am

Operator: KW

Sample : DLCS

Inst : MS24

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Oct 07 12:08:18 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

Quant Method : J:\MS24\M...\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)

Title : VOA MS24 EPA Method 8260B

Last Update : Mon Jul 15 14:57:11 2019

Response via : Initial Calibration

DataAcq Meth : 8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
51) Bromodichloromethane	4.61	83	57885	47.13	PPB	96
52) 2-Nitropropane	4.88	41	17491	23.65	PPB	97
53) 2-Chloroethyl Vinyl Ether	4.89	63	7212	23.39	PPB	95
54) cis-1,3-Dichloropropene	4.99	75	72218	48.05	PPB	94
55) 4-Methyl-2-pentanone (MIBK)	5.13	58	93879	257.75	PPB	98
57) Toluene	5.23	92	110786	51.43	PPB	94
59) trans-1,3-Dichloropropene	5.51	75	65586	43.47	PPB	95
60) 1,1,2-Trichloroethane	5.66	83	36687	43.32	PPB	96
61) Tetrachloroethene	5.67	164	36934	48.96	PPB	95
62) 2-Hexanone	5.88	57	31357	251.21	PPB	93
63) 1,3-Dichloropropene	5.82	76	72723	42.99	PPB	100
64) Dibromochloromethane	5.98	129	47307	45.28	PPB	99
65) 1,2-Dibromoethane (EDB)	6.09	107	41451	43.26	PPB	94
66) 1-Chlorohexane	6.50	91	55320	52.61	PPB	98
67) Chlorobenzene	6.53	112	125707	44.36	PPB	96
68) Ethylbenzene	6.61	106	65348	47.11	PPB	98
69) 1,1,1,2-Tetrachloroethane	6.62	131	44768	45.58	PPB	95
70) m,p-Xylenes	6.73	106	154483	93.81	PPB	95
71) o-Xylene	7.12	106	73519	44.91	PPB	99
72) Styrene	7.15	103	61767m	46.61	PPB	
73) Bromoform	7.35	173	32682	48.91	PPB	98
74) Isopropylbenzene	7.47	105	194767	49.14	PPB	99
75) cis-1,4-Dichloro-2-butene	7.63	89	11454	73.54	PPB	91
78) 1,1,2,2-Tetrachloroethane	7.87	83	51996	41.82	PPB	97
79) trans-1,4-Dichloro-2-buten	7.94	53	21148	60.12	PPB	83
80) Bromobenzene	7.80	156	55101	42.78	PPB	97
81) n-Propylbenzene	7.89	91	226081	46.58	PPB	99
82) 1,2,3-Trichloropropane	7.91	110	15631	40.68	PPB	97
83) 2-Chlorotoluene	7.99	91	136711	44.14	PPB	98
84) 1,3,5-Trimethylbenzene	8.08	105	153469	46.17	PPB	97
85) 4-Chlorotoluene	8.11	91	139519m	43.50	PPB	
86) tert-Butylbenzene	8.38	119	140805	46.95	PPB	98
87) 1,2,4-Trimethylbenzene	8.45	105	158351	46.49	PPB	99
88) sec-Butylbenzene	8.60	105	209269	49.33	PPB	100
89) p-Isopropyltoluene	8.76	119	176000	50.95	PPB	99
90) 1,3-Dichlorobenzene	8.74	146	99252	44.76	PPB	95
91) 1,4-Dichlorobenzene	8.84	146	100220	43.79	PPB	98
92) n-Butylbenzene	9.16	91	153971	49.08	PPB	100
93) 1,2-Dichlorobenzene	9.21	146	96208	43.67	PPB	96
94) 1,2-Dibromo-3-chloropropan	9.98	155	8427	44.07	PPB	85
95) 1,3,5-Trichlorobenzene	10.11	180	80053	51.69	PPB	99
96) 1,2,4-Trichlorobenzene	10.71	180	68315	48.24	PPB	95
97) Hexachlorobutadiene	10.81	225	39203	48.21	PPB	95
98) Naphthalene	10.94	128	150649	47.05	PPB	99
99) 1,2,3-Trichlorobenzene	11.16	180	64472	46.97	PPB	95

(#) = qualifier out of range (m) = manual integration

1007F006.D 0715DOD19_MS24_FULL_SOIL.M

Mon Oct 07 12:11:51 2019

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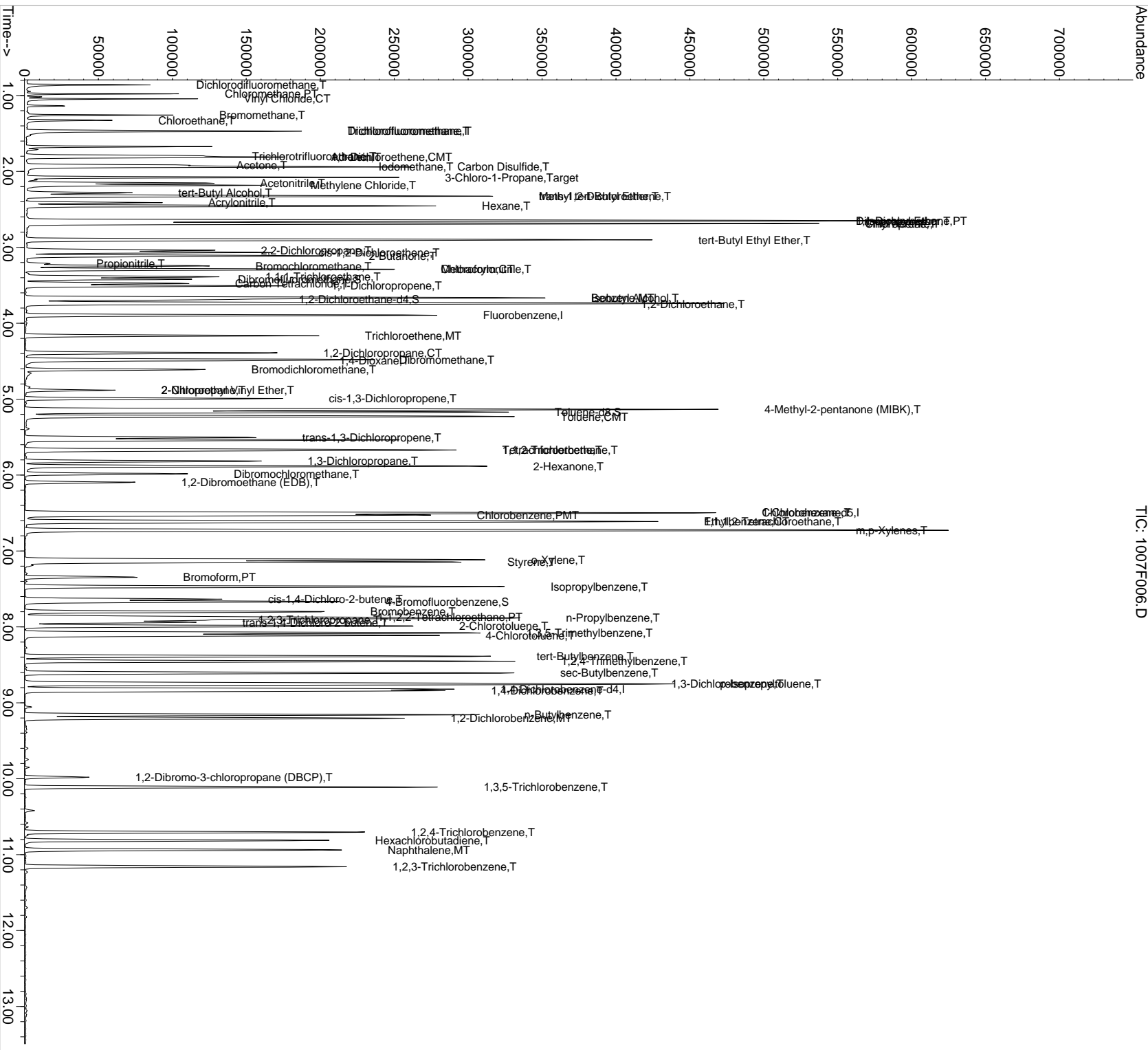
Page 2

10/07/19
Data File : J:\MS24\DATA\100719\1007F006.D
Acq On : 7 Oct 2019 11:33 am
Sample : DLCS
Misc :
MS Integration Params: rteint.p
Unit Time: Oct 7 12:09 2019

Vial: 6
Operator: KW
Inst: MS24
Multiplr: 1.00

Quant Results File: 0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
Title : VOA MS24 EPA Method 8260B
Last Update : Mon Jul 15 14:57:11 2019
Response via : Initial Calibration

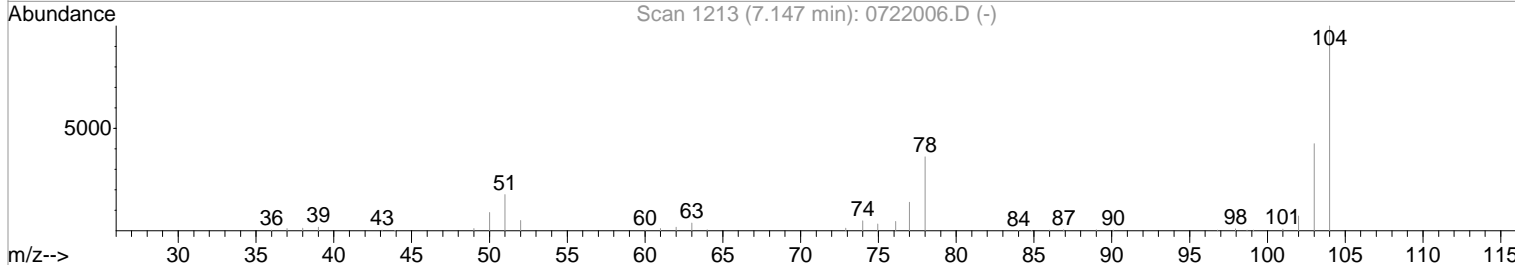
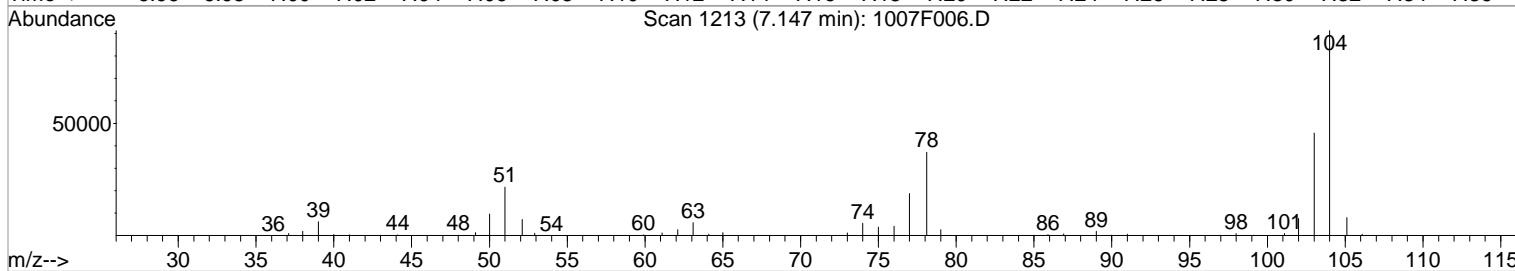
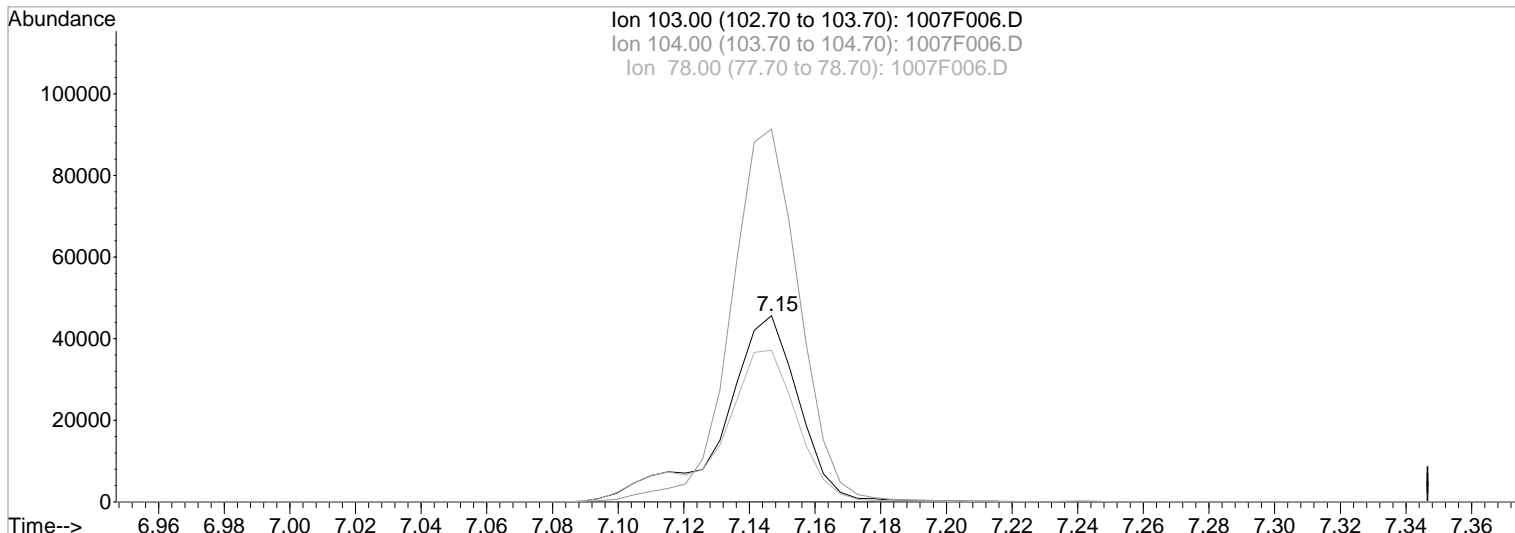


Data File : J:\MS24\DATA\100719\1007F006.D
 Acq On : 7 Oct 2019 11:33 am
 Sample : DLCS
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Oct 7 12:09 2019

Vial: 6
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 14:57:11 2019
 Response via : Multiple Level Calibration



TIC: 1007F006.D

(72) Styrene (T)

Manual Integration:

7.15min 55.32PPB

Before

response 73306

Ion	Exp%	Act%
103.00	100	100
104.00	210.30	200.25
78.00	89.90	81.37
0.00	0.00	0.00

10/07/19

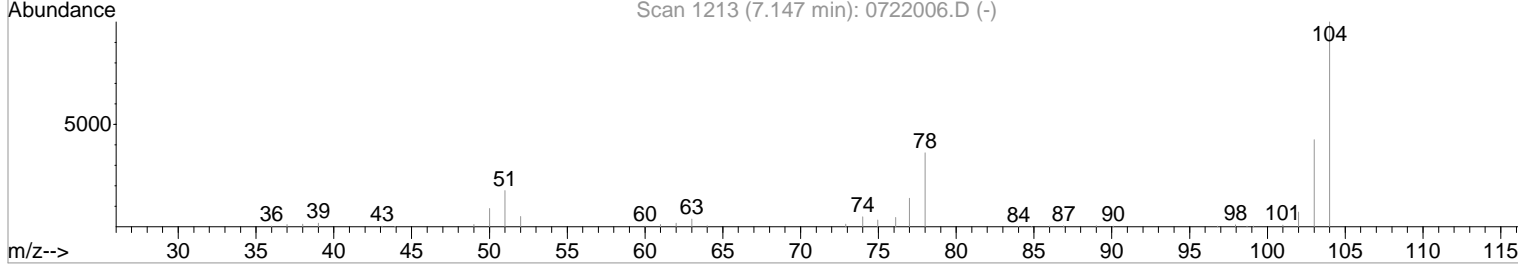
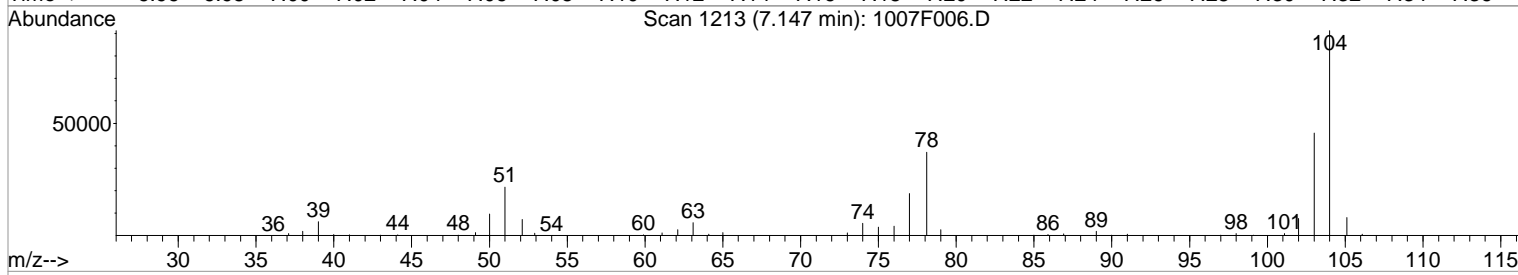
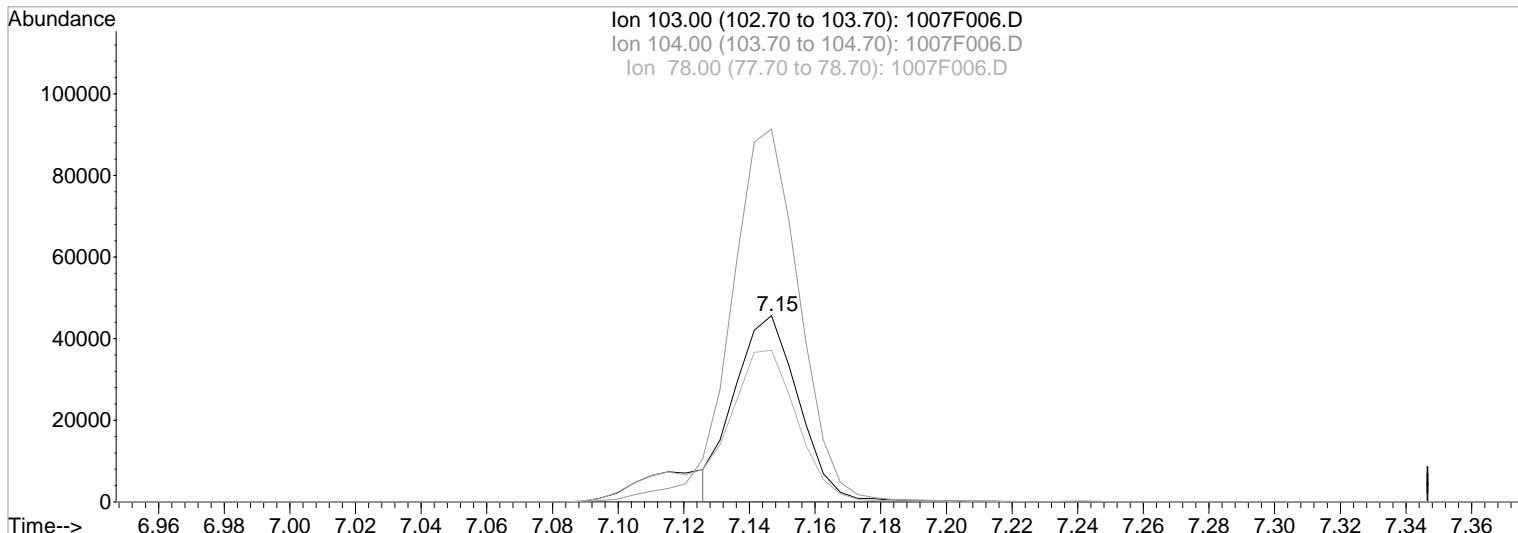
Data File : J:\MS24\DATA\100719\1007F006.D
 Acq On : 7 Oct 2019 11:33 am
 Sample : DLCS
 Misc :

Vial: 6
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 7 12:09 2019

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 14:57:11 2019
 Response via : Multiple Level Calibration



TIC: 1007F006.D

Ion	Exp%	Act%
72) Styrene (T)		
7.15min	46.61	46.61
response	61767	
103.00	100	100
104.00	210.30	200.25
78.00	89.90	81.37
0.00	0.00	0.00

Manual Integration:
 After
 Shoulder
 10/07/19

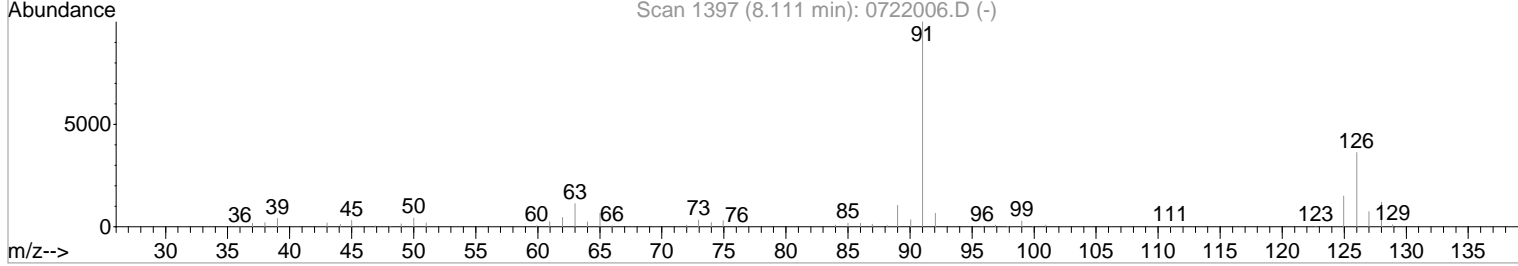
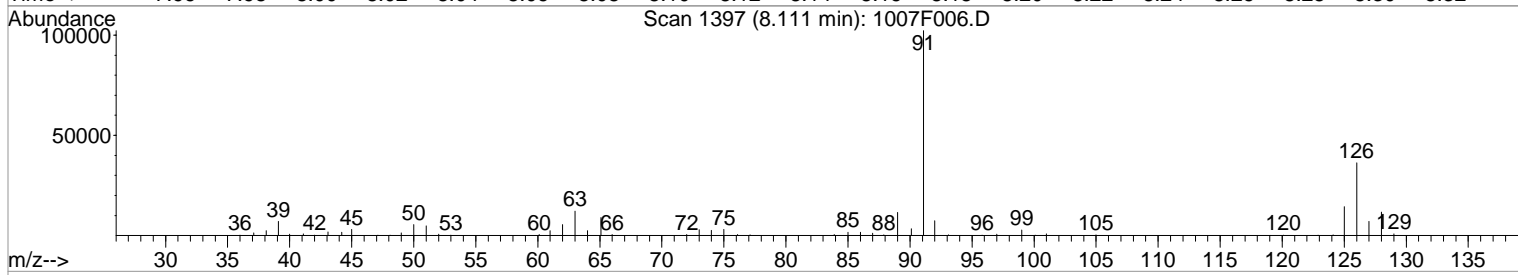
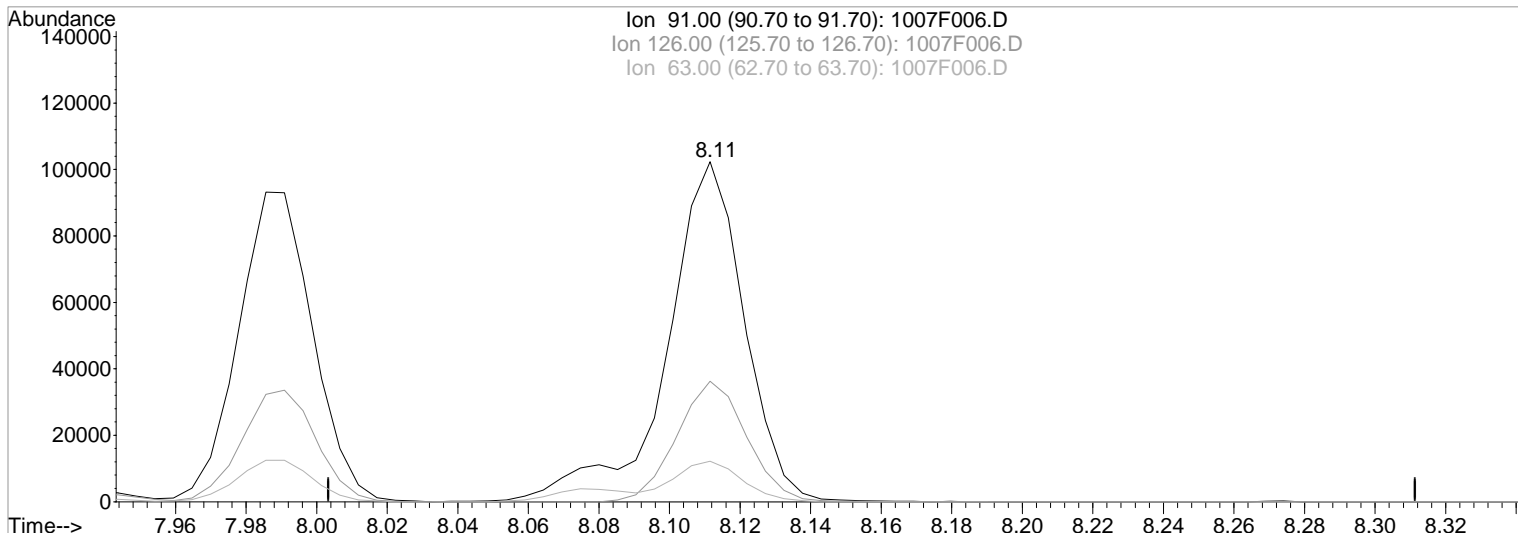
Data File : J:\MS24\DATA\100719\1007F006.D
 Acq On : 7 Oct 2019 11:33 am
 Sample : DLCS
 Misc :

Vial: 6
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 7 12:09 2019

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 14:57:11 2019
 Response via : Multiple Level Calibration



TIC: 1007F006.D

(85) 4-Chlorotoluene (T)

Manual Integration:

8.11min 49.14PPB

Before

response 157607

Ion	Exp%	Act%
91.00	100	100
126.00	32.80	35.48
63.00	12.70	11.92
0.00	0.00	0.00

10/07/19

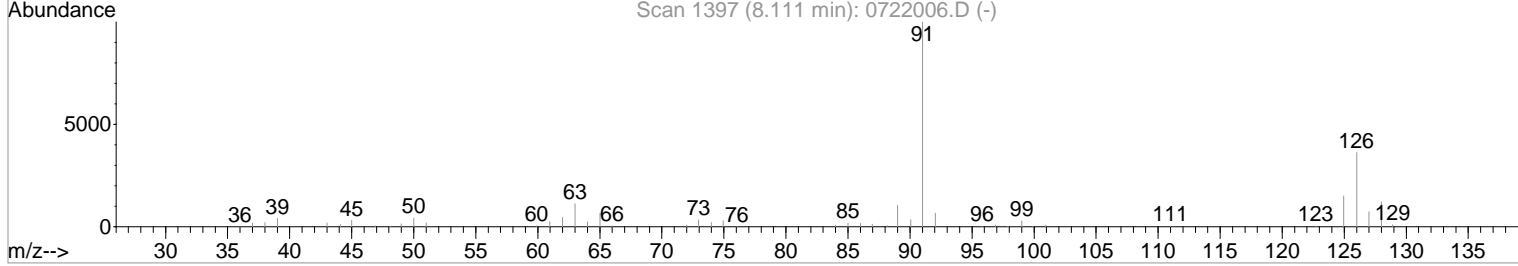
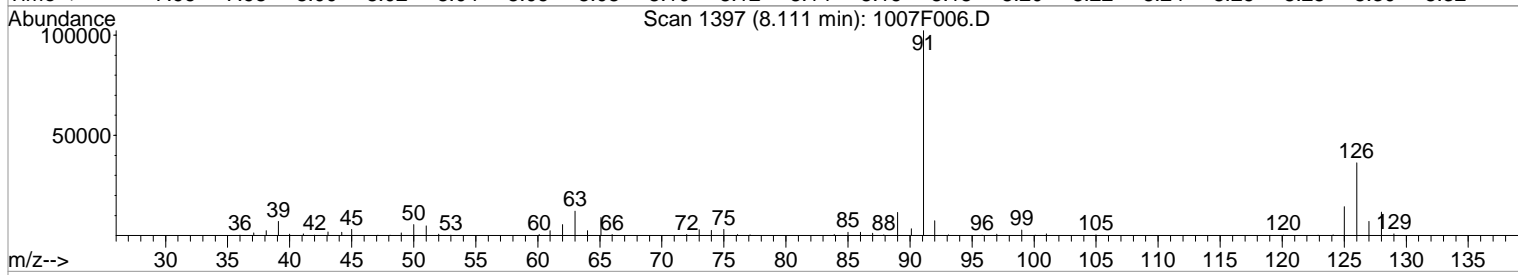
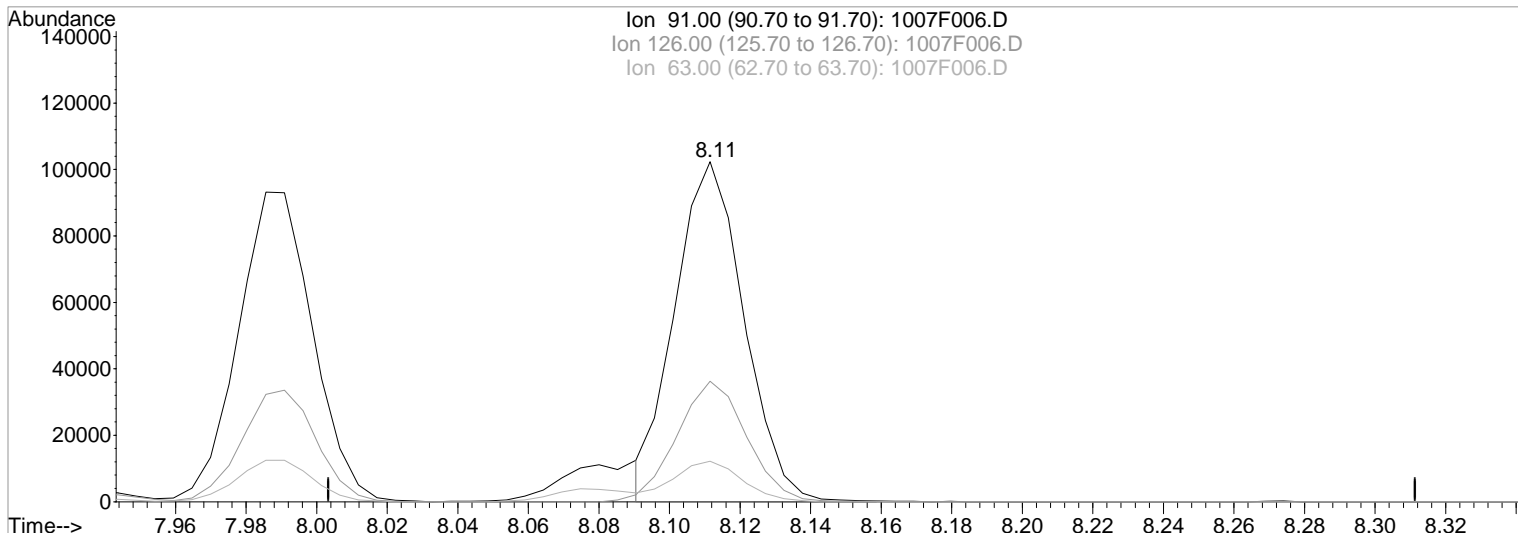
Data File : J:\MS24\DATA\100719\1007F006.D
 Acq On : 7 Oct 2019 11:33 am
 Sample : DLCS
 Misc :

Vial: 6
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 7 12:09 2019

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 14:57:11 2019
 Response via : Multiple Level Calibration



TIC: 1007F006.D

(85) 4-Chlorotoluene (T)

Manual Integration:

8.11min 43.50PPB m
 response 139519

After
 Shoulder

Ion	Exp%	Act%
91.00	100	100
126.00	32.80	35.48
63.00	12.70	11.92
0.00	0.00	0.00

10/07/19

Validation Report

1st **KW** 10/08/19
2nd **SK** 10/08/19

Data File: J:\MS24\DATA\100719\1007F004.D\
Lab ID: KQ1914491-02
RunType: CCV
Matrix: Paperboard

Date Acquired: 10/7/19 10:32:00
Batch ID: 654417
Analysis Method: 8260C/VOC FP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification		X
Internal Standards	X	
Above Highest ICAL Level	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	Dichlorodifluoromethane	47		30	High bias, narrate

Primary Review: _____

Secondary Review: _____

Exception Report

Data File: J:\MS24\DATA\100719\1007F004.D
Lab ID: KWG1904373-2
RunType: CCV
Matrix: PAPERBOARD

Date Acquired: 10/07/2019 10:32
Date Quantitated: 10/07/2019 12:11
Batch ID: KWG1904373
Analysis Method: 8260C
MethodJoinID: MJ517

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Internal Standards	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	Dichlorodifluoromethane	47.3	NA	30	High bias, narrate

Primary Review: _____

Secondary Review: _____

Quantitation Report

1st **KW** 10/08/19
2nd **SK** 10/08/19

Data File: J:\MS24\DATA\100719\1007F004.D\	Instrument: K-MS-24
Acqu Date: 10/7/19 10:32:00	Vial: 2
Run Type: CCV	Dilution: 1
Lab ID: KQ1914491-02	Raw Units: ppb

Bottle ID:	Tier: I	Matrix: Paperboard
Prod Code: VOC FP	Collect Date: 8/14/19	Receive Date: 9/12/19

Analysis Lot: 654417	Prep Lot:	Report Group: KQ1914491
Analysis: 8260C	Prep Method:	
	Prep Date:	

Title: Volatile Organic Compounds by GC/MS	Calibration ID: KC1900275
	Report List ID: 20903

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Chlorobenzene-d5	6.50		70399	50.00	OK
1,4-Dichlorobenzene-d4	8.82		67344	50.00	OK
Fluorobenzene	3.90		173558	50.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
4-Bromofluorobenzene	7.67		62423	53.11	Y
Dibromofluoromethane	3.42		42021	49.55	Y
Toluene-d8	5.17		171456	56.75	Y

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
Acetone	1.91		28162	96.80	Y
Benzene	3.67		196071	50.32	Y
Bromobenzene	7.80		63629	49.45	Y
Bromochloromethane	3.25		23037	43.59	Y
Bromodichloromethane	4.61		68040	54.56	Y
Bromoform	7.35		38271	58.49	Y
Bromomethane	1.26		27364	44.19	Y
2-Butanone (MEK)	3.11		11859	96.61	Y
n-Butylbenzene	9.16		193224	61.64	Y
sec-Butylbenzene	8.61		256146	60.43	Y
tert-Butylbenzene	8.39		174337	58.18	Y
Carbon Disulfide	1.94		129160	55.82	Y
Carbon Tetrachloride	3.48		59888	60.21	Y
Chlorobenzene	6.53		143675	51.78	Y
Chloroethane	1.33		26905	48.51	Y

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Printed: 10/11/19 8:00

\\alprews001\starlims\LIMSReps\QuantValidation.rpt

Data File: J:\MS24\DATA\100719\1007F004.D\
 Acqu Date: 10/7/19 10:32:00
 Run Type: CCV
 Lab ID: KQ1914491-02

Instrument: K-MS-2nd **KW** 10/08/19
 Vial: 2
 Dilution: 1
 Raw Units: ppb

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
Chloroform	3.29		82786	49.34	Y
Chloromethane	0.98		41972	38.21	Y
2-Chlorotoluene	7.99		163472	52.82	Y
4-Chlorotoluene	8.11		169728	52.96	Y
1,2-Dibromo-3-chloropropane	9.98		10218	53.48	Y
Dibromochloromethane	5.98		54417	53.18	Y
1,2-Dibromoethane (EDB)	6.09		45831	48.84	Y
Dibromomethane	4.49		29956	47.84	Y
1,2-Dichlorobenzene	9.21		115532	52.48	Y
1,3-Dichlorobenzene	8.74		119955	54.14	Y
1,4-Dichlorobenzene	8.84		120621	52.75	Y
Dichlorodifluoromethane	0.86		24222	35.06	Y
1,1-Dichloroethane	2.65		85389	52.04	Y
1,2-Dichloroethane (EDC)	3.75		61995	43.40	Y
1,1-Dichloroethene	1.81		35916	53.39	Y
cis-1,2-Dichloroethene	3.07		48512	45.40	Y
trans-1,2-Dichloroethene	2.33		39692	46.30	Y
1,2-Dichloropropane	4.39		57107	54.60	Y
1,3-Dichloropropane	5.81		81302	49.08	Y
2,2-Dichloropropane	3.04		68131	55.10	Y
1,1-Dichloropropene	3.51		60997	51.71	Y
cis-1,3-Dichloropropene	4.99		83231	54.55	Y
trans-1,3-Dichloropropene	5.51		73689	49.88	Y
Ethylbenzene	6.61		75787	55.79	Y
Hexachlorobutadiene	10.81		50401	62.03	Y
2-Hexanone	5.88		12483	102.12	Y
Isopropylbenzene	7.47		235393	60.64	Y
4-Isopropyltoluene	8.76		212791	61.65	Y
4-Methyl-2-pentanone (MIBK)	5.13		40552	109.65	Y
Methylene Chloride	2.18		44014	44.44	Y
Naphthalene	10.94		172500	53.92	Y
n-Propylbenzene	7.89		273620	56.42	Y
Styrene	7.15		70899	54.64	Y
1,1,1,2-Tetrachloroethane	6.62		52907	55.01	Y
1,1,2,2-Tetrachloroethane	7.86		62185	50.06	Y
Tetrachloroethene (PCE)	5.67		41354	55.98	Y
Toluene	5.23		122852	56.17	Y
1,2,3-Trichlorobenzene	11.16		75880	55.33	Y
1,2,4-Trichlorobenzene	10.71		82007	57.95	Y
1,1,2-Trichloroethane	5.66		41293	49.79	Y
1,1,1-Trichloroethane (TCA)	3.39		69078	55.68	Y

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Printed: 10/11/19 8:00

\\alprews001\starlims\LIMSReps\QuantValidation.rpt

Data File: J:\MS24\DATA\100719\1007F004.D\
 Acq Date: 10/7/19 10:32:00
 Run Type: CCV
 Lab ID: KQ1914491-02

Instrument: K-MS-2nd **KW** 10/08/19
 Vial: 2
 Dilution: 1
 Raw Units: ppb

Target Compounds

Parameter Name	RT		Response	Solution		Rpt?
	RT	Dev		Conc		
Trichloroethene (TCE)	4.16		49595	52.90		Y
Trichlorofluoromethane (CFC 11)	1.47		60497	51.23		Y
1,2,3-Trichloropropane	7.91		18354	47.81		Y
1,2,4-Trimethylbenzene	8.45		192562	56.58		Y
1,3,5-Trimethylbenzene	8.08		191331	57.61		Y
Vinyl Chloride	1.05		43843	45.55		Y
o-Xylene	7.12		89496	55.83		Y
m,p-Xylenes	6.73		182501	113.17		Y
Xylenes, Total				55.83		Y

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result \geq MRL, but MRL less than low point of ICAL
 c: check for co-elution

Printed: 10/11/19 8:00

\\alprews001\starlims\LIMSReps\QuantValidation.rpt

Quantitation Report

Data File: J:\MS24\DATA\100719\1007F004.D	Instrument: MS24
Acqu Date: 10/07/2019 10:32	Quant Date: 10/07/2019 12:11
Run Type: CCV	Vial: 4
Lab ID: KWG1904373-2	MethodJoinID: MJ517
	Dilution: 1.0
	Soln Conc. Units: PPB

Bottle ID:	Tier:	Matrix: PAPERBOARD
Prod Code: 8260C VOC FP	Collect Date:	Receive Date: 10/07/2019

Analysis Lot: KWG1904373	Prep Lot:	Report Group:
Analysis Method: 8260C	Prep Method:	
Prep Ref:	Prep Date:	

Quant Method: J:\MS24\METHODS\2010\0715DOD19_MS	Calibration ID: CAL16091
Title:	
Tune Ref: J:\MS24\DATA\100719\1007F003.D	Method ID: MJ517
MB Ref:	Quant based on Method

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	3.90	0.00	96	173558	50.00	OK
2	Chlorobenzene-d5	6.50	0.00	82	70399	50.00	OK
3	1,4-Dichlorobenzene-d4	8.82	0.00	152	67344	50.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	3.42			113	42021	49.55		83-128	NA
1	1,2-Dichloroethane-d4	3.69			65	44680	40.92		71-119	NA
1	Toluene-d8	5.17			98	171456	56.75		83-135	NA
2	4-Bromofluorobenzene	7.67			95	62423	53.11		77-124	NA

Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	0.86			85	24222	35.06			
1	Chloromethane	0.98			50	41972	38.21			
1	Vinyl Chloride	1.05			62	43843	45.55			
1	Bromomethane	1.26			96	27364	44.19			
1	Chloroethane	1.33			64	26905	48.51			
1	Trichlorofluoromethane	1.47			101	60497	51.23			
1	1,1-Dichloroethene	1.81			96	35916	53.39			
1	Methylene Chloride	2.18			84	44014	44.44			
1	Acrylonitrile	2.41			53	33476	87.78			
1	trans-1,2-Dichloroethene	2.33			96	39692	46.30			
1	1,1-Dichloroethane	2.65			63	85389	52.04			
1	Vinyl Acetate	2.69			86	9372	51.16			
1	cis-1,2-Dichloroethene	3.07			96	48512	45.40			

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 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File: J:\MS24\DATA\100719\1007F004.D
 Acq Date: 10/07/2019 10:32
 Run Type: CCV
 Lab ID: KWG1904373-2

Quant Date: 10/07/2019 12:11
 MethodJoinID: MJ517

Instrument: MS
 Vial: 4
 Dilution: 1.0
 Soln Conc. Units: PPB

Target Compounds

Final Conc. Units:

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Bromochloromethane	3.25			128	23037	43.59			
1	Chloroform	3.29			83	82786	49.34			
1	Cyclohexane	3.36			56	87223	67.49			
1	1,1,1-Trichloroethane (TCA)	3.39			97	69078	55.68			
1	Carbon Tetrachloride	3.48			117	59888	60.21			
1	Benzene	3.67			78	196071	50.32			
1	1,2-Dichloroethane (EDC)	3.75			62	61995	43.40			
1	Trichloroethene (TCE)	4.16			95	49595	52.90			
1	1,2-Dichloropropane	4.39			63	57107	54.60			
1	Dibromomethane	4.49			93	29956	47.84			
1	Bromodichloromethane	4.61			83	68040	54.56			
1	cis-1,3-Dichloropropene	4.99			75	83231	54.55			
1	Toluene	5.23			92	122852	56.17			
2	trans-1,3-Dichloropropene	5.51			75	73689	49.88			
2	1,1,2-Trichloroethane	5.66			83	41293	49.79			
2	Tetrachloroethene (PCE)	5.67			164	41354	55.98			
2	Dibromochloromethane	5.98			129	54417	53.18			
2	1,2-Dibromoethane (EDB)	6.09			107	45831	48.84			
2	Chlorobenzene	6.53			112	143675	51.78			
2	Ethylbenzene	6.61			106	75787	55.79			
2	1,1,1,2-Tetrachloroethane	6.62			131	52907	55.01			
2	m,p-Xylenes	6.73			106	182501	113.17			
2	o-Xylene	7.12			106	89496	55.83			
2	Styrene	7.15			103	70899m	54.64			
2	Bromoform	7.35			173	38271	58.49			
2	Isopropylbenzene	7.47			105	235393	60.64			
3	1,1,2,2-Tetrachloroethane	7.86			83	62185	50.06			
3	Bromobenzene	7.80			156	63629	49.45			
3	n-Propylbenzene	7.89			91	273620	56.42			
3	1,2,3-Trichloropropane	7.91			110	18354	47.81			
3	2-Chlorotoluene	7.99			91	163472	52.82			
3	1,3,5-Trimethylbenzene	8.08			105	191331	57.61			
3	4-Chlorotoluene	8.11			91	169728m	52.96			
3	tert-Butylbenzene	8.39			119	174337	58.18			
3	1,2,4-Trimethylbenzene	8.45			105	192562	56.58			
3	sec-Butylbenzene	8.61			105	256146	60.43			
3	4-Isopropyltoluene	8.76			119	212791	61.65			
3	1,3-Dichlorobenzene	8.74			146	119955	54.14			
3	1,4-Dichlorobenzene	8.84			146	120621	52.75			
3	n-Butylbenzene	9.16			91	193224	61.64			
3	1,2-Dichlorobenzene	9.21			146	115532	52.48			
3	1,2-Dibromo-3-chloropropane	9.98			155	10218	53.48			

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File:	J:\MS24\DATA\100719\1007F004.D	Instrument:	2nd MS 27 10/08/19
Acqu Date:	10/07/2019 10:32	Quant Date:	10/07/2019 12:11
Run Type:	CCV	MethodJoinID:	MJ517
Lab ID:	KWG1904373-2	Vial:	4
		Dilution:	1.0
		Soln Conc. Units:	PPB

Target Compounds**Final Conc. Units:**

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Hexachlorobutadiene	10.81			225	50401	62.03			

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result \geq MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File : J:\MS24\DATA\100719\1007F004.D
 Acq On : 7 Oct 2019 10:32 am
 Sample : CCV
 Misc :

Vial: 4
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 07 10:56:04 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

Quant Method : J:\MS24\M...\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 14:57:11 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	3.90	96	173558	50.00	PPB	0.00
58) Chlorobenzene-d5	6.50	82	70399	50.00	PPB	0.00
77) 1,4-Dichlorobenzene-d4	8.82	152	67344	50.00	PPB	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Dibromofluoromethane	3.42	113	42021	49.55	PPB	0.00
Spiked Amount	50.000		Recovery	=	99.10%	
43) 1,2-Dichloroethane-d4	3.69	65	44680	40.92	PPB	0.00
Spiked Amount	50.000		Recovery	=	81.84%	
56) Toluene-d8	5.17	98	171456	56.75	PPB	0.00
Spiked Amount	50.000		Recovery	=	113.50%	
76) 4-Bromofluorobenzene	7.67	95	62423	53.11	PPB	0.00
Spiked Amount	50.000		Recovery	=	106.22%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.86	85	24222	35.06	PPB	97
3) Chloromethane	0.98	50	41972	38.21	PPB	96
4) Vinyl Chloride	1.05	62	43843	45.55	PPB	98
5) Bromomethane	1.26	96	27364	44.19	PPB	99
6) Chloroethane	1.33	64	26905	48.51	PPB	99
7) Dichlorofluoromethane	1.47	67	71027	50.81	PPB	97
8) Trichlorofluoromethane	1.47	101	60497	51.23	PPB	99
9) Acrolein	1.81	56	41075	225.09	PPB	96
10) Trichlorotrifluoroethane	1.80	151	33075	56.47	PPB	96
11) 1,1-Dichloroethene	1.81	96	35916	53.39	PPB	95
12) Acetone	1.91	43	28162	96.80	PPB	99
13) Iodomethane	1.93	142	53574	84.45	PPB	97
14) Carbon Disulfide	1.94	76	129160	55.82	PPB	99
15) 3-Chloro-1-Propane	2.08	TIC	184619m	49.87	PPB	
16) Methyl Acetate	2.11	43	35653	47.27	PPB	98
17) Acetonitrile	2.16	40	58909	846.71	PPB	99
18) Methylene Chloride	2.18	84	44014	44.44	PPB	97
19) tert-Butyl Alcohol	2.28	59	26496	213.30	PPB	97
20) Acrylonitrile	2.41	53	33476	87.78	PPB	94
21) Methyl tert-Butyl Ether	2.32	73	258980	90.37	PPB	99
22) trans-1,2-Dichloroethene	2.33	96	39692	46.30	PPB	98
23) Hexane	2.45	57	69833	60.89	PPB	98
24) Diisopropyl Ether	2.65	45	159436	49.64	PPB	98
25) 1,1-Dichloroethane	2.65	63	85389	52.04	PPB	99
26) Vinyl Acetate	2.69	86	9372	51.16	PPB	99
27) Chloroprene	2.68	53	127892	107.61	PPB	97
28) tert-Butyl Ethyl Ether	2.90	59	140986	45.96	PPB	96
29) 2,2-Dichloropropane	3.04	77	68131	55.10	PPB	99
30) cis-1,2-Dichloroethene	3.07	96	48512	45.40	PPB	95
31) 2-Butanone	3.11	72	11859	96.61	PPB	# 86
32) Propionitrile	3.21	54	13657	87.69	PPB	97
34) Methacrylonitrile	3.29	67	41730	89.58	PPB	95
35) Bromochloromethane	3.25	128	23037	43.59	PPB	96
36) Chloroform	3.29	83	82786	49.34	PPB	98
37) Cyclohexane	3.36	56	87223	67.49	PPB	100
38) 1,1,1-Trichloroethane	3.39	97	69078	55.68	PPB	97
40) Carbon Tetrachloride	3.48	117	59888	60.21	PPB	93
41) 1,1-Dichloropropene	3.51	75	60997	51.71	PPB	98
42) Isobutyl Alcohol	3.67	43	54763	890.02	PPB	98
44) Benzene	3.67	78	196071	50.32	PPB	99
45) 1,2-Dichloroethane	3.75	62	61995	43.40	PPB	98
46) Trichloroethene	4.16	95	49595	52.90	PPB	98
47) Methylcyclohexane	4.25	83	90693	71.64	PPB	97

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS24\DATA\100719\1007F004.D
 Acq On : 7 Oct 2019 10:32 am
 Sample : CCV
 Misc :

Vial: 4
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 07 10:56:04 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

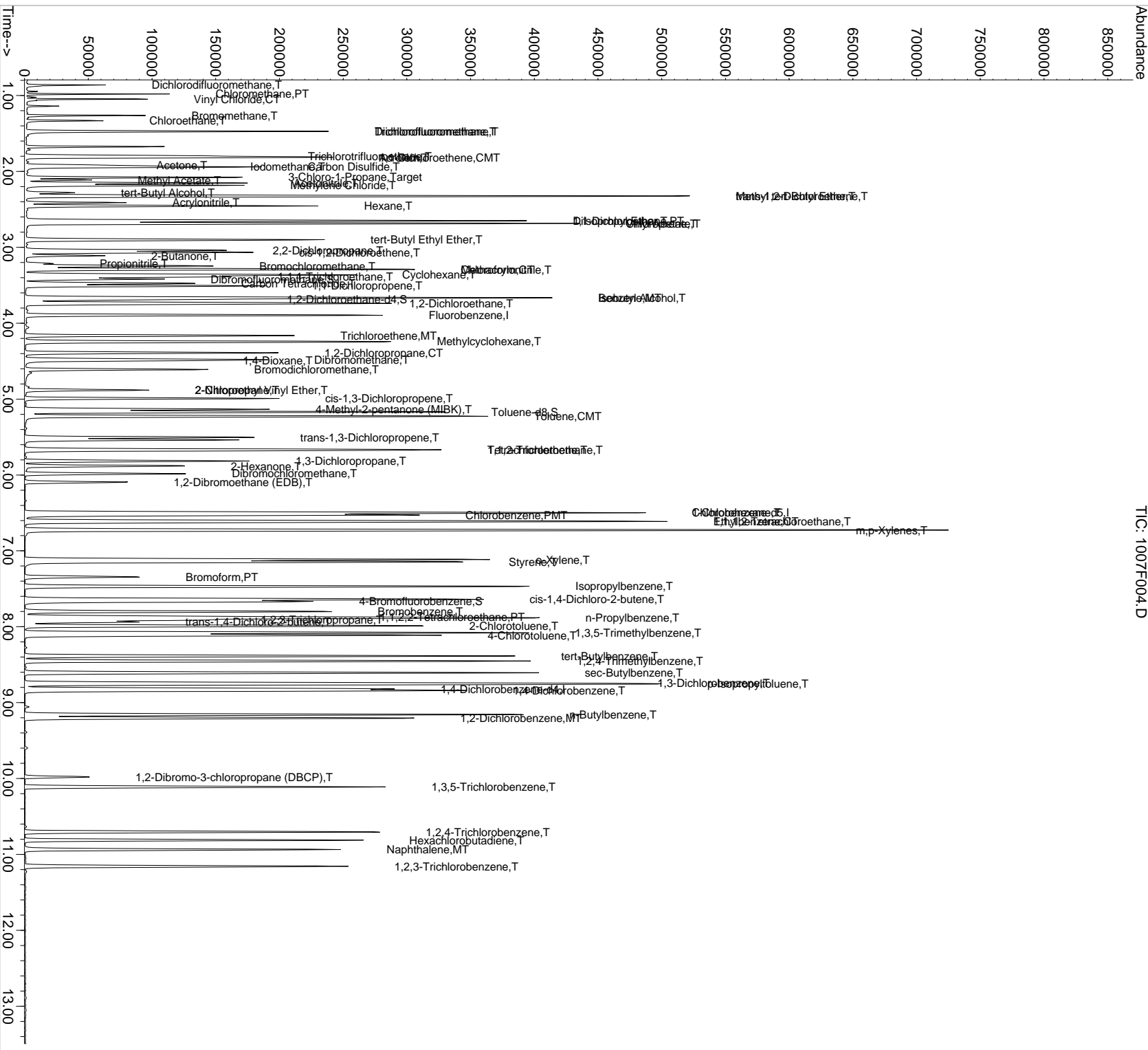
Quant Method : J:\MS24\M...\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 14:57:11 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
48) 1,2-Dichloropropane	4.39	63	57107	54.60	PPB	96
49) Dibromomethane	4.49	93	29956	47.84	PPB	94
50) 1,4-Dioxane	4.50	88	11881	1035.62	PPB	91
51) Bromodichloromethane	4.61	83	68040	54.56	PPB	97
52) 2-Nitropropane	4.88	41	35757	47.62	PPB	90
53) 2-Chloroethyl Vinyl Ether	4.88	63	6033	19.27	PPB	91
54) cis-1,3-Dichloropropene	4.99	75	83231	54.55	PPB	94
55) 4-Methyl-2-pentanone (MIBK)	5.13	58	40552	109.65	PPB	99
57) Toluene	5.23	92	122852	56.17	PPB	91
59) trans-1,3-Dichloropropene	5.51	75	73689	49.88	PPB	93
60) 1,1,2-Trichloroethane	5.66	83	41293	49.79	PPB	98
61) Tetrachloroethene	5.67	164	41354	55.98	PPB	96
62) 2-Hexanone	5.88	57	12483	102.12	PPB	94
63) 1,3-Dichloropropane	5.81	76	81302	49.08	PPB	99
64) Dibromochloromethane	5.98	129	54417	53.18	PPB	99
65) 1,2-Dibromoethane (EDB)	6.09	107	45831	48.84	PPB	93
66) 1-Chlorohexane	6.50	91	63332	61.51	PPB	96
67) Chlorobenzene	6.53	112	143675	51.78	PPB	98
68) Ethylbenzene	6.61	106	75787	55.79	PPB	93
69) 1,1,1,2-Tetrachloroethane	6.62	131	52907	55.01	PPB	98
70) m,p-Xylenes	6.73	106	182501	113.17	PPB	98
71) o-Xylene	7.12	106	89496	55.83	PPB	99
72) Styrene	7.15	103	70899m	54.64	PPB	
73) Bromoform	7.35	173	38271	58.49	PPB	98
74) Isopropylbenzene	7.47	105	235393	60.64	PPB	100
75) cis-1,4-Dichloro-2-butene	7.63	89	16155	105.92	PPB	95
78) 1,1,2,2-Tetrachloroethane	7.86	83	62185	50.06	PPB	97
79) trans-1,4-Dichloro-2-buten	7.94	53	15684	44.62	PPB	88
80) Bromobenzene	7.80	156	63629	49.45	PPB	96
81) n-Propylbenzene	7.89	91	273620	56.42	PPB	99
82) 1,2,3-Trichloropropane	7.91	110	18354	47.81	PPB	92
83) 2-Chlorotoluene	7.99	91	163472	52.82	PPB	97
84) 1,3,5-Trimethylbenzene	8.08	105	191331	57.61	PPB	97
85) 4-Chlorotoluene	8.11	91	169728m	52.96	PPB	
86) tert-Butylbenzene	8.39	119	174337	58.18	PPB	95
87) 1,2,4-Trimethylbenzene	8.45	105	192562	56.58	PPB	98
88) sec-Butylbenzene	8.61	105	256146	60.43	PPB	99
89) p-Isopropyltoluene	8.76	119	212791	61.65	PPB	99
90) 1,3-Dichlorobenzene	8.74	146	119955	54.14	PPB	95
91) 1,4-Dichlorobenzene	8.84	146	120621	52.75	PPB	99
92) n-Butylbenzene	9.16	91	193224	61.64	PPB	98
93) 1,2-Dichlorobenzene	9.21	146	115532	52.48	PPB	99
94) 1,2-Dibromo-3-chloropropan	9.98	155	10218	53.48	PPB	87
95) 1,3,5-Trichlorobenzene	10.11	180	84911	54.87	PPB	99
96) 1,2,4-Trichlorobenzene	10.71	180	82007	57.95	PPB	96
97) Hexachlorobutadiene	10.81	225	50401	62.03	PPB	98
98) Naphthalene	10.94	128	172500	53.92	PPB	99
99) 1,2,3-Trichlorobenzene	11.16	180	75880	55.33	PPB	97

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS24\DATA\100719\1007F004.D
Acq On : 7 Oct 2019 10:32 am
Sample : MS24
Misc : CCV
MS Integration Params: rteint.p
Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
Title : VOA MS24 EPA Method 8260B
Last Update : Mon Jul 15 14:57:11 2019
Response via : Initial Calibration



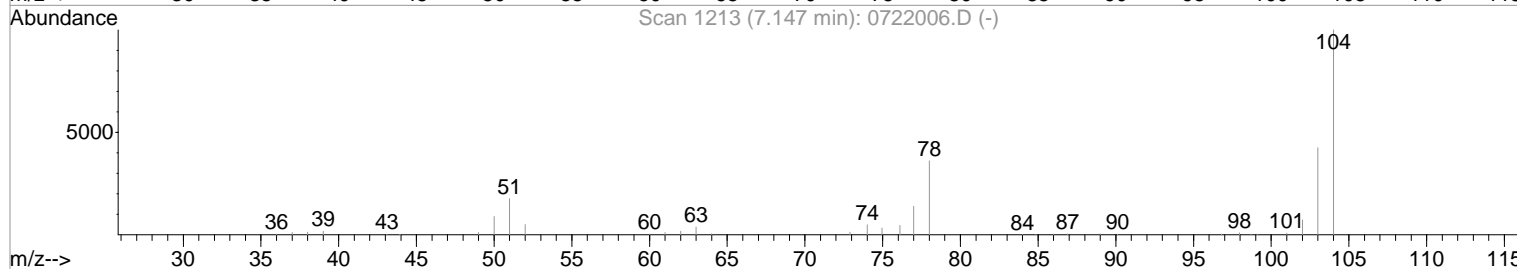
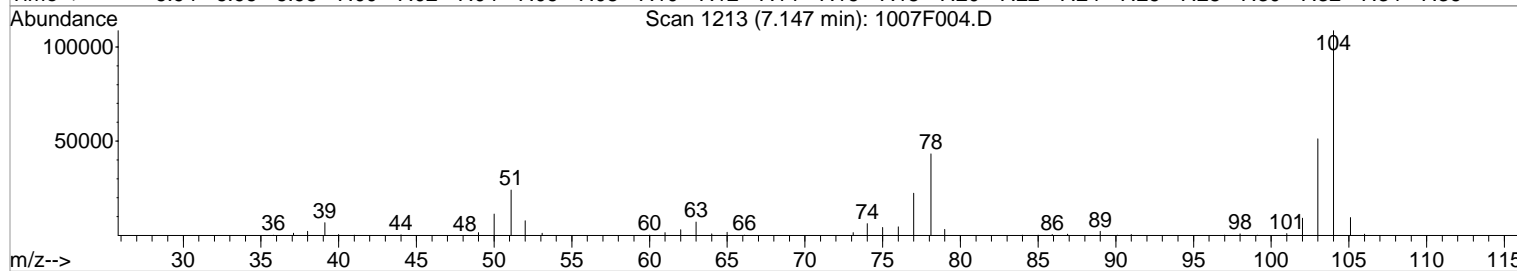
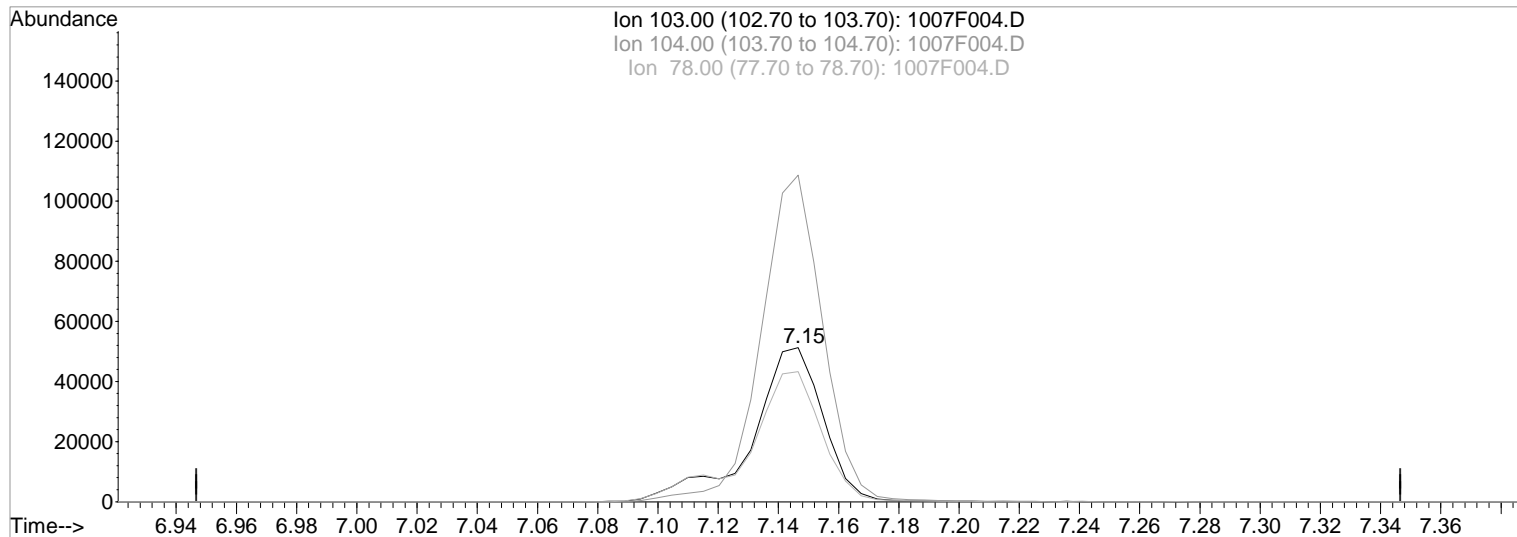
Data File : J:\MS24\DATA\100719\1007F004.D
Acq On : 7 Oct 2019 10:32 am
Sample : CCV
Misc :

Vial: 4
Operator: KW
Inst : MS24
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Oct 7 10:56 2019

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
Title : VOA MS24 EPA Method 8260B
Last Update : Mon Jul 15 14:57:11 2019
Response via : Multiple Level Calibration



TIC: 1007F004.D

(72) Styrene (T)

Manual Integration:

7.15min 65.05PPB

Before

response 84415

Ion	Exp%	Act%
103.00	100	100
104.00	210.30	212.15
78.00	89.90	84.49
0.00	0.00	0.00

10/07/19

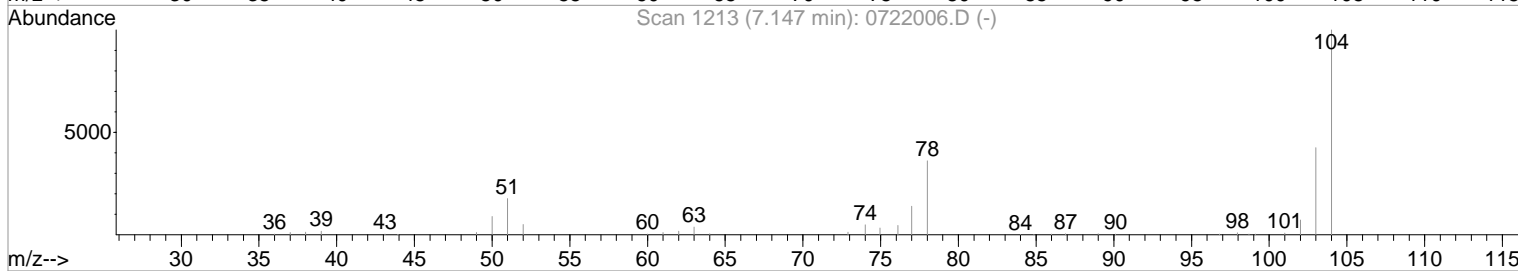
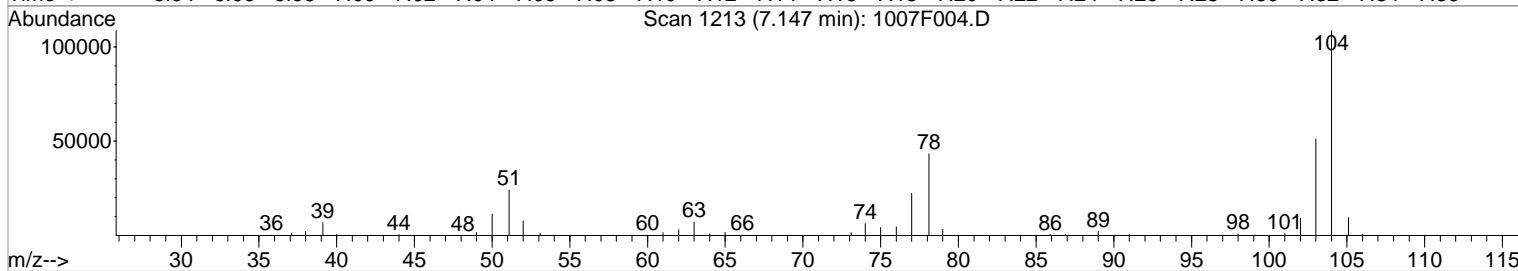
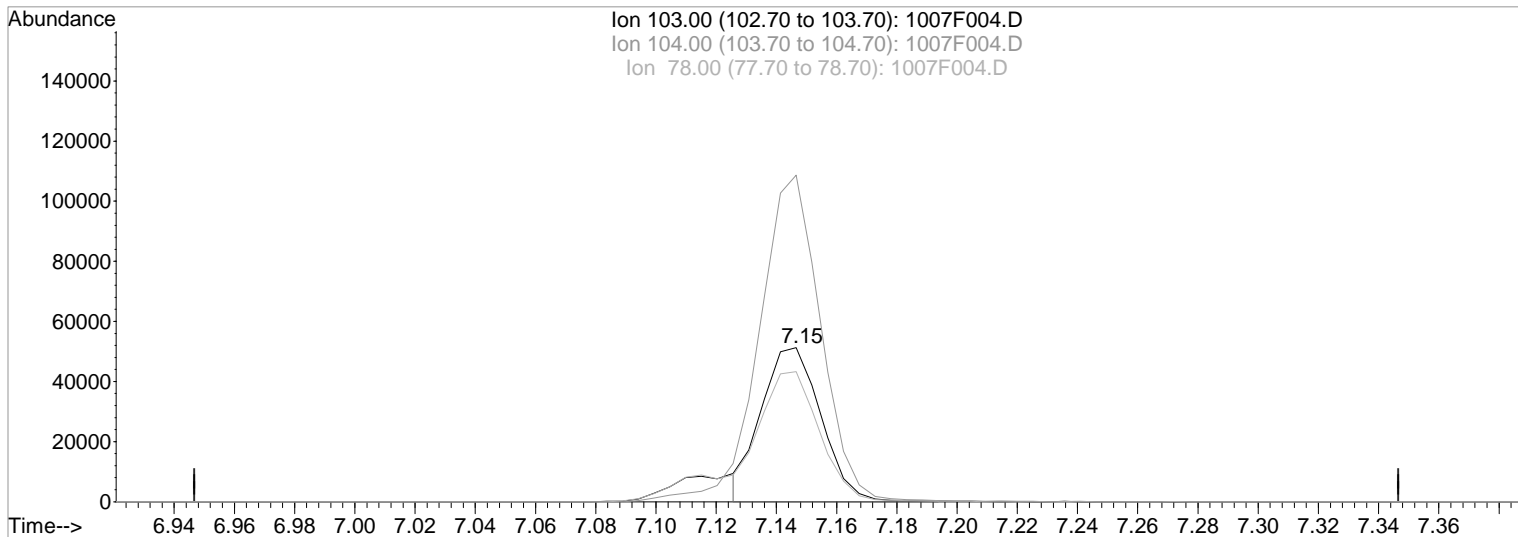
Data File : J:\MS24\DATA\100719\1007F004.D
 Acq On : 7 Oct 2019 10:32 am
 Sample : CCV
 Misc :

Vial: 4
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 7 12:05 2019

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 14:57:11 2019
 Response via : Multiple Level Calibration



TIC: 1007F004.D

(72) Styrene (T)		
7.15min	54.64PPB m	
response	70899	
Ion	Exp%	Act%
103.00	100	100
104.00	210.30	212.15
78.00	89.90	84.49
0.00	0.00	0.00

Manual Integration:
 After
 Shoulder
 10/07/19

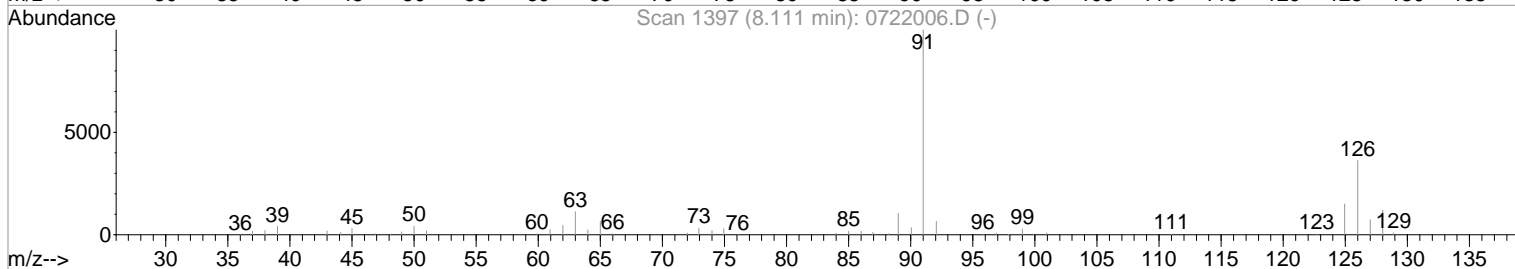
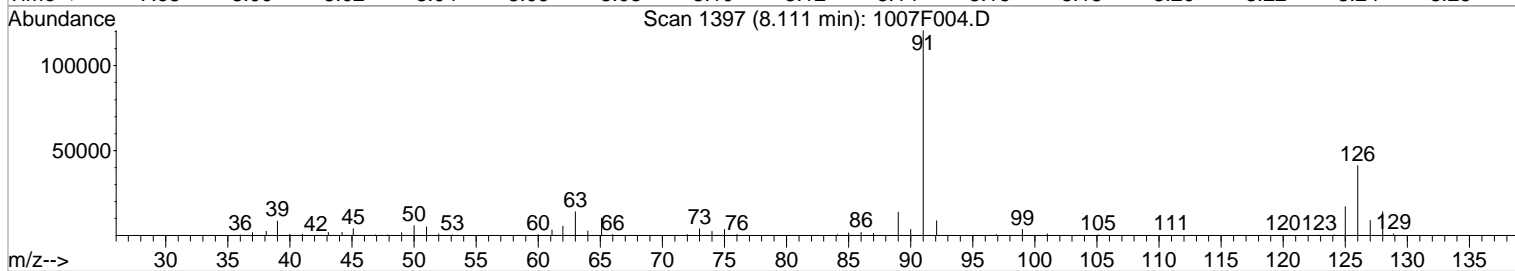
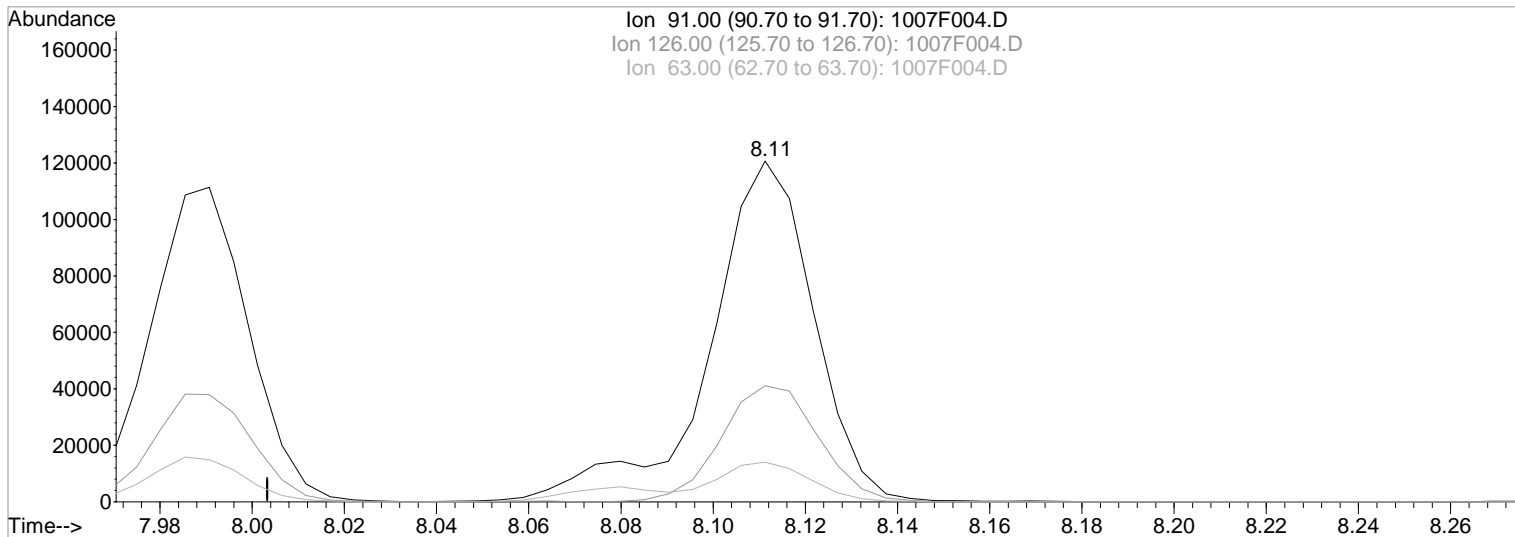
Data File : J:\MS24\DATA\100719\1007F004.D
 Acq On : 7 Oct 2019 10:32 am
 Sample : CCV
 Misc :

Vial: 4
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 7 12:05 2019

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 14:57:11 2019
 Response via : Multiple Level Calibration



TIC: 1007F004.D

(85) 4-Chlorotoluene (T)

Manual Integration:

8.11min 59.80PPB

Before

response 191643

10/07/19

Ion	Exp%	Act%
91.00	100	100
126.00	32.80	34.06
63.00	12.70	11.57
0.00	0.00	0.00

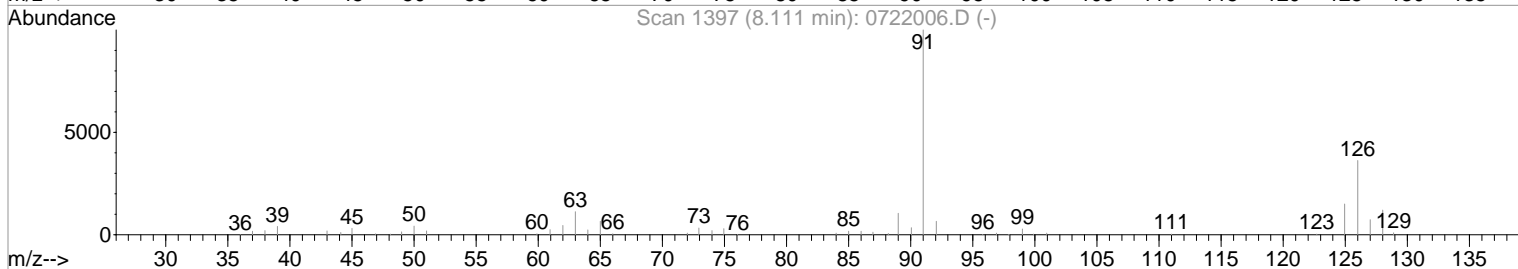
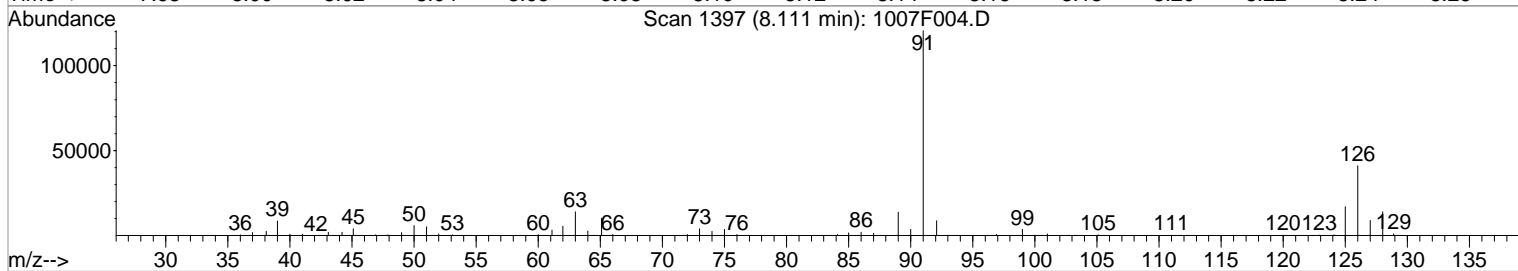
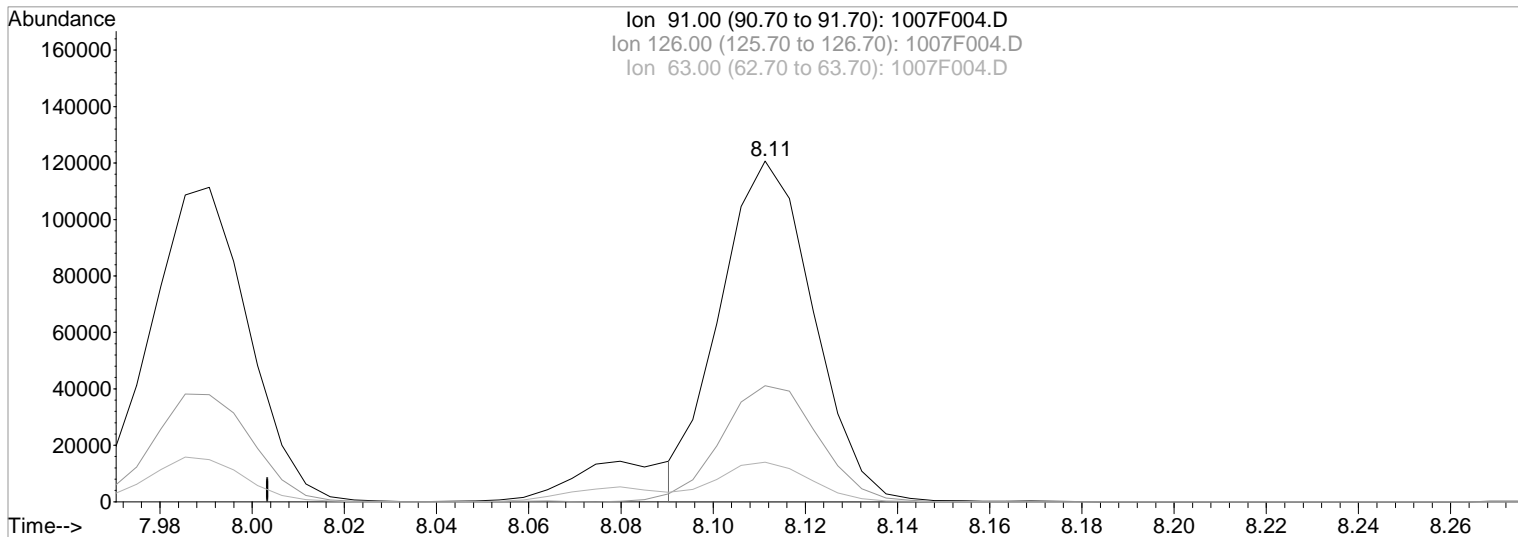
Data File : J:\MS24\DATA\100719\1007F004.D
Acq On : 7 Oct 2019 10:32 am
Sample : CCV
Misc :

Vial: 4
Operator: KW
Inst : MS24
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Oct 7 12:05 2019

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
Title : VOA MS24 EPA Method 8260B
Last Update : Mon Jul 15 14:57:11 2019
Response via : Multiple Level Calibration



TIC: 1007F004.D

(85) 4-Chlorotoluene (T)

Manual Integration:

8.11min 52.96PPB m

After

response 169728

Shoulder

Ion	Exp%	Act%
91.00	100	100
126.00	32.80	34.06
63.00	12.70	11.57
0.00	0.00	0.00

10/07/19

Validation Report

1st *KW* 10/08/19
2nd *SK* 10/08/19

Data File: J:\MS24\DATA\100719\1007F003.D\
Lab ID: KQ1914491-01
RunType: TUNE
Matrix: Paperboard

Date Acquired: 10/7/19 10:04:00
Batch ID: 654417
Analysis Method: 8260C/VOC FP

Validations

Validation Categories	Pass	Fail
Tune Ion Ratio	X	

Primary Review: _____

Secondary Review: _____

Exception Report

Data File: J:\MS24\DATA\100719\1007F003.D
Lab ID: KWG1904373-1
RunType: BFB
Matrix: PAPERBOARD

Date Acquired: 10/07/2019 10:04
Date Quantitated:
Batch ID: KWG1904373
Analysis Method: BFB
ListJoinID: LJ774

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Ion Ratio	NA	NA	NA	x	

Primary Review: _____

Secondary Review: _____

Quantitation Report

1st **KW** 10/08/19
2nd **SK** 10/08/19

Data File: J:\MS24\DATA\100719\1007F003.D\	Instrument: K-MS-24
Acqu Date: 10/7/19 10:04:00	Vial: 1
Run Type: TUNE	Dilution: 1
Lab ID: KQ1914491-01	Raw Units:

Bottle ID:	Tier: I	Matrix: Paperboard
Prod Code: VOC FP	Collect Date: 8/14/19	Receive Date: 9/12/19

Analysis Lot: 654417	Prep Lot:	Report Group: KQ1914491
Analysis: 8260C	Prep Method:	
	Prep Date:	

Title: Volatile Organic Compounds by GC/MS	Calibration ID: KC1900275
	Report List ID: 20903

Tune Results

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	18.09	24712	Pass
75	95	30	80	47.39	64728	Pass
95	95	100	100	100.00	136573	Pass
96	95	5	9	6.84	9339	Pass
173	174	0.00	2	0.26	329	Pass
174	95	50	120	91.44	124885	Pass
175	174	5	9	7.80	9746	Pass
176	174	95	101	97.92	122288	Pass
177	176	5	9	6.75	8255	Pass

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 10/11/19 8:00

\\alprews001\starlims\LIMSReps\QuantValidation.rpt

Quantitation Report

Data File: J:\MS24\DATA\100719\1007F003.D	Instrument: MS24
Acqu Date: 10/07/2019 10:04	Quant Date:
Run Type: BFB	Vial: 3
Lab ID: KWG1904373-1	ListJoinID: LJ774
	Dilution: 1.0
	Soln Conc. Units:

Bottle ID:	Tier:	Matrix: PAPERBOARD
Prod Code: 8260C VOC FP	Collect Date:	Receive Date: 10/07/2019

Analysis Lot: KWG1904373	Prep Lot:	Report Group:
Analysis Method: BFB	Prep Method:	
Prep Ref:	Prep Date:	

Quant Method: J:\MS24\METHODS\2010\0715DOD19_MS	Calibration ID: CAL16091
Title: GC/MS Tuning Evaluation	Report List ID: LJ774
Tune Ref:	Method ID: MJ159
MB Ref:	Quant based on Report List

Tune Results

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	18.1	24712	Pass
75	95	30	60	47.4	64728	Pass
95	95	100	100	100.0	136573	Pass
96	95	5	9	6.8	9339	Pass
173	174	0	2	0.3	329	Pass
174	95	50	120	91.4	124885	Pass
175	174	5	9	7.8	9746	Pass
176	174	95	101	97.9	122288	Pass
177	176	5	9	6.8	8255	Pass

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File : J:\MS24\DATA\100719\1007F003.D

Vial: 3

Acq On : 7 Oct 2019 10:04 am

Operator: KW

Sample : BFB

Inst : MS24

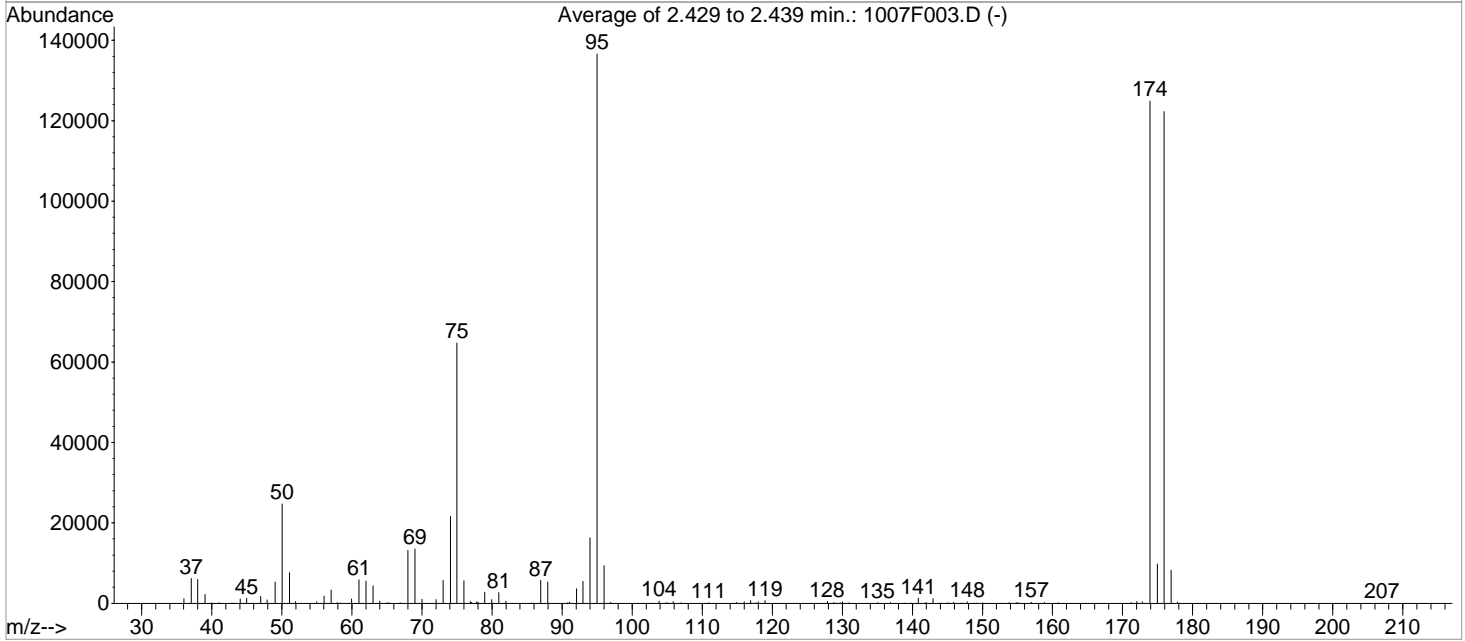
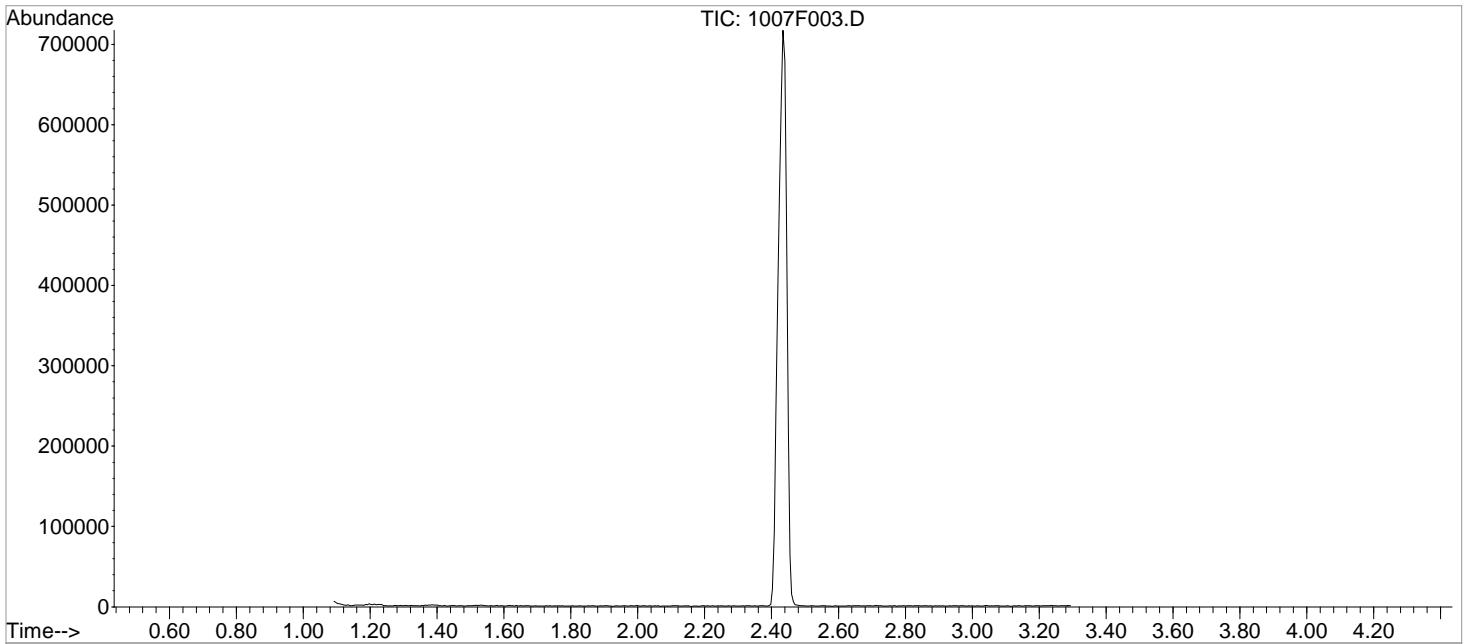
Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)

Title : VOA MS24 EPA Method 8260B



Spectrum Information: Average of 2.429 to 2.439 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.1	24712	PASS
75	95	30	60	47.4	64728	PASS
95	95	100	100	100.0	136573	PASS
96	95	5	9	6.8	9339	PASS
173	174	0.00	2	0.3	329	PASS
174	95	50	120	91.4	124885	PASS
175	174	5	9	7.8	9746	PASS
176	174	95	101	97.9	122288	PASS
177	176	5	9	6.8	8255	PASS

Date: 7-15-19

ALS Environmental Injection Log

Tune File: BFB. Atenc. U

By: KW / MK

New Tune: YES

IS/SS Std. ID: 94WDA 22B XRS: 15K MS24 - Agilent 5975

KC1900275

CCV Std ID: see calibration sheet

ICAL Date: 10D91 7-15-19

MS/DMS/LCS/ICV Std ID: see calibration sheet

Second RV: JUL 18 2019

BFB Std. ID: 94WDA 11A XRS: 7-19

LIMS ID:

	Sample Name	File Name	Method	Dilution	pH<	Comments
1	BFB	0715E 006	SR400M	WL DI		
2	IB	T 007	T			
3	ICAL 1 1	008				see calibration sheet
4	ICAL 2 2	009				
5	ICAL 3 5	010				
6	ICAL 4 10	011				
7	ICAL 5 20	012				
8	ICAL 6 50	013				
9	ICAL 7 100	014				
10	ICAL 8 200	015				
11	ICAL 9 300	016				
12	LV (NP)	017				NO SURE (NP)
13	LV (NP)	018				7 (NP)
14	LV (NP)	019				(NP)
15	LV (NP)	020				(NP)
16	LV (NP)	021				(NP)
17	LV	022				
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						

INITIAL CALIBRATION CURVE

Date 7-15-14
 Prepared By KW

Analysis 8260 soil
 Instrument MS24

Stock Solution #1 94004 22C X87-22-14
 Stock Solution #2 94004 22D X87-7-22-14
 Stock Solution #3 _____

Analytes _____ Surrogates _____
 Analytes 8260 soil CCV mix

Init. Concentration 100 ppm
 Init. Concentration 100/500ppm

#	Aliquot of Stock Solution #1	Final Conc. of #1 (µg/L)	Aliquot of Stock Solution #2	Final Conc. of #2 (µg/L)	Final Volume (mL)	Notes
1			0.5	1	50	
2	5	10	1	2	50	
3	10	20	2.5	5	50	
4	15	30	5	10	50	
5	20	40	10	20	50	
6	25	50	25	50	50	
7	35	70	50	100	50	
8	40	80	100	200	50	
9	60	120	150	300	50	

BFB std#: 94004 11R X87-5-7-14
 ICV std#: Accustandard C6850507 94004 21B X87-7-21-14 SDU-0500
 ICV std#: Freon 21 94004 21C X87-7-21-14 25U-0500
 ICV std#: Oxygenates 94004 21D X87-8-14-14 25U-0500
 ICV std#: Appendix 94004 22A X87-5-14-14 20U-0500
 ICV std#: Acrolein 94004 17A X87-17-14 50U-0500
 CUP 94004 22E X87-7-22-14 25U-0500
50U-0500
22C X87-7-22-14 25U-0500
22D X87-7-22-14 25U-0500

Data File : J:\MS24\DATA\071519\0715006.D

Vial: 6

Acq On : 15 Jul 2019 10:26 am

Operator: KW

Sample : BFB

Inst : MS24

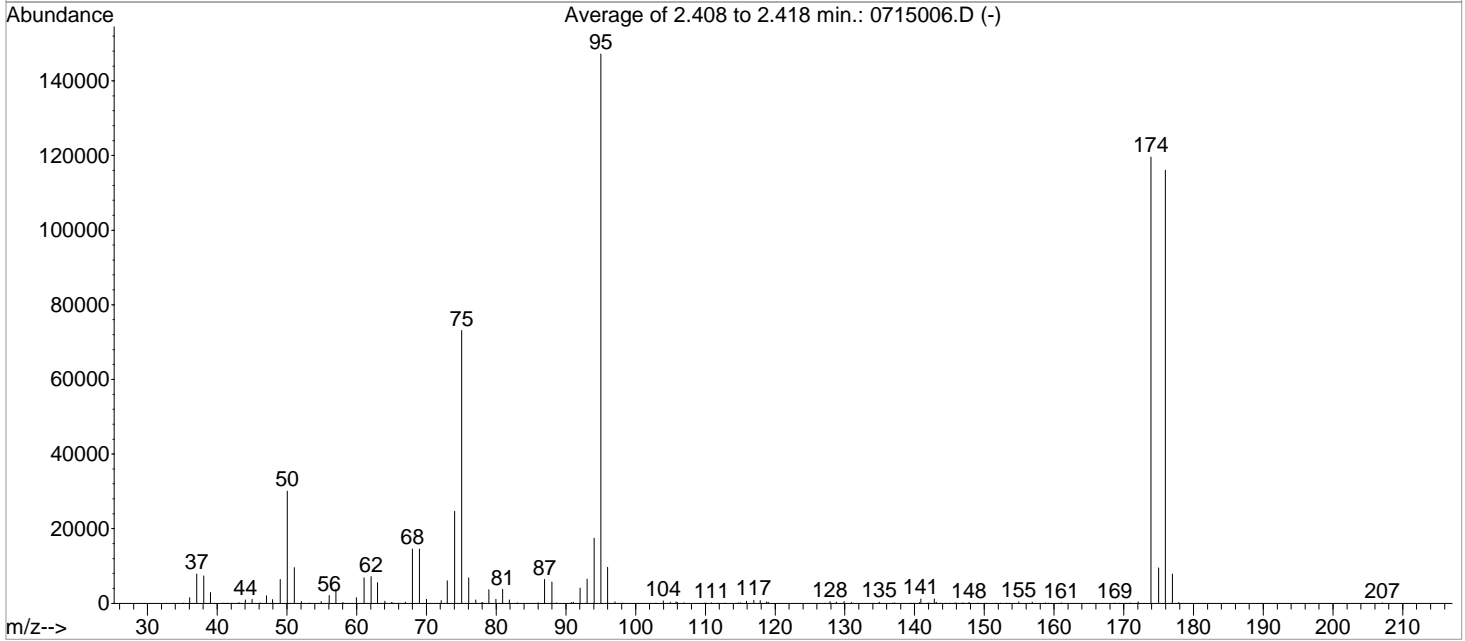
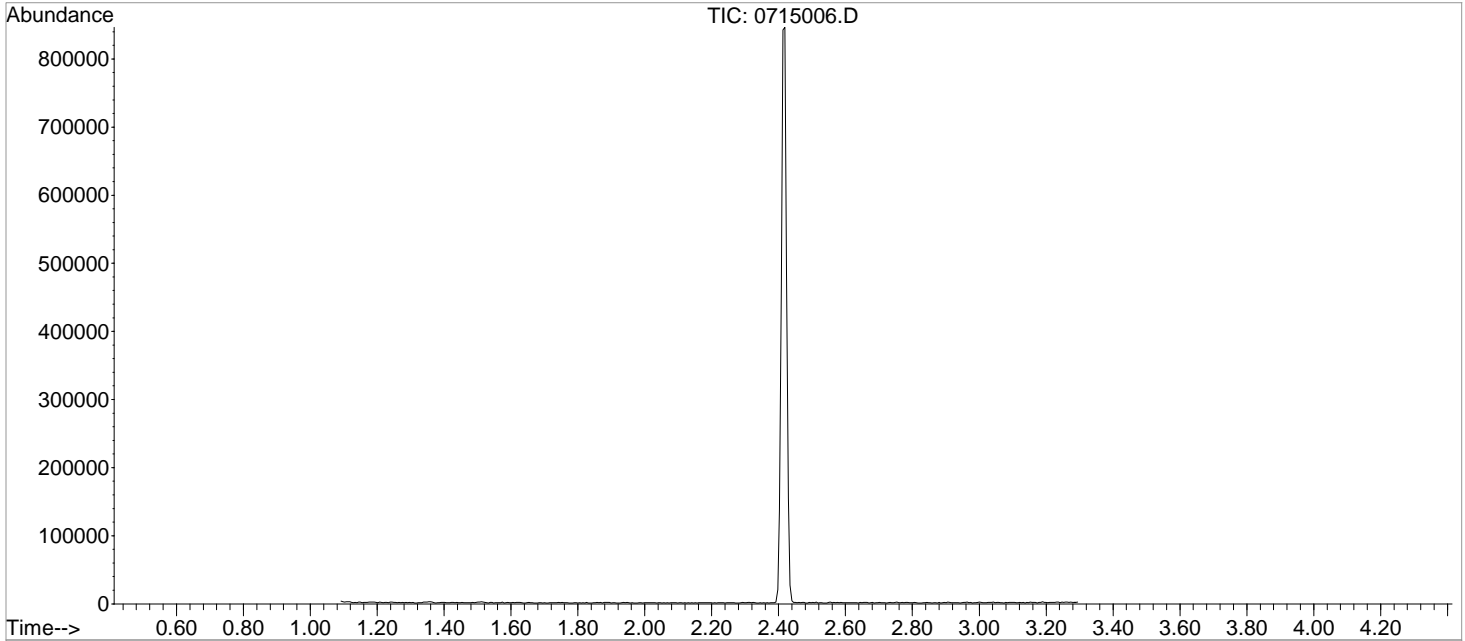
Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Method : J:\MS24\METHODS\2010\0612DOD19_MS24_FULL_SOIL.M (RTE Integrator)

Title : VOA MS24 EPA Method 8260B



Spectrum Information: Average of 2.408 to 2.418 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.4	30024	PASS
75	95	30	60	49.7	73101	PASS
95	95	100	100	100.0	147194	PASS
96	95	5	9	6.6	9673	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	81.3	119632	PASS
175	174	5	9	7.9	9493	PASS
176	174	95	101	97.0	116066	PASS
177	176	5	9	6.7	7832	PASS

Data File : J:\MS24\DATA\071519\0715007.D
 Acq On : 15 Jul 2019 10:46 am
 Sample : IB
 Misc :

Vial: 7
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 15 13:33:57 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

Quant Method : J:\MS24\M...\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Tue Jun 18 15:44:43 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	3.90	96	148010	50.00	PPB	0.00
58) Chlorobenzene-d5	6.50	82	57536	50.00	PPB	0.00
77) 1,4-Dichlorobenzene-d4	8.82	152	49646	50.00	PPB	0.00

System Monitoring Compounds

39) Dibromofluoromethane	0.00	113	0	0.00	PPB	
Spiked Amount				50.000		
			Recovery	=		0.00%
43) 1,2-Dichloroethane-d4	0.00	65	0	0.00	PPB	
Spiked Amount				50.000		
			Recovery	=		0.00%
56) Toluene-d8	5.17	98	3019	0.94	PPB	0.00
Spiked Amount				50.000		
			Recovery	=		1.88%
76) 4-Bromofluorobenzene	7.67	95	1338	1.16	PPB	0.00
Spiked Amount				50.000		
			Recovery	=		2.32%

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
12) Acetone	1.91	43	1686	Below Cal		90
15) 3-Chloro-1-Propane	2.11	TIC	1048m	0.35	PPB	
16) Methyl Acetate	2.11	43	541	0.85	PPB	# 58
18) Methylene Chloride	2.19	84	839	0.93	PPB	88
52) 2-Nitropropane	4.88	41	553	0.96	PPB	81
92) n-Butylbenzene	9.16	91	623	0.22	PPB	86
96) 1,2,4-Trichlorobenzene	10.71	180	718	0.55	PPB	94
98) Naphthalene	10.94	128	2996	1.05	PPB	96
99) 1,2,3-Trichlorobenzene	11.16	180	1041	0.84	PPB	93

(#) = qualifier out of range (m) = manual integration

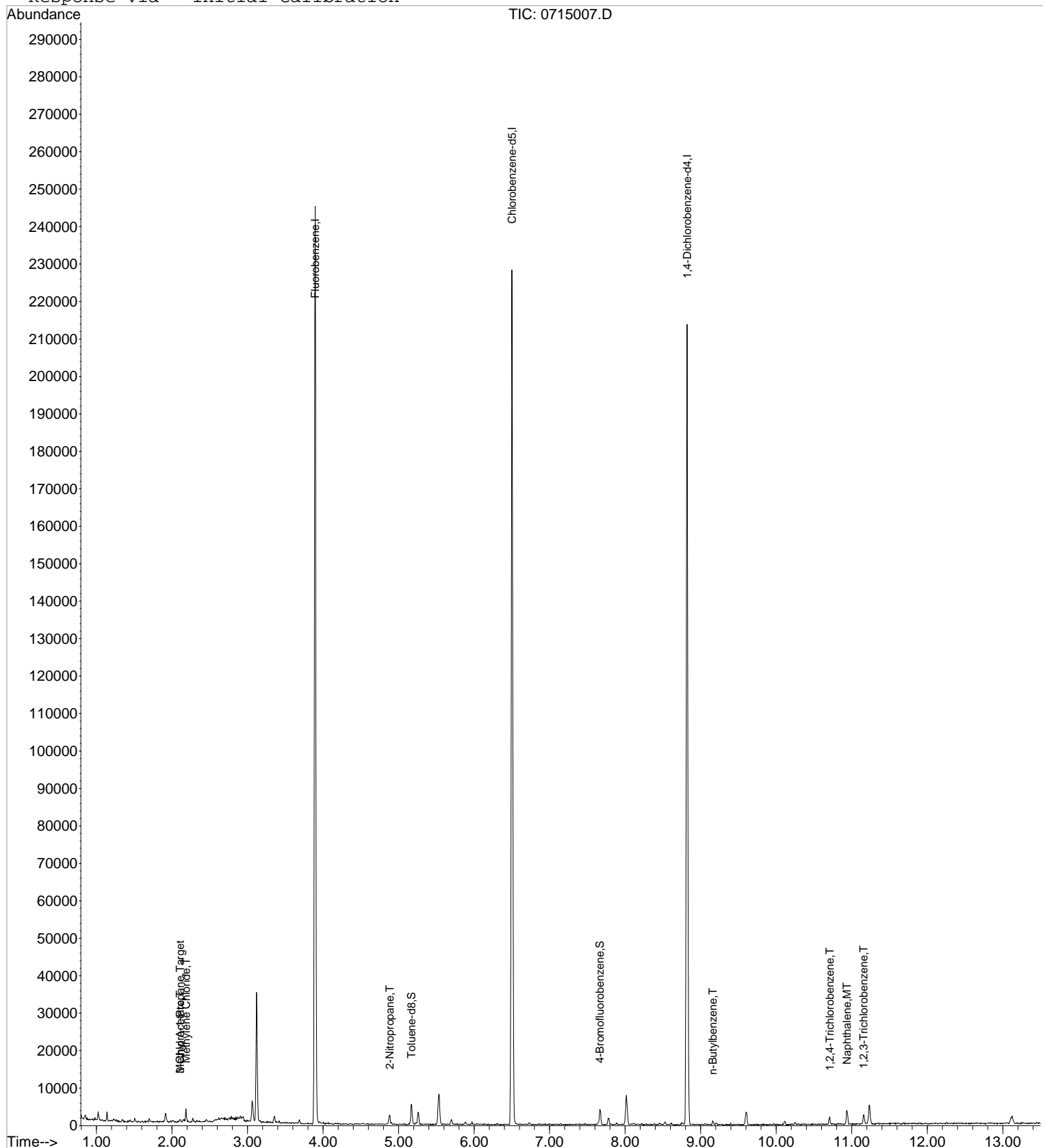
Data File : J:\MS24\DATA\071519\0715007.D
Acq On : 15 Jul 2019 10:46 am
Sample : IB
Misc :

Vial: 7
Operator: KW
Inst : MS24
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Jul 18 10:26 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
Title : VOA MS24 EPA Method 8260B
Last Update : Mon Jul 15 14:57:11 2019
Response via : Initial Calibration

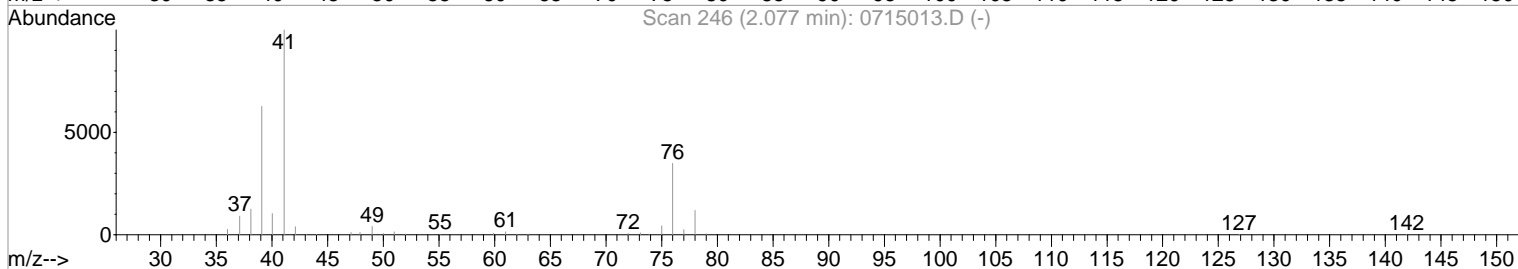
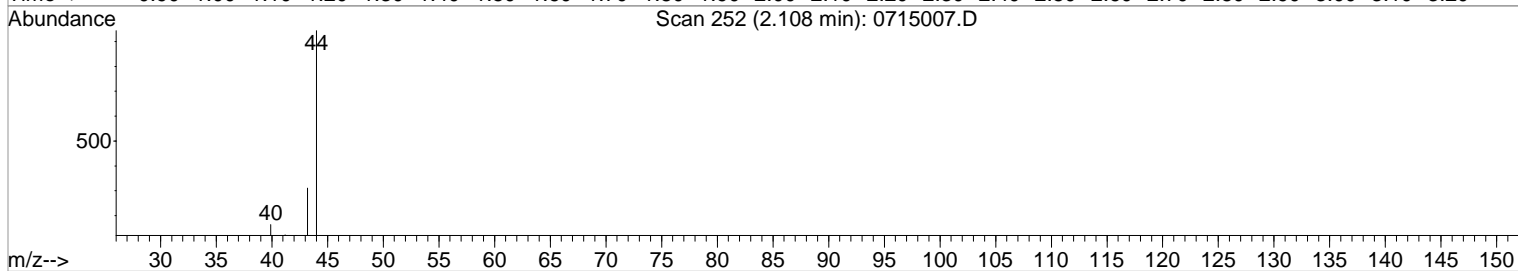
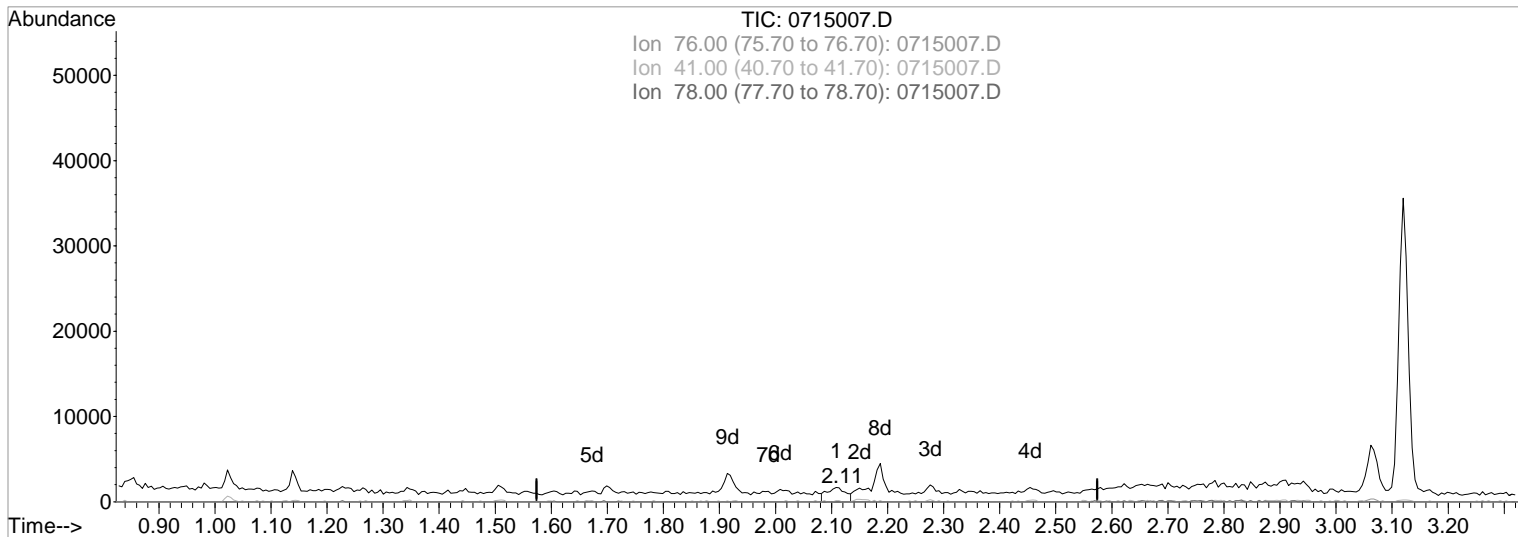


Data File : J:\MS24\DATA\071519\0715007.D
 Acq On : 15 Jul 2019 10:46 am
 Sample : IB
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:33 2019

Vial: 7
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 14:57:11 2019
 Response via : Multiple Level Calibration



TIC: 0715007.D

Retention Time (min)	Response	Exp%	Act%	Manual Integration
(15) 3-Chloro-1-Propane (Target)				
2.11min	1048			After
				Baseline correction
				07/18/19
TIC	100	100		
76.00	14.40	0.00		
41.00	37.40	16.44		
78.00	4.40	0.00		

Data File : J:\MS24\DATA\071519\0715008.D

Vial: 8

Acq On : 15 Jul 2019 11:07 am

Operator: KW

2nd *AK* 07/18/19

Sample : ICAL 1

Inst : MS24

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 15 13:37:07 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

Quant Method : J:\MS24\M...\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)

Title : VOA MS24 EPA Method 8260B

Last Update : Mon Jul 15 13:36:51 2019

Response via : Initial Calibration

DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	3.90	96	153562	50.00	PPB	0.00
58) Chlorobenzene-d5	6.50	82	56834	50.00	PPB	0.00
77) 1,4-Dichlorobenzene-d4	8.82	152	48680	50.00	PPB	0.00

System Monitoring Compounds

39) Dibromofluoromethane	0.00	113	0	0.00	PPB	
Spiked Amount	50.000					
			Recovery	=		0.00%
43) 1,2-Dichloroethane-d4	0.00	65	0	0.00	PPB	
Spiked Amount	50.000					
			Recovery	=		0.00%
56) Toluene-d8	5.17	98	2402	0.87	PPB	0.00
Spiked Amount	50.000					
			Recovery	=		1.74%
76) 4-Bromofluorobenzene	7.67	95	955	0.97	PPB	0.00
Spiked Amount	50.000					
			Recovery	=		1.94%

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.86	85	720	1.33	PPB	99
3) Chloromethane	0.98	50	1145	1.38	PPB	96
4) Vinyl Chloride	1.04	62	919	1.18	PPB	90
5) Bromomethane <i>NR</i>	1.26	96	893	1.92	PPB	82
6) Chloroethane	1.33	64	543	1.23	PPB	93
7) Dichlorofluoromethane	1.47	67	1169	1.04	PPB	91
8) Trichlorofluoromethane	1.47	101	1080	1.14	PPB	94
9) Acrolein <i>NR</i>	1.81	56	558	3.70	PPB	94
10) Trichlorotrifluoroethane	1.80	151	534	1.13	PPB	81
11) 1,1-Dichloroethene	1.81	96	627	1.16	PPB	# 78
12) Acetone	1.91	43	2283	9.57	PPB	98
13) Iodomethane <i>NR</i>	1.93	142	704	1.35	PPB	82
14) Carbon Disulfide	1.94	76	2078	1.11	PPB	92
16) Methyl Acetate	2.11	43	785	1.39	PPB	# 61
17) Acetonitrile <i>NR</i>	2.15	40	1632	30.08	PPB	# 92
18) Methylene Chloride <i>NR</i>	2.18	84	1982	2.58	PPB	97
19) tert-Butyl Alcohol <i>NR</i>	2.28	59	795	8.19	PPB	83
20) Acrylonitrile <i>NR</i>	2.41	53	720	2.35	PPB	78
21) Methyl tert-Butyl Ether <i>NR</i>	2.32	73	5356	2.35	PPB	100
22) trans-1,2-Dichloroethene	2.33	96	795	1.17	PPB	98
23) Hexane	2.46	57	1097	1.22	PPB	83
24) Diisopropyl Ether	2.65	45	3132	1.27	PPB	91
25) 1,1-Dichloroethane	2.65	63	1476	1.14	PPB	95
27) Chloroprene <i>NR</i>	2.68	53	2185	2.30	PPB	78
28) tert-Butyl Ethyl Ether	2.90	59	3041	1.24	PPB	98
29) 2,2-Dichloropropane	3.04	77	1232	1.29	PPB	85
30) cis-1,2-Dichloroethene	3.07	96	1119	1.33	PPB	84
31) 2-Butanone <i>NR</i>	3.11	72	283m	2.89	PPB	
34) Methacrylonitrile <i>NR</i>	3.29	67	876	2.39	PPB	93
35) Bromochloromethane	3.24	128	527	1.26	PPB	90
36) Chloroform	3.29	83	1490	1.11	PPB	95
37) Cyclohexane	3.37	56	1046	0.99	PPB	# 86
38) 1,1,1-Trichloroethane	3.39	97	1085	1.08	PPB	92
40) Carbon Tetrachloride	3.48	117	798	0.98	PPB	81
41) 1,1-Dichloropropene	3.51	75	1104	1.16	PPB	97
42) Isobutyl Alcohol <i>NR</i>	3.68	43	1392	28.90	PPB	91
44) Benzene	3.67	78	3582	1.15	PPB	96
45) 1,2-Dichloroethane	3.74	62	1458	1.29	PPB	88
46) Trichloroethene	4.16	95	884	1.20	PPB	89
47) Methylcyclohexane	4.25	83	1033	1.01	PPB	89
48) 1,2-Dichloropropane	4.39	63	880	1.07	PPB	78
49) Dibromomethane	4.49	93	575	1.17	PPB	96
51) Bromodichloromethane	4.61	83	1048	1.05	PPB	96

(#) = qualifier out of range (m) = manual integration

0715008.D 0715DOD19_MS24_FULL_SOIL.M

Mon Jul 15 14:38:07 2019

Page 1

Data File : J:\MS24\DATA\071519\0715008.D
 Acq On : 15 Jul 2019 11:07 am
 Sample : ICAL 1
 Misc :

Vial: 8
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 15 13:37:07 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

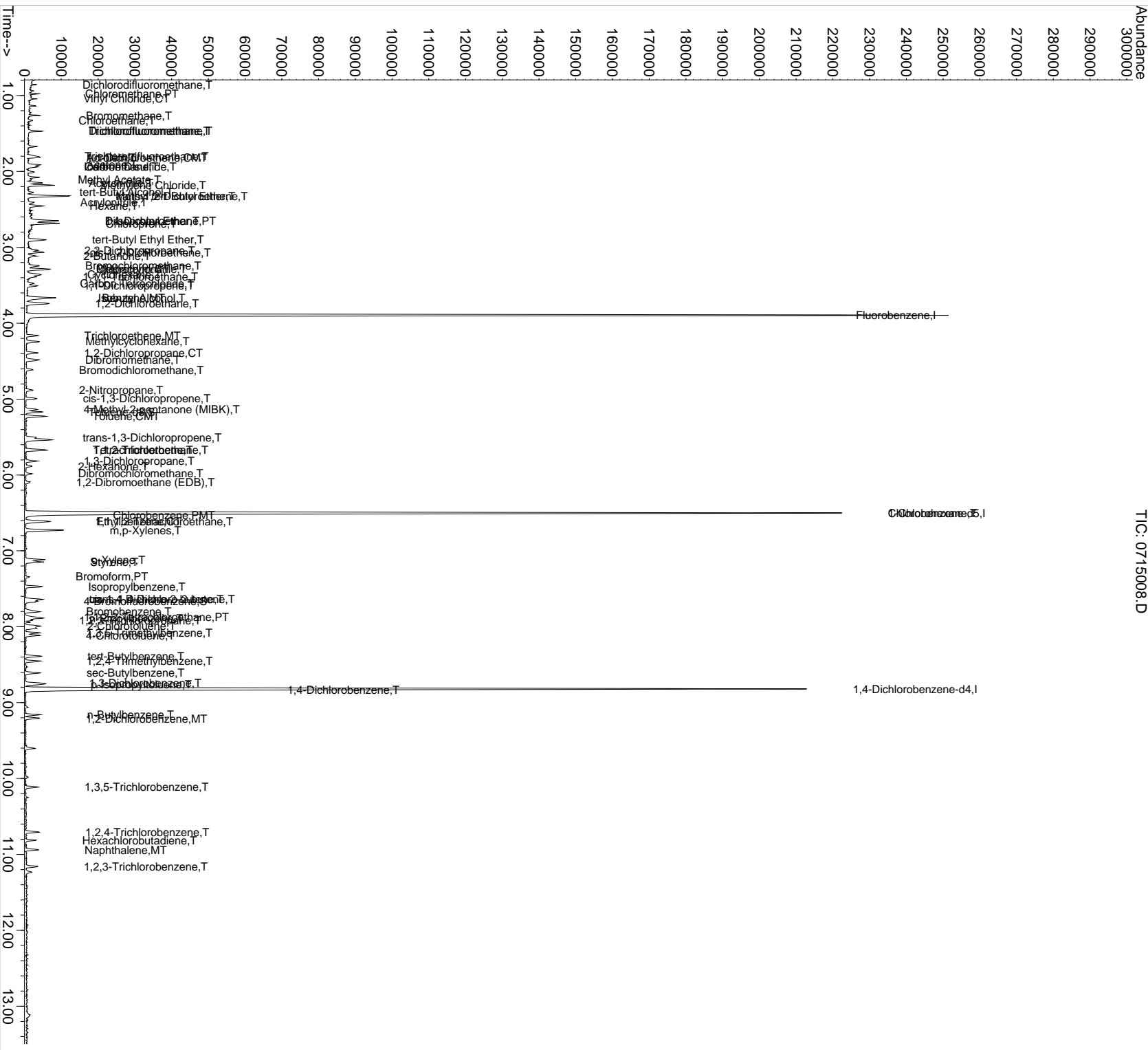
Quant Method : J:\MS24\M...\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
52) 2-Nitropropane	4.88	41	697	1.18	PPB	84
54) cis-1,3-Dichloropropene	4.99	75	1359	1.13	PPB	91
55) 4-Methyl-2-pentanone (MIBK) <i>NR</i>	5.14	58	606	2.12	PPB	85
57) Toluene	5.23	92	2002	1.15	PPB	79
59) trans-1,3-Dichloropropene	5.51	75	1243	1.18	PPB	90
60) 1,1,2-Trichloroethane	5.67	83	617	1.05	PPB	79
61) Tetrachloroethene	5.68	164	541	1.02	PPB	88
62) 2-Hexanone <i>NR</i>	5.88	57	131m	1.48	PPB	
63) 1,3-Dichloropropane	5.81	76	1451	1.26	PPB	92
64) Dibromochloromethane	5.99	129	771	1.03	PPB	83
65) 1,2-Dibromoethane (EDB)	6.09	107	819	1.25	PPB	# 60
66) 1-Chlorohexane	6.50	91	908	1.26	PPB	87
67) Chlorobenzene	6.53	112	2356	1.20	PPB	95
68) Ethylbenzene	6.61	106	1108	1.13	PPB	# 67
69) 1,1,1,2-Tetrachloroethane	6.62	131	638	0.91	PPB	97
70) m,p-Xylenes	6.73	106	2574	2.15	PPB	92
71) o-Xylene	7.12	106	1271	1.10	PPB	95
72) Styrene	7.15	103	896m	0.91	PPB	
73) Bromoform	7.35	173	479m	0.97	PPB	
74) Isopropylbenzene	7.47	105	2969	1.01	PPB	83
75) cis-1,4-Dichloro-2-butene <i>NR</i>	7.64	89	193m	1.78	PPB	
78) 1,1,2,2-Tetrachloroethane	7.87	83	940	1.19	PPB	90
79) trans-1,4-Dichloro-2-buten <i>NR</i>	7.64	53	690	3.14	PPB	81
80) Bromobenzene	7.80	156	977	1.20	PPB	88
81) n-Propylbenzene	7.89	91	3447	1.07	PPB	96
82) 1,2,3-Trichloropropane	7.91	110	245m	0.97	PPB	
83) 2-Chlorotoluene	7.99	91	2331	1.17	PPB	92
84) 1,3,5-Trimethylbenzene	8.08	105	2156	0.96	PPB	97
85) 4-Chlorotoluene	8.12	91	2384m	1.13	PPB	
86) tert-Butylbenzene	8.39	119	2169	1.09	PPB	100
87) 1,2,4-Trimethylbenzene	8.45	105	2249	0.99	PPB	98
88) sec-Butylbenzene	8.61	105	2766	0.96	PPB	94
89) p-Isopropyltoluene	8.76	119	2286	0.96	PPB	87
90) 1,3-Dichlorobenzene	8.74	146	1691	1.17	PPB	97
91) 1,4-Dichlorobenzene	8.84	146	1888	1.30	PPB	95
92) n-Butylbenzene	9.16	91	2157	1.03	PPB	93
93) 1,2-Dichlorobenzene	9.20	146	1759	1.25	PPB	89
95) 1,3,5-Trichlorobenzene	10.11	180	1312	1.34	PPB	90
96) 1,2,4-Trichlorobenzene	10.71	180	1242	1.43	PPB	93
97) Hexachlorobutadiene	10.81	225	660	1.27	PPB	92
98) Naphthalene	10.94	128	2635	1.30	PPB	96
99) 1,2,3-Trichlorobenzene	11.16	180	1200	1.44	PPB	98

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS24\DATA\071519\0715008.D
 Acq On : 15 Jul 2019 11:07 am
 Sample : ICAL 1
 Misc :
 Integration Parameters: rteint.p
 Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

Vial: 8
 Operator: KW
 Inst: MS24
 Multiplr: 1.00

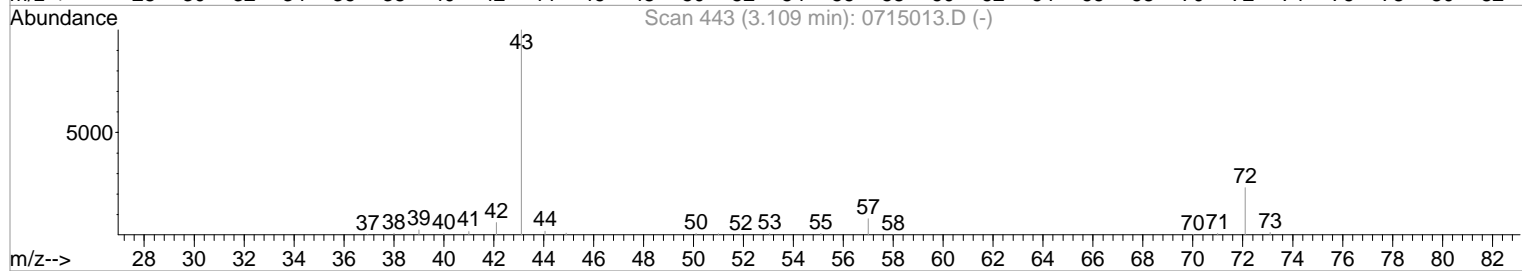
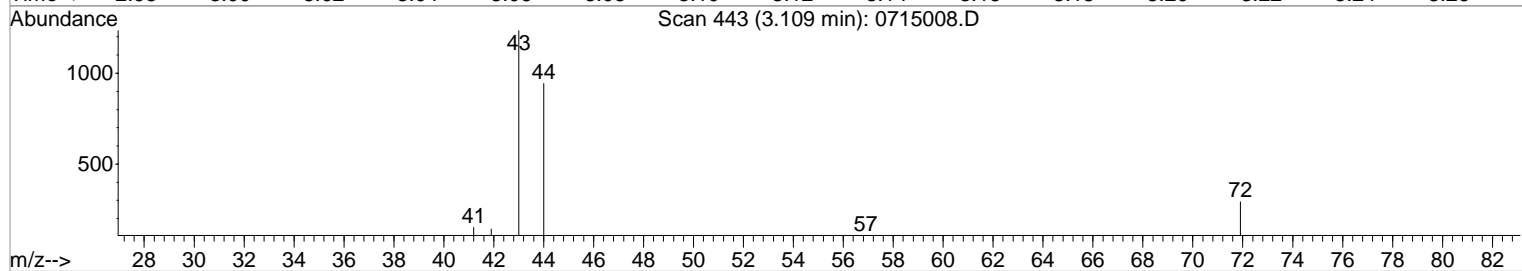
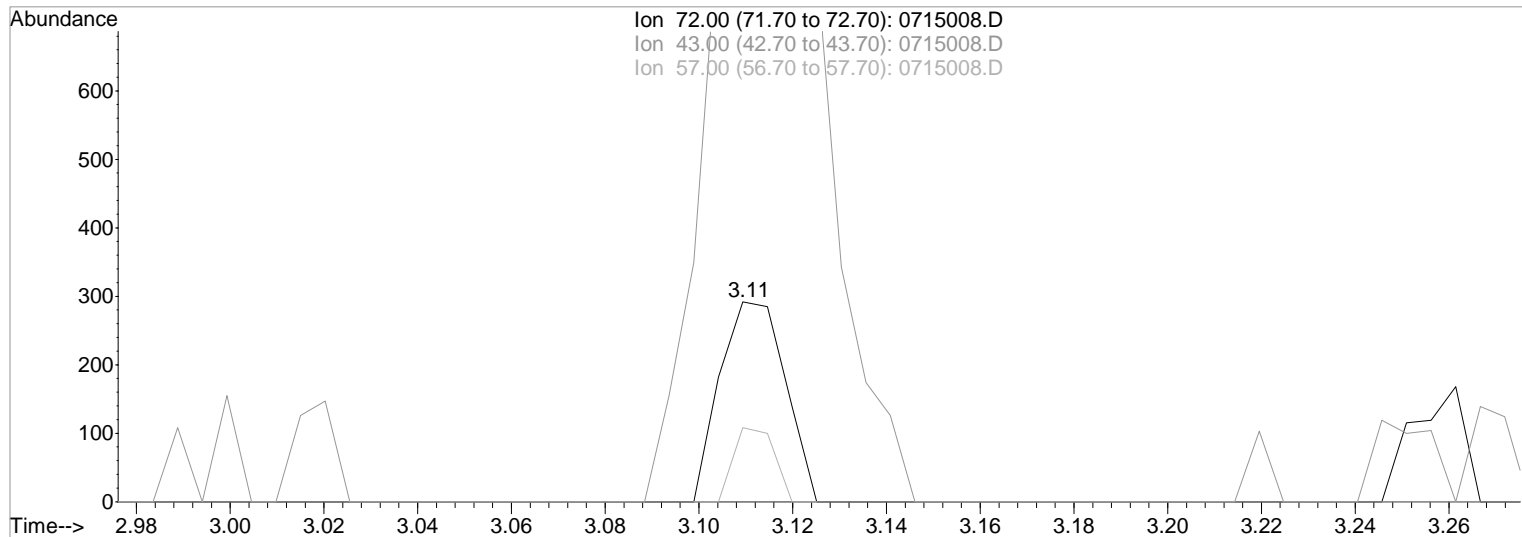


Data File : J:\MS24\DATA\071519\0715008.D
 Acq On : 15 Jul 2019 11:07 am
 Sample : ICAL 1
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:38 2019

Vial: 8
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Single Level Calibration



TIC: 0715008.D

(31) 2-Butanone (T)
 3.11min 2.89PPB m
 response 283

Manual Integration:

After
 Missed peak

Ion	Exp%	Act%
72.00	100	100
43.00	431.30	422.95
57.00	34.40	36.99
0.00	0.00	0.00

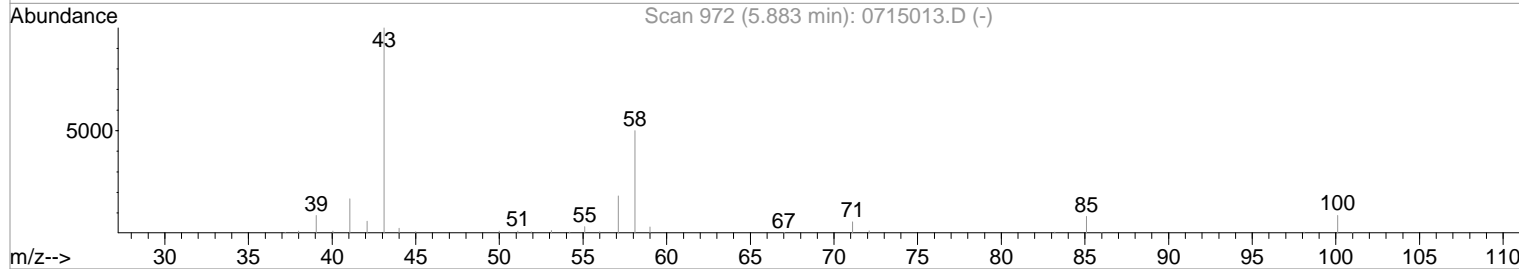
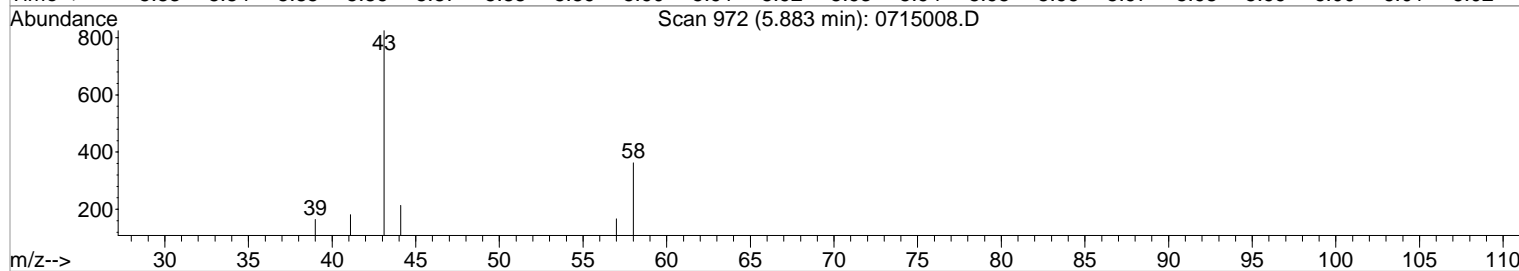
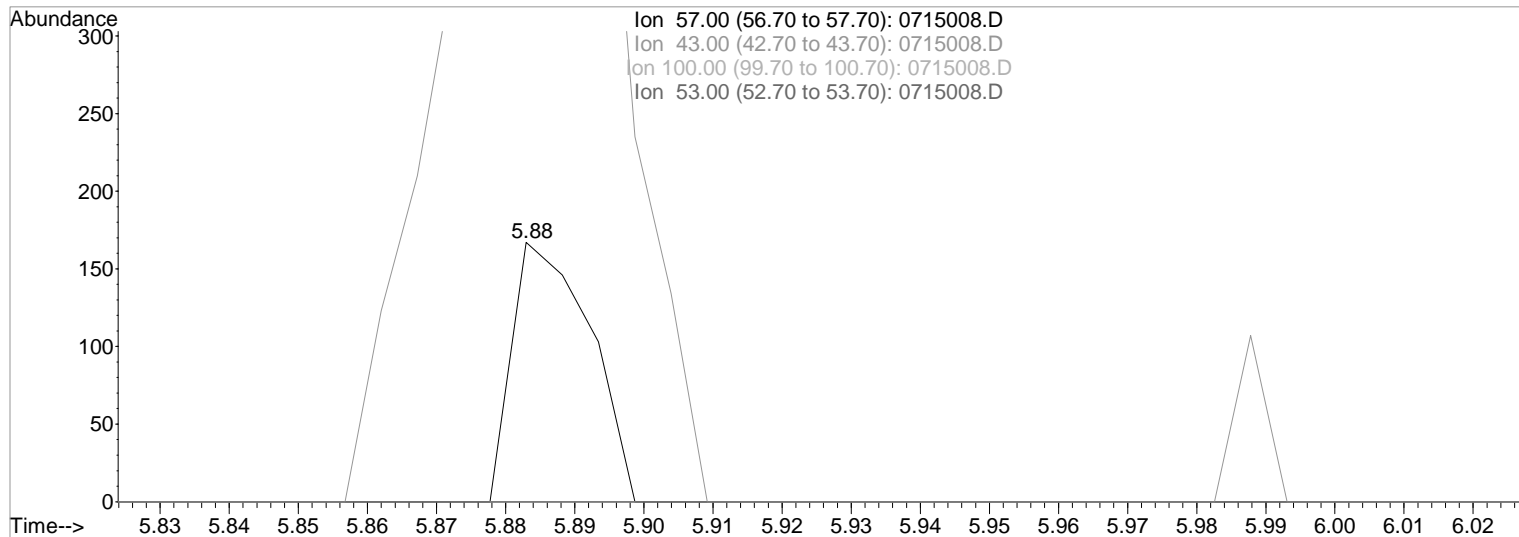
07/15/19

Data File : J:\MS24\DATA\071519\0715008.D
 Acq On : 15 Jul 2019 11:07 am
 Sample : ICAL 1
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:38 2019

Vial: 8
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Single Level Calibration



TIC: 0715008.D

(62) 2-Hexanone (T)

5.88min 1.48PPB m
 response 131

Ion	Exp%	Act%
57.00	100	100
43.00	546.10	494.01#
100.00	48.30	0.00#
53.00	8.20	0.00

Manual Integration:

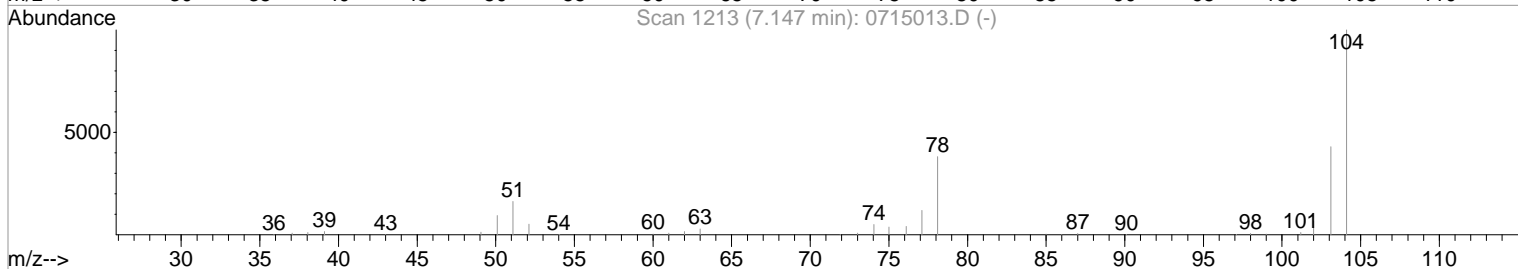
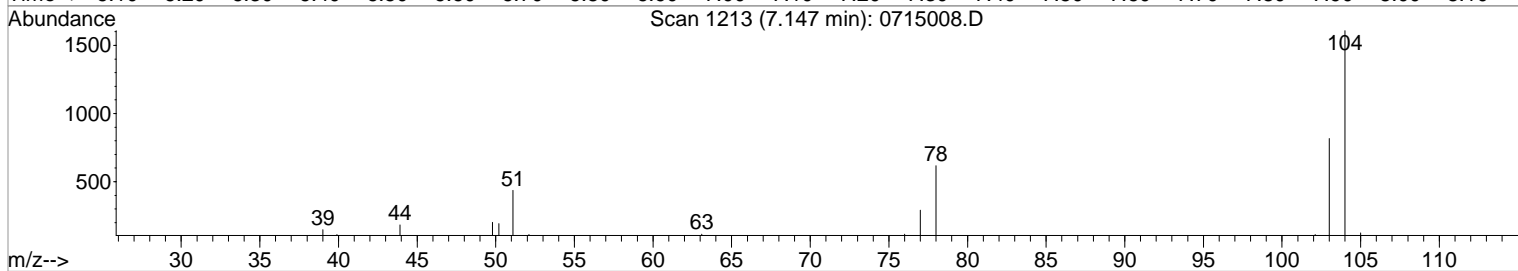
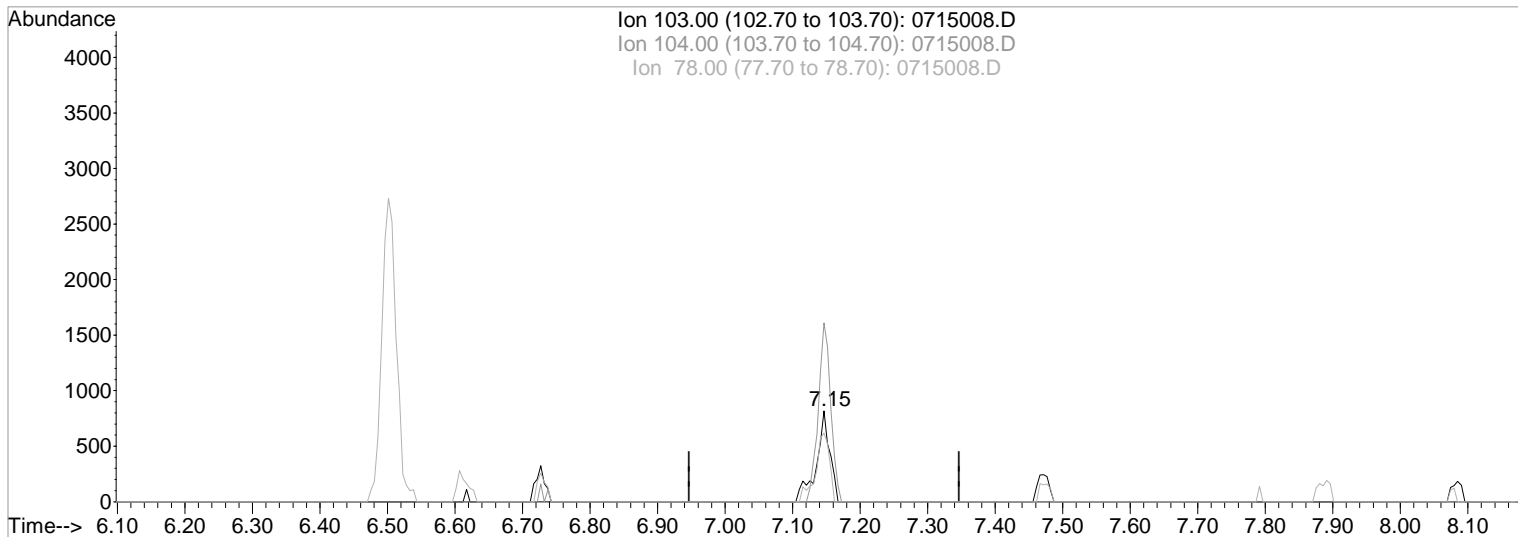
After
 Missed peak
 07/15/19

Data File : J:\MS24\DATA\071519\0715008.D
 Acq On : 15 Jul 2019 11:07 am
 Sample : ICAL 1
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:38 2019

Vial: 8
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Multiple Level Calibration



TIC: 0715008.D

(72) Styrene (T)
 7.15min 1.16PPB
 response 1146

Manual Integration:

Before

07/15/19

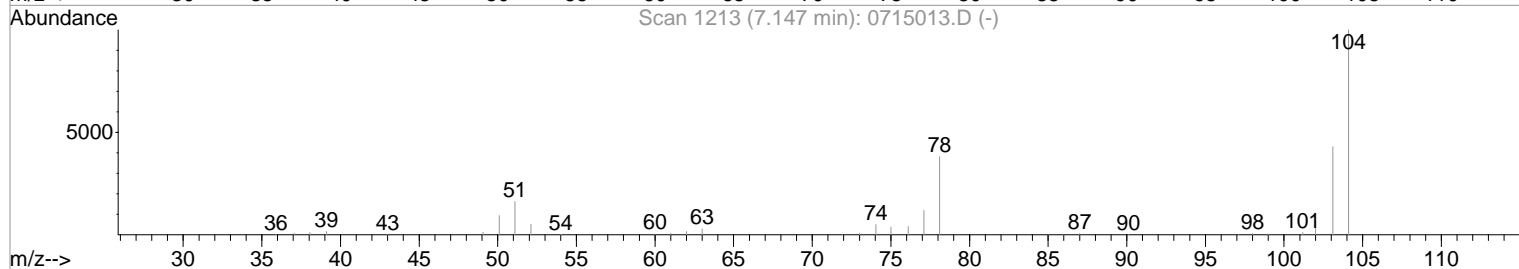
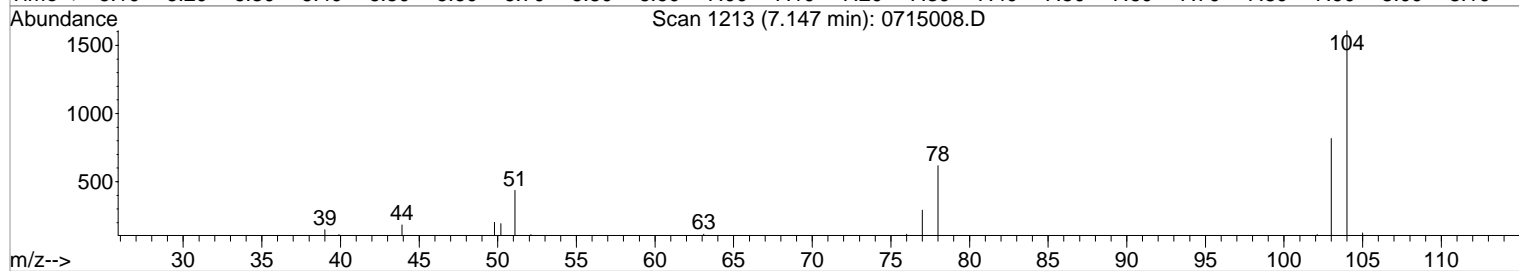
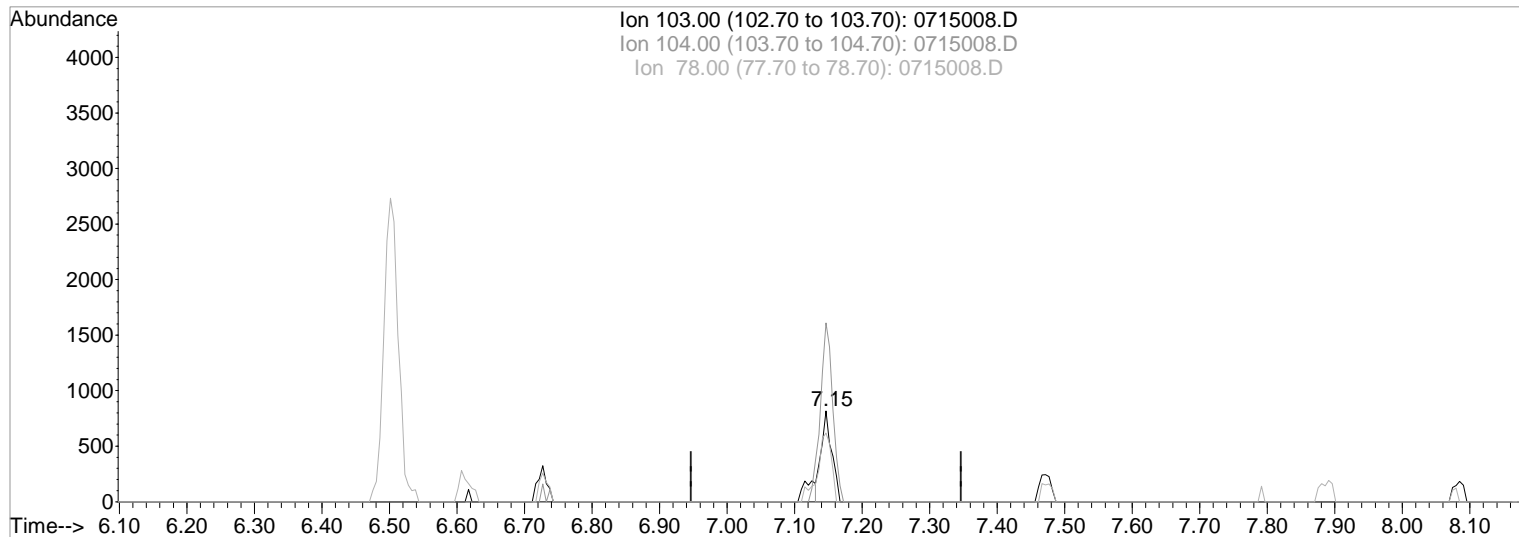
Ion	Exp%	Act%
103.00	100	100
104.00	210.30	196.70
78.00	89.90	75.43
0.00	0.00	0.00

Data File : J:\MS24\DATA\071519\0715008.D
 Acq On : 15 Jul 2019 11:07 am
 Sample : ICAL 1
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:39 2019

Vial: 8
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Multiple Level Calibration



TIC: 0715008.D

(72) Styrene (T)		
7.15min	0.91PPB	m
response	896	
Ion	Exp%	Act%
103.00	100	100
104.00	210.30	196.70
78.00	89.90	75.43
0.00	0.00	0.00

Manual Integration:
 After
 Shoulder
 07/15/19

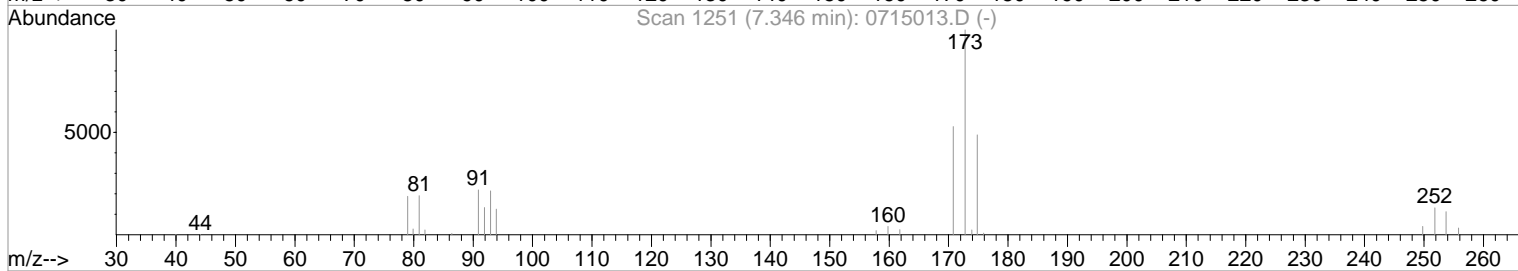
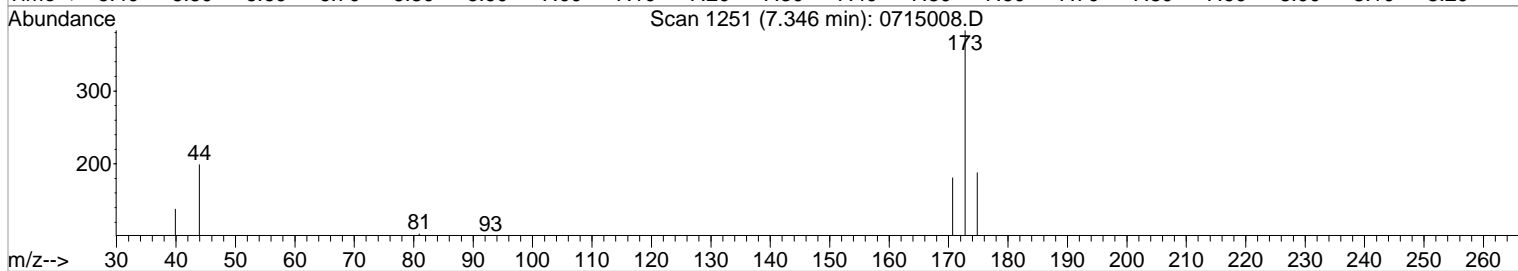
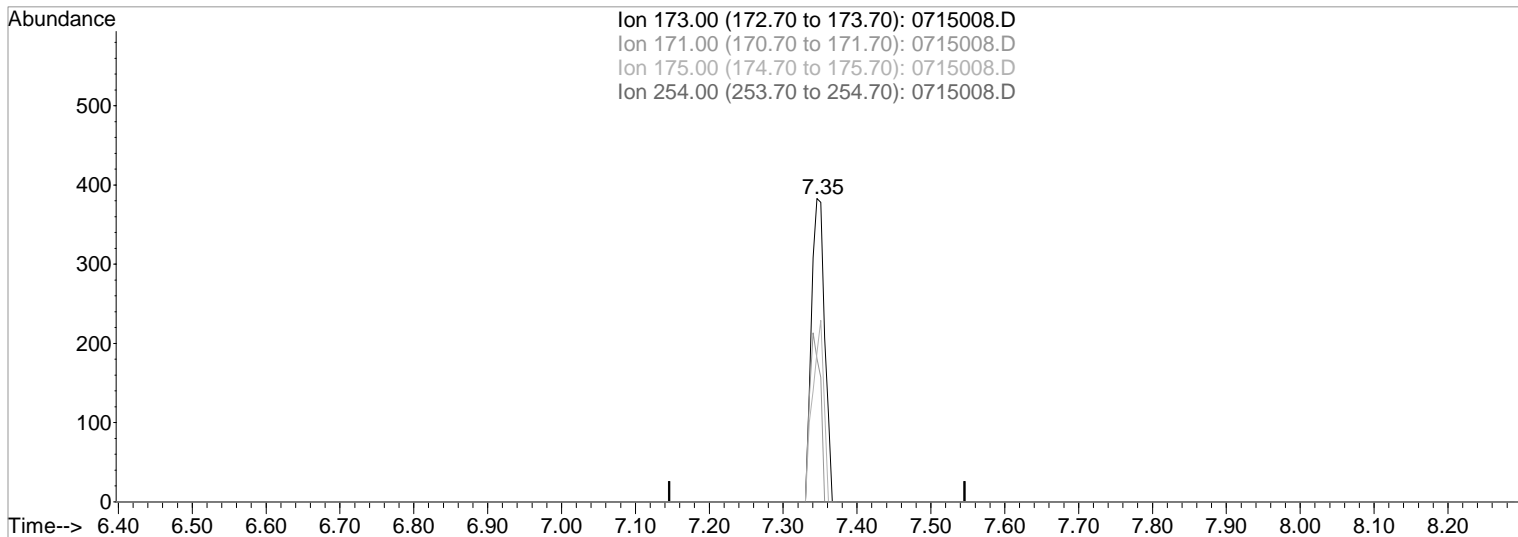
Data File : J:\MS24\DATA\071519\0715008.D
 Acq On : 15 Jul 2019 11:07 am
 Sample : ICAL 1
 Misc :

Vial: 8
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 15 13:39 2019

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Multiple Level Calibration



TIC: 0715008.D

(73) Bromoform (PT)

Manual Integration:

7.35min 0.97PPB m
 response 479

After
 Missed peak

Ion	Exp%	Act%
173.00	100	100
171.00	52.80	47.26
175.00	48.70	49.09
254.00	11.30	0.00

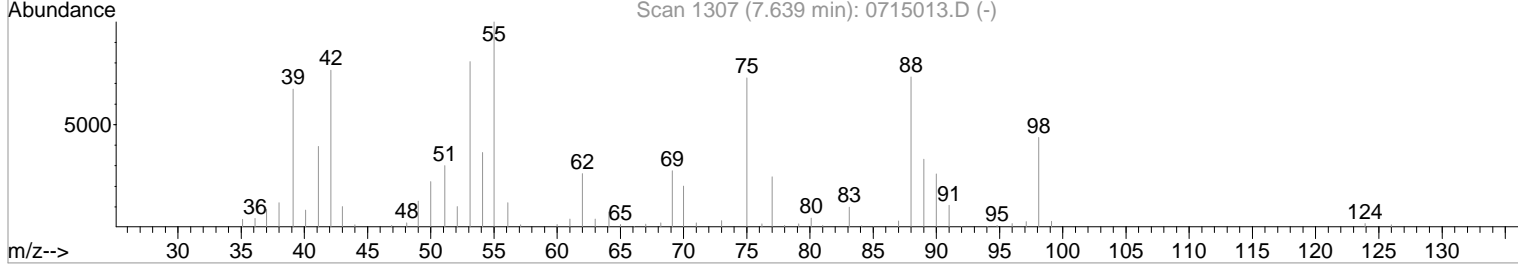
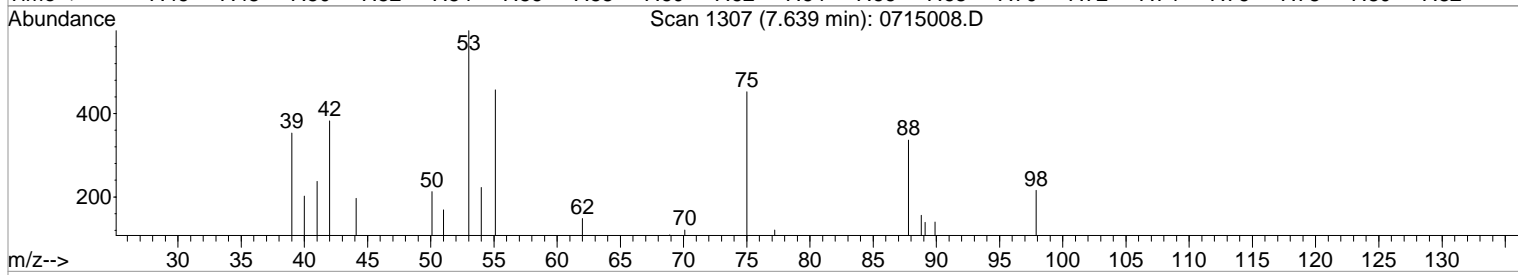
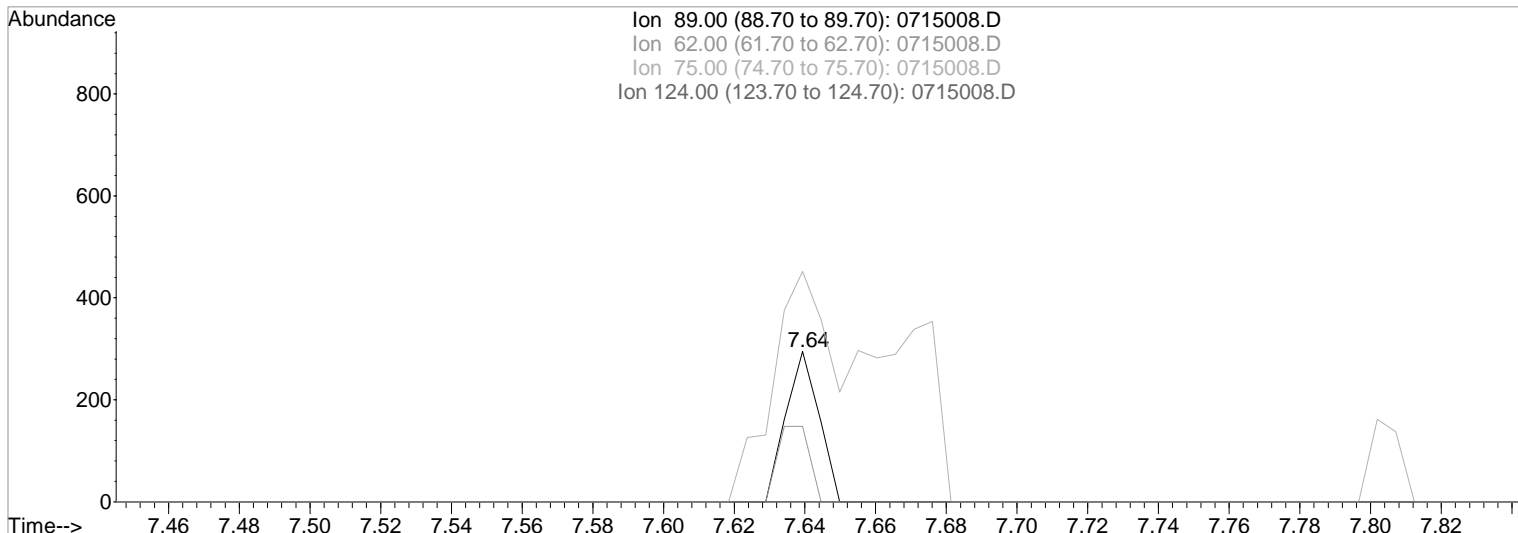
07/15/19

Data File : J:\MS24\DATA\071519\0715008.D
 Acq On : 15 Jul 2019 11:07 am
 Sample : ICAL 1
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:39 2019

Vial: 8
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Multiple Level Calibration



TIC: 0715008.D

(75) cis-1,4-Dichloro-2-butene (T)

Manual Integration:

7.64min 1.78PPB m
 response 193

After
 Missed peak

Ion	Exp%	Act%
89.00	100	100
62.00	79.10	94.87
75.00	219.60	289.74#
124.00	5.60	0.00

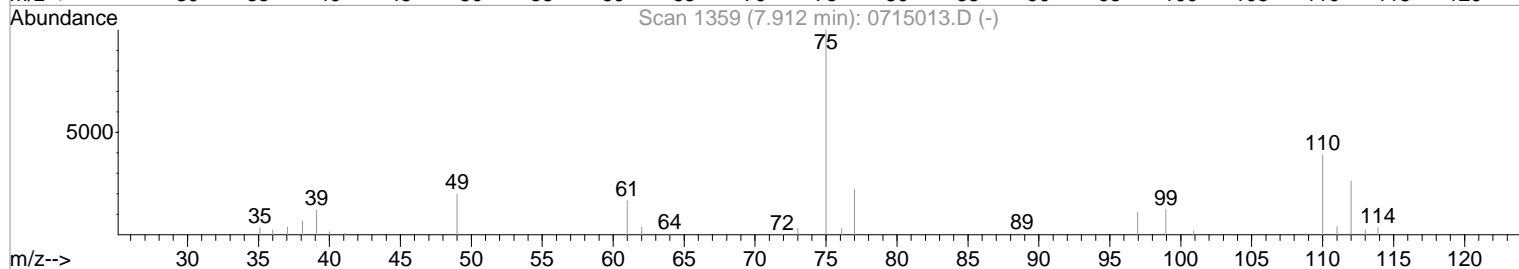
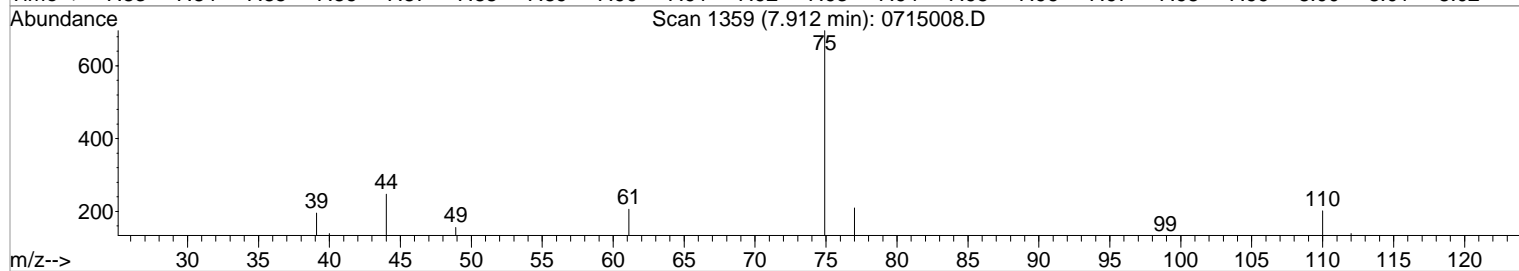
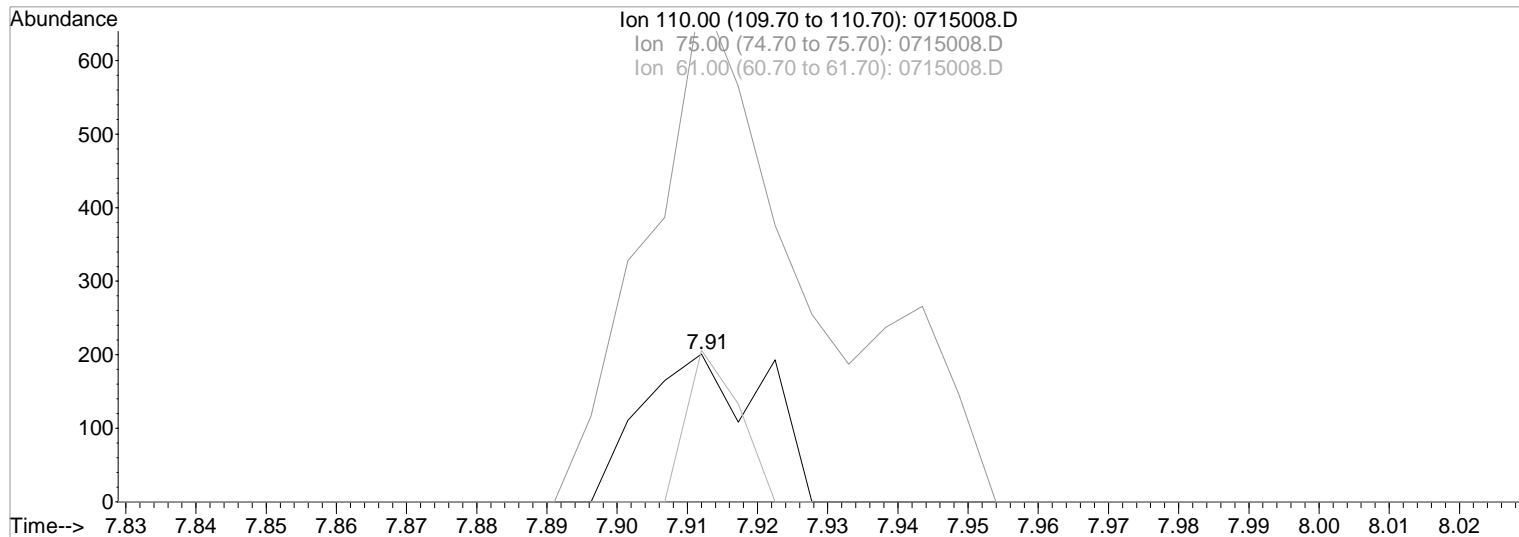
07/15/19

Data File : J:\MS24\DATA\071519\0715008.D
 Acq On : 15 Jul 2019 11:07 am
 Sample : ICAL 1
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:39 2019

Vial: 8
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Multiple Level Calibration



TIC: 0715008.D

(82) 1,2,3-Trichloropropane (T)

Manual Integration:

7.91min 0.97PPB m
 response 245

After
 Missed peak

Ion	Exp%	Act%
110.00	100	100
75.00	255.70	346.77#
61.00	64.90	102.49#
0.00	0.00	0.00

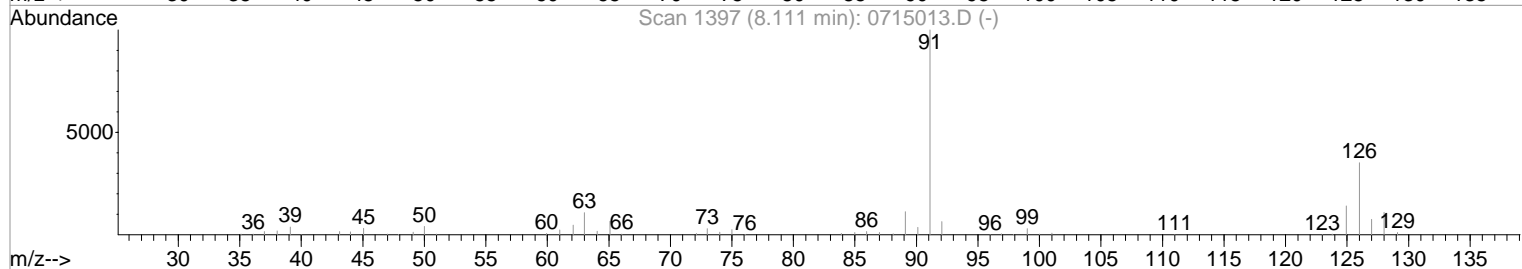
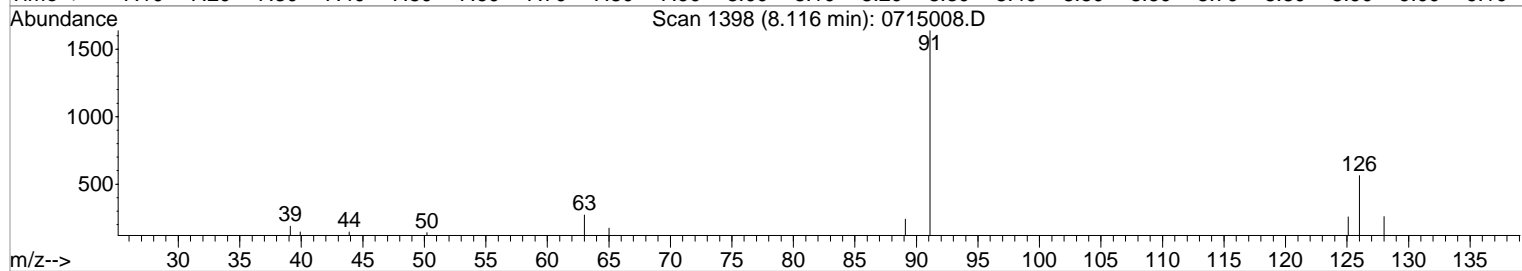
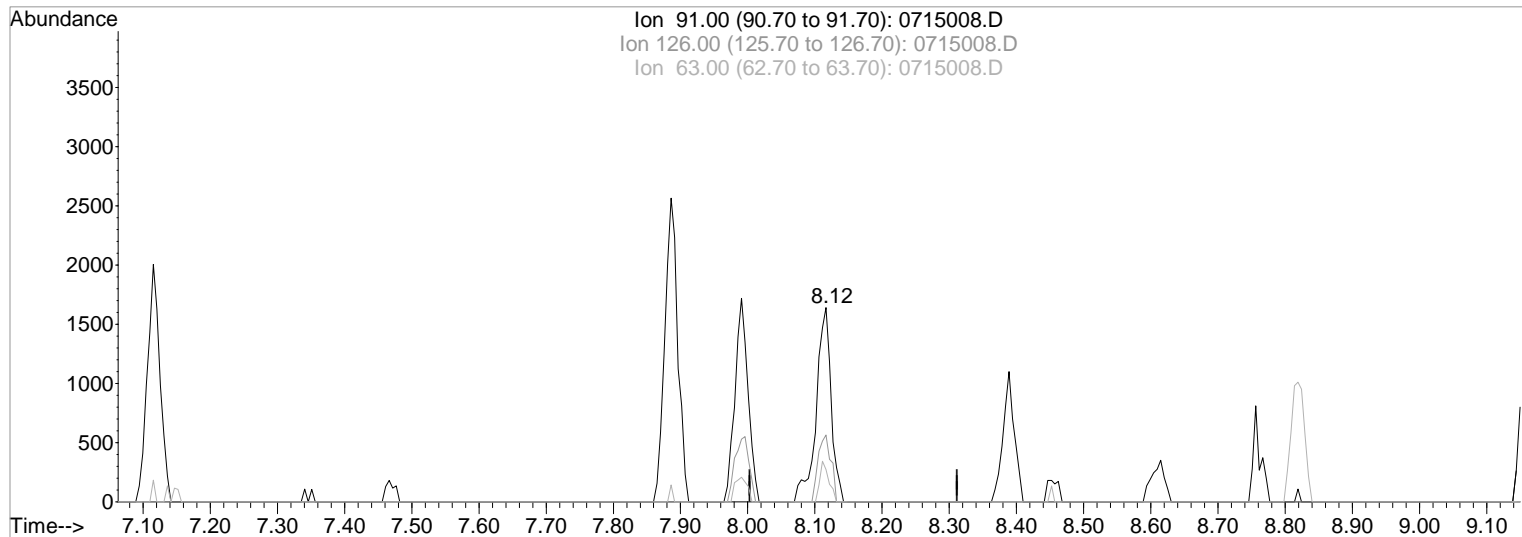
07/15/19

Data File : J:\MS24\DATA\071519\0715008.D
 Acq On : 15 Jul 2019 11:07 am
 Sample : ICAL 1
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:39 2019

Vial: 8
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Multiple Level Calibration



TIC: 0715008.D

(85) 4-Chlorotoluene (T)

Manual Integration:

8.12min 1.20PPB

Before

response 2539

07/15/19

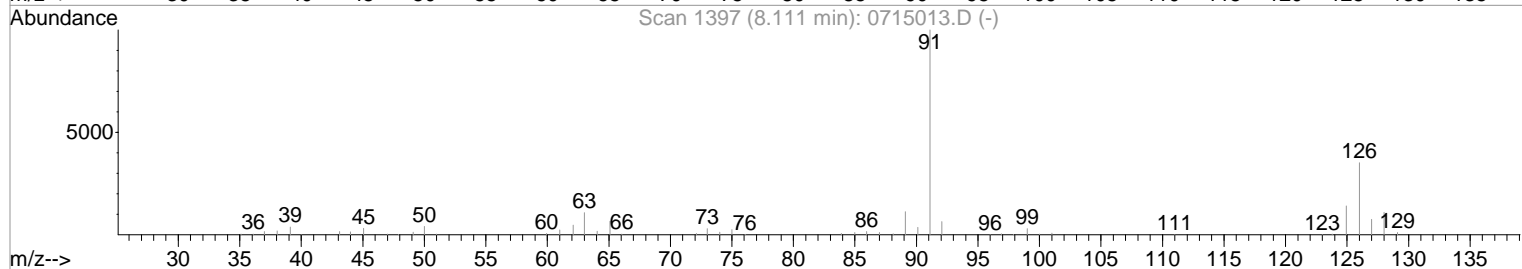
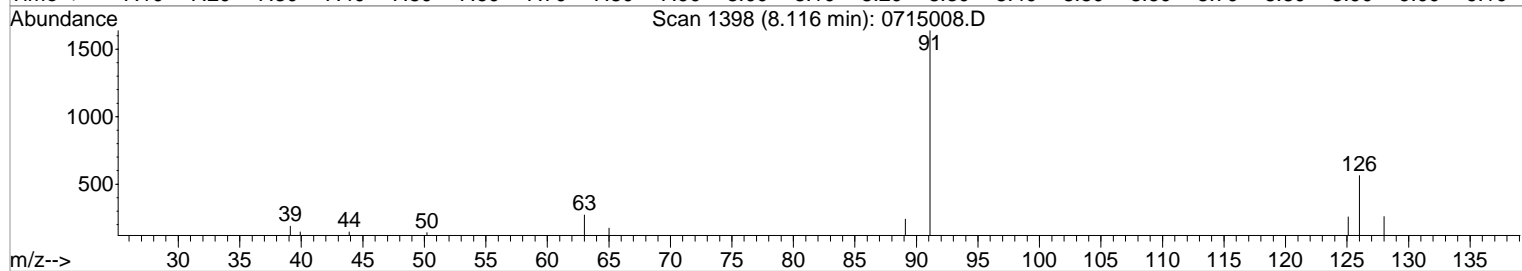
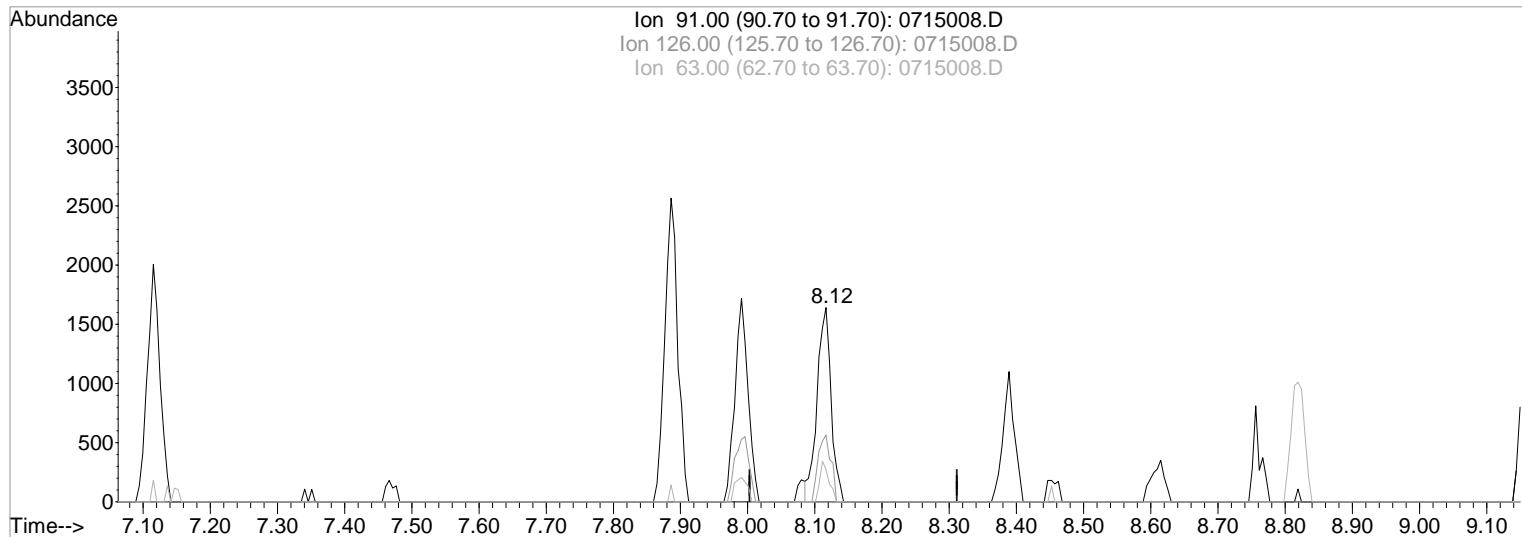
Ion	Exp%	Act%
91.00	100	100
126.00	32.80	34.37
63.00	12.70	16.54
0.00	0.00	0.00

Data File : J:\MS24\DATA\071519\0715008.D
 Acq On : 15 Jul 2019 11:07 am
 Sample : ICAL 1
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:40 2019

Vial: 8
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Multiple Level Calibration



TIC: 0715008.D

(85) 4-Chlorotoluene (T)

Manual Integration:

8.12min 1.13PPB m
 response 2384

After
 Shoulder

07/15/19

Ion	Exp%	Act%
91.00	100	100
126.00	32.80	34.37
63.00	12.70	16.54
0.00	0.00	0.00

Initial Calibration - Detailed Report

Calibration ID: KC1900275	Instrument ID: K-MS-24
	Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	KC1900275-01	ICAL 1	J:\MS24\DATA\071519\0715008.D	07/15/2019 11:07
02	KC1900275-02	ICAL 2	J:\MS24\DATA\071519\0715009.D	07/15/2019 11:28
03	KC1900275-03	ICAL 5	J:\MS24\DATA\071519\0715010.D	07/15/2019 11:49
04	KC1900275-04	ICAL 10	J:\MS24\DATA\071519\0715011.D	07/15/2019 12:10
05	KC1900275-05	ICAL 20	J:\MS24\DATA\071519\0715012.D	07/15/2019 12:31
06	KC1900275-06	ICAL 50	J:\MS24\DATA\071519\0715013.D	07/15/2019 12:52
07	KC1900275-07	ICAL 100	J:\MS24\DATA\071519\0715014.D	07/15/2019 13:12
08	KC1900275-08	ICAL 200	J:\MS24\DATA\071519\0715015.D	07/15/2019 13:34
09	KC1900275-09	ICAL 300	J:\MS24\DATA\071519\0715016.D	07/15/2019 13:55

<u>Analyte</u>	<u>Curve Fit</u>	<u>Weighting</u>			
1,1,1,2-Tetrachloroethane	Average RF		RSD = 8.802		Average RF = 6.831E-1
# Amount RF	# Amount RF		# Amount RF		# Amount RF
01 1.000 0.5613	02 2.000 0.7391		03 5.000 0.6835		04 10.000 0.668
05 20.000 0.6975	06 50.000 0.6186		07 100.000 0.7063		08 200.000 0.7328
09 300.000 0.7409					
1,1,1-Trichloroethane (TCA)	Average RF		RSD = 5.979		Average RF = 0.3574
# Amount RF	# Amount RF		# Amount RF		# Amount RF
01 1.000 0.3533	02 2.000 0.3655		03 5.000 0.3549		04 10.000 0.3212
05 20.000 0.3689	06 50.000 0.3268		07 100.000 0.3631		08 200.000 0.3809
09 300.000 0.3818					
1,1,2,2-Tetrachloroethane	Average RF		RSD = 5.371		Average RF = 9.223E-1
# Amount RF	# Amount RF		# Amount RF		# Amount RF
01 1.000 0.9655	02 2.000 0.9825		03 5.000 0.93		04 10.000 0.895
05 20.000 0.9158	06 50.000 0.813		07 100.000 0.9072		08 200.000 0.9452
09 300.000 0.9464					
1,1,2-Trichloroethane	Average RF		RSD = 6.319		Average RF = 5.89E-1
# Amount RF	# Amount RF		# Amount RF		# Amount RF
01 1.000 0.5428	02 2.000 0.6296		03 5.000 0.6192		04 10.000 0.6029
05 20.000 0.6118	06 50.000 0.5161		07 100.000 0.579		08 200.000 0.5966
09 300.000 0.6031					
1,1,2-Trichlorotrifluoroethane	Average RF		RSD = 8.073		Average RF = 0.1687
# Amount RF	# Amount RF		# Amount RF		# Amount RF
01 1.000 0.1739	02 2.000 0.1908		03 5.000 0.1615		04 10.000 0.1453
05 20.000 0.1728	06 50.000 0.1536		07 100.000 0.1676		08 200.000 0.1769
09 300.000 0.1763					
1,1-Dichloroethane (1,1-DCA)	Average RF		RSD = 4.957		Average RF = 0.4727
# Amount RF	# Amount RF		# Amount RF		# Amount RF
01 1.000 0.4806	02 2.000 0.4854		03 5.000 0.4725		04 10.000 0.4692
05 20.000 0.4898	06 50.000 0.4218		07 100.000 0.4573		08 200.000 0.4726
09 300.000 0.5048					
1,1-Dichloroethene (1,1-DCE)	Average RF		RSD = 8.159		Average RF = 0.1938

Initial Calibration - Detailed Report

Calibration ID: KC1900275	Instrument ID: K-MS-24
	Column Name: 1

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.2042	02	2.000	0.2239	03	5.000	0.1779	04	10.000	0.1748
05	20.000	0.1998	06	50.000	0.176	07	100.000	0.1956	08	200.000	0.1975
09	300.000	0.1947									

1,1-Dichloropropene			Average RF	RSD = 7.916	Average RF = 0.3398						
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.3595	02	2.000	0.3744	03	5.000	0.3197	04	10.000	0.2932
05	20.000	0.3472	06	50.000	0.3092	07	100.000	0.34	08	200.000	0.3551
09	300.000	0.3601									

1,2,3-Trichlorobenzene			Average RF	RSD = 11.04	Average RF = 1.018E0						
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.233	02	2.000	1.026	03	5.000	1.022	04	10.000	0.9052
05	20.000	0.9884	06	50.000	0.8585	07	100.000	0.9551	08	200.000	1.056
09	300.000	1.121									

1,2,3-Trichloropropane			Average RF	RSD = 6.337	Average RF = 0.285						
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.2516	02	2.000	0.2837	03	5.000	0.3015	04	10.000	0.2987
05	20.000	0.2971	06	50.000	0.2588	07	100.000	0.284	08	200.000	0.2968
09	300.000	0.2929									

1,2,4-Trichlorobenzene			Average RF	RSD = 11.37	Average RF = 1.051E0						
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.276	02	2.000	1.122	03	5.000	1.05	04	10.000	0.9252
05	20.000	0.997	06	50.000	0.8914	07	100.000	0.9773	08	200.000	1.075
09	300.000	1.142									

1,2,4-Trimethylbenzene			Average RF	RSD = 9.871	Average RF = 2.527E0						
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	2.31	02	2.000	2.439	03	5.000	2.378	04	10.000	2.271
05	20.000	2.53	06	50.000	2.343	07	100.000	2.632	08	200.000	2.887
09	300.000	2.952									

1,2-Dibromo-3-chloropropane (DBCP)			Average RF	RSD = 6.578	Average RF = 0.1419						
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	2.000	0.1434	03	5.000	0.1434	04	10.000	0.1356	05	20.000	0.1348
06	50.000	0.128	07	100.000	0.1421	08	200.000	0.1495	09	300.000	0.1581

1,2-Dibromoethane			Average RF	RSD = 6.134	Average RF = 6.665E-1						
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.7205	02	2.000	0.6323	03	5.000	0.6808	04	10.000	0.6747
05	20.000	0.6819	06	50.000	0.5759	07	100.000	0.6669	08	200.000	0.6783
09	300.000	0.687									

1,2-Dichlorobenzene			Average RF	RSD = 6.588	Average RF = 1.634E0						
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.807	02	2.000	1.624	03	5.000	1.706	04	10.000	1.518
05	20.000	1.672	06	50.000	1.451	07	100.000	1.572	08	200.000	1.659
09	300.000	1.701									

1,2-Dichloroethane			Average RF	RSD = 6.958	Average RF = 0.4115						
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.4747	02	2.000	0.3952	03	5.000	0.4231	04	10.000	0.4159

Initial Calibration - Detailed Report

Calibration ID: KC1900275	Instrument ID: K-MS-24
	Column Name: 1

05 20.000 0.419	06 50.000 0.3693	07 100.000 0.3972	08 200.000 0.4026
09 300.000 0.4068			

1,2-Dichloropropane

Average RF			RSD = 5.647			Average RF = 0.3013					
#	Amount	RF	#	Amount	RF	#	Amount	RF			
01	1.000	0.2865	02	2.000	0.2948	03	5.000	0.3047	04	10.000	0.3096
05	20.000	0.3123	06	50.000	0.2674	07	100.000	0.2968	08	200.000	0.3209
09	300.000	0.3187									

1,3,5-Trichlorobenzene

Average RF			RSD = 9.634			Average RF = 1.149E0					
#	Amount	RF	#	Amount	RF	#	Amount	RF			
01	1.000	1.348	02	2.000	1.218	03	5.000	1.183	04	10.000	1.007
05	20.000	1.131	06	50.000	1.006	07	100.000	1.066	08	200.000	1.165
09	300.000	1.216									

1,3,5-Trimethylbenzene

Average RF			RSD = 10.97			Average RF = 2.466E0					
#	Amount	RF	#	Amount	RF	#	Amount	RF			
01	1.000	2.214	02	2.000	2.322	03	5.000	2.275	04	10.000	2.209
05	20.000	2.508	06	50.000	2.314	07	100.000	2.568	08	200.000	2.856
09	300.000	2.926									

1,3-Dichlorobenzene

Average RF			RSD = 5.581			Average RF = 1.645E0					
#	Amount	RF	#	Amount	RF	#	Amount	RF			
01	1.000	1.737	02	2.000	1.658	03	5.000	1.666	04	10.000	1.518
05	20.000	1.683	06	50.000	1.484	07	100.000	1.608	08	200.000	1.713
09	300.000	1.738									

1,3-Dichloropropane

Average RF			RSD = 5.834			Average RF = 1.176E0					
#	Amount	RF	#	Amount	RF	#	Amount	RF			
01	1.000	1.277	02	2.000	1.199	03	5.000	1.209	04	10.000	1.169
05	20.000	1.179	06	50.000	1.017	07	100.000	1.161	08	200.000	1.187
09	300.000	1.19									

1,4-Dichlorobenzene

Average RF			RSD = 7.891			Average RF = 1.698E0					
#	Amount	RF	#	Amount	RF	#	Amount	RF			
01	1.000	1.939	02	2.000	1.823	03	5.000	1.696	04	10.000	1.573
05	20.000	1.67	06	50.000	1.492	07	100.000	1.612	08	200.000	1.728
09	300.000	1.748									

1,4-Dioxane

Average RF			RSD = 7.278			Average RF = 0.003305					
#	Amount	RF	#	Amount	RF	#	Amount	RF			
02	40.000	0.003527	03	100.000	0.003315	04	200.000	0.003613	05	400.000	0.003354
06	1000.000	0.002802	07	2000.000	0.003247	08	4000.000	0.003261	09	6000.000	0.003322

1-Chlorohexane

Average RF			RSD = 9.66			Average RF = 7.313E-1					
#	Amount	RF	#	Amount	RF	#	Amount	RF			
01	1.000	0.7988	02	2.000	0.7821	03	5.000	0.7055	04	10.000	0.6181
05	20.000	0.7118	06	50.000	0.6355	07	100.000	0.7293	08	200.000	0.7911
09	300.000	0.8098									

2,2-Dichloropropane

Average RF			RSD = 8.264			Average RF = 0.3562					
#	Amount	RF	#	Amount	RF	#	Amount	RF			
01	1.000	0.4011	02	2.000	0.3867	03	5.000	0.3637	04	10.000	0.3169
05	20.000	0.3656	06	50.000	0.3116	07	100.000	0.3509	08	200.000	0.3665
09	300.000	0.3432									

Initial Calibration - Detailed Report

Calibration ID: KC1900275	Instrument ID: K-MS-24
	Column Name: 1

2-Butanone (MEK)			Average RF			RSD = 9.329			Average RF = 0.03536		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	10.000	0.04053	04	20.000	0.03259	05	40.000	0.03784	06	100.000	0.03188
07	200.000	0.03655	08	400.000	0.03608	09	600.000	0.03208			
2-Chloro-1,3-butadiene			Average RF			RSD = 7.049			Average RF = 0.3424		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	4.000	0.358	03	10.000	0.3323	04	20.000	0.3089	05	40.000	0.3567
06	100.000	0.3094	07	200.000	0.3433	08	400.000	0.3535	09	600.000	0.377
2-Chloroethyl Vinyl Ether			Average RF			RSD = 13.21			Average RF = 0.09017		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	5.000	0.07288	04	10.000	0.09044	05	20.000	0.08923	06	50.000	0.07838
07	100.000	0.09197	08	200.000	0.1012	09	300.000	0.1071			
2-Chlorotoluene			Average RF			RSD = 7.12			Average RF = 2.298E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	2.394	02	2.000	2.368	03	5.000	2.224	04	10.000	2.073
05	20.000	2.32	06	50.000	2.046	07	100.000	2.26	08	200.000	2.486
09	300.000	2.506									
2-Hexanone			Average RF			RSD = 5.743			Average RF = 0.08682		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	10.000	0.08328	04	20.000	0.08701	05	40.000	0.08687	06	100.000	0.07766
07	200.000	0.09018	08	400.000	0.09117	09	600.000	0.09156			
2-Methyl-1-propanol			Average RF			RSD = 6.707			Average RF = 0.01773		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	40.000	0.01941	03	100.000	0.01924	04	200.000	0.01746	05	400.000	0.01781
06	1000.000	0.01568	07	2000.000	0.01778	08	4000.000	0.01726	09	6000.000	0.01717
2-Methyl-2-propanol			Average RF			RSD = 8.42			Average RF = 0.03579		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	25.000	0.04057	04	50.000	0.0381	05	100.000	0.03717	06	250.000	0.03159
07	500.000	0.03494	08	1000.000	0.03423	09	1500.000	0.03391			
2-Nitropropane			Average RF			RSD = 7.183			Average RF = 0.2163		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.2269	02	2.000	0.2065	03	5.000	0.1997	04	10.000	0.2178
05	20.000	0.2081	06	50.000	0.1929	07	100.000	0.2235	08	200.000	0.2328
09	300.000	0.2388									
3-Chloro-1-propene			Average RF			RSD = 6.956			Average RF = 1.067E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	2.000	1.198	03	5.000	1.111	04	10.000	1.022	05	20.000	1.12
06	50.000	0.9924	07	100.000	1.069	08	200.000	1.044	09	300.000	0.9751
4-Chlorotoluene			Average RF			RSD = 6.593			Average RF = 2.379E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	2.449	02	2.000	2.368	03	5.000	2.276	04	10.000	2.171
05	20.000	2.414	06	50.000	2.174	07	100.000	2.37	08	200.000	2.575
09	300.000	2.616									
4-Isopropyltoluene			Average RF			RSD = 11.55			Average RF = 2.563E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF

Initial Calibration - Detailed Report

Calibration ID: KC1900275	Instrument ID: K-MS-24
	Column Name: 1

01 1.000 2.348	02 2.000 2.389	03 5.000 2.323	04 10.000 2.216
05 20.000 2.619	06 50.000 2.447	07 100.000 2.69	08 200.000 2.977
09 300.000 3.056			

4-Methyl-2-pentanone

Average RF

RSD = 7.115

Average RF = 0.1065

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	4.000	0.1084	03	10.000	0.1007	04	20.000	0.1193	05	40.000	0.1103
06	100.000	0.09315	07	200.000	0.1047	08	400.000	0.1072	09	600.000	0.1085

Acetone

Linear

Equal

R2 =
0.9995219204997290

Y=0.07727 X+0.01319

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	4.000	0.2365	03	10.000	0.1321	04	20.000	0.1082	05	40.000	0.09902
06	100.000	0.07768	07	200.000	0.08399	08	400.000	0.07917	09	600.000	0.07803

Acetonitrile

Average RF

RSD = 7.821

Average RF = 0.02004

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	40.000	0.02241	03	100.000	0.02181	04	200.000	0.02054	05	400.000	0.02038
06	1000.000	0.01767	07	2000.000	0.01954	08	4000.000	0.01892	09	6000.000	0.01907

Acrolein

Average RF

RSD = 9.381

Average RF = 0.05257

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	10.000	0.04295	03	25.000	0.05245	04	50.000	0.05032	05	100.000	0.05653
06	250.000	0.04907	07	500.000	0.05673	08	1000.000	0.05598	09	1500.000	0.05653

Acrylonitrile

Average RF

RSD = 4.769

Average RF = 0.1099

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	4.000	0.1174	03	10.000	0.1138	04	20.000	0.1113	05	40.000	0.1121
06	100.000	0.09961	07	200.000	0.1089	08	400.000	0.1078	09	600.000	0.1081

Benzene

Average RF

RSD = 5.171

Average RF = 1.123E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.166	02	2.000	1.158	03	5.000	1.133	04	10.000	1.044
05	20.000	1.153	06	50.000	1.01	07	100.000	1.108	08	200.000	1.159
09	300.000	1.172									

Bromobenzene

Average RF

RSD = 6.369

Average RF = 9.554E-1

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.003	02	2.000	1.034	03	5.000	0.9608	04	10.000	0.9091
05	20.000	0.9381	06	50.000	0.8368	07	100.000	0.923	08	200.000	0.9881
09	300.000	1.005									

Bromochloromethane

Average RF

RSD = 7.685

Average RF = 0.1523

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.1716	02	2.000	0.1601	03	5.000	0.1634	04	10.000	0.1492
05	20.000	0.159	06	50.000	0.1365	07	100.000	0.145	08	200.000	0.1435
09	300.000	0.1421									

Bromodichloromethane

Average RF

RSD = 6.178

Average RF = 0.3593

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.3412	02	2.000	0.3603	03	5.000	0.3395	04	10.000	0.3627
05	20.000	0.3707	06	50.000	0.3246	07	100.000	0.3558	08	200.000	0.3831
09	300.000	0.3953									

Bromoform

Average RF

RSD = 9.272

Average RF = 0.4647

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.4214	02	2.000	0.4207	03	5.000	0.4297	04	10.000	0.4431

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05	20.000	0.4823	06	50.000	0.4364	07	100.000	0.5037	08	200.000	0.5223
09	300.000	0.523									

Bromomethane

Average RF

RSD = 9.347

Average RF = 0.1703

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	10.000	0.1889	05	20.000	0.1901	06	50.000	0.1516	07	100.000	0.1691
08	200.000	0.1614	09	300.000	0.1606						

Carbon Disulfide

Average RF

RSD = 6.06

Average RF = 6.666E-1

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.6766	02	2.000	0.7086	03	5.000	0.6446	04	10.000	0.5968
05	20.000	0.6906	06	50.000	0.611	07	100.000	0.6737	08	200.000	0.6933
09	300.000	0.7041									

Carbon Tetrachloride

Average RF

RSD = 9.627

Average RF = 0.2866

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.2598	02	2.000	0.2889	03	5.000	0.2752	04	10.000	0.243
05	20.000	0.299	06	50.000	0.2661	07	100.000	0.3035	08	200.000	0.3207
09	300.000	0.3227									

Chlorobenzene

Average RF

RSD = 5.494

Average RF = 1.971E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	2.073	02	2.000	2.064	03	5.000	2.04	04	10.000	1.893
05	20.000	2.011	06	50.000	1.73	07	100.000	1.924	08	200.000	1.999
09	300.000	2.003									

Chloroethane

Average RF

RSD = 6.603

Average RF = 0.1598

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.1768	02	2.000	0.165	03	5.000	0.1594	04	10.000	0.1455
05	20.000	0.1702	06	50.000	0.144	07	100.000	0.1564	08	200.000	0.1603
09	300.000	0.1603									

Chloroform

Average RF

RSD = 5.012

Average RF = 0.4834

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.4851	02	2.000	0.4953	03	5.000	0.4909	04	10.000	0.4507
05	20.000	0.5085	06	50.000	0.4368	07	100.000	0.4822	08	200.000	0.496
09	300.000	0.5051									

Chloromethane

Average RF

RSD = 9.49

Average RF = 0.3165

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.3728	02	2.000	0.3466	03	5.000	0.3132	04	10.000	0.3019
05	20.000	0.3267	06	50.000	0.27	07	100.000	0.2941	08	200.000	0.3049
09	300.000	0.318									

Cyclohexane

Average RF

RSD = 8.251

Average RF = 0.3723

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.3406	02	2.000	0.3977	03	5.000	0.3666	04	10.000	0.3187
05	20.000	0.3954	06	50.000	0.3457	07	100.000	0.3857	08	200.000	0.3986
09	300.000	0.4021									

Dibromochloromethane

Average RF

RSD = 7.141

Average RF = 7.267E-1

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.6783	02	2.000	0.6699	03	5.000	0.7311	04	10.000	0.7138
05	20.000	0.7297	06	50.000	0.6616	07	100.000	0.7598	08	200.000	0.7868
09	300.000	0.8094									

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Dibromomethane			Average RF			RSD = 5.856			Average RF = 0.1804		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.1872	02	2.000	0.1926	03	5.000	0.1687	04	10.000	0.1823
05	20.000	0.1834	06	50.000	0.1602	07	100.000	0.1742	08	200.000	0.186
09	300.000	0.1888									

Dichlorodifluoromethane (CFC 12)			Average RF			RSD = 10.68			Average RF = 0.1991		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.2344	02	2.000	0.2313	03	5.000	0.1898	04	10.000	0.1744
05	20.000	0.2032	06	50.000	0.176	07	100.000	0.1928	08	200.000	0.1961
09	300.000	0.1934									

Dichlorofluoromethane (CFC 21)			Average RF			RSD = 5.898			Average RF = 0.4027		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.3806	02	2.000	0.4384	03	5.000	0.4194	04	10.000	0.3767
05	20.000	0.4231	06	50.000	0.3669	07	100.000	0.4	08	200.000	0.4086
09	300.000	0.4105									

Dichloromethane			Average RF			RSD = 10.18			Average RF = 0.2853		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	5.000	0.3358	04	10.000	0.2977	05	20.000	0.3044	06	50.000	0.2502
07	100.000	0.2657	08	200.000	0.2697	09	300.000	0.2738			

Diisopropyl Ether			Average RF			RSD = 6.693			Average RF = 9.252E-1		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.02	02	2.000	0.9386	03	5.000	0.9475	04	10.000	0.9492
05	20.000	0.9421	06	50.000	0.8045	07	100.000	0.8765	08	200.000	0.8841
09	300.000	0.9649									

Ethyl tert-Butyl Ether			Average RF			RSD = 5.874			Average RF = 8.837E-1		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.9902	02	2.000	0.8951	03	5.000	0.8812	04	10.000	0.8517
05	20.000	0.916	06	50.000	0.7969	07	100.000	0.8633	08	200.000	0.8753
09	300.000	0.8834									

Ethylbenzene			Average RF			RSD = 7.328			Average RF = 9.648E-1		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.9748	02	2.000	0.9906	03	5.000	0.959	04	10.000	0.8439
05	20.000	0.9588	06	50.000	0.8662	07	100.000	0.9944	08	200.000	1.039
09	300.000	1.056									

Hexachlorobutadiene			Average RF			RSD = 8.454			Average RF = 6.033E-1		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.6779	02	2.000	0.6637	03	5.000	0.61	04	10.000	0.5474
05	20.000	0.6222	06	50.000	0.5341	07	100.000	0.5513	08	200.000	0.5964
09	300.000	0.6263									

Iodomethane			Average RF			RSD = 13.75			Average RF = 0.1828		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	20.000	0.1419	05	40.000	0.1749	06	100.000	0.17	07	200.000	0.2032
08	400.000	0.2022	09	600.000	0.2044						

Isopropylbenzene (Cumene)			Average RF			RSD = 7.831			Average RF = 2.757E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	2.612	02	2.000	2.695	03	5.000	2.585	04	10.000	2.455

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05	20.000	2.872	06	50.000	2.596	07	100.000	2.91	08	200.000	3.052
09	300.000	3.036									

Methacrylonitrile

Average RF

RSD = 4.54

Average RF = 0.1342

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	4.000	0.1379	03	10.000	0.1352	04	20.000	0.137	05	40.000	0.1362
06	100.000	0.1193	07	200.000	0.1351	08	400.000	0.1359	09	600.000	0.137

Methyl Acetate

Average RF

RSD = 10.41

Average RF = 0.2173

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.2556	02	2.000	0.2444	03	5.000	0.2303	04	10.000	0.2032
05	20.000	0.2206	06	50.000	0.1844	07	100.000	0.2098	08	200.000	0.2044
09	300.000	0.2029									

Methyl tert-Butyl Ether

Average RF

RSD = 4.785

Average RF = 8.256E-1

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	4.000	0.8686	03	10.000	0.8469	04	20.000	0.7989	05	40.000	0.8569
06	100.000	0.7436	07	200.000	0.8222	08	400.000	0.8276	09	600.000	0.8398

Methylcyclohexane

Average RF

RSD = 8.893

Average RF = 0.3647

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.3363	02	2.000	0.3752	03	5.000	0.3291	04	10.000	0.343
05	20.000	0.3738	06	50.000	0.3338	07	100.000	0.3646	08	200.000	0.4112
09	300.000	0.4153									

Naphthalene

Average RF

RSD = 12.77

Average RF = 2.375E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	2.706	02	2.000	2.335	03	5.000	2.169	04	10.000	2.001
05	20.000	2.199	06	50.000	2.075	07	100.000	2.379	08	200.000	2.635
09	300.000	2.878									

Propionitrile

Average RF

RSD = 6.451

Average RF = 0.04487

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	4.000	0.0479	03	10.000	0.04551	04	20.000	0.04511	05	40.000	0.04951
06	100.000	0.04054	07	200.000	0.04479	08	400.000	0.04288	09	600.000	0.0427

Styrene

Average RF

RSD = 10.57

Average RF = 9.217E-1

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.7883	02	2.000	0.8816	03	5.000	0.8515	04	10.000	0.8561
05	20.000	0.925	06	50.000	0.8694	07	100.000	1.017	08	200.000	1.032
09	300.000	1.074									

Tetrachloroethene (PCE)

Average RF

RSD = 8.238

Average RF = 5.246E-1

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.4759	02	2.000	0.5713	03	5.000	0.5108	04	10.000	0.4782
05	20.000	0.5433	06	50.000	0.4657	07	100.000	0.5376	08	200.000	0.5647
09	300.000	0.5742									

Toluene

Average RF

RSD = 6.608

Average RF = 6.301E-1

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.6519	02	2.000	0.6218	03	5.000	0.6082	04	10.000	0.5859
05	20.000	0.6295	06	50.000	0.5676	07	100.000	0.6307	08	200.000	0.6749
09	300.000	0.7006									

Trichloroethene (TCE)

Average RF

RSD = 5.844

Average RF = 0.2701

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF

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01 1.000 0.2878	02 2.000 0.2645	03 5.000 0.2699	04 10.000 0.2572
05 20.000 0.2737	06 50.000 0.24	07 100.000 0.265	08 200.000 0.2841
09 300.000 0.2886			

Trichlorofluoromethane (CFC 11)			Average RF			RSD = 11.5			Average RF = 0.3402		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.3516	02	2.000	0.4292	03	5.000	0.3311	04	10.000	0.2911
05	20.000	0.3594	06	50.000	0.3083	07	100.000	0.3301	08	200.000	0.3334
09	300.000	0.3275									

Vinyl Acetate			Average RF			RSD = 11.56			Average RF = 0.05277		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	2.000	0.04019	03	5.000	0.05576	04	10.000	0.0586	05	20.000	0.05523
06	50.000	0.04755	07	100.000	0.05346	08	200.000	0.05367	09	300.000	0.05774

Vinyl Chloride			Average RF			RSD = 6.202			Average RF = 0.2773		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.2992	02	2.000	0.2938	03	5.000	0.2654	04	10.000	0.251
05	20.000	0.2867	06	50.000	0.2534	07	100.000	0.2761	08	200.000	0.2854
09	300.000	0.2846									

cis-1,2-Dichloroethene			Average RF			RSD = 8.558			Average RF = 0.3078		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.3643	02	2.000	0.3005	03	5.000	0.3195	04	10.000	0.2932
05	20.000	0.3216	06	50.000	0.2732	07	100.000	0.2985	08	200.000	0.3129
09	300.000	0.2865									

cis-1,3-Dichloropropene			Average RF			RSD = 7.735			Average RF = 0.4396		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.4425	02	2.000	0.4236	03	5.000	0.3963	04	10.000	0.4415
05	20.000	0.4449	06	50.000	0.3925	07	100.000	0.4405	08	200.000	0.475
09	300.000	0.4997									

cis-1,4-Dichloro-2-butene			Average RF			RSD = 11.85			Average RF = 0.1083		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	10.000	0.1005	04	20.000	0.09373	05	40.000	0.1054	06	100.000	0.09512
07	200.000	0.1164	08	400.000	0.1234	09	600.000	0.1237			

m,p-Xylenes			Average RF			RSD = 7.739			Average RF = 1.145E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.132	02	4.000	1.129	03	10.000	1.078	04	20.000	1.019
05	40.000	1.17	06	100.000	1.054	07	200.000	1.185	08	400.000	1.26
09	600.000	1.28									

n-Butylbenzene			Average RF			RSD = 9.909			Average RF = 2.327E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	2.215	02	2.000	2.219	03	5.000	2.22	04	10.000	2.018
05	20.000	2.347	06	50.000	2.151	07	100.000	2.413	08	200.000	2.634
09	300.000	2.729									

n-Hexane			Average RF			RSD = 8.712			Average RF = 0.3304		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.3572	02	2.000	0.3693	03	5.000	0.3107	04	10.000	0.289
05	20.000	0.3426	06	50.000	0.2935	07	100.000	0.3221	08	200.000	0.3324
09	300.000	0.3571									

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n-Propylbenzene			Average RF			RSD = 8.957			Average RF = 3.6E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	3.54	02	2.000	3.554	03	5.000	3.402	04	10.000	3.14
05	20.000	3.621	06	50.000	3.298	07	100.000	3.672	08	200.000	4.054
09	300.000	4.122									

o-Xylene			Average RF			RSD = 6.724			Average RF = 1.139E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.118	02	2.000	1.148	03	5.000	1.117	04	10.000	1.043
05	20.000	1.154	06	50.000	1.015	07	100.000	1.174	08	200.000	1.236
09	300.000	1.241									

sec-Butylbenzene			Average RF			RSD = 9.591			Average RF = 3.147E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	2.841	02	2.000	3.024	03	5.000	2.948	04	10.000	2.824
05	20.000	3.269	06	50.000	2.961	07	100.000	3.254	08	200.000	3.583
09	300.000	3.621									

tert-Butylbenzene			Average RF			RSD = 8.789			Average RF = 2.225E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	2.228	02	2.000	2.198	03	5.000	2.011	04	10.000	1.97
05	20.000	2.283	06	50.000	2.046	07	100.000	2.276	08	200.000	2.493
09	300.000	2.516									

trans-1,2-Dichloroethene			Average RF			RSD = 7.515			Average RF = 0.2469		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.2589	02	2.000	0.2802	03	5.000	0.2392	04	10.000	0.2231
05	20.000	0.2547	06	50.000	0.2203	07	100.000	0.2405	08	200.000	0.2532
09	300.000	0.2524									

trans-1,3-Dichloropropene			Average RF			RSD = 7.852			Average RF = 1.049E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.094	02	2.000	0.9951	03	5.000	0.9683	04	10.000	1.019
05	20.000	1.046	06	50.000	0.9261	07	100.000	1.07	08	200.000	1.147
09	300.000	1.179									

trans-1,4-Dichloro-2-butene			Average RF			RSD = 7.985			Average RF = 0.261		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	2.000	0.2858	03	5.000	0.2641	04	10.000	0.2365	05	20.000	0.2593
06	50.000	0.226	07	100.000	0.2599	08	200.000	0.2768	09	300.000	0.2794

1,2-Dichloroethane-d4			Average RF			RSD = 5.157			Average RF = 0.3146		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	10.000	0.2815	03	20.000	0.3302	04	30.000	0.3162	05	40.000	0.3333
06	50.000	0.3219	07	70.000	0.3087	08	80.000	0.3172	09	120.000	0.3075

4-Bromofluorobenzene			Average RF			RSD = 5.498			Average RF = 8.348E-1		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	10.000	0.7395	03	20.000	0.8643	04	30.000	0.8593	05	40.000	0.8804
06	50.000	0.8668	07	70.000	0.8122	08	80.000	0.8437	09	120.000	0.8124

Dibromofluoromethane			Average RF			RSD = 8.702			Average RF = 0.2443		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	10.000	0.1942	03	20.000	0.2428	04	30.000	0.2507	05	40.000	0.259
06	50.000	0.2547	07	70.000	0.2432	08	80.000	0.2604	09	120.000	0.2494

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Toluene-d8			Average RF			RSD = 8.81			Average RF = 8.704E-1		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	10.000	0.6899	03	20.000	0.8712	04	30.000	0.9118	05	40.000	0.9042
06	50.000	0.899	07	70.000	0.8507	08	80.000	0.92	09	120.000	0.916

Analyte

1,1,1,2-Tetrachloroethane

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	1.000	0.822	-17.8	02	2.000	2.16	8.2	03	5.000	5.00	0.1
04	10.000	9.78	-2.2	05	20.000	20.4	2.1	06	50.000	45.3	-9.4
07	100.000	103	3.4	08	200.000	215	7.3	09	300.000	325	8.5

1,1,1-Trichloroethane (TCA)

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	1.000	0.989	-1.1	02	2.000	2.05	2.3	03	5.000	4.96	-0.7
04	10.000	8.99	-10.1	05	20.000	20.6	3.2	06	50.000	45.7	-8.6
07	100.000	102	1.6	08	200.000	213	6.6	09	300.000	321	6.8

1,1,2,2-Tetrachloroethane

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	1.000	1.05	4.7	02	2.000	2.13	6.5	03	5.000	5.04	0.8
04	10.000	9.70	-3.0	05	20.000	19.9	-0.7	06	50.000	44.1	-11.9
07	100.000	98.4	-1.6	08	200.000	205	2.5	09	300.000	308	2.6

1,1,2-Trichloroethane

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	1.000	0.922	-7.8	02	2.000	2.14	6.9	03	5.000	5.26	5.1
04	10.000	10.2	2.4	05	20.000	20.8	3.9	06	50.000	43.8	-12.4
07	100.000	98.3	-1.7	08	200.000	203	1.3	09	300.000	307	2.4

1,1,2-Trichlorotrifluoroethane

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	1.000	1.03	3.0	02	2.000	2.26	13.1	03	5.000	4.79	-4.3
04	10.000	8.61	-13.9	05	20.000	20.5	2.4	06	50.000	45.5	-9.0
07	100.000	99.3	-0.7	08	200.000	210	4.8	09	300.000	313	4.5

1,1-Dichloroethane (1,1-DCA)

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	1.000	1.02	1.7	02	2.000	2.05	2.7	03	5.000	5.00	-0.0
04	10.000	9.93	-0.7	05	20.000	20.7	3.6	06	50.000	44.6	-10.8
07	100.000	96.7	-3.3	08	200.000	200	-0.0	09	300.000	320	6.8

1,1-Dichloroethene (1,1-DCE)

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	1.000	1.05	5.3	02	2.000	2.31	15.5	03	5.000	4.59	-8.2
04	10.000	9.02	-9.8	05	20.000	20.6	3.1	06	50.000	45.4	-9.2
07	100.000	101	0.9	08	200.000	204	1.9	09	300.000	301	0.5

1,1-Dichloropropene

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Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	1.000	1.06	5.8	02	2.000	2.20	10.2	03	5.000	4.70	-5.9
04	10.000	8.63	-13.7	05	20.000	20.4	2.2	06	50.000	45.5	-9.0
07	100.000	100	0.0	08	200.000	209	4.5	09	300.000	318	6.0

1,2,3-Trichlorobenzene

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	1.000	1.21	21.1	02	2.000	2.01	0.7	03	5.000	5.02	0.4
04	10.000	8.89	-11.1	05	20.000	19.4	-2.9	06	50.000	42.2	-15.7
07	100.000	93.8	-6.2	08	200.000	207	3.7	09	300.000	330	10.1

1,2,3-Trichloropropane

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	1.000	0.883	-11.7	02	2.000	1.99	-0.5	03	5.000	5.29	5.8
04	10.000	10.5	4.8	05	20.000	20.9	4.3	06	50.000	45.4	-9.2
07	100.000	99.7	-0.3	08	200.000	208	4.1	09	300.000	308	2.8

1,2,4-Trichlorobenzene

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	1.000	1.21	21.4	02	2.000	2.14	6.8	03	5.000	5.00	-0.1
04	10.000	8.81	-11.9	05	20.000	19.0	-5.1	06	50.000	42.4	-15.2
07	100.000	93.0	-7.0	08	200.000	205	2.4	09	300.000	326	8.7

1,2,4-Trimethylbenzene

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	1.000	0.914	-8.6	02	2.000	1.93	-3.5	03	5.000	4.71	-5.9
04	10.000	8.99	-10.1	05	20.000	20.0	0.1	06	50.000	46.4	-7.3
07	100.000	104	4.2	08	200.000	229	14.3	09	300.000	350	16.8

1,2-Dibromo-3-chloropropane (DBCP)

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	2.000	2.02	1.1	03	5.000	5.05	1.1	04	10.000	9.56	-4.4
05	20.000	19.0	-5.0	06	50.000	45.1	-9.8	07	100.000	100	0.2
08	200.000	211	5.4	09	300.000	334	11.5				

1,2-Dibromoethane

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	1.000	1.08	8.1	02	2.000	1.90	-5.1	03	5.000	5.11	2.2
04	10.000	10.1	1.2	05	20.000	20.5	2.3	06	50.000	43.2	-13.6
07	100.000	100	0.1	08	200.000	204	1.8	09	300.000	309	3.1

1,2-Dichlorobenzene

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	1.000	1.11	10.5	02	2.000	1.99	-0.6	03	5.000	5.22	4.4
04	10.000	9.29	-7.1	05	20.000	20.5	2.3	06	50.000	44.4	-11.2
07	100.000	96.2	-3.8	08	200.000	203	1.5	09	300.000	312	4.1

1,2-Dichloroethane

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	1.000	1.15	15.4	02	2.000	1.92	-4.0	03	5.000	5.14	2.8

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04	10.000	10.1	1.1	05	20.000	20.4	1.8	06	50.000	44.9	-10.3
07	100.000	96.5	-3.5	08	200.000	196	-2.2	09	300.000	297	-1.1

1,2-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.951	-4.9	02	2.000	1.96	-2.2	03	5.000	5.06	1.1
04	10.000	10.3	2.8	05	20.000	20.7	3.6	06	50.000	44.4	-11.2
07	100.000	98.5	-1.5	08	200.000	213	6.5	09	300.000	317	5.8

1,3,5-Trichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.17	17.3	02	2.000	2.12	6.0	03	5.000	5.15	3.0
04	10.000	8.76	-12.4	05	20.000	19.7	-1.5	06	50.000	43.8	-12.5
07	100.000	92.8	-7.2	08	200.000	203	1.4	09	300.000	318	5.9

1,3,5-Trimethylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.898	-10.2	02	2.000	1.88	-5.8	03	5.000	4.61	-7.7
04	10.000	8.96	-10.4	05	20.000	20.3	1.7	06	50.000	46.9	-6.2
07	100.000	104	4.1	08	200.000	232	15.8	09	300.000	356	18.7

1,3-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.06	5.6	02	2.000	2.02	0.8	03	5.000	5.06	1.3
04	10.000	9.23	-7.7	05	20.000	20.5	2.3	06	50.000	45.1	-9.8
07	100.000	97.8	-2.2	08	200.000	208	4.1	09	300.000	317	5.7

1,3-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.09	8.5	02	2.000	2.04	1.9	03	5.000	5.14	2.8
04	10.000	9.94	-0.6	05	20.000	20.0	0.2	06	50.000	43.2	-13.6
07	100.000	98.7	-1.3	08	200.000	202	0.9	09	300.000	304	1.2

1,4-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.14	14.2	02	2.000	2.15	7.4	03	5.000	4.99	-0.1
04	10.000	9.26	-7.4	05	20.000	19.7	-1.7	06	50.000	43.9	-12.1
07	100.000	95.0	-5.0	08	200.000	204	1.8	09	300.000	309	3.0

1,4-Dioxane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	40.000	42.7	6.7	03	100.000	100	0.3	04	200.000	219	9.3
05	400.000	406	1.5	06	1000.000	848	-15.2	07	2000.000	1960	-1.8
08	4000.000	3950	-1.3	09	6000.000	6030	0.5				

1-Chlorohexane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.09	9.2	02	2.000	2.14	6.9	03	5.000	4.82	-3.5
04	10.000	8.45	-15.5	05	20.000	19.5	-2.7	06	50.000	43.4	-13.1
07	100.000	99.7	-0.3	08	200.000	216	8.2	09	300.000	332	10.7

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2,2-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.13	12.6	02	2.000	2.17	8.5	03	5.000	5.10	2.1
04	10.000	8.89	-11.1	05	20.000	20.5	2.6	06	50.000	43.7	-12.5
07	100.000	98.5	-1.5	08	200.000	206	2.9	09	300.000	289	-3.7

2-Butanone (MEK)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	10.000	11.5	14.6	04	20.000	18.4	-7.8	05	40.000	42.8	7.0
06	100.000	90.2	-9.8	07	200.000	207	3.4	08	400.000	408	2.0
09	600.000	544	-9.3								

2-Chloro-1,3-butadiene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	4.000	4.18	4.5	03	10.000	9.71	-2.9	04	20.000	18.0	-9.8
05	40.000	41.7	4.2	06	100.000	90.4	-9.6	07	200.000	201	0.3
08	400.000	413	3.2	09	600.000	661	10.1				

2-Chloroethyl Vinyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	5.000	4.04	-19.2	04	10.000	10.0	0.3	05	20.000	19.8	-1.0
06	50.000	43.5	-13.1	07	100.000	102	2.0	08	200.000	225	12.3
09	300.000	356	18.8								

2-Chlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.04	4.2	02	2.000	2.06	3.1	03	5.000	4.84	-3.2
04	10.000	9.02	-9.8	05	20.000	20.2	1.0	06	50.000	44.5	-11.0
07	100.000	98.4	-1.6	08	200.000	216	8.2	09	300.000	327	9.1

2-Hexanone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	10.000	9.59	-4.1	04	20.000	20.0	0.2	05	40.000	40.0	0.1
06	100.000	89.5	-10.5	07	200.000	208	3.9	08	400.000	420	5.0
09	600.000	633	5.5								

2-Methyl-1-propanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	40.000	43.8	9.5	03	100.000	109	8.5	04	200.000	197	-1.5
05	400.000	402	0.5	06	1000.000	885	-11.5	07	2000.000	2010	0.3
08	4000.000	3890	-2.6	09	6000.000	5810	-3.1				

2-Methyl-2-propanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	25.000	28.3	13.4	04	50.000	53.2	6.5	05	100.000	104	3.9
06	250.000	221	-11.7	07	500.000	488	-2.4	08	1000.000	956	-4.4
09	1500.000	1420	-5.2								

2-Nitropropane

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#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.05	4.9	02	2.000	1.91	-4.5	03	5.000	4.62	-7.7
04	10.000	10.1	0.7	05	20.000	19.2	-3.8	06	50.000	44.6	-10.8
07	100.000	103	3.3	08	200.000	215	7.6	09	300.000	331	10.4

3-Chloro-1-propene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	2.000	2.25	12.4	03	5.000	5.21	4.1	04	10.000	9.58	-4.2
05	20.000	21.0	5.0	06	50.000	46.5	-6.9	07	100.000	100	0.3
08	200.000	196	-2.1	09	300.000	274	-8.6				

4-Chlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.03	2.9	02	2.000	1.99	-0.5	03	5.000	4.78	-4.3
04	10.000	9.13	-8.7	05	20.000	20.3	1.5	06	50.000	45.7	-8.6
07	100.000	99.6	-0.4	08	200.000	216	8.2	09	300.000	330	10.0

4-Isopropyltoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.916	-8.4	02	2.000	1.86	-6.8	03	5.000	4.53	-9.3
04	10.000	8.65	-13.5	05	20.000	20.4	2.2	06	50.000	47.7	-4.5
07	100.000	105	5.0	08	200.000	232	16.2	09	300.000	358	19.2

4-Methyl-2-pentanone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	4.000	4.07	1.8	03	10.000	9.45	-5.5	04	20.000	22.4	12.0
05	40.000	41.4	3.5	06	100.000	87.4	-12.6	07	200.000	197	-1.7
08	400.000	403	0.6	09	600.000	611	1.8				

Acetone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	4.000	3.71	-7.3	03	10.000	8.57	-14.3	04	20.000	19.5	-2.7
05	40.000	42.7	6.8	06	100.000	92.0	-8.0	07	200.000	209	4.4
08	400.000	401	0.3	09	600.000	597	-0.4				

Acetonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	40.000	44.7	11.8	03	100.000	109	8.8	04	200.000	205	2.5
05	400.000	407	1.7	06	1000.000	881	-11.9	07	2000.000	1950	-2.5
08	4000.000	3780	-5.6	09	6000.000	5710	-4.8				

Acrolein

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	10.000	8.17	-18.3	03	25.000	24.9	-0.2	04	50.000	47.9	-4.3
05	100.000	108	7.5	06	250.000	233	-6.7	07	500.000	540	7.9
08	1000.000	1060	6.5	09	1500.000	1610	7.5				

Acrylonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	4.000	4.27	6.8	03	10.000	10.4	3.5	04	20.000	20.3	1.3

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05	40.000	40.8	2.0	06	100.000	90.7	-9.3	07	200.000	198	-0.9
08	400.000	393	-1.8	09	600.000	590	-1.6				

Benzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.04	3.9	02	2.000	2.06	3.2	03	5.000	5.04	0.9
04	10.000	9.30	-7.0	05	20.000	20.5	2.7	06	50.000	45.0	-10.0
07	100.000	98.7	-1.3	08	200.000	206	3.2	09	300.000	313	4.4

Bromobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.05	5.0	02	2.000	2.16	8.2	03	5.000	5.03	0.6
04	10.000	9.52	-4.8	05	20.000	19.6	-1.8	06	50.000	43.8	-12.4
07	100.000	96.6	-3.4	08	200.000	207	3.4	09	300.000	316	5.2

Bromochloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.13	12.7	02	2.000	2.10	5.2	03	5.000	5.37	7.3
04	10.000	9.80	-2.0	05	20.000	20.9	4.4	06	50.000	44.8	-10.4
07	100.000	95.2	-4.8	08	200.000	188	-5.8	09	300.000	280	-6.7

Bromodichloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.950	-5.0	02	2.000	2.01	0.3	03	5.000	4.73	-5.5
04	10.000	10.1	1.0	05	20.000	20.6	3.2	06	50.000	45.2	-9.6
07	100.000	99.0	-1.0	08	200.000	213	6.6	09	300.000	330	10.0

Bromoform

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.907	-9.3	02	2.000	1.81	-9.5	03	5.000	4.62	-7.5
04	10.000	9.54	-4.6	05	20.000	20.8	3.8	06	50.000	47.0	-6.1
07	100.000	108	8.4	08	200.000	225	12.4	09	300.000	338	12.5

Bromomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
04	10.000	11.1	10.9	05	20.000	22.3	11.7	06	50.000	44.5	-11.0
07	100.000	99.3	-0.7	08	200.000	190	-5.2	09	300.000	283	-5.7

Carbon Disulfide

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.02	1.5	02	2.000	2.13	6.3	03	5.000	4.84	-3.3
04	10.000	8.95	-10.5	05	20.000	20.7	3.6	06	50.000	45.8	-8.3
07	100.000	101	1.1	08	200.000	208	4.0	09	300.000	317	5.6

Carbon Tetrachloride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.907	-9.3	02	2.000	2.02	0.8	03	5.000	4.80	-4.0
04	10.000	8.48	-15.2	05	20.000	20.9	4.4	06	50.000	46.4	-7.2
07	100.000	106	5.9	08	200.000	224	11.9	09	300.000	338	12.6

Chlorobenzene

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#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.05	5.2	02	2.000	2.10	4.8	03	5.000	5.18	3.5
04	10.000	9.61	-3.9	05	20.000	20.4	2.0	06	50.000	43.9	-12.2
07	100.000	97.6	-2.4	08	200.000	203	1.4	09	300.000	305	1.7

Chloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.11	10.6	02	2.000	2.07	3.3	03	5.000	4.99	-0.2
04	10.000	9.10	-9.0	05	20.000	21.3	6.5	06	50.000	45.1	-9.9
07	100.000	97.9	-2.1	08	200.000	201	0.3	09	300.000	301	0.3

Chloroform

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.00	0.4	02	2.000	2.05	2.5	03	5.000	5.08	1.6
04	10.000	9.32	-6.8	05	20.000	21.0	5.2	06	50.000	45.2	-9.6
07	100.000	99.8	-0.2	08	200.000	205	2.6	09	300.000	313	4.5

Chloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.18	17.8	02	2.000	2.19	9.5	03	5.000	4.95	-1.0
04	10.000	9.54	-4.6	05	20.000	20.6	3.2	06	50.000	42.7	-14.7
07	100.000	92.9	-7.1	08	200.000	193	-3.7	09	300.000	302	0.5

Cyclohexane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.915	-8.5	02	2.000	2.14	6.8	03	5.000	4.92	-1.5
04	10.000	8.56	-14.4	05	20.000	21.2	6.2	06	50.000	46.4	-7.1
07	100.000	104	3.6	08	200.000	214	7.1	09	300.000	324	8.0

Dibromochloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.933	-6.7	02	2.000	1.84	-7.8	03	5.000	5.03	0.6
04	10.000	9.82	-1.8	05	20.000	20.1	0.4	06	50.000	45.5	-9.0
07	100.000	105	4.6	08	200.000	217	8.3	09	300.000	334	11.4

Dibromomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.04	3.8	02	2.000	2.14	6.8	03	5.000	4.68	-6.5
04	10.000	10.1	1.1	05	20.000	20.3	1.7	06	50.000	44.4	-11.2
07	100.000	96.6	-3.4	08	200.000	206	3.1	09	300.000	314	4.7

Dichlorodifluoromethane (CFC 12)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.18	17.8	02	2.000	2.32	16.2	03	5.000	4.77	-4.6
04	10.000	8.76	-12.4	05	20.000	20.4	2.1	06	50.000	44.2	-11.6
07	100.000	96.9	-3.1	08	200.000	197	-1.5	09	300.000	291	-2.8

Dichlorofluoromethane (CFC 21)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.945	-5.5	02	2.000	2.18	8.9	03	5.000	5.21	4.2

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04	10.000	9.36	-6.4	05	20.000	21.0	5.1	06	50.000	45.6	-8.9
07	100.000	99.3	-0.7	08	200.000	203	1.5	09	300.000	306	1.9

Dichloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	5.000	5.88	17.7	04	10.000	10.4	4.3	05	20.000	21.3	6.7
06	50.000	43.8	-12.3	07	100.000	93.1	-6.9	08	200.000	189	-5.5
09	300.000	288	-4.1								

Diisopropyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.10	10.2	02	2.000	2.03	1.4	03	5.000	5.12	2.4
04	10.000	10.3	2.6	05	20.000	20.4	1.8	06	50.000	43.5	-13.1
07	100.000	94.7	-5.3	08	200.000	191	-4.4	09	300.000	313	4.3

Ethyl tert-Butyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.12	12.1	02	2.000	2.03	1.3	03	5.000	4.99	-0.3
04	10.000	9.64	-3.6	05	20.000	20.7	3.7	06	50.000	45.1	-9.8
07	100.000	97.7	-2.3	08	200.000	198	-0.9	09	300.000	300	-0.0

Ethylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.01	1.0	02	2.000	2.05	2.7	03	5.000	4.97	-0.6
04	10.000	8.75	-12.5	05	20.000	19.9	-0.6	06	50.000	44.9	-10.2
07	100.000	103	3.1	08	200.000	215	7.7	09	300.000	328	9.5

Hexachlorobutadiene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.12	12.4	02	2.000	2.20	10.0	03	5.000	5.06	1.1
04	10.000	9.07	-9.3	05	20.000	20.6	3.1	06	50.000	44.3	-11.5
07	100.000	91.4	-8.6	08	200.000	198	-1.1	09	300.000	311	3.8

Iodomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
04	20.000	15.5	-22.4	05	40.000	38.3	-4.3	06	100.000	93.0	-7.0
07	200.000	222	11.2	08	400.000	442	10.6	09	600.000	671	11.8

Isopropylbenzene (Cumene)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.947	-5.3	02	2.000	1.96	-2.2	03	5.000	4.69	-6.2
04	10.000	8.90	-11.0	05	20.000	20.8	4.2	06	50.000	47.1	-5.8
07	100.000	106	5.5	08	200.000	221	10.7	09	300.000	330	10.1

Methacrylonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	4.000	4.11	2.7	03	10.000	10.1	0.7	04	20.000	20.4	2.1
05	40.000	40.6	1.5	06	100.000	88.9	-11.1	07	200.000	201	0.7
08	400.000	405	1.3	09	600.000	613	2.1				

Methyl Acetate

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#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.18	17.6	02	2.000	2.25	12.5	03	5.000	5.30	6.0
04	10.000	9.35	-6.5	05	20.000	20.3	1.5	06	50.000	42.4	-15.2
07	100.000	96.6	-3.4	08	200.000	188	-5.9	09	300.000	280	-6.6

Methyl tert-Butyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	4.000	4.21	5.2	03	10.000	10.3	2.6	04	20.000	19.4	-3.2
05	40.000	41.5	3.8	06	100.000	90.1	-9.9	07	200.000	199	-0.4
08	400.000	401	0.2	09	600.000	610	1.7				

Methylcyclohexane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.922	-7.8	02	2.000	2.06	2.9	03	5.000	4.51	-9.8
04	10.000	9.40	-6.0	05	20.000	20.5	2.5	06	50.000	45.8	-8.5
07	100.000	100	-0.0	08	200.000	225	12.7	09	300.000	342	13.9

Naphthalene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.14	13.9	02	2.000	1.97	-1.7	03	5.000	4.57	-8.7
04	10.000	8.42	-15.8	05	20.000	18.5	-7.4	06	50.000	43.7	-12.6
07	100.000	100	0.2	08	200.000	222	10.9	09	300.000	364	21.2

Propionitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	4.000	4.27	6.8	03	10.000	10.1	1.4	04	20.000	20.1	0.5
05	40.000	44.1	10.3	06	100.000	90.4	-9.6	07	200.000	200	-0.2
08	400.000	382	-4.4	09	600.000	571	-4.8				

Styrene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.855	-14.5	02	2.000	1.91	-4.4	03	5.000	4.62	-7.6
04	10.000	9.29	-7.1	05	20.000	20.1	0.4	06	50.000	47.2	-5.7
07	100.000	110	10.4	08	200.000	224	11.9	09	300.000	350	16.5

Tetrachloroethene (PCE)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.907	-9.3	02	2.000	2.18	8.9	03	5.000	4.87	-2.6
04	10.000	9.11	-8.9	05	20.000	20.7	3.6	06	50.000	44.4	-11.2
07	100.000	102	2.5	08	200.000	215	7.6	09	300.000	328	9.4

Toluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.03	3.5	02	2.000	1.97	-1.3	03	5.000	4.83	-3.5
04	10.000	9.30	-7.0	05	20.000	20.0	-0.1	06	50.000	45.0	-9.9
07	100.000	100	0.1	08	200.000	214	7.1	09	300.000	334	11.2

Trichloroethene (TCE)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.07	6.6	02	2.000	1.96	-2.1	03	5.000	5.00	-0.1

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04	10.000	9.52	-4.8	05	20.000	20.3	1.3	06	50.000	44.4	-11.1
07	100.000	98.1	-1.9	08	200.000	210	5.2	09	300.000	321	6.8

Trichlorofluoromethane (CFC 11)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.03	3.4	02	2.000	2.52	26.2	03	5.000	4.87	-2.7
04	10.000	8.56	-14.4	05	20.000	21.1	5.6	06	50.000	45.3	-9.4
07	100.000	97.0	-3.0	08	200.000	196	-2.0	09	300.000	289	-3.7

Vinyl Acetate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	2.000	1.52	-23.8	03	5.000	5.28	5.7	04	10.000	11.1	11.0
05	20.000	20.9	4.7	06	50.000	45.0	-9.9	07	100.000	101	1.3
08	200.000	203	1.7	09	300.000	328	9.4				

Vinyl Chloride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.08	7.9	02	2.000	2.12	6.0	03	5.000	4.79	-4.3
04	10.000	9.05	-9.5	05	20.000	20.7	3.4	06	50.000	45.7	-8.6
07	100.000	99.5	-0.5	08	200.000	206	2.9	09	300.000	308	2.6

cis-1,2-Dichloroethene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.18	18.4	02	2.000	1.95	-2.4	03	5.000	5.19	3.8
04	10.000	9.53	-4.7	05	20.000	20.9	4.5	06	50.000	44.4	-11.2
07	100.000	97.0	-3.0	08	200.000	203	1.7	09	300.000	279	-6.9

cis-1,3-Dichloropropene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.01	0.7	02	2.000	1.93	-3.6	03	5.000	4.51	-9.9
04	10.000	10.0	0.4	05	20.000	20.2	1.2	06	50.000	44.6	-10.7
07	100.000	100	0.2	08	200.000	216	8.0	09	300.000	341	13.7

cis-1,4-Dichloro-2-butene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	10.000	9.27	-7.3	04	20.000	17.3	-13.5	05	40.000	38.9	-2.7
06	100.000	87.8	-12.2	07	200.000	215	7.5	08	400.000	456	13.9
09	600.000	685	14.2								

m,p-Xylenes

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	2.000	1.98	-1.1	02	4.000	3.94	-1.5	03	10.000	9.41	-5.9
04	20.000	17.8	-11.0	05	40.000	40.9	2.2	06	100.000	92.1	-7.9
07	200.000	207	3.5	08	400.000	440	10.0	09	600.000	671	11.8

n-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.952	-4.8	02	2.000	1.91	-4.6	03	5.000	4.77	-4.6
04	10.000	8.67	-13.3	05	20.000	20.2	0.8	06	50.000	46.2	-7.6
07	100.000	104	3.7	08	200.000	226	13.2	09	300.000	352	17.2

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n-Hexane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.08	8.1	02	2.000	2.24	11.8	03	5.000	4.70	-6.0
04	10.000	8.75	-12.5	05	20.000	20.7	3.7	06	50.000	44.4	-11.2
07	100.000	97.5	-2.5	08	200.000	201	0.6	09	300.000	324	8.1

n-Propylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.983	-1.7	02	2.000	1.97	-1.3	03	5.000	4.72	-5.5
04	10.000	8.72	-12.8	05	20.000	20.1	0.6	06	50.000	45.8	-8.4
07	100.000	102	2.0	08	200.000	225	12.6	09	300.000	343	14.5

o-Xylene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.982	-1.8	02	2.000	2.02	0.9	03	5.000	4.90	-1.9
04	10.000	9.16	-8.4	05	20.000	20.3	1.3	06	50.000	44.6	-10.8
07	100.000	103	3.1	08	200.000	217	8.6	09	300.000	327	9.0

sec-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.903	-9.7	02	2.000	1.92	-3.9	03	5.000	4.68	-6.3
04	10.000	8.97	-10.3	05	20.000	20.8	3.9	06	50.000	47.0	-5.9
07	100.000	103	3.4	08	200.000	228	13.9	09	300.000	345	15.0

tert-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.00	0.1	02	2.000	1.98	-1.2	03	5.000	4.52	-9.6
04	10.000	8.86	-11.4	05	20.000	20.5	2.6	06	50.000	46.0	-8.0
07	100.000	102	2.3	08	200.000	224	12.0	09	300.000	339	13.1

trans-1,2-Dichloroethene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.05	4.8	02	2.000	2.27	13.5	03	5.000	4.84	-3.1
04	10.000	9.03	-9.7	05	20.000	20.6	3.1	06	50.000	44.6	-10.8
07	100.000	97.4	-2.6	08	200.000	205	2.5	09	300.000	307	2.2

trans-1,3-Dichloropropene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.04	4.2	02	2.000	1.90	-5.2	03	5.000	4.61	-7.7
04	10.000	9.71	-2.9	05	20.000	19.9	-0.3	06	50.000	44.1	-11.7
07	100.000	102	1.9	08	200.000	219	9.3	09	300.000	337	12.4

trans-1,4-Dichloro-2-butene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	2.000	2.19	9.5	03	5.000	5.06	1.2	04	10.000	9.06	-9.4
05	20.000	19.9	-0.6	06	50.000	43.3	-13.4	07	100.000	99.6	-0.4
08	200.000	212	6.1	09	300.000	321	7.1				

1,2-Dichloroethane-d4

Initial Calibration - Detailed Report

Calibration ID: KC1900275	Instrument ID: K-MS-24
	Column Name: 1

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	10.000	8.95	-10.5	03	20.000	21.0	5.0	04	30.000	30.2	0.5
05	40.000	42.4	6.0	06	50.000	51.2	2.3	07	70.000	68.7	-1.9
08	80.000	80.7	0.8	09	120.000	117	-2.2				

4-Bromofluorobenzene

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	10.000	8.86	-11.4	03	20.000	20.7	3.5	04	30.000	30.9	2.9
05	40.000	42.2	5.5	06	50.000	51.9	3.8	07	70.000	68.1	-2.7
08	80.000	80.9	1.1	09	120.000	117	-2.7				

Dibromofluoromethane

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	10.000	7.95	-20.5	03	20.000	19.9	-0.6	04	30.000	30.8	2.6
05	40.000	42.4	6.0	06	50.000	52.1	4.3	07	70.000	69.7	-0.5
08	80.000	85.3	6.6	09	120.000	123	2.1				

Toluene-d8

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	10.000	7.93	-20.7	03	20.000	20.0	0.1	04	30.000	31.4	4.8
05	40.000	41.6	3.9	06	50.000	51.6	3.3	07	70.000	68.4	-2.3
08	80.000	84.6	5.7	09	120.000	126	5.2				

Initial Calibration Verification Summary Report

Calibration ID:	KC1900275	Instrument ID:	K-MS-24
Datafile ID:	J:\MS24\DATA\071519\0715022.D	Column Name:	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
1,1,1,2-Tetrachloroethane	KC1900275-10	T	Average RF	50	48.363	PPB	-3.3	<= 20
1,1,1,2-Tetrachloroethane	KC1900275-10	T	Average RF	50	48.363	PPB	-3.3	<= 30
1,1,1-Trichloroethane (TCA)	KC1900275-10	T	Average RF	50	51.394	PPB	2.8	<= 30
1,1,1-Trichloroethane (TCA)	KC1900275-10	T	Average RF	50	51.394	PPB	2.8	<= 20
1,1,2,2-Tetrachloroethane	KC1900275-10	T	Average RF	50	43.593	PPB	-12.8	<= 30
1,1,2,2-Tetrachloroethane	KC1900275-10	T	Average RF	50	43.593	PPB	-12.8	<= 20
1,1,2-Trichloroethane	KC1900275-10	T	Average RF	50	46.335	PPB	-7.3	<= 20
1,1,2-Trichloroethane	KC1900275-10	T	Average RF	50	46.335	PPB	-7.3	<= 30
1,1,2-Trichlorotrifluoroethane	KC1900275-10	T	Average RF	50	58.089	PPB	16.2	<= 30
1,1,2-Trichlorotrifluoroethane	KC1900275-10	T	Average RF	50	58.089	PPB	16.2	<= 20
1,1-Dichloroethane (1,1-DCA)	KC1900275-10	T	Average RF	50	53.323	PPB	6.6	<= 30
1,1-Dichloroethane (1,1-DCA)	KC1900275-10	T	Average RF	50	53.323	PPB	6.6	<= 20
1,1-Dichloroethene (1,1-DCE)	KC1900275-10	T	Average RF	50	55.965	PPB	11.9	<= 30
1,1-Dichloroethene (1,1-DCE)	KC1900275-10	T	Average RF	50	55.965	PPB	11.9	<= 20
1,1-Dichloropropene	KC1900275-10	T	Average RF	50	52.688	PPB	5.4	
1,1-Dichloropropene	KC1900275-10	T	Average RF	50	52.688	PPB	5.4	<= 30
1,1-Dichloropropene	KC1900275-10	T	Average RF	50	52.688	PPB	5.4	<= 20
1,2,3-Trichlorobenzene	KC1900275-10	T	Average RF	50	47.620	PPB	-4.8	<= 20
1,2,3-Trichlorobenzene	KC1900275-10	T	Average RF	50	47.620	PPB	-4.8	<= 30
1,2,3-Trichloropropane	KC1900275-10	T	Average RF	50	44.560	PPB	-10.9	<= 20
1,2,3-Trichloropropane	KC1900275-10	T	Average RF	50	44.560	PPB	-10.9	<= 30
1,2,4-Trichlorobenzene	KC1900275-10	T	Average RF	50	49.715	PPB	-0.6	<= 20
1,2,4-Trichlorobenzene	KC1900275-10	T	Average RF	50	49.715	PPB	-0.6	<= 30
1,2,4-Trimethylbenzene	KC1900275-10	T	Average RF	50	51.829	PPB	3.7	<= 20
1,2,4-Trimethylbenzene	KC1900275-10	T	Average RF	50	51.829	PPB	3.7	<= 30
1,2-Dibromo-3-chloropropane (DBCP)	KC1900275-10	T	Average RF	50	41.074	PPB	-17.9	<= 20
1,2-Dibromo-3-chloropropane (DBCP)	KC1900275-10	T	Average RF	50	41.074	PPB	-17.9	<= 30
1,2-Dibromoethane	KC1900275-10	T	Average RF	50	45.804	PPB	-8.4	<= 20
1,2-Dibromoethane	KC1900275-10	T	Average RF	50	45.804	PPB	-8.4	<= 30
1,2-Dichlorobenzene	KC1900275-10	T	Average RF	50	47.251	PPB	-5.5	<= 20
1,2-Dichlorobenzene	KC1900275-10	T	Average RF	50	47.251	PPB	-5.5	<= 30
1,2-Dichloroethane	KC1900275-10	T	Average RF	50	45.212	PPB	-9.6	<= 30
1,2-Dichloroethane	KC1900275-10	T	Average RF	50	45.212	PPB	-9.6	<= 20
1,2-Dichloropropane	KC1900275-10	T	Average RF	50	47.793	PPB	-4.4	<= 30
1,2-Dichloropropane	KC1900275-10	T	Average RF	50	47.793	PPB	-4.4	<= 20
1,3,5-Trichlorobenzene	KC1900275-10	T	Average RF	50	54.636	PPB	9.3	<= 20
1,3,5-Trichlorobenzene	KC1900275-10	T	Average RF	50	54.636	PPB	9.3	<= 30
1,3,5-Trimethylbenzene	KC1900275-10	T	Average RF	50	53.435	PPB	6.9	<= 20
1,3,5-Trimethylbenzene	KC1900275-10	T	Average RF	50	53.435	PPB	6.9	<= 30

Initial Calibration Verification Summary Report

Calibration ID:	KC1900275	Instrument ID:	K-MS-24
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1,3-Dichlorobenzene	KC1900275-10	T	Average RF	50	50.592	PPB	1.2	<= 30
1,3-Dichlorobenzene	KC1900275-10	T	Average RF	50	50.592	PPB	1.2	<= 20
1,3-Dichloropropane	KC1900275-10	T	Average RF	50	46.296	PPB	-7.4	<= 20
1,3-Dichloropropane	KC1900275-10	T	Average RF	50	46.296	PPB	-7.4	<= 30
1,4-Dichlorobenzene	KC1900275-10	T	Average RF	50	48.281	PPB	-3.4	<= 30
1,4-Dichlorobenzene	KC1900275-10	T	Average RF	50	48.281	PPB	-3.4	<= 20
1,4-Dioxane	KC1900275-10	T	Average RF	800	665.383	PPB	-16.8	<= 30
1,4-Dioxane	KC1900275-10	T	Average RF	800	665.383	PPB	-16.8	<= 20
1-Chlorohexane	KC1900275-10	T	Average RF	50	57.059	PPB	14.1	<= 30
1-Chlorohexane	KC1900275-10	T	Average RF	50	57.059	PPB	14.1	<= 20
2,2-Dichloropropane	KC1900275-10	T	Average RF	50	49.441	PPB	-1.1	<= 30
2,2-Dichloropropane	KC1900275-10	T	Average RF	50	49.441	PPB	-1.1	<= 20
2-Butanone (MEK)	KC1900275-10	T	Average RF	250	248.338	PPB	-0.7	<= 20
2-Butanone (MEK)	KC1900275-10	T	Average RF	250	248.338	PPB	-0.7	<= 30
2-Chloro-1,3-butadiene	KC1900275-10	T	Average RF	100	88.899	PPB	-11.1	<= 20
2-Chloro-1,3-butadiene	KC1900275-10	T	Average RF	100	88.899	PPB	-11.1	<= 30
2-Chloroethyl Vinyl Ether	KC1900275-10	T	Average RF	50	48.440	PPB	-3.1	<= 20
2-Chloroethyl Vinyl Ether	KC1900275-10	T	Average RF	50	48.440	PPB	-3.1	<= 30
2-Chlorotoluene	KC1900275-10	T	Average RF	50	49.568	PPB	-0.9	<= 30
2-Chlorotoluene	KC1900275-10	T	Average RF	50	49.568	PPB	-0.9	<= 20
2-Hexanone	KC1900275-10	T	Average RF	250	270.142	PPB	8.1	<= 30
2-Hexanone	KC1900275-10	T	Average RF	250	270.142	PPB	8.1	<= 20
2-Methyl-1-propanol	KC1900275-10	T	Average RF	800	667.736	PPB	-16.5	<= 30
2-Methyl-1-propanol	KC1900275-10	T	Average RF	800	667.736	PPB	-16.5	<= 20
2-Methyl-2-propanol	KC1900275-10	T	Average RF	500	439.352	PPB	-12.1	<= 30
2-Methyl-2-propanol	KC1900275-10	T	Average RF	500	439.352	PPB	-12.1	<= 20
2-Nitropropane	KC1900275-10	T	Average RF	50	25.345	PPB	-49.3	<= 20
2-Nitropropane	KC1900275-10	T	Average RF	50	25.345	PPB	-49.3	<= 30
3-Chloro-1-propene	KC1900275-10	T	Average RF	80	83.380	PPB	4.2	<= 20
3-Chloro-1-propene	KC1900275-10	T	Average RF	80	83.380	PPB	4.2	<= 30
4-Chlorotoluene	KC1900275-10	T	Average RF	50	50.039	PPB	0.1	<= 20
4-Chlorotoluene	KC1900275-10	T	Average RF	50	50.039	PPB	0.1	<= 30
4-Isopropyltoluene	KC1900275-10	T	Average RF	50	56.892	PPB	13.8	<= 20
4-Isopropyltoluene	KC1900275-10	T	Average RF	50	56.892	PPB	13.8	<= 30
4-Methyl-2-pentanone	KC1900275-10	T	Average RF	250	238.048	PPB	-4.8	<= 30
4-Methyl-2-pentanone	KC1900275-10	T	Average RF	250	238.048	PPB	-4.8	<= 20
Acetone	KC1900275-10	T	Linear	250	235.772	PPB	-5.7	<= 20
Acetone	KC1900275-10	T	Linear	250	235.772	PPB	-5.7	<= 30
Acetonitrile	KC1900275-10	T	Average RF	800	693.843	PPB	-13.3	<= 30
Acetonitrile	KC1900275-10	T	Average RF	800	693.843	PPB	-13.3	<= 20

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Acrolein	KC1900275-10	T	Average RF	100	78.374	PPB	-21.6	<= 20
Acrolein	KC1900275-10	T	Average RF	100	78.374	PPB	-21.6	<= 30
Acrylonitrile	KC1900275-10	T	Average RF	130	115.487	PPB	-11.2	<= 20
Acrylonitrile	KC1900275-10	T	Average RF	130	115.487	PPB	-11.2	<= 30
Benzene	KC1900275-10	T	Average RF	50	49.666	PPB	-0.7	<= 30
Benzene	KC1900275-10	T	Average RF	50	49.666	PPB	-0.7	<= 20
Bromobenzene	KC1900275-10	T	Average RF	50	47.509	PPB	-5.0	<= 30
Bromobenzene	KC1900275-10	T	Average RF	50	47.509	PPB	-5.0	<= 20
Bromochloromethane	KC1900275-10	T	Average RF	50	44.638	PPB	-10.7	<= 30
Bromochloromethane	KC1900275-10	T	Average RF	50	44.638	PPB	-10.7	<= 20
Bromodichloromethane	KC1900275-10	T	Average RF	50	44.507	PPB	-11.0	<= 20
Bromodichloromethane	KC1900275-10	T	Average RF	50	44.507	PPB	-11.0	<= 30
Bromoform	KC1900275-10	T	Average RF	50	46.058	PPB	-7.9	<= 20
Bromoform	KC1900275-10	T	Average RF	50	46.058	PPB	-7.9	<= 30
Bromomethane	KC1900275-10	T	Average RF	50	44.693	PPB	-10.6	<= 30
Bromomethane	KC1900275-10	T	Average RF	50	44.693	PPB	-10.6	<= 20
Carbon Disulfide	KC1900275-10	T	Average RF	100	101.226	PPB	1.2	<= 20
Carbon Disulfide	KC1900275-10	T	Average RF	100	101.226	PPB	1.2	<= 30
Carbon Tetrachloride	KC1900275-10	T	Average RF	50	54.463	PPB	8.9	<= 30
Carbon Tetrachloride	KC1900275-10	T	Average RF	50	54.463	PPB	8.9	<= 20
Chlorobenzene	KC1900275-10	T	Average RF	50	48.237	PPB	-3.5	<= 20
Chlorobenzene	KC1900275-10	T	Average RF	50	48.237	PPB	-3.5	<= 30
Chloroethane	KC1900275-10	T	Average RF	50	54.112	PPB	8.2	<= 30
Chloroethane	KC1900275-10	T	Average RF	50	54.112	PPB	8.2	<= 20
Chloroform	KC1900275-10	T	Average RF	50	46.925	PPB	-6.1	<= 30
Chloroform	KC1900275-10	T	Average RF	50	46.925	PPB	-6.1	<= 20
Chloromethane	KC1900275-10	T	Average RF	50	53.022	PPB	6.0	<= 20
Chloromethane	KC1900275-10	T	Average RF	50	53.022	PPB	6.0	<= 30
Cyclohexane	KC1900275-10	T	Average RF	50	59.245	PPB	18.5	<= 30
Cyclohexane	KC1900275-10	T	Average RF	50	59.245	PPB	18.5	<= 20
Dibromochloromethane	KC1900275-10	T	Average RF	50	46.223	PPB	-7.6	<= 20
Dibromochloromethane	KC1900275-10	T	Average RF	50	46.223	PPB	-7.6	<= 30
Dibromomethane	KC1900275-10	T	Average RF	50	44.047	PPB	-11.9	<= 30
Dibromomethane	KC1900275-10	T	Average RF	50	44.047	PPB	-11.9	<= 20
Dichlorodifluoromethane (CFC 12)	KC1900275-10	T	Average RF	50	73.669	PPB	47.3	<= 30
Dichlorodifluoromethane (CFC 12)	KC1900275-10	T	Average RF	50	73.669	PPB	47.3	<= 20
Dichlorofluoromethane (CFC 21)	KC1900275-10	T	Average RF	100	49.454	PPB	-50.5	<= 20
Dichlorofluoromethane (CFC 21)	KC1900275-10	T	Average RF	100	49.454	PPB	-50.5	<= 30
Dichloromethane	KC1900275-10	T	Average RF	50	45.146	PPB	-9.7	<= 30
Dichloromethane	KC1900275-10	T	Average RF	50	45.146	PPB	-9.7	<= 20

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Diisopropyl Ether	KC1900275-10	T	Average RF	100	103.067	PPB	3.1	<= 20
Diisopropyl Ether	KC1900275-10	T	Average RF	100	103.067	PPB	3.1	<= 30
Ethyl Acetate	KC1900275-10	T	Average RF	80		PPB		<= 30
Ethyl Acetate	KC1900275-10	T	Average RF	80		PPB		<= 20
Ethyl tert-Butyl Ether	KC1900275-10	T	Average RF	100	95.980	PPB	-4.0	<= 30
Ethyl tert-Butyl Ether	KC1900275-10	T	Average RF	100	95.980	PPB	-4.0	<= 20
Ethylbenzene	KC1900275-10	T	Average RF	50	51.052	PPB	2.1	<= 30
Ethylbenzene	KC1900275-10	T	Average RF	50	51.052	PPB	2.1	<= 20
Hexachlorobutadiene	KC1900275-10	T	Average RF	50	48.926	PPB	-2.1	<= 30
Hexachlorobutadiene	KC1900275-10	T	Average RF	50	48.926	PPB	-2.1	<= 20
Iodomethane	KC1900275-10	T	Average RF	80	98.955	PPB	23.7	<= 20
Iodomethane	KC1900275-10	T	Average RF	80	98.955	PPB	23.7	<= 30
Isopropylbenzene (Cumene)	KC1900275-10	T	Average RF	50	52.792	PPB	5.6	
Isopropylbenzene (Cumene)	KC1900275-10	T	Average RF	50	52.792	PPB	5.6	<= 20
Isopropylbenzene (Cumene)	KC1900275-10	T	Average RF	50	52.792	PPB	5.6	<= 30
Methacrylonitrile	KC1900275-10	T	Average RF	80	72.565	PPB	-9.3	<= 20
Methacrylonitrile	KC1900275-10	T	Average RF	80	72.565	PPB	-9.3	<= 30
Methyl Acetate	KC1900275-10	T	Average RF	50	41.123	PPB	-17.8	<= 20
Methyl Acetate	KC1900275-10	T	Average RF	50	41.123	PPB	-17.8	<= 30
Methyl tert-Butyl Ether	KC1900275-10	T	Average RF	50	45.832	PPB	-8.3	<= 30
Methyl tert-Butyl Ether	KC1900275-10	T	Average RF	50	45.832	PPB	-8.3	<= 20
Methylcyclohexane	KC1900275-10	T	Average RF	50	42.162	PPB	-15.7	<= 30
Methylcyclohexane	KC1900275-10	T	Average RF	50	42.162	PPB	-15.7	<= 20
Naphthalene	KC1900275-10	T	Average RF	50	45.829	PPB	-8.3	<= 30
Naphthalene	KC1900275-10	T	Average RF	50	45.829	PPB	-8.3	<= 20
Propionitrile	KC1900275-10	T	Average RF	80	71.033	PPB	-11.2	<= 30
Propionitrile	KC1900275-10	T	Average RF	80	71.033	PPB	-11.2	<= 20
Styrene	KC1900275-10	T	Average RF	50	50.399	PPB	0.8	<= 30
Styrene	KC1900275-10	T	Average RF	50	50.399	PPB	0.8	<= 20
Tetrachloroethene (PCE)	KC1900275-10	T	Average RF	50	56.005	PPB	12.0	<= 30
Tetrachloroethene (PCE)	KC1900275-10	T	Average RF	50	56.005	PPB	12.0	<= 20
Toluene	KC1900275-10	T	Average RF	50	48.551	PPB	-2.9	<= 20
Toluene	KC1900275-10	T	Average RF	50	48.551	PPB	-2.9	<= 30
Trichloroethene (TCE)	KC1900275-10	T	Average RF	50	50.697	PPB	1.4	<= 30
Trichloroethene (TCE)	KC1900275-10	T	Average RF	50	50.697	PPB	1.4	<= 20
Trichlorofluoromethane (CFC 11)	KC1900275-10	T	Average RF	50	48.398	PPB	-3.2	<= 30
Trichlorofluoromethane (CFC 11)	KC1900275-10	T	Average RF	50	48.398	PPB	-3.2	<= 20
Vinyl Acetate	KC1900275-10	T	Average RF	180	204.404	PPB	13.6	<= 30
Vinyl Acetate	KC1900275-10	T	Average RF	180	204.404	PPB	13.6	<= 20
Vinyl Chloride	KC1900275-10	T	Average RF	50	56.077	PPB	12.2	<= 30

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Vinyl Chloride	KC1900275-10	T	Average RF	50	56.077	PPB	12.2	<= 20
cis-1,2-Dichloroethene	KC1900275-10	T	Average RF	50	47.367	PPB	-5.3	<= 30
cis-1,2-Dichloroethene	KC1900275-10	T	Average RF	50	47.367	PPB	-5.3	<= 20
cis-1,3-Dichloropropene	KC1900275-10	T	Average RF	50	45.321	PPB	-9.4	<= 20
cis-1,3-Dichloropropene	KC1900275-10	T	Average RF	50	45.321	PPB	-9.4	<= 30
cis-1,4-Dichloro-2-butene	KC1900275-10	T	Average RF	80	77.813	PPB	-2.7	<= 30
cis-1,4-Dichloro-2-butene	KC1900275-10	T	Average RF	80	77.813	PPB	-2.7	<= 20
m,p-Xylenes	KC1900275-10	T	Average RF	100	103.644	PPB	3.6	
m,p-Xylenes	KC1900275-10	T	Average RF	100	103.644	PPB	3.6	<= 20
m,p-Xylenes	KC1900275-10	T	Average RF	100	103.644	PPB	3.6	<= 30
n-Butylbenzene	KC1900275-10	T	Average RF	50	55.202	PPB	10.4	<= 30
n-Butylbenzene	KC1900275-10	T	Average RF	50	55.202	PPB	10.4	<= 20
n-Hexane	KC1900275-10	T	Average RF	80	82.930	PPB	3.7	<= 20
n-Hexane	KC1900275-10	T	Average RF	80	82.930	PPB	3.7	<= 30
n-Propylbenzene	KC1900275-10	T	Average RF	50	52.859	PPB	5.7	<= 30
n-Propylbenzene	KC1900275-10	T	Average RF	50	52.859	PPB	5.7	<= 20
o-Xylene	KC1900275-10	T	Average RF	50	49.873	PPB	-0.3	<= 20
o-Xylene	KC1900275-10	T	Average RF	50	49.873	PPB	-0.3	<= 30
sec-Butylbenzene	KC1900275-10	T	Average RF	50	55.621	PPB	11.2	<= 30
sec-Butylbenzene	KC1900275-10	T	Average RF	50	55.621	PPB	11.2	<= 20
tert-Butylbenzene	KC1900275-10	T	Average RF	50	53.325	PPB	6.7	<= 30
tert-Butylbenzene	KC1900275-10	T	Average RF	50	53.325	PPB	6.7	<= 20
trans-1,2-Dichloroethene	KC1900275-10	T	Average RF	50	49.744	PPB	-0.5	<= 20
trans-1,2-Dichloroethene	KC1900275-10	T	Average RF	50	49.744	PPB	-0.5	<= 30
trans-1,3-Dichloropropene	KC1900275-10	T	Average RF	50	47.828	PPB	-4.3	<= 20
trans-1,3-Dichloropropene	KC1900275-10	T	Average RF	50	47.828	PPB	-4.3	<= 30
trans-1,4-Dichloro-2-butene	KC1900275-10	T	Average RF	80	69.749	PPB	-12.8	<= 20
trans-1,4-Dichloro-2-butene	KC1900275-10	T	Average RF	80	69.749	PPB	-12.8	<= 30
1,2-Dichloroethane-d4	KC1900275-10	S	Average RF	50	46.118	PPB	-7.8	<= 30
1,2-Dichloroethane-d4	KC1900275-10	S	Average RF	50	46.118	PPB	-7.8	<= 20
4-Bromofluorobenzene	KC1900275-10	S	Average RF	50	48.698	PPB	-2.6	<= 20
4-Bromofluorobenzene	KC1900275-10	S	Average RF	50	48.698	PPB	-2.6	<= 30
Dibromofluoromethane	KC1900275-10	S	Average RF	50	47.593	PPB	-4.8	<= 20
Dibromofluoromethane	KC1900275-10	S	Average RF	50	47.593	PPB	-4.8	<= 30
Toluene-d8	KC1900275-10	S	Average RF	50	48.757	PPB	-2.5	<= 20
Toluene-d8	KC1900275-10	S	Average RF	50	48.757	PPB	-2.5	<= 30

Exceptions

QAP **Method**

Initial Calibration Verification Summary Report

Calibration ID:	KC1900275	Instrument ID:	K-MS-24
Datafile ID:	J:\MS24\DATA\071519\0715022.D	Column Name:	1

DOD QSM v5.0 8260C
 Kelso

Compound	Type	Criteria	Result
Acrolein	Percent Difference	<= 20	
1,4-Dioxane	Minimum RF	>= 0.01	
2-Nitropropane	Percent Difference	<= 20	
Iodomethane	Percent Difference	<= 20	
Dichlorofluoromethane (CFC 21)	Percent Difference	<= 20	
Dichlorodifluoromethane (CFC 12)	Percent Difference	<= 20	

DOD QSM v5.0 8260B
 Kelso

Compound	Type	Criteria	Result
Dichlorofluoromethane (CFC 21)	Percent Difference	<= 20	
1,4-Dioxane	Minimum RF	>= 0.01	
2-Nitropropane	Percent Difference	<= 20	
Iodomethane	Percent Difference	<= 20	
Acrolein	Percent Difference	<= 20	
Dichlorodifluoromethane (CFC 12)	Percent Difference	<= 20	

Exceptions

QAP Method

DOD QSM v5.1 8260C
 Kelso

Compound	Type	Criteria	Result
Dichlorofluoromethane (CFC 21)	Percent Difference	<= 20	
1,4-Dioxane	Minimum RF	>= 0.01	
2-Nitropropane	Percent Difference	<= 20	
Dichlorodifluoromethane (CFC 12)	Percent Difference	<= 20	
Iodomethane	Percent Difference	<= 20	
Acrolein	Percent Difference	<= 20	

Exceptions

QAP Method

LAB QAP 8260C

Compound	Type	Criteria	Result
2-Nitropropane	Percent Difference	<= 30	
Dichlorofluoromethane (CFC 21)	Percent Difference	<= 30	
1,4-Dioxane	Minimum RF	>= 0.01	

Initial Calibration - Detailed Report

Calibration ID: KC1900275	Instrument ID: K-MS-24
	Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	KC1900275-01	ICAL 1	J:\MS24\DATA\071519\0715008.D	07/15/2019 11:07
02	KC1900275-02	ICAL 2	J:\MS24\DATA\071519\0715009.D	07/15/2019 11:28
03	KC1900275-03	ICAL 5	J:\MS24\DATA\071519\0715010.D	07/15/2019 11:49
04	KC1900275-04	ICAL 10	J:\MS24\DATA\071519\0715011.D	07/15/2019 12:10
05	KC1900275-05	ICAL 20	J:\MS24\DATA\071519\0715012.D	07/15/2019 12:31
06	KC1900275-06	ICAL 50	J:\MS24\DATA\071519\0715013.D	07/15/2019 12:52
07	KC1900275-07	ICAL 100	J:\MS24\DATA\071519\0715014.D	07/15/2019 13:12
08	KC1900275-08	ICAL 200	J:\MS24\DATA\071519\0715015.D	07/15/2019 13:34
09	KC1900275-09	ICAL 300	J:\MS24\DATA\071519\0715016.D	07/15/2019 13:55

<u>Analyte</u>			<u>Curve Fit</u>			<u>Weighting</u>					
1,1,1,2-Tetrachloroethane			Average RF			RSD = 8.802			Average RF = 6.831E-1		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.5613	02	2.000	0.7391	03	5.000	0.6835	04	10.000	0.668
05	20.000	0.6975	06	50.000	0.6186	07	100.000	0.7063	08	200.000	0.7328
09	300.000	0.7409									
1,1,1-Trichloroethane (TCA)			Average RF			RSD = 5.979			Average RF = 0.3574		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.3533	02	2.000	0.3655	03	5.000	0.3549	04	10.000	0.3212
05	20.000	0.3689	06	50.000	0.3268	07	100.000	0.3631	08	200.000	0.3809
09	300.000	0.3818									
1,1,2,2-Tetrachloroethane			Average RF			RSD = 5.371			Average RF = 9.223E-1		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.9655	02	2.000	0.9825	03	5.000	0.93	04	10.000	0.895
05	20.000	0.9158	06	50.000	0.813	07	100.000	0.9072	08	200.000	0.9452
09	300.000	0.9464									
1,1,2-Trichloroethane			Average RF			RSD = 6.319			Average RF = 5.89E-1		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.5428	02	2.000	0.6296	03	5.000	0.6192	04	10.000	0.6029
05	20.000	0.6118	06	50.000	0.5161	07	100.000	0.579	08	200.000	0.5966
09	300.000	0.6031									
1,1,2-Trichlorotrifluoroethane			Average RF			RSD = 8.073			Average RF = 0.1687		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.1739	02	2.000	0.1908	03	5.000	0.1615	04	10.000	0.1453
05	20.000	0.1728	06	50.000	0.1536	07	100.000	0.1676	08	200.000	0.1769
09	300.000	0.1763									
1,1-Dichloroethane (1,1-DCA)			Average RF			RSD = 4.957			Average RF = 0.4727		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.4806	02	2.000	0.4854	03	5.000	0.4725	04	10.000	0.4692
05	20.000	0.4898	06	50.000	0.4218	07	100.000	0.4573	08	200.000	0.4726
09	300.000	0.5048									
1,1-Dichloroethene (1,1-DCE)			Average RF			RSD = 8.159			Average RF = 0.1938		

Initial Calibration - Detailed Report

Calibration ID: KC1900275	Instrument ID: K-MS-24
	Column Name: 1

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.2042	02	2.000	0.2239	03	5.000	0.1779	04	10.000	0.1748
05	20.000	0.1998	06	50.000	0.176	07	100.000	0.1956	08	200.000	0.1975
09	300.000	0.1947									

1,1-Dichloropropene

Average RF

RSD = 7.916

Average RF = 0.3398

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.3595	02	2.000	0.3744	03	5.000	0.3197	04	10.000	0.2932
05	20.000	0.3472	06	50.000	0.3092	07	100.000	0.34	08	200.000	0.3551
09	300.000	0.3601									

1,2,3-Trichlorobenzene

Average RF

RSD = 11.04

Average RF = 1.018E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.233	02	2.000	1.026	03	5.000	1.022	04	10.000	0.9052
05	20.000	0.9884	06	50.000	0.8585	07	100.000	0.9551	08	200.000	1.056
09	300.000	1.121									

1,2,3-Trichloropropane

Average RF

RSD = 6.337

Average RF = 0.285

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.2516	02	2.000	0.2837	03	5.000	0.3015	04	10.000	0.2987
05	20.000	0.2971	06	50.000	0.2588	07	100.000	0.284	08	200.000	0.2968
09	300.000	0.2929									

1,2,4-Trichlorobenzene

Average RF

RSD = 11.37

Average RF = 1.051E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.276	02	2.000	1.122	03	5.000	1.05	04	10.000	0.9252
05	20.000	0.997	06	50.000	0.8914	07	100.000	0.9773	08	200.000	1.075
09	300.000	1.142									

1,2,4-Trimethylbenzene

Average RF

RSD = 9.871

Average RF = 2.527E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	2.31	02	2.000	2.439	03	5.000	2.378	04	10.000	2.271
05	20.000	2.53	06	50.000	2.343	07	100.000	2.632	08	200.000	2.887
09	300.000	2.952									

1,2-Dibromo-3-chloropropane (DBCP)

Average RF

RSD = 6.578

Average RF = 0.1419

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	2.000	0.1434	03	5.000	0.1434	04	10.000	0.1356	05	20.000	0.1348
06	50.000	0.128	07	100.000	0.1421	08	200.000	0.1495	09	300.000	0.1581

1,2-Dibromoethane

Average RF

RSD = 6.134

Average RF = 6.665E-1

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.7205	02	2.000	0.6323	03	5.000	0.6808	04	10.000	0.6747
05	20.000	0.6819	06	50.000	0.5759	07	100.000	0.6669	08	200.000	0.6783
09	300.000	0.687									

1,2-Dichlorobenzene

Average RF

RSD = 6.588

Average RF = 1.634E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.807	02	2.000	1.624	03	5.000	1.706	04	10.000	1.518
05	20.000	1.672	06	50.000	1.451	07	100.000	1.572	08	200.000	1.659
09	300.000	1.701									

1,2-Dichloroethane

Average RF

RSD = 6.958

Average RF = 0.4115

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.4747	02	2.000	0.3952	03	5.000	0.4231	04	10.000	0.4159

Initial Calibration - Detailed Report

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	Column Name: 1

05 20.000 0.419	06 50.000 0.3693	07 100.000 0.3972	08 200.000 0.4026
09 300.000 0.4068			

1,2-Dichloropropane

Average RF	RSD = 5.647	Average RF = 0.3013	
# Amount RF	# Amount RF	# Amount RF	# Amount RF
01 1.000 0.2865	02 2.000 0.2948	03 5.000 0.3047	04 10.000 0.3096
05 20.000 0.3123	06 50.000 0.2674	07 100.000 0.2968	08 200.000 0.3209
09 300.000 0.3187			

1,3,5-Trichlorobenzene

Average RF	RSD = 9.634	Average RF = 1.149E0	
# Amount RF	# Amount RF	# Amount RF	# Amount RF
01 1.000 1.348	02 2.000 1.218	03 5.000 1.183	04 10.000 1.007
05 20.000 1.131	06 50.000 1.006	07 100.000 1.066	08 200.000 1.165
09 300.000 1.216			

1,3,5-Trimethylbenzene

Average RF	RSD = 10.97	Average RF = 2.466E0	
# Amount RF	# Amount RF	# Amount RF	# Amount RF
01 1.000 2.214	02 2.000 2.322	03 5.000 2.275	04 10.000 2.209
05 20.000 2.508	06 50.000 2.314	07 100.000 2.568	08 200.000 2.856
09 300.000 2.926			

1,3-Dichlorobenzene

Average RF	RSD = 5.581	Average RF = 1.645E0	
# Amount RF	# Amount RF	# Amount RF	# Amount RF
01 1.000 1.737	02 2.000 1.658	03 5.000 1.666	04 10.000 1.518
05 20.000 1.683	06 50.000 1.484	07 100.000 1.608	08 200.000 1.713
09 300.000 1.738			

1,3-Dichloropropane

Average RF	RSD = 5.834	Average RF = 1.176E0	
# Amount RF	# Amount RF	# Amount RF	# Amount RF
01 1.000 1.277	02 2.000 1.199	03 5.000 1.209	04 10.000 1.169
05 20.000 1.179	06 50.000 1.017	07 100.000 1.161	08 200.000 1.187
09 300.000 1.19			

1,4-Dichlorobenzene

Average RF	RSD = 7.891	Average RF = 1.698E0	
# Amount RF	# Amount RF	# Amount RF	# Amount RF
01 1.000 1.939	02 2.000 1.823	03 5.000 1.696	04 10.000 1.573
05 20.000 1.67	06 50.000 1.492	07 100.000 1.612	08 200.000 1.728
09 300.000 1.748			

1,4-Dioxane

Average RF	RSD = 7.278	Average RF = 0.003305	
# Amount RF	# Amount RF	# Amount RF	# Amount RF
02 40.000 0.003527	03 100.000 0.003315	04 200.000 0.003613	05 400.000 0.003354
06 1000.000 0.002802	07 2000.000 0.003247	08 4000.000 0.003261	09 6000.000 0.003322

1-Chlorohexane

Average RF	RSD = 9.66	Average RF = 7.313E-1	
# Amount RF	# Amount RF	# Amount RF	# Amount RF
01 1.000 0.7988	02 2.000 0.7821	03 5.000 0.7055	04 10.000 0.6181
05 20.000 0.7118	06 50.000 0.6355	07 100.000 0.7293	08 200.000 0.7911
09 300.000 0.8098			

2,2-Dichloropropane

Average RF	RSD = 8.264	Average RF = 0.3562	
# Amount RF	# Amount RF	# Amount RF	# Amount RF
01 1.000 0.4011	02 2.000 0.3867	03 5.000 0.3637	04 10.000 0.3169
05 20.000 0.3656	06 50.000 0.3116	07 100.000 0.3509	08 200.000 0.3665
09 300.000 0.3432			

Initial Calibration - Detailed Report

Calibration ID: KC1900275	Instrument ID: K-MS-24
	Column Name: 1

2-Butanone (MEK)			Average RF			RSD = 9.329			Average RF = 0.03536		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	10.000	0.04053	04	20.000	0.03259	05	40.000	0.03784	06	100.000	0.03188
07	200.000	0.03655	08	400.000	0.03608	09	600.000	0.03208			
2-Chloro-1,3-butadiene			Average RF			RSD = 7.049			Average RF = 0.3424		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	4.000	0.358	03	10.000	0.3323	04	20.000	0.3089	05	40.000	0.3567
06	100.000	0.3094	07	200.000	0.3433	08	400.000	0.3535	09	600.000	0.377
2-Chloroethyl Vinyl Ether			Average RF			RSD = 13.21			Average RF = 0.09017		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	5.000	0.07288	04	10.000	0.09044	05	20.000	0.08923	06	50.000	0.07838
07	100.000	0.09197	08	200.000	0.1012	09	300.000	0.1071			
2-Chlorotoluene			Average RF			RSD = 7.12			Average RF = 2.298E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	2.394	02	2.000	2.368	03	5.000	2.224	04	10.000	2.073
05	20.000	2.32	06	50.000	2.046	07	100.000	2.26	08	200.000	2.486
09	300.000	2.506									
2-Hexanone			Average RF			RSD = 5.743			Average RF = 0.08682		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	10.000	0.08328	04	20.000	0.08701	05	40.000	0.08687	06	100.000	0.07766
07	200.000	0.09018	08	400.000	0.09117	09	600.000	0.09156			
2-Methyl-1-propanol			Average RF			RSD = 6.707			Average RF = 0.01773		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	40.000	0.01941	03	100.000	0.01924	04	200.000	0.01746	05	400.000	0.01781
06	1000.000	0.01568	07	2000.000	0.01778	08	4000.000	0.01726	09	6000.000	0.01717
2-Methyl-2-propanol			Average RF			RSD = 8.42			Average RF = 0.03579		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	25.000	0.04057	04	50.000	0.0381	05	100.000	0.03717	06	250.000	0.03159
07	500.000	0.03494	08	1000.000	0.03423	09	1500.000	0.03391			
2-Nitropropane			Average RF			RSD = 7.183			Average RF = 0.2163		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.2269	02	2.000	0.2065	03	5.000	0.1997	04	10.000	0.2178
05	20.000	0.2081	06	50.000	0.1929	07	100.000	0.2235	08	200.000	0.2328
09	300.000	0.2388									
3-Chloro-1-propene			Average RF			RSD = 6.956			Average RF = 1.067E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	2.000	1.198	03	5.000	1.111	04	10.000	1.022	05	20.000	1.12
06	50.000	0.9924	07	100.000	1.069	08	200.000	1.044	09	300.000	0.9751
4-Chlorotoluene			Average RF			RSD = 6.593			Average RF = 2.379E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	2.449	02	2.000	2.368	03	5.000	2.276	04	10.000	2.171
05	20.000	2.414	06	50.000	2.174	07	100.000	2.37	08	200.000	2.575
09	300.000	2.616									
4-Isopropyltoluene			Average RF			RSD = 11.55			Average RF = 2.563E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF

Initial Calibration - Detailed Report

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01 1.000 2.348	02 2.000 2.389	03 5.000 2.323	04 10.000 2.216
05 20.000 2.619	06 50.000 2.447	07 100.000 2.69	08 200.000 2.977
09 300.000 3.056			

4-Methyl-2-pentanone

Average RF

RSD = 7.115

Average RF = 0.1065

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	4.000	0.1084	03	10.000	0.1007	04	20.000	0.1193	05	40.000	0.1103
06	100.000	0.09315	07	200.000	0.1047	08	400.000	0.1072	09	600.000	0.1085

Acetone

Linear

Equal

R2 =
0.9995219204997290

Y=0.07727 X+0.01319

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	4.000	0.2365	03	10.000	0.1321	04	20.000	0.1082	05	40.000	0.09902
06	100.000	0.07768	07	200.000	0.08399	08	400.000	0.07917	09	600.000	0.07803

Acetonitrile

Average RF

RSD = 7.821

Average RF = 0.02004

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	40.000	0.02241	03	100.000	0.02181	04	200.000	0.02054	05	400.000	0.02038
06	1000.000	0.01767	07	2000.000	0.01954	08	4000.000	0.01892	09	6000.000	0.01907

Acrolein

Average RF

RSD = 9.381

Average RF = 0.05257

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	10.000	0.04295	03	25.000	0.05245	04	50.000	0.05032	05	100.000	0.05653
06	250.000	0.04907	07	500.000	0.05673	08	1000.000	0.05598	09	1500.000	0.05653

Acrylonitrile

Average RF

RSD = 4.769

Average RF = 0.1099

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	4.000	0.1174	03	10.000	0.1138	04	20.000	0.1113	05	40.000	0.1121
06	100.000	0.09961	07	200.000	0.1089	08	400.000	0.1078	09	600.000	0.1081

Benzene

Average RF

RSD = 5.171

Average RF = 1.123E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.166	02	2.000	1.158	03	5.000	1.133	04	10.000	1.044
05	20.000	1.153	06	50.000	1.01	07	100.000	1.108	08	200.000	1.159
09	300.000	1.172									

Bromobenzene

Average RF

RSD = 6.369

Average RF = 9.554E-1

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.003	02	2.000	1.034	03	5.000	0.9608	04	10.000	0.9091
05	20.000	0.9381	06	50.000	0.8368	07	100.000	0.923	08	200.000	0.9881
09	300.000	1.005									

Bromochloromethane

Average RF

RSD = 7.685

Average RF = 0.1523

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.1716	02	2.000	0.1601	03	5.000	0.1634	04	10.000	0.1492
05	20.000	0.159	06	50.000	0.1365	07	100.000	0.145	08	200.000	0.1435
09	300.000	0.1421									

Bromodichloromethane

Average RF

RSD = 6.178

Average RF = 0.3593

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.3412	02	2.000	0.3603	03	5.000	0.3395	04	10.000	0.3627
05	20.000	0.3707	06	50.000	0.3246	07	100.000	0.3558	08	200.000	0.3831
09	300.000	0.3953									

Bromoform

Average RF

RSD = 9.272

Average RF = 0.4647

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.4214	02	2.000	0.4207	03	5.000	0.4297	04	10.000	0.4431

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05	20.000	0.4823	06	50.000	0.4364	07	100.000	0.5037	08	200.000	0.5223
09	300.000	0.523									

Bromomethane

Average RF

RSD = 14.52

Average RF = 0.1784

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	5.000	0.2271	04	10.000	0.1889	05	20.000	0.1901	06	50.000	0.1516
07	100.000	0.1691	08	200.000	0.1614	09	300.000	0.1606			

Carbon Disulfide

Average RF

RSD = 6.06

Average RF = 6.666E-1

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.6766	02	2.000	0.7086	03	5.000	0.6446	04	10.000	0.5968
05	20.000	0.6906	06	50.000	0.611	07	100.000	0.6737	08	200.000	0.6933
09	300.000	0.7041									

Carbon Tetrachloride

Average RF

RSD = 9.627

Average RF = 0.2866

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.2598	02	2.000	0.2889	03	5.000	0.2752	04	10.000	0.243
05	20.000	0.299	06	50.000	0.2661	07	100.000	0.3035	08	200.000	0.3207
09	300.000	0.3227									

Chlorobenzene

Average RF

RSD = 5.494

Average RF = 1.971E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	2.073	02	2.000	2.064	03	5.000	2.04	04	10.000	1.893
05	20.000	2.011	06	50.000	1.73	07	100.000	1.924	08	200.000	1.999
09	300.000	2.003									

Chloroethane

Average RF

RSD = 6.603

Average RF = 0.1598

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.1768	02	2.000	0.165	03	5.000	0.1594	04	10.000	0.1455
05	20.000	0.1702	06	50.000	0.144	07	100.000	0.1564	08	200.000	0.1603
09	300.000	0.1603									

Chloroform

Average RF

RSD = 5.012

Average RF = 0.4834

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.4851	02	2.000	0.4953	03	5.000	0.4909	04	10.000	0.4507
05	20.000	0.5085	06	50.000	0.4368	07	100.000	0.4822	08	200.000	0.496
09	300.000	0.5051									

Chloromethane

Average RF

RSD = 9.49

Average RF = 0.3165

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.3728	02	2.000	0.3466	03	5.000	0.3132	04	10.000	0.3019
05	20.000	0.3267	06	50.000	0.27	07	100.000	0.2941	08	200.000	0.3049
09	300.000	0.318									

Cyclohexane

Average RF

RSD = 8.251

Average RF = 0.3723

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.3406	02	2.000	0.3977	03	5.000	0.3666	04	10.000	0.3187
05	20.000	0.3954	06	50.000	0.3457	07	100.000	0.3857	08	200.000	0.3986
09	300.000	0.4021									

Dibromochloromethane

Average RF

RSD = 7.141

Average RF = 7.267E-1

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.6783	02	2.000	0.6699	03	5.000	0.7311	04	10.000	0.7138
05	20.000	0.7297	06	50.000	0.6616	07	100.000	0.7598	08	200.000	0.7868
09	300.000	0.8094									

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Dibromomethane			Average RF			RSD = 5.856			Average RF = 0.1804		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.1872	02	2.000	0.1926	03	5.000	0.1687	04	10.000	0.1823
05	20.000	0.1834	06	50.000	0.1602	07	100.000	0.1742	08	200.000	0.186
09	300.000	0.1888									

Dichlorodifluoromethane (CFC 12)			Average RF			RSD = 10.68			Average RF = 0.1991		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.2344	02	2.000	0.2313	03	5.000	0.1898	04	10.000	0.1744
05	20.000	0.2032	06	50.000	0.176	07	100.000	0.1928	08	200.000	0.1961
09	300.000	0.1934									

Dichlorofluoromethane (CFC 21)			Average RF			RSD = 5.898			Average RF = 0.4027		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.3806	02	2.000	0.4384	03	5.000	0.4194	04	10.000	0.3767
05	20.000	0.4231	06	50.000	0.3669	07	100.000	0.4	08	200.000	0.4086
09	300.000	0.4105									

Dichloromethane			Average RF			RSD = 10.18			Average RF = 0.2853		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	5.000	0.3358	04	10.000	0.2977	05	20.000	0.3044	06	50.000	0.2502
07	100.000	0.2657	08	200.000	0.2697	09	300.000	0.2738			

Diisopropyl Ether			Average RF			RSD = 6.693			Average RF = 9.252E-1		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.02	02	2.000	0.9386	03	5.000	0.9475	04	10.000	0.9492
05	20.000	0.9421	06	50.000	0.8045	07	100.000	0.8765	08	200.000	0.8841
09	300.000	0.9649									

Ethyl tert-Butyl Ether			Average RF			RSD = 5.874			Average RF = 8.837E-1		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.9902	02	2.000	0.8951	03	5.000	0.8812	04	10.000	0.8517
05	20.000	0.916	06	50.000	0.7969	07	100.000	0.8633	08	200.000	0.8753
09	300.000	0.8834									

Ethylbenzene			Average RF			RSD = 7.328			Average RF = 9.648E-1		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.9748	02	2.000	0.9906	03	5.000	0.959	04	10.000	0.8439
05	20.000	0.9588	06	50.000	0.8662	07	100.000	0.9944	08	200.000	1.039
09	300.000	1.056									

Hexachlorobutadiene			Average RF			RSD = 8.454			Average RF = 6.033E-1		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.6779	02	2.000	0.6637	03	5.000	0.61	04	10.000	0.5474
05	20.000	0.6222	06	50.000	0.5341	07	100.000	0.5513	08	200.000	0.5964
09	300.000	0.6263									

Iodomethane			Average RF			RSD = 13.75			Average RF = 0.1828		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	20.000	0.1419	05	40.000	0.1749	06	100.000	0.17	07	200.000	0.2032
08	400.000	0.2022	09	600.000	0.2044						

Isopropylbenzene (Cumene)			Average RF			RSD = 7.831			Average RF = 2.757E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	2.612	02	2.000	2.695	03	5.000	2.585	04	10.000	2.455

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05 20.000 2.872	06 50.000 2.596	07 100.000 2.91	08 200.000 3.052
09 300.000 3.036			

Methacrylonitrile

Average RF

RSD = 4.54

Average RF = 0.1342

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	4.000	0.1379	03	10.000	0.1352	04	20.000	0.137	05	40.000	0.1362
06	100.000	0.1193	07	200.000	0.1351	08	400.000	0.1359	09	600.000	0.137

Methyl Acetate

Average RF

RSD = 10.41

Average RF = 0.2173

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.2556	02	2.000	0.2444	03	5.000	0.2303	04	10.000	0.2032
05	20.000	0.2206	06	50.000	0.1844	07	100.000	0.2098	08	200.000	0.2044
09	300.000	0.2029									

Methyl tert-Butyl Ether

Average RF

RSD = 4.785

Average RF = 8.256E-1

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	4.000	0.8686	03	10.000	0.8469	04	20.000	0.7989	05	40.000	0.8569
06	100.000	0.7436	07	200.000	0.8222	08	400.000	0.8276	09	600.000	0.8398

Methylcyclohexane

Average RF

RSD = 8.893

Average RF = 0.3647

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.3363	02	2.000	0.3752	03	5.000	0.3291	04	10.000	0.343
05	20.000	0.3738	06	50.000	0.3338	07	100.000	0.3646	08	200.000	0.4112
09	300.000	0.4153									

Naphthalene

Average RF

RSD = 12.77

Average RF = 2.375E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	2.706	02	2.000	2.335	03	5.000	2.169	04	10.000	2.001
05	20.000	2.199	06	50.000	2.075	07	100.000	2.379	08	200.000	2.635
09	300.000	2.878									

Propionitrile

Average RF

RSD = 6.451

Average RF = 0.04487

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	4.000	0.0479	03	10.000	0.04551	04	20.000	0.04511	05	40.000	0.04951
06	100.000	0.04054	07	200.000	0.04479	08	400.000	0.04288	09	600.000	0.0427

Styrene

Average RF

RSD = 10.57

Average RF = 9.217E-1

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.7883	02	2.000	0.8816	03	5.000	0.8515	04	10.000	0.8561
05	20.000	0.925	06	50.000	0.8694	07	100.000	1.017	08	200.000	1.032
09	300.000	1.074									

Tetrachloroethene (PCE)

Average RF

RSD = 8.238

Average RF = 5.246E-1

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.4759	02	2.000	0.5713	03	5.000	0.5108	04	10.000	0.4782
05	20.000	0.5433	06	50.000	0.4657	07	100.000	0.5376	08	200.000	0.5647
09	300.000	0.5742									

Toluene

Average RF

RSD = 6.608

Average RF = 6.301E-1

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.6519	02	2.000	0.6218	03	5.000	0.6082	04	10.000	0.5859
05	20.000	0.6295	06	50.000	0.5676	07	100.000	0.6307	08	200.000	0.6749
09	300.000	0.7006									

Trichloroethene (TCE)

Average RF

RSD = 5.844

Average RF = 0.2701

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF

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01 1.000 0.2878	02 2.000 0.2645	03 5.000 0.2699	04 10.000 0.2572
05 20.000 0.2737	06 50.000 0.24	07 100.000 0.265	08 200.000 0.2841
09 300.000 0.2886			

Trichlorofluoromethane (CFC 11)			Average RF			RSD = 11.5			Average RF = 0.3402		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.3516	02	2.000	0.4292	03	5.000	0.3311	04	10.000	0.2911
05	20.000	0.3594	06	50.000	0.3083	07	100.000	0.3301	08	200.000	0.3334
09	300.000	0.3275									

Vinyl Acetate			Average RF			RSD = 11.56			Average RF = 0.05277		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	2.000	0.04019	03	5.000	0.05576	04	10.000	0.0586	05	20.000	0.05523
06	50.000	0.04755	07	100.000	0.05346	08	200.000	0.05367	09	300.000	0.05774

Vinyl Chloride			Average RF			RSD = 6.202			Average RF = 0.2773		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.2992	02	2.000	0.2938	03	5.000	0.2654	04	10.000	0.251
05	20.000	0.2867	06	50.000	0.2534	07	100.000	0.2761	08	200.000	0.2854
09	300.000	0.2846									

cis-1,2-Dichloroethene			Average RF			RSD = 8.558			Average RF = 0.3078		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.3643	02	2.000	0.3005	03	5.000	0.3195	04	10.000	0.2932
05	20.000	0.3216	06	50.000	0.2732	07	100.000	0.2985	08	200.000	0.3129
09	300.000	0.2865									

cis-1,3-Dichloropropene			Average RF			RSD = 7.735			Average RF = 0.4396		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.4425	02	2.000	0.4236	03	5.000	0.3963	04	10.000	0.4415
05	20.000	0.4449	06	50.000	0.3925	07	100.000	0.4405	08	200.000	0.475
09	300.000	0.4997									

cis-1,4-Dichloro-2-butene			Average RF			RSD = 11.85			Average RF = 0.1083		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	10.000	0.1005	04	20.000	0.09373	05	40.000	0.1054	06	100.000	0.09512
07	200.000	0.1164	08	400.000	0.1234	09	600.000	0.1237			

m,p-Xylenes			Average RF			RSD = 7.739			Average RF = 1.145E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.132	02	4.000	1.129	03	10.000	1.078	04	20.000	1.019
05	40.000	1.17	06	100.000	1.054	07	200.000	1.185	08	400.000	1.26
09	600.000	1.28									

n-Butylbenzene			Average RF			RSD = 9.909			Average RF = 2.327E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	2.215	02	2.000	2.219	03	5.000	2.22	04	10.000	2.018
05	20.000	2.347	06	50.000	2.151	07	100.000	2.413	08	200.000	2.634
09	300.000	2.729									

n-Hexane			Average RF			RSD = 8.712			Average RF = 0.3304		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.3572	02	2.000	0.3693	03	5.000	0.3107	04	10.000	0.289
05	20.000	0.3426	06	50.000	0.2935	07	100.000	0.3221	08	200.000	0.3324
09	300.000	0.3571									

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n-Propylbenzene			Average RF			RSD = 8.957			Average RF = 3.6E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	3.54	02	2.000	3.554	03	5.000	3.402	04	10.000	3.14
05	20.000	3.621	06	50.000	3.298	07	100.000	3.672	08	200.000	4.054
09	300.000	4.122									

o-Xylene			Average RF			RSD = 6.724			Average RF = 1.139E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.118	02	2.000	1.148	03	5.000	1.117	04	10.000	1.043
05	20.000	1.154	06	50.000	1.015	07	100.000	1.174	08	200.000	1.236
09	300.000	1.241									

sec-Butylbenzene			Average RF			RSD = 9.591			Average RF = 3.147E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	2.841	02	2.000	3.024	03	5.000	2.948	04	10.000	2.824
05	20.000	3.269	06	50.000	2.961	07	100.000	3.254	08	200.000	3.583
09	300.000	3.621									

tert-Butylbenzene			Average RF			RSD = 8.789			Average RF = 2.225E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	2.228	02	2.000	2.198	03	5.000	2.011	04	10.000	1.97
05	20.000	2.283	06	50.000	2.046	07	100.000	2.276	08	200.000	2.493
09	300.000	2.516									

trans-1,2-Dichloroethene			Average RF			RSD = 7.515			Average RF = 0.2469		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.2589	02	2.000	0.2802	03	5.000	0.2392	04	10.000	0.2231
05	20.000	0.2547	06	50.000	0.2203	07	100.000	0.2405	08	200.000	0.2532
09	300.000	0.2524									

trans-1,3-Dichloropropene			Average RF			RSD = 7.852			Average RF = 1.049E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.094	02	2.000	0.9951	03	5.000	0.9683	04	10.000	1.019
05	20.000	1.046	06	50.000	0.9261	07	100.000	1.07	08	200.000	1.147
09	300.000	1.179									

trans-1,4-Dichloro-2-butene			Average RF			RSD = 7.985			Average RF = 0.261		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	2.000	0.2858	03	5.000	0.2641	04	10.000	0.2365	05	20.000	0.2593
06	50.000	0.226	07	100.000	0.2599	08	200.000	0.2768	09	300.000	0.2794

1,2-Dichloroethane-d4			Average RF			RSD = 5.157			Average RF = 0.3146		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	10.000	0.2815	03	20.000	0.3302	04	30.000	0.3162	05	40.000	0.3333
06	50.000	0.3219	07	70.000	0.3087	08	80.000	0.3172	09	120.000	0.3075

4-Bromofluorobenzene			Average RF			RSD = 5.498			Average RF = 8.348E-1		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	10.000	0.7395	03	20.000	0.8643	04	30.000	0.8593	05	40.000	0.8804
06	50.000	0.8668	07	70.000	0.8122	08	80.000	0.8437	09	120.000	0.8124

Dibromofluoromethane			Average RF			RSD = 8.702			Average RF = 0.2443		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	10.000	0.1942	03	20.000	0.2428	04	30.000	0.2507	05	40.000	0.259
06	50.000	0.2547	07	70.000	0.2432	08	80.000	0.2604	09	120.000	0.2494

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Toluene-d8			Average RF			RSD = 8.81			Average RF = 8.704E-1		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	10.000	0.6899	03	20.000	0.8712	04	30.000	0.9118	05	40.000	0.9042
06	50.000	0.899	07	70.000	0.8507	08	80.000	0.92	09	120.000	0.916

Analyte

1,1,1,2-Tetrachloroethane

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	1.000	0.822	-17.8	02	2.000	2.16	8.2	03	5.000	5.00	0.1
04	10.000	9.78	-2.2	05	20.000	20.4	2.1	06	50.000	45.3	-9.4
07	100.000	103	3.4	08	200.000	215	7.3	09	300.000	325	8.5

1,1,1-Trichloroethane (TCA)

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	1.000	0.989	-1.1	02	2.000	2.05	2.3	03	5.000	4.96	-0.7
04	10.000	8.99	-10.1	05	20.000	20.6	3.2	06	50.000	45.7	-8.6
07	100.000	102	1.6	08	200.000	213	6.6	09	300.000	321	6.8

1,1,2,2-Tetrachloroethane

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	1.000	1.05	4.7	02	2.000	2.13	6.5	03	5.000	5.04	0.8
04	10.000	9.70	-3.0	05	20.000	19.9	-0.7	06	50.000	44.1	-11.9
07	100.000	98.4	-1.6	08	200.000	205	2.5	09	300.000	308	2.6

1,1,2-Trichloroethane

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	1.000	0.922	-7.8	02	2.000	2.14	6.9	03	5.000	5.26	5.1
04	10.000	10.2	2.4	05	20.000	20.8	3.9	06	50.000	43.8	-12.4
07	100.000	98.3	-1.7	08	200.000	203	1.3	09	300.000	307	2.4

1,1,2-Trichlorotrifluoroethane

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	1.000	1.03	3.0	02	2.000	2.26	13.1	03	5.000	4.79	-4.3
04	10.000	8.61	-13.9	05	20.000	20.5	2.4	06	50.000	45.5	-9.0
07	100.000	99.3	-0.7	08	200.000	210	4.8	09	300.000	313	4.5

1,1-Dichloroethane (1,1-DCA)

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	1.000	1.02	1.7	02	2.000	2.05	2.7	03	5.000	5.00	-0.0
04	10.000	9.93	-0.7	05	20.000	20.7	3.6	06	50.000	44.6	-10.8
07	100.000	96.7	-3.3	08	200.000	200	-0.0	09	300.000	320	6.8

1,1-Dichloroethene (1,1-DCE)

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	1.000	1.05	5.3	02	2.000	2.31	15.5	03	5.000	4.59	-8.2
04	10.000	9.02	-9.8	05	20.000	20.6	3.1	06	50.000	45.4	-9.2
07	100.000	101	0.9	08	200.000	204	1.9	09	300.000	301	0.5

1,1-Dichloropropene

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Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	1.000	1.06	5.8	02	2.000	2.20	10.2	03	5.000	4.70	-5.9
04	10.000	8.63	-13.7	05	20.000	20.4	2.2	06	50.000	45.5	-9.0
07	100.000	100	0.0	08	200.000	209	4.5	09	300.000	318	6.0

1,2,3-Trichlorobenzene

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	1.000	1.21	21.1	02	2.000	2.01	0.7	03	5.000	5.02	0.4
04	10.000	8.89	-11.1	05	20.000	19.4	-2.9	06	50.000	42.2	-15.7
07	100.000	93.8	-6.2	08	200.000	207	3.7	09	300.000	330	10.1

1,2,3-Trichloropropane

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	1.000	0.883	-11.7	02	2.000	1.99	-0.5	03	5.000	5.29	5.8
04	10.000	10.5	4.8	05	20.000	20.9	4.3	06	50.000	45.4	-9.2
07	100.000	99.7	-0.3	08	200.000	208	4.1	09	300.000	308	2.8

1,2,4-Trichlorobenzene

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	1.000	1.21	21.4	02	2.000	2.14	6.8	03	5.000	5.00	-0.1
04	10.000	8.81	-11.9	05	20.000	19.0	-5.1	06	50.000	42.4	-15.2
07	100.000	93.0	-7.0	08	200.000	205	2.4	09	300.000	326	8.7

1,2,4-Trimethylbenzene

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	1.000	0.914	-8.6	02	2.000	1.93	-3.5	03	5.000	4.71	-5.9
04	10.000	8.99	-10.1	05	20.000	20.0	0.1	06	50.000	46.4	-7.3
07	100.000	104	4.2	08	200.000	229	14.3	09	300.000	350	16.8

1,2-Dibromo-3-chloropropane (DBCP)

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	2.000	2.02	1.1	03	5.000	5.05	1.1	04	10.000	9.56	-4.4
05	20.000	19.0	-5.0	06	50.000	45.1	-9.8	07	100.000	100	0.2
08	200.000	211	5.4	09	300.000	334	11.5				

1,2-Dibromoethane

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	1.000	1.08	8.1	02	2.000	1.90	-5.1	03	5.000	5.11	2.2
04	10.000	10.1	1.2	05	20.000	20.5	2.3	06	50.000	43.2	-13.6
07	100.000	100	0.1	08	200.000	204	1.8	09	300.000	309	3.1

1,2-Dichlorobenzene

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	1.000	1.11	10.5	02	2.000	1.99	-0.6	03	5.000	5.22	4.4
04	10.000	9.29	-7.1	05	20.000	20.5	2.3	06	50.000	44.4	-11.2
07	100.000	96.2	-3.8	08	200.000	203	1.5	09	300.000	312	4.1

1,2-Dichloroethane

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	1.000	1.15	15.4	02	2.000	1.92	-4.0	03	5.000	5.14	2.8

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04	10.000	10.1	1.1	05	20.000	20.4	1.8	06	50.000	44.9	-10.3
07	100.000	96.5	-3.5	08	200.000	196	-2.2	09	300.000	297	-1.1

1,2-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.951	-4.9	02	2.000	1.96	-2.2	03	5.000	5.06	1.1
04	10.000	10.3	2.8	05	20.000	20.7	3.6	06	50.000	44.4	-11.2
07	100.000	98.5	-1.5	08	200.000	213	6.5	09	300.000	317	5.8

1,3,5-Trichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.17	17.3	02	2.000	2.12	6.0	03	5.000	5.15	3.0
04	10.000	8.76	-12.4	05	20.000	19.7	-1.5	06	50.000	43.8	-12.5
07	100.000	92.8	-7.2	08	200.000	203	1.4	09	300.000	318	5.9

1,3,5-Trimethylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.898	-10.2	02	2.000	1.88	-5.8	03	5.000	4.61	-7.7
04	10.000	8.96	-10.4	05	20.000	20.3	1.7	06	50.000	46.9	-6.2
07	100.000	104	4.1	08	200.000	232	15.8	09	300.000	356	18.7

1,3-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.06	5.6	02	2.000	2.02	0.8	03	5.000	5.06	1.3
04	10.000	9.23	-7.7	05	20.000	20.5	2.3	06	50.000	45.1	-9.8
07	100.000	97.8	-2.2	08	200.000	208	4.1	09	300.000	317	5.7

1,3-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.09	8.5	02	2.000	2.04	1.9	03	5.000	5.14	2.8
04	10.000	9.94	-0.6	05	20.000	20.0	0.2	06	50.000	43.2	-13.6
07	100.000	98.7	-1.3	08	200.000	202	0.9	09	300.000	304	1.2

1,4-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.14	14.2	02	2.000	2.15	7.4	03	5.000	4.99	-0.1
04	10.000	9.26	-7.4	05	20.000	19.7	-1.7	06	50.000	43.9	-12.1
07	100.000	95.0	-5.0	08	200.000	204	1.8	09	300.000	309	3.0

1,4-Dioxane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	40.000	42.7	6.7	03	100.000	100	0.3	04	200.000	219	9.3
05	400.000	406	1.5	06	1000.000	848	-15.2	07	2000.000	1960	-1.8
08	4000.000	3950	-1.3	09	6000.000	6030	0.5				

1-Chlorohexane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.09	9.2	02	2.000	2.14	6.9	03	5.000	4.82	-3.5
04	10.000	8.45	-15.5	05	20.000	19.5	-2.7	06	50.000	43.4	-13.1
07	100.000	99.7	-0.3	08	200.000	216	8.2	09	300.000	332	10.7

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2,2-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.13	12.6	02	2.000	2.17	8.5	03	5.000	5.10	2.1
04	10.000	8.89	-11.1	05	20.000	20.5	2.6	06	50.000	43.7	-12.5
07	100.000	98.5	-1.5	08	200.000	206	2.9	09	300.000	289	-3.7

2-Butanone (MEK)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	10.000	11.5	14.6	04	20.000	18.4	-7.8	05	40.000	42.8	7.0
06	100.000	90.2	-9.8	07	200.000	207	3.4	08	400.000	408	2.0
09	600.000	544	-9.3								

2-Chloro-1,3-butadiene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	4.000	4.18	4.5	03	10.000	9.71	-2.9	04	20.000	18.0	-9.8
05	40.000	41.7	4.2	06	100.000	90.4	-9.6	07	200.000	201	0.3
08	400.000	413	3.2	09	600.000	661	10.1				

2-Chloroethyl Vinyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	5.000	4.04	-19.2	04	10.000	10.0	0.3	05	20.000	19.8	-1.0
06	50.000	43.5	-13.1	07	100.000	102	2.0	08	200.000	225	12.3
09	300.000	356	18.8								

2-Chlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.04	4.2	02	2.000	2.06	3.1	03	5.000	4.84	-3.2
04	10.000	9.02	-9.8	05	20.000	20.2	1.0	06	50.000	44.5	-11.0
07	100.000	98.4	-1.6	08	200.000	216	8.2	09	300.000	327	9.1

2-Hexanone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	10.000	9.59	-4.1	04	20.000	20.0	0.2	05	40.000	40.0	0.1
06	100.000	89.5	-10.5	07	200.000	208	3.9	08	400.000	420	5.0
09	600.000	633	5.5								

2-Methyl-1-propanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	40.000	43.8	9.5	03	100.000	109	8.5	04	200.000	197	-1.5
05	400.000	402	0.5	06	1000.000	885	-11.5	07	2000.000	2010	0.3
08	4000.000	3890	-2.6	09	6000.000	5810	-3.1				

2-Methyl-2-propanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	25.000	28.3	13.4	04	50.000	53.2	6.5	05	100.000	104	3.9
06	250.000	221	-11.7	07	500.000	488	-2.4	08	1000.000	956	-4.4
09	1500.000	1420	-5.2								

2-Nitropropane

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#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.05	4.9	02	2.000	1.91	-4.5	03	5.000	4.62	-7.7
04	10.000	10.1	0.7	05	20.000	19.2	-3.8	06	50.000	44.6	-10.8
07	100.000	103	3.3	08	200.000	215	7.6	09	300.000	331	10.4

3-Chloro-1-propene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	2.000	2.25	12.4	03	5.000	5.21	4.1	04	10.000	9.58	-4.2
05	20.000	21.0	5.0	06	50.000	46.5	-6.9	07	100.000	100	0.3
08	200.000	196	-2.1	09	300.000	274	-8.6				

4-Chlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.03	2.9	02	2.000	1.99	-0.5	03	5.000	4.78	-4.3
04	10.000	9.13	-8.7	05	20.000	20.3	1.5	06	50.000	45.7	-8.6
07	100.000	99.6	-0.4	08	200.000	216	8.2	09	300.000	330	10.0

4-Isopropyltoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.916	-8.4	02	2.000	1.86	-6.8	03	5.000	4.53	-9.3
04	10.000	8.65	-13.5	05	20.000	20.4	2.2	06	50.000	47.7	-4.5
07	100.000	105	5.0	08	200.000	232	16.2	09	300.000	358	19.2

4-Methyl-2-pentanone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	4.000	4.07	1.8	03	10.000	9.45	-5.5	04	20.000	22.4	12.0
05	40.000	41.4	3.5	06	100.000	87.4	-12.6	07	200.000	197	-1.7
08	400.000	403	0.6	09	600.000	611	1.8				

Acetone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	4.000	3.71	-7.3	03	10.000	8.57	-14.3	04	20.000	19.5	-2.7
05	40.000	42.7	6.8	06	100.000	92.0	-8.0	07	200.000	209	4.4
08	400.000	401	0.3	09	600.000	597	-0.4				

Acetonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	40.000	44.7	11.8	03	100.000	109	8.8	04	200.000	205	2.5
05	400.000	407	1.7	06	1000.000	881	-11.9	07	2000.000	1950	-2.5
08	4000.000	3780	-5.6	09	6000.000	5710	-4.8				

Acrolein

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	10.000	8.17	-18.3	03	25.000	24.9	-0.2	04	50.000	47.9	-4.3
05	100.000	108	7.5	06	250.000	233	-6.7	07	500.000	540	7.9
08	1000.000	1060	6.5	09	1500.000	1610	7.5				

Acrylonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	4.000	4.27	6.8	03	10.000	10.4	3.5	04	20.000	20.3	1.3

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05	40.000	40.8	2.0	06	100.000	90.7	-9.3	07	200.000	198	-0.9
08	400.000	393	-1.8	09	600.000	590	-1.6				

Benzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.04	3.9	02	2.000	2.06	3.2	03	5.000	5.04	0.9
04	10.000	9.30	-7.0	05	20.000	20.5	2.7	06	50.000	45.0	-10.0
07	100.000	98.7	-1.3	08	200.000	206	3.2	09	300.000	313	4.4

Bromobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.05	5.0	02	2.000	2.16	8.2	03	5.000	5.03	0.6
04	10.000	9.52	-4.8	05	20.000	19.6	-1.8	06	50.000	43.8	-12.4
07	100.000	96.6	-3.4	08	200.000	207	3.4	09	300.000	316	5.2

Bromochloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.13	12.7	02	2.000	2.10	5.2	03	5.000	5.37	7.3
04	10.000	9.80	-2.0	05	20.000	20.9	4.4	06	50.000	44.8	-10.4
07	100.000	95.2	-4.8	08	200.000	188	-5.8	09	300.000	280	-6.7

Bromodichloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.950	-5.0	02	2.000	2.01	0.3	03	5.000	4.73	-5.5
04	10.000	10.1	1.0	05	20.000	20.6	3.2	06	50.000	45.2	-9.6
07	100.000	99.0	-1.0	08	200.000	213	6.6	09	300.000	330	10.0

Bromoform

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.907	-9.3	02	2.000	1.81	-9.5	03	5.000	4.62	-7.5
04	10.000	9.54	-4.6	05	20.000	20.8	3.8	06	50.000	47.0	-6.1
07	100.000	108	8.4	08	200.000	225	12.4	09	300.000	338	12.5

Bromomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	5.000	6.36	27.3	04	10.000	10.6	5.9	05	20.000	21.3	6.6
06	50.000	42.5	-15.0	07	100.000	94.8	-5.2	08	200.000	181	-9.5
09	300.000	270	-10.0								

Carbon Disulfide

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.02	1.5	02	2.000	2.13	6.3	03	5.000	4.84	-3.3
04	10.000	8.95	-10.5	05	20.000	20.7	3.6	06	50.000	45.8	-8.3
07	100.000	101	1.1	08	200.000	208	4.0	09	300.000	317	5.6

Carbon Tetrachloride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.907	-9.3	02	2.000	2.02	0.8	03	5.000	4.80	-4.0
04	10.000	8.48	-15.2	05	20.000	20.9	4.4	06	50.000	46.4	-7.2
07	100.000	106	5.9	08	200.000	224	11.9	09	300.000	338	12.6

Initial Calibration - Detailed Report

Calibration ID: KC1900275	Instrument ID: K-MS-24
	Column Name: 1

Chlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.05	5.2	02	2.000	2.10	4.8	03	5.000	5.18	3.5
04	10.000	9.61	-3.9	05	20.000	20.4	2.0	06	50.000	43.9	-12.2
07	100.000	97.6	-2.4	08	200.000	203	1.4	09	300.000	305	1.7

Chloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.11	10.6	02	2.000	2.07	3.3	03	5.000	4.99	-0.2
04	10.000	9.10	-9.0	05	20.000	21.3	6.5	06	50.000	45.1	-9.9
07	100.000	97.9	-2.1	08	200.000	201	0.3	09	300.000	301	0.3

Chloroform

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.00	0.4	02	2.000	2.05	2.5	03	5.000	5.08	1.6
04	10.000	9.32	-6.8	05	20.000	21.0	5.2	06	50.000	45.2	-9.6
07	100.000	99.8	-0.2	08	200.000	205	2.6	09	300.000	313	4.5

Chloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.18	17.8	02	2.000	2.19	9.5	03	5.000	4.95	-1.0
04	10.000	9.54	-4.6	05	20.000	20.6	3.2	06	50.000	42.7	-14.7
07	100.000	92.9	-7.1	08	200.000	193	-3.7	09	300.000	302	0.5

Cyclohexane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.915	-8.5	02	2.000	2.14	6.8	03	5.000	4.92	-1.5
04	10.000	8.56	-14.4	05	20.000	21.2	6.2	06	50.000	46.4	-7.1
07	100.000	104	3.6	08	200.000	214	7.1	09	300.000	324	8.0

Dibromochloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.933	-6.7	02	2.000	1.84	-7.8	03	5.000	5.03	0.6
04	10.000	9.82	-1.8	05	20.000	20.1	0.4	06	50.000	45.5	-9.0
07	100.000	105	4.6	08	200.000	217	8.3	09	300.000	334	11.4

Dibromomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.04	3.8	02	2.000	2.14	6.8	03	5.000	4.68	-6.5
04	10.000	10.1	1.1	05	20.000	20.3	1.7	06	50.000	44.4	-11.2
07	100.000	96.6	-3.4	08	200.000	206	3.1	09	300.000	314	4.7

Dichlorodifluoromethane (CFC 12)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.18	17.8	02	2.000	2.32	16.2	03	5.000	4.77	-4.6
04	10.000	8.76	-12.4	05	20.000	20.4	2.1	06	50.000	44.2	-11.6
07	100.000	96.9	-3.1	08	200.000	197	-1.5	09	300.000	291	-2.8

Dichlorofluoromethane (CFC 21)

Initial Calibration - Detailed Report

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	Column Name: 1

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.945	-5.5	02	2.000	2.18	8.9	03	5.000	5.21	4.2
04	10.000	9.36	-6.4	05	20.000	21.0	5.1	06	50.000	45.6	-8.9
07	100.000	99.3	-0.7	08	200.000	203	1.5	09	300.000	306	1.9

Dichloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	5.000	5.88	17.7	04	10.000	10.4	4.3	05	20.000	21.3	6.7
06	50.000	43.8	-12.3	07	100.000	93.1	-6.9	08	200.000	189	-5.5
09	300.000	288	-4.1								

Diisopropyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.10	10.2	02	2.000	2.03	1.4	03	5.000	5.12	2.4
04	10.000	10.3	2.6	05	20.000	20.4	1.8	06	50.000	43.5	-13.1
07	100.000	94.7	-5.3	08	200.000	191	-4.4	09	300.000	313	4.3

Ethyl tert-Butyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.12	12.1	02	2.000	2.03	1.3	03	5.000	4.99	-0.3
04	10.000	9.64	-3.6	05	20.000	20.7	3.7	06	50.000	45.1	-9.8
07	100.000	97.7	-2.3	08	200.000	198	-0.9	09	300.000	300	-0.0

Ethylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.01	1.0	02	2.000	2.05	2.7	03	5.000	4.97	-0.6
04	10.000	8.75	-12.5	05	20.000	19.9	-0.6	06	50.000	44.9	-10.2
07	100.000	103	3.1	08	200.000	215	7.7	09	300.000	328	9.5

Hexachlorobutadiene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.12	12.4	02	2.000	2.20	10.0	03	5.000	5.06	1.1
04	10.000	9.07	-9.3	05	20.000	20.6	3.1	06	50.000	44.3	-11.5
07	100.000	91.4	-8.6	08	200.000	198	-1.1	09	300.000	311	3.8

Iodomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
04	20.000	15.5	-22.4	05	40.000	38.3	-4.3	06	100.000	93.0	-7.0
07	200.000	222	11.2	08	400.000	442	10.6	09	600.000	671	11.8

Isopropylbenzene (Cumene)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.947	-5.3	02	2.000	1.96	-2.2	03	5.000	4.69	-6.2
04	10.000	8.90	-11.0	05	20.000	20.8	4.2	06	50.000	47.1	-5.8
07	100.000	106	5.5	08	200.000	221	10.7	09	300.000	330	10.1

Methacrylonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	4.000	4.11	2.7	03	10.000	10.1	0.7	04	20.000	20.4	2.1
05	40.000	40.6	1.5	06	100.000	88.9	-11.1	07	200.000	201	0.7

Initial Calibration - Detailed Report

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08 400.000 405 1.3 09 600.000 613 2.1

Methyl Acetate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.18	17.6	02	2.000	2.25	12.5	03	5.000	5.30	6.0
04	10.000	9.35	-6.5	05	20.000	20.3	1.5	06	50.000	42.4	-15.2
07	100.000	96.6	-3.4	08	200.000	188	-5.9	09	300.000	280	-6.6

Methyl tert-Butyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	4.000	4.21	5.2	03	10.000	10.3	2.6	04	20.000	19.4	-3.2
05	40.000	41.5	3.8	06	100.000	90.1	-9.9	07	200.000	199	-0.4
08	400.000	401	0.2	09	600.000	610	1.7				

Methylcyclohexane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.922	-7.8	02	2.000	2.06	2.9	03	5.000	4.51	-9.8
04	10.000	9.40	-6.0	05	20.000	20.5	2.5	06	50.000	45.8	-8.5
07	100.000	100	-0.0	08	200.000	225	12.7	09	300.000	342	13.9

Naphthalene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.14	13.9	02	2.000	1.97	-1.7	03	5.000	4.57	-8.7
04	10.000	8.42	-15.8	05	20.000	18.5	-7.4	06	50.000	43.7	-12.6
07	100.000	100	0.2	08	200.000	222	10.9	09	300.000	364	21.2

Propionitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	4.000	4.27	6.8	03	10.000	10.1	1.4	04	20.000	20.1	0.5
05	40.000	44.1	10.3	06	100.000	90.4	-9.6	07	200.000	200	-0.2
08	400.000	382	-4.4	09	600.000	571	-4.8				

Styrene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.855	-14.5	02	2.000	1.91	-4.4	03	5.000	4.62	-7.6
04	10.000	9.29	-7.1	05	20.000	20.1	0.4	06	50.000	47.2	-5.7
07	100.000	110	10.4	08	200.000	224	11.9	09	300.000	350	16.5

Tetrachloroethene (PCE)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.907	-9.3	02	2.000	2.18	8.9	03	5.000	4.87	-2.6
04	10.000	9.11	-8.9	05	20.000	20.7	3.6	06	50.000	44.4	-11.2
07	100.000	102	2.5	08	200.000	215	7.6	09	300.000	328	9.4

Toluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.03	3.5	02	2.000	1.97	-1.3	03	5.000	4.83	-3.5
04	10.000	9.30	-7.0	05	20.000	20.0	-0.1	06	50.000	45.0	-9.9
07	100.000	100	0.1	08	200.000	214	7.1	09	300.000	334	11.2

Trichloroethene (TCE)

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#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.07	6.6	02	2.000	1.96	-2.1	03	5.000	5.00	-0.1
04	10.000	9.52	-4.8	05	20.000	20.3	1.3	06	50.000	44.4	-11.1
07	100.000	98.1	-1.9	08	200.000	210	5.2	09	300.000	321	6.8

Trichlorofluoromethane (CFC 11)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.03	3.4	02	2.000	2.52	26.2	03	5.000	4.87	-2.7
04	10.000	8.56	-14.4	05	20.000	21.1	5.6	06	50.000	45.3	-9.4
07	100.000	97.0	-3.0	08	200.000	196	-2.0	09	300.000	289	-3.7

Vinyl Acetate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	2.000	1.52	-23.8	03	5.000	5.28	5.7	04	10.000	11.1	11.0
05	20.000	20.9	4.7	06	50.000	45.0	-9.9	07	100.000	101	1.3
08	200.000	203	1.7	09	300.000	328	9.4				

Vinyl Chloride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.08	7.9	02	2.000	2.12	6.0	03	5.000	4.79	-4.3
04	10.000	9.05	-9.5	05	20.000	20.7	3.4	06	50.000	45.7	-8.6
07	100.000	99.5	-0.5	08	200.000	206	2.9	09	300.000	308	2.6

cis-1,2-Dichloroethene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.18	18.4	02	2.000	1.95	-2.4	03	5.000	5.19	3.8
04	10.000	9.53	-4.7	05	20.000	20.9	4.5	06	50.000	44.4	-11.2
07	100.000	97.0	-3.0	08	200.000	203	1.7	09	300.000	279	-6.9

cis-1,3-Dichloropropene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.01	0.7	02	2.000	1.93	-3.6	03	5.000	4.51	-9.9
04	10.000	10.0	0.4	05	20.000	20.2	1.2	06	50.000	44.6	-10.7
07	100.000	100	0.2	08	200.000	216	8.0	09	300.000	341	13.7

cis-1,4-Dichloro-2-butene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	10.000	9.27	-7.3	04	20.000	17.3	-13.5	05	40.000	38.9	-2.7
06	100.000	87.8	-12.2	07	200.000	215	7.5	08	400.000	456	13.9
09	600.000	685	14.2								

m,p-Xylenes

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	2.000	1.98	-1.1	02	4.000	3.94	-1.5	03	10.000	9.41	-5.9
04	20.000	17.8	-11.0	05	40.000	40.9	2.2	06	100.000	92.1	-7.9
07	200.000	207	3.5	08	400.000	440	10.0	09	600.000	671	11.8

n-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.952	-4.8	02	2.000	1.91	-4.6	03	5.000	4.77	-4.6

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04	10.000	8.67	-13.3	05	20.000	20.2	0.8	06	50.000	46.2	-7.6
07	100.000	104	3.7	08	200.000	226	13.2	09	300.000	352	17.2

n-Hexane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.08	8.1	02	2.000	2.24	11.8	03	5.000	4.70	-6.0
04	10.000	8.75	-12.5	05	20.000	20.7	3.7	06	50.000	44.4	-11.2
07	100.000	97.5	-2.5	08	200.000	201	0.6	09	300.000	324	8.1

n-Propylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.983	-1.7	02	2.000	1.97	-1.3	03	5.000	4.72	-5.5
04	10.000	8.72	-12.8	05	20.000	20.1	0.6	06	50.000	45.8	-8.4
07	100.000	102	2.0	08	200.000	225	12.6	09	300.000	343	14.5

o-Xylene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.982	-1.8	02	2.000	2.02	0.9	03	5.000	4.90	-1.9
04	10.000	9.16	-8.4	05	20.000	20.3	1.3	06	50.000	44.6	-10.8
07	100.000	103	3.1	08	200.000	217	8.6	09	300.000	327	9.0

sec-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.903	-9.7	02	2.000	1.92	-3.9	03	5.000	4.68	-6.3
04	10.000	8.97	-10.3	05	20.000	20.8	3.9	06	50.000	47.0	-5.9
07	100.000	103	3.4	08	200.000	228	13.9	09	300.000	345	15.0

tert-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.00	0.1	02	2.000	1.98	-1.2	03	5.000	4.52	-9.6
04	10.000	8.86	-11.4	05	20.000	20.5	2.6	06	50.000	46.0	-8.0
07	100.000	102	2.3	08	200.000	224	12.0	09	300.000	339	13.1

trans-1,2-Dichloroethene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.05	4.8	02	2.000	2.27	13.5	03	5.000	4.84	-3.1
04	10.000	9.03	-9.7	05	20.000	20.6	3.1	06	50.000	44.6	-10.8
07	100.000	97.4	-2.6	08	200.000	205	2.5	09	300.000	307	2.2

trans-1,3-Dichloropropene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.04	4.2	02	2.000	1.90	-5.2	03	5.000	4.61	-7.7
04	10.000	9.71	-2.9	05	20.000	19.9	-0.3	06	50.000	44.1	-11.7
07	100.000	102	1.9	08	200.000	219	9.3	09	300.000	337	12.4

trans-1,4-Dichloro-2-butene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	2.000	2.19	9.5	03	5.000	5.06	1.2	04	10.000	9.06	-9.4
05	20.000	19.9	-0.6	06	50.000	43.3	-13.4	07	100.000	99.6	-0.4
08	200.000	212	6.1	09	300.000	321	7.1				

Initial Calibration - Detailed Report

Calibration ID: KC1900275	Instrument ID: K-MS-24
	Column Name: 1

1,2-Dichloroethane-d4

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	10.000	8.95	-10.5	03	20.000	21.0	5.0	04	30.000	30.2	0.5
05	40.000	42.4	6.0	06	50.000	51.2	2.3	07	70.000	68.7	-1.9
08	80.000	80.7	0.8	09	120.000	117	-2.2				

4-Bromofluorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	10.000	8.86	-11.4	03	20.000	20.7	3.5	04	30.000	30.9	2.9
05	40.000	42.2	5.5	06	50.000	51.9	3.8	07	70.000	68.1	-2.7
08	80.000	80.9	1.1	09	120.000	117	-2.7				

Dibromofluoromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	10.000	7.95	-20.5	03	20.000	19.9	-0.6	04	30.000	30.8	2.6
05	40.000	42.4	6.0	06	50.000	52.1	4.3	07	70.000	69.7	-0.5
08	80.000	85.3	6.6	09	120.000	123	2.1				

Toluene-d8

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	10.000	7.93	-20.7	03	20.000	20.0	0.1	04	30.000	31.4	4.8
05	40.000	41.6	3.9	06	50.000	51.6	3.3	07	70.000	68.4	-2.3
08	80.000	84.6	5.7	09	120.000	126	5.2				

Initial Calibration Verification Summary Report

Calibration ID:	KC1900275	Instrument ID:	K-MS-24
Datafile ID:	J:\MS24\DATA\071519\0715022.D	Column Name:	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
1,1,1,2-Tetrachloroethane	KC1900275-10	T	Average RF	50	48.363	PPB	-3.3	<= 20
1,1,1,2-Tetrachloroethane	KC1900275-10	T	Average RF	50	48.363	PPB	-3.3	<= 30
1,1,1-Trichloroethane (TCA)	KC1900275-10	T	Average RF	50	51.394	PPB	2.8	<= 30
1,1,1-Trichloroethane (TCA)	KC1900275-10	T	Average RF	50	51.394	PPB	2.8	<= 20
1,1,2,2-Tetrachloroethane	KC1900275-10	T	Average RF	50	43.593	PPB	-12.8	<= 30
1,1,2,2-Tetrachloroethane	KC1900275-10	T	Average RF	50	43.593	PPB	-12.8	<= 20
1,1,2-Trichloroethane	KC1900275-10	T	Average RF	50	46.335	PPB	-7.3	<= 20
1,1,2-Trichloroethane	KC1900275-10	T	Average RF	50	46.335	PPB	-7.3	<= 30
1,1,2-Trichlorotrifluoroethane	KC1900275-10	T	Average RF	50	58.089	PPB	16.2	<= 30
1,1,2-Trichlorotrifluoroethane	KC1900275-10	T	Average RF	50	58.089	PPB	16.2	<= 20
1,1-Dichloroethane (1,1-DCA)	KC1900275-10	T	Average RF	50	53.323	PPB	6.6	<= 30
1,1-Dichloroethane (1,1-DCA)	KC1900275-10	T	Average RF	50	53.323	PPB	6.6	<= 20
1,1-Dichloroethene (1,1-DCE)	KC1900275-10	T	Average RF	50	55.965	PPB	11.9	<= 30
1,1-Dichloroethene (1,1-DCE)	KC1900275-10	T	Average RF	50	55.965	PPB	11.9	<= 20
1,1-Dichloropropene	KC1900275-10	T	Average RF	50	52.688	PPB	5.4	
1,1-Dichloropropene	KC1900275-10	T	Average RF	50	52.688	PPB	5.4	<= 30
1,1-Dichloropropene	KC1900275-10	T	Average RF	50	52.688	PPB	5.4	<= 20
1,2,3-Trichlorobenzene	KC1900275-10	T	Average RF	50	47.620	PPB	-4.8	<= 20
1,2,3-Trichlorobenzene	KC1900275-10	T	Average RF	50	47.620	PPB	-4.8	<= 30
1,2,3-Trichloropropane	KC1900275-10	T	Average RF	50	44.560	PPB	-10.9	<= 20
1,2,3-Trichloropropane	KC1900275-10	T	Average RF	50	44.560	PPB	-10.9	<= 30
1,2,4-Trichlorobenzene	KC1900275-10	T	Average RF	50	49.715	PPB	-0.6	<= 20
1,2,4-Trichlorobenzene	KC1900275-10	T	Average RF	50	49.715	PPB	-0.6	<= 30
1,2,4-Trimethylbenzene	KC1900275-10	T	Average RF	50	51.829	PPB	3.7	<= 20
1,2,4-Trimethylbenzene	KC1900275-10	T	Average RF	50	51.829	PPB	3.7	<= 30
1,2-Dibromo-3-chloropropane (DBCP)	KC1900275-10	T	Average RF	50	41.074	PPB	-17.9	<= 20
1,2-Dibromo-3-chloropropane (DBCP)	KC1900275-10	T	Average RF	50	41.074	PPB	-17.9	<= 30
1,2-Dibromoethane	KC1900275-10	T	Average RF	50	45.804	PPB	-8.4	<= 20
1,2-Dibromoethane	KC1900275-10	T	Average RF	50	45.804	PPB	-8.4	<= 30
1,2-Dichlorobenzene	KC1900275-10	T	Average RF	50	47.251	PPB	-5.5	<= 20
1,2-Dichlorobenzene	KC1900275-10	T	Average RF	50	47.251	PPB	-5.5	<= 30
1,2-Dichloroethane	KC1900275-10	T	Average RF	50	45.212	PPB	-9.6	<= 30
1,2-Dichloroethane	KC1900275-10	T	Average RF	50	45.212	PPB	-9.6	<= 20
1,2-Dichloropropane	KC1900275-10	T	Average RF	50	47.793	PPB	-4.4	<= 30
1,2-Dichloropropane	KC1900275-10	T	Average RF	50	47.793	PPB	-4.4	<= 20
1,3,5-Trichlorobenzene	KC1900275-10	T	Average RF	50	54.636	PPB	9.3	<= 20
1,3,5-Trichlorobenzene	KC1900275-10	T	Average RF	50	54.636	PPB	9.3	<= 30
1,3,5-Trimethylbenzene	KC1900275-10	T	Average RF	50	53.435	PPB	6.9	<= 20
1,3,5-Trimethylbenzene	KC1900275-10	T	Average RF	50	53.435	PPB	6.9	<= 30

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Calibration ID:	KC1900275	Instrument ID:	K-MS-24
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1,3-Dichlorobenzene	KC1900275-10	T	Average RF	50	50.592	PPB	1.2	<= 30
1,3-Dichlorobenzene	KC1900275-10	T	Average RF	50	50.592	PPB	1.2	<= 20
1,3-Dichloropropane	KC1900275-10	T	Average RF	50	46.296	PPB	-7.4	<= 20
1,3-Dichloropropane	KC1900275-10	T	Average RF	50	46.296	PPB	-7.4	<= 30
1,4-Dichlorobenzene	KC1900275-10	T	Average RF	50	48.281	PPB	-3.4	<= 30
1,4-Dichlorobenzene	KC1900275-10	T	Average RF	50	48.281	PPB	-3.4	<= 20
1,4-Dioxane	KC1900275-10	T	Average RF	800	665.383	PPB	-16.8	<= 30
1,4-Dioxane	KC1900275-10	T	Average RF	800	665.383	PPB	-16.8	<= 20
1-Chlorohexane	KC1900275-10	T	Average RF	50	57.059	PPB	14.1	<= 30
1-Chlorohexane	KC1900275-10	T	Average RF	50	57.059	PPB	14.1	<= 20
2,2-Dichloropropane	KC1900275-10	T	Average RF	50	49.441	PPB	-1.1	<= 30
2,2-Dichloropropane	KC1900275-10	T	Average RF	50	49.441	PPB	-1.1	<= 20
2-Butanone (MEK)	KC1900275-10	T	Average RF	250	248.338	PPB	-0.7	<= 20
2-Butanone (MEK)	KC1900275-10	T	Average RF	250	248.338	PPB	-0.7	<= 30
2-Chloro-1,3-butadiene	KC1900275-10	T	Average RF	100	88.899	PPB	-11.1	<= 20
2-Chloro-1,3-butadiene	KC1900275-10	T	Average RF	100	88.899	PPB	-11.1	<= 30
2-Chloroethyl Vinyl Ether	KC1900275-10	T	Average RF	50	48.440	PPB	-3.1	<= 20
2-Chloroethyl Vinyl Ether	KC1900275-10	T	Average RF	50	48.440	PPB	-3.1	<= 30
2-Chlorotoluene	KC1900275-10	T	Average RF	50	49.568	PPB	-0.9	<= 30
2-Chlorotoluene	KC1900275-10	T	Average RF	50	49.568	PPB	-0.9	<= 20
2-Hexanone	KC1900275-10	T	Average RF	250	270.142	PPB	8.1	<= 30
2-Hexanone	KC1900275-10	T	Average RF	250	270.142	PPB	8.1	<= 20
2-Methyl-1-propanol	KC1900275-10	T	Average RF	800	667.736	PPB	-16.5	<= 20
2-Methyl-1-propanol	KC1900275-10	T	Average RF	800	667.736	PPB	-16.5	<= 30
2-Methyl-2-propanol	KC1900275-10	T	Average RF	500	439.352	PPB	-12.1	<= 30
2-Methyl-2-propanol	KC1900275-10	T	Average RF	500	439.352	PPB	-12.1	<= 20
2-Nitropropane	KC1900275-10	T	Average RF	50	25.345	PPB	-49.3	<= 20
2-Nitropropane	KC1900275-10	T	Average RF	50	25.345	PPB	-49.3	<= 30
3-Chloro-1-propene	KC1900275-10	T	Average RF	80	83.380	PPB	4.2	<= 20
3-Chloro-1-propene	KC1900275-10	T	Average RF	80	83.380	PPB	4.2	<= 30
4-Chlorotoluene	KC1900275-10	T	Average RF	50	50.039	PPB	0.1	<= 30
4-Chlorotoluene	KC1900275-10	T	Average RF	50	50.039	PPB	0.1	<= 20
4-Isopropyltoluene	KC1900275-10	T	Average RF	50	56.892	PPB	13.8	<= 20
4-Isopropyltoluene	KC1900275-10	T	Average RF	50	56.892	PPB	13.8	<= 30
4-Methyl-2-pentanone	KC1900275-10	T	Average RF	250	238.048	PPB	-4.8	<= 20
4-Methyl-2-pentanone	KC1900275-10	T	Average RF	250	238.048	PPB	-4.8	<= 30
Acetone	KC1900275-10	T	Linear	250	235.772	PPB	-5.7	<= 20
Acetone	KC1900275-10	T	Linear	250	235.772	PPB	-5.7	<= 30
Acetonitrile	KC1900275-10	T	Average RF	800	693.843	PPB	-13.3	<= 20
Acetonitrile	KC1900275-10	T	Average RF	800	693.843	PPB	-13.3	<= 30

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Acrolein	KC1900275-10	T	Average RF	100	78.374	PPB	-21.6	<= 20
Acrolein	KC1900275-10	T	Average RF	100	78.374	PPB	-21.6	<= 30
Acrylonitrile	KC1900275-10	T	Average RF	130	115.487	PPB	-11.2	<= 20
Acrylonitrile	KC1900275-10	T	Average RF	130	115.487	PPB	-11.2	<= 30
Benzene	KC1900275-10	T	Average RF	50	49.666	PPB	-0.7	<= 30
Benzene	KC1900275-10	T	Average RF	50	49.666	PPB	-0.7	<= 20
Bromobenzene	KC1900275-10	T	Average RF	50	47.509	PPB	-5.0	<= 30
Bromobenzene	KC1900275-10	T	Average RF	50	47.509	PPB	-5.0	<= 20
Bromochloromethane	KC1900275-10	T	Average RF	50	44.638	PPB	-10.7	<= 30
Bromochloromethane	KC1900275-10	T	Average RF	50	44.638	PPB	-10.7	<= 20
Bromodichloromethane	KC1900275-10	T	Average RF	50	44.507	PPB	-11.0	<= 30
Bromodichloromethane	KC1900275-10	T	Average RF	50	44.507	PPB	-11.0	<= 20
Bromoform	KC1900275-10	T	Average RF	50	46.058	PPB	-7.9	<= 30
Bromoform	KC1900275-10	T	Average RF	50	46.058	PPB	-7.9	<= 20
Bromomethane	KC1900275-10	T	Average RF	50	42.662	PPB	-14.7	<= 30
Bromomethane	KC1900275-10	T	Average RF	50	42.662	PPB	-14.7	<= 20
Carbon Disulfide	KC1900275-10	T	Average RF	100	101.226	PPB	1.2	<= 20
Carbon Disulfide	KC1900275-10	T	Average RF	100	101.226	PPB	1.2	<= 30
Carbon Tetrachloride	KC1900275-10	T	Average RF	50	54.463	PPB	8.9	<= 30
Carbon Tetrachloride	KC1900275-10	T	Average RF	50	54.463	PPB	8.9	<= 20
Chlorobenzene	KC1900275-10	T	Average RF	50	48.237	PPB	-3.5	<= 20
Chlorobenzene	KC1900275-10	T	Average RF	50	48.237	PPB	-3.5	<= 30
Chloroethane	KC1900275-10	T	Average RF	50	54.112	PPB	8.2	<= 30
Chloroethane	KC1900275-10	T	Average RF	50	54.112	PPB	8.2	<= 20
Chloroform	KC1900275-10	T	Average RF	50	46.925	PPB	-6.1	<= 30
Chloroform	KC1900275-10	T	Average RF	50	46.925	PPB	-6.1	<= 20
Chloromethane	KC1900275-10	T	Average RF	50	53.022	PPB	6.0	<= 20
Chloromethane	KC1900275-10	T	Average RF	50	53.022	PPB	6.0	<= 30
Cyclohexane	KC1900275-10	T	Average RF	50	59.245	PPB	18.5	<= 30
Cyclohexane	KC1900275-10	T	Average RF	50	59.245	PPB	18.5	<= 20
Dibromochloromethane	KC1900275-10	T	Average RF	50	46.223	PPB	-7.6	<= 20
Dibromochloromethane	KC1900275-10	T	Average RF	50	46.223	PPB	-7.6	<= 30
Dibromomethane	KC1900275-10	T	Average RF	50	44.047	PPB	-11.9	<= 30
Dibromomethane	KC1900275-10	T	Average RF	50	44.047	PPB	-11.9	<= 20
Dichlorodifluoromethane (CFC 12)	KC1900275-10	T	Average RF	50	73.669	PPB	47.3	<= 30
Dichlorodifluoromethane (CFC 12)	KC1900275-10	T	Average RF	50	73.669	PPB	47.3	<= 20
Dichlorofluoromethane (CFC 21)	KC1900275-10	T	Average RF	100	49.454	PPB	-50.5	<= 20
Dichlorofluoromethane (CFC 21)	KC1900275-10	T	Average RF	100	49.454	PPB	-50.5	<= 30
Dichloromethane	KC1900275-10	T	Average RF	50	45.146	PPB	-9.7	<= 30
Dichloromethane	KC1900275-10	T	Average RF	50	45.146	PPB	-9.7	<= 20

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Calibration ID:	KC1900275	Instrument ID:	K-MS-24
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Diisopropyl Ether	KC1900275-10	T	Average RF	100	103.067	PPB	3.1	<= 20
Diisopropyl Ether	KC1900275-10	T	Average RF	100	103.067	PPB	3.1	<= 30
Ethyl Acetate	KC1900275-10	T	Average RF	80		PPB		<= 30
Ethyl Acetate	KC1900275-10	T	Average RF	80		PPB		<= 20
Ethyl tert-Butyl Ether	KC1900275-10	T	Average RF	100	95.980	PPB	-4.0	<= 30
Ethyl tert-Butyl Ether	KC1900275-10	T	Average RF	100	95.980	PPB	-4.0	<= 20
Ethylbenzene	KC1900275-10	T	Average RF	50	51.052	PPB	2.1	<= 30
Ethylbenzene	KC1900275-10	T	Average RF	50	51.052	PPB	2.1	<= 20
Hexachlorobutadiene	KC1900275-10	T	Average RF	50	48.926	PPB	-2.1	<= 30
Hexachlorobutadiene	KC1900275-10	T	Average RF	50	48.926	PPB	-2.1	<= 20
Iodomethane	KC1900275-10	T	Average RF	80	98.955	PPB	23.7	<= 20
Iodomethane	KC1900275-10	T	Average RF	80	98.955	PPB	23.7	<= 30
Isopropylbenzene (Cumene)	KC1900275-10	T	Average RF	50	52.792	PPB	5.6	
Isopropylbenzene (Cumene)	KC1900275-10	T	Average RF	50	52.792	PPB	5.6	<= 30
Isopropylbenzene (Cumene)	KC1900275-10	T	Average RF	50	52.792	PPB	5.6	<= 20
Methacrylonitrile	KC1900275-10	T	Average RF	80	72.565	PPB	-9.3	<= 20
Methacrylonitrile	KC1900275-10	T	Average RF	80	72.565	PPB	-9.3	<= 30
Methyl Acetate	KC1900275-10	T	Average RF	50	41.123	PPB	-17.8	<= 20
Methyl Acetate	KC1900275-10	T	Average RF	50	41.123	PPB	-17.8	<= 30
Methyl tert-Butyl Ether	KC1900275-10	T	Average RF	50	45.832	PPB	-8.3	<= 30
Methyl tert-Butyl Ether	KC1900275-10	T	Average RF	50	45.832	PPB	-8.3	<= 20
Methylcyclohexane	KC1900275-10	T	Average RF	50	42.162	PPB	-15.7	<= 30
Methylcyclohexane	KC1900275-10	T	Average RF	50	42.162	PPB	-15.7	<= 20
Naphthalene	KC1900275-10	T	Average RF	50	45.829	PPB	-8.3	<= 30
Naphthalene	KC1900275-10	T	Average RF	50	45.829	PPB	-8.3	<= 20
Propionitrile	KC1900275-10	T	Average RF	80	71.033	PPB	-11.2	<= 30
Propionitrile	KC1900275-10	T	Average RF	80	71.033	PPB	-11.2	<= 20
Styrene	KC1900275-10	T	Average RF	50	50.399	PPB	0.8	<= 30
Styrene	KC1900275-10	T	Average RF	50	50.399	PPB	0.8	<= 20
Tetrachloroethene (PCE)	KC1900275-10	T	Average RF	50	56.005	PPB	12.0	<= 30
Tetrachloroethene (PCE)	KC1900275-10	T	Average RF	50	56.005	PPB	12.0	<= 20
Toluene	KC1900275-10	T	Average RF	50	48.551	PPB	-2.9	<= 20
Toluene	KC1900275-10	T	Average RF	50	48.551	PPB	-2.9	<= 30
Trichloroethene (TCE)	KC1900275-10	T	Average RF	50	50.697	PPB	1.4	<= 30
Trichloroethene (TCE)	KC1900275-10	T	Average RF	50	50.697	PPB	1.4	<= 20
Trichlorofluoromethane (CFC 11)	KC1900275-10	T	Average RF	50	48.398	PPB	-3.2	<= 30
Trichlorofluoromethane (CFC 11)	KC1900275-10	T	Average RF	50	48.398	PPB	-3.2	<= 20
Vinyl Acetate	KC1900275-10	T	Average RF	180	204.404	PPB	13.6	<= 30
Vinyl Acetate	KC1900275-10	T	Average RF	180	204.404	PPB	13.6	<= 20
Vinyl Chloride	KC1900275-10	T	Average RF	50	56.077	PPB	12.2	<= 30

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Vinyl Chloride	KC1900275-10	T	Average RF	50	56.077	PPB	12.2	<= 20
cis-1,2-Dichloroethene	KC1900275-10	T	Average RF	50	47.367	PPB	-5.3	<= 30
cis-1,2-Dichloroethene	KC1900275-10	T	Average RF	50	47.367	PPB	-5.3	<= 20
cis-1,3-Dichloropropene	KC1900275-10	T	Average RF	50	45.321	PPB	-9.4	<= 20
cis-1,3-Dichloropropene	KC1900275-10	T	Average RF	50	45.321	PPB	-9.4	<= 30
cis-1,4-Dichloro-2-butene	KC1900275-10	T	Average RF	80	77.813	PPB	-2.7	<= 30
cis-1,4-Dichloro-2-butene	KC1900275-10	T	Average RF	80	77.813	PPB	-2.7	<= 20
m,p-Xylenes	KC1900275-10	T	Average RF	100	103.644	PPB	3.6	
m,p-Xylenes	KC1900275-10	T	Average RF	100	103.644	PPB	3.6	<= 20
m,p-Xylenes	KC1900275-10	T	Average RF	100	103.644	PPB	3.6	<= 30
n-Butylbenzene	KC1900275-10	T	Average RF	50	55.202	PPB	10.4	<= 30
n-Butylbenzene	KC1900275-10	T	Average RF	50	55.202	PPB	10.4	<= 20
n-Hexane	KC1900275-10	T	Average RF	80	82.930	PPB	3.7	<= 20
n-Hexane	KC1900275-10	T	Average RF	80	82.930	PPB	3.7	<= 30
n-Propylbenzene	KC1900275-10	T	Average RF	50	52.859	PPB	5.7	<= 30
n-Propylbenzene	KC1900275-10	T	Average RF	50	52.859	PPB	5.7	<= 20
o-Xylene	KC1900275-10	T	Average RF	50	49.873	PPB	-0.3	<= 20
o-Xylene	KC1900275-10	T	Average RF	50	49.873	PPB	-0.3	<= 30
sec-Butylbenzene	KC1900275-10	T	Average RF	50	55.621	PPB	11.2	<= 30
sec-Butylbenzene	KC1900275-10	T	Average RF	50	55.621	PPB	11.2	<= 20
tert-Butylbenzene	KC1900275-10	T	Average RF	50	53.325	PPB	6.7	<= 30
tert-Butylbenzene	KC1900275-10	T	Average RF	50	53.325	PPB	6.7	<= 20
trans-1,2-Dichloroethene	KC1900275-10	T	Average RF	50	49.744	PPB	-0.5	<= 20
trans-1,2-Dichloroethene	KC1900275-10	T	Average RF	50	49.744	PPB	-0.5	<= 30
trans-1,3-Dichloropropene	KC1900275-10	T	Average RF	50	47.828	PPB	-4.3	<= 20
trans-1,3-Dichloropropene	KC1900275-10	T	Average RF	50	47.828	PPB	-4.3	<= 30
trans-1,4-Dichloro-2-butene	KC1900275-10	T	Average RF	80	69.749	PPB	-12.8	<= 20
trans-1,4-Dichloro-2-butene	KC1900275-10	T	Average RF	80	69.749	PPB	-12.8	<= 30
1,2-Dichloroethane-d4	KC1900275-10	S	Average RF	50	46.118	PPB	-7.8	<= 30
1,2-Dichloroethane-d4	KC1900275-10	S	Average RF	50	46.118	PPB	-7.8	<= 20
4-Bromofluorobenzene	KC1900275-10	S	Average RF	50	48.698	PPB	-2.6	<= 20
4-Bromofluorobenzene	KC1900275-10	S	Average RF	50	48.698	PPB	-2.6	<= 30
Dibromofluoromethane	KC1900275-10	S	Average RF	50	47.593	PPB	-4.8	<= 20
Dibromofluoromethane	KC1900275-10	S	Average RF	50	47.593	PPB	-4.8	<= 30
Toluene-d8	KC1900275-10	S	Average RF	50	48.757	PPB	-2.5	<= 20
Toluene-d8	KC1900275-10	S	Average RF	50	48.757	PPB	-2.5	<= 30

Exceptions

QAP **Method**

Initial Calibration Verification Summary Report

Calibration ID: KC1900275	Instrument ID: K-MS-24
Datafile ID: J:\MS24\DATA\071519\0715022.D	Column Name: 1

DOD QSM v5.0 8260B
 Kelso

Compound	Type	Criteria	Result
1,4-Dioxane	Minimum RF	>= 0.01	
2-Nitropropane	Percent Difference	<= 20	
Iodomethane	Percent Difference	<= 20	
Acrolein	Percent Difference	<= 20	
Dichlorofluoromethane (CFC 21)	Percent Difference	<= 20	
Dichlorodifluoromethane (CFC 12)	Percent Difference	<= 20	

DOD QSM v5.0 8260C
 Kelso

Compound	Type	Criteria	Result
1,4-Dioxane	Minimum RF	>= 0.01	
2-Nitropropane	Percent Difference	<= 20	
Iodomethane	Percent Difference	<= 20	
Acrolein	Percent Difference	<= 20	
Dichlorofluoromethane (CFC 21)	Percent Difference	<= 20	
Dichlorodifluoromethane (CFC 12)	Percent Difference	<= 20	

Exceptions

QAP Method
 DOD QSM v5.1 8260C
 Kelso

Compound	Type	Criteria	Result
1,4-Dioxane	Minimum RF	>= 0.01	
2-Nitropropane	Percent Difference	<= 20	
Iodomethane	Percent Difference	<= 20	
Acrolein	Percent Difference	<= 20	
Dichlorofluoromethane (CFC 21)	Percent Difference	<= 20	
Dichlorodifluoromethane (CFC 12)	Percent Difference	<= 20	

Exceptions

QAP Method
 LAB QAP 8260B

Compound	Type	Criteria	Result
1,4-Dioxane	Minimum RF	>= 0.01	
2-Nitropropane	Percent Difference	<= 30	
Dichlorofluoromethane (CFC 21)	Percent Difference	<= 30	

Initial Calibration Verification Summary Report

Calibration ID: KC1900275	Instrument ID: K-MS-24
Datafile ID: J:\MS24\DATA\071519\0715022.D	Column Name: 1

LAB QAP 8260C Dichlorodifluoromet
hane (CFC 12) Percent Difference <= 30

Compound	Type	Criteria	Result
1,4-Dioxane	Minimum RF	>= 0.01	
2-Nitropropane	Percent Difference	<= 30	
Dichlorofluoromethane (CFC 21)	Percent Difference	<= 30	
Dichlorodifluoromet hane (CFC 12)	Percent Difference	<= 30	

Data File : J:\MS24\DATA\071519\0715009.D
 Acq On : 15 Jul 2019 11:28 am
 Sample : ICAL 2
 Misc :

Vial: 9
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 15 13:40:45 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

Quant Method : J:\MS24\M...\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	3.90	96	152388	50.00	PPB	0.00
58) Chlorobenzene-d5	6.50	82	55271	50.00	PPB	0.00
77) 1,4-Dichlorobenzene-d4	8.82	152	48293	50.00	PPB	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Dibromofluoromethane	3.42	113	5919	7.62	PPB	0.00
Spiked Amount	50.000		Recovery	=	15.24%	
43) 1,2-Dichloroethane-d4	3.69	65	8578	8.74	PPB	0.00
Spiked Amount	50.000		Recovery	=	17.48%	
56) Toluene-d8	5.17	98	21028	7.67	PPB	0.00
Spiked Amount	50.000		Recovery	=	15.34%	
76) 4-Bromofluorobenzene	7.67	95	8175	8.53	PPB	0.00
Spiked Amount	50.000		Recovery	=	17.06%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.85	85	1410	2.63	PPB	97
3) Chloromethane	0.98	50	2113	2.57	PPB	96
4) Vinyl Chloride	1.04	62	1791	2.32	PPB	93
5) Bromomethane <i>NR</i>	1.26	96	1470	3.18	PPB	100
6) Chloroethane	1.33	64	1006	2.29	PPB	92
7) Dichlorofluoromethane	1.47	67	2672	2.39	PPB	96
8) Trichlorofluoromethane	1.46	101	2616	2.78	PPB	88
9) Acrolein	1.80	56	1309	8.75	PPB	92
10) Trichlorotrifluoroethane	1.79	151	1163	2.48	PPB	83
11) 1,1-Dichloroethene	1.81	96	1365	2.55	PPB	81
12) Acetone	1.91	43	2883	12.18	PPB	92
13) Iodomethane	1.92	142	1626	3.14	PPB	89
14) Carbon Disulfide	1.94	76	4319	2.32	PPB	93
15) 3-Chloro-1-Propane	2.08	TIC	7305m	2.42	PPB	
16) Methyl Acetate	2.11	43	1490	2.65	PPB	# 61
17) Acetonitrile	2.15	40	2732	50.74	PPB	# 98
18) Methylene Chloride <i>NR</i>	2.18	84	2854	3.74	PPB	97
19) tert-Butyl Alcohol <i>NR</i>	2.28	59	1376	14.29	PPB	81
20) Acrylonitrile	2.41	53	1431	4.71	PPB	89
21) Methyl tert-Butyl Ether	2.32	73	10589	4.67	PPB	98
22) trans-1,2-Dichloroethene	2.33	96	1708	2.54	PPB	94
23) Hexane	2.45	57	2251	2.52	PPB	97
24) Diisopropyl Ether	2.65	45	5721	2.33	PPB	99
25) 1,1-Dichloroethane	2.65	63	2959	2.30	PPB	99
26) Vinyl Acetate	2.69	86	245m	1.69	PPB	
27) Chloroprene	2.68	53	4364	4.63	PPB	96
28) tert-Butyl Ethyl Ether	2.90	59	5456	2.25	PPB	97
29) 2,2-Dichloropropane	3.04	77	2357	2.48	PPB	94
30) cis-1,2-Dichloroethene	3.07	96	1832	2.20	PPB	82
31) 2-Butanone <i>NR</i>	3.11	72	491m	5.05	PPB	
32) Propionitrile	3.22	54	584	4.73	PPB	68
34) Methacrylonitrile	3.29	67	1681	4.62	PPB	96
35) Bromochloromethane	3.25	128	976	2.35	PPB	# 83
36) Chloroform	3.29	83	3019	2.27	PPB	96
37) Cyclohexane	3.36	56	2424	2.30	PPB	98
38) 1,1,1-Trichloroethane	3.39	97	2228	2.24	PPB	94
40) Carbon Tetrachloride	3.47	117	1761	2.17	PPB	89
41) 1,1-Dichloropropene	3.51	75	2282	2.42	PPB	76
42) Isobutyl Alcohol	3.68	43	2366	49.50	PPB	97
44) Benzene	3.67	78	7060	2.29	PPB	98
45) 1,2-Dichloroethane	3.74	62	2409	2.14	PPB	98
46) Trichloroethene	4.16	95	1612	2.20	PPB	85
47) Methylcyclohexane	4.25	83	2287	2.25	PPB	90

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS24\DATA\071519\0715009.D
 Acq On : 15 Jul 2019 11:28 am
 Sample : ICAL 2
 Misc :

Vial: 9
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 15 13:40:45 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

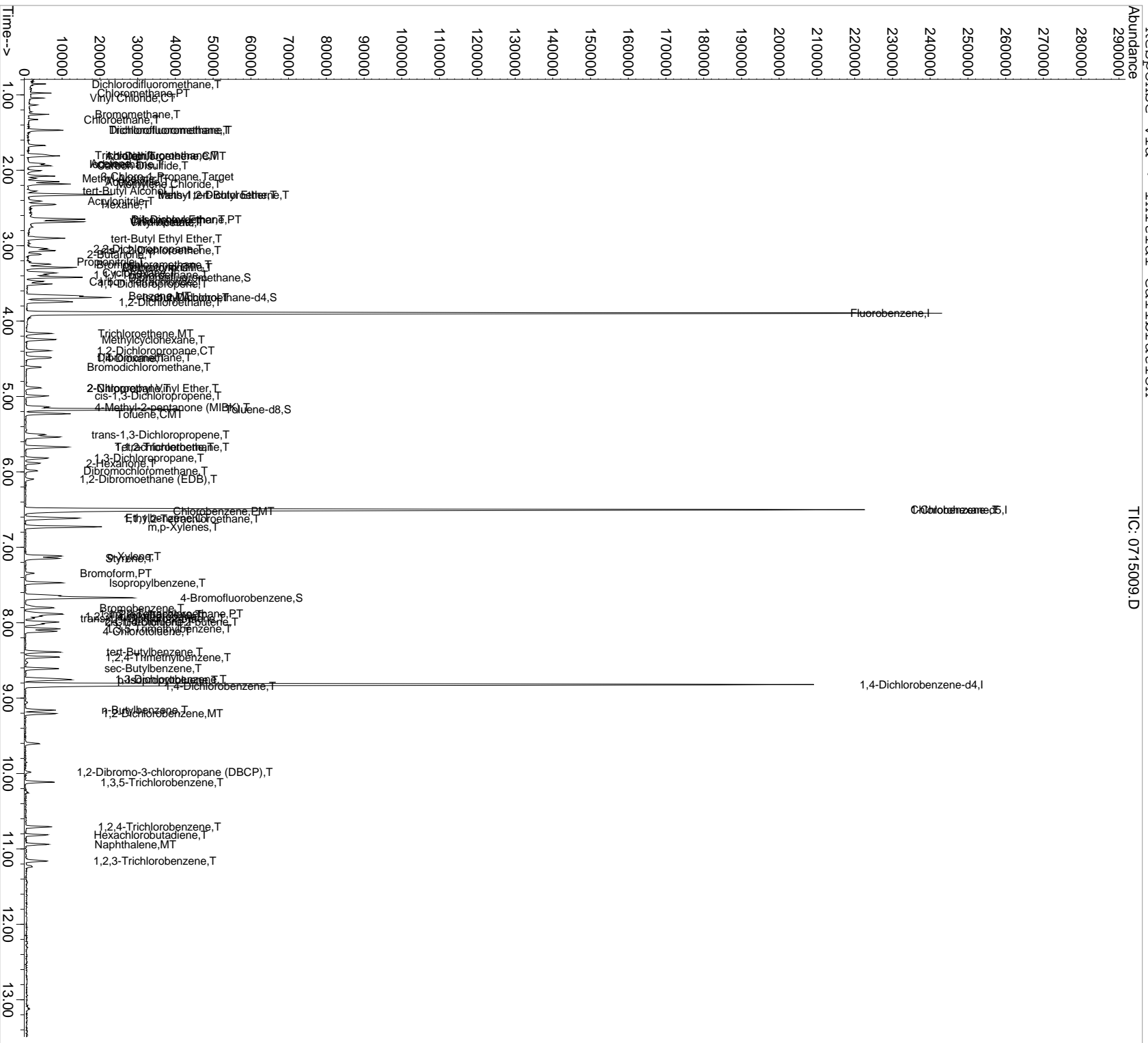
Quant Method : J:\MS24\M...\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
48) 1,2-Dichloropropane	4.39	63	1797	2.20	PPB	91
49) Dibromomethane	4.49	93	1174	2.40	PPB	90
50) 1,4-Dioxane	4.49	88	430m	50.35	PPB	
51) Bromodichloromethane	4.61	83	2196	2.22	PPB	93
52) 2-Nitropropane	4.88	41	1259	2.14	PPB	87
53) 2-Chloroethyl Vinyl Ether	4.89	63	420m	1.76	PPB	
54) cis-1,3-Dichloropropene	4.99	75	2582	2.16	PPB	98
55) 4-Methyl-2-pentanone (MIBK)	5.14	58	1322	4.66	PPB	90
57) Toluene	5.23	92	3790	2.19	PPB	90
59) trans-1,3-Dichloropropene	5.50	75	2200	2.15	PPB	89
60) 1,1,2-Trichloroethane	5.66	83	1392	2.44	PPB	93
61) Tetrachloroethene	5.67	164	1263	2.45	PPB	99
62) 2-Hexanone <i>NR</i>	5.88	57	397m	4.62	PPB	
63) 1,3-Dichloropropane	5.81	76	2651	2.36	PPB	97
64) Dibromochloromethane	5.98	129	1481	2.02	PPB	83
65) 1,2-Dibromoethane (EDB)	6.09	107	1398	2.20	PPB	99
66) 1-Chlorohexane	6.50	91	1729	2.46	PPB	88
67) Chlorobenzene	6.53	112	4564	2.39	PPB	95
68) Ethylbenzene	6.61	106	2190	2.29	PPB	95
69) 1,1,1,2-Tetrachloroethane	6.62	131	1634	2.39	PPB	90
70) m,p-Xylenes	6.73	106	4990	4.28	PPB	94
71) o-Xylene	7.11	106	2539	2.26	PPB	# 79
72) Styrene	7.14	103	1949m	2.03	PPB	
73) Bromoform	7.35	173	930	1.93	PPB	95
74) Isopropylbenzene	7.47	105	5959	2.08	PPB	94
75) cis-1,4-Dichloro-2-butene <i>NR</i>	7.99	89	760	7.23	PPB	# 1
78) 1,1,2,2-Tetrachloroethane	7.87	83	1898	2.42	PPB	86
79) trans-1,4-Dichloro-2-buten	7.94	53	552	2.53	PPB	73
80) Bromobenzene	7.80	156	1997	2.47	PPB	88
81) n-Propylbenzene	7.89	91	6866	2.16	PPB	97
82) 1,2,3-Trichloropropane	7.92	110	548	2.19	PPB	# 66
83) 2-Chlorotoluene	7.99	91	4575	2.32	PPB	93
84) 1,3,5-Trimethylbenzene	8.08	105	4486	2.01	PPB	97
85) 4-Chlorotoluene	8.11	91	4575m	2.18	PPB	
86) tert-Butylbenzene	8.38	119	4245	2.15	PPB	96
87) 1,2,4-Trimethylbenzene	8.46	105	4712	2.08	PPB	91
88) sec-Butylbenzene	8.60	105	5841	2.04	PPB	97
89) p-Isopropyltoluene	8.76	119	4614	1.95	PPB	98
90) 1,3-Dichlorobenzene	8.75	146	3203	2.24	PPB	95
91) 1,4-Dichlorobenzene	8.85	146	3522	2.44	PPB	96
92) n-Butylbenzene	9.16	91	4287	2.06	PPB	97
93) 1,2-Dichlorobenzene	9.20	146	3138	2.24	PPB	95
94) 1,2-Dibromo-3-chloropropan	9.98	155	277m	2.24	PPB	
95) 1,3,5-Trichlorobenzene	10.11	180	2352	2.42	PPB	97
96) 1,2,4-Trichlorobenzene	10.71	180	2168	2.52	PPB	95
97) Hexachlorobutadiene	10.82	225	1282	2.48	PPB	96
98) Naphthalene	10.94	128	4511	2.25	PPB	95
99) 1,2,3-Trichlorobenzene	11.16	180	1981	2.39	PPB	96

(#) = qualifier out of range (m) = manual integration

07/16/19
Data File : J:\MS24\DATA\071519\0715009.D
Acq On : 15 Jul 2019 11:28 am
Sample : ICAL 2
Misc :
MS Integration Params: rteint.p
Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
Title : VOA MS24 EPA Method 8260B
Last Update : Mon Jul 15 14:17:01 2019
Response via : Initial Calibration

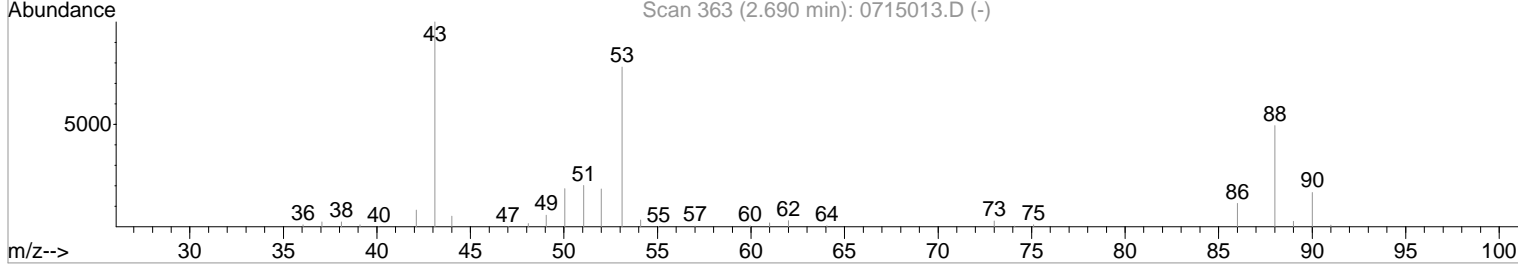
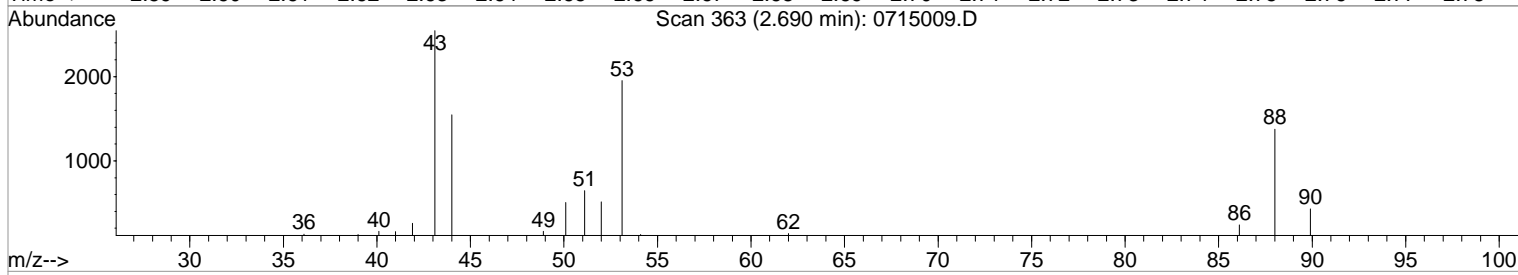
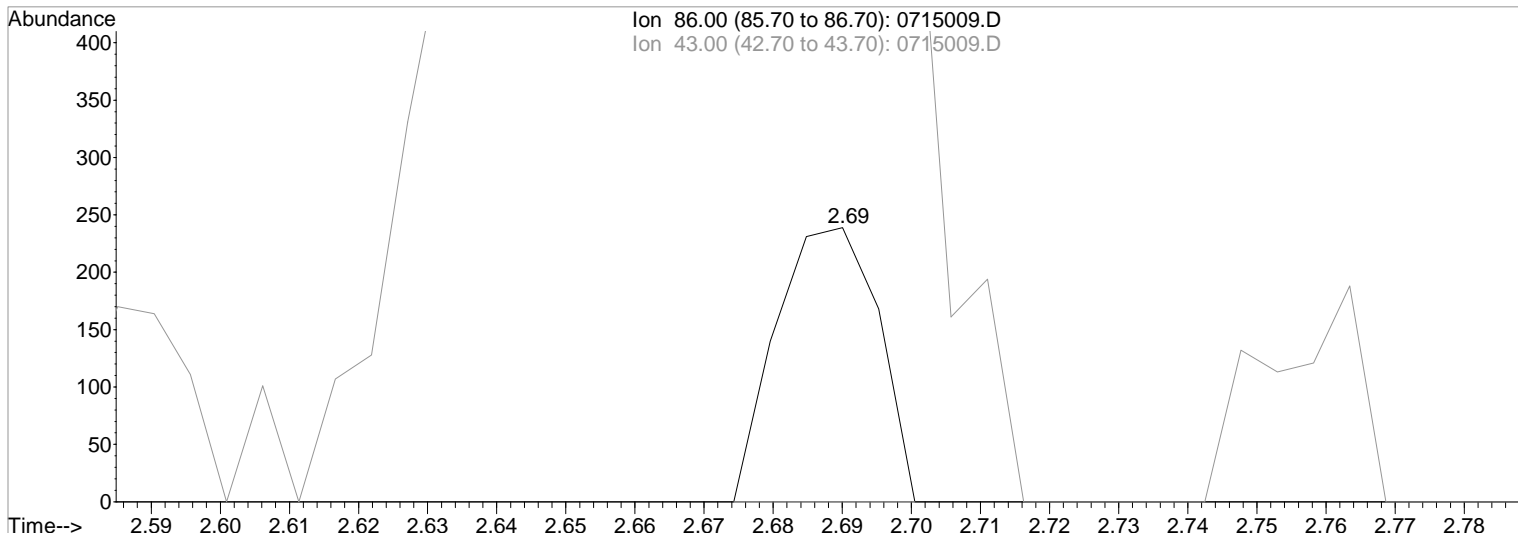


Data File : J:\MS24\DATA\071519\0715009.D
 Acq On : 15 Jul 2019 11:28 am
 Sample : ICAL 2
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:41 2019

Vial: 9
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Multiple Level Calibration



TIC: 0715009.D

(26) Vinyl Acetate (T)

2.69min 1.69PPB m
 response 245

Manual Integration:

After
 Missed peak

Ion	Exp%	Act%
86.00	100	100
43.00	1005.70	1066.11#
0.00	0.00	0.00
0.00	0.00	0.00

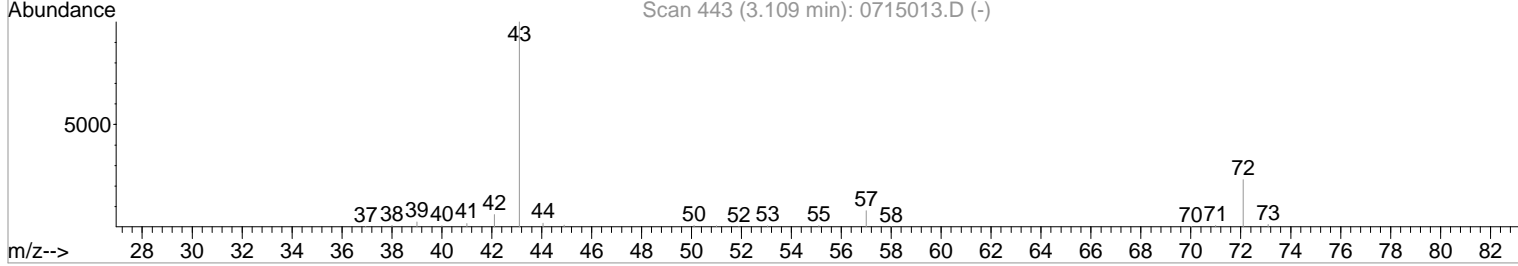
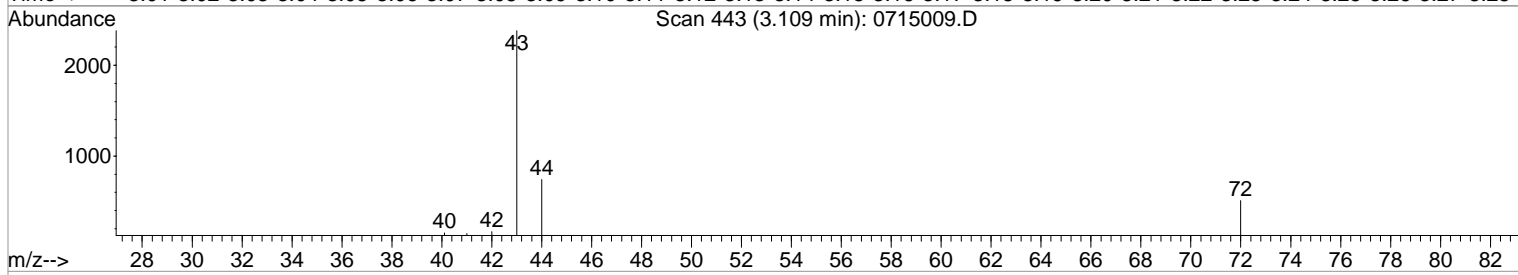
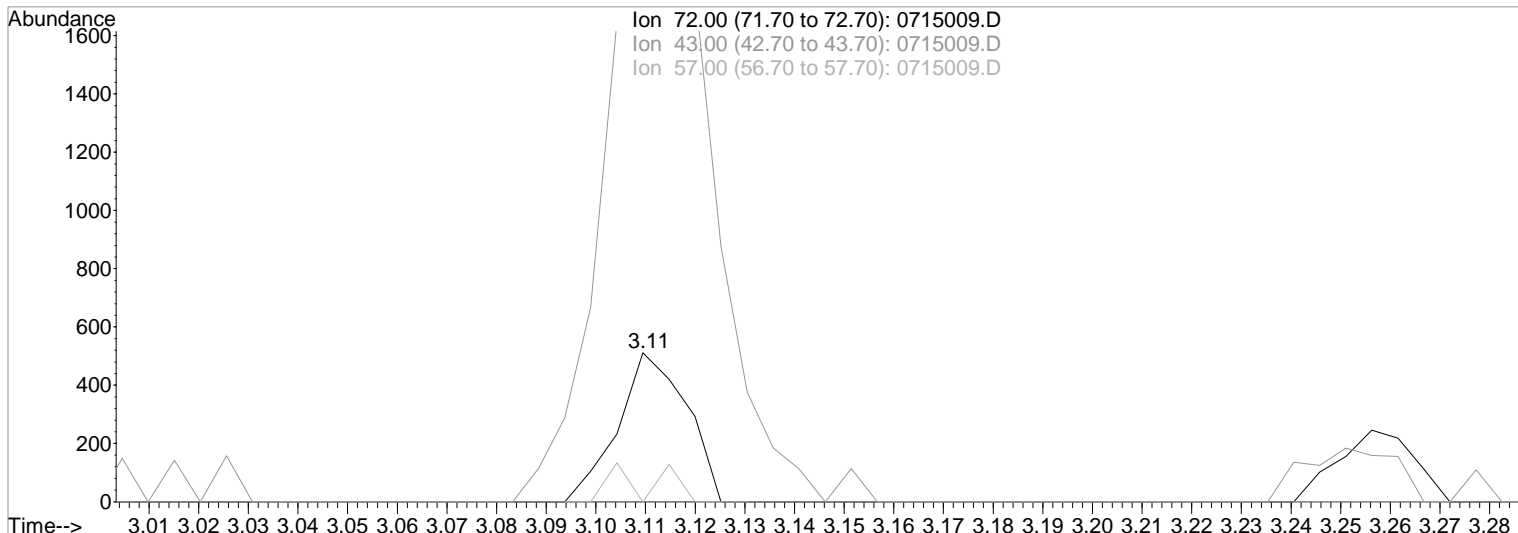
07/15/19

Data File : J:\MS24\DATA\071519\0715009.D
 Acq On : 15 Jul 2019 11:28 am
 Sample : ICAL 2
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:41 2019

Vial: 9
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Single Level Calibration



TIC: 0715009.D

(31) 2-Butanone (T)

3.11min 5.05PPB m
 response 491

Ion	Exp%	Act%
72.00	100	100
43.00	431.30	466.34#
57.00	34.40	0.00#
0.00	0.00	0.00

Manual Integration:

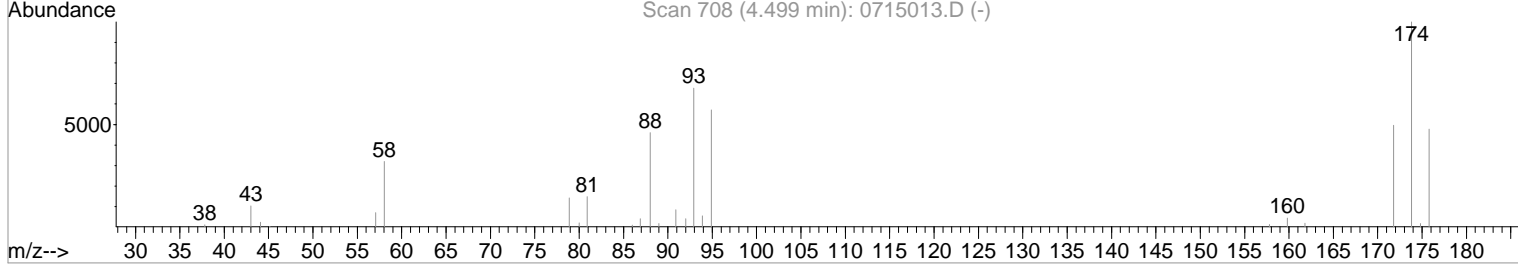
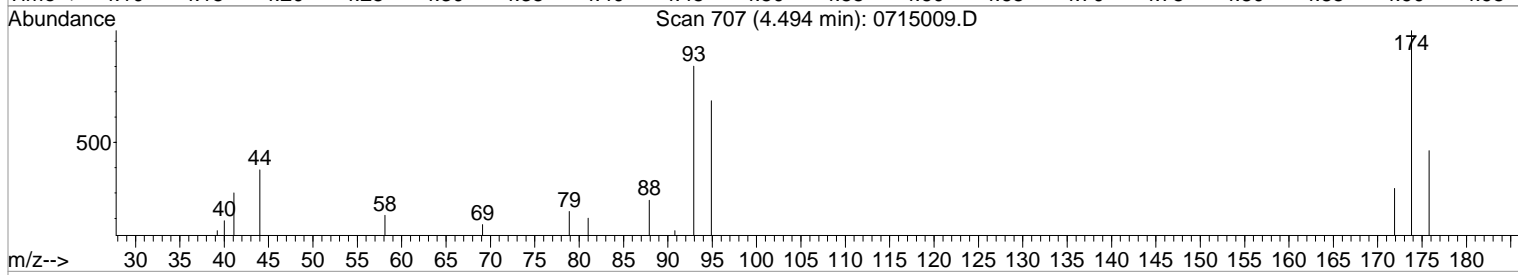
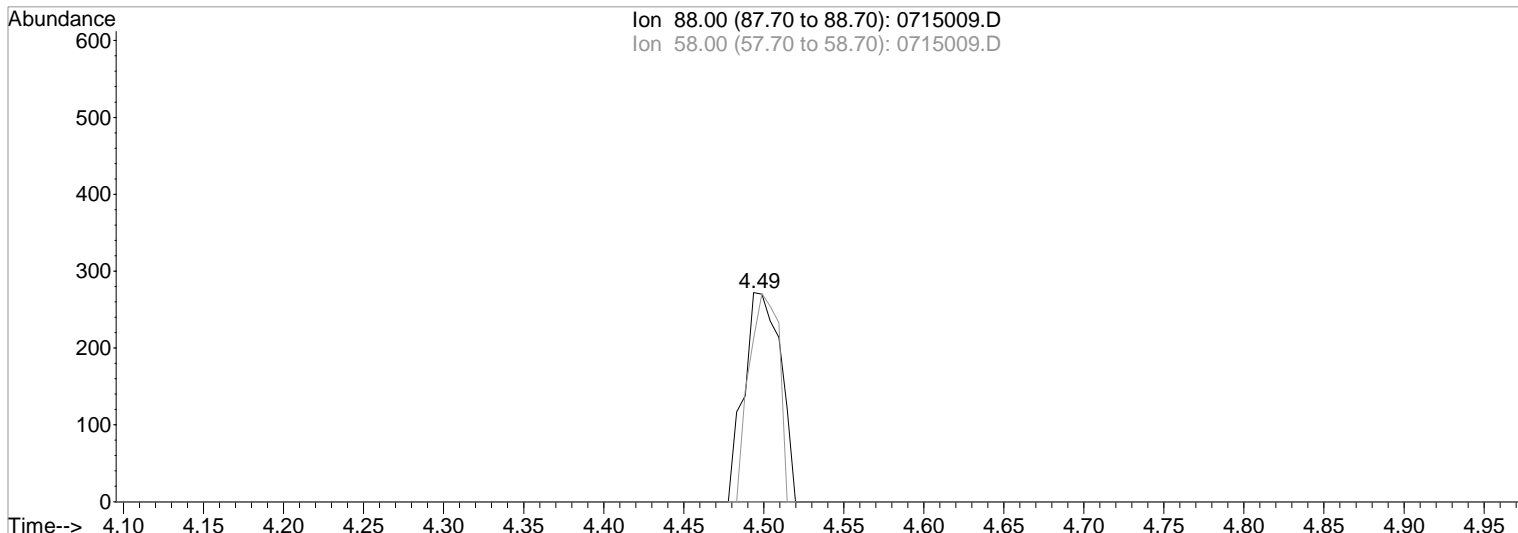
After
 Missed peak
 07/15/19

Data File : J:\MS24\DATA\071519\0715009.D
 Acq On : 15 Jul 2019 11:28 am
 Sample : ICAL 2
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:41 2019

Vial: 9
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Multiple Level Calibration



TIC: 0715009.D

(50) 1,4-Dioxane (T)

4.49min 50.35PPB m
 response 430

Manual Integration:

After
 Missed peak

Ion	Exp%	Act%
88.00	100	100
58.00	71.30	77.94
0.00	0.00	0.00
0.00	0.00	0.00

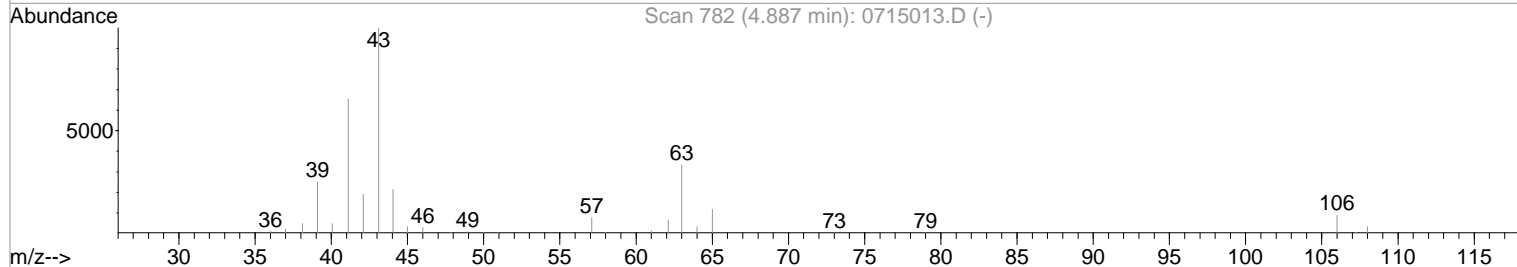
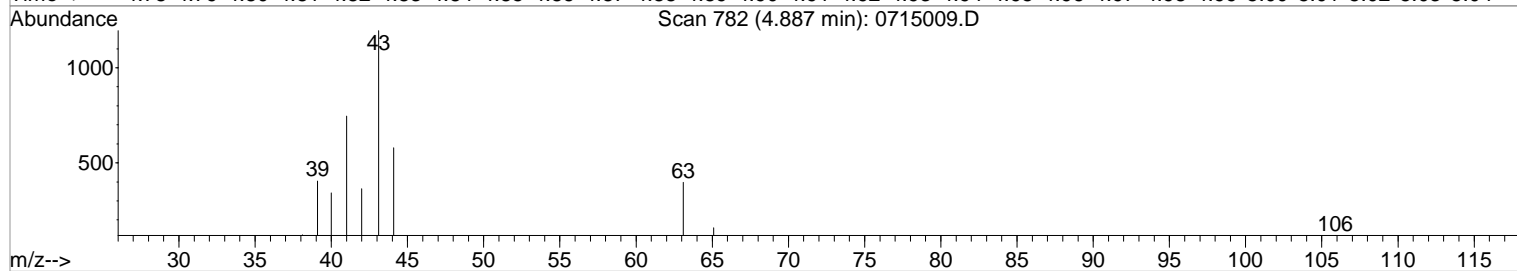
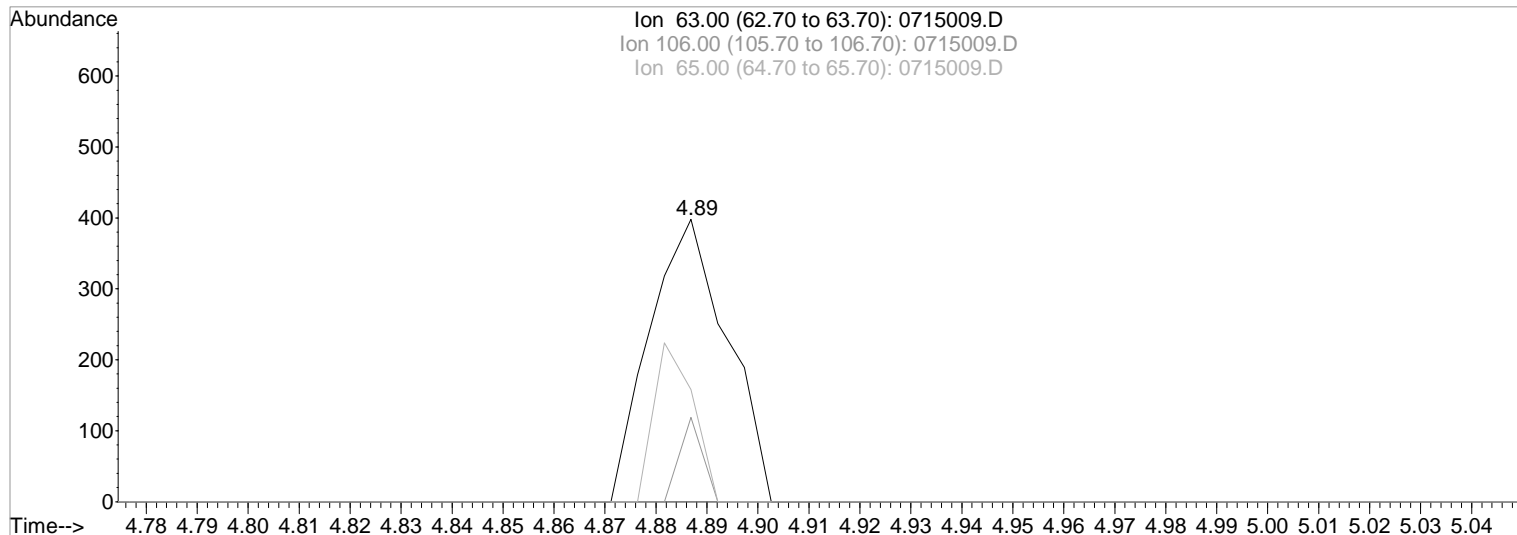
07/15/19

Data File : J:\MS24\DATA\071519\0715009.D
 Acq On : 15 Jul 2019 11:28 am
 Sample : ICAL 2
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:42 2019

Vial: 9
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Multiple Level Calibration



TIC: 0715009.D

(53) 2-Chloroethyl Vinyl Ether (T)

Manual Integration:

4.89min 1.76PPB m
 response 420

After
 Missed peak

Ion	Exp%	Act%
63.00	100	100
106.00	26.90	29.90
65.00	35.40	39.70
0.00	0.00	0.00

07/15/19

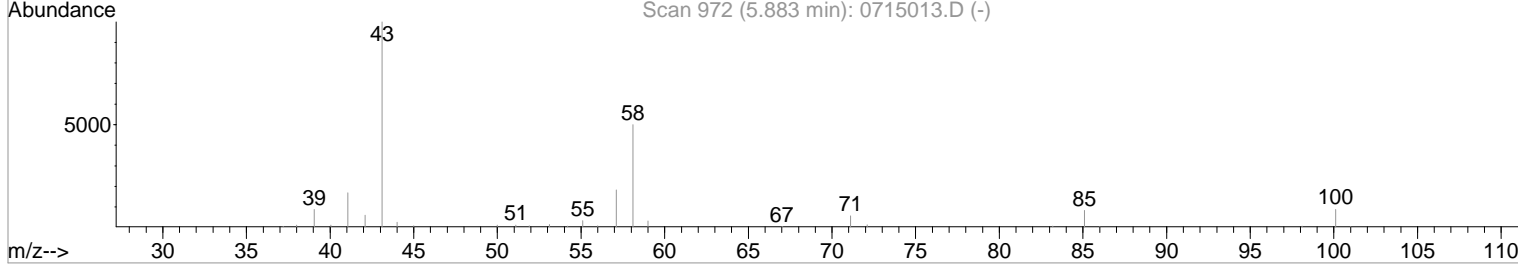
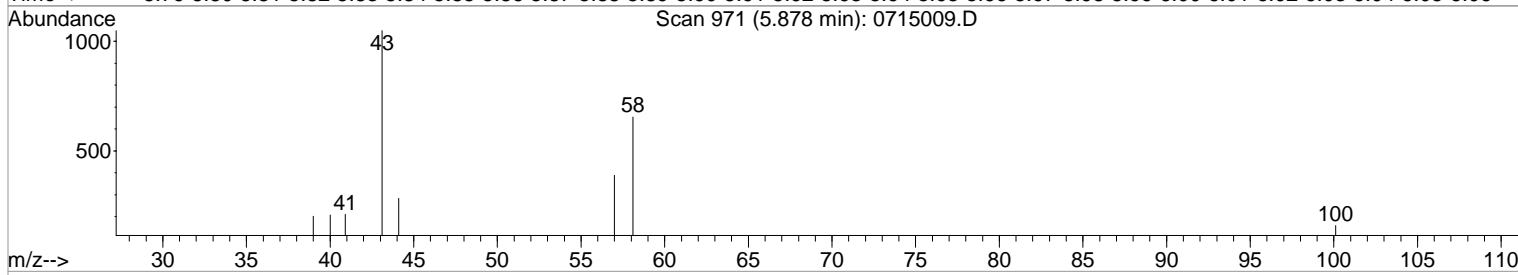
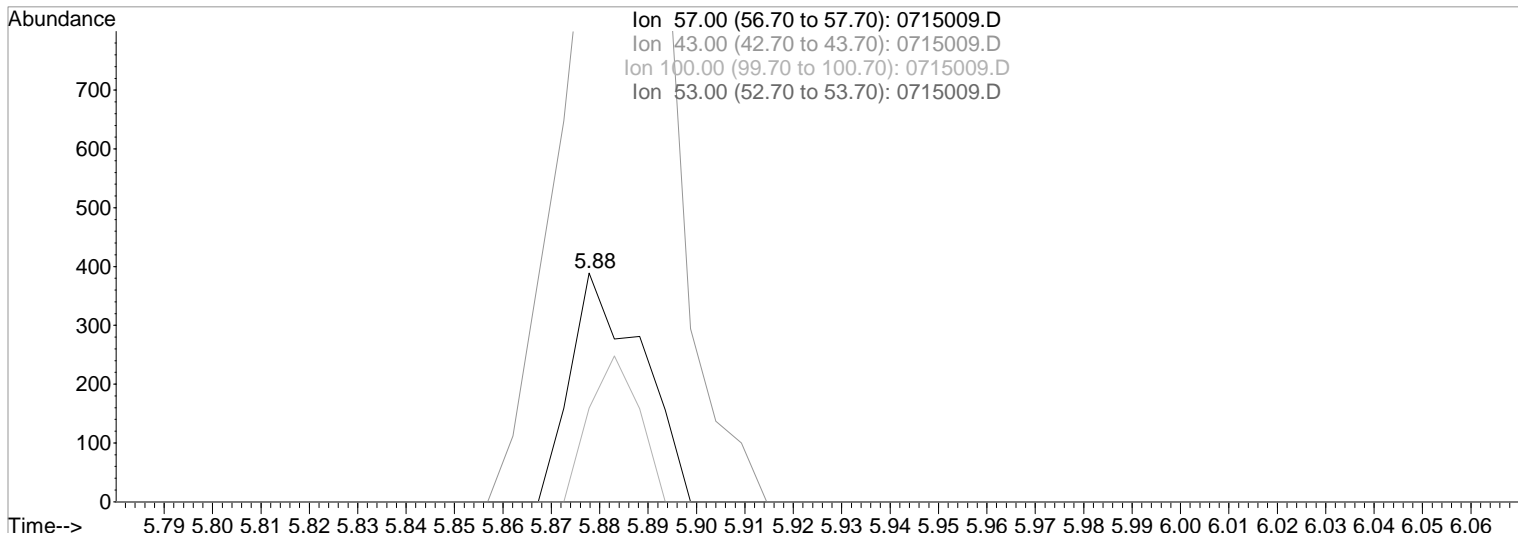
Data File : J:\MS24\DATA\071519\0715009.D
Acq On : 15 Jul 2019 11:28 am
Sample : ICAL 2
Misc :

Vial: 9
Operator: KW
Inst : MS24
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Jul 15 13:42 2019

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
Title : VOA MS24 EPA Method 8260B
Last Update : Mon Jul 15 13:36:51 2019
Response via : Single Level Calibration



TIC: 0715009.D

(62) 2-Hexanone (T)

Manual Integration:

5.88min 4.62PPB m

After

response 397

Missed peak

Ion Exp% Act%

07/15/19

57.00 100 100

43.00 546.10 269.67#

100.00 48.30 40.87

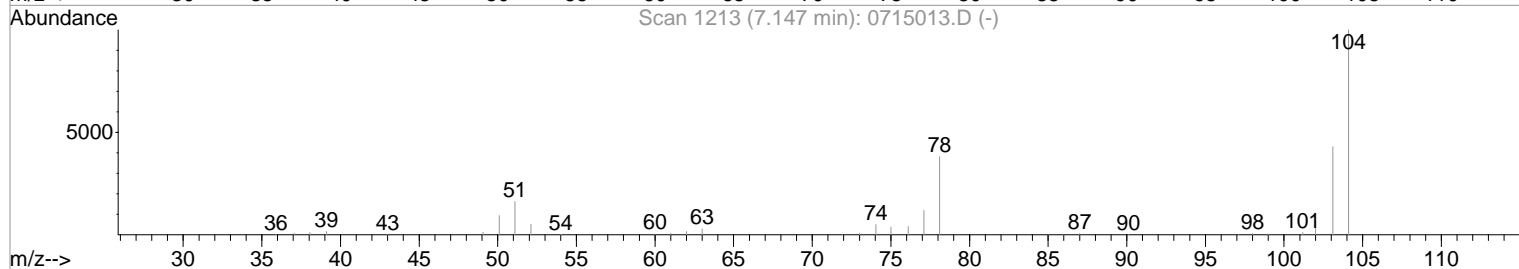
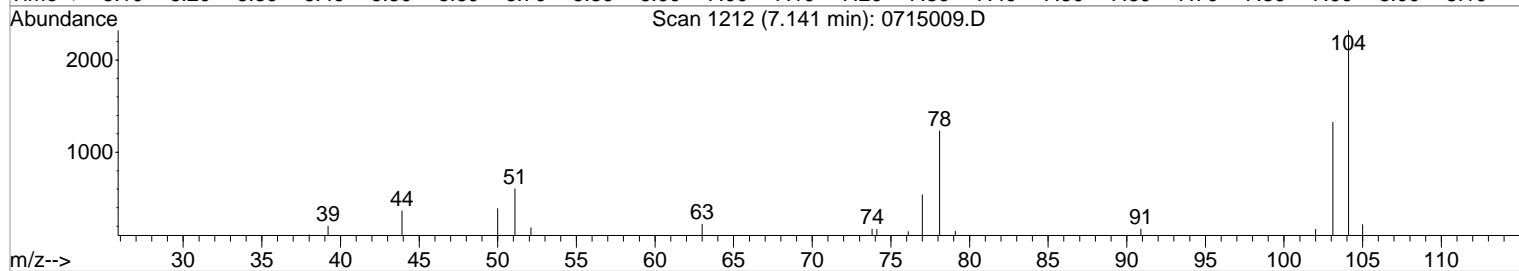
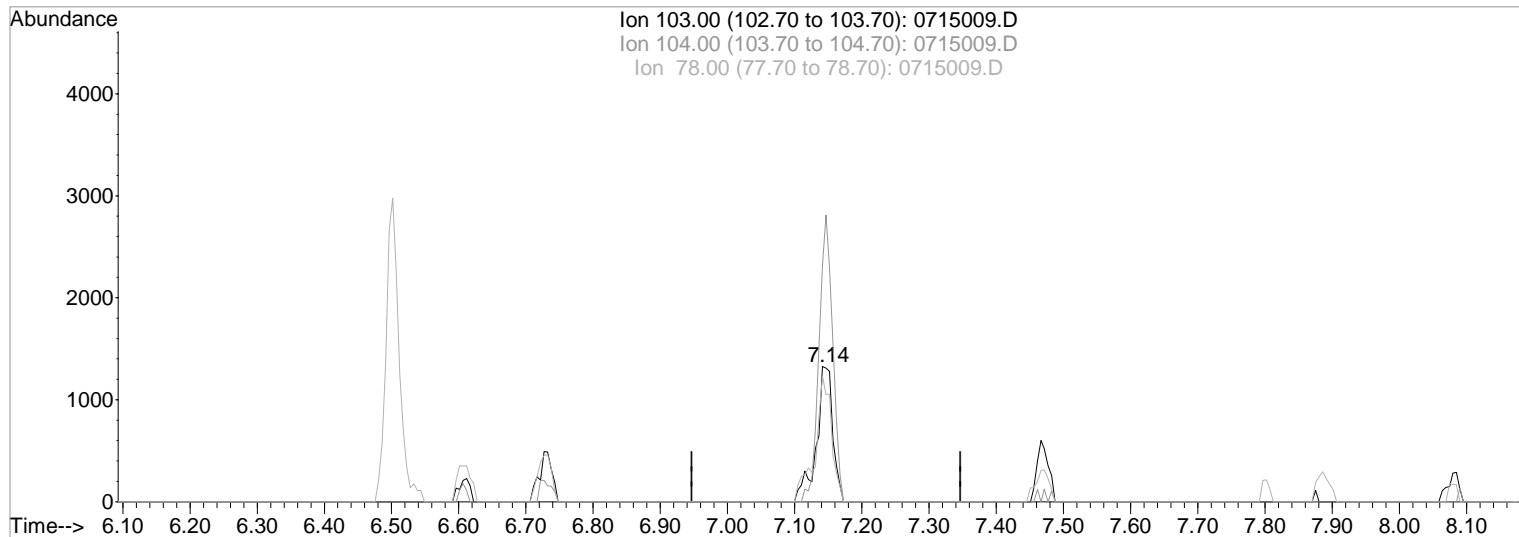
53.00 8.20 0.00

Data File : J:\MS24\DATA\071519\0715009.D
 Acq On : 15 Jul 2019 11:28 am
 Sample : ICAL 2
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:42 2019

Vial: 9
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Multiple Level Calibration



TIC: 0715009.D

(72) Styrene (T)
 7.14min 2.35PPB
 response 2261

Manual Integration:

Before

07/15/19

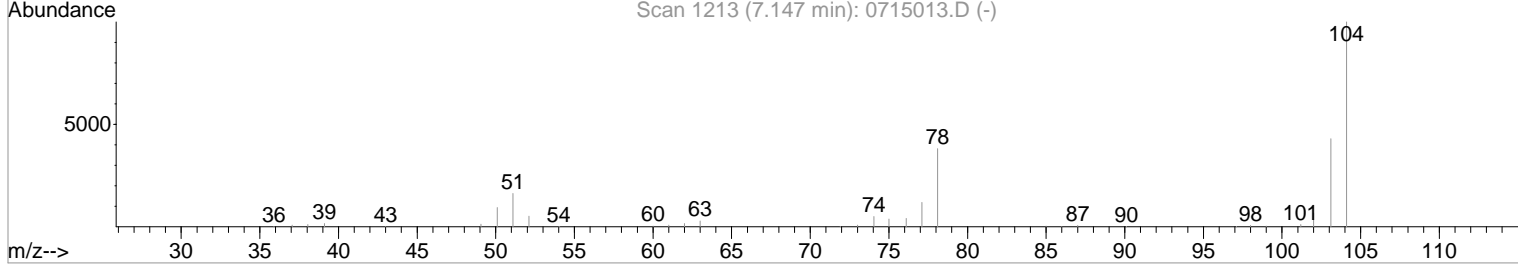
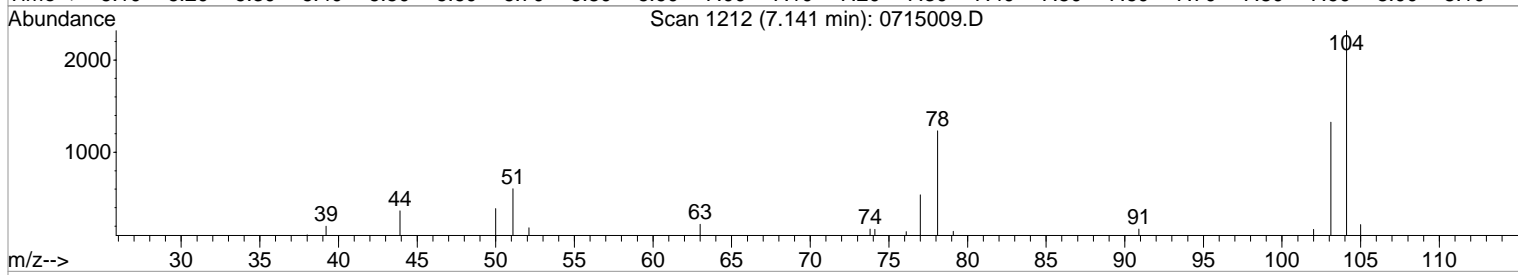
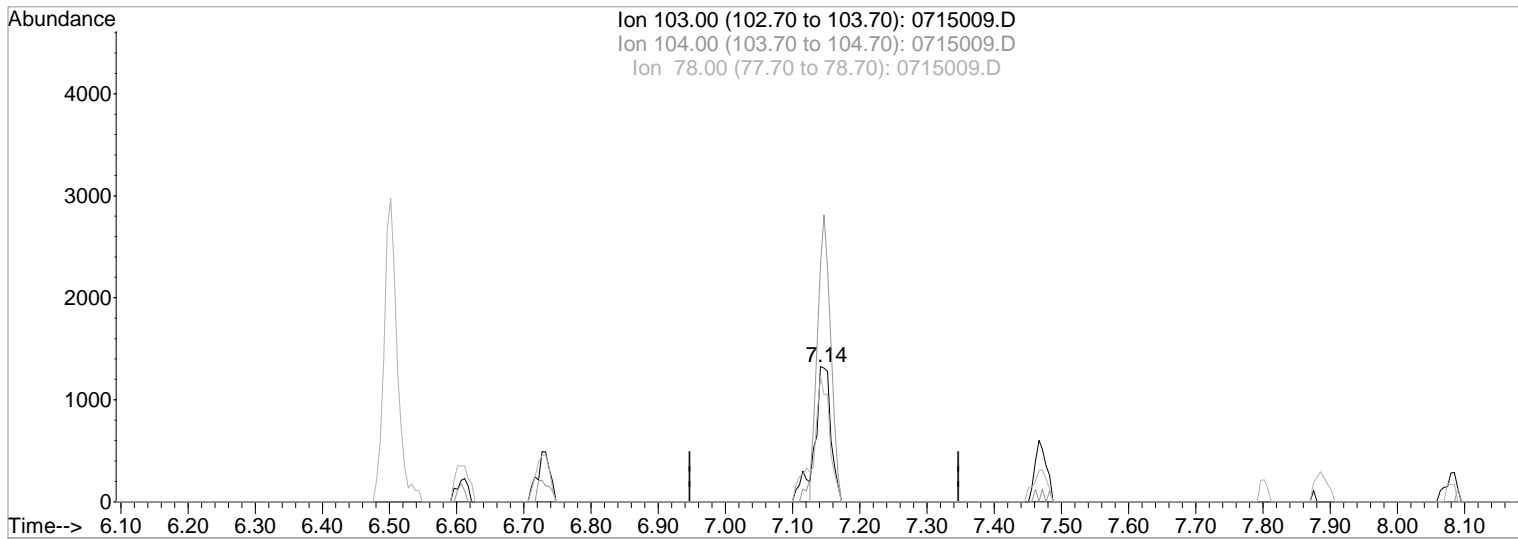
Ion	Exp%	Act%
103.00	100	100
104.00	210.30	174.76#
78.00	89.90	92.92
0.00	0.00	0.00

Data File : J:\MS24\DATA\071519\0715009.D
 Acq On : 15 Jul 2019 11:28 am
 Sample : ICAL 2
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:42 2019

Vial: 9
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Multiple Level Calibration



TIC: 0715009.D

(72) Styrene (T)
 7.14min 2.03PPB m
 response 1949

Ion	Exp%	Act%
103.00	100	100
104.00	210.30	174.76#
78.00	89.90	92.92
0.00	0.00	0.00

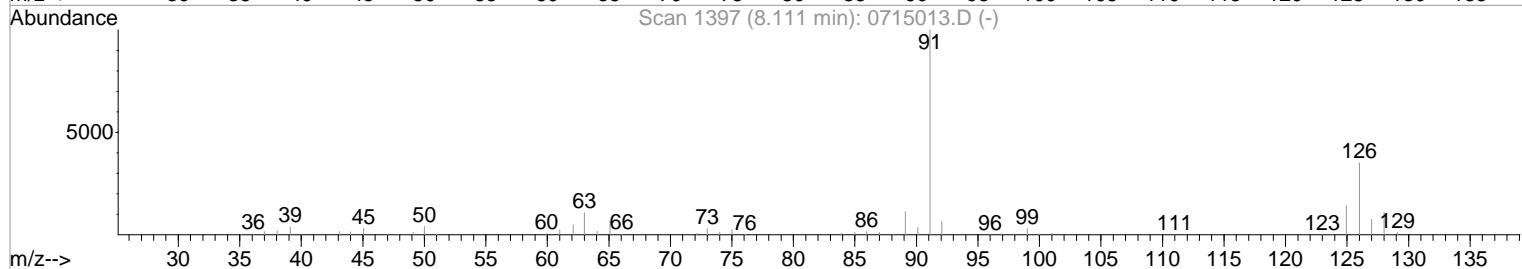
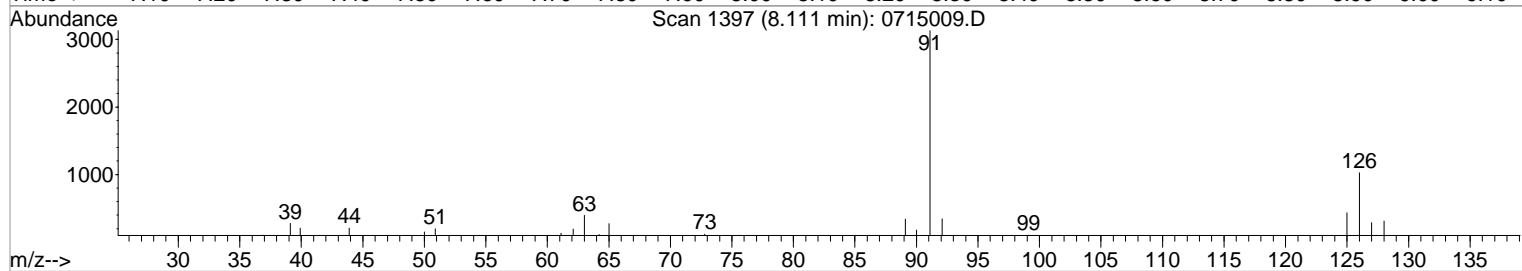
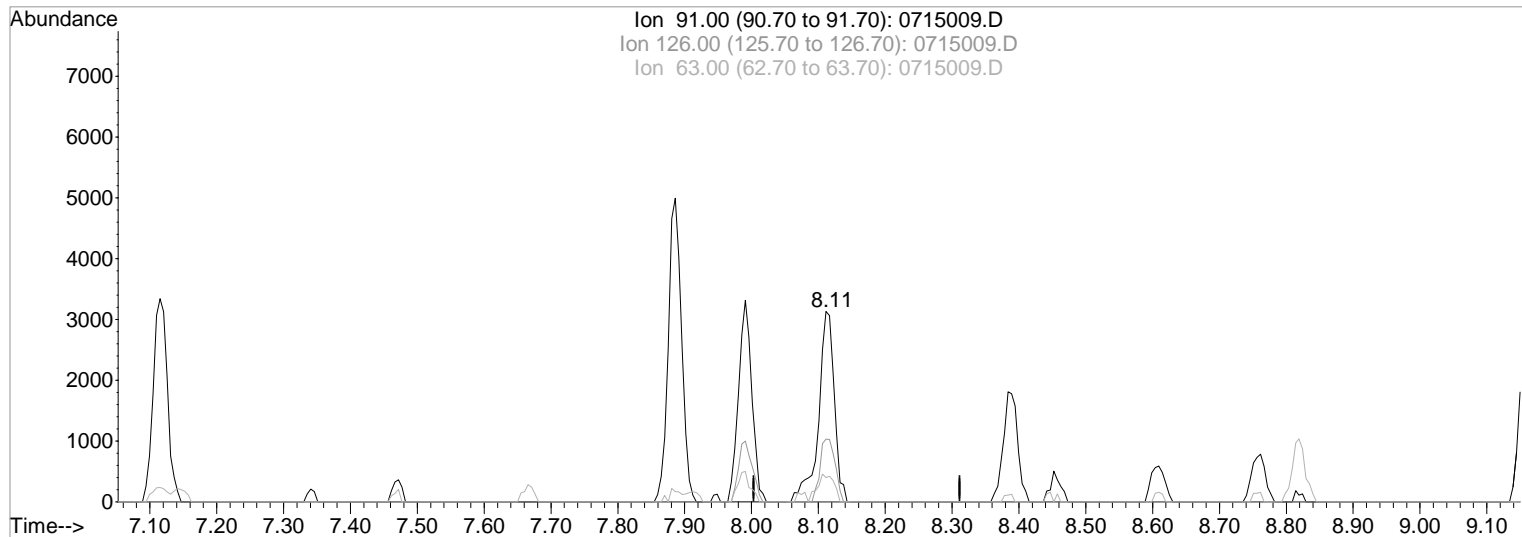
Manual Integration:
 After
 Shoulder
 07/15/19

Data File : J:\MS24\DATA\071519\0715009.D
 Acq On : 15 Jul 2019 11:28 am
 Sample : ICAL 2
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:42 2019

Vial: 9
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Multiple Level Calibration



TIC: 0715009.D

(85) 4-Chlorotoluene (T)

Manual Integration:

8.11min 2.45PPB

Before

response 5138

07/15/19

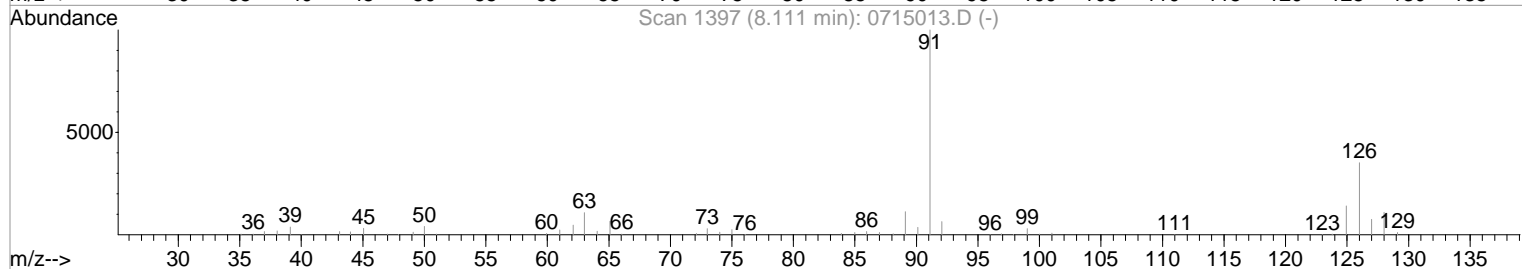
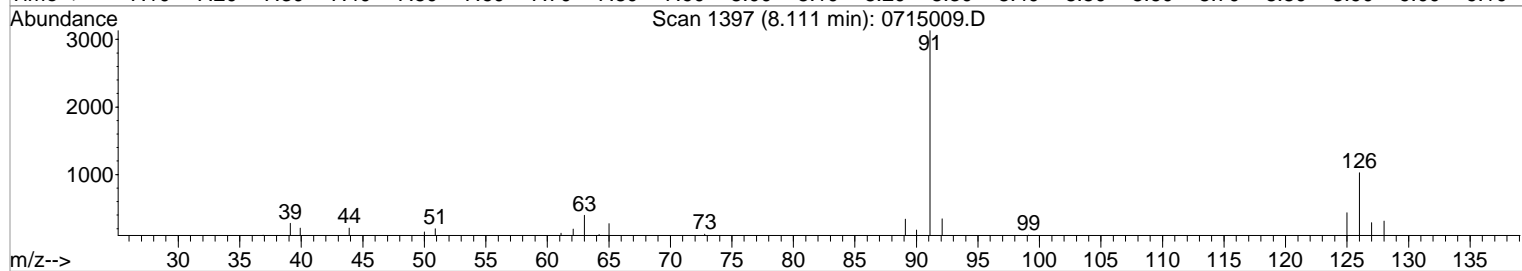
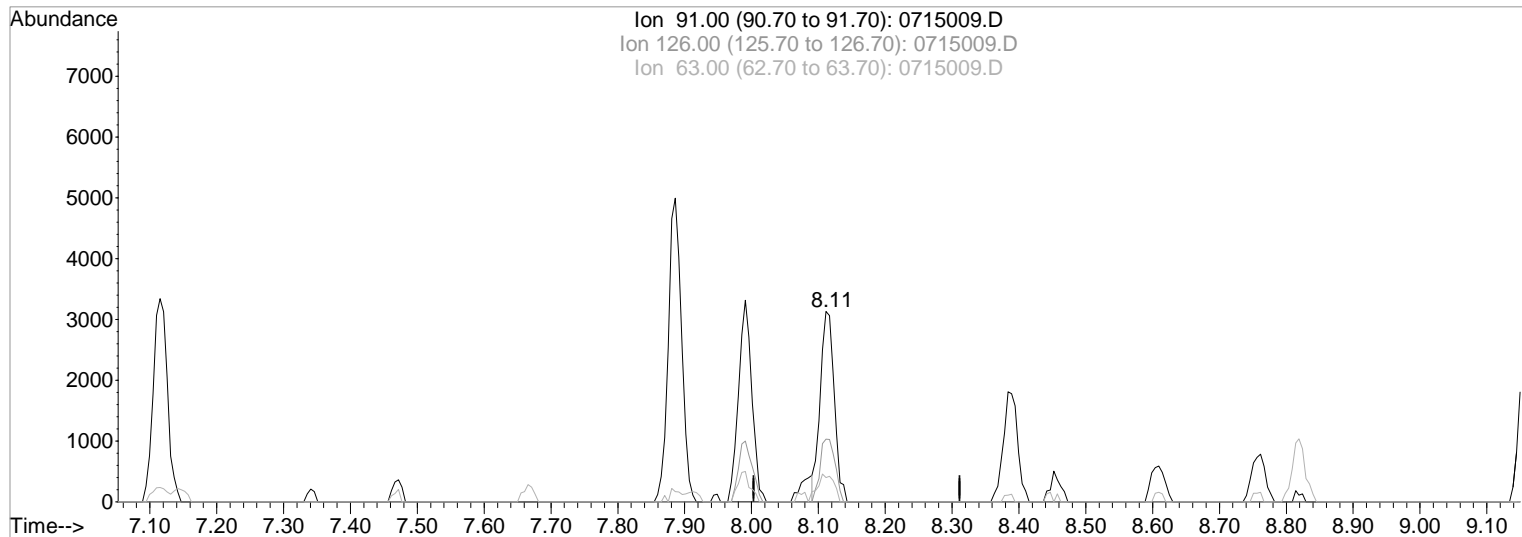
Ion	Exp%	Act%
91.00	100	100
126.00	32.80	32.79
63.00	12.70	12.64
0.00	0.00	0.00

Data File : J:\MS24\DATA\071519\0715009.D
 Acq On : 15 Jul 2019 11:28 am
 Sample : ICAL 2
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:43 2019

Vial: 9
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Multiple Level Calibration



TIC: 0715009.D

(85) 4-Chlorotoluene (T)

Manual Integration:

8.11min 2.18PPB m
 response 4575

After
 Shoulder

Ion	Exp%	Act%
91.00	100	100
126.00	32.80	32.79
63.00	12.70	12.64
0.00	0.00	0.00

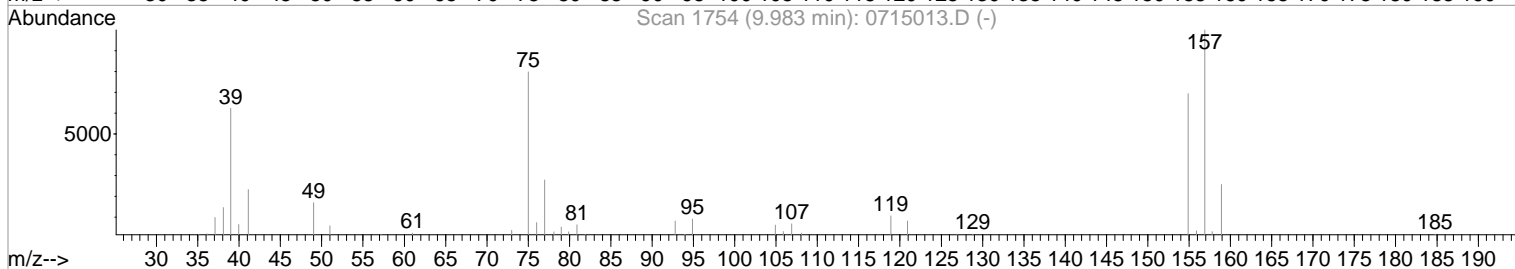
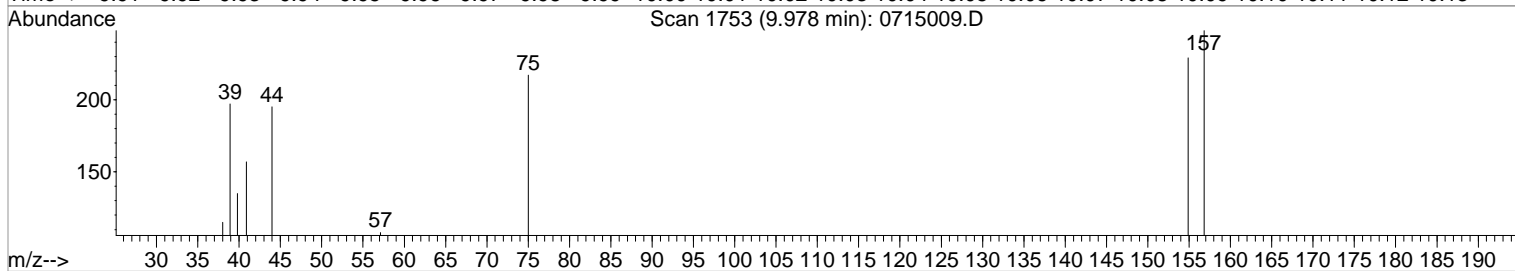
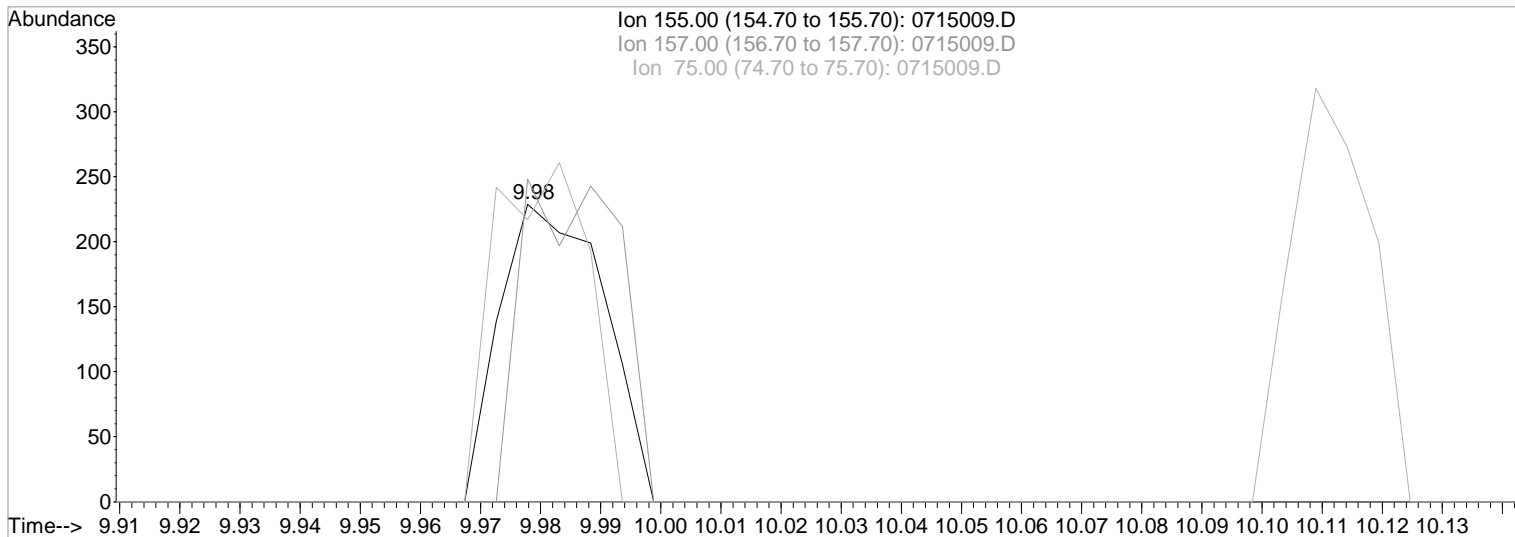
07/15/19

Data File : J:\MS24\DATA\071519\0715009.D
Acq On : 15 Jul 2019 11:28 am
Sample : ICAL 2
Misc :
MS Integration Params: rteint.p
Quant Time: Jul 15 13:43 2019

Vial: 9
Operator: KW
Inst : MS24
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
Title : VOA MS24 EPA Method 8260B
Last Update : Mon Jul 15 13:36:51 2019
Response via : Multiple Level Calibration



TIC: 0715009.D

(94) 1,2-Dibromo-3-chloropropane (DBCP) (T)

Manual Integration:

9.98min 2.24PPB m
response 277

After
Missed peak

Ion	Exp%	Act%
155.00	100	100
157.00	144.30	108.30#
75.00	115.20	94.76
0.00	0.00	0.00

07/15/19

Data File : J:\MS24\DATA\071519\0715010.D
 Acq On : 15 Jul 2019 11:49 am
 Sample : ICAL 5
 Misc :

Vial: 10
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 15 13:43:52 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

Quant Method : J:\MS24\M...\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	3.90	96	156566	50.00	PPB	0.00
58) Chlorobenzene-d5	6.50	82	56738	50.00	PPB	0.00
77) 1,4-Dichlorobenzene-d4	8.82	152	50280	50.00	PPB	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Dibromofluoromethane	3.42	113	15203	19.06	PPB	0.00
Spiked Amount			50.000			
Recovery						38.12%
43) 1,2-Dichloroethane-d4	3.69	65	20681	20.52	PPB	0.00
Spiked Amount			50.000			
Recovery						41.04%
56) Toluene-d8	5.17	98	54563	19.38	PPB	0.00
Spiked Amount			50.000			
Recovery						38.76%
76) 4-Bromofluorobenzene	7.67	95	19616	19.94	PPB	0.00
Spiked Amount			50.000			
Recovery						39.88%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.86	85	2972	5.39	PPB	98
3) Chloromethane	0.98	50	4903	5.80	PPB	96
4) Vinyl Chloride	1.05	62	4156	5.24	PPB	97
5) Bromomethane	1.26	96	3555	7.49	PPB	95
6) Chloroethane	1.33	64	2496	5.53	PPB	99
7) Dichlorofluoromethane	1.48	67	6567	5.72	PPB	98
8) Trichlorofluoromethane	1.47	101	5184	5.37	PPB	96
9) Acrolein	1.81	56	4106	26.72	PPB	97
10) Trichlorotrifluoroethane	1.80	151	2529	5.26	PPB	97
11) 1,1-Dichloroethene	1.82	96	2786	5.06	PPB	98
12) Acetone	1.92	43	4137	17.01	PPB	99
13) Iodomethane	1.93	142	4324	8.12	PPB	97
14) Carbon Disulfide	1.95	76	10092	5.28	PPB	96
15) 3-Chloro-1-Propane	2.08	TIC	17388m	5.60	PPB	
16) Methyl Acetate	2.11	43	3605	6.24	PPB	# 88
17) Acetonitrile	2.16	40	6830	123.47	PPB	# 97
18) Methylene Chloride	2.19	84	5257	6.71	PPB	95
19) tert-Butyl Alcohol	2.28	59	3176	32.11	PPB	88
20) Acrylonitrile	2.41	53	3562	11.42	PPB	96
21) Methyl tert-Butyl Ether	2.33	73	26519	11.39	PPB	97
22) trans-1,2-Dichloroethene	2.33	96	3745	5.43	PPB	92
23) Hexane	2.46	57	4864	5.29	PPB	94
24) Diisopropyl Ether	2.65	45	14834	5.89	PPB	96
25) 1,1-Dichloroethane	2.65	63	7397	5.60	PPB	97
26) Vinyl Acetate	2.69	86	873	5.86	PPB	# 75
27) Chloroprene	2.68	53	10406	10.74	PPB	93
28) tert-Butyl Ethyl Ether	2.90	59	13796	5.53	PPB	93
29) 2,2-Dichloropropane	3.04	77	5694	5.84	PPB	99
30) cis-1,2-Dichloroethene	3.07	96	5002	5.85	PPB	96
31) 2-Butanone	3.11	72	1269	12.71	PPB	# 74
32) Propionitrile	3.21	54	1425	11.23	PPB	85
34) Methacrylonitrile	3.29	67	4232	11.33	PPB	99
35) Bromochloromethane	3.25	128	2558	5.99	PPB	92
36) Chloroform	3.30	83	7686	5.62	PPB	98
37) Cyclohexane	3.37	56	5740	5.30	PPB	94
38) 1,1,1-Trichloroethane	3.39	97	5556	5.43	PPB	95
40) Carbon Tetrachloride	3.48	117	4309	5.17	PPB	90
41) 1,1-Dichloropropene	3.51	75	5006	5.17	PPB	93
42) Isobutyl Alcohol	3.68	43	6024	122.66	PPB	93
44) Benzene	3.67	78	17733	5.61	PPB	95
45) 1,2-Dichloroethane	3.75	62	6625	5.73	PPB	98
46) Trichloroethene	4.16	95	4225	5.62	PPB	93
47) Methylcyclohexane	4.25	83	5153	4.93	PPB	98

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS24\DATA\071519\0715010.D
 Acq On : 15 Jul 2019 11:49 am
 Sample : ICAL 5
 Misc :

Vial: 10
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 15 13:43:52 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

Quant Method : J:\MS24\M...\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
48) 1,2-Dichloropropane	4.39	63	4770	5.70	PPB	91
49) Dibromomethane	4.49	93	2641	5.26	PPB	94
50) 1,4-Dioxane	4.50	88	1038	118.30	PPB	86
51) Bromodichloromethane	4.61	83	5316	5.23	PPB	98
52) 2-Nitropropane	4.88	41	3127	5.18	PPB	100
53) 2-Chloroethyl Vinyl Ether	4.88	63	1141	4.65	PPB	87
54) cis-1,3-Dichloropropene	5.00	75	6204	5.05	PPB	95
55) 4-Methyl-2-pentanone (MIBK)	5.14	58	3154	10.81	PPB	86
57) Toluene	5.23	92	9523	5.36	PPB	96
59) trans-1,3-Dichloropropene	5.51	75	5494	5.23	PPB	93
60) 1,1,2-Trichloroethane	5.67	83	3513	6.00	PPB	97
61) Tetrachloroethene	5.67	164	2898	5.48	PPB	92
62) 2-Hexanone	5.88	57	945	10.72	PPB	95
63) 1,3-Dichloropropane	5.82	76	6862	5.95	PPB	97
64) Dibromochloromethane	5.99	129	4148	5.52	PPB	96
65) 1,2-Dibromoethane (EDB)	6.10	107	3863	5.91	PPB	90
66) 1-Chlorohexane	6.50	91	4003	5.55	PPB	94
67) Chlorobenzene	6.53	112	11574	5.90	PPB	96
68) Ethylbenzene	6.61	106	5441	5.54	PPB	94
69) 1,1,1,2-Tetrachloroethane	6.62	131	3878	5.52	PPB	98
70) m,p-Xylenes	6.73	106	12234	10.23	PPB	93
71) o-Xylene	7.12	106	6335	5.50	PPB	97
72) Styrene	7.15	103	4831m	4.90	PPB	
73) Bromoform	7.35	173	2438	4.92	PPB	94
74) Isopropylbenzene	7.47	105	14668	4.98	PPB	93
75) cis-1,4-Dichloro-2-butene	7.64	89	1140	10.56	PPB	96
78) 1,1,2,2-Tetrachloroethane	7.87	83	4676	5.72	PPB	94
79) trans-1,4-Dichloro-2-buten	7.94	53	1328	5.84	PPB	87
80) Bromobenzene	7.80	156	4831	5.74	PPB	97
81) n-Propylbenzene	7.89	91	17104	5.16	PPB	97
82) 1,2,3-Trichloropropane	7.92	110	1516	5.82	PPB #	69
83) 2-Chlorotoluene	7.99	91	11184	5.44	PPB	96
84) 1,3,5-Trimethylbenzene	8.08	105	11439	4.92	PPB	90
85) 4-Chlorotoluene	8.12	91	11443m	5.24	PPB	
86) tert-Butylbenzene	8.39	119	10113	4.91	PPB	98
87) 1,2,4-Trimethylbenzene	8.45	105	11959	5.08	PPB	98
88) sec-Butylbenzene	8.61	105	14821	4.98	PPB	98
89) p-Isopropyltoluene	8.76	119	11681	4.75	PPB	88
90) 1,3-Dichlorobenzene	8.75	146	8377	5.61	PPB	97
91) 1,4-Dichlorobenzene	8.84	146	8527	5.68	PPB	96
92) n-Butylbenzene	9.16	91	11161	5.16	PPB	94
93) 1,2-Dichlorobenzene	9.21	146	8580	5.88	PPB	97
94) 1,2-Dibromo-3-chloropropan	9.98	155	721	5.60	PPB #	68
95) 1,3,5-Trichlorobenzene	10.11	180	5949	5.88	PPB	89
96) 1,2,4-Trichlorobenzene	10.71	180	5278	5.89	PPB	98
97) Hexachlorobutadiene	10.81	225	3067	5.71	PPB	89
98) Naphthalene	10.94	128	10907	5.23	PPB	98
99) 1,2,3-Trichlorobenzene	11.16	180	5139	5.95	PPB	91

(#) = qualifier out of range (m) = manual integration

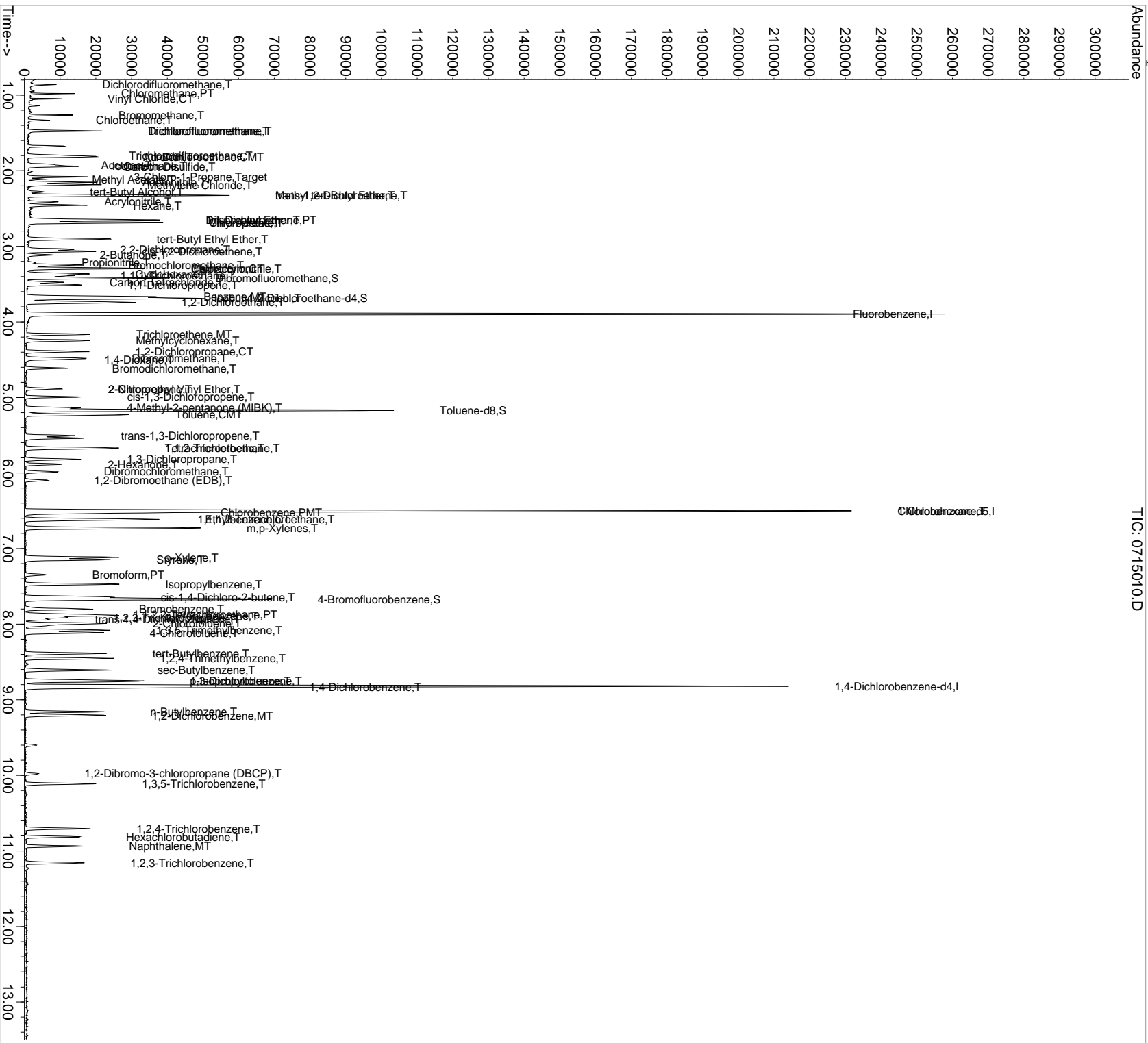
Vial: 10
Operator: KW
Inst: MS24
Multiplr: 1.00

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

07/16/19

Data File : J:\MS24\DATA\071519\0715010.D
Acq On : 15 Jul 2019 11:49 am
Sample : ICAL 5
Misc :
MS Integration Params: rteint.p
unt Time: Jul 15 13:45 2019
Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
Title : VOA MS24 EPA Method 8260B
Last Update : Mon Jul 15 14:17:01 2019
Response via : Initial Calibration

TIC: 0715010.D

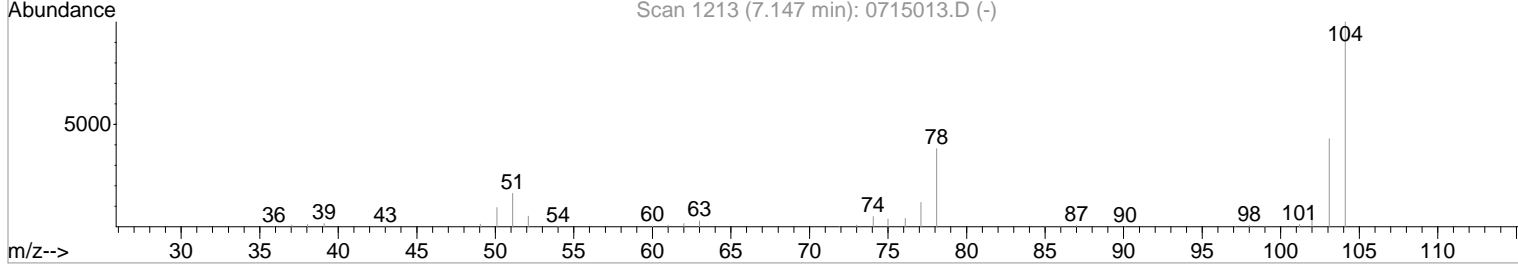
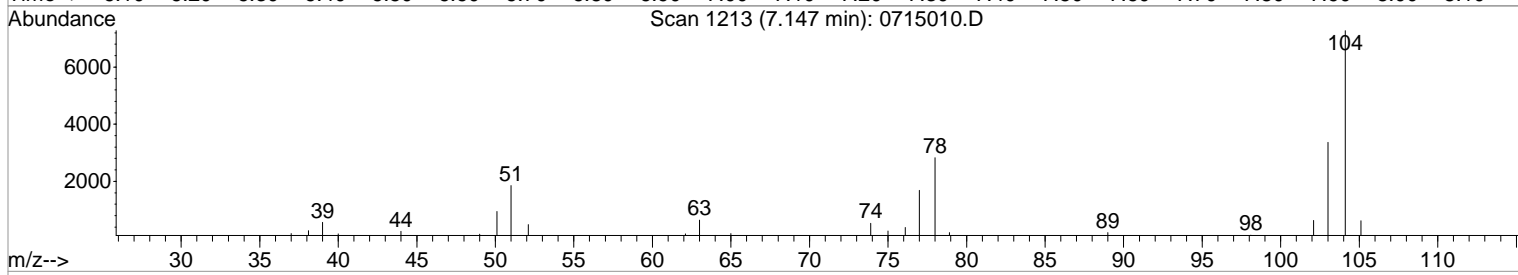
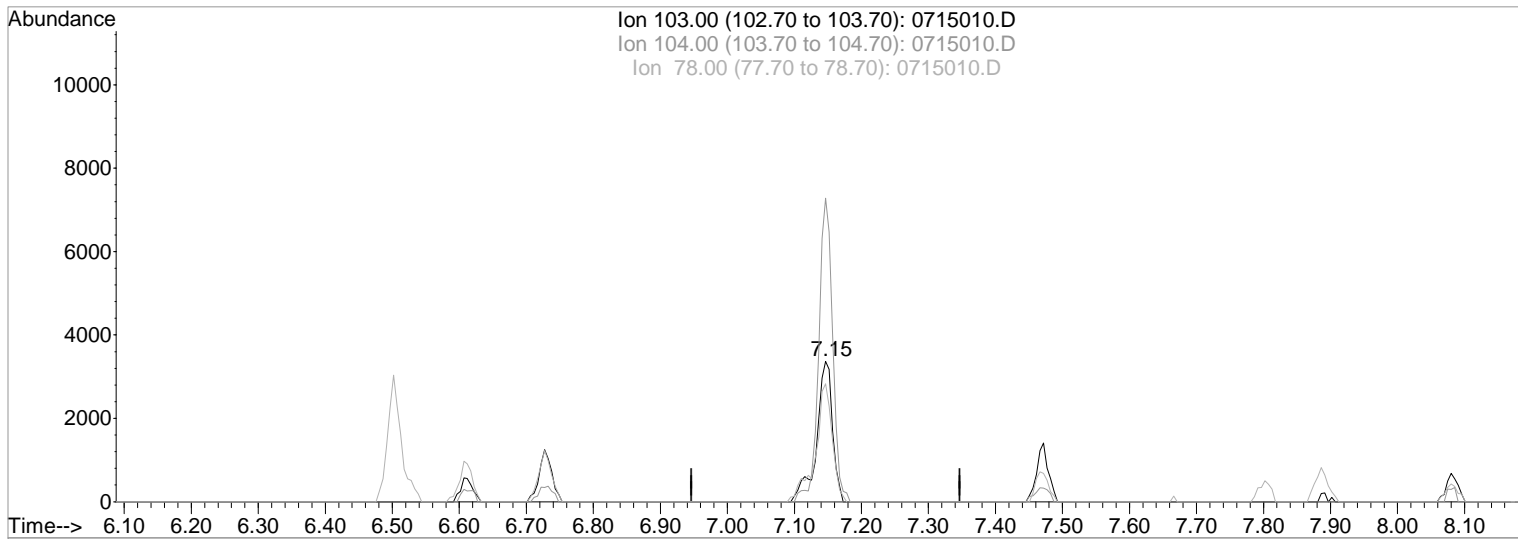


Data File : J:\MS24\DATA\071519\0715010.D
 Acq On : 15 Jul 2019 11:49 am
 Sample : ICAL 5
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:44 2019

Vial: 10
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Multiple Level Calibration



TIC: 0715010.D

(72) Styrene (T)
 7.15min 5.72PPB
 response 5642

Manual Integration:

Before

07/15/19

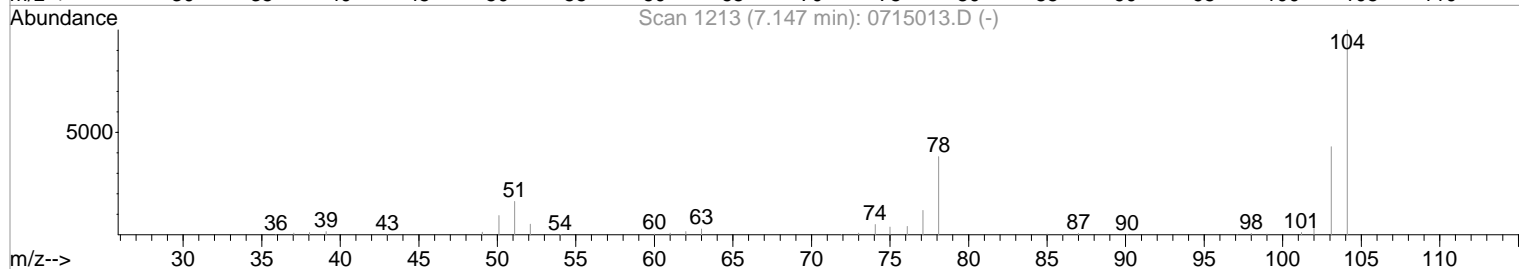
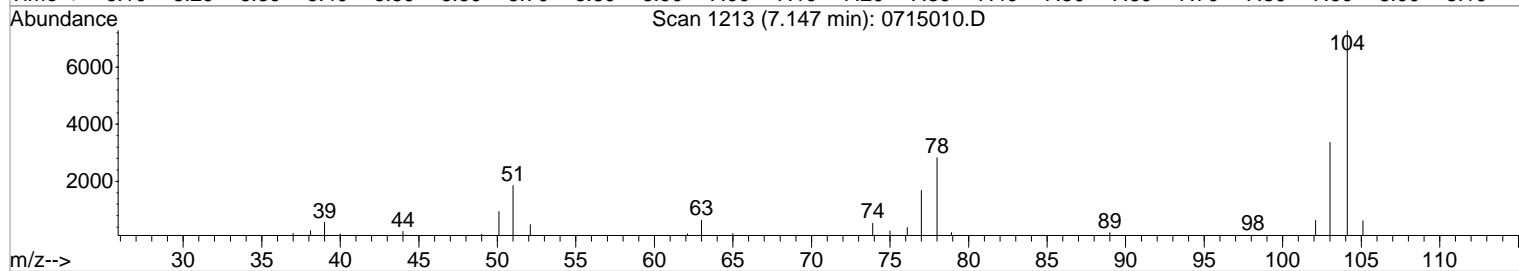
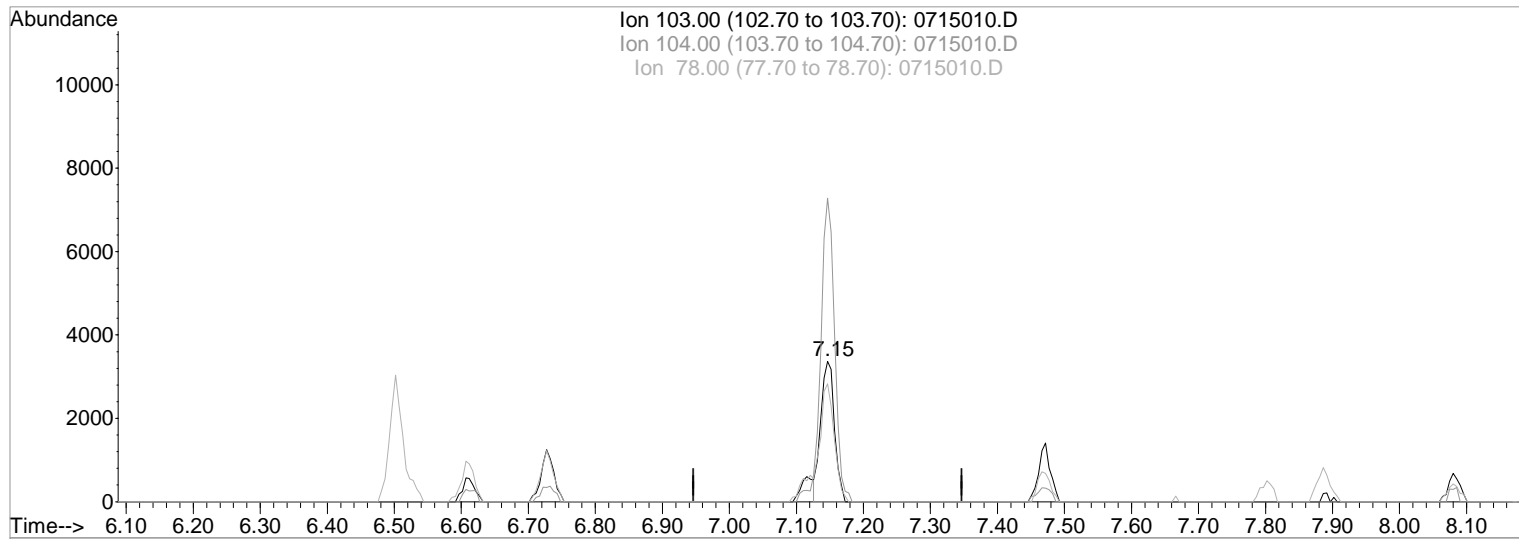
Ion	Exp%	Act%
103.00	100	100
104.00	210.30	216.02
78.00	89.90	83.92
0.00	0.00	0.00

Data File : J:\MS24\DATA\071519\0715010.D
 Acq On : 15 Jul 2019 11:49 am
 Sample : ICAL 5
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:44 2019

Vial: 10
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Multiple Level Calibration



TIC: 0715010.D

(72) Styrene (T)		
7.15min	4.90PPB	m
response	4831	
Ion	Exp%	Act%
103.00	100	100
104.00	210.30	216.02
78.00	89.90	83.92
0.00	0.00	0.00

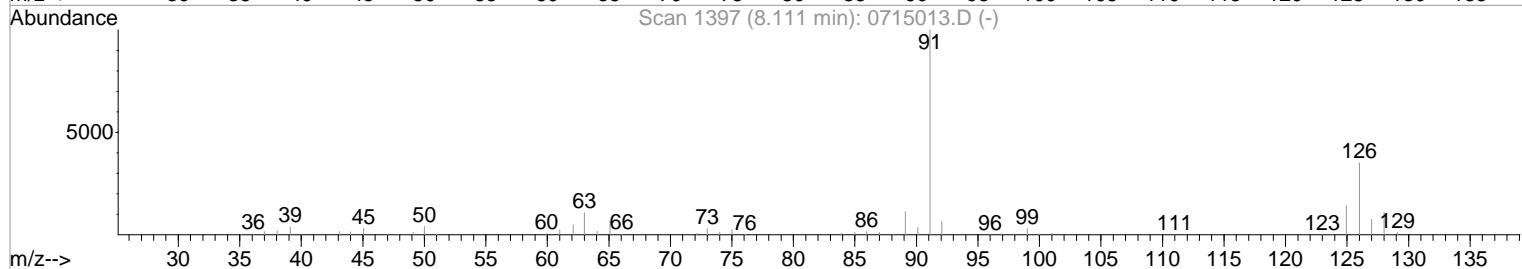
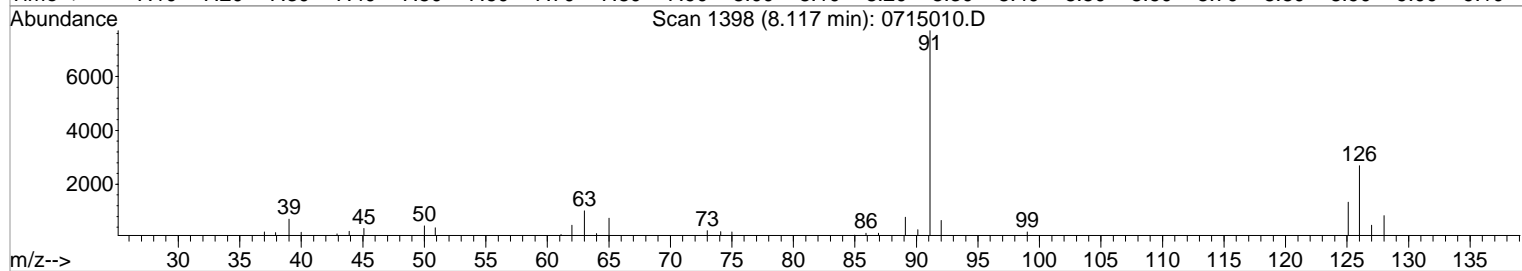
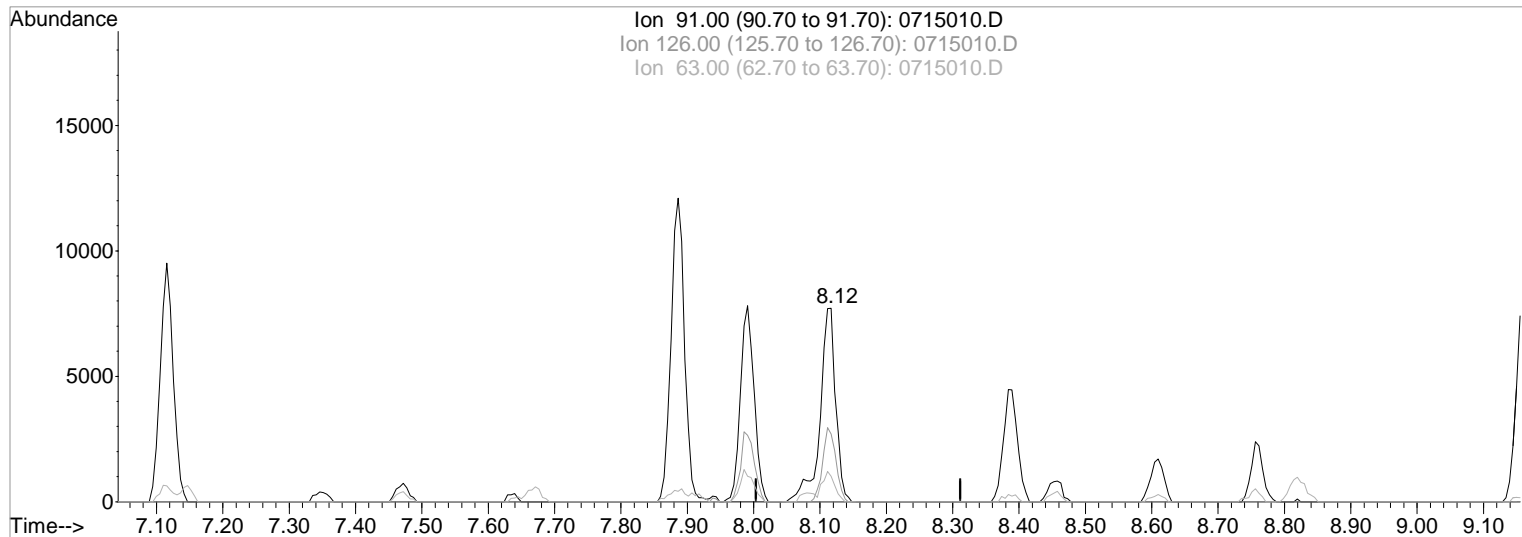
Manual Integration:
 After
 Shoulder
 07/15/19

Data File : J:\MS24\DATA\071519\0715010.D
 Acq On : 15 Jul 2019 11:49 am
 Sample : ICAL 5
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:44 2019

Vial: 10
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Multiple Level Calibration



TIC: 0715010.D

(85) 4-Chlorotoluene (T)

Manual Integration:

8.12min 5.77PPB

Before

response 12605

07/15/19

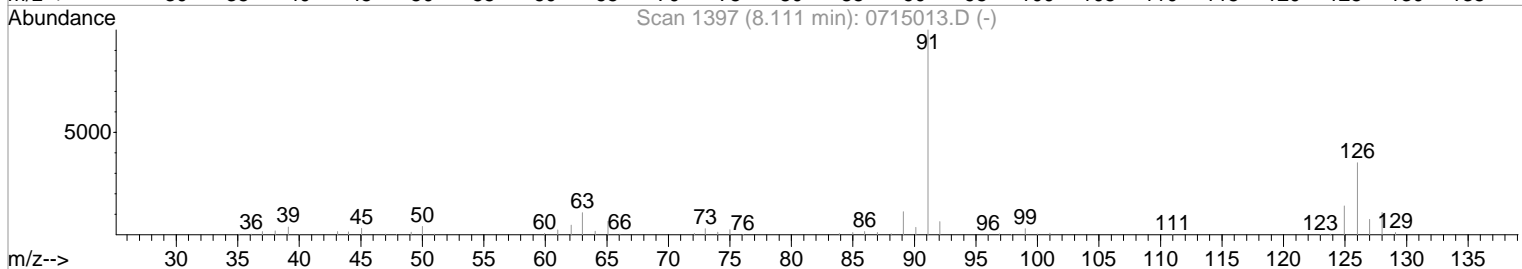
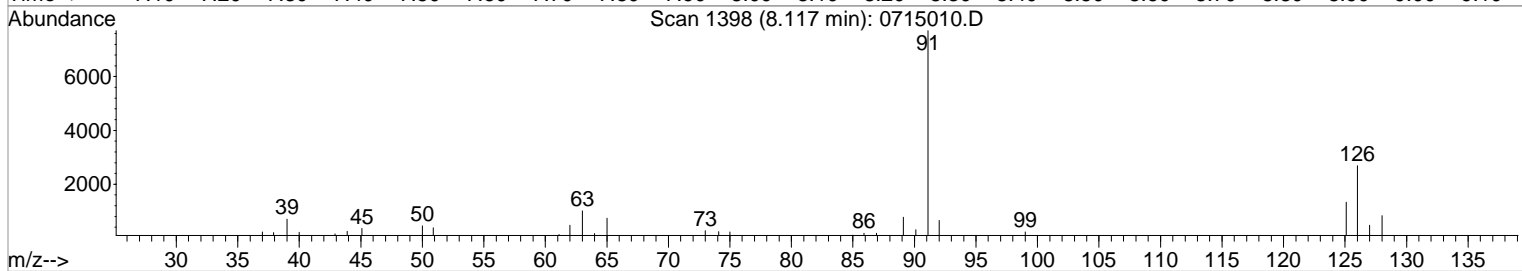
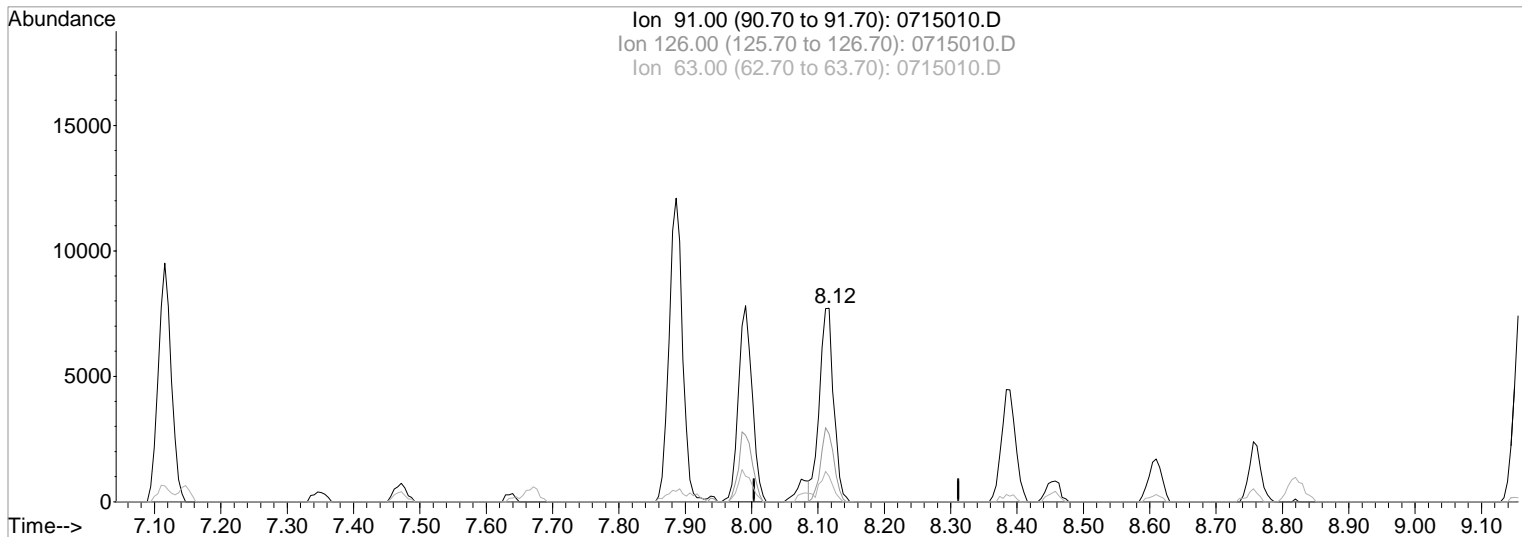
Ion	Exp%	Act%
91.00	100	100
126.00	32.80	34.91
63.00	12.70	13.16
0.00	0.00	0.00

Data File : J:\MS24\DATA\071519\0715010.D
 Acq On : 15 Jul 2019 11:49 am
 Sample : ICAL 5
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:45 2019

Vial: 10
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Multiple Level Calibration



TIC: 0715010.D

(85) 4-Chlorotoluene (T)

Manual Integration:

8.12min 5.24PPB m
 response 11443

After
 Shoulder

07/15/19

Ion	Exp%	Act%
91.00	100	100
126.00	32.80	34.91
63.00	12.70	13.16
0.00	0.00	0.00

Data File : J:\MS24\DATA\071519\0715011.D

Vial: 11

Acq On : 15 Jul 2019 12:10 pm

Operator: KW

2nd *AK* 07/18/19

Sample : ICAL 10

Inst : MS24

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 15 13:45:34 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

Quant Method : J:\MS24\M...\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)

Title : VOA MS24 EPA Method 8260B

Last Update : Mon Jul 15 13:36:51 2019

Response via : Initial Calibration

DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	3.90	96	158882	50.00	PPB	0.00
58) Chlorobenzene-d5	6.50	82	55772	50.00	PPB	0.00
77) 1,4-Dichlorobenzene-d4	8.82	152	50523	50.00	PPB	0.00

System Monitoring Compounds

39) Dibromofluoromethane	3.42	113	23898	29.53	PPB	0.00
Spiked Amount	50.000		Recovery	=	59.06%	
43) 1,2-Dichloroethane-d4	3.69	65	30145	29.47	PPB	0.00
Spiked Amount	50.000		Recovery	=	58.94%	
56) Toluene-d8	5.17	98	86917	30.43	PPB	0.00
Spiked Amount	50.000		Recovery	=	60.86%	
76) 4-Bromofluorobenzene	7.67	95	28754	29.74	PPB	0.00
Spiked Amount	50.000		Recovery	=	59.48%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	0.87	85	5542	9.91	PPB	95
3) Chloromethane	0.99	50	9592	11.18	PPB	98
4) Vinyl Chloride	1.05	62	7976	9.91	PPB	96
5) Bromomethane	1.26	96	6004	12.47	PPB	97
6) Chloroethane	1.33	64	4623	10.10	PPB	91
7) Dichlorofluoromethane	1.48	67	11971	10.27	PPB	98
8) Trichlorofluoromethane	1.47	101	9249	9.44	PPB	99
9) Acrolein	1.81	56	7995	51.27	PPB	95
10) Trichlorotrifluoroethane	1.80	151	4618	9.46	PPB	87
11) 1,1-Dichloroethene	1.82	96	5554	9.93	PPB	96
12) Acetone	1.92	43	6875	27.85	PPB	93
13) Iodomethane	1.93	142	9017	16.69	PPB	93
14) Carbon Disulfide	1.95	76	18964	9.77	PPB	98
15) 3-Chloro-1-Propane	2.08	TIC	32483m	10.30	PPB	
16) Methyl Acetate	2.11	43	6458	11.02	PPB	99
17) Acetonitrile	2.16	40	13055	232.56	PPB	98
18) Methylene Chloride	2.19	84	9461	11.90	PPB	95
19) tert-Butyl Alcohol	2.28	59	6054	60.31	PPB	94
20) Acrylonitrile	2.41	53	7075	22.35	PPB	92
21) Methyl tert-Butyl Ether	2.33	73	50775	21.49	PPB	97
22) trans-1,2-Dichloroethene	2.33	96	7089	10.12	PPB	97
23) Hexane	2.46	57	9183	9.85	PPB	99
24) Diisopropyl Ether	2.65	45	30163	11.80	PPB	96
25) 1,1-Dichloroethane	2.66	63	14910	11.12	PPB	98
26) Vinyl Acetate	2.70	86	1862	12.32	PPB	# 77
27) Chloroprene	2.68	53	19634	19.97	PPB	94
28) tert-Butyl Ethyl Ether	2.90	59	27063	10.69	PPB	95
29) 2,2-Dichloropropane	3.04	77	10069	10.17	PPB	96
30) cis-1,2-Dichloroethene	3.07	96	9318	10.73	PPB	95
31) 2-Butanone	3.11	72	2071	20.44	PPB	# 86
32) Propionitrile	3.21	54	2867	22.26	PPB	98
34) Methacrylonitrile	3.29	67	8708	22.97	PPB	97
35) Bromochloromethane	3.25	128	4742	10.94	PPB	95
36) Chloroform	3.30	83	14323	10.32	PPB	99
37) Cyclohexane	3.37	56	10127	9.22	PPB	99
38) 1,1,1-Trichloroethane	3.39	97	10205	9.83	PPB	97
40) Carbon Tetrachloride	3.48	117	7721	9.13	PPB	85
41) 1,1-Dichloropropene	3.51	75	9318	9.48	PPB	92
42) Isobutyl Alcohol	3.68	43	11096	222.64	PPB	92
44) Benzene	3.67	78	33189	10.34	PPB	97
45) 1,2-Dichloroethane	3.75	62	13215	11.26	PPB	96
46) Trichloroethene	4.17	95	8173	10.71	PPB	96
47) Methylcyclohexane	4.25	83	10898	10.27	PPB	97

(#)=qualifier out of range (m)=manual integration

0715011.D 0715DOD19_MS24_FULL_SOIL.M

Mon Jul 15 13:43:13 2019

Page 923 of 1516

Page 1

Data File : J:\MS24\DATA\071519\0715011.D
 Acq On : 15 Jul 2019 12:10 pm
 Sample : ICAL 10
 Misc :

Vial: 11
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 15 13:45:34 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

Quant Method : J:\MS24\M...\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
48) 1,2-Dichloropropane	4.39	63	9838	11.58	PPB	93
49) Dibromomethane	4.49	93	5793	11.38	PPB	96
50) 1,4-Dioxane	4.50	88	2296	257.85	PPB	86
51) Bromodichloromethane	4.61	83	11525	11.17	PPB	94
52) 2-Nitropropane	4.88	41	6920	11.29	PPB	99
53) 2-Chloroethyl Vinyl Ether	4.89	63	2874	11.54	PPB	100
54) cis-1,3-Dichloropropene	5.00	75	14028	11.25	PPB	98
55) 4-Methyl-2-pentanone (MIBK)	5.14	58	7585	25.62	PPB	96
57) Toluene	5.23	92	18617	10.32	PPB	95
59) trans-1,3-Dichloropropene	5.51	75	11368	11.00	PPB	98
60) 1,1,2-Trichloroethane	5.66	83	6725	11.68	PPB	97
61) Tetrachloroethene	5.68	164	5334	10.27	PPB	95
62) 2-Hexanone	5.89	57	1941	22.41	PPB	# 83
63) 1,3-Dichloropropane	5.82	76	13038	11.49	PPB	99
64) Dibromochloromethane	5.99	129	7962	10.79	PPB	96
65) 1,2-Dibromoethane (EDB)	6.10	107	7526	11.72	PPB	93
66) 1-Chlorohexane	6.50	91	6894	9.73	PPB	97
67) Chlorobenzene	6.53	112	21118	10.95	PPB	98
68) Ethylbenzene	6.61	106	9413	9.74	PPB	96
69) 1,1,1,2-Tetrachloroethane	6.62	131	7451	10.80	PPB	88
70) m,p-Xylenes	6.73	106	22731	19.33	PPB	95
71) o-Xylene	7.12	106	11638	10.28	PPB	92
72) Styrene	7.15	103	9549 ^m	9.85	PPB	
73) Bromoform	7.35	173	4943	10.15	PPB	92
74) Isopropylbenzene	7.47	105	27380	9.46	PPB	97
75) cis-1,4-Dichloro-2-butene	7.64	89	2091	19.71	PPB	95
78) 1,1,2,2-Tetrachloroethane	7.87	83	9044	11.01	PPB	96
79) trans-1,4-Dichloro-2-buten	7.94	53	2390	10.47	PPB	83
80) Bromobenzene	7.80	156	9186	10.86	PPB	97
81) n-Propylbenzene	7.89	91	31724	9.52	PPB	98
82) 1,2,3-Trichloropropane	7.91	110	3018	11.54	PPB	91
83) 2-Chlorotoluene	7.99	91	20951	10.13	PPB	97
84) 1,3,5-Trimethylbenzene	8.08	105	22319	9.55	PPB	99
85) 4-Chlorotoluene	8.12	91	21942 ^m	9.99	PPB	
86) tert-Butylbenzene	8.39	119	19906	9.63	PPB	96
87) 1,2,4-Trimethylbenzene	8.45	105	22947	9.69	PPB	98
88) sec-Butylbenzene	8.61	105	28533	9.54	PPB	98
89) p-Isopropyltoluene	8.76	119	22390	9.05	PPB	97
90) 1,3-Dichlorobenzene	8.75	146	15335	10.23	PPB	96
91) 1,4-Dichlorobenzene	8.84	146	15891	10.54	PPB	95
92) n-Butylbenzene	9.16	91	20392	9.38	PPB	99
93) 1,2-Dichlorobenzene	9.21	146	15336	10.46	PPB	97
94) 1,2-Dibromo-3-chloropropan	9.98	155	1370	10.59	PPB	94
95) 1,3,5-Trichlorobenzene	10.11	180	10172	10.01	PPB	94
96) 1,2,4-Trichlorobenzene	10.71	180	9349	10.38	PPB	95
97) Hexachlorobutadiene	10.82	225	5531	10.25	PPB	100
98) Naphthalene	10.94	128	20218	9.64	PPB	98
99) 1,2,3-Trichlorobenzene	11.16	180	9147	10.54	PPB	97

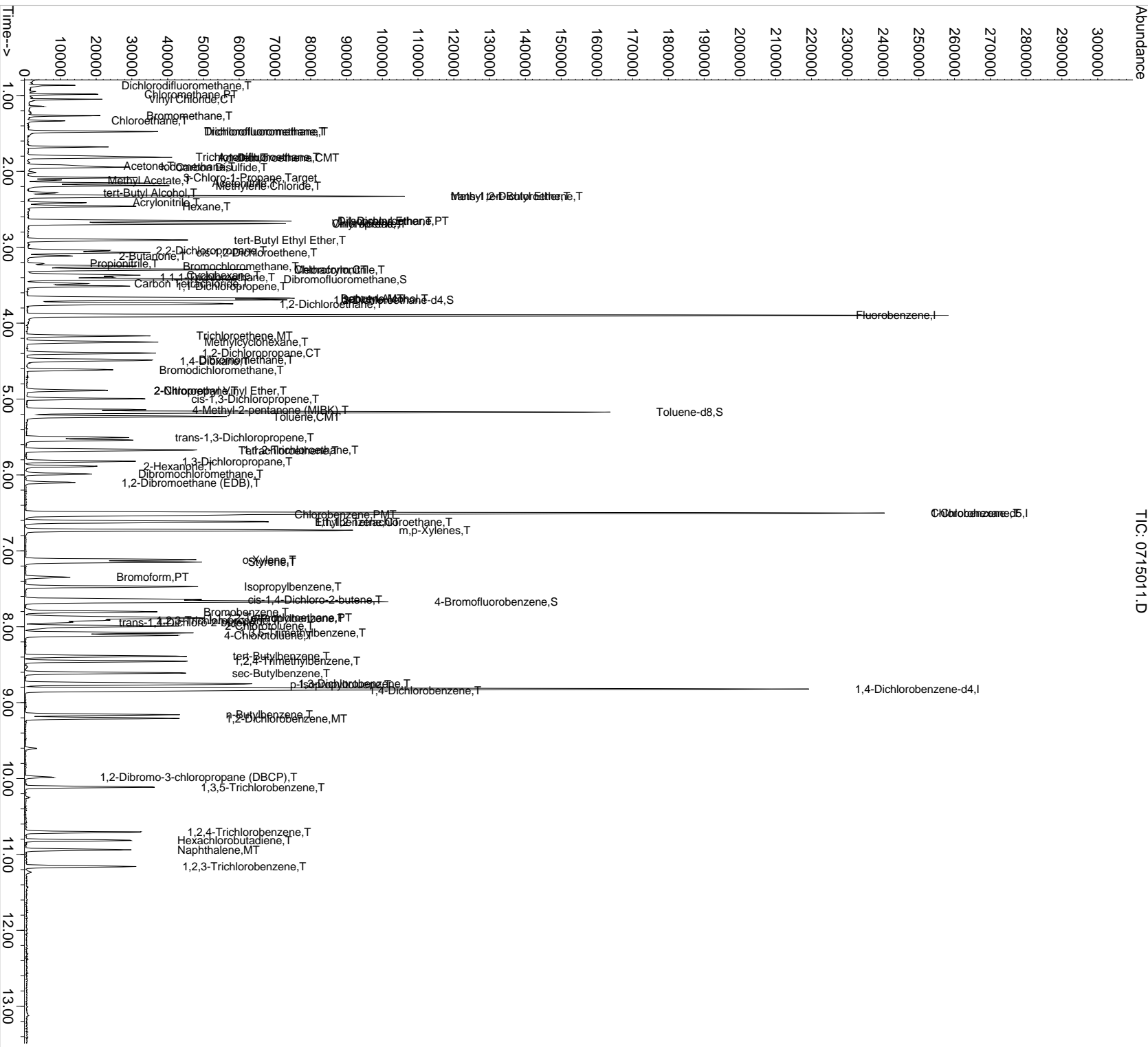
(#) = qualifier out of range (m) = manual integration

Vial: 11
Operator: KW
Inst: MS24
Multiplier: 1.00

1st 07/16/19

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
Title : VOA MS24 EPA Method 8260B
Last Update : Mon Jul 15 14:17:01 2019
Response via : Initial Calibration

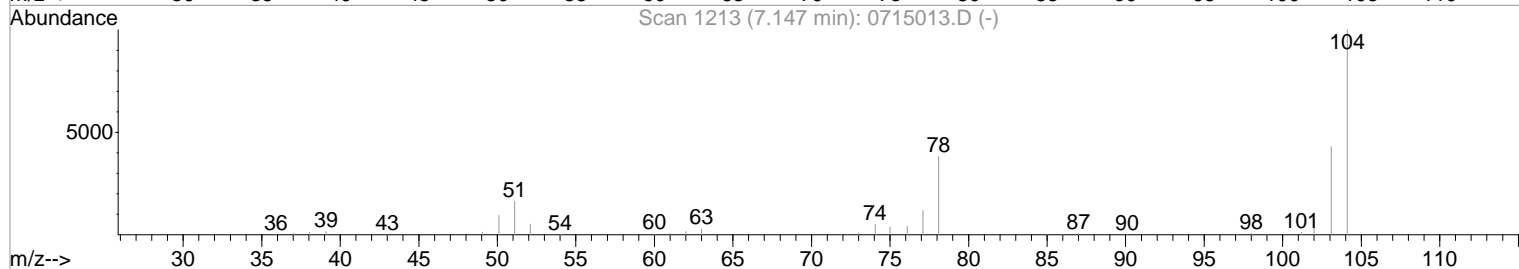
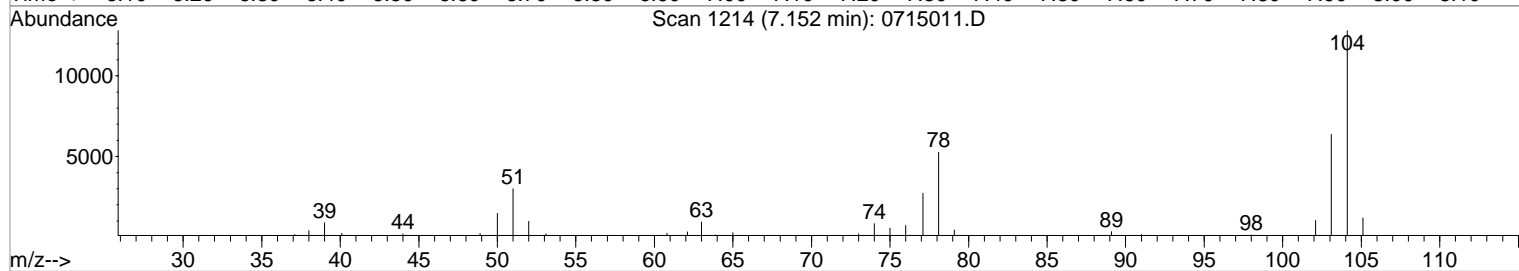
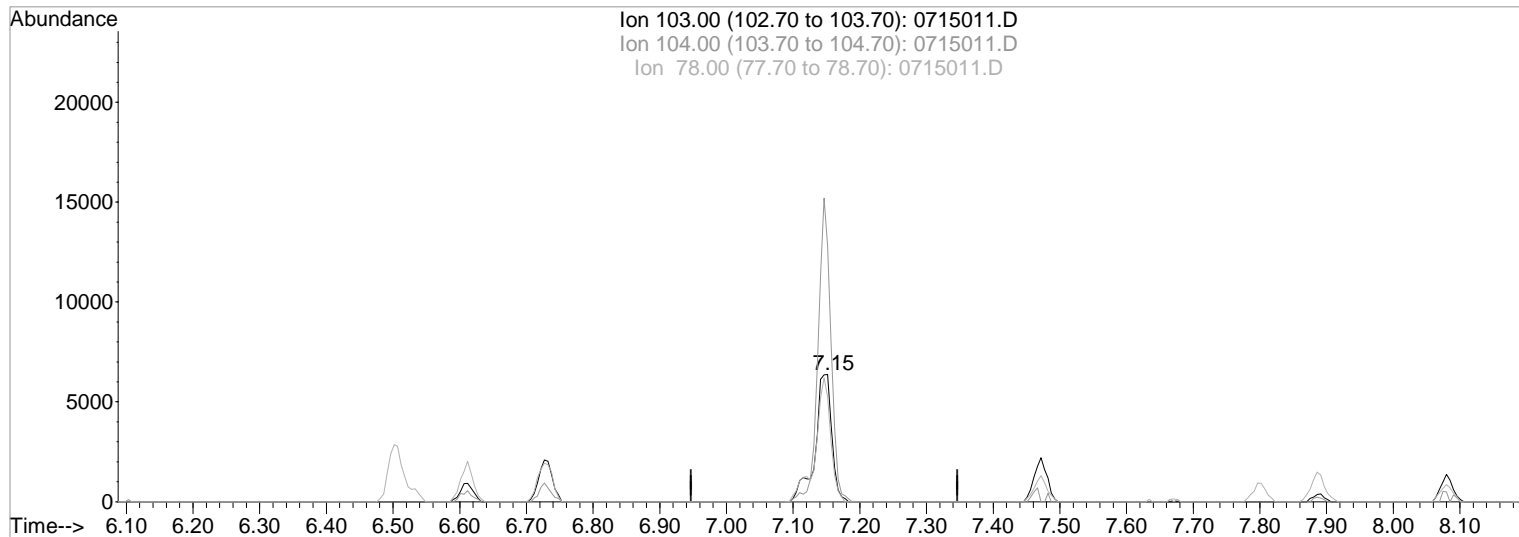


Data File : J:\MS24\DATA\071519\0715011.D
 Acq On : 15 Jul 2019 12:10 pm
 Sample : ICAL 10
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:46 2019

Vial: 11
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Multiple Level Calibration



TIC: 0715011.D

(72) Styrene (T)

Manual Integration:

7.15min 11.52PPB

Before

response 11169

07/15/19

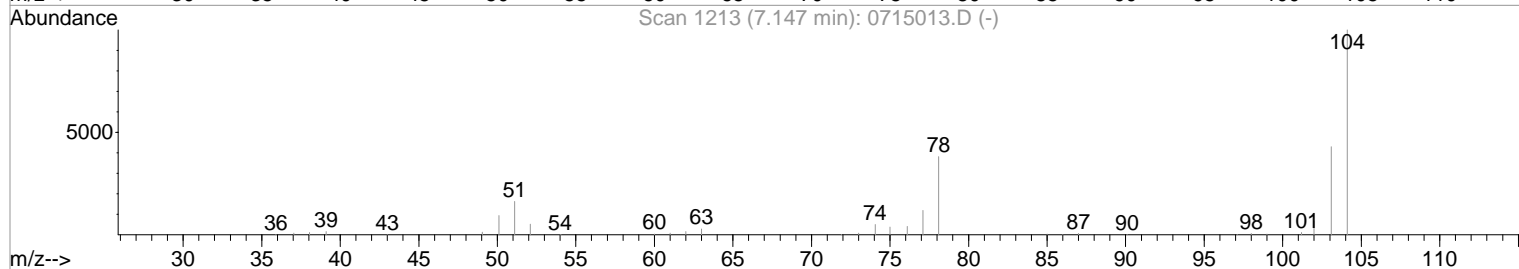
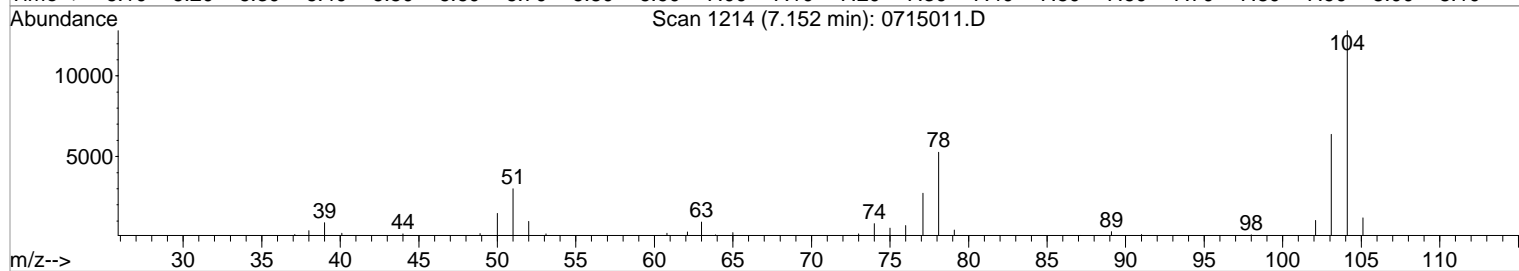
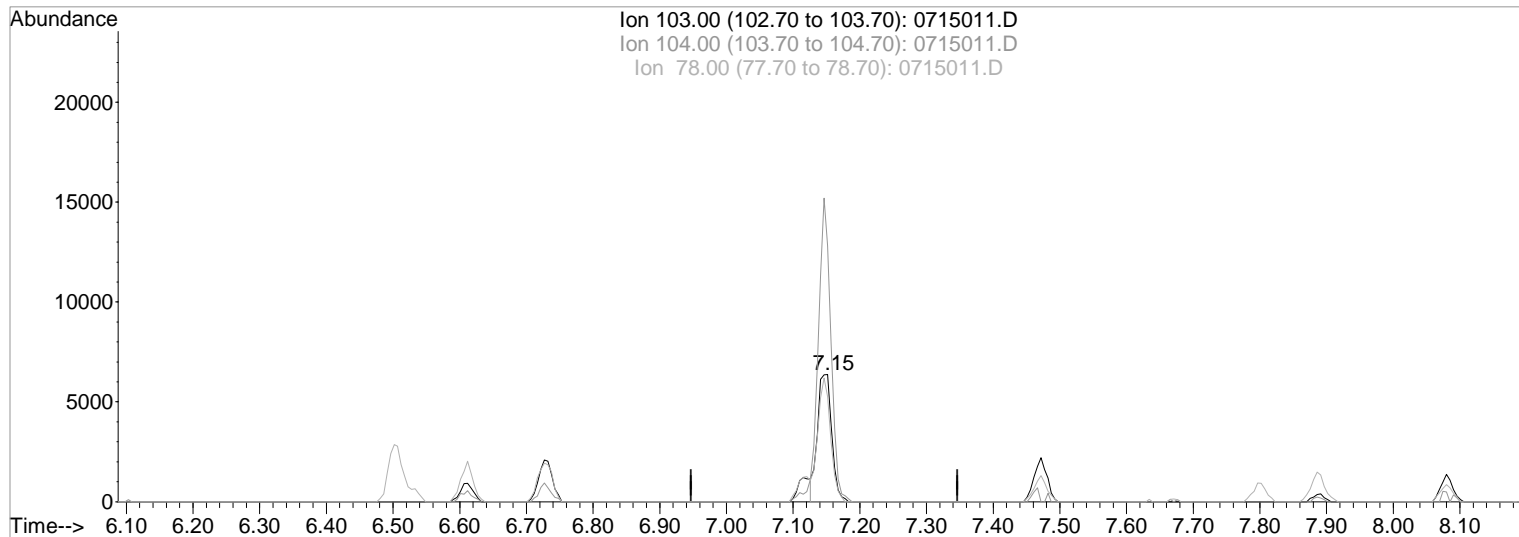
Ion	Exp%	Act%
103.00	100	100
104.00	210.30	200.97
78.00	89.90	82.45
0.00	0.00	0.00

Data File : J:\MS24\DATA\071519\0715011.D
 Acq On : 15 Jul 2019 12:10 pm
 Sample : ICAL 10
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:46 2019

Vial: 11
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Multiple Level Calibration



TIC: 0715011.D

(72) Styrene (T)		
7.15min	9.85PPB	m
response	9549	
Ion	Exp%	Act%
103.00	100	100
104.00	210.30	200.97
78.00	89.90	82.45
0.00	0.00	0.00

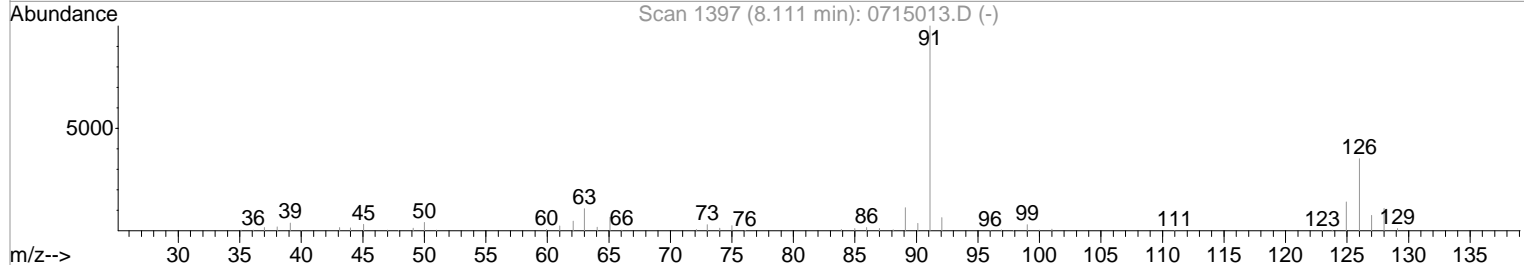
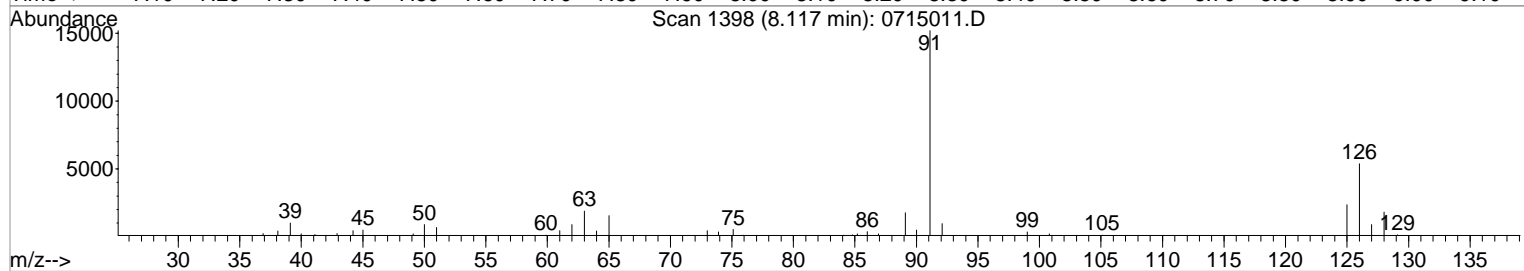
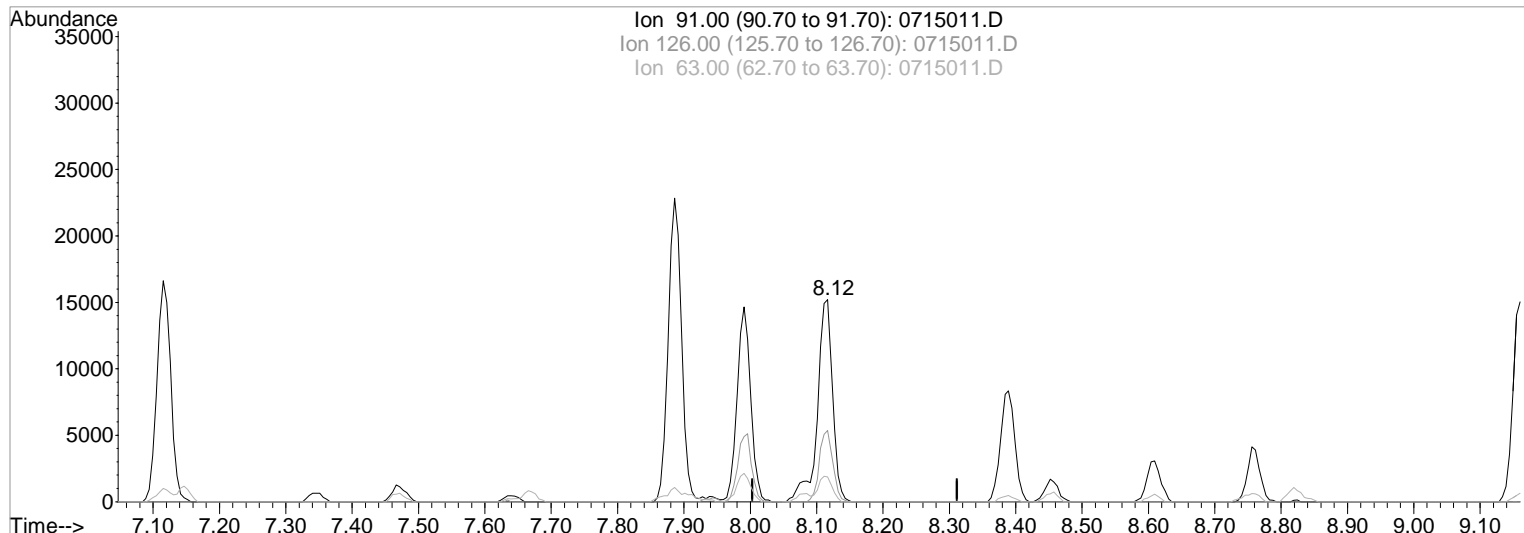
Manual Integration:
 After
 Shoulder
 07/15/19

Data File : J:\MS24\DATA\071519\0715011.D
 Acq On : 15 Jul 2019 12:10 pm
 Sample : ICAL 10
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:46 2019

Vial: 11
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Multiple Level Calibration



TIC: 0715011.D

(85) 4-Chlorotoluene (T)

Manual Integration:

8.12min 11.05PPB

Before

response 24272

07/15/19

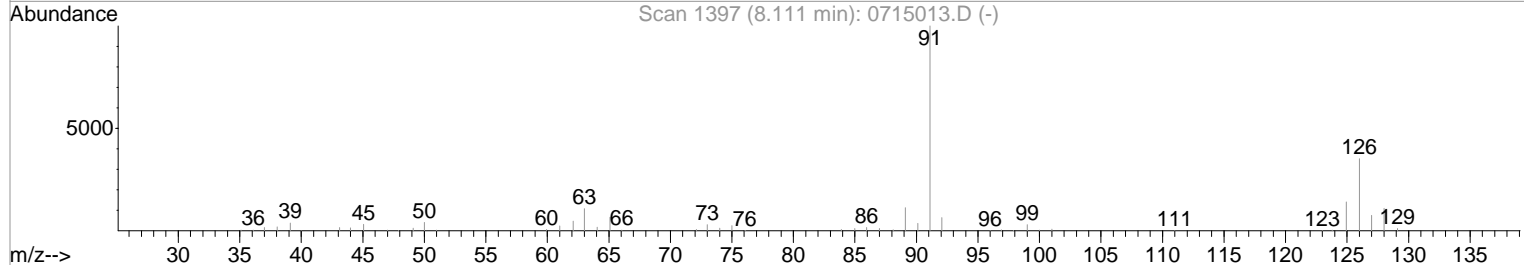
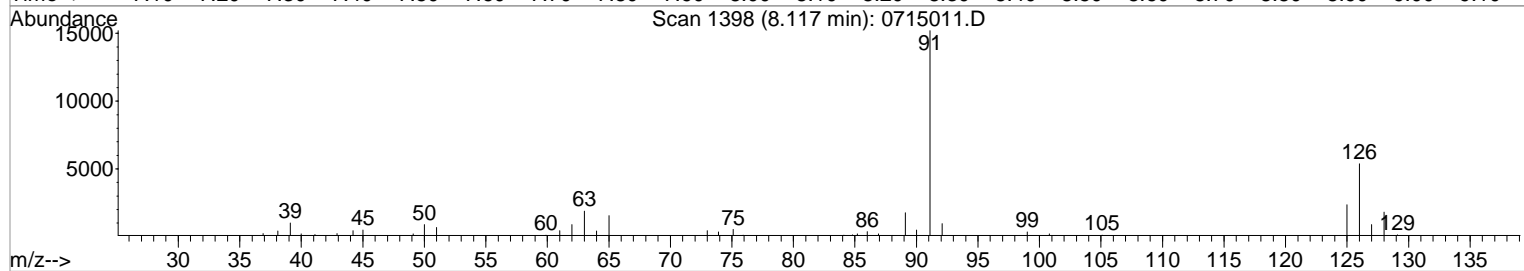
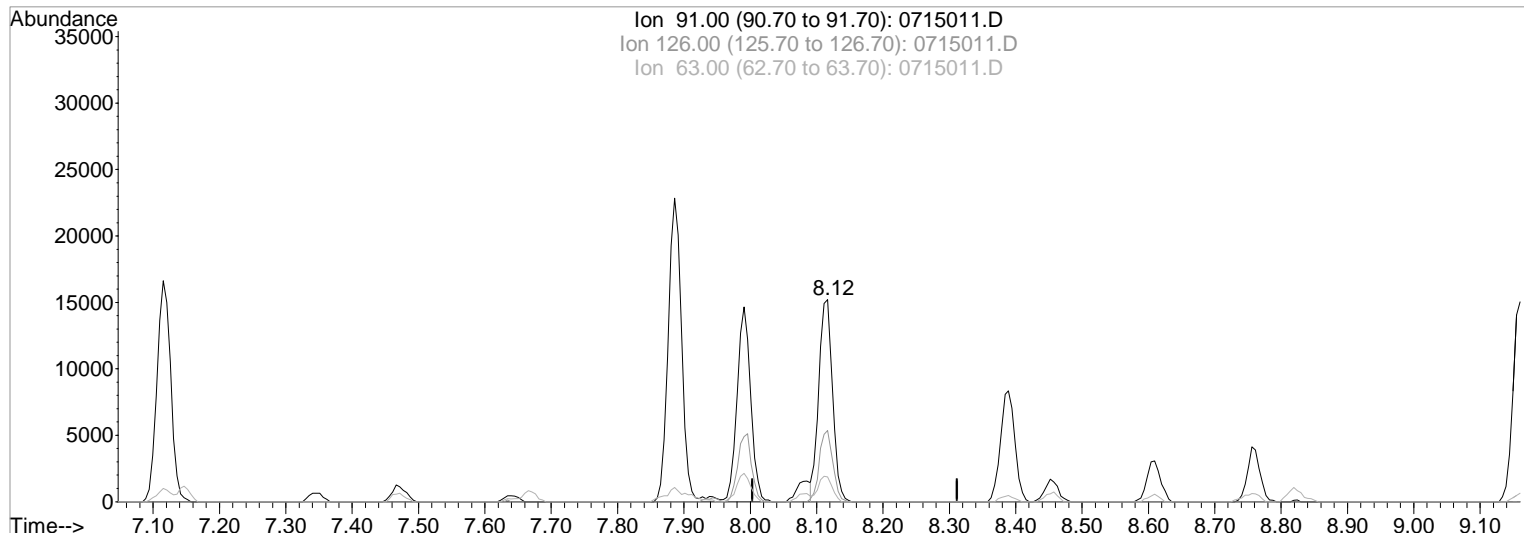
Ion	Exp%	Act%
91.00	100	100
126.00	32.80	35.31
63.00	12.70	12.35
0.00	0.00	0.00

Data File : J:\MS24\DATA\071519\0715011.D
 Acq On : 15 Jul 2019 12:10 pm
 Sample : ICAL 10
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:46 2019

Vial: 11
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Multiple Level Calibration



TIC: 0715011.D

(85) 4-Chlorotoluene (T)

Manual Integration:

8.12min 9.99PPB m
 response 21942

After
 Shoulder

Ion	Exp%	Act%
91.00	100	100
126.00	32.80	35.31
63.00	12.70	12.35
0.00	0.00	0.00

07/15/19

Data File : J:\MS24\DATA\071519\0715012.D
 Acq On : 15 Jul 2019 12:31 pm
 Sample : ICAL 20
 Misc :

Vial: 12
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 15 13:47:09 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

Quant Method : J:\MS24\M...\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	3.90	96	152999	50.00	PPB	0.00
58) Chlorobenzene-d5	6.50	82	56681	50.00	PPB	0.00
77) 1,4-Dichlorobenzene-d4	8.82	152	51599	50.00	PPB	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Dibromofluoromethane	3.42	113	31703	40.68	PPB	0.00
Spiked Amount	50.000		Recovery	=	81.36%	
43) 1,2-Dichloroethane-d4	3.69	65	40801	41.42	PPB	0.00
Spiked Amount	50.000		Recovery	=	82.84%	
56) Toluene-d8	5.17	98	110674	40.23	PPB	0.00
Spiked Amount	50.000		Recovery	=	80.46%	
76) 4-Bromofluorobenzene	7.67	95	39922	40.63	PPB	0.00
Spiked Amount	50.000		Recovery	=	81.26%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.86	85	12436	23.09	PPB	99
3) Chloromethane	0.98	50	19992	24.20	PPB	98
4) Vinyl Chloride	1.04	62	17548	22.63	PPB	98
5) Bromomethane	1.26	96	11637	25.09	PPB	97
6) Chloroethane	1.33	64	10418	23.64	PPB	98
7) Dichlorofluoromethane	1.47	67	25892	23.06	PPB	93
8) Trichlorofluoromethane	1.47	101	21993	23.31	PPB	98
9) Acrolein	1.81	56	17299	115.21	PPB	100
10) Trichlorotrifluoroethane	1.80	151	10574	22.50	PPB	98
11) 1,1-Dichloroethene	1.82	96	12229	22.71	PPB	93
12) Acetone	1.91	43	12120	50.99	PPB	99
13) Iodomethane	1.93	142	21409	41.15	PPB	99
14) Carbon Disulfide	1.95	76	42264	22.61	PPB	100
15) 3-Chloro-1-Propane	2.08	TIC	68546m	22.57	PPB	
16) Methyl Acetate	2.11	43	13498	23.93	PPB	98
17) Acetonitrile	2.16	40	24950	461.54	PPB	98
18) Methylene Chloride	2.19	84	18630	24.34	PPB	99
19) tert-Butyl Alcohol	2.28	59	11374	117.67	PPB	99
20) Acrylonitrile	2.41	53	13721	45.02	PPB	94
21) Methyl tert-Butyl Ether	2.32	73	104878	46.09	PPB	99
22) trans-1,2-Dichloroethene	2.33	96	15586	23.12	PPB	94
23) Hexane	2.46	57	20964	23.34	PPB	99
24) Diisopropyl Ether	2.65	45	57654	23.42	PPB	96
25) 1,1-Dichloroethane	2.65	63	29978	23.23	PPB	97
26) Vinyl Acetate	2.69	86	3380	23.23	PPB	# 89
27) Chloroprene	2.68	53	43665	46.12	PPB	94
28) tert-Butyl Ethyl Ether	2.90	59	56056	22.99	PPB	98
29) 2,2-Dichloropropane	3.04	77	22375	23.47	PPB	96
30) cis-1,2-Dichloroethene	3.07	96	19681	23.54	PPB	97
31) 2-Butanone	3.11	72	4631	47.47	PPB	# 82
32) Propionitrile	3.21	54	6060	48.85	PPB	96
34) Methacrylonitrile	3.29	67	16671	45.66	PPB	98
35) Bromochloromethane	3.25	128	9728	23.30	PPB	93
36) Chloroform	3.30	83	31120	23.28	PPB	97
37) Cyclohexane	3.36	56	24196	22.87	PPB	99
38) 1,1,1-Trichloroethane	3.39	97	22579	22.58	PPB	98
40) Carbon Tetrachloride	3.48	117	18301	22.48	PPB	98
41) 1,1-Dichloropropene	3.51	75	21251	22.46	PPB	99
42) Isobutyl Alcohol	3.68	43	21800	454.23	PPB	98
44) Benzene	3.67	78	70579	22.83	PPB	98
45) 1,2-Dichloroethane	3.75	62	25642	22.69	PPB	98
46) Trichloroethene	4.16	95	16749	22.80	PPB	96
47) Methylcyclohexane	4.25	83	22874	22.40	PPB	98

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS24\DATA\071519\0715012.D
 Acq On : 15 Jul 2019 12:31 pm
 Sample : ICAL 20
 Misc :

Vial: 12
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 15 13:47:09 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

Quant Method : J:\MS24\M...\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
48) 1,2-Dichloropropane	4.39	63	19112	23.35	PPB	99
49) Dibromomethane	4.49	93	11221	22.89	PPB	98
50) 1,4-Dioxane	4.50	88	4105	478.73	PPB	91
51) Bromodichloromethane	4.61	83	22689	22.84	PPB	98
52) 2-Nitropropane	4.88	41	12735	21.58	PPB	98
53) 2-Chloroethyl Vinyl Ether	4.89	63	5461	22.77	PPB	97
54) cis-1,3-Dichloropropene	5.00	75	27227	22.67	PPB	100
55) 4-Methyl-2-pentanone (MIBK)	5.14	58	13497	47.35	PPB	92
57) Toluene	5.23	92	38524	22.18	PPB	93
59) trans-1,3-Dichloropropene	5.51	75	23721	22.59	PPB	100
60) 1,1,2-Trichloroethane	5.67	83	13871	23.71	PPB	95
61) Tetrachloroethene	5.68	164	12319	23.33	PPB	94
62) 2-Hexanone	5.88	57	3939	44.74	PPB	97
63) 1,3-Dichloropropane	5.82	76	26724	23.18	PPB	98
64) Dibromochloromethane	5.99	129	16543	22.06	PPB	99
65) 1,2-Dibromoethane (EDB)	6.10	107	15461	23.68	PPB	89
66) 1-Chlorohexane	6.50	91	16139	22.40	PPB	96
67) Chlorobenzene	6.53	112	45591	23.25	PPB	98
68) Ethylbenzene	6.61	106	21738	22.14	PPB	99
69) 1,1,1,2-Tetrachloroethane	6.62	131	15813	22.55	PPB	93
70) m,p-Xylenes	6.73	106	53056	44.39	PPB	99
71) o-Xylene	7.12	106	26156	22.73	PPB	94
72) Styrene	7.15	103	20972m	21.28	PPB	
73) Bromoform	7.35	173	10936	22.10	PPB	97
74) Isopropylbenzene	7.47	105	65104	22.12	PPB	99
75) cis-1,4-Dichloro-2-butene	7.64	89	4778	44.31	PPB	96
78) 1,1,2,2-Tetrachloroethane	7.86	83	18901	22.53	PPB	96
79) trans-1,4-Dichloro-2-buten	7.94	53	5352	22.95	PPB	89
80) Bromobenzene	7.80	156	19361	22.42	PPB	90
81) n-Propylbenzene	7.89	91	74736	21.96	PPB	100
82) 1,2,3-Trichloropropane	7.92	110	6133	22.96	PPB	97
83) 2-Chlorotoluene	7.99	91	47892	22.68	PPB	98
84) 1,3,5-Trimethylbenzene	8.08	105	51773	21.68	PPB	98
85) 4-Chlorotoluene	8.11	91	49832m	22.22	PPB	
86) tert-Butylbenzene	8.39	119	47120	22.31	PPB	97
87) 1,2,4-Trimethylbenzene	8.46	105	52224	21.60	PPB	97
88) sec-Butylbenzene	8.61	105	67477	22.08	PPB	99
89) p-Isopropyltoluene	8.76	119	54052	21.40	PPB	99
90) 1,3-Dichlorobenzene	8.75	146	34731	22.68	PPB	97
91) 1,4-Dichlorobenzene	8.85	146	34459	22.38	PPB	97
92) n-Butylbenzene	9.16	91	48442	21.82	PPB	100
93) 1,2-Dichlorobenzene	9.21	146	34505	23.05	PPB	96
94) 1,2-Dibromo-3-chloropropan	9.98	155	2782	21.06	PPB	89
95) 1,3,5-Trichlorobenzene	10.11	180	23352	22.50	PPB	98
96) 1,2,4-Trichlorobenzene	10.71	180	20577	22.37	PPB	99
97) Hexachlorobutadiene	10.82	225	12842	23.30	PPB	96
98) Naphthalene	10.94	128	45394	21.20	PPB	97
99) 1,2,3-Trichlorobenzene	11.16	180	20400	23.03	PPB	95

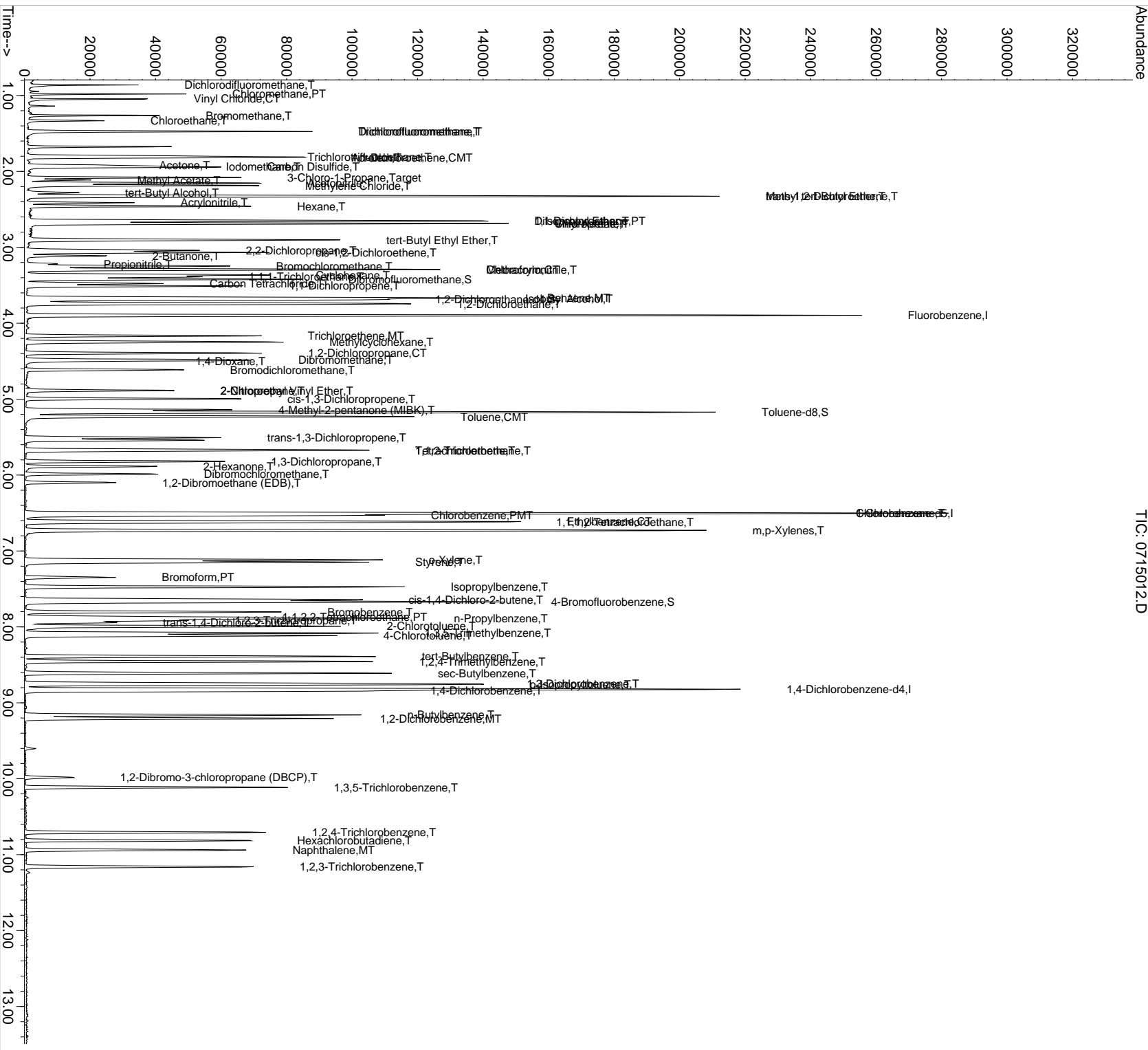
(#) = qualifier out of range (m) = manual integration

Data File : J:\MS24\DATA\071519\0715012.D
Acq On : 15 Jul 2019 12:31 pm
Sample : ICAL 20
Misc :
MS Integration Params: rteint.p
Unit Time: Jul 15 13:47 2019

Vial: 12
Operator: KW
Inst: MS24
Multiplr: 1.00

Quant Results File: 0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
Title : VOA MS24 EPA Method 8260B
Last Update : Mon Jul 15 14:17:01 2019
Response via : Initial Calibration

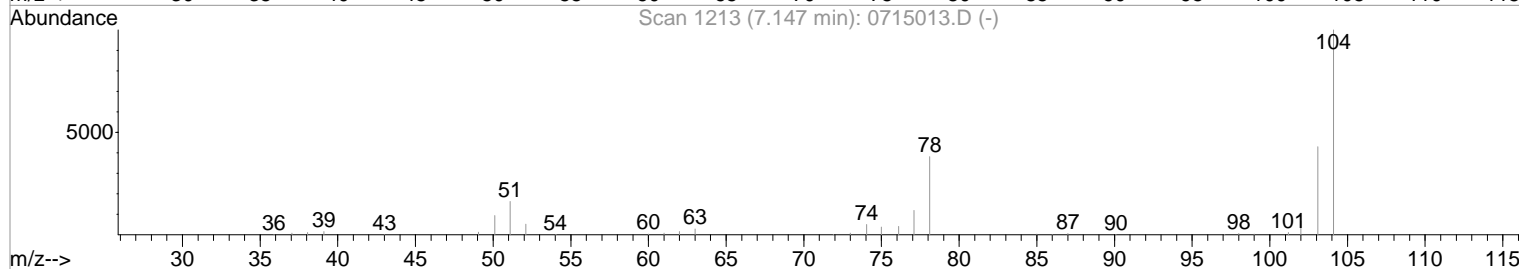
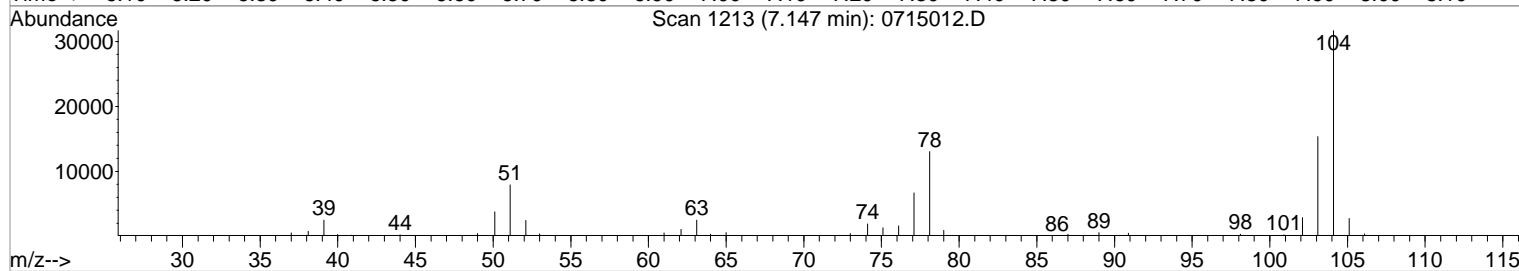
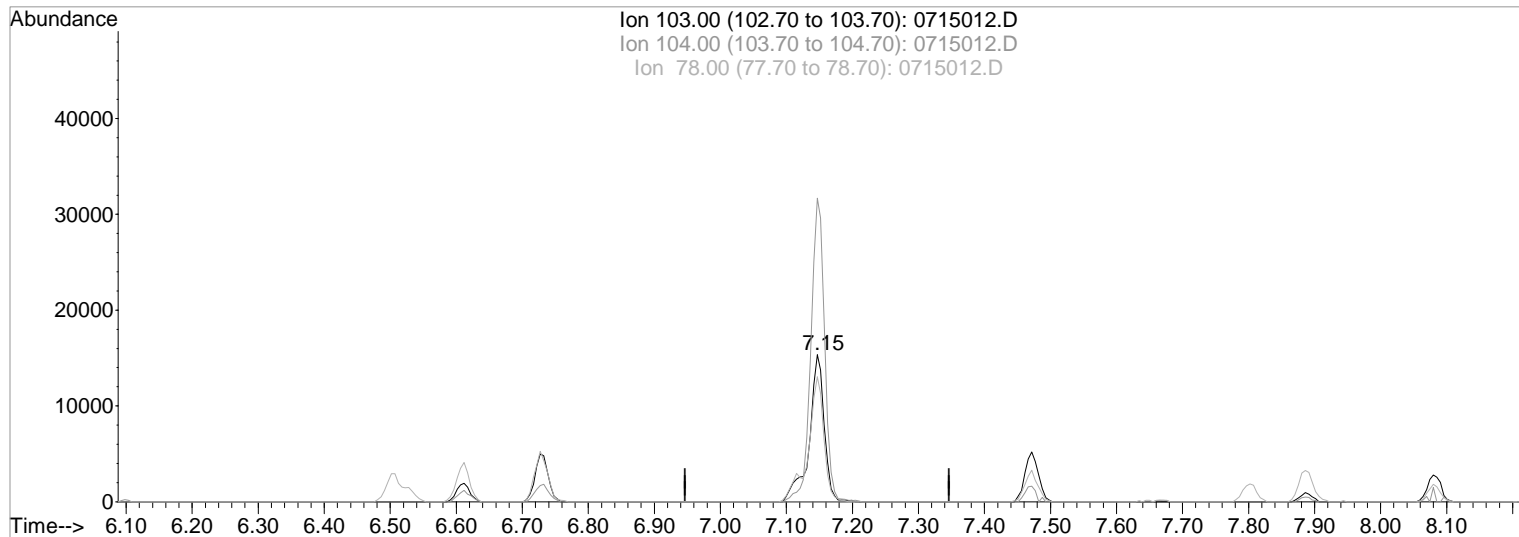


Data File : J:\MS24\DATA\071519\0715012.D
 Acq On : 15 Jul 2019 12:31 pm
 Sample : ICAL 20
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:47 2019

Vial: 12
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Multiple Level Calibration



TIC: 0715012.D

(72) Styrene (T)

Manual Integration:

7.15min 24.88PPB

Before

response 24523

07/15/19

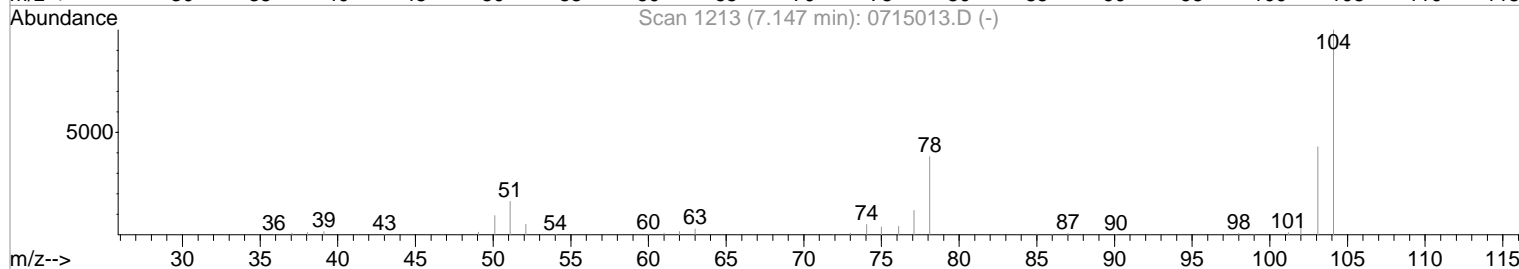
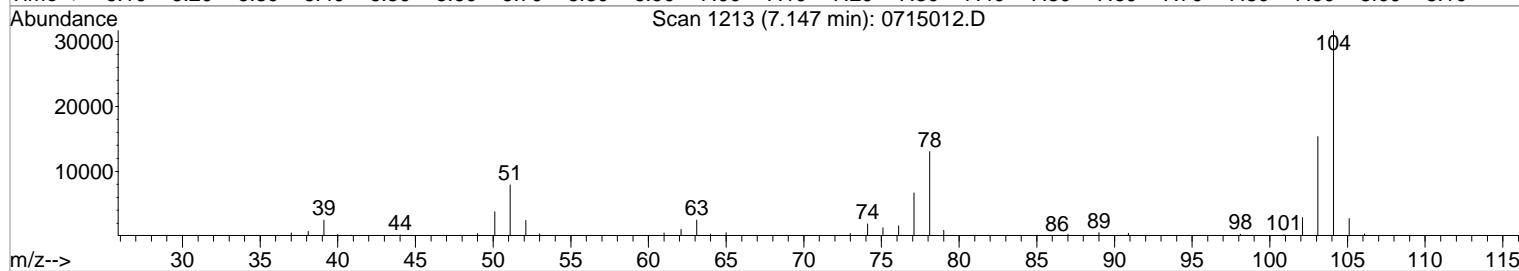
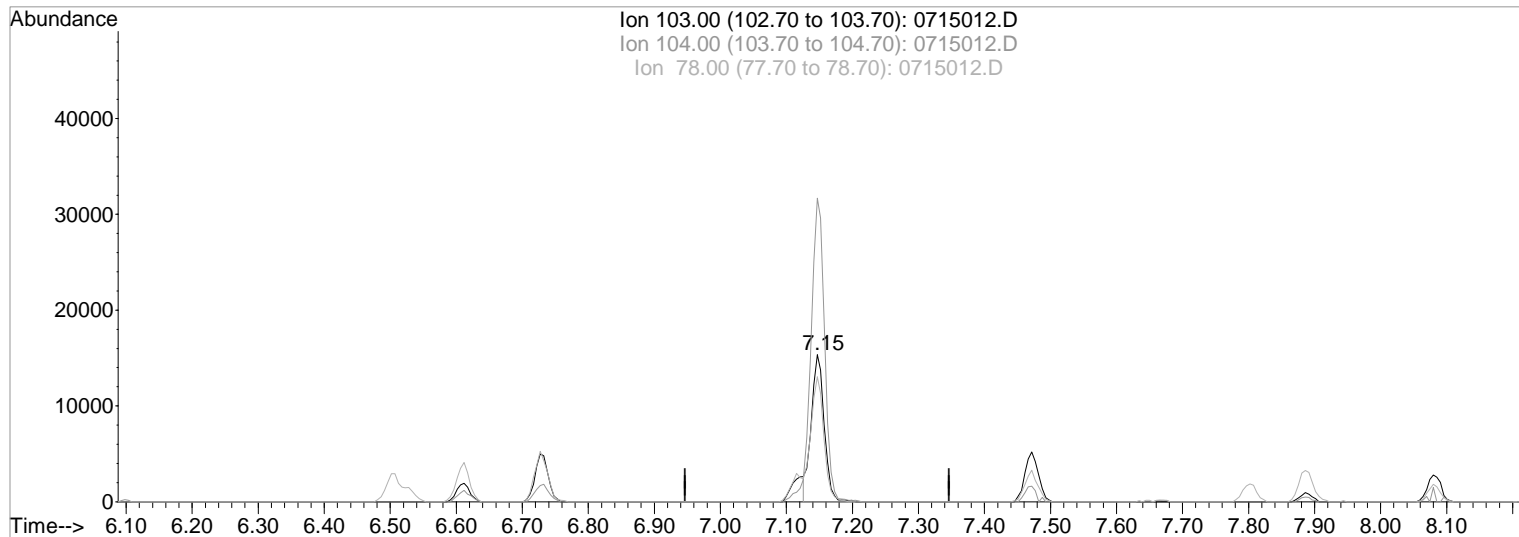
Ion	Exp%	Act%
103.00	100	100
104.00	210.30	206.47
78.00	89.90	84.95
0.00	0.00	0.00

Data File : J:\MS24\DATA\071519\0715012.D
 Acq On : 15 Jul 2019 12:31 pm
 Sample : ICAL 20
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:47 2019

Vial: 12
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Multiple Level Calibration



TIC: 0715012.D

(72) Styrene (T)		
7.15min	21.28PPB	m
response	20972	
Ion	Exp%	Act%
103.00	100	100
104.00	210.30	206.47
78.00	89.90	84.95
0.00	0.00	0.00

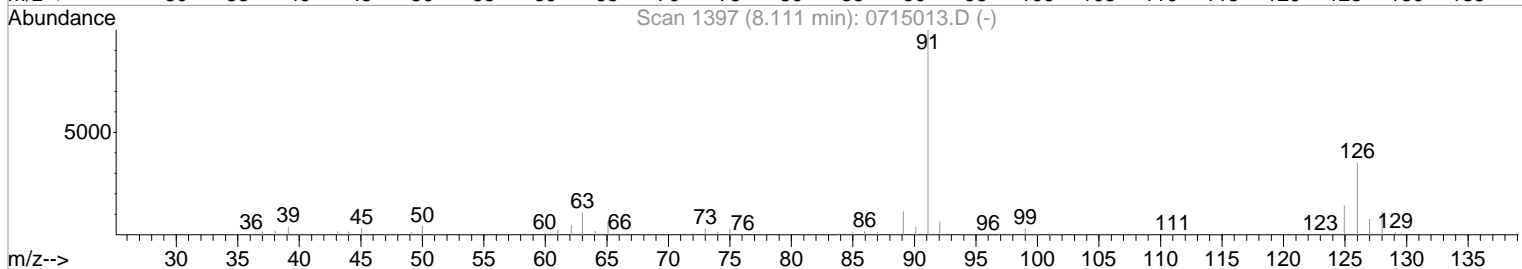
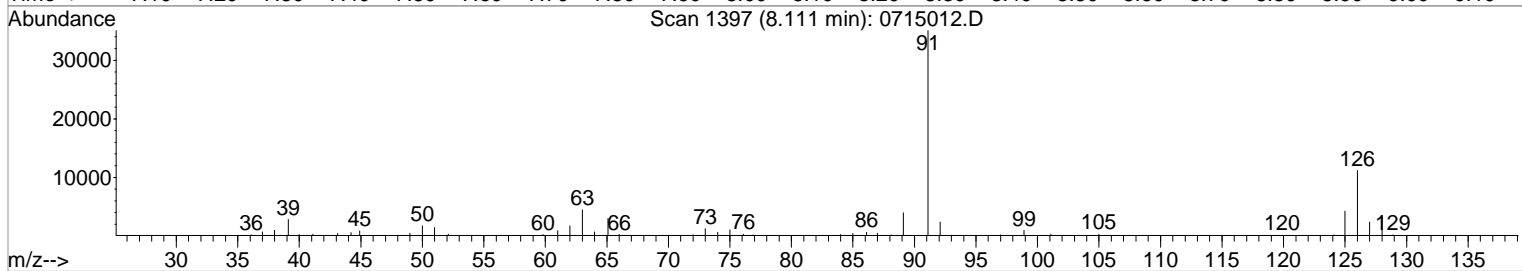
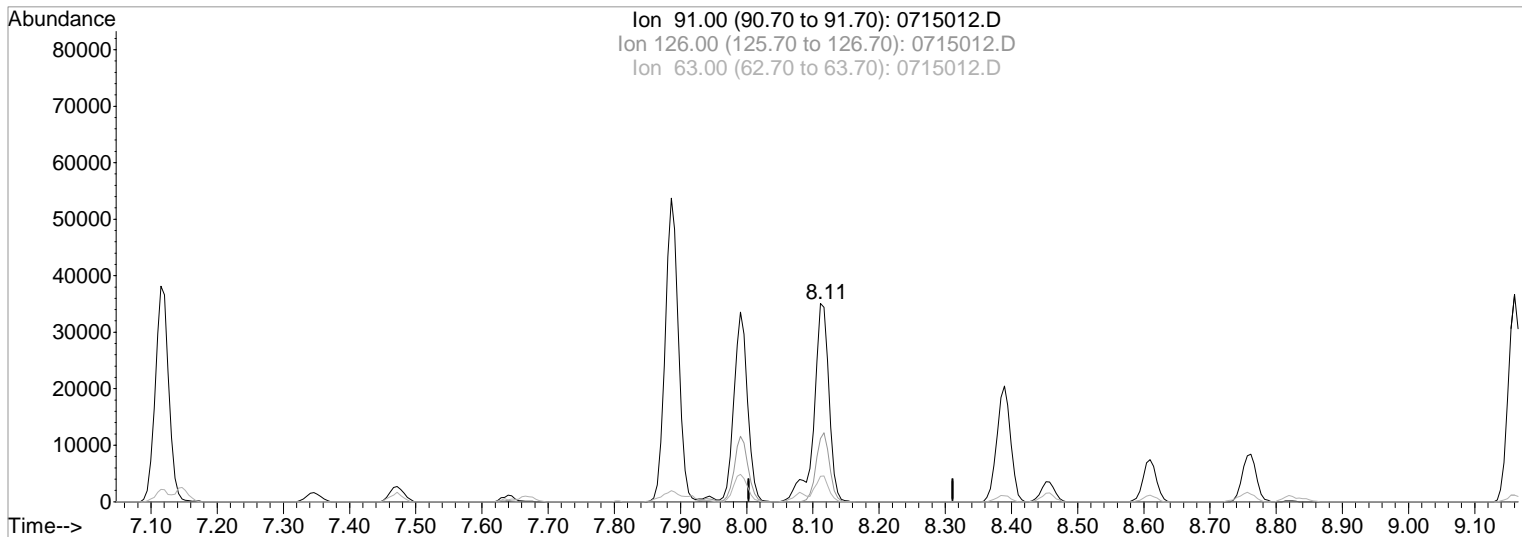
Manual Integration:
 After
 Shoulder
 07/15/19

Data File : J:\MS24\DATA\071519\0715012.D
 Acq On : 15 Jul 2019 12:31 pm
 Sample : ICAL 20
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:47 2019

Vial: 12
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Multiple Level Calibration



TIC: 0715012.D

(85) 4-Chlorotoluene (T)

Manual Integration:

8.11min 24.69PPB

Before

response 55393

07/15/19

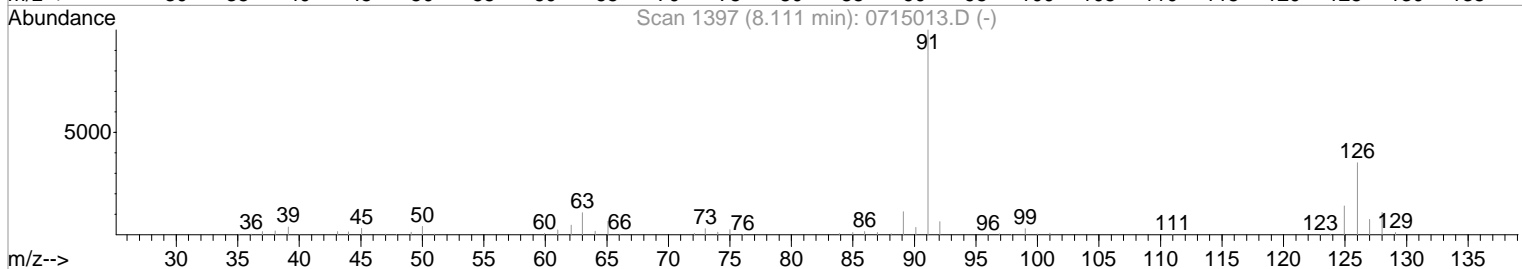
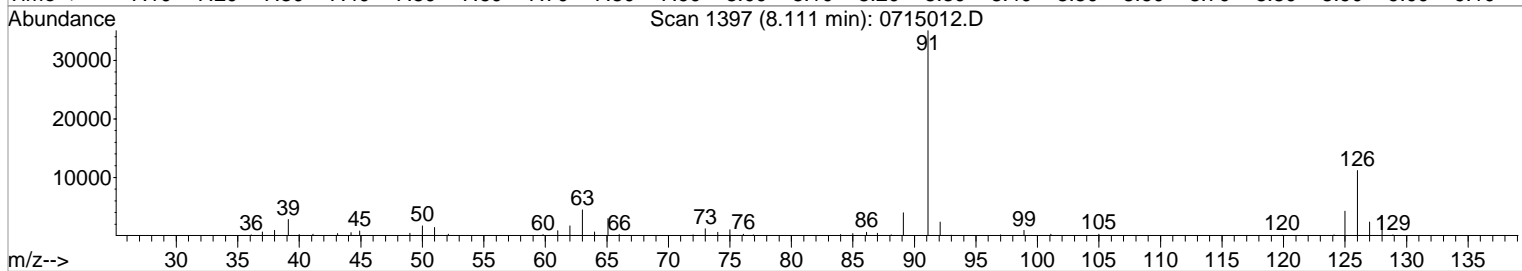
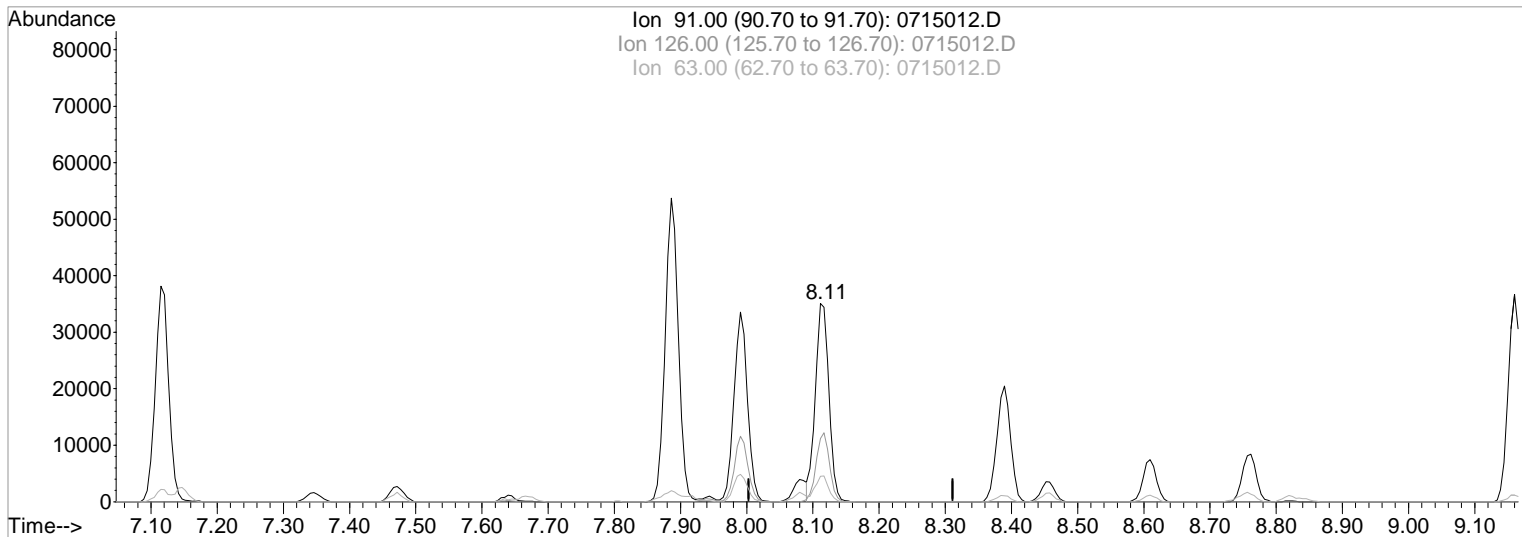
Ion	Exp%	Act%
91.00	100	100
126.00	32.80	31.88
63.00	12.70	12.77
0.00	0.00	0.00

Data File : J:\MS24\DATA\071519\0715012.D
 Acq On : 15 Jul 2019 12:31 pm
 Sample : ICAL 20
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:47 2019

Vial: 12
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Multiple Level Calibration



TIC: 0715012.D

(85) 4-Chlorotoluene (T)

Manual Integration:

8.11min 22.22PPB m
 response 49832

After
 Shoulder

Ion	Exp%	Act%
91.00	100	100
126.00	32.80	31.88
63.00	12.70	12.77
0.00	0.00	0.00

07/15/19

Data File : J:\MS24\DATA\071519\0715013.D
 Acq On : 15 Jul 2019 12:52 pm
 Sample : ICAL 50
 Misc :

Vial: 13
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 15 13:48:21 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

Quant Method : J:\MS24\M...\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	3.90	96	151719	50.00	PPB	0.00
58) Chlorobenzene-d5	6.50	82	57620	50.00	PPB	0.00
77) 1,4-Dichlorobenzene-d4	8.82	152	52529	50.00	PPB	0.00

System Monitoring Compounds

39) Dibromofluoromethane	3.42	113	38644	50.00	PPB	0.00
Spiked Amount	50.000		Recovery	=	100.00%	
43) 1,2-Dichloroethane-d4	3.69	65	48842	50.00	PPB	0.00
Spiked Amount	50.000		Recovery	=	100.00%	
56) Toluene-d8	5.17	98	136398	50.00	PPB	0.00
Spiked Amount	50.000		Recovery	=	100.00%	
76) 4-Bromofluorobenzene	7.67	95	49945	50.00	PPB	0.00
Spiked Amount	50.000		Recovery	=	100.00%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	0.85	85	26699	50.00	PPB	100
3) Chloromethane	0.98	50	40957	50.00	PPB	100
4) Vinyl Chloride	1.04	62	38447	50.00	PPB	100
5) Bromomethane	1.26	96	22997	50.00	PPB	100
6) Chloroethane	1.33	64	21854	50.00	PPB	100
7) Dichlorofluoromethane	1.47	67	55667	50.00	PPB	100
8) Trichlorofluoromethane	1.47	101	46776	50.00	PPB	100
9) Acrolein	1.80	56	37225	250.00	PPB	100
10) Trichlorotrifluoroethane	1.79	151	23299	50.00	PPB	100
11) 1,1-Dichloroethene	1.81	96	26695	50.00	PPB	100
12) Acetone	1.91	43	23572	100.00	PPB	100
13) Iodomethane	1.92	142	51592	100.00	PPB	100
14) Carbon Disulfide	1.94	76	92696	50.00	PPB	100
15) 3-Chloro-1-Propane	2.08	TIC	150570m	50.00	PPB	
16) Methyl Acetate	2.11	43	27972	50.00	PPB	100
17) Acetonitrile	2.15	40	53606	1000.00	PPB	100
18) Methylene Chloride	2.18	84	37957	50.00	PPB	100
19) tert-Butyl Alcohol	2.28	59	23962	250.00	PPB	100
20) Acrylonitrile	2.41	53	30225	100.00	PPB	100
21) Methyl tert-Butyl Ether	2.32	73	225647	100.00	PPB	100
22) trans-1,2-Dichloroethene	2.33	96	33430	50.00	PPB	100
23) Hexane	2.45	57	44529	50.00	PPB	100
24) Diisopropyl Ether	2.65	45	122057	50.00	PPB	100
25) 1,1-Dichloroethane	2.65	63	63996	50.00	PPB	100
26) Vinyl Acetate	2.69	86	7214	50.00	PPB	100
27) Chloroprene	2.68	53	93886	100.00	PPB	100
28) tert-Butyl Ethyl Ether	2.90	59	120905	50.00	PPB	100
29) 2,2-Dichloropropane	3.04	77	47277	50.00	PPB	100
30) cis-1,2-Dichloroethene	3.07	96	41449	50.00	PPB	100
31) 2-Butanone	3.11	72	9674	100.00	PPB	100
32) Propionitrile	3.21	54	12301	100.00	PPB	100
34) Methacrylonitrile	3.29	67	36204	100.00	PPB	100
35) Bromochloromethane	3.25	128	20704	50.00	PPB	100
36) Chloroform	3.29	83	66278	50.00	PPB	100
37) Cyclohexane	3.36	56	52451	50.00	PPB	100
38) 1,1,1-Trichloroethane	3.39	97	49584	50.00	PPB	100
40) Carbon Tetrachloride	3.48	117	40365	50.00	PPB	100
41) 1,1-Dichloropropene	3.51	75	46916	50.00	PPB	100
42) Isobutyl Alcohol	3.68	43	47592	1000.00	PPB	100
44) Benzene	3.67	78	153256	50.00	PPB	100
45) 1,2-Dichloroethane	3.75	62	56027	50.00	PPB	100
46) Trichloroethene	4.16	95	36420	50.00	PPB	100
47) Methylcyclohexane	4.25	83	50642	50.00	PPB	100

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS24\DATA\071519\0715013.D
 Acq On : 15 Jul 2019 12:52 pm
 Sample : ICAL 50
 Misc :

Vial: 13
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 15 13:48:21 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

Quant Method : J:\MS24\M...\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
48) 1,2-Dichloropropane	4.39	63	40575	50.00	PPB	100
49) Dibromomethane	4.49	93	24308	50.00	PPB	100
50) 1,4-Dioxane	4.50	88	8503	1000.00	PPB	100
51) Bromodichloromethane	4.61	83	49252	50.00	PPB	100
52) 2-Nitropropane	4.88	41	29265	50.00	PPB	100
53) 2-Chloroethyl Vinyl Ether	4.89	63	11892	50.00	PPB	100
54) cis-1,3-Dichloropropene	4.99	75	59556	50.00	PPB	100
55) 4-Methyl-2-pentanone (MIBK)	5.14	58	28266	100.00	PPB	100
57) Toluene	5.23	92	86110	50.00	PPB	100
59) trans-1,3-Dichloropropene	5.51	75	53363	50.00	PPB	100
60) 1,1,2-Trichloroethane	5.66	83	29736	50.00	PPB	100
61) Tetrachloroethene	5.68	164	26835	50.00	PPB	100
62) 2-Hexanone	5.88	57	8950	100.00	PPB	100
63) 1,3-Dichloropropane	5.82	76	58591	50.00	PPB	100
64) Dibromochloromethane	5.99	129	38123	50.00	PPB	100
65) 1,2-Dibromoethane (EDB)	6.10	107	33181	50.00	PPB	100
66) 1-Chlorohexane	6.50	91	36615	50.00	PPB	100
67) Chlorobenzene	6.53	112	99665	50.00	PPB	100
68) Ethylbenzene	6.61	106	49909	50.00	PPB	100
69) 1,1,1,2-Tetrachloroethane	6.62	131	35642	50.00	PPB	100
70) m,p-Xylenes	6.73	106	121499	100.00	PPB	100
71) o-Xylene	7.12	106	58495	50.00	PPB	100
72) Styrene	7.15	103	50095m	49.99	PPB	100
73) Bromoform	7.35	173	25147	50.00	PPB	100
74) Isopropylbenzene	7.47	105	149586	50.00	PPB	100
75) cis-1,4-Dichloro-2-butene	7.64	89	10962	100.00	PPB	100
78) 1,1,2,2-Tetrachloroethane	7.86	83	42704	50.00	PPB	100
79) trans-1,4-Dichloro-2-buten	7.94	53	11869	50.00	PPB	100
80) Bromobenzene	7.80	156	43957	50.00	PPB	100
81) n-Propylbenzene	7.89	91	173266	50.00	PPB	100
82) 1,2,3-Trichloropropane	7.91	110	13595	50.00	PPB	100
83) 2-Chlorotoluene	7.99	91	107477	50.00	PPB	100
84) 1,3,5-Trimethylbenzene	8.08	105	121547	50.00	PPB	100
85) 4-Chlorotoluene	8.11	91	114181m	50.00	PPB	100
86) tert-Butylbenzene	8.39	119	107499	50.00	PPB	100
87) 1,2,4-Trimethylbenzene	8.45	105	123057	50.00	PPB	100
88) sec-Butylbenzene	8.61	105	155534	50.00	PPB	100
89) p-Isopropyltoluene	8.76	119	128547	50.00	PPB	100
90) 1,3-Dichlorobenzene	8.75	146	77933	50.00	PPB	100
91) 1,4-Dichlorobenzene	8.85	146	78373	50.00	PPB	100
92) n-Butylbenzene	9.16	91	113003	50.00	PPB	100
93) 1,2-Dichlorobenzene	9.21	146	76209	50.00	PPB	100
94) 1,2-Dibromo-3-chloropropan	9.98	155	6723	50.00	PPB	100
95) 1,3,5-Trichlorobenzene	10.11	180	52826	50.00	PPB	100
96) 1,2,4-Trichlorobenzene	10.71	180	46822	50.00	PPB	100
97) Hexachlorobutadiene	10.82	225	28058	50.00	PPB	100
98) Naphthalene	10.94	128	108998	50.00	PPB	100
99) 1,2,3-Trichlorobenzene	11.16	180	45094	50.00	PPB	100

07/16/19

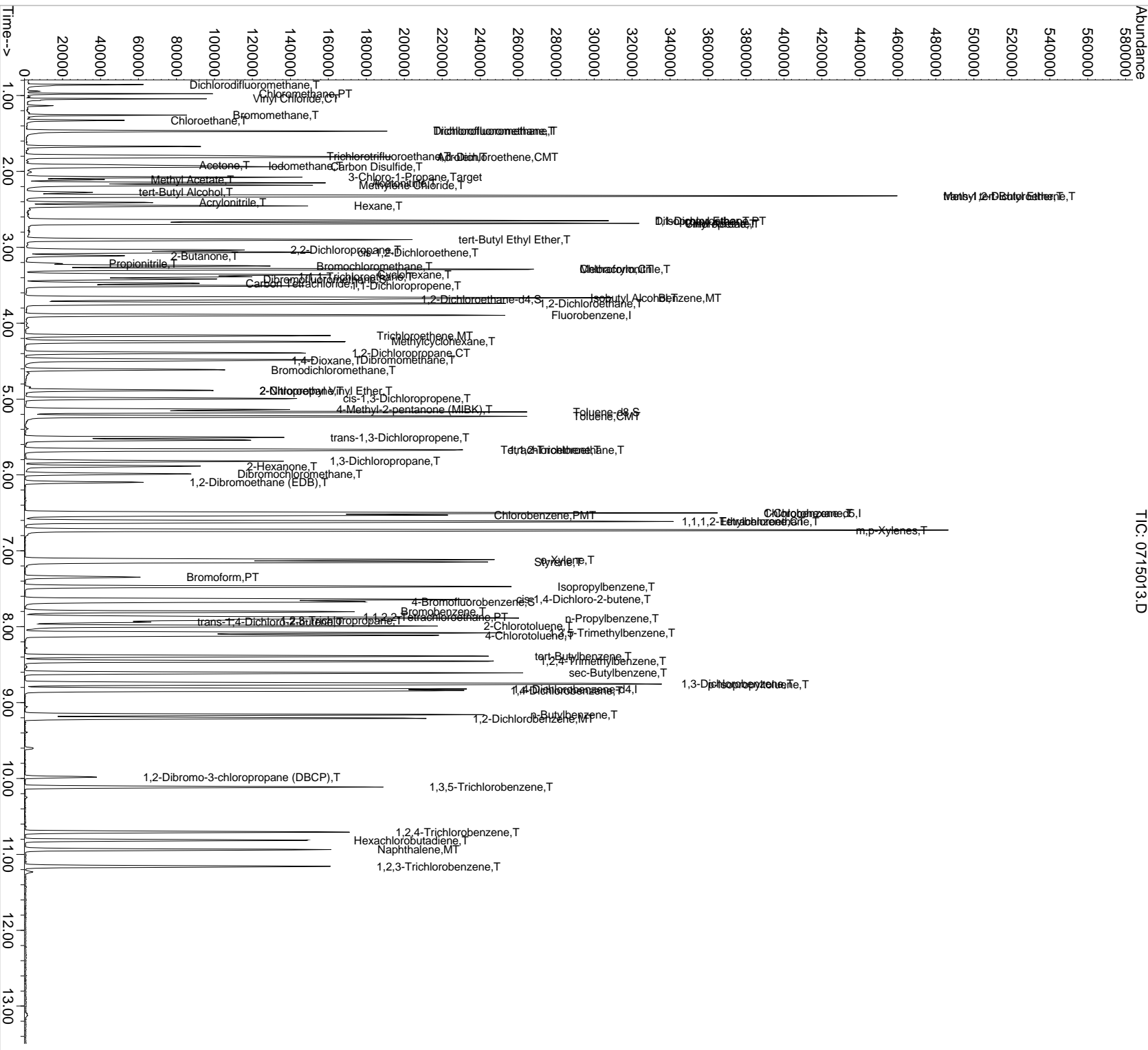
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Acq On : 15 Jul 2019 12:52 pm
Sample : ICAL 50
Misc :
MS Integration Params: rteint.p
Unit Time: Jul 15 13:49 2019

Vial: 13
Operator: KW
Inst: MS24
Multiplr: 1.00

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
Title : VOA MS24 EPA Method 8260B
Last Update : Mon Jul 15 14:17:01 2019
Response via : Initial Calibration

TIC: 0715013.D

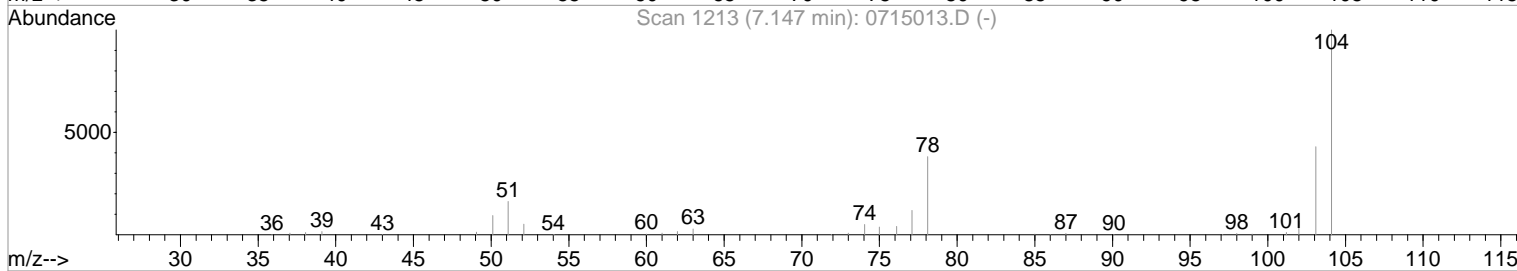
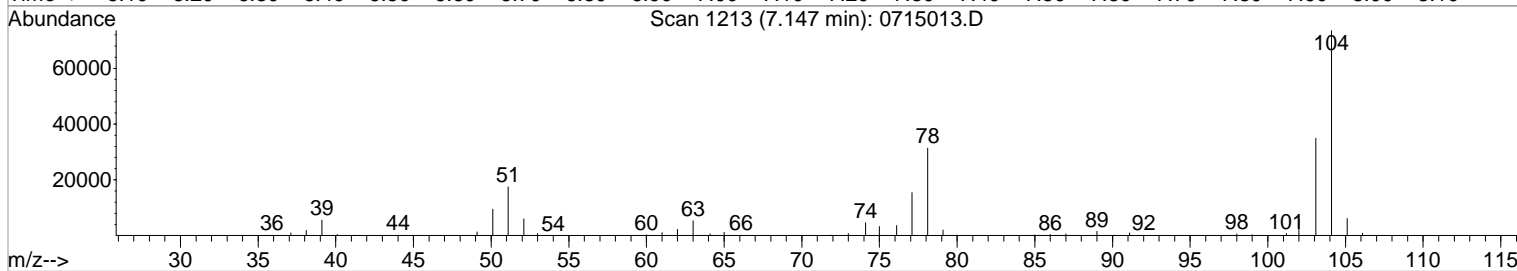
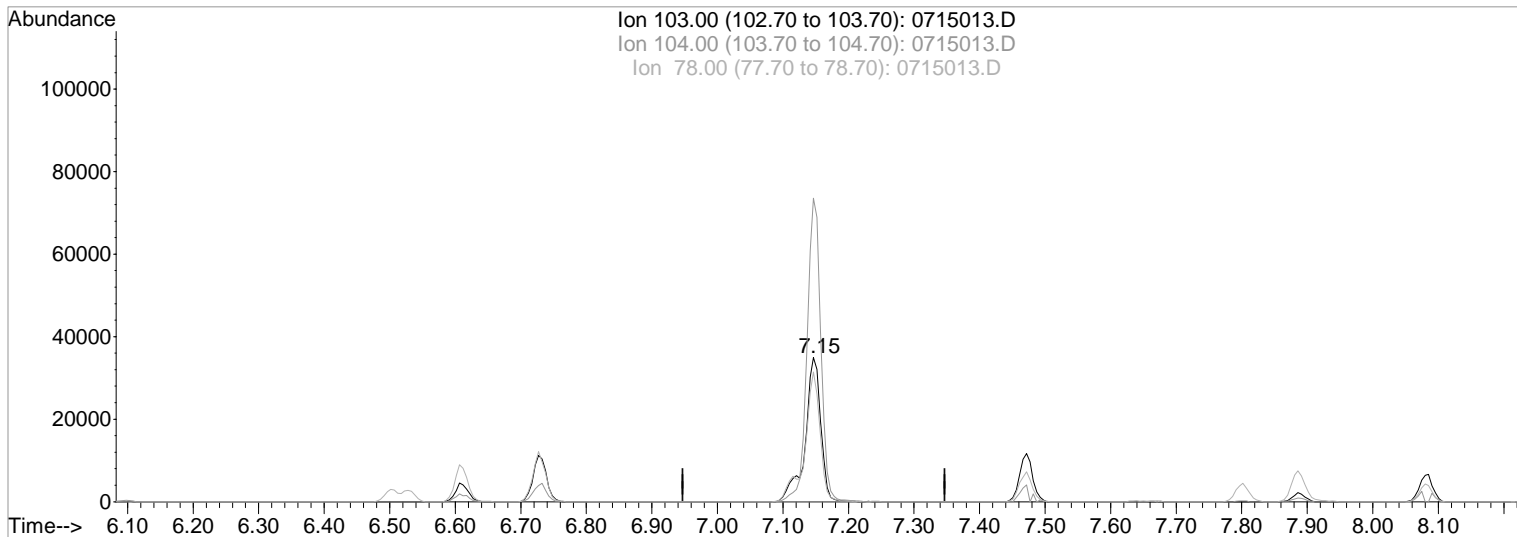


Data File : J:\MS24\DATA\071519\0715013.D
 Acq On : 15 Jul 2019 12:52 pm
 Sample : ICAL 50
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:48 2019

Vial: 13
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Multiple Level Calibration



TIC: 0715013.D

(72) Styrene (T)

Manual Integration:

7.15min 58.22PPB

Before

response 58342

07/15/19

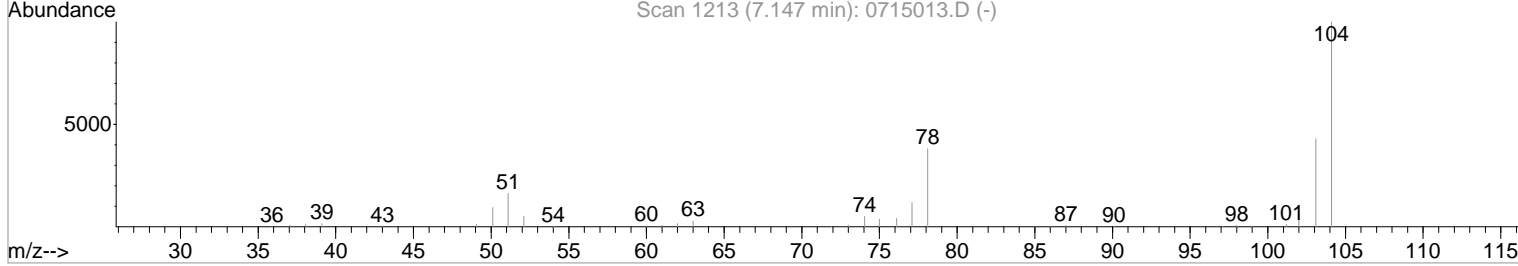
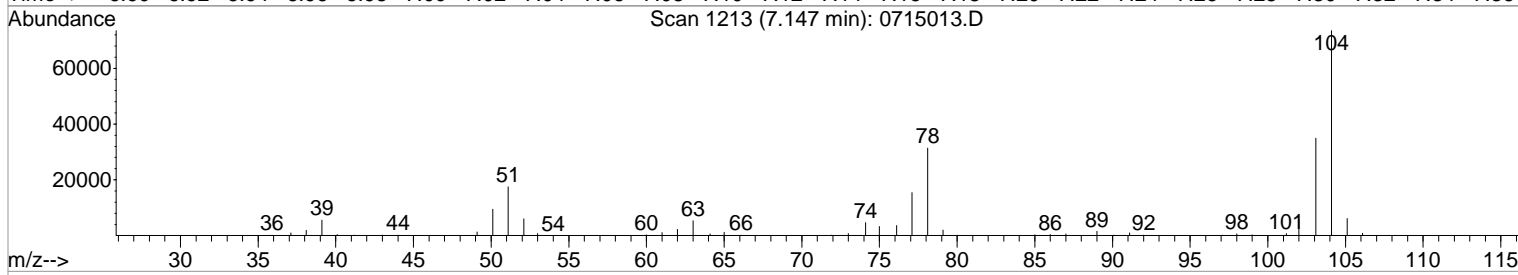
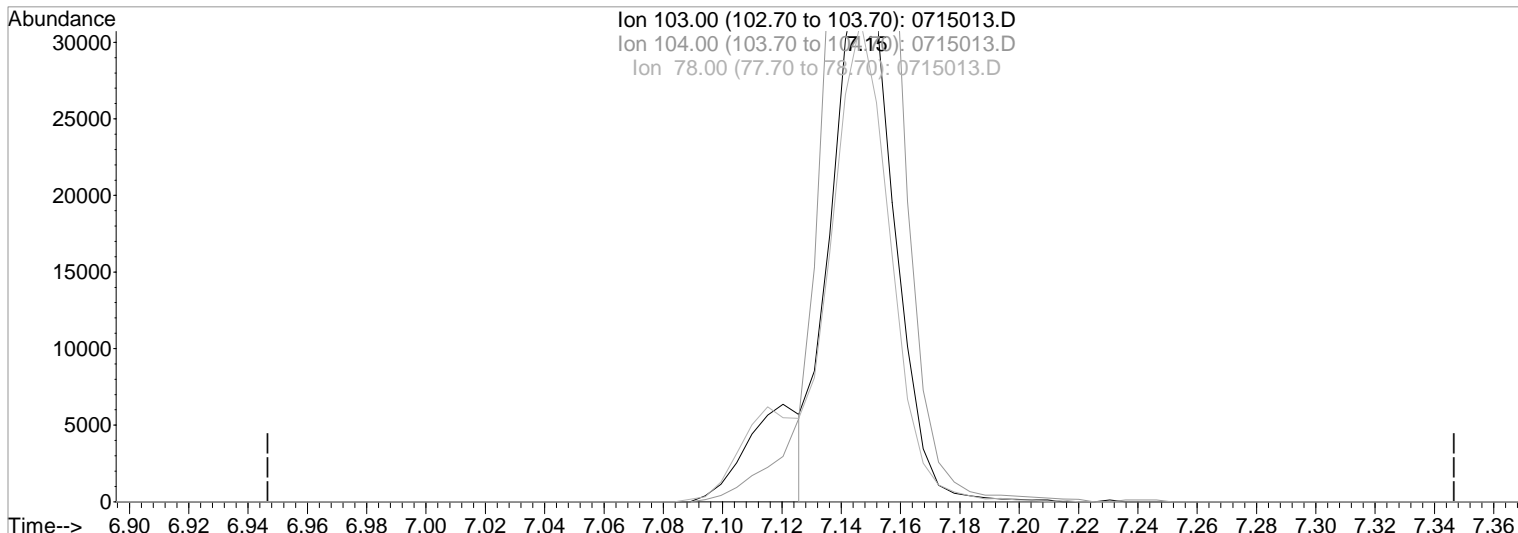
Ion	Exp%	Act%
103.00	100	100
104.00	210.30	210.29
78.00	89.90	89.87
0.00	0.00	0.00

Data File : J:\MS24\DATA\071519\0715013.D
 Acq On : 15 Jul 2019 12:52 pm
 Sample : ICAL 50
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:48 2019

Vial: 13
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Multiple Level Calibration



TIC: 0715013.D

(72) Styrene (T)		
7.15min	49.99PPB	m
response	50095	
Ion	Exp%	Act%
103.00	100	100
104.00	210.30	210.29
78.00	89.90	89.87
0.00	0.00	0.00

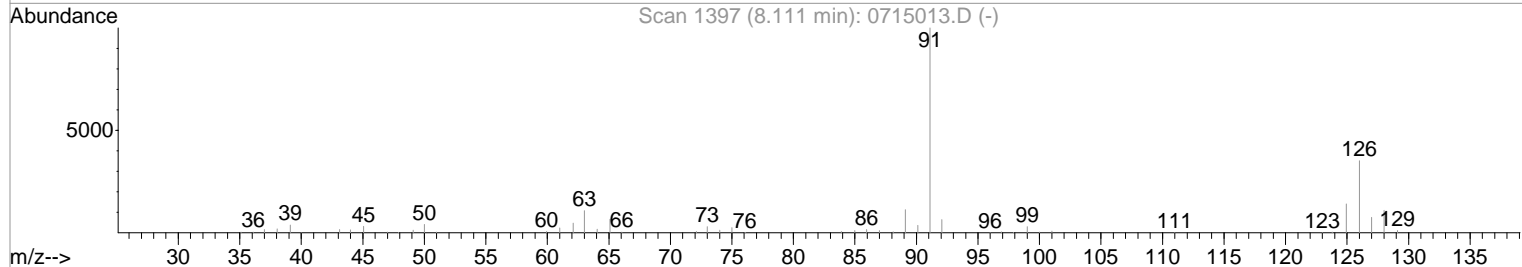
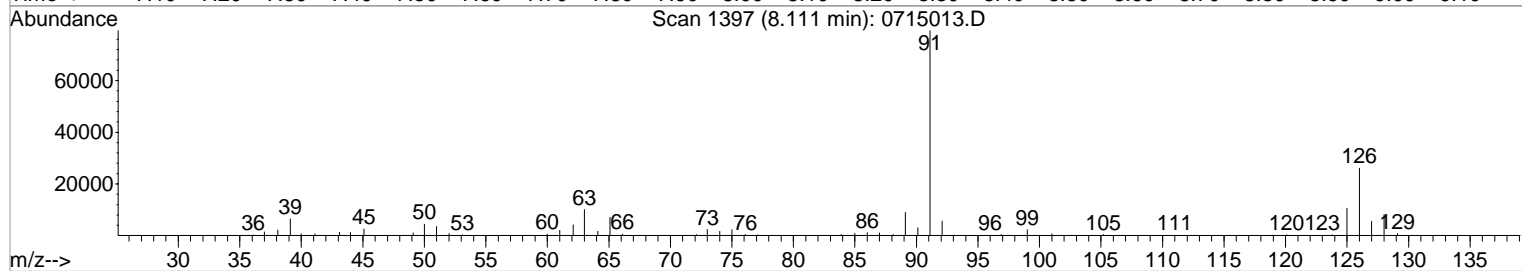
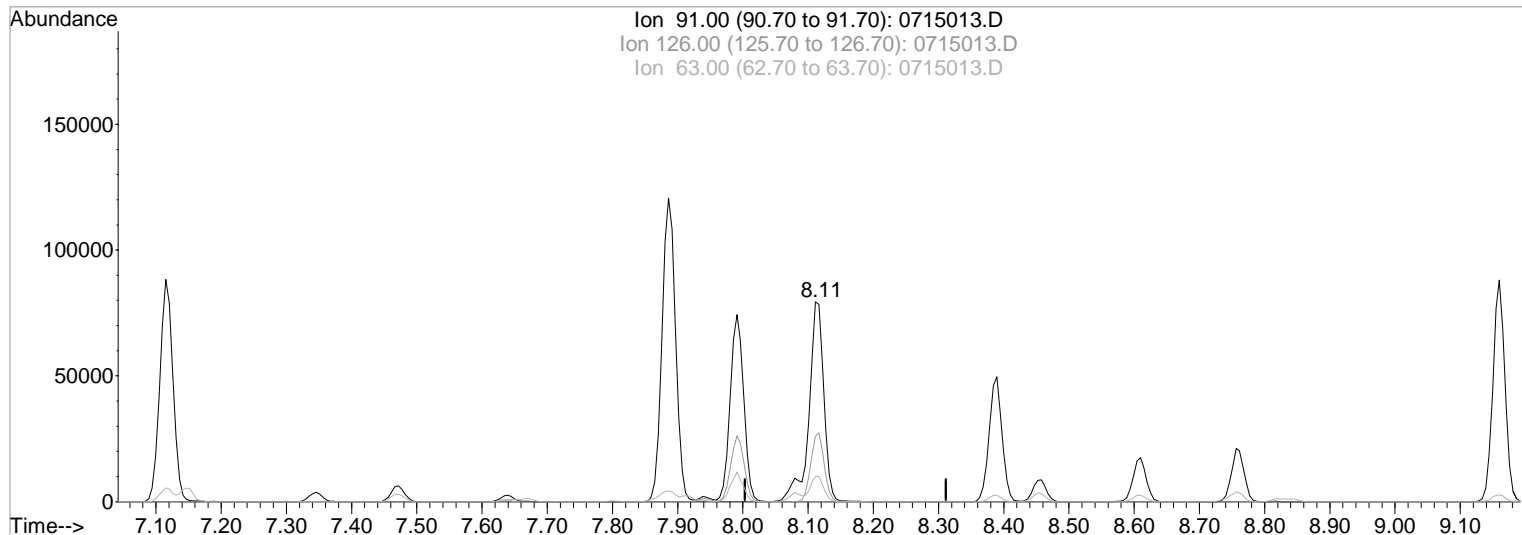
Manual Integration:
 After
 Shoulder
 07/15/19

Data File : J:\MS24\DATA\071519\0715013.D
 Acq On : 15 Jul 2019 12:52 pm
 Sample : ICAL 50
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:48 2019

Vial: 13
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Multiple Level Calibration



TIC: 0715013.D

(85) 4-Chlorotoluene (T)

Manual Integration:

8.11min 55.58PPB

Before

response 126918

07/15/19

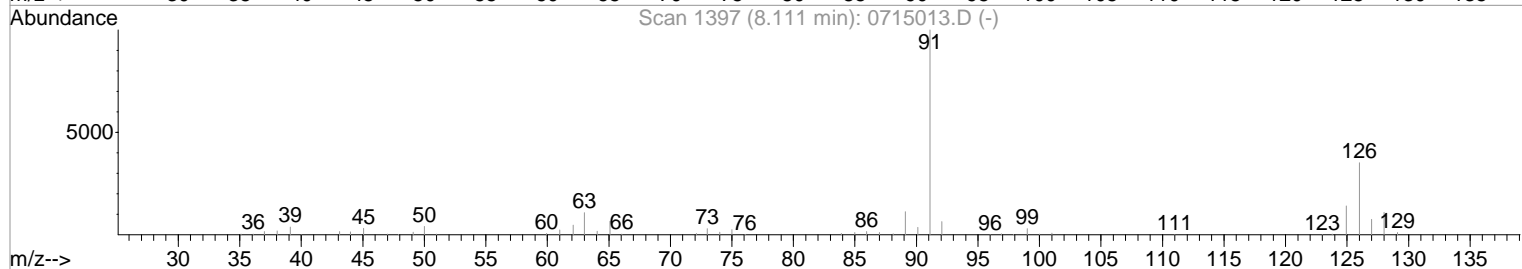
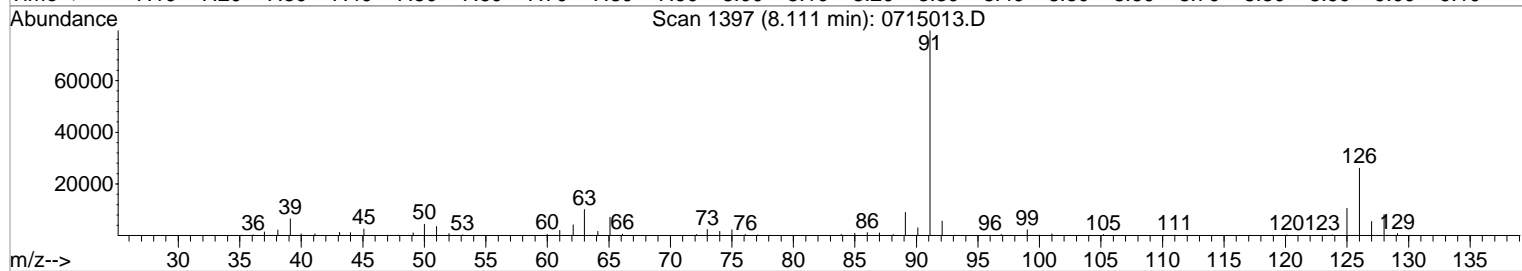
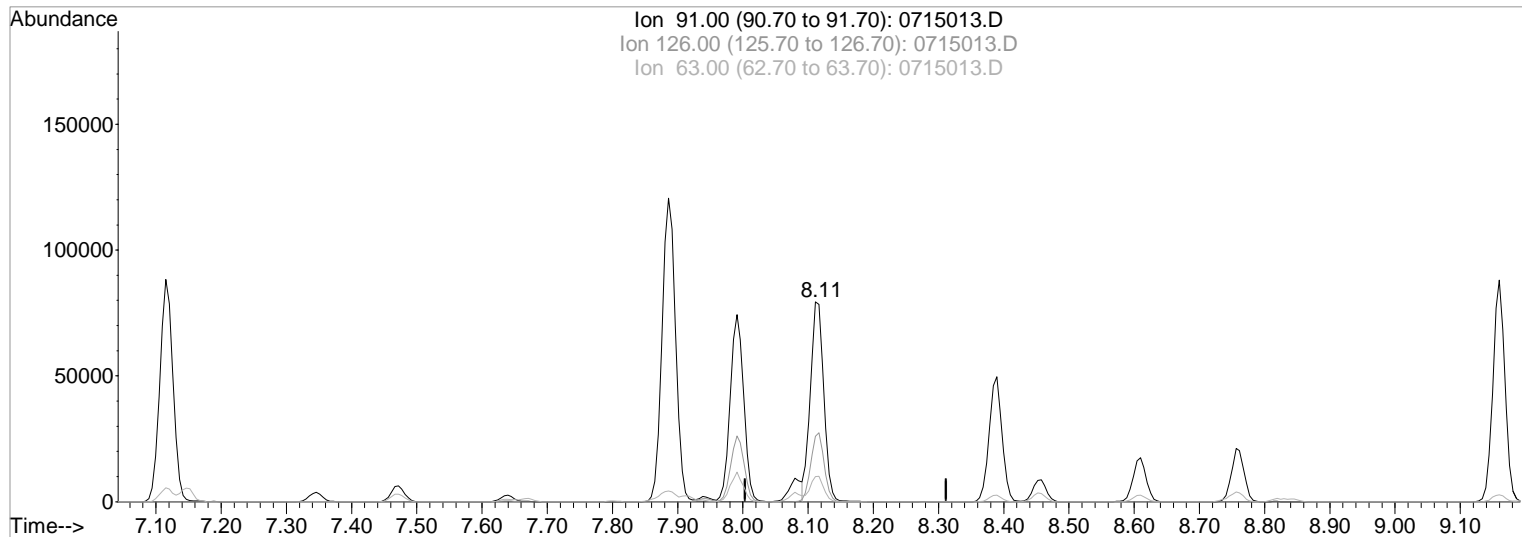
Ion	Exp%	Act%
91.00	100	100
126.00	32.80	32.77
63.00	12.70	12.66
0.00	0.00	0.00

Data File : J:\MS24\DATA\071519\0715013.D
 Acq On : 15 Jul 2019 12:52 pm
 Sample : ICAL 50
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:49 2019

Vial: 13
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Multiple Level Calibration



TIC: 0715013.D

(85) 4-Chlorotoluene (T)

Manual Integration:

8.11min 50.00PPB m
 response 114181

After
 Shoulder

07/15/19

Ion	Exp%	Act%
91.00	100	100
126.00	32.80	32.77
63.00	12.70	12.66
0.00	0.00	0.00

Data File : J:\MS24\DATA\071519\0715014.D
 Acq On : 15 Jul 2019 1:12 pm
 Sample : ICAL 100
 Misc :

Vial: 14
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 15 13:50:29 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

Quant Method : J:\MS24\M...\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	3.90	96	156458	50.00	PPB	0.00
58) Chlorobenzene-d5	6.50	82	58413	50.00	PPB	0.00
77) 1,4-Dichlorobenzene-d4	8.82	152	53298	50.00	PPB	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Dibromofluoromethane	3.42	113	53267	66.83	PPB	0.00
Spiked Amount				50.000		
			Recovery	=	133.66%	
43) 1,2-Dichloroethane-d4	3.69	65	67620	67.13	PPB	0.00
Spiked Amount				50.000		
			Recovery	=	134.26%	
56) Toluene-d8	5.17	98	186331	66.24	PPB	0.00
Spiked Amount				50.000		
			Recovery	=	132.48%	
76) 4-Bromofluorobenzene	7.67	95	66419	65.59	PPB	0.00
Spiked Amount				50.000		
			Recovery	=	131.18%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.85	85	60338	109.57	PPB	99
3) Chloromethane	0.97	50	92026	108.94	PPB	99
4) Vinyl Chloride	1.04	62	86382	108.94	PPB	100
5) Bromomethane	1.25	96	52928	111.59	PPB	99
6) Chloroethane	1.32	64	48946	108.59	PPB	96
7) Dichlorofluoromethane	1.47	67	125153	109.01	PPB	99
8) Trichlorofluoromethane	1.46	101	103307	107.08	PPB	98
9) Acrolein	1.80	56	88764	578.08	PPB	99
10) Trichlorotrifluoroethane	1.79	151	52440	109.13	PPB	98
11) 1,1-Dichloroethene	1.81	96	61191	111.14	PPB	97
12) Acetone	1.91	43	52562	216.23	PPB	99
13) Iodomethane	1.92	142	127157	239.00	PPB	98
14) Carbon Disulfide	1.93	76	210814	110.27	PPB	99
15) 3-Chloro-1-Propane	2.07	TIC	334656m	107.76	PPB	
16) Methyl Acetate	2.10	43	65653	113.80	PPB	99
17) Acetonitrile	2.14	40	122295	2212.27	PPB	98
18) Methylene Chloride	2.18	84	83146	106.21	PPB	99
19) tert-Butyl Alcohol	2.27	59	54668	553.09	PPB	97
20) Acrylonitrile	2.41	53	68133	218.59	PPB	97
21) Methyl tert-Butyl Ether	2.32	73	514547	221.12	PPB	99
22) trans-1,2-Dichloroethene	2.32	96	75260	109.15	PPB	95
23) Hexane	2.45	57	100794	109.75	PPB	99
24) Diisopropyl Ether	2.64	45	274281	108.95	PPB	97
25) 1,1-Dichloroethane	2.65	63	143083	108.40	PPB	97
26) Vinyl Acetate	2.68	86	16728	112.43	PPB	96
27) Chloroprene	2.68	53	214850	221.91	PPB	95
28) tert-Butyl Ethyl Ether	2.89	59	270144	108.33	PPB	98
29) 2,2-Dichloropropane	3.04	77	109788	112.59	PPB	100
30) cis-1,2-Dichloroethene	3.06	96	93410	109.27	PPB	97
31) 2-Butanone	3.11	72	22874	229.29	PPB	# 84
32) Propionitrile	3.21	54	28028	220.95	PPB	99
34) Methacrylonitrile	3.29	67	84549	226.46	PPB	95
35) Bromochloromethane	3.24	128	45381	106.28	PPB	90
36) Chloroform	3.29	83	150896	110.39	PPB	98
37) Cyclohexane	3.36	56	120690	111.57	PPB	99
38) 1,1,1-Trichloroethane	3.39	97	113632	111.11	PPB	98
40) Carbon Tetrachloride	3.47	117	94971	114.08	PPB	96
41) 1,1-Dichloropropene	3.51	75	106381	109.94	PPB	98
42) Isobutyl Alcohol	3.68	43	111287	2267.53	PPB	99
44) Benzene	3.66	78	346664	109.67	PPB	99
45) 1,2-Dichloroethane	3.74	62	124297	107.57	PPB	98
46) Trichloroethene	4.16	95	82928	110.40	PPB	95
47) Methylcyclohexane	4.24	83	114100	109.24	PPB	99

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS24\DATA\071519\0715014.D
 Acq On : 15 Jul 2019 1:12 pm
 Sample : ICAL 100
 Misc :

Vial: 14
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 15 13:50:29 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

Quant Method : J:\MS24\M...\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
48) 1,2-Dichloropropane	4.39	63	92859	110.96	PPB	98
49) Dibromomethane	4.49	93	54510	108.73	PPB	95
50) 1,4-Dioxane	4.50	88	20320	2317.36	PPB	97
51) Bromodichloromethane	4.61	83	111351	109.62	PPB	97
52) 2-Nitropropane	4.88	41	69923	115.85	PPB	97
53) 2-Chloroethyl Vinyl Ether	4.89	63	28778	117.33	PPB	94
54) cis-1,3-Dichloropropene	4.99	75	137831	112.21	PPB	100
55) 4-Methyl-2-pentanone (MIBK)	5.14	58	65523	224.79	PPB	97
57) Toluene	5.23	92	197349	111.12	PPB	95
59) trans-1,3-Dichloropropene	5.51	75	124964	115.50	PPB	99
60) 1,1,2-Trichloroethane	5.66	83	67648	112.20	PPB	98
61) Tetrachloroethene	5.67	164	62808	115.44	PPB	97
62) 2-Hexanone	5.88	57	21071	232.23	PPB	94
63) 1,3-Dichloropropane	5.82	76	135655	114.19	PPB	99
64) Dibromochloromethane	5.99	129	88770	114.85	PPB	99
65) 1,2-Dibromoethane (EDB)	6.10	107	77912	115.81	PPB	95
66) 1-Chlorohexane	6.50	91	85197	114.76	PPB	98
67) Chlorobenzene	6.53	112	224715	111.20	PPB	97
68) Ethylbenzene	6.61	106	116168	114.80	PPB	99
69) 1,1,1,2-Tetrachloroethane	6.62	131	82520	114.19	PPB	93
70) m,p-Xylenes	6.73	106	276921	224.83	PPB	95
71) o-Xylene	7.12	106	137186	115.67	PPB	99
72) Styrene	7.15	103	118858m	117.01	PPB	
73) Bromoform	7.35	173	58840	115.40	PPB	98
74) Isopropylbenzene	7.47	105	339915	112.08	PPB	97
75) cis-1,4-Dichloro-2-butene	7.64	89	27206	244.82	PPB	95
78) 1,1,2,2-Tetrachloroethane	7.87	83	96703	111.59	PPB	94
79) trans-1,4-Dichloro-2-buten	7.94	53	27706	115.03	PPB	92
80) Bromobenzene	7.80	156	98383	110.29	PPB	94
81) n-Propylbenzene	7.89	91	391414	111.32	PPB	99
82) 1,2,3-Trichloropropane	7.91	110	30278	109.75	PPB	90
83) 2-Chlorotoluene	7.99	91	240957	110.48	PPB	99
84) 1,3,5-Trimethylbenzene	8.08	105	273750	110.99	PPB	97
85) 4-Chlorotoluene	8.11	91	252581m	109.01	PPB	
86) tert-Butylbenzene	8.39	119	242635	111.23	PPB	98
87) 1,2,4-Trimethylbenzene	8.46	105	280600	112.37	PPB	98
88) sec-Butylbenzene	8.61	105	346830	109.89	PPB	99
89) p-Isopropyltoluene	8.76	119	286742	109.92	PPB	99
90) 1,3-Dichlorobenzene	8.75	146	171398	108.38	PPB	98
91) 1,4-Dichlorobenzene	8.85	146	171863	108.06	PPB	97
92) n-Butylbenzene	9.16	91	257235	112.18	PPB	99
93) 1,2-Dichlorobenzene	9.21	146	167520	108.32	PPB	99
94) 1,2-Dibromo-3-chloropropan	9.98	155	15146	111.02	PPB	91
95) 1,3,5-Trichlorobenzene	10.11	180	113683	106.05	PPB	99
96) 1,2,4-Trichlorobenzene	10.71	180	104179	109.64	PPB	99
97) Hexachlorobutadiene	10.82	225	58762	103.20	PPB	97
98) Naphthalene	10.94	128	253598	114.65	PPB	99
99) 1,2,3-Trichlorobenzene	11.16	180	101809	111.26	PPB	98

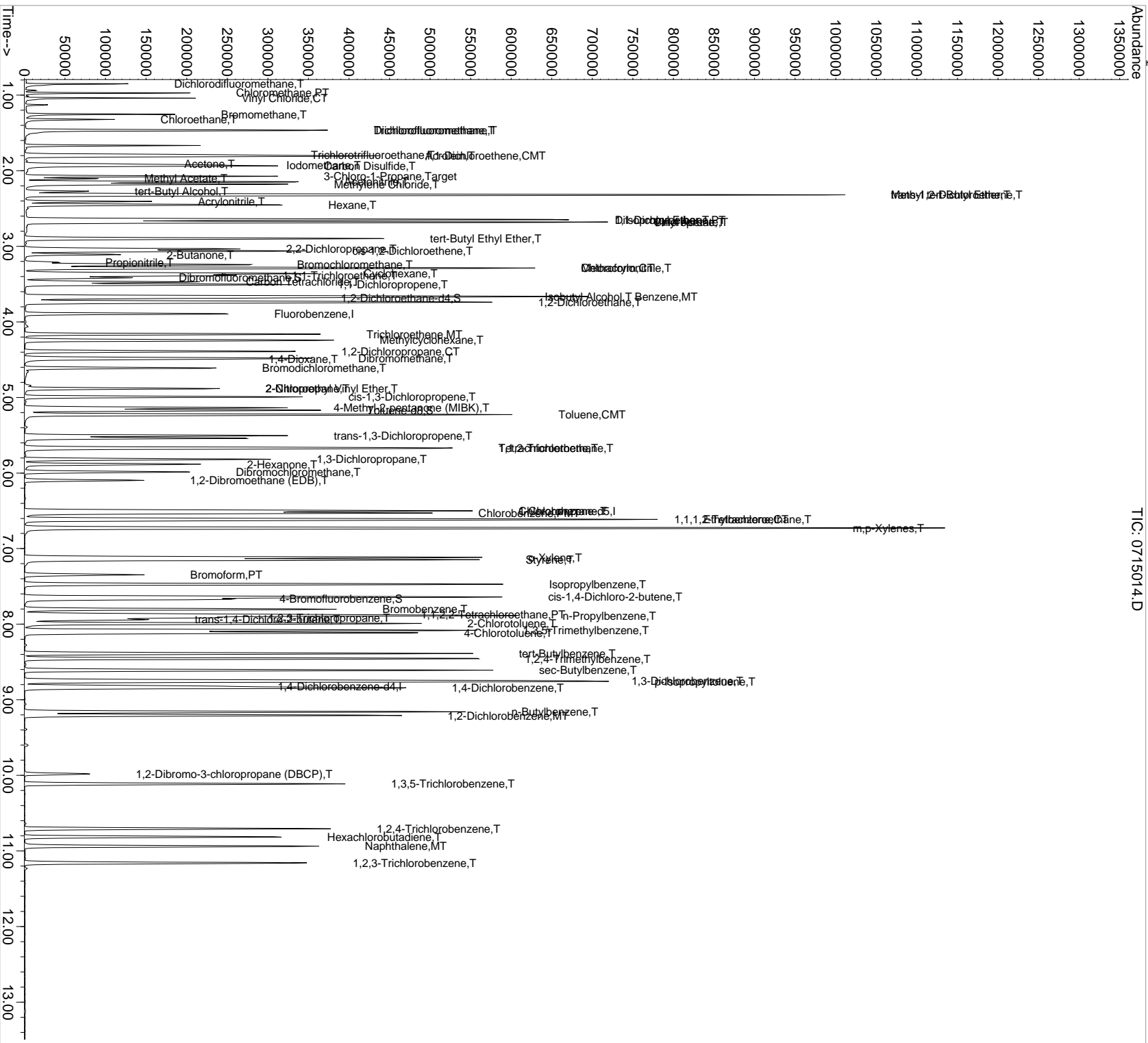
(#) = qualifier out of range (m) = manual integration

Vial: 14
Operator: KW
Inst: MS24
Multiplr: 1.00

Quant Results File: 0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)

1st 07/16/19

Data File : J:\MS24\DATA\071519\0715014.D
Acq On : 15 Jul 2019 1:12 pm
Sample : ICAL 100
Misc :
MS Integration Params: rteint.p
Unit Time: Jul 15 13:51 2019
Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
Title : VOA MS24 EPA Method 8260B
Last Update : Mon Jul 15 14:17:01 2019
Response via : Initial Calibration

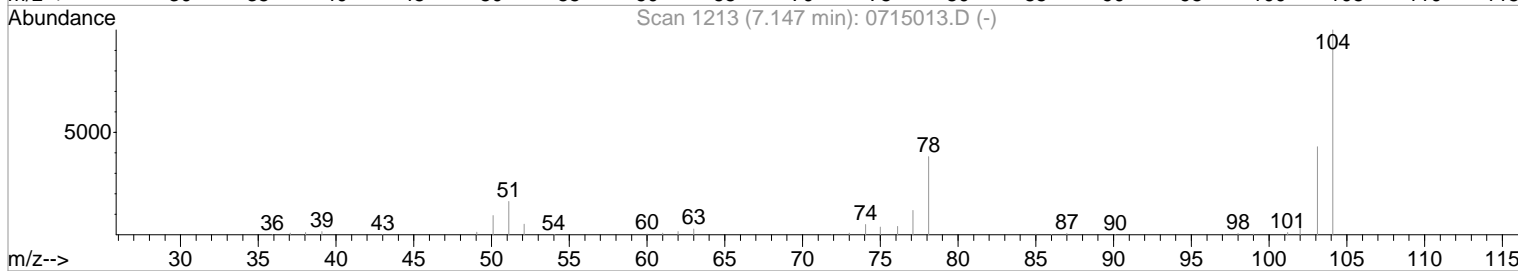
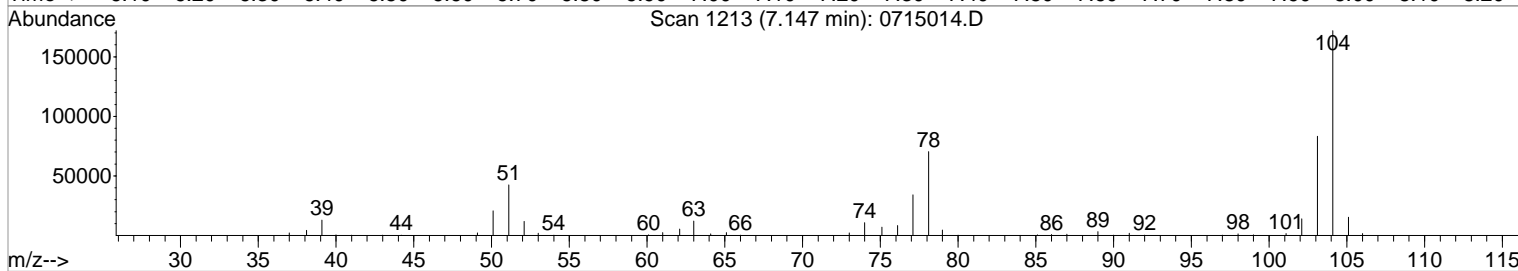
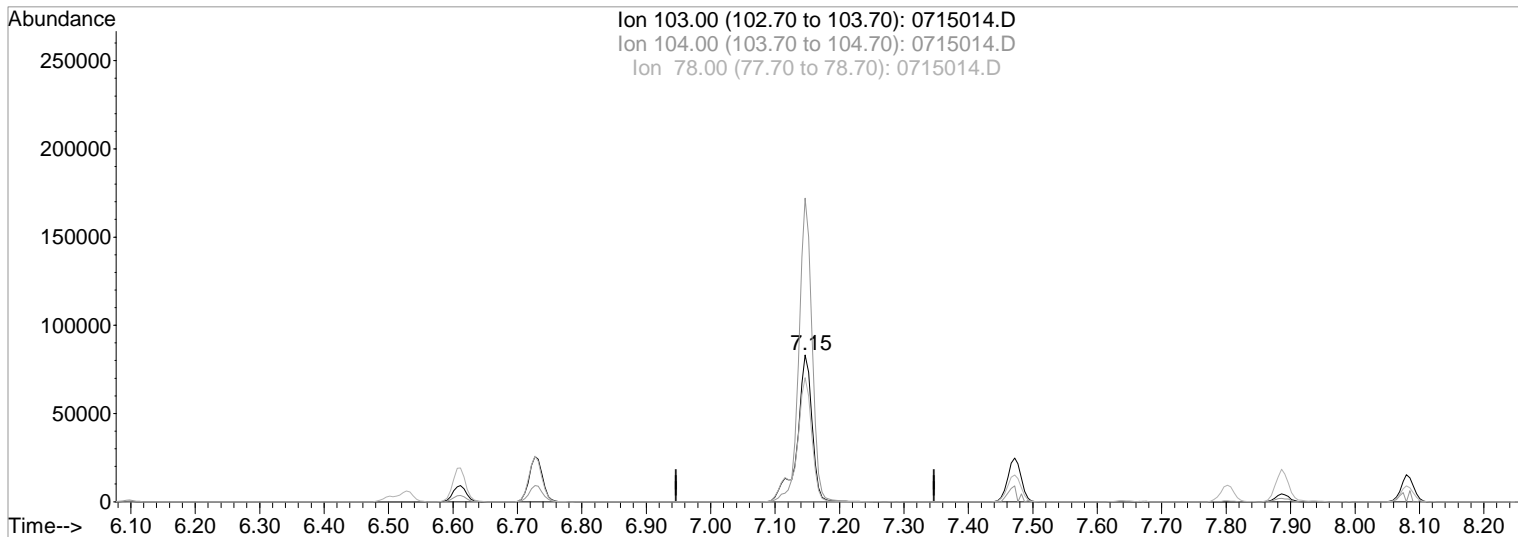


Data File : J:\MS24\DATA\071519\0715014.D
 Acq On : 15 Jul 2019 1:12 pm
 Sample : ICAL 100
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:50 2019

Vial: 14
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Multiple Level Calibration



TIC: 0715014.D

(72) Styrene (T)
 7.15min 131.28PPB
 response 133353

Manual Integration:

Before

07/15/19

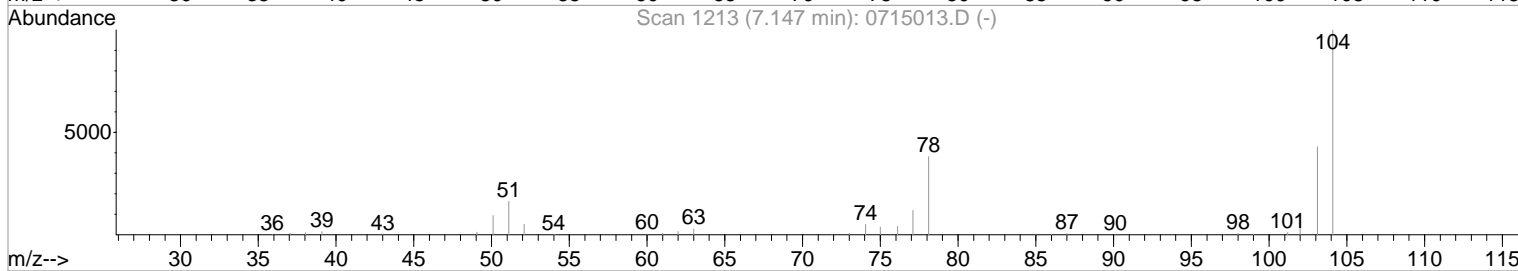
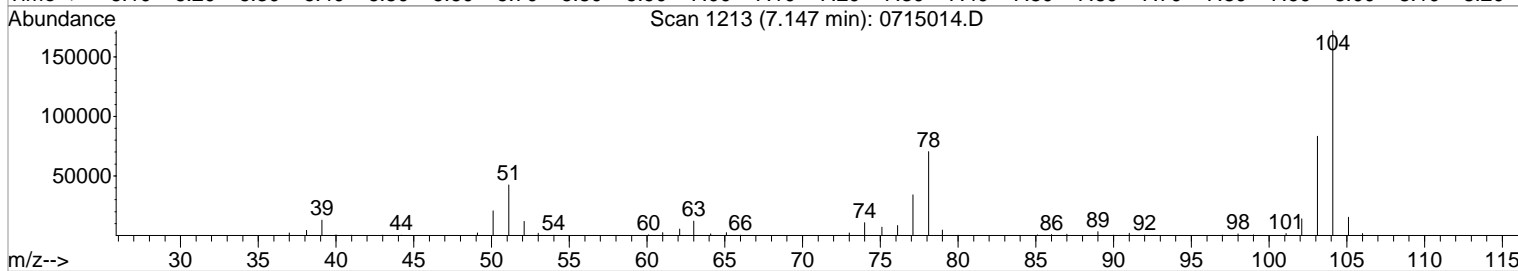
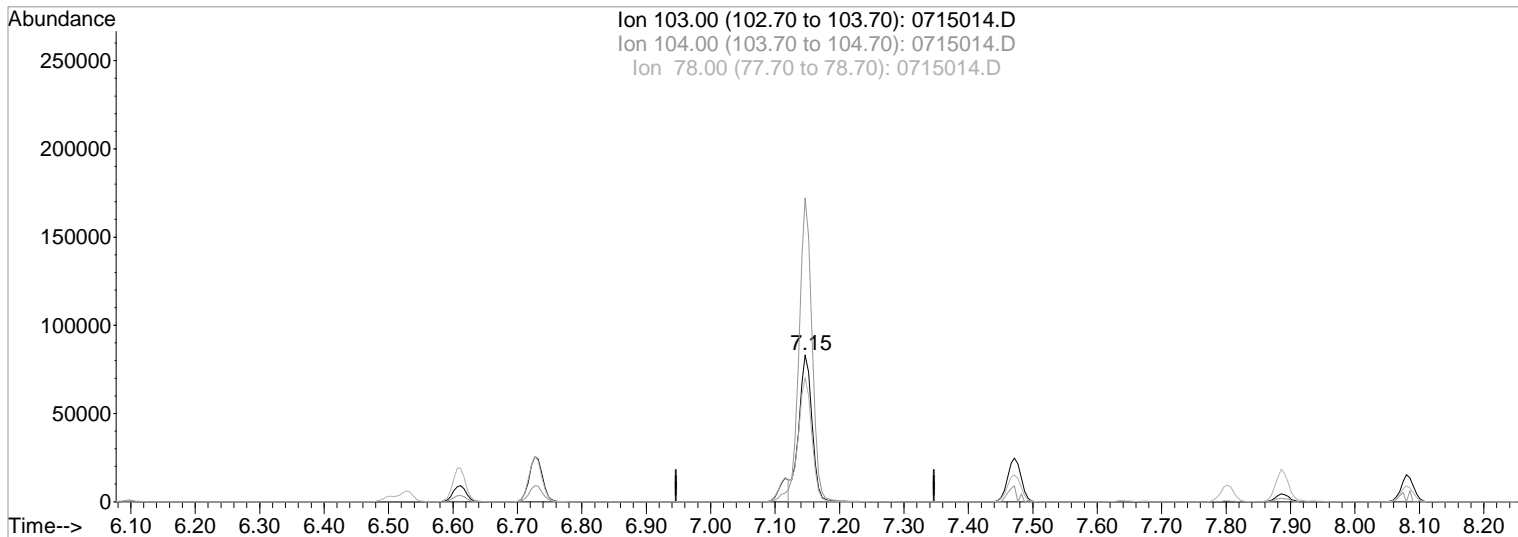
Ion	Exp%	Act%
103.00	100	100
104.00	210.30	206.69
78.00	89.90	84.52
0.00	0.00	0.00

Data File : J:\MS24\DATA\071519\0715014.D
 Acq On : 15 Jul 2019 1:12 pm
 Sample : ICAL 100
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:51 2019

Vial: 14
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Multiple Level Calibration



TIC: 0715014.D

(72) Styrene (T)

Manual Integration:

7.15min 117.01PPB m
 response 118858

After
 Shoulder

Ion	Exp%	Act%
103.00	100	100
104.00	210.30	206.69
78.00	89.90	84.52
0.00	0.00	0.00

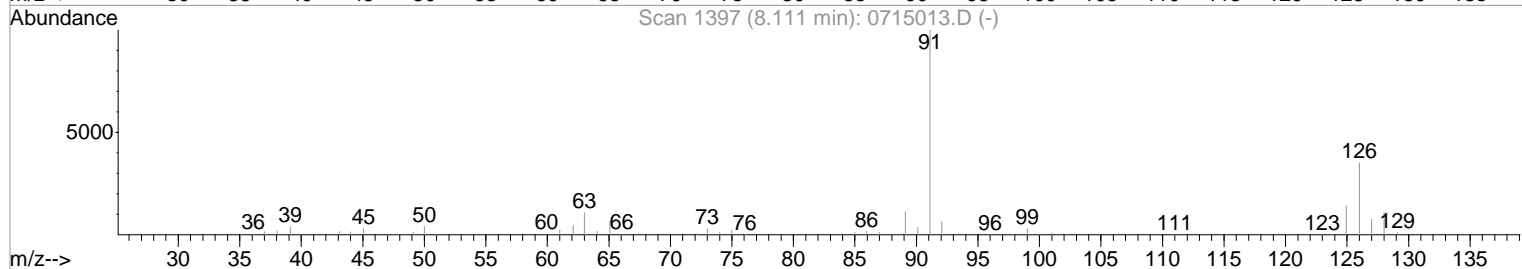
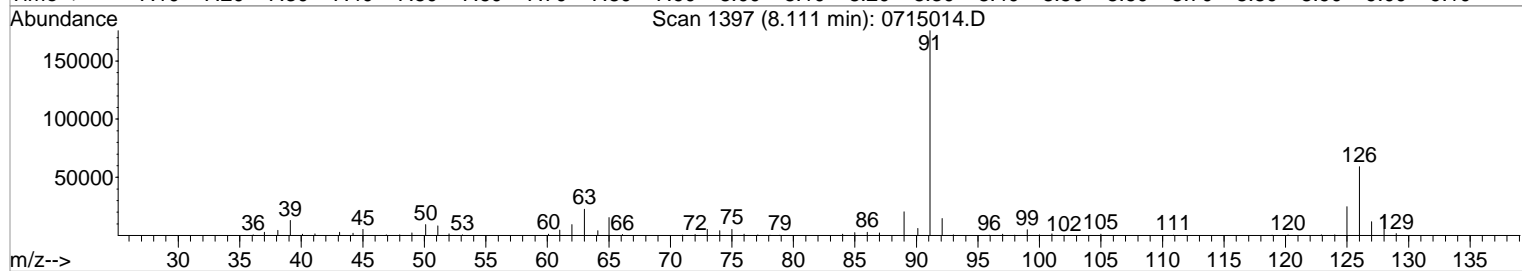
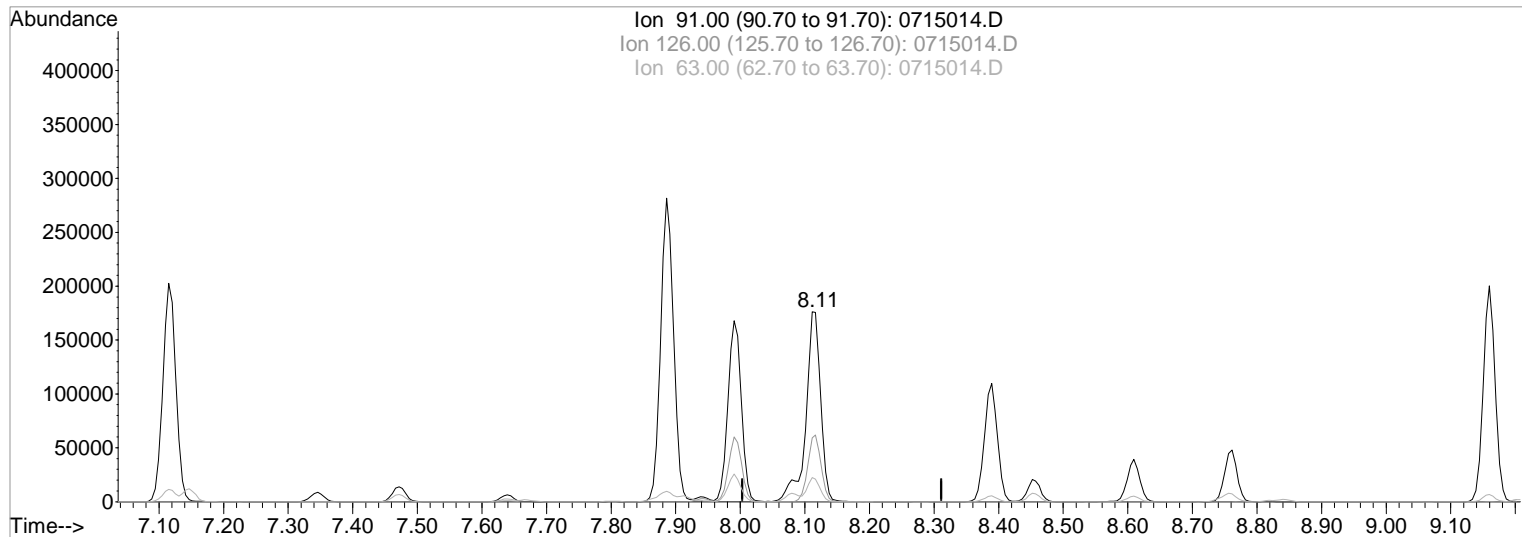
07/15/19

Data File : J:\MS24\DATA\071519\0715014.D
 Acq On : 15 Jul 2019 1:12 pm
 Sample : ICAL 100
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:51 2019

Vial: 14
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Multiple Level Calibration



TIC: 0715014.D

(85) 4-Chlorotoluene (T)

Manual Integration:

8.11min 121.53PPB

Before

response 281571

07/15/19

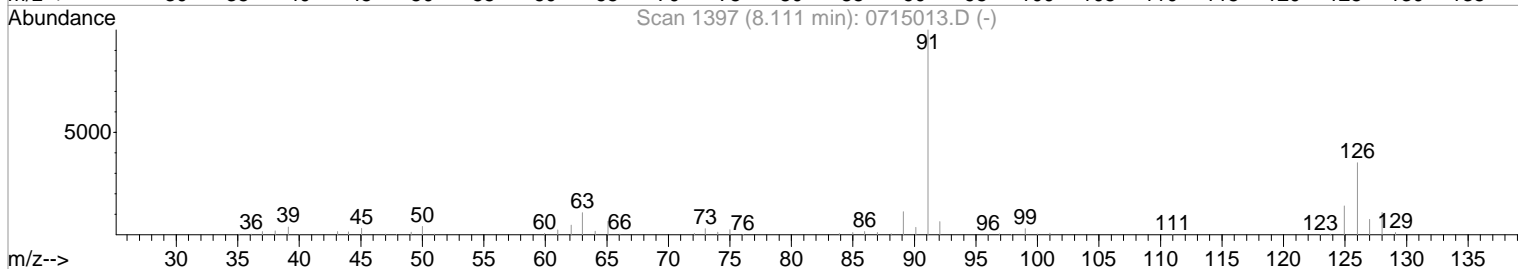
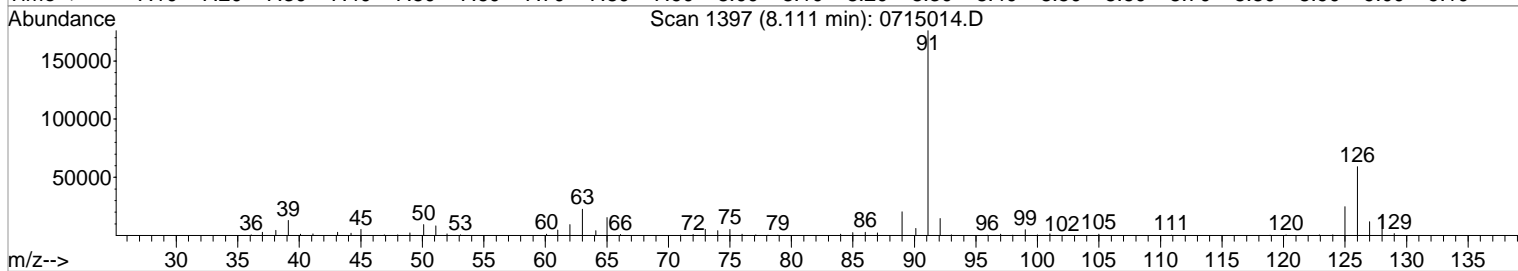
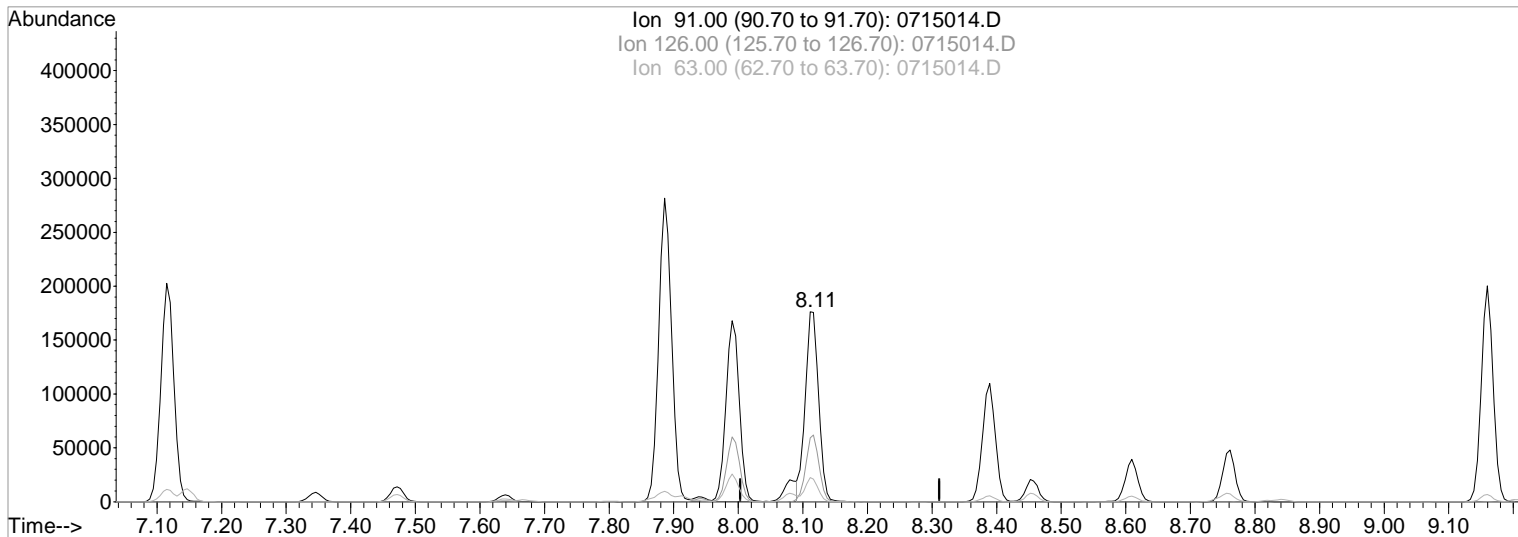
Ion	Exp%	Act%
91.00	100	100
126.00	32.80	33.55
63.00	12.70	12.75
0.00	0.00	0.00

Data File : J:\MS24\DATA\071519\0715014.D
 Acq On : 15 Jul 2019 1:12 pm
 Sample : ICAL 100
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:51 2019

Vial: 14
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Multiple Level Calibration



TIC: 0715014.D

(85) 4-Chlorotoluene (T)

Manual Integration:

8.11min 109.01PPB m
 response 252581

After
 Shoulder

Ion	Exp%	Act%
91.00	100	100
126.00	32.80	33.55
63.00	12.70	12.75
0.00	0.00	0.00

07/15/19

Data File : J:\MS24\DATA\071519\0715015.D
 Acq On : 15 Jul 2019 1:34 pm
 Sample : ICAL 200
 Misc :

Vial: 15
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 15 13:52:05 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

Quant Method : J:\MS24\M...\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	3.90	96	159809	50.00	PPB	0.00
58) Chlorobenzene-d5	6.50	82	60296	50.00	PPB	0.00
77) 1,4-Dichlorobenzene-d4	8.82	152	51502	50.00	PPB	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Dibromofluoromethane	3.42	113	66578	81.78	PPB	0.00
Spiked Amount				50.000		
Recovery						163.56%
43) 1,2-Dichloroethane-d4	3.69	65	81101	78.82	PPB	0.00
Spiked Amount				50.000		
Recovery						157.64%
56) Toluene-d8	5.17	98	235235	81.87	PPB	0.00
Spiked Amount				50.000		
Recovery						163.74%
76) 4-Bromofluorobenzene	7.67	95	81399	77.87	PPB	0.00
Spiked Amount				50.000		
Recovery						155.74%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.86	85	125368	222.90	PPB	96
3) Chloromethane	0.98	50	194894	225.88	PPB	99
4) Vinyl Chloride	1.04	62	182429	225.24	PPB	99
5) Bromomethane	1.26	96	103179	212.98	PPB	99
6) Chloroethane	1.33	64	102473	222.58	PPB	97
7) Dichlorofluoromethane	1.47	67	261202	222.73	PPB	98
8) Trichlorofluoromethane	1.47	101	213106	216.26	PPB	98
9) Acrolein	1.81	56	178927	1140.83	PPB	98
10) Trichlorotrifluoroethane	1.79	151	113068	230.36	PPB	99
11) 1,1-Dichloroethene	1.81	96	126239	224.48	PPB	99
12) Acetone	1.91	43	101217	407.66	PPB	100
13) Iodomethane	1.93	142	258472	475.63	PPB	97
14) Carbon Disulfide	1.94	76	443159	226.94	PPB	100
15) 3-Chloro-1-Propane	2.08	TIC	667316m	210.38	PPB	
16) Methyl Acetate	2.11	43	130678	221.76	PPB	98
17) Acetonitrile	2.15	40	241864	4283.48	PPB	99
18) Methylene Chloride	2.18	84	172431	215.64	PPB	98
19) tert-Butyl Alcohol	2.28	59	109394	1083.55	PPB	98
20) Acrylonitrile	2.41	53	137873	433.06	PPB	96
21) Methyl tert-Butyl Ether	2.32	73	1058022	445.15	PPB	98
22) trans-1,2-Dichloroethene	2.33	96	161844	229.81	PPB	99
23) Hexane	2.45	57	212463	226.49	PPB	99
24) Diisopropyl Ether	2.65	45	565175	219.80	PPB	99
25) 1,1-Dichloroethane	2.65	63	302082	224.07	PPB	97
26) Vinyl Acetate	2.69	86	34307	225.74	PPB	96
27) Chloroprene	2.68	53	451941	457.00	PPB	96
28) tert-Butyl Ethyl Ether	2.90	59	559533	219.68	PPB	98
29) 2,2-Dichloropropane	3.04	77	234308	235.26	PPB	98
30) cis-1,2-Dichloroethene	3.07	96	200042	229.10	PPB	96
31) 2-Butanone	3.11	72	46124	452.65	PPB	90
32) Propionitrile	3.21	54	54818	423.08	PPB	97
34) Methacrylonitrile	3.29	67	173754	455.63	PPB	99
35) Bromochloromethane	3.25	128	91714	210.28	PPB	99
36) Chloroform	3.30	83	317052	227.08	PPB	97
37) Cyclohexane	3.36	56	254788	230.59	PPB	99
38) 1,1,1-Trichloroethane	3.39	97	243478	233.09	PPB	98
40) Carbon Tetrachloride	3.48	117	205025	241.11	PPB	94
41) 1,1-Dichloropropene	3.51	75	226966	229.64	PPB	98
42) Isobutyl Alcohol	3.68	43	220637	4401.32	PPB	99
44) Benzene	3.67	78	740624	229.40	PPB	100
45) 1,2-Dichloroethane	3.75	62	257382	218.07	PPB	99
46) Trichloroethene	4.16	95	181638	236.74	PPB	97
47) Methylcyclohexane	4.25	83	262851	246.38	PPB	99

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS24\DATA\071519\0715015.D
 Acq On : 15 Jul 2019 1:34 pm
 Sample : ICAL 200
 Misc :

Vial: 15
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 15 13:52:05 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

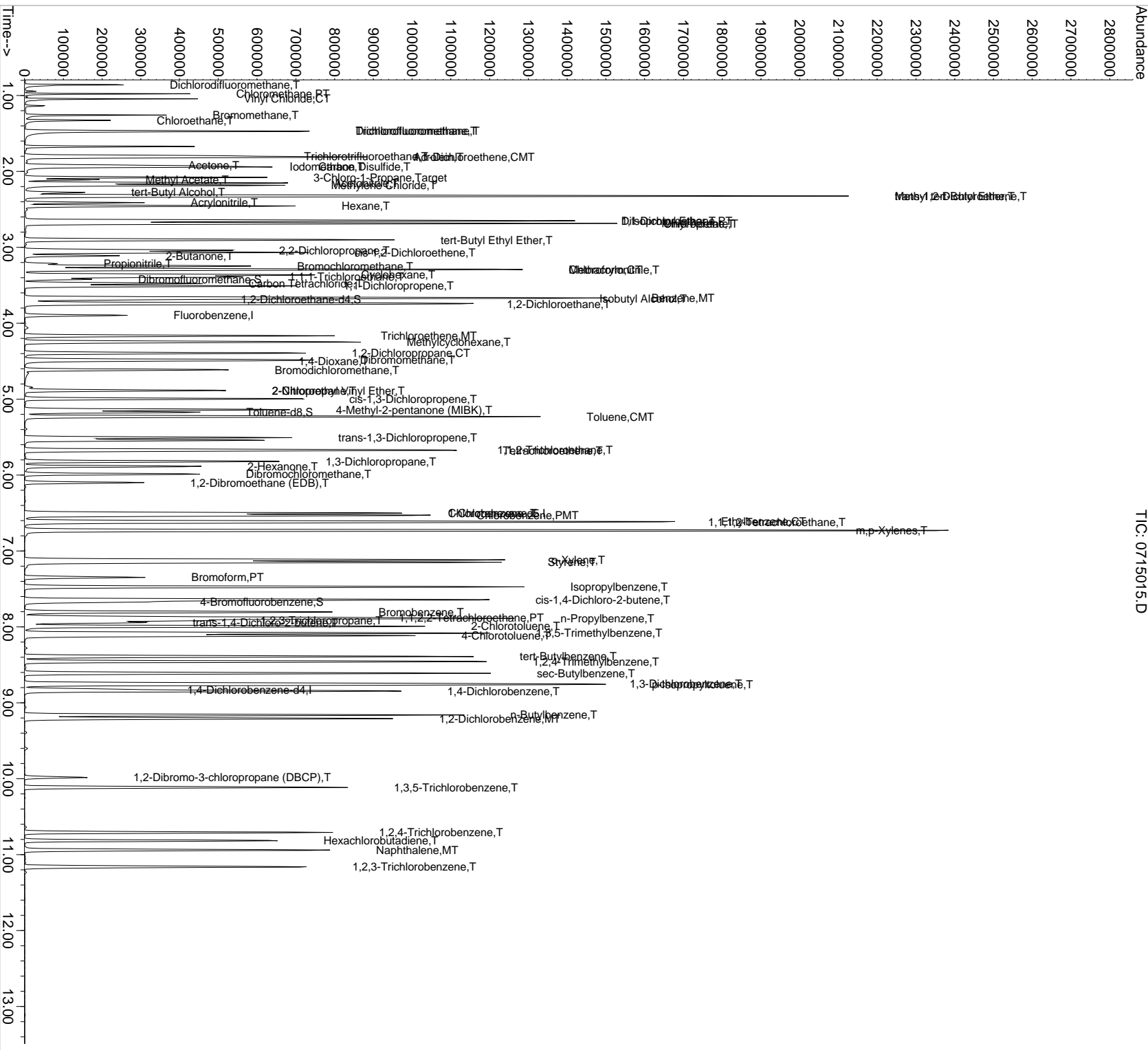
Quant Method : J:\MS24\M...\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
48) 1,2-Dichloropropane	4.39	63	205117	239.97	PPB	97
49) Dibromomethane	4.49	93	118904	232.20	PPB	99
50) 1,4-Dioxane	4.50	88	41685	4654.21	PPB	95
51) Bromodichloromethane	4.61	83	244905	236.04	PPB	97
52) 2-Nitropropane	4.88	41	148833	241.41	PPB	95
53) 2-Chloroethyl Vinyl Ether	4.89	63	64705	258.28	PPB	95
54) cis-1,3-Dichloropropene	5.00	75	303617	242.00	PPB	97
55) 4-Methyl-2-pentanone (MIBK)	5.14	58	137077	460.40	PPB	98
57) Toluene	5.23	92	431434	237.83	PPB	95
59) trans-1,3-Dichloropropene	5.51	75	276530	247.60	PPB	99
60) 1,1,2-Trichloroethane	5.66	83	143901	231.23	PPB	98
61) Tetrachloroethene	5.68	164	136201	242.51	PPB	97
62) 2-Hexanone	5.88	57	43977	469.56	PPB	97
63) 1,3-Dichloropropane	5.82	76	286262	233.45	PPB	98
64) Dibromochloromethane	5.99	129	189769	237.84	PPB	100
65) 1,2-Dibromoethane (EDB)	6.10	107	163584	235.56	PPB	94
66) 1-Chlorohexane	6.50	91	190800	248.99	PPB	96
67) Chlorobenzene	6.53	112	482166	231.16	PPB	98
68) Ethylbenzene	6.61	106	250697	240.01	PPB	96
69) 1,1,1,2-Tetrachloroethane	6.62	131	176742	236.94	PPB	96
70) m,p-Xylenes	6.73	106	607795	478.05	PPB	97
71) o-Xylene	7.12	106	298116	243.51	PPB	100
72) Styrene	7.15	103	248834m	237.31	PPB	
73) Bromoform	7.35	173	125974	239.36	PPB	99
74) Isopropylbenzene	7.47	105	736170	235.15	PPB	99
75) cis-1,4-Dichloro-2-butene	7.64	89	59527	518.93	PPB	96
78) 1,1,2,2-Tetrachloroethane	7.87	83	194709	232.52	PPB	97
79) trans-1,4-Dichloro-2-buten	7.94	53	57014	244.97	PPB	90
80) Bromobenzene	7.80	156	203548	236.15	PPB	92
81) n-Propylbenzene	7.89	91	835181	245.82	PPB	100
82) 1,2,3-Trichloropropane	7.91	110	61141	229.35	PPB	94
83) 2-Chlorotoluene	7.99	91	512195	243.03	PPB	98
84) 1,3,5-Trimethylbenzene	8.08	105	588296	246.83	PPB	98
85) 4-Chlorotoluene	8.12	91	530468m	236.94	PPB	
86) tert-Butylbenzene	8.39	119	513503	243.60	PPB	97
87) 1,2,4-Trimethylbenzene	8.46	105	594788	246.49	PPB	97
88) sec-Butylbenzene	8.61	105	738208	242.05	PPB	100
89) p-Isopropyltoluene	8.76	119	613228	243.28	PPB	98
90) 1,3-Dichlorobenzene	8.75	146	352889	230.92	PPB	95
91) 1,4-Dichlorobenzene	8.85	146	355928	231.60	PPB	98
92) n-Butylbenzene	9.16	91	542696	244.91	PPB	98
93) 1,2-Dichlorobenzene	9.21	146	341770	228.70	PPB	99
94) 1,2-Dibromo-3-chloropropan	9.98	155	30802	233.65	PPB	89
95) 1,3,5-Trichlorobenzene	10.11	180	239976	231.67	PPB	98
96) 1,2,4-Trichlorobenzene	10.71	180	221535	241.29	PPB	97
97) Hexachlorobutadiene	10.82	225	122866	223.32	PPB	97
98) Naphthalene	10.94	128	542927	254.02	PPB	99
99) 1,2,3-Trichlorobenzene	11.16	180	217443	245.91	PPB	99

(#) = qualifier out of range (m) = manual integration

07/16/19
Data File : J:\MS24\DATA\071519\0715015.D
Acq On : 15 Jul 2019 1:34 pm
Sample : ICAL 200
Misc :
MS Integration Params: rteint.p
Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
Title : VOA MS24 EPA Method 8260B
Last Update : Mon Jul 15 14:17:01 2019
Response via : Initial Calibration



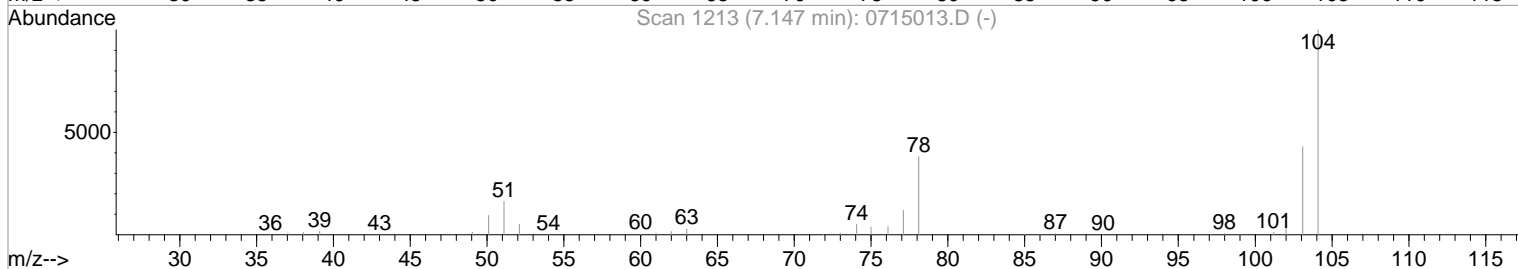
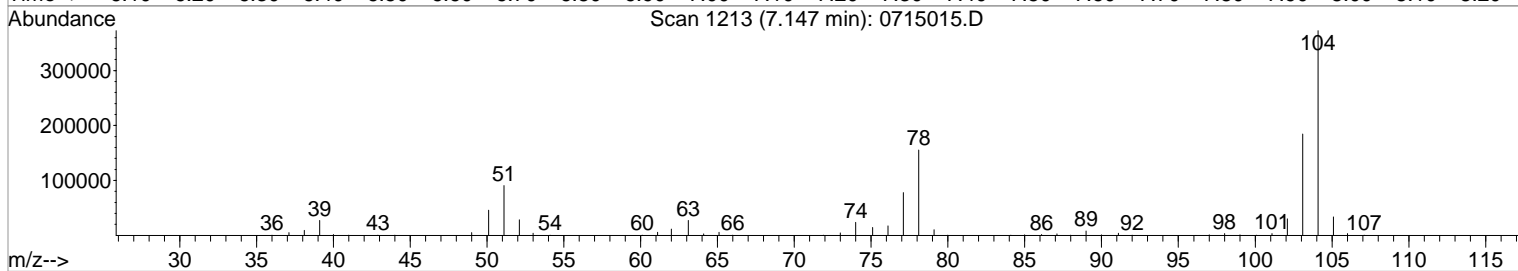
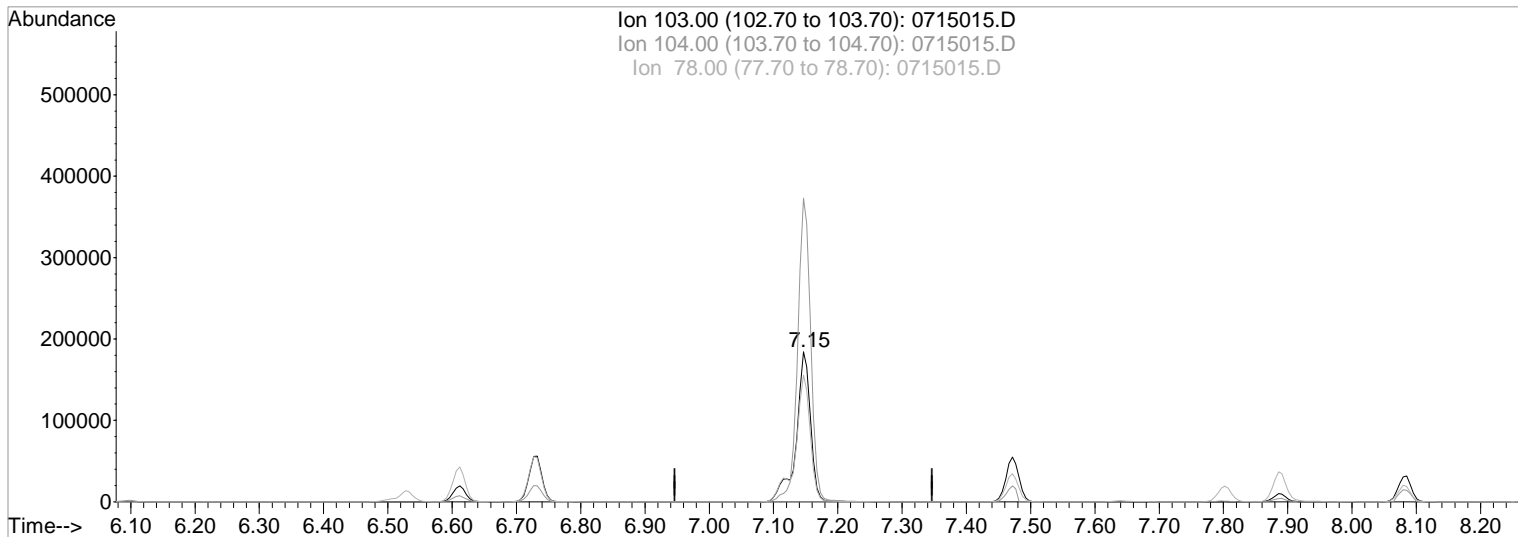
TIC: 0715015.D

Data File : J:\MS24\DATA\071519\0715015.D
 Acq On : 15 Jul 2019 1:34 pm
 Sample : ICAL 200
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:52 2019

Vial: 15
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Multiple Level Calibration



TIC: 0715015.D

(72) Styrene (T)
 7.15min 274.07PPB
 response 287377

Manual Integration:

Before

07/15/19

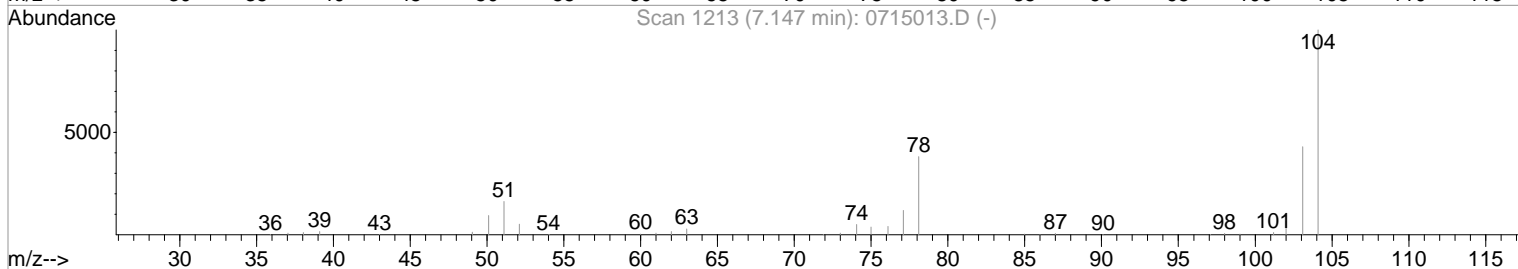
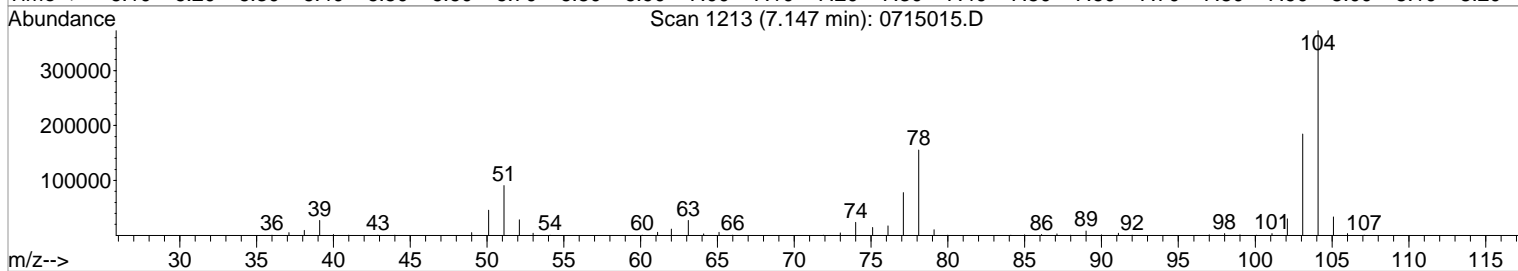
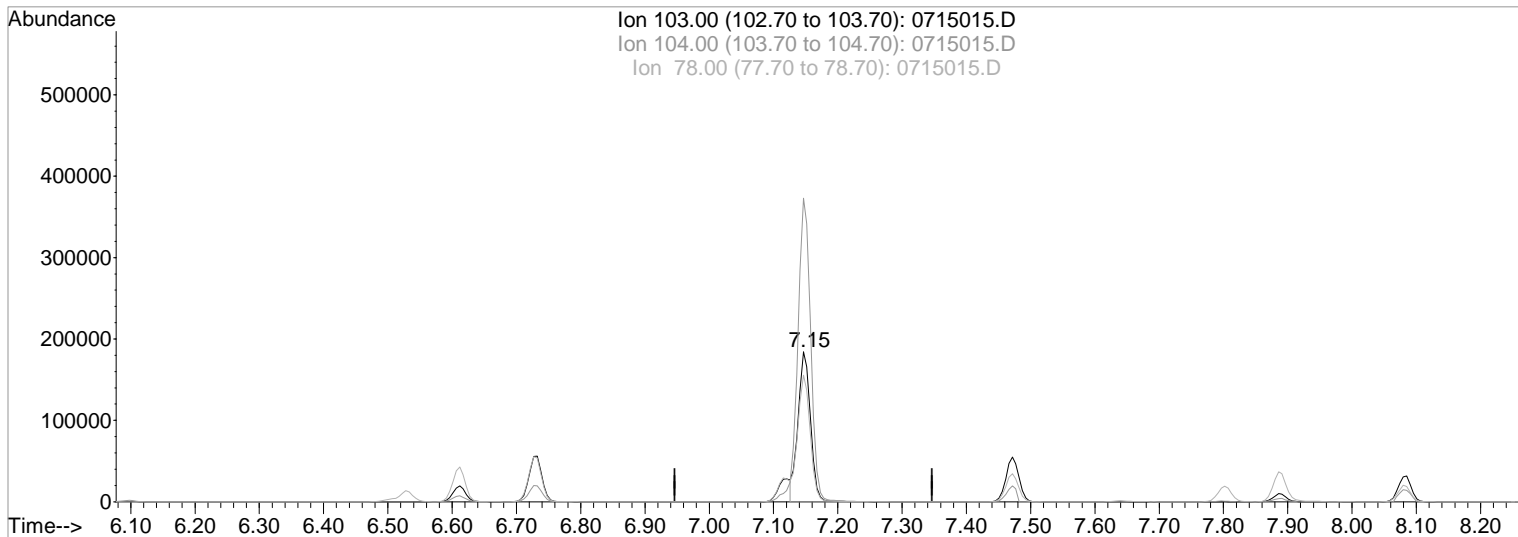
Ion	Exp%	Act%
103.00	100	100
104.00	210.30	202.29
78.00	89.90	84.35
0.00	0.00	0.00

Data File : J:\MS24\DATA\071519\0715015.D
 Acq On : 15 Jul 2019 1:34 pm
 Sample : ICAL 200
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:52 2019

Vial: 15
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Multiple Level Calibration



TIC: 0715015.D

(72) Styrene (T)

7.15min 237.31PPB m
 response 248834

Manual Integration:

After
 Shoulder

07/15/19

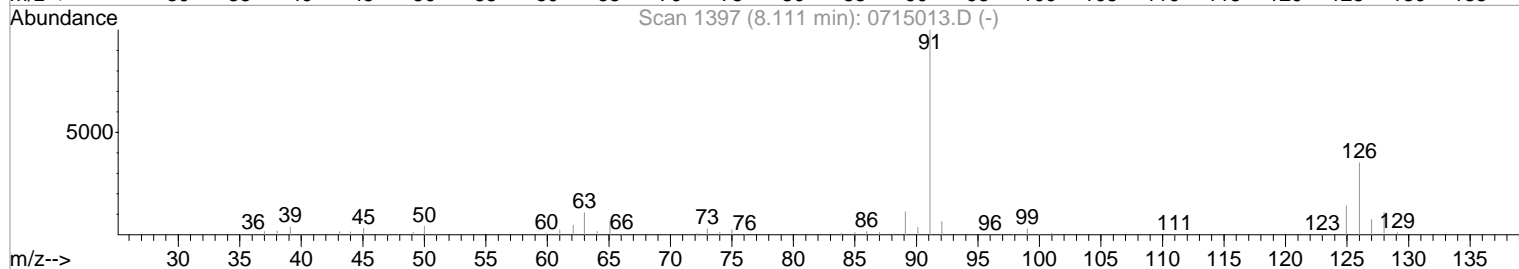
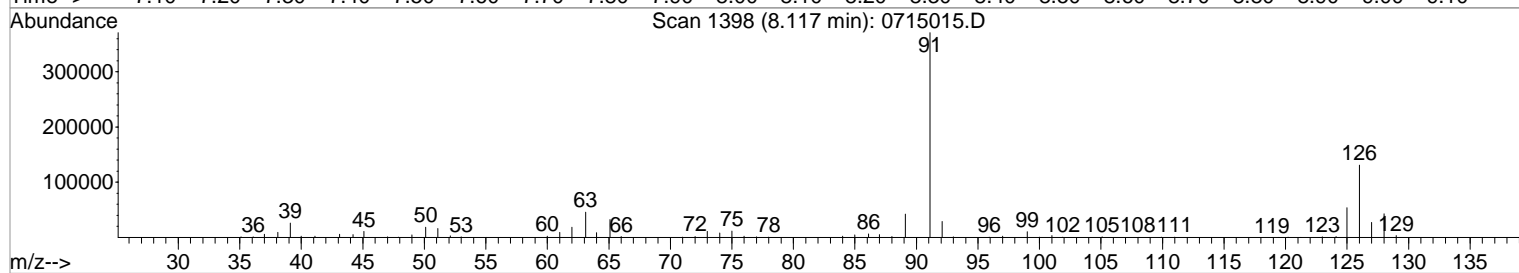
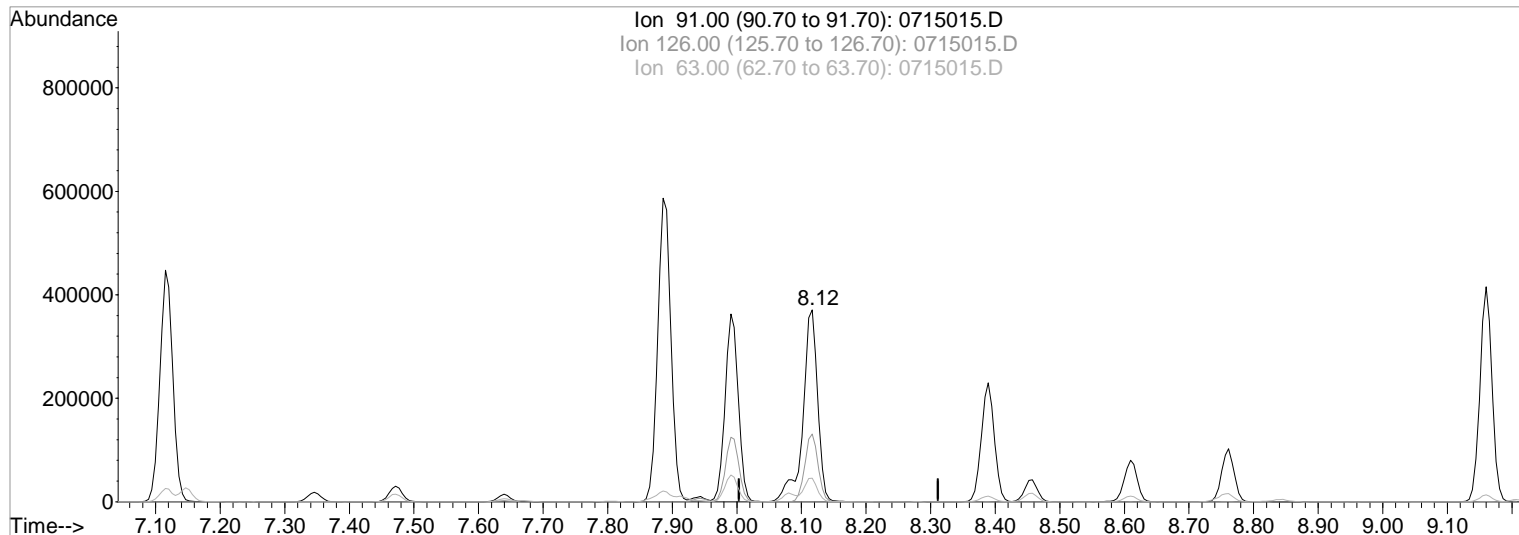
Ion	Exp%	Act%
103.00	100	100
104.00	210.30	202.29
78.00	89.90	84.35
0.00	0.00	0.00

Data File : J:\MS24\DATA\071519\0715015.D
 Acq On : 15 Jul 2019 1:34 pm
 Sample : ICAL 200
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:52 2019

Vial: 15
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Multiple Level Calibration



TIC: 0715015.D

(85) 4-Chlorotoluene (T)

Manual Integration:

8.12min 263.46PPB

Before

response 589856

07/15/19

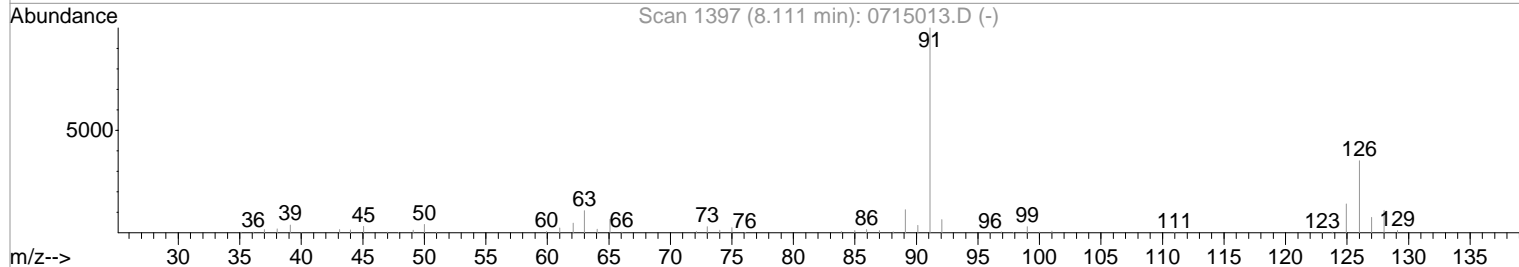
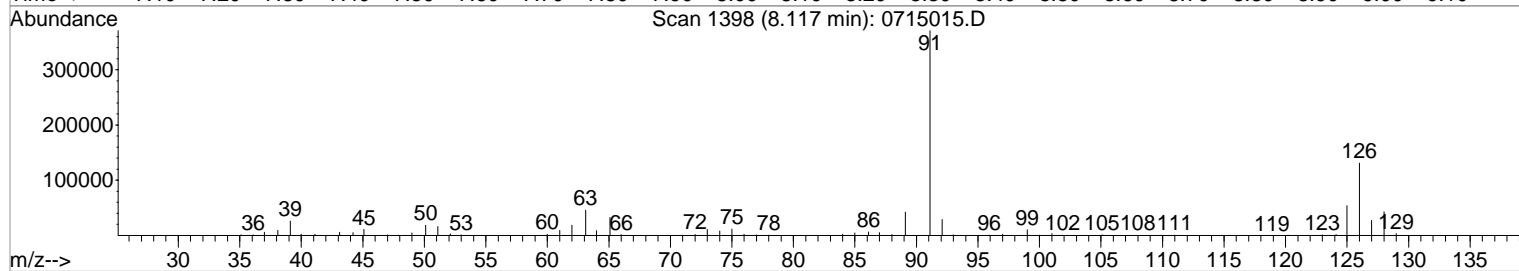
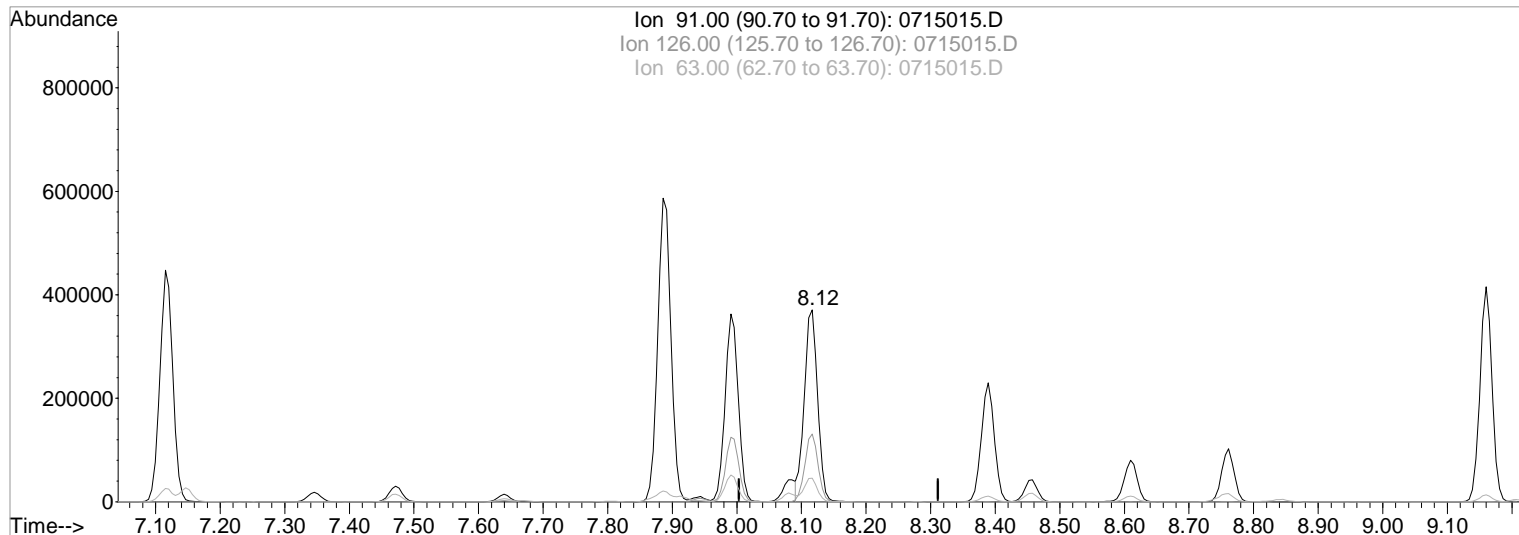
Ion	Exp%	Act%
91.00	100	100
126.00	32.80	35.33
63.00	12.70	12.23
0.00	0.00	0.00

Data File : J:\MS24\DATA\071519\0715015.D
 Acq On : 15 Jul 2019 1:34 pm
 Sample : ICAL 200
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 13:53 2019

Vial: 15
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:36:51 2019
 Response via : Multiple Level Calibration



TIC: 0715015.D

(85) 4-Chlorotoluene (T)

Manual Integration:

8.12min 236.94PPB m
 response 530468

After
 Shoulder

07/15/19

Ion	Exp%	Act%
91.00	100	100
126.00	32.80	35.33
63.00	12.70	12.23
0.00	0.00	0.00

Data File : J:\MS24\DATA\071519\0715016.D
 Acq On : 15 Jul 2019 1:55 pm
 Sample : ICAL 300
 Misc :

Vial: 16
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 15 14:11:32 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

Quant Method : J:\MS24\M...\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:58:53 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	3.90	96	156716	50.00	PPB	0.00
58) Chlorobenzene-d5	6.50	82	59775	50.00	PPB	0.00
77) 1,4-Dichlorobenzene-d4	8.82	152	50133	50.00	PPB	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Dibromofluoromethane	3.42	113	93809	122.88	PPB	0.00
Spiked Amount				50.000		
			Recovery	=	245.76%	
43) 1,2-Dichloroethane-d4	3.69	65	115655	116.93	PPB	0.00
Spiked Amount				50.000		
			Recovery	=	233.86%	
56) Toluene-d8	5.17	98	344518	127.24	PPB	0.00
Spiked Amount				50.000		
			Recovery	=	254.48%	
76) 4-Bromofluorobenzene	7.67	95	116540	116.32	PPB	0.00
Spiked Amount				50.000		
			Recovery	=	232.64%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.86	85	181853	290.44	PPB	96
3) Chloromethane	0.98	50	299053	301.69	PPB	98
4) Vinyl Chloride	1.04	62	267653	308.97	PPB	99
5) Bromomethane	1.26	96	150997	253.66	PPB	100
6) Chloroethane	1.33	64	150768	301.17	PPB	97
7) Dichlorofluoromethane	1.47	67	385947	306.53	PPB	98
8) Trichlorofluoromethane	1.47	101	307920	287.45	PPB	97
9) Acrolein	1.81	56	265793	1630.61	PPB	97
10) Trichlorotrifluoroethane	1.79	151	165793	315.25	PPB	100
11) 1,1-Dichloroethene	1.81	96	183061	301.52	PPB	99
12) Acetone	1.91	43	146746	592.03	PPB	98
13) Iodomethane	1.93	142	384353	737.68	PPB	97
14) Carbon Disulfide	1.94	76	662065	319.14	PPB	100
15) 3-Chloro-1-Propane	2.08	TIC	916926m	270.98	PPB	
16) Methyl Acetate	2.11	43	190790	277.84	PPB	99
17) Acetonitrile	2.16	40	358696	5670.49	PPB	100
18) Methylene Chloride	2.18	84	257422	285.91	PPB	98
19) tert-Butyl Alcohol	2.28	59	159420	1408.94	PPB	99
20) Acrylonitrile	2.41	53	203275	588.91	PPB	96
21) Methyl tert-Butyl Ether	2.32	73	1579325	611.86	PPB	98
22) trans-1,2-Dichloroethene	2.33	96	237377	307.54	PPB	99
23) Hexane	2.45	57	335770	327.52	PPB	99
24) Diisopropyl Ether	2.65	45	907275	314.54	PPB	98
25) 1,1-Dichloroethane	2.65	63	474696	323.17	PPB	98
26) Vinyl Acetate	2.69	86	54291	332.69	PPB	100
27) Chloroprene	2.68	53	708958	670.29	PPB	95
28) tert-Butyl Ethyl Ether	2.90	59	830693	299.91	PPB	97
29) 2,2-Dichloropropane	3.04	77	322684	287.68	PPB	98
30) cis-1,2-Dichloroethene	3.07	96	269408	276.84	PPB	95
31) 2-Butanone	3.11	72	60329	536.01	PPB	# 82
32) Propionitrile	3.21	54	80306	567.14	PPB	99
34) Methacrylonitrile	3.29	67	257721	614.55	PPB	97
35) Bromochloromethane	3.25	128	133621	277.68	PPB	98
36) Chloroform	3.29	83	474958	315.23	PPB	99
37) Cyclohexane	3.36	56	378051	327.22	PPB	99
38) 1,1,1-Trichloroethane	3.39	97	359020	323.28	PPB	98
40) Carbon Tetrachloride	3.48	117	303467	343.30	PPB	95
41) 1,1-Dichloropropene	3.51	75	338639	320.33	PPB	99
42) Isobutyl Alcohol	3.68	43	322867	5785.23	PPB	99
44) Benzene	3.67	78	1102324	315.02	PPB	100
45) 1,2-Dichloroethane	3.75	62	382535	296.13	PPB	99
46) Trichloroethene	4.16	95	271345	323.30	PPB	95
47) Methylcyclohexane	4.25	83	390528	347.67	PPB	98

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS24\DATA\071519\0715016.D
 Acq On : 15 Jul 2019 1:55 pm
 Sample : ICAL 300
 Misc :

Vial: 16
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 15 14:11:32 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

Quant Method : J:\MS24\M...\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:58:53 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
48) 1,2-Dichloropropane	4.39	63	299688	319.65	PPB	98
49) Dibromomethane	4.49	93	177511	315.82	PPB	98
50) 1,4-Dioxane	4.50	88	62475	6035.40	PPB	95
51) Bromodichloromethane	4.61	83	371736	334.32	PPB	96
52) 2-Nitropropane	4.88	41	224545	335.50	PPB	93
53) 2-Chloroethyl Vinyl Ether	4.89	63	100703	379.25	PPB	98
54) cis-1,3-Dichloropropene	4.99	75	469841	346.93	PPB	99
55) 4-Methyl-2-pentanone (MIBK)	5.14	58	203968	612.39	PPB	98
57) Toluene	5.23	92	658784	338.30	PPB	97
59) trans-1,3-Dichloropropene	5.51	75	422951	342.46	PPB	98
60) 1,1,2-Trichloroethane	5.66	83	216291	308.08	PPB	98
61) Tetrachloroethene	5.68	164	205927	332.24	PPB	97
62) 2-Hexanone	5.88	57	65679	638.62	PPB	98
63) 1,3-Dichloropropane	5.82	76	426918	304.00	PPB	98
64) Dibromochloromethane	5.99	129	290277	338.94	PPB	98
65) 1,2-Dibromoethane (EDB)	6.10	107	246388	310.42	PPB	93
66) 1-Chlorohexane	6.50	91	290419	336.69	PPB	96
67) Chlorobenzene	6.53	112	718522	305.60	PPB	97
68) Ethylbenzene	6.61	106	378809	332.36	PPB	99
69) 1,1,1,2-Tetrachloroethane	6.62	131	265718	328.85	PPB	95
70) m,p-Xylenes	6.73	106	918461	680.83	PPB	99
71) o-Xylene	7.12	106	445255	330.85	PPB	97
72) Styrene	7.15	103	385225m	357.00	PPB	
73) Bromoform	7.35	173	187579	342.99	PPB	98
74) Isopropylbenzene	7.47	105	1088744	334.56	PPB	98
75) cis-1,4-Dichloro-2-butene	7.64	89	88762	644.50	PPB	95
78) 1,1,2,2-Tetrachloroethane	7.87	83	284686	308.87	PPB	95
79) trans-1,4-Dichloro-2-buten	7.94	53	84035	324.43	PPB	80
80) Bromobenzene	7.80	156	302444	317.81	PPB	95
81) n-Propylbenzene	7.89	91	1239823	349.78	PPB	100
82) 1,2,3-Trichloropropane	7.91	110	88107	309.37	PPB	90
83) 2-Chlorotoluene	7.99	91	753732	330.91	PPB	98
84) 1,3,5-Trimethylbenzene	8.08	105	880204	364.51	PPB	98
85) 4-Chlorotoluene	8.12	91	786953m	334.04	PPB	
86) tert-Butylbenzene	8.39	119	756905	345.00	PPB	99
87) 1,2,4-Trimethylbenzene	8.46	105	887894	357.95	PPB	97
88) sec-Butylbenzene	8.61	105	1089108	351.76	PPB	100
89) p-Isopropyltoluene	8.76	119	919151	366.53	PPB	99
90) 1,3-Dichlorobenzene	8.75	146	522838	319.27	PPB	96
91) 1,4-Dichlorobenzene	8.85	146	525945	310.10	PPB	97
92) n-Butylbenzene	9.16	91	820776	359.46	PPB	98
93) 1,2-Dichlorobenzene	9.21	146	511780	313.90	PPB	97
94) 1,2-Dibromo-3-chloropropan	9.98	155	47561	339.95	PPB	92
95) 1,3,5-Trichlorobenzene	10.11	180	365845	319.94	PPB	98
96) 1,2,4-Trichlorobenzene	10.71	180	343473	329.63	PPB	96
97) Hexachlorobutadiene	10.82	225	188398	312.97	PPB	98
98) Naphthalene	10.94	128	865808	373.40	PPB	99
99) 1,2,3-Trichlorobenzene	11.16	180	337148	334.46	PPB	98

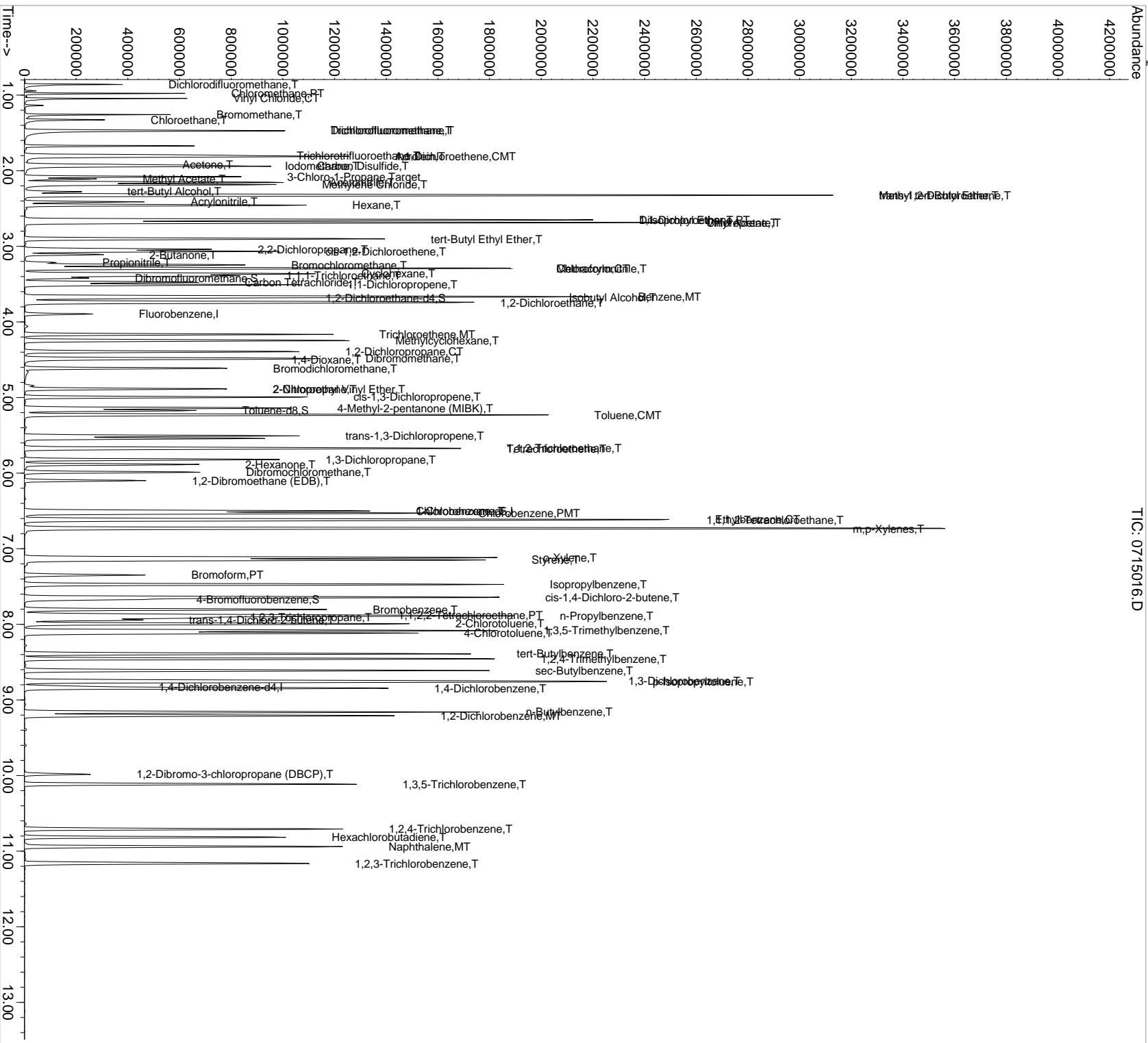
(#) = qualifier out of range (m) = manual integration

Vial: 16
Operator: KW
Inst: MS24
Multiplr: 1.00

1st 07/16/19

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
Title : VOA MS24 EPA Method 8260B
Last Update : Mon Jul 15 14:17:01 2019
Response via : Initial Calibration



TIC: 0715016.D

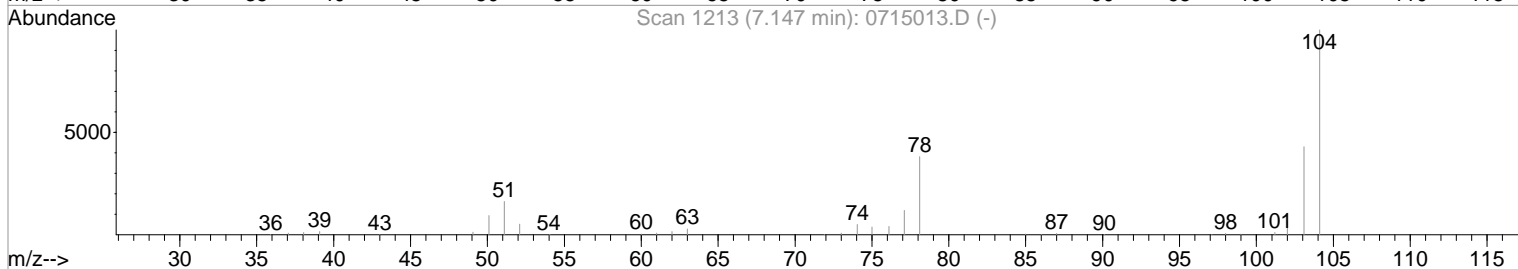
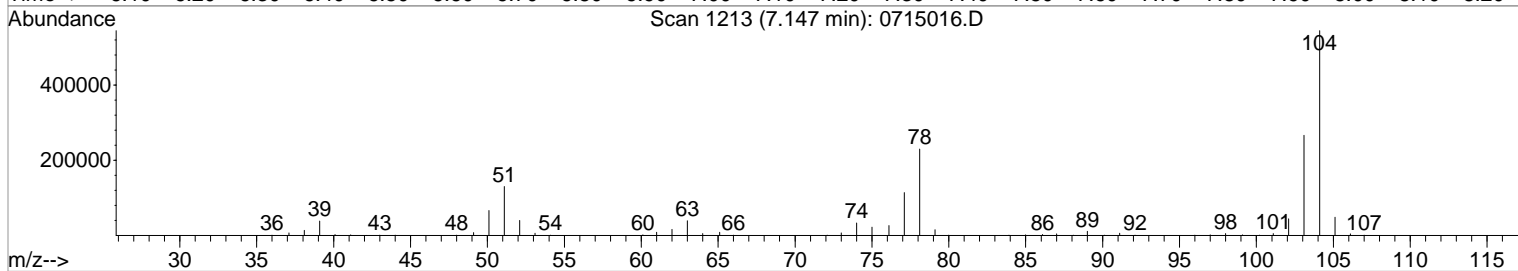
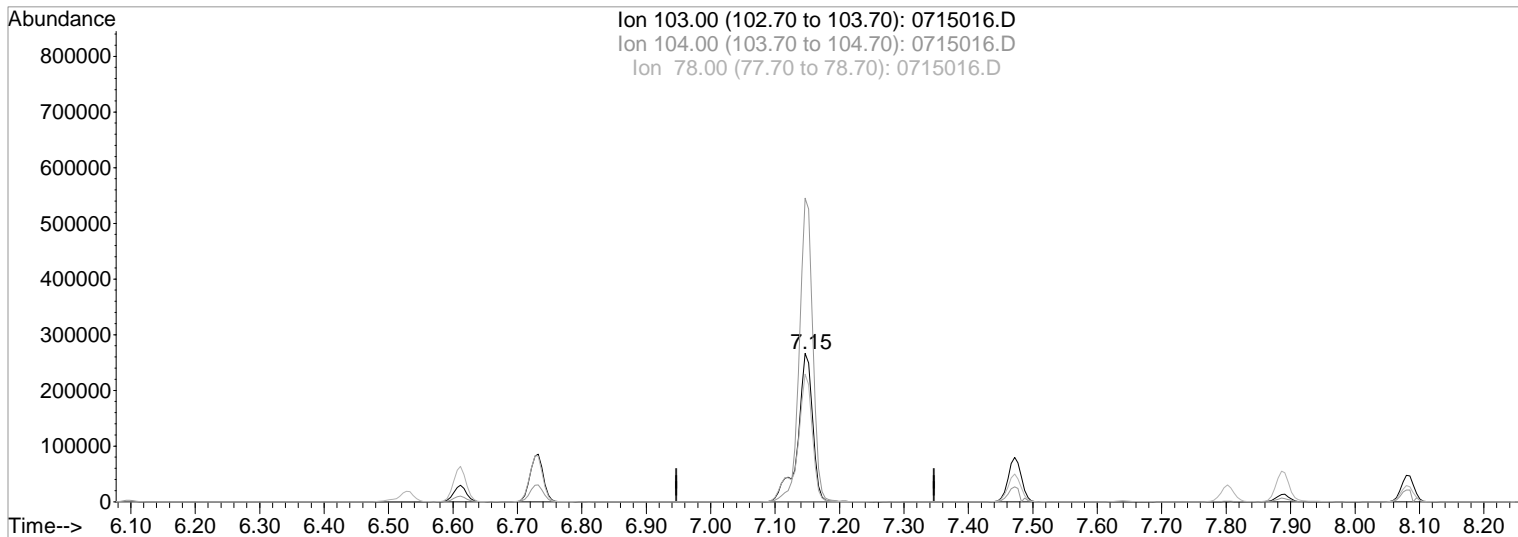
Data File : J:\MS24\DATA\071519\0715016.D
Acq On : 15 Jul 2019 1:55 pm
Sample : ICAL 300
Misc :

Vial: 16
Operator: KW
Inst : MS24
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Jul 15 14:12 2019

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
Title : VOA MS24 EPA Method 8260B
Last Update : Mon Jul 15 13:58:53 2019
Response via : Multiple Level Calibration



TIC: 0715016.D

(72) Styrene (T)
7.15min 399.26PPB
response 430833

Manual Integration:

Before

07/15/19

Ion	Exp%	Act%
103.00	100	100
104.00	210.30	204.74
78.00	89.90	86.13
0.00	0.00	0.00

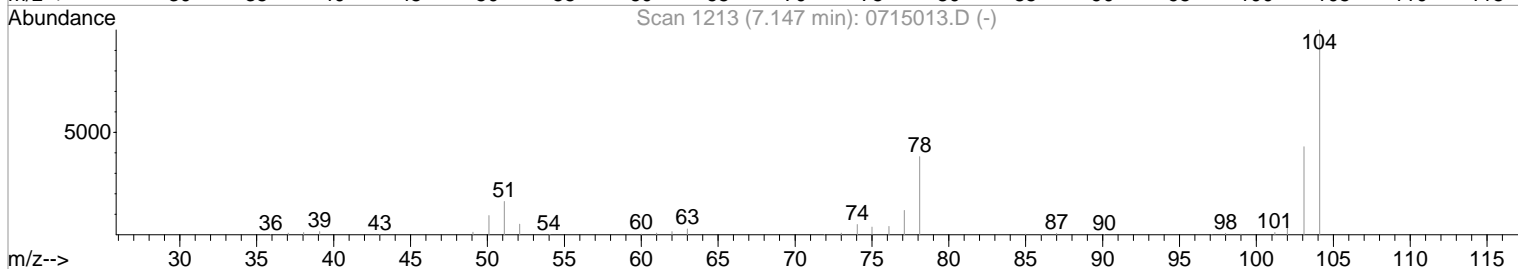
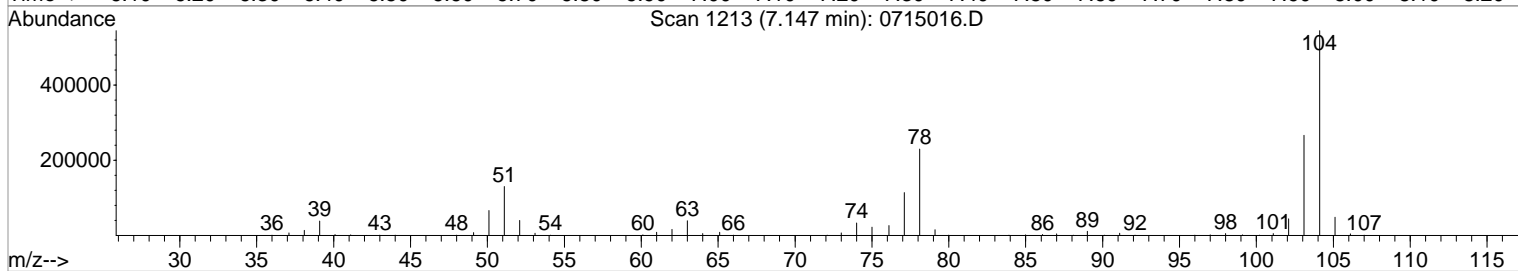
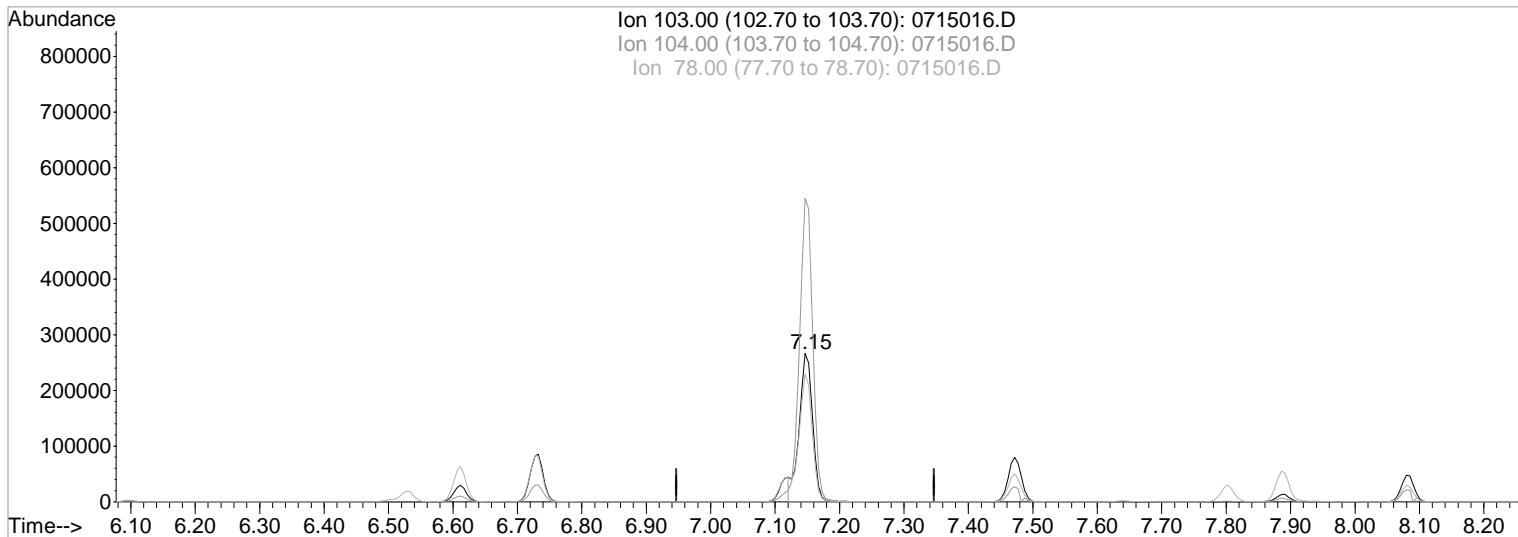
Data File : J:\MS24\DATA\071519\0715016.D
 Acq On : 15 Jul 2019 1:55 pm
 Sample : ICAL 300
 Misc :

Vial: 16
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 15 14:12 2019

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:58:53 2019
 Response via : Multiple Level Calibration



TIC: 0715016.D

(72) Styrene (T)

7.15min 357.00PPB m
 response 385225

Ion	Exp%	Act%
103.00	100	100
104.00	210.30	204.74
78.00	89.90	86.13
0.00	0.00	0.00

Manual Integration:

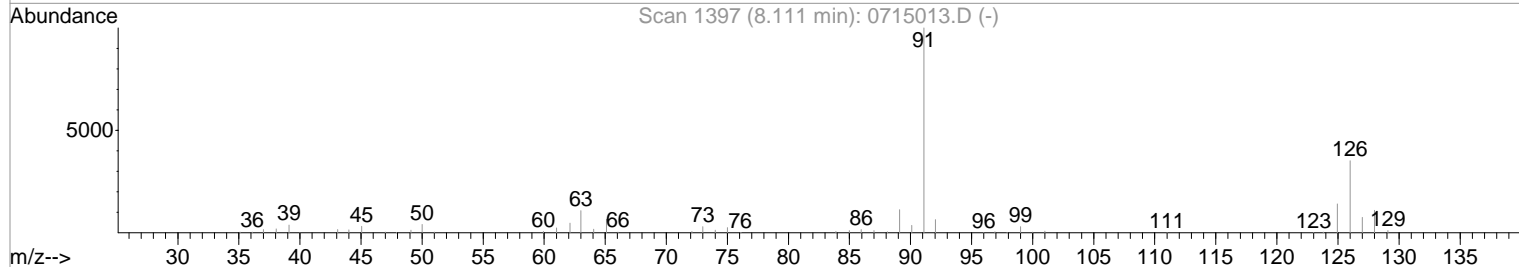
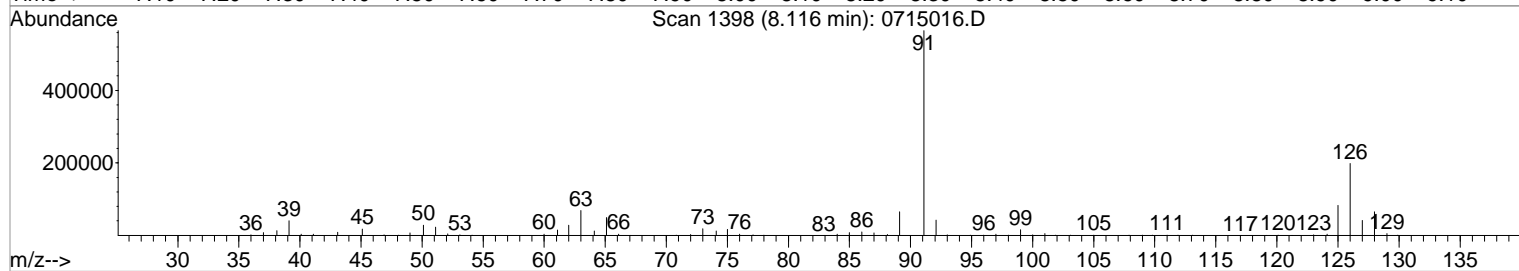
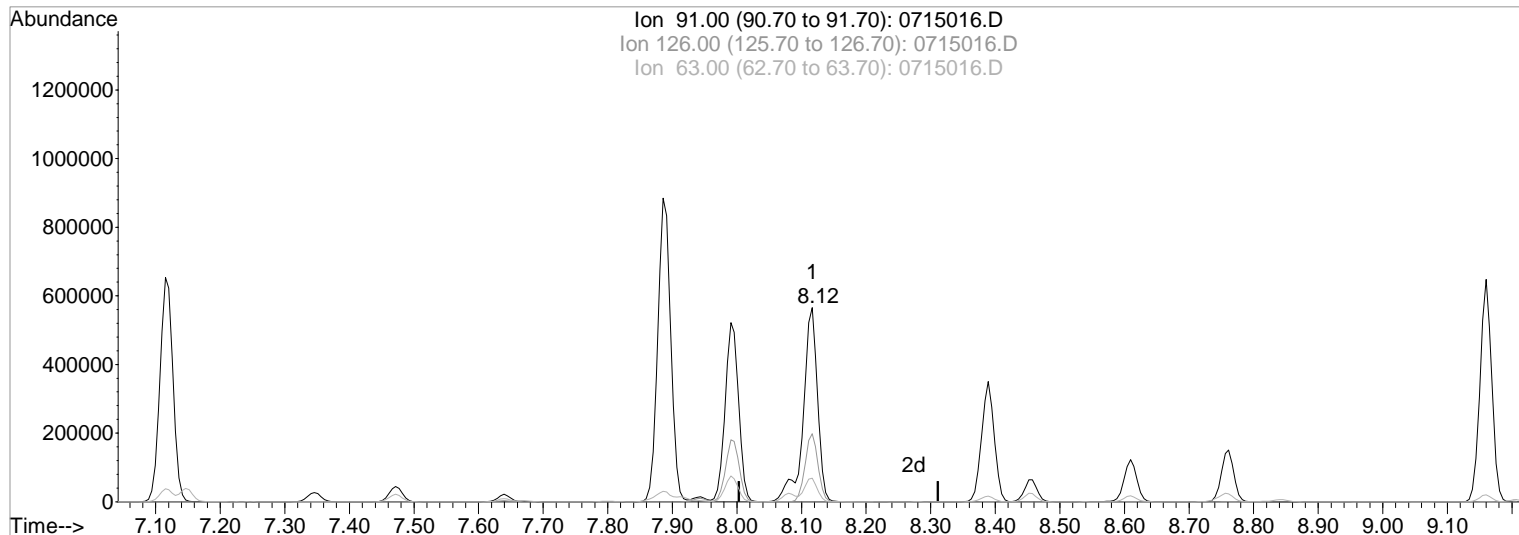
After
 Shoulder
 07/15/19

Data File : J:\MS24\DATA\071519\0715016.D
 Acq On : 15 Jul 2019 1:55 pm
 Sample : ICAL 300
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 14:12 2019

Vial: 16
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:58:53 2019
 Response via : Multiple Level Calibration



TIC: 0715016.D

(85) 4-Chlorotoluene (T)

Manual Integration:

8.12min 371.24PPB

Before

response 874590

07/15/19

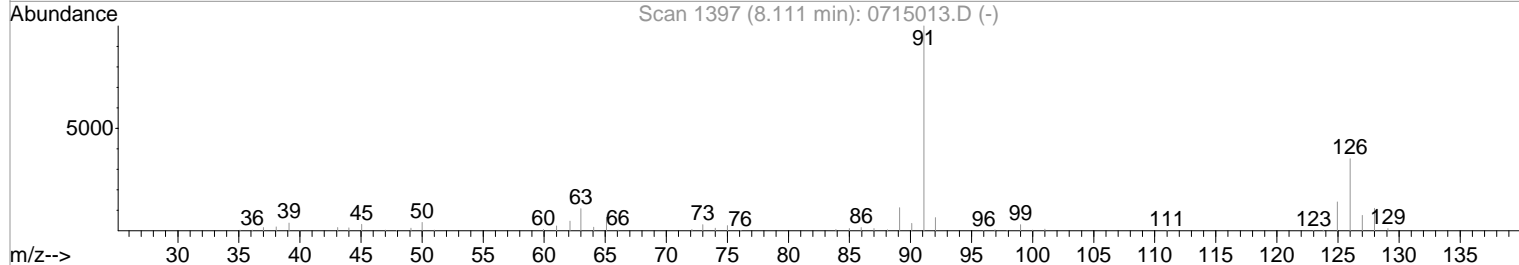
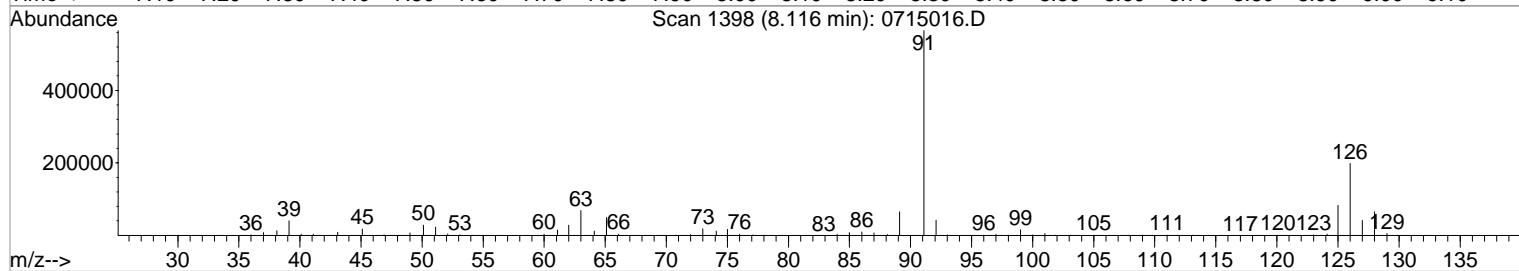
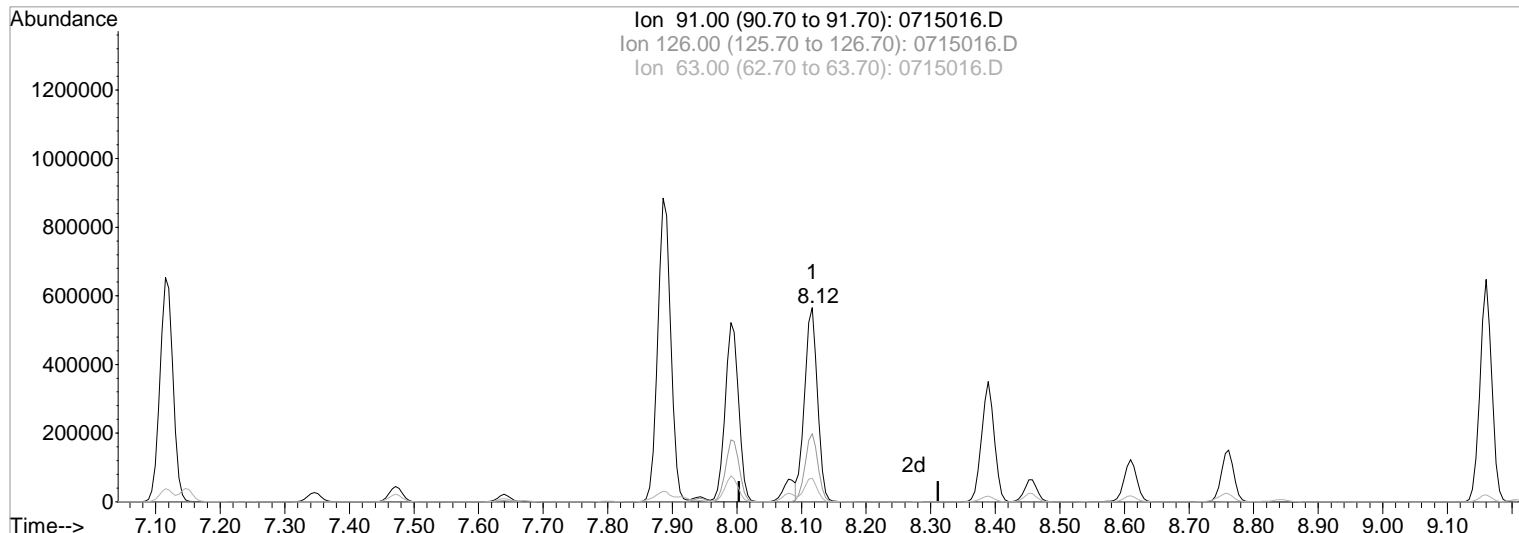
Ion	Exp%	Act%
91.00	100	100
126.00	32.80	35.13
63.00	12.70	12.18
0.00	0.00	0.00

Data File : J:\MS24\DATA\071519\0715016.D
 Acq On : 15 Jul 2019 1:55 pm
 Sample : ICAL 300
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 14:12 2019

Vial: 16
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 13:58:53 2019
 Response via : Multiple Level Calibration



TIC: 0715016.D

(85) 4-Chlorotoluene (T)

Manual Integration:

8.12min 334.04PPB m
 response 786953

After
 Shoulder

07/15/19

Ion	Exp%	Act%
91.00	100	100
126.00	32.80	35.13
63.00	12.70	12.18
0.00	0.00	0.00

Data File : J:\MS24\DATA\071519\0715022.D
 Acq On : 15 Jul 2019 4:47 pm
 Sample : ICV RR
 Misc :

Vial: 22
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 15 17:14:31 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

Quant Method : J:\MS24\M...\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 14:57:11 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	3.90	96	170864	50.00	PPB	0.00
58) Chlorobenzene-d5	6.50	82	61341	50.00	PPB	0.00
77) 1,4-Dichlorobenzene-d4	8.82	152	54044	50.00	PPB	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Dibromofluoromethane	3.42	113	39732	47.59	PPB	0.00
Spiked Amount 50.000			Recovery =	95.18%		
43) 1,2-Dichloroethane-d4	3.69	65	49576	46.12	PPB	0.00
Spiked Amount 50.000			Recovery =	92.24%		
56) Toluene-d8	5.17	98	145016	48.76	PPB	0.00
Spiked Amount 50.000			Recovery =	97.52%		
76) 4-Bromofluorobenzene	7.67	95	49876	48.70	PPB	0.00
Spiked Amount 50.000			Recovery =	97.40%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.86	85	50112	73.67	PPB	98
3) Chloromethane	0.98	50	57339	53.02	PPB	99
4) Vinyl Chloride	1.05	62	53140	56.08	PPB	100
5) Bromomethane	1.26	96	26010	42.66	PPB	97
6) Chloroethane	1.33	64	29547	54.11	PPB	96
7) Dichlorofluoromethane	1.47	67	68053	49.45	PPB	97
8) Trichlorofluoromethane	1.47	101	56263	48.40	PPB	98
9) Acrolein	1.81	56	14080	78.37	PPB	91
10) Trichlorotrifluoroethane	1.80	151	33496	58.09	PPB	99
11) 1,1-Dichloroethene	1.82	96	37066	55.96	PPB	93
12) Acetone	1.91	43	64510	235.52	PPB	95
13) Iodomethane	1.93	142	61801	98.95	PPB	98
14) Carbon Disulfide	1.95	76	230580	101.23	PPB	100
15) 3-Chloro-1-Propane	2.08	TIC	303889m	83.38	PPB	
16) Methyl Acetate	2.11	43	30535	41.12	PPB	99
17) Acetonitrile	2.16	40	47524	693.84	PPB	99
18) Methylene Chloride	2.19	84	44020	45.15	PPB	97
19) tert-Butyl Alcohol	2.28	59	53730	439.35	PPB	99
20) Acrylonitrile	2.41	53	43361	115.49	PPB	98
21) Methyl tert-Butyl Ether	2.32	73	129300	45.83	PPB	99
22) trans-1,2-Dichloroethene	2.33	96	41978	49.74	PPB	95
23) Hexane	2.45	57	93638	82.93	PPB	98
24) Diisopropyl Ether	2.65	45	325876	103.07	PPB	97
25) 1,1-Dichloroethane	2.65	63	86129	53.32	PPB	97
26) Vinyl Acetate	2.69	86	36863	204.40	PPB	# 90
27) Chloroprene	2.68	53	104018	88.90	PPB	96
28) tert-Butyl Ethyl Ether	2.90	59	289833	95.98	PPB	99
29) 2,2-Dichloropropane	3.04	77	60188	49.44	PPB	97
30) cis-1,2-Dichloroethene	3.07	96	49825	47.37	PPB	97
31) 2-Butanone	3.11	72	30010	248.34	PPB	# 48
32) Propionitrile	3.21	54	10891	71.03	PPB	97
34) Methacrylonitrile	3.29	67	33279	72.57	PPB	98
35) Bromochloromethane	3.25	128	23226	44.64	PPB	91
36) Chloroform	3.30	83	77519	46.93	PPB	98
37) Cyclohexane	3.37	56	75381	59.25	PPB	99
38) 1,1,1-Trichloroethane	3.39	97	62766	51.39	PPB	96
40) Carbon Tetrachloride	3.48	117	53332	54.46	PPB	96
41) 1,1-Dichloropropene	3.51	75	61186	52.69	PPB	98
42) Isobutyl Alcohol	3.68	43	40448	667.74	PPB	95
44) Benzene	3.67	78	190539	49.67	PPB	100
45) 1,2-Dichloroethane	3.75	62	63584	45.21	PPB	99
46) Trichloroethene	4.16	95	46792	50.70	PPB	98
47) Methylcyclohexane	4.25	83	52546	42.16	PPB	99

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS24\DATA\071519\0715022.D
 Acq On : 15 Jul 2019 4:47 pm
 Sample : ICV RR
 Misc :

Vial: 22
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 15 17:14:31 2019

Quant Results File: 0715DOD19_MS24_FULL_SOIL.RES

Quant Method : J:\MS24\M...\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 14:57:11 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
48) 1,2-Dichloropropane	4.39	63	49208	47.79	PPB	98
49) Dibromomethane	4.49	93	27150	44.05	PPB	98
50) 1,4-Dioxane	4.50	88	7515	665.38	PPB	95
51) Bromodichloromethane	4.61	83	54642	44.51	PPB	97
52) 2-Nitropropane	4.88	41	18737	25.34	PPB	91
53) 2-Chloroethyl Vinyl Ether	4.89	63	14927	48.44	PPB	96
54) cis-1,3-Dichloropropene	5.00	75	68082	45.32	PPB	99
55) 4-Methyl-2-pentanone (MIBK)	5.14	58	86667	238.05	PPB	97
57) Toluene	5.23	92	104544	48.55	PPB	94
59) trans-1,3-Dichloropropene	5.51	75	61571	47.83	PPB	99
60) 1,1,2-Trichloroethane	5.66	83	33482	46.33	PPB	96
61) Tetrachloroethene	5.68	164	36047	56.00	PPB	95
62) 2-Hexanone	5.88	57	28773	270.14	PPB	94
63) 1,3-Dichloropropane	5.82	76	66817	46.30	PPB	99
64) Dibromochloromethane	5.99	129	41210	46.22	PPB	98
65) 1,2-Dibromoethane (EDB)	6.10	107	37452	45.80	PPB	96
66) 1-Chlorohexane	6.50	91	51193	57.06	PPB	98
67) Chlorobenzene	6.53	112	116627	48.24	PPB	96
68) Ethylbenzene	6.61	106	60427	51.05	PPB	97
69) 1,1,1,2-Tetrachloroethane	6.62	131	40530	48.36	PPB	91
70) m,p-Xylenes	6.73	106	145630	103.64	PPB	97
71) o-Xylene	7.12	106	69663	49.87	PPB	97
72) Styrene	7.15	103	56987m	50.40	PPB	
73) Bromoform	7.35	173	26260	46.06	PPB	97
74) Isopropylbenzene	7.47	105	178555	52.79	PPB	99
75) cis-1,4-Dichloro-2-butene	7.64	89	10341	77.81	PPB	87
78) 1,1,2,2-Tetrachloroethane	7.86	83	43457	43.59	PPB	98
79) trans-1,4-Dichloro-2-buten	7.94	53	19674	69.75	PPB	94
80) Bromobenzene	7.80	156	49061	47.51	PPB	97
81) n-Propylbenzene	7.89	91	205704	52.86	PPB	99
82) 1,2,3-Trichloropropane	7.91	110	13728	44.56	PPB	99
83) 2-Chlorotoluene	7.99	91	123105	49.57	PPB	98
84) 1,3,5-Trimethylbenzene	8.08	105	142422	53.44	PPB	98
85) 4-Chlorotoluene	8.11	91	128683m	50.04	PPB	
86) tert-Butylbenzene	8.39	119	128221	53.33	PPB	98
87) 1,2,4-Trimethylbenzene	8.46	105	141566	51.83	PPB	95
88) sec-Butylbenzene	8.61	105	189204	55.62	PPB	99
89) p-Isopropyltoluene	8.76	119	157587	56.89	PPB	99
90) 1,3-Dichlorobenzene	8.75	146	89949	50.59	PPB	98
91) 1,4-Dichlorobenzene	8.85	146	88606	48.28	PPB	99
92) n-Butylbenzene	9.16	91	138871	55.20	PPB	99
93) 1,2-Dichlorobenzene	9.21	146	83474	47.25	PPB	97
94) 1,2-Dibromo-3-chloropropan	9.98	155	6298	41.07	PPB	84
95) 1,3,5-Trichlorobenzene	10.11	180	67845	54.64	PPB	98
96) 1,2,4-Trichlorobenzene	10.71	180	56457	49.71	PPB	95
97) Hexachlorobutadiene	10.82	225	31902	48.93	PPB	96
98) Naphthalene	10.94	128	117669	45.83	PPB	98
99) 1,2,3-Trichlorobenzene	11.16	180	52407	47.62	PPB	99

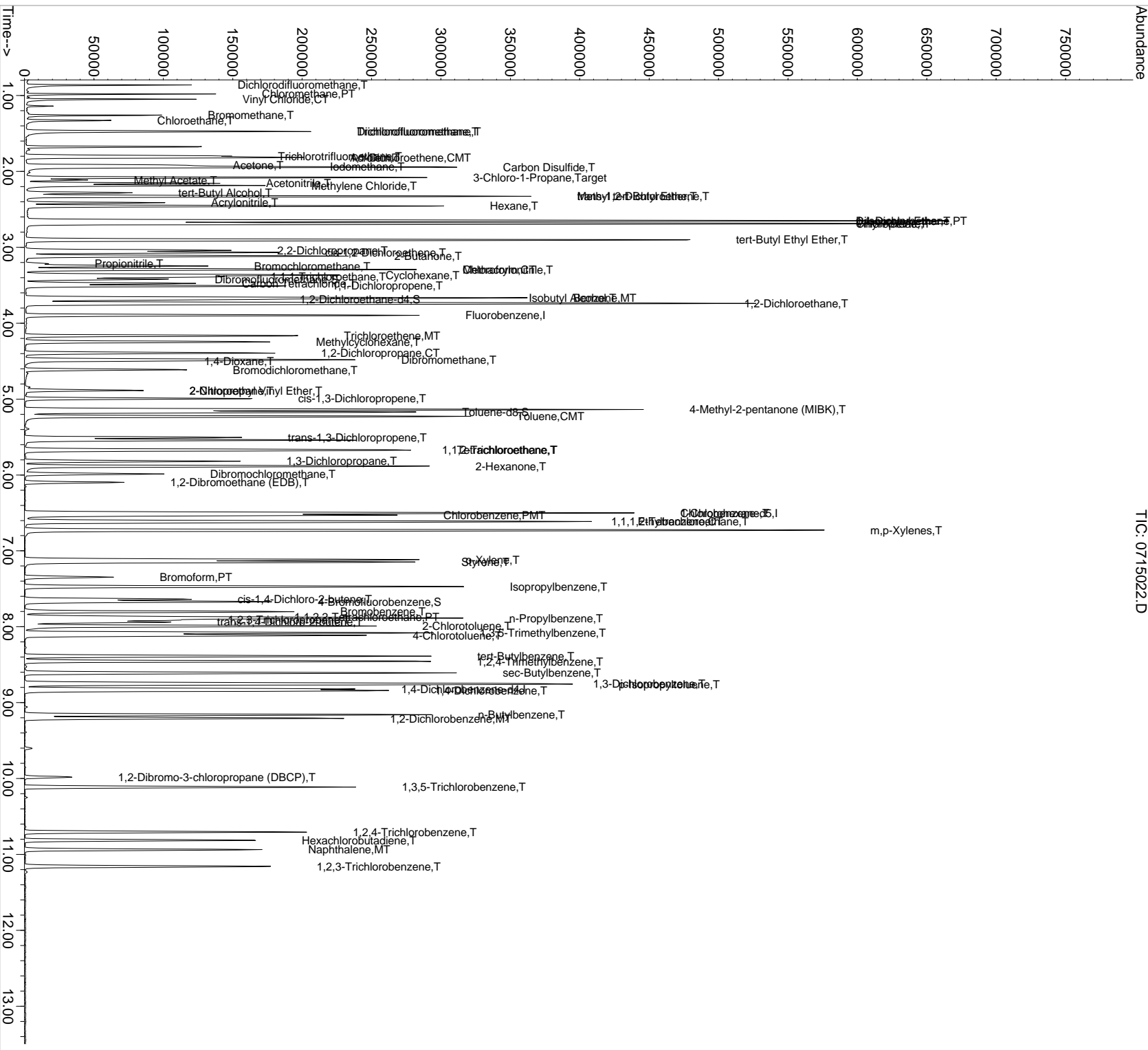
07/16/19
Data File : J:\MS24\DATA\071519\0715022.D
Acq On : 15 Jul 2019 4:47 pm
Sample : ICV RR
Misc :
MS Integration Params: rteint.p
Unit Time: Jul 15 17:16 2019

Vial: 22
Operator: KW
Inst: MS24
Multiplr: 1.00

Quant Results File: 0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
Title : VOA MS24 EPA Method 8260B
Last Update : Mon Jul 15 14:57:11 2019
Response via : Initial Calibration

TIC: 0715022.D

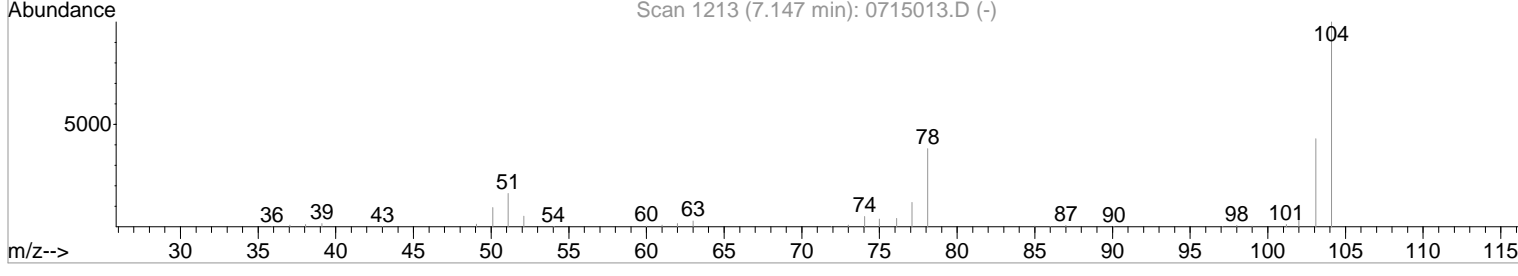
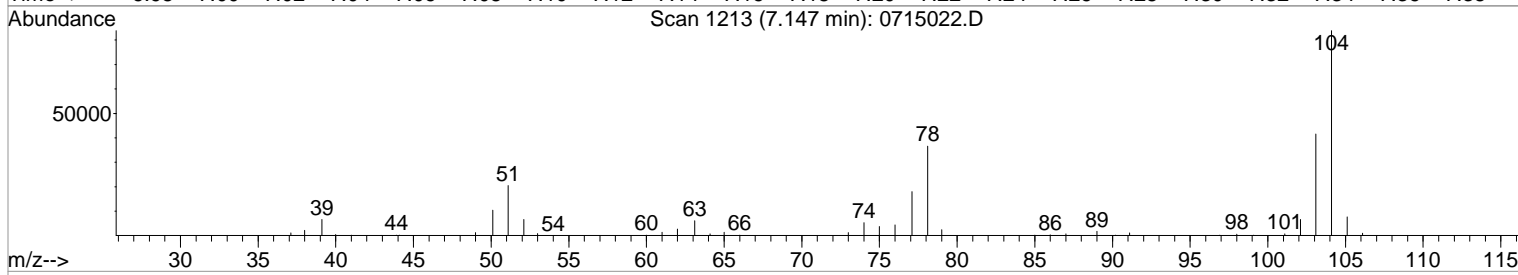
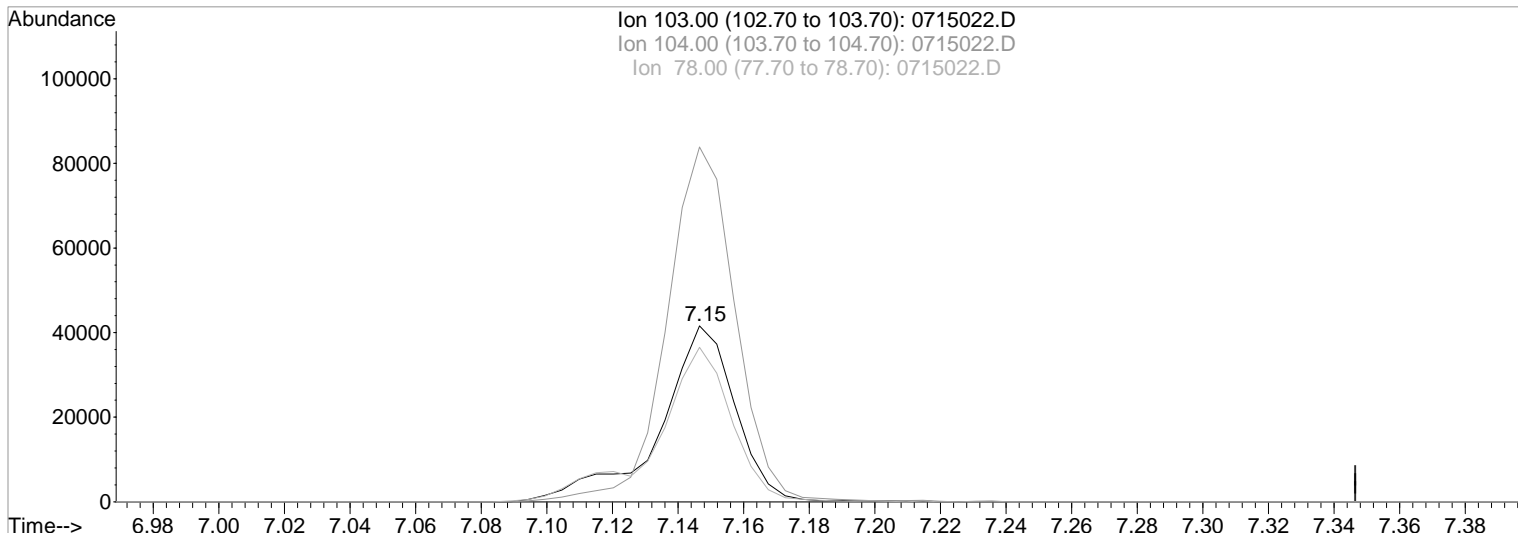


Data File : J:\MS24\DATA\071519\0715022.D
Acq On : 15 Jul 2019 4:47 pm
Sample : ICV RR
Misc :
MS Integration Params: rteint.p
Quant Time: Jul 15 17:14 2019

Vial: 22
Operator: KW
Inst : MS24
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
Title : VOA MS24 EPA Method 8260B
Last Update : Mon Jul 15 14:57:11 2019
Response via : Multiple Level Calibration



TIC: 0715022.D

(72) Styrene (T)		
7.15min	58.95PPB	
response	66658	
Ion	Exp%	Act%
103.00	100	100
104.00	210.30	201.77
78.00	89.90	87.86
0.00	0.00	0.00

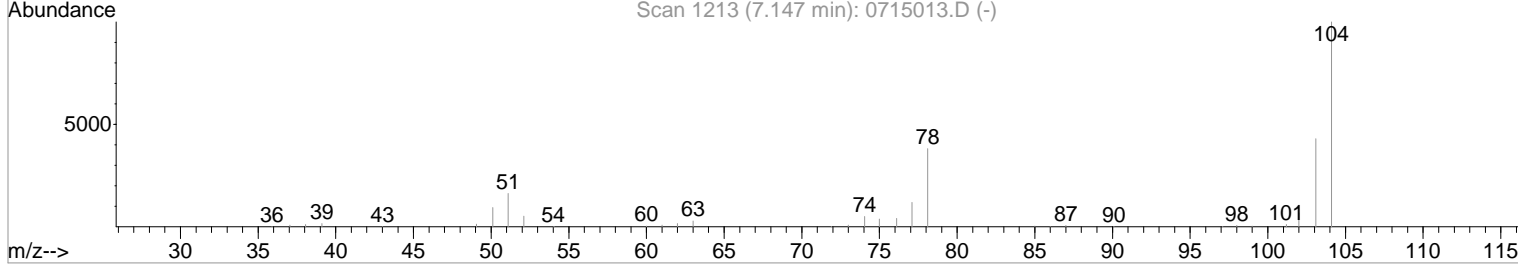
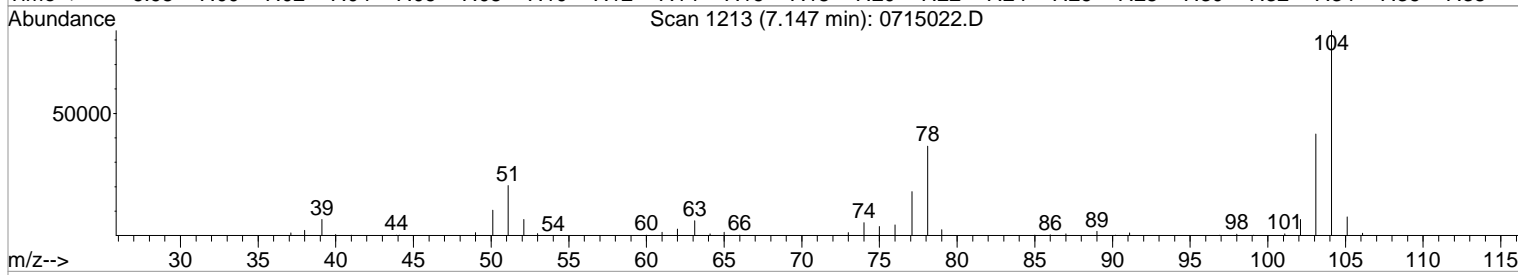
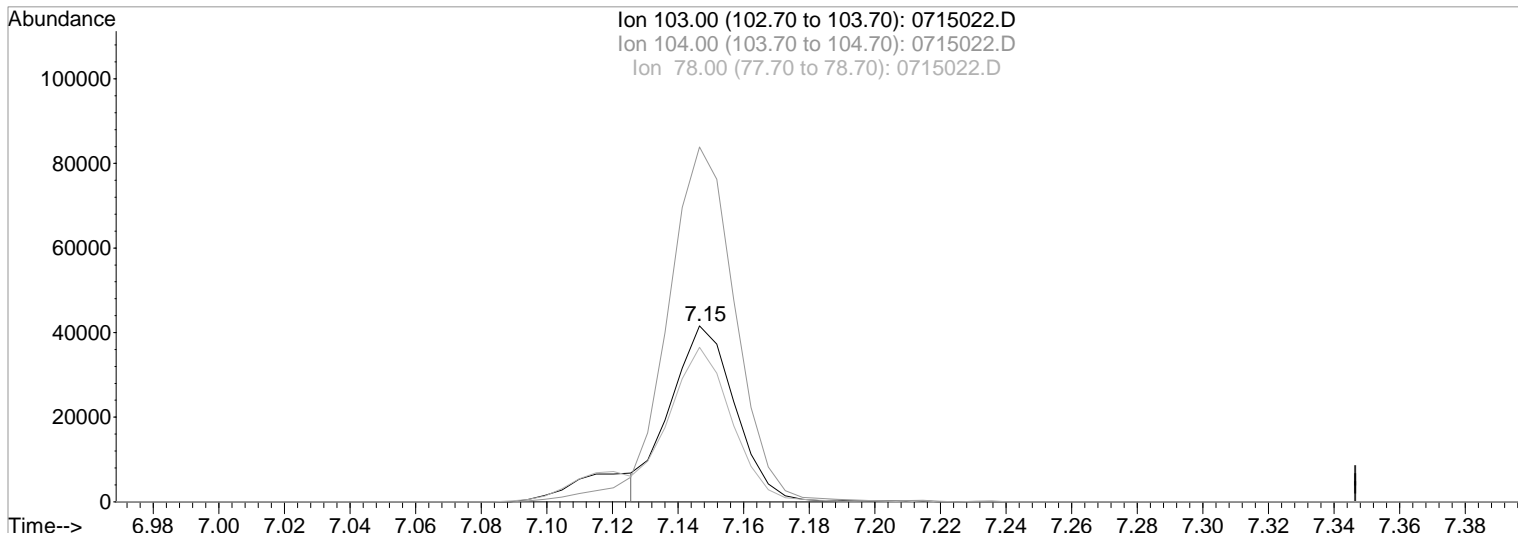
Manual Integration:
Before
07/15/19

Data File : J:\MS24\DATA\071519\0715022.D
 Acq On : 15 Jul 2019 4:47 pm
 Sample : ICV RR
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 17:16 2019

Vial: 22
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 14:57:11 2019
 Response via : Multiple Level Calibration



TIC: 0715022.D

Ion	Exp%	Act%
(72) Styrene (T)		
7.15min	50.40	56987
103.00	100	100
104.00	210.30	201.77
78.00	89.90	87.86
0.00	0.00	0.00

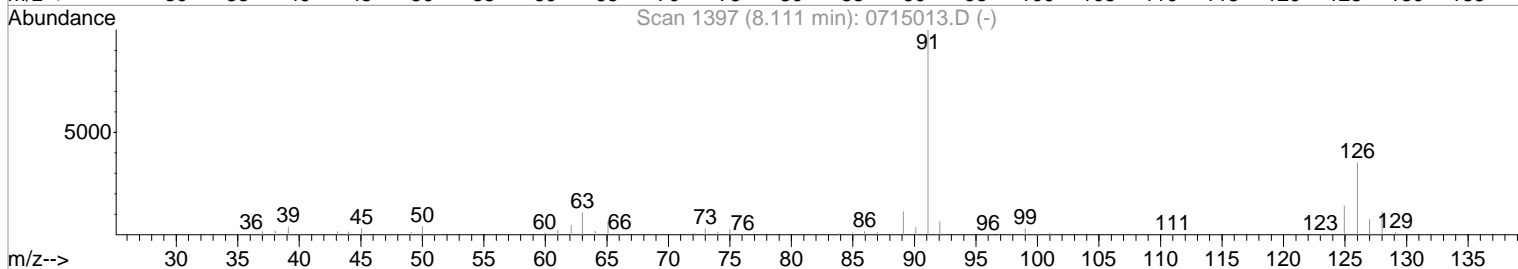
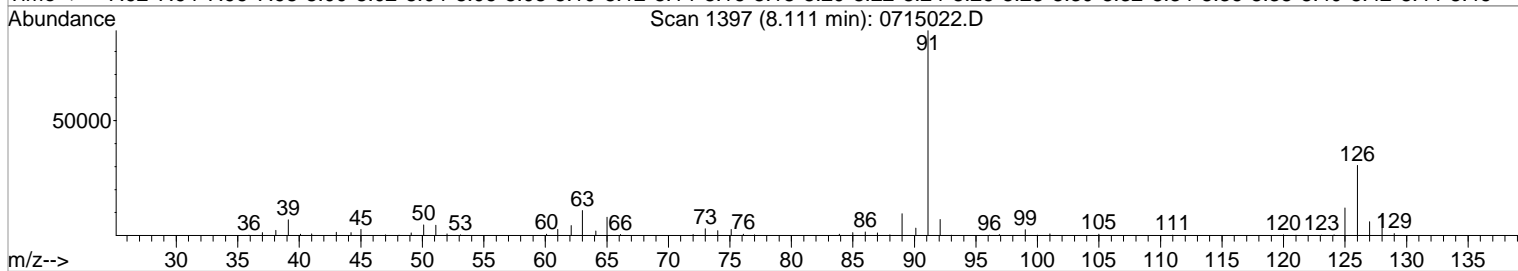
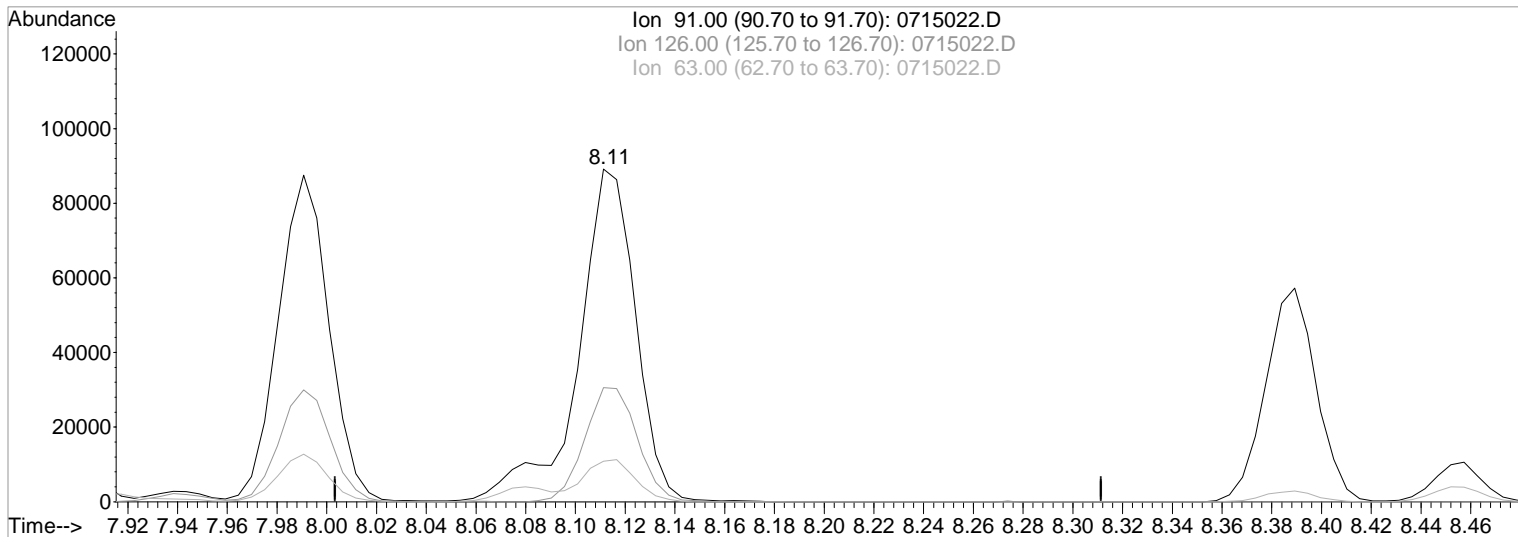
Manual Integration:
 After
 Shoulder
 07/15/19

Data File : J:\MS24\DATA\071519\0715022.D
Acq On : 15 Jul 2019 4:47 pm
Sample : ICV RR
Misc :
MS Integration Params: rteint.p
Quant Time: Jul 15 17:16 2019

Vial: 22
Operator: KW
Inst : MS24
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
Title : VOA MS24 EPA Method 8260B
Last Update : Mon Jul 15 14:57:11 2019
Response via : Multiple Level Calibration



TIC: 0715022.D

(85) 4-Chlorotoluene (T)

Manual Integration:

8.11min 55.96PPB

Before

response 143917

07/15/19

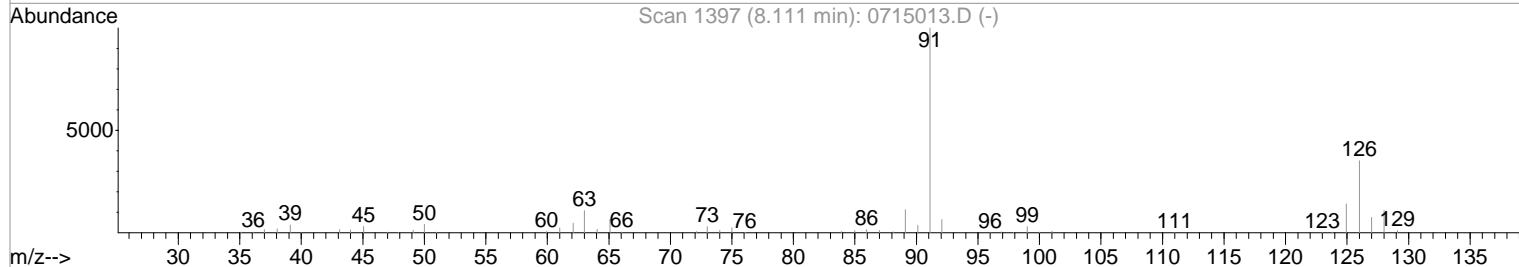
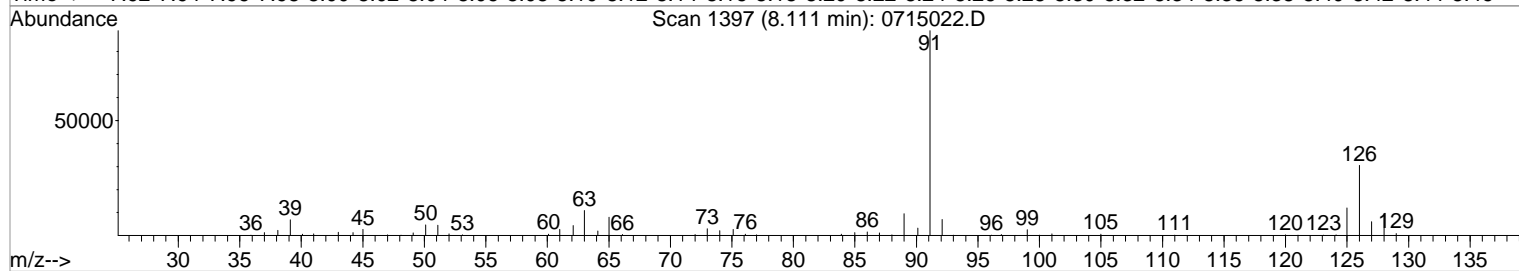
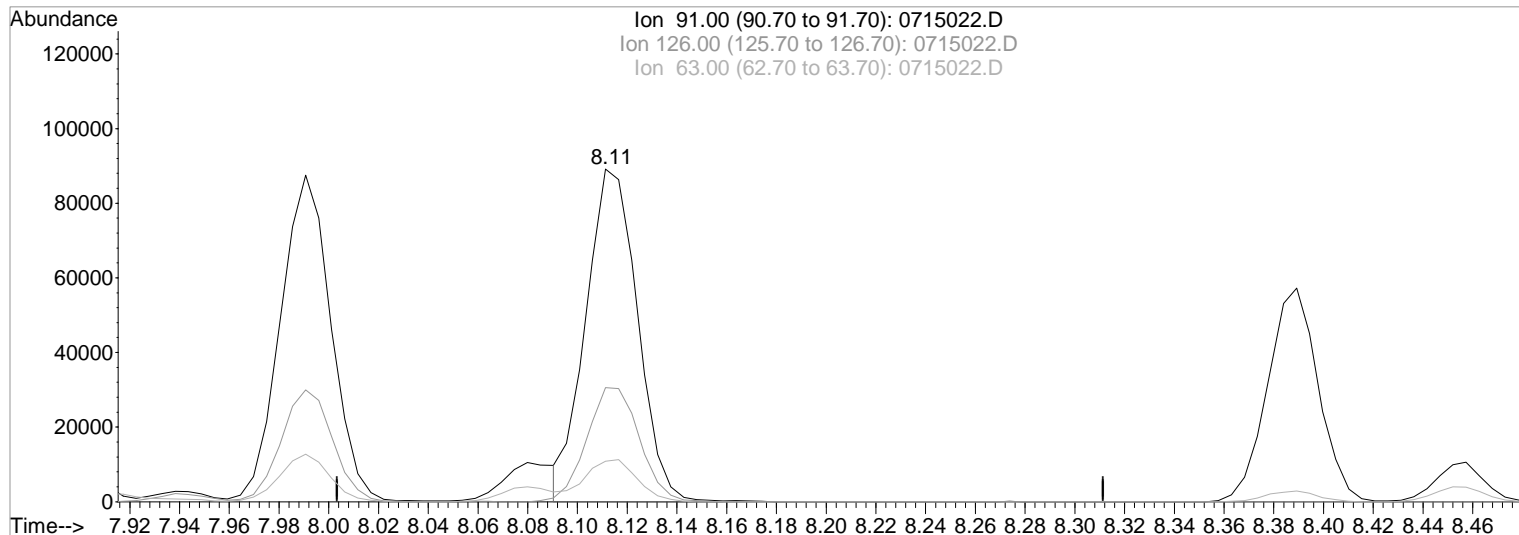
Ion	Exp%	Act%
91.00	100	100
126.00	32.80	34.26
63.00	12.70	12.15
0.00	0.00	0.00

Data File : J:\MS24\DATA\071519\0715022.D
 Acq On : 15 Jul 2019 4:47 pm
 Sample : ICV RR
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 15 17:16 2019

Vial: 22
 Operator: KW
 Inst : MS24
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS24\METHODS\2010\0715DOD19_MS24_FULL_SOIL.M (RTE Integrator)
 Title : VOA MS24 EPA Method 8260B
 Last Update : Mon Jul 15 14:57:11 2019
 Response via : Multiple Level Calibration



TIC: 0715022.D

(85) 4-Chlorotoluene (T)

Manual Integration:

8.11min 50.04PPB m
 response 128683

After
 Shoulder

07/15/19

Ion	Exp%	Act%
91.00	100	100
126.00	32.80	34.26
63.00	12.70	12.15
0.00	0.00	0.00

Date: 10-7-19

ALS Environmental Injection Log MS24 - Agilent 5975

Tune File: BFB_Atkin_U
New Tune: NO

By: KW

IS/SS Std. ID: 9LW0A 72A XP: 10-17-15

CCV Std ID: 9LW0A 88C XP: 10-14-15

ICAL Date: 7-15-19
KCF100275 16091

MS/DMS/LCS/ICV Std ID: 9LW0A 702 XP: 10-10-15
9LW0A 86K XP: 10-10-15
9LW0A 803 XP: 10-10-15

Second RV: QX OCT 08 2019

BFB Std. ID: 9LW0A 72A XP: 10-13-15
9LW0A 88C XP: 10-14-15

LIMS ID: 1654417 1654430 1904372
1904373

	Sample Name	File Name	Method	Dilution	pH<2	Comments
1	BFB	1007F003	32x0.1m	1/1 D/E		
2	CCV	004	+	250/50mL		
3	LCS	005		20/25/25/25/25/25m		
4	DLS	006		7		
5	2P	007				
6	MRL	008		1/1 250mL		
7	MB	009				
8	K1908307-008	010				
9	K1909014-001	011				
10	T 002	012				Autone, mark MR-
11	003	013				(all) MID
12	004	014				
13	006	015				
14	007	016				
15	K1909208-001	017				
16	7 002	018				
17	K1909244-001	019				RR MID
18	7 002	020				↓
19	IB	021				
20	PETA 9-20-19 (NP)	022				COPIED OVER
21	YUKON 9-20-19 (NP)	023				↓
22	WD/LOR 0.2 (NP)	024				
23	0.3 (NP)	025				
24	0.4 (NP)	026				NO CLOSING CCV
25	0.5 (NP)	027				↓
26	0.76 (NP)	028				
27	1.0 (NP)	029				↓

KW 10-8-19

Date: _____

ALS Environmental
Injection Log
MS24 - Agilent 5975

Tune File: _____

By: _____

New Tune: _____

IS/SS Std. ID: _____

CCV Std ID: _____

ICAL Date: _____

MS/DMS/LCS/ICV Std ID: _____

Second RV: _____

BFB Std. ID: _____

LIMS ID: _____

	Sample Name	File Name	Method	Dilution	pH<2	Comments
1	WATER 2.0	NP10074030				NO closing cov
2	2.6	NP 031				↓
3	5.0	NP 032				
4	10	NP 033				
5	20	NP 034				
6				KW 10819		
7						
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27						



Volatile Organic Compounds

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Exception Report

Data File: J:\MS13\DATA\100719\1007F012.D
Lab ID: K1909014-001
RunType: SMPL
Matrix: SOIL

Date Acquired: 10/07/2019 15:48
Date Quantitated: 10/08/2019 09:07
Batch ID: KWG1904384
Analysis Method: 8260C
ListJoinID: LJ14930

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: _____

Secondary Review: _____

Quantitation Report

Data File: J:\MS13\DATA\100719\1007F012.D	Instrument: MS13
Acqu Date: 10/07/2019 15:48	Quant Date: 10/08/2019 09:07
Run Type: SMPL	ListJoinID: LJ14930
Lab ID: K1909014-001	Vial: 6
	Dilution: 1.0
	Soln Conc. Units: PPB

Bottle ID:	Tier: IV	Matrix: SOIL
Prod Code: 8260C VOC FP Me	Collect Date: 09/25/2019	Receive Date: 09/27/2019

Analysis Lot: KWG1904384	Prep Lot: KWG1904386	Report Group: K1909014
Analysis Method: 8260C	Prep Method: EPA 5035A/5030B	
Prep Ref: 1736583	Prep Date: 10/07/2019	

Quant Method: J:\MS13\METHODS\072519MS13_8	Calibration ID: CAL16105
Title: Volatile Organic Compounds	Report List ID: LJ14930
Tune Ref: J:\MS13\DATA\100719\1007F003.D	Method ID: MJ174
MB Ref: J:\MS13\DATA\100719\1007F011.D	Quant based on Report List

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.33	0.00	96	282108	10.00	OK
2	Chlorobenzene-d5	9.37	0.00	82	106613	10.00	OK
3	1,4-Dichlorobenzene-d4	11.97	0.00	152	86858	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	4.58	0.00	0.00	113	63612	9.95	100	55-132	OK
1	Toluene-d8	7.56	0.00	0.00	98	290692	10.62	106	81-124	OK
2	4-Bromofluorobenzene	10.73	0.00	0.00	95	83465	9.38	94	64-132	OK

Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Acetone	2.37		0.00	43	1408	1.35	0.83	U	

Final Conc. Units: mg/Kg Dry Weight

Prep Amount: 2.09 g **Dilution:** 1.0 **MeOH Ext. Vol:** 5.1 ml
Prep Final Vol: 50 ml **Unit Factor:** 1 **MeOH Aliq. Vol:** 500 uL
Solids: 97.8 %

Final Concentration = ((Soln Conc x MeOH Ext. Vol x Prep Final Vol x Dilution) / (Prep Amount x MeOH Aliq. x Solids)) x Unit Factor

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File : J:\MS13\DATA\100719\1007F012.D
 Acq On : 7 Oct 2019 3:48 pm
 Sample : K1909104-001
 Misc : 9014

Vial: 6
 Operator: AK
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 08 08:54:38 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260
 Last Update : Tue Oct 01 09:18:15 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	282108	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	106613	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.97	152	86858	10.00	PPB	0.00

System Monitoring Compounds

42) Dibromofluoromethane	4.58	113	63612	9.95	PPB	0.00
Spiked Amount	10.000		Recovery	=	99.50%	
47) 1,2-Dichloroethane-d4	4.99	65	61920	8.50	PPB	0.00
Spiked Amount	10.000		Recovery	=	85.00%	
62) Toluene-d8	7.56	98	290692	10.62	PPB	0.00
Spiked Amount	10.000		Recovery	=	106.20%	
84) 4-Bromofluorobenzene	10.73	95	83465	9.38	PPB	0.00
Spiked Amount	10.000		Recovery	=	93.80%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
3) Chloromethane	1.23	50	500	0.05	PPB	# 51
13) Acetone	2.37	43	1408	1.35	PPB	90
14) Iodomethane	2.40	142	1421	0.17	PPB	90
15) Carbon Disulfide	2.42	76	5875	0.27	PPB	96
16) 2-Propanol (Isopropyl Alco	2.32	45	5020	29.15	PPB	85
19) Methyl Acetate	2.64	43	17313	5.76	PPB	95
20) Methylene Chloride	2.73	84	3330	0.41	PPB	78
25) Hexane	3.14	57	4090	0.34	PPB	85
35) Ethyl Acetate	4.12	61	1171	1.46	PPB	86
48) Benzene	4.95	78	2647	0.08	PPB	60
52) Methyl Cyclohexane	5.96	83	3077	0.23	PPB	80
63) Toluene	7.65	92	2953	0.14	PPB	# 78
65) n-Octane	7.76	85	1102	0.22	PPB	94
76) Ethylbenzene	9.52	106	1364	0.11	PPB	# 49
78) m,p-Xylenes	9.66	106	2167	0.14	PPB	# 56
79) o-Xylene	10.10	106	1041	0.07	PPB	80
89) n-Propylbenzene	10.98	91	1673	0.04	PPB	86
92) 1,3,5-Trimethylbenzene	11.19	105	756	0.03	PPB	83
95) 1,2,4-Trimethylbenzene	11.58	105	4001	0.14	PPB	94
99) 1,4-Dichlorobenzene	11.99	146	591	0.04	PPB	# 42
100) n-Butylbenzene	12.34	91	1045	0.04	PPB	90
106) Naphthalene	14.29	128	1537	0.11	PPB	86

(#) = qualifier out of range (m) = manual integration

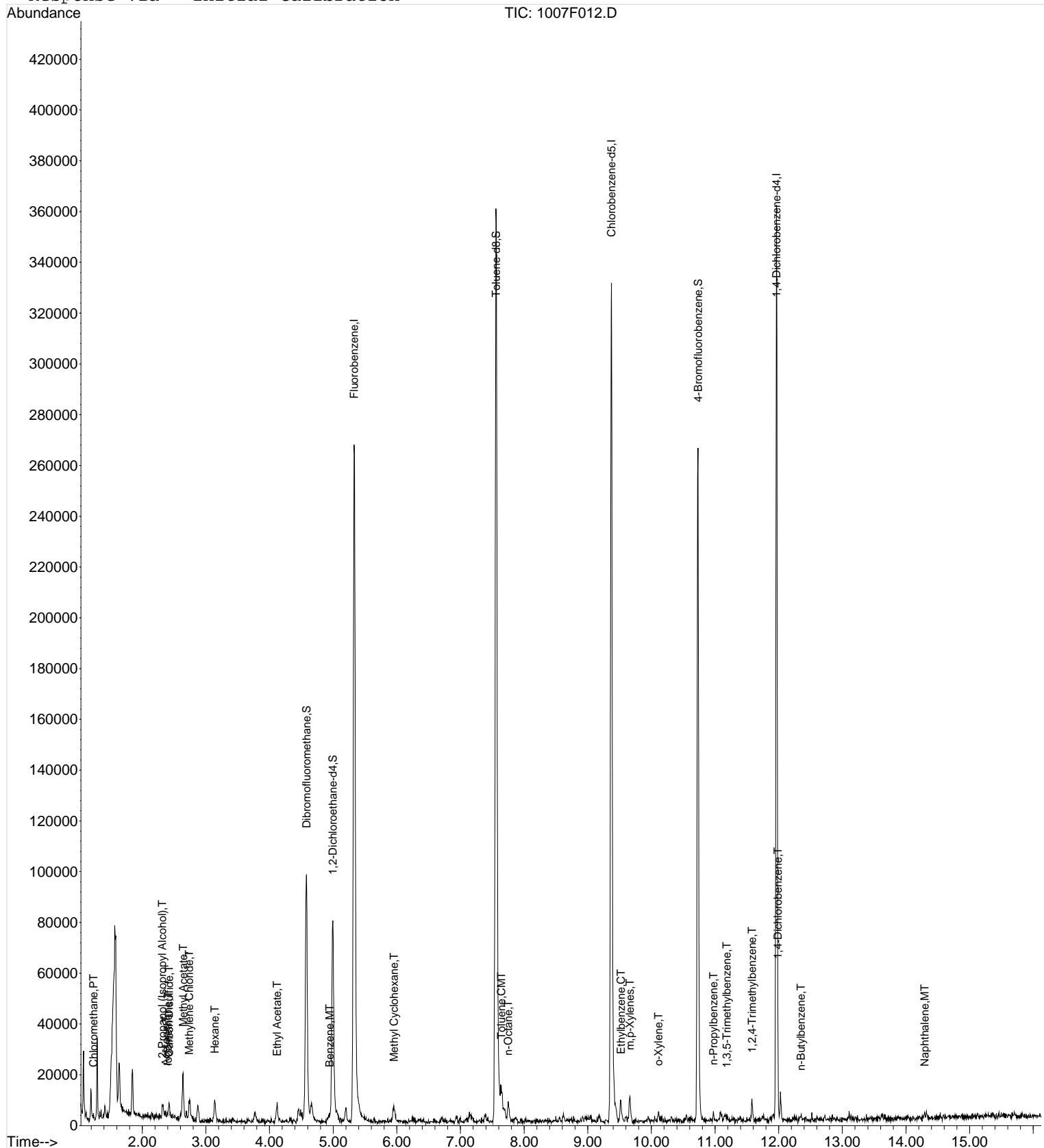
Data File : J:\MS13\DATA\100719\1007F012.D
Acq On : 7 Oct 2019 3:48 pm
Sample : K1909104-001
Misc : 9014

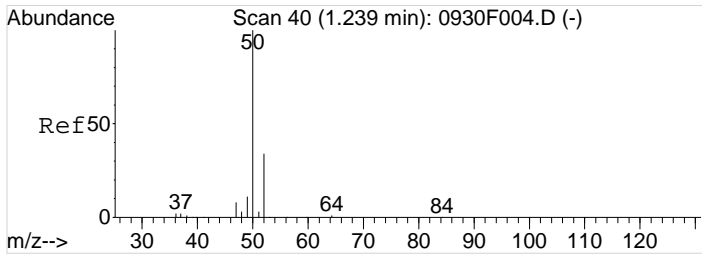
Vial: 6
Operator: AK
Inst : MS13
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Oct 8 9:07 2019

Quant Results File: 072519MS13_8260W.RES

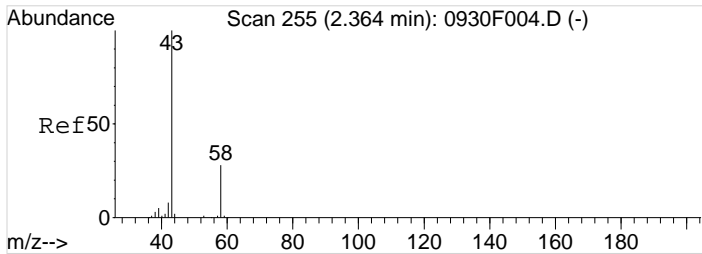
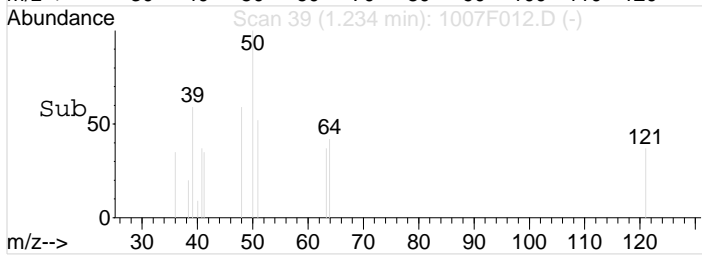
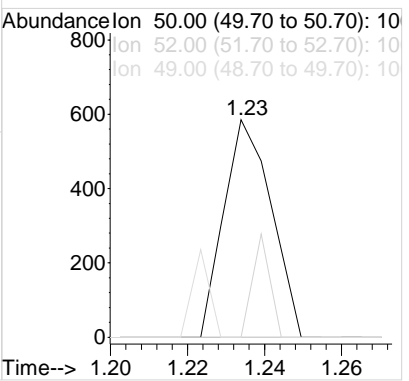
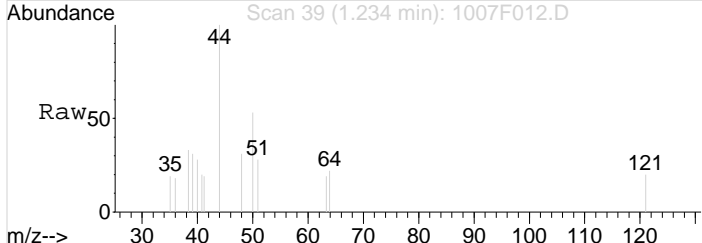
Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260
Last Update : Tue Oct 01 09:18:15 2019
Response via : Initial Calibration





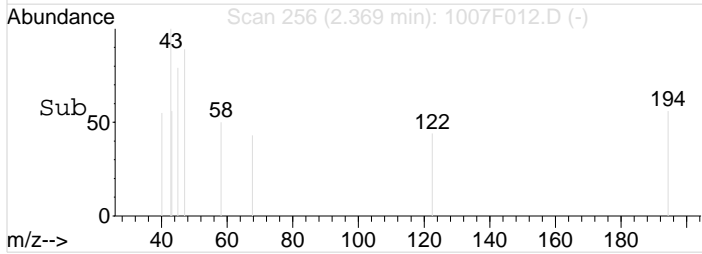
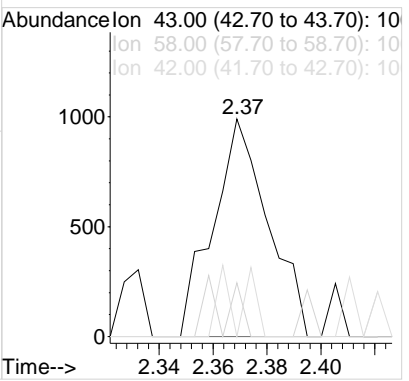
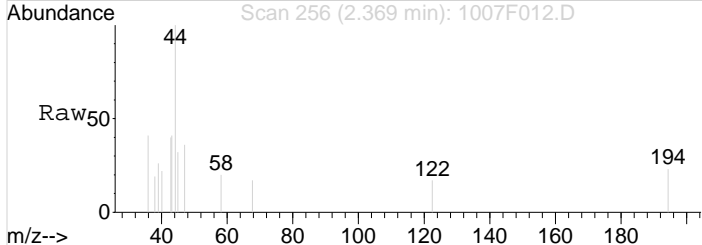
#3
Chloromethane
Concen: 0.05 PPB
RT: 1.23 min Scan# 39
Delta R.T. -0.01 min
Lab File: 1007F012.D
Acq: 7 Oct 2019 3:48 pm

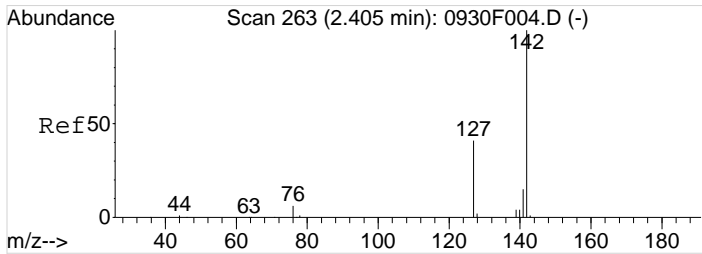
Tgt Ion	Resp	Lower	Upper
50	100		
52	0.0	0.8	60.8#
49	0.0	0.0	39.5



#13
Acetone
Concen: 1.35 PPB
RT: 2.37 min Scan# 256
Delta R.T. -0.00 min
Lab File: 1007F012.D
Acq: 7 Oct 2019 3:48 pm

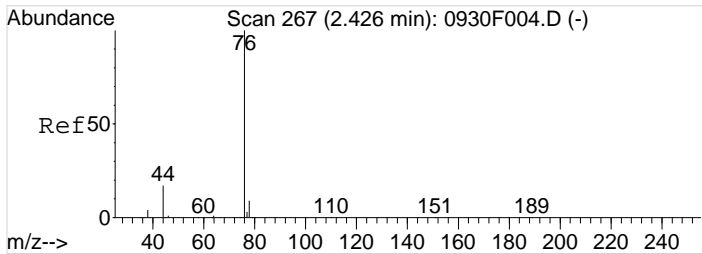
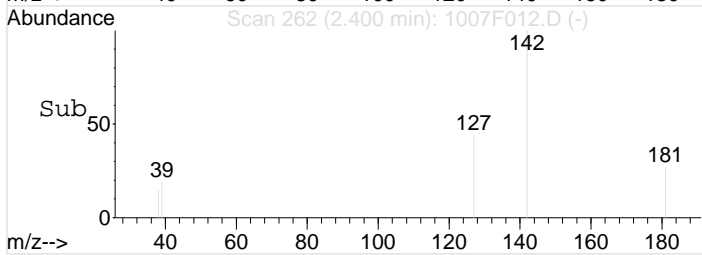
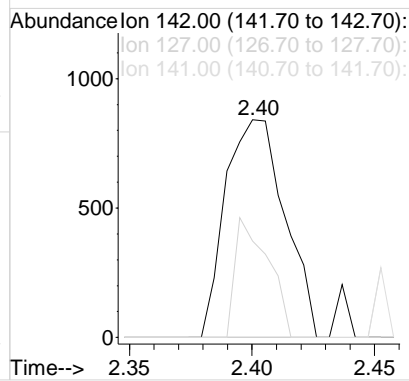
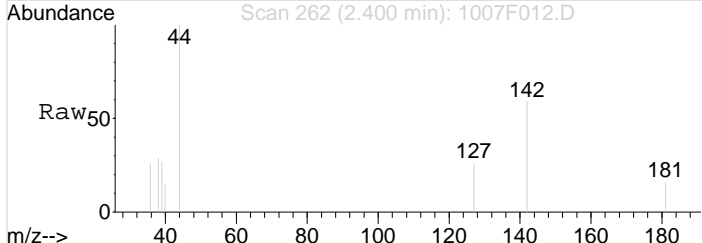
Tgt Ion	Resp	Lower	Upper
43	100		
58	24.7	0.0	58.1
42	0.0	0.0	37.9





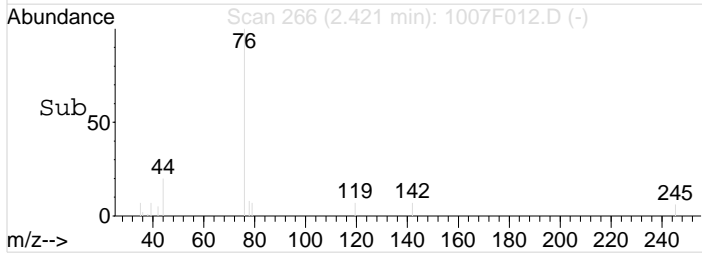
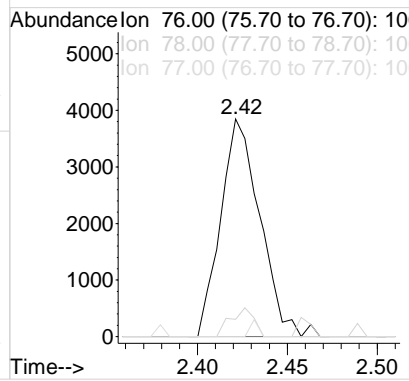
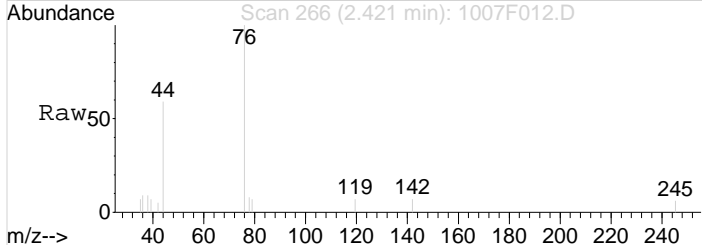
#14
 Iodomethane
 Concen: 0.17 PPB
 RT: 2.40 min Scan# 262
 Delta R.T. -0.01 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 3:48 pm

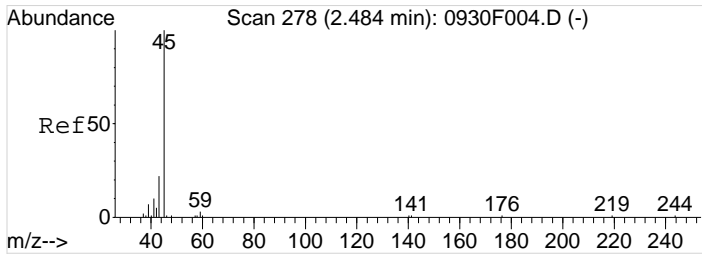
Tgt Ion	Resp	Lower	Upper
142	100		
127	44.2	12.3	72.3
141	0.0	0.0	43.5



#15
 Carbon Disulfide
 Concen: 0.27 PPB
 RT: 2.42 min Scan# 266
 Delta R.T. -0.01 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 3:48 pm

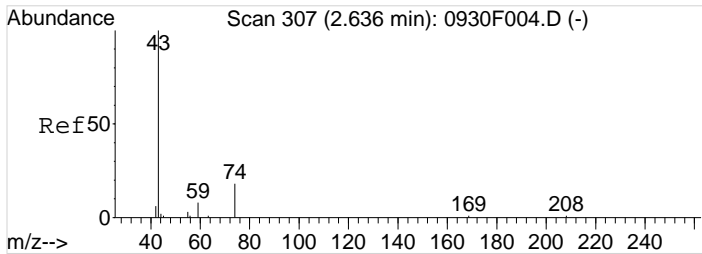
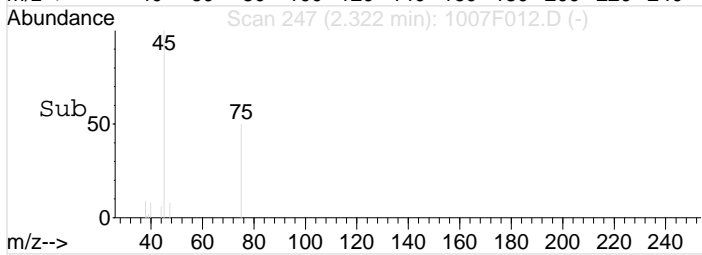
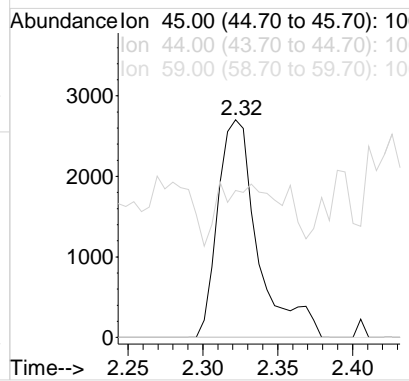
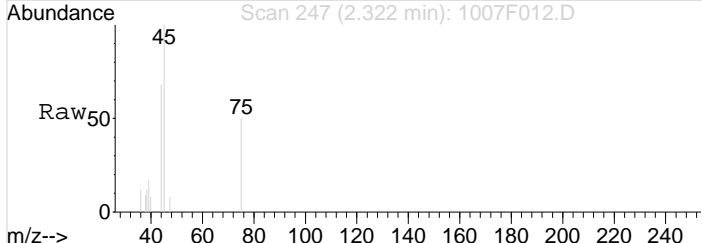
Tgt Ion	Resp	Lower	Upper
76	100		
78	7.9	0.0	38.9
77	0.0	0.0	32.9





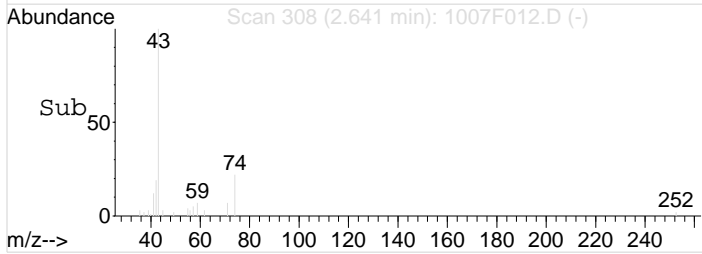
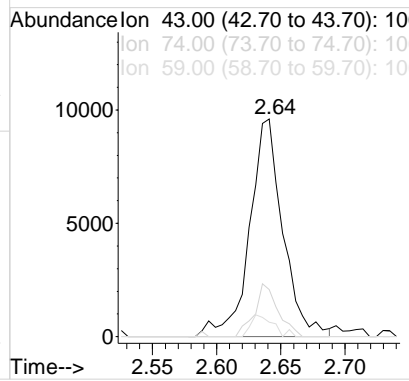
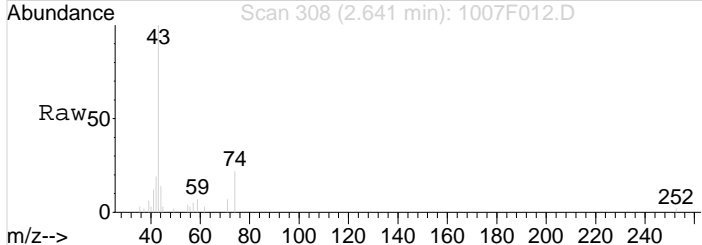
#16
 2-Propanol (Isopropyl Alcohol)
 Concen: 29.15 PPB
 RT: 2.32 min Scan# 247
 Delta R.T. -0.17 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 3:48 pm

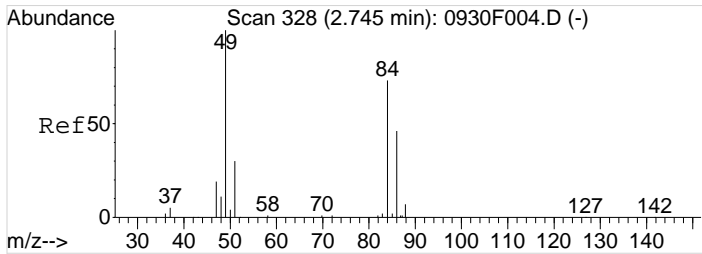
Tgt Ion	Resp	Lower	Upper
45	5020		
44	13.9	0.0	27.8
59	0.0	0.0	23.5



#19
 Methyl Acetate
 Concen: 5.76 PPB
 RT: 2.64 min Scan# 308
 Delta R.T. -0.00 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 3:48 pm

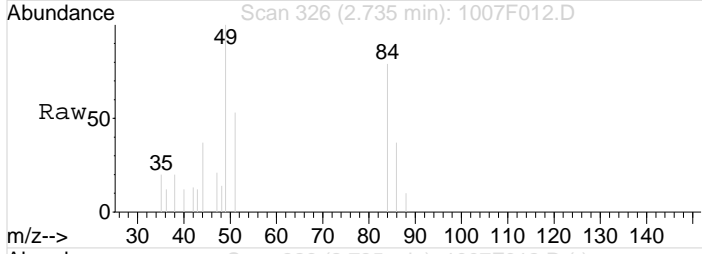
Tgt Ion	Resp	Lower	Upper
43	17313		
74	21.7	0.0	49.7
59	6.7	0.0	38.4



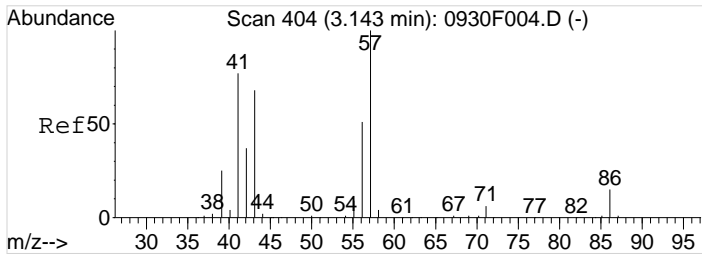
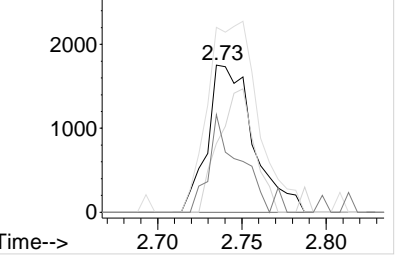
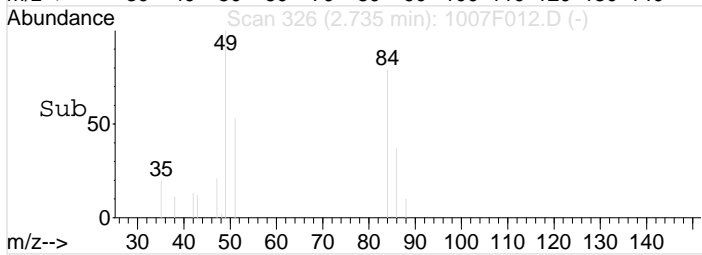


#20
 Methylene Chloride
 Concen: 0.41 PPB
 RT: 2.73 min Scan# 326
 Delta R.T. -0.01 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 3:48 pm

Tgt Ion	Resp	Lower	Upper
84	100		
86	46.7	32.2	92.2
49	125.8	120.2	180.2
51	66.3	15.5	75.5

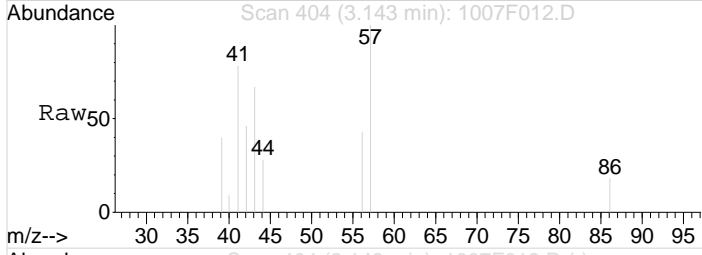


Abundance	Ion	Time Range
10	84.00	(83.70 to 84.70)
10	86.00	(85.70 to 86.70)
10	49.00	(48.70 to 49.70)
10	51.00	(50.70 to 51.70)

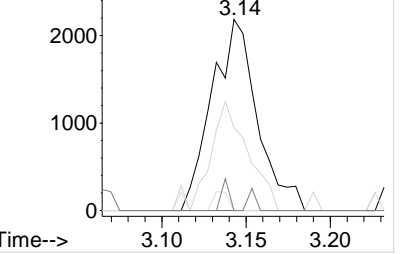
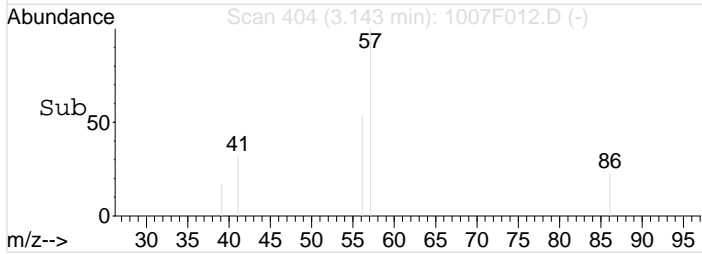


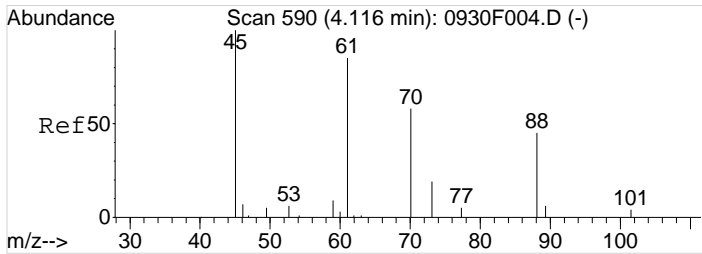
#25
 Hexane
 Concen: 0.34 PPB
 RT: 3.14 min Scan# 404
 Delta R.T. -0.00 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 3:48 pm

Tgt Ion	Resp	Lower	Upper
57	100		
56	43.4	22.0	82.0
71	0.0	0.0	36.3
55	0.0	0.0	21.8



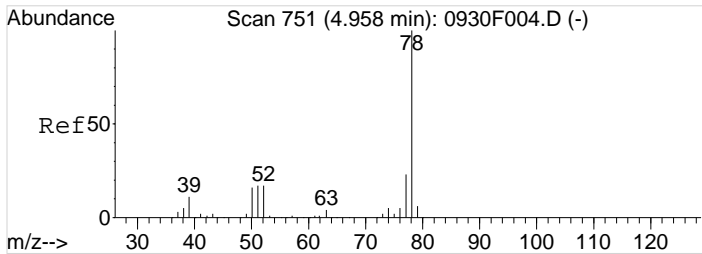
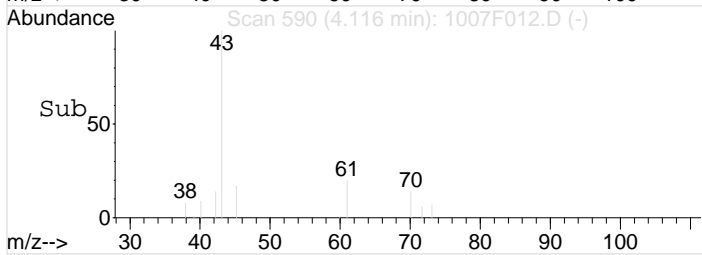
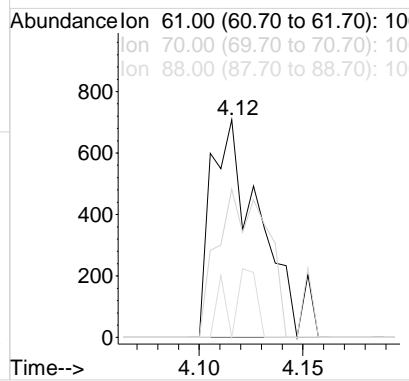
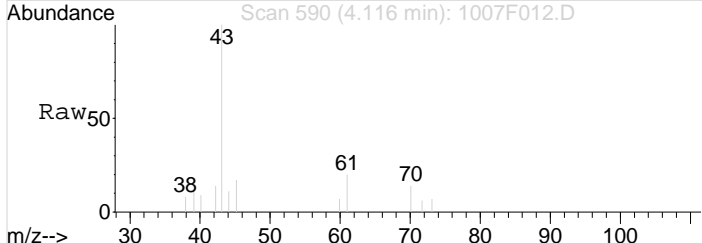
Abundance	Ion	Time Range
10	57.00	(56.70 to 57.70)
10	56.00	(55.70 to 56.70)
10	71.00	(70.70 to 71.70)
10	55.00	(54.70 to 55.70)





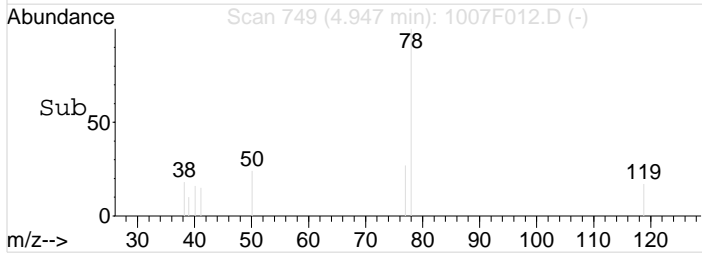
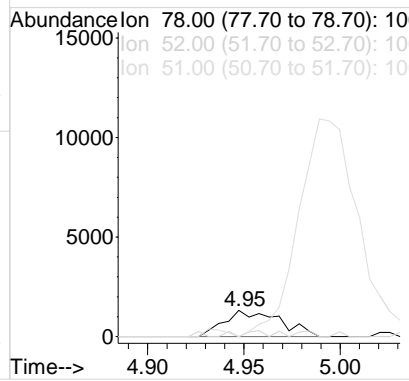
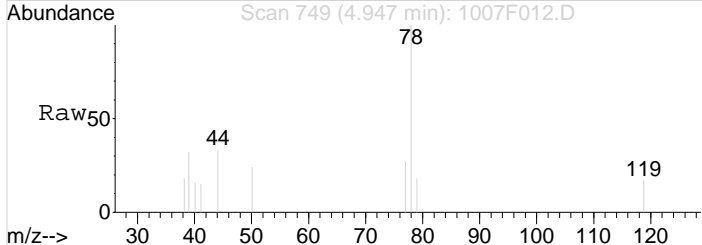
#35
 Ethyl Acetate
 Concen: 1.46 PPB
 RT: 4.12 min Scan# 590
 Delta R.T. 0.00 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 3:48 pm

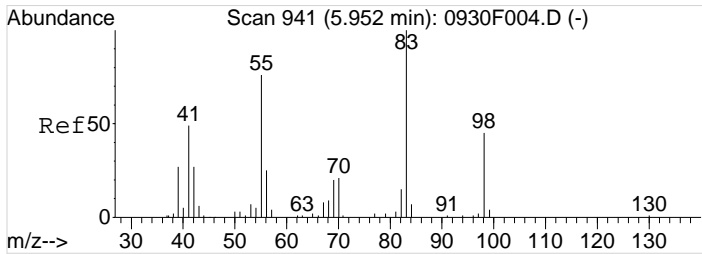
Tgt Ion	Resp	Lower	Upper
61	1171		
70	68.1	35.3	95.3
88	0.0	0.0	52.1



#48
 Benzene
 Concen: 0.08 PPB
 RT: 4.95 min Scan# 749
 Delta R.T. -0.01 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 3:48 pm

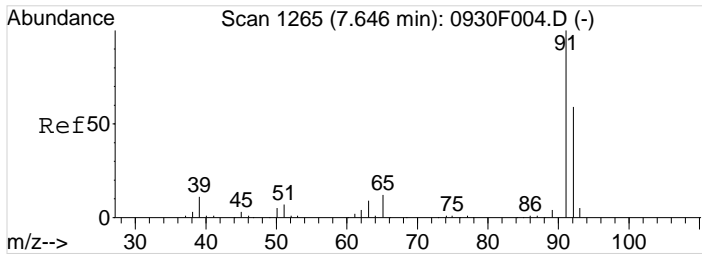
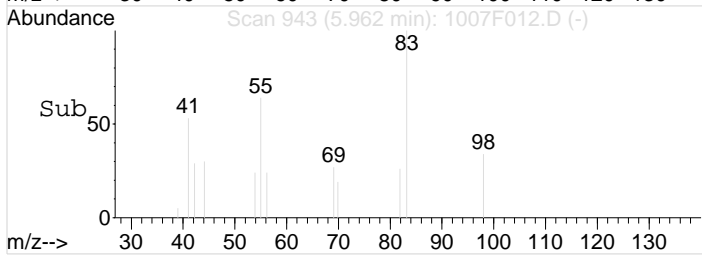
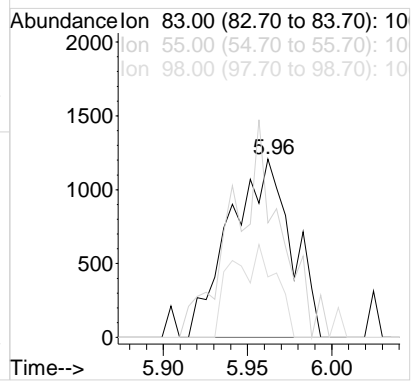
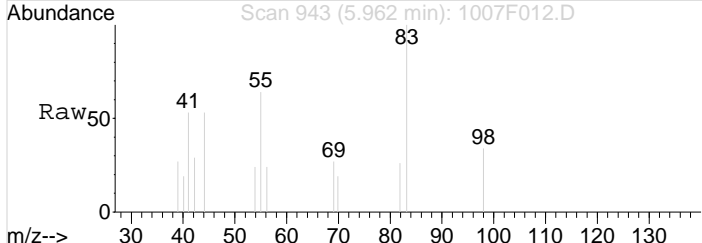
Tgt Ion	Resp	Lower	Upper
78	2647		
52	0.0	0.0	47.2
51	0.0	0.0	48.4





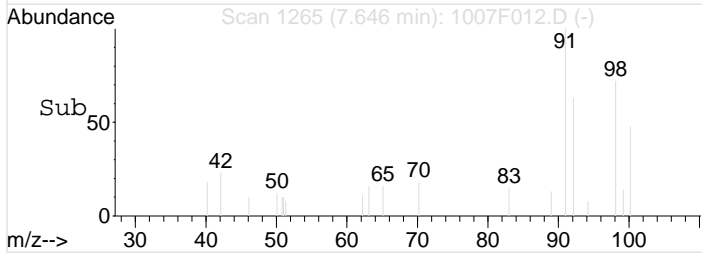
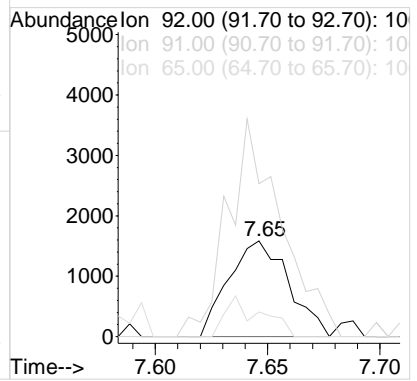
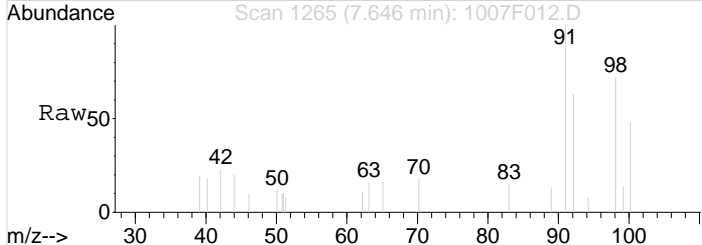
#52
 Methyl Cyclohexane
 Concen: 0.23 PPB
 RT: 5.96 min Scan# 943
 Delta R.T. 0.01 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 3:48 pm

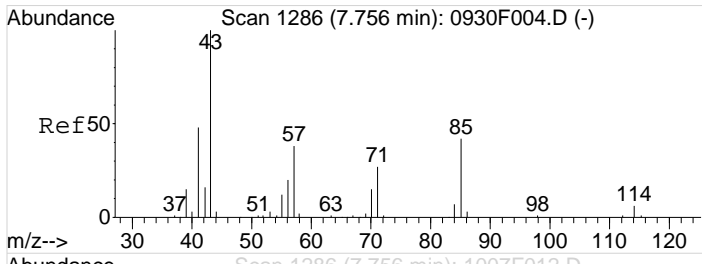
Tgt Ion	Resp	Lower	Upper
83	100		
55	64.3	53.4	113.4
98	33.9	16.2	76.2



#63
 Toluene
 Concen: 0.14 PPB
 RT: 7.65 min Scan# 1265
 Delta R.T. -0.00 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 3:48 pm

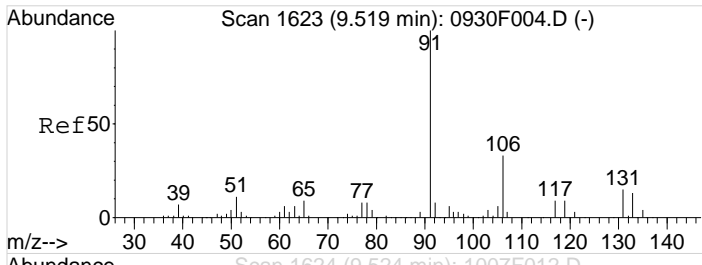
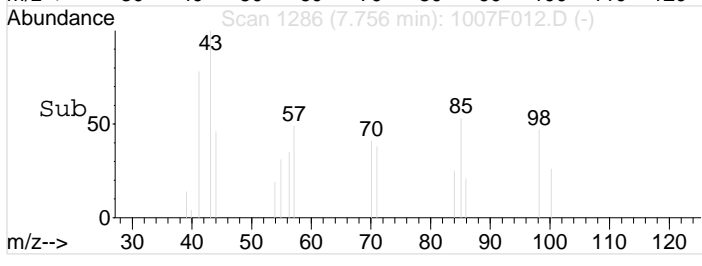
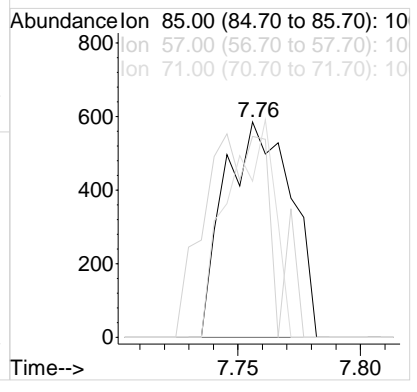
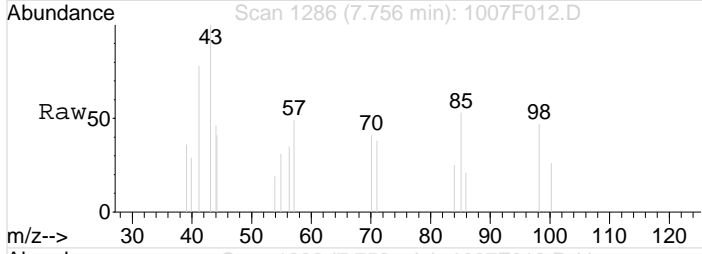
Tgt Ion	Resp	Lower	Upper
92	100		
91	139.2	140.7	200.7#
65	25.8	0.0	50.9





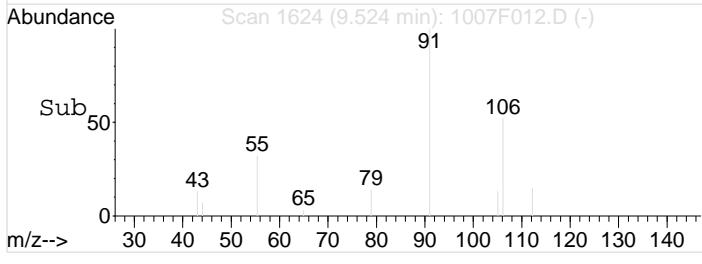
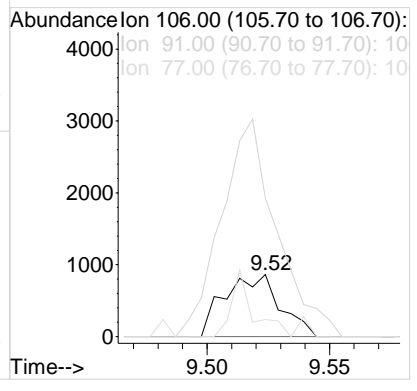
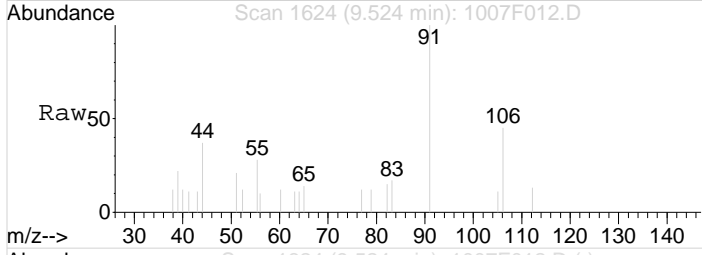
#65
 n-Octane
 Concen: 0.22 PPB
 RT: 7.76 min Scan# 1286
 Delta R.T. -0.00 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 3:48 pm

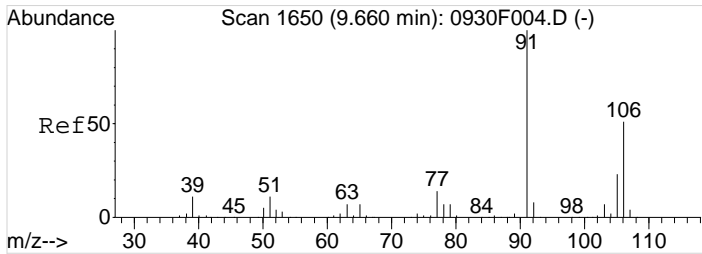
Tgt Ion	Resp	Lower	Upper
85	1102		
85	100		
57	93.3	60.8	120.8
71	72.5	34.3	94.3



#76
 Ethylbenzene
 Concen: 0.11 PPB
 RT: 9.52 min Scan# 1624
 Delta R.T. 0.01 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 3:48 pm

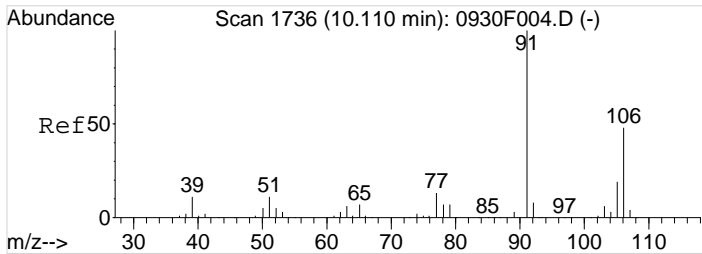
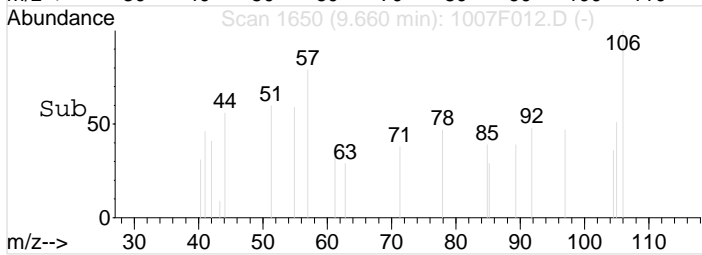
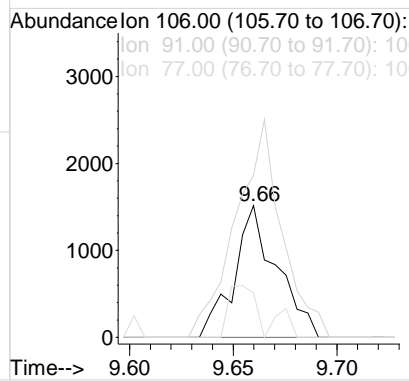
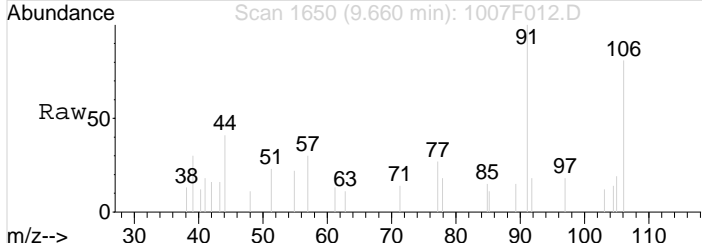
Tgt Ion	Resp	Lower	Upper
106	1364		
106	100		
91	196.2	277.1	337.1#
77	27.3	0.0	58.1





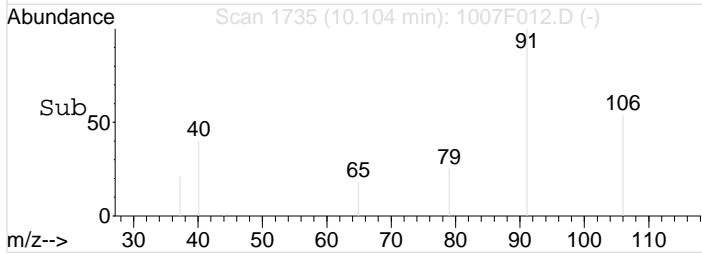
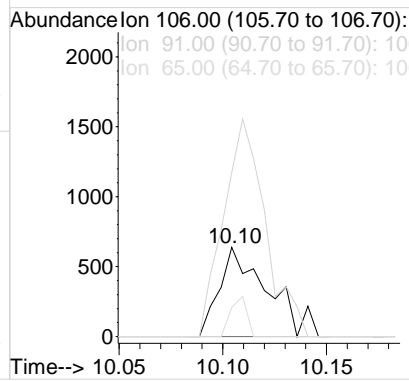
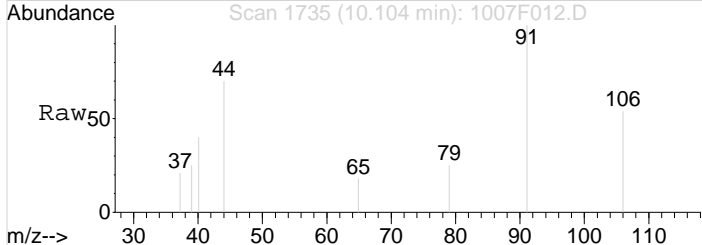
#78
 m,p-Xylenes
 Concen: 0.14 PPB
 RT: 9.66 min Scan# 1650
 Delta R.T. -0.01 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 3:48 pm

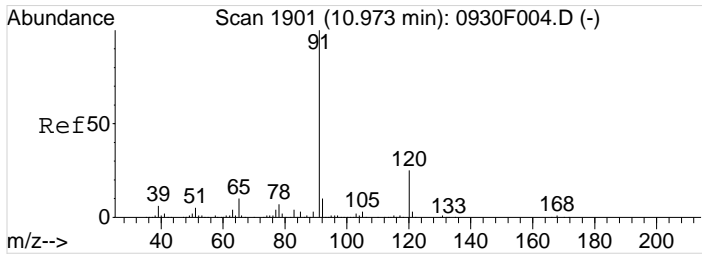
Tgt Ion	Resp	Lower	Upper
106	2167		
91	122.7	166.2	226.2#
77	33.7	0.0	57.9



#79
 o-Xylene
 Concen: 0.07 PPB
 RT: 10.10 min Scan# 1735
 Delta R.T. -0.01 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 3:48 pm

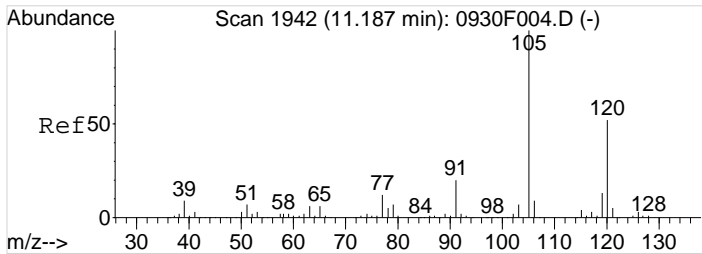
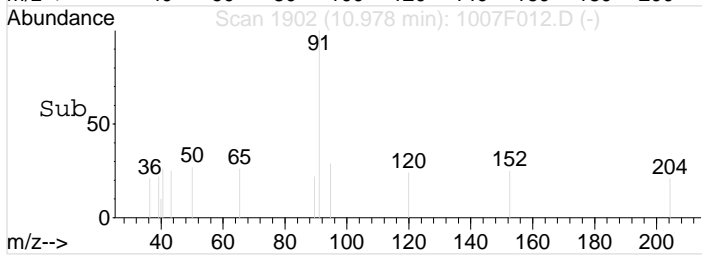
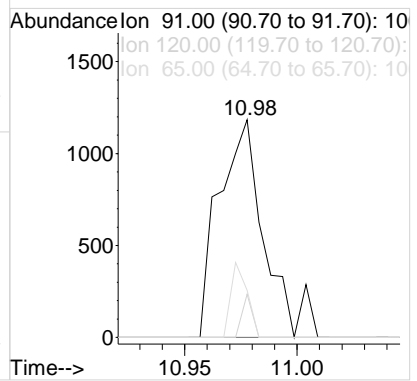
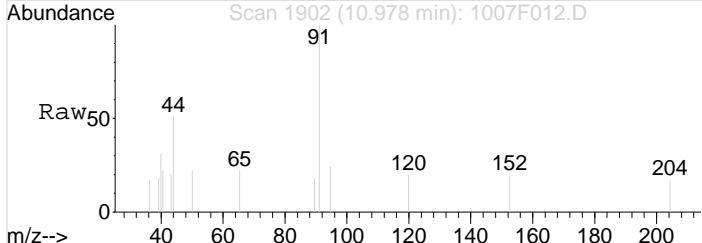
Tgt Ion	Resp	Lower	Upper
106	1041		
91	183.9	183.1	243.1
65	32.8	0.0	46.0





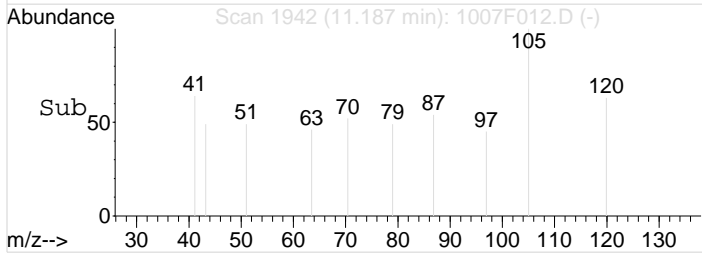
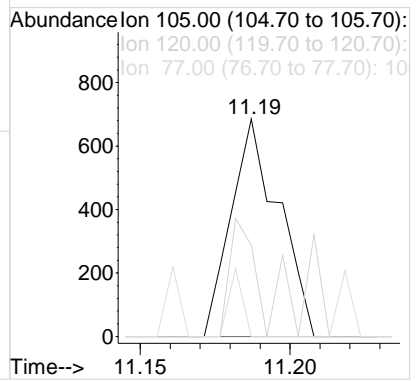
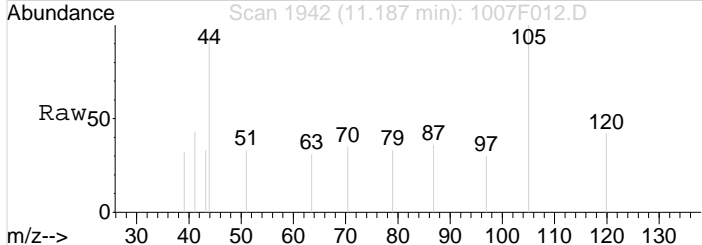
#89
 n-Propylbenzene
 Concen: 0.04 PPB
 RT: 10.98 min Scan# 1902
 Delta R.T. 0.01 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 3:48 pm

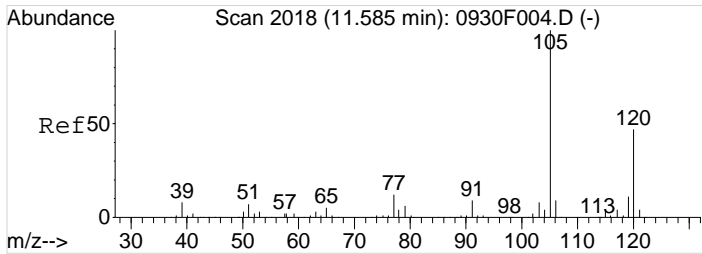
Tgt Ion	Resp	Lower	Upper
91	1673		
120	19.9	0.0	53.3
65	21.7	0.0	41.1



#92
 1,3,5-Trimethylbenzene
 Concen: 0.03 PPB
 RT: 11.19 min Scan# 1942
 Delta R.T. 0.01 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 3:48 pm

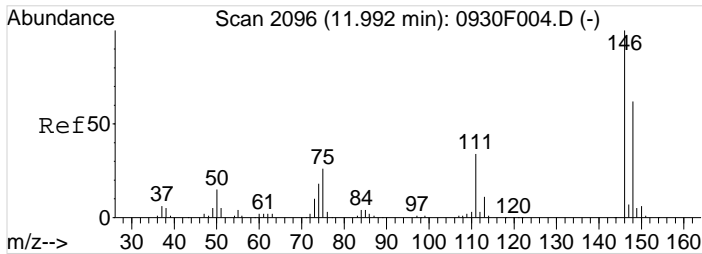
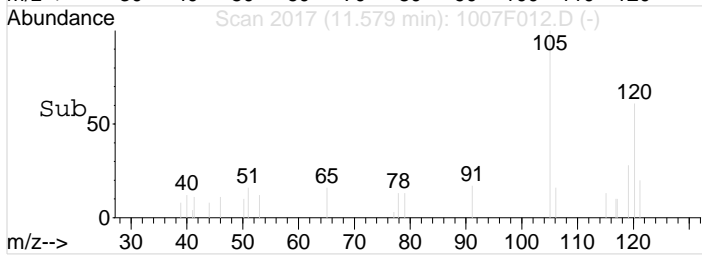
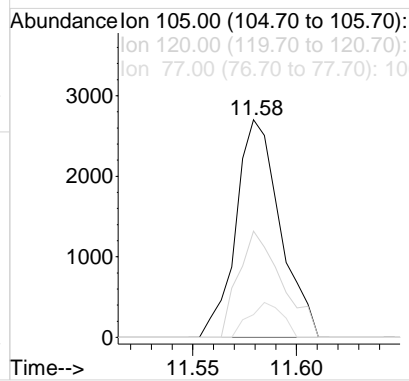
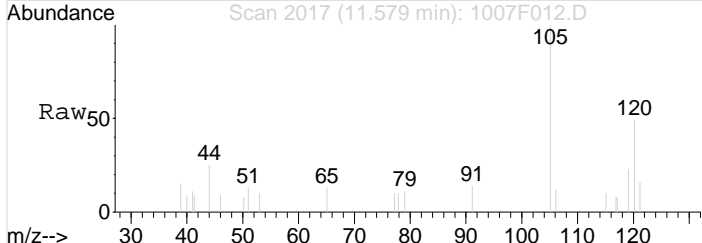
Tgt Ion	Resp	Lower	Upper
105	756		
120	42.0	20.7	80.7
77	0.0	0.0	42.9





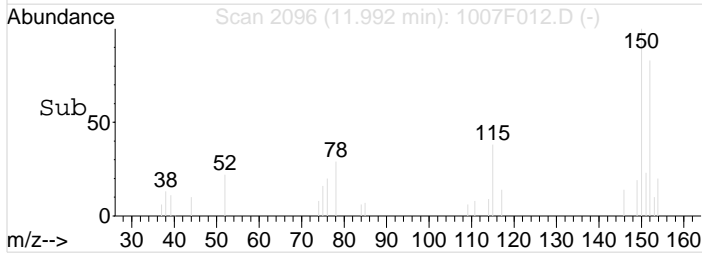
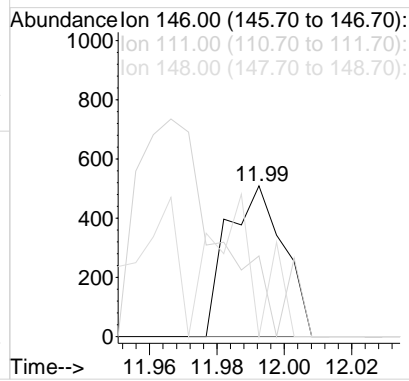
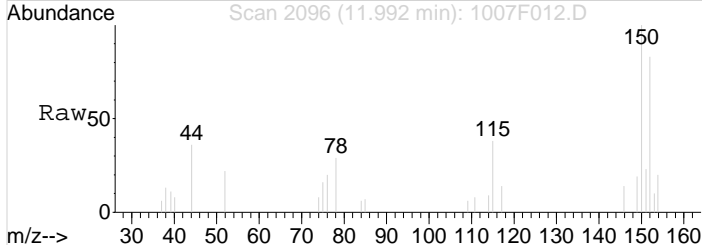
#95
 1,2,4-Trimethylbenzene
 Concen: 0.14 PPB
 RT: 11.58 min Scan# 2017
 Delta R.T. -0.00 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 3:48 pm

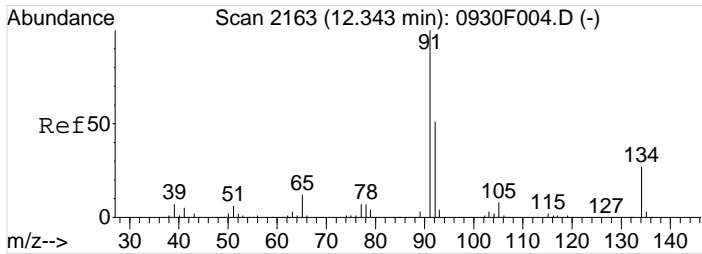
Tgt Ion	Resp	Lower	Upper
105	4001		
120	48.8	14.7	74.7
77	10.5	0.0	42.0



#99
 1,4-Dichlorobenzene
 Concen: 0.04 PPB
 RT: 11.99 min Scan# 2096
 Delta R.T. 0.01 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 3:48 pm

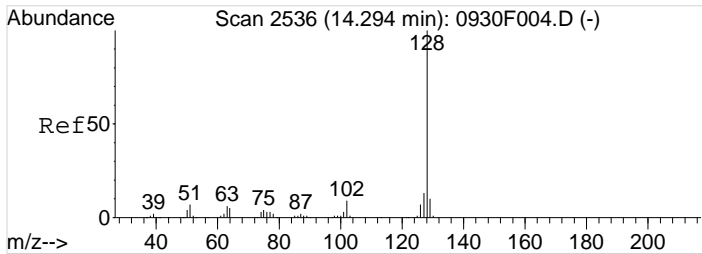
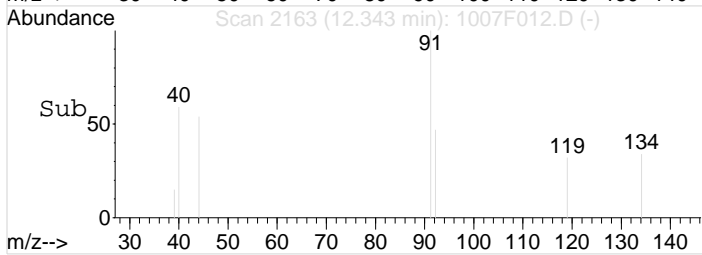
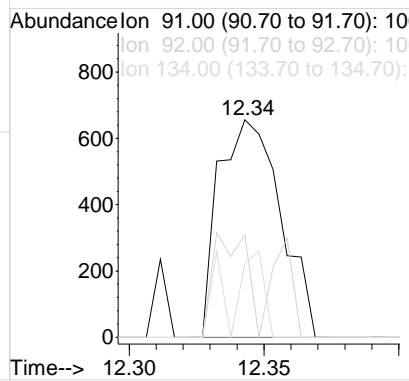
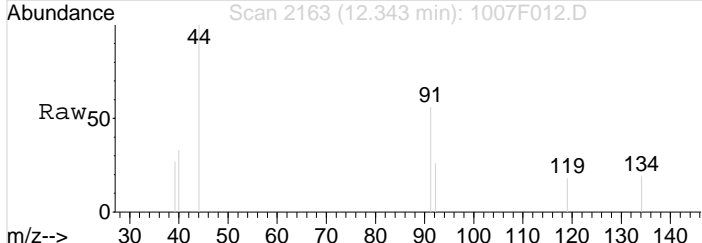
Tgt Ion	Resp	Lower	Upper
146	591		
111	53.5	10.0	70.0
148	0.0	33.0	93.0#





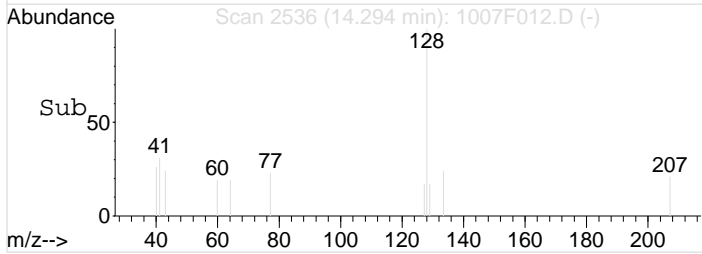
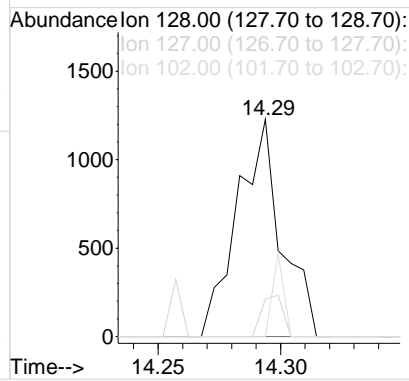
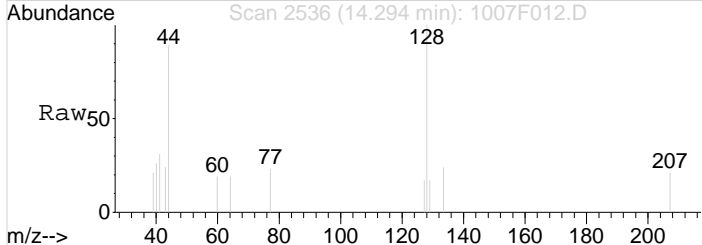
#100
 n-Butylbenzene
 Concen: 0.04 PPB
 RT: 12.34 min Scan# 2163
 Delta R.T. -0.00 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 3:48 pm

Tgt Ion	Resp	Lower	Upper
91	1045		
92	47.1	22.4	82.4
134	34.0	0.0	56.4



#106
 Naphthalene
 Concen: 0.11 PPB
 RT: 14.29 min Scan# 2536
 Delta R.T. 0.01 min
 Lab File: 1007F012.D
 Acq: 7 Oct 2019 3:48 pm

Tgt Ion	Resp	Lower	Upper
128	1537		
127	17.2	0.0	44.2
102	0.0	0.0	39.3



Exception Report

Data File: J:\MS13\DATA\100719\1007F013.D
Lab ID: K1909014-002
RunType: SMPL
Matrix: SOIL

Date Acquired: 10/07/2019 16:14
Date Quantitated: 10/08/2019 09:10
Batch ID: KWG1904384
Analysis Method: 8260C
ListJoinID: LJ15234

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: _____

Secondary Review: _____

Quantitation Report

Data File: J:\MS13\DATA\100719\1007F013.D	Instrument: MS13
Acqu Date: 10/07/2019 16:14	Quant Date: 10/08/2019 09:10
Run Type: SMPL	ListJoinID: LJ15234
Lab ID: K1909014-002	Vial: 7
	Dilution: 1.0
	Soln Conc. Units: PPB

Bottle ID:	Tier: IV	Matrix: SOIL
Prod Code: 8260C VOC FP Me	Collect Date: 09/25/2019	Receive Date: 09/27/2019

Analysis Lot: KWG1904384	Prep Lot: KWG1904386	Report Group: K1909014
Analysis Method: 8260C	Prep Method: EPA 5035A/5030B	
Prep Ref: 1736582	Prep Date: 10/07/2019	

Quant Method: J:\MS13\METHODS\072519MS13_8	Calibration ID: CAL16105
Title: Volatile Organic Compounds	Report List ID: LJ15234
Tune Ref: J:\MS13\DATA\100719\1007F003.D	Method ID: MJ174
MB Ref: J:\MS13\DATA\100719\1007F011.D	Quant based on Report List

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.33	0.00	96	270782	10.00	OK
2	Chlorobenzene-d5	9.37	0.00	82	102811	10.00	OK
3	1,4-Dichlorobenzene-d4	11.97	0.00	152	81055	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	4.58	0.00	0.00	113	58593	9.54	95	55-132	OK
1	Toluene-d8	7.56	0.00	0.00	98	276642	10.53	105	81-124	OK
2	4-Bromofluorobenzene	10.73	0.00	0.00	95	80635	9.39	94	64-132	OK

Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Acetone	2.37		0.00	43	23967	23.90	2.5		
1	2-Butanone (MEK)	4.09		0.00	72	2471	6.95	0.74	J	

Final Conc. Units: mg/Kg Dry Weight

Prep Amount: 5.07 g **Dilution:** 1.0 **MeOH Ext. Vol:** 5.1 ml
Prep Final Vol: 50 ml **Unit Factor:** 1 **MeOH Aliq. Vol:** 500 uL
Solids: 95.1 %

Final Concentration = ((Soln Conc x MeOH Ext. Vol x Prep Final Vol x Dilution) / (Prep Amount x MeOH Aliq. x Solids)) x Unit Factor

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File : J:\MS13\DATA\100719\1007F013.D
 Acq On : 7 Oct 2019 4:14 pm
 Sample : K1909104-002
 Misc : 9014

Vial: 7
 Operator: AK
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 08 08:54:39 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260
 Last Update : Tue Oct 01 09:18:15 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	270782	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	102811	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.97	152	81055	10.00	PPB	0.00

System Monitoring Compounds

42) Dibromofluoromethane	4.58	113	58593	9.54	PPB	0.00
Spiked Amount	10.000		Recovery	=	95.40%	
47) 1,2-Dichloroethane-d4	4.99	65	55833	7.98	PPB	0.00
Spiked Amount	10.000		Recovery	=	79.80%	
62) Toluene-d8	7.56	98	276642	10.53	PPB	0.00
Spiked Amount	10.000		Recovery	=	105.30%	
84) 4-Bromofluorobenzene	10.73	95	80635	9.39	PPB	0.00
Spiked Amount	10.000		Recovery	=	93.90%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
5) Bromomethane	1.55	96	1478	0.25	PPB	75
13) Acetone	2.37	43	23967	23.90	PPB	98
14) Iodomethane	2.41	142	1552	0.19	PPB	82
15) Carbon Disulfide	2.43	76	19832	0.96	PPB	97
19) Methyl Acetate	2.64	43	76907	26.67	PPB	98
20) Methylene Chloride	2.75	84	2958	0.38	PPB	# 77
23) Methyl tert-Butyl Ether	2.79	73	516	0.04	PPB	57
33) 2-Butanone	4.09	72	2471	6.95	PPB	# 37
40) tert-Butyl Formate	4.45	59	5898	1.18	PPB	# 1
63) Toluene	7.65	92	4281	0.22	PPB	85
65) n-Octane	7.76	85	1045	0.21	PPB	90
70) 2-Hexanone	8.73	57	12012	26.28	PPB	# 1
78) m,p-Xylenes	9.66	106	1285	0.09	PPB	# 78
92) 1,3,5-Trimethylbenzene	11.18	105	7962	0.28	PPB	# 1
95) 1,2,4-Trimethylbenzene	11.59	105	1570	0.06	PPB	81
97) p-Isopropyltoluene	11.91	119	321251	11.29	PPB	97
99) 1,4-Dichlorobenzene	11.99	146	4274	0.28	PPB	72
100) n-Butylbenzene	12.34	91	906	0.03	PPB	87
106) Naphthalene	14.30	128	2002	0.15	PPB	69

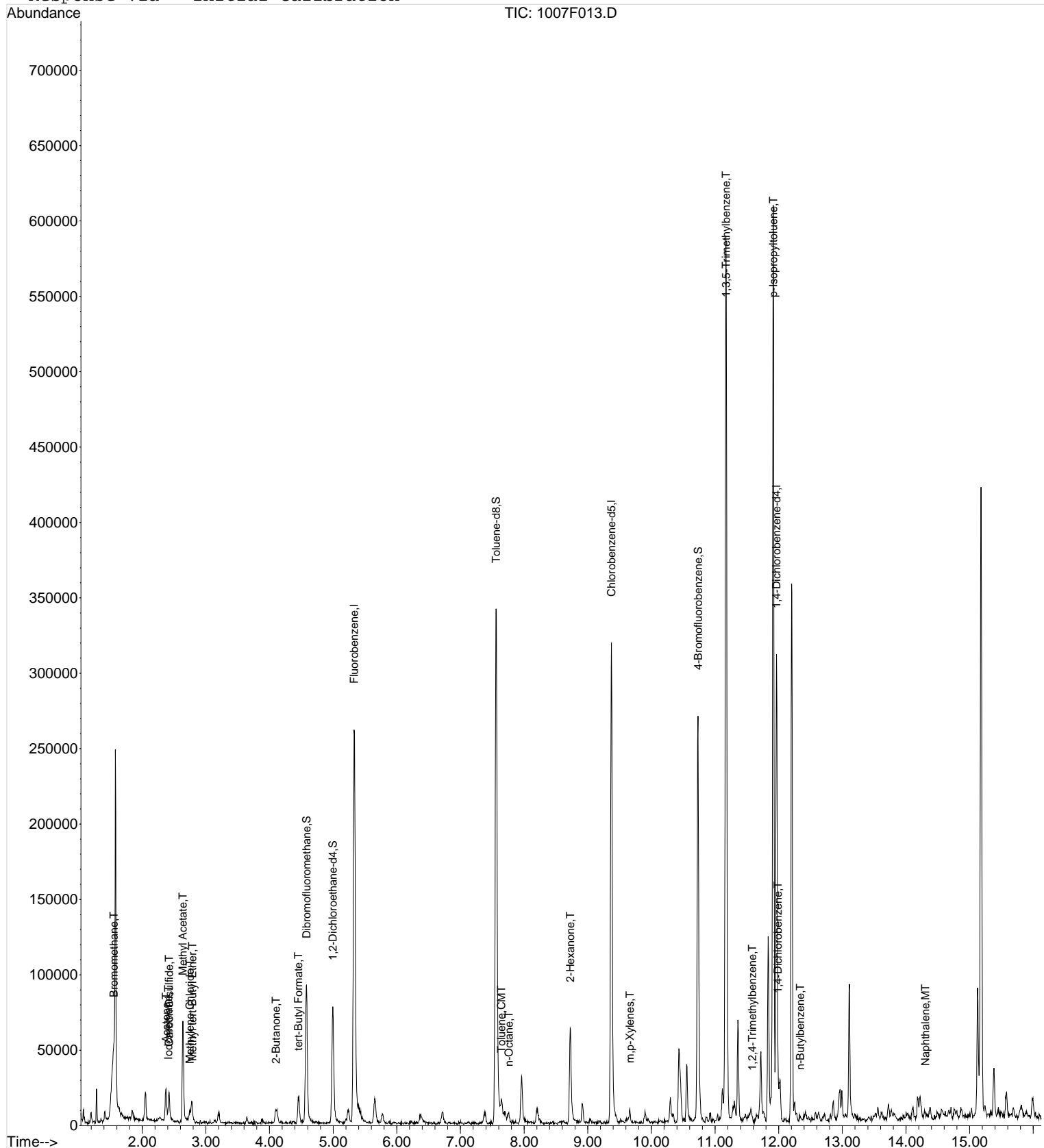
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Acq On : 7 Oct 2019 4:14 pm
Sample : K1909104-002
Misc : 9014

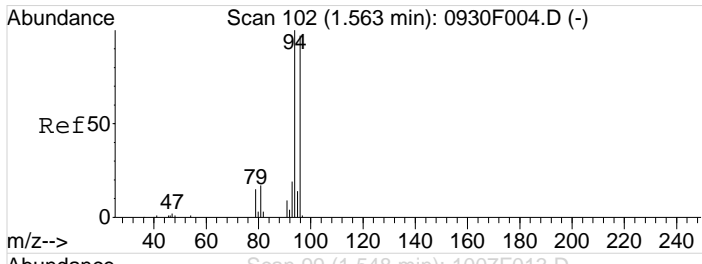
Vial: 7
Operator: AK
Inst : MS13
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Oct 8 9:10 2019

Quant Results File: 072519MS13_8260W.RES

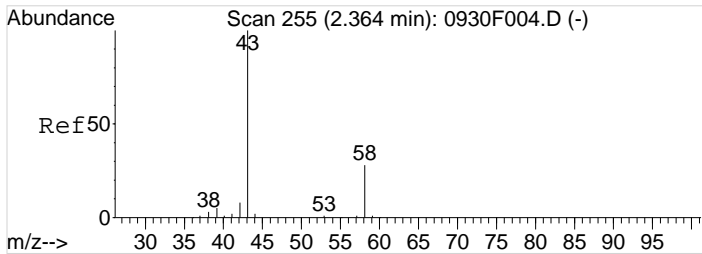
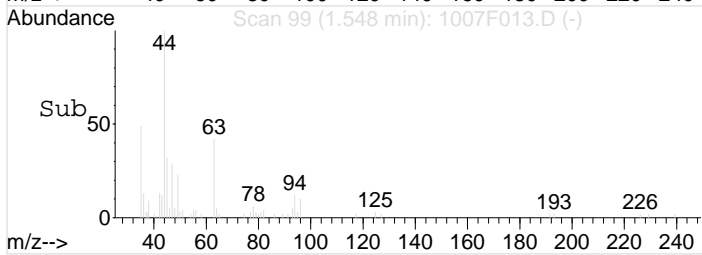
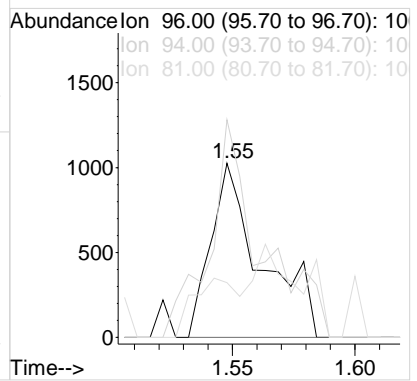
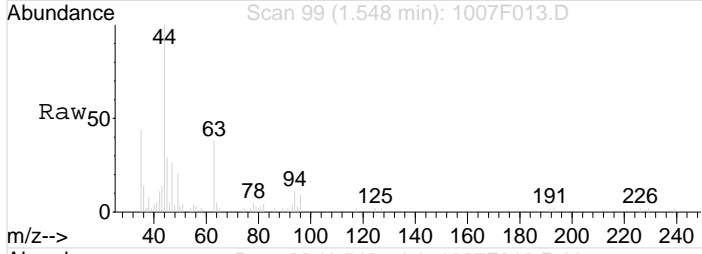
Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260
Last Update : Tue Oct 01 09:18:15 2019
Response via : Initial Calibration





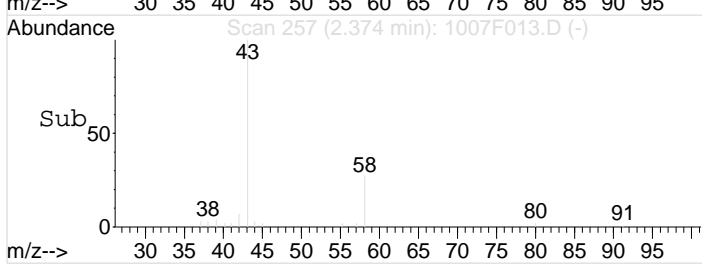
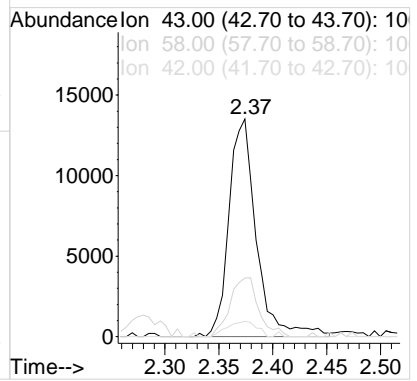
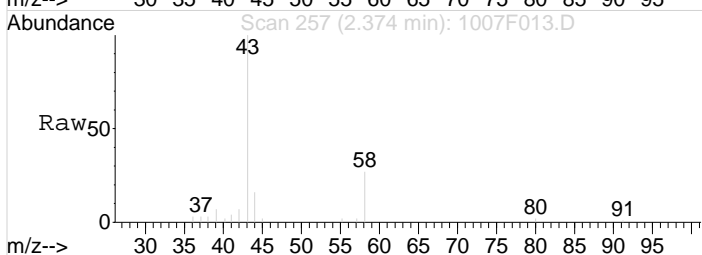
#5
 Bromomethane
 Concen: 0.25 PPB
 RT: 1.55 min Scan# 99
 Delta R.T. -0.02 min
 Lab File: 1007F013.D
 Acq: 7 Oct 2019 4:14 pm

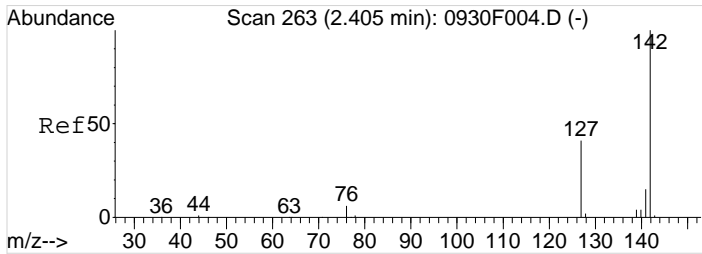
Tgt Ion	Resp	Lower	Upper
96	1478		
96	100		
94	125.0	71.8	131.8
81	31.5	0.0	45.8



#13
 Acetone
 Concen: 23.90 PPB
 RT: 2.37 min Scan# 257
 Delta R.T. 0.01 min
 Lab File: 1007F013.D
 Acq: 7 Oct 2019 4:14 pm

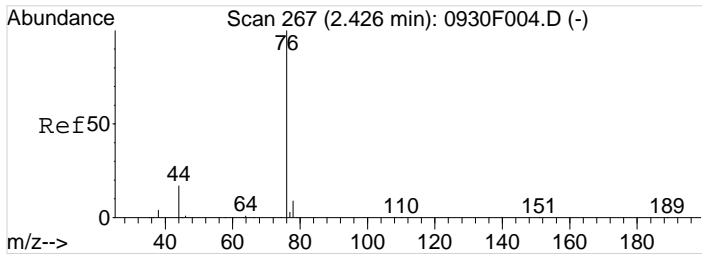
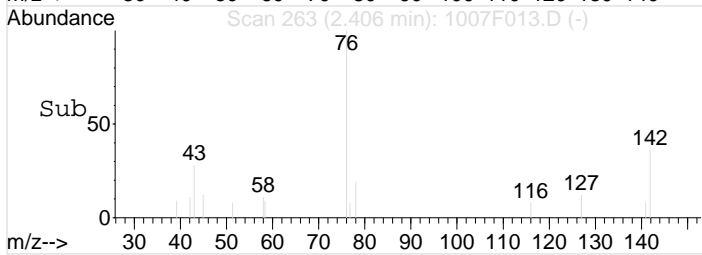
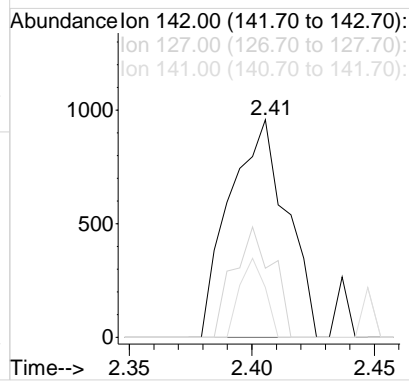
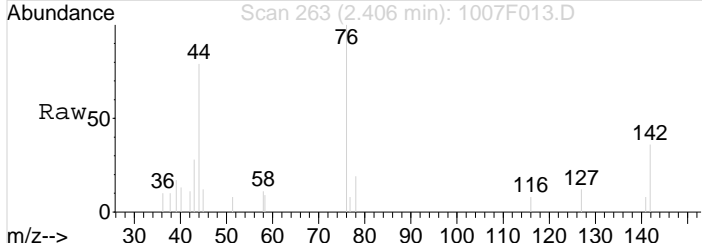
Tgt Ion	Resp	Lower	Upper
43	23967		
43	100		
58	27.0	0.0	58.1
42	7.1	0.0	37.9





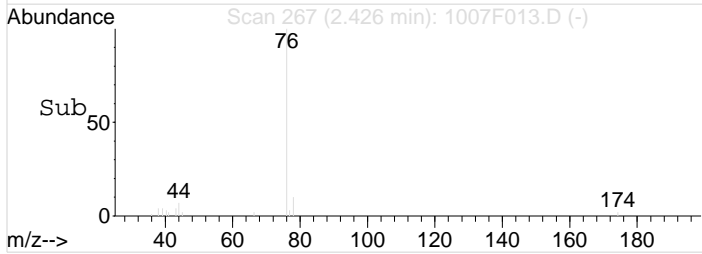
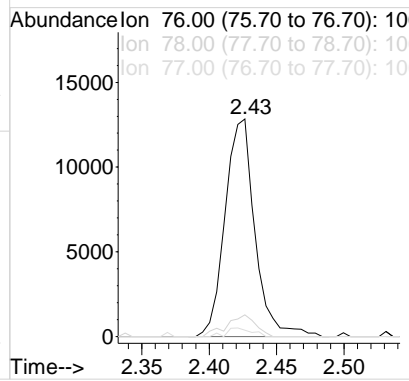
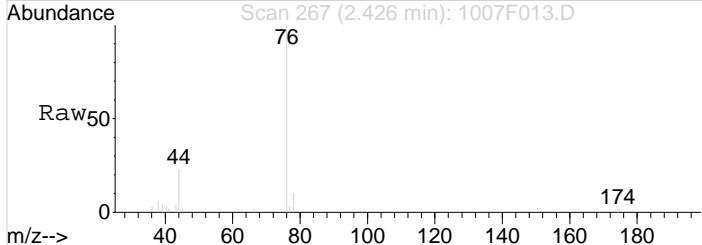
#14
 Iodomethane
 Concen: 0.19 PPB
 RT: 2.41 min Scan# 263
 Delta R.T. 0.00 min
 Lab File: 1007F013.D
 Acq: 7 Oct 2019 4:14 pm

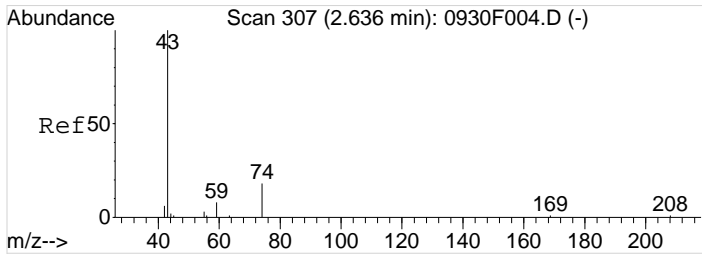
Tgt Ion	Resp	Lower	Upper
142	1552		
127	31.8	12.3	72.3
141	22.9	0.0	43.5



#15
 Carbon Disulfide
 Concen: 0.96 PPB
 RT: 2.43 min Scan# 267
 Delta R.T. 0.00 min
 Lab File: 1007F013.D
 Acq: 7 Oct 2019 4:14 pm

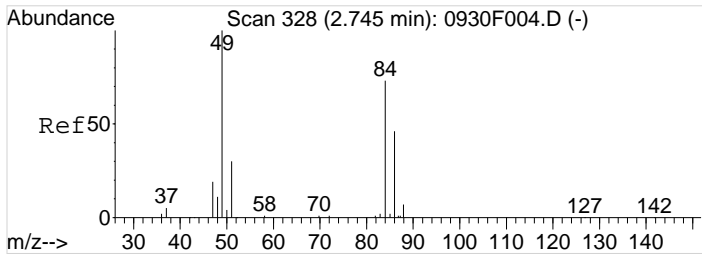
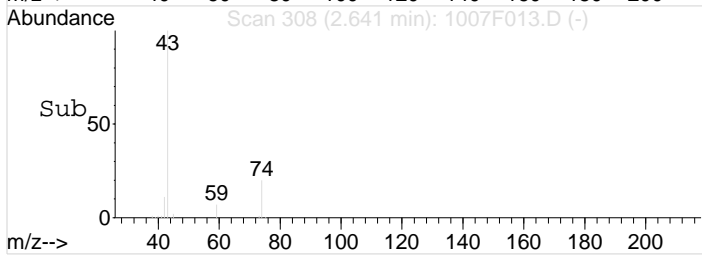
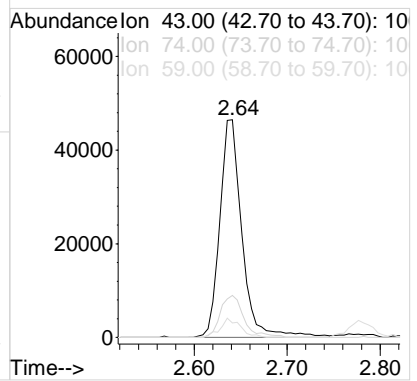
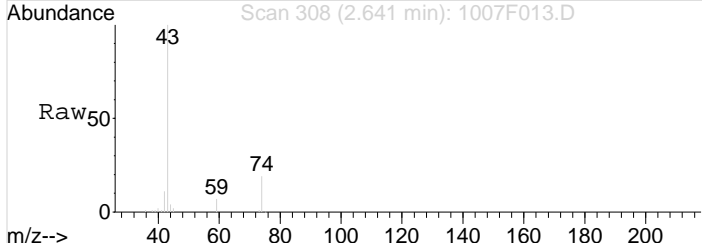
Tgt Ion	Resp	Lower	Upper
76	19832		
78	10.1	0.0	38.9
77	3.0	0.0	32.9





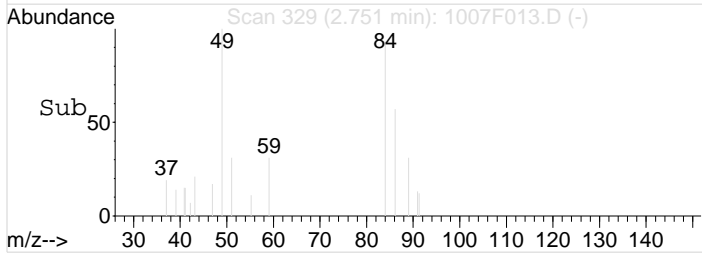
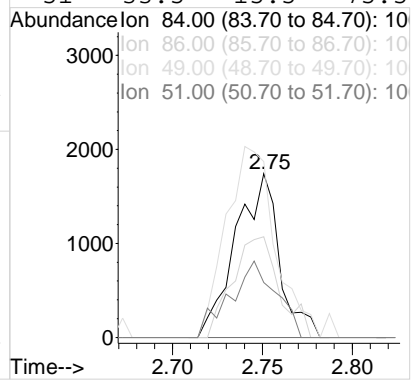
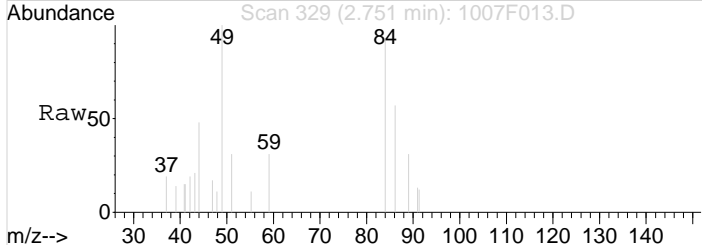
#19
 Methyl Acetate
 Concen: 26.67 PPB
 RT: 2.64 min Scan# 308
 Delta R.T. 0.00 min
 Lab File: 1007F013.D
 Acq: 7 Oct 2019 4:14 pm

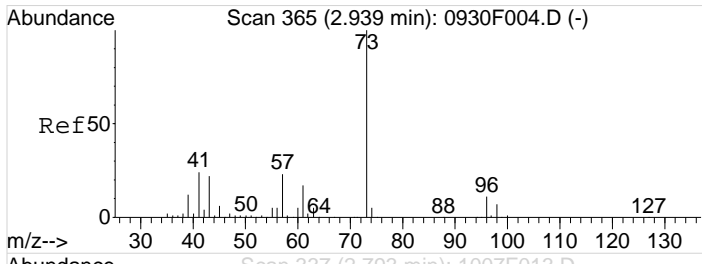
Tgt Ion	Resp	Lower	Upper
43	100		
74	19.3	0.0	49.7
59	6.6	0.0	38.4



#20
 Methylene Chloride
 Concen: 0.38 PPB
 RT: 2.75 min Scan# 329
 Delta R.T. 0.01 min
 Lab File: 1007F013.D
 Acq: 7 Oct 2019 4:14 pm

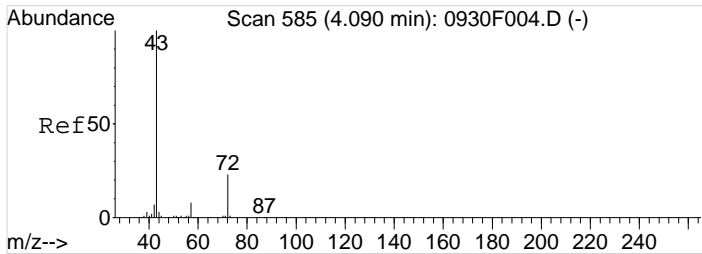
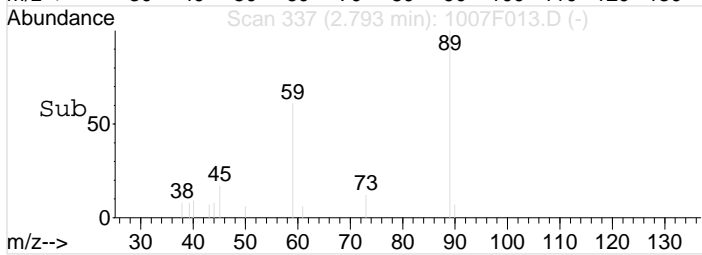
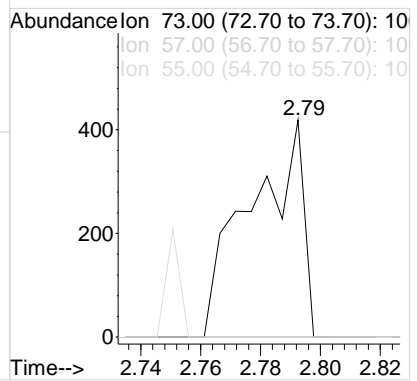
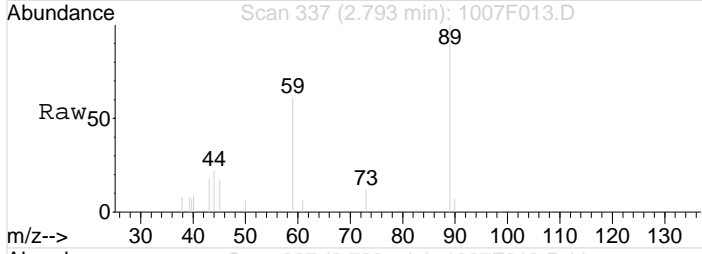
Tgt Ion	Resp	Lower	Upper
84	100		
86	61.5	32.2	92.2
49	107.3	120.2	180.2#
51	33.5	15.5	75.5





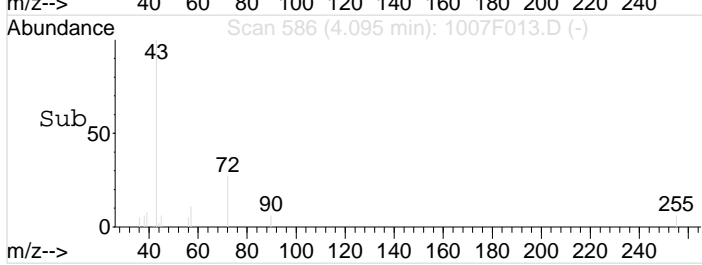
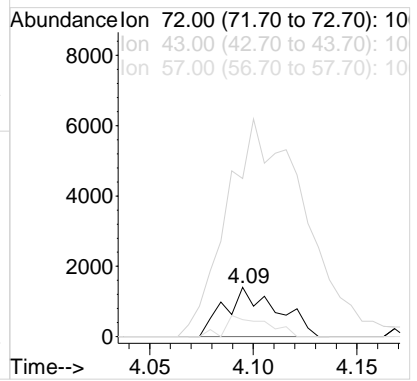
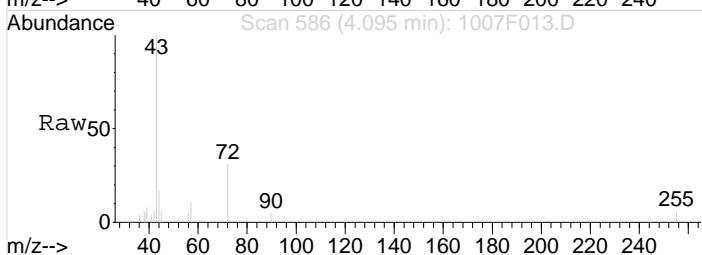
#23
 Methyl tert-Butyl Ether
 Concen: 0.04 PPB
 RT: 2.79 min Scan# 337
 Delta R.T. -0.15 min
 Lab File: 1007F013.D
 Acq: 7 Oct 2019 4:14 pm

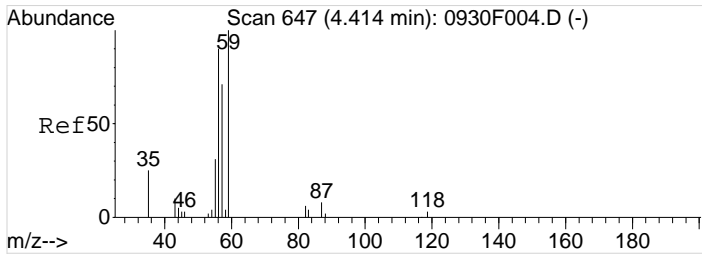
Tgt Ion	Resp	Lower	Upper
73	100		
57	0.0	0.0	53.6
55	0.0	0.0	34.7



#33
 2-Butanone
 Concen: 6.95 PPB
 RT: 4.09 min Scan# 586
 Delta R.T. 0.00 min
 Lab File: 1007F013.D
 Acq: 7 Oct 2019 4:14 pm

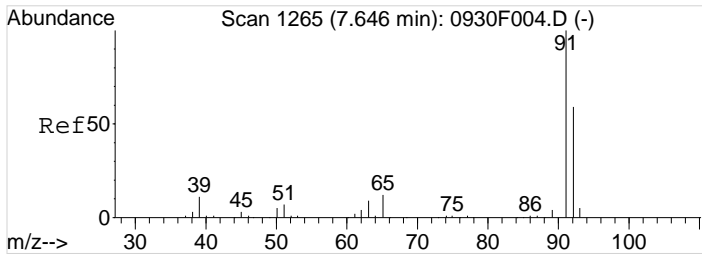
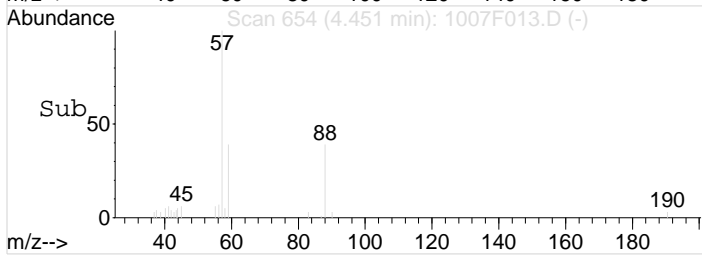
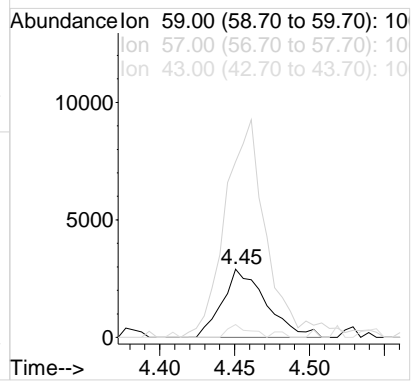
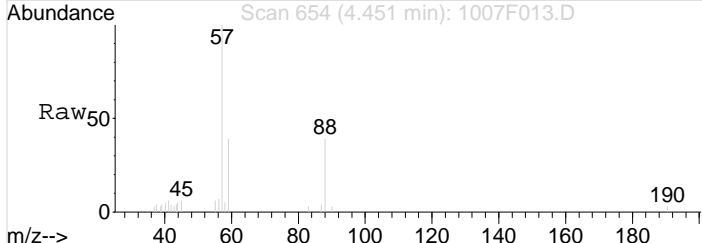
Tgt Ion	Resp	Lower	Upper
72	100		
43	296.2	444.1	504.1#
57	34.1	1.3	61.3





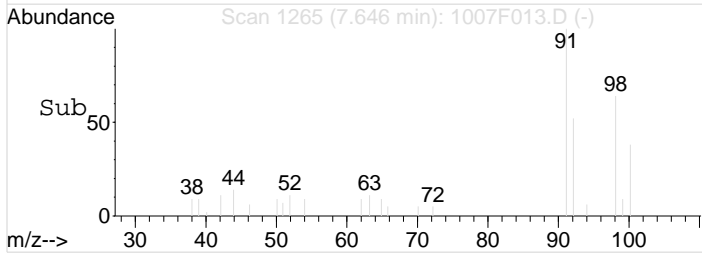
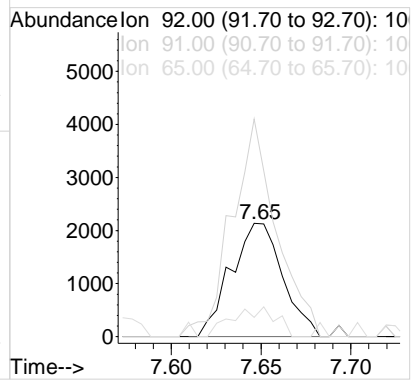
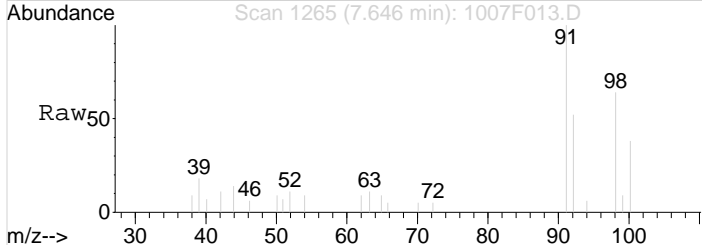
#40
 tert-Butyl Formate
 Concen: 1.18 PPB
 RT: 4.45 min Scan# 654
 Delta R.T. 0.03 min
 Lab File: 1007F013.D
 Acq: 7 Oct 2019 4:14 pm

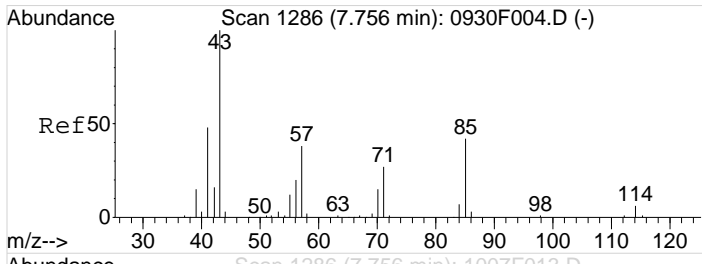
Tgt Ion	Resp	Lower	Upper
59	100		
57	250.0	52.9	112.9#
43	18.8	0.0	50.2



#63
 Toluene
 Concen: 0.22 PPB
 RT: 7.65 min Scan# 1265
 Delta R.T. 0.00 min
 Lab File: 1007F013.D
 Acq: 7 Oct 2019 4:14 pm

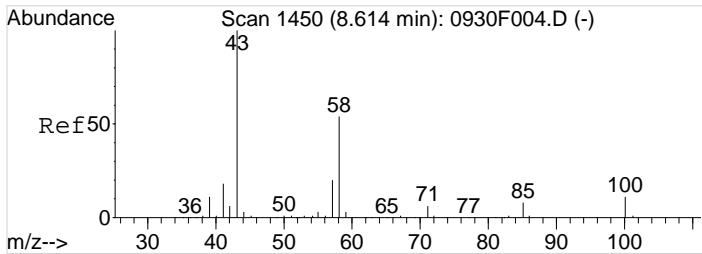
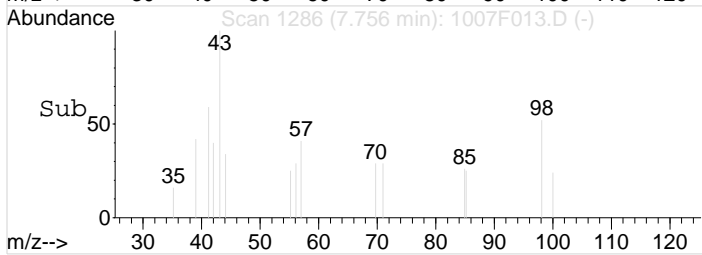
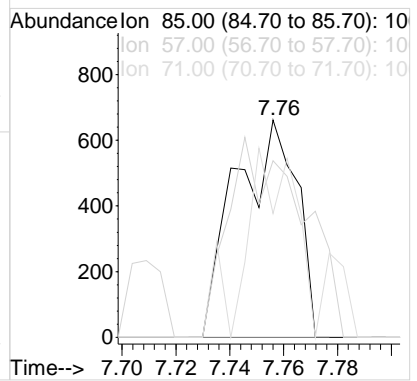
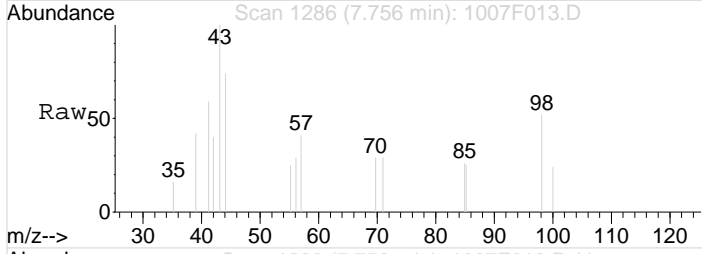
Tgt Ion	Resp	Lower	Upper
92	100		
91	191.8	140.7	200.7
65	17.1	0.0	50.9





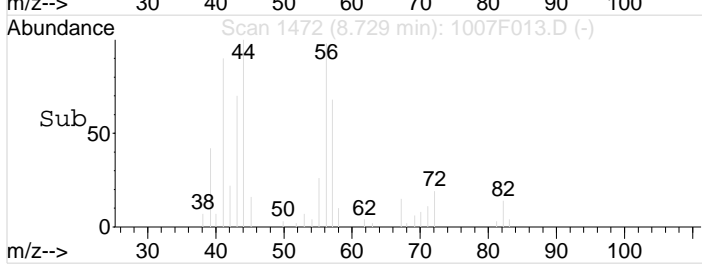
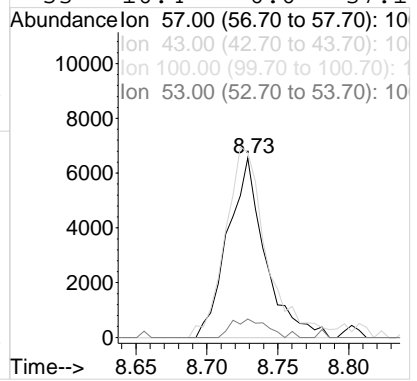
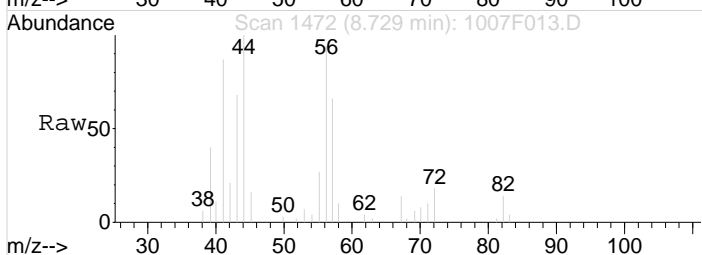
#65
 n-Octane
 Concen: 0.21 PPB
 RT: 7.76 min Scan# 1286
 Delta R.T. 0.00 min
 Lab File: 1007F013.D
 Acq: 7 Oct 2019 4:14 pm

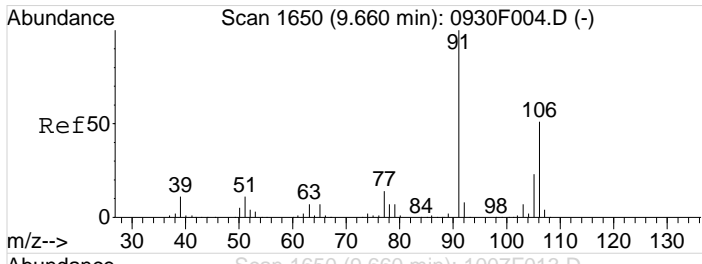
Tgt Ion	Resp	Lower	Upper
85	1045		
85	100		
57	81.3	60.8	120.8
71	56.9	34.3	94.3



#70
 2-Hexanone
 Concen: 26.28 PPB
 RT: 8.73 min Scan# 1472
 Delta R.T. 0.12 min
 Lab File: 1007F013.D
 Acq: 7 Oct 2019 4:14 pm

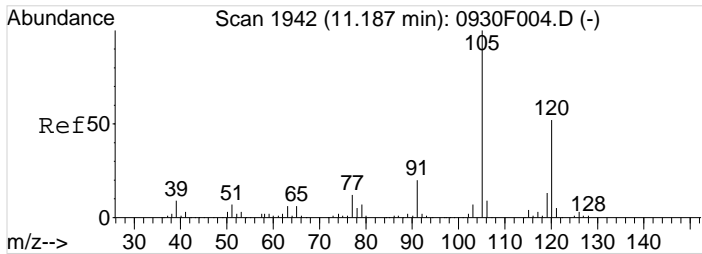
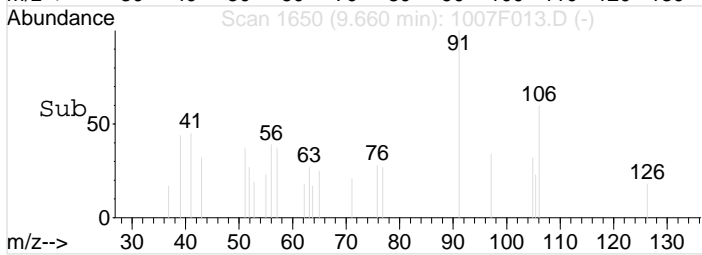
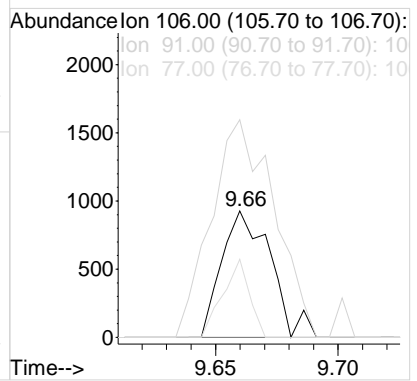
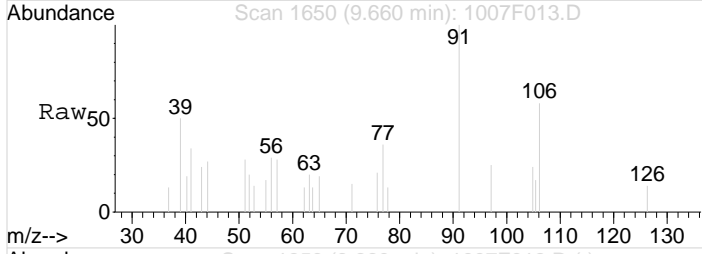
Tgt Ion	Resp	Lower	Upper
57	12012		
57	100		
43	103.1	492.6	552.6#
100	0.0	19.7	79.7#
53	10.4	0.0	37.1





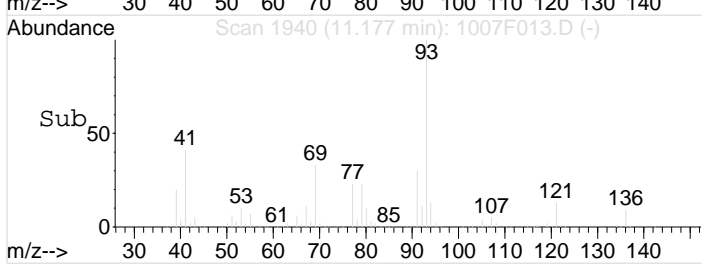
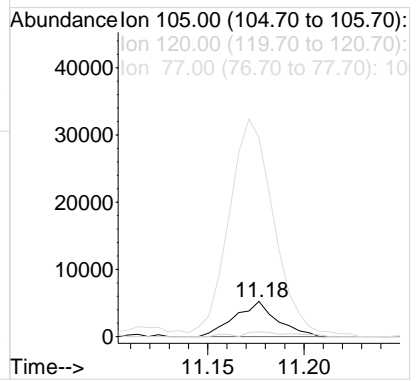
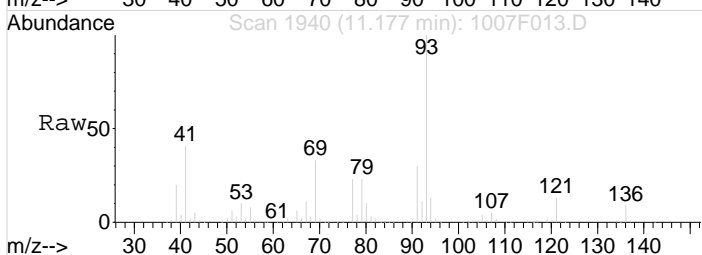
#78
 m,p-Xylenes
 Concen: 0.09 PPB
 RT: 9.66 min Scan# 1650
 Delta R.T. -0.01 min
 Lab File: 1007F013.D
 Acq: 7 Oct 2019 4:14 pm

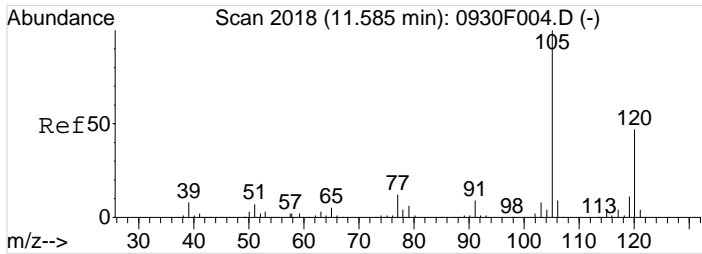
Tgt Ion	Resp	Lower	Upper
106	1285		
106	100		
91	171.9	166.2	226.2
77	61.7	0.0	57.9#



#92
 1,3,5-Trimethylbenzene
 Concen: 0.28 PPB
 RT: 11.18 min Scan# 1940
 Delta R.T. -0.01 min
 Lab File: 1007F013.D
 Acq: 7 Oct 2019 4:14 pm

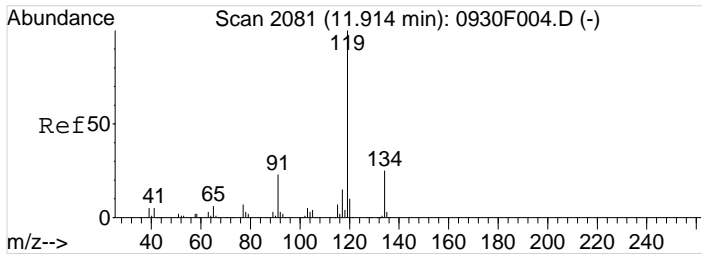
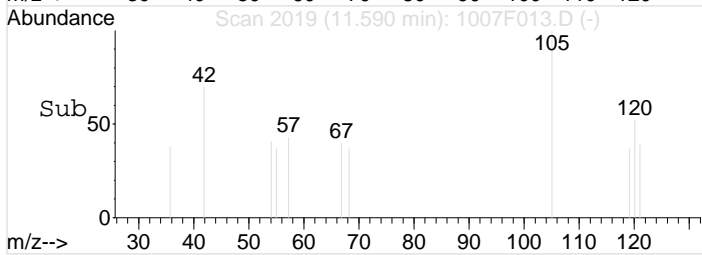
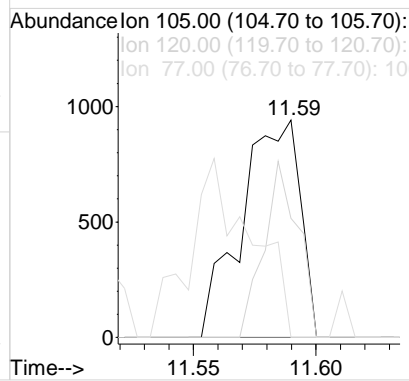
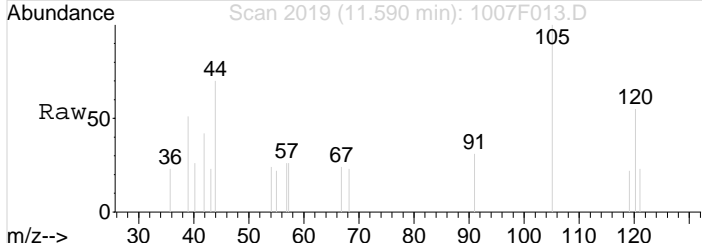
Tgt Ion	Resp	Lower	Upper
105	7962		
105	100		
120	14.2	20.7	80.7#
77	555.5	0.0	42.9#





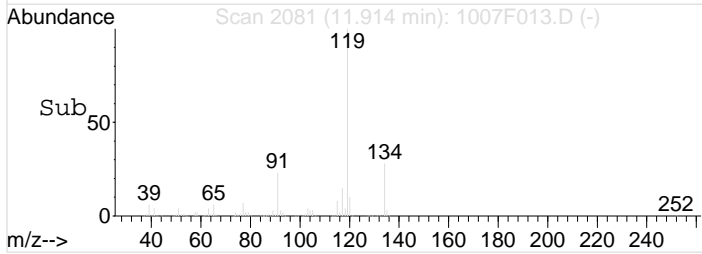
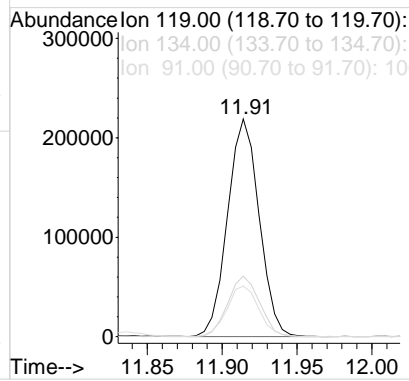
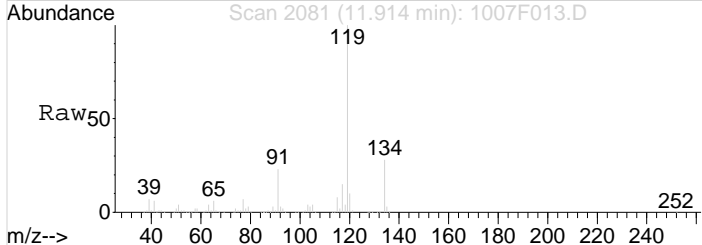
#95
 1,2,4-Trimethylbenzene
 Concen: 0.06 PPB
 RT: 11.59 min Scan# 2019
 Delta R.T. 0.01 min
 Lab File: 1007F013.D
 Acq: 7 Oct 2019 4:14 pm

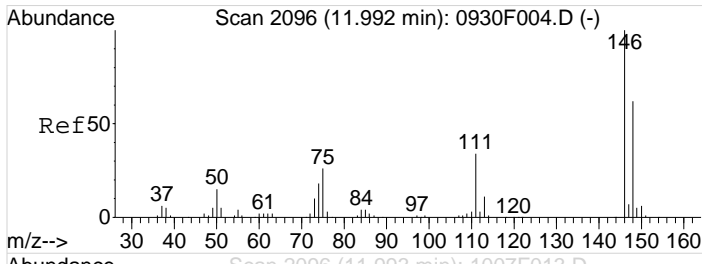
Tgt Ion	Resp	Lower	Upper
105	1570		
120	54.8	14.7	74.7
77	0.0	0.0	42.0



#97
 p-Isopropyltoluene
 Concen: 11.29 PPB
 RT: 11.91 min Scan# 2081
 Delta R.T. 0.00 min
 Lab File: 1007F013.D
 Acq: 7 Oct 2019 4:14 pm

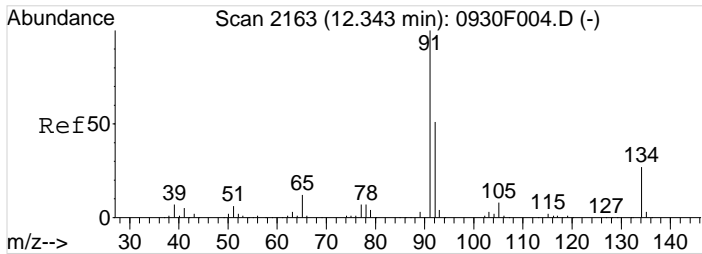
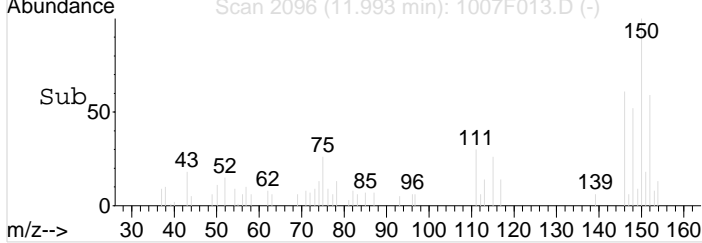
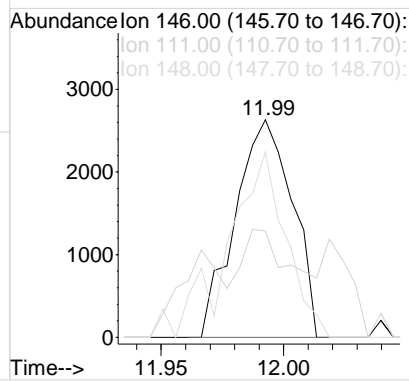
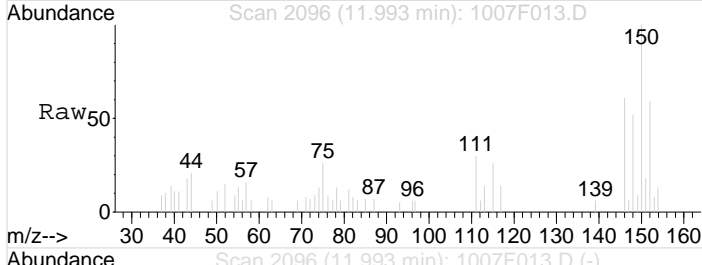
Tgt Ion	Resp	Lower	Upper
119	321251		
134	27.9	0.0	55.9
91	23.1	0.0	53.8





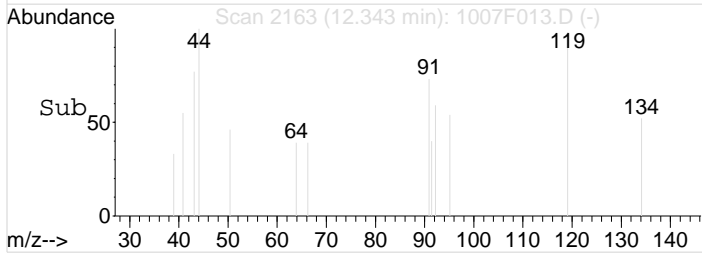
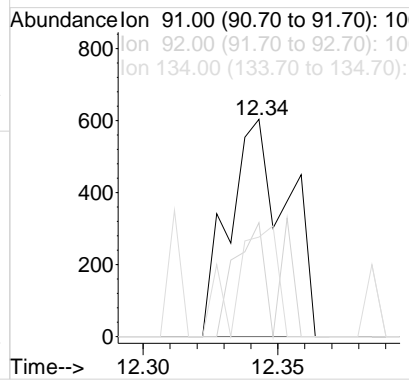
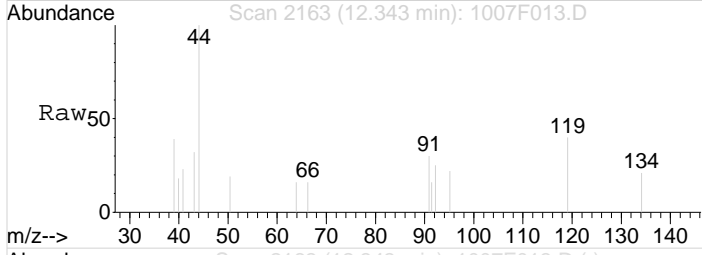
#99
 1,4-Dichlorobenzene
 Concen: 0.28 PPB
 RT: 11.99 min Scan# 2096
 Delta R.T. 0.01 min
 Lab File: 1007F013.D
 Acq: 7 Oct 2019 4:14 pm

Tgt Ion	Resp	Lower	Upper
146	4274		
111	22.7	10.0	70.0
148	85.1	33.0	93.0

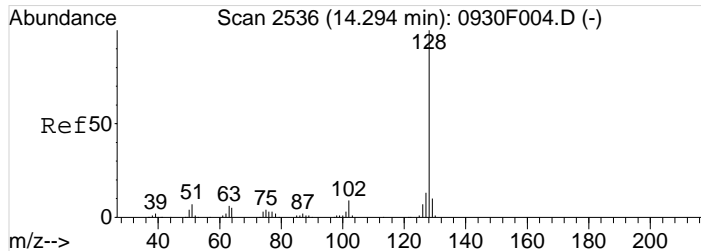


#100
 n-Butylbenzene
 Concen: 0.03 PPB
 RT: 12.34 min Scan# 2163
 Delta R.T. 0.00 min
 Lab File: 1007F013.D
 Acq: 7 Oct 2019 4:14 pm

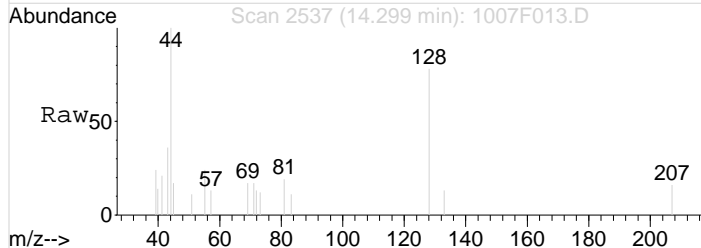
Tgt Ion	Resp	Lower	Upper
91	906		
92	52.5	22.4	82.4
134	45.9	0.0	56.4



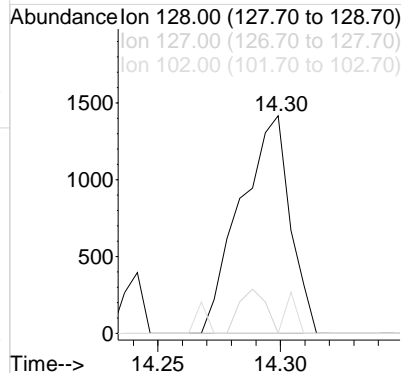
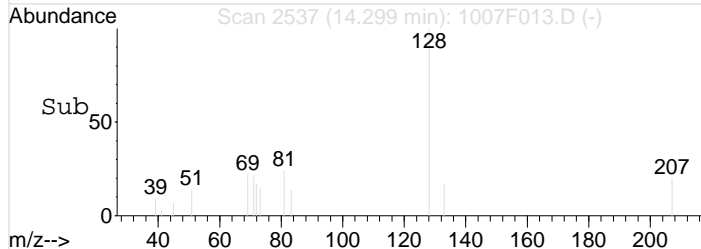
1st *AMC* 10/08/19
2nd *AG* 10/10/19



#106
Naphthalene
Concen: 0.15 PPB
RT: 14.30 min Scan# 2537
Delta R.T. 0.01 min
Lab File: 1007F013.D
Acq: 7 Oct 2019 4:14 pm



Tgt Ion	Resp	Lower	Upper
128	100		
127	0.0	0.0	44.2
102	0.0	0.0	39.3



Exception Report

Data File: J:\MS13\DATA\100719\1007F011.D
Lab ID: KWG1904386-3
RunType: MB
Matrix: SLUDGE, SOLID

Date Acquired: 10/07/2019 14:44
Date Quantitated: 10/08/2019 09:04
Batch ID: KWG1904384
Analysis Method: 8260C
MethodJoinID: MJ174

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA		x
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	2-Propanol	0.0061	0.01	NA	NT
	Acetonitrile	0.0083	0.01	NA	
	tert-Butyl Alcohol	0.0087	0.01	NA	
	Isobutyl Alcohol	0.0042	0.01	NA	
	1,4-Dioxane	0.0009	0.01	NA	
Continuing Calibration Recovery	Dichlorodifluoromethane	-52.4	NA	20	
	Chloromethane	-39.1	NA	20	
	Vinyl Chloride	-32.0	NA	20	
	Bromomethane	-43.1	NA	20	
	Chloroethane	-23.5	NA	20	
	Trichlorofluoromethane	-27.6	NA	20	
	1,1-Dichloroethene	-33.6	NA	20	
	Iodomethane	-35.9	NA	20	

Primary Review: _____

Secondary Review: _____

Exception Report

1st *AMC* 10/08/19
2nd *AK* 10/09/19

Data File: J:\MS13\DATA\100719\1007F011.D
Lab ID: KWG1904386-3
RunType: MB
Matrix: SLUDGE, SOLID

Date Acquired: 10/07/2019 14:44
Date Quantitated: 10/08/2019 09:04
Batch ID: KWG1904384
Analysis Method: 8260C
MethodJoinID: MJ174

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
	trans-1,2-Dichloroethene	-27.2	NA	20	NT
	1,1-Dichloroethane	-21.9	NA	20	
	Chloroprene	-23.3	NA	20	
	2,2-Dichloropropane	-34.0	NA	20	
	cis-1,2-Dichloroethene	-21.6	NA	20	
	Ethyl Acetate	-25.9	NA	20	
	1,1,1-Trichloroethane (TCA)	-23.7	NA	20	
	1,1-Dichloropropene	-30.9	NA	20	
	Benzene	-25.0	NA	20	
	1,2-Dichloroethane (EDC)	-21.5	NA	20	
	Trichloroethene (TCE)	-28.0	NA	20	
	2-Chloroethyl Vinyl Ether	-27.6	NA	20	
	Toluene	-21.4	NA	20	
	trans-1,3-Dichloropropene	-20.8	NA	20	
	cis-1,4-Dichloro-2-butene	-37.9	NA	20	
	trans-1,4-Dichloro-2-butene	-37.3	NA	20	
	n-Propylbenzene	-23.7	NA	20	
	2-Chlorotoluene	-25.4	NA	20	
	1,3,5-Trimethylbenzene	-22.0	NA	20	
	4-Chlorotoluene	-23.7	NA	20	
Continuing Calibration Minimum RF	2-Propanol	0.0061	0.01	NA	
	Acetonitrile	0.0086	0.01	NA	
	tert-Butyl Alcohol	0.0070	0.01	NA	
	Isobutyl Alcohol	0.0035	0.01	NA	
	1,4-Dioxane	0.0011	0.01	NA	

Primary Review: _____

Secondary Review: _____

Quantitation Report

Data File: J:\MS13\DATA\100719\1007F011.D	Instrument: MS13
Acqu Date: 10/07/2019 14:44	Quant Date: 10/08/2019 09:04
Run Type: MB	Vial: 5
Lab ID: KWG1904386-3	MethodJoinID: MJ174
	Dilution: 1.0
	Soln Conc. Units: PPB

Bottle ID:	Tier:	Matrix: SLUDGE, SOLID
Prod Code: 8260C VOC FP	Collect Date:	Receive Date: 10/10/2019

Analysis Lot: KWG1904384	Prep Lot: KWG1904386	Report Group:
Analysis Method: 8260C	Prep Method: EPA 5035A/5030B	
Prep Ref: 1736377	Prep Date: 10/07/2019	

Quant Method: J:\MS13\METHODS\072519MS13_8	Calibration ID: CAL16105
Title:	
Tune Ref: J:\MS13\DATA\100719\1007F003.D	Method ID: MJ174
MB Ref:	Quant based on Method

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.33	0.00	96	285688	10.00	OK
2	Chlorobenzene-d5	9.37	0.00	82	107653	10.00	OK
3	1,4-Dichlorobenzene-d4	11.97	0.00	152	85668	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	4.58	0.00	0.00	113	61262	9.46	95	55-132	OK
1	1,2-Dichloroethane-d4	4.99	0.00	0.00	65	58974	7.99	80	37-155	OK
1	Toluene-d8	7.56	0.00	0.00	98	287079	10.36	104	81-124	OK
2	4-Bromofluorobenzene	10.73	0.00	0.00	95	81792	9.10	91	64-132	OK

Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane				85	0		0.013	U	
1	Chloromethane	1.24	0.01	0.00	50	561	0.0500	0.0068	U	
1	Vinyl Chloride				62	0		0.0075	U	
1	Bromomethane	1.57	0.01	0.00	96	534	0.0800	0.016	U	
1	Chloroethane				64	0		0.016	U	
1	Dichlorofluoromethane (CFC 21)				67	0		0.0065	U	
1	Trichlorofluoromethane				101	0		0.012	U	
1	Ethyl Ether				59	0		0.0075	U	
1	Acrolein				56	0		0.12	U	
1	Trichlorotrifluoroethane				151	0		0.013	U	
1	1,1-Dichloroethene				96	0		0.0080	U	
1	Acetone				43	0		0.33	U	
1	Iodomethane	2.40		0.00	142	1428	0.1700	0.0170	J	

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 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

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 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File:	J:\MS13\DATA\100719\1007F011.D	Instrument:	MS 1.5
Acqu Date:	10/07/2019 14:44	Quant Date:	10/08/2019 09:04
Run Type:	MB	MethodJoinID:	MJ174
Lab ID:	KWG1904386-3	Vial:	5
		Dilution:	1.0
		Soln Conc. Units:	PPB

Target Compounds Final Conc. Units: mg/Kg Wet Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Disulfide	2.43		0.00	76	2852	0.1300	0.0130	J	
1	2-Propanol				45	0		1.7	U	
1	3-Chloro-1-propene				76	0d		0.0094	U	
1	Acetonitrile				40	0d		1.3	U	
1	Methyl Acetate				43	0		0.038	U	
1	Methylene Chloride	2.75		0.00	84	1603	0.1900	0.0190	J	
1	tert-Butyl Alcohol				59	0		0.44	U	
1	Acrylonitrile				53	0		0.053	U	
1	Methyl tert-Butyl Ether				73	0		0.011	U	
1	trans-1,2-Dichloroethene				96	0		0.0072	U	
1	n-Hexane				57	0		0.10	U	
1	Diisopropyl Ether				45	0		0.0048	U	
1	1,1-Dichloroethane				63	0		0.0077	U	
1	Vinyl Acetate				86	0		0.043	U	
1	Chloroprene				53	0		0.36	U	
1	tert-Butyl Ethyl Ether				59	0		0.0048	U	
1	2,2-Dichloropropane				77	0		0.0065	U	
1	cis-1,2-Dichloroethene				96	0		0.0067	U	
1	2-Butanone (MEK)				72	0		0.19	U	
1	Propionitrile				54	0		0.11	U	
1	Ethyl Acetate				61	0		0.057	U	
1	Methacrylonitrile				67	0		0.035	U	
1	Bromochloromethane				128	0		0.016	U	
1	Tetrahydrofuran				71	0		0.094	U	
1	Chloroform				83	0		0.0072	U	
1	1,1,1-Trichloroethane (TCA)				97	0		0.0075	U	
1	Cyclohexane				56	0		0.036	U	
1	Carbon Tetrachloride				117	0		0.0096	U	
1	1,1-Dichloropropene				75	0		0.0089	U	
1	Isobutyl Alcohol				43	0		0.69	U	
1	Benzene				78	0		0.0062	U	
1	1,2-Dichloroethane (EDC)				62	0		0.0080	U	
1	tert-Amyl Methyl Ether				55	0		0.012	U	
1	Trichloroethene (TCE)				95	0		0.010	U	
1	Methylcyclohexane				83	0		0.033	U	
1	1,2-Dichloropropane				63	0		0.0095	U	
1	Dibromomethane				93	0		0.015	U	
1	Methyl Methacrylate				69	0		0.013	U	
1	1,4-Dioxane				88	0		1.4	U	
1	Bromodichloromethane				83	0		0.0091	U	
1	2-Nitropropane				43	0d		0.096	U	
1	2-Chloroethyl Vinyl Ether				63	0		0.016	U	

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Data File:	J:\MS13\DATA\100719\1007F011.D	Instrument:	MS 1.5
Acqu Date:	10/07/2019 14:44	Quant Date:	10/08/2019 09:04
Run Type:	MB	MethodJoinID:	MJ174
Lab ID:	KWG1904386-3	Vial:	5
		Dilution:	1.0
		Soln Conc. Units:	PPB

Target Compounds Final Conc. Units: mg/Kg Wet Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	cis-1,3-Dichloropropene				75	0		0.018	U	
1	4-Methyl-2-pentanone (MIBK)				58	0d		0.26	U	
1	Toluene				92	0		0.0054	U	
2	n-Octane				85	0		0.016	U	
2	trans-1,3-Dichloropropene				75	0		0.0068	U	
2	Ethyl Methacrylate				69	0		0.015	U	
2	1,1,2-Trichloroethane				83	0		0.014	U	
2	Tetrachloroethene (PCE)				164	0		0.0099	U	
2	2-Hexanone				57	0		0.27	U	
2	1,3-Dichloropropane				76	0		0.014	U	
2	Dibromochloromethane				129	0		0.014	U	
2	1,2-Dibromoethane (EDB)				107	0		0.010	U	
2	1-Chlorohexane				91	0		0.0058	U	
2	Chlorobenzene				112	0		0.011	U	
2	Ethylbenzene				106	0		0.0050	U	
2	1,1,1,2-Tetrachloroethane				131	0		0.011	U	
2	m,p-Xylenes				106	0		0.011	U	
2	o-Xylene				106	0		0.0074	U	
2	Styrene				103	0		0.0089	U	
2	Bromoform				173	0		0.016	U	
2	Isopropylbenzene				105	0d		0.0051	U	
2	cis-1,4-Dichloro-2-butene				89	0		0.14	U	
3	1,1,2,2-Tetrachloroethane				83	0		0.016	U	
3	trans-1,4-Dichloro-2-butene				53	0		0.035	U	
3	Bromobenzene				156	0		0.012	U	
3	n-Propylbenzene				91	0d		0.0054	U	
3	1,2,3-Trichloropropane				110	0		0.020	U	
3	2-Chlorotoluene				91	0d		0.010	U	
3	1,3,5-Trimethylbenzene				105	0d		0.0089	U	
3	4-Chlorotoluene				91	0d		0.013	U	
3	tert-Butylbenzene				119	0		0.0059	U	
3	1,2,4-Trimethylbenzene	11.58		0.00	105	772	0.0300	0.0069	U	
3	sec-Butylbenzene				105	0d		0.0062	U	
3	4-Isopropyltoluene	11.91		0.00	119	880	0.0300	0.0060	U	
3	1,3-Dichlorobenzene				146	0d		0.010	U	
3	1,4-Dichlorobenzene	12.00	0.01	0.00	146	568	0.0400	0.012	U	
3	n-Butylbenzene	12.34		0.00	91	1060	0.0400	0.0054	U	
3	1,2-Dichlorobenzene				146	0		0.012	U	
3	1,2-Dibromo-3-chloropropane				155	0		0.022	U	
3	1,3,5-Trichlorobenzene				180	0		0.010	U	
3	1,2,4-Trichlorobenzene	14.04		0.00	180	811	0.1000	0.0100	J	
3	Hexachlorobutadiene				225	0		0.011	U	

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Data File:	J:\MS13\DATA\100719\1007F011.D	Instrument:	MS 1.5
Acqu Date:	10/07/2019 14:44	Quant Date:	10/08/2019 09:04
Run Type:	MB	MethodJoinID:	MJ174
Lab ID:	KWG1904386-3	Vial:	5
		Dilution:	1.0
		Soln Conc. Units:	PPB

Target Compounds Final Conc. Units: mg/Kg Wet Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Naphthalene	14.29		0.00	128	1295	0.0900	0.00900	J	
3	1,2,3-Trichlorobenzene	14.54		0.00	180	684	0.1000	0.011	U	
	Benzyl Chloride				0	0		0.10	U	NR
	2-Methylpentane				0	0		1.0	U	NR
	Cyclohexanone				0	0		2.0	U	NR
	2-Ethoxyethanol				0	0		0.10	U	NR
	Ethyl Acrylate				0	0		2.0	U	NR
	2,2-Dichloro-1,1,1-trifluoroethan				0	0		0.10	U	NR
	1,1,2-Trifluoroethane				0	0		0.10	U	NR
	2,2,4-Trimethylpentane (Isooctan				0	0		0.10	U	NR
	Vinyl Bromide				0	0		0.050	U	NR
	Ethyl Alcohol				0	0		25	U	NR
	1-Butanol				0	0		25	U	NR
	Vinyl Fluoride				0	0		0.050	U	NR
	3-Methylpentane				0	0		1.0	U	NR
	Methylcyclopentane				0	0		1.0	U	NR

Prep Amount: 5 g **Dilution:** 1.0 **MeOH Ext. Vol:** 5 ml
Prep Final Vol: 50 ml **Unit Factor:** 1 **MeOH Aliq. Vol:** 500 uL
Solids: %

Final Concentration = ((Soln Conc x MeOH Ext. Vol x Prep Final Vol x Dilution) / (Prep Amount x MeOH Aliq. x Solids)) x Unit Factor

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
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*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File : J:\MS13\DATA\100719\1007F011.D
 Acq On : 7 Oct 2019 2:44 pm
 Sample : MB
 Misc :

Vial: 5
 Operator: AK
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 08 08:54:37 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260
 Last Update : Tue Oct 01 09:18:15 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	285688	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	107653	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.97	152	85668	10.00	PPB	0.00

System Monitoring Compounds

42) Dibromofluoromethane	4.58	113	61262	9.46	PPB	0.00
Spiked Amount	10.000		Recovery	=	94.60%	
47) 1,2-Dichloroethane-d4	4.99	65	58974	7.99	PPB	0.00
Spiked Amount	10.000		Recovery	=	79.90%	
62) Toluene-d8	7.56	98	287079	10.36	PPB	0.00
Spiked Amount	10.000		Recovery	=	103.60%	
84) 4-Bromofluorobenzene	10.73	95	81792	9.10	PPB	0.00
Spiked Amount	10.000		Recovery	=	91.00%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
3) Chloromethane	1.24	50	561	0.05	PPB	# 51
5) Bromomethane	1.57	96	534	0.08	PPB	92
14) Iodomethane	2.40	142	1428	0.17	PPB	78
15) Carbon Disulfide	2.43	76	2852	0.13	PPB	79
20) Methylene Chloride	2.75	84	1603	0.19	PPB	# 82
95) 1,2,4-Trimethylbenzene	11.58	105	772	0.03	PPB	78
97) p-Isopropyltoluene	11.91	119	880	0.03	PPB	53
99) 1,4-Dichlorobenzene	12.00	146	568	0.04	PPB	# 35
100) n-Butylbenzene	12.34	91	1060	0.04	PPB	76
104) 1,2,4-Trichlorobenzene	14.04	180	811	0.10	PPB	# 70
106) Naphthalene	14.29	128	1295	0.09	PPB	77
107) 1,2,3-Trichlorobenzene	14.54	180	684	0.10	PPB	# 72

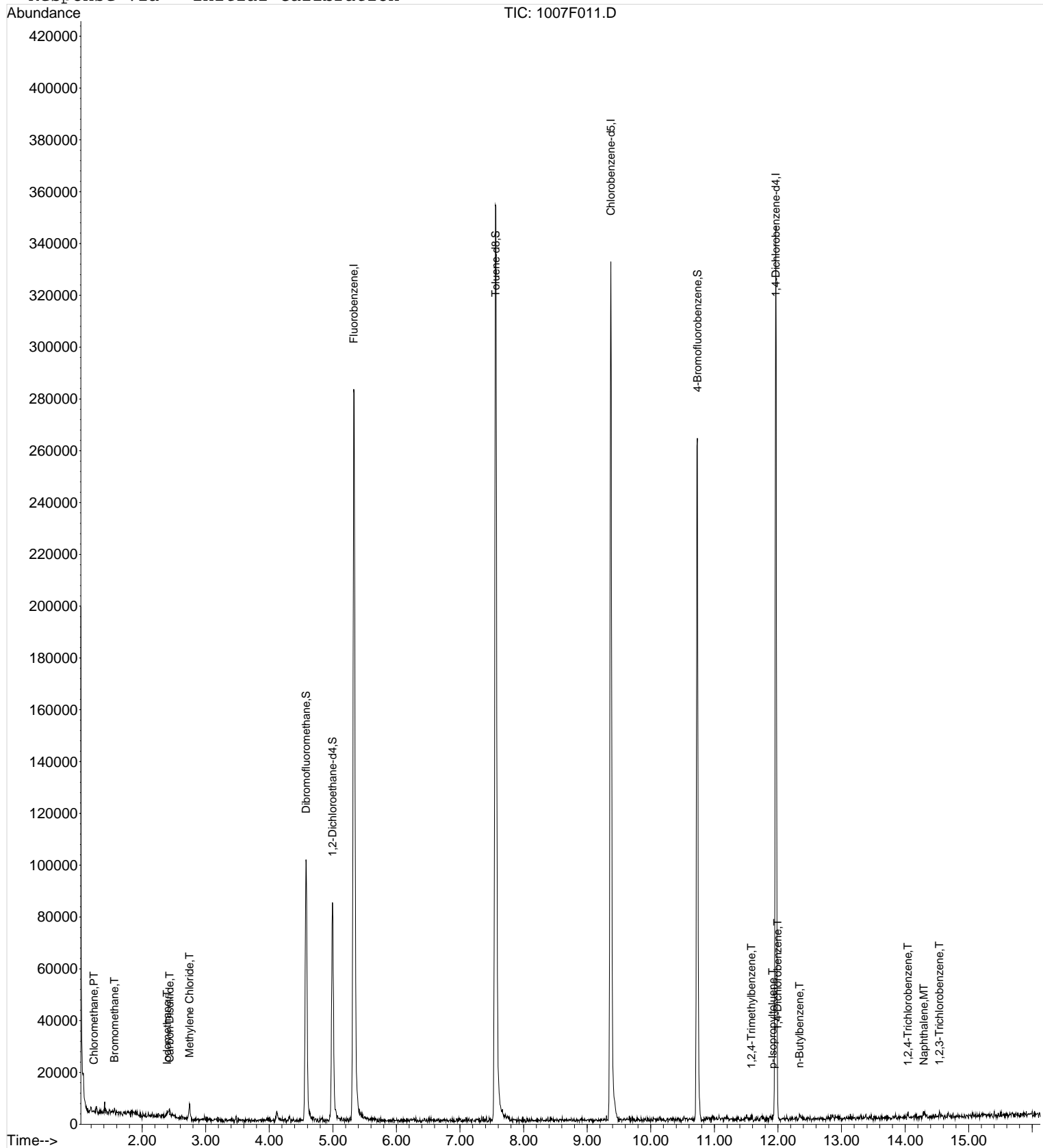
Data File : J:\MS13\DATA\100719\1007F011.D
Acq On : 7 Oct 2019 2:44 pm
Sample : MB
Misc :

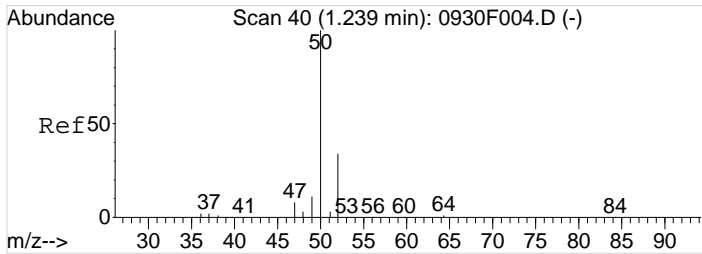
Vial: 5
Operator: AK
Inst : MS13
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Oct 8 9:04 2019

Quant Results File: 072519MS13_8260W.RES

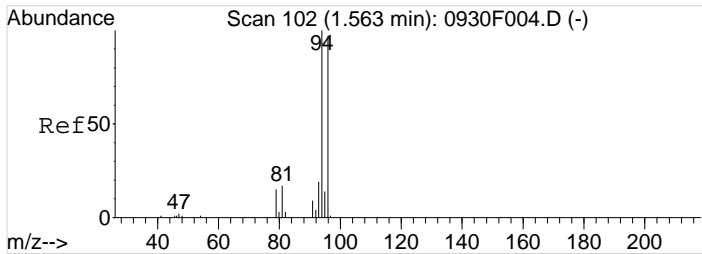
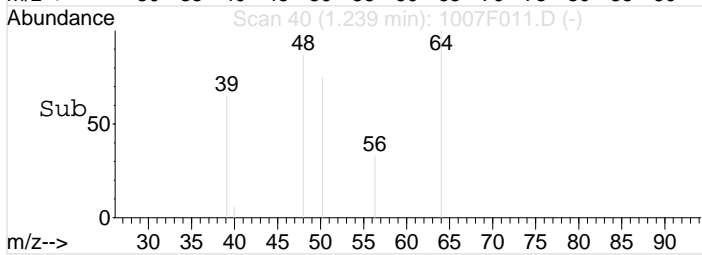
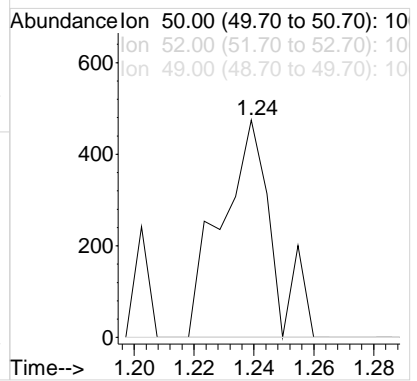
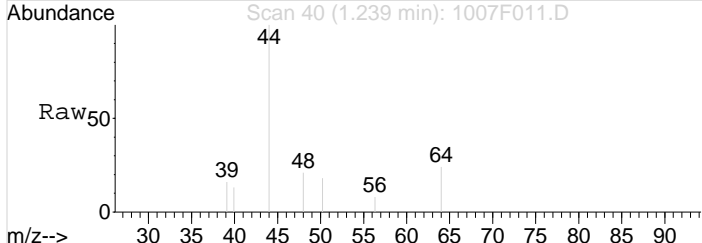
Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260
Last Update : Tue Oct 01 09:18:15 2019
Response via : Initial Calibration





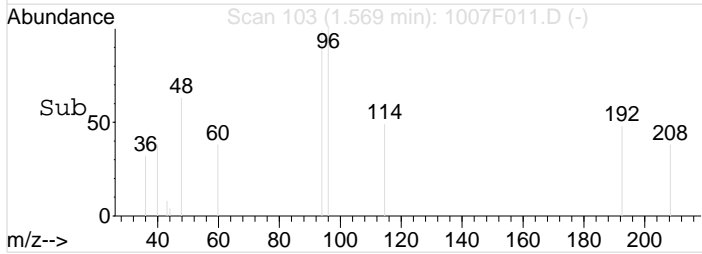
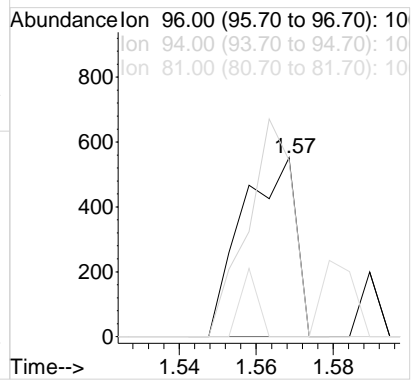
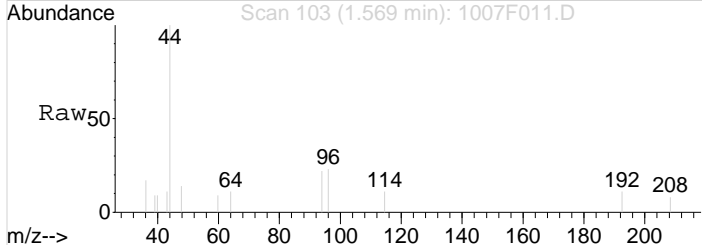
#3
 Chloromethane
 Concen: 0.05 PPB
 RT: 1.24 min Scan# 40
 Delta R.T. -0.00 min
 Lab File: 1007F011.D
 Acq: 7 Oct 2019 2:44 pm

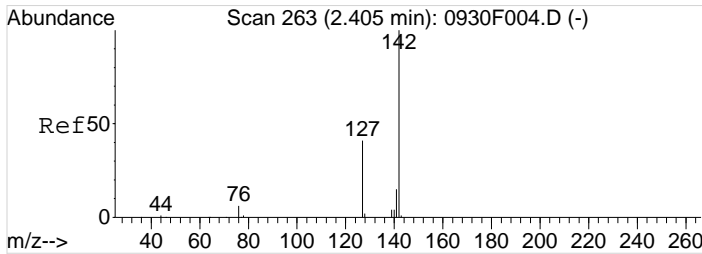
Tgt Ion	Resp	Lower	Upper
50	100		
52	0.0	0.8	60.8#
49	0.0	0.0	39.5



#5
 Bromomethane
 Concen: 0.08 PPB
 RT: 1.57 min Scan# 103
 Delta R.T. 0.01 min
 Lab File: 1007F011.D
 Acq: 7 Oct 2019 2:44 pm

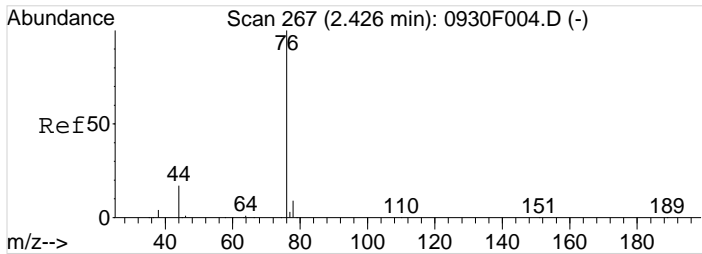
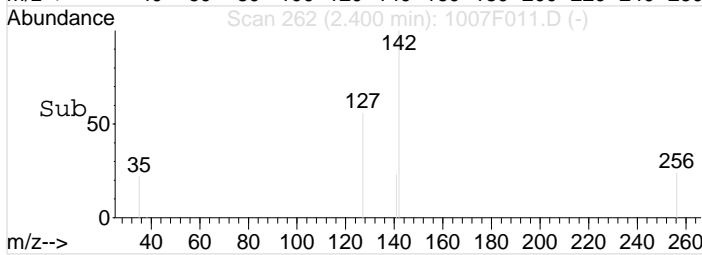
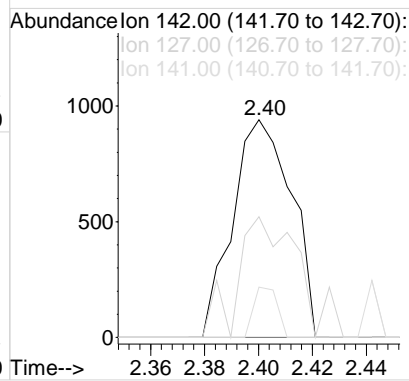
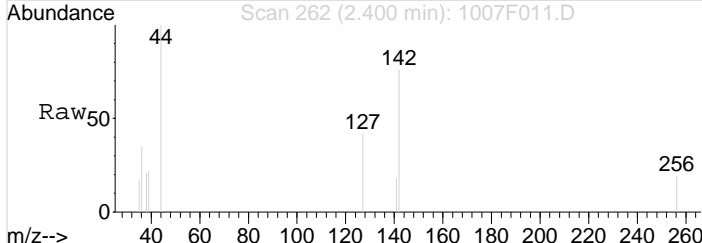
Tgt Ion	Resp	Lower	Upper
96	100		
94	98.6	71.8	131.8
81	0.0	0.0	45.8





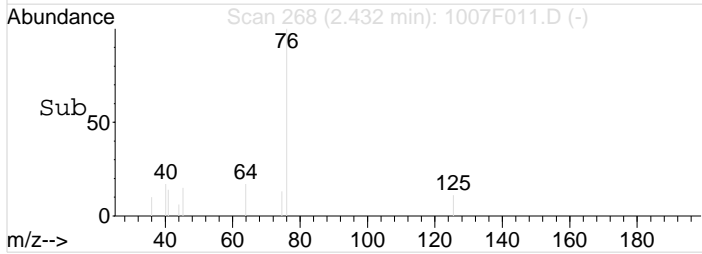
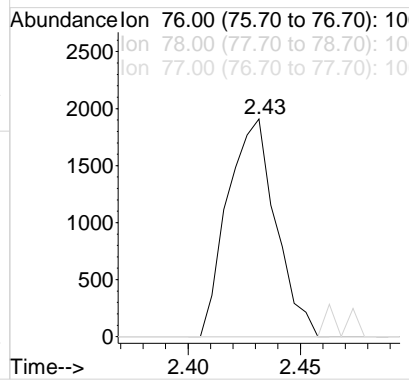
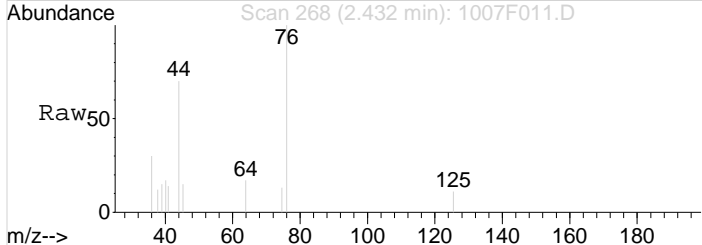
#14
 Iodomethane
 Concen: 0.17 PPB
 RT: 2.40 min Scan# 262
 Delta R.T. -0.01 min
 Lab File: 1007F011.D
 Acq: 7 Oct 2019 2:44 pm

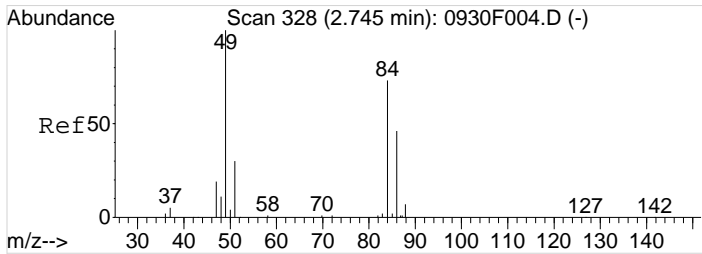
Tgt Ion	Resp	Lower	Upper
142	1428		
127	55.5	12.3	72.3
141	23.1	0.0	43.5



#15
 Carbon Disulfide
 Concen: 0.13 PPB
 RT: 2.43 min Scan# 268
 Delta R.T. 0.01 min
 Lab File: 1007F011.D
 Acq: 7 Oct 2019 2:44 pm

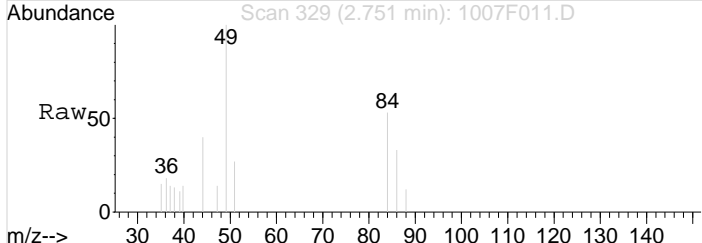
Tgt Ion	Resp	Lower	Upper
76	2852		
78	0.0	0.0	38.9
77	0.0	0.0	32.9



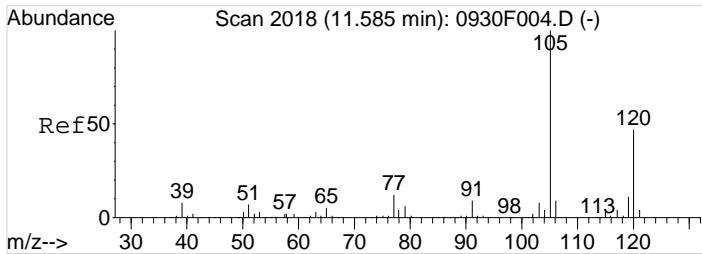
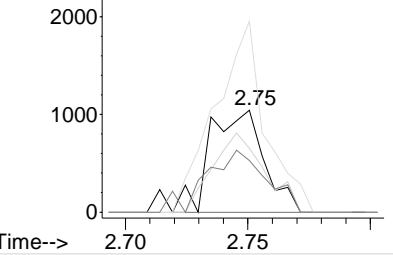
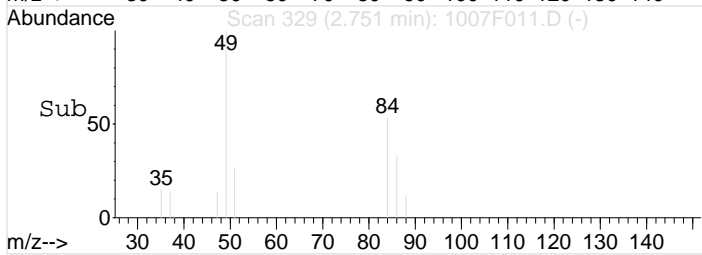


#20
 Methylene Chloride
 Concen: 0.19 PPB
 RT: 2.75 min Scan# 329
 Delta R.T. 0.01 min
 Lab File: 1007F011.D
 Acq: 7 Oct 2019 2:44 pm

Tgt Ion	Resp	Lower	Upper
84	1603		
84	100		
86	62.5	32.2	92.2
49	187.1	120.2	180.2#
51	50.6	15.5	75.5

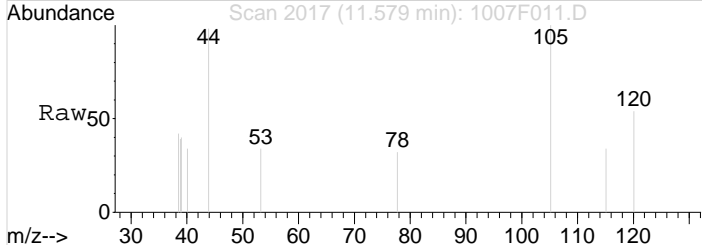


Abundance	Ion	Retention Range
3000	84.00	(83.70 to 84.70): 10
	86.00	(85.70 to 86.70): 10
	49.00	(48.70 to 49.70): 10
	51.00	(50.70 to 51.70): 10

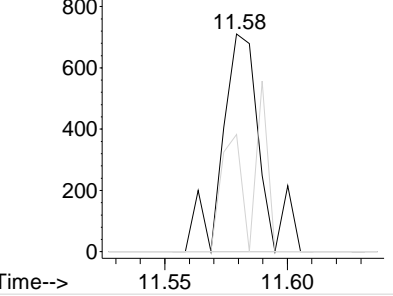
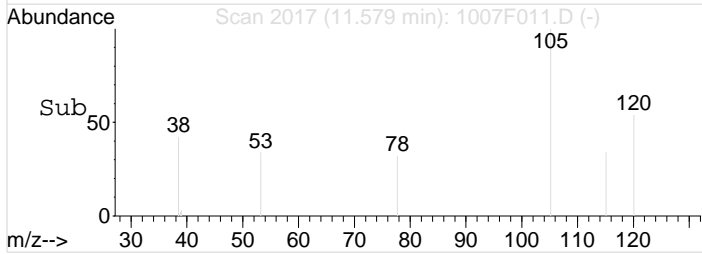


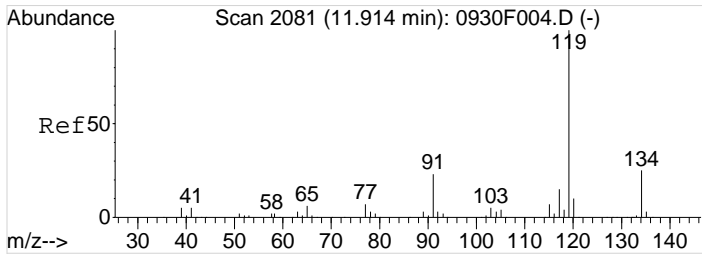
#95
 1,2,4-Trimethylbenzene
 Concen: 0.03 PPB
 RT: 11.58 min Scan# 2017
 Delta R.T. -0.00 min
 Lab File: 1007F011.D
 Acq: 7 Oct 2019 2:44 pm

Tgt Ion	Resp	Lower	Upper
105	772		
105	100		
120	53.9	14.7	74.7
77	31.7	0.0	42.0



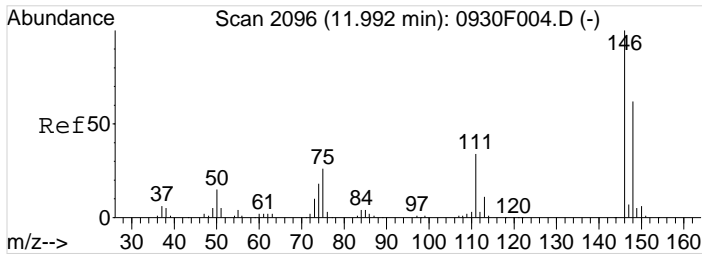
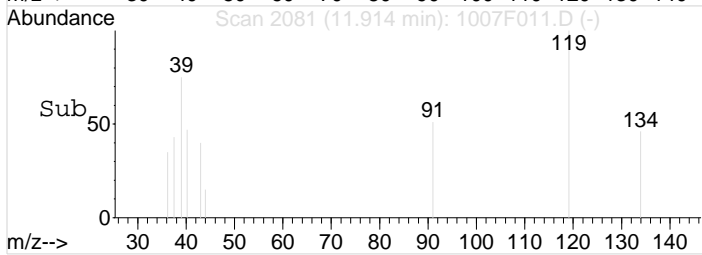
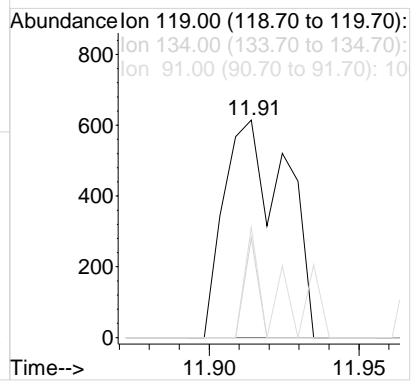
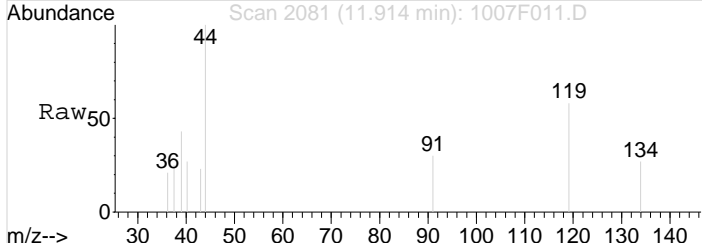
Abundance	Ion	Retention Range
800	105.00	(104.70 to 105.70):
	120.00	(119.70 to 120.70):
	77.00	(76.70 to 77.70): 10





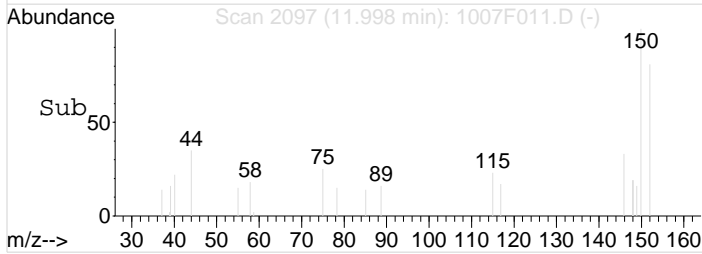
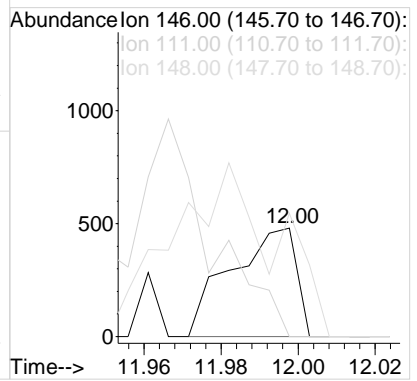
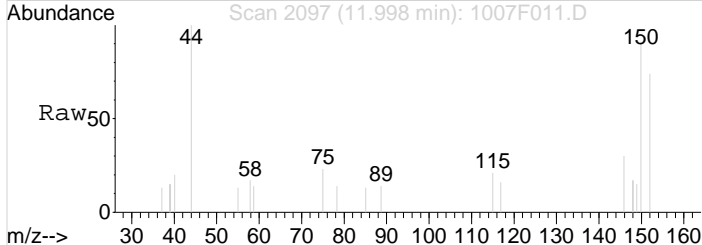
#97
 p-Isopropyltoluene
 Concen: 0.03 PPB
 RT: 11.91 min Scan# 2081
 Delta R.T. -0.00 min
 Lab File: 1007F011.D
 Acq: 7 Oct 2019 2:44 pm

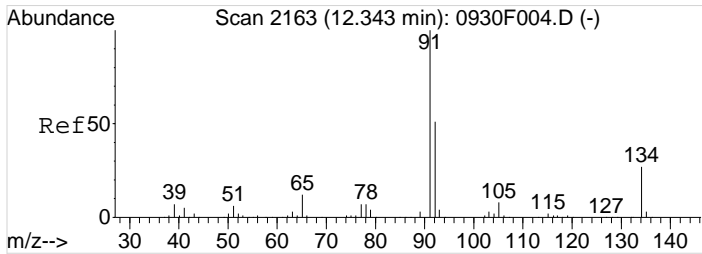
Tgt Ion	Resp	Lower	Upper
119	100		
134	45.9	0.0	55.9
91	50.7	0.0	53.8



#99
 1,4-Dichlorobenzene
 Concen: 0.04 PPB
 RT: 12.00 min Scan# 2097
 Delta R.T. 0.01 min
 Lab File: 1007F011.D
 Acq: 7 Oct 2019 2:44 pm

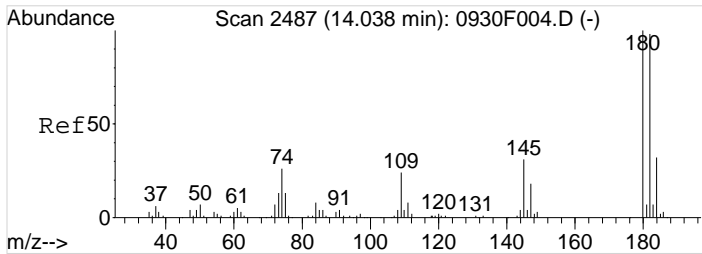
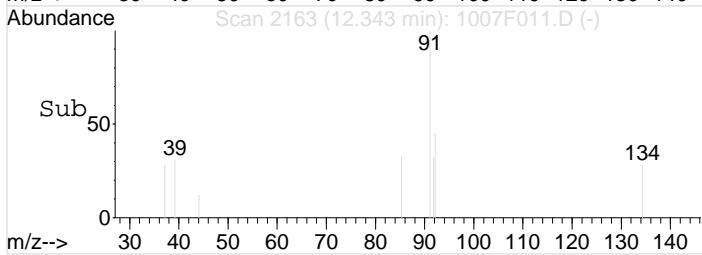
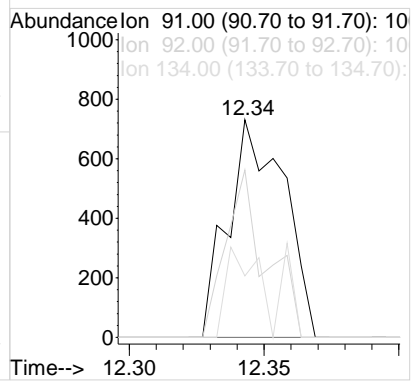
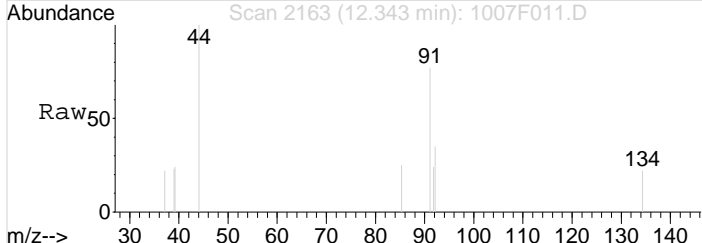
Tgt Ion	Resp	Lower	Upper
146	100		
111	0.0	10.0	70.0#
148	113.8	33.0	93.0#





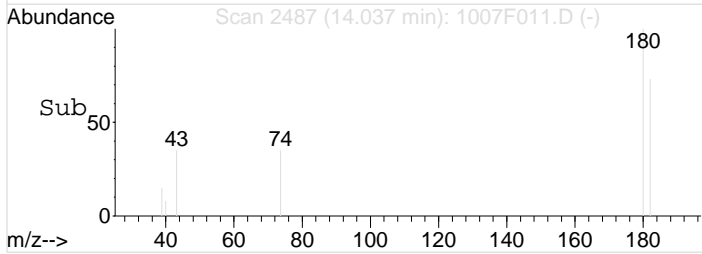
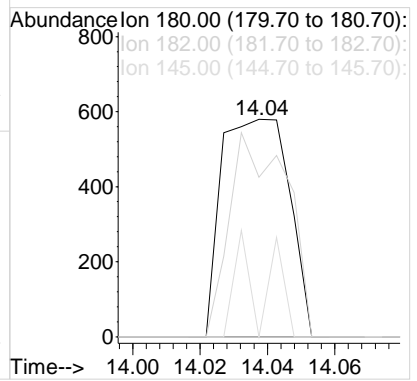
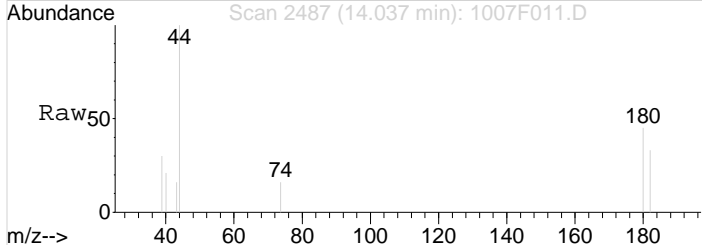
#100
 n-Butylbenzene
 Concen: 0.04 PPB
 RT: 12.34 min Scan# 2163
 Delta R.T. -0.00 min
 Lab File: 1007F011.D
 Acq: 7 Oct 2019 2:44 pm

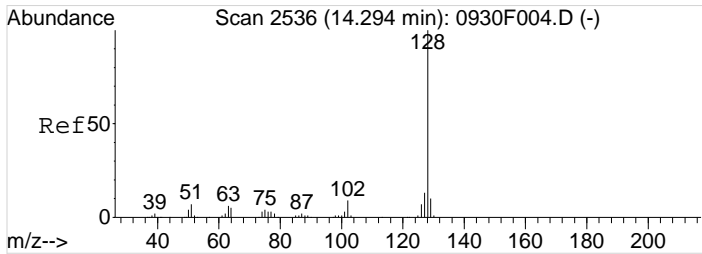
Tgt Ion	Resp	Lower	Upper
91	1060		
92	76.9	22.4	82.4
134	28.3	0.0	56.4



#104
 1,2,4-Trichlorobenzene
 Concen: 0.10 PPB
 RT: 14.04 min Scan# 2487
 Delta R.T. 0.01 min
 Lab File: 1007F011.D
 Acq: 7 Oct 2019 2:44 pm

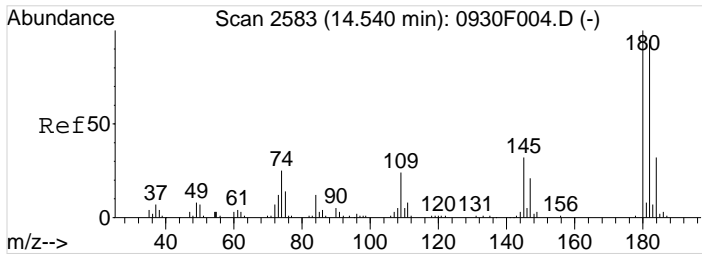
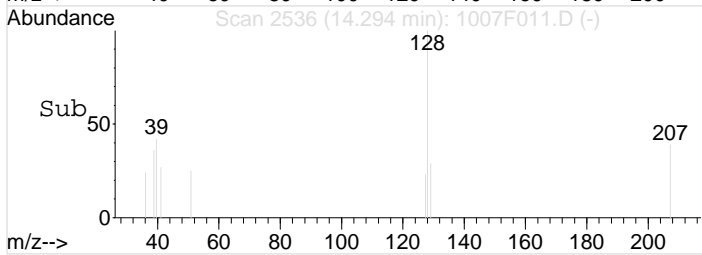
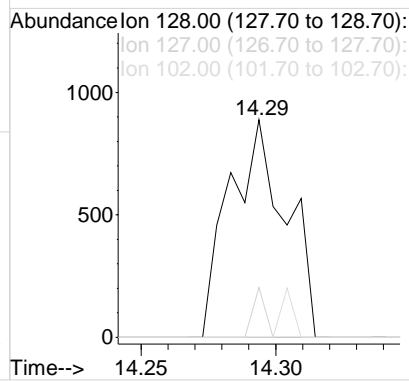
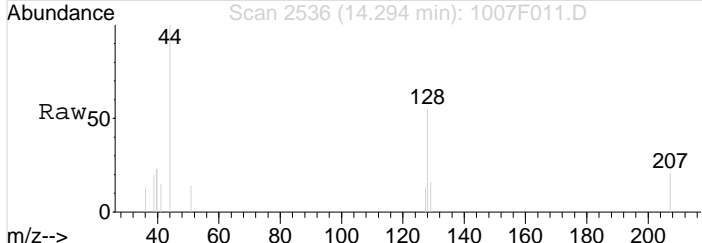
Tgt Ion	Resp	Lower	Upper
180	811		
182	73.3	63.6	123.6
145	0.0	1.9	61.9#





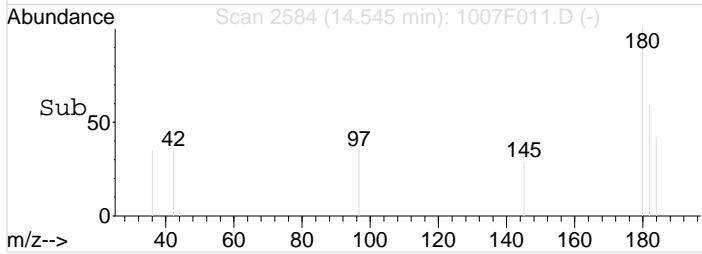
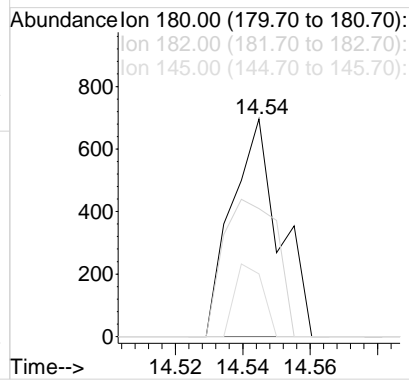
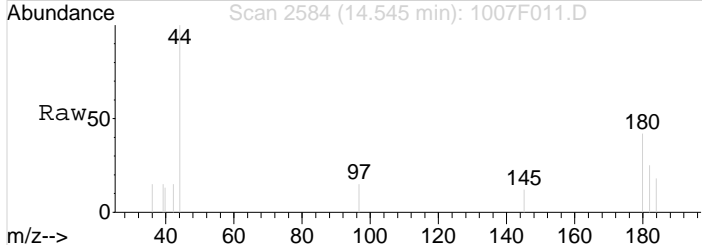
#106
Naphthalene
Concen: 0.09 PPB
RT: 14.29 min Scan# 2536
Delta R.T. 0.01 min
Lab File: 1007F011.D
Acq: 7 Oct 2019 2:44 pm

Tgt Ion	Resp	Lower	Upper
128	100		
127	22.9	0.0	44.2
102	0.0	0.0	39.3



#107
1,2,3-Trichlorobenzene
Concen: 0.10 PPB
RT: 14.54 min Scan# 2584
Delta R.T. 0.01 min
Lab File: 1007F011.D
Acq: 7 Oct 2019 2:44 pm

Tgt Ion	Resp	Lower	Upper
180	100		
182	58.8	63.8	123.8#
145	28.9	0.0	59.6



Exception Report

Data File: J:\MS13\DATA\100719\1007F007.D
Lab ID: KWG1904386-1
RunType: LCS
Matrix: SLUDGE, SOLID

Date Acquired: 10/07/2019 12:58
Date Quantitated: 10/08/2019 08:59
Batch ID: KWG1904384
Analysis Method: 8260C
MethodJoinID: MJ174

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA		x
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	2-Propanol	0.0061	0.01	NA	NT
	Acetonitrile	0.0083	0.01	NA	
	tert-Butyl Alcohol	0.0087	0.01	NA	
	Isobutyl Alcohol	0.0042	0.01	NA	
	1,4-Dioxane	0.0009	0.01	NA	
Continuing Calibration Recovery	Dichlorodifluoromethane	-52.4	NA	20	
	Chloromethane	-39.1	NA	20	
	Vinyl Chloride	-32.0	NA	20	
	Bromomethane	-43.1	NA	20	
	Chloroethane	-23.5	NA	20	
	Trichlorofluoromethane	-27.6	NA	20	
	1,1-Dichloroethene	-33.6	NA	20	
	Iodomethane	-35.9	NA	20	

Primary Review: _____

Secondary Review: _____

Exception Report

Data File: J:\MS13\DATA\100719\1007F007.D
Lab ID: KWG1904386-1
RunType: LCS
Matrix: SLUDGE, SOLID

Date Acquired: 10/07/2019 12:58
Date Quantitated: 10/08/2019 08:59
Batch ID: KWG1904384
Analysis Method: 8260C
MethodJoinID: MJ174

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
	trans-1,2-Dichloroethene	-27.2	NA	20	NT
	1,1-Dichloroethane	-21.9	NA	20	
	Chloroprene	-23.3	NA	20	
	2,2-Dichloropropane	-34.0	NA	20	
	cis-1,2-Dichloroethene	-21.6	NA	20	
	Ethyl Acetate	-25.9	NA	20	
	1,1,1-Trichloroethane (TCA)	-23.7	NA	20	
	1,1-Dichloropropene	-30.9	NA	20	
	Benzene	-25.0	NA	20	
	1,2-Dichloroethane (EDC)	-21.5	NA	20	
	Trichloroethene (TCE)	-28.0	NA	20	
	1,4-Dioxane	21.8	NA	20	
	2-Chloroethyl Vinyl Ether	-27.6	NA	20	
	Toluene	-21.4	NA	20	
	trans-1,3-Dichloropropene	-20.8	NA	20	
	cis-1,4-Dichloro-2-butene	-37.9	NA	20	
	trans-1,4-Dichloro-2-butene	-37.3	NA	20	
	n-Propylbenzene	-23.7	NA	20	
	2-Chlorotoluene	-25.4	NA	20	
	1,3,5-Trimethylbenzene	-22.0	NA	20	
	4-Chlorotoluene	-23.7	NA	20	
Continuing Calibration Minimum RF	2-Propanol	0.0061	0.01	NA	
	Acetonitrile	0.0086	0.01	NA	
	tert-Butyl Alcohol	0.0070	0.01	NA	
	Isobutyl Alcohol	0.0035	0.01	NA	
	1,4-Dioxane	0.0011	0.01	NA	

Primary Review: _____

Secondary Review: _____

Quantitation Report

Data File: J:\MS13\DATA\100719\1007F007.D	Instrument: MS13
Acqu Date: 10/07/2019 12:58	Quant Date: 10/08/2019 08:59
Run Type: LCS	Vial: 2
Lab ID: KWG1904386-1	MethodJoinID: MJ174
	Dilution: 1.0
	Soln Conc. Units: PPB

Bottle ID:	Tier:	Matrix: SLUDGE, SOLID
Prod Code: 8260C VOC FP	Collect Date:	Receive Date: 10/08/2019

Analysis Lot: KWG1904384	Prep Lot: KWG1904386	Report Group:
Analysis Method: 8260C	Prep Method: EPA 5035A/5030B	
Prep Ref: 1736375	Prep Date: 10/07/2019	

Quant Method: J:\MS13\METHODS\072519MS13_8	Calibration ID: CAL16105
Title:	
Tune Ref: J:\MS13\DATA\100719\1007F003.D	Method ID: MJ174
MB Ref: J:\MS13\DATA\100719\1007F011.D	Quant based on Method

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.33	0.00	96	294031	10.00	OK
2	Chlorobenzene-d5	9.37	0.00	82	108119	10.00	OK
3	1,4-Dichlorobenzene-d4	11.97	0.00	152	92059	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	4.58	0.00	0.00	113	66116	9.92	99	55-132	OK
1	1,2-Dichloroethane-d4	4.99	0.00	0.00	65	59314	7.81	78	37-155	OK
1	Toluene-d8	7.56	0.00	0.00	98	290033	10.17	102	81-124	OK
2	4-Bromofluorobenzene	10.73	0.00	0.00	95	85725	9.50	95	64-132	OK

Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
								Final Conc. Units: mg/Kg Wet Weight		
1	Dichlorodifluoromethane	1.10		0.00	85	81815	8.45	0.845		
1	Chloromethane	1.24	0.01	0.00	50	89955	7.77	0.777		
1	Vinyl Chloride	1.31		0.00	62	92735	8.53	0.853		
1	Bromomethane	1.56		0.00	96	44006	6.73	0.673		
1	Chloroethane	1.64		0.00	64	56807	8.97	0.897		
1	Dichlorofluoromethane (CFC 21)				67	0d		0.0065		U
1	Trichlorofluoromethane	1.80		0.00	101	121563	7.62	0.762		
1	Ethyl Ether	2.05	-0.01	0.00	59	42911	10.17	1.02		
1	Acrolein	2.23		0.00	56	82989	97.13	9.71		
1	Trichlorotrifluoroethane	2.23	0.01	0.00	151	52741	8.62	0.862		
1	1,1-Dichloroethene	2.25		0.00	96	57843	7.09	0.709		
1	Acetone	2.37		0.00	43	51971	47.74	4.77		
1	Iodomethane	2.40		0.00	142	233929	26.52	2.65		

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 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File:	J:\MS13\DATA\100719\1007F007.D	Instrument:	MS 1.5
Acqu Date:	10/07/2019 12:58	Quant Date:	10/08/2019 08:59
Run Type:	LCS	MethodJoinID:	MJ174
Lab ID:	KWG1904386-1	Vial:	2
		Dilution:	1.0
		Soln Conc. Units:	PPB

Target Compounds						Final Conc. Units:		mg/Kg Wet Weight		
IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Disulfide	2.43		0.00	76	316552	14.07	1.41		
1	2-Propanol				45	0d		1.7	U	
1	3-Chloro-1-propene	2.60		0.00	76	106333	24.76	2.48		
1	Acetonitrile	2.69		0.00	40	65805	269.38	26.9		
1	Methyl Acetate				43	0d		0.038	U	
1	Methylene Chloride	2.75		0.00	84	69707	8.23	0.823		
1	tert-Butyl Alcohol				59	0d		0.44	U	
1	Acrylonitrile	3.05		0.00	53	53060	35.83	3.58		
1	Methyl tert-Butyl Ether	2.94		0.00	73	125779	7.95	0.795		
1	trans-1,2-Dichloroethene	2.95		0.00	96	64736	8.15	0.815		
1	n-Hexane	3.14		0.00	57	277965	22.03	2.2	JN	
1	Diisopropyl Ether				45	0d		0.0048	U	
1	1,1-Dichloroethane	3.42		0.00	63	122686	7.79	0.779		
1	Vinyl Acetate	3.47		0.00	86	43818	37.61	3.76		
1	Chloroprene	3.47		0.00	53	335302	24.83	2.48		
1	tert-Butyl Ethyl Ether				59	0d		0.0048	U	
1	2,2-Dichloropropane	4.00		0.00	77	86070	6.38	0.638		
1	cis-1,2-Dichloroethene	4.04		0.00	96	73753	8.30	0.830		
1	2-Butanone (MEK)	4.09		0.00	72	20090	52.07	5.21		
1	Propionitrile	4.25	0.01	0.00	54	13353	25.51	2.55		
1	Ethyl Acetate	4.12		0.00	61	15375	18.79	1.88		
1	Methacrylonitrile	4.36		0.00	67	46739	26.38	2.64		
1	Bromochloromethane	4.30		0.00	128	33260	8.88	0.888		
1	Tetrahydrofuran				71	0d		0.094	U	
1	Chloroform	4.39		0.00	83	114074	7.74	0.774		
1	1,1,1-Trichloroethane (TCA)	4.53		0.00	97	102123	7.79	0.779		
1	Cyclohexane				56	0d		0.036	U	
1	Carbon Tetrachloride	4.67	0.01	0.00	117	83457	7.79	0.779		
1	1,1-Dichloropropene	4.72		0.00	75	96489	7.79	0.779		
1	Isobutyl Alcohol	4.98		0.00	43	29173	233.49	23.3	J	
1	Benzene	4.96		0.00	78	284885	7.88	0.788		
1	1,2-Dichloroethane (EDC)	5.08		0.00	62	77097	7.30	0.730		
1	tert-Amyl Methyl Ether				55	0d		0.012	U	
1	Trichloroethene (TCE)	5.80	-0.01	0.00	95	69972	7.91	0.791		
1	Methylcyclohexane				83	0d		0.033	U	
1	1,2-Dichloropropane	6.22		0.00	63	68969	7.79	0.779		
1	Dibromomethane	6.39	-0.01	0.00	93	29283	7.40	0.740		
1	Methyl Methacrylate	6.43	0.01	0.00	69	82524	26.45	2.65		
1	1,4-Dioxane	6.43		0.00	88	8855	346.99	34.7		
1	Bromodichloromethane	6.64		0.00	83	72569	7.72	0.772		
1	2-Nitropropane	7.10		0.00	43	39196m	30.89	3.09		
1	2-Chloroethyl Vinyl Ether	7.13		0.00	63	23500	6.57	0.657		

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Data File:	J:\MS13\DATA\100719\1007F007.D	Instrument:	MS 1.5
Acqu Date:	10/07/2019 12:58	Quant Date:	10/08/2019 08:59
Run Type:	LCS	MethodJoinID:	MJ174
Lab ID:	KWG1904386-1	Vial:	2
		Dilution:	1.0
		Soln Conc. Units:	PPB

Target Compounds		Final Conc. Units: mg/Kg Wet Weight							Q	Rpt?
IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc		
1	cis-1,3-Dichloropropene	7.29		0.00	75	88798	7.66	0.766		
1	4-Methyl-2-pentanone (MIBK)	7.53		0.00	58	65203	43.99	4.40		
1	Toluene	7.65		0.00	92	177123	8.29	0.829		
2	n-Octane				85	0d		0.016	U	
2	trans-1,3-Dichloropropene	8.07	-0.01	0.00	75	65533	6.83	0.683		
2	Ethyl Methacrylate	8.16	0.01	0.00	69	164844	25.31	2.53		
2	1,1,2-Trichloroethane	8.29		0.00	83	39753	8.51	0.851		
2	Tetrachloroethene (PCE)	8.30	0.01	0.00	164	60302	8.57	0.857		
2	2-Hexanone	8.61		0.00	57	19278	40.11	4.01		
2	1,3-Dichloropropane	8.49	-0.01	0.00	76	79243	7.93	0.793		
2	Dibromochloromethane	8.71		0.00	129	46524	9.12	0.912		
2	1,2-Dibromoethane (EDB)	8.84		0.00	107	39740	7.90	0.790		
2	1-Chlorohexane	9.40		0.00	91	87721	8.02	0.802		
2	Chlorobenzene	9.40		0.00	112	183557	8.24	0.824		
2	Ethylbenzene	9.52		0.00	106	103000	8.02	0.802		
2	1,1,1,2-Tetrachloroethane	9.53		0.00	131	55841	8.09	0.809		
2	m,p-Xylenes	9.66	-0.01	0.00	106	241582	15.83	1.58		
2	o-Xylene	10.11		0.00	106	114941	8.12	0.812		
2	Styrene	10.15		0.00	103	94792m	8.53	0.853		
2	Bromoform	10.36		0.00	173	24148	8.93	0.893		
2	Isopropylbenzene	10.52		0.00	105	302560	8.20	0.820		
2	cis-1,4-Dichloro-2-butene	10.70	-0.01	0.00	89	9583	15.75	1.58		
3	1,1,2,2-Tetrachloroethane	10.96		0.00	83	40697	7.61	0.761		
3	trans-1,4-Dichloro-2-butene	11.03	-0.01	0.00	53	23881	14.06	1.41		
3	Bromobenzene	10.86	-0.01	0.00	156	73970	8.22	0.822		
3	n-Propylbenzene	10.97		0.00	91	344005	7.43	0.743		
3	1,2,3-Trichloropropane	10.99	-0.01	0.00	110	12462	7.88	0.788		
3	2-Chlorotoluene	11.08		0.00	91	201277	7.30	0.730		
3	1,3,5-Trimethylbenzene	11.19		0.00	105	240057	7.51	0.751		
3	4-Chlorotoluene	11.21		0.00	91	228263	7.24	0.724		
3	tert-Butylbenzene	11.51		0.00	119	211196	7.62	0.762		
3	1,2,4-Trimethylbenzene	11.58		0.00	105	239181	7.62	0.762		
3	sec-Butylbenzene	11.75		0.00	105	298154	7.56	0.756		
3	4-Isopropyltoluene	11.91		0.00	119	258734	8.01	0.801		
3	1,3-Dichlorobenzene	11.88		0.00	146	135220	7.89	0.789		
3	1,4-Dichlorobenzene	11.99		0.00	146	132732	7.73	0.773		
3	n-Butylbenzene	12.35	0.01	0.00	91	218902	7.34	0.734		
3	1,2-Dichlorobenzene	12.38		0.00	146	119532	8.18	0.818		
3	1,2-Dibromo-3-chloropropane	13.23		0.00	155	4910	7.71	0.771		
3	1,3,5-Trichlorobenzene	13.38		0.00	180	97141	9.20	0.920		
3	1,2,4-Trichlorobenzene	14.04		0.00	180	74941	8.47	0.847		
3	Hexachlorobutadiene	14.17		0.00	225	41521	9.60	0.960		

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 m: Manual integration performed
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 e: Result >= MRL, but MRL less than low point of ICAL
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Data File : J:\MS13\DATA\100719\1007F007.D
 Acq On : 7 Oct 2019 12:58 pm
 Sample : LCS
 Misc :

Vial: 2
 Operator: AK
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 08 08:54:34 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260
 Last Update : Tue Oct 01 09:18:15 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	294031	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	108119	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.97	152	92059	10.00	PPB	0.00

System Monitoring Compounds

42) Dibromofluoromethane	4.58	113	66116	9.92	PPB	0.00
Spiked Amount	10.000		Recovery	=	99.20%	
47) 1,2-Dichloroethane-d4	4.99	65	59314	7.81	PPB	0.00
Spiked Amount	10.000		Recovery	=	78.10%	
62) Toluene-d8	7.56	98	290033	10.17	PPB	0.00
Spiked Amount	10.000		Recovery	=	101.70%	
84) 4-Bromofluorobenzene	10.73	95	85725	9.50	PPB	0.00
Spiked Amount	10.000		Recovery	=	95.00%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.10	85	81815	8.45	PPB	98
3) Chloromethane	1.24	50	89955	7.77	PPB	97
4) Vinyl Chloride	1.31	62	92735	8.53	PPB	97
5) Bromomethane	1.56	96	44006	6.73	PPB	94
6) Chloroethane	1.64	64	56807	8.97	PPB	96
8) Trichlorofluoromethane	1.80	101	121563	7.62	PPB	94
9) Ethyl Ether	2.05	59	42911	10.17	PPB	99
10) Acrolein	2.23	56	82989	97.13	PPB	97
11) Trichlorotrifluoroethane	2.23	151	52741	8.62	PPB	91
12) 1,1-Dichloroethene	2.25	96	57843	7.09	PPB	97
13) Acetone	2.37	43	51971	47.74	PPB	98
14) Iodomethane	2.40	142	233929	26.52	PPB	98
15) Carbon Disulfide	2.43	76	316552	14.07	PPB	99
17) 3-Chloro-1-propene	2.60	76	106333	24.76	PPB	92
18) Acetonitrile	2.69	40	65805	269.38	PPB	97
20) Methylene Chloride	2.75	84	69707	8.23	PPB	89
22) Acrylonitrile	3.05	53	53060	35.83	PPB	91
23) Methyl tert-Butyl Ether	2.94	73	125779	7.95	PPB	94
24) trans-1,2-Dichloroethene	2.95	96	64736	8.15	PPB	80
25) Hexane	3.14	57	277965	22.03	PPB	94
27) 1,1-Dichloroethane	3.42	63	122686	7.79	PPB	98
28) Vinyl Acetate	3.47	86	43818	37.61	PPB	# 87
29) Chloroprene	3.47	53	335302	24.83	PPB	97
31) 2,2-Dichloropropane	4.00	77	86070	6.38	PPB	96
32) cis-1,2-Dichloroethene	4.04	96	73753	8.30	PPB	86
33) 2-Butanone	4.09	72	20090	52.07	PPB	93
34) Propionitrile	4.25	54	13353	25.51	PPB	94
35) Ethyl Acetate	4.12	61	15375	18.79	PPB	94
36) Methacrylonitrile	4.36	67	46739	26.38	PPB	91
37) Bromochloromethane	4.30	128	33260	8.88	PPB	91
39) Chloroform	4.39	83	114074	7.74	PPB	91
41) 1,1,1-Trichloroethane	4.53	97	102123	7.79	PPB	95
44) Carbon Tetrachloride	4.67	117	83457	7.79	PPB	97
45) 1,1-Dichloropropene	4.72	75	96489	7.79	PPB	95
46) Isobutyl Alcohol	4.98	43	29173	233.49	PPB	81
48) Benzene	4.96	78	284885	7.88	PPB	99
49) 1,2-Dichloroethane	5.08	62	77097	7.30	PPB	95
51) Trichloroethene	5.80	95	69972	7.91	PPB	94
53) 1,2-Dichloropropane	6.22	63	68969	7.79	PPB	94
54) Dibromomethane	6.39	93	29283	7.40	PPB	91
55) Methyl methacrylate	6.43	69	82524	26.45	PPB	94
56) 1,4-Dioxane	6.43	88	8855	346.99	PPB	72
57) Bromodichloromethane	6.64	83	72569	7.72	PPB	95

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS13\DATA\100719\1007F007.D

Vial: 2

Acq On : 7 Oct 2019 12:58 pm

Operator: AK

2nd *AK* 10/09/19

Sample : LCS

Inst : MS13

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Oct 08 08:54:34 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260

Last Update : Tue Oct 01 09:18:15 2019

Response via : Initial Calibration

DataAcq Meth : 8260W5

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
58) 2-Nitropropane	7.10	43	39196m	30.89	PPB	
59) 2-Chloroethyl Vinyl Ether	7.13	63	23500	6.57	PPB	98
60) cis-1,3-Dichloropropene	7.29	75	88798	7.66	PPB	90
61) 4-Methyl-2-pentanone (MIBK)	7.53	58	65203	43.99	PPB	89
63) Toluene	7.65	92	177123	8.29	PPB	99
66) trans-1,3-Dichloropropene	8.07	75	65533	6.83	PPB	98
67) Ethyl methacrylate	8.16	69	164844	25.31	PPB	96
68) 1,1,2-Trichloroethane	8.29	83	39753	8.51	PPB	93
69) Tetrachloroethene	8.30	164	60302	8.57	PPB	93
70) 2-Hexanone	8.61	57	19278	40.11	PPB	# 69
71) 1,3-Dichloropropene	8.49	76	79243	7.93	PPB	96
72) Dibromochloromethane	8.71	129	46524	9.12	PPB	96
73) 1,2-Dibromoethane (EDB)	8.84	107	39740	7.90	PPB	88
74) 1-Chlorohexane	9.40	91	87721	8.02	PPB	87
75) Chlorobenzene	9.40	112	183557	8.24	PPB	94
76) Ethylbenzene	9.52	106	103000	8.02	PPB	99
77) 1,1,1,2-Tetrachloroethane	9.53	131	55841	8.09	PPB	90
78) m,p-Xylenes	9.66	106	241582	15.83	PPB	97
79) o-Xylene	10.11	106	114941	8.12	PPB	95
80) Styrene	10.15	103	94792m	8.53	PPB	
81) Bromoform	10.36	173	24148	8.93	PPB	95
82) Isopropylbenzene	10.52	105	302560	8.20	PPB	97
83) cis-1,4-Dichloro-2-butene	10.70	89	9583	15.75	PPB	91
86) 1,1,2,2-Tetrachloroethane	10.96	83	40697	7.61	PPB	93
87) trans-1,4-Dichloro-2-buten	11.03	53	23881	14.06	PPB	99
88) Bromobenzene	10.86	156	73970	8.22	PPB	86
89) n-Propylbenzene	10.97	91	344005	7.43	PPB	99
90) 1,2,3-Trichloropropane	10.99	110	12462	7.88	PPB	88
91) 2-Chlorotoluene	11.08	91	201277	7.30	PPB	98
92) 1,3,5-Trimethylbenzene	11.19	105	240057	7.51	PPB	100
93) 4-Chlorotoluene	11.21	91	228263	7.24	PPB	95
94) tert-Butylbenzene	11.51	119	211196	7.62	PPB	97
95) 1,2,4-Trimethylbenzene	11.58	105	239181	7.62	PPB	97
96) sec-Butylbenzene	11.75	105	298154	7.56	PPB	98
97) p-Isopropyltoluene	11.91	119	258734	8.01	PPB	96
98) 1,3-Dichlorobenzene	11.88	146	135220	7.89	PPB	97
99) 1,4-Dichlorobenzene	11.99	146	132732	7.73	PPB	97
100) n-Butylbenzene	12.35	91	218902	7.34	PPB	97
101) 1,2-Dichlorobenzene	12.38	146	119532	8.18	PPB	95
102) 1,2-Dibromo-3-chloropropan	13.23	155	4910	7.71	PPB	92
103) 1,3,5-Trichlorobenzene	13.38	180	97141	9.20	PPB	93
104) 1,2,4-Trichlorobenzene	14.04	180	74941	8.47	PPB	96
105) Hexachlorobutadiene	14.17	225	41521	9.60	PPB	98
106) Naphthalene	14.29	128	123529	8.10	PPB	98
107) 1,2,3-Trichlorobenzene	14.54	180	62688	8.76	PPB	95

(#) = qualifier out of range (m) = manual integration

1007F007.D 072519MS13_8260W.M

Tue Oct 08 08:54:34 2019

Page 1025 of 1516

Page 2

Data File : J:\MS13\DATA\100719\1007F007.D

Vial: 2

Acq On : 7 Oct 2019 12:58 pm

Operator: AK

Sample : LCS

Inst : MS13

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

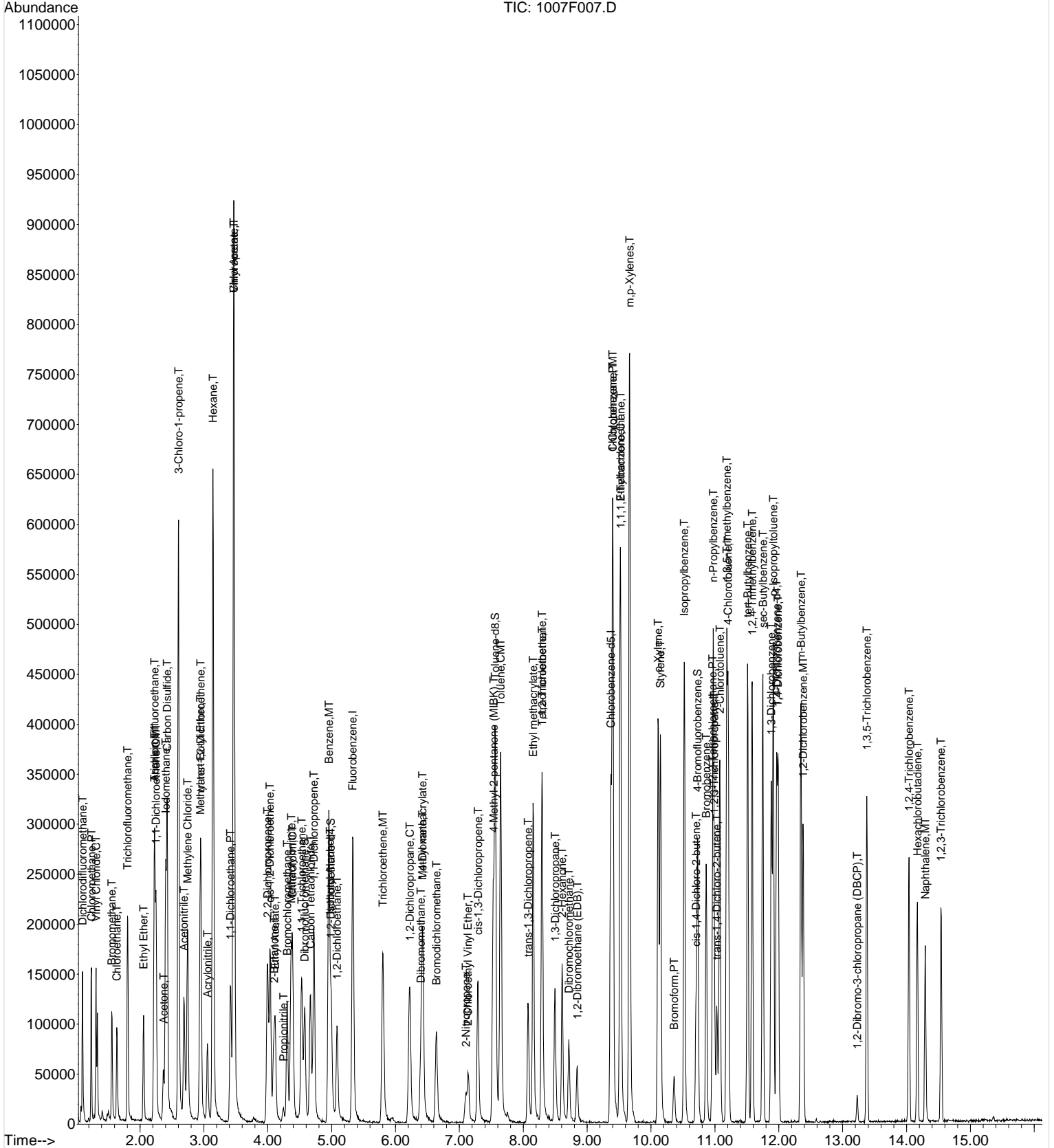
Quant Results File: 072519MS13_8260W.RES

1st Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)

2nd Title : VOA MS13 EPA Method 8260

Last Update : Tue Oct 01 09:18:15 2019

Response via : Initial Calibration



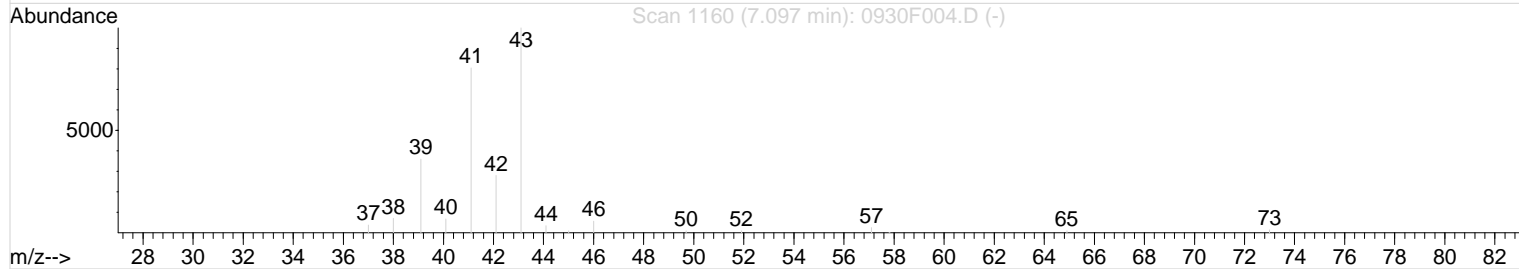
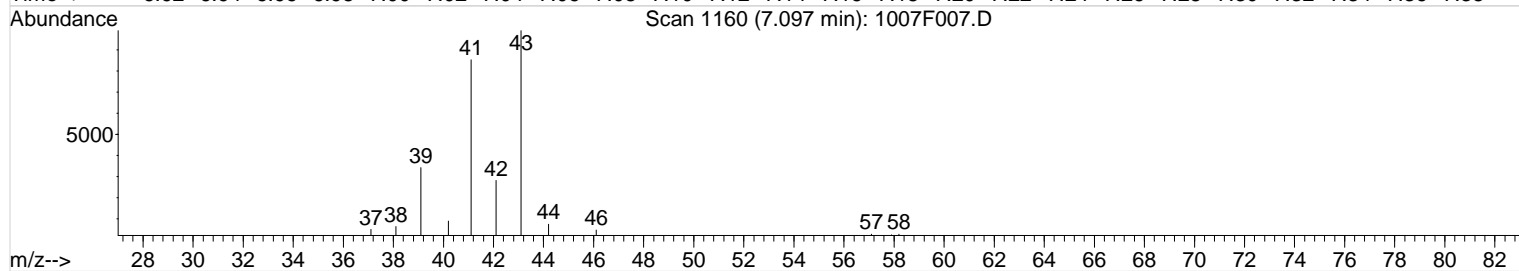
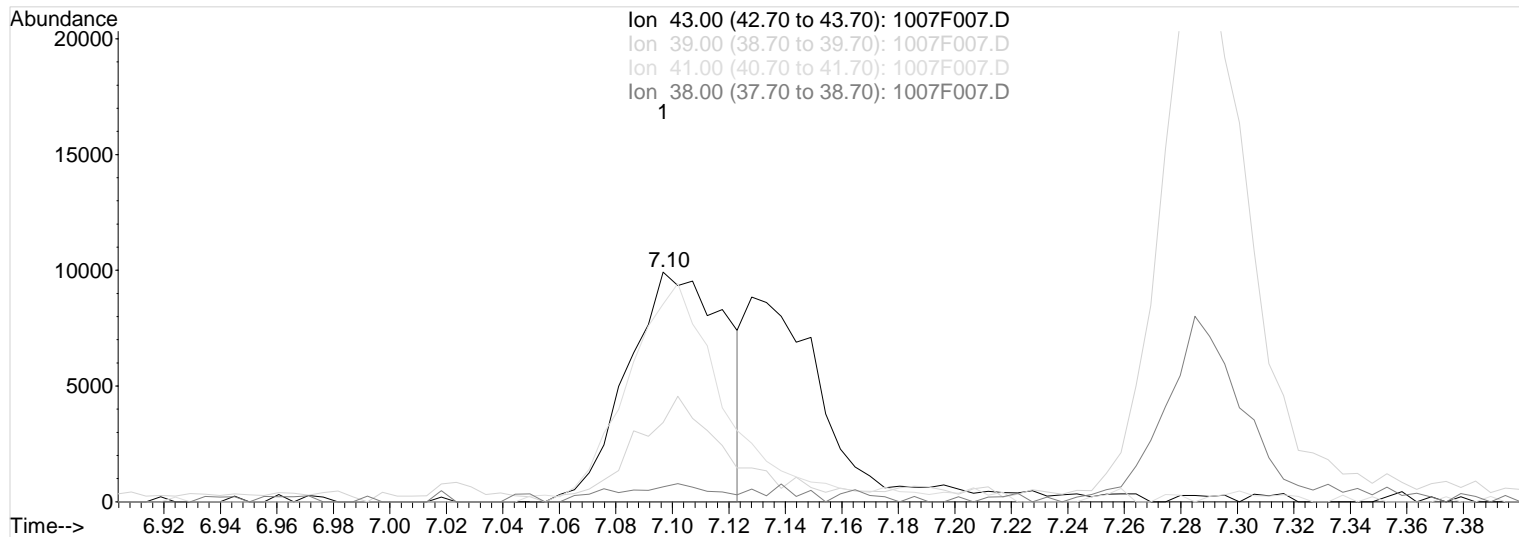
Data File : J:\MS13\DATA\100719\1007F007.D
 Acq On : 7 Oct 2019 12:58 pm
 Sample : LCS
 Misc :

Vial: 2
 Operator: AK
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 8 8:57 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260
 Last Update : Tue Oct 01 09:18:15 2019
 Response via : Single Level Calibration



TIC: 1007F007.D

(58) 2-Nitropropane (T)

Manual Integration:

7.10min 18.84PPB

Before

response 23898

Ion	Exp%	Act%
43.00	100	100
39.00	31.60	32.37
41.00	84.20	83.64
38.00	5.90	3.48

10/08/19

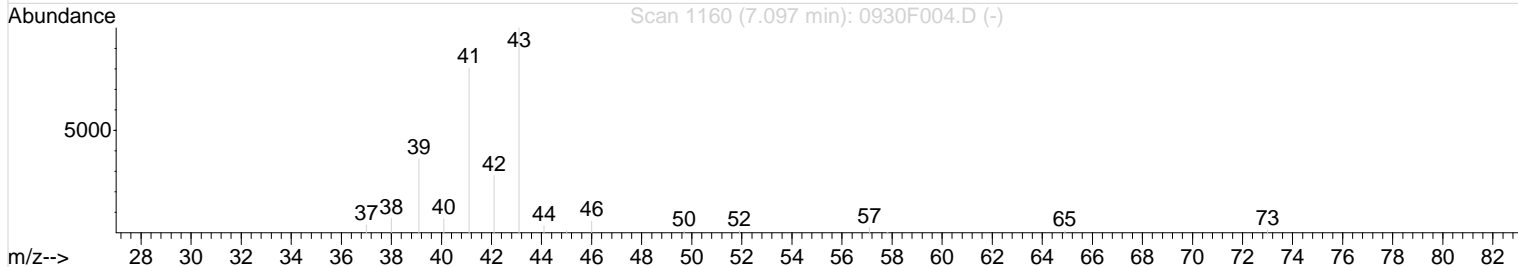
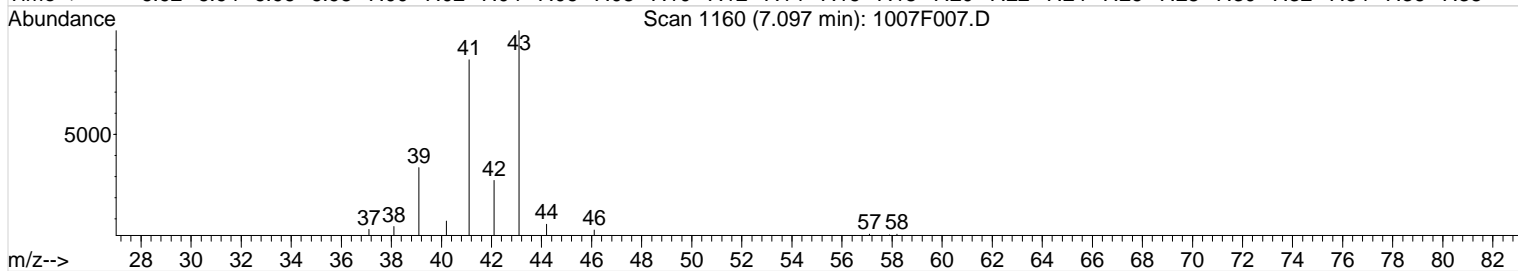
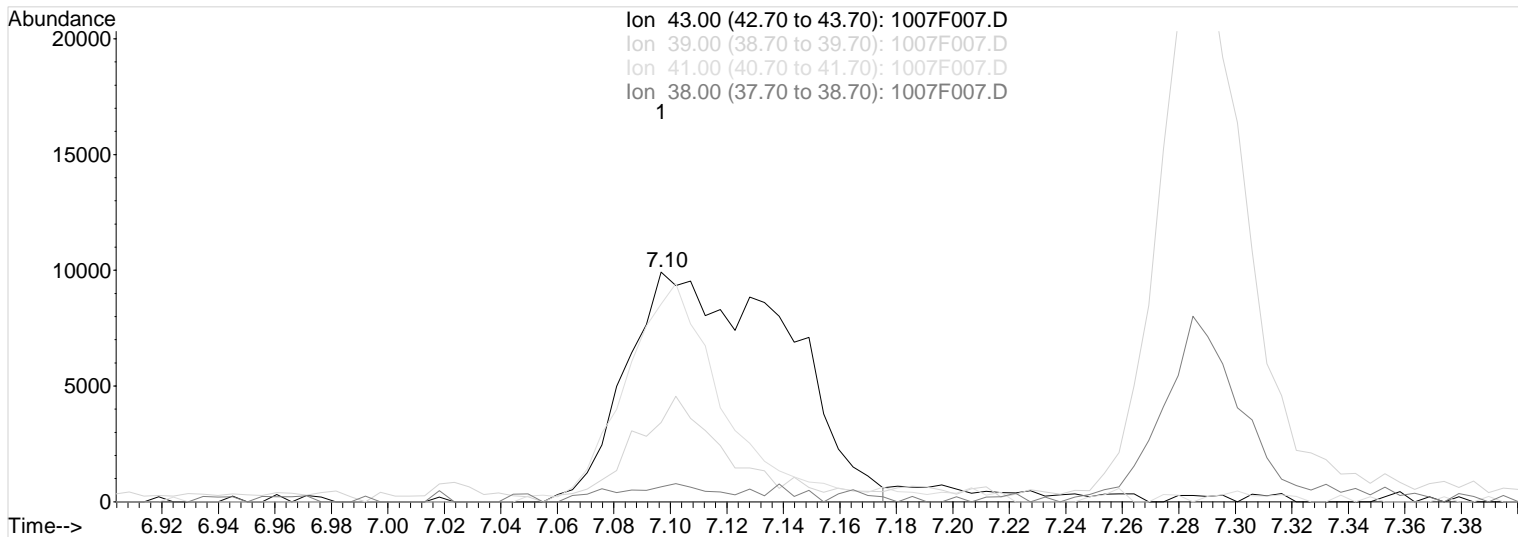
Data File : J:\MS13\DATA\100719\1007F007.D
 Acq On : 7 Oct 2019 12:58 pm
 Sample : LCS
 Misc :

Vial: 2
 Operator: AK
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 8 8:57 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260
 Last Update : Tue Oct 01 09:18:15 2019
 Response via : Single Level Calibration



TIC: 1007F007.D

(58) 2-Nitropropane (T)

Manual Integration:

7.10min 30.89PPB m
 response 39196

After
 Split peak

Ion	Exp%	Act%
43.00	100	100
39.00	31.60	34.49
41.00	84.20	86.09
38.00	5.90	6.43

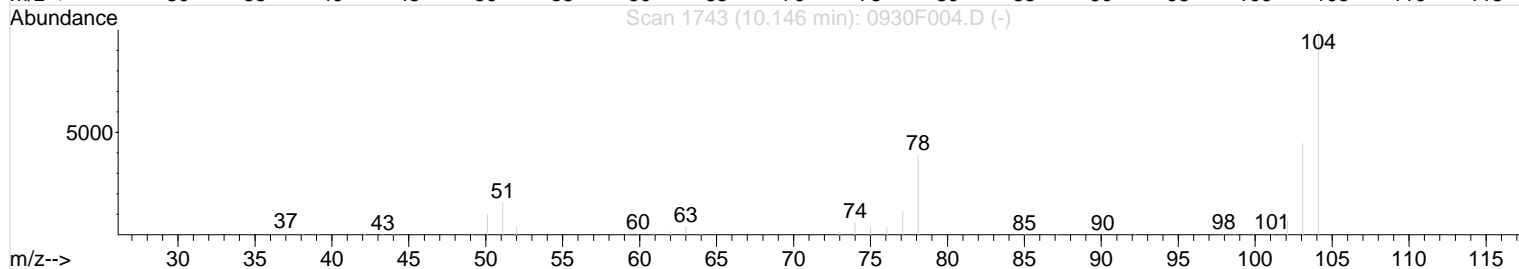
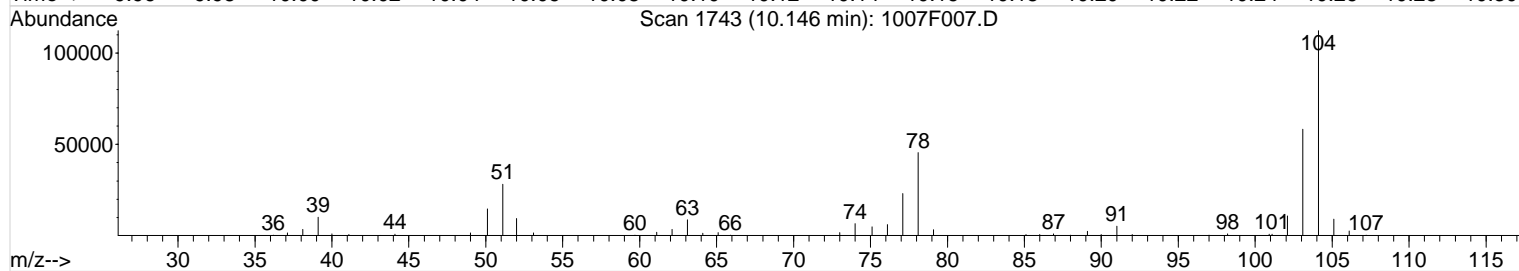
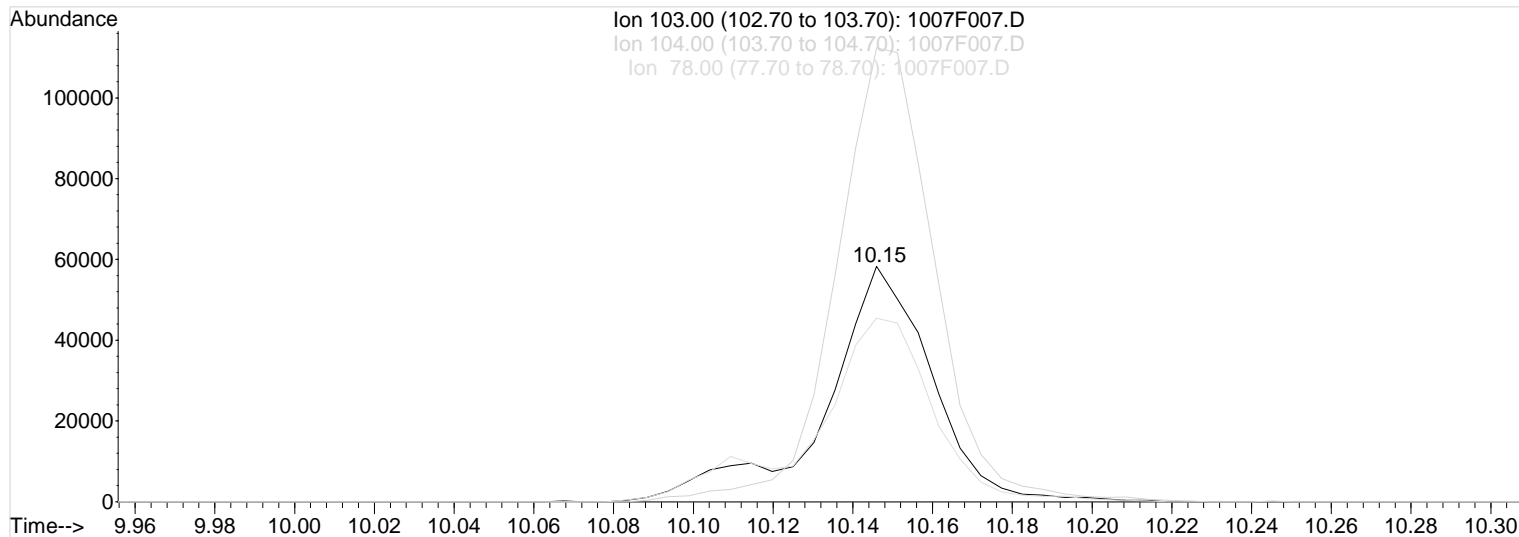
10/08/19

Data File : J:\MS13\DATA\100719\1007F007.D
 Acq On : 7 Oct 2019 12:58 pm
 Sample : LCS
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Oct 8 8:54 2019

Vial: 2
 Operator: AK
 Inst : MS13
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260
 Last Update : Tue Oct 01 09:18:15 2019
 Response via : Multiple Level Calibration



TIC: 1007F007.D

(80) Styrene (T)

Manual Integration:

10.15min 9.75PPB
 response 108285

Before

Ion	Exp%	Act%
103.00	100	100
104.00	209.30	192.73
78.00	89.90	77.95
0.00	0.00	0.00

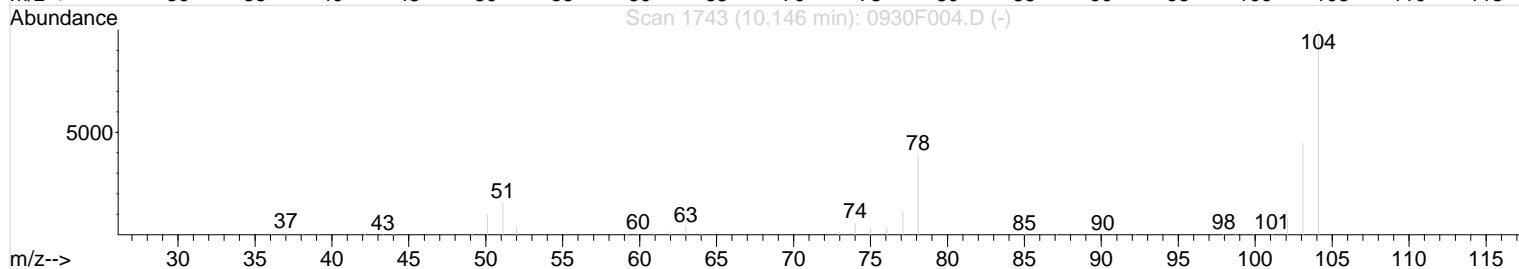
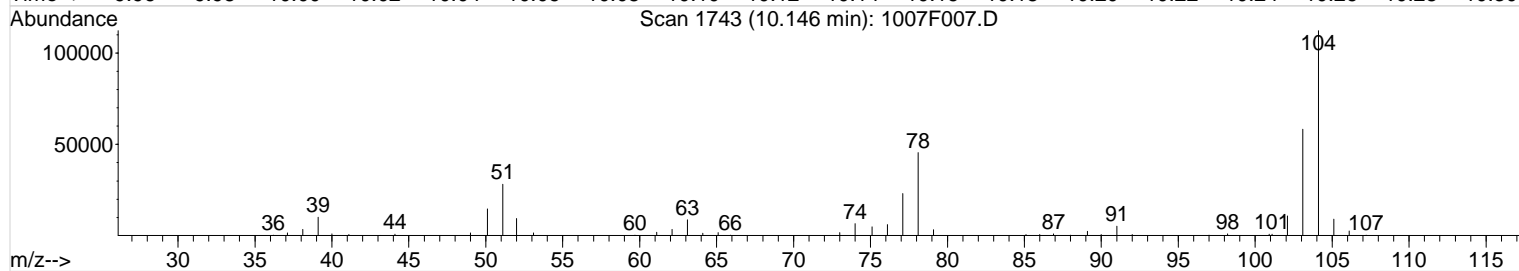
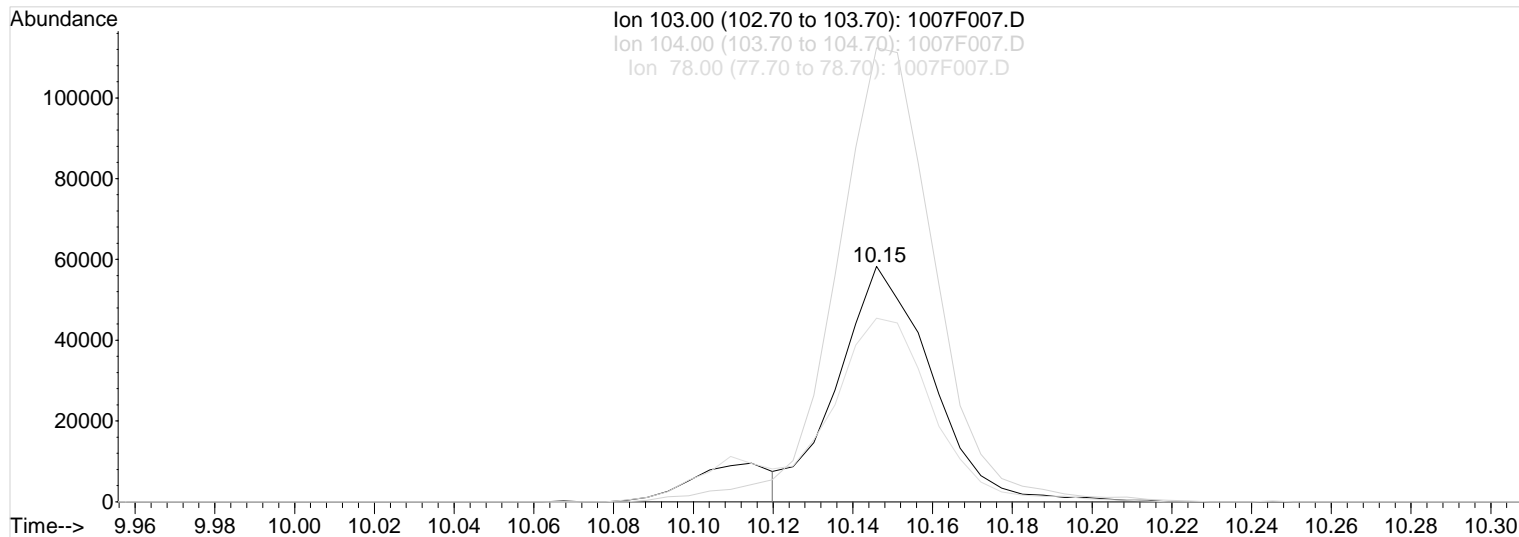
10/08/19

Data File : J:\MS13\DATA\100719\1007F007.D
 Acq On : 7 Oct 2019 12:58 pm
 Sample : LCS
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Oct 8 8:56 2019

Vial: 2
 Operator: AK
 Inst : MS13
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260
 Last Update : Tue Oct 01 09:18:15 2019
 Response via : Multiple Level Calibration



TIC: 1007F007.D

(80) Styrene (T)

10.15min 8.53PPB m
 response 94792

Manual Integration:

After
 Shoulder

Ion	Exp%	Act%
103.00	100	100
104.00	209.30	192.73
78.00	89.90	77.95
0.00	0.00	0.00

10/08/19

Exception Report

Data File: J:\MS13\DATA\100719\1007F008.D
Lab ID: KWG1904386-2
RunType: DLCS
Matrix: SLUDGE, SOLID

Date Acquired: 10/07/2019 13:25
Date Quantitated: 10/08/2019 09:01
Batch ID: KWG1904384
Analysis Method: 8260C
MethodJoinID: MJ174

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA		x
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	2-Propanol	0.0061	0.01	NA	NT
	Acetonitrile	0.0083	0.01	NA	
	tert-Butyl Alcohol	0.0087	0.01	NA	
	Isobutyl Alcohol	0.0042	0.01	NA	
	1,4-Dioxane	0.0009	0.01	NA	
Continuing Calibration Recovery	Dichlorodifluoromethane	-52.4	NA	20	
	Chloromethane	-39.1	NA	20	
	Vinyl Chloride	-32.0	NA	20	
	Bromomethane	-43.1	NA	20	
	Chloroethane	-23.5	NA	20	
	Trichlorofluoromethane	-27.6	NA	20	
	1,1-Dichloroethene	-33.6	NA	20	
	Iodomethane	-35.9	NA	20	

Primary Review: _____

Secondary Review: _____

Exception Report

1st *AMC* 10/08/19
2nd *[Signature]* 10/09/19

Data File: J:\MS13\DATA\100719\1007F008.D
Lab ID: KWG1904386-2
RunType: DLCS
Matrix: SLUDGE, SOLID

Date Acquired: 10/07/2019 13:25
Date Quantitated: 10/08/2019 09:01
Batch ID: KWG1904384
Analysis Method: 8260C
MethodJoinID: MJ174

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
	trans-1,2-Dichloroethene	-27.2	NA	20	NT
	1,1-Dichloroethane	-21.9	NA	20	
	Chloroprene	-23.3	NA	20	
	2,2-Dichloropropane	-34.0	NA	20	
	cis-1,2-Dichloroethene	-21.6	NA	20	
	Ethyl Acetate	-25.9	NA	20	
	1,1,1-Trichloroethane (TCA)	-23.7	NA	20	
	1,1-Dichloropropene	-30.9	NA	20	
	Benzene	-25.0	NA	20	
	1,2-Dichloroethane (EDC)	-21.5	NA	20	
	Trichloroethene (TCE)	-28.0	NA	20	
	1,4-Dioxane	21.8	NA	20	
	2-Chloroethyl Vinyl Ether	-27.6	NA	20	
	Toluene	-21.4	NA	20	
	trans-1,3-Dichloropropene	-20.8	NA	20	
	cis-1,4-Dichloro-2-butene	-37.9	NA	20	
	trans-1,4-Dichloro-2-butene	-37.3	NA	20	
	n-Propylbenzene	-23.7	NA	20	
	2-Chlorotoluene	-25.4	NA	20	
	1,3,5-Trimethylbenzene	-22.0	NA	20	
	4-Chlorotoluene	-23.7	NA	20	
Continuing Calibration Minimum RF	2-Propanol	0.0061	0.01	NA	
	Acetonitrile	0.0086	0.01	NA	
	tert-Butyl Alcohol	0.0070	0.01	NA	
	Isobutyl Alcohol	0.0035	0.01	NA	
	1,4-Dioxane	0.0011	0.01	NA	

Primary Review: _____

Secondary Review: _____

Quantitation Report

Data File: J:\MS13\DATA\100719\1007F008.D	Instrument: MS13
Acq Date: 10/07/2019 13:25	Quant Date: 10/08/2019 09:01
Run Type: DLCS	Vial: 2
Lab ID: KWG1904386-2	MethodJoinID: MJ174
	Dilution: 1.0
	Soln Conc. Units: PPB

Bottle ID:	Tier:	Matrix: SLUDGE, SOLID
Prod Code: 8260C VOC FP	Collect Date:	Receive Date: 10/10/2019

Analysis Lot: KWG1904384	Prep Lot: KWG1904386	Report Group:
Analysis Method: 8260C	Prep Method: EPA 5035A/5030B	
Prep Ref: 1736376	Prep Date: 10/07/2019	

Quant Method: J:\MS13\METHODS\072519MS13_8	Calibration ID: CAL16105
Title:	
Tune Ref: J:\MS13\DATA\100719\1007F003.D	Method ID: MJ174
MB Ref: J:\MS13\DATA\100719\1007F011.D	Quant based on Method

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.33	0.00	96	284113	10.00	OK
2	Chlorobenzene-d5	9.37	0.00	82	107650	10.00	OK
3	1,4-Dichlorobenzene-d4	11.97	0.00	152	86214	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	4.58	0.00	0.00	113	64499	10.01	100	55-132	OK
1	1,2-Dichloroethane-d4	5.00	0.01	0.00	65	58064	7.91	79	37-155	OK
1	Toluene-d8	7.56	0.00	0.00	98	284691	10.33	103	81-124	OK
2	4-Bromofluorobenzene	10.73	0.00	0.00	95	82520	9.18	92	64-132	OK

Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	1.10		0.00	85	79521	8.50	0.850		
1	Chloromethane	1.24	0.01	0.00	50	81925	7.33	0.733		
1	Vinyl Chloride	1.31		0.00	62	87930	8.37	0.837		
1	Bromomethane	1.56		0.00	96	46559	7.36	0.736		
1	Chloroethane	1.64		0.00	64	55617	9.09	0.909		
1	Dichlorofluoromethane (CFC 21)				67	0		0.0065	U	
1	Trichlorofluoromethane	1.80		0.00	101	115040	7.47	0.747		
1	Ethyl Ether	2.05	-0.01	0.00	59	41931	10.29	1.03		
1	Acrolein	2.23		0.00	56	80881	97.96	9.80		
1	Trichlorotrifluoroethane	2.22		0.00	151	49379	8.35	0.835		
1	1,1-Dichloroethene	2.25		0.00	96	54688	6.94	0.694		
1	Acetone	2.37		0.00	43	53629	50.98	5.10		
1	Iodomethane	2.41	0.01	0.00	142	221875	26.03	2.60		

Final Conc. Units: mg/Kg Wet Weight

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File: J:\MS13\DATA\100719\1007F008.D

Instrument:

Acq Date: 10/07/2019 13:25

Quant Date: 10/08/2019 09:01

Vial: 2

Run Type: DLCS

MethodJoinID: MJ174

Dilution: 1.0

Lab ID: KWG1904386-2

Soln Conc. Units: PPB

Target Compounds

Final Conc. Units: mg/Kg Wet Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Disulfide	2.43		0.00	76	292462	13.45	1.35		
1	2-Propanol				45	0d		1.7	U	
1	3-Chloro-1-propene	2.60		0.00	76	102157	24.62	2.46		
1	Acetonitrile	2.69		0.00	40	71049	301.00	30.1		
1	Methyl Acetate				43	0d		0.038	U	
1	Methylene Chloride	2.75		0.00	84	67402	8.24	0.824		
1	tert-Butyl Alcohol				59	0d		0.44	U	
1	Acrylonitrile	3.06	0.01	0.00	53	52766	36.87	3.69		
1	Methyl tert-Butyl Ether	2.94		0.00	73	118926	7.77	0.777		
1	trans-1,2-Dichloroethene	2.95		0.00	96	60118	7.83	0.783		
1	n-Hexane	3.14		0.00	57	268164	21.99	2.2	JN	
1	Diisopropyl Ether				45	0d		0.0048	U	
1	1,1-Dichloroethane	3.41	-0.01	0.00	63	123014	8.08	0.808		
1	Vinyl Acetate	3.47		0.00	86	41458	36.82	3.68		
1	Chloroprene	3.47		0.00	53	318836	24.44	2.44		
1	tert-Butyl Ethyl Ether				59	0d		0.0048	U	
1	2,2-Dichloropropane	4.00		0.00	77	82879	6.36	0.636		
1	cis-1,2-Dichloroethene	4.04		0.00	96	68211	7.94	0.794		
1	2-Butanone (MEK)	4.09		0.00	72	18756	50.31	5.03		
1	Propionitrile	4.24		0.00	54	14126	27.93	2.79		
1	Ethyl Acetate	4.12		0.00	61	17110	21.71	2.17		
1	Methacrylonitrile	4.36		0.00	67	47450	27.72	2.77		
1	Bromochloromethane	4.30		0.00	128	31424	8.68	0.868		
1	Tetrahydrofuran				71	0d		0.094	U	
1	Chloroform	4.39		0.00	83	110425	7.75	0.775		
1	1,1,1-Trichloroethane (TCA)	4.53		0.00	97	95453	7.54	0.754		
1	Cyclohexane				56	0d		0.036	U	
1	Carbon Tetrachloride	4.67	0.01	0.00	117	79511	7.68	0.768		
1	1,1-Dichloropropene	4.72		0.00	75	89107	7.44	0.744		
1	Isobutyl Alcohol	4.98		0.00	43	27149	224.88	22.5	J	
1	Benzene	4.96		0.00	78	265468	7.60	0.760		
1	1,2-Dichloroethane (EDC)	5.08		0.00	62	75307	7.38	0.738		
1	tert-Amyl Methyl Ether				55	0d		0.012	U	
1	Trichloroethene (TCE)	5.80	-0.01	0.00	95	64613	7.56	0.756		
1	Methylcyclohexane				83	0d		0.033	U	
1	1,2-Dichloropropane	6.23	0.01	0.00	63	65855	7.70	0.770		
1	Dibromomethane	6.40		0.00	93	30135	7.88	0.788		
1	Methyl Methacrylate	6.43	0.01	0.00	69	80145	26.59	2.66		
1	1,4-Dioxane	6.42	-0.01	0.00	88	9282	376.42	37.6		
1	Bromodichloromethane	6.65	0.01	0.00	83	71842	7.91	0.791		
1	2-Nitropropane	7.10		0.00	43	38392m	31.32	3.13		
1	2-Chloroethyl Vinyl Ether	7.13		0.00	63	23706	6.86	0.686		

U: Undetected at or above MDL

J: Analyte detected above MDL, but below MRL

B: Hit above MRL also found in Method Blank

E: Analyte concentration above high point of ICAL

N: Presumptive evidence of compound

D: Result from dilution

m: Manual integration performed

d: Compound manually deleted

NR: Analyte not reported from this analysis

*: Result fails acceptance criteria

#: Acceptance criteria not applicable

?: Insufficient information to determine acceptance

e: Result >= MRL, but MRL less than low point of ICAL

c: check for co-elution

Data File:	J:\MS13\DATA\100719\1007F008.D	Instrument:	MS 1.5
Acqu Date:	10/07/2019 13:25	Quant Date:	10/08/2019 09:01
Run Type:	DLCS	MethodJoinID:	MJ174
Lab ID:	KWG1904386-2	Vial:	2
		Dilution:	1.0
		Soln Conc. Units:	PPB

Target Compounds Final Conc. Units: mg/Kg Wet Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	cis-1,3-Dichloropropene	7.29		0.00	75	83651	7.47	0.747		
1	4-Methyl-2-pentanone (MIBK)	7.53		0.00	58	65100	45.45	4.55		
1	Toluene	7.65		0.00	92	165324	8.00	0.800		
2	n-Octane				85	0d		0.016	U	
2	trans-1,3-Dichloropropene	8.07	-0.01	0.00	75	65966	6.91	0.691		
2	Ethyl Methacrylate	8.15		0.00	69	162900	25.12	2.51		
2	1,1,2-Trichloroethane	8.29		0.00	83	38661	8.32	0.832		
2	Tetrachloroethene (PCE)	8.29		0.00	164	57602	8.22	0.822		
2	2-Hexanone	8.61		0.00	57	19158	40.03	4.00		
2	1,3-Dichloropropane	8.49	-0.01	0.00	76	76579	7.70	0.770		
2	Dibromochloromethane	8.71		0.00	129	44272	8.72	0.872		
2	1,2-Dibromoethane (EDB)	8.84		0.00	107	41529	8.29	0.829		
2	1-Chlorohexane	9.40		0.00	91	83266	7.65	0.765		
2	Chlorobenzene	9.40		0.00	112	174669	7.88	0.788		
2	Ethylbenzene	9.52		0.00	106	97254	7.60	0.760		
2	1,1,1,2-Tetrachloroethane	9.52	-0.01	0.00	131	55537	8.08	0.808		
2	m,p-Xylenes	9.66	-0.01	0.00	106	233227	15.35	1.54		
2	o-Xylene	10.11		0.00	106	111651	7.92	0.792		
2	Styrene	10.15		0.00	103	85515m	7.73	0.773		
2	Bromoform	10.36		0.00	173	22945	8.54	0.854		
2	Isopropylbenzene	10.52		0.00	105	292397	7.96	0.796		
2	cis-1,4-Dichloro-2-butene	10.71		0.00	89	9218	15.22	1.52		
3	1,1,2,2-Tetrachloroethane	10.96		0.00	83	38518	7.69	0.769		
3	trans-1,4-Dichloro-2-butene	11.04		0.00	53	22908	14.40	1.44		
3	Bromobenzene	10.86	-0.01	0.00	156	71047	8.43	0.843		
3	n-Propylbenzene	10.97		0.00	91	333169	7.68	0.768		
3	1,2,3-Trichloropropane	11.00		0.00	110	12490	8.43	0.843		
3	2-Chlorotoluene	11.08		0.00	91	191241	7.41	0.741		
3	1,3,5-Trimethylbenzene	11.19		0.00	105	225913	7.54	0.754		
3	4-Chlorotoluene	11.21		0.00	91	218859	7.41	0.741		
3	tert-Butylbenzene	11.51		0.00	119	200593	7.73	0.773		
3	1,2,4-Trimethylbenzene	11.58		0.00	105	225870	7.68	0.768		
3	sec-Butylbenzene	11.75		0.00	105	285844	7.74	0.774		
3	4-Isopropyltoluene	11.91		0.00	119	245624	8.12	0.812		
3	1,3-Dichlorobenzene	11.88		0.00	146	129381	8.06	0.806		
3	1,4-Dichlorobenzene	11.99		0.00	146	130675	8.12	0.812		
3	n-Butylbenzene	12.35	0.01	0.00	91	209411	7.50	0.750		
3	1,2-Dichlorobenzene	12.38		0.00	146	115076	8.41	0.841		
3	1,2-Dibromo-3-chloropropane	13.23		0.00	155	4769	8.00	0.800		
3	1,3,5-Trichlorobenzene	13.38		0.00	180	92629	9.37	0.937		
3	1,2,4-Trichlorobenzene	14.04		0.00	180	71627	8.65	0.865		
3	Hexachlorobutadiene	14.17		0.00	225	39880	9.85	0.985		

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File:	J:\MS13\DATA\100719\1007F008.D	Instrument:	MS 1.5
Acqu Date:	10/07/2019 13:25	Quant Date:	10/08/2019 09:01
Run Type:	DLCS	MethodJoinID:	MJ174
Lab ID:	KWG1904386-2	Vial:	2
		Dilution:	1.0
		Soln Conc. Units:	PPB

Target Compounds

Final Conc. Units: mg/Kg Wet Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Naphthalene	14.29		0.00	128	121403	8.50	0.850		
3	1,2,3-Trichlorobenzene	14.54		0.00	180	60940	9.09	0.909		
	Benzyl Chloride				0	0		0.10	U	NR
	2-Methylpentane				0	0		1.0	U	NR
	Cyclohexanone				0	0		2.0	U	NR
	2-Ethoxyethanol				0	0		0.10	U	NR
	Ethyl Acrylate				0	0		2.0	U	NR
	2,2-Dichloro-1,1,1-trifluoroethan				0	0		0.10	U	NR
	1,1,2-Trifluoroethane				0	0		0.10	U	NR
	2,2,4-Trimethylpentane (Isooctan				0	0		0.10	U	NR
	Vinyl Bromide				0	0		0.050	U	NR
	Ethyl Alcohol				0	0		25	U	NR
	1-Butanol				0	0		25	U	NR
	Vinyl Fluoride				0	0		0.050	U	NR
	3-Methylpentane				0	0		1.0	U	NR
	Methylcyclopentane				0	0		1.0	U	NR

Prep Amount:	5 g	Dilution:	1.0	MeOH Ext. Vol:	5 ml
Prep Final Vol:	50 ml	Unit Factor:	1	MeOH Aliq. Vol:	500 uL
Solids:	%				

Final Concentration = ((Soln Conc x MeOH Ext. Vol x Prep Final Vol x Dilution) / (Prep Amount x MeOH Aliq. x Solids)) x Unit Factor

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File : J:\MS13\DATA\100719\1007F008.D
 Acq On : 7 Oct 2019 1:25 pm
 Sample : DLCS
 Misc :

Vial: 2
 Operator: AK
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 08 08:54:35 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260
 Last Update : Tue Oct 01 09:18:15 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	284113	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	107650	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.97	152	86214	10.00	PPB	0.00

System Monitoring Compounds

42) Dibromofluoromethane	4.58	113	64499	10.01	PPB	0.00
Spiked Amount	10.000		Recovery	=	100.10%	
47) 1,2-Dichloroethane-d4	5.00	65	58064	7.91	PPB	0.00
Spiked Amount	10.000		Recovery	=	79.10%	
62) Toluene-d8	7.56	98	284691	10.33	PPB	0.00
Spiked Amount	10.000		Recovery	=	103.30%	
84) 4-Bromofluorobenzene	10.73	95	82520	9.18	PPB	0.00
Spiked Amount	10.000		Recovery	=	91.80%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.10	85	79521	8.50	PPB	99
3) Chloromethane	1.24	50	81925	7.33	PPB	98
4) Vinyl Chloride	1.31	62	87930	8.37	PPB	99
5) Bromomethane	1.56	96	46559	7.36	PPB	99
6) Chloroethane	1.64	64	55617	9.09	PPB	99
8) Trichlorofluoromethane	1.80	101	115040	7.47	PPB	96
9) Ethyl Ether	2.05	59	41931	10.29	PPB	98
10) Acrolein	2.23	56	80881	97.96	PPB	99
11) Trichlorotrifluoroethane	2.22	151	49379	8.35	PPB	96
12) 1,1-Dichloroethene	2.25	96	54688	6.94	PPB	94
13) Acetone	2.37	43	53629	50.98	PPB	99
14) Iodomethane	2.41	142	221875	26.03	PPB	96
15) Carbon Disulfide	2.43	76	292462	13.45	PPB	99
17) 3-Chloro-1-propene	2.60	76	102157	24.62	PPB	# 86
18) Acetonitrile	2.69	40	71049	301.00	PPB	94
20) Methylene Chloride	2.75	84	67402	8.24	PPB	90
22) Acrylonitrile	3.06	53	52766	36.87	PPB	94
23) Methyl tert-Butyl Ether	2.94	73	118926	7.77	PPB	97
24) trans-1,2-Dichloroethene	2.95	96	60118	7.83	PPB	92
25) Hexane	3.14	57	268164	21.99	PPB	95
27) 1,1-Dichloroethane	3.41	63	123014	8.08	PPB	96
28) Vinyl Acetate	3.47	86	41458	36.82	PPB	# 89
29) Chloroprene	3.47	53	318836	24.44	PPB	98
31) 2,2-Dichloropropane	4.00	77	82879	6.36	PPB	98
32) cis-1,2-Dichloroethene	4.04	96	68211	7.94	PPB	93
33) 2-Butanone	4.09	72	18756	50.31	PPB	89
34) Propionitrile	4.24	54	14126	27.93	PPB	98
35) Ethyl Acetate	4.12	61	17110	21.71	PPB	94
36) Methacrylonitrile	4.36	67	47450	27.72	PPB	97
37) Bromochloromethane	4.30	128	31424	8.68	PPB	89
39) Chloroform	4.39	83	110425	7.75	PPB	93
41) 1,1,1-Trichloroethane	4.53	97	95453	7.54	PPB	99
44) Carbon Tetrachloride	4.67	117	79511	7.68	PPB	98
45) 1,1-Dichloropropene	4.72	75	89107	7.44	PPB	97
46) Isobutyl Alcohol	4.98	43	27149	224.88	PPB	86
48) Benzene	4.96	78	265468	7.60	PPB	100
49) 1,2-Dichloroethane	5.08	62	75307	7.38	PPB	94
51) Trichloroethene	5.80	95	64613	7.56	PPB	95
53) 1,2-Dichloropropane	6.23	63	65855	7.70	PPB	96
54) Dibromomethane	6.40	93	30135	7.88	PPB	90
55) Methyl methacrylate	6.43	69	80145	26.59	PPB	95
56) 1,4-Dioxane	6.42	88	9282	376.42	PPB	96
57) Bromodichloromethane	6.65	83	71842	7.91	PPB	91

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS13\DATA\100719\1007F008.D

Acq On : 7 Oct 2019 1:25 pm

Sample : DLCS

Misc :

Vial: 2

Operator: AK

Inst : MS13

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Oct 08 08:54:35 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260

Last Update : Tue Oct 01 09:18:15 2019

Response via : Initial Calibration

DataAcq Meth : 8260W5

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
58) 2-Nitropropane	7.10	43	38392m	31.32	PPB	
59) 2-Chloroethyl Vinyl Ether	7.13	63	23706	6.86	PPB	94
60) cis-1,3-Dichloropropene	7.29	75	83651	7.47	PPB	93
61) 4-Methyl-2-pentanone (MIBK)	7.53	58	65100	45.45	PPB	# 82
63) Toluene	7.65	92	165324	8.00	PPB	99
66) trans-1,3-Dichloropropene	8.07	75	65966	6.91	PPB	97
67) Ethyl methacrylate	8.15	69	162900	25.12	PPB	96
68) 1,1,2-Trichloroethane	8.29	83	38661	8.32	PPB	97
69) Tetrachloroethene	8.29	164	57602	8.22	PPB	93
70) 2-Hexanone	8.61	57	19158	40.03	PPB	# 78
71) 1,3-Dichloropropene	8.49	76	76579	7.70	PPB	99
72) Dibromochloromethane	8.71	129	44272	8.72	PPB	92
73) 1,2-Dibromoethane (EDB)	8.84	107	41529	8.29	PPB	95
74) 1-Chlorohexane	9.40	91	83266	7.65	PPB	94
75) Chlorobenzene	9.40	112	174669	7.88	PPB	95
76) Ethylbenzene	9.52	106	97254	7.60	PPB	93
77) 1,1,1,2-Tetrachloroethane	9.52	131	55537	8.08	PPB	96
78) m,p-Xylenes	9.66	106	233227	15.35	PPB	96
79) o-Xylene	10.11	106	111651	7.92	PPB	99
80) Styrene	10.15	103	85515m	7.73	PPB	
81) Bromoform	10.36	173	22945	8.54	PPB	95
82) Isopropylbenzene	10.52	105	292397	7.96	PPB	99
83) cis-1,4-Dichloro-2-butene	10.71	89	9218	15.22	PPB	# 77
86) 1,1,2,2-Tetrachloroethane	10.96	83	38518	7.69	PPB	94
87) trans-1,4-Dichloro-2-buten	11.04	53	22908	14.40	PPB	92
88) Bromobenzene	10.86	156	71047	8.43	PPB	94
89) n-Propylbenzene	10.97	91	333169	7.68	PPB	99
90) 1,2,3-Trichloropropane	11.00	110	12490	8.43	PPB	89
91) 2-Chlorotoluene	11.08	91	191241	7.41	PPB	98
92) 1,3,5-Trimethylbenzene	11.19	105	225913	7.54	PPB	99
93) 4-Chlorotoluene	11.21	91	218859	7.41	PPB	95
94) tert-Butylbenzene	11.51	119	200593	7.73	PPB	98
95) 1,2,4-Trimethylbenzene	11.58	105	225870	7.68	PPB	96
96) sec-Butylbenzene	11.75	105	285844	7.74	PPB	99
97) p-Isopropyltoluene	11.91	119	245624	8.12	PPB	98
98) 1,3-Dichlorobenzene	11.88	146	129381	8.06	PPB	98
99) 1,4-Dichlorobenzene	11.99	146	130675	8.12	PPB	96
100) n-Butylbenzene	12.35	91	209411	7.50	PPB	96
101) 1,2-Dichlorobenzene	12.38	146	115076	8.41	PPB	97
102) 1,2-Dibromo-3-chloropropan	13.23	155	4769	8.00	PPB	90
103) 1,3,5-Trichlorobenzene	13.38	180	92629	9.37	PPB	98
104) 1,2,4-Trichlorobenzene	14.04	180	71627	8.65	PPB	97
105) Hexachlorobutadiene	14.17	225	39880	9.85	PPB	94
106) Naphthalene	14.29	128	121403	8.50	PPB	97
107) 1,2,3-Trichlorobenzene	14.54	180	60940	9.09	PPB	96

(#) = qualifier out of range (m) = manual integration

1007F008.D 072519MS13_8260W.M

Tue Oct 08 16:41:30 2019

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Page 2

Data File : J:\MS13\DATA\100719\1007F008.D

Vial: 2

Acq On : 7 Oct 2019 1:25 pm

Operator: AK

Sample : DLCS

Inst : MS13

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

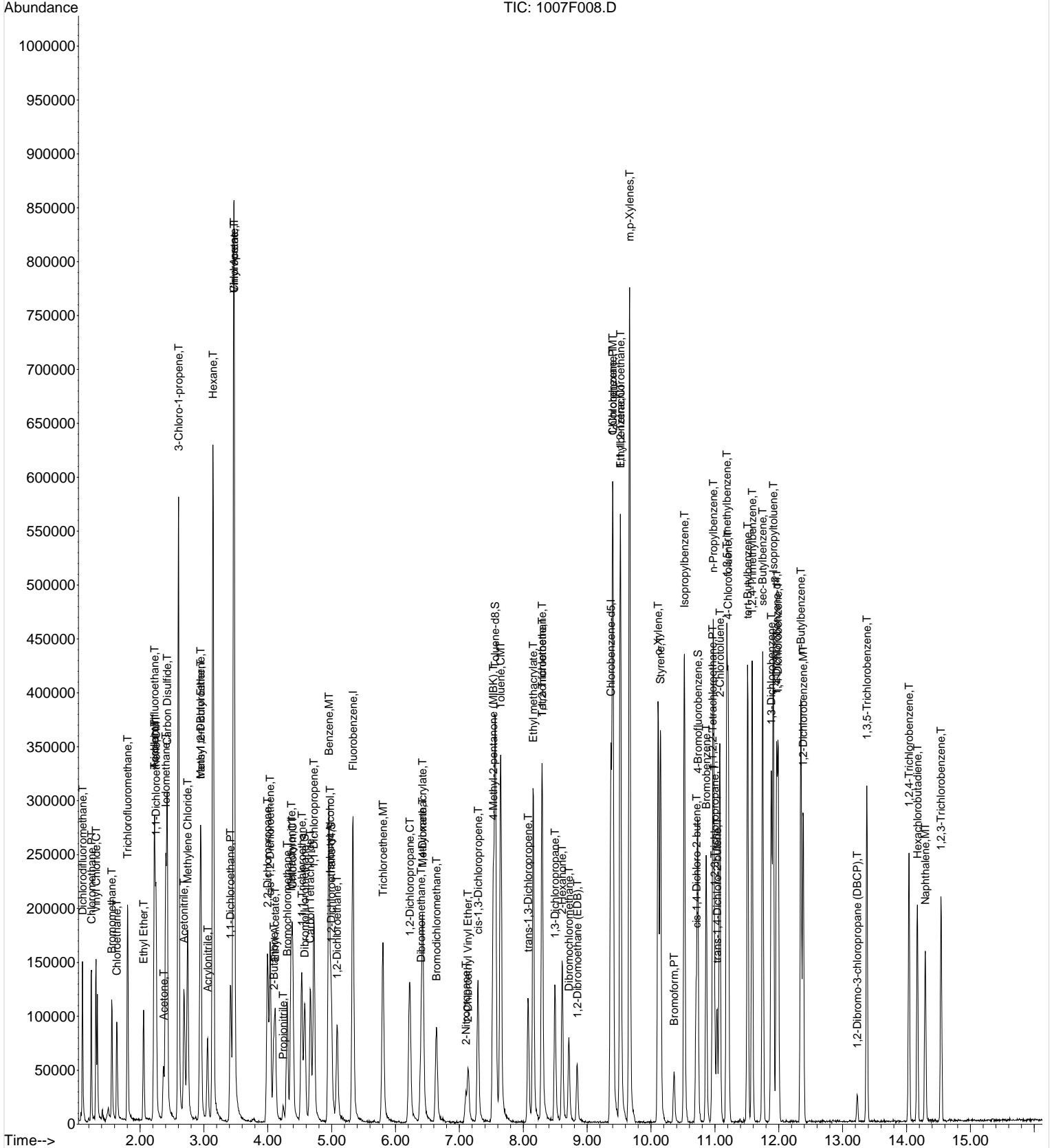
Quant Results File: 072519MS13_8260W.RES

1st Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)

2nd Title : VOA MS13 EPA Method 8260

Last Update : Tue Oct 01 09:18:15 2019

Response via : Initial Calibration



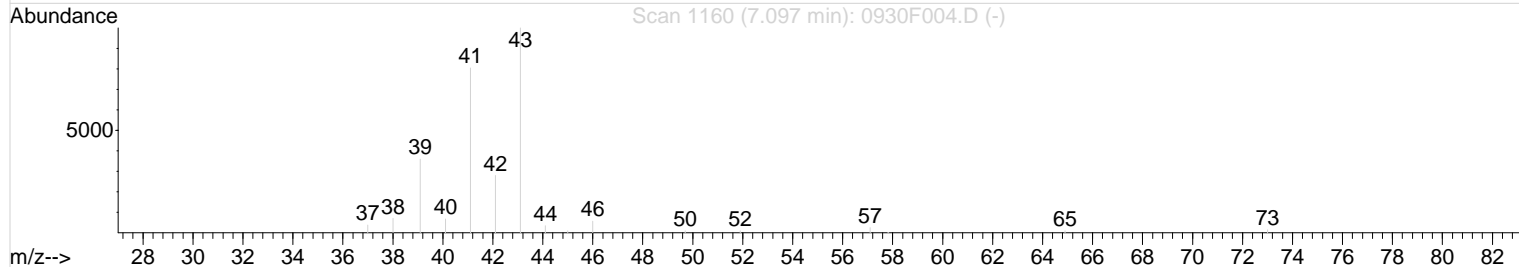
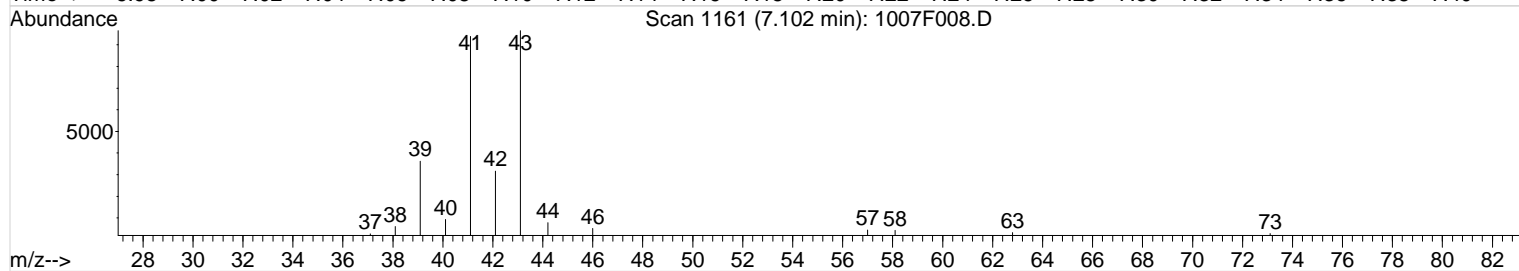
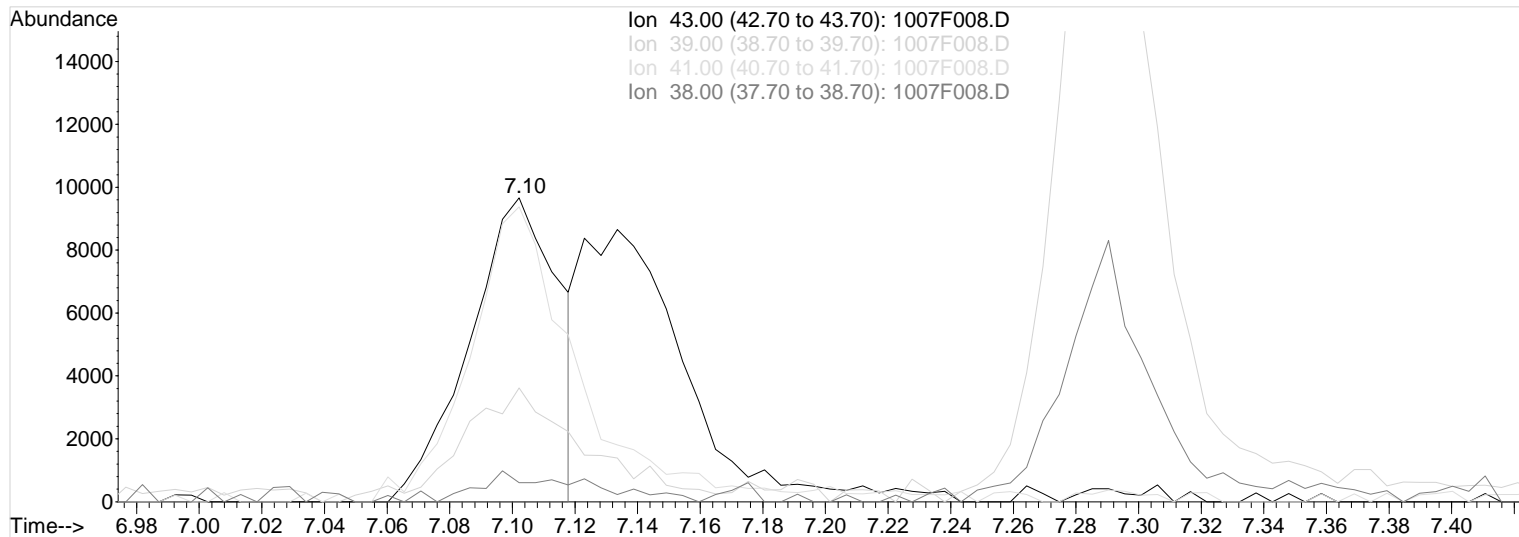
Data File : J:\MS13\DATA\100719\1007F008.D
 Acq On : 7 Oct 2019 1:25 pm
 Sample : DLCS
 Misc :

Vial: 2
 Operator: AK
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 8 9:00 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260
 Last Update : Tue Oct 01 09:18:15 2019
 Response via : Single Level Calibration



TIC: 1007F008.D

(58) 2-Nitropropane (T)

Manual Integration:

7.10min 15.52PPB

Before

response 19030

Ion	Exp%	Act%
43.00	100	100
39.00	31.60	34.11
41.00	84.20	97.12
38.00	5.90	6.31

10/08/19

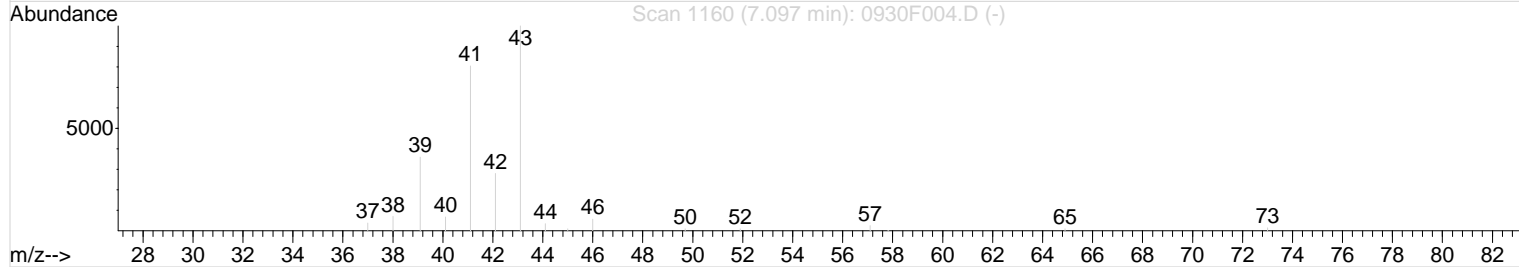
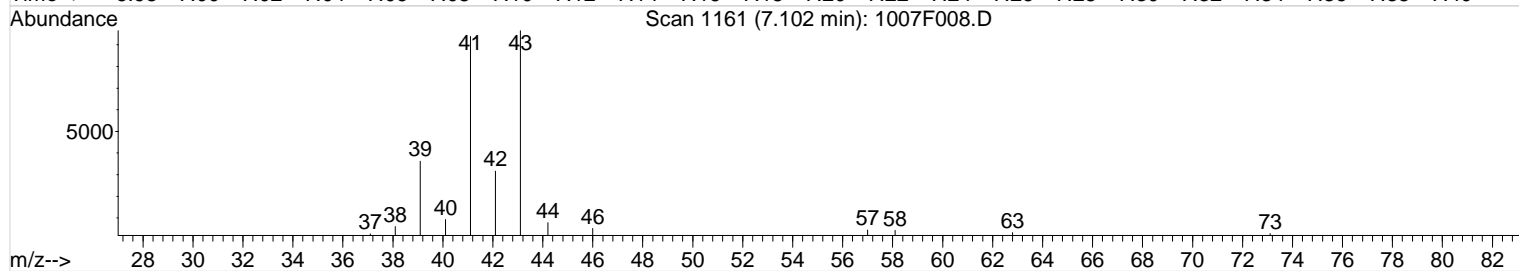
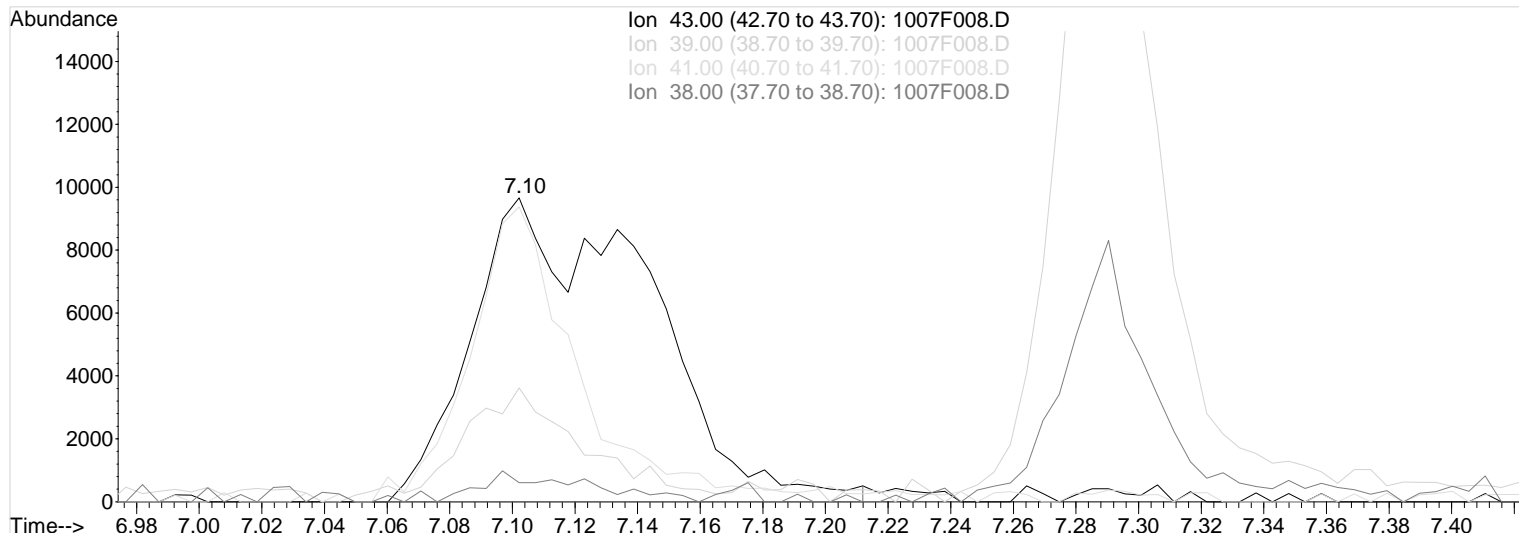
Data File : J:\MS13\DATA\100719\1007F008.D
 Acq On : 7 Oct 2019 1:25 pm
 Sample : DLCS
 Misc :

Vial: 2
 Operator: AK
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 8 9:00 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260
 Last Update : Tue Oct 01 09:18:15 2019
 Response via : Single Level Calibration



TIC: 1007F008.D

(58) 2-Nitropropane (T)

Manual Integration:

7.10min 31.32PPB m
 response 38392

After
 Split peak

Ion	Exp%	Act%
43.00	100	100
39.00	31.60	37.49
41.00	84.20	97.12
38.00	5.90	6.31

10/08/19

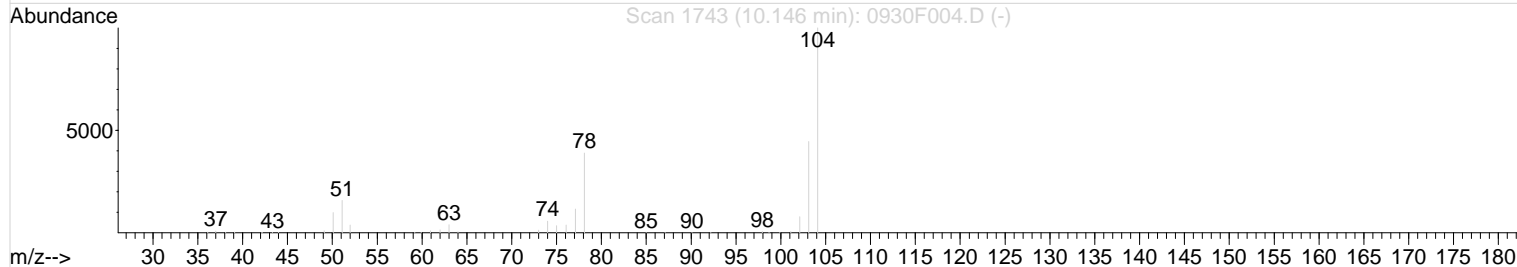
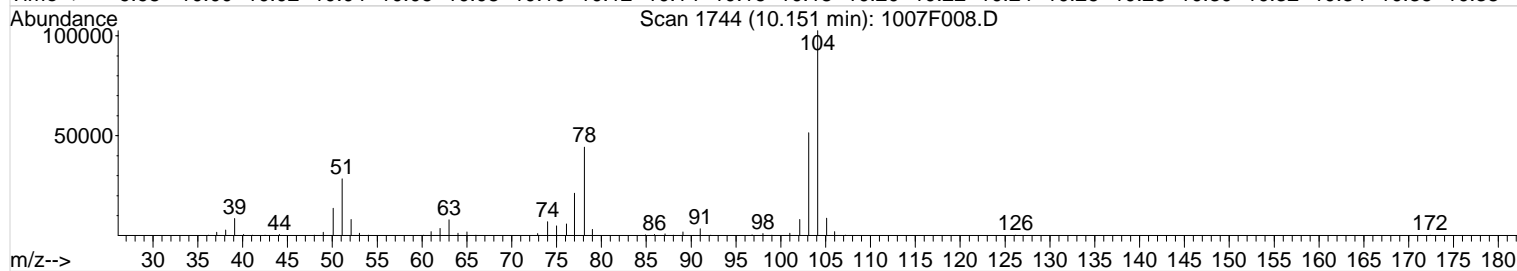
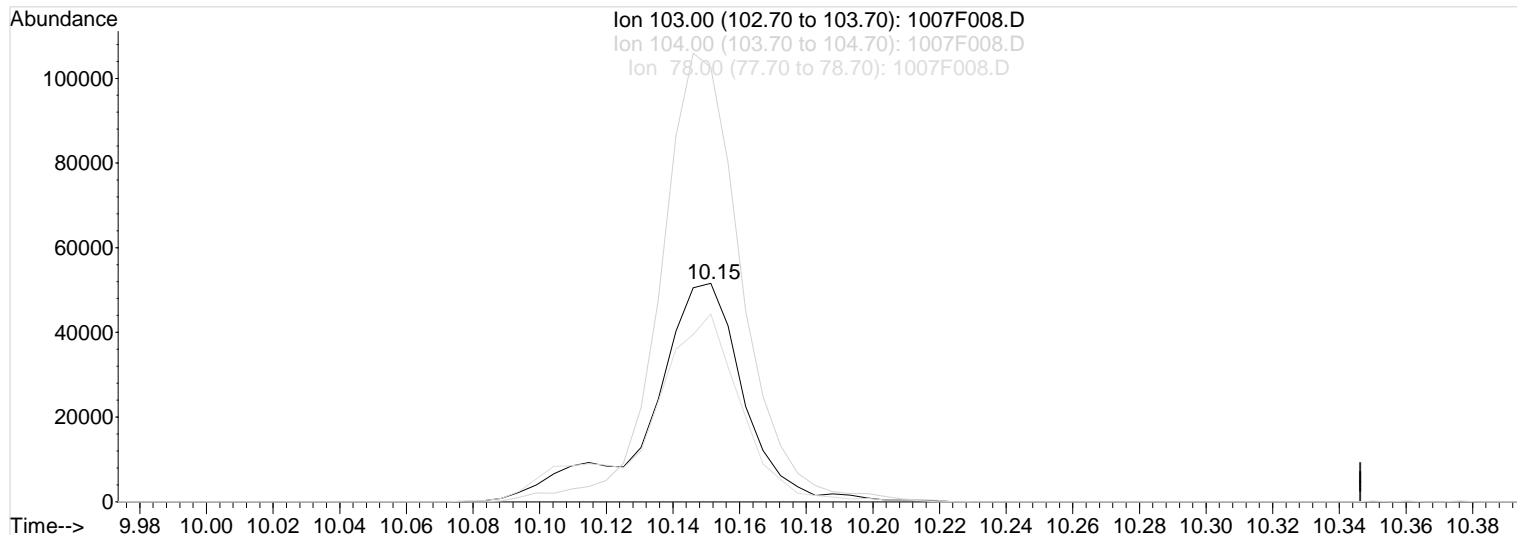
Data File : J:\MS13\DATA\100719\1007F008.D
 Acq On : 7 Oct 2019 1:25 pm
 Sample : DLCS
 Misc :

Vial: 2
 Operator: AK
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 8 9:00 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260
 Last Update : Tue Oct 01 09:18:15 2019
 Response via : Multiple Level Calibration



TIC: 1007F008.D

(80) Styrene (T)

Manual Integration:

10.15min 9.10PPB

Before

response 100640

Ion	Exp%	Act%
103.00	100	100
104.00	209.30	199.01
78.00	89.90	85.96
0.00	0.00	0.00

10/08/19

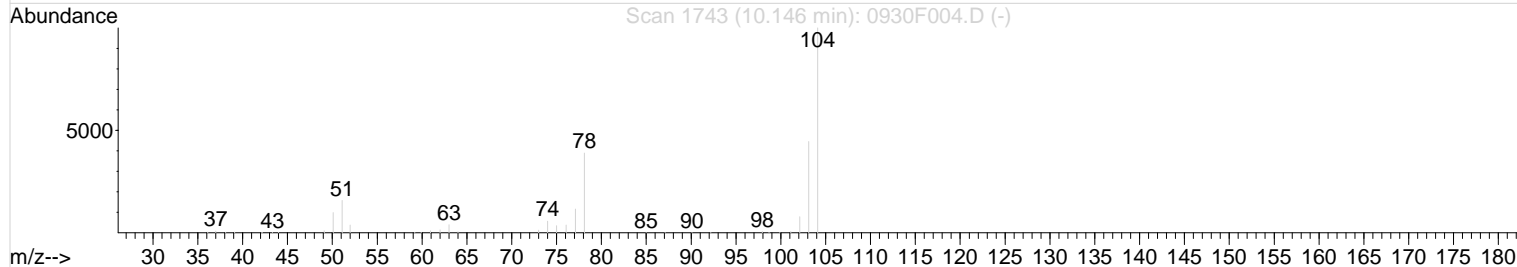
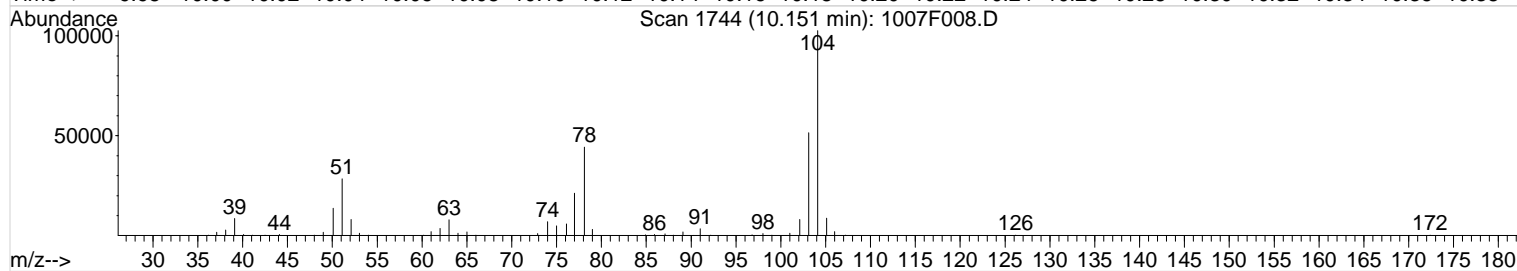
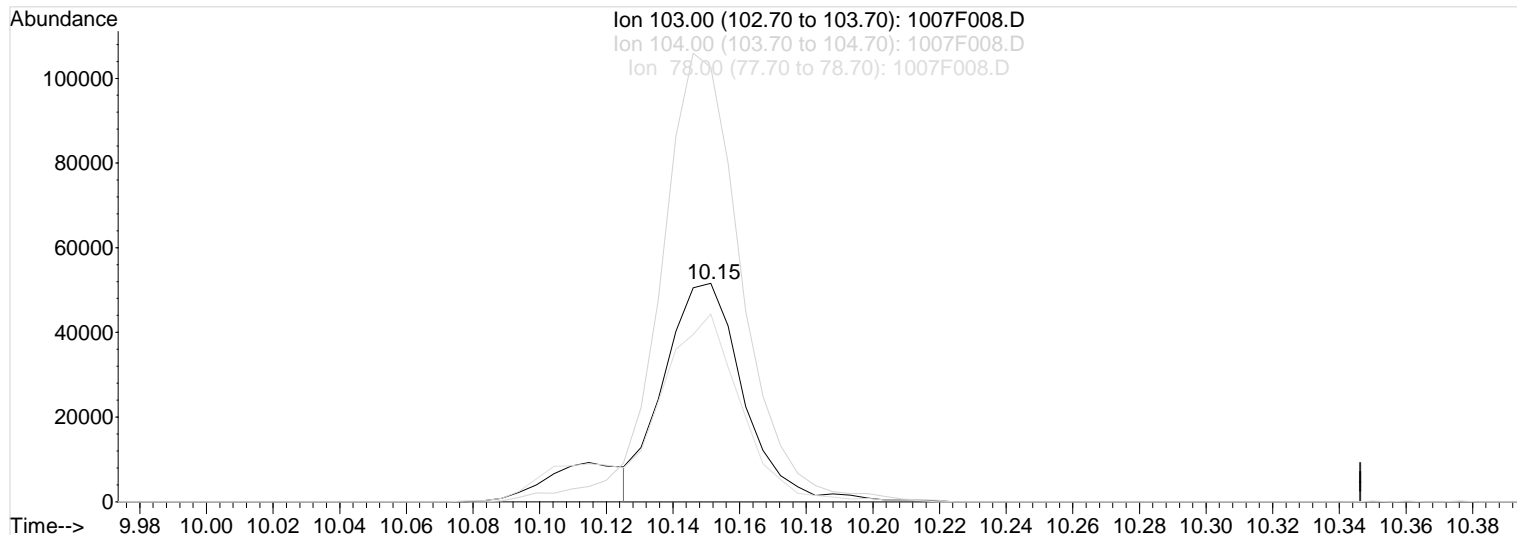
Data File : J:\MS13\DATA\100719\1007F008.D
 Acq On : 7 Oct 2019 1:25 pm
 Sample : DLCS
 Misc :

Vial: 2
 Operator: AK
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 8 9:00 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260
 Last Update : Tue Oct 01 09:18:15 2019
 Response via : Multiple Level Calibration



TIC: 1007F008.D

(80) Styrene (T)

Manual Integration:

10.15min 7.73PPB m
 response 85515

After
 Shoulder

Ion	Exp%	Act%
103.00	100	100
104.00	209.30	199.01
78.00	89.90	85.96
0.00	0.00	0.00

10/08/19

Exception Report

1st *AMC* 10/08/19
2nd *AK* 10/09/19

Data File: J:\MS13\DATA\100719\1007F003.D
Lab ID: KWG1904384-1
RunType: BFB
Matrix: WATER

Date Acquired: 10/07/2019 10:54
Date Quantitated:
Batch ID: KWG1904384
Analysis Method: BFB
ListJoinID: LJ774

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Ion Ratio	NA	NA	NA	x	

Primary Review: _____

Secondary Review: _____

Quantitation Report

Data File: J:\MS13\DATA\100719\1007F003.D	Instrument: MS13
Acqu Date: 10/07/2019 10:54	Quant Date:
Run Type: BFB	Vial: 99
Lab ID: KWG1904384-1	ListJoinID: LJ774
	Dilution: 1.0
	Soln Conc. Units:

Bottle ID:	Tier:	Matrix: WATER
Prod Code: 8260C VOC FP	Collect Date:	Receive Date: 10/08/2019

Analysis Lot: KWG1904384	Prep Lot:	Report Group:
Analysis Method: BFB	Prep Method:	
Prep Ref:	Prep Date:	

Quant Method: J:\MS13\METHODS\072519MS13_8	Calibration ID: CAL16105
Title: GC/MS Tuning Evaluation	Report List ID: LJ774
Tune Ref:	Method ID: MJ159
MB Ref:	Quant based on Report List

Tune Results

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	21.1	76442	Pass
75	95	30	60	51.1	185237	Pass
95	95	100	100	100.0	362432	Pass
96	95	5	9	7.0	25293	Pass
173	174	0	2	0.0	0	Pass
174	95	50	120	90.5	328128	Pass
175	174	5	9	8.3	27093	Pass
176	174	95	101	96.7	317141	Pass
177	176	5	9	6.9	21893	Pass

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File : J:\MS13\DATA\100719\1007F003.D

Vial: 99

Acq On : 7 Oct 2019 10:54 am

Operator: AK

Sample : PRIMER

Inst : MS13

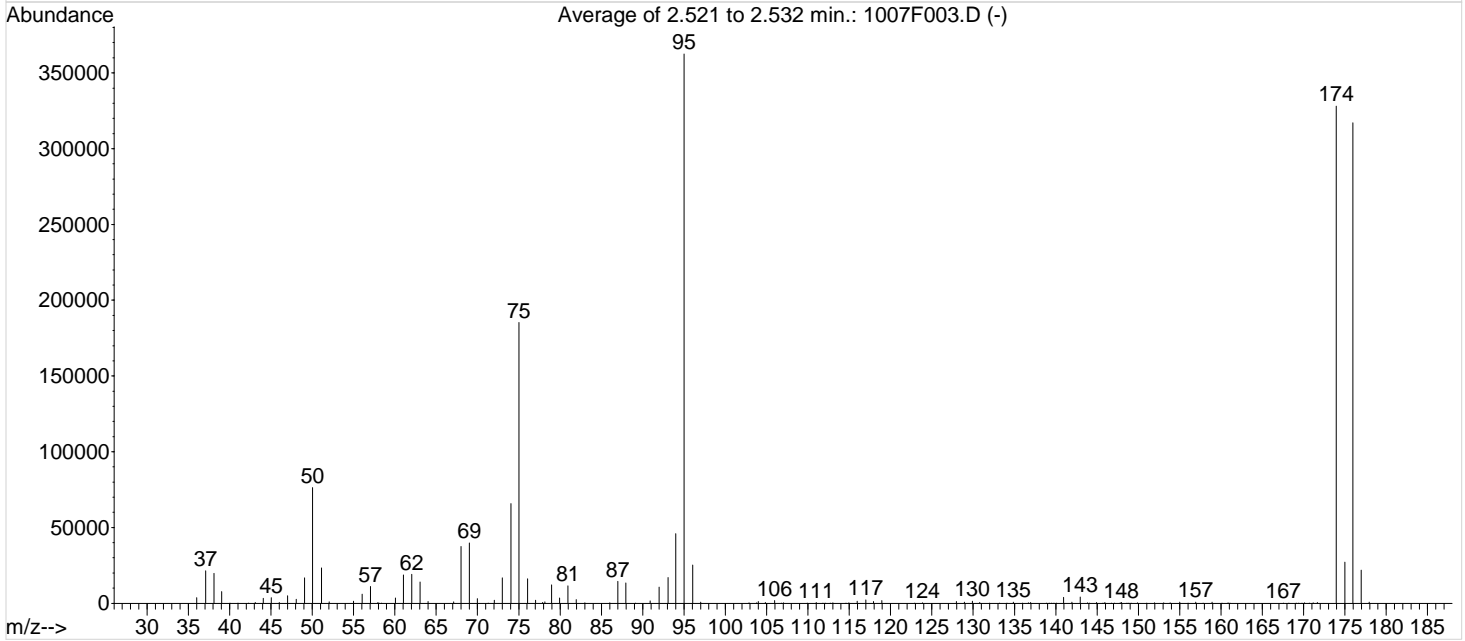
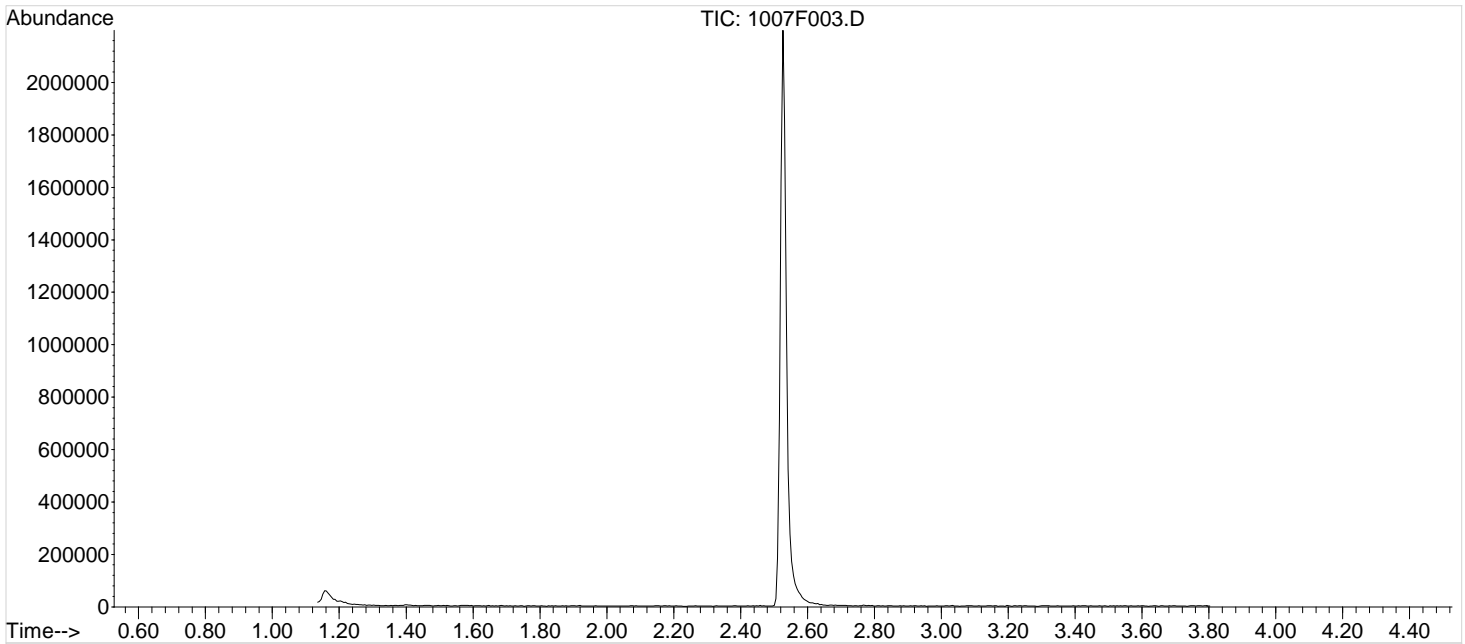
Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260



AutoFind: Scans 266, 267, 268; Background Corrected with Scan 259

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.1	76442	PASS
75	95	30	60	51.1	185237	PASS
95	95	100	100	100.0	362432	PASS
96	95	5	9	7.0	25293	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	90.5	328128	PASS
175	174	5	9	8.3	27093	PASS
176	174	95	101	96.7	317141	PASS
177	176	5	9	6.9	21893	PASS

Exception Report

Data File: J:\MS13\DATA\100719\1007F004.D
Lab ID: KWG1904384-2
RunType: CCV
Matrix: WATER

Date Acquired: 10/07/2019 11:13
Date Quantitated: 10/07/2019 11:31
Batch ID: KWG1904384
Analysis Method: 8260C
MethodJoinID: MJ174

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	2-Propanol	0.0061	0.01	NA	NT
	Acetonitrile	0.0083	0.01	NA	
	tert-Butyl Alcohol	0.0087	0.01	NA	
	Isobutyl Alcohol	0.0042	0.01	NA	
	1,4-Dioxane	0.0009	0.01	NA	

Primary Review: _____

Secondary Review: _____

Quantitation Report

Data File: J:\MS13\DATA\100719\1007F004.D	Instrument: MS13
Acqu Date: 10/07/2019 11:13	Quant Date: 10/07/2019 11:31
Run Type: CCV	Vial: 2
Lab ID: KWG1904384-2	MethodJoinID: MJ174
	Dilution: 1.0
	Soln Conc. Units: PPB

Bottle ID:	Tier:	Matrix: WATER
Prod Code: 8260C VOC FP	Collect Date:	Receive Date: 10/08/2019

Analysis Lot: KWG1904384	Prep Lot:	Report Group:
Analysis Method: 8260C	Prep Method:	
Prep Ref:	Prep Date:	

Quant Method: J:\MS13\METHODS\072519MS13_8	Calibration ID: CAL16105
Title:	
Tune Ref: J:\MS13\DATA\100719\1007F003.D	Method ID: MJ174
MB Ref:	Quant based on Method

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.33	0.00	96	295564	10.00	OK
2	Chlorobenzene-d5	9.37	0.00	82	105882	10.00	OK
3	1,4-Dichlorobenzene-d4	11.97	0.00	152	92706	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	4.58			113	66683	9.95		55-132	NA
1	1,2-Dichloroethane-d4	4.99			65	65008	8.52		37-155	NA
1	Toluene-d8	7.56			98	299277	10.44		81-124	NA
2	4-Bromofluorobenzene	10.73			95	86744	9.81		64-132	NA

Target Compounds

Final Conc. Units:										
IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	1.10			85	46357	4.76			
1	Chloromethane	1.23			50	70881	6.09			
1	Vinyl Chloride	1.31			62	74277	6.80			
1	Bromomethane	1.56			96	37442	5.69			
1	Chloroethane	1.64			64	48693	7.65			
1	Dichlorofluoromethane (CFC 21)	1.80			67	125630	8.00			
1	Trichlorofluoromethane	1.80			101	116121	7.24			
1	Ethyl Ether	2.06			59	39431	9.30			
1	Acrolein	2.23			56	148529	172.93			
1	Trichlorotrifluoroethane	2.22			151	50977	8.29			
1	1,1-Dichloroethene	2.25			96	54484	6.64			
1	Acetone	2.37			43	121148	110.70			
1	Iodomethane	2.40			142	227482	25.66			

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 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File:	J:\MS13\DATA\100719\1007F004.D	Instrument:	MS 1.5
Acqu Date:	10/07/2019 11:13	Quant Date:	10/07/2019 11:31
Run Type:	CCV	MethodJoinID:	MJ174
Lab ID:	KWG1904384-2	Vial:	2
		Dilution:	1.0
		Soln Conc. Units:	PPB

Target Compounds**Final Conc. Units:**

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Disulfide	2.43			76	183390	8.11			
1	2-Propanol	2.48			45	89627	496.76			
1	3-Chloro-1-propene	2.60			76	34429	7.98			
1	Acetonitrile	2.69			40	101685	414.10			
1	Methyl Acetate	2.64			43	30712	9.76			
1	Methylene Chloride	2.75			84	68214	8.01			
1	tert-Butyl Alcohol	2.86			59	10387	40.47			
1	Acrylonitrile	3.05			53	58764	39.47			
1	Methyl tert-Butyl Ether	2.94			73	287865	18.09			
1	trans-1,2-Dichloroethene	2.95			96	58124	7.28			
1	n-Hexane	3.14			57	110119	8.68		N	
1	Diisopropyl Ether	3.41			45	239399	8.66			
1	1,1-Dichloroethane	3.42			63	123676	7.81			
1	Vinyl Acetate	3.47			86	20672	17.65			
1	Chloroprene	3.47			53	416454	30.69			
1	tert-Butyl Ethyl Ether	3.80			59	188490	8.77			
1	2,2-Dichloropropane	4.00			77	89594	6.60			
1	cis-1,2-Dichloroethene	4.04			96	70107	7.84			
1	2-Butanone (MEK)	4.09			72	38363	98.92			
1	Propionitrile	4.24			54	20077	38.16			
1	Ethyl Acetate	4.12			61	12248	14.83			
1	Methacrylonitrile	4.36			67	69797	39.19			
1	Bromochloromethane	4.30			128	32732	8.70			
1	Tetrahydrofuran	4.31			71	4235	9.72			
1	Chloroform	4.39			83	118455	7.99			
1	1,1,1-Trichloroethane (TCA)	4.53			97	100551	7.63			
1	Cyclohexane	4.50			56	121566	8.34			
1	Carbon Tetrachloride	4.66			117	86077	7.99			
1	1,1-Dichloropropene	4.72			75	86138	6.91			
1	Isobutyl Alcohol	4.98			43	41122	327.42			
1	Benzene	4.96			78	272768	7.50			
1	1,2-Dichloroethane (EDC)	5.08			62	83366	7.85			
1	tert-Amyl Methyl Ether	5.08			55	42467	9.23			
1	Trichloroethene (TCE)	5.81			95	64005	7.20			
1	Methylcyclohexane	5.95			83	120690	8.52			
1	1,2-Dichloropropane	6.22			63	74083	8.33			
1	Dibromomethane	6.40			93	32624	8.20			
1	Methyl Methacrylate	6.42			69	28195	8.99			
1	1,4-Dioxane	6.43			88	12494	487.05			
1	Bromodichloromethane	6.64			83	81169	8.59			
1	2-Nitropropane	7.10			43	62936	49.35			
1	2-Chloroethyl Vinyl Ether	7.13			63	25998	7.24			

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Data File:	J:\MS13\DATA\100719\1007F004.D	Instrument:	2nd MS 1.5 <i>AMC</i> 10/09/19
Acqu Date:	10/07/2019 11:13	Quant Date:	10/07/2019 11:31
Run Type:	CCV	MethodJoinID:	MJ174
Lab ID:	KWG1904384-2	Vial:	2
		Dilution:	1.0
		Soln Conc. Units:	PPB

Target Compounds

Final Conc. Units:

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	cis-1,3-Dichloropropene	7.29			75	96210	8.26			
1	4-Methyl-2-pentanone (MIBK)	7.53			58	133448	89.57			
1	Toluene	7.65			92	168932	7.86			
2	n-Octane	7.76			85	46737	9.21			
2	trans-1,3-Dichloropropene	8.08			75	74373	7.92			
2	Ethyl Methacrylate	8.15			69	54598	8.56			
2	1,1,2-Trichloroethane	8.29			83	42342	9.26			
2	Tetrachloroethene (PCE)	8.29			164	57994	8.41			
2	2-Hexanone	8.61			57	42422	90.12			
2	1,3-Dichloropropane	8.50			76	87852	8.98			
2	Dibromochloromethane	8.71			129	54072	10.83			
2	1,2-Dibromoethane (EDB)	8.84			107	45595	9.25			
2	1-Chlorohexane	9.40			91	85203	7.95			
2	Chlorobenzene	9.40			112	188707	8.65			
2	Ethylbenzene	9.52			106	103218	8.20			
2	1,1,1,2-Tetrachloroethane	9.53			131	62052	9.17			
2	m,p-Xylenes	9.67			106	241115	16.13			
2	o-Xylene	10.11			106	118267	8.53			
2	Styrene	10.15			103	108281	9.95			
2	Bromoform	10.36			173	26413	9.92			
2	Isopropylbenzene	10.52			105	311695	8.62			
2	cis-1,4-Dichloro-2-butene	10.71			89	14920	24.85			
3	1,1,2,2-Tetrachloroethane	10.96			83	46870	8.71			
3	trans-1,4-Dichloro-2-butene	11.04			53	10734	6.27			
3	Bromobenzene	10.87			156	79432	8.76			
3	n-Propylbenzene	10.97			91	355718	7.63			
3	1,2,3-Trichloropropane	11.00			110	14722	9.24			
3	2-Chlorotoluene	11.08			91	206953	7.46			
3	1,3,5-Trimethylbenzene	11.19			105	251032	7.80			
3	4-Chlorotoluene	11.21			91	242356	7.63			
3	tert-Butylbenzene	11.51			119	229355	8.22			
3	1,2,4-Trimethylbenzene	11.58			105	256853	8.13			
3	sec-Butylbenzene	11.75			105	327005	8.23			
3	4-Isopropyltoluene	11.91			119	279013	8.58			
3	1,3-Dichlorobenzene	11.88			146	148179	8.58			
3	1,4-Dichlorobenzene	11.99			146	147404	8.52			
3	n-Butylbenzene	12.34			91	248299	8.27			
3	1,2-Dichlorobenzene	12.38			146	132776	9.02			
3	1,2-Dibromo-3-chloropropane	13.23			155	5938	9.26			
3	1,3,5-Trichlorobenzene	13.38			180	96132	9.04			
3	1,2,4-Trichlorobenzene	14.04			180	88225	9.90			
3	Hexachlorobutadiene	14.17			225	49186	11.30			

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Data File:	J:\MS13\DATA\100719\1007F004.D	Instrument:	2nd MS 1.5 <i>AMC</i>
Acqu Date:	10/07/2019 11:13	Quant Date:	10/07/2019 11:31
Run Type:	CCV	MethodJoinID:	MJ174
Lab ID:	KWG1904384-2	Dilution:	1.0
		Soln Conc. Units:	PPB

Target Compounds**Final Conc. Units:**

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Naphthalene	14.29			128	151002	9.83			
3	1,2,3-Trichlorobenzene	14.54			180	74162	10.29			

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 c: check for co-elution

Data File : J:\MS13\DATA\100719\1007F004.D
 Acq On : 7 Oct 2019 11:13 am
 Sample : CCV
 Misc :

Vial: 2
 Operator: AK
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 07 11:31:42 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260
 Last Update : Tue Oct 01 09:18:15 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	295564	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	105882	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.97	152	92706	10.00	PPB	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) Dibromofluoromethane	4.58	113	66683	9.95	PPB	0.00
Spiked Amount 10.000			Recovery =	99.50%		
47) 1,2-Dichloroethane-d4	4.99	65	65008	8.52	PPB	0.00
Spiked Amount 10.000			Recovery =	85.20%		
62) Toluene-d8	7.56	98	299277	10.44	PPB	0.00
Spiked Amount 10.000			Recovery =	104.40%		
84) 4-Bromofluorobenzene	10.73	95	86744	9.81	PPB	0.00
Spiked Amount 10.000			Recovery =	98.10%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.10	85	46357	4.76	PPB	96
3) Chloromethane	1.23	50	70881	6.09	PPB	97
4) Vinyl Chloride	1.31	62	74277	6.80	PPB	96
5) Bromomethane	1.56	96	37442	5.69	PPB	98
6) Chloroethane	1.64	64	48693	7.65	PPB	94
7) Dichlorofluoromethane	1.80	67	125630	8.00	PPB	95
8) Trichlorofluoromethane	1.80	101	116121	7.24	PPB	100
9) Ethyl Ether	2.06	59	39431	9.30	PPB	98
10) Acrolein	2.23	56	148529	172.93	PPB	97
11) Trichlorotrifluoroethane	2.22	151	50977	8.29	PPB	92
12) 1,1-Dichloroethene	2.25	96	54484	6.64	PPB	98
13) Acetone	2.37	43	121148	110.70	PPB	98
14) Iodomethane	2.40	142	227482	25.66	PPB	97
15) Carbon Disulfide	2.43	76	183390	8.11	PPB	99
16) 2-Propanol (Isopropyl Alco	2.48	45	89627	496.76	PPB	93
17) 3-Chloro-1-propene	2.60	76	34429	7.98	PPB	# 77
18) Acetonitrile	2.69	40	101685	414.10	PPB	99
19) Methyl Acetate	2.64	43	30712	9.76	PPB	94
20) Methylene Chloride	2.75	84	68214	8.01	PPB	95
21) tert-Butyl Alcohol	2.86	59	10387	40.47	PPB	85
22) Acrylonitrile	3.05	53	58764	39.47	PPB	95
23) Methyl tert-Butyl Ether	2.94	73	287865	18.09	PPB	98
24) trans-1,2-Dichloroethene	2.95	96	58124	7.28	PPB	92
25) Hexane	3.14	57	110119	8.68	PPB	96
26) Diisopropyl Ether	3.41	45	239399	8.66	PPB	98
27) 1,1-Dichloroethane	3.42	63	123676	7.81	PPB	95
28) Vinyl Acetate	3.47	86	20672	17.65	PPB	# 66
29) Chloroprene	3.47	53	416454	30.69	PPB	98
30) tert-Butyl Ethyl Ether	3.80	59	188490	8.77	PPB	98
31) 2,2-Dichloropropane	4.00	77	89594	6.60	PPB	98
32) cis-1,2-Dichloroethene	4.04	96	70107	7.84	PPB	96
33) 2-Butanone	4.09	72	38363	98.92	PPB	95
34) Propionitrile	4.24	54	20077	38.16	PPB	97
35) Ethyl Acetate	4.12	61	12248	14.83	PPB	92
36) Methacrylonitrile	4.36	67	69797	39.19	PPB	92
37) Bromochloromethane	4.30	128	32732	8.70	PPB	87
38) Tetrahydrofuran	4.31	71	4235	9.72	PPB	# 72
39) Chloroform	4.39	83	118455	7.99	PPB	99
40) tert-Butyl Formate	4.41	59	26261	4.80	PPB	97
41) 1,1,1-Trichloroethane	4.53	97	100551	7.63	PPB	99
43) Cyclohexane	4.50	56	121566	8.34	PPB	97
44) Carbon Tetrachloride	4.66	117	86077	7.99	PPB	96
45) 1,1-Dichloropropene	4.72	75	86138	6.91	PPB	96

Data File : J:\MS13\DATA\100719\1007F004.D
 Acq On : 7 Oct 2019 11:13 am
 Sample : CCV
 Misc :

Vial: 2
 Operator: AK
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Oct 07 11:31:42 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260
 Last Update : Tue Oct 01 09:18:15 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260W5

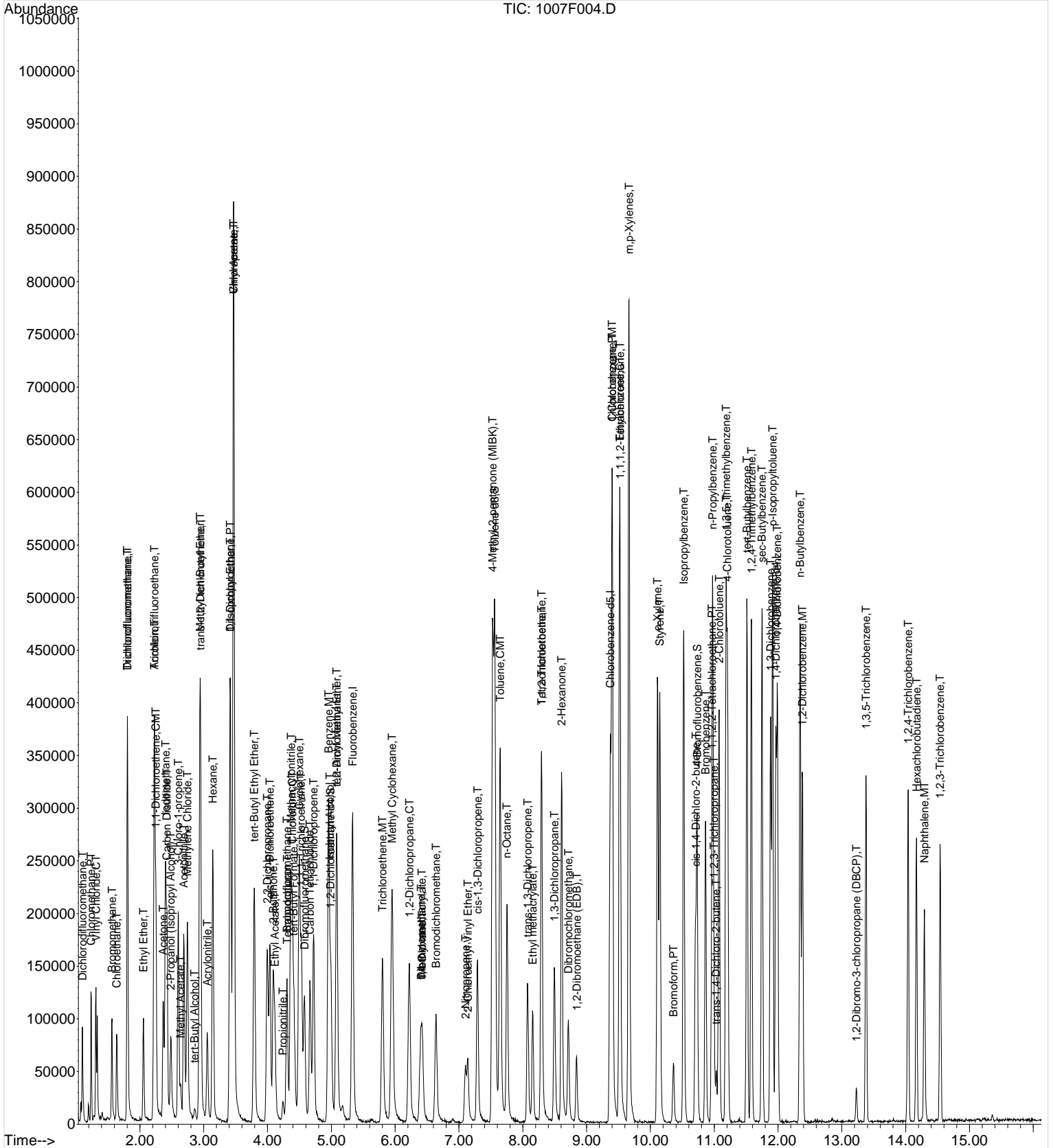
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) Isobutyl Alcohol	4.98	43	41122	327.42	PPB	97
48) Benzene	4.96	78	272768	7.50	PPB	97
49) 1,2-Dichloroethane	5.08	62	83366	7.85	PPB	95
50) tert-Amyl Methyl Ether	5.08	55	42467	9.23	PPB	# 82
51) Trichloroethene	5.81	95	64005	7.20	PPB	92
52) Methyl Cyclohexane	5.95	83	120690	8.52	PPB	93
53) 1,2-Dichloropropane	6.22	63	74083	8.33	PPB	94
54) Dibromomethane	6.40	93	32624	8.20	PPB	89
55) Methyl methacrylate	6.42	69	28195	8.99	PPB	92
56) 1,4-Dioxane	6.43	88	12494	487.05	PPB	98
57) Bromodichloromethane	6.64	83	81169	8.59	PPB	92
58) 2-Nitropropane	7.10	43	62936	49.35	PPB	97
59) 2-Chloroethyl Vinyl Ether	7.13	63	25998	7.24	PPB	95
60) cis-1,3-Dichloropropene	7.29	75	96210	8.26	PPB	94
61) 4-Methyl-2-pentanone (MIBK)	7.53	58	133448	89.57	PPB	98
63) Toluene	7.65	92	168932	7.86	PPB	97
65) n-Octane	7.76	85	46737	9.21	PPB	91
66) trans-1,3-Dichloropropene	8.08	75	74373	7.92	PPB	98
67) Ethyl methacrylate	8.15	69	54598	8.56	PPB	98
68) 1,1,2-Trichloroethane	8.29	83	42342	9.26	PPB	90
69) Tetrachloroethene	8.29	164	57994	8.41	PPB	94
70) 2-Hexanone	8.61	57	42422	90.12	PPB	# 88
71) 1,3-Dichloropropane	8.50	76	87852	8.98	PPB	99
72) Dibromochloromethane	8.71	129	54072	10.83	PPB	95
73) 1,2-Dibromoethane (EDB)	8.84	107	45595	9.25	PPB	90
74) 1-Chlorohexane	9.40	91	85203	7.95	PPB	94
75) Chlorobenzene	9.40	112	188707	8.65	PPB	91
76) Ethylbenzene	9.52	106	103218	8.20	PPB	94
77) 1,1,1,2-Tetrachloroethane	9.53	131	62052	9.17	PPB	97
78) m,p-Xylenes	9.67	106	241115	16.13	PPB	98
79) o-Xylene	10.11	106	118267	8.53	PPB	100
80) Styrene	10.15	103	108281	9.95	PPB	98
81) Bromoform	10.36	173	26413	9.92	PPB	99
82) Isopropylbenzene	10.52	105	311695	8.62	PPB	97
83) cis-1,4-Dichloro-2-butene	10.71	89	14920	24.85	PPB	96
86) 1,1,2,2-Tetrachloroethane	10.96	83	46870	8.71	PPB	98
87) trans-1,4-Dichloro-2-buten	11.04	53	10734	6.27	PPB	81
88) Bromobenzene	10.87	156	79432	8.76	PPB	88
89) n-Propylbenzene	10.97	91	355718	7.63	PPB	100
90) 1,2,3-Trichloropropane	11.00	110	14722	9.24	PPB	# 83
91) 2-Chlorotoluene	11.08	91	206953	7.46	PPB	98
92) 1,3,5-Trimethylbenzene	11.19	105	251032	7.80	PPB	97
93) 4-Chlorotoluene	11.21	91	242356	7.63	PPB	95
94) tert-Butylbenzene	11.51	119	229355	8.22	PPB	97
95) 1,2,4-Trimethylbenzene	11.58	105	256853	8.13	PPB	98
96) sec-Butylbenzene	11.75	105	327005	8.23	PPB	98
97) p-Isopropyltoluene	11.91	119	279013	8.58	PPB	97
98) 1,3-Dichlorobenzene	11.88	146	148179	8.58	PPB	96
99) 1,4-Dichlorobenzene	11.99	146	147404	8.52	PPB	94
100) n-Butylbenzene	12.34	91	248299	8.27	PPB	99
101) 1,2-Dichlorobenzene	12.38	146	132776	9.02	PPB	95
102) 1,2-Dibromo-3-chloropropan	13.23	155	5938	9.26	PPB	88
103) 1,3,5-Trichlorobenzene	13.38	180	96132	9.04	PPB	98
104) 1,2,4-Trichlorobenzene	14.04	180	88225	9.90	PPB	94
105) Hexachlorobutadiene	14.17	225	49186	11.30	PPB	96
106) Naphthalene	14.29	128	151002	9.83	PPB	97
107) 1,2,3-Trichlorobenzene	14.54	180	74162	10.29	PPB	98

Data File : J:\MS13\DATA\100719\1007F004.D
Acq On : 7 Oct 2019 11:13 am
Sample : CCV
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 7 11:31 2019

Vial: 2
Operator: AK
Inst : MS13
Multiplr: 1.00

Quant Results File: 072519MS13_8260W.RES

1st Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
2nd Title : VOA MS13 EPA Method 8260
Last Update : Tue Oct 01 09:18:15 2019
Response via : Initial Calibration



INITIAL CALIBRATION CURVE

Date 7/25/15 Analysis: 8260
 Prepared By J. Jone Instrument: MJ13
 Matrix: Water

Stock Solution #1 7400437E Analytes: Surrogate Init. Concentration: 100ppm
 Stock Solution #2 7400437A Analytes: Low 8260 Init. Concentration: 5/10/20/100/200ppm
 Stock Solution #3 7400437C Analytes: 8260 Init. Concentration: 50/100/200/1000/2000ppm

Aliquot of Stock Solution #1 (uL)	Final Conc. of #1 (ug/L)	Aliquot of Stock Solution #2 (uL)	Final Conc. of #2 (ug/L)	Aliquot of Stock Solution #3 (uL)	Final Conc. of #3 (ug/L)					Final Volume (mL)
		1	0.1							50
		2	0.2							50
		5.0	0.5							50
2.0	4	10	1							50
3.0	6			2.0	2					50
4.0	8			5.0	5					50
5.0	10			10	10					50
6	12			20	20					50
7	14			40	40					50
8	16			60	60					50
10	20			80	80					50

8260 ICV: 10uL of 50/250ppm Accusid ICV (7400437D 7/2/17) + 50uL of 100ppm Acrolein (7400437H 7/1/15) +
 5uL of 100ppm Dichlorofluoromethane (7400437J 7/2/14) + 5uL of 200ppm n-Octane/BF/Tetrahydratufuran (7400437K 8/1/15)
 5uL of 100ppm Oxygenates (7400437L 11/9/14) + 7.5uL of Appendix ICV mix (7400437M 7/2/14) + 25uL of 1000ppm 2-Propanol (7400437N 8/24/15)
 5uL of 100ppm CLP (7400437O 7/1/14)

* prep'd pint same for room

7400437E 7/2/14
7400437F 7/2/14
7400437G 7/2/14
7400437H 7/2/14
7400437I 7/2/14
7400437J 7/2/14
7400437K 8/1/15
7400437L 11/9/14
7400437M 7/2/14
7400437N 8/24/15
7400437O 7/1/14

Data File : I:\MS13\DATA\072519\0725F003.D

Vial: 3

Acq On : 25 Jul 2019 8:07 am

Operator: JHJ

Sample : 50ng BFB

Inst : MS13

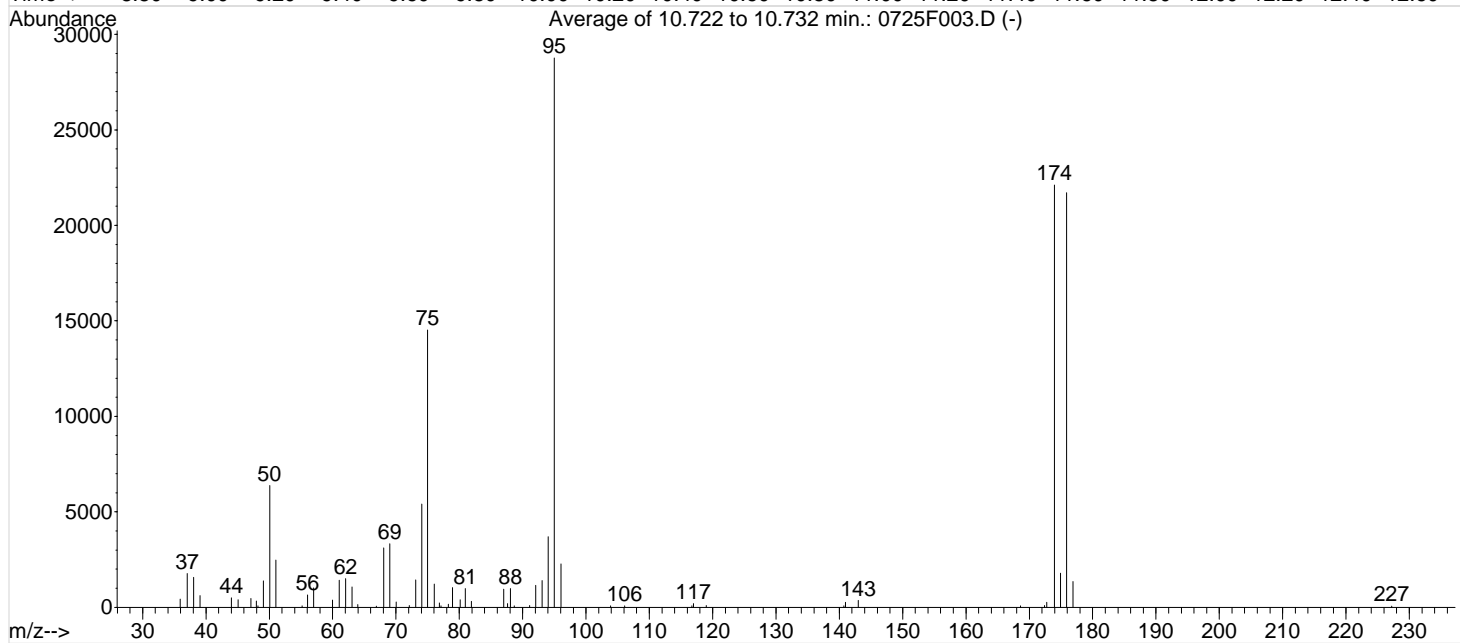
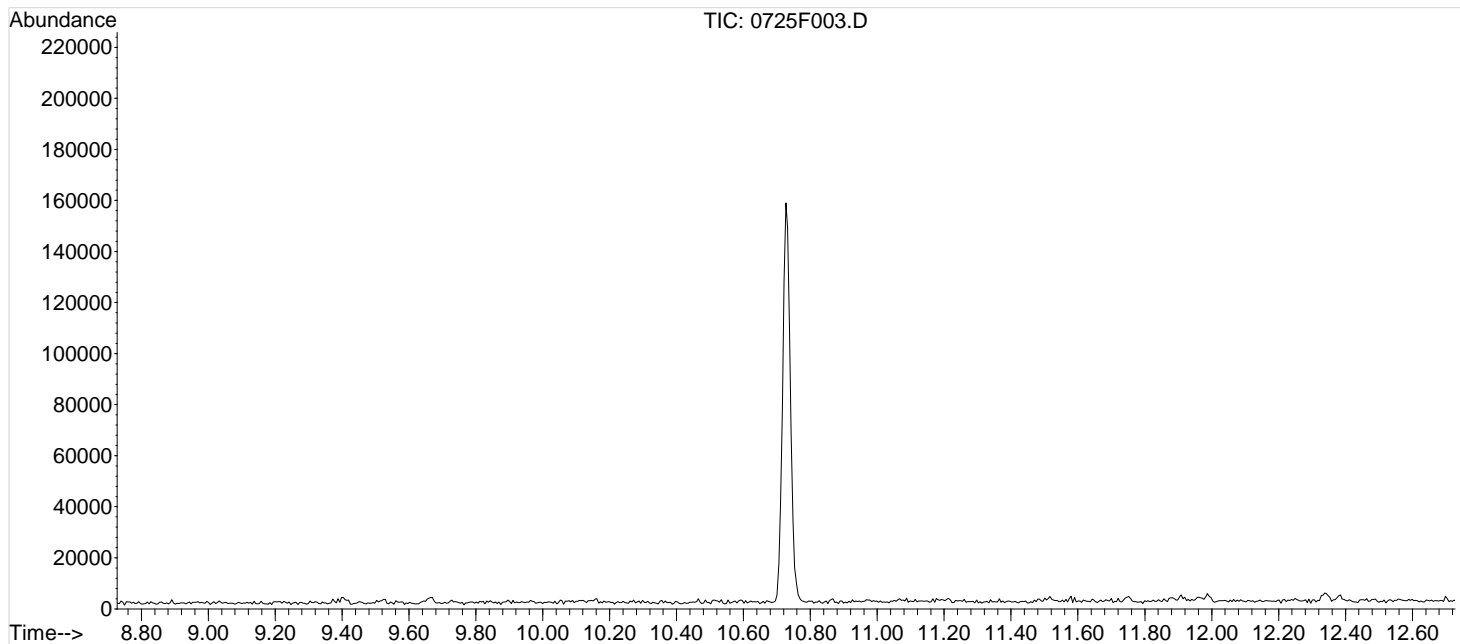
Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B



AutoFind: Scans 1853, 1854, 1855; Background Corrected with Scan 1846

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.2	6375	PASS
75	95	30	60	50.5	14519	PASS
95	95	100	100	100.0	28762	PASS
96	95	5	9	7.9	2264	PASS
173	174	0.00	2	1.2	260	PASS
174	95	50	120	76.9	22114	PASS
175	174	5	9	8.1	1792	PASS
176	174	95	101	98.2	21714	PASS
177	176	5	9	6.2	1344	PASS

Data File : I:\MS13\DATA\072519\0725F004.D
 Acq On : 25 Jul 2019 8:33 am
 Sample : IB
 Misc :

Vial: 4
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 12:50:28 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B
 Last Update : Thu Jul 25 17:58:23 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	292461	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	107189	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.96	152	74927	10.00	PPB	0.00

System Monitoring Compounds

42) Dibromofluoromethane	0.00	113	0	0.00	PPB	
Spiked Amount	10.000					
			Recovery	=		0.00%
47) 1,2-Dichloroethane-d4	0.00	65	0	0.00	PPB	
Spiked Amount	10.000					
			Recovery	=		0.00%
62) Toluene-d8	0.00	98	0d	0.00	PPB	
Spiked Amount	10.000					
			Recovery	=		0.00%
84) 4-Bromofluorobenzene	10.73	95	1025	0.11	PPB	0.00
Spiked Amount	10.000					
			Recovery	=		1.10%

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
5) Bromomethane	1.56	96	550	0.08	PPB	# 67
14) Iodomethane	2.40	142	2239	0.26	PPB	72
15) Carbon Disulfide	2.43	76	2969	0.13	PPB	94
17) 3-Chloro-1-propene	2.43	76	2969	0.13	PPB	95
35) Ethyl Acetate	4.12	61	2688	Below	Cal	89
56) 1,4-Dioxane	6.42	88	893	35.18	PPB	65
104) 1,2,4-Trichlorobenzene	14.03	180	815	0.11	PPB	# 62
106) Naphthalene	14.29	128	1576	0.13	PPB	77
107) 1,2,3-Trichlorobenzene	14.53	180	1442	0.25	PPB	# 55

(#) = qualifier out of range (m) = manual integration

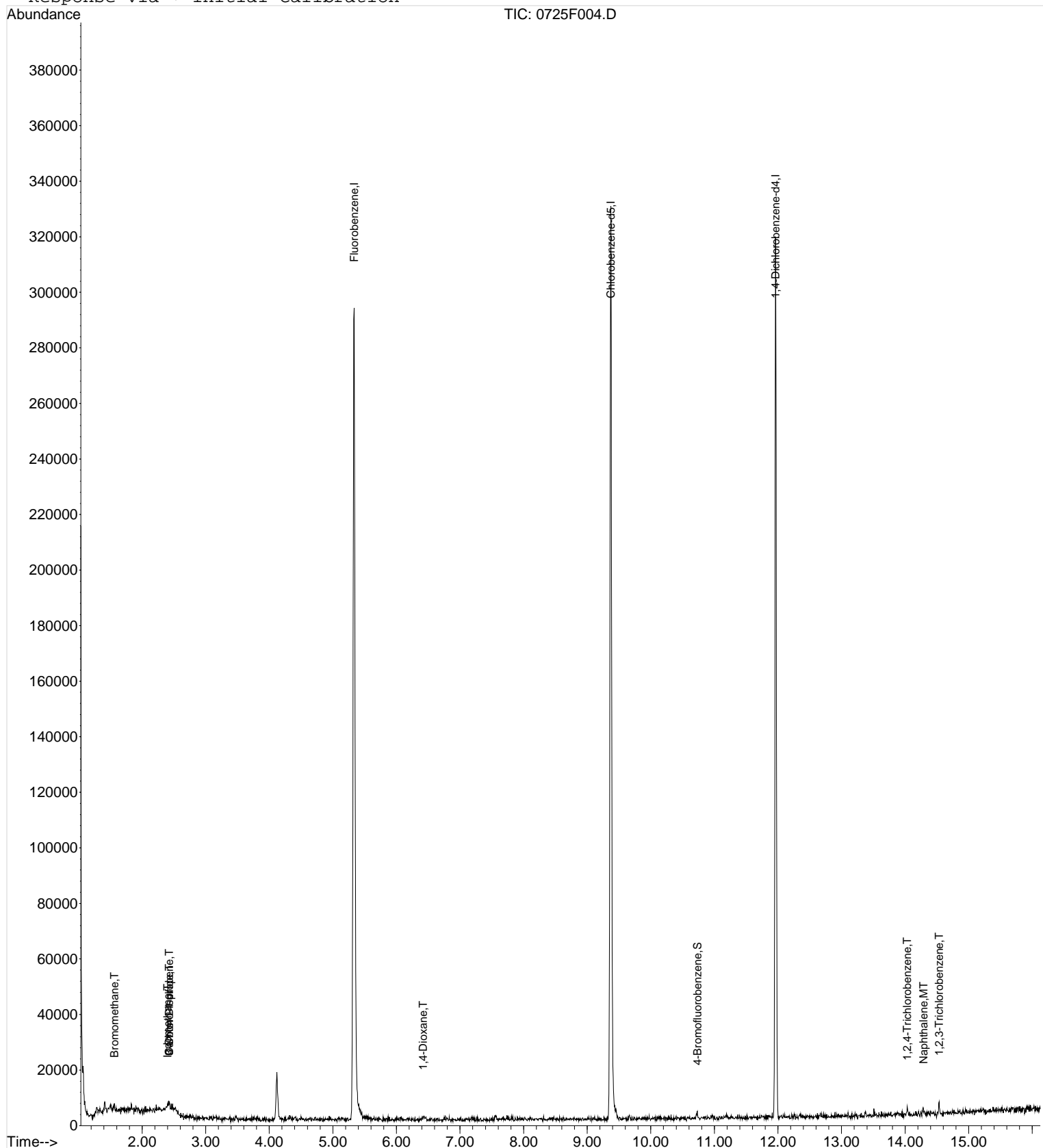
Data File : I:\MS13\DATA\072519\0725F004.D
 Acq On : 25 Jul 2019 8:33 am
 Sample : IB
 Misc :

Vial: 4
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 12:52 2019

Quant Results File: 072519MS13_8260W.RES

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Thu Jul 25 17:58:23 2019
 Response via : Initial Calibration



Data File : I:\MS13\DATA\072519\0725F005.D
 Acq On : 25 Jul 2019 8:59 am
 Sample : IB
 Misc :

Vial: 5
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 12:52:32 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Thu Jul 25 17:58:23 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	293796	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	106387	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.97	152	76011	10.00	PPB	0.00

System Monitoring Compounds

42) Dibromofluoromethane	0.00	113	0	0.00	PPB	
Spiked Amount	10.000					
			Recovery	=		0.00%
47) 1,2-Dichloroethane-d4	0.00	65	0	0.00	PPB	
Spiked Amount	10.000					
			Recovery	=		0.00%
62) Toluene-d8	0.00	98	0d	0.00	PPB	
Spiked Amount	10.000					
			Recovery	=		0.00%
84) 4-Bromofluorobenzene	0.00	95	0	0.00	PPB	
Spiked Amount	10.000					
			Recovery	=		0.00%

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
14) Iodomethane	2.40	142	1400	0.16	PPB	84
15) Carbon Disulfide	2.43	76	2706	0.12	PPB	79
17) 3-Chloro-1-propene	2.43	76	2706	0.12	PPB	75
106) Naphthalene	14.29	128	712	0.06	PPB	69

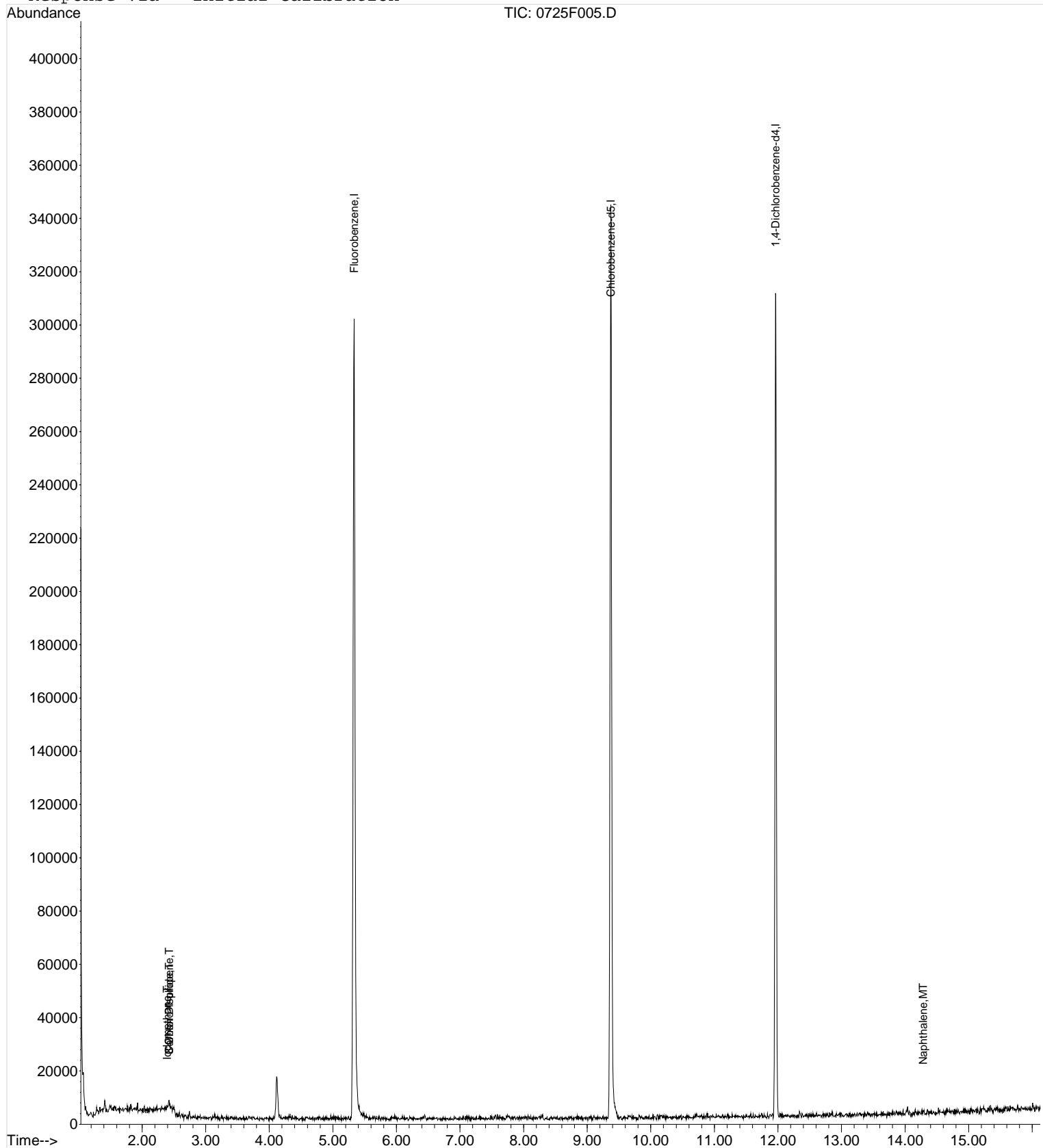
Data File : I:\MS13\DATA\072519\0725F005.D
Acq On : 25 Jul 2019 8:59 am
Sample : IB
Misc :

Vial: 5
Operator: JHJ
Inst : MS13
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Jul 26 12:53 2019

Quant Results File: 072519MS13_8260W.RES

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Jul 25 17:58:23 2019
Response via : Initial Calibration



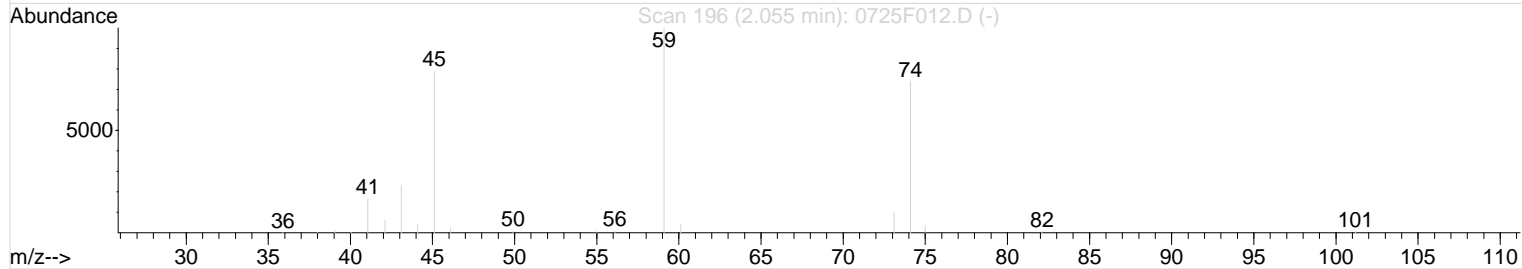
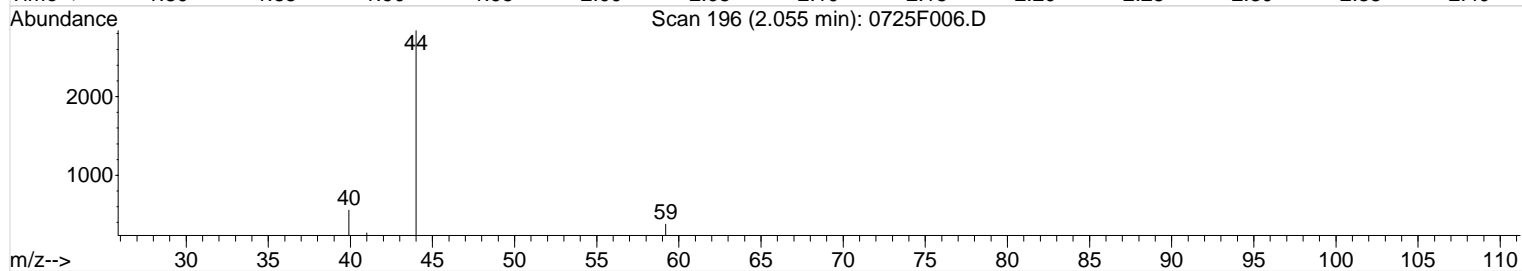
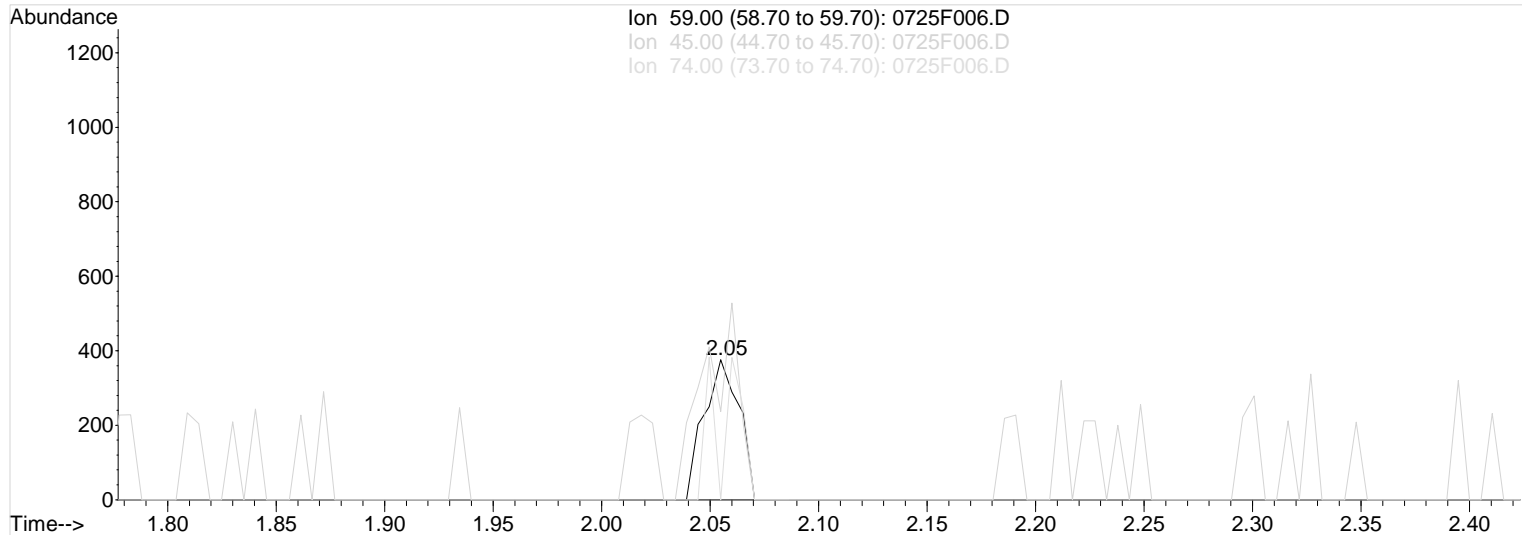
Data File : I:\MS13\DATA\072519\0725F006.D
 Acq On : 25 Jul 2019 9:26 am
 Sample : CAL 0.1 PPB
 Misc :

Vial: 6
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:24 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Multiple Level Calibration



TIC: 0725F006.D

(9) Ethyl Ether (T)

2.05min 0.10PPB m
 response 423

Ion	Exp%	Act%
59.00	100	100
45.00	78.80	63.03
74.00	73.80	0.00#
0.00	0.00	0.00

Manual Integration:

After
 Missed peak
 07/26/19

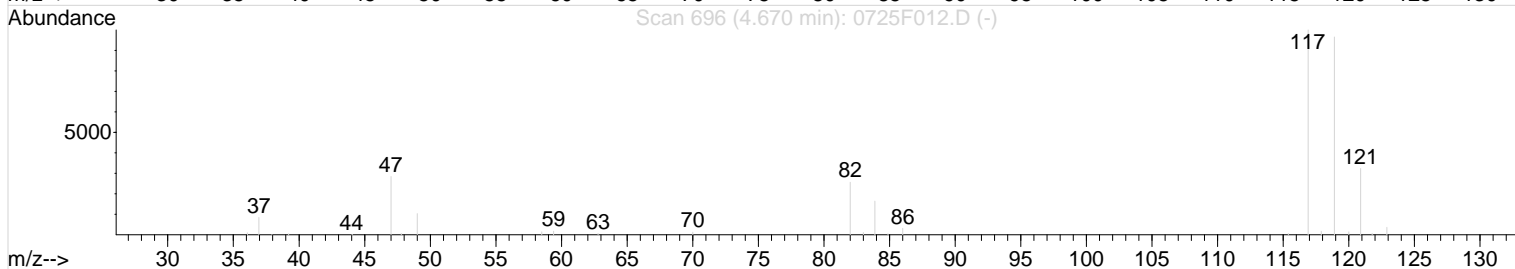
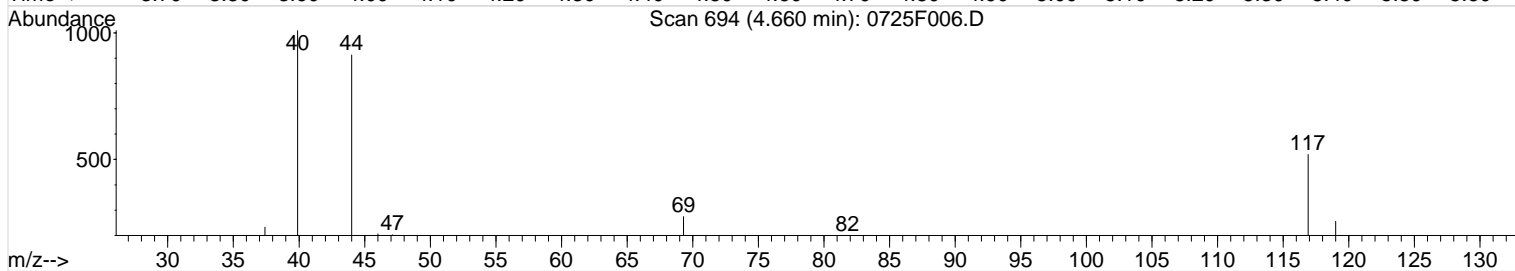
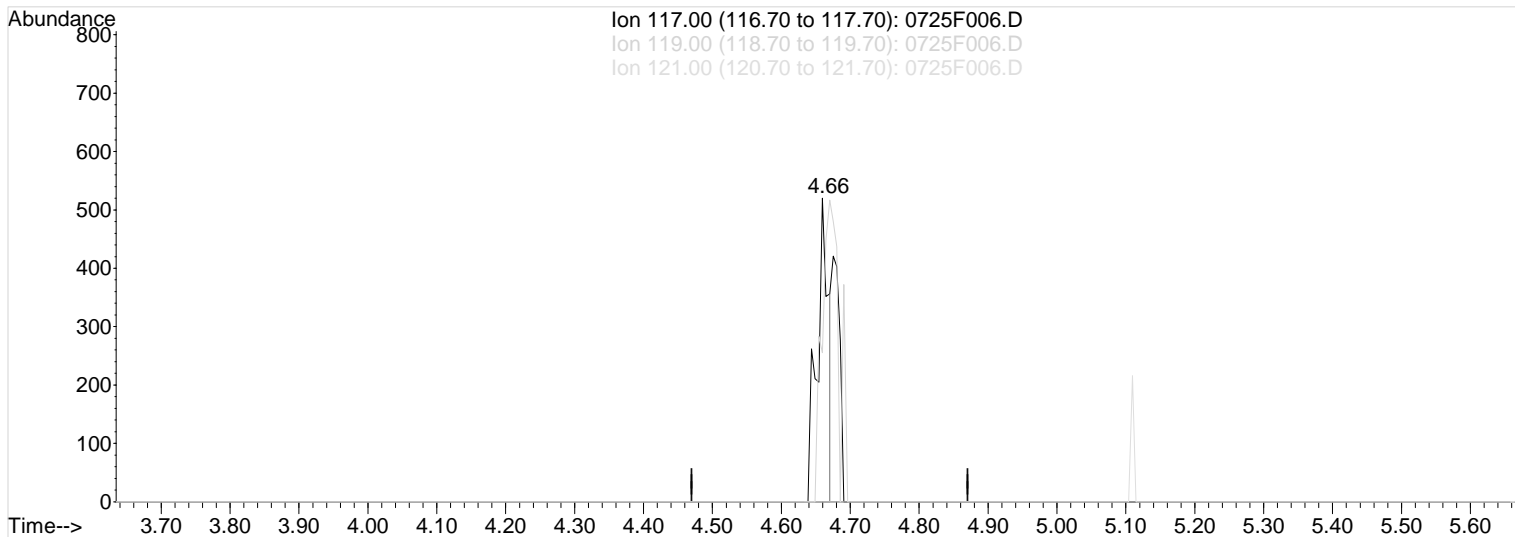
Data File : I:\MS13\DATA\072519\0725F006.D
 Acq On : 25 Jul 2019 9:26 am
 Sample : CAL 0.1 PPB
 Misc :

Vial: 6
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:24 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Multiple Level Calibration



TIC: 0725F006.D

(44) Carbon Tetrachloride (T)

Manual Integration:

4.66min 0.06PPB

Before

response 598

Ion Exp% Act%

07/26/19

117.00 100 100

119.00 96.40 49.04#

121.00 32.20 0.00#

0.00 0.00 0.00

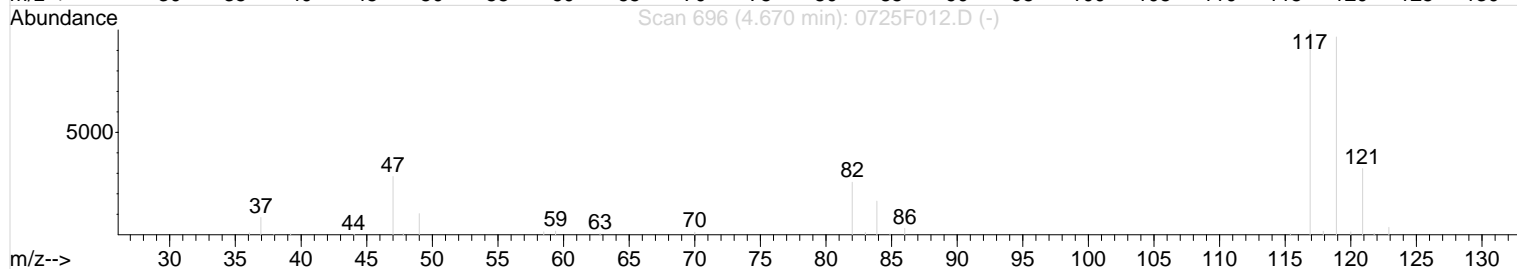
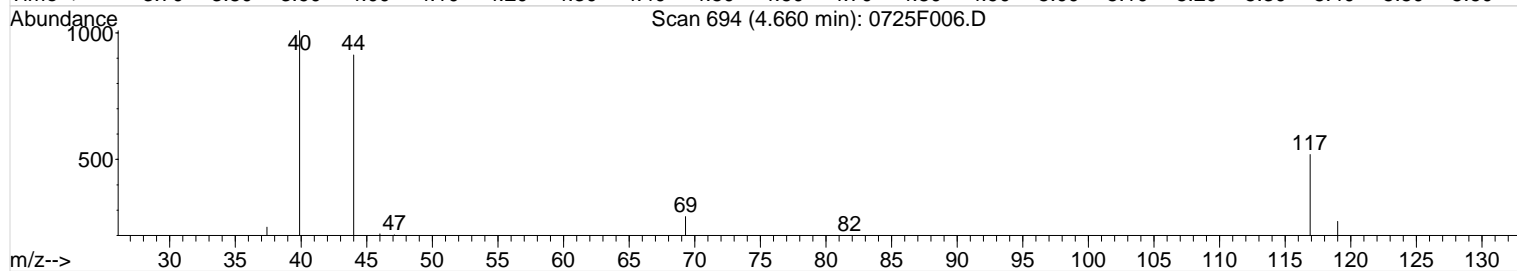
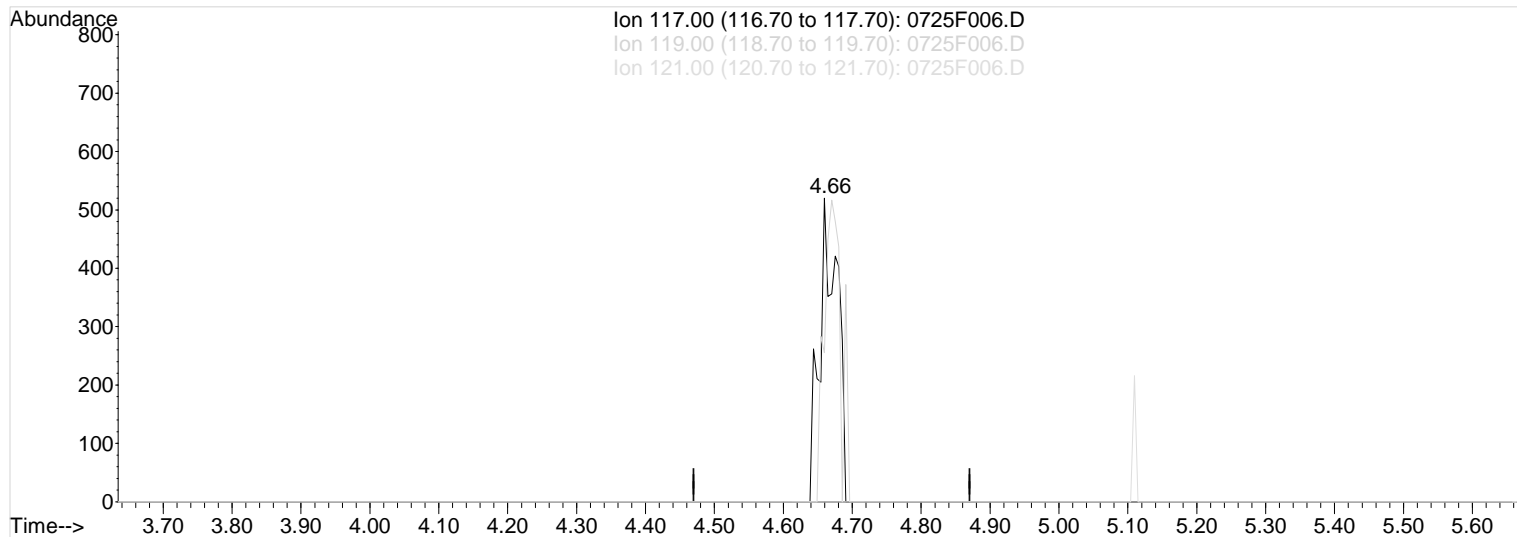
Data File : I:\MS13\DATA\072519\0725F006.D
 Acq On : 25 Jul 2019 9:26 am
 Sample : CAL 0.1 PPB
 Misc :

Vial: 6
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:25 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Multiple Level Calibration



TIC: 0725F006.D

(44) Carbon Tetrachloride (T)

4.66min 0.09PPB m
 response 944

Manual Integration:

After
 Split peak

Ion	Exp%	Act%
117.00	100	100
119.00	96.40	49.04#
121.00	32.20	0.00#
0.00	0.00	0.00

07/26/19

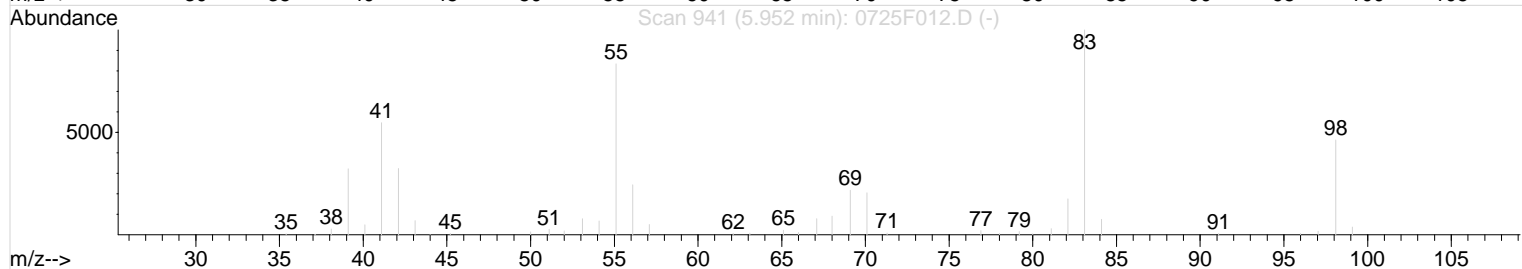
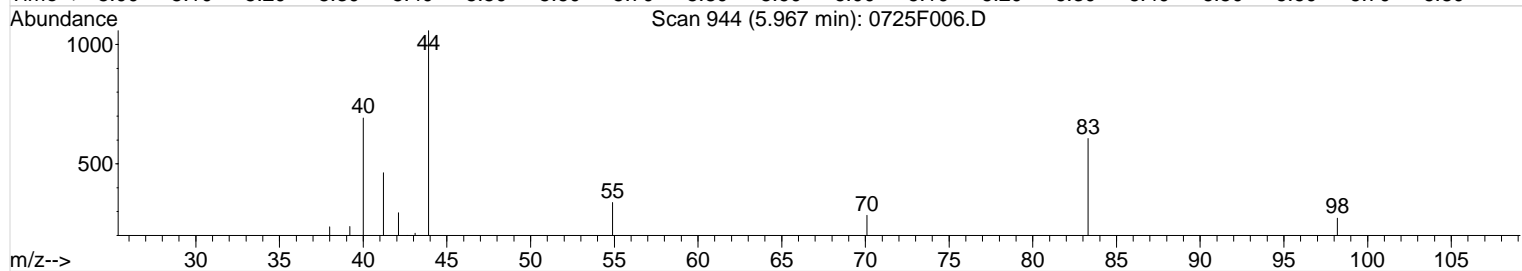
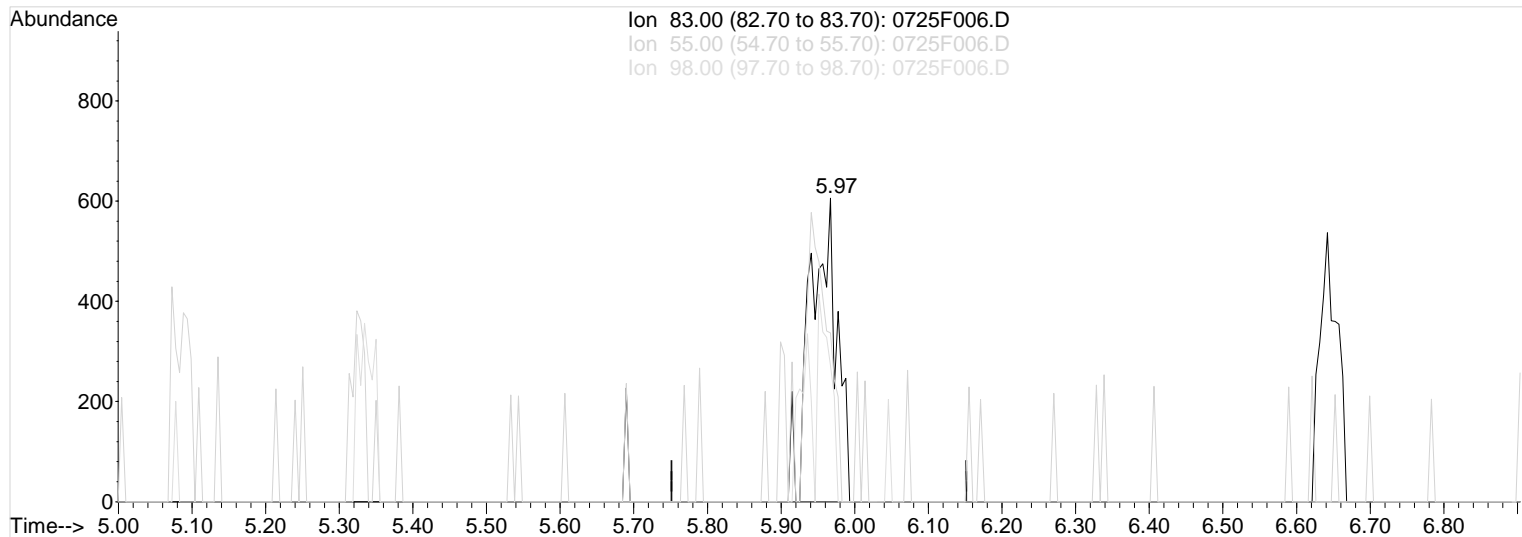
Data File : I:\MS13\DATA\072519\0725F006.D
 Acq On : 25 Jul 2019 9:26 am
 Sample : CAL 0.1 PPB
 Misc :

Vial: 6
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:26 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Multiple Level Calibration



TIC: 0725F006.D

(52) Methyl Cyclohexane (T)

Manual Integration:

5.97min 0.11PPB m
 response 1522

After
 Missed peak

Ion	Exp%	Act%
83.00	100	100
55.00	83.40	55.61
98.00	46.20	44.88
0.00	0.00	0.00

07/26/19

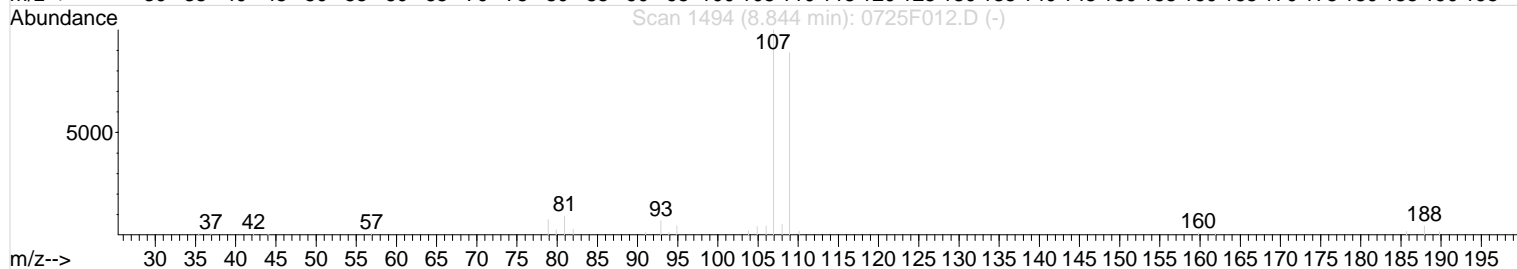
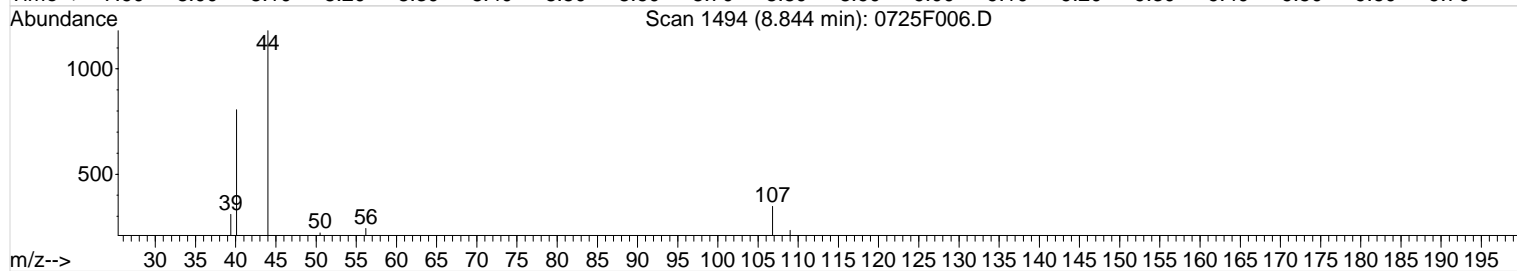
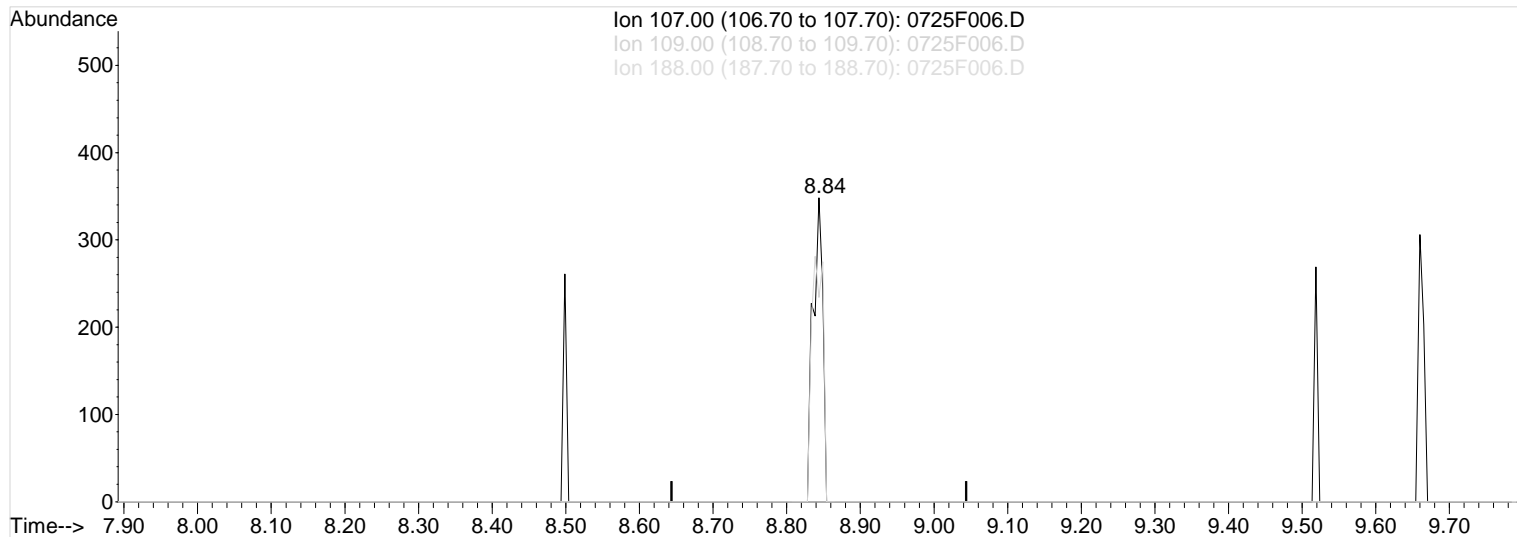
Data File : I:\MS13\DATA\072519\0725F006.D
 Acq On : 25 Jul 2019 9:26 am
 Sample : CAL 0.1 PPB
 Misc :

Vial: 6
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:27 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Multiple Level Calibration



TIC: 0725F006.D

(73) 1,2-Dibromoethane (EDB) (T)

Manual Integration:

8.84min 0.07PPB m

After

response 323

Missed peak

Ion	Exp%	Act%
107.00	100	100
109.00	88.90	67.24
188.00	4.40	0.00
0.00	0.00	0.00

07/26/19

Data File : I:\MS13\DATA\072519\0725F006.D

Vial: 6

Acq On : 25 Jul 2019 9:26 am

Operator: JHJ

Sample : CAL 0.1 PPB

Inst : MS13

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 26 17:21:39 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B

Last Update : Fri Jul 26 17:20:50 2019

Response via : Initial Calibration

DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	291398	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	106419	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.97	152	77731	10.00	PPB	0.00

System Monitoring Compounds

42) Dibromofluoromethane	0.00	113	0	0.00	PPB	
Spiked Amount	10.000		Recovery	=	0.00%	
47) 1,2-Dichloroethane-d4	0.00	65	0	0.00	PPB	
Spiked Amount	10.000		Recovery	=	0.00%	
62) Toluene-d8	0.00	98	0d	0.00	PPB	
Spiked Amount	10.000		Recovery	=	0.00%	
84) 4-Bromofluorobenzene	0.00	95	0	0.00	PPB	
Spiked Amount	10.000		Recovery	=	0.00%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.10	85	1002	0.11	PPB	87
3) Chloromethane	1.23	50	1332	0.12	PPB	92
4) Vinyl Chloride	1.31	62	988	0.09	PPB	91
5) Bromomethane	1.56	96	1015	0.16	PPB	90
6) Chloroethane	1.64	64	582	0.09	PPB	50
7) Dichlorofluoromethane	1.80	67	1596	0.10	PPB	94
8) Trichlorofluoromethane	1.80	101	1561	0.10	PPB	74
9) Ethyl Ether	2.05	59	423m	0.10	PPB	
10) Acrolein	2.23	56	2403	2.92	PPB	89
12) 1,1-Dichloroethene	2.25	96	549	0.07	PPB	# 72
13) Acetone	2.36	43	1688	1.56	PPB	77
14) Iodomethane	2.40	142	3810	0.43	PPB	90
15) Carbon Disulfide	2.43	76	3969	0.18	PPB	93
17) 3-Chloro-1-propene	2.43	76	3969	0.92	PPB	# 1
20) Methylene Chloride	2.75	84	2165	0.27	PPB	# 69
23) Methyl tert-Butyl Ether	2.94	73	3352	0.22	PPB	84
24) trans-1,2-Dichloroethene	2.95	96	838	0.10	PPB	94
25) Hexane	3.15	57	1240	0.10	PPB	89
26) Diisopropyl Ether	3.41	45	2507	0.09	PPB	83
27) 1,1-Dichloroethane	3.43	63	1662	0.10	PPB	89
29) Chloroprene	3.47	53	4939	0.36	PPB	93
30) tert-Butyl Ethyl Ether	3.79	59	2114	0.10	PPB	82
31) 2,2-Dichloropropane	3.98	77	1430	0.11	PPB	49
32) cis-1,2-Dichloroethene	4.04	96	748	0.08	PPB	# 49
35) Ethyl Acetate	4.13	61	2867	3.43	PPB	91
36) Methacrylonitrile	4.37	67	773	0.42	PPB	# 39
39) Chloroform	4.39	83	1638	0.11	PPB	86
41) 1,1,1-Trichloroethane	4.54	97	1112	0.08	PPB	# 56
43) Cyclohexane	4.50	56	1488	0.10	PPB	# 61
44) Carbon Tetrachloride	4.66	117	944m	0.09	PPB	
45) 1,1-Dichloropropene	4.73	75	1143	0.09	PPB	90
48) Benzene	4.96	78	3844	0.10	PPB	85
49) 1,2-Dichloroethane	5.09	62	1229	0.12	PPB	# 69
51) Trichloroethene	5.80	95	891	0.10	PPB	# 70
52) Methyl Cyclohexane	5.97	83	1522m	0.11	PPB	
53) 1,2-Dichloropropane	6.22	63	625	0.07	PPB	# 49
57) Bromodichloromethane	6.64	83	893	0.09	PPB	# 23
60) cis-1,3-Dichloropropene	7.29	75	1139	0.09	PPB	84
61) 4-Methyl-2-pentanone (MIBK)	7.54	58	1545	1.04	PPB	# 61
63) Toluene	7.65	92	1890	0.08	PPB	97
66) trans-1,3-Dichloropropene	8.07	75	1020	0.11	PPB	# 43
69) Tetrachloroethene	8.31	164	670	0.09	PPB	# 73
70) 2-Hexanone	8.60	57	687	1.41	PPB	# 1

(#)= qualifier out of range (m) = manual integration

Data File : I:\MS13\DATA\072519\0725F006.D

Vial: 6

Acq On : 25 Jul 2019 9:26 am

Operator: JHJ

Sample : CAL 0.1 PPB

Inst : MS13

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 26 17:21:39 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B

Last Update : Fri Jul 26 17:20:50 2019

Response via : Initial Calibration

DataAcq Meth : 8260W5

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) 1,3-Dichloropropane	8.50	76	1073	0.11	PPB	# 49
73) 1,2-Dibromoethane (EDB)	8.84	107	323m	0.07	PPB	
75) Chlorobenzene	9.40	112	2390	0.11	PPB	76
76) Ethylbenzene	9.52	106	1249	0.10	PPB	89
77) 1,1,1,2-Tetrachloroethane	9.52	131	616	0.09	PPB	# 70
78) m,p-Xylenes	9.66	106	2865	0.19	PPB	92
79) o-Xylene	10.11	106	1399	0.10	PPB	85
80) Styrene	10.14	103	1231	0.11	PPB	# 23
82) Isopropylbenzene	10.52	105	3489	0.09	PPB	95
88) Bromobenzene	10.86	156	637	0.08	PPB	92
89) n-Propylbenzene	10.97	91	3602	0.09	PPB	86
91) 2-Chlorotoluene	11.08	91	2533	0.11	PPB	98
92) 1,3,5-Trimethylbenzene	11.18	105	2535	0.09	PPB	96
93) 4-Chlorotoluene	11.20	91	2621	0.09	PPB	93
94) tert-Butylbenzene	11.51	119	2069	0.08	PPB	79
95) 1,2,4-Trimethylbenzene	11.58	105	2623	0.09	PPB	67
96) sec-Butylbenzene	11.75	105	3099	0.09	PPB	80
97) p-Isopropyltoluene	11.91	119	2496	0.08	PPB	81
98) 1,3-Dichlorobenzene	11.88	146	1744	0.12	PPB	78
99) 1,4-Dichlorobenzene	11.99	146	1628	0.11	PPB	80
100) n-Butylbenzene	12.35	91	2807	0.11	PPB	86
101) 1,2-Dichlorobenzene	12.37	146	1223	0.09	PPB	90
103) 1,3,5-Trichlorobenzene	13.38	180	897	0.10	PPB	87
104) 1,2,4-Trichlorobenzene	14.04	180	987	0.13	PPB	79
106) Naphthalene	14.29	128	1628	0.12	PPB	88
107) 1,2,3-Trichlorobenzene	14.53	180	735	0.12	PPB	# 48

(#) = qualifier out of range (m) = manual integration

0725F006.D 072519MS13_8260W.M

Fri Jul 26 17:28:51 2019

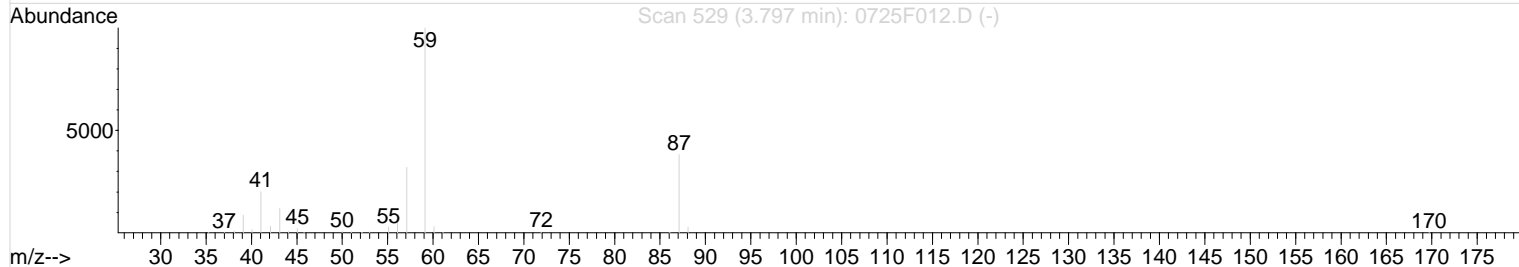
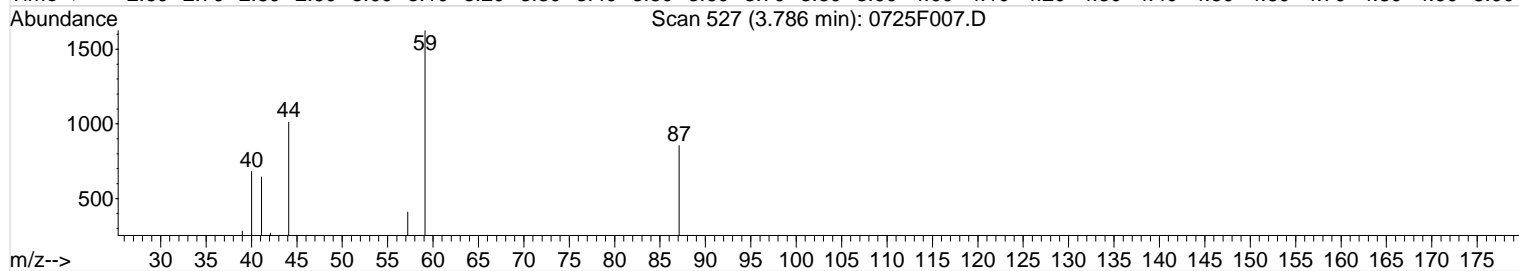
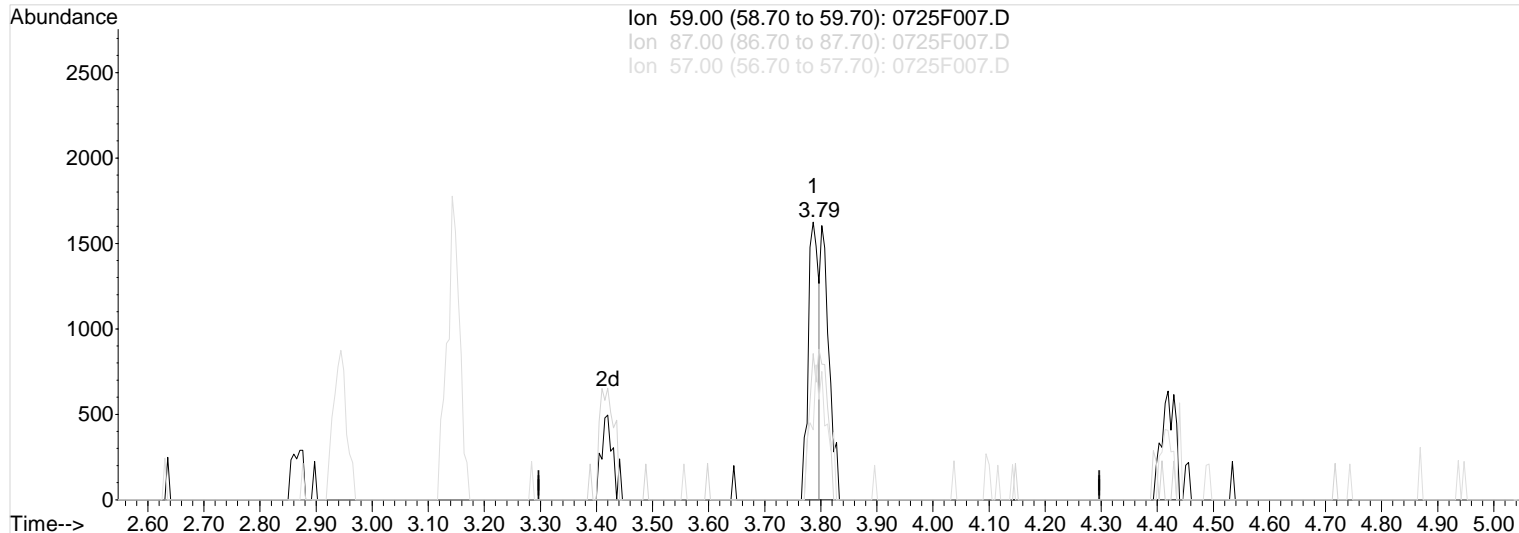
Data File : I:\MS13\DATA\072519\0725F007.D
Acq On : 25 Jul 2019 9:52 am
Sample : CAL 0.2 PPB
Misc :

Vial: 7
Operator: JHJ
Inst : MS13
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Jul 26 17:29 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Multiple Level Calibration



TIC: 0725F007.D

(30) tert-Butyl Ethyl Ether (T)

Manual Integration:

3.79min 0.09PPB

Before

response 2091

Ion	Exp%	Act%
59.00	100	100
87.00	38.10	52.62
57.00	32.00	25.17
0.00	0.00	0.00

07/26/19

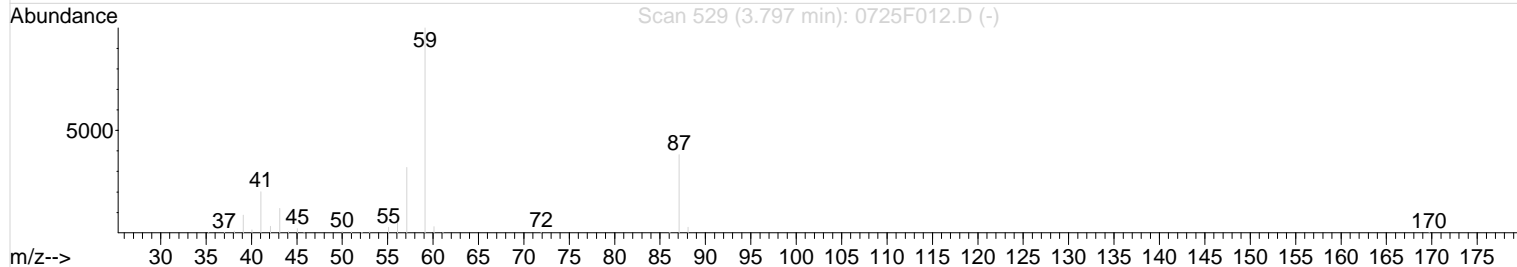
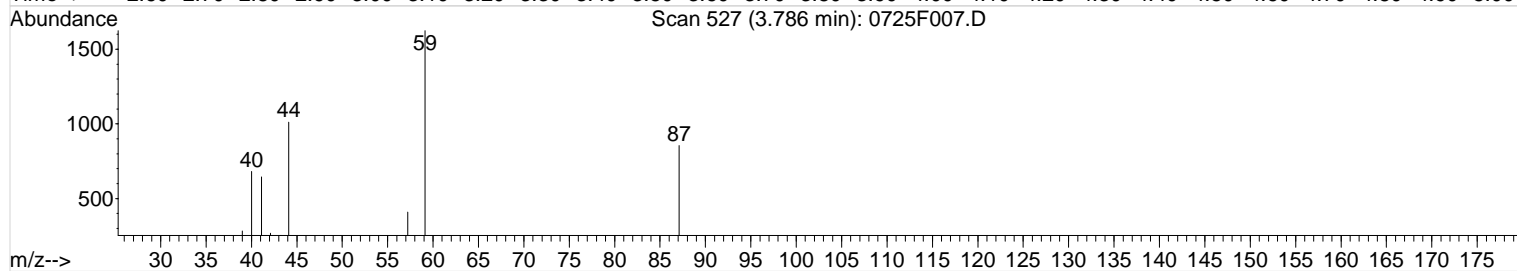
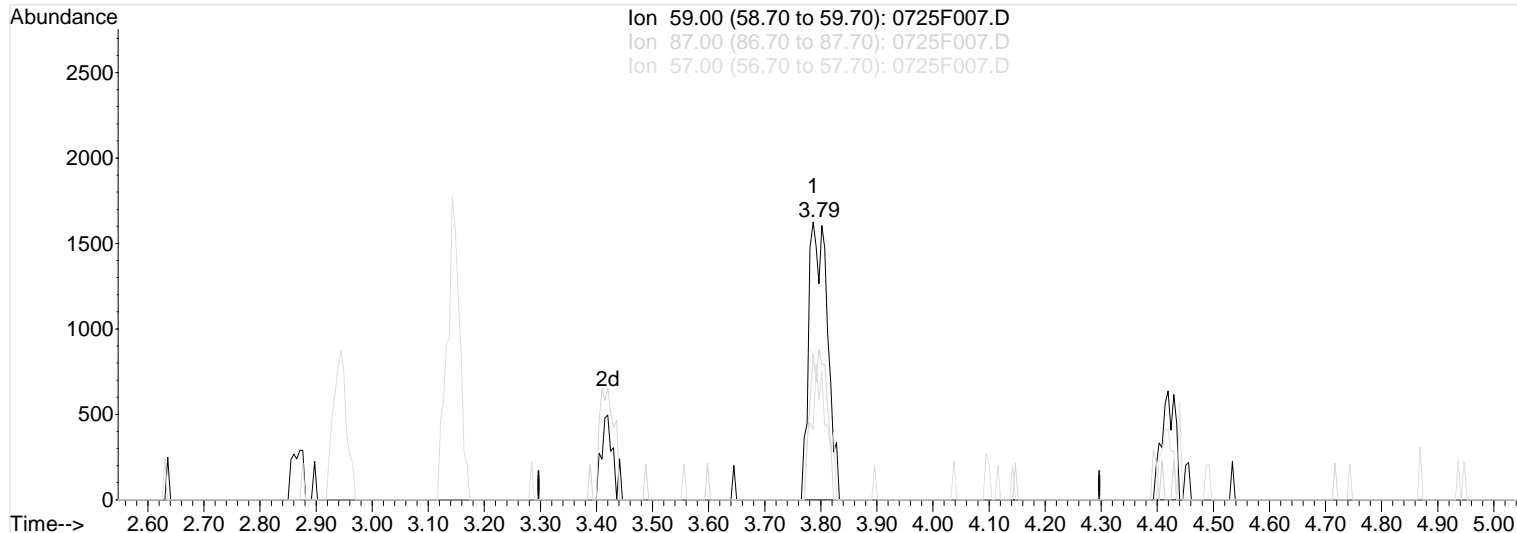
Data File : I:\MS13\DATA\072519\0725F007.D
Acq On : 25 Jul 2019 9:52 am
Sample : CAL 0.2 PPB
Misc :

Vial: 7
Operator: JHJ
Inst : MS13
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Jul 26 17:30 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Multiple Level Calibration



TIC: 0725F007.D

(30) tert-Butyl Ethyl Ether (T)

Manual Integration:

3.79min 0.17PPB m
response 3767

After
Split peak

Ion	Exp%	Act%
59.00	100	100
87.00	38.10	52.62
57.00	32.00	25.17
0.00	0.00	0.00

07/26/19

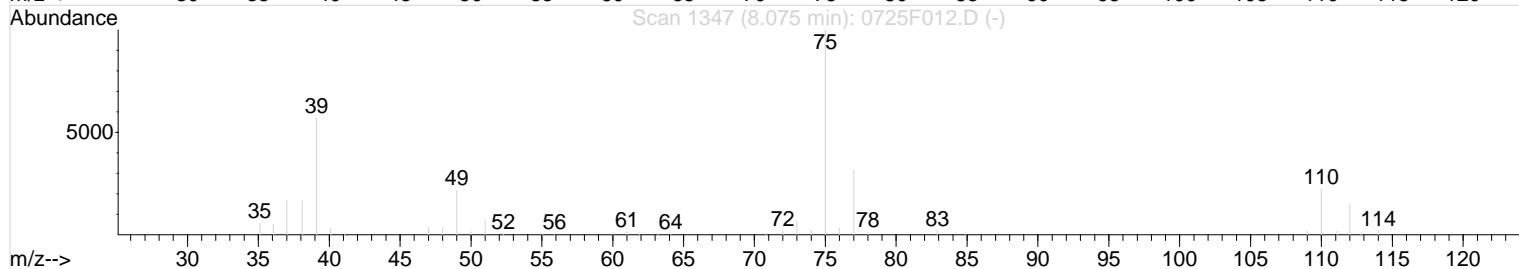
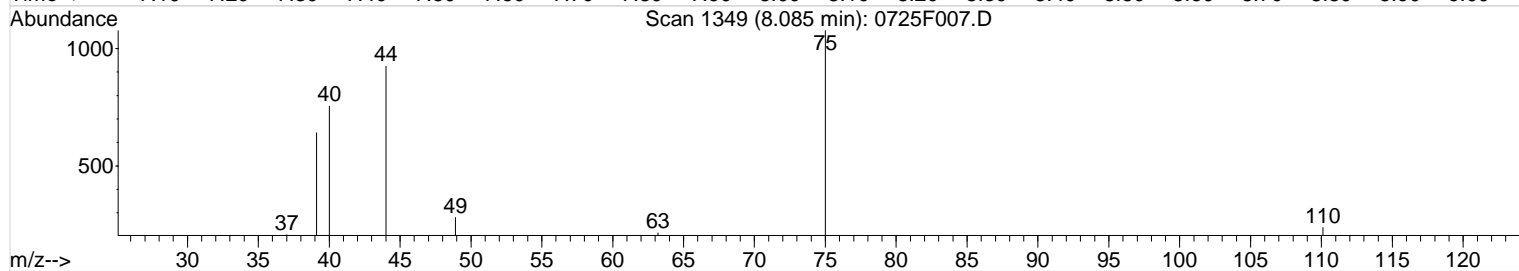
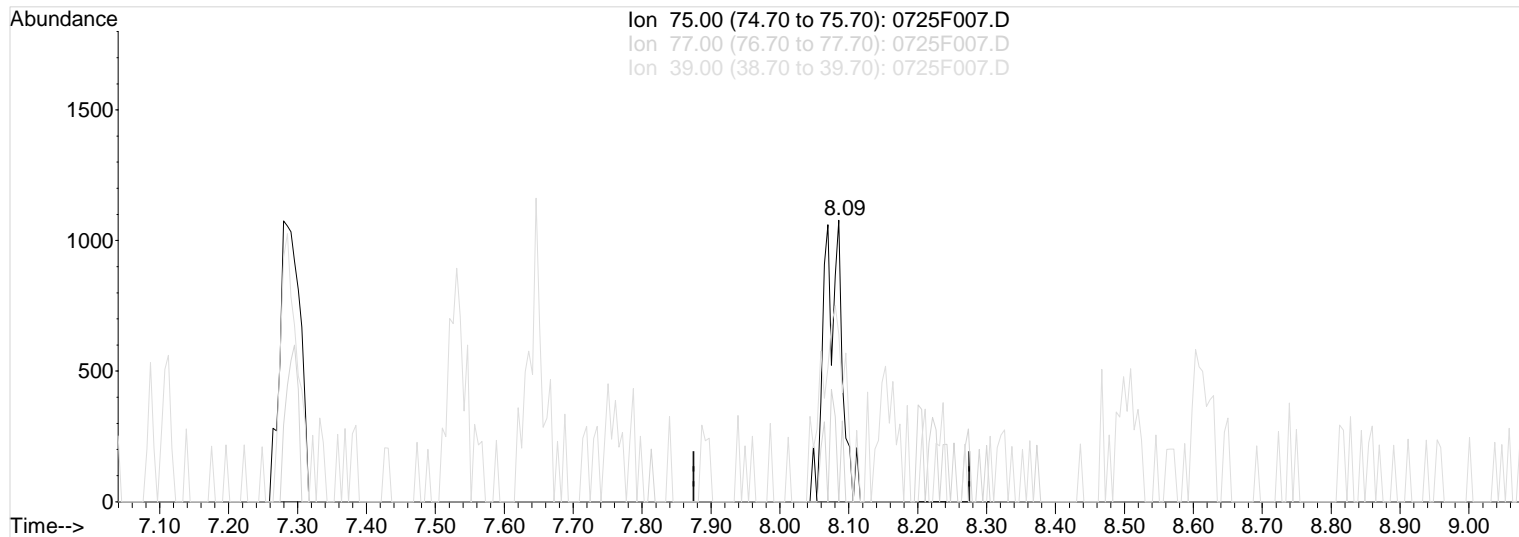
Data File : I:\MS13\DATA\072519\0725F007.D
 Acq On : 25 Jul 2019 9:52 am
 Sample : CAL 0.2 PPB
 Misc :

Vial: 7
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:31 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Multiple Level Calibration



TIC: 0725F007.D

(66) trans-1,3-Dichloropropene (T)

Manual Integration:

8.09min 0.20PPB m
 response 1932

After
 Split peak

Ion	Exp%	Act%
75.00	100	100
77.00	31.40	0.00#
39.00	56.90	59.52
0.00	0.00	0.00

07/26/19

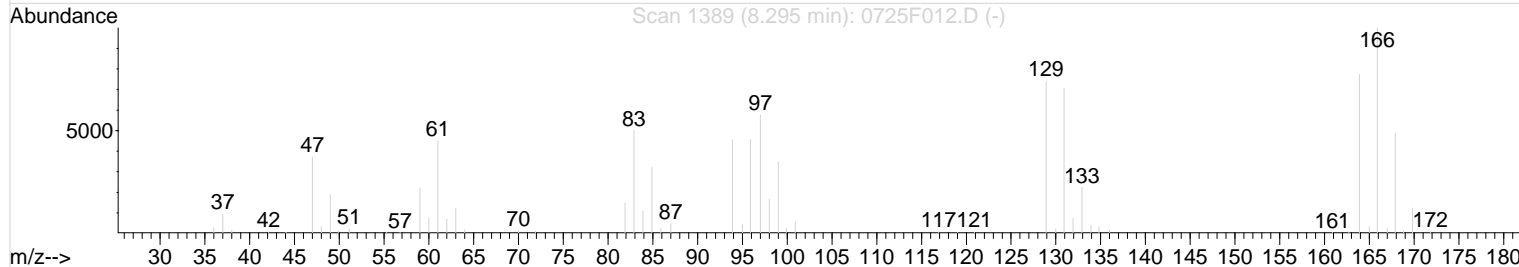
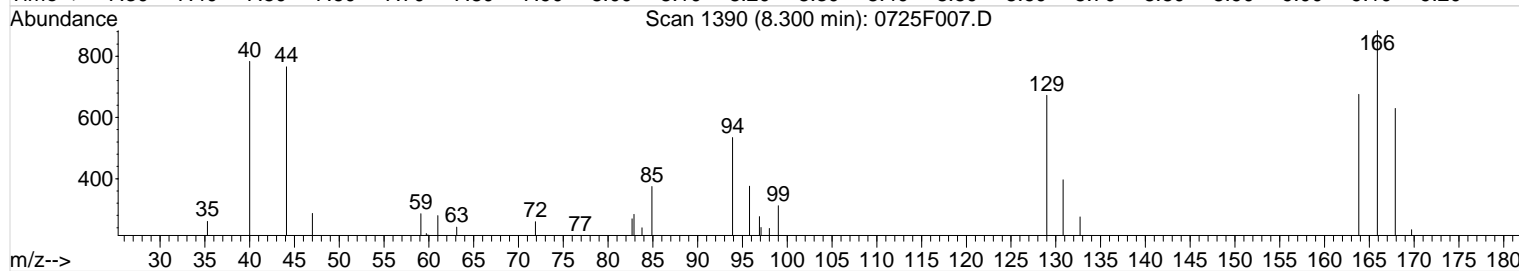
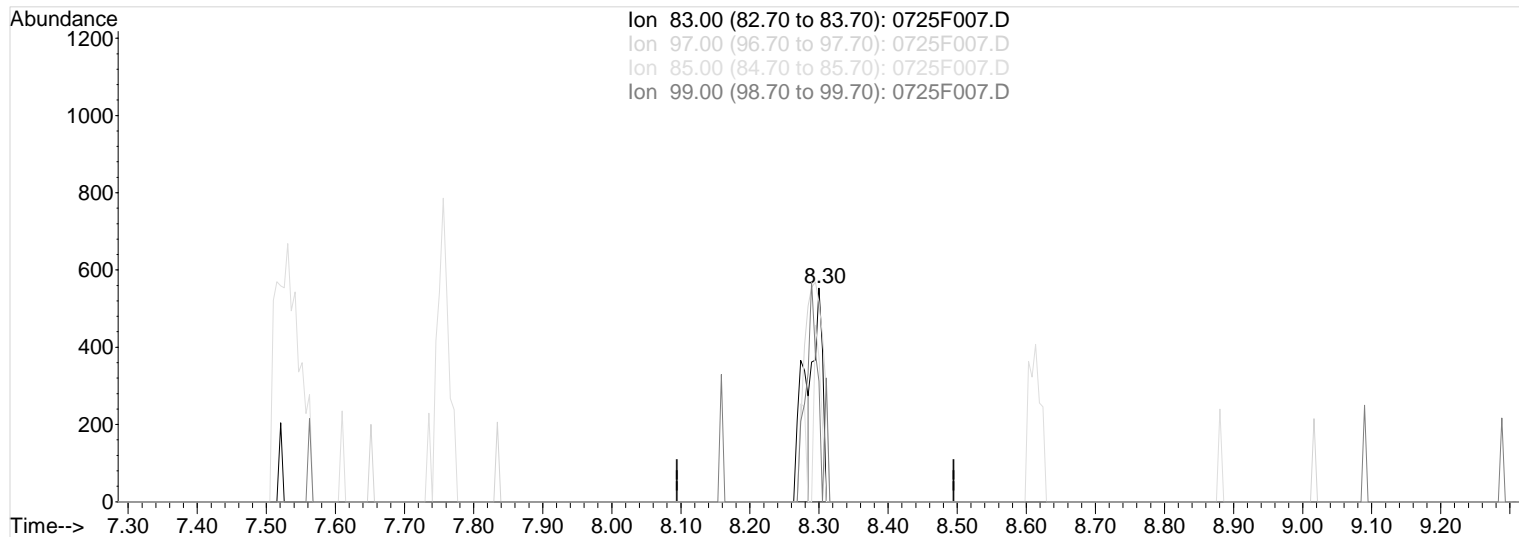
Data File : I:\MS13\DATA\072519\0725F007.D
 Acq On : 25 Jul 2019 9:52 am
 Sample : CAL 0.2 PPB
 Misc :

Vial: 7
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:31 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Multiple Level Calibration



TIC: 0725F007.D

(68) 1,1,2-Trichloroethane (T)

Manual Integration:

8.30min 0.11PPB

Before

response 526

Ion	Exp%	Act%
83.00	100	100
97.00	115.20	93.49
85.00	64.90	67.63
99.00	69.40	56.42

07/26/19

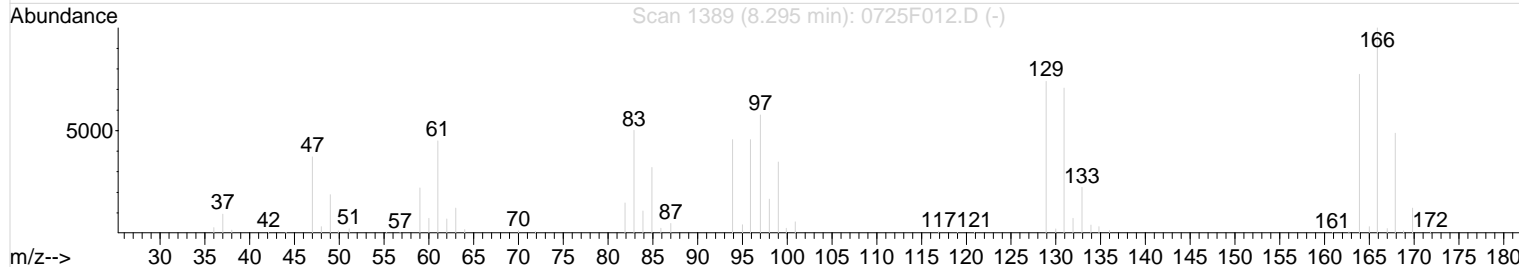
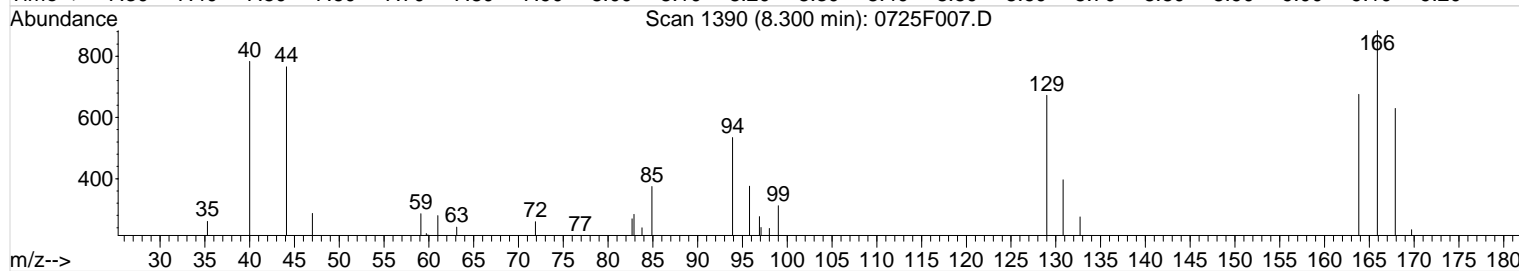
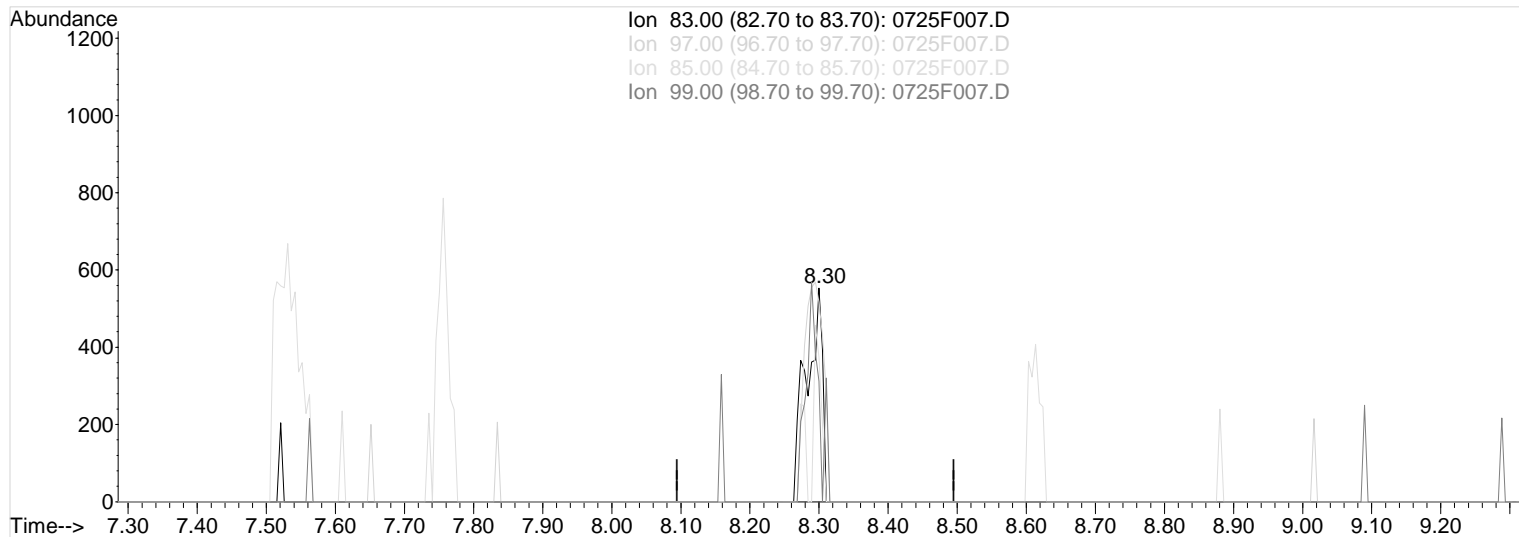
Data File : I:\MS13\DATA\072519\0725F007.D
 Acq On : 25 Jul 2019 9:52 am
 Sample : CAL 0.2 PPB
 Misc :

Vial: 7
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:32 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Multiple Level Calibration



TIC: 0725F007.D

(68) 1,1,2-Trichloroethane (T)

Manual Integration:

8.30min 0.19PPB m

After

response 899

Split peak

Ion Exp% Act%

07/26/19

83.00 100 100

97.00 115.20 97.18

85.00 64.90 131.69#

99.00 69.40 109.86#

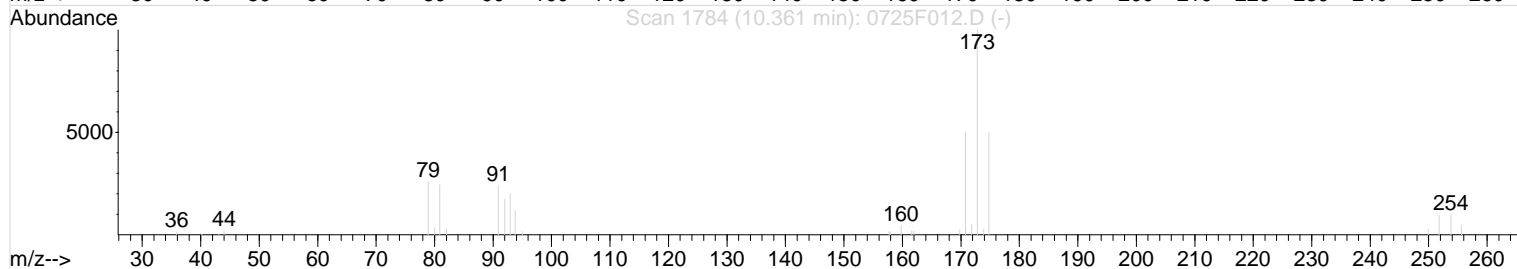
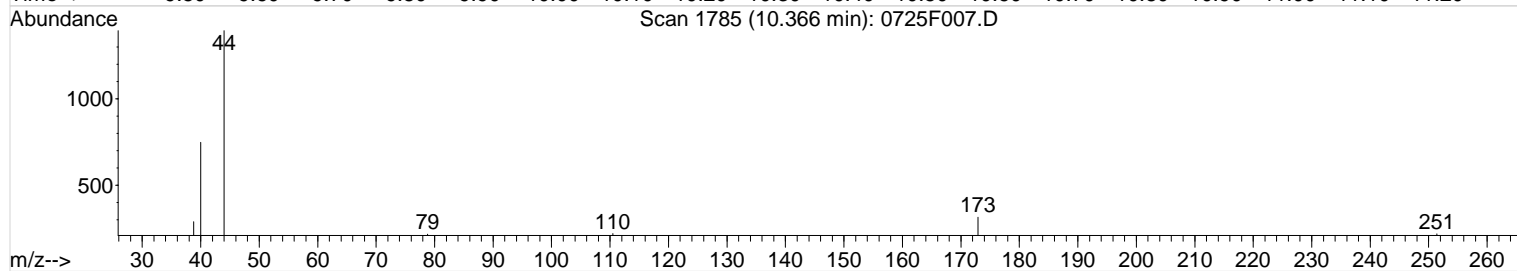
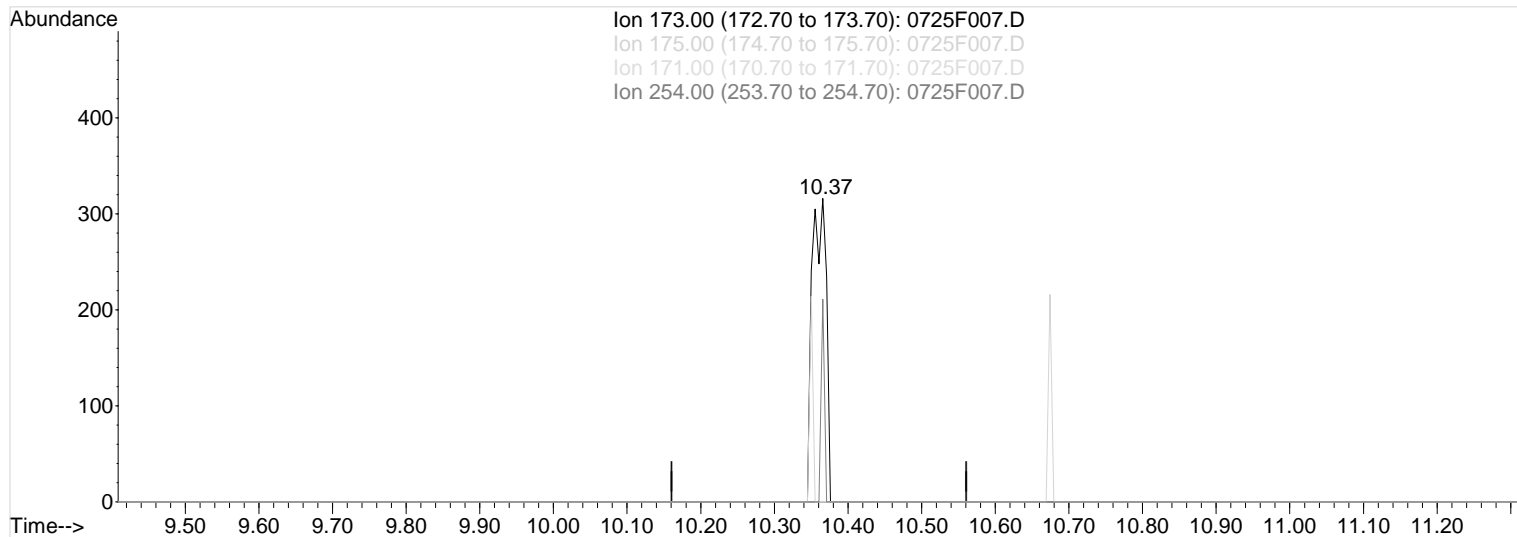
Data File : I:\MS13\DATA\072519\0725F007.D
 Acq On : 25 Jul 2019 9:52 am
 Sample : CAL 0.2 PPB
 Misc :

Vial: 7
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:32 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Multiple Level Calibration



TIC: 0725F007.D

(81) Bromoform (PT)

Manual Integration:

10.37min 0.16PPB m
 response 422

After
 Missed peak

Ion	Exp%	Act%
173.00	100	100
175.00	49.80	0.00#
171.00	50.00	0.00#
254.00	9.70	66.77#

07/26/19

Data File : I:\MS13\DATA\072519\0725F007.D
 Acq On : 25 Jul 2019 9:52 am
 Sample : CAL 0.2 PPB
 Misc :

Vial: 7
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:21:40 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	294768	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	107483	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.97	152	77637	10.00	PPB	0.00

System Monitoring Compounds

42) Dibromofluoromethane	0.00	113	0	0.00	PPB	
Spiked Amount	10.000		Recovery	=	0.00%	
47) 1,2-Dichloroethane-d4	0.00	65	0	0.00	PPB	
Spiked Amount	10.000		Recovery	=	0.00%	
62) Toluene-d8	0.00	98	0d	0.00	PPB	
Spiked Amount	10.000		Recovery	=	0.00%	
84) 4-Bromofluorobenzene	0.00	95	0	0.00	PPB	
Spiked Amount	10.000		Recovery	=	0.00%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.10	85	1875	0.19	PPB	94
3) Chloromethane	1.24	50	2472	0.22	PPB	80
4) Vinyl Chloride	1.31	62	2048	0.18	PPB	89
5) Bromomethane	1.56	96	1754	0.27	PPB	90
6) Chloroethane	1.64	64	1143	0.17	PPB	90
7) Dichlorofluoromethane	1.80	67	3106	0.19	PPB	96
8) Trichlorofluoromethane	1.80	101	3115	0.19	PPB	87
9) Ethyl Ether	2.05	59	686	0.16	PPB	85
10) Acrolein	2.23	56	3530	4.24	PPB	92
11) Trichlorotrifluoroethane	2.22	151	1092	0.17	PPB	89
12) 1,1-Dichloroethene	2.25	96	1716	0.20	PPB	88
13) Acetone	2.36	43	2686	2.46	PPB	81
14) Iodomethane	2.40	142	6834	0.76	PPB	96
15) Carbon Disulfide	2.42	76	5900	0.26	PPB	93
16) 2-Propanol (Isopropyl Alco	2.48	45	2389	13.50	PPB #	1
17) 3-Chloro-1-propene	2.60	76	842	0.19	PPB #	41
20) Methylene Chloride	2.75	84	2968	0.36	PPB #	63
22) Acrylonitrile	3.05	53	1271	0.85	PPB	95
23) Methyl tert-Butyl Ether	2.94	73	6323	0.40	PPB	95
24) trans-1,2-Dichloroethene	2.95	96	1253	0.15	PPB #	78
25) Hexane	3.14	57	2755	0.22	PPB	87
26) Diisopropyl Ether	3.42	45	5974	0.21	PPB	90
27) 1,1-Dichloroethane	3.42	63	2900	0.18	PPB	87
29) Chloroprene	3.47	53	9589	0.68	PPB	95
30) tert-Butyl Ethyl Ether	3.79	59	3767m	0.17	PPB	
31) 2,2-Dichloropropane	4.00	77	2334	0.17	PPB	91
32) cis-1,2-Dichloroethene	4.04	96	1850	0.20	PPB #	64
35) Ethyl Acetate	4.12	61	3495	4.14	PPB	88
36) Methacrylonitrile	4.36	67	1120	0.60	PPB #	69
37) Bromochloromethane	4.30	128	652	0.17	PPB #	46
39) Chloroform	4.39	83	2986	0.20	PPB	79
41) 1,1,1-Trichloroethane	4.53	97	2505	0.18	PPB #	53
43) Cyclohexane	4.49	56	2767	0.19	PPB #	80
44) Carbon Tetrachloride	4.67	117	1842	0.17	PPB	91
45) 1,1-Dichloropropene	4.72	75	2456	0.19	PPB	84
48) Benzene	4.96	78	7038	0.19	PPB	94
49) 1,2-Dichloroethane	5.09	62	1967	0.19	PPB	79
50) tert-Amyl Methyl Ether	5.08	55	1194	0.26	PPB #	1
51) Trichloroethene	5.80	95	1731	0.19	PPB #	70
52) Methyl Cyclohexane	5.95	83	2748	0.19	PPB #	46
53) 1,2-Dichloropropane	6.22	63	1704	0.19	PPB #	72
54) Dibromomethane	6.41	93	893	0.22	PPB #	60
57) Bromodichloromethane	6.63	83	1547	0.16	PPB	87

(#) = qualifier out of range (m) = manual integration

Data File : I:\MS13\DATA\072519\0725F007.D

Vial: 7

Acq On : 25 Jul 2019 9:52 am

Operator: JHJ

2nd 08/01/19

Sample : CAL 0.2 PPB

Inst : MS13

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 26 17:21:40 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B

Last Update : Fri Jul 26 17:20:50 2019

Response via : Initial Calibration

DataAcq Meth : 8260W5

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
59) 2-Chloroethyl Vinyl Ether	7.14	63	811	0.22	PPB	# 47
60) cis-1,3-Dichloropropene	7.28	75	2201	0.18	PPB	78
61) 4-Methyl-2-pentanone (MIBK)	7.53	58	3158	2.10	PPB	# 65
63) Toluene	7.64	92	3996	0.18	PPB	# 70
65) n-Octane	7.76	85	947	0.18	PPB	# 59
66) trans-1,3-Dichloropropene	8.09	75	1932m	0.20	PPB	
67) Ethyl methacrylate	8.15	69	1492	0.23	PPB	83
68) 1,1,2-Trichloroethane	8.30	83	899m	0.19	PPB	
69) Tetrachloroethene	8.29	164	1292	0.18	PPB	# 80
70) 2-Hexanone	8.61	57	1080	2.20	PPB	# 36
71) 1,3-Dichloropropane	8.49	76	1731	0.17	PPB	65
72) Dibromochloromethane	8.71	129	1060	0.19	PPB	87
73) 1,2-Dibromoethane (EDB)	8.83	107	1143	0.23	PPB	# 38
74) 1-Chlorohexane	9.40	91	2254	0.21	PPB	75
75) Chlorobenzene	9.40	112	4012	0.18	PPB	92
76) Ethylbenzene	9.52	106	2438	0.19	PPB	89
77) 1,1,1,2-Tetrachloroethane	9.52	131	1492	0.21	PPB	# 67
78) m,p-Xylenes	9.66	106	5984	0.39	PPB	90
79) o-Xylene	10.11	106	2392	0.17	PPB	96
80) Styrene	10.15	103	2107	0.18	PPB	# 69
81) Bromoform	10.37	173	422m	0.16	PPB	
82) Isopropylbenzene	10.52	105	6279	0.16	PPB	86
86) 1,1,2,2-Tetrachloroethane	10.96	83	1105	0.23	PPB	91
88) Bromobenzene	10.86	156	1718	0.22	PPB	# 74
89) n-Propylbenzene	10.97	91	7365	0.18	PPB	90
91) 2-Chlorotoluene	11.07	91	4834	0.21	PPB	83
92) 1,3,5-Trimethylbenzene	11.18	105	5233	0.18	PPB	86
93) 4-Chlorotoluene	11.20	91	5332	0.19	PPB	97
94) tert-Butylbenzene	11.51	119	4319	0.17	PPB	89
95) 1,2,4-Trimethylbenzene	11.58	105	4613	0.16	PPB	81
96) sec-Butylbenzene	11.75	105	6524	0.19	PPB	93
97) p-Isopropyltoluene	11.91	119	4774	0.16	PPB	90
98) 1,3-Dichlorobenzene	11.88	146	2833	0.20	PPB	97
99) 1,4-Dichlorobenzene	11.99	146	3137	0.22	PPB	83
100) n-Butylbenzene	12.34	91	5135	0.20	PPB	98
101) 1,2-Dichlorobenzene	12.38	146	2357	0.18	PPB	88
103) 1,3,5-Trichlorobenzene	13.37	180	1827	0.20	PPB	93
104) 1,2,4-Trichlorobenzene	14.03	180	1755	0.24	PPB	90
105) Hexachlorobutadiene	14.16	225	785	0.21	PPB	77
106) Naphthalene	14.29	128	2900	0.22	PPB	69
107) 1,2,3-Trichlorobenzene	14.53	180	1114	0.18	PPB	# 57

(#) = qualifier out of range (m) = manual integration

0725F007.D 072519MS13_8260W.M

Fri Jul 26 17:34:20 2019

Page 1077 of 1516

Page 2

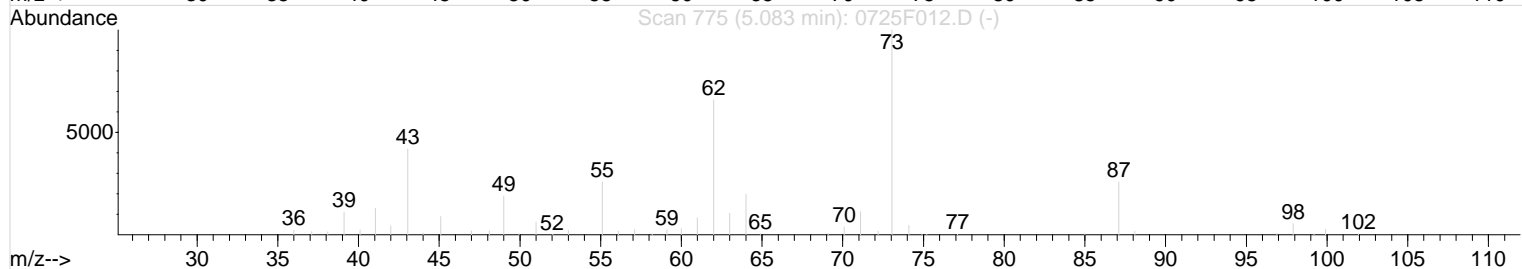
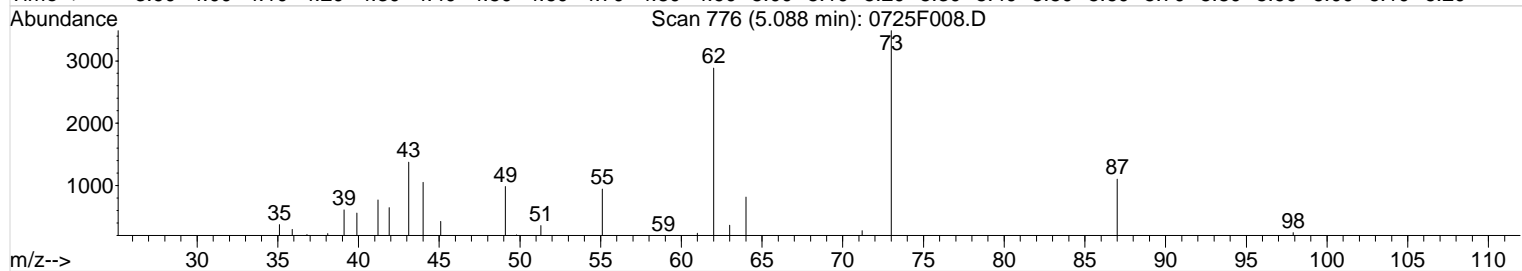
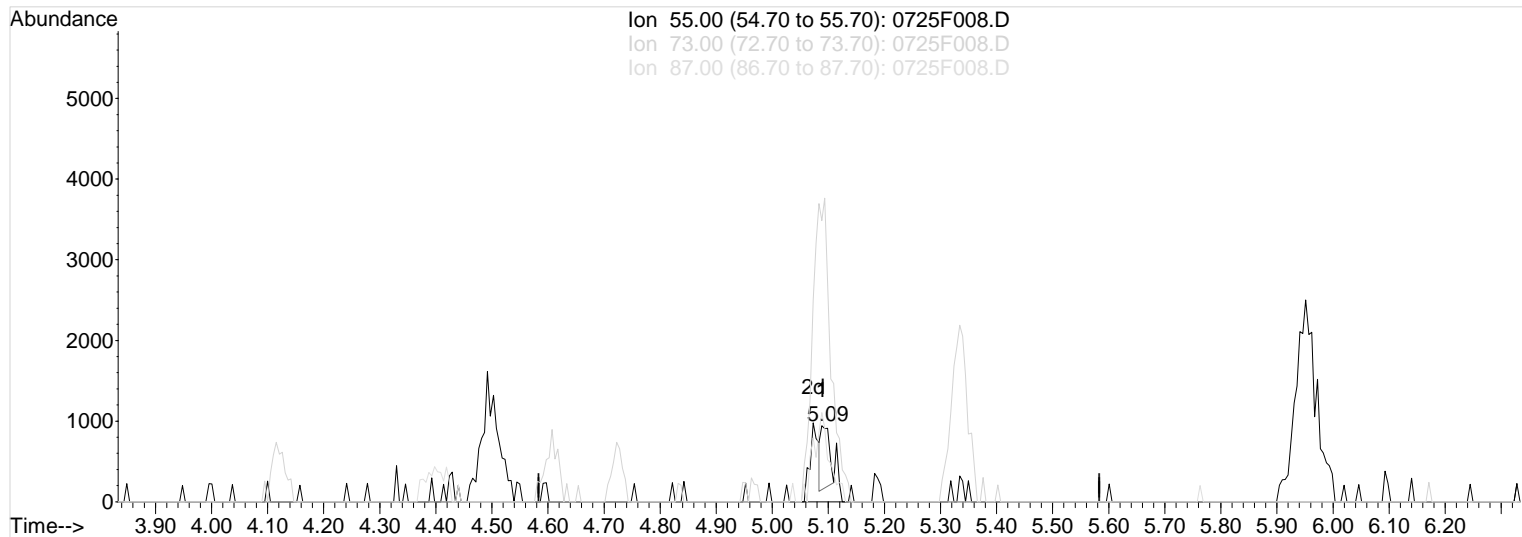
Data File : I:\MS13\DATA\072519\0725F008.D
 Acq On : 25 Jul 2019 10:19 am
 Sample : CAL 0.5 PPB
 Misc :

Vial: 8
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:35 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Single Level Calibration



TIC: 0725F008.D

(50) tert-Amyl Methyl Ether (T)

Manual Integration:

5.09min 0.17PPB

Before

response 806

Ion Exp% Act%

07/26/19

55.00 100 100

73.00 387.30 287.62#

87.00 99.60 107.25

0.00 0.00 0.00

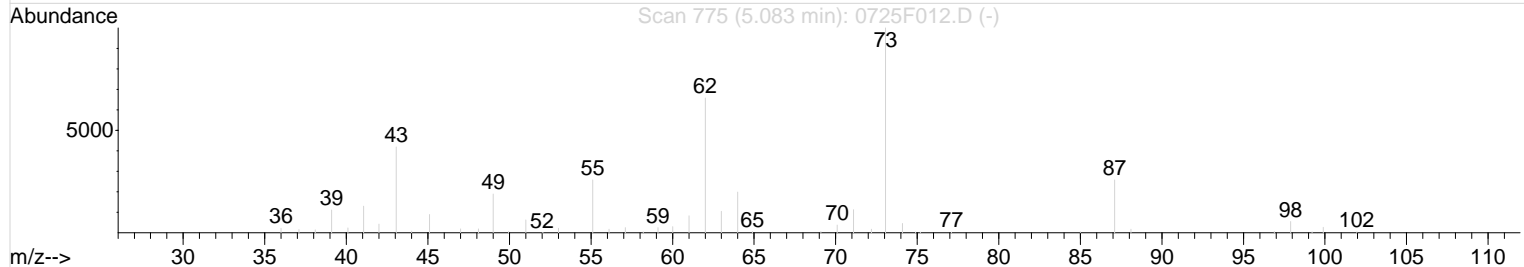
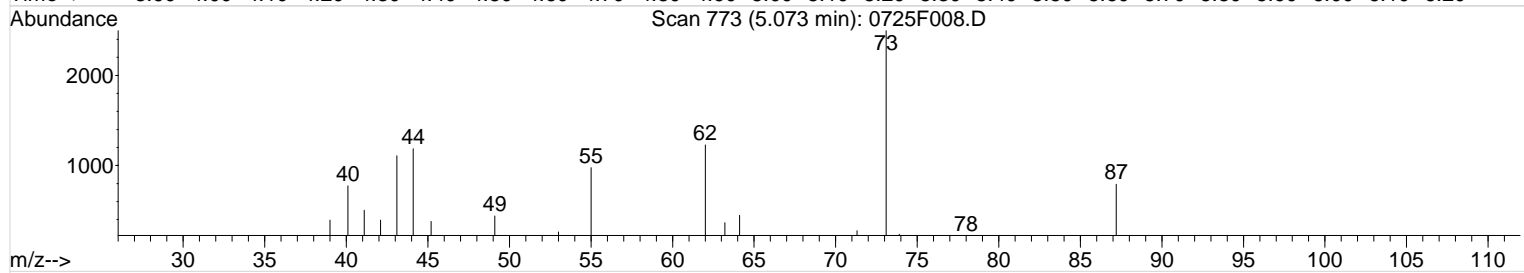
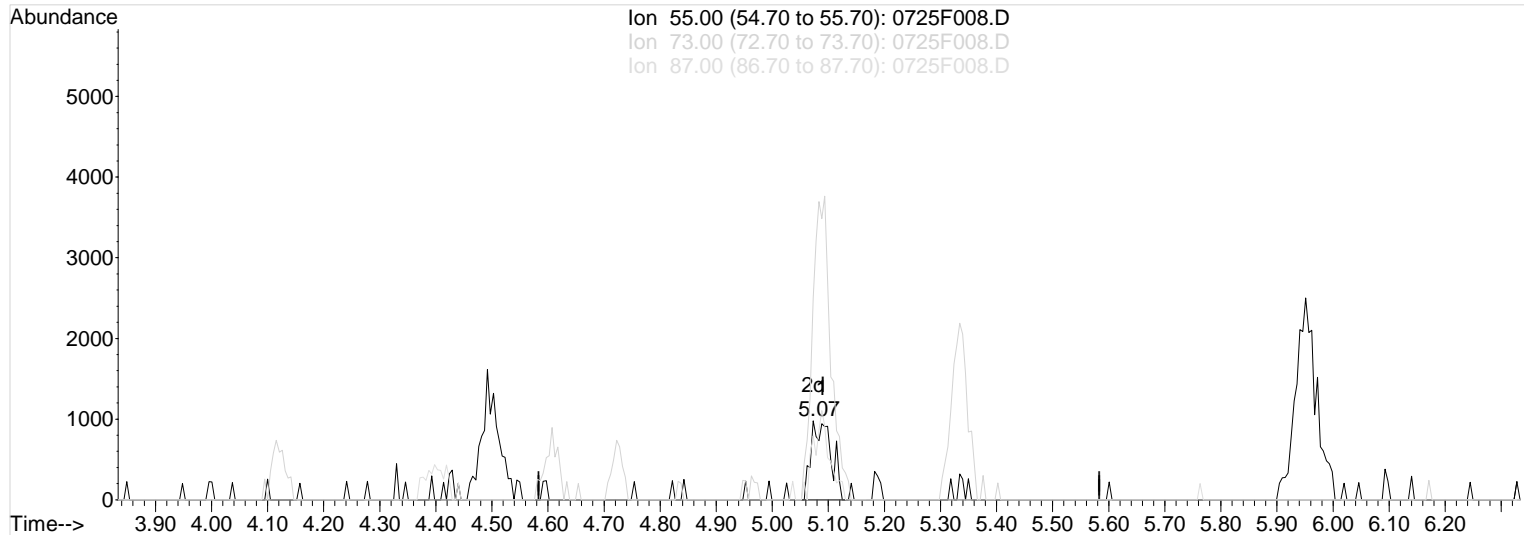
Data File : I:\MS13\DATA\072519\0725F008.D
 Acq On : 25 Jul 2019 10:19 am
 Sample : CAL 0.5 PPB
 Misc :

Vial: 8
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:36 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Single Level Calibration



TIC: 0725F008.D

(50) tert-Amyl Methyl Ether (T)

Manual Integration:

5.07min 0.54PPB m
 response 2502

After
 Split peak

Ion	Exp%	Act%
55.00	100	100
73.00	387.30	255.42#
87.00	99.60	80.98
0.00	0.00	0.00

07/26/19

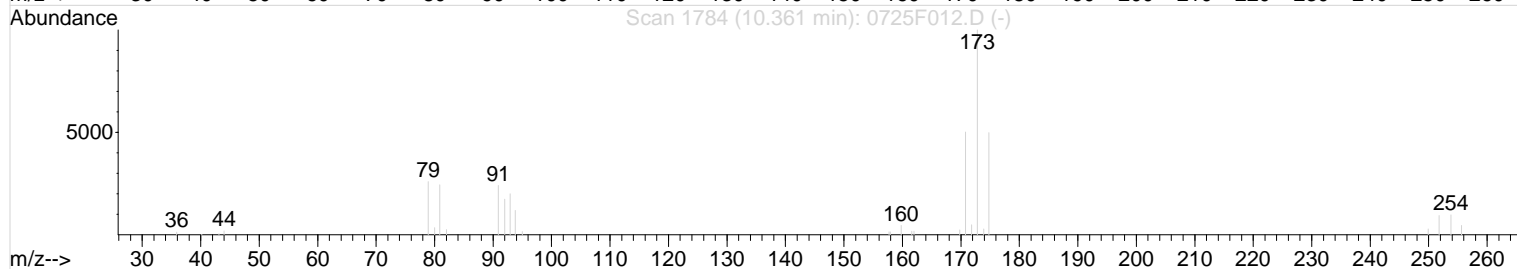
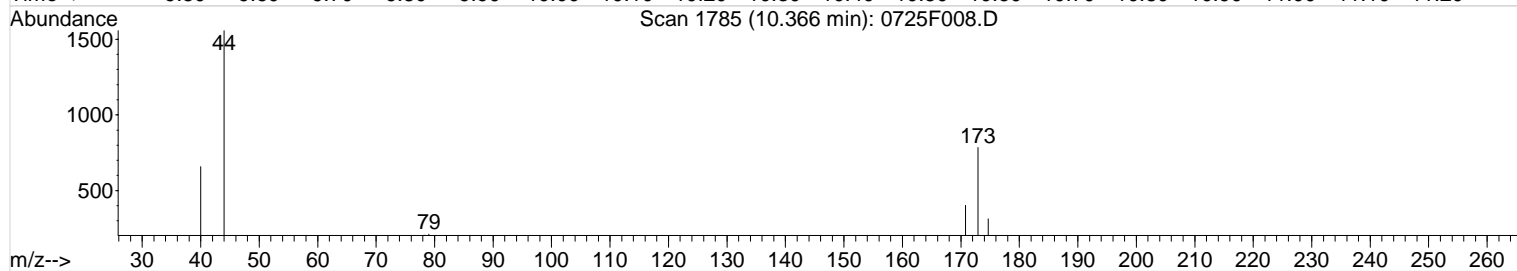
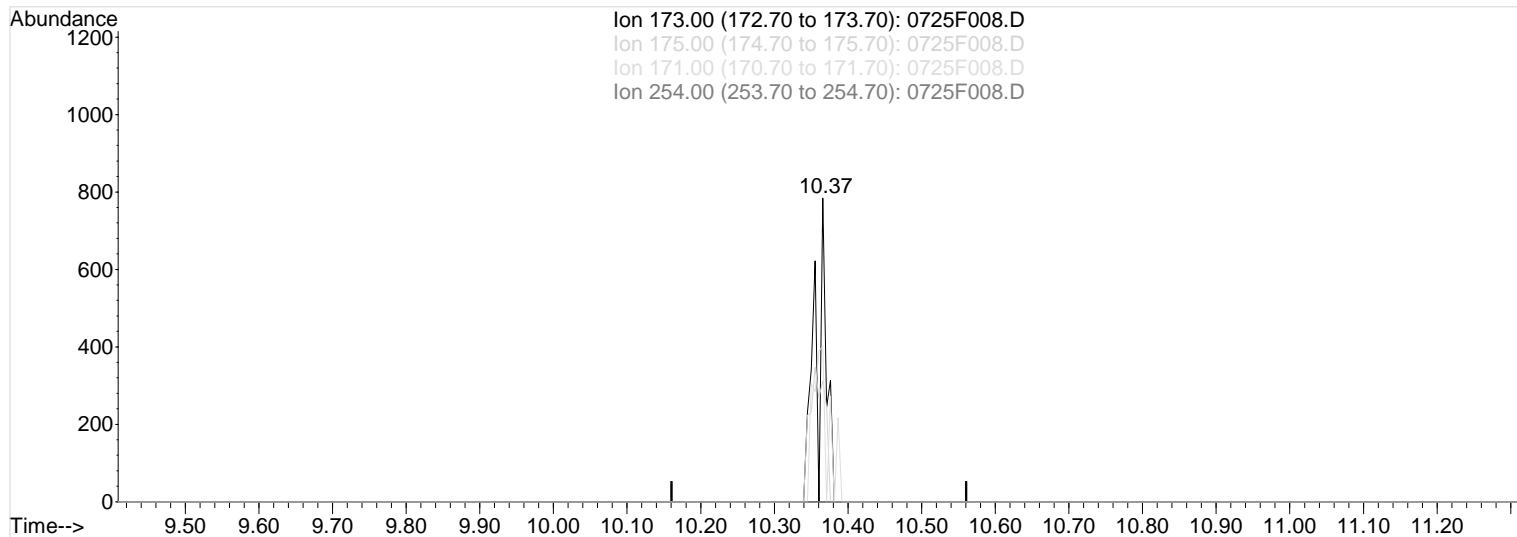
Data File : I:\MS13\DATA\072519\0725F008.D
 Acq On : 25 Jul 2019 10:19 am
 Sample : CAL 0.5 PPB
 Misc :

Vial: 8
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:38 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Multiple Level Calibration



TIC: 0725F008.D

(81) Bromoform (PT)

10.37min 0.31PPB m
 response 796

Ion	Exp%	Act%
173.00	100	100
175.00	49.80	39.80
171.00	50.00	51.15
254.00	9.70	0.00

Manual Integration:

After
 Missed peak
 07/26/19

Data File : I:\MS13\DATA\072519\0725F008.D

Vial: 8

Acq On : 25 Jul 2019 10:19 am

Operator: JHJ

Sample : CAL 0.5 PPB

Inst : MS13

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 26 17:21:41 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B

Last Update : Fri Jul 26 17:20:50 2019

Response via : Initial Calibration

DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	296671	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	106145	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.97	152	76784	10.00	PPB	0.00

System Monitoring Compounds

42) Dibromofluoromethane	0.00	113	0	0.00	PPB	
Spiked Amount	10.000		Recovery	=	0.00%	
47) 1,2-Dichloroethane-d4	0.00	65	0	0.00	PPB	
Spiked Amount	10.000		Recovery	=	0.00%	
62) Toluene-d8	0.00	98	0	0.00	PPB	
Spiked Amount	10.000		Recovery	=	0.00%	
84) 4-Bromofluorobenzene	10.73	95	505	0.05	PPB	0.00
Spiked Amount	10.000		Recovery	=	0.50%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.10	85	5322	0.55	PPB	98
3) Chloromethane	1.24	50	6064	0.53	PPB	88
4) Vinyl Chloride	1.31	62	5689	0.50	PPB	89
5) Bromomethane	1.56	96	3516	0.53	PPB	93
6) Chloroethane	1.64	64	3248	0.49	PPB	97
7) Dichlorofluoromethane	1.80	67	8509	0.52	PPB	92
8) Trichlorofluoromethane	1.81	101	7796	0.47	PPB	92
9) Ethyl Ether	2.05	59	2218	0.51	PPB	83
10) Acrolein	2.23	56	8976	10.71	PPB	97
11) Trichlorotrifluoroethane	2.22	151	2912	0.46	PPB	88
12) 1,1-Dichloroethene	2.25	96	4420	0.52	PPB	81
13) Acetone	2.37	43	7224	6.57	PPB	95
14) Iodomethane	2.41	142	16517	1.81	PPB	95
15) Carbon Disulfide	2.43	76	12508	0.54	PPB	97
16) 2-Propanol (Isopropyl Alco	2.49	45	4677	26.27	PPB	# 9
17) 3-Chloro-1-propene	2.60	76	2131	0.48	PPB	# 79
18) Acetonitrile	2.69	40	4782	18.64	PPB	# 78
20) Methylene Chloride	2.75	84	4971	0.60	PPB	85
22) Acrylonitrile	3.06	53	3166	2.10	PPB	93
23) Methyl tert-Butyl Ether	2.94	73	16192	1.03	PPB	97
24) trans-1,2-Dichloroethene	2.95	96	3951	0.48	PPB	# 76
25) Hexane	3.15	57	6582	0.52	PPB	80
26) Diisopropyl Ether	3.42	45	13731	0.49	PPB	97
27) 1,1-Dichloroethane	3.43	63	8056	0.49	PPB	90
28) Vinyl Acetate	3.48	86	1154	0.99	PPB	# 17
29) Chloroprene	3.47	53	25341	1.80	PPB	96
30) tert-Butyl Ethyl Ether	3.79	59	10911	0.49	PPB	92
31) 2,2-Dichloropropane	4.01	77	6811	0.50	PPB	93
32) cis-1,2-Dichloroethene	4.04	96	4834	0.53	PPB	80
33) 2-Butanone	4.09	72	1936	5.03	PPB	# 71
34) Propionitrile	4.25	54	1267	2.36	PPB	56
35) Ethyl Acetate	4.12	61	3457	4.07	PPB	88
36) Methacrylonitrile	4.37	67	3461	1.86	PPB	85
37) Bromochloromethane	4.30	128	1848	0.48	PPB	# 60
39) Chloroform	4.39	83	6808	0.45	PPB	83
40) tert-Butyl Formate	4.41	59	2557	0.46	PPB	71
41) 1,1,1-Trichloroethane	4.54	97	6153	0.44	PPB	76
43) Cyclohexane	4.49	56	7485	0.51	PPB	94
44) Carbon Tetrachloride	4.67	117	4800	0.44	PPB	92
45) 1,1-Dichloropropene	4.73	75	6110	0.47	PPB	97
46) Isobutyl Alcohol	4.98	43	2964	24.96	PPB	75
48) Benzene	4.95	78	18621	0.50	PPB	94
49) 1,2-Dichloroethane	5.09	62	5473	0.51	PPB	92

(#) = qualifier out of range (m) = manual integration

0725F008.D 072519MS13_8260W.M

Fri Jul 26 17:38:58 2019

Data File : I:\MS13\DATA\072519\0725F008.D

Vial: 8

Acq On : 25 Jul 2019 10:19 am

Operator: JHJ

Sample : CAL 0.5 PPB

Inst : MS13

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 26 17:21:41 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B

Last Update : Fri Jul 26 17:20:50 2019

Response via : Initial Calibration

DataAcq Meth : 8260W5

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
50) tert-Amyl Methyl Ether	5.07	55	2502m	0.54	PPB	
51) Trichloroethene	5.80	95	4588	0.51	PPB	87
52) Methyl Cyclohexane	5.95	83	7447	0.52	PPB	97
53) 1,2-Dichloropropane	6.21	63	4856	0.53	PPB	84
54) Dibromomethane	6.40	93	2021	0.50	PPB	92
55) Methyl methacrylate	6.43	69	1645	0.50	PPB	# 79
57) Bromodichloromethane	6.64	83	4520	0.47	PPB	80
58) 2-Nitropropane	7.10	43	2695	1.47	PPB	84
59) 2-Chloroethyl Vinyl Ether	7.14	63	1738	0.47	PPB	72
60) cis-1,3-Dichloropropene	7.29	75	5013	0.40	PPB	97
61) 4-Methyl-2-pentanone (MIBK)	7.53	58	7339	4.84	PPB	# 62
63) Toluene	7.65	92	10498	0.46	PPB	# 79
65) n-Octane	7.75	85	2734	0.52	PPB	82
66) trans-1,3-Dichloropropene	8.08	75	4311	0.45	PPB	86
67) Ethyl methacrylate	8.16	69	3182	0.49	PPB	72
68) 1,1,2-Trichloroethane	8.28	83	2459	0.52	PPB	# 81
69) Tetrachloroethene	8.30	164	3438	0.49	PPB	# 77
70) 2-Hexanone	8.61	57	2693	5.55	PPB	# 80
71) 1,3-Dichloropropane	8.50	76	5035	0.50	PPB	81
72) Dibromochloromethane	8.71	129	2213	0.40	PPB	87
73) 1,2-Dibromoethane (EDB)	8.84	107	2202	0.45	PPB	96
74) 1-Chlorohexane	9.40	91	5240	0.48	PPB	86
75) Chlorobenzene	9.40	112	10937	0.50	PPB	94
76) Ethylbenzene	9.51	106	6284	0.49	PPB	88
77) 1,1,1,2-Tetrachloroethane	9.53	131	2983	0.43	PPB	88
78) m,p-Xylenes	9.66	106	14198	0.93	PPB	92
79) o-Xylene	10.11	106	6637	0.47	PPB	# 81
80) Styrene	10.14	103	5081	0.45	PPB	# 72
81) Bromoform	10.37	173	796m	0.31	PPB	
82) Isopropylbenzene	10.52	105	17688	0.47	PPB	90
83) cis-1,4-Dichloro-2-butene	10.70	89	954	1.59	PPB	# 56
86) 1,1,2,2-Tetrachloroethane	10.96	83	2227	0.47	PPB	95
87) trans-1,4-Dichloro-2-buten	11.03	53	839	0.57	PPB	79
88) Bromobenzene	10.87	156	3847	0.49	PPB	91
89) n-Propylbenzene	10.97	91	18977	0.46	PPB	97
90) 1,2,3-Trichloropropane	11.00	110	502	0.34	PPB	# 12
91) 2-Chlorotoluene	11.07	91	11603	0.50	PPB	99
92) 1,3,5-Trimethylbenzene	11.19	105	13214	0.47	PPB	99
93) 4-Chlorotoluene	11.20	91	13019	0.47	PPB	94
94) tert-Butylbenzene	11.51	119	11890	0.48	PPB	92
95) 1,2,4-Trimethylbenzene	11.58	105	12508	0.44	PPB	95
96) sec-Butylbenzene	11.74	105	16062	0.46	PPB	89
97) p-Isopropyltoluene	11.91	119	13172	0.45	PPB	96
98) 1,3-Dichlorobenzene	11.88	146	7170	0.50	PPB	94
99) 1,4-Dichlorobenzene	11.99	146	7034	0.49	PPB	97
100) n-Butylbenzene	12.34	91	12041	0.47	PPB	97
101) 1,2-Dichlorobenzene	12.37	146	6011	0.47	PPB	95
103) 1,3,5-Trichlorobenzene	13.37	180	4400	0.49	PPB	95
104) 1,2,4-Trichlorobenzene	14.03	180	3632	0.50	PPB	85
105) Hexachlorobutadiene	14.16	225	1842	0.50	PPB	81
106) Naphthalene	14.29	128	6057	0.47	PPB	96
107) 1,2,3-Trichlorobenzene	14.53	180	2999	0.48	PPB	90

(#)= qualifier out of range (m) = manual integration

0725F008.D 072519MS13_8260W.M

Fri Jul 26 17:39:00 2019

Page 1083 of 1516

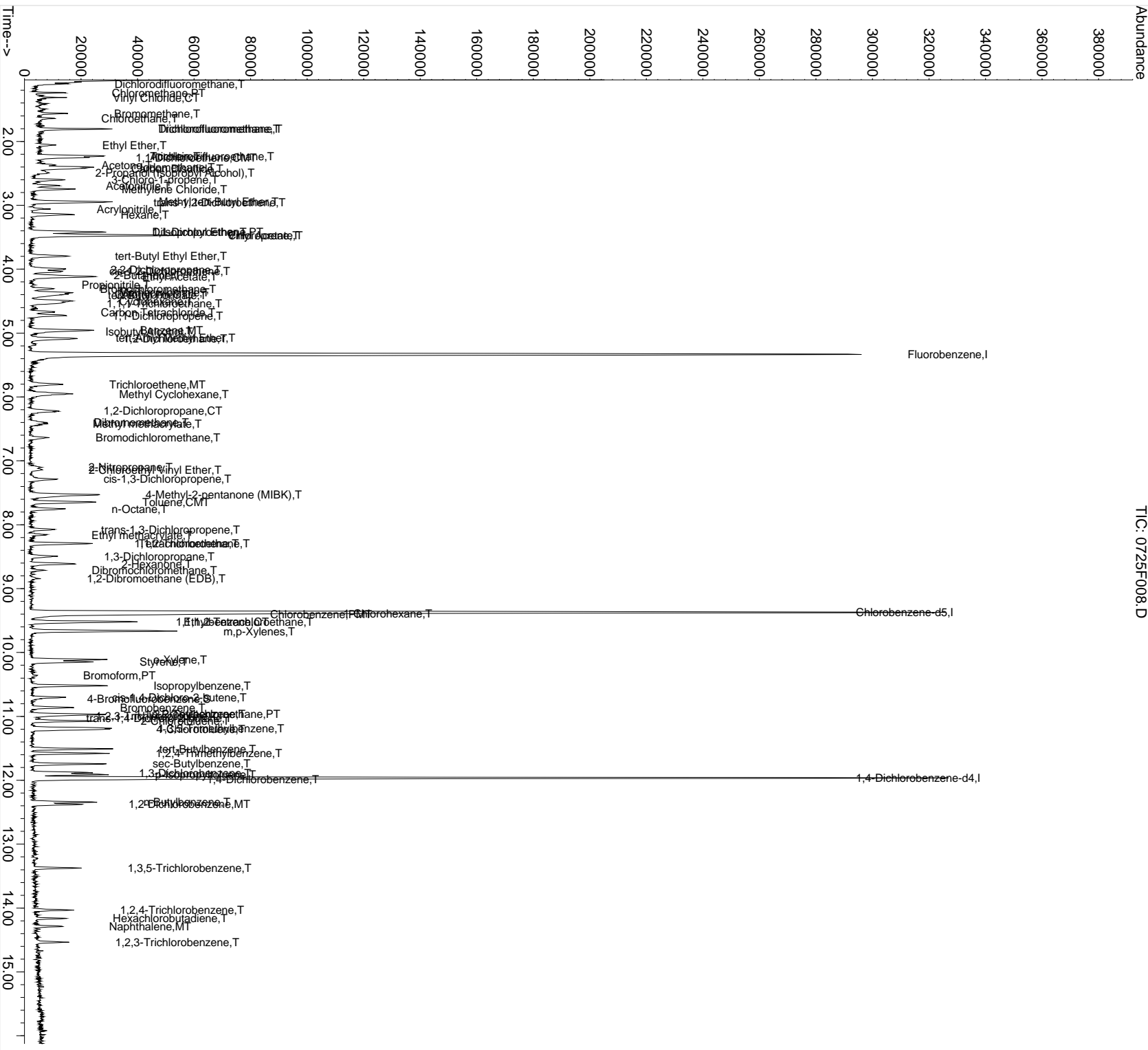
Page 2

08/01/19
Data File : I:\MS13\DATA\072519\07251908.D
Acq On : 25 Jul 2019 10:19 am
Sample : CAL 0.5 PPB
Misc :
MS Integration Params: rteint.p
Quant Time: Jul 26 17:38 2019

Vial: 8
Operator: JHT
Inst: MS13
Multiplr: 1.00

Quant Results File: 072519MS13_8260W.RES

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Initial Calibration



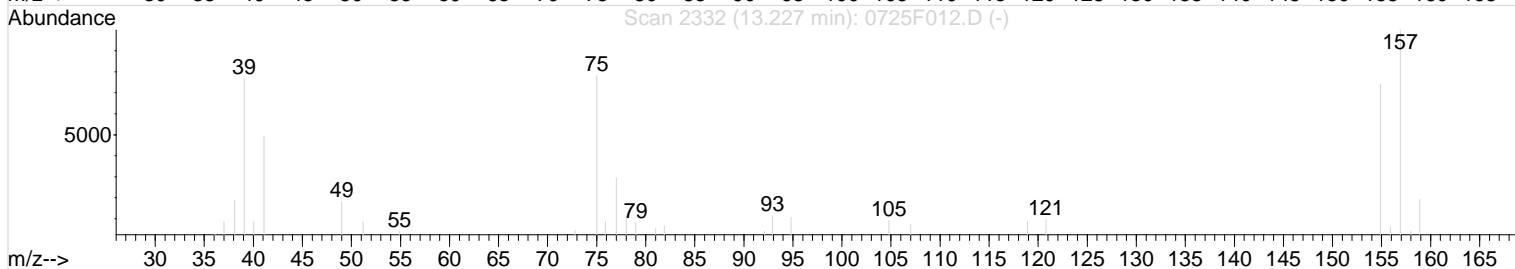
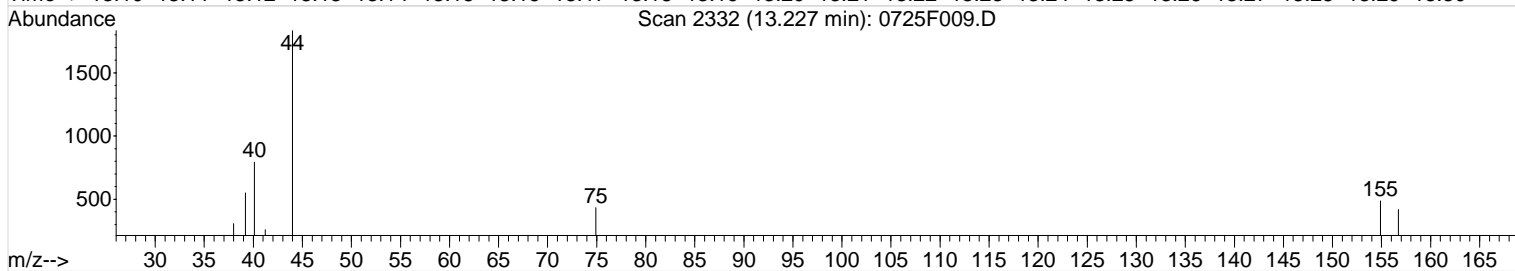
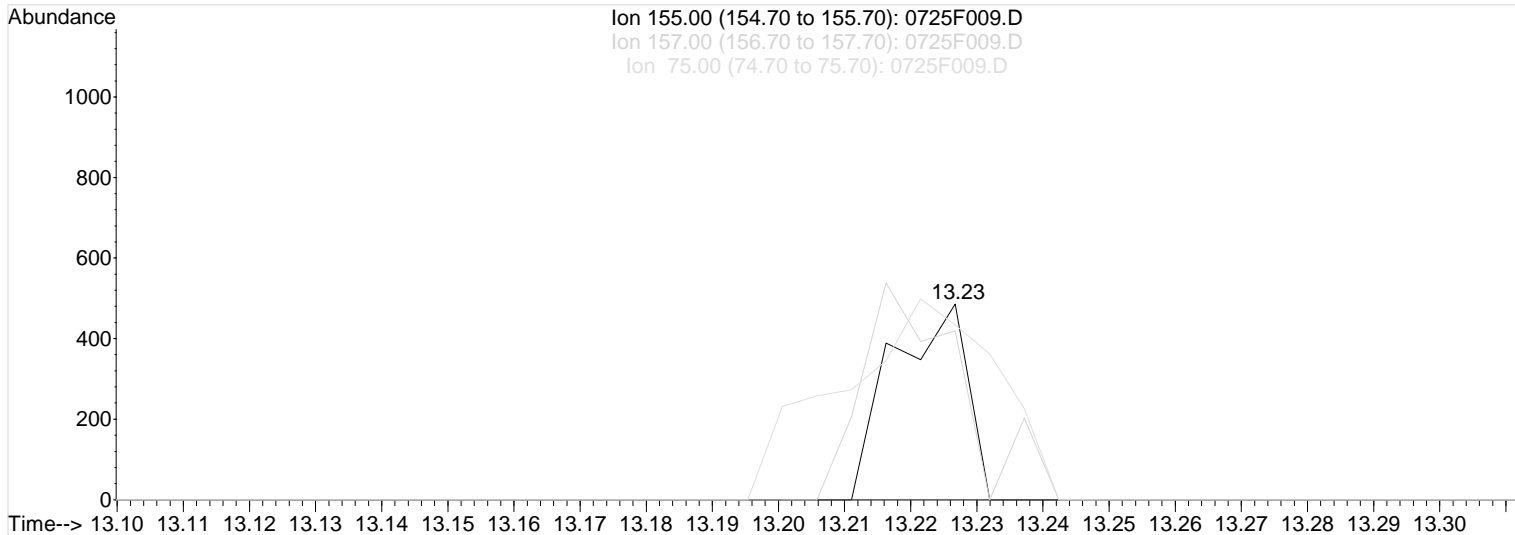
Data File : I:\MS13\DATA\072519\0725F009.D
 Acq On : 25 Jul 2019 10:45 am
 Sample : CAL 1.0 PPB
 Misc :

Vial: 9
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:40 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Single Level Calibration



TIC: 0725F009.D

(102) 1,2-Dibromo-3-chloropropane (DBCP) (T)

Manual Integration:

13.23min 0.70PPB m
 response 384

After
 Missed peak

Ion	Exp%	Act%
155.00	100	100
157.00	135.20	86.21#
75.00	105.60	89.30
0.00	0.00	0.00

07/26/19

Data File : I:\MS13\DATA\072519\0725F009.D

Vial: 9

Acq On : 25 Jul 2019 10:45 am

Operator: JHJ

Sample : CAL 1.0 PPB

Inst : MS13

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 26 17:21:42 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B

Last Update : Fri Jul 26 17:20:50 2019

Response via : Initial Calibration

DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	301803	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	111347	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.97	152	80164	10.00	PPB	0.00

System Monitoring Compounds

42) Dibromofluoromethane	4.58	113	23149	3.38	PPB	0.00
Spiked Amount	10.000		Recovery	=	33.80%	
47) 1,2-Dichloroethane-d4	4.99	65	28889	3.63	PPB	0.00
Spiked Amount	10.000		Recovery	=	36.30%	
62) Toluene-d8	7.56	98	105151	3.47	PPB	0.00
Spiked Amount	10.000		Recovery	=	34.70%	
84) 4-Bromofluorobenzene	10.73	95	31630	3.21	PPB	0.00
Spiked Amount	10.000		Recovery	=	32.10%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.10	85	9258	0.94	PPB	95
3) Chloromethane	1.23	50	11946	1.02	PPB	96
4) Vinyl Chloride	1.31	62	10660	0.92	PPB	95
5) Bromomethane	1.56	96	6896	1.03	PPB	98
6) Chloroethane	1.64	64	7006	1.04	PPB	92
7) Dichlorofluoromethane	1.80	67	16021	0.97	PPB	96
8) Trichlorofluoromethane	1.80	101	15385	0.91	PPB	99
9) Ethyl Ether	2.05	59	4330	0.97	PPB	99
10) Acrolein	2.23	56	17110	20.06	PPB	98
11) Trichlorotrifluoroethane	2.22	151	5965	0.93	PPB	84
12) 1,1-Dichloroethene	2.25	96	8047	0.94	PPB	86
13) Acetone	2.36	43	12194	10.90	PPB	97
14) Iodomethane	2.41	142	31390	3.39	PPB	91
15) Carbon Disulfide	2.43	76	22145	0.95	PPB	95
16) 2-Propanol (Isopropyl Alco	2.48	45	9685	53.47	PPB	68
17) 3-Chloro-1-propene	2.60	76	3868	0.86	PPB	88
18) Acetonitrile	2.69	40	10109	38.73	PPB	93
19) Methyl Acetate	2.64	43	3651	1.16	PPB	93
20) Methylene Chloride	2.75	84	9513	1.13	PPB	95
21) tert-Butyl Alcohol	2.87	59	1396	5.24	PPB	61
22) Acrylonitrile	3.06	53	6090	3.97	PPB	77
23) Methyl tert-Butyl Ether	2.94	73	29851	1.86	PPB	96
24) trans-1,2-Dichloroethene	2.95	96	7445	0.90	PPB	90
25) Hexane	3.14	57	12030	0.93	PPB	87
26) Diisopropyl Ether	3.41	45	28119	0.98	PPB	96
27) 1,1-Dichloroethane	3.41	63	15148	0.91	PPB	96
28) Vinyl Acetate	3.47	86	2313	1.94	PPB	# 72
29) Chloroprene	3.47	53	51602	3.60	PPB	95
30) tert-Butyl Ethyl Ether	3.80	59	21385	0.94	PPB	94
31) 2,2-Dichloropropane	4.00	77	12911	0.94	PPB	92
32) cis-1,2-Dichloroethene	4.04	96	8385	0.91	PPB	95
33) 2-Butanone	4.09	72	4332	11.06	PPB	# 62
34) Propionitrile	4.24	54	1978	3.63	PPB	80
35) Ethyl Acetate	4.12	61	4323	5.00	PPB	82
36) Methacrylonitrile	4.37	67	6730	3.55	PPB	92
37) Bromochloromethane	4.30	128	3743	0.95	PPB	85
38) Tetrahydrofuran	4.31	71	532	1.21	PPB	# 14
39) Chloroform	4.39	83	13501	0.89	PPB	89
40) tert-Butyl Formate	4.42	59	5058	0.89	PPB	97
41) 1,1,1-Trichloroethane	4.53	97	11852	0.84	PPB	91
43) Cyclohexane	4.50	56	14261	0.96	PPB	93
44) Carbon Tetrachloride	4.66	117	10081	0.90	PPB	86
45) 1,1-Dichloropropene	4.72	75	11410	0.87	PPB	98

(#) = qualifier out of range (m) = manual integration

0725F009.D 072519MS13_8260W.M

Fri Jul 26 17:43:51 2019

Data File : I:\MS13\DATA\072519\0725F009.D
Acq On : 25 Jul 2019 10:45 am
Sample : CAL 1.0 PPB
Misc :

Vial: 9
Operator: JHJ
Inst : MS13
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Jul 26 17:21:42 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Initial Calibration
DataAcq Meth : 8260W5

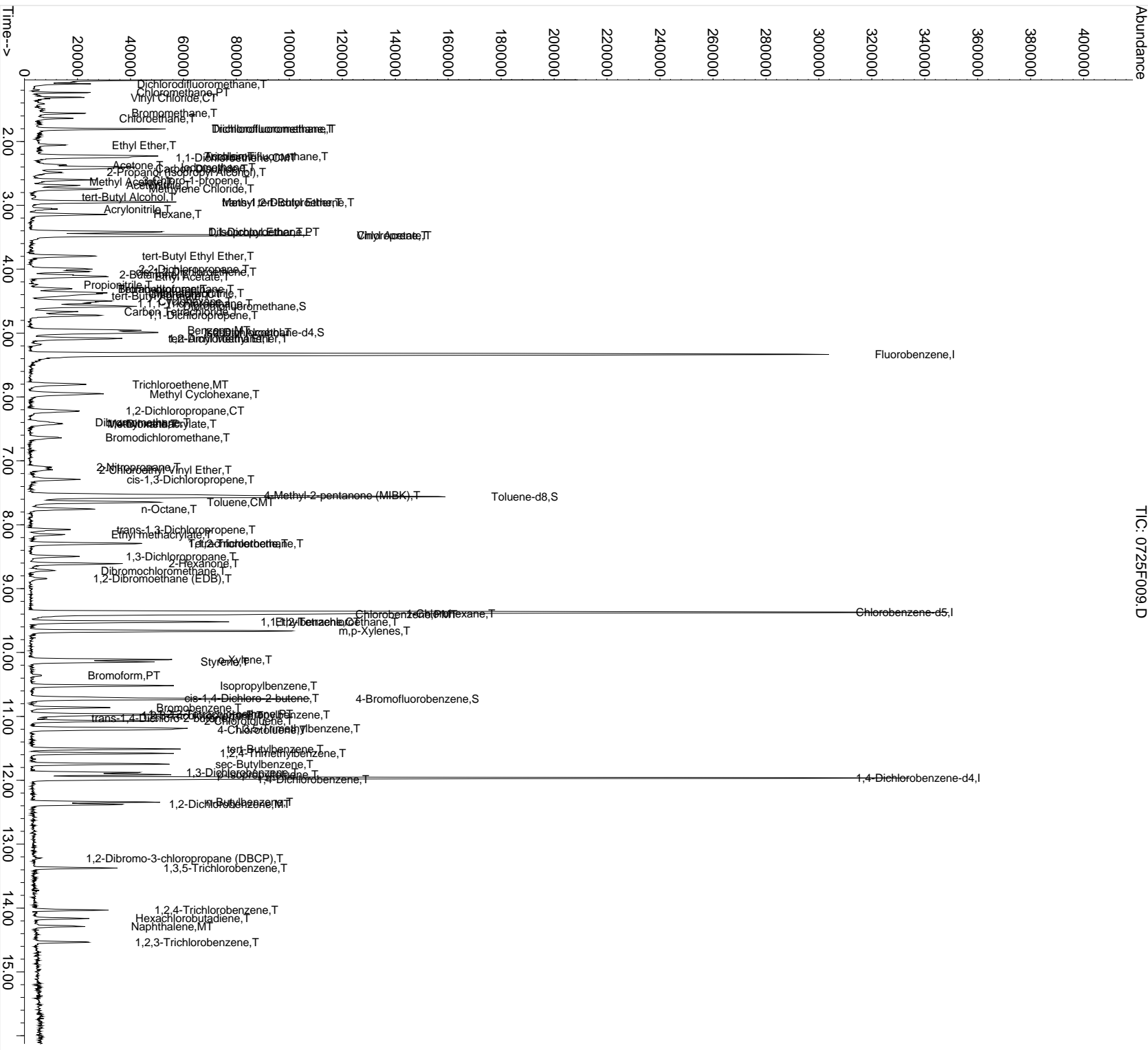
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) Isobutyl Alcohol	4.99	43	5771	47.78	PPB	79
48) Benzene	4.96	78	34966	0.92	PPB	93
49) 1,2-Dichloroethane	5.09	62	10724	0.99	PPB	89
50) tert-Amyl Methyl Ether	5.09	55	4866	1.03	PPB	# 71
51) Trichloroethene	5.80	95	8286	0.90	PPB	94
52) Methyl Cyclohexane	5.95	83	14026	0.97	PPB	96
53) 1,2-Dichloropropane	6.22	63	8206	0.88	PPB	91
54) Dibromomethane	6.39	93	3902	0.94	PPB	94
55) Methyl methacrylate	6.43	69	2964	0.89	PPB	93
56) 1,4-Dioxane	6.42	88	1778	66.06	PPB	85
57) Bromodichloromethane	6.63	83	9041	0.92	PPB	74
58) 2-Nitropropane	7.09	43	5609	3.00	PPB	97
59) 2-Chloroethyl Vinyl Ether	7.14	63	3451	0.92	PPB	99
60) cis-1,3-Dichloropropene	7.29	75	10496	0.83	PPB	95
61) 4-Methyl-2-pentanone (MIBK)	7.53	58	15471	10.04	PPB	93
63) Toluene	7.65	92	21182	0.92	PPB	99
65) n-Octane	7.76	85	4470	0.81	PPB	97
66) trans-1,3-Dichloropropene	8.07	75	8124	0.81	PPB	87
67) Ethyl methacrylate	8.16	69	6057	0.89	PPB	98
68) 1,1,2-Trichloroethane	8.29	83	4308	0.86	PPB	86
69) Tetrachloroethene	8.29	164	6485	0.88	PPB	96
70) 2-Hexanone	8.61	57	4538	8.91	PPB	93
71) 1,3-Dichloropropane	8.49	76	10419	0.99	PPB	88
72) Dibromochloromethane	8.72	129	4440	0.76	PPB	87
73) 1,2-Dibromoethane (EDB)	8.84	107	4765	0.93	PPB	98
74) 1-Chlorohexane	9.40	91	10069	0.89	PPB	94
75) Chlorobenzene	9.40	112	21432	0.93	PPB	98
76) Ethylbenzene	9.51	106	12058	0.90	PPB	88
77) 1,1,1,2-Tetrachloroethane	9.53	131	6171	0.85	PPB	93
78) m,p-Xylenes	9.66	106	29630	1.84	PPB	98
79) o-Xylene	10.11	106	13804	0.93	PPB	94
80) Styrene	10.15	103	9657	0.82	PPB	# 83
81) Bromoform	10.37	173	2088	0.77	PPB	86
82) Isopropylbenzene	10.52	105	34768	0.88	PPB	96
83) cis-1,4-Dichloro-2-butene	10.71	89	1909	3.04	PPB	95
86) 1,1,2,2-Tetrachloroethane	10.95	83	4349	0.89	PPB	84
87) trans-1,4-Dichloro-2-buten	11.04	53	1352	0.87	PPB	# 44
88) Bromobenzene	10.86	156	7482	0.91	PPB	92
89) n-Propylbenzene	10.97	91	40974	0.95	PPB	96
90) 1,2,3-Trichloropropane	10.99	110	1413	0.92	PPB	# 48
91) 2-Chlorotoluene	11.07	91	23957	0.99	PPB	99
92) 1,3,5-Trimethylbenzene	11.18	105	26832	0.91	PPB	98
93) 4-Chlorotoluene	11.21	91	27786	0.96	PPB	95
94) tert-Butylbenzene	11.51	119	24152	0.94	PPB	93
95) 1,2,4-Trimethylbenzene	11.58	105	27004	0.92	PPB	98
96) sec-Butylbenzene	11.75	105	32941	0.91	PPB	99
97) p-Isopropyltoluene	11.91	119	26568	0.88	PPB	95
98) 1,3-Dichlorobenzene	11.88	146	13987	0.93	PPB	92
99) 1,4-Dichlorobenzene	11.99	146	14451	0.97	PPB	96
100) n-Butylbenzene	12.34	91	23694	0.88	PPB	96
101) 1,2-Dichlorobenzene	12.37	146	12436	0.93	PPB	95
102) 1,2-Dibromo-3-chloropropan	13.23	155	384m	0.70	PPB	
103) 1,3,5-Trichlorobenzene	13.38	180	8358	0.89	PPB	100
104) 1,2,4-Trichlorobenzene	14.03	180	7212	0.95	PPB	88
105) Hexachlorobutadiene	14.17	225	2929	0.76	PPB	76
106) Naphthalene	14.29	128	12442	0.92	PPB	98
107) 1,2,3-Trichlorobenzene	14.54	180	5519	0.85	PPB	93

Data File : I:\MS13\DATA\072519\07251909.D
Acq On : 25 Jul 2019 10:45 am
Sample : CAL 1.0 PPB
Misc :
MS Integration Params: rteint.p
Quant Time: Jul 26 17:40 2019

Vial: 9
Operator: JHT
Inst: MS13
Multiplr: 1.00

Quant Results File: 072519MS13_8260W.RES

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Initial Calibration



Data File : I:\MS13\DATA\072519\0725F010.D

Vial: 10

Acq On : 25 Jul 2019 11:12 am

Operator: JHJ

Sample : CAL 2.0 PPB

Inst : MS13

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 26 17:21:43 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B

Last Update : Fri Jul 26 17:20:50 2019

Response via : Initial Calibration

DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	302109	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	111315	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.97	152	81766	10.00	PPB	0.00

System Monitoring Compounds

42) Dibromofluoromethane	4.58	113	35946	5.24	PPB	0.00
Spiked Amount	10.000		Recovery	=	52.40%	
47) 1,2-Dichloroethane-d4	4.99	65	43583	5.47	PPB	0.00
Spiked Amount	10.000		Recovery	=	54.70%	
62) Toluene-d8	7.56	98	162971	5.38	PPB	0.00
Spiked Amount	10.000		Recovery	=	53.80%	
84) 4-Bromofluorobenzene	10.73	95	49821	5.06	PPB	0.00
Spiked Amount	10.000		Recovery	=	50.60%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.10	85	19594	1.98	PPB	93
3) Chloromethane	1.24	50	24453	2.09	PPB	98
4) Vinyl Chloride	1.31	62	22581	1.94	PPB	97
5) Bromomethane	1.56	96	13610	2.03	PPB	96
6) Chloroethane	1.64	64	13743	2.04	PPB	91
7) Dichlorofluoromethane	1.80	67	30928	1.87	PPB	94
8) Trichlorofluoromethane	1.81	101	31207	1.83	PPB	97
9) Ethyl Ether	2.05	59	7638	1.71	PPB	93
10) Acrolein	2.23	56	30829	36.11	PPB	97
11) Trichlorotrifluoroethane	2.23	151	11536	1.79	PPB	96
12) 1,1-Dichloroethene	2.25	96	16384	1.91	PPB	93
13) Acetone	2.36	43	21123	18.86	PPB	95
14) Iodomethane	2.41	142	63838	6.89	PPB	98
15) Carbon Disulfide	2.43	76	43557	1.86	PPB	96
16) 2-Propanol (Isopropyl Alco	2.49	45	16002	88.26	PPB	84
17) 3-Chloro-1-propene	2.60	76	8379	1.87	PPB	# 76
18) Acetonitrile	2.69	40	18722	71.66	PPB	# 80
19) Methyl Acetate	2.64	43	6490	2.05	PPB	83
20) Methylene Chloride	2.75	84	17357	2.05	PPB	98
21) tert-Butyl Alcohol	2.86	59	2513	9.43	PPB	61
22) Acrylonitrile	3.06	53	11187	7.28	PPB	97
23) Methyl tert-Butyl Ether	2.94	73	57100	3.55	PPB	97
24) trans-1,2-Dichloroethene	2.95	96	15007	1.81	PPB	95
25) Hexane	3.14	57	23880	1.84	PPB	97
26) Diisopropyl Ether	3.41	45	51854	1.80	PPB	97
27) 1,1-Dichloroethane	3.41	63	29798	1.79	PPB	98
28) Vinyl Acetate	3.48	86	4125	3.46	PPB	# 67
29) Chloroprene	3.47	53	103236	7.19	PPB	98
30) tert-Butyl Ethyl Ether	3.79	59	41863	1.84	PPB	99
31) 2,2-Dichloropropane	4.00	77	25312	1.84	PPB	95
32) cis-1,2-Dichloroethene	4.04	96	15676	1.69	PPB	89
33) 2-Butanone	4.09	72	7057	18.00	PPB	91
34) Propionitrile	4.25	54	4091	7.49	PPB	85
35) Ethyl Acetate	4.12	61	5913	6.83	PPB	79
36) Methacrylonitrile	4.36	67	13795	7.26	PPB	96
37) Bromochloromethane	4.31	128	6788	1.73	PPB	93
38) Tetrahydrofuran	4.32	71	734	1.67	PPB	# 60
39) Chloroform	4.39	83	27967	1.83	PPB	99
40) tert-Butyl Formate	4.42	59	9903	1.74	PPB	84
41) 1,1,1-Trichloroethane	4.53	97	24300	1.72	PPB	97
43) Cyclohexane	4.50	56	28012	1.88	PPB	97
44) Carbon Tetrachloride	4.67	117	19584	1.76	PPB	95
45) 1,1-Dichloropropene	4.72	75	23736	1.80	PPB	93

(#)= qualifier out of range (m) = manual integration

0725F010.D 072519MS13_8260W.M

Fri Jul 26 17:45:36 2019

Data File : I:\MS13\DATA\072519\0725F010.D

Vial: 10

Acq On : 25 Jul 2019 11:12 am

Operator: JHJ

Sample : CAL 2.0 PPB

Inst : MS13

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 26 17:21:43 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B

Last Update : Fri Jul 26 17:20:50 2019

Response via : Initial Calibration

DataAcq Meth : 8260W5

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) Isobutyl Alcohol	4.98	43	9420	77.91	PPB	77
48) Benzene	4.96	78	69492	1.83	PPB	97
49) 1,2-Dichloroethane	5.09	62	19551	1.80	PPB	92
50) tert-Amyl Methyl Ether	5.08	55	9285	1.96	PPB	# 81
51) Trichloroethene	5.80	95	17210	1.87	PPB	92
52) Methyl Cyclohexane	5.95	83	26731	1.85	PPB	92
53) 1,2-Dichloropropane	6.22	63	16780	1.80	PPB	98
54) Dibromomethane	6.40	93	7585	1.83	PPB	86
55) Methyl methacrylate	6.42	69	5800	1.73	PPB	96
56) 1,4-Dioxane	6.42	88	2395	88.89	PPB	98
57) Bromodichloromethane	6.64	83	17583	1.80	PPB	88
58) 2-Nitropropane	7.11	43	10783	5.77	PPB	79
59) 2-Chloroethyl Vinyl Ether	7.14	63	6727	1.78	PPB	97
60) cis-1,3-Dichloropropene	7.29	75	21125	1.67	PPB	91
61) 4-Methyl-2-pentanone (MIBK)	7.53	58	27947	18.11	PPB	95
63) Toluene	7.65	92	42949	1.86	PPB	94
65) n-Octane	7.76	85	10055	1.82	PPB	93
66) trans-1,3-Dichloropropene	8.08	75	16654	1.66	PPB	92
67) Ethyl methacrylate	8.15	69	11408	1.67	PPB	97
68) 1,1,2-Trichloroethane	8.29	83	8779	1.76	PPB	90
69) Tetrachloroethene	8.30	164	13427	1.82	PPB	93
70) 2-Hexanone	8.61	57	8782	17.26	PPB	97
71) 1,3-Dichloropropane	8.50	76	18811	1.79	PPB	97
72) Dibromochloromethane	8.72	129	9473	1.62	PPB	92
73) 1,2-Dibromoethane (EDB)	8.84	107	8833	1.72	PPB	92
74) 1-Chlorohexane	9.40	91	20645	1.82	PPB	86
75) Chlorobenzene	9.40	112	41577	1.80	PPB	98
76) Ethylbenzene	9.52	106	24718	1.84	PPB	97
77) 1,1,1,2-Tetrachloroethane	9.52	131	12008	1.65	PPB	94
78) m,p-Xylenes	9.66	106	56774	3.53	PPB	97
79) o-Xylene	10.11	106	27139	1.83	PPB	90
80) Styrene	10.15	103	20418	1.73	PPB	96
81) Bromoform	10.36	173	4112	1.51	PPB	90
82) Isopropylbenzene	10.52	105	69757	1.76	PPB	99
83) cis-1,4-Dichloro-2-butene	10.70	89	3404	5.42	PPB	91
86) 1,1,2,2-Tetrachloroethane	10.95	83	8453	1.69	PPB	90
87) trans-1,4-Dichloro-2-buten	11.02	53	2936	1.86	PPB	79
88) Bromobenzene	10.86	156	14909	1.78	PPB	97
89) n-Propylbenzene	10.97	91	79233	1.81	PPB	97
90) 1,2,3-Trichloropropane	10.99	110	2717	1.73	PPB	95
91) 2-Chlorotoluene	11.07	91	47368	1.92	PPB	98
92) 1,3,5-Trimethylbenzene	11.18	105	54325	1.81	PPB	94
93) 4-Chlorotoluene	11.20	91	54309	1.84	PPB	98
94) tert-Butylbenzene	11.51	119	48252	1.84	PPB	95
95) 1,2,4-Trimethylbenzene	11.58	105	53224	1.77	PPB	93
96) sec-Butylbenzene	11.75	105	67695	1.83	PPB	99
97) p-Isopropyltoluene	11.91	119	54071	1.75	PPB	95
98) 1,3-Dichlorobenzene	11.88	146	27434	1.79	PPB	94
99) 1,4-Dichlorobenzene	11.99	146	27280	1.80	PPB	98
100) n-Butylbenzene	12.34	91	47944	1.75	PPB	100
101) 1,2-Dichlorobenzene	12.38	146	23561	1.73	PPB	81
102) 1,2-Dibromo-3-chloropropan	13.23	155	957	1.71	PPB	94
103) 1,3,5-Trichlorobenzene	13.37	180	16876	1.77	PPB	97
104) 1,2,4-Trichlorobenzene	14.03	180	13622	1.76	PPB	79
105) Hexachlorobutadiene	14.16	225	6883	1.75	PPB	93
106) Naphthalene	14.29	128	23432	1.69	PPB	99
107) 1,2,3-Trichlorobenzene	14.53	180	11158	1.69	PPB	96

(#) = qualifier out of range (m) = manual integration

0725F010.D 072519MS13_8260W.M

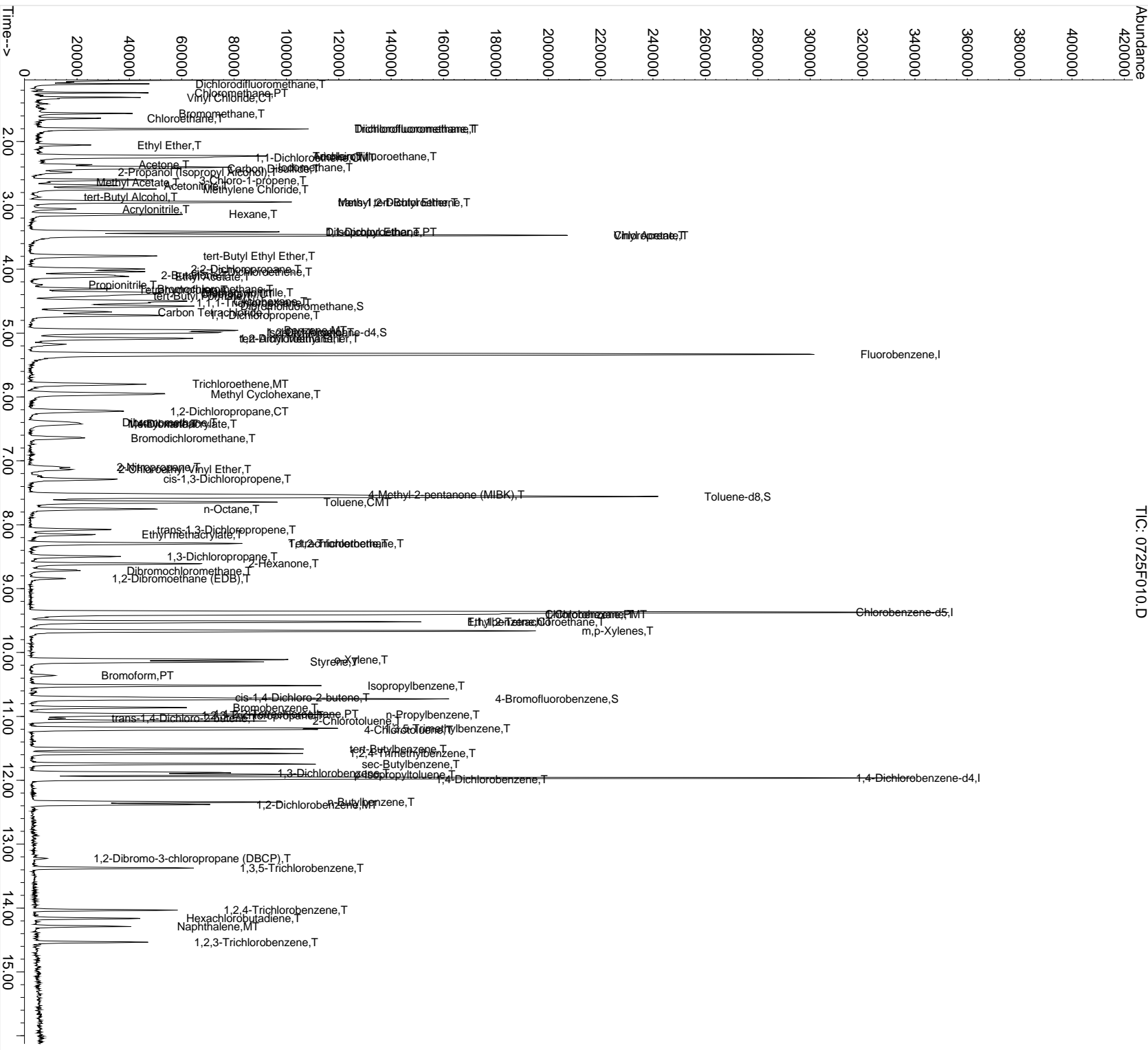
Fri Jul 26 17:45:36 2019

08/01/19
Data File : I:\MS13\DATA\072519MS13_8260W.D
Acq On : 25 Jul 2019 11:12 am
Sample : CAL 2.0 PPB
Misc :
MS Integration Params: rteint.p
Quant Time: Jul 26 17:21 2019

Vial: 10
Operator: JHT
Inst: MS13
Multiplr: 1.00

Quant Results File: 072519MS13_8260W.RES

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Initial Calibration



Data File : I:\MS13\DATA\072519\0725F011.D
 Acq On : 25 Jul 2019 11:38 am
 Sample : CAL 5.0 PPB
 Misc :

Vial: 11
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:21:44 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	292383	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	107940	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.97	152	78907	10.00	PPB	0.00

System Monitoring Compounds

42) Dibromofluoromethane	4.58	113	52294	7.88	PPB	0.00
Spiked Amount	10.000		Recovery	=	78.80%	
47) 1,2-Dichloroethane-d4	4.99	65	60563	7.86	PPB	0.00
Spiked Amount	10.000		Recovery	=	78.60%	
62) Toluene-d8	7.56	98	228365	7.79	PPB	0.00
Spiked Amount	10.000		Recovery	=	77.90%	
84) 4-Bromofluorobenzene	10.73	95	69934	7.33	PPB	0.00
Spiked Amount	10.000		Recovery	=	73.30%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.10	85	50629	5.29	PPB	97
3) Chloromethane	1.24	50	57451	5.08	PPB	94
4) Vinyl Chloride	1.31	62	57577	5.11	PPB	99
5) Bromomethane	1.56	96	32861	5.06	PPB	97
6) Chloroethane	1.64	64	32381	4.97	PPB	96
7) Dichlorofluoromethane	1.80	67	79829	4.98	PPB	96
8) Trichlorofluoromethane	1.81	101	81875	4.97	PPB	98
9) Ethyl Ether	2.06	59	21243	4.92	PPB	94
10) Acrolein	2.23	56	81379	98.50	PPB	100
11) Trichlorotrifluoroethane	2.22	151	29849	4.79	PPB	98
12) 1,1-Dichloroethene	2.25	96	41887	5.03	PPB	96
13) Acetone	2.37	43	53564	49.41	PPB	98
14) Iodomethane	2.41	142	170823	19.04	PPB	100
15) Carbon Disulfide	2.43	76	109658	4.84	PPB	96
16) 2-Propanol (Isopropyl Alco	2.48	45	41528	236.67	PPB	88
17) 3-Chloro-1-propene	2.60	76	22273	5.13	PPB	90
18) Acetonitrile	2.69	40	52346	207.01	PPB	95
19) Methyl Acetate	2.64	43	15680	5.12	PPB	90
20) Methylene Chloride	2.75	84	42697	5.22	PPB	96
21) tert-Butyl Alcohol	2.86	59	6329	24.53	PPB	94
22) Acrylonitrile	3.06	53	30403	20.44	PPB	91
23) Methyl tert-Butyl Ether	2.94	73	158428	10.19	PPB	99
24) trans-1,2-Dichloroethene	2.95	96	39240	4.88	PPB	97
25) Hexane	3.14	57	62766	4.99	PPB	98
26) Diisopropyl Ether	3.41	45	138276	4.96	PPB	99
27) 1,1-Dichloroethane	3.42	63	77436	4.80	PPB	97
28) Vinyl Acetate	3.48	86	10882	9.43	PPB	# 60
29) Chloroprene	3.47	53	270805	19.49	PPB	97
30) tert-Butyl Ethyl Ether	3.79	59	110551	5.03	PPB	97
31) 2,2-Dichloropropane	4.00	77	65704	4.94	PPB	96
32) cis-1,2-Dichloroethene	4.04	96	44775	5.00	PPB	95
33) 2-Butanone	4.09	72	19056	50.21	PPB	95
34) Propionitrile	4.25	54	10648	20.15	PPB	91
35) Ethyl Acetate	4.12	61	9156	10.92	PPB	91
36) Methacrylonitrile	4.37	67	35517	19.32	PPB	92
37) Bromochloromethane	4.30	128	19025	5.01	PPB	95
38) Tetrahydrofuran	4.32	71	2176	5.10	PPB	93
39) Chloroform	4.39	83	72586	4.91	PPB	99
40) tert-Butyl Formate	4.41	59	28026	5.09	PPB	96
41) 1,1,1-Trichloroethane	4.53	97	65027	4.76	PPB	93
43) Cyclohexane	4.50	56	69017	4.78	PPB	98
44) Carbon Tetrachloride	4.68	117	51116	4.73	PPB	94
45) 1,1-Dichloropropene	4.72	75	62443	4.89	PPB	97

(#) = qualifier out of range (m) = manual integration

Data File : I:\MS13\DATA\072519\0725F011.D
Acq On : 25 Jul 2019 11:38 am
Sample : CAL 5.0 PPB
Misc :

Vial: 11
Operator: JHJ
Inst : MS13
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Jul 26 17:21:44 2019

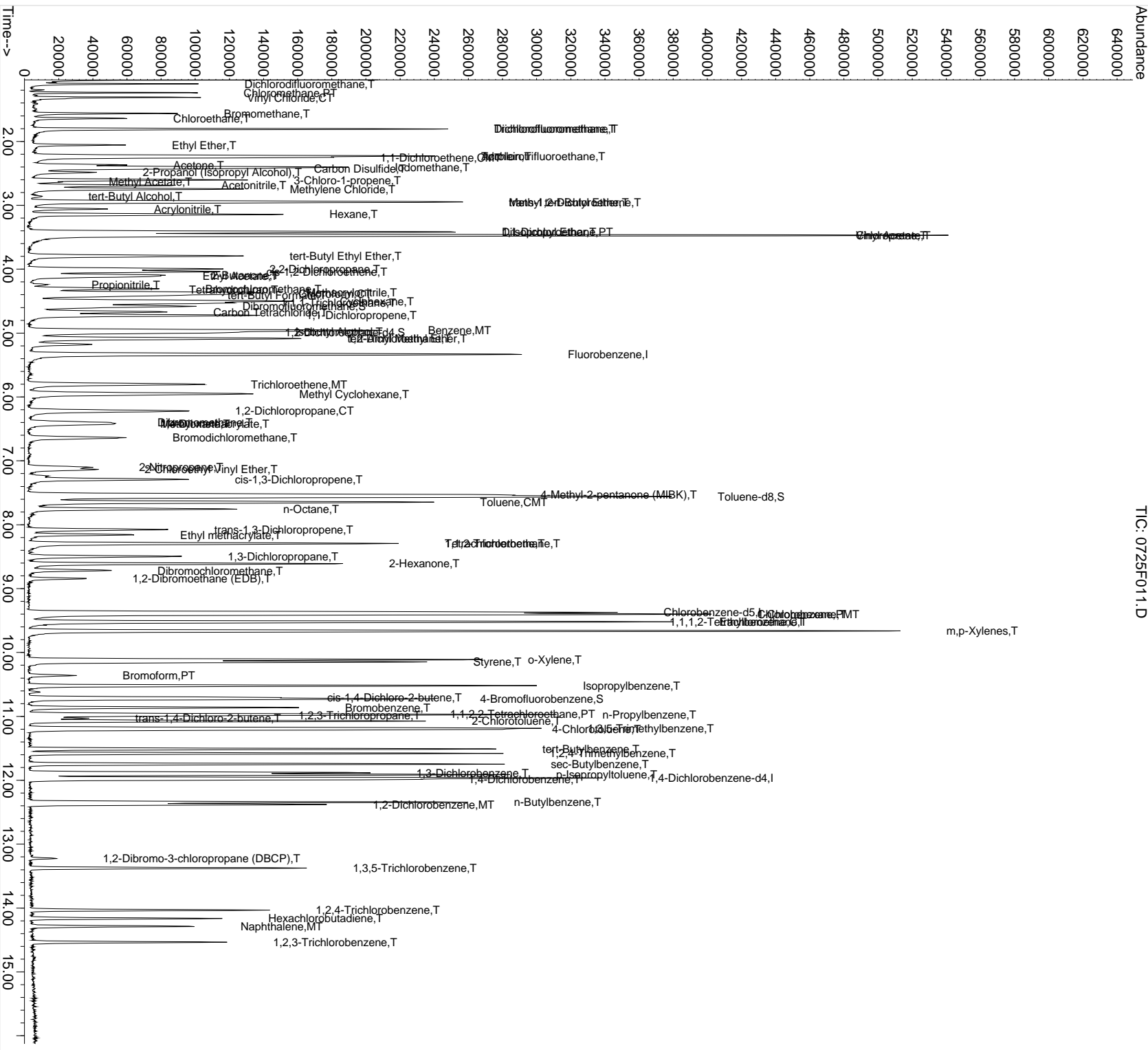
Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Initial Calibration
DataAcq Meth : 8260W5

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) Isobutyl Alcohol	4.98	43	24142	206.30	PPB	91
48) Benzene	4.96	78	181652	4.94	PPB	99
49) 1,2-Dichloroethane	5.09	62	53287	5.06	PPB	95
50) tert-Amyl Methyl Ether	5.08	55	24249	5.28	PPB	# 65
51) Trichloroethene	5.81	95	43276	4.87	PPB	89
52) Methyl Cyclohexane	5.95	83	67398	4.81	PPB	90
53) 1,2-Dichloropropane	6.22	63	45292	5.02	PPB	94
54) Dibromomethane	6.40	93	18918	4.72	PPB	85
55) Methyl methacrylate	6.43	69	16289	5.03	PPB	97
56) 1,4-Dioxane	6.43	88	5119	196.31	PPB	91
57) Bromodichloromethane	6.64	83	47288	4.99	PPB	88
58) 2-Nitropropane	7.10	43	28785	15.90	PPB	97
59) 2-Chloroethyl Vinyl Ether	7.14	63	18086	4.95	PPB	95
60) cis-1,3-Dichloropropene	7.29	75	56696	4.62	PPB	98
61) 4-Methyl-2-pentanone (MIBK)	7.53	58	75320	50.44	PPB	93
63) Toluene	7.65	92	109560	4.90	PPB	97
65) n-Octane	7.76	85	25898	4.85	PPB	95
66) trans-1,3-Dichloropropene	8.08	75	46033	4.72	PPB	93
67) Ethyl methacrylate	8.16	69	31945	4.83	PPB	92
68) 1,1,2-Trichloroethane	8.29	83	23297	4.81	PPB	88
69) Tetrachloroethene	8.29	164	34278	4.78	PPB	96
70) 2-Hexanone	8.61	57	23038	46.68	PPB	# 86
71) 1,3-Dichloropropane	8.50	76	50359	4.95	PPB	96
72) Dibromochloromethane	8.71	129	26607	4.70	PPB	93
73) 1,2-Dibromoethane (EDB)	8.84	107	24432	4.89	PPB	92
74) 1-Chlorohexane	9.40	91	51907	4.71	PPB	98
75) Chlorobenzene	9.40	112	110308	4.93	PPB	97
76) Ethylbenzene	9.52	106	63608	4.88	PPB	92
77) 1,1,1,2-Tetrachloroethane	9.53	131	31946	4.54	PPB	92
78) m,p-Xylenes	9.67	106	152097	9.77	PPB	97
79) o-Xylene	10.11	106	72313	5.02	PPB	89
80) Styrene	10.15	103	54324	4.75	PPB	98
81) Bromoform	10.36	173	12066	4.57	PPB	94
82) Isopropylbenzene	10.52	105	186054	4.84	PPB	100
83) cis-1,4-Dichloro-2-butene	10.71	89	10369	17.03	PPB	# 75
86) 1,1,2,2-Tetrachloroethane	10.96	83	23805	4.94	PPB	99
87) trans-1,4-Dichloro-2-buten	11.02	53	7744	5.09	PPB	90
88) Bromobenzene	10.86	156	40386	5.01	PPB	97
89) n-Propylbenzene	10.97	91	212135	5.02	PPB	99
90) 1,2,3-Trichloropropane	10.99	110	7459	4.93	PPB	86
91) 2-Chlorotoluene	11.07	91	122665	5.15	PPB	95
92) 1,3,5-Trimethylbenzene	11.18	105	142525	4.93	PPB	100
93) 4-Chlorotoluene	11.20	91	141488	4.97	PPB	97
94) tert-Butylbenzene	11.51	119	125727	4.98	PPB	95
95) 1,2,4-Trimethylbenzene	11.58	105	140420	4.85	PPB	97
96) sec-Butylbenzene	11.75	105	177356	4.97	PPB	99
97) p-Isopropyltoluene	11.91	119	145943	4.89	PPB	96
98) 1,3-Dichlorobenzene	11.88	146	73686	4.99	PPB	96
99) 1,4-Dichlorobenzene	11.99	146	73173	5.00	PPB	99
100) n-Butylbenzene	12.34	91	128348	4.86	PPB	98
101) 1,2-Dichlorobenzene	12.38	146	65199	4.97	PPB	97
102) 1,2-Dibromo-3-chloropropan	13.23	155	2599	4.81	PPB	# 70
103) 1,3,5-Trichlorobenzene	13.37	180	45340	4.92	PPB	97
104) 1,2,4-Trichlorobenzene	14.03	180	37124	4.98	PPB	95
105) Hexachlorobutadiene	14.16	225	18701	4.92	PPB	97
106) Naphthalene	14.29	128	66404	4.96	PPB	99
107) 1,2,3-Trichlorobenzene	14.53	180	30545	4.80	PPB	95

08/01/19
Data File : I:\MS13\DATA\072519\0725F011.D
Acq On : 25 Jul 2019 11:38 am
Sample : CAL 5.0 PPB
Misc :
MS Integration Params: rteint.p
Quant Results File: 072519MS13_8260W.RES
Vial: 11
Operator: JHT
Inst: MS13
Multipl: 1.00

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Initial Calibration



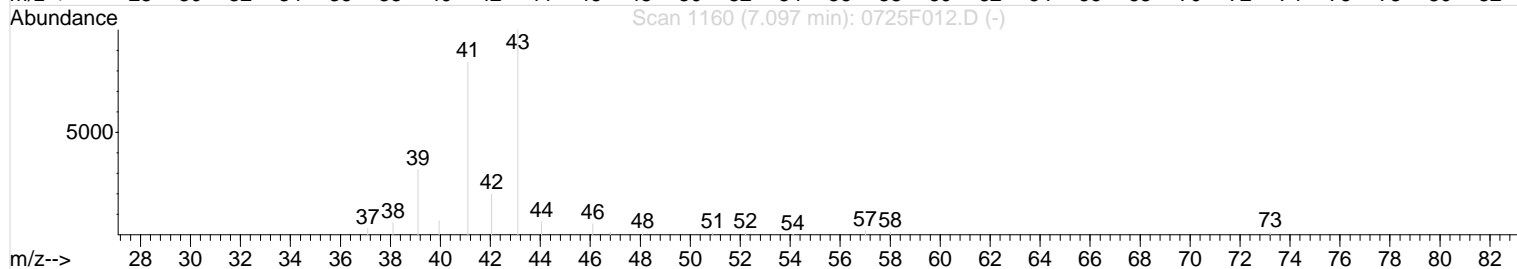
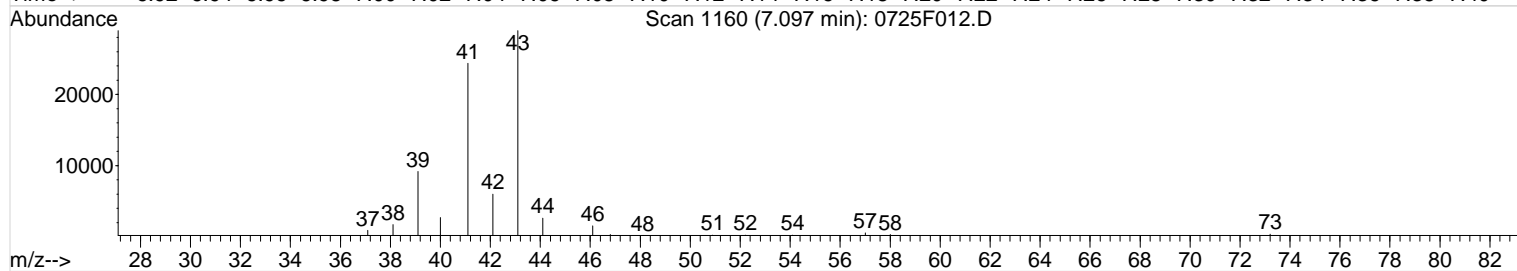
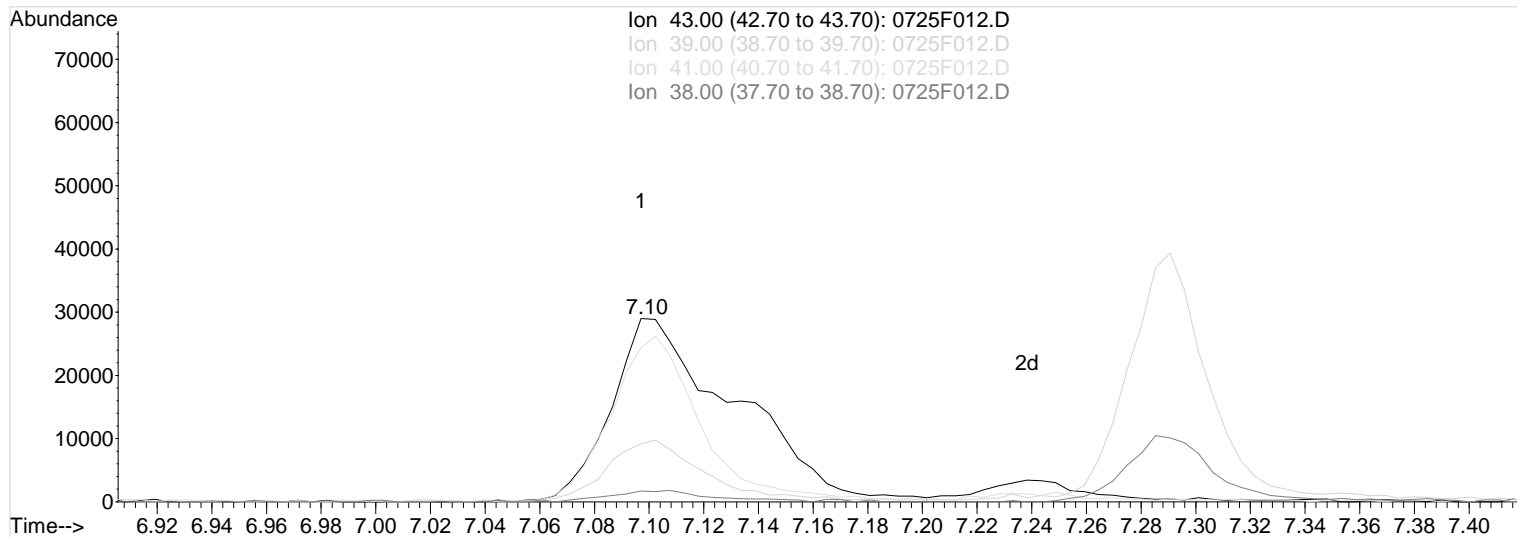
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 Acq On : 25 Jul 2019 12:04 pm
 Sample : CAL 10 PPB
 Misc :

Vial: 12
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:21 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Single Level Calibration



TIC: 0725F012.D

(58) 2-Nitropropane (T)

Manual Integration:

7.10min 50.00PPB

Before

response 91670

Ion	Exp%	Act%
43.00	100	100
39.00	31.60	31.62
41.00	84.20	84.15
38.00	5.90	5.89

07/26/19

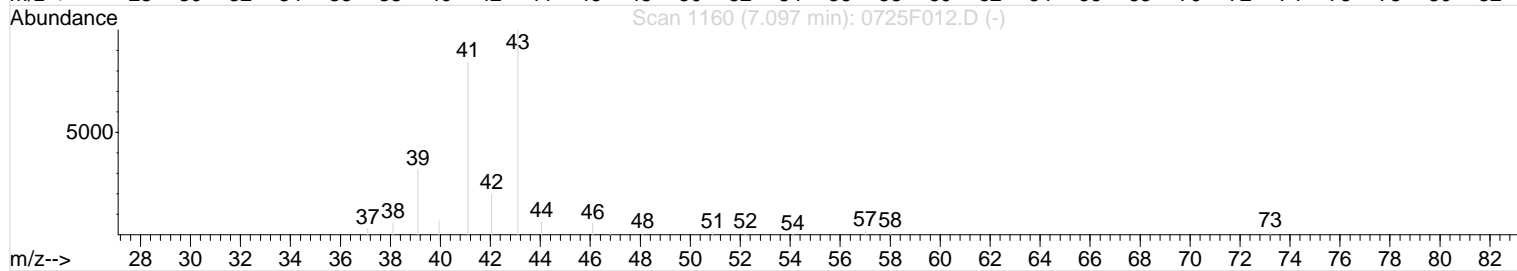
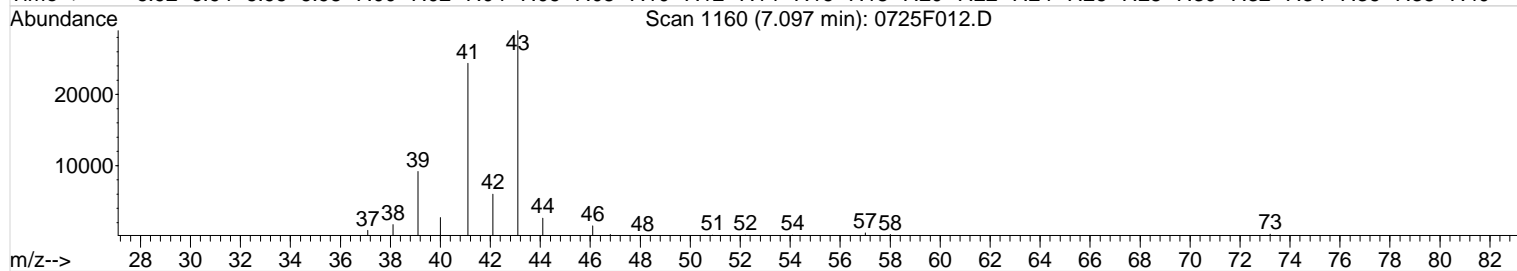
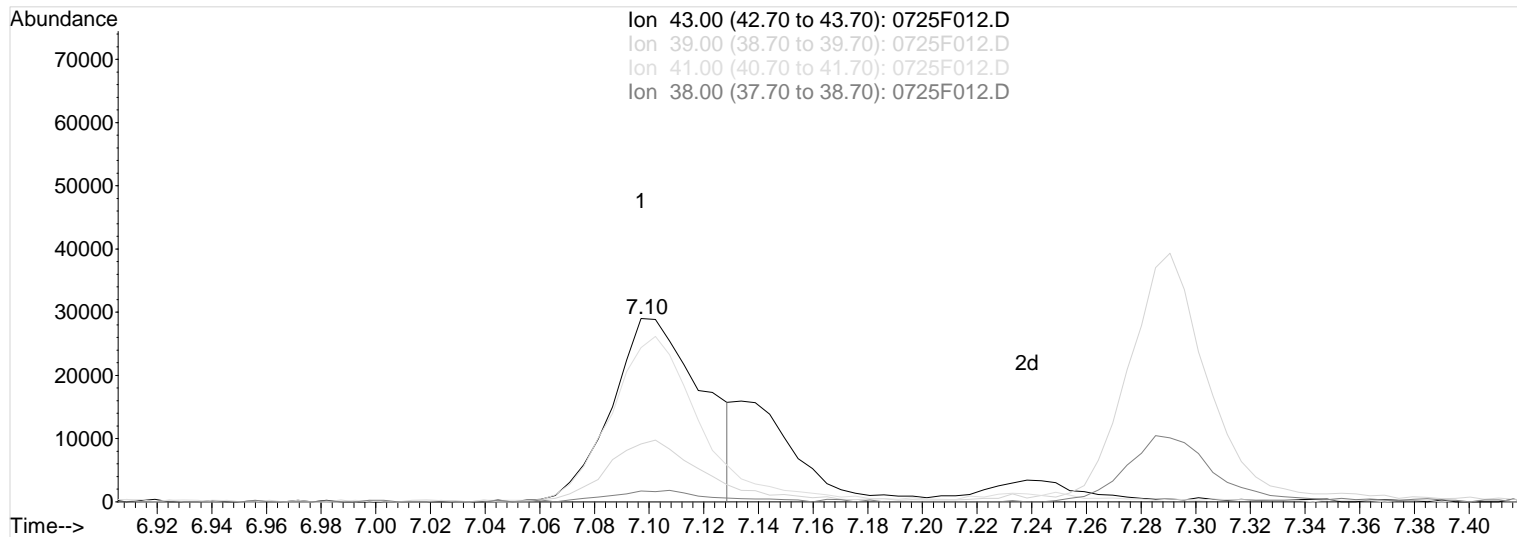
Data File : I:\MS13\DATA\072519\0725F012.D
 Acq On : 25 Jul 2019 12:04 pm
 Sample : CAL 10 PPB
 Misc :

Vial: 12
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:49 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Single Level Calibration



TIC: 0725F012.D

(58) 2-Nitropropane (T)

Manual Integration:

7.10min 36.59PPB m
 response 67084

After
 Shoulder

Ion	Exp%	Act%
43.00	100	100
39.00	31.60	31.62
41.00	84.20	84.15
38.00	5.90	5.89

07/26/19

Data File : I:\MS13\DATA\072519\0725F012.D

Vial: 12

Acq On : 25 Jul 2019 12:04 pm

Operator: JHJ

Sample : CAL 10 PPB

Inst : MS13

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 26 17:21:45 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B

Last Update : Fri Jul 26 17:20:50 2019

Response via : Initial Calibration

DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	296176	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	109383	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.97	152	82314	10.00	PPB	0.00

System Monitoring Compounds

42) Dibromofluoromethane	4.58	113	67211	10.00	PPB	0.00
Spiked Amount	10.000		Recovery	=	100.00%	
47) 1,2-Dichloroethane-d4	4.99	65	78043	10.00	PPB	0.00
Spiked Amount	10.000		Recovery	=	100.00%	
62) Toluene-d8	7.56	98	297088	10.00	PPB	0.00
Spiked Amount	10.000		Recovery	=	100.00%	
84) 4-Bromofluorobenzene	10.73	95	96700	10.00	PPB	0.00
Spiked Amount	10.000		Recovery	=	100.00%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.10	85	96923	10.00	PPB	100
3) Chloromethane	1.24	50	114552	10.00	PPB	100
4) Vinyl Chloride	1.31	62	114198	10.00	PPB	100
5) Bromomethane	1.56	96	65745	10.00	PPB	100
6) Chloroethane	1.64	64	66062	10.00	PPB	100
7) Dichlorofluoromethane	1.80	67	162253	10.00	PPB	100
8) Trichlorofluoromethane	1.80	101	166795	10.00	PPB	100
9) Ethyl Ether	2.06	59	43767	10.00	PPB	100
10) Acrolein	2.23	56	167384	200.00	PPB	100
11) Trichlorotrifluoroethane	2.22	151	63113	10.00	PPB	100
12) 1,1-Dichloroethene	2.25	96	84310	10.00	PPB	100
13) Acetone	2.37	43	109809	100.00	PPB	100
14) Iodomethane	2.41	142	363566	40.00	PPB	100
15) Carbon Disulfide	2.43	76	229363	10.00	PPB	100
16) 2-Propanol (Isopropyl Alco	2.49	45	88872	500.00	PPB	100
17) 3-Chloro-1-propene	2.60	76	44008	10.00	PPB	100
18) Acetonitrile	2.69	40	102459	400.00	PPB	100
19) Methyl Acetate	2.64	43	31003	10.00	PPB	100
20) Methylene Chloride	2.75	84	82846	10.00	PPB	100
21) tert-Butyl Alcohol	2.86	59	13067	50.00	PPB	100
22) Acrylonitrile	3.06	53	60272	40.00	PPB	100
23) Methyl tert-Butyl Ether	2.94	73	314966	20.00	PPB	100
24) trans-1,2-Dichloroethene	2.95	96	81428	10.00	PPB	100
25) Hexane	3.14	57	127534	10.00	PPB	100
26) Diisopropyl Ether	3.41	45	282500	10.00	PPB	100
27) 1,1-Dichloroethane	3.42	63	163459	10.00	PPB	100
28) Vinyl Acetate	3.47	86	23373	20.00	PPB	100
29) Chloroprene	3.47	53	562935	40.00	PPB	100
30) tert-Butyl Ethyl Ether	3.80	59	222572	10.00	PPB	100
31) 2,2-Dichloropropane	4.00	77	134702	10.00	PPB	100
32) cis-1,2-Dichloroethene	4.04	96	90756	10.00	PPB	100
33) 2-Butanone	4.09	72	38446	100.00	PPB	100
34) Propionitrile	4.25	54	21408	40.00	PPB	100
35) Ethyl Acetate	4.12	61	16979	20.00	PPB	100
36) Methacrylonitrile	4.37	67	74491	40.00	PPB	100
37) Bromochloromethane	4.30	128	38488	10.00	PPB	100
38) Tetrahydrofuran	4.31	71	4319	10.00	PPB	100
39) Chloroform	4.39	83	149683	10.00	PPB	100
40) tert-Butyl Formate	4.42	59	55793	10.00	PPB	100
41) 1,1,1-Trichloroethane	4.53	97	138486	10.00	PPB	100
43) Cyclohexane	4.50	56	146400	10.00	PPB	100
44) Carbon Tetrachloride	4.67	117	109369	10.00	PPB	100
45) 1,1-Dichloropropene	4.72	75	129395	10.00	PPB	100

(#) = qualifier out of range (m) = manual integration

0725F012.D 072519MS13_8260W.M

Fri Jul 26 17:51:07 2019

Data File : I:\MS13\DATA\072519\0725F012.D

Vial: 12

Acq On : 25 Jul 2019 12:04 pm

Operator: JHJ

Sample : CAL 10 PPB

Inst : MS13

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 26 17:21:45 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B

Last Update : Fri Jul 26 17:20:50 2019

Response via : Initial Calibration

DataAcq Meth : 8260W5

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) Isobutyl Alcohol	4.98	43	47416	400.00	PPB	100
48) Benzene	4.96	78	372469	10.00	PPB	100
49) 1,2-Dichloroethane	5.09	62	106590	10.00	PPB	100
50) tert-Amyl Methyl Ether	5.08	55	46530	10.00	PPB	100
51) Trichloroethene	5.80	95	90100	10.00	PPB	100
52) Methyl Cyclohexane	5.95	83	141951	10.00	PPB	100
53) 1,2-Dichloropropane	6.22	63	91344	10.00	PPB	100
54) Dibromomethane	6.40	93	40560	10.00	PPB	100
55) Methyl methacrylate	6.43	69	32798	10.00	PPB	100
56) 1,4-Dioxane	6.43	88	10566	400.00	PPB	100
57) Bromodichloromethane	6.64	83	96016	10.00	PPB	100
58) 2-Nitropropane	7.10	43	67084m	36.59	PPB	
59) 2-Chloroethyl Vinyl Ether	7.14	63	36986	10.00	PPB	100
60) cis-1,3-Dichloropropene	7.29	75	124278	10.00	PPB	100
61) 4-Methyl-2-pentanone (MIBK)	7.53	58	151251	100.00	PPB	100
63) Toluene	7.65	92	226298	10.00	PPB	100
65) n-Octane	7.76	85	54151	10.00	PPB	100
66) trans-1,3-Dichloropropene	8.08	75	98758	10.00	PPB	100
67) Ethyl methacrylate	8.15	69	67047	10.00	PPB	100
68) 1,1,2-Trichloroethane	8.29	83	49119	10.00	PPB	100
69) Tetrachloroethene	8.29	164	72660	10.00	PPB	100
70) 2-Hexanone	8.61	57	50012	100.00	PPB	100
71) 1,3-Dichloropropane	8.50	76	103012	10.00	PPB	100
72) Dibromochloromethane	8.71	129	57410	10.00	PPB	100
73) 1,2-Dibromoethane (EDB)	8.84	107	50604	10.00	PPB	100
74) 1-Chlorohexane	9.40	91	111621	10.00	PPB	100
75) Chlorobenzene	9.40	112	226887	10.00	PPB	100
76) Ethylbenzene	9.52	106	132197	10.00	PPB	100
77) 1,1,1,2-Tetrachloroethane	9.53	131	71330	10.00	PPB	100
78) m,p-Xylenes	9.67	106	315663	20.00	PPB	100
79) o-Xylene	10.11	106	145881	10.00	PPB	100
80) Styrene	10.15	103	115953	10.00	PPB	100
81) Bromoform	10.36	173	26732	10.00	PPB	100
82) Isopropylbenzene	10.52	105	389441	10.00	PPB	100
83) cis-1,4-Dichloro-2-butene	10.70	89	24684	40.00	PPB	100
86) 1,1,2,2-Tetrachloroethane	10.96	83	50264	10.00	PPB	100
87) trans-1,4-Dichloro-2-buten	11.03	53	15872	10.00	PPB	100
88) Bromobenzene	10.86	156	84159	10.00	PPB	100
89) n-Propylbenzene	10.97	91	441161	10.00	PPB	100
90) 1,2,3-Trichloropropane	10.99	110	15774	10.00	PPB	100
91) 2-Chlorotoluene	11.07	91	248315	10.00	PPB	100
92) 1,3,5-Trimethylbenzene	11.18	105	301351	10.00	PPB	100
93) 4-Chlorotoluene	11.20	91	297095	10.00	PPB	100
94) tert-Butylbenzene	11.51	119	263464	10.00	PPB	100
95) 1,2,4-Trimethylbenzene	11.58	105	302044	10.00	PPB	100
96) sec-Butylbenzene	11.75	105	372454	10.00	PPB	100
97) p-Isopropyltoluene	11.91	119	311443	10.00	PPB	100
98) 1,3-Dichlorobenzene	11.88	146	153892	10.00	PPB	100
99) 1,4-Dichlorobenzene	11.99	146	152769	10.00	PPB	100
100) n-Butylbenzene	12.34	91	275663	10.00	PPB	100
101) 1,2-Dichlorobenzene	12.38	146	136717	10.00	PPB	100
102) 1,2-Dibromo-3-chloropropan	13.23	155	5640	10.00	PPB	100
103) 1,3,5-Trichlorobenzene	13.37	180	96066	10.00	PPB	100
104) 1,2,4-Trichlorobenzene	14.03	180	77715	10.00	PPB	100
105) Hexachlorobutadiene	14.16	225	39624	10.00	PPB	100
106) Naphthalene	14.29	128	139560	10.00	PPB	100
107) 1,2,3-Trichlorobenzene	14.53	180	66337	10.00	PPB	100

(#) = qualifier out of range (m) = manual integration

0725F012.D 072519MS13_8260W.M

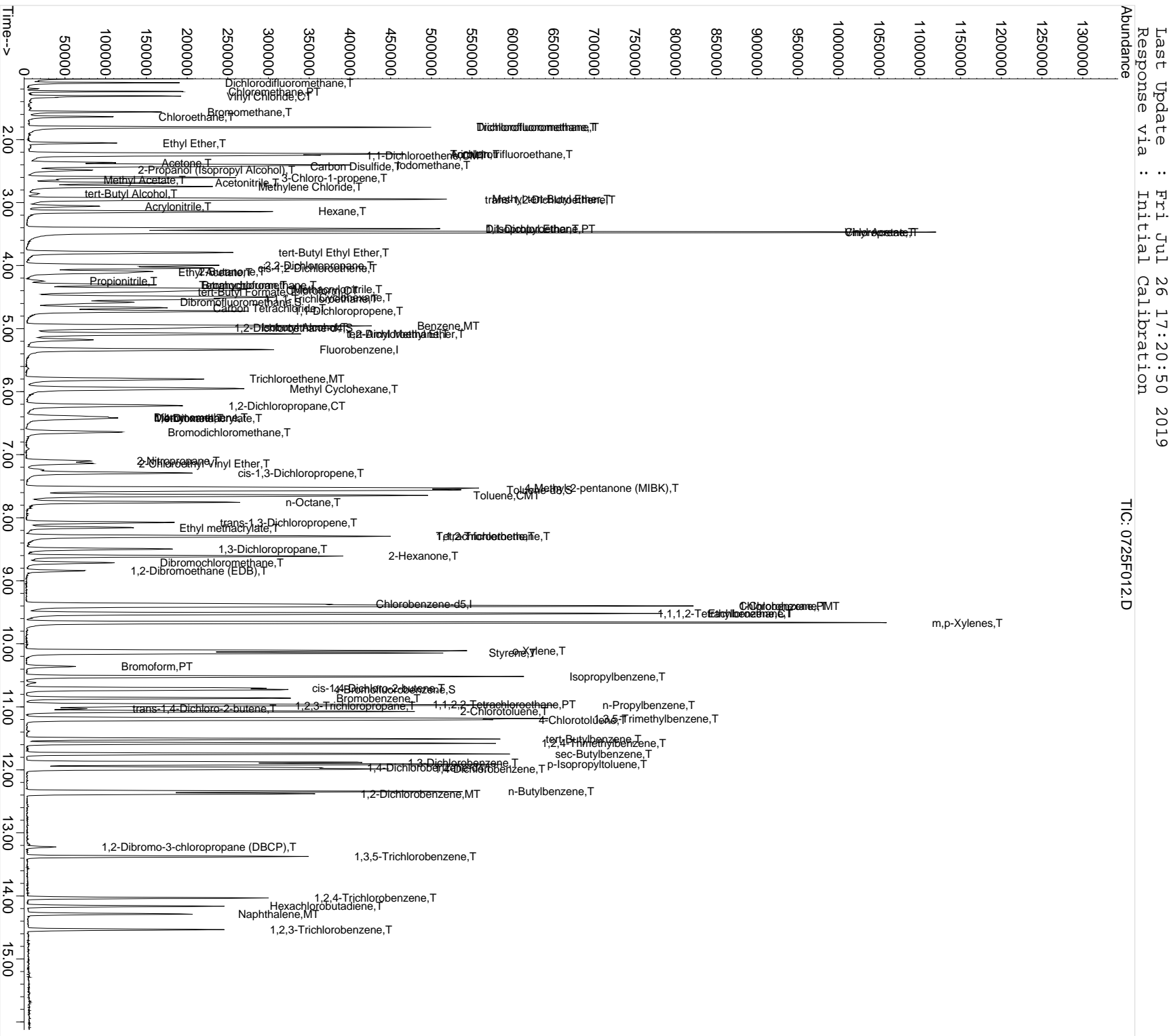
Fri Jul 26 17:51:07 2019

Page 1098 of 1516

Page 2

Data File : I:\MS13\DATA\072519\0725F012.D
Acq On : 25 Jul 2019 12:04 pm
Sample : CAL 10 PPB
Misc :
MS Integration Params: rteint.p
Quant Results File: 072519MS13_8260W.RES

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Initial Calibration



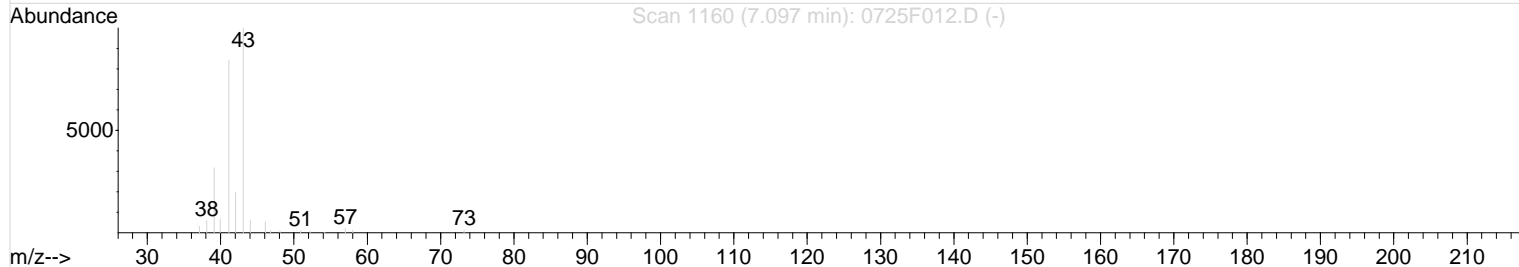
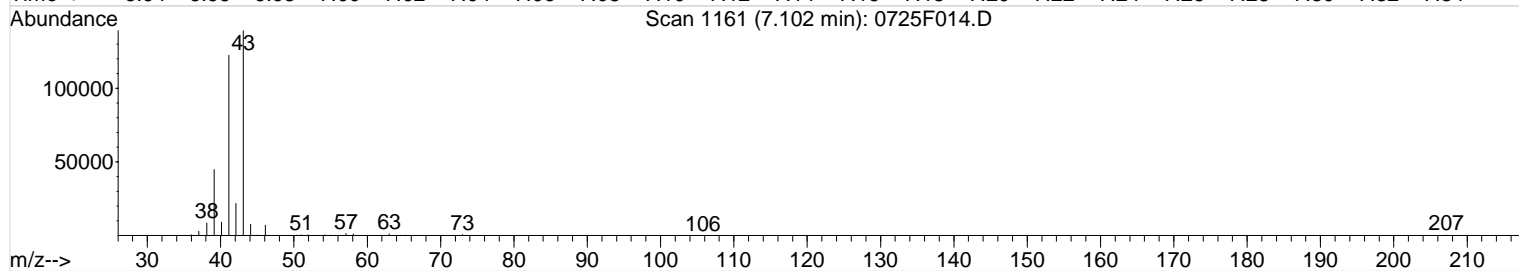
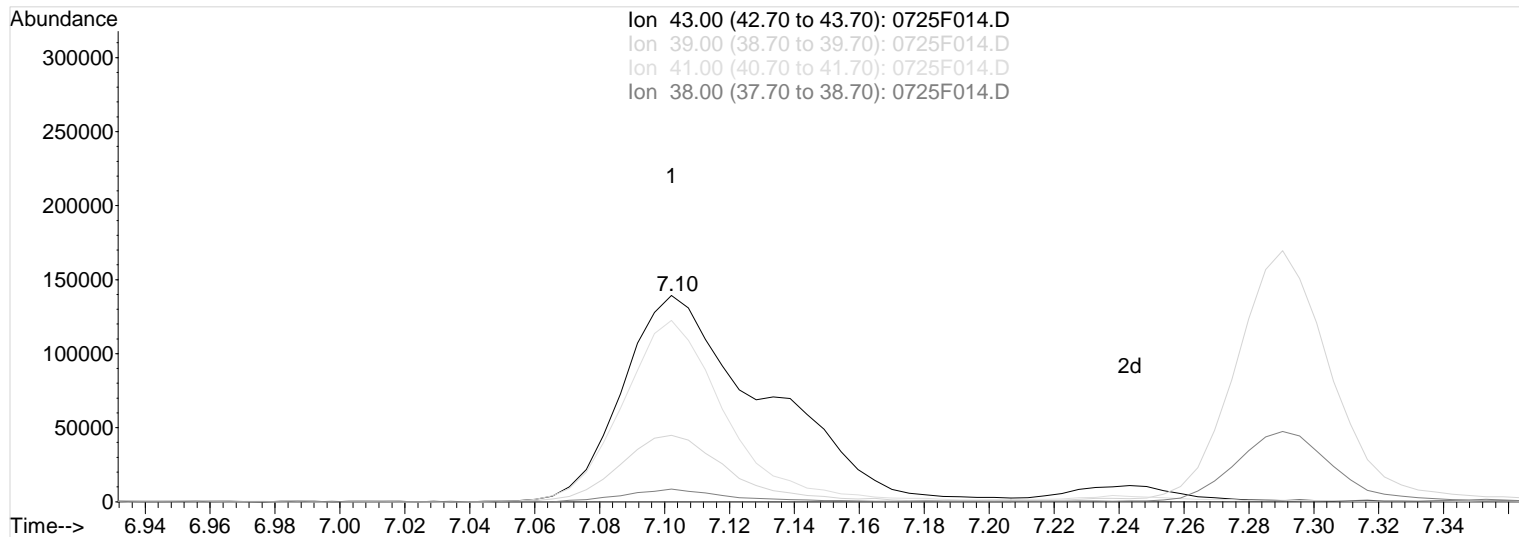
Data File : I:\MS13\DATA\072519\0725F014.D
 Acq On : 25 Jul 2019 12:57 pm
 Sample : CAL 40 PPB
 Misc :

Vial: 14
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:21 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Single Level Calibration



TIC: 0725F014.D

(58) 2-Nitropropane (T)

Manual Integration:

7.10min 219.86PPB
 response 426578

Before

Ion	Exp%	Act%
43.00	100	100
39.00	31.60	32.17
41.00	84.20	87.88
38.00	5.90	6.10

07/26/19

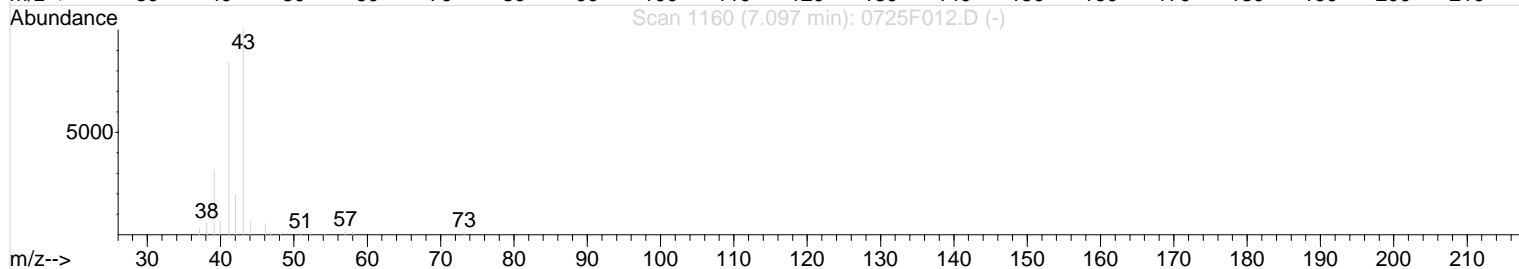
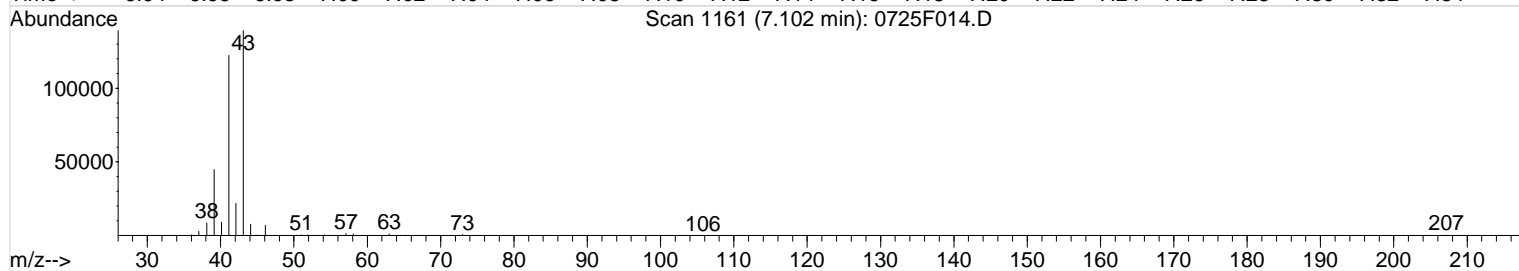
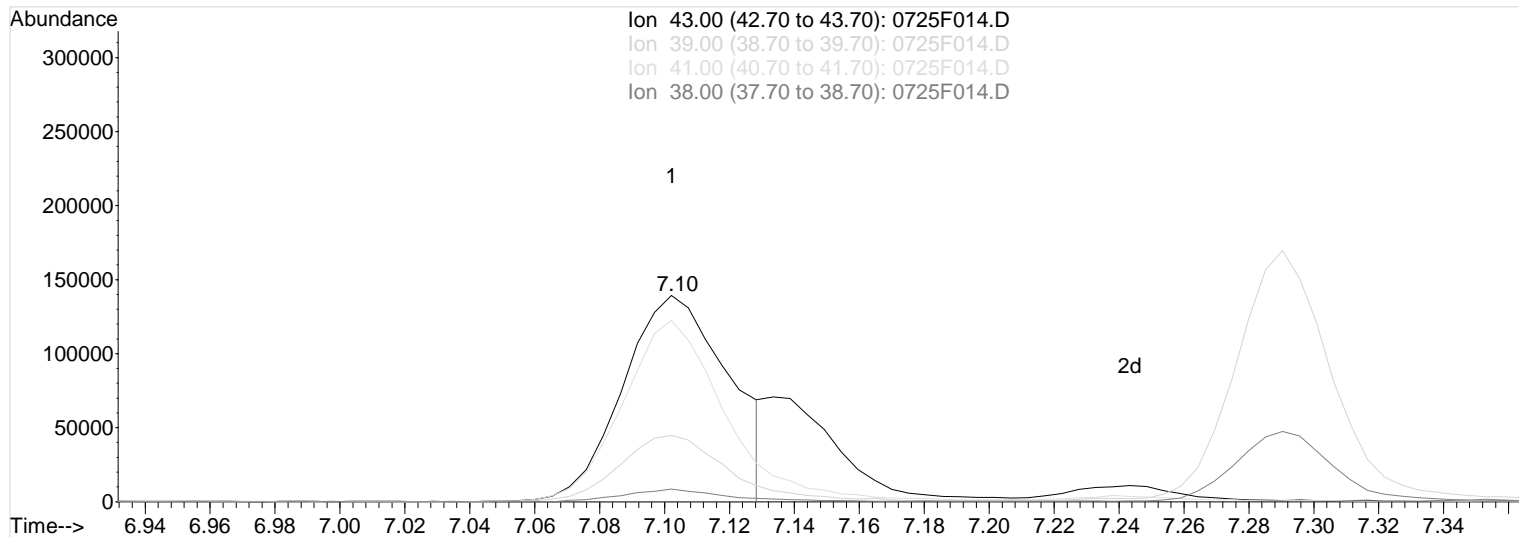
Data File : I:\MS13\DATA\072519\0725F014.D
 Acq On : 25 Jul 2019 12:57 pm
 Sample : CAL 40 PPB
 Misc :

Vial: 14
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:52 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Single Level Calibration



TIC: 0725F014.D

(58) 2-Nitropropane (T)

Manual Integration:

7.10min 162.82PPB m
 response 315908

After
 Shoulder

Ion	Exp%	Act%
43.00	100	100
39.00	31.60	32.17
41.00	84.20	87.88
38.00	5.90	6.10

07/26/19

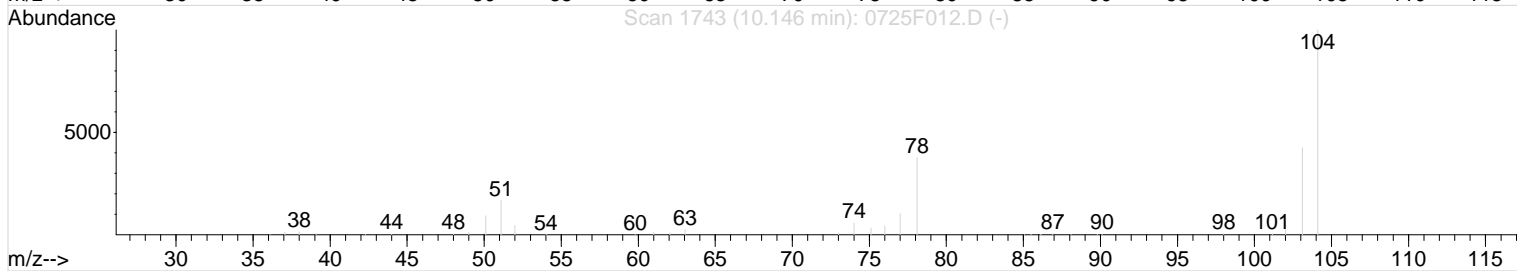
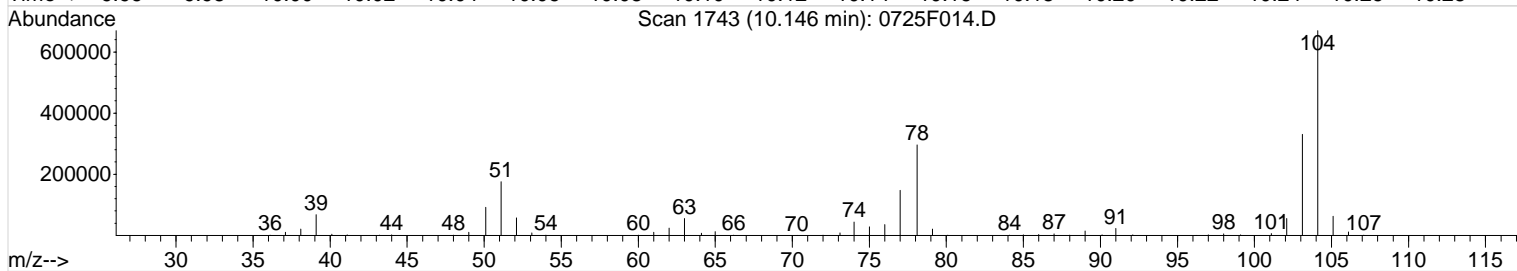
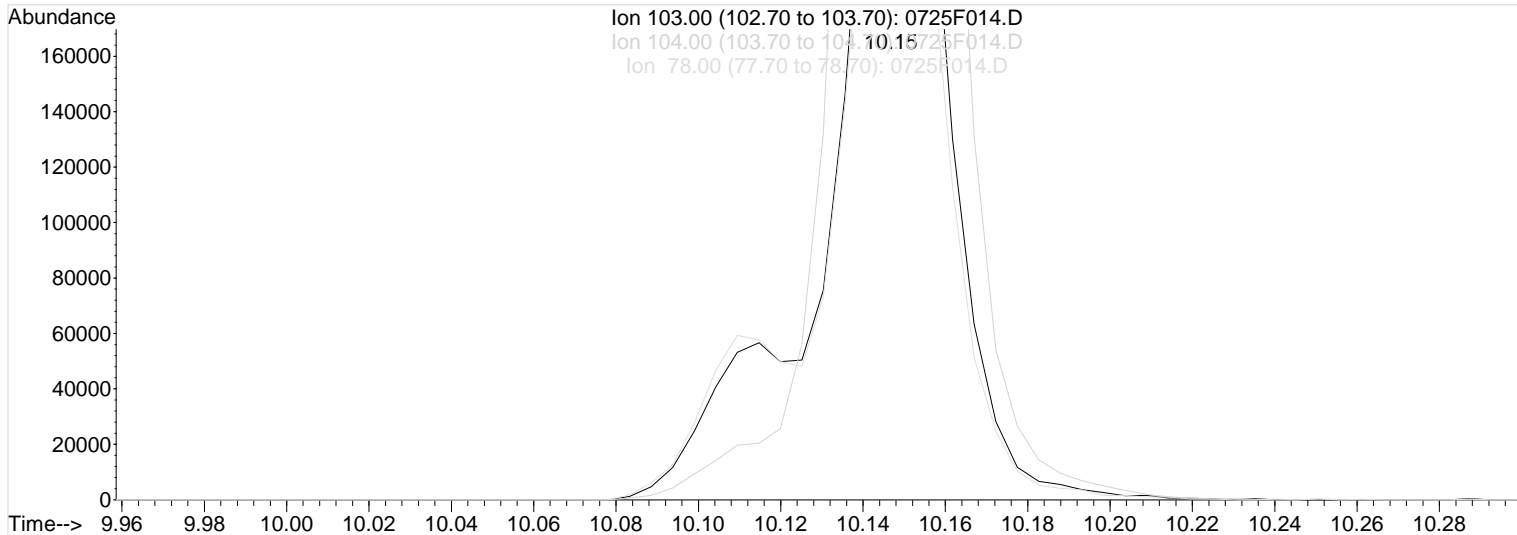
Data File : I:\MS13\DATA\072519\0725F014.D
 Acq On : 25 Jul 2019 12:57 pm
 Sample : CAL 40 PPB
 Misc :

Vial: 14
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:52 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Multiple Level Calibration



TIC: 0725F014.D

(80) Styrene (T)
 10.15min 50.25PPB
 response 596696

Manual Integration:

Before

07/26/19

Ion	Exp%	Act%
103.00	100	100
104.00	209.30	202.59
78.00	89.90	89.40
0.00	0.00	0.00

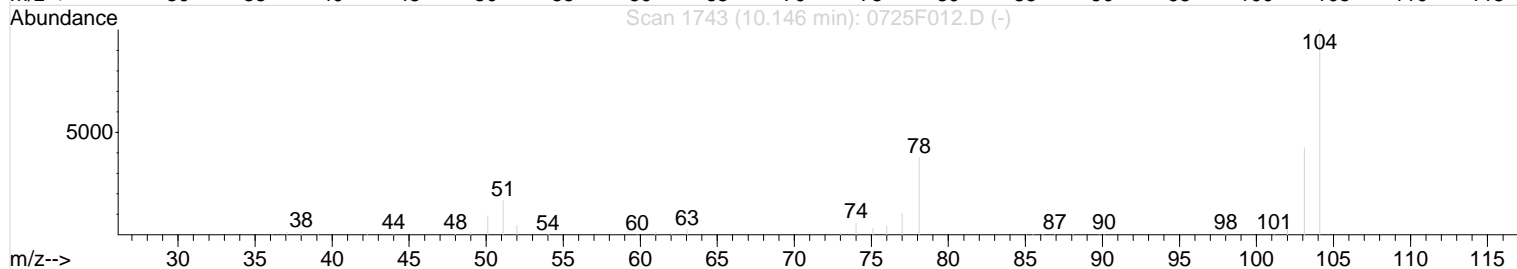
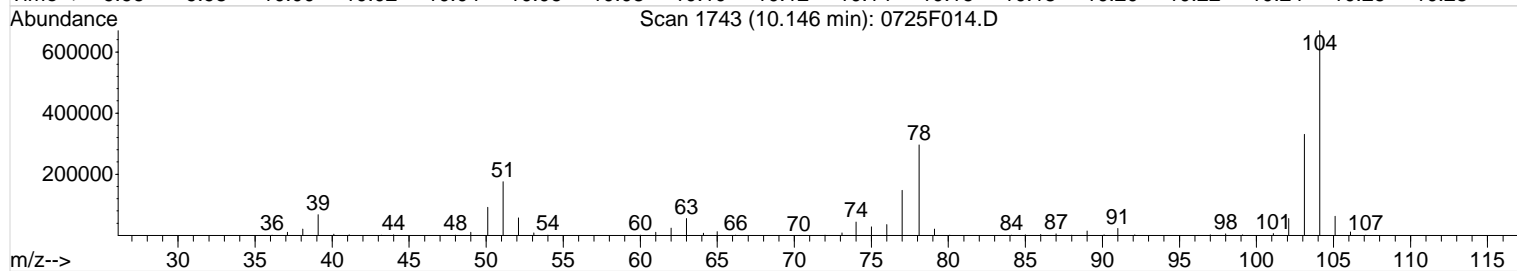
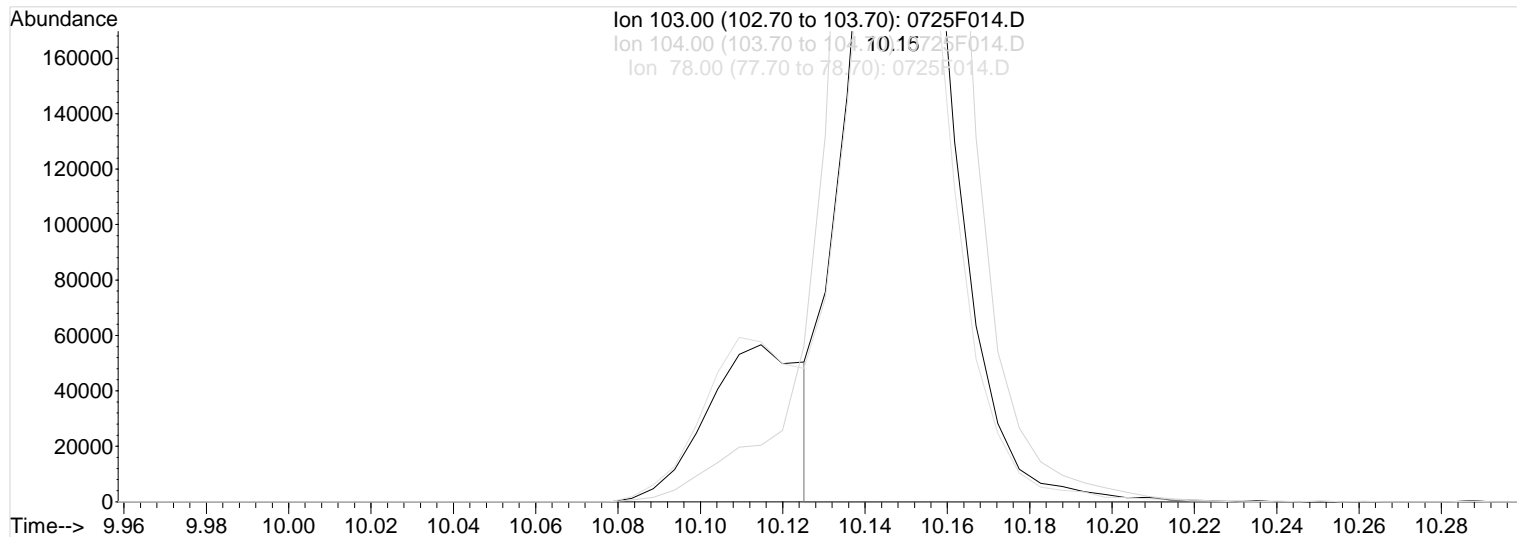
Data File : I:\MS13\DATA\072519\0725F014.D
Acq On : 25 Jul 2019 12:57 pm
Sample : CAL 40 PPB
Misc :

Vial: 14
Operator: JHJ
Inst : MS13
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Jul 26 17:53 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Multiple Level Calibration



TIC: 0725F014.D

(80) Styrene (T)

10.15min 42.49PPB m
response 504595

Manual Integration:

After
Shoulder

07/26/19

Ion	Exp%	Act%
103.00	100	100
104.00	209.30	202.59
78.00	89.90	89.40
0.00	0.00	0.00

Data File : I:\MS13\DATA\072519\0725F014.D
Acq On : 25 Jul 2019 12:57 pm
Sample : CAL 40 PPB
Misc :

Vial: 14
Operator: JHJ
Inst : MS13
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Jul 26 17:21:47 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Initial Calibration
DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	313431	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	112028	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.97	152	93767	10.00	PPB	0.00

System Monitoring Compounds

42) Dibromofluoromethane	4.58	113	108436	15.25	PPB	0.00
Spiked Amount	10.000		Recovery	=	152.50%	
47) 1,2-Dichloroethane-d4	4.99	65	121817	14.75	PPB	0.00
Spiked Amount	10.000		Recovery	=	147.50%	
62) Toluene-d8	7.56	98	444123	14.13	PPB	0.00
Spiked Amount	10.000		Recovery	=	141.30%	
84) 4-Bromofluorobenzene	10.73	95	144043	14.54	PPB	0.00
Spiked Amount	10.000		Recovery	=	145.40%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.10	85	406619	39.64	PPB	99
3) Chloromethane	1.24	50	469225	38.71	PPB	98
4) Vinyl Chloride	1.31	62	479844	39.71	PPB	100
5) Bromomethane	1.56	96	276302	39.71	PPB	97
6) Chloroethane	1.64	64	276304	39.52	PPB	96
7) Dichlorofluoromethane	1.80	67	668122	38.91	PPB	98
8) Trichlorofluoromethane	1.80	101	719430	40.76	PPB	97
9) Ethyl Ether	2.05	59	193001	41.67	PPB	97
10) Acrolein	2.23	56	704591	795.54	PPB	98
11) Trichlorotrifluoroethane	2.22	151	283268	42.41	PPB	95
12) 1,1-Dichloroethene	2.25	96	370482	41.52	PPB	96
13) Acetone	2.36	43	466713	401.62	PPB	99
14) Iodomethane	2.41	142	1599902	166.33	PPB	99
15) Carbon Disulfide	2.43	76	989765	40.78	PPB	99
16) 2-Propanol (Isopropyl Alco	2.48	45	360797	1918.12	PPB	94
17) 3-Chloro-1-propene	2.60	76	190857	40.98	PPB	97
18) Acetonitrile	2.69	40	432681	1596.19	PPB	99
19) Methyl Acetate	2.64	43	131120	39.96	PPB	98
20) Methylene Chloride	2.75	84	343068	39.13	PPB	99
21) tert-Butyl Alcohol	2.86	59	52531	189.94	PPB	89
22) Acrylonitrile	3.06	53	254555	159.64	PPB	97
23) Methyl tert-Butyl Ether	2.94	73	1411583	84.70	PPB	99
24) trans-1,2-Dichloroethene	2.95	96	375889	43.62	PPB	97
25) Hexane	3.14	57	552908	40.97	PPB	99
26) Diisopropyl Ether	3.41	45	1222542	40.89	PPB	100
27) 1,1-Dichloroethane	3.42	63	714635	41.31	PPB	97
28) Vinyl Acetate	3.47	86	106659	86.24	PPB	95
29) Chloroprene	3.47	53	2598085	174.45	PPB	99
30) tert-Butyl Ethyl Ether	3.79	59	958757	40.70	PPB	97
31) 2,2-Dichloropropane	4.00	77	625399	43.87	PPB	97
32) cis-1,2-Dichloroethene	4.04	96	409675	42.66	PPB	97
33) 2-Butanone	4.09	72	167984	412.88	PPB	94
34) Propionitrile	4.25	54	89125	157.36	PPB	95
35) Ethyl Acetate	4.12	61	64390	71.67	PPB	96
36) Methacrylonitrile	4.37	67	329405	167.15	PPB	95
37) Bromochloromethane	4.30	128	174409	42.82	PPB	95
38) Tetrahydrofuran	4.32	71	18823	41.18	PPB	# 86
39) Chloroform	4.39	83	670340	42.32	PPB	99
40) tert-Butyl Formate	4.42	59	249017	42.18	PPB	99
41) 1,1,1-Trichloroethane	4.53	97	644473	43.98	PPB	100
43) Cyclohexane	4.50	56	663453	42.82	PPB	99
44) Carbon Tetrachloride	4.67	117	539874	46.65	PPB	99
45) 1,1-Dichloropropene	4.72	75	581757	42.48	PPB	98

(#) = qualifier out of range (m) = manual integration

Data File : I:\MS13\DATA\072519\0725F014.D
Acq On : 25 Jul 2019 12:57 pm
Sample : CAL 40 PPB
Misc :

Vial: 14
Operator: JHJ
Inst : MS13
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Jul 26 17:21:47 2019

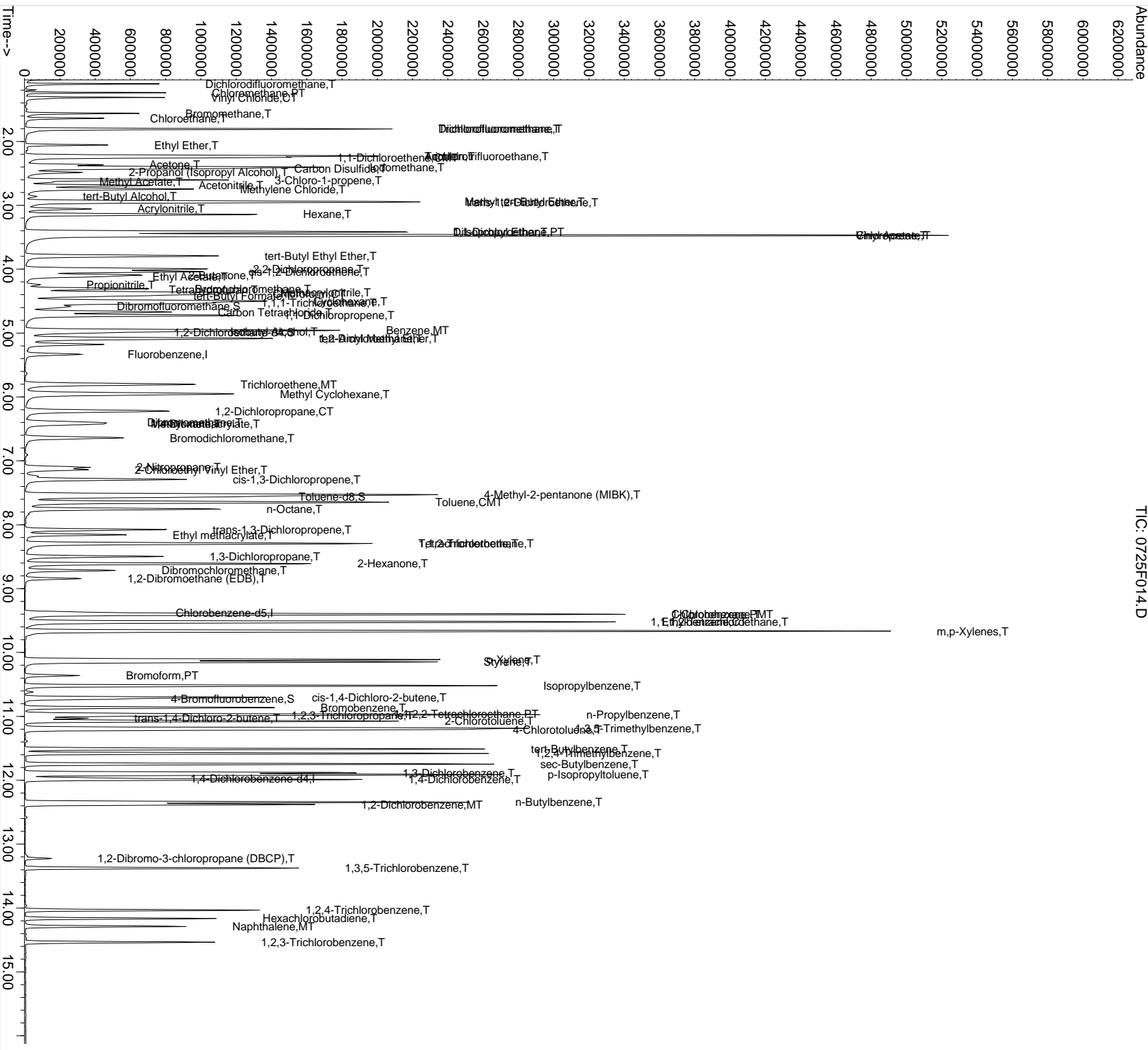
Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Initial Calibration
DataAcq Meth : 8260W5

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) Isobutyl Alcohol	4.98	43	207702	1655.71	PPB	91
48) Benzene	4.96	78	1605611	40.73	PPB	99
49) 1,2-Dichloroethane	5.09	62	463105	41.06	PPB	99
50) tert-Amyl Methyl Ether	5.08	55	196111	39.83	PPB	90
51) Trichloroethene	5.80	95	401844	42.14	PPB	97
52) Methyl Cyclohexane	5.95	83	635836	42.33	PPB	100
53) 1,2-Dichloropropane	6.22	63	402084	41.60	PPB	97
54) Dibromomethane	6.40	93	172752	40.25	PPB	96
55) Methyl methacrylate	6.42	69	137664	39.66	PPB	95
56) 1,4-Dioxane	6.42	88	40549	1450.57	PPB	83
57) Bromodichloromethane	6.64	83	456208	44.90	PPB	95
58) 2-Nitropropane	7.10	43	315908m	162.82	PPB	
59) 2-Chloroethyl Vinyl Ether	7.14	63	158031	40.38	PPB	97
60) cis-1,3-Dichloropropene	7.29	75	555949	42.27	PPB	97
61) 4-Methyl-2-pentanone (MIBK)	7.53	58	646330	403.80	PPB	96
63) Toluene	7.65	92	986061	41.17	PPB	98
65) n-Octane	7.76	85	240023	43.28	PPB	97
66) trans-1,3-Dichloropropene	8.07	75	443628	43.86	PPB	97
67) Ethyl methacrylate	8.16	69	289815	42.21	PPB	99
68) 1,1,2-Trichloroethane	8.29	83	206396	41.03	PPB	97
69) Tetrachloroethene	8.29	164	328230	44.11	PPB	94
70) 2-Hexanone	8.61	57	204034	398.34	PPB	# 83
71) 1,3-Dichloropropane	8.50	76	436079	41.33	PPB	99
72) Dibromochloromethane	8.71	129	281448	47.87	PPB	98
73) 1,2-Dibromoethane (EDB)	8.84	107	230883	44.55	PPB	98
74) 1-Chlorohexane	9.40	91	500208	43.76	PPB	94
75) Chlorobenzene	9.40	112	998789	42.98	PPB	96
76) Ethylbenzene	9.52	106	588248	43.45	PPB	99
77) 1,1,1,2-Tetrachloroethane	9.53	131	328143	44.92	PPB	95
78) m,p-Xylenes	9.66	106	1393621	86.21	PPB	97
79) o-Xylene	10.11	106	654633	43.81	PPB	94
80) Styrene	10.15	103	504595m	42.49	PPB	
81) Bromoform	10.36	173	137265	50.14	PPB	98
82) Isopropylbenzene	10.52	105	1732282	43.43	PPB	98
83) cis-1,4-Dichloro-2-butene	10.70	89	120546	190.73	PPB	98
86) 1,1,2,2-Tetrachloroethane	10.96	83	219605	38.35	PPB	97
87) trans-1,4-Dichloro-2-buten	11.03	53	70246	38.85	PPB	84
88) Bromobenzene	10.86	156	374453	39.06	PPB	98
89) n-Propylbenzene	10.97	91	1994763	39.69	PPB	99
90) 1,2,3-Trichloropropane	10.99	110	68608	38.18	PPB	95
91) 2-Chlorotoluene	11.07	91	1128397	39.89	PPB	97
92) 1,3,5-Trimethylbenzene	11.18	105	1388736	40.45	PPB	98
93) 4-Chlorotoluene	11.21	91	1317760	38.94	PPB	96
94) tert-Butylbenzene	11.51	119	1197388	39.90	PPB	98
95) 1,2,4-Trimethylbenzene	11.58	105	1377198	40.03	PPB	97
96) sec-Butylbenzene	11.75	105	1717113	40.47	PPB	98
97) p-Isopropyltoluene	11.91	119	1450960	40.90	PPB	98
98) 1,3-Dichlorobenzene	11.88	146	717646	40.94	PPB	99
99) 1,4-Dichlorobenzene	11.99	146	726090	41.72	PPB	98
100) n-Butylbenzene	12.34	91	1286039	40.95	PPB	98
101) 1,2-Dichlorobenzene	12.38	146	632312	40.60	PPB	97
102) 1,2-Dibromo-3-chloropropan	13.23	155	27645	43.03	PPB	90
103) 1,3,5-Trichlorobenzene	13.38	180	454845	41.56	PPB	98
104) 1,2,4-Trichlorobenzene	14.03	180	376327	42.51	PPB	97
105) Hexachlorobutadiene	14.16	225	190368	42.18	PPB	99
106) Naphthalene	14.29	128	653429	41.10	PPB	99
107) 1,2,3-Trichlorobenzene	14.53	180	299739	39.67	PPB	95

08/01/19
Data File : I:\MS13\DATA\072519MS13_8260W.M
Acq On : 25 Jul 2019 12:57 pm
Sample : CAL 40 PPB
Misc :
MS Integration Params: rteint.p
Quant Results File: 072519MS13_8260W.RES

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Initial Calibration



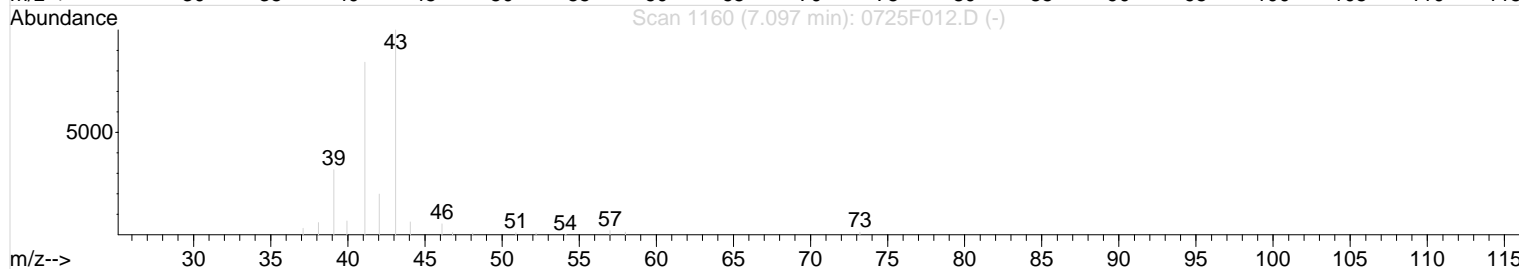
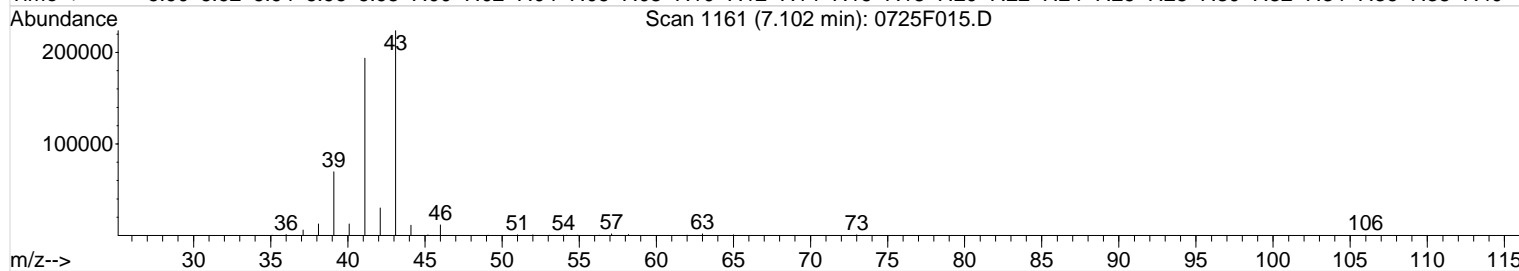
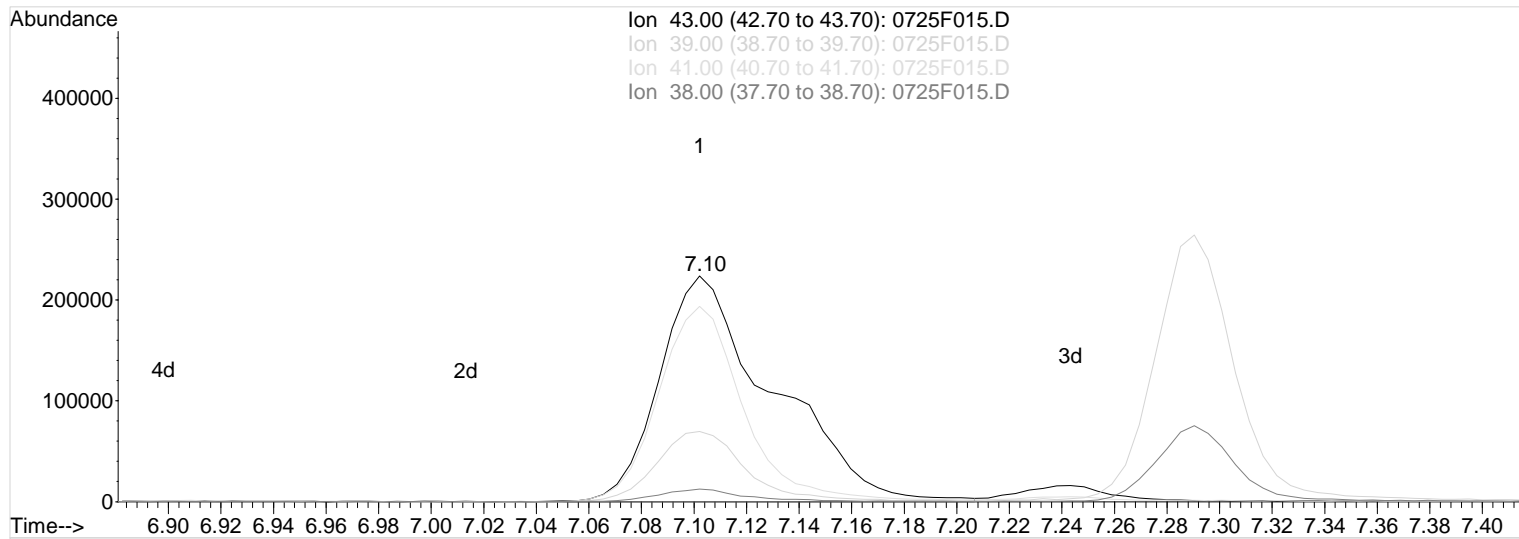
Data File : I:\MS13\DATA\072519\0725F015.D
 Acq On : 25 Jul 2019 1:24 pm
 Sample : CAL 60 PPB
 Misc :

Vial: 15
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:21 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Single Level Calibration



TIC: 0725F015.D

(58) 2-Nitropropane (T)

Manual Integration:

7.10min 323.57PPB
 response 671084

Before

Ion	Exp%	Act%
43.00	100	100
39.00	31.60	31.09
41.00	84.20	86.42
38.00	5.90	5.45

07/26/19

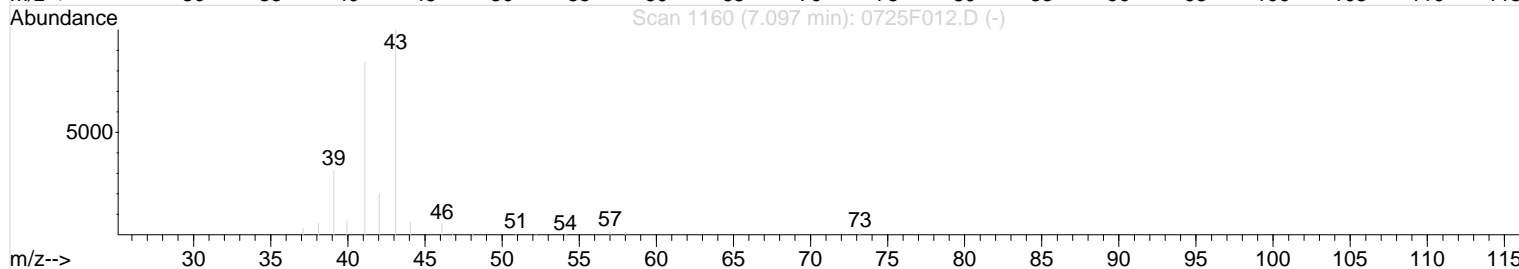
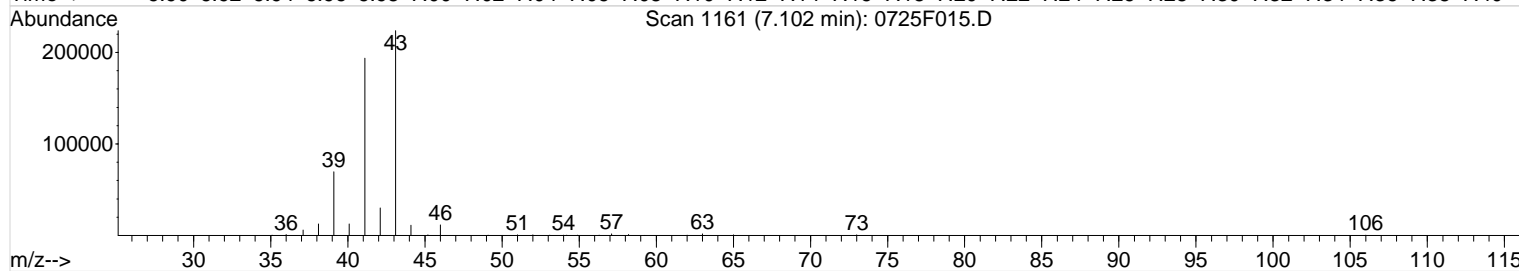
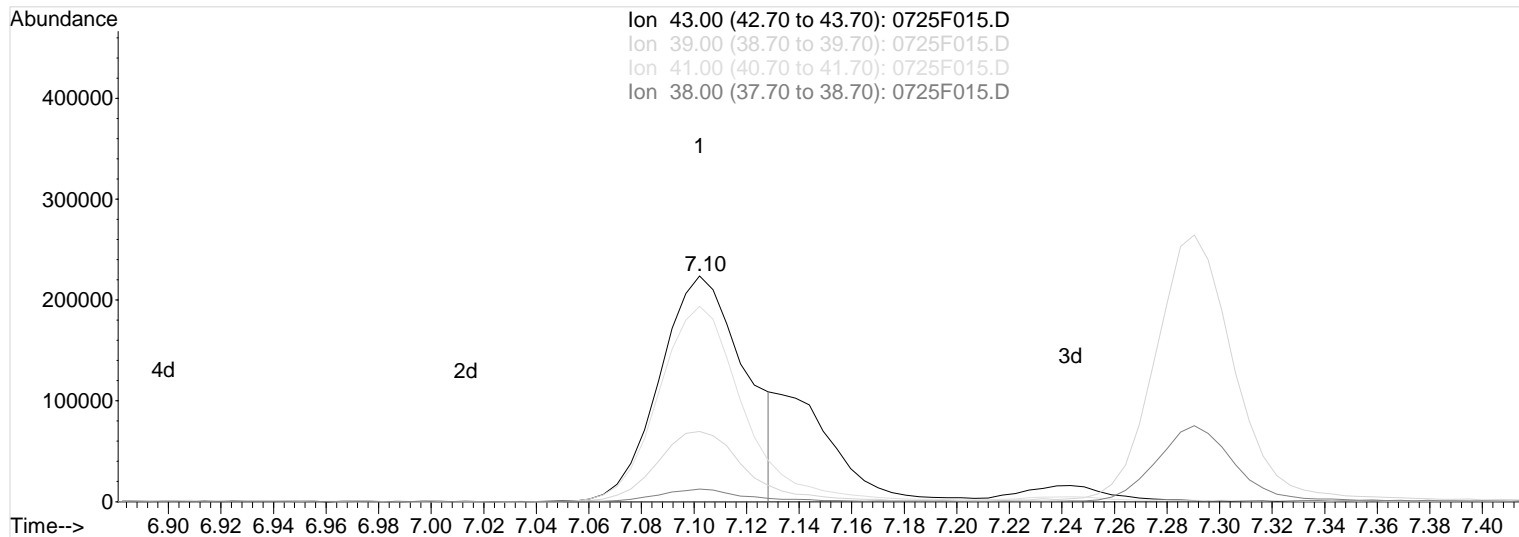
Data File : I:\MS13\DATA\072519\0725F015.D
 Acq On : 25 Jul 2019 1:24 pm
 Sample : CAL 60 PPB
 Misc :

Vial: 15
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:55 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Single Level Calibration



TIC: 0725F015.D

(58) 2-Nitropropane (T)

Manual Integration:

7.10min 243.13PPB m
 response 504257

After
 Shoulder

Ion	Exp%	Act%
43.00	100	100
39.00	31.60	31.09
41.00	84.20	86.54
38.00	5.90	5.56

07/26/19

Data File : I:\MS13\DATA\072519\0725F015.D

Acq On : 25 Jul 2019 1:24 pm

Sample : CAL 60 PPB

Misc :

Vial: 15

Operator: JHJ

Inst : MS13

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 26 17:21:49 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B

Last Update : Fri Jul 26 17:20:50 2019

Response via : Initial Calibration

DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	335047	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	120233	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.97	152	103673	10.00	PPB	0.00

System Monitoring Compounds

42) Dibromofluoromethane	4.58	113	134522	17.69	PPB	0.00
Spiked Amount	10.000		Recovery	=	176.90%	
47) 1,2-Dichloroethane-d4	4.99	65	143747	16.28	PPB	0.00
Spiked Amount	10.000		Recovery	=	162.80%	
62) Toluene-d8	7.56	98	544886	16.21	PPB	0.00
Spiked Amount	10.000		Recovery	=	162.10%	
84) 4-Bromofluorobenzene	10.73	95	173403	16.31	PPB	0.00
Spiked Amount	10.000		Recovery	=	163.10%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.10	85	633144	57.75	PPB	100
3) Chloromethane	1.24	50	726871	56.09	PPB	97
4) Vinyl Chloride	1.31	62	736036	56.98	PPB	100
5) Bromomethane	1.56	96	435155	58.51	PPB	96
6) Chloroethane	1.64	64	419021	56.07	PPB	96
7) Dichlorofluoromethane	1.80	67	1021759	55.67	PPB	99
8) Trichlorofluoromethane	1.80	101	1091071	57.82	PPB	98
9) Ethyl Ether	2.05	59	309551	62.52	PPB	99
10) Acrolein	2.23	56	1124934	1188.19	PPB	99
11) Trichlorotrifluoroethane	2.22	151	445019	62.33	PPB	97
12) 1,1-Dichloroethene	2.25	96	583498	61.18	PPB	98
13) Acetone	2.36	43	757270	609.62	PPB	100
14) Iodomethane	2.41	142	2612334	254.07	PPB	98
15) Carbon Disulfide	2.43	76	1544857	59.54	PPB	100
16) 2-Propanol (Isopropyl Alco	2.48	45	625247	3109.57	PPB	94
17) 3-Chloro-1-propene	2.60	76	308848	62.04	PPB	91
18) Acetonitrile	2.69	40	675650	2331.72	PPB	96
19) Methyl Acetate	2.64	43	208541	59.46	PPB	97
20) Methylene Chloride	2.75	84	547620	58.43	PPB	98
21) tert-Butyl Alcohol	2.86	59	89772	303.65	PPB	86
22) Acrylonitrile	3.06	53	399179	234.18	PPB	94
23) Methyl tert-Butyl Ether	2.94	73	2295673	128.86	PPB	100
24) trans-1,2-Dichloroethene	2.95	96	592890	64.36	PPB	97
25) Hexane	3.14	57	857679	59.45	PPB	98
26) Diisopropyl Ether	3.41	45	1944677	60.85	PPB	99
27) 1,1-Dichloroethane	3.42	63	1116961	60.41	PPB	99
28) Vinyl Acetate	3.47	86	170406	128.90	PPB	94
29) Chloroprene	3.47	53	4058644	254.93	PPB	98
30) tert-Butyl Ethyl Ether	3.79	59	1531247	60.82	PPB	97
31) 2,2-Dichloropropane	4.00	77	975519	64.02	PPB	95
32) cis-1,2-Dichloroethene	4.04	96	653573	63.66	PPB	99
33) 2-Butanone	4.09	72	275984	634.57	PPB	92
34) Propionitrile	4.25	54	142482	235.34	PPB	97
35) Ethyl Acetate	4.12	61	95978	99.94	PPB	96
36) Methacrylonitrile	4.37	67	527358	250.33	PPB	96
37) Bromochloromethane	4.30	128	278744	64.02	PPB	93
38) Tetrahydrofuran	4.31	71	29230	59.83	PPB	94
39) Chloroform	4.39	83	1058426	62.51	PPB	97
40) tert-Butyl Formate	4.42	59	405597	64.26	PPB	97
41) 1,1,1-Trichloroethane	4.53	97	999607	63.81	PPB	99
43) Cyclohexane	4.50	56	1027583	62.05	PPB	98
44) Carbon Tetrachloride	4.67	117	856553	69.23	PPB	99
45) 1,1-Dichloropropene	4.72	75	899147	61.43	PPB	99

(#) = qualifier out of range (m) = manual integration

0725F015.D 072519MS13_8260W.M

Fri Jul 26 17:55:58 2019

Data File : I:\MS13\DATA\072519\0725F015.D
Acq On : 25 Jul 2019 1:24 pm
Sample : CAL 60 PPB
Misc :

Vial: 15
Operator: JHJ
Inst : MS13
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Jul 26 17:21:49 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Initial Calibration
DataAcq Meth : 8260W5

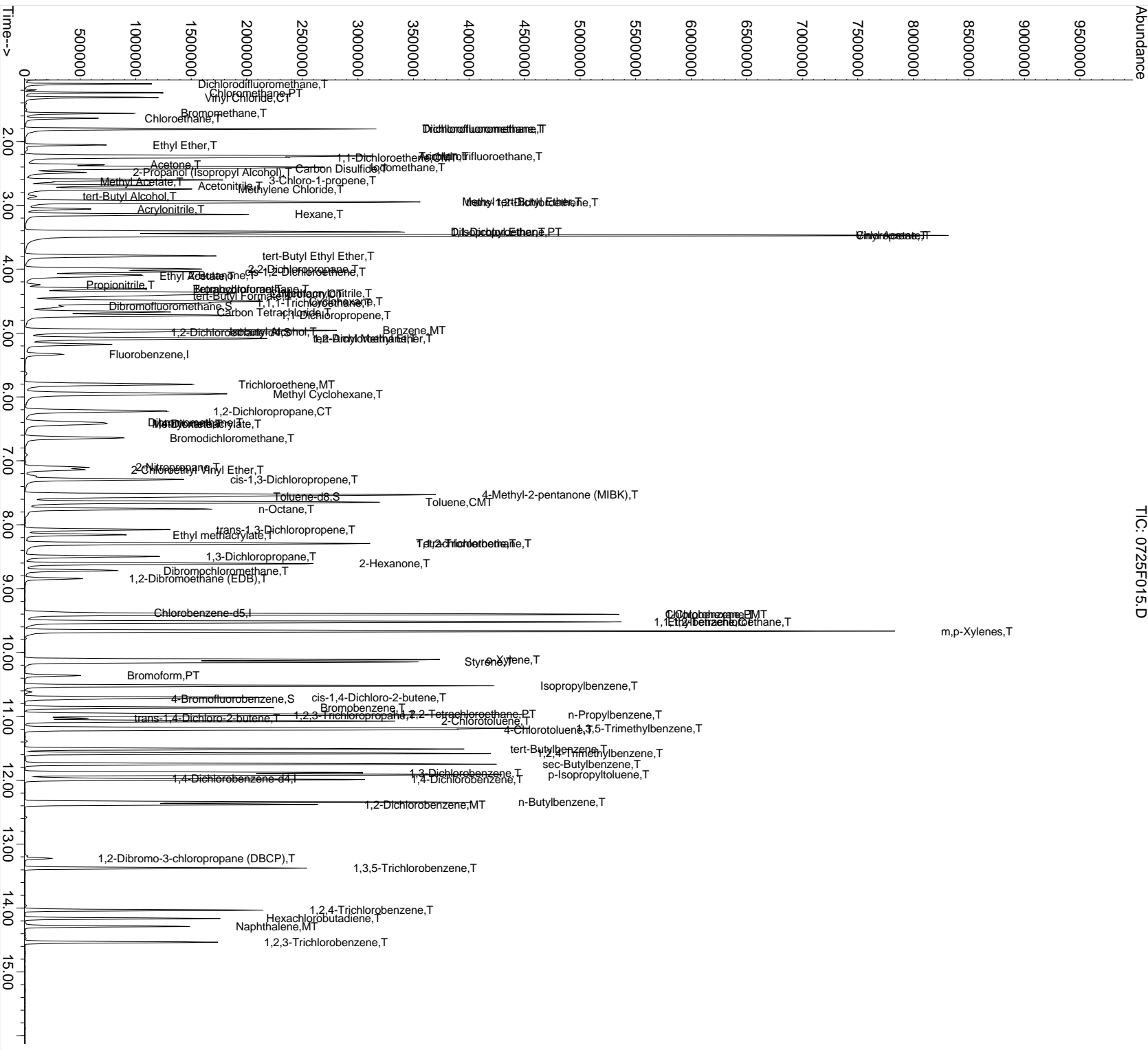
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) Isobutyl Alcohol	4.98	43	351050	2617.87	PPB	93
48) Benzene	4.96	78	2502948	59.40	PPB	99
49) 1,2-Dichloroethane	5.09	62	724170	60.06	PPB	99
50) tert-Amyl Methyl Ether	5.08	55	301708	57.32	PPB	98
51) Trichloroethene	5.80	95	629956	61.81	PPB	97
52) Methyl Cyclohexane	5.95	83	966755	60.20	PPB	99
53) 1,2-Dichloropropane	6.22	63	617810	59.79	PPB	97
54) Dibromomethane	6.40	93	274575	59.84	PPB	94
55) Methyl methacrylate	6.42	69	219260	59.10	PPB	96
56) 1,4-Dioxane	6.42	88	70332	2353.67	PPB	85
57) Bromodichloromethane	6.64	83	726927	66.93	PPB	95
58) 2-Nitropropane	7.10	43	504257m	243.13	PPB	
59) 2-Chloroethyl Vinyl Ether	7.14	63	249545	59.64	PPB	95
60) cis-1,3-Dichloropropene	7.29	75	888549	63.20	PPB	95
61) 4-Methyl-2-pentanone (MIBK)	7.53	58	1003859	586.70	PPB	96
63) Toluene	7.65	92	1543403	60.29	PPB	100
65) n-Octane	7.76	85	365529	61.41	PPB	98
66) trans-1,3-Dichloropropene	8.07	75	720239	66.35	PPB	98
67) Ethyl methacrylate	8.16	69	454701	61.70	PPB	99
68) 1,1,2-Trichloroethane	8.29	83	328035	60.76	PPB	98
69) Tetrachloroethene	8.29	164	506616	63.43	PPB	99
70) 2-Hexanone	8.61	57	321312	584.49	PPB #	84
71) 1,3-Dichloropropane	8.50	76	688417	60.80	PPB	99
72) Dibromochloromethane	8.72	129	458700	72.69	PPB	97
73) 1,2-Dibromoethane (EDB)	8.84	107	361545	65.00	PPB	96
74) 1-Chlorohexane	9.40	91	774022	63.09	PPB	92
75) Chlorobenzene	9.40	112	1560823	62.58	PPB	97
76) Ethylbenzene	9.52	106	911460	62.73	PPB	96
77) 1,1,1,2-Tetrachloroethane	9.53	131	532915	67.97	PPB	95
78) m,p-Xylenes	9.66	106	2211069	127.45	PPB	98
79) o-Xylene	10.11	106	1024983	63.92	PPB	99
80) Styrene	10.15	103	830704	65.18	PPB	97
81) Bromoform	10.36	173	233769	79.56	PPB	97
82) Isopropylbenzene	10.52	105	2721626	63.58	PPB	97
83) cis-1,4-Dichloro-2-butene	10.71	89	200070	294.95	PPB	97
86) 1,1,2,2-Tetrachloroethane	10.96	83	348124	54.99	PPB	97
87) trans-1,4-Dichloro-2-buten	11.03	53	113311	56.68	PPB	82
88) Bromobenzene	10.86	156	617161	58.22	PPB	94
89) n-Propylbenzene	10.97	91	3136357	56.45	PPB	97
90) 1,2,3-Trichloropropane	10.99	110	107728	54.22	PPB	90
91) 2-Chlorotoluene	11.07	91	1791400	57.28	PPB	97
92) 1,3,5-Trimethylbenzene	11.18	105	2212710	58.30	PPB	98
93) 4-Chlorotoluene	11.21	91	2108873	56.36	PPB	95
94) tert-Butylbenzene	11.51	119	1900207	57.26	PPB	98
95) 1,2,4-Trimethylbenzene	11.58	105	2200271	57.84	PPB	97
96) sec-Butylbenzene	11.75	105	2720625	58.00	PPB	99
97) p-Isopropyltoluene	11.91	119	2308950	58.86	PPB	97
98) 1,3-Dichlorobenzene	11.88	146	1165787	60.15	PPB	98
99) 1,4-Dichlorobenzene	11.99	146	1170933	60.86	PPB	98
100) n-Butylbenzene	12.34	91	2028998	58.44	PPB	98
101) 1,2-Dichlorobenzene	12.38	146	1026800	59.63	PPB	96
102) 1,2-Dibromo-3-chloropropan	13.23	155	45600	64.19	PPB	94
103) 1,3,5-Trichlorobenzene	13.38	180	747754	61.80	PPB	98
104) 1,2,4-Trichlorobenzene	14.03	180	615580	62.89	PPB	98
105) Hexachlorobutadiene	14.16	225	307422	61.60	PPB	97
106) Naphthalene	14.29	128	1054372	59.98	PPB	99
107) 1,2,3-Trichlorobenzene	14.53	180	499840	59.83	PPB	99

Data File : I:\MS13\DATA\072519MS13_8260W.D
Acq On : 25 Jul 2019 1:24 pm
Sample : CAL 60 PPB
Misc :
SMS Integration Params: rteint.p
Quant Time: Jul 26 17:55 2019

Vial: 15
Operator: JHT
Inst: MS13
Multiplr: 1.00

Quant Results File: 072519MS13_8260W.RES

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Initial Calibration



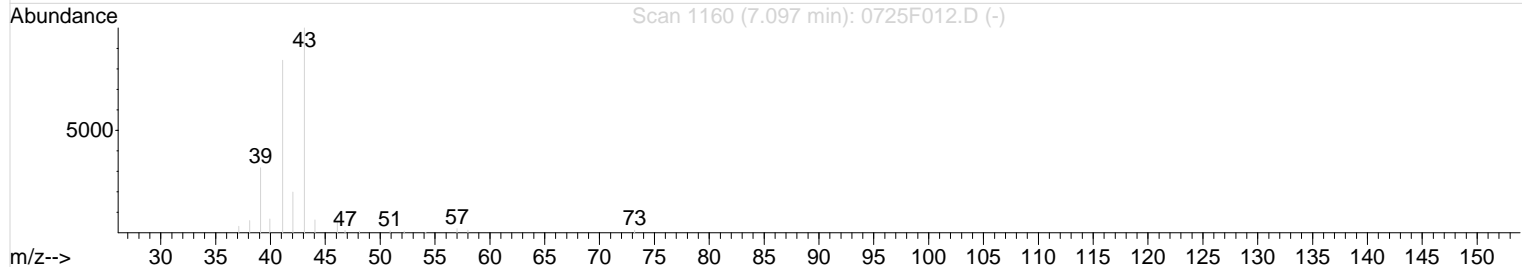
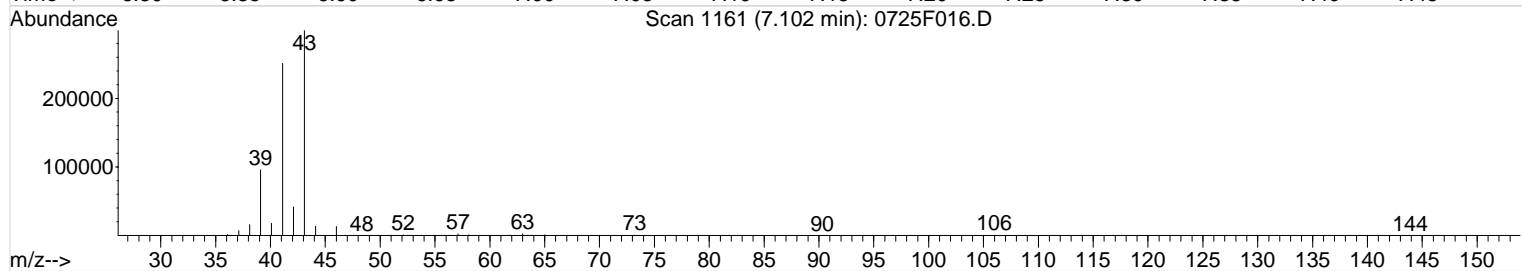
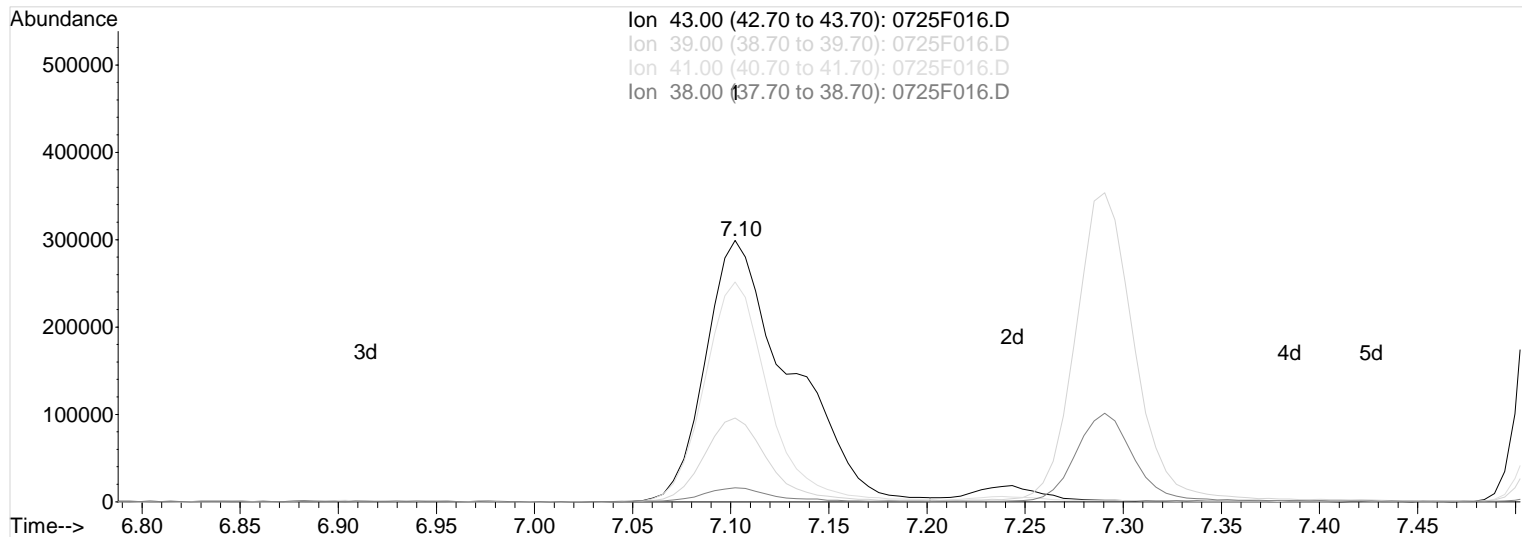
Data File : I:\MS13\DATA\072519\0725F016.D
 Acq On : 25 Jul 2019 1:50 pm
 Sample : CAL 80 PPB
 Misc :

Vial: 16
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:21 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Single Level Calibration



TIC: 0725F016.D

(58) 2-Nitropropane (T)

Manual Integration:

7.10min 418.95PPB

Before

response 898395

07/26/19

Ion	Exp%	Act%
43.00	100	100
39.00	31.60	32.07
41.00	84.20	83.97
38.00	5.90	5.18

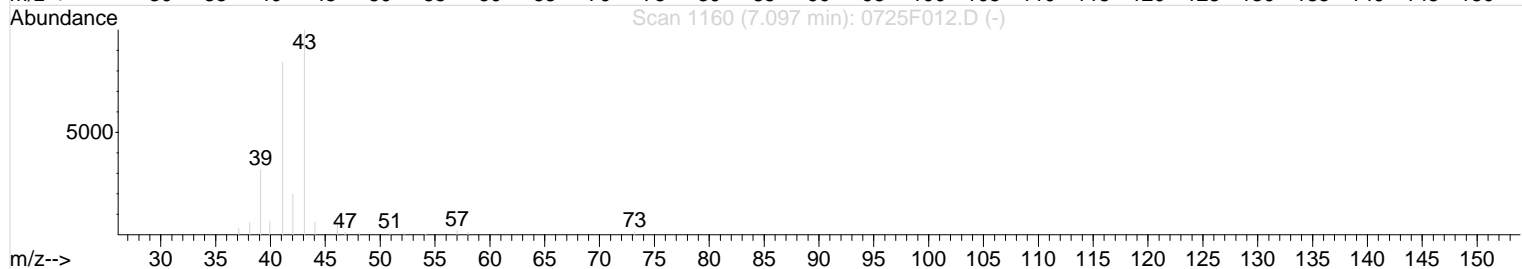
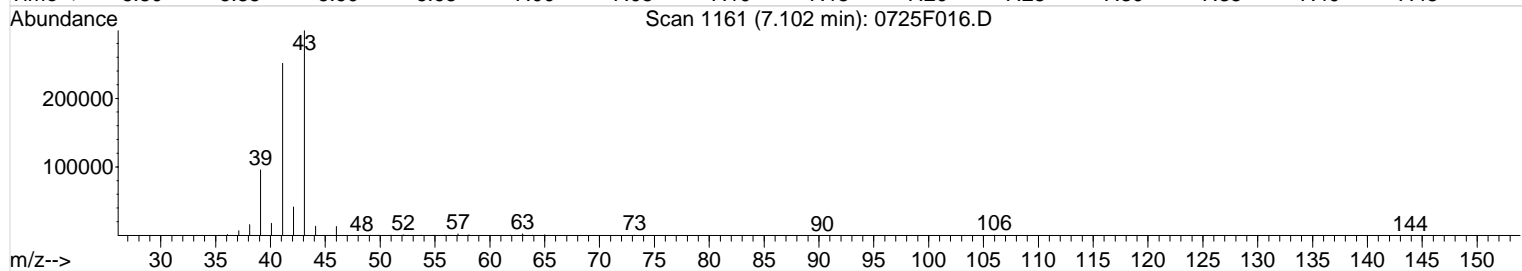
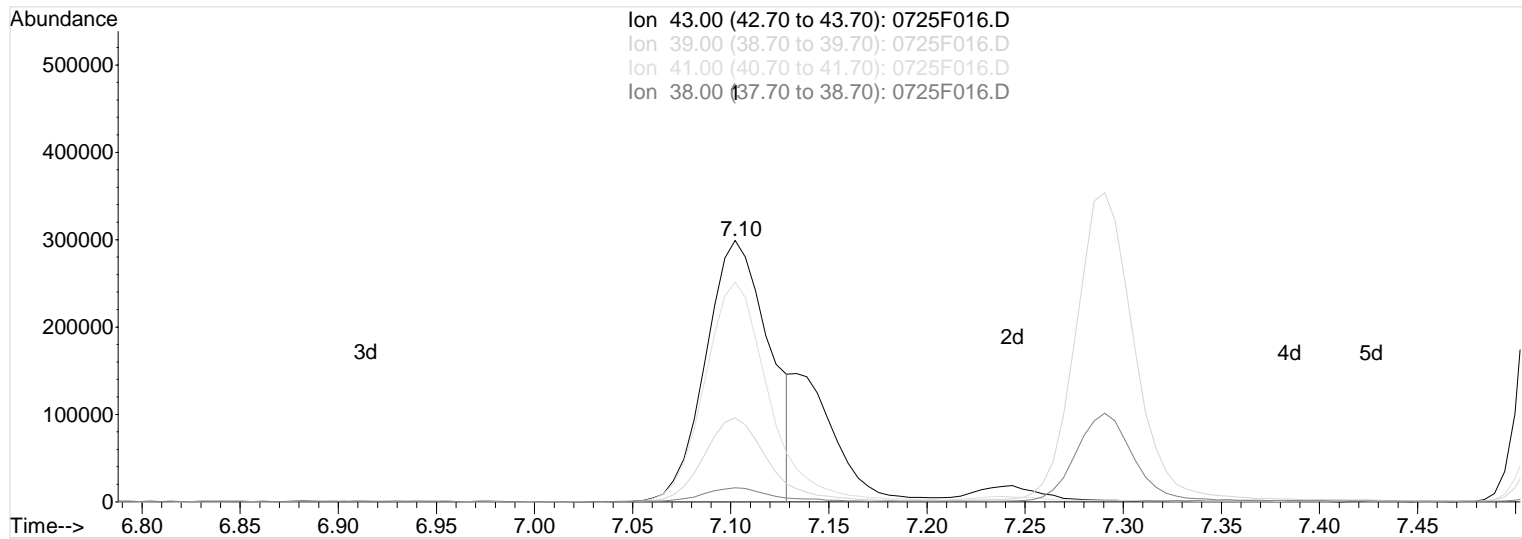
Data File : I:\MS13\DATA\072519\0725F016.D
 Acq On : 25 Jul 2019 1:50 pm
 Sample : CAL 80 PPB
 Misc :

Vial: 16
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:56 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Single Level Calibration



TIC: 0725F016.D

(58) 2-Nitropropane (T)

Manual Integration:

7.10min 315.44PPB m
 response 676432

After
 Shoulder

Ion	Exp%	Act%
43.00	100	100
39.00	31.60	32.07
41.00	84.20	84.08
38.00	5.90	5.29

07/26/19

Data File : I:\MS13\DATA\072519\0725F016.D

Vial: 16

Acq On : 25 Jul 2019 1:50 pm

Operator: JHJ

Sample : CAL 80 PPB

Inst : MS13

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 26 17:21:50 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B

Last Update : Fri Jul 26 17:20:50 2019

Response via : Initial Calibration

DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	346416	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	124240	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.97	152	104565	10.00	PPB	0.00

System Monitoring Compounds

42) Dibromofluoromethane	4.58	113	169687	21.59	PPB	0.00
Spiked Amount	10.000		Recovery	=	215.90%	
47) 1,2-Dichloroethane-d4	4.99	65	180857	19.81	PPB	0.00
Spiked Amount	10.000		Recovery	=	198.10%	
62) Toluene-d8	7.56	98	697760	20.08	PPB	0.00
Spiked Amount	10.000		Recovery	=	200.80%	
84) 4-Bromofluorobenzene	10.73	95	213812	19.47	PPB	0.00
Spiked Amount	10.000		Recovery	=	194.70%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.10	85	903674	79.71	PPB	99
3) Chloromethane	1.24	50	1017637	75.95	PPB	98
4) Vinyl Chloride	1.31	62	1027024	76.89	PPB	99
5) Bromomethane	1.56	96	596842	77.62	PPB	95
6) Chloroethane	1.64	64	578406	74.86	PPB	96
7) Dichlorofluoromethane	1.80	67	1426204	75.15	PPB	99
8) Trichlorofluoromethane	1.80	101	1542723	79.08	PPB	97
9) Ethyl Ether	2.06	59	422881	82.61	PPB	98
10) Acrolein	2.23	56	1506770	1539.27	PPB	98
11) Trichlorotrifluoroethane	2.22	151	637462	86.35	PPB	96
12) 1,1-Dichloroethene	2.25	96	829987	84.17	PPB	97
13) Acetone	2.36	43	1016879	791.74	PPB	100
14) Iodomethane	2.41	142	3763162	353.98	PPB	97
15) Carbon Disulfide	2.43	76	2147006	80.03	PPB	100
16) 2-Propanol (Isopropyl Alco	2.48	45	848858	4083.12	PPB	94
17) 3-Chloro-1-propene	2.60	76	431974	83.92	PPB	92
18) Acetonitrile	2.69	40	926324	3091.89	PPB	99
19) Methyl Acetate	2.64	43	285360	78.69	PPB	99
20) Methylene Chloride	2.75	84	745307	76.92	PPB	96
21) tert-Butyl Alcohol	2.87	59	119229	390.06	PPB	85
22) Acrylonitrile	3.06	53	541522	307.26	PPB	96
23) Methyl tert-Butyl Ether	2.94	73	3126715	169.75	PPB	99
24) trans-1,2-Dichloroethene	2.95	96	832508	87.41	PPB	93
25) Hexane	3.14	57	1161126	77.84	PPB	96
26) Diisopropyl Ether	3.41	45	2629739	79.59	PPB	100
27) 1,1-Dichloroethane	3.42	63	1529928	80.02	PPB	98
28) Vinyl Acetate	3.47	86	239618	175.30	PPB	97
29) Chloroprene	3.47	53	5624663	341.70	PPB	96
30) tert-Butyl Ethyl Ether	3.79	59	2054266	78.91	PPB	97
31) 2,2-Dichloropropane	4.00	77	1323412	84.00	PPB	98
32) cis-1,2-Dichloroethene	4.04	96	888870	83.74	PPB	100
33) 2-Butanone	4.09	72	368512	819.51	PPB	97
34) Propionitrile	4.25	54	191233	305.49	PPB	95
35) Ethyl Acetate	4.12	61	135467	136.43	PPB	97
36) Methacrylonitrile	4.37	67	692340	317.85	PPB	94
37) Bromochloromethane	4.30	128	375900	83.50	PPB	96
38) Tetrahydrofuran	4.31	71	39981	79.14	PPB	92
39) Chloroform	4.39	83	1441804	82.35	PPB	97
40) tert-Butyl Formate	4.42	59	545605	83.61	PPB	99
41) 1,1,1-Trichloroethane	4.53	97	1381798	85.31	PPB	99
43) Cyclohexane	4.50	56	1401409	81.84	PPB	98
44) Carbon Tetrachloride	4.67	117	1187377	92.82	PPB	99
45) 1,1-Dichloropropene	4.72	75	1229504	81.24	PPB	99

(#) = qualifier out of range (m) = manual integration

0725F016.D 072519MS13_8260W.M

Fri Jul 26 17:57:28 2019

Data File : I:\MS13\DATA\072519\0725F016.D
Acq On : 25 Jul 2019 1:50 pm
Sample : CAL 80 PPB
Misc :

Vial: 16
Operator: JHJ
Inst : MS13
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Jul 26 17:21:50 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Initial Calibration
DataAcq Meth : 8260W5

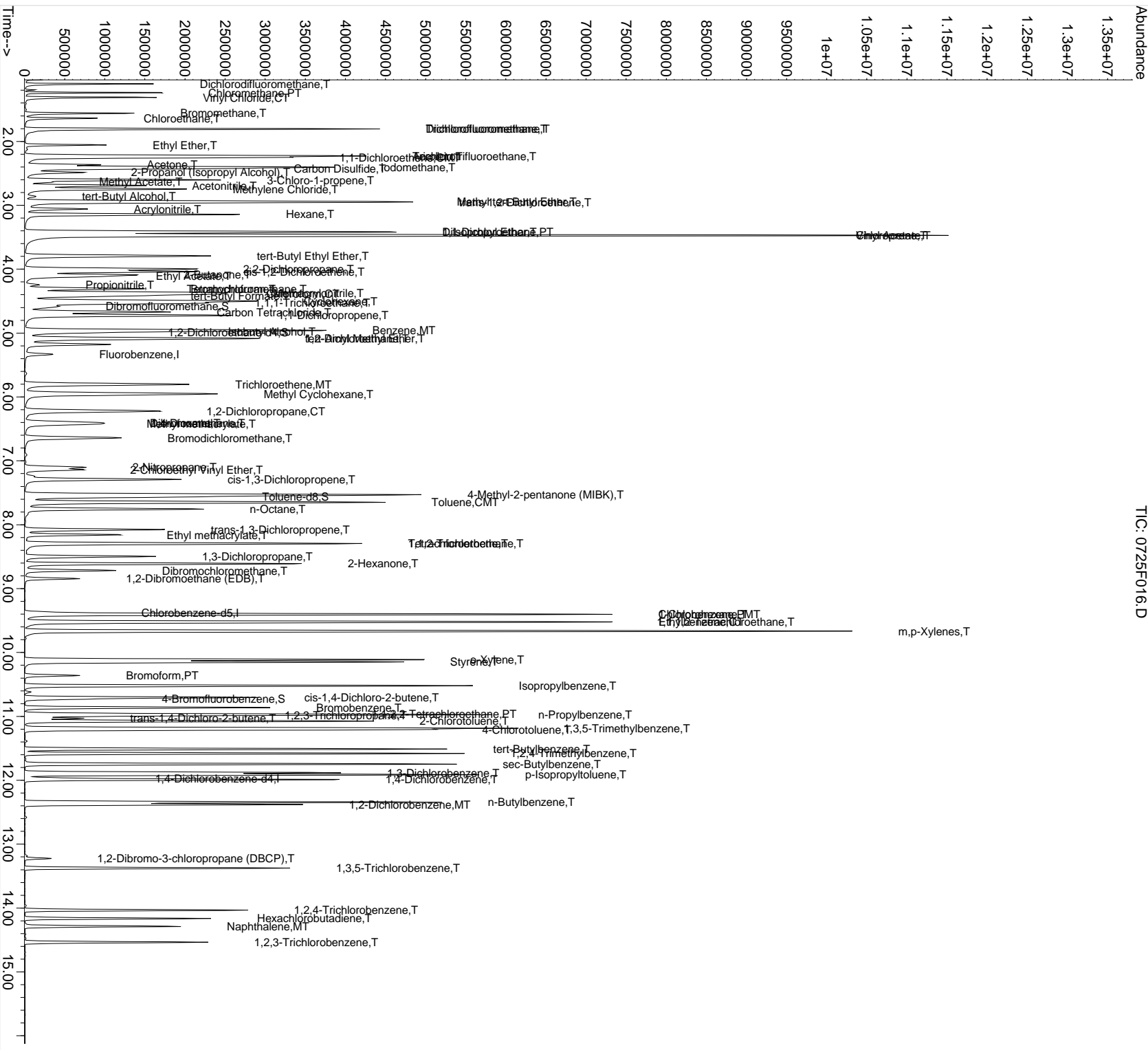
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) Isobutyl Alcohol	4.98	43	482094	3477.11	PPB	91
48) Benzene	4.96	78	3411961	78.32	PPB	99
49) 1,2-Dichloroethane	5.09	62	964364	77.35	PPB	99
50) tert-Amyl Methyl Ether	5.08	55	397945	73.12	PPB	94
51) Trichloroethene	5.81	95	857842	81.40	PPB	95
52) Methyl Cyclohexane	5.95	83	1286857	77.51	PPB	98
53) 1,2-Dichloropropane	6.22	63	839345	78.56	PPB	96
54) Dibromomethane	6.40	93	369620	77.91	PPB	95
55) Methyl methacrylate	6.43	69	292298	76.20	PPB	96
56) 1,4-Dioxane	6.42	88	100447	3251.16	PPB	90
57) Bromodichloromethane	6.64	83	977645	87.05	PPB	96
58) 2-Nitropropane	7.10	43	676432m	315.44	PPB	
59) 2-Chloroethyl Vinyl Ether	7.14	63	329538	76.18	PPB	97
60) cis-1,3-Dichloropropene	7.29	75	1197816	82.40	PPB	96
61) 4-Methyl-2-pentanone (MIBK)	7.53	58	1340790	757.90	PPB	98
63) Toluene	7.65	92	2095621	79.17	PPB	97
65) n-Octane	7.76	85	477568	77.65	PPB	98
66) trans-1,3-Dichloropropene	8.08	75	959299	85.52	PPB	98
67) Ethyl methacrylate	8.16	69	606533	79.65	PPB	98
68) 1,1,2-Trichloroethane	8.29	83	433341	77.67	PPB	99
69) Tetrachloroethene	8.29	164	701303	84.98	PPB	99
70) 2-Hexanone	8.61	57	423854	746.16	PPB	# 85
71) 1,3-Dichloropropane	8.50	76	915694	78.26	PPB	99
72) Dibromochloromethane	8.72	129	624776	95.81	PPB	97
73) 1,2-Dibromoethane (EDB)	8.84	107	479673	83.45	PPB	97
74) 1-Chlorohexane	9.40	91	1045487	82.46	PPB	88
75) Chlorobenzene	9.40	112	2125702	82.49	PPB	95
76) Ethylbenzene	9.52	106	1242126	82.72	PPB	98
77) 1,1,1,2-Tetrachloroethane	9.53	131	734461	90.65	PPB	96
78) m,p-Xylenes	9.66	106	2965335	165.41	PPB	99
79) o-Xylene	10.11	106	1370922	82.74	PPB	98
80) Styrene	10.15	103	1067160	81.03	PPB	99
81) Bromoform	10.36	173	324036	106.72	PPB	99
82) Isopropylbenzene	10.52	105	3620158	81.84	PPB	98
83) cis-1,4-Dichloro-2-butene	10.71	89	271670	387.59	PPB	96
86) 1,1,2,2-Tetrachloroethane	10.96	83	456934	71.56	PPB	97
87) trans-1,4-Dichloro-2-buten	11.03	53	136426	67.66	PPB	84
88) Bromobenzene	10.86	156	825995	77.26	PPB	93
89) n-Propylbenzene	10.97	91	4124309	73.59	PPB	98
90) 1,2,3-Trichloropropane	10.99	110	139273	69.50	PPB	89
91) 2-Chlorotoluene	11.07	91	2334750	74.02	PPB	96
92) 1,3,5-Trimethylbenzene	11.19	105	2887589	75.43	PPB	100
93) 4-Chlorotoluene	11.21	91	2733927	72.44	PPB	95
94) tert-Butylbenzene	11.51	119	2487436	74.32	PPB	99
95) 1,2,4-Trimethylbenzene	11.58	105	2854048	74.38	PPB	97
96) sec-Butylbenzene	11.75	105	3533139	74.68	PPB	99
97) p-Isopropyltoluene	11.91	119	3016193	76.24	PPB	97
98) 1,3-Dichlorobenzene	11.88	146	1526392	78.08	PPB	98
99) 1,4-Dichlorobenzene	11.99	146	1528358	78.75	PPB	97
100) n-Butylbenzene	12.34	91	2646085	75.56	PPB	99
101) 1,2-Dichlorobenzene	12.38	146	1334935	76.86	PPB	97
102) 1,2-Dibromo-3-chloropropan	13.23	155	64105	89.47	PPB	94
103) 1,3,5-Trichlorobenzene	13.37	180	990182	81.14	PPB	96
104) 1,2,4-Trichlorobenzene	14.03	180	821884	83.25	PPB	97
105) Hexachlorobutadiene	14.16	225	424694	84.37	PPB	99
106) Naphthalene	14.29	128	1403646	79.17	PPB	98
107) 1,2,3-Trichlorobenzene	14.53	180	668006	79.27	PPB	99

08/01/19
Data File : I:\MS13\DATA\072519\0725F016.D
Acq On : 25 Jul 2019 1:50 pm
Sample : CAL 80 PPB
Misc :
MS Integration Params: rteint.p
Quant Time: Jul 26 17:56 2019

Vial: 16
Operator: JHT
Inst: MS13
Multiplr: 1.00

Quant Results File: 072519MS13_8260W.RES

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Initial Calibration



Data File : I:\MS13\DATA\072519\0725F018.D

Vial: 18

Acq On : 25 Jul 2019 2:43 pm

Operator: JHJ

Sample : IB

Inst : MS13

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 26 12:54:18 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B

Last Update : Thu Jul 25 17:58:23 2019

Response via : Initial Calibration

DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	319970	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	115973	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.97	152	86585	10.00	PPB	0.00

System Monitoring Compounds

42) Dibromofluoromethane	4.58	113	65493	9.03	PPB	0.00
Spiked Amount	10.000		Recovery	=	90.30%	
47) 1,2-Dichloroethane-d4	4.99	65	72079	8.72	PPB	0.00
Spiked Amount	10.000		Recovery	=	87.20%	
62) Toluene-d8	7.56	98	320904	10.34	PPB	0.00
Spiked Amount	10.000		Recovery	=	103.40%	
84) 4-Bromofluorobenzene	10.73	95	89141	9.21	PPB	0.00
Spiked Amount	10.000		Recovery	=	92.10%	

Target Compounds

						Qvalue
3) Chloromethane	1.23	50	1287	0.10	PPB	92
5) Bromomethane	1.57	96	1571	0.22	PPB	# 68
14) Iodomethane	2.40	142	6437	0.67	PPB	85
15) Carbon Disulfide	2.43	76	6819	0.28	PPB	89
16) 2-Propanol (Isopropyl Alco	2.48	45	8458	43.30	PPB	# 22
17) 3-Chloro-1-propene	2.43	76	6819	0.27	PPB	88
24) trans-1,2-Dichloroethene	2.94	96	675	0.08	PPB	# 34
35) Ethyl Acetate	4.12	61	2023	Below Cal		85
46) Isobutyl Alcohol	4.98	43	1709	12.57	PPB	# 79
56) 1,4-Dioxane	6.43	88	4397	158.33	PPB	99
65) n-Octane	7.75	85	780	0.14	PPB	90
75) Chlorobenzene	9.39	112	683	0.03	PPB	# 44
78) m,p-Xylenes	9.66	106	742	0.05	PPB	# 53
82) Isopropylbenzene	10.52	105	1186	0.03	PPB	58
89) n-Propylbenzene	10.97	91	1996	0.05	PPB	87
91) 2-Chlorotoluene	11.07	91	847	0.03	PPB	# 47
92) 1,3,5-Trimethylbenzene	11.18	105	1038	0.03	PPB	88
93) 4-Chlorotoluene	11.20	91	1272	0.04	PPB	82
94) tert-Butylbenzene	11.51	119	1187	0.05	PPB	87
95) 1,2,4-Trimethylbenzene	11.58	105	1306	0.04	PPB	# 39
96) sec-Butylbenzene	11.74	105	1923	0.05	PPB	98
97) p-Isopropyltoluene	11.91	119	1733	0.06	PPB	95
99) 1,4-Dichlorobenzene	11.98	146	1367	0.08	PPB	91
100) n-Butylbenzene	12.34	91	2136	0.08	PPB	90
101) 1,2-Dichlorobenzene	12.38	146	1083	0.08	PPB	# 51
103) 1,3,5-Trichlorobenzene	13.37	180	1774	0.18	PPB	89
104) 1,2,4-Trichlorobenzene	14.03	180	3129	0.38	PPB	85
105) Hexachlorobutadiene	14.16	225	1592	0.39	PPB	81
106) Naphthalene	14.28	128	7449	0.52	PPB	90
107) 1,2,3-Trichlorobenzene	14.53	180	6097	0.91	PPB	91

(#) = qualifier out of range (m) = manual integration

0725F018.D 072519MS13_8260W.M

Fri Jul 26 14:12:43 2019

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Page 1

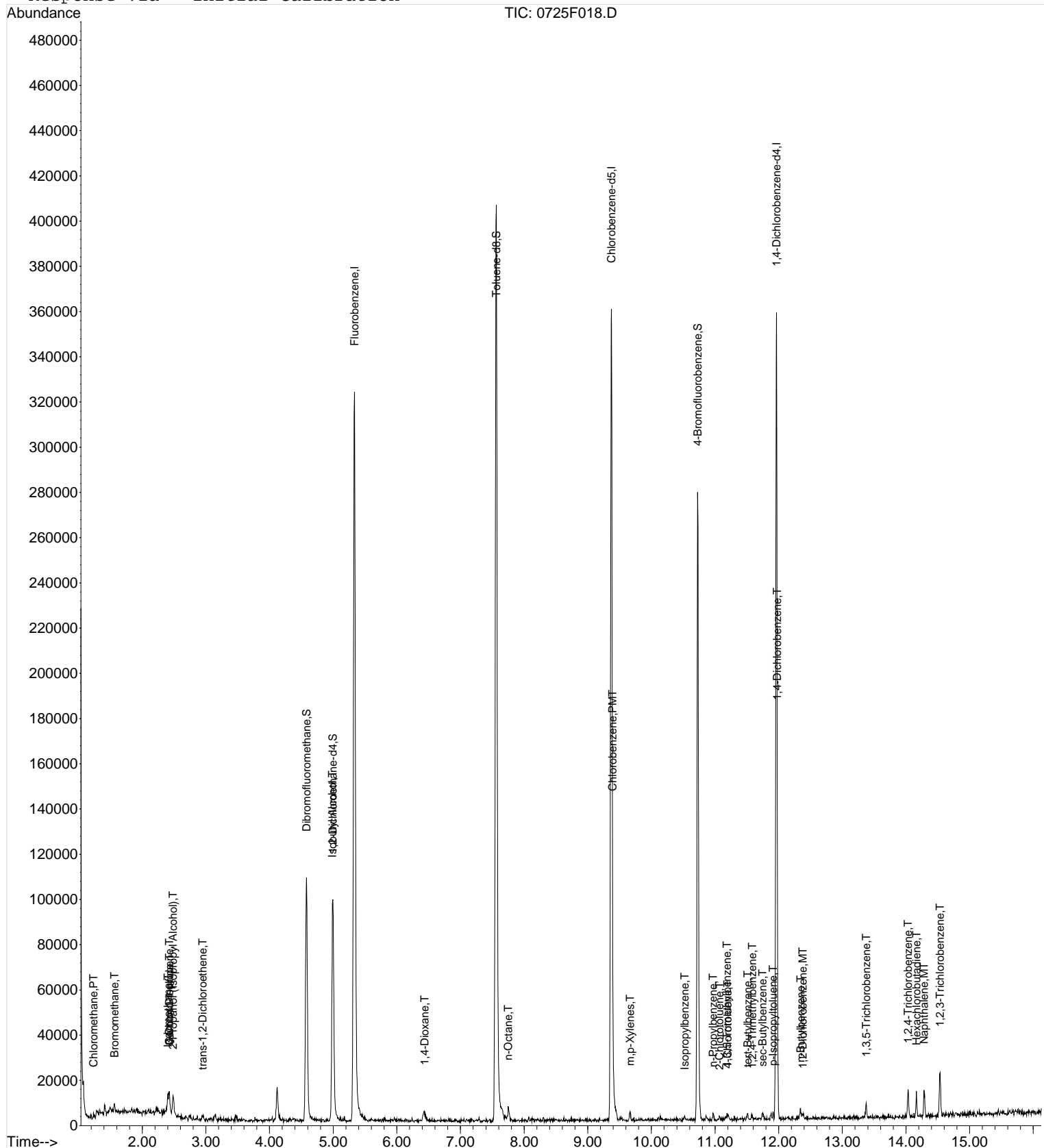
Data File : I:\MS13\DATA\072519\0725F018.D
Acq On : 25 Jul 2019 2:43 pm
Sample : IB
Misc :

Vial: 18
Operator: JHJ
Inst : MS13
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Jul 26 14:12 2019

Quant Results File: 072519MS13_8260W.RES

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Jul 25 17:58:23 2019
Response via : Initial Calibration



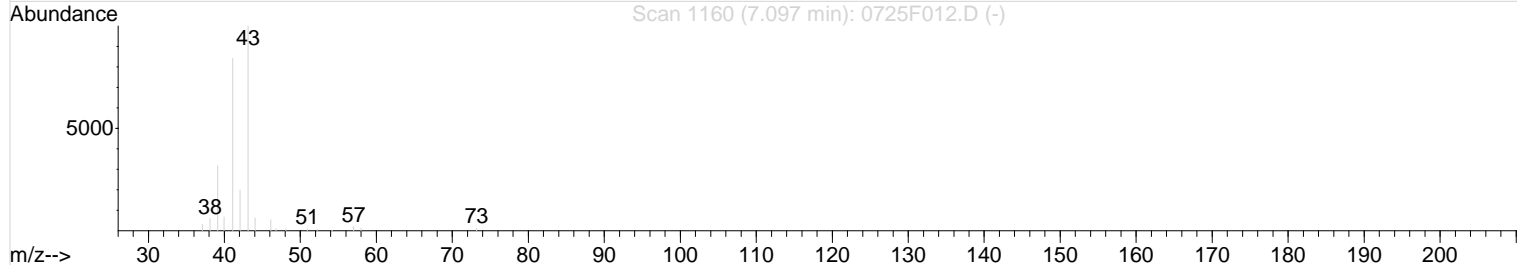
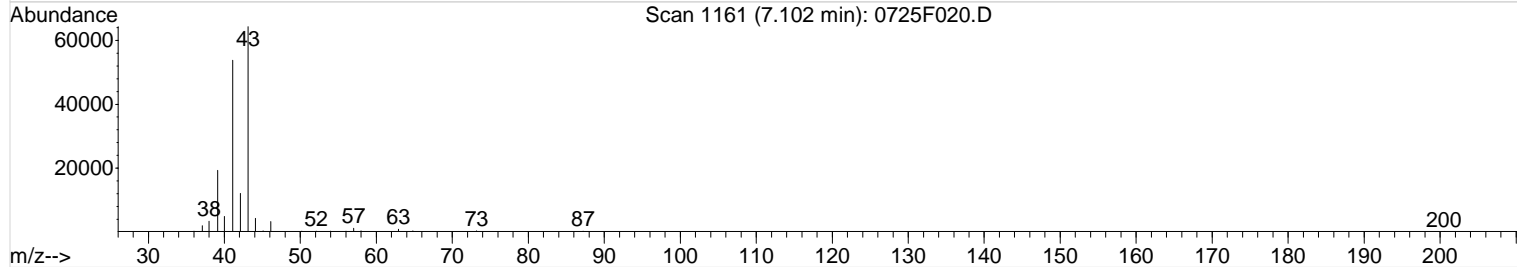
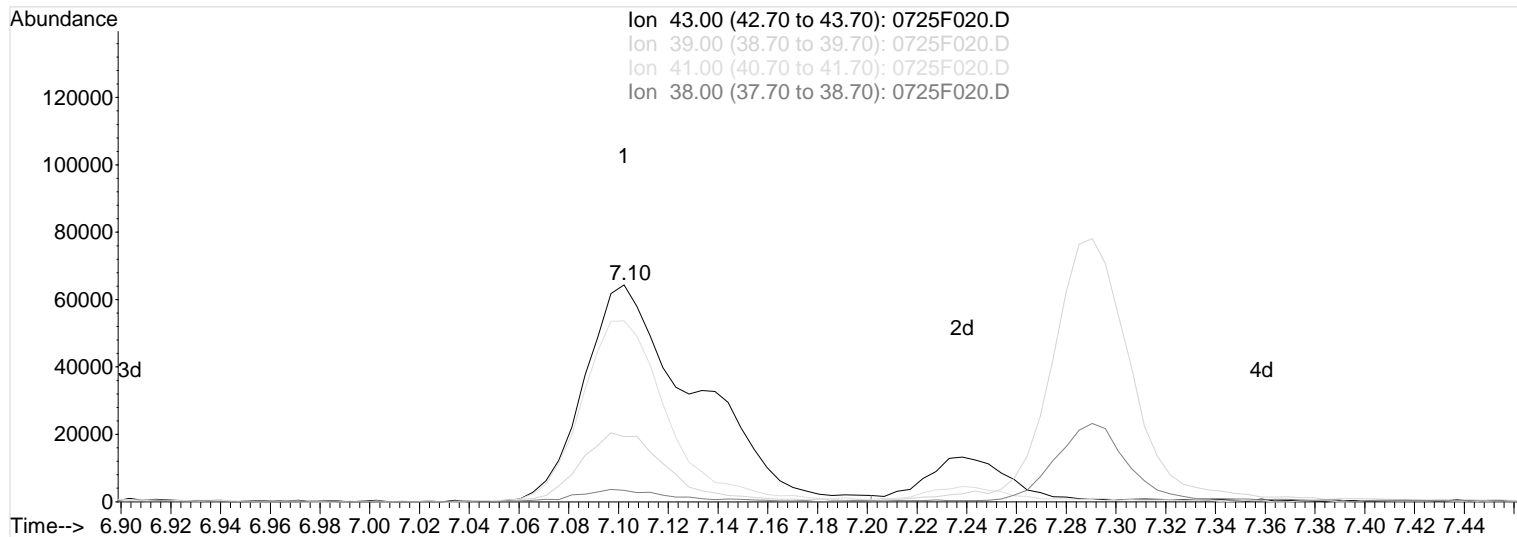
Data File : I:\MS13\DATA\072519\0725F020.D
 Acq On : 25 Jul 2019 3:37 pm
 Sample : CAL 20 PPB
 Misc :

Vial: 20
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:21 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Single Level Calibration



TIC: 0725F020.D

(58) 2-Nitropropane (T)

Manual Integration:

7.10min 98.56PPB

Before

response 199898

Ion	Exp%	Act%
43.00	100	100
39.00	31.60	29.75
41.00	84.20	83.26
38.00	5.90	5.24

07/26/19

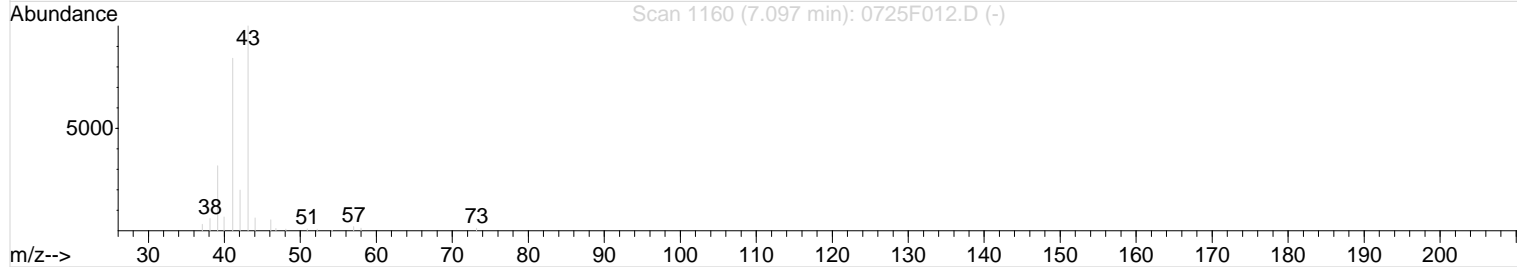
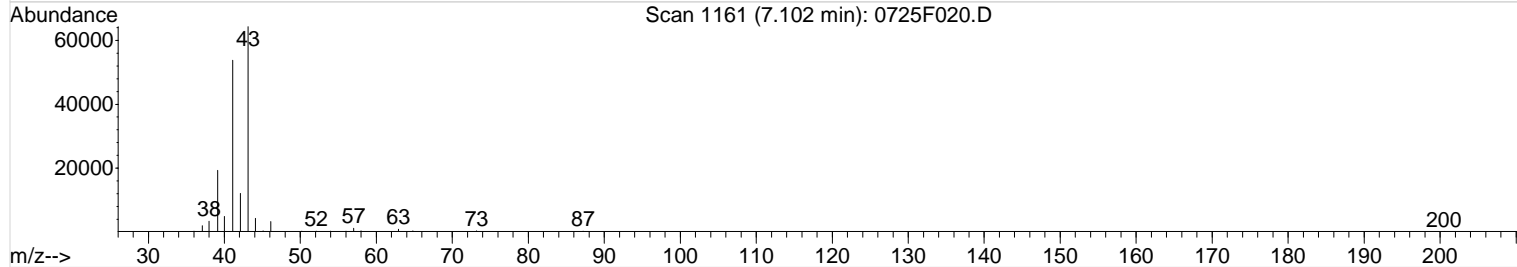
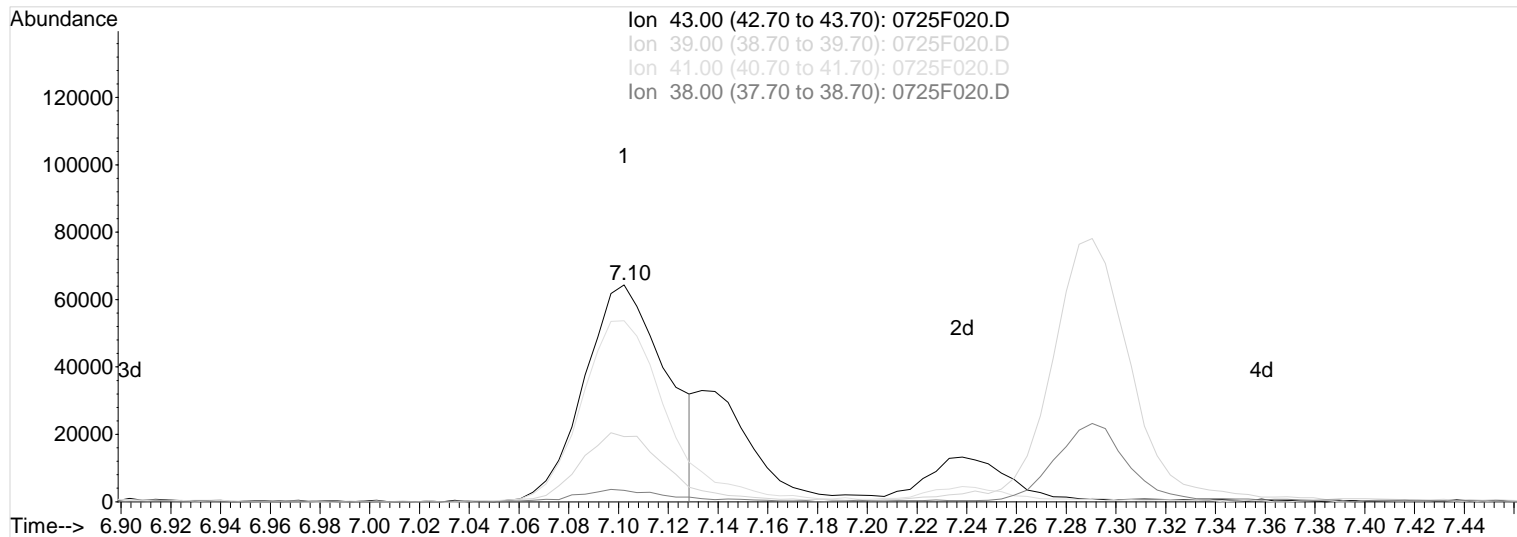
Data File : I:\MS13\DATA\072519\0725F020.D
 Acq On : 25 Jul 2019 3:37 pm
 Sample : CAL 20 PPB
 Misc :

Vial: 20
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:58 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Single Level Calibration



TIC: 0725F020.D

(58) 2-Nitropropane (T)

Manual Integration:

7.10min 72.81PPB m
 response 147678

After
 Shoulder

Ion	Exp%	Act%
43.00	100	100
39.00	31.60	30.08
41.00	84.20	83.57
38.00	5.90	5.24

07/26/19

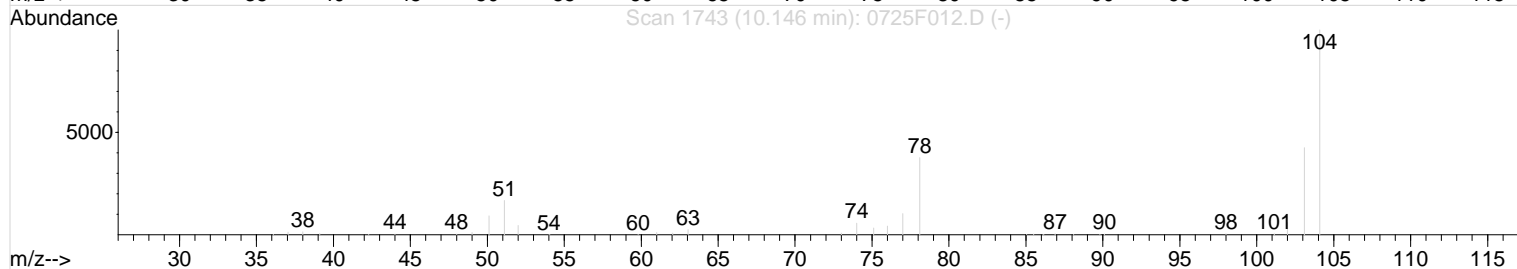
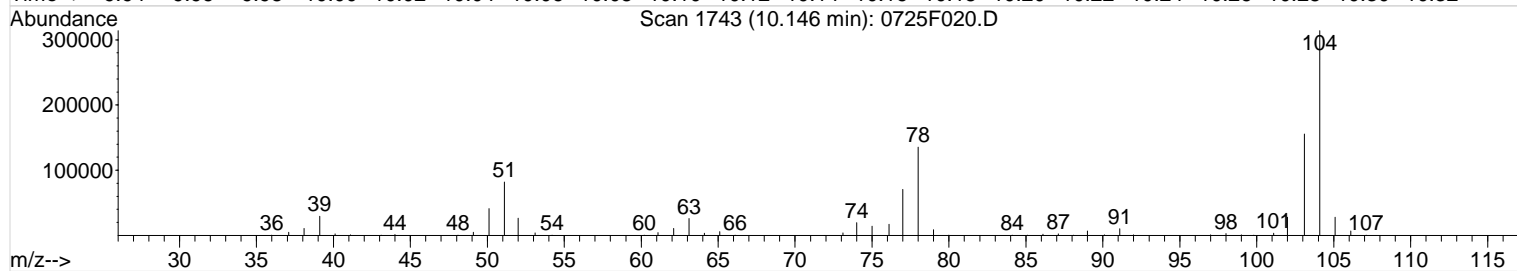
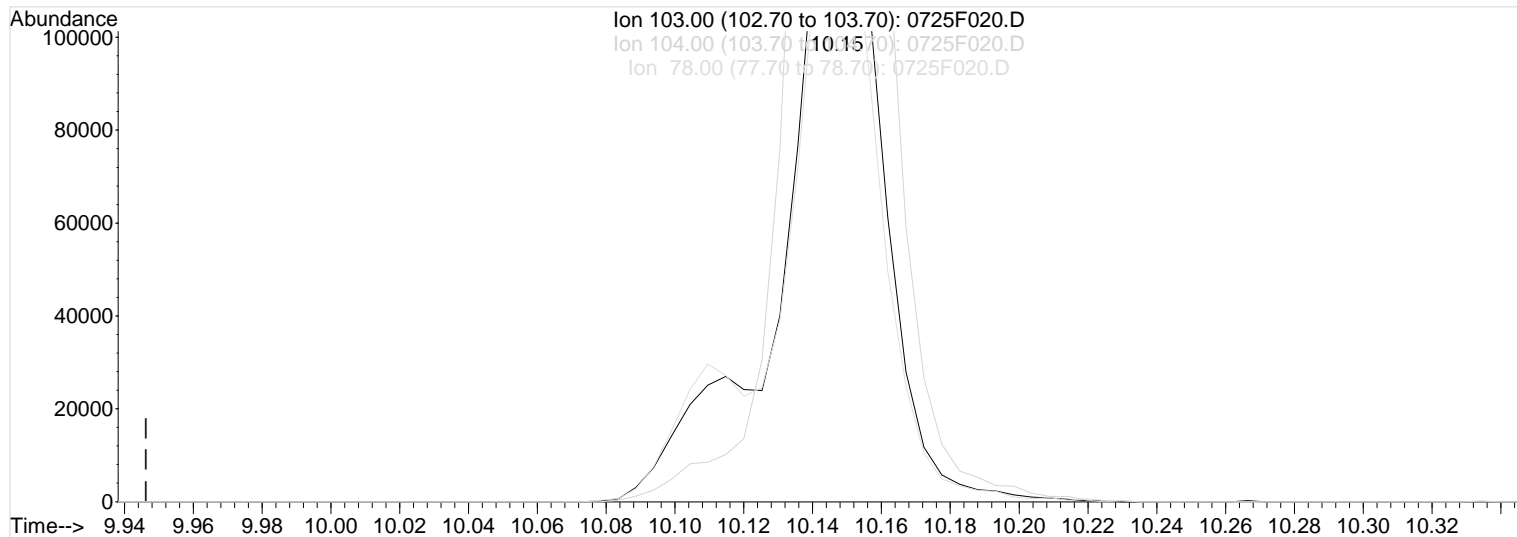
Data File : I:\MS13\DATA\072519\0725F020.D
 Acq On : 25 Jul 2019 3:37 pm
 Sample : CAL 20 PPB
 Misc :

Vial: 20
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:58 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Multiple Level Calibration



TIC: 0725F020.D

(80) Styrene (T)

Manual Integration:

10.15min 22.67PPB
 response 287421

Before

Ion	Exp%	Act%
103.00	100	100
104.00	209.30	201.89
78.00	89.90	87.09
0.00	0.00	0.00

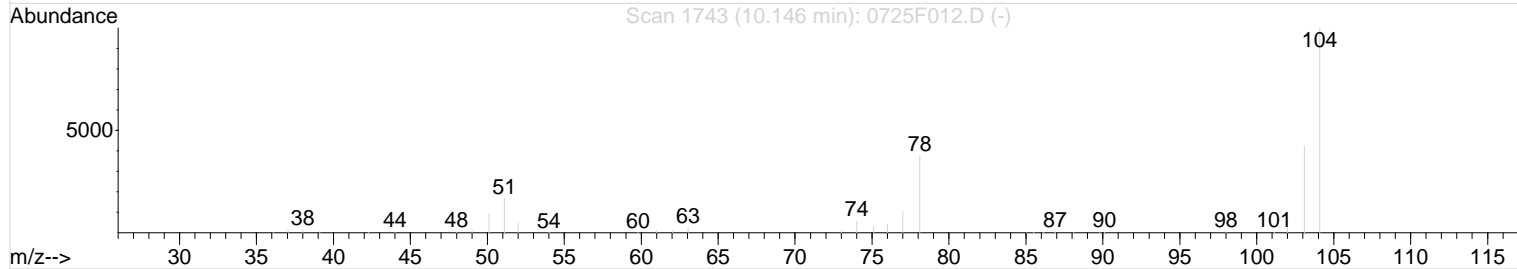
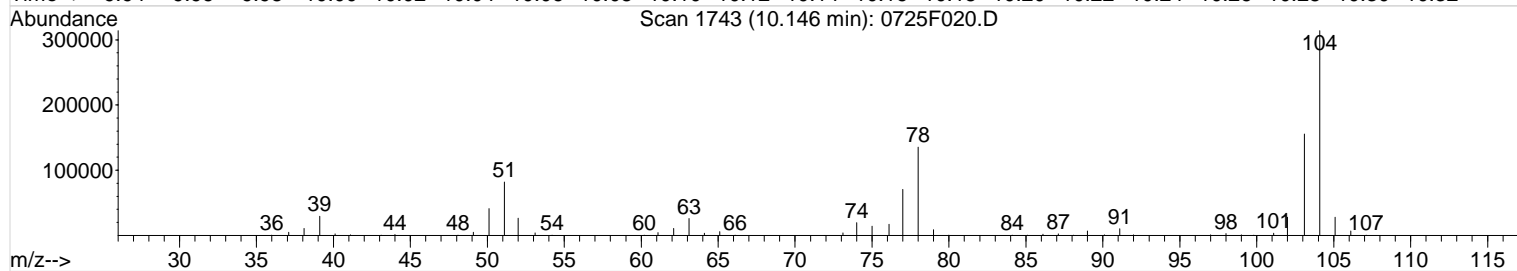
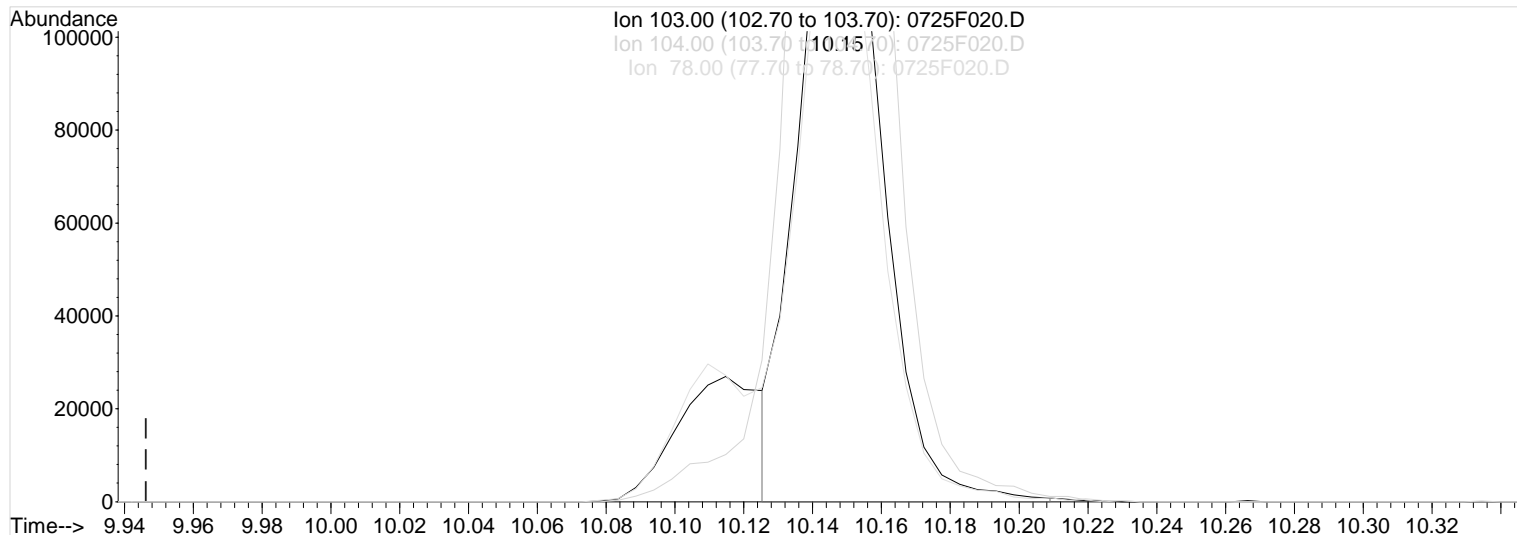
07/26/19

Data File : I:\MS13\DATA\072519\0725F020.D
 Acq On : 25 Jul 2019 3:37 pm
 Sample : CAL 20 PPB
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Jul 26 17:59 2019

Vial: 20
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Multiple Level Calibration



TIC: 0725F020.D

(80) Styrene (T)		
10.15min	19.02PPB	m
response	241105	
Ion	Exp%	Act%
103.00	100	100
104.00	209.30	201.89
78.00	89.90	87.09
0.00	0.00	0.00

Manual Integration:
 After
 Shoulder
 07/26/19

Data File : I:\MS13\DATA\072519\0725F020.D
Acq On : 25 Jul 2019 3:37 pm
Sample : CAL 20 PPB
Misc :

Vial: 20
Operator: JHJ
Inst : MS13
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Jul 26 17:21:51 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Initial Calibration
DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	327635	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	119583	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.97	152	95645	10.00	PPB	0.00

System Monitoring Compounds

42) Dibromofluoromethane	4.58	113	90563	12.18	PPB	0.00
Spiked Amount	10.000		Recovery	=	121.80%	
47) 1,2-Dichloroethane-d4	4.99	65	101016	11.70	PPB	0.00
Spiked Amount	10.000		Recovery	=	117.00%	
62) Toluene-d8	7.56	98	383387	11.67	PPB	0.00
Spiked Amount	10.000		Recovery	=	116.70%	
84) 4-Bromofluorobenzene	10.73	95	121737	11.52	PPB	0.00
Spiked Amount	10.000		Recovery	=	115.20%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.10	85	217608	20.30	PPB	100
3) Chloromethane	1.24	50	236147	18.64	PPB	97
4) Vinyl Chloride	1.31	62	243918	19.31	PPB	99
5) Bromomethane	1.56	96	139674	19.20	PPB	98
6) Chloroethane	1.64	64	140789	19.27	PPB	95
7) Dichlorofluoromethane	1.80	67	331185	18.45	PPB	97
8) Trichlorofluoromethane	1.80	101	362494	19.65	PPB	98
9) Ethyl Ether	2.05	59	95041	19.63	PPB	98
10) Acrolein	2.23	56	327840	354.11	PPB	97
11) Trichlorotrifluoroethane	2.22	151	142100	20.35	PPB	98
12) 1,1-Dichloroethene	2.25	96	184330	19.76	PPB	98
13) Acetone	2.37	43	232953	191.77	PPB	99
14) Iodomethane	2.41	142	782209	77.80	PPB	98
15) Carbon Disulfide	2.43	76	480914	18.95	PPB	100
16) 2-Propanol (Isopropyl Alco	2.49	45	168198	855.43	PPB	95
17) 3-Chloro-1-propene	2.60	76	94666	19.45	PPB	90
18) Acetonitrile	2.69	40	199345	703.52	PPB	96
19) Methyl Acetate	2.64	43	65734	19.17	PPB	98
20) Methylene Chloride	2.75	84	175201	19.12	PPB	98
21) tert-Butyl Alcohol	2.87	59	27836	96.29	PPB	100
22) Acrylonitrile	3.06	53	124701	74.81	PPB	93
23) Methyl tert-Butyl Ether	2.94	73	689683	39.59	PPB	99
24) trans-1,2-Dichloroethene	2.95	96	179084	19.88	PPB	96
25) Hexane	3.14	57	290976	20.62	PPB	96
26) Diisopropyl Ether	3.41	45	597803	19.13	PPB	98
27) 1,1-Dichloroethane	3.42	63	350948	19.41	PPB	99
28) Vinyl Acetate	3.47	86	53041	41.03	PPB	# 79
29) Chloroprene	3.47	53	1233077	79.20	PPB	100
30) tert-Butyl Ethyl Ether	3.79	59	471692	19.16	PPB	97
31) 2,2-Dichloropropane	4.00	77	321147	21.55	PPB	96
32) cis-1,2-Dichloroethene	4.04	96	201175	20.04	PPB	97
33) 2-Butanone	4.09	72	82359	193.65	PPB	92
34) Propionitrile	4.24	54	43266	73.08	PPB	93
35) Ethyl Acetate	4.12	61	32030	34.11	PPB	95
36) Methacrylonitrile	4.37	67	158434	76.91	PPB	93
37) Bromochloromethane	4.30	128	84247	19.79	PPB	95
38) Tetrahydrofuran	4.31	71	9677	20.25	PPB	# 87
39) Chloroform	4.39	83	324523	19.60	PPB	96
40) tert-Butyl Formate	4.41	59	120836	19.58	PPB	97
41) 1,1,1-Trichloroethane	4.53	97	303762	19.83	PPB	99
43) Cyclohexane	4.50	56	320894	19.81	PPB	98
44) Carbon Tetrachloride	4.67	117	254187	21.01	PPB	98
45) 1,1-Dichloropropene	4.72	75	278752	19.47	PPB	98

(#) = qualifier out of range (m) = manual integration

Data File : I:\MS13\DATA\072519\0725F020.D

Vial: 20

Acq On : 25 Jul 2019 3:37 pm

Operator: JHJ

2nd 08/01/19

Sample : CAL 20 PPB

Inst : MS13

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 26 17:21:51 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B

Last Update : Fri Jul 26 17:20:50 2019

Response via : Initial Calibration

DataAcq Meth : 8260W5

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) Isobutyl Alcohol	4.98	43	93903	716.10	PPB	88
48) Benzene	4.96	78	783384	19.01	PPB	99
49) 1,2-Dichloroethane	5.09	62	226431	19.20	PPB	98
50) tert-Amyl Methyl Ether	5.08	55	94623	18.38	PPB	95
51) Trichloroethene	5.80	95	195000	19.56	PPB	98
52) Methyl Cyclohexane	5.95	83	315810	20.11	PPB	99
53) 1,2-Dichloropropane	6.22	63	192801	19.08	PPB	97
54) Dibromomethane	6.39	93	84567	18.85	PPB	96
55) Methyl methacrylate	6.43	69	67678	18.65	PPB	92
56) 1,4-Dioxane	6.42	88	19077	652.86	PPB	99
57) Bromodichloromethane	6.64	83	215116	20.25	PPB	93
58) 2-Nitropropane	7.10	43	147678m	72.81	PPB	
59) 2-Chloroethyl Vinyl Ether	7.14	63	76991	18.82	PPB	97
60) cis-1,3-Dichloropropene	7.29	75	269012	19.57	PPB	95
61) 4-Methyl-2-pentanone (MIBK)	7.53	58	317605	189.82	PPB	98
63) Toluene	7.65	92	476428	19.03	PPB	98
65) n-Octane	7.76	85	116622	19.70	PPB	99
66) trans-1,3-Dichloropropene	8.08	75	215343	19.95	PPB	96
67) Ethyl methacrylate	8.16	69	139058	18.97	PPB	99
68) 1,1,2-Trichloroethane	8.29	83	101246	18.85	PPB	95
69) Tetrachloroethene	8.29	164	157407	19.82	PPB	98
70) 2-Hexanone	8.61	57	101097	184.90	PPB	# 77
71) 1,3-Dichloropropane	8.49	76	213777	18.98	PPB	96
72) Dibromochloromethane	8.72	129	131552	20.96	PPB	99
73) 1,2-Dibromoethane (EDB)	8.84	107	112167	20.27	PPB	95
74) 1-Chlorohexane	9.40	91	245272	20.10	PPB	93
75) Chlorobenzene	9.40	112	489321	19.73	PPB	97
76) Ethylbenzene	9.52	106	280547	19.41	PPB	98
77) 1,1,1,2-Tetrachloroethane	9.53	131	154020	19.75	PPB	95
78) m,p-Xylenes	9.66	106	675760	39.16	PPB	100
79) o-Xylene	10.11	106	318467	19.97	PPB	95
80) Styrene	10.15	103	241105m	19.02	PPB	
81) Bromoform	10.36	173	60369	20.66	PPB	96
82) Isopropylbenzene	10.52	105	831040	19.52	PPB	97
83) cis-1,4-Dichloro-2-butene	10.71	89	55494	82.26	PPB	91
86) 1,1,2,2-Tetrachloroethane	10.96	83	105159	18.01	PPB	98
87) trans-1,4-Dichloro-2-buten	11.03	53	33034	17.91	PPB	84
88) Bromobenzene	10.86	156	183311	18.75	PPB	95
89) n-Propylbenzene	10.97	91	961982	18.77	PPB	98
90) 1,2,3-Trichloropropane	10.99	110	32482	17.72	PPB	# 82
91) 2-Chlorotoluene	11.07	91	544744	18.88	PPB	97
92) 1,3,5-Trimethylbenzene	11.18	105	665666	19.01	PPB	98
93) 4-Chlorotoluene	11.20	91	633918	18.36	PPB	99
94) tert-Butylbenzene	11.51	119	572600	18.70	PPB	98
95) 1,2,4-Trimethylbenzene	11.58	105	656744	18.71	PPB	98
96) sec-Butylbenzene	11.75	105	826525	19.10	PPB	99
97) p-Isopropyltoluene	11.91	119	688919	19.04	PPB	98
98) 1,3-Dichlorobenzene	11.88	146	340333	19.03	PPB	99
99) 1,4-Dichlorobenzene	11.99	146	336009	18.93	PPB	100
100) n-Butylbenzene	12.34	91	618777	19.32	PPB	98
101) 1,2-Dichlorobenzene	12.38	146	299912	18.88	PPB	97
102) 1,2-Dibromo-3-chloropropan	13.22	155	12905	19.69	PPB	# 83
103) 1,3,5-Trichlorobenzene	13.37	180	220137	19.72	PPB	98
104) 1,2,4-Trichlorobenzene	14.03	180	179724	19.90	PPB	96
105) Hexachlorobutadiene	14.16	225	87996	19.11	PPB	94
106) Naphthalene	14.29	128	315581	19.46	PPB	99
107) 1,2,3-Trichlorobenzene	14.53	180	144518	18.75	PPB	98

(#) = qualifier out of range (m) = manual integration

0725F020.D 072519MS13_8260W.M

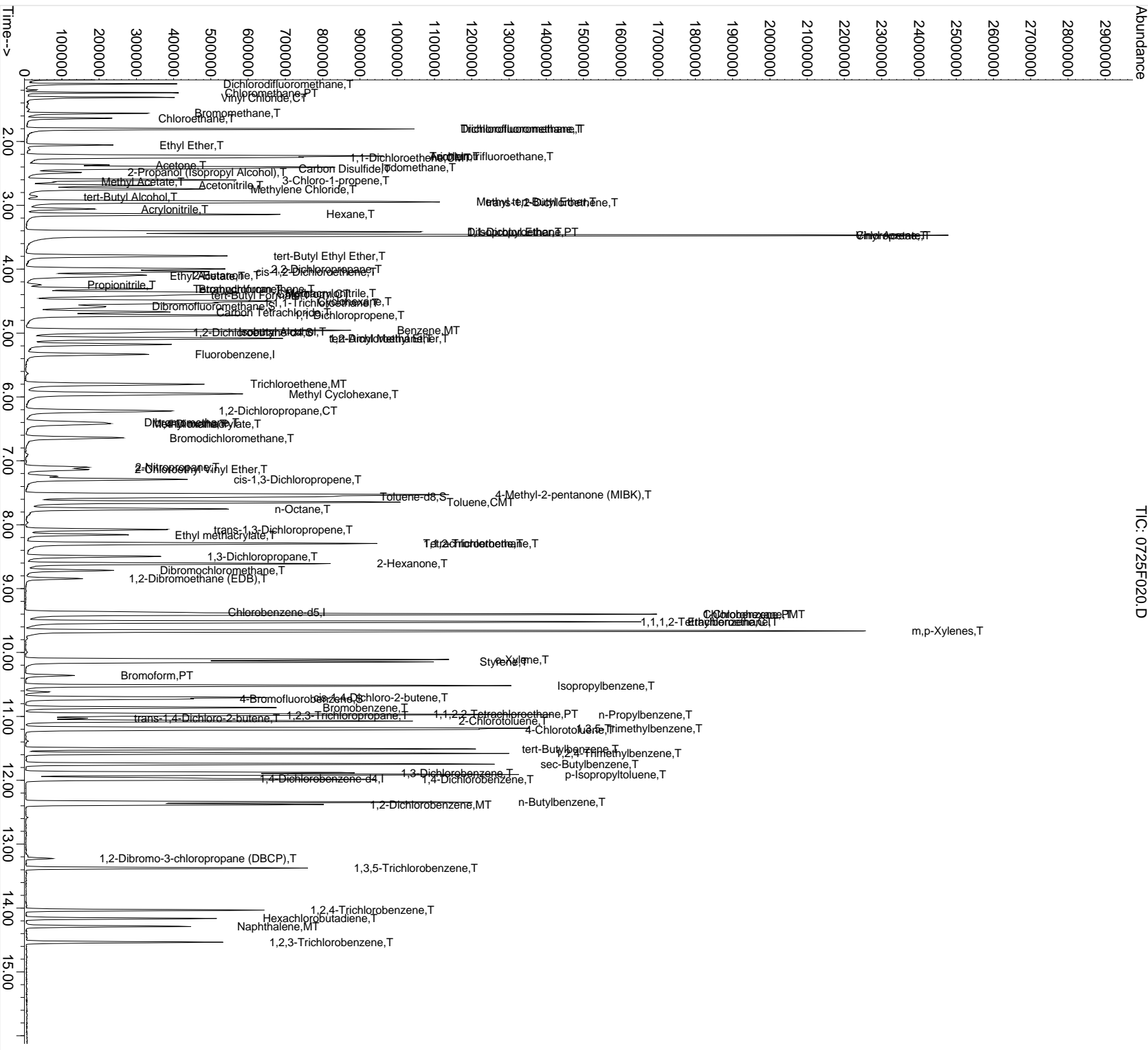
Fri Jul 26 17:59:45 2019

Data File : I:\MS13\DATA\072519\0725F020.D
Acq On : 25 Jul 2019 3:37 pm
Sample : CAL 20 PPB
Misc :
MS Integration Params: rteint.p
Quant Time: Jul 26 17:59 2019

Vial: 20
Operator: JHT
Inst: MS13
Multiplr: 1.00

Quant Results File: 072519MS13_8260W.RES

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Initial Calibration



Data File : I:\MS13\DATA\072519\0725F021.D
Acq On : 25 Jul 2019 4:03 pm
Sample : IB
Misc :

Vial: 21
Operator: JHJ
Inst : MS13
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Jul 26 14:13:00 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Jul 25 17:58:23 2019
Response via : Initial Calibration
DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	316664	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	112750	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.97	152	80960	10.00	PPB	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) Dibromofluoromethane	4.58	113	63310	8.82	PPB	0.00
Spiked Amount 10.000			Recovery =	88.20%		
47) 1,2-Dichloroethane-d4	4.99	65	67925	8.31	PPB	0.00
Spiked Amount 10.000			Recovery =	83.10%		
62) Toluene-d8	7.56	98	311051	10.13	PPB	0.00
Spiked Amount 10.000			Recovery =	101.30%		
84) 4-Bromofluorobenzene	10.73	95	84963	9.03	PPB	0.00
Spiked Amount 10.000			Recovery =	90.30%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Chloromethane	1.24	50	1320	0.11	PPB	55
4) Vinyl Chloride	1.31	62	955	0.08	PPB	67
5) Bromomethane	1.56	96	2287	0.32	PPB	96
8) Trichlorofluoromethane	1.81	101	916	0.05	PPB	90
9) Ethyl Ether	2.05	59	763	0.17	PPB #	63
10) Acrolein	2.24	56	3907	4.25	PPB	83
11) Trichlorotrifluoroethane	2.23	151	1010	0.15	PPB #	67
12) 1,1-Dichloroethene	2.25	96	1253	0.14	PPB #	65
13) Acetone	2.37	43	11795	10.06	PPB	96
14) Iodomethane	2.40	142	9926	1.04	PPB	87
15) Carbon Disulfide	2.43	76	7178	0.30	PPB	98
16) 2-Propanol (Isopropyl Alco	2.48	45	39080	202.17	PPB	97
17) 3-Chloro-1-propene	2.43	76	7178	0.29	PPB	99
18) Acetonitrile	2.70	40	8439	32.08	PPB #	80
19) Methyl Acetate	2.63	43	1591	0.47	PPB	63
20) Methylene Chloride	2.75	84	2230	0.24	PPB	92
21) tert-Butyl Alcohol	2.87	59	4483	16.30	PPB	98
22) Acrylonitrile	3.06	53	1505	0.94	PPB	76
23) Methyl tert-Butyl Ether	2.95	73	6122	0.36	PPB	85
24) trans-1,2-Dichloroethene	2.95	96	1652	0.19	PPB	94
25) Hexane	3.14	57	2218	0.16	PPB	87
26) Diisopropyl Ether	3.42	45	3942	0.13	PPB	62
27) 1,1-Dichloroethane	3.43	63	1434	0.08	PPB	80
29) Chloroprene	3.47	53	6611	0.45	PPB	95
30) tert-Butyl Ethyl Ether	3.79	59	3187	0.14	PPB	92
31) 2,2-Dichloropropane	4.00	77	1345	0.09	PPB	49
32) cis-1,2-Dichloroethene	4.02	96	637	0.07	PPB #	7
33) 2-Butanone	4.09	72	2197	5.29	PPB #	39
34) Propionitrile	4.24	54	676	1.20	PPB	78
35) Ethyl Acetate	4.12	61	2633	Below	Cal	93
36) Methacrylonitrile	4.36	67	1354	0.71	PPB #	49
39) Chloroform	4.40	83	2104	0.13	PPB	78
40) tert-Butyl Formate	4.41	59	575	0.10	PPB #	28
41) 1,1,1-Trichloroethane	4.53	97	1455	0.10	PPB	96
43) Cyclohexane	4.50	56	2442	0.16	PPB	84
44) Carbon Tetrachloride	4.67	117	1097	0.10	PPB	89
45) 1,1-Dichloropropene	4.72	75	1475	0.11	PPB	99
46) Isobutyl Alcohol	4.98	43	13966	103.79	PPB	79
48) Benzene	4.96	78	4118	0.11	PPB #	56
49) 1,2-Dichloroethane	5.09	62	1550	0.14	PPB	92
50) tert-Amyl Methyl Ether	5.09	55	797	0.16	PPB #	22
51) Trichloroethene	5.80	95	906	0.10	PPB #	79
52) Methyl Cyclohexane	5.96	83	2103	0.14	PPB	77

Data File : I:\MS13\DATA\072519\0725F021.D
Acq On : 25 Jul 2019 4:03 pm
Sample : IB
Misc :

Vial: 21
Operator: JHJ
Inst : MS13
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Jul 26 14:13:00 2019

Quant Results File: 072519MS13_8260W.RES

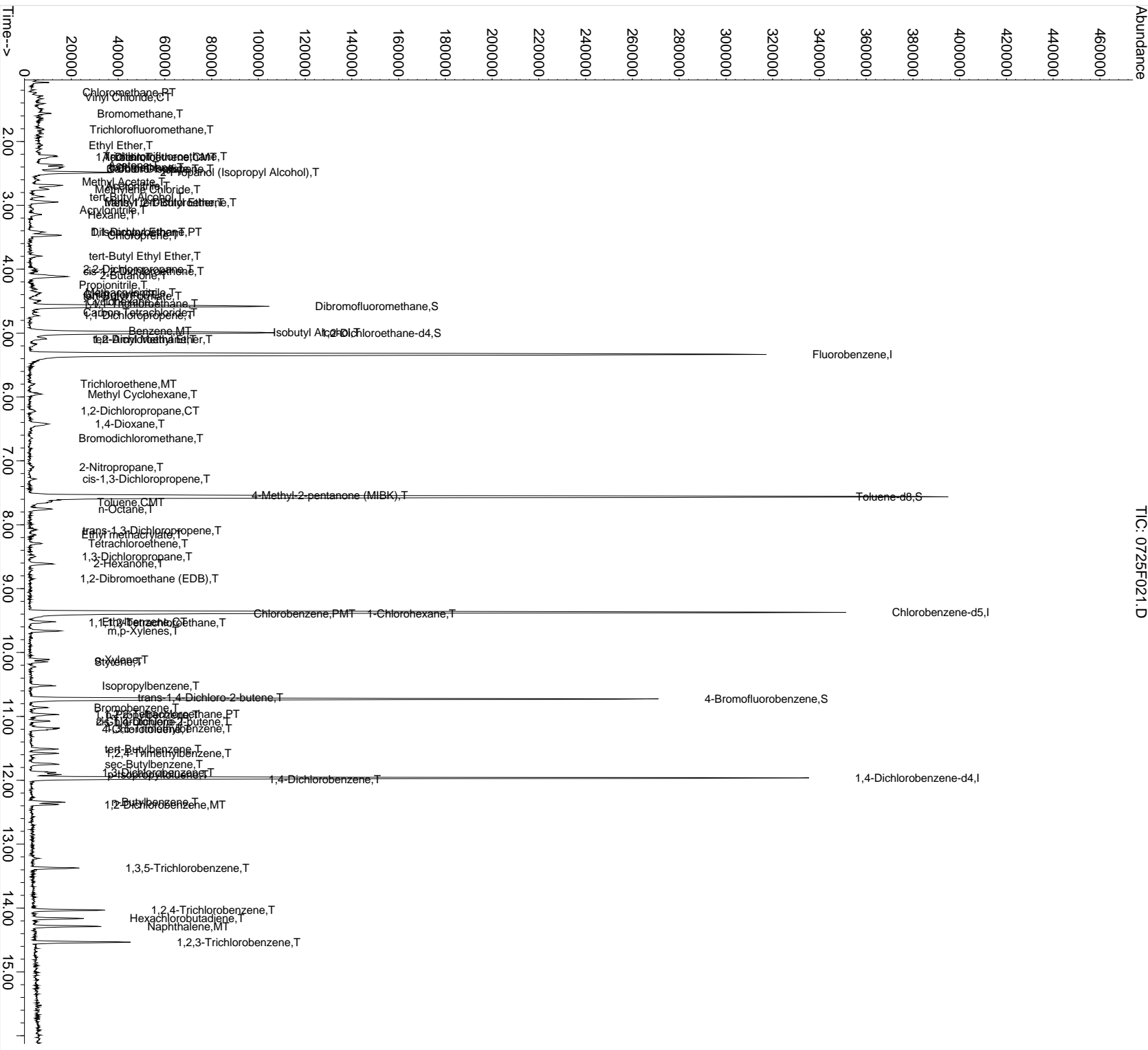
Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Jul 25 17:58:23 2019
Response via : Initial Calibration
DataAcq Meth : 8260W5

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53) 1,2-Dichloropropane	6.21	63	661	0.07	PPB	88
56) 1,4-Dioxane	6.42	88	6861	249.64	PPB	86
57) Bromodichloromethane	6.64	83	904	0.09	PPB	76
58) 2-Nitropropane	7.11	43	1780	1.30	PPB #	58
60) cis-1,3-Dichloropropene	7.29	75	1308	0.10	PPB #	42
61) 4-Methyl-2-pentanone (MIBK)	7.53	58	1773	1.11	PPB #	3
63) Toluene	7.65	92	2354	0.10	PPB #	76
65) n-Octane	7.76	85	2045	0.38	PPB	77
66) trans-1,3-Dichloropropene	8.09	75	1457	0.15	PPB	73
67) Ethyl methacrylate	8.15	69	1228	0.18	PPB #	51
69) Tetrachloroethene	8.30	164	942	0.13	PPB #	66
70) 2-Hexanone	8.60	57	1505	3.00	PPB #	1
71) 1,3-Dichloropropane	8.49	76	1084	0.10	PPB #	49
73) 1,2-Dibromoethane (EDB)	8.84	107	513	0.10	PPB	70
74) 1-Chlorohexane	9.39	91	2294	0.20	PPB	79
75) Chlorobenzene	9.40	112	2986	0.13	PPB	79
76) Ethylbenzene	9.51	106	1633	0.12	PPB #	78
77) 1,1,1,2-Tetrachloroethane	9.54	131	1019	0.14	PPB #	65
78) m,p-Xylenes	9.66	106	3884	0.24	PPB	93
79) o-Xylene	10.12	106	2066	0.14	PPB #	48
80) Styrene	10.15	103	1530	0.13	PPB #	61
82) Isopropylbenzene	10.52	105	6368	0.17	PPB	94
83) cis-1,4-Dichloro-2-butene	11.08	89	805	2.35	PPB #	1
86) 1,1,2,2-Tetrachloroethane	10.96	83	1328	0.28	PPB	87
87) trans-1,4-Dichloro-2-buten	10.70	53	892	0.60	PPB #	52
88) Bromobenzene	10.86	156	1865	0.24	PPB	89
89) n-Propylbenzene	10.97	91	7914	0.19	PPB	98
91) 2-Chlorotoluene	11.08	91	4702	0.19	PPB	89
92) 1,3,5-Trimethylbenzene	11.18	105	5441	0.19	PPB	86
93) 4-Chlorotoluene	11.20	91	5270	0.19	PPB	84
94) tert-Butylbenzene	11.51	119	5349	0.22	PPB	94
95) 1,2,4-Trimethylbenzene	11.58	105	6103	0.22	PPB	98
96) sec-Butylbenzene	11.75	105	7716	0.22	PPB	97
97) p-Isopropyltoluene	11.91	119	6115	0.22	PPB	96
98) 1,3-Dichlorobenzene	11.88	146	4233	0.28	PPB	72
99) 1,4-Dichlorobenzene	11.99	146	4001	0.26	PPB	87
100) n-Butylbenzene	12.34	91	7300	0.28	PPB	93
101) 1,2-Dichlorobenzene	12.38	146	4560	0.35	PPB	95
103) 1,3,5-Trichlorobenzene	13.38	180	5936	0.64	PPB	88
104) 1,2,4-Trichlorobenzene	14.03	180	8495	1.09	PPB	88
105) Hexachlorobutadiene	14.17	225	3660	0.96	PPB	81
106) Naphthalene	14.29	128	19679	1.47	PPB	97
107) 1,2,3-Trichlorobenzene	14.53	180	10570	1.68	PPB	93

08/01/19
Data File : I:\MS13\DATA\072519MS13_8260W.D
Acq On : 25 Jul 2019 4:03 pm
Sample : IB
Misc :
MS Integration Params: rteint.p
Quant Results File: 072519MS13_8260W.RES

Vial: 21
Operator: JHT
Inst: MS13
Multiplr: 1.00

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Jul 25 17:58:23 2019
Response via : Initial Calibration



Data File : I:\MS13\DATA\072519\0725F022.D
 Acq On : 25 Jul 2019 4:30 pm
 Sample : IB
 Misc :

Vial: 22
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 14:13:10 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Thu Jul 25 17:58:23 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	301358	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	107818	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.97	152	76902	10.00	PPB	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) Dibromofluoromethane	4.58	113	58975	8.63	PPB	0.00
Spiked Amount	10.000		Recovery	=	86.30%	
47) 1,2-Dichloroethane-d4	4.99	65	65457	8.41	PPB	0.00
Spiked Amount	10.000		Recovery	=	84.10%	
62) Toluene-d8	7.56	98	288610	9.87	PPB	0.00
Spiked Amount	10.000		Recovery	=	98.70%	
84) 4-Bromofluorobenzene	10.73	95	79716	8.86	PPB	0.00
Spiked Amount	10.000		Recovery	=	88.60%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) Bromomethane	1.56	96	888	0.13	PPB	# 69
13) Acetone	2.37	43	2224	1.99	PPB	51
14) Iodomethane	2.41	142	3098	0.34	PPB	79
15) Carbon Disulfide	2.43	76	3970	0.17	PPB	90
16) 2-Propanol (Isopropyl Alco	2.49	45	2077	11.29	PPB	# 1
17) 3-Chloro-1-propene	2.43	76	3970	0.17	PPB	89
20) Methylene Chloride	2.74	84	1675	0.19	PPB	88
35) Ethyl Acetate	4.13	61	2563	Below Cal		97
103) 1,3,5-Trichlorobenzene	13.38	180	943	0.11	PPB	# 62
104) 1,2,4-Trichlorobenzene	14.03	180	1166	0.16	PPB	90
105) Hexachlorobutadiene	14.16	225	541	0.15	PPB	91
106) Naphthalene	14.28	128	2433	0.19	PPB	74
107) 1,2,3-Trichlorobenzene	14.54	180	1459	0.24	PPB	89

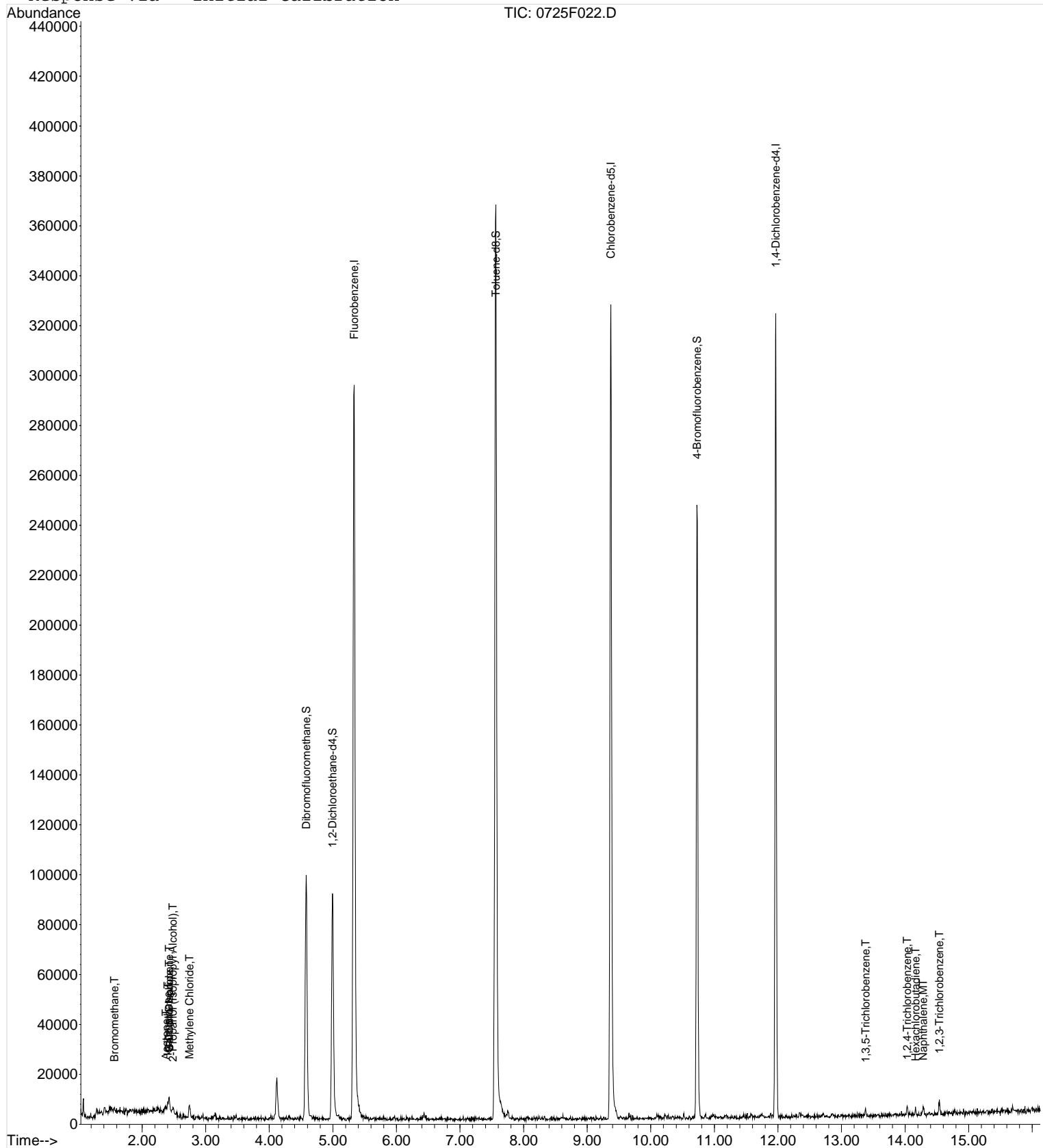
Data File : I:\MS13\DATA\072519\0725F022.D
Acq On : 25 Jul 2019 4:30 pm
Sample : IB
Misc :

Vial: 22
Operator: JHJ
Inst : MS13
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Jul 26 14:17 2019

Quant Results File: 072519MS13_8260W.RES

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Jul 25 17:58:23 2019
Response via : Initial Calibration



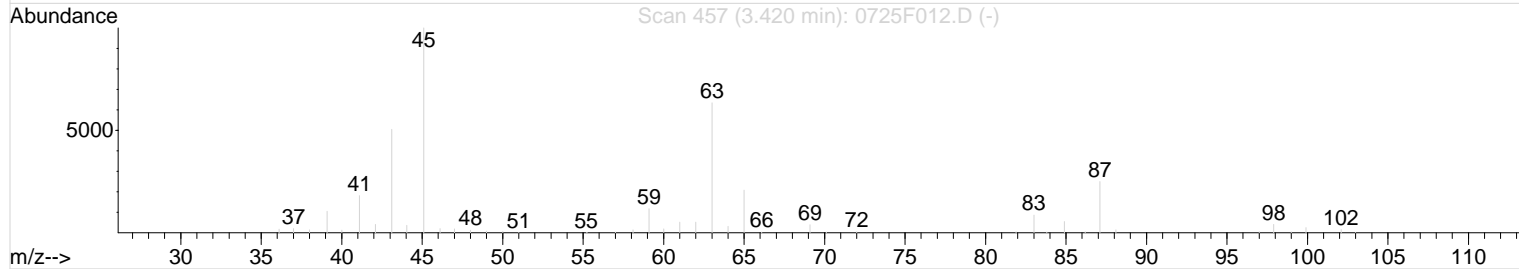
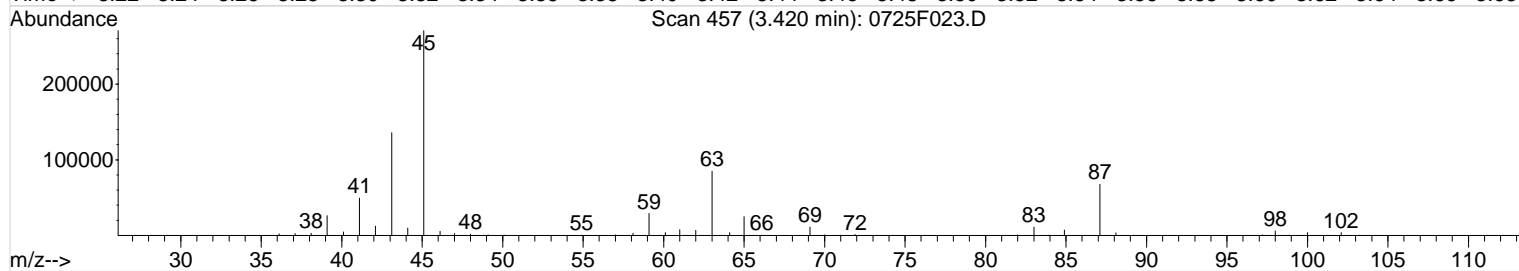
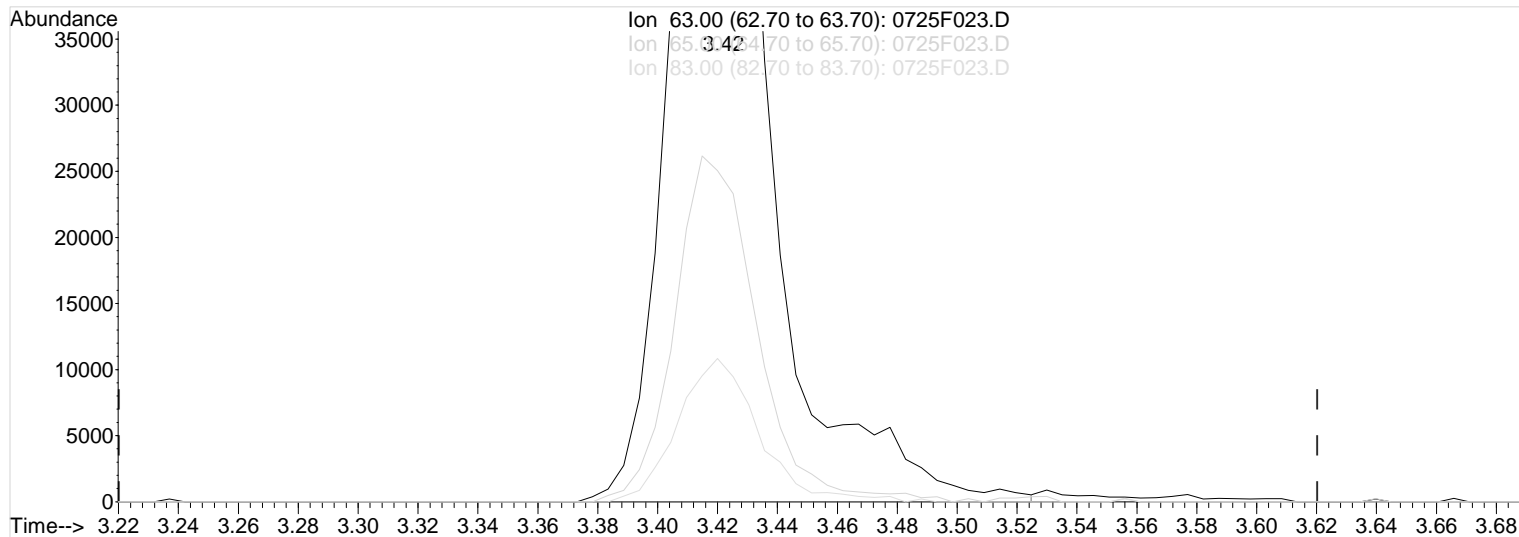
Data File : I:\MS13\DATA\072519\0725F023.D
 Acq On : 25 Jul 2019 4:56 pm
 Sample : ICV **IPRI**
 Misc :

Vial: 23
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 18:11 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 18:09:35 2019
 Response via : Multiple Level Calibration



TIC: 0725F023.D

(27) 1,1-Dichloroethane (PT)

Manual Integration:

3.42min 10.09PPB

Before

response 167606

07/26/19

Ion	Exp%	Act%
63.00	100	100
65.00	32.70	29.44
83.00	13.60	12.73
0.00	0.00	0.00

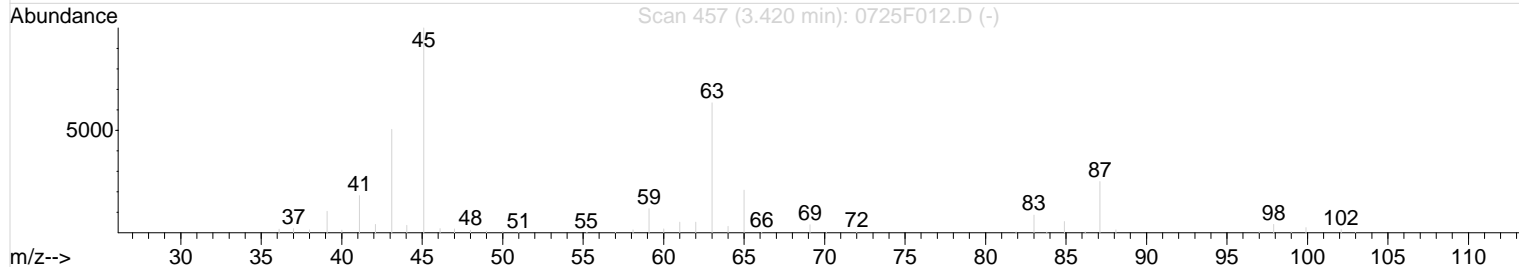
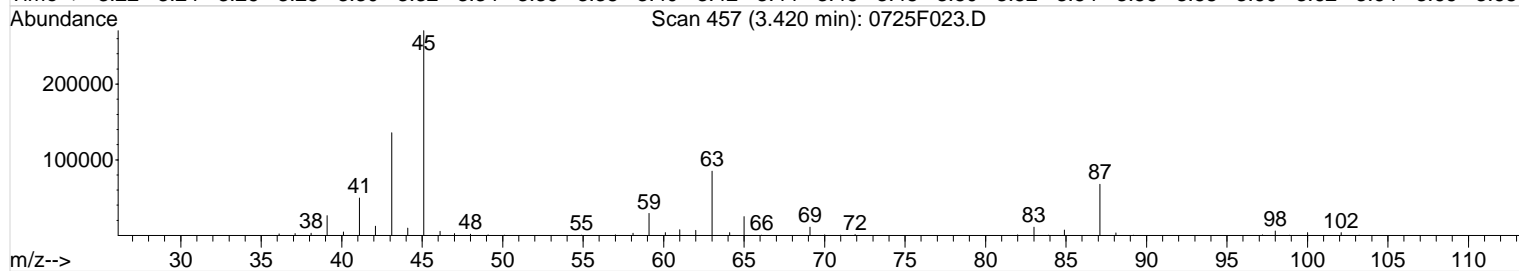
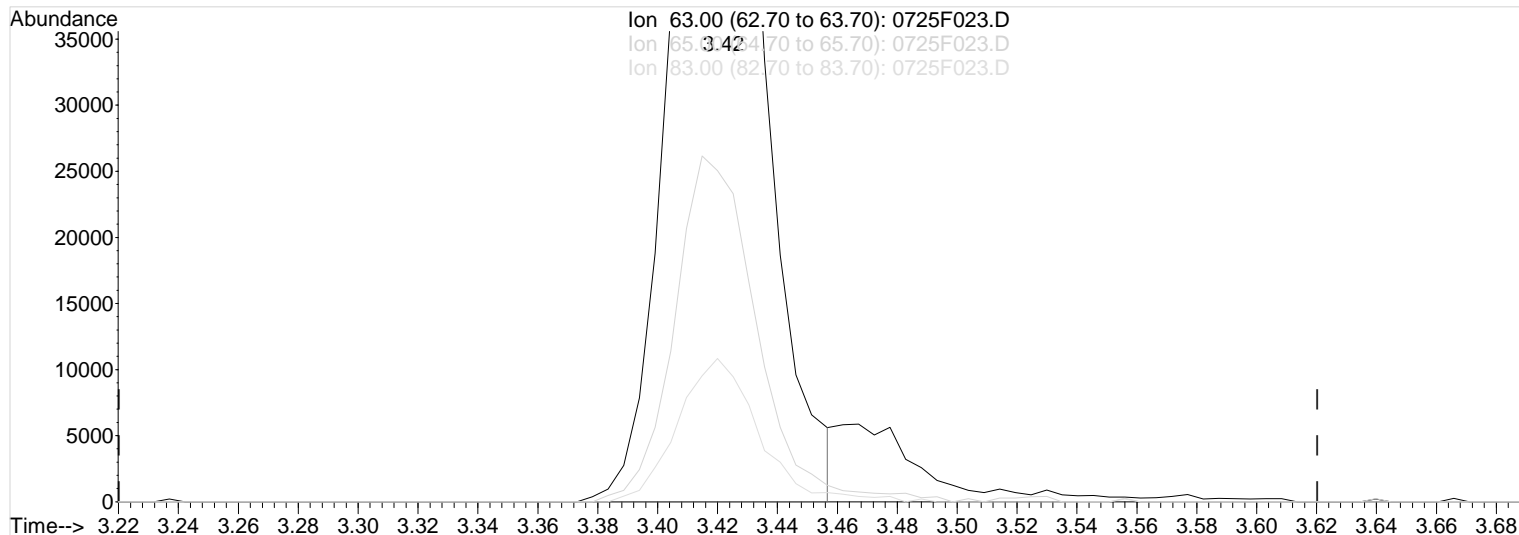
Data File : I:\MS13\DATA\072519\0725F023.D
 Acq On : 25 Jul 2019 4:56 pm
 Sample : ICV IPR1
 Misc :

Vial: 23
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 18:12 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 18:09:35 2019
 Response via : Multiple Level Calibration



TIC: 0725F023.D

(27) 1,1-Dichloroethane (PT)

Manual Integration:

3.42min 9.43PPB m
 response 156695

After
 Shoulder

Ion	Exp%	Act%
63.00	100	100
65.00	32.70	29.44
83.00	13.60	12.73
0.00	0.00	0.00

07/26/19

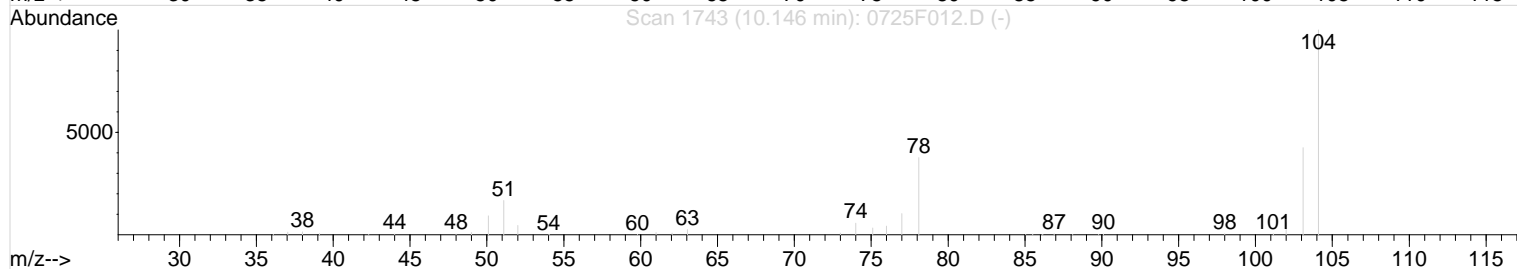
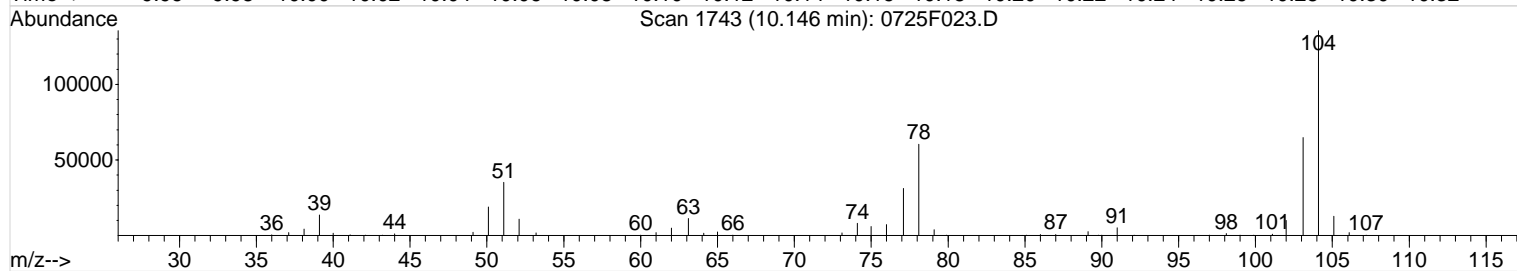
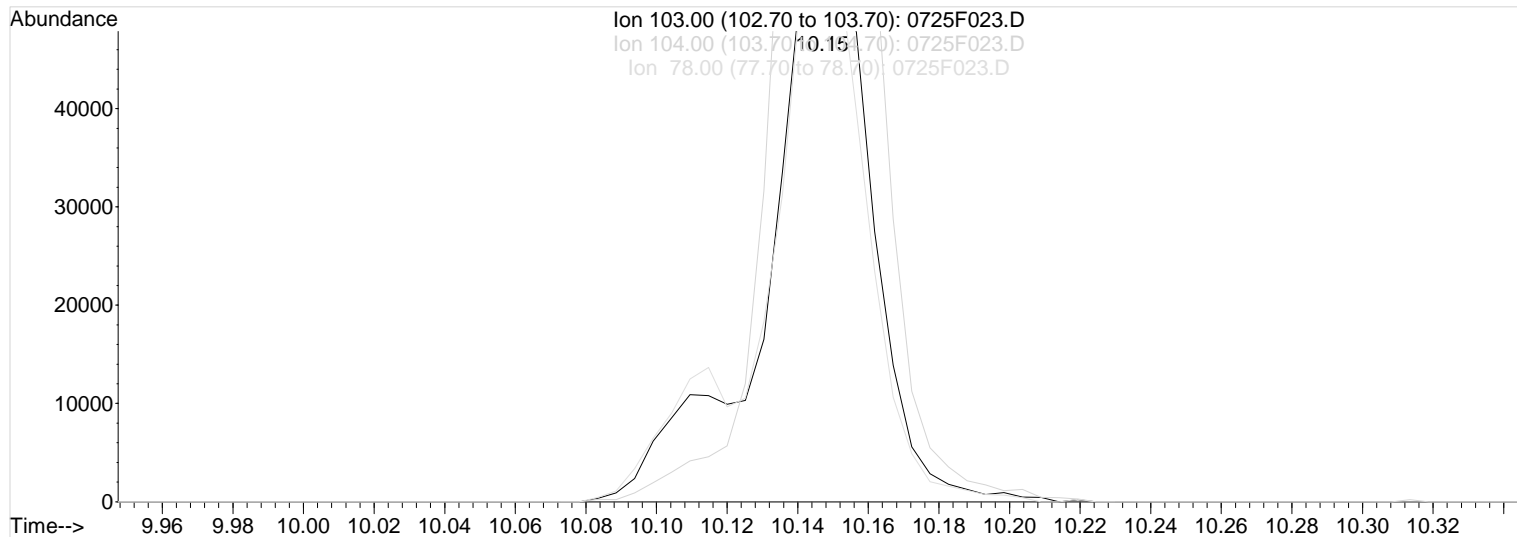
Data File : I:\MS13\DATA\072519\0725F023.D
 Acq On : 25 Jul 2019 4:56 pm
 Sample : ICV IPR1
 Misc :

Vial: 23
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 18:12 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 18:09:35 2019
 Response via : Multiple Level Calibration



TIC: 0725F023.D

(80) Styrene (T)
 10.15min 10.91PPB
 response 123627

Manual Integration:

Before

07/26/19

Ion	Exp%	Act%
103.00	100	100
104.00	209.30	208.97
78.00	89.90	92.97
0.00	0.00	0.00

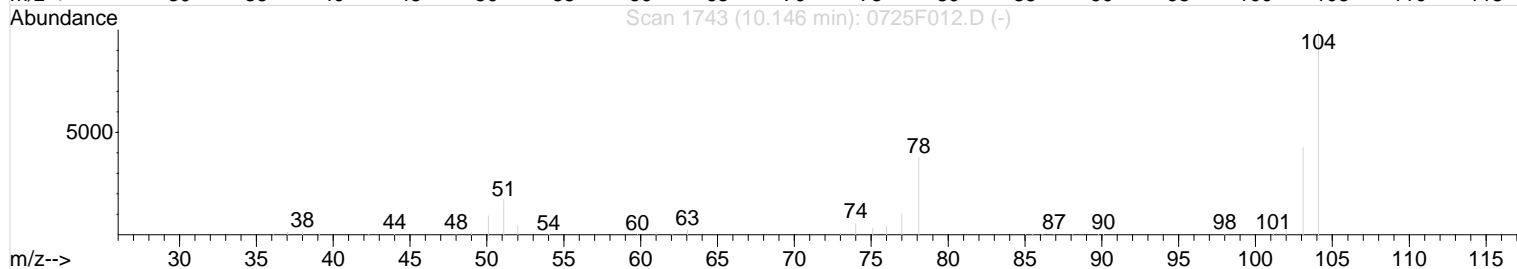
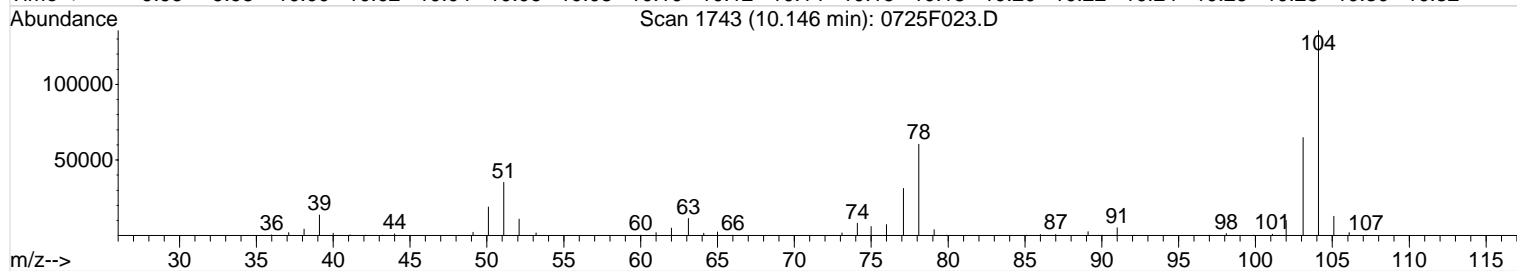
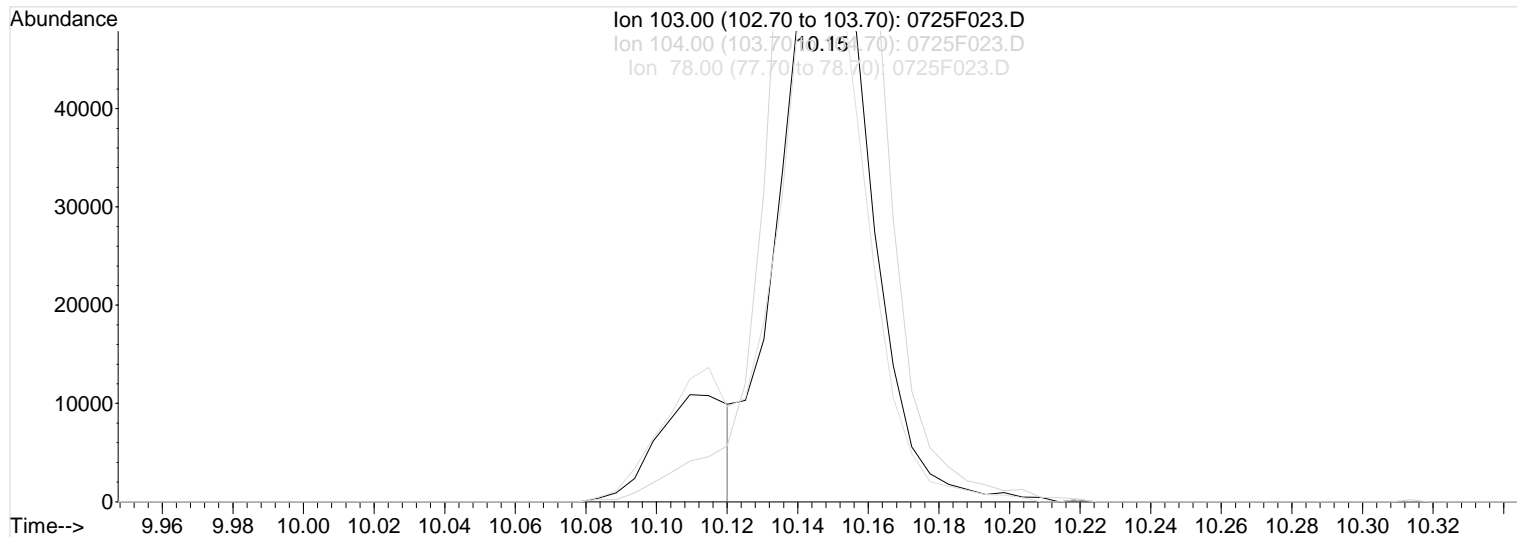
Data File : I:\MS13\DATA\072519\0725F023.D
 Acq On : 25 Jul 2019 4:56 pm
 Sample : ICV IPR1
 Misc :

Vial: 23
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 18:12 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 18:09:35 2019
 Response via : Multiple Level Calibration



TIC: 0725F023.D

Ion	Exp%	Act%
103.00	100	100
104.00	209.30	208.97
78.00	89.90	92.97
0.00	0.00	0.00

Manual Integration:
 After
 Shoulder
 07/26/19

Data File : I:\MS13\DATA\072519\0725F023.D
 Acq On : 25 Jul 2019 4:56 pm
 Sample : ICV IPR1
 Misc :

Vial: 23
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 18:11:30 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 18:09:35 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	309951	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	110214	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.97	152	87255	10.00	PPB	0.00

System Monitoring Compounds

42) Dibromofluoromethane	4.58	113	67420	9.59	PPB	0.00
Spiked Amount	10.000		Recovery	=	95.90%	
47) 1,2-Dichloroethane-d4	4.99	65	69165	8.64	PPB	0.00
Spiked Amount	10.000		Recovery	=	86.40%	
62) Toluene-d8	7.56	98	301354	10.02	PPB	0.00
Spiked Amount	10.000		Recovery	=	100.20%	
84) 4-Bromofluorobenzene	10.73	95	86671	9.42	PPB	0.00
Spiked Amount	10.000		Recovery	=	94.20%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.10	85	89981	8.81	PPB	98
3) Chloromethane	1.24	50	107582	8.82	PPB	99
4) Vinyl Chloride	1.31	62	109068	9.52	PPB	99
5) Bromomethane	1.56	96	64572	9.36	PPB	97
6) Chloroethane	1.64	64	67485	10.11	PPB	95
7) Dichlorofluoromethane	1.80	67	165664	10.06	PPB	96
8) Trichlorofluoromethane	1.80	101	140344	8.35	PPB	97
9) Ethyl Ether	2.05	59	52237	11.75	PPB	96
10) Acrolein	2.23	56	85930	95.40	PPB	96
11) Trichlorotrifluoroethane	2.22	151	65094	10.09	PPB	96
12) 1,1-Dichloroethene	2.25	96	78198	9.09	PPB	95
13) Acetone	2.37	43	62812	54.73	PPB	95
14) Iodomethane	2.41	142	312499	33.61	PPB	98
15) Carbon Disulfide	2.43	76	447479	18.86	PPB	99
16) 2-Propanol (Isopropyl Alco	2.49	45	81218	429.26	PPB	97
17) 3-Chloro-1-propene	2.60	76	143754	31.76	PPB	96
18) Acetonitrile	2.69	40	73797	286.58	PPB	95
19) Methyl Acetate	2.64	43	27635	8.37	PPB	96
20) Methylene Chloride	2.75	84	78860	8.84	PPB	94
21) tert-Butyl Alcohol	2.87	59	21983	81.68	PPB	97
22) Acrylonitrile	3.06	53	60689	38.87	PPB	99
23) Methyl tert-Butyl Ether	2.94	73	151098	9.05	PPB	97
24) trans-1,2-Dichloroethene	2.95	96	76526	9.13	PPB	94
25) Hexane	3.14	57	408670	30.72	PPB	97
26) Diisopropyl Ether	3.41	45	563679	19.44	PPB	98
27) 1,1-Dichloroethane	3.42	63	156695m	9.43	PPB	
28) Vinyl Acetate	3.47	86	56052	45.63	PPB	100
29) Chloroprene	3.47	53	467190	32.83	PPB	100
30) tert-Butyl Ethyl Ether	3.79	59	431587	19.15	PPB	99
31) 2,2-Dichloropropane	4.00	77	132701	9.33	PPB	96
32) cis-1,2-Dichloroethene	4.04	96	86968	9.28	PPB	93
33) 2-Butanone	4.09	72	21682	53.31	PPB	91
34) Propionitrile	4.25	54	15879	28.78	PPB	97
35) Ethyl Acetate	4.12	61	21654	25.28	PPB	95
36) Methacrylonitrile	4.36	67	57140	30.60	PPB	96
37) Bromochloromethane	4.31	128	36141	9.16	PPB	99
38) Tetrahydrofuran	4.31	71	8063	17.64	PPB	94
39) Chloroform	4.39	83	142459	9.17	PPB	98
40) tert-Butyl Formate	4.42	59	118786	20.71	PPB	97
41) 1,1,1-Trichloroethane	4.53	97	127082	9.20	PPB	95
43) Cyclohexane	4.50	56	147245	9.64	PPB	99
44) Carbon Tetrachloride	4.67	117	106946	9.46	PPB	98
45) 1,1-Dichloropropene	4.72	75	122365	9.37	PPB	99

(#) = qualifier out of range (m) = manual integration

Data File : I:\MS13\DATA\072519\0725F023.D
Acq On : 25 Jul 2019 4:56 pm
Sample : ICV
Misc :

Vial: 23
Operator: JHJ
Inst : MS13
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Jul 26 18:11:30 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 18:09:35 2019
Response via : Initial Calibration
DataAcq Meth : 8260W5

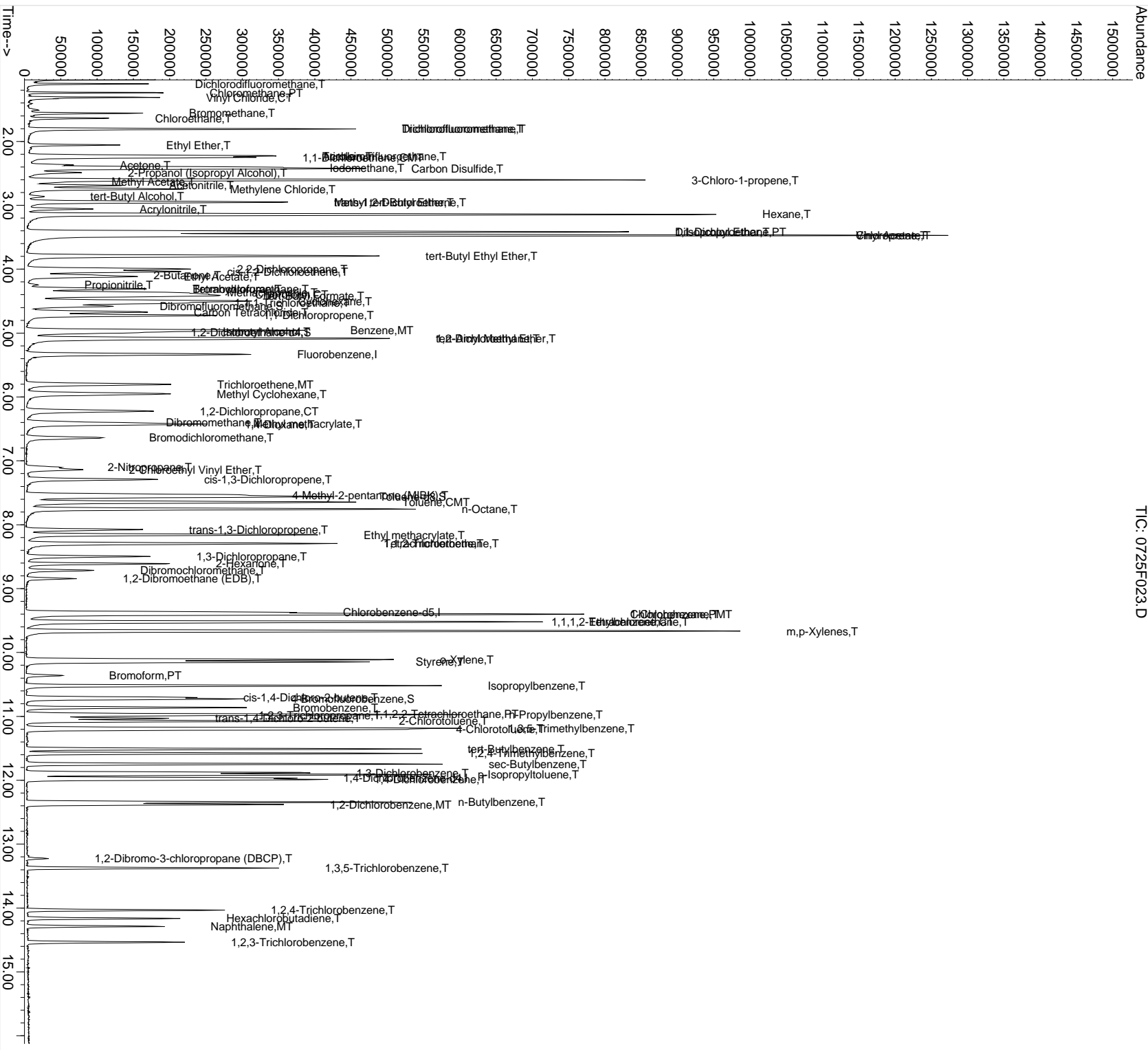
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) Isobutyl Alcohol	4.98	43	32891	249.73	PPB	91
48) Benzene	4.96	78	348867	9.15	PPB	99
49) 1,2-Dichloroethane	5.09	62	100556	9.03	PPB	98
50) tert-Amyl Methyl Ether	5.08	55	90905	18.84	PPB	99
51) Trichloroethene	5.80	95	83434	8.95	PPB	95
52) Methyl Cyclohexane	5.95	83	106575	7.17	PPB	99
53) 1,2-Dichloropropane	6.22	63	82861	8.88	PPB	95
54) Dibromomethane	6.40	93	36685	8.80	PPB	90
55) Methyl methacrylate	6.42	69	103995	31.62	PPB	98
56) 1,4-Dioxane	6.43	88	7424	275.97	PPB	89
57) Bromodichloromethane	6.64	83	87923	8.87	PPB	90
58) 2-Nitropropane	7.10	43	38490	28.78	PPB	93
59) 2-Chloroethyl Vinyl Ether	7.14	63	36760	9.76	PPB	96
60) cis-1,3-Dichloropropene	7.29	75	112427	9.20	PPB	97
61) 4-Methyl-2-pentanone (MIBK)	7.53	58	79484	50.87	PPB	93
63) Toluene	7.65	92	211242	9.37	PPB	98
65) n-Octane	7.76	85	114581	21.69	PPB	98
66) trans-1,3-Dichloropropene	8.07	75	90917	9.30	PPB	93
67) Ethyl methacrylate	8.16	69	209115	31.50	PPB	96
68) 1,1,2-Trichloroethane	8.29	83	44323	9.31	PPB	96
69) Tetrachloroethene	8.29	164	68809	9.59	PPB	97
70) 2-Hexanone	8.61	57	25224	51.48	PPB #	89
71) 1,3-Dichloropropane	8.50	76	94075	9.24	PPB	98
72) Dibromochloromethane	8.72	129	52047	10.01	PPB	98
73) 1,2-Dibromoethane (EDB)	8.84	107	45068	8.79	PPB	92
74) 1-Chlorohexane	9.40	91	108749	9.75	PPB	98
75) Chlorobenzene	9.40	112	213822	9.42	PPB	97
76) Ethylbenzene	9.52	106	124526	9.51	PPB	95
77) 1,1,1,2-Tetrachloroethane	9.53	131	64784	9.20	PPB	96
78) m,p-Xylenes	9.66	106	293191	18.85	PPB	100
79) o-Xylene	10.11	106	136498	9.46	PPB	95
80) Styrene	10.15	103	107975m	9.53	PPB	
81) Bromoform	10.36	173	23993	8.71	PPB	94
82) Isopropylbenzene	10.52	105	361501	9.61	PPB	98
83) cis-1,4-Dichloro-2-butene	10.71	89	18812	29.97	PPB	88
86) 1,1,2,2-Tetrachloroethane	10.96	83	45254	8.93	PPB	96
87) trans-1,4-Dichloro-2-buten	11.03	53	41265	25.62	PPB	85
88) Bromobenzene	10.86	156	79676	9.34	PPB	97
89) n-Propylbenzene	10.97	91	414549	9.44	PPB	98
90) 1,2,3-Trichloropropane	10.99	110	14041	9.37	PPB	95
91) 2-Chlorotoluene	11.07	91	242858	9.30	PPB	96
92) 1,3,5-Trimethylbenzene	11.18	105	283310	9.35	PPB	99
93) 4-Chlorotoluene	11.20	91	277011	9.27	PPB	99
94) tert-Butylbenzene	11.51	119	249519	9.50	PPB	97
95) 1,2,4-Trimethylbenzene	11.58	105	280084	9.41	PPB	98
96) sec-Butylbenzene	11.75	105	354948	9.49	PPB	99
97) p-Isopropyltoluene	11.91	119	303354	9.91	PPB	100
98) 1,3-Dichlorobenzene	11.88	146	148319	9.13	PPB	99
99) 1,4-Dichlorobenzene	11.99	146	144430	8.87	PPB	99
100) n-Butylbenzene	12.34	91	266333	9.42	PPB	100
101) 1,2-Dichlorobenzene	12.38	146	128000	9.24	PPB	99
102) 1,2-Dibromo-3-chloropropan	13.23	155	4984	8.26	PPB	85
103) 1,3,5-Trichlorobenzene	13.37	180	97530	9.75	PPB	97
104) 1,2,4-Trichlorobenzene	14.03	180	73297	8.74	PPB	94
105) Hexachlorobutadiene	14.16	225	37219	9.08	PPB	98
106) Naphthalene	14.29	128	129901	8.98	PPB	99
107) 1,2,3-Trichlorobenzene	14.53	180	59599	8.79	PPB	96

08/01/19
Data File : I:\MS13\DATA\072519MS13_8260W.D
Acq On : 25 Jul 2019 4:56 pm
Sample : ICV
Misc :
MS Integration Params: rteint.p
Quant Time: Jul 26 18:12 2019

Vial: 23
Operator: JHT
Inst: MS13
Multipl: 1.00

Quant Results File: 072519MS13_8260W.RES

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 18:09:35 2019
Response via : Initial Calibration



Initial Calibration Verification Summary Report

Calibration ID:	KC1900305	Instrument ID:	K-MS-13
Datafile ID:	I:\MS13\DATA\072519\0725F023.D	Column Name:	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
1,1,1,2-Tetrachloroethane	KC1900305-12	T	Average RF	10	9.202	PPB	-8.0	<= 30
1,1,1,2-Tetrachloroethane	KC1900305-12	T	Average RF	10	9.202	PPB	-8.0	<= 20
1,1,1-Trichloroethane (TCA)	KC1900305-12	T	Average RF	10	9.200	PPB	-8.0	<= 20
1,1,1-Trichloroethane (TCA)	KC1900305-12	T	Average RF	10	9.200	PPB	-8.0	<= 30
1,1,2,2-Tetrachloroethane	KC1900305-12	T	Average RF	10	8.932	PPB	-10.7	<= 20
1,1,2,2-Tetrachloroethane	KC1900305-12	T	Average RF	10	8.932	PPB	-10.7	<= 30
1,1,2-Trichloroethane	KC1900305-12	T	Average RF	10	9.313	PPB	-6.9	<= 30
1,1,2-Trichloroethane	KC1900305-12	T	Average RF	10	9.313	PPB	-6.9	<= 20
1,1,2-Trichlorotrifluoroethane	KC1900305-12	T	Average RF	10	10.089	PPB	0.9	<= 20
1,1,2-Trichlorotrifluoroethane	KC1900305-12	T	Average RF	10	10.089	PPB	0.9	<= 30
1,1-Dichloroethane (1,1-DCA)	KC1900305-12	T	Average RF	10	9.433	PPB	-5.7	<= 30
1,1-Dichloroethane (1,1-DCA)	KC1900305-12	T	Average RF	10	9.433	PPB	-5.7	<= 20
1,1-Dichloroethene (1,1-DCE)	KC1900305-12	T	Average RF	10	9.090	PPB	-9.1	<= 30
1,1-Dichloroethene (1,1-DCE)	KC1900305-12	T	Average RF	10	9.090	PPB	-9.1	<= 20
1,1-Dichloropropene	KC1900305-12	T	Average RF	10	9.367	PPB	-6.3	<= 30
1,1-Dichloropropene	KC1900305-12	T	Average RF	10	9.367	PPB	-6.3	<= 20
1,1-Dichloropropene	KC1900305-12	T	Average RF	10	9.367	PPB	-6.3	<= 30
1,2,3-Trichlorobenzene	KC1900305-12	T	Average RF	10	8.786	PPB	-12.1	<= 30
1,2,3-Trichlorobenzene	KC1900305-12	T	Average RF	10	8.786	PPB	-12.1	<= 20
1,2,3-Trichloropropane	KC1900305-12	T	Average RF	10	9.366	PPB	-6.3	<= 20
1,2,3-Trichloropropane	KC1900305-12	T	Average RF	10	9.366	PPB	-6.3	<= 30
1,2,4-Trichlorobenzene	KC1900305-12	T	Average RF			PPB		<= 30
1,2,4-Trichlorobenzene	KC1900305-12	T	Average RF			PPB		<= 20
1,2,4-Trimethylbenzene	KC1900305-12	T	Average RF	10	9.414	PPB	-5.9	<= 30
1,2,4-Trimethylbenzene	KC1900305-12	T	Average RF	10	9.414	PPB	-5.9	<= 20
1,2-Dibromo-3-chloropropane (DBCP)	KC1900305-12	T	Average RF	10	8.261	PPB	-17.4	<= 30
1,2-Dibromo-3-chloropropane (DBCP)	KC1900305-12	T	Average RF	10	8.261	PPB	-17.4	<= 20
1,2-Dibromoethane	KC1900305-12	T	Average RF	10	8.785	PPB	-12.1	<= 20
1,2-Dibromoethane	KC1900305-12	T	Average RF	10	8.785	PPB	-12.1	<= 30
1,2-Dichlorobenzene	KC1900305-12	T	Average RF	10	9.241	PPB	-7.6	<= 20
1,2-Dichlorobenzene	KC1900305-12	T	Average RF	10	9.241	PPB	-7.6	<= 30
1,2-Dichloroethane	KC1900305-12	T	Average RF	10	9.033	PPB	-9.7	<= 20
1,2-Dichloroethane	KC1900305-12	T	Average RF	10	9.033	PPB	-9.7	<= 30
1,2-Dichloropropane	KC1900305-12	T	Average RF	10	8.883	PPB	-11.2	<= 30
1,2-Dichloropropane	KC1900305-12	T	Average RF	10	8.883	PPB	-11.2	<= 20
1,3,5-Trichlorobenzene	KC1900305-12	T	Average RF	10	9.745	PPB	-2.5	<= 20
1,3,5-Trichlorobenzene	KC1900305-12	T	Average RF	10	9.745	PPB	-2.5	<= 30
1,3,5-Trimethylbenzene	KC1900305-12	T	Average RF	10	9.348	PPB	-6.5	<= 20
1,3,5-Trimethylbenzene	KC1900305-12	T	Average RF	10	9.348	PPB	-6.5	<= 30

Initial Calibration Verification Summary Report

Calibration ID:	KC1900305	Instrument ID:	K-MS-13
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1,3-Dichlorobenzene	KC1900305-12	T	Average RF	10	9.127	PPB	-8.7	<= 20
1,3-Dichlorobenzene	KC1900305-12	T	Average RF	10	9.127	PPB	-8.7	<= 30
1,3-Dichloropropane	KC1900305-12	T	Average RF	10	9.241	PPB	-7.6	<= 20
1,3-Dichloropropane	KC1900305-12	T	Average RF	10	9.241	PPB	-7.6	<= 30
1,4-Dichlorobenzene	KC1900305-12	T	Average RF	10	8.869	PPB	-11.3	<= 30
1,4-Dichlorobenzene	KC1900305-12	T	Average RF	10	8.869	PPB	-11.3	<= 20
1,4-Dioxane	KC1900305-12	T	Average RF	300	275.974	PPB	-8.0	<= 30
1,4-Dioxane	KC1900305-12	T	Average RF	300	275.974	PPB	-8.0	<= 20
1-Chlorohexane	KC1900305-12	T	Average RF	10	9.754	PPB	-2.5	<= 30
1-Chlorohexane	KC1900305-12	T	Average RF	10	9.754	PPB	-2.5	<= 20
2,2-Dichloropropane	KC1900305-12	T	Average RF	10	9.329	PPB	-6.7	<= 20
2,2-Dichloropropane	KC1900305-12	T	Average RF	10	9.329	PPB	-6.7	<= 30
2-Butanone (MEK)	KC1900305-12	T	Average RF	50	53.312	PPB	6.6	<= 30
2-Butanone (MEK)	KC1900305-12	T	Average RF	50	53.312	PPB	6.6	<= 20
2-Chloro-1,3-butadiene	KC1900305-12	T	Average RF	30	32.826	PPB	9.4	<= 20
2-Chloro-1,3-butadiene	KC1900305-12	T	Average RF	30	32.826	PPB	9.4	<= 30
2-Chloroethyl Vinyl Ether	KC1900305-12	T	Average RF	10	9.757	PPB	-2.4	<= 30
2-Chloroethyl Vinyl Ether	KC1900305-12	T	Average RF	10	9.757	PPB	-2.4	<= 20
2-Chlorotoluene	KC1900305-12	T	Average RF	10	9.297	PPB	-7.0	<= 30
2-Chlorotoluene	KC1900305-12	T	Average RF	10	9.297	PPB	-7.0	<= 20
2-Hexanone	KC1900305-12	T	Average RF	50	51.479	PPB	3.0	<= 20
2-Hexanone	KC1900305-12	T	Average RF	50	51.479	PPB	3.0	<= 30
2-Methyl-1-propanol	KC1900305-12	T	Average RF	300	249.731	PPB	-16.8	<= 20
2-Methyl-1-propanol	KC1900305-12	T	Average RF	300	249.731	PPB	-16.8	<= 30
2-Methyl-2-propanol	KC1900305-12	T	Average RF	100	81.682	PPB	-18.3	<= 30
2-Methyl-2-propanol	KC1900305-12	T	Average RF	100	81.682	PPB	-18.3	<= 20
2-Nitropropane	KC1900305-12	T	Average RF	30	28.780	PPB	-4.1	<= 20
2-Nitropropane	KC1900305-12	T	Average RF	30	28.780	PPB	-4.1	<= 30
2-Propanol	KC1900305-12	T	Average RF	500	429.256	PPB	-14.1	<= 20
2-Propanol	KC1900305-12	T	Average RF	500	429.256	PPB	-14.1	<= 30
3-Chloro-1-propene	KC1900305-12	T	Average RF	30	31.757	PPB	5.9	<= 30
3-Chloro-1-propene	KC1900305-12	T	Average RF	30	31.757	PPB	5.9	<= 20
4-Chlorotoluene	KC1900305-12	T	Average RF	10	9.272	PPB	-7.3	<= 30
4-Chlorotoluene	KC1900305-12	T	Average RF	10	9.272	PPB	-7.3	<= 20
4-Isopropyltoluene	KC1900305-12	T	Average RF	10	9.906	PPB	-0.9	<= 20
4-Isopropyltoluene	KC1900305-12	T	Average RF	10	9.906	PPB	-0.9	<= 30
4-Methyl-2-pentanone	KC1900305-12	T	Average RF	50	50.871	PPB	1.7	<= 20
4-Methyl-2-pentanone	KC1900305-12	T	Average RF	50	50.871	PPB	1.7	<= 30
Acetone	KC1900305-12	T	Average RF	50	54.730	PPB	9.5	<= 30
Acetone	KC1900305-12	T	Average RF	50	54.730	PPB	9.5	<= 20

Initial Calibration Verification Summary Report

Calibration ID:	KC1900305	Instrument ID:	K-MS-13
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Acetonitrile	KC1900305-12	T	Average RF	300	286.583	PPB	-4.5	<= 20
Acetonitrile	KC1900305-12	T	Average RF	300	286.583	PPB	-4.5	<= 30
Acrolein	KC1900305-12	T	Average RF	100	95.403	PPB	-4.6	<= 20
Acrolein	KC1900305-12	T	Average RF	100	95.403	PPB	-4.6	<= 30
Acrylonitrile	KC1900305-12	T	Average RF	40	38.874	PPB	-2.8	<= 20
Acrylonitrile	KC1900305-12	T	Average RF	40	38.874	PPB	-2.8	<= 30
Benzene	KC1900305-12	T	Average RF	10	9.151	PPB	-8.5	<= 30
Benzene	KC1900305-12	T	Average RF	10	9.151	PPB	-8.5	<= 20
Bromobenzene	KC1900305-12	T	Average RF	10	9.339	PPB	-6.6	<= 30
Bromobenzene	KC1900305-12	T	Average RF	10	9.339	PPB	-6.6	<= 20
Bromochloromethane	KC1900305-12	T	Average RF	10	9.155	PPB	-8.4	<= 30
Bromochloromethane	KC1900305-12	T	Average RF	10	9.155	PPB	-8.4	<= 20
Bromodichloromethane	KC1900305-12	T	Average RF	10	8.869	PPB	-11.3	<= 20
Bromodichloromethane	KC1900305-12	T	Average RF	10	8.869	PPB	-11.3	<= 30
Bromoform	KC1900305-12	T	Quadratic (0,0)	10	8.712	PPB	-12.9	<= 30
Bromoform	KC1900305-12	T	Quadratic (0,0)	10	8.712	PPB	-12.9	<= 20
Bromomethane	KC1900305-12	T	Average RF	10	9.361	PPB	-6.4	<= 20
Bromomethane	KC1900305-12	T	Average RF	10	9.361	PPB	-6.4	<= 30
Carbon Disulfide	KC1900305-12	T	Average RF	20	18.861	PPB	-5.7	<= 30
Carbon Disulfide	KC1900305-12	T	Average RF	20	18.861	PPB	-5.7	<= 20
Carbon Tetrachloride	KC1900305-12	T	Average RF	10	9.465	PPB	-5.4	<= 20
Carbon Tetrachloride	KC1900305-12	T	Average RF	10	9.465	PPB	-5.4	<= 30
Chlorobenzene	KC1900305-12	T	Average RF	10	9.418	PPB	-5.8	<= 30
Chlorobenzene	KC1900305-12	T	Average RF	10	9.418	PPB	-5.8	<= 20
Chloroethane	KC1900305-12	T	Average RF	10	10.109	PPB	1.1	<= 30
Chloroethane	KC1900305-12	T	Average RF	10	10.109	PPB	1.1	<= 20
Chloroform	KC1900305-12	T	Average RF	10	9.165	PPB	-8.3	<= 20
Chloroform	KC1900305-12	T	Average RF	10	9.165	PPB	-8.3	<= 30
Chloromethane	KC1900305-12	T	Average RF	10	8.820	PPB	-11.8	<= 20
Chloromethane	KC1900305-12	T	Average RF	10	8.820	PPB	-11.8	<= 30
Cyclohexane	KC1900305-12	T	Average RF	10	9.636	PPB	-3.6	<= 20
Cyclohexane	KC1900305-12	T	Average RF	10	9.636	PPB	-3.6	<= 30
Dibromochloromethane	KC1900305-12	T	Average RF	10	10.010	PPB	0.1	<= 20
Dibromochloromethane	KC1900305-12	T	Average RF	10	10.010	PPB	0.1	<= 30
Dibromomethane	KC1900305-12	T	Average RF	10	8.795	PPB	-12.0	<= 30
Dibromomethane	KC1900305-12	T	Average RF	10	8.795	PPB	-12.0	<= 20
Dichlorodifluoromethane (CFC 12)	KC1900305-12	T	Average RF	10	8.815	PPB	-11.9	<= 30
Dichlorodifluoromethane (CFC 12)	KC1900305-12	T	Average RF	10	8.815	PPB	-11.9	<= 20
Dichlorofluoromethane (CFC 21)	KC1900305-12	T	Average RF	10	10.057	PPB	0.6	<= 20
Dichlorofluoromethane (CFC 21)	KC1900305-12	T	Average RF	10	10.057	PPB	0.6	<= 30

Initial Calibration Verification Summary Report

Calibration ID:	KC1900305	Instrument ID:	K-MS-13
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Dichloromethane	KC1900305-12	T	Average RF	10	8.835	PPB	-11.6	<= 30
Dichloromethane	KC1900305-12	T	Average RF	10	8.835	PPB	-11.6	<= 20
Diethyl Ether	KC1900305-12	T	Average RF	10	11.749	PPB	17.5	<= 30
Diethyl Ether	KC1900305-12	T	Average RF	10	11.749	PPB	17.5	<= 20
Diisopropyl Ether	KC1900305-12	T	Average RF	20	19.436	PPB	-2.8	<= 30
Diisopropyl Ether	KC1900305-12	T	Average RF	20	19.436	PPB	-2.8	<= 20
Ethyl Acetate	KC1900305-12	T	Quadratic (0,0)	30	25.278	PPB	-15.7	<= 20
Ethyl Acetate	KC1900305-12	T	Quadratic (0,0)	30	25.278	PPB	-15.7	<= 30
Ethyl Methacrylate	KC1900305-12	T	Average RF	30	31.499	PPB	5.0	<= 20
Ethyl Methacrylate	KC1900305-12	T	Average RF	30	31.499	PPB	5.0	<= 30
Ethyl tert-Butyl Ether	KC1900305-12	T	Average RF	20	19.154	PPB	-4.2	<= 20
Ethyl tert-Butyl Ether	KC1900305-12	T	Average RF	20	19.154	PPB	-4.2	<= 30
Ethylbenzene	KC1900305-12	T	Average RF	10	9.508	PPB	-4.9	<= 30
Ethylbenzene	KC1900305-12	T	Average RF	10	9.508	PPB	-4.9	<= 20
Hexachlorobutadiene	KC1900305-12	T	Average RF	10	9.082	PPB	-9.2	<= 20
Hexachlorobutadiene	KC1900305-12	T	Average RF	10	9.082	PPB	-9.2	<= 30
Iodomethane	KC1900305-12	T	Average RF	30	33.607	PPB	12.0	<= 30
Iodomethane	KC1900305-12	T	Average RF	30	33.607	PPB	12.0	<= 20
Isopropylbenzene (Cumene)	KC1900305-12	T	Average RF	10	9.608	PPB	-3.9	
Isopropylbenzene (Cumene)	KC1900305-12	T	Average RF	10	9.608	PPB	-3.9	<= 30
Isopropylbenzene (Cumene)	KC1900305-12	T	Average RF	10	9.608	PPB	-3.9	<= 20
Methacrylonitrile	KC1900305-12	T	Average RF	30	30.598	PPB	2.0	<= 20
Methacrylonitrile	KC1900305-12	T	Average RF	30	30.598	PPB	2.0	<= 30
Methyl Acetate	KC1900305-12	T	Average RF	10	8.373	PPB	-16.3	<= 20
Methyl Acetate	KC1900305-12	T	Average RF	10	8.373	PPB	-16.3	<= 30
Methyl Methacrylate	KC1900305-12	T	Average RF	30	31.623	PPB	5.4	<= 30
Methyl Methacrylate	KC1900305-12	T	Average RF	30	31.623	PPB	5.4	<= 20
Methyl tert-Butyl Ether	KC1900305-12	T	Average RF	10	9.055	PPB	-9.5	<= 20
Methyl tert-Butyl Ether	KC1900305-12	T	Average RF	10	9.055	PPB	-9.5	<= 30
Methylcyclohexane	KC1900305-12	T	Average RF	7.70	7.174	PPB	-6.8	<= 30
Methylcyclohexane	KC1900305-12	T	Average RF	7.70	7.174	PPB	-6.8	<= 20
Naphthalene	KC1900305-12	T	Average RF			PPB		<= 30
Naphthalene	KC1900305-12	T	Average RF			PPB		<= 20
Propionitrile	KC1900305-12	T	Average RF	30	28.782	PPB	-4.1	<= 20
Propionitrile	KC1900305-12	T	Average RF	30	28.782	PPB	-4.1	<= 30
Styrene	KC1900305-12	T	Average RF	10	9.533	PPB	-4.7	<= 30
Styrene	KC1900305-12	T	Average RF	10	9.533	PPB	-4.7	<= 20
Tetrachloroethene (PCE)	KC1900305-12	T	Average RF	10	9.589	PPB	-4.1	<= 20
Tetrachloroethene (PCE)	KC1900305-12	T	Average RF	10	9.589	PPB	-4.1	<= 30
Tetrahydrofuran (THF)	KC1900305-12	T	Average RF	20	17.638	PPB	-11.8	<= 20

Initial Calibration Verification Summary Report

Calibration ID:	KC1900305	Instrument ID:	K-MS-13
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Tetrahydrofuran (THF)	KC1900305-12	T	Average RF	20	17.638	PPB	-11.8	<= 30
Toluene	KC1900305-12	T	Average RF	10	9.374	PPB	-6.3	<= 30
Toluene	KC1900305-12	T	Average RF	10	9.374	PPB	-6.3	<= 20
Trichloroethene (TCE)	KC1900305-12	T	Average RF	10	8.948	PPB	-10.5	<= 20
Trichloroethene (TCE)	KC1900305-12	T	Average RF	10	8.948	PPB	-10.5	<= 30
Trichlorofluoromethane (CFC 11)	KC1900305-12	T	Average RF	10	8.349	PPB	-16.5	<= 30
Trichlorofluoromethane (CFC 11)	KC1900305-12	T	Average RF	10	8.349	PPB	-16.5	<= 20
Vinyl Acetate	KC1900305-12	T	Average RF	50	45.635	PPB	-8.7	<= 20
Vinyl Acetate	KC1900305-12	T	Average RF	50	45.635	PPB	-8.7	<= 30
Vinyl Chloride	KC1900305-12	T	Average RF	10	9.515	PPB	-4.8	<= 20
Vinyl Chloride	KC1900305-12	T	Average RF	10	9.515	PPB	-4.8	<= 30
cis-1,2-Dichloroethene	KC1900305-12	T	Average RF	10	9.280	PPB	-7.2	<= 30
cis-1,2-Dichloroethene	KC1900305-12	T	Average RF	10	9.280	PPB	-7.2	<= 20
cis-1,3-Dichloropropene	KC1900305-12	T	Average RF	10	9.204	PPB	-8.0	<= 20
cis-1,3-Dichloropropene	KC1900305-12	T	Average RF	10	9.204	PPB	-8.0	<= 30
cis-1,4-Dichloro-2-butene	KC1900305-12	T	Quadratic (0,0)	30	29.969	PPB	-0.1	<= 20
cis-1,4-Dichloro-2-butene	KC1900305-12	T	Quadratic (0,0)	30	29.969	PPB	-0.1	<= 30
m,p-Xylenes	KC1900305-12	T	Average RF	20	18.848	PPB	-5.8	<= 20
m,p-Xylenes	KC1900305-12	T	Average RF	20	18.848	PPB	-5.8	
m,p-Xylenes	KC1900305-12	T	Average RF	20	18.848	PPB	-5.8	<= 30
n-Butylbenzene	KC1900305-12	T	Average RF	10	9.423	PPB	-5.8	<= 30
n-Butylbenzene	KC1900305-12	T	Average RF	10	9.423	PPB	-5.8	<= 20
n-Hexane	KC1900305-12	T	Average RF	30	30.721	PPB	2.4	<= 20
n-Hexane	KC1900305-12	T	Average RF	30	30.721	PPB	2.4	<= 30
n-Octane	KC1900305-12	T	Average RF	20	21.685	PPB	8.4	<= 30
n-Octane	KC1900305-12	T	Average RF	20	21.685	PPB	8.4	
n-Propylbenzene	KC1900305-12	T	Average RF	10	9.445	PPB	-5.6	<= 20
n-Propylbenzene	KC1900305-12	T	Average RF	10	9.445	PPB	-5.6	<= 30
o-Xylene	KC1900305-12	T	Average RF	10	9.459	PPB	-5.4	<= 30
o-Xylene	KC1900305-12	T	Average RF	10	9.459	PPB	-5.4	<= 20
sec-Butylbenzene	KC1900305-12	T	Average RF	10	9.493	PPB	-5.1	<= 30
sec-Butylbenzene	KC1900305-12	T	Average RF	10	9.493	PPB	-5.1	<= 20
tert-Amyl Methyl Ether	KC1900305-12	T	Average RF	20	18.840	PPB	-5.8	<= 30
tert-Amyl Methyl Ether	KC1900305-12	T	Average RF	20	18.840	PPB	-5.8	<= 20
tert-Butyl Formate	KC1900305-12	T	Average RF			PPB		<= 30
tert-Butyl Formate	KC1900305-12	T	Average RF			PPB		<= 20
tert-Butylbenzene	KC1900305-12	T	Average RF	10	9.502	PPB	-5.0	<= 30
tert-Butylbenzene	KC1900305-12	T	Average RF	10	9.502	PPB	-5.0	<= 20
trans-1,2-Dichloroethene	KC1900305-12	T	Average RF	10	9.134	PPB	-8.7	<= 30
trans-1,2-Dichloroethene	KC1900305-12	T	Average RF	10	9.134	PPB	-8.7	<= 20

Initial Calibration Verification Summary Report

Calibration ID:	KC1900305	Instrument ID:	K-MS-13
Datafile ID:	I:\MS13\DATA\072519\0725F023.D	Column Name:	1

trans-1,3-Dichloropropene	KC1900305-12	T	Average RF	10	9.300	PPB	-7.0	<= 20
trans-1,3-Dichloropropene	KC1900305-12	T	Average RF	10	9.300	PPB	-7.0	<= 30
trans-1,4-Dichloro-2-butene	KC1900305-12	T	Average RF	30	25.624	PPB	-14.6	<= 30
trans-1,4-Dichloro-2-butene	KC1900305-12	T	Average RF	30	25.624	PPB	-14.6	<= 20
1,2-Dichloroethane-d4	KC1900305-12	S	Average RF	10	8.641	PPB	-13.6	<= 30
1,2-Dichloroethane-d4	KC1900305-12	S	Average RF	10	8.641	PPB	-13.6	<= 20
4-Bromofluorobenzene	KC1900305-12	S	Average RF	10	9.420	PPB	-5.8	<= 30
4-Bromofluorobenzene	KC1900305-12	S	Average RF	10	9.420	PPB	-5.8	<= 20
Dibromofluoromethane	KC1900305-12	S	Average RF	10	9.594	PPB	-4.1	<= 30
Dibromofluoromethane	KC1900305-12	S	Average RF	10	9.594	PPB	-4.1	<= 20
Toluene-d8	KC1900305-12	S	Average RF	10	10.023	PPB	0.2	<= 20
Toluene-d8	KC1900305-12	S	Average RF	10	10.023	PPB	0.2	<= 30

Initial Calibration Verification Summary Report

Calibration ID:	KC1900305	Instrument ID:	K-MS-13
Datafile ID:	I:\MS13\DATA\072519\0725F023.D	Column Name:	1

Exceptions

QAP **Method**
 DOD QSM v5.0 8260C
 Kelso

	Compound	Type	Criteria	Result
	Acetonitrile	Minimum RF	>= 0.01	
	1,4-Dioxane	Minimum RF	>= 0.01	
	2-Methyl-1-propanol	Minimum RF	>= 0.01	
	2-Propanol	Minimum RF	>= 0.01	
	2-Methyl-2-propanol	Minimum RF	>= 0.01	

DOD QSM v5.0 8260B
 Kelso

	Compound	Type	Criteria	Result
	2-Methyl-2-propanol	Minimum RF	>= 0.01	
	Acetonitrile	Minimum RF	>= 0.01	
	1,4-Dioxane	Minimum RF	>= 0.01	
	2-Methyl-1-propanol	Minimum RF	>= 0.01	
	2-Propanol	Minimum RF	>= 0.01	

Exceptions

QAP **Method**
 LAB QAP 8260C

	Compound	Type	Criteria	Result
	2-Methyl-2-propanol	Minimum RF	>= 0.01	
	Acetonitrile	Minimum RF	>= 0.01	
	1,4-Dioxane	Minimum RF	>= 0.01	
	2-Methyl-1-propanol	Minimum RF	>= 0.01	
	2-Propanol	Minimum RF	>= 0.01	

LAB QAP 8260B

	Compound	Type	Criteria	Result
	Acetonitrile	Minimum RF	>= 0.01	
	1,4-Dioxane	Minimum RF	>= 0.01	
	2-Methyl-1-propanol	Minimum RF	>= 0.01	
	2-Propanol	Minimum RF	>= 0.01	
	2-Methyl-2-propanol	Minimum RF	>= 0.01	

Initial Calibration - Detailed Report

Calibration ID: KC1900305	Instrument ID: K-MS-13
	Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	KC1900305-01	CAL 0.1 PPB	F:\MS13\DATA\072519\0725F006.D	07/25/2019 09:26
02	KC1900305-02	CAL 0.2 PPB	F:\MS13\DATA\072519\0725F007.D	07/25/2019 09:52
03	KC1900305-03	CAL 0.5 PPB	F:\MS13\DATA\072519\0725F008.D	07/25/2019 10:19
04	KC1900305-04	CAL 1.0 PPB	F:\MS13\DATA\072519\0725F009.D	07/25/2019 10:45
05	KC1900305-05	CAL 2.0 PPB	F:\MS13\DATA\072519\0725F010.D	07/25/2019 11:12
06	KC1900305-06	CAL 5.0 PPB	F:\MS13\DATA\072519\0725F011.D	07/25/2019 11:38
07	KC1900305-07	CAL 10 PPB	F:\MS13\DATA\072519\0725F012.D	07/25/2019 12:04
08	KC1900305-08	CAL 40 PPB	F:\MS13\DATA\072519\0725F014.D	07/25/2019 12:57
09	KC1900305-09	CAL 60 PPB	F:\MS13\DATA\072519\0725F015.D	07/25/2019 13:24
10	KC1900305-10	CAL 80 PPB	F:\MS13\DATA\072519\0725F016.D	07/25/2019 13:50
11	KC1900305-11	CAL 20 PPB	F:\MS13\DATA\072519\0725F020.D	07/25/2019 15:37

<u>Analyte</u>			<u>Curve Fit</u>			<u>Weighting</u>					
1,1,1,2-Tetrachloroethane			Average RF			RSD = 12.2			Average RF = 6.388E-1		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.5788	02	0.200	0.6941	03	0.500	0.5621	04	1.000	0.5542
05	2.000	0.5394	06	5.000	0.5919	07	10.000	0.6521	08	40.000	0.7323
09	60.000	0.7387	10	80.000	0.739	11	20.000	0.644			
1,1,1-Trichloroethane (TCA)			Average RF			RSD = 10.31			Average RF = 0.4456		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.3816	02	0.200	0.4249	03	0.500	0.4148	04	1.000	0.3927
05	2.000	0.4022	06	5.000	0.4448	07	10.000	0.4676	08	40.000	0.514
09	60.000	0.4972	10	80.000	0.4986	11	20.000	0.4636			
1,1,2,2-Tetrachloroethane			Average RF			RSD = 9.381			Average RF = 5.806E-1		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.200	0.7116	03	0.500	0.5801	04	1.000	0.5425	05	2.000	0.5169
06	5.000	0.6034	07	10.000	0.6106	08	40.000	0.5855	09	60.000	0.5597
10	80.000	0.5462	11	20.000	0.5497						
1,1,2-Trichloroethane			Average RF			RSD = 6.147			Average RF = 0.4318		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.200	0.4182	03	0.500	0.4633	04	1.000	0.3869	05	2.000	0.3943
06	5.000	0.4317	07	10.000	0.4491	08	40.000	0.4606	09	60.000	0.4547
10	80.000	0.436	11	20.000	0.4233						
1,1,2-Trichlorotrifluoroethane			Average RF			RSD = 7.439			Average RF = 0.2082		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.200	0.1852	03	0.500	0.1963	04	1.000	0.1976	05	2.000	0.1909
06	5.000	0.2042	07	10.000	0.2131	08	40.000	0.2259	09	60.000	0.2214
10	80.000	0.23	11	20.000	0.2169						
1,1-Dichloroethane (1,1-DCA)			Average RF			RSD = 5.364			Average RF = 5.359E-1		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.5704	02	0.200	0.4919	03	0.500	0.5431	04	1.000	0.5019
05	2.000	0.4932	06	5.000	0.5297	07	10.000	0.5519	08	40.000	0.57
09	60.000	0.5556	10	80.000	0.5521	11	20.000	0.5356			

Initial Calibration - Detailed Report

Calibration ID: KC1900305	Instrument ID: K-MS-13
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1,1-Dichloroethene (1,1-DCE)			Average RF			RSD = 11.29			Average RF = 0.2775		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.1884	02	0.200	0.2911	03	0.500	0.298	04	1.000	0.2666
05	2.000	0.2712	06	5.000	0.2865	07	10.000	0.2847	08	40.000	0.2955
09	60.000	0.2903	10	80.000	0.2995	11	20.000	0.2813			

1,1-Dichloropropene			Average RF			RSD = 6.245			Average RF = 0.4215		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.3922	02	0.200	0.4166	03	0.500	0.4119	04	1.000	0.3781
05	2.000	0.3928	06	5.000	0.4271	07	10.000	0.4369	08	40.000	0.464
09	60.000	0.4473	10	80.000	0.4437	11	20.000	0.4254			

1,2,3-Trichlorobenzene			Average RF			RSD = 9.253			Average RF = 7.774E-1		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.9456	02	0.200	0.7174	03	0.500	0.7812	04	1.000	0.6885
05	2.000	0.6823	06	5.000	0.7742	07	10.000	0.8059	08	40.000	0.7992
09	60.000	0.8036	10	80.000	0.7986	11	20.000	0.7555			

1,2,3-Trichloropropane			Average RF			RSD = 10.46			Average RF = 0.1718		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	0.500	0.1308	04	1.000	0.1763	05	2.000	0.1661	06	5.000	0.1891
07	10.000	0.1916	08	40.000	0.1829	09	60.000	0.1732	10	80.000	0.1665
11	20.000	0.1698									

1,2,4-Trichlorobenzene			Average RF			RSD = 8.005			Average RF = 9.609E-1		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.200	1.13	03	0.500	0.946	04	1.000	0.8997	05	2.000	0.833
06	5.000	0.941	07	10.000	0.9441	08	40.000	1.003	09	60.000	0.9896
10	80.000	0.9825	11	20.000	0.9395						

1,2,4-Trimethylbenzene			Average RF			RSD = 5.995			Average RF = 3.41E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	3.374	02	0.200	2.971	03	0.500	3.258	04	1.000	3.369
05	2.000	3.255	06	5.000	3.559	07	10.000	3.669	08	40.000	3.672
09	60.000	3.537	10	80.000	3.412	11	20.000	3.433			

1,2-Dibromo-3-chloropropane (DBCP)			Average RF			RSD = 8.777			Average RF = 0.06915		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
05	2.000	0.05852	06	5.000	0.06588	07	10.000	0.06852	08	40.000	0.07371
09	60.000	0.07331	10	80.000	0.07663	11	20.000	0.06746			

1,2-Dibromoethane			Average RF			RSD = 9.42			Average RF = 0.4655		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.200	0.5317	03	0.500	0.4149	04	1.000	0.4279	05	2.000	0.3968
06	5.000	0.4527	07	10.000	0.4626	08	40.000	0.5152	09	60.000	0.5012
10	80.000	0.4826	11	20.000	0.469						

1,2-Dichlorobenzene			Average RF			RSD = 4.547			Average RF = 1.588E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	1.573	02	0.200	1.518	03	0.500	1.566	04	1.000	1.551
05	2.000	1.441	06	5.000	1.653	07	10.000	1.661	08	40.000	1.686
09	60.000	1.651	10	80.000	1.596	11	20.000	1.568			

1,2-Dichloroethane			Average RF			RSD = 7.039			Average RF = 0.3592		
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Initial Calibration - Detailed Report

Calibration ID: KC1900305	Instrument ID: K-MS-13
	Column Name: 1

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.4218	02	0.200	0.3337	03	0.500	0.369	04	1.000	0.3553
05	2.000	0.3236	06	5.000	0.3645	07	10.000	0.3599	08	40.000	0.3694
09	60.000	0.3602	10	80.000	0.348	11	20.000	0.3456			

1,2-Dichloropropane

Average RF

RSD = 5.9

Average RF = 0.3009

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.200	0.289	03	0.500	0.3274	04	1.000	0.2719	05	2.000	0.2777
06	5.000	0.3098	07	10.000	0.3084	08	40.000	0.3207	09	60.000	0.3073
10	80.000	0.3029	11	20.000	0.2942						

1,3,5-Trichlorobenzene

Average RF

RSD = 5.097

Average RF = 1.147E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	1.154	02	0.200	1.177	03	0.500	1.146	04	1.000	1.043
05	2.000	1.032	06	5.000	1.149	07	10.000	1.167	08	40.000	1.213
09	60.000	1.202	10	80.000	1.184	11	20.000	1.151			

1,3,5-Trimethylbenzene

Average RF

RSD = 4.173

Average RF = 3.473E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	3.261	02	0.200	3.37	03	0.500	3.442	04	1.000	3.347
05	2.000	3.322	06	5.000	3.612	07	10.000	3.661	08	40.000	3.703
09	60.000	3.557	10	80.000	3.452	11	20.000	3.48			

1,3-Dichlorobenzene

Average RF

RSD = 7.706

Average RF = 1.862E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	2.244	02	0.200	1.825	03	0.500	1.868	04	1.000	1.745
05	2.000	1.678	06	5.000	1.868	07	10.000	1.87	08	40.000	1.913
09	60.000	1.874	10	80.000	1.825	11	20.000	1.779			

1,3-Dichloropropane

Average RF

RSD = 6.205

Average RF = 9.237E-1

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	1.008	02	0.200	0.8052	03	0.500	0.9487	04	1.000	0.9357
05	2.000	0.8449	06	5.000	0.9331	07	10.000	0.9418	08	40.000	0.9731
09	60.000	0.9543	10	80.000	0.9213	11	20.000	0.8938			

1,4-Dichlorobenzene

Average RF

RSD = 6.32

Average RF = 1.866E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	2.094	02	0.200	2.02	03	0.500	1.832	04	1.000	1.803
05	2.000	1.668	06	5.000	1.855	07	10.000	1.856	08	40.000	1.936
09	60.000	1.882	10	80.000	1.827	11	20.000	1.757			

1,4-Dioxane

Average RF

RSD = 9.457

Average RF = 0.0008679

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
05	80.000	0.000991	06	200.000	0.000875	07	400.000	0.000891	08	1600.000	0.000808
09	2400.000	0.000874	10	3200.000	0.000906	11	800.000	0.000727			
		7			1			8			6

1-Chlorohexane

Average RF

RSD = 6.562

Average RF = 1.012E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.200	1.049	03	0.500	0.9873	04	1.000	0.9043	05	2.000	0.9273
06	5.000	0.9618	07	10.000	1.02	08	40.000	1.116	09	60.000	1.073
10	80.000	1.052	11	20.000	1.026						

2,2-Dichloropropane

Average RF

RSD = 7.313

Average RF = 0.459

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF

Initial Calibration - Detailed Report

Calibration ID: KC1900305	Instrument ID: K-MS-13
	Column Name: 1

01	0.100	0.4907	02	0.200	0.3959	03	0.500	0.4592	04	1.000	0.4278
05	2.000	0.4189	06	5.000	0.4494	07	10.000	0.4548	08	40.000	0.4988
09	60.000	0.4853	10	80.000	0.4775	11	20.000	0.4901			

2-Butanone (MEK)			Average RF			RSD = 5.659			Average RF = 0.01312		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	5.000	0.01305	04	10.000	0.01435	05	20.000	0.01168	06	50.000	0.01303
07	100.000	0.01298	08	400.000	0.0134	09	600.000	0.01373	10	800.000	0.0133
11	200.000	0.01257									

2-Chloro-1,3-butadiene			Average RF			RSD = 8.532			Average RF = 0.4592		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.400	0.4237	02	0.800	0.4066	03	2.000	0.4271	04	4.000	0.4274
05	8.000	0.4271	06	20.000	0.4631	07	40.000	0.4752	08	160.000	0.5181
09	240.000	0.5047	10	320.000	0.5074	11	80.000	0.4704			

2-Chloroethyl Vinyl Ether			Average RF			RSD = 6.12			Average RF = 0.1216		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.200	0.1376	03	0.500	0.1172	04	1.000	0.1143	05	2.000	0.1113
06	5.000	0.1237	07	10.000	0.1249	08	40.000	0.126	09	60.000	0.1241
10	80.000	0.1189	11	20.000	0.1175						

2-Chlorotoluene			Average RF			RSD = 4.533			Average RF = 2.994E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	3.259	02	0.200	3.113	03	0.500	3.022	04	1.000	2.988
05	2.000	2.897	06	5.000	3.109	07	10.000	3.017	08	40.000	3.009
09	60.000	2.88	10	80.000	2.791	11	20.000	2.848			

2-Hexanone			Average RF			RSD = 8.407			Average RF = 0.04446		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	2.000	0.05024	03	5.000	0.05074	04	10.000	0.04076	05	20.000	0.03945
06	50.000	0.04269	07	100.000	0.04572	08	400.000	0.04553	09	600.000	0.04454
10	800.000	0.04264	11	200.000	0.04227						

2-Methyl-1-propanol			Average RF			RSD = 10.25			Average RF = 0.004249		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	20.000	0.004995	04	40.000	0.00478	05	80.000	0.003898	06	200.000	0.004128
07	400.000	0.004002	08	1600.000	0.004142	09	2400.000	0.004366	10	3200.000	0.004349
11	800.000	0.003583									

2-Methyl-2-propanol			Average RF			RSD = 3.565			Average RF = 0.008683		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	5.000	0.009251	05	10.000	0.008318	06	25.000	0.008659	07	50.000	0.008824
08	200.000	0.00838	09	300.000	0.008931	10	400.000	0.008604	11	100.000	0.008496

2-Nitropropane			Average RF			RSD = 14.05			Average RF = 0.04315		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.500	0.03634	04	5.000	0.03717	05	10.000	0.03569	06	25.000	0.03938
07	50.000	0.0453	08	200.000	0.0504	09	300.000	0.05017	10	400.000	0.04882
11	100.000	0.04507									

2-Propanol			Average RF			RSD = 13.44			Average RF = 0.006104		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	10.000	0.008105	03	25.000	0.006306	04	50.000	0.006418	05	100.000	0.005297
06	250.000	0.005681	07	500.000	0.006001	08	2000.000	0.005756	09	3000.000	0.00622
10	4000.000	0.006126	11	1000.000	0.005134						

Initial Calibration - Detailed Report

Calibration ID: KC1900305	Instrument ID: K-MS-13
	Column Name: 1

3-Chloro-1-propene			Average RF			RSD = 5.735			Average RF = 0.146		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.200	0.1428	03	0.500	0.1437	04	1.000	0.1282	05	2.000	0.1387
06	5.000	0.1524	07	10.000	0.1486	08	40.000	0.1522	09	60.000	0.1536
10	80.000	0.1559	11	20.000	0.1445						
4-Chlorotoluene			Average RF			RSD = 3.232			Average RF = 3.424E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	3.372	02	0.200	3.434	03	0.500	3.391	04	1.000	3.466
05	2.000	3.321	06	5.000	3.586	07	10.000	3.609	08	40.000	3.513
09	60.000	3.39	10	80.000	3.268	11	20.000	3.314			
4-Isopropyltoluene			Average RF			RSD = 7.333			Average RF = 3.51E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	3.211	02	0.200	3.075	03	0.500	3.431	04	1.000	3.314
05	2.000	3.306	06	5.000	3.699	07	10.000	3.784	08	40.000	3.869
09	60.000	3.712	10	80.000	3.606	11	20.000	3.601			
4-Methyl-2-pentanone			Average RF			RSD = 4.289			Average RF = 0.05041		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.05302	02	2.000	0.05357	03	5.000	0.04948	04	10.000	0.05126
05	20.000	0.04625	06	50.000	0.05152	07	100.000	0.05107	08	400.000	0.05155
09	600.000	0.04994	10	800.000	0.04838	11	200.000	0.04847			
Acetone			Average RF			RSD = 4.399			Average RF = 0.03703		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	10.000	0.0404	05	20.000	0.03496	06	50.000	0.03664	07	100.000	0.03708
08	400.000	0.03723	09	600.000	0.03767	10	800.000	0.03669	11	200.000	0.03555
Acetonitrile			Average RF			RSD = 5.245			Average RF = 0.008308		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	20.000	0.008059	04	40.000	0.008374	05	80.000	0.007746	06	200.000	0.008952
07	400.000	0.008648	08	1600.000	0.008628	09	2400.000	0.008402	10	3200.000	0.008356
11	800.000	0.007605									
Acrolein			Average RF			RSD = 14.9			Average RF = 0.02906		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	0.04123	02	4.000	0.02994	03	10.000	0.03026	04	20.000	0.02835
05	40.000	0.02551	06	100.000	0.02783	07	200.000	0.02826	08	800.000	0.0281
09	1200.000	0.02798	10	1600.000	0.02718	11	400.000	0.02502			
Acrylonitrile			Average RF			RSD = 4.76			Average RF = 0.05037		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.800	0.0539	03	2.000	0.05336	04	4.000	0.05045	05	8.000	0.04629
06	20.000	0.05199	07	40.000	0.05088	08	160.000	0.05076	09	240.000	0.04964
10	320.000	0.04885	11	80.000	0.04758						
Benzene			Average RF			RSD = 4.169			Average RF = 1.23E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	1.319	02	0.200	1.194	03	0.500	1.255	04	1.000	1.159
05	2.000	1.15	06	5.000	1.243	07	10.000	1.258	08	40.000	1.281
09	60.000	1.245	10	80.000	1.231	11	20.000	1.196			
Bromobenzene			Average RF			RSD = 7.497			Average RF = 9.778E-1		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF

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01	0.100	0.8195	02	0.200	1.106	03	0.500	1.002	04	1.000	0.9333
05	2.000	0.9117	06	5.000	1.024	07	10.000	1.022	08	40.000	0.9984
09	60.000	0.9922	10	80.000	0.9874	11	20.000	0.9583			

Bromochloromethane

Average RF

RSD = 7.745

Average RF = 0.1274

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.200	0.1106	03	0.500	0.1246	04	1.000	0.124	05	2.000	0.1123
06	5.000	0.1301	07	10.000	0.1299	08	40.000	0.1391	09	60.000	0.1387
10	80.000	0.1356	11	20.000	0.1286						

Bromodichloromethane

Average RF

RSD = 9.798

Average RF = 0.3198

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.3065	02	0.200	0.2624	03	0.500	0.3047	04	1.000	0.2996
05	2.000	0.291	06	5.000	0.3235	07	10.000	0.3242	08	40.000	0.3639
09	60.000	0.3616	10	80.000	0.3528	11	20.000	0.3283			

Bromoform

Quadratic (0,0) 1/X

COD = 0.9977

Y = 0.01214 X² + 0.2393 X + 0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.200	0.1963	03	0.500	0.15	04	1.000	0.1875	05	2.000	0.1847
06	5.000	0.2236	07	10.000	0.2444	08	40.000	0.3063	09	60.000	0.324
10	80.000	0.326	11	20.000	0.2524						

Bromomethane

Average RF

RSD = 3.33

Average RF = 0.2225

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	0.500	0.237	04	1.000	0.2285	05	2.000	0.2252	06	5.000	0.2248
07	10.000	0.222	08	40.000	0.2204	09	60.000	0.2165	10	80.000	0.2154
11	20.000	0.2132									

Carbon Disulfide

Average RF

RSD = 4.849

Average RF = 7.654E-1

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	0.500	0.8432	04	1.000	0.7338	05	2.000	0.7209	06	5.000	0.7501
07	10.000	0.7744	08	40.000	0.7895	09	60.000	0.7685	10	80.000	0.7747
11	20.000	0.7339									

Carbon Tetrachloride

Average RF

RSD = 12.76

Average RF = 0.3646

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.324	02	0.200	0.3124	03	0.500	0.3236	04	1.000	0.334
05	2.000	0.3241	06	5.000	0.3497	07	10.000	0.3693	08	40.000	0.4306
09	60.000	0.4261	10	80.000	0.4285	11	20.000	0.3879			

Chlorobenzene

Average RF

RSD = 6.394

Average RF = 2.06E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	2.246	02	0.200	1.866	03	0.500	2.061	04	1.000	1.925
05	2.000	1.868	06	5.000	2.044	07	10.000	2.074	08	40.000	2.229
09	60.000	2.164	10	80.000	2.139	11	20.000	2.046			

Chloroethane

Average RF

RSD = 5.416

Average RF = 0.2154

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.1997	02	0.200	0.1939	03	0.500	0.219	04	1.000	0.2321
05	2.000	0.2275	06	5.000	0.2215	07	10.000	0.223	08	40.000	0.2204
09	60.000	0.2084	10	80.000	0.2087	11	20.000	0.2149			

Chloroform

Average RF

RSD = 6.934

Average RF = 5.015E-1

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.5621	02	0.200	0.5065	03	0.500	0.459	04	1.000	0.4473
05	2.000	0.4629	06	5.000	0.4965	07	10.000	0.5054	08	40.000	0.5347

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09	60.000	0.5265	10	80.000	0.5203	11	20.000	0.4953			
Chloromethane			Average RF			RSD = 7.321			Average RF = 0.3935		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.4571	02	0.200	0.4193	03	0.500	0.4088	04	1.000	0.3958
05	2.000	0.4047	06	5.000	0.393	07	10.000	0.3868	08	40.000	0.3743
09	60.000	0.3616	10	80.000	0.3672	11	20.000	0.3604			
Cyclohexane			Average RF			RSD = 4.321			Average RF = 0.493		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.5106	02	0.200	0.4694	03	0.500	0.5046	04	1.000	0.4725
05	2.000	0.4636	06	5.000	0.4721	07	10.000	0.4943	08	40.000	0.5292
09	60.000	0.5112	10	80.000	0.5057	11	20.000	0.4897			
Dibromochloromethane			Average RF			RSD = 12.34			Average RF = 0.4717		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.200	0.4931	03	0.500	0.417	04	1.000	0.3988	05	2.000	0.4255
06	5.000	0.493	07	10.000	0.5249	11	20.000	0.55			
Dibromomethane			Average RF			RSD = 5.408			Average RF = 0.1346		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.200	0.1515	03	0.500	0.1362	04	1.000	0.1293	05	2.000	0.1255
06	5.000	0.1294	07	10.000	0.1369	08	40.000	0.1378	09	60.000	0.1366
10	80.000	0.1334	11	20.000	0.1291						
Dichlorodifluoromethane (CFC 12)			Average RF			RSD = 4.589			Average RF = 0.3293		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.3439	02	0.200	0.318	03	0.500	0.3588	04	1.000	0.3068
05	2.000	0.3243	06	5.000	0.3463	07	10.000	0.3272	08	40.000	0.3243
09	60.000	0.315	10	80.000	0.3261	11	20.000	0.3321			
Dichlorofluoromethane (CFC 21)			Average RF			RSD = 3.96			Average RF = 5.315E-1		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.5477	02	0.200	0.5269	03	0.500	0.5736	04	1.000	0.5308
05	2.000	0.5119	06	5.000	0.5461	07	10.000	0.5478	08	40.000	0.5329
09	60.000	0.5083	10	80.000	0.5146	11	20.000	0.5054			
Dichloromethane			Average RF			RSD = 8.036			Average RF = 0.288		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	0.500	0.3351	04	1.000	0.3152	05	2.000	0.2873	06	5.000	0.2921
07	10.000	0.2797	08	40.000	0.2736	09	60.000	0.2724	10	80.000	0.2689
11	20.000	0.2674									
Diethyl Ether			Average RF			RSD = 8.665			Average RF = 0.1434		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.200	0.1164	03	0.500	0.1495	04	1.000	0.1435	05	2.000	0.1264
06	5.000	0.1453	07	10.000	0.1478	08	40.000	0.1539	09	60.000	0.154
10	80.000	0.1526	11	20.000	0.145						
Diisopropyl Ether			Average RF			RSD = 4.96			Average RF = 9.357E-1		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.8603	02	0.200	1.013	03	0.500	0.9257	04	1.000	0.9317
05	2.000	0.8582	06	5.000	0.9459	07	10.000	0.9538	08	40.000	0.9751
09	60.000	0.9674	10	80.000	0.9489	11	20.000	0.9123			
Ethyl Acetate			Quadratic (0,0) 1/X			COD = 0.9959			Y = -0.0002944 X² + 0.02838 X + 0		

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# Amount RF	# Amount RF	# Amount RF	# Amount RF
05 4.000 0.04893	06 10.000 0.03132	07 20.000 0.02866	08 80.000 0.02568
09 120.000 0.02387	10 160.000 0.02444	11 40.000 0.02444	

Ethyl Methacrylate

Average RF

RSD = 8.463

Average RF = 6.024E-1

# Amount RF	# Amount RF	# Amount RF	# Amount RF
02 0.200 0.6941	03 0.500 0.5996	04 1.000 0.544	05 2.000 0.5124
06 5.000 0.5919	07 10.000 0.613	08 40.000 0.6467	09 60.000 0.6303
10 80.000 0.6102	11 20.000 0.5814		

Ethyl tert-Butyl Ether

Average RF

RSD = 5.085

Average RF = 7.27E-1

# Amount RF	# Amount RF	# Amount RF	# Amount RF
01 0.100 0.7255	02 0.200 0.639	03 0.500 0.7356	04 1.000 0.7086
05 2.000 0.6928	06 5.000 0.7562	07 10.000 0.7515	08 40.000 0.7647
09 60.000 0.7617	10 80.000 0.7413	11 20.000 0.7198	

Ethylbenzene

Average RF

RSD = 5.708

Average RF = 1.188E0

# Amount RF	# Amount RF	# Amount RF	# Amount RF
01 0.100 1.174	02 0.200 1.134	03 0.500 1.184	04 1.000 1.083
05 2.000 1.11	06 5.000 1.179	07 10.000 1.209	08 40.000 1.313
09 60.000 1.263	10 80.000 1.25	11 20.000 1.173	

Hexachlorobutadiene

Average RF

RSD = 9.622

Average RF = 0.4696

# Amount RF	# Amount RF	# Amount RF	# Amount RF
02 0.200 0.5056	03 0.500 0.4798	04 1.000 0.3654	05 2.000 0.4209
06 5.000 0.474	07 10.000 0.4814	08 40.000 0.5076	09 60.000 0.4942
10 80.000 0.5077	11 20.000 0.46		

Iodomethane

Average RF

RSD = 8.711

Average RF = 0.3

# Amount RF	# Amount RF	# Amount RF	# Amount RF
01 0.400 0.3269	02 0.800 0.2898	03 2.000 0.2784	04 4.000 0.26
05 8.000 0.2641	06 20.000 0.2921	07 40.000 0.3069	08 160.000 0.319
09 240.000 0.3249	10 320.000 0.3395	11 80.000 0.2984	

Isopropylbenzene (Cumene)

Average RF

RSD = 8.505

Average RF = 3.414E0

# Amount RF	# Amount RF	# Amount RF	# Amount RF
01 0.100 3.279	02 0.200 2.921	03 0.500 3.333	04 1.000 3.122
05 2.000 3.133	06 5.000 3.447	07 10.000 3.56	08 40.000 3.866
09 60.000 3.773	10 80.000 3.642	11 20.000 3.475	

Methacrylonitrile

Average RF

RSD = 9.144

Average RF = 0.06025

# Amount RF	# Amount RF	# Amount RF	# Amount RF
01 0.400 0.06632	02 0.800 0.04749	03 2.000 0.05833	04 4.000 0.05575
05 8.000 0.05708	06 20.000 0.06074	07 40.000 0.06288	08 160.000 0.06569
09 240.000 0.06558	10 320.000 0.06246	11 80.000 0.06045	

Methyl Acetate

Average RF

RSD = 5.899

Average RF = 0.1065

# Amount RF	# Amount RF	# Amount RF	# Amount RF
04 1.000 0.121	05 2.000 0.1074	06 5.000 0.1073	07 10.000 0.1047
08 40.000 0.1046	09 60.000 0.1037	10 80.000 0.103	11 20.000 0.1003

Methyl Methacrylate

Average RF

RSD = 5.457

Average RF = 0.1061

# Amount RF	# Amount RF	# Amount RF	# Amount RF
03 0.500 0.1109	04 1.000 0.09821	05 2.000 0.09599	06 5.000 0.1114
07 10.000 0.1107	08 40.000 0.1098	09 60.000 0.1091	10 80.000 0.1055
11 20.000 0.1033			

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Methyl tert-Butyl Ether

Average RF			RSD = 5.934			Average RF = 5.384E-1					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.200	0.5752	02	0.400	0.5363	03	1.000	0.5458	04	2.000	0.4945
05	4.000	0.4725	06	10.000	0.5419	07	20.000	0.5317	08	80.000	0.563
09	120.000	0.571	10	160.000	0.5641	11	40.000	0.5263			

Methylcyclohexane

Average RF			RSD = 4.874			Average RF = 0.4793					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.5223	02	0.200	0.4661	03	0.500	0.502	04	1.000	0.4647
05	2.000	0.4424	06	5.000	0.461	07	10.000	0.4793	08	40.000	0.5072
09	60.000	0.4809	10	80.000	0.4643	11	20.000	0.482			

Naphthalene

Average RF			RSD = 7.061			Average RF = 1.657E0					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.200	1.868	03	0.500	1.578	04	1.000	1.552	05	2.000	1.433
06	5.000	1.683	07	10.000	1.695	08	40.000	1.742	09	60.000	1.695
10	80.000	1.678	11	20.000	1.65						

Propionitrile

Average RF			RSD = 8.337			Average RF = 0.0178					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.02135	04	4.000	0.01638	05	8.000	0.01693	06	20.000	0.01821
07	40.000	0.01807	08	160.000	0.01777	09	240.000	0.01772	10	320.000	0.01725
11	80.000	0.01651									

Styrene

Average RF			RSD = 9.273			Average RF = 1.028E0					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	1.157	02	0.200	0.9802	03	0.500	0.9574	04	1.000	0.8673
05	2.000	0.9171	06	5.000	1.007	07	10.000	1.06	08	40.000	1.126
09	60.000	1.152	10	80.000	1.074	11	20.000	1.008			

Tetrachloroethene (PCE)

Average RF			RSD = 7.316			Average RF = 6.511E-1					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.6296	02	0.200	0.601	03	0.500	0.6478	04	1.000	0.5824
05	2.000	0.6031	06	5.000	0.6351	07	10.000	0.6643	08	40.000	0.7325
09	60.000	0.7023	10	80.000	0.7056	11	20.000	0.6581			

Tetrahydrofuran (THF)

Average RF			RSD = 10.03			Average RF = 0.01475					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	1.000	0.01763	05	2.000	0.01215	06	5.000	0.01488	07	10.000	0.01458
08	40.000	0.01501	09	60.000	0.01454	10	80.000	0.01443	11	20.000	0.01477

Toluene

Average RF			RSD = 5.796			Average RF = 7.271E-1					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.6486	02	0.200	0.6778	03	0.500	0.7077	04	1.000	0.7018
05	2.000	0.7108	06	5.000	0.7494	07	10.000	0.7641	08	40.000	0.7865
09	60.000	0.7678	10	80.000	0.7562	11	20.000	0.7271			

Trichloroethene (TCE)

Average RF			RSD = 4.41			Average RF = 0.3008					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.3058	02	0.200	0.2936	03	0.500	0.3093	04	1.000	0.2745
05	2.000	0.2848	06	5.000	0.296	07	10.000	0.3042	08	40.000	0.3205
09	60.000	0.3134	10	80.000	0.3095	11	20.000	0.2976			

Trichlorofluoromethane (CFC 11)

Average RF			RSD = 3.829			Average RF = 5.423E-1					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF

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01 0.100 0.5357	02 0.200 0.5284	03 0.500 0.5256	04 1.000 0.5098
05 2.000 0.5165	06 5.000 0.5601	07 10.000 0.5632	08 40.000 0.5738
09 60.000 0.5427	10 80.000 0.5567	11 20.000 0.5532	

Vinyl Acetate			Average RF			RSD = 7.357			Average RF = 0.03963		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	1.000	0.0389	04	2.000	0.03832	05	4.000	0.03414	06	10.000	0.03722
07	20.000	0.03946	08	80.000	0.04254	09	120.000	0.04238	10	160.000	0.04323
11	40.000	0.04047									

Vinyl Chloride			Average RF			RSD = 4.637			Average RF = 0.3698		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.3391	02	0.200	0.3474	03	0.500	0.3835	04	1.000	0.3532
05	2.000	0.3737	06	5.000	0.3938	07	10.000	0.3856	08	40.000	0.3827
09	60.000	0.3661	10	80.000	0.3706	11	20.000	0.3722			

cis-1,2-Dichloroethene			Average RF			RSD = 8.572			Average RF = 0.3024		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.2567	02	0.200	0.3138	03	0.500	0.3259	04	1.000	0.2778
05	2.000	0.2594	06	5.000	0.3063	07	10.000	0.3064	08	40.000	0.3268
09	60.000	0.3251	10	80.000	0.3207	11	20.000	0.307			

cis-1,3-Dichloropropene			Average RF			RSD = 9.781			Average RF = 0.3941		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.3909	02	0.200	0.3733	03	0.500	0.338	04	1.000	0.3478
05	2.000	0.3496	06	5.000	0.3878	07	10.000	0.4196	08	40.000	0.4434
09	60.000	0.442	10	80.000	0.4322	11	20.000	0.4105			

cis-1,4-Dichloro-2-butene			Quadratic (0,0) 1/X			COD = 0.9973			Y = 0.0004714 X² + 0.05554 X + 0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.04494	04	4.000	0.04286	05	8.000	0.03822	06	20.000	0.04803
07	40.000	0.05642	08	160.000	0.06725	09	240.000	0.06933	10	320.000	0.06833
11	80.000	0.05801									

m,p-Xylenes			Average RF			RSD = 6.256			Average RF = 1.411E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.200	1.346	02	0.400	1.392	03	1.000	1.338	04	2.000	1.331
05	4.000	1.275	06	10.000	1.409	07	20.000	1.443	08	80.000	1.555
09	120.000	1.532	10	160.000	1.492	11	40.000	1.413			

n-Butylbenzene			Average RF			RSD = 6.041			Average RF = 3.239E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	3.611	02	0.200	3.307	03	0.500	3.136	04	1.000	2.956
05	2.000	2.932	06	5.000	3.253	07	10.000	3.349	08	40.000	3.429
09	60.000	3.262	10	80.000	3.163	11	20.000	3.235			

n-Hexane			Average RF			RSD = 4.798			Average RF = 0.4292		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.4255	02	0.200	0.4673	03	0.500	0.4437	04	1.000	0.3986
05	2.000	0.3952	06	5.000	0.4293	07	10.000	0.4306	08	40.000	0.441
09	60.000	0.4266	10	80.000	0.419	11	20.000	0.4441			

n-Octane			Average RF			RSD = 8.184			Average RF = 0.4794		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.200	0.4405	03	0.500	0.5151	04	1.000	0.4014	05	2.000	0.4516
06	5.000	0.4799	07	10.000	0.4951	08	40.000	0.5356	09	60.000	0.5067

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10 80.000 0.4805 11 20.000 0.4876

n-Propylbenzene

Average RF

RSD = 4.908

Average RF = 5.03E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	4.634	02	0.200	4.743	03	0.500	4.943	04	1.000	5.111
05	2.000	4.845	06	5.000	5.377	07	10.000	5.359	08	40.000	5.318
09	60.000	5.042	10	80.000	4.93	11	20.000	5.029			

o-Xylene

Average RF

RSD = 7.539

Average RF = 1.309E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	1.315	02	0.200	1.113	03	0.500	1.251	04	1.000	1.24
05	2.000	1.219	06	5.000	1.34	07	10.000	1.334	08	40.000	1.461
09	60.000	1.421	10	80.000	1.379	11	20.000	1.332			

sec-Butylbenzene

Average RF

RSD = 4.42

Average RF = 4.285E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	3.987	02	0.200	4.202	03	0.500	4.184	04	1.000	4.109
05	2.000	4.14	06	5.000	4.495	07	10.000	4.525	08	40.000	4.578
09	60.000	4.374	10	80.000	4.224	11	20.000	4.321			

tert-Amyl Methyl Ether

Average RF

RSD = 5.631

Average RF = 0.1557

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	0.500	0.1687	04	1.000	0.1612	05	2.000	0.1537	06	5.000	0.1659
07	10.000	0.1571	08	40.000	0.1564	09	60.000	0.1501	10	80.000	0.1436
11	20.000	0.1444									

tert-Butyl Formate

Average RF

RSD = 7.574

Average RF = 0.1851

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	0.500	0.1724	04	1.000	0.1676	05	2.000	0.1639	06	5.000	0.1917
07	10.000	0.1884	08	40.000	0.1986	09	60.000	0.2018	10	80.000	0.1969
11	20.000	0.1844									

tert-Butylbenzene

Average RF

RSD = 5.649

Average RF = 3.01E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	2.662	02	0.200	2.782	03	0.500	3.097	04	1.000	3.013
05	2.000	2.951	06	5.000	3.187	07	10.000	3.201	08	40.000	3.192
09	60.000	3.055	10	80.000	2.974	11	20.000	2.993			

trans-1,2-Dichloroethene

Average RF

RSD = 9.863

Average RF = 0.2703

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.2876	02	0.200	0.2125	03	0.500	0.2664	04	1.000	0.2467
05	2.000	0.2484	06	5.000	0.2684	07	10.000	0.2749	08	40.000	0.2998
09	60.000	0.2949	10	80.000	0.3004	11	20.000	0.2733			

trans-1,3-Dichloropropene

Average RF

RSD = 10.43

Average RF = 8.87E-1

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.9585	02	0.200	0.8987	03	0.500	0.8123	04	1.000	0.7296
05	2.000	0.7481	06	5.000	0.8529	07	10.000	0.9029	08	40.000	0.99
09	60.000	0.9984	10	80.000	0.9652	11	20.000	0.9004			

trans-1,4-Dichloro-2-butene

Average RF

RSD = 9.093

Average RF = 0.1846

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	0.500	0.2185	04	1.000	0.1687	05	2.000	0.1795	06	5.000	0.1963
07	10.000	0.1928	08	40.000	0.1873	09	60.000	0.1822	10	80.000	0.1631
11	20.000	0.1727									

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1,2-Dichloroethane-d4

Average RF	RSD = 5.042	Average RF = 0.2582
# Amount RF	# Amount RF	# Amount RF
04 4.000 0.2393	05 6.000 0.2404	06 8.000 0.2589
08 14.000 0.2776	09 16.000 0.2681	10 20.000 0.261
		11 12.000 0.2569

4-Bromofluorobenzene

Average RF	RSD = 8.911	Average RF = 8.348E-1
# Amount RF	# Amount RF	# Amount RF
04 4.000 0.7102	05 6.000 0.7459	06 8.000 0.8099
08 14.000 0.9184	09 16.000 0.9014	10 20.000 0.8605
		11 12.000 0.8483

Dibromofluoromethane

Average RF	RSD = 9.701	Average RF = 0.2267
# Amount RF	# Amount RF	# Amount RF
04 4.000 0.1918	05 6.000 0.1983	06 8.000 0.2236
08 14.000 0.2471	09 16.000 0.2509	10 20.000 0.2449
		11 12.000 0.2303

Toluene-d8

Average RF	RSD = 5.686	Average RF = 9.7E-1
# Amount RF	# Amount RF	# Amount RF
04 4.000 0.871	05 6.000 0.8991	06 8.000 0.9763
08 14.000 1.012	09 16.000 1.016	10 20.000 1.007
		11 12.000 0.9751

Analyte

1,1,1,2-Tetrachloroethane

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	0.100	0.0906	-9.4	02	0.200	0.217	8.7	03	0.500	0.440	-12.0
04	1.000	0.868	-13.2	05	2.000	1.69	-15.6	06	5.000	4.63	-7.3
07	10.000	10.2	2.1	08	40.000	45.9	14.6	09	60.000	69.4	15.6
10	80.000	92.5	15.7	11	20.000	20.2	0.8				

1,1,1-Trichloroethane (TCA)

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	0.100	0.0856	-14.4	02	0.200	0.191	-4.7	03	0.500	0.465	-6.9
04	1.000	0.881	-11.9	05	2.000	1.80	-9.8	06	5.000	4.99	-0.2
07	10.000	10.5	4.9	08	40.000	46.1	15.3	09	60.000	66.9	11.6
10	80.000	89.5	11.9	11	20.000	20.8	4.0				

1,1,2,2-Tetrachloroethane

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	0.200	0.245	22.6	03	0.500	0.500	-0.1	04	1.000	0.934	-6.6
05	2.000	1.78	-11.0	06	5.000	5.20	3.9	07	10.000	10.5	5.2
08	40.000	40.3	0.8	09	60.000	57.8	-3.6	10	80.000	75.3	-5.9
11	20.000	18.9	-5.3								

1,1,2-Trichloroethane

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	0.200	0.194	-3.2	03	0.500	0.536	7.3	04	1.000	0.896	-10.4
05	2.000	1.83	-8.7	06	5.000	5.00	-0.0	07	10.000	10.4	4.0
08	40.000	42.7	6.7	09	60.000	63.2	5.3	10	80.000	80.8	1.0
11	20.000	19.6	-2.0								

1,1,2-Trichlorotrifluoroethane

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Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	0.200	0.178	-11.0	03	0.500	0.472	-5.7	04	1.000	0.950	-5.0
05	2.000	1.83	-8.3	06	5.000	4.90	-1.9	07	10.000	10.2	2.4
08	40.000	43.4	8.5	09	60.000	63.8	6.3	10	80.000	88.4	10.5
11	20.000	20.8	4.2								

1,1-Dichloroethane (1,1-DCA)

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	0.100	0.106	6.4	02	0.200	0.184	-8.2	03	0.500	0.507	1.3
04	1.000	0.937	-6.3	05	2.000	1.84	-8.0	06	5.000	4.94	-1.2
07	10.000	10.3	3.0	08	40.000	42.5	6.4	09	60.000	62.2	3.7
10	80.000	82.4	3.0	11	20.000	20.0	-0.1				

1,1-Dichloroethene (1,1-DCE)

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	0.100	0.0679	-32.1	02	0.200	0.210	4.9	03	0.500	0.537	7.4
04	1.000	0.961	-3.9	05	2.000	1.95	-2.3	06	5.000	5.16	3.2
07	10.000	10.3	2.6	08	40.000	42.6	6.5	09	60.000	62.7	4.6
10	80.000	86.3	7.9	11	20.000	20.3	1.4				

1,1-Dichloropropene

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	0.100	0.0931	-6.9	02	0.200	0.198	-1.2	03	0.500	0.489	-2.3
04	1.000	0.897	-10.3	05	2.000	1.86	-6.8	06	5.000	5.07	1.3
07	10.000	10.4	3.7	08	40.000	44.0	10.1	09	60.000	63.7	6.1
10	80.000	84.2	5.3	11	20.000	20.2	0.9				

1,2,3-Trichlorobenzene

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	0.100	0.122	21.6	02	0.200	0.185	-7.7	03	0.500	0.502	0.5
04	1.000	0.886	-11.4	05	2.000	1.76	-12.2	06	5.000	4.98	-0.4
07	10.000	10.4	3.7	08	40.000	41.1	2.8	09	60.000	62.0	3.4
10	80.000	82.2	2.7	11	20.000	19.4	-2.8				

1,2,3-Trichloropropane

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
03	0.500	0.381	-23.9	04	1.000	1.03	2.6	05	2.000	1.93	-3.3
06	5.000	5.50	10.0	07	10.000	11.2	11.5	08	40.000	42.6	6.5
09	60.000	60.5	0.8	10	80.000	77.5	-3.1	11	20.000	19.8	-1.2

1,2,4-Trichlorobenzene

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	0.200	0.235	17.6	03	0.500	0.492	-1.5	04	1.000	0.936	-6.4
05	2.000	1.73	-13.3	06	5.000	4.90	-2.1	07	10.000	9.83	-1.7
08	40.000	41.8	4.4	09	60.000	61.8	3.0	10	80.000	81.8	2.2
11	20.000	19.6	-2.2								

1,2,4-Trimethylbenzene

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	0.100	0.0990	-1.0	02	0.200	0.174	-12.9	03	0.500	0.478	-4.5

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04	1.000	0.988	-1.2	05	2.000	1.91	-4.6	06	5.000	5.22	4.4
07	10.000	10.8	7.6	08	40.000	43.1	7.7	09	60.000	62.2	3.7
10	80.000	80.0	0.1	11	20.000	20.1	0.7				

1,2-Dibromo-3-chloropropane (DBCP)

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
05	2.000	1.69	-15.4	06	5.000	4.76	-4.7	07	10.000	9.91	-0.9
08	40.000	42.6	6.6	09	60.000	63.6	6.0	10	80.000	88.7	10.8
11	20.000	19.5	-2.4								

1,2-Dibromoethane

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	0.200	0.228	14.2	03	0.500	0.446	-10.9	04	1.000	0.919	-8.1
05	2.000	1.70	-14.8	06	5.000	4.86	-2.7	07	10.000	9.94	-0.6
08	40.000	44.3	10.7	09	60.000	64.6	7.7	10	80.000	82.9	3.7
11	20.000	20.2	0.8								

1,2-Dichlorobenzene

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	0.100	0.0991	-0.9	02	0.200	0.191	-4.4	03	0.500	0.493	-1.4
04	1.000	0.977	-2.3	05	2.000	1.82	-9.2	06	5.000	5.20	4.1
07	10.000	10.5	4.6	08	40.000	42.5	6.2	09	60.000	62.4	4.0
10	80.000	80.4	0.5	11	20.000	19.8	-1.2				

1,2-Dichloroethane

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	0.100	0.117	17.4	02	0.200	0.186	-7.1	03	0.500	0.514	2.7
04	1.000	0.989	-1.1	05	2.000	1.80	-9.9	06	5.000	5.07	1.5
07	10.000	10.0	0.2	08	40.000	41.1	2.8	09	60.000	60.2	0.3
10	80.000	77.5	-3.1	11	20.000	19.2	-3.8				

1,2-Dichloropropane

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	0.200	0.192	-4.0	03	0.500	0.544	8.8	04	1.000	0.904	-9.6
05	2.000	1.85	-7.7	06	5.000	5.15	2.9	07	10.000	10.2	2.5
08	40.000	42.6	6.6	09	60.000	61.3	2.1	10	80.000	80.5	0.6
11	20.000	19.6	-2.2								

1,3,5-Trichlorobenzene

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	0.100	0.101	0.6	02	0.200	0.205	2.6	03	0.500	0.500	-0.1
04	1.000	0.909	-9.1	05	2.000	1.80	-10.0	06	5.000	5.01	0.2
07	10.000	10.2	1.8	08	40.000	42.3	5.7	09	60.000	62.9	4.8
10	80.000	82.6	3.2	11	20.000	20.1	0.3				

1,3,5-Trimethylbenzene

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	0.100	0.0939	-6.1	02	0.200	0.194	-3.0	03	0.500	0.495	-0.9
04	1.000	0.964	-3.6	05	2.000	1.91	-4.4	06	5.000	5.20	4.0
07	10.000	10.5	5.4	08	40.000	42.6	6.6	09	60.000	61.4	2.4
10	80.000	79.5	-0.6	11	20.000	20.0	0.2				

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1,3-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.120	20.5	02	0.200	0.196	-2.0	03	0.500	0.501	0.3
04	1.000	0.937	-6.3	05	2.000	1.80	-9.9	06	5.000	5.01	0.3
07	10.000	10.0	0.4	08	40.000	41.1	2.7	09	60.000	60.4	0.6
10	80.000	78.4	-2.0	11	20.000	19.1	-4.5				

1,3-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.109	9.2	02	0.200	0.174	-12.8	03	0.500	0.514	2.7
04	1.000	1.01	1.3	05	2.000	1.83	-8.5	06	5.000	5.05	1.0
07	10.000	10.2	2.0	08	40.000	42.1	5.4	09	60.000	62.0	3.3
10	80.000	79.8	-0.3	11	20.000	19.4	-3.2				

1,4-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.112	12.2	02	0.200	0.216	8.2	03	0.500	0.491	-1.8
04	1.000	0.966	-3.4	05	2.000	1.79	-10.6	06	5.000	4.97	-0.6
07	10.000	9.94	-0.6	08	40.000	41.5	3.7	09	60.000	60.5	0.9
10	80.000	78.3	-2.1	11	20.000	18.8	-5.9				

1,4-Dioxane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
05	80.000	91.3	14.2	06	200.000	202	0.9	07	400.000	411	2.8
08	1600.000	1490	-6.8	09	2400.000	2420	0.8	10	3200.000	3340	4.4
11	800.000	671	-16.1								

1-Chlorohexane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	0.200	0.207	3.6	03	0.500	0.488	-2.4	04	1.000	0.894	-10.6
05	2.000	1.83	-8.3	06	5.000	4.75	-4.9	07	10.000	10.1	0.9
08	40.000	44.1	10.3	09	60.000	63.6	6.1	10	80.000	83.2	4.0
11	20.000	20.3	1.4								

2,2-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.107	6.9	02	0.200	0.173	-13.7	03	0.500	0.500	0.0
04	1.000	0.932	-6.8	05	2.000	1.83	-8.7	06	5.000	4.90	-2.1
07	10.000	9.91	-0.9	08	40.000	43.5	8.7	09	60.000	63.4	5.7
10	80.000	83.2	4.0	11	20.000	21.4	6.8				

2-Butanone (MEK)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	5.000	4.97	-0.5	04	10.000	10.9	9.4	05	20.000	17.8	-11.0
06	50.000	49.7	-0.7	07	100.000	98.9	-1.1	08	400.000	408	2.1
09	600.000	628	4.6	10	800.000	811	1.3	11	200.000	192	-4.2

2-Chloro-1,3-butadiene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.400	0.369	-7.7	02	0.800	0.708	-11.4	03	2.000	1.86	-7.0

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04	4.000	3.72	-6.9	05	8.000	7.44	-7.0	06	20.000	20.2	0.9
07	40.000	41.4	3.5	08	160.000	181	12.8	09	240.000	264	9.9
10	320.000	354	10.5	11	80.000	82.0	2.5				

2-Chloroethyl Vinyl Ether

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	0.200	0.226	13.2	03	0.500	0.482	-3.6	04	1.000	0.941	-5.9
05	2.000	1.83	-8.4	06	5.000	5.09	1.8	07	10.000	10.3	2.7
08	40.000	41.5	3.7	09	60.000	61.3	2.1	10	80.000	78.3	-2.2
11	20.000	19.3	-3.3								

2-Chlorotoluene

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	0.100	0.109	8.8	02	0.200	0.208	4.0	03	0.500	0.505	0.9
04	1.000	0.998	-0.2	05	2.000	1.94	-3.2	06	5.000	5.19	3.9
07	10.000	10.1	0.8	08	40.000	40.2	0.5	09	60.000	57.7	-3.8
10	80.000	74.6	-6.8	11	20.000	19.0	-4.9				

2-Hexanone

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	2.000	2.26	13.0	03	5.000	5.71	14.1	04	10.000	9.17	-8.3
05	20.000	17.7	-11.3	06	50.000	48.0	-4.0	07	100.000	103	2.8
08	400.000	410	2.4	09	600.000	601	0.2	10	800.000	767	-4.1
11	200.000	190	-4.9								

2-Methyl-1-propanol

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
03	20.000	23.5	17.6	04	40.000	45.0	12.5	05	80.000	73.4	-8.3
06	200.000	194	-2.8	07	400.000	377	-5.8	08	1600.000	1560	-2.5
09	2400.000	2470	2.7	10	3200.000	3280	2.3	11	800.000	674	-15.7

2-Methyl-2-propanol

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
04	5.000	5.33	6.5	05	10.000	9.58	-4.2	06	25.000	24.9	-0.3
07	50.000	50.8	1.6	08	200.000	193	-3.5	09	300.000	309	2.9
10	400.000	396	-0.9	11	100.000	97.8	-2.2				

2-Nitropropane

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
03	2.500	2.11	-15.8	04	5.000	4.31	-13.9	05	10.000	8.27	-17.3
06	25.000	22.8	-8.7	07	50.000	52.5	5.0	08	200.000	234	16.8
09	300.000	349	16.3	10	400.000	453	13.1	11	100.000	104	4.5

2-Propanol

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	10.000	13.3	32.8	03	25.000	25.8	3.3	04	50.000	52.6	5.1
05	100.000	86.8	-13.2	06	250.000	233	-6.9	07	500.000	492	-1.7
08	2000.000	1890	-5.7	09	3000.000	3060	1.9	10	4000.000	4010	0.4
11	1000.000	841	-15.9								

3-Chloro-1-propene

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#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	0.200	0.196	-2.2	03	0.500	0.492	-1.6	04	1.000	0.878	-12.2
05	2.000	1.90	-5.0	06	5.000	5.22	4.3	07	10.000	10.2	1.7
08	40.000	41.7	4.2	09	60.000	63.1	5.2	10	80.000	85.4	6.7
11	20.000	19.8	-1.1								

4-Chlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.0985	-1.5	02	0.200	0.201	0.3	03	0.500	0.495	-1.0
04	1.000	1.01	1.2	05	2.000	1.94	-3.0	06	5.000	5.24	4.7
07	10.000	10.5	5.4	08	40.000	41.0	2.6	09	60.000	59.4	-1.0
10	80.000	76.4	-4.6	11	20.000	19.4	-3.2				

4-Isopropyltoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.0915	-8.5	02	0.200	0.175	-12.4	03	0.500	0.489	-2.2
04	1.000	0.944	-5.6	05	2.000	1.88	-5.8	06	5.000	5.27	5.4
07	10.000	10.8	7.8	08	40.000	44.1	10.2	09	60.000	63.5	5.8
10	80.000	82.2	2.7	11	20.000	20.5	2.6				

4-Methyl-2-pentanone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.05	5.2	02	2.000	2.13	6.3	03	5.000	4.91	-1.9
04	10.000	10.2	1.7	05	20.000	18.4	-8.2	06	50.000	51.1	2.2
07	100.000	101	1.3	08	400.000	409	2.3	09	600.000	594	-0.9
10	800.000	768	-4.0	11	200.000	192	-3.8				

Acetone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
04	10.000	10.9	9.1	05	20.000	18.9	-5.6	06	50.000	49.5	-1.0
07	100.000	100	0.1	08	400.000	402	0.5	09	600.000	610	1.7
10	800.000	793	-0.9	11	200.000	192	-4.0				

Acetonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	20.000	19.4	-3.0	04	40.000	40.3	0.8	05	80.000	74.6	-6.8
06	200.000	215	7.7	07	400.000	416	4.1	08	1600.000	1660	3.9
09	2400.000	2430	1.1	10	3200.000	3220	0.6	11	800.000	732	-8.5

Acrolein

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	2.000	2.84	41.9	02	4.000	4.12	3.0	03	10.000	10.4	4.1
04	20.000	19.5	-2.5	05	40.000	35.1	-12.2	06	100.000	95.8	-4.2
07	200.000	194	-2.8	08	800.000	774	-3.3	09	1200.000	1160	-3.7
10	1600.000	1500	-6.5	11	400.000	344	-13.9				

Acrylonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	0.800	0.856	7.0	03	2.000	2.12	5.9	04	4.000	4.01	0.2
05	8.000	7.35	-8.1	06	20.000	20.6	3.2	07	40.000	40.4	1.0

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08	160.000	161	0.8	09	240.000	237	-1.4	10	320.000	310	-3.0
11	80.000	75.6	-5.5								

Benzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.107	7.3	02	0.200	0.194	-2.9	03	0.500	0.510	2.1
04	1.000	0.942	-5.8	05	2.000	1.87	-6.5	06	5.000	5.05	1.0
07	10.000	10.2	2.2	08	40.000	41.6	4.1	09	60.000	60.7	1.2
10	80.000	80.1	0.1	11	20.000	19.4	-2.8				

Bromobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.0838	-16.2	02	0.200	0.226	13.2	03	0.500	0.512	2.5
04	1.000	0.955	-4.5	05	2.000	1.86	-6.8	06	5.000	5.23	4.7
07	10.000	10.5	4.6	08	40.000	40.8	2.1	09	60.000	60.9	1.5
10	80.000	80.8	1.0	11	20.000	19.6	-2.0				

Bromochloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	0.200	0.174	-13.2	03	0.500	0.489	-2.2	04	1.000	0.974	-2.6
05	2.000	1.76	-11.8	06	5.000	5.11	2.2	07	10.000	10.2	2.0
08	40.000	43.7	9.2	09	60.000	65.3	8.9	10	80.000	85.2	6.5
11	20.000	20.2	0.9								

Bromodichloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.0958	-4.2	02	0.200	0.164	-18.0	03	0.500	0.476	-4.7
04	1.000	0.937	-6.3	05	2.000	1.82	-9.0	06	5.000	5.06	1.1
07	10.000	10.1	1.4	08	40.000	45.5	13.8	09	60.000	67.8	13.1
10	80.000	88.2	10.3	11	20.000	20.5	2.6				

Bromoform

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	0.200	0.164	-18.0	03	0.500	0.313	-37.4	04	1.000	0.781	-21.9
05	2.000	1.53	-23.4	06	5.000	4.57	-8.7	07	10.000	9.73	-2.7
08	40.000	42.2	5.4	09	60.000	61.8	3.1	10	80.000	78.1	-2.4
11	20.000	19.2	-3.9								

Bromomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	0.500	0.533	6.5	04	1.000	1.03	2.7	05	2.000	2.02	1.2
06	5.000	5.05	1.0	07	10.000	9.97	-0.3	08	40.000	39.6	-1.0
09	60.000	58.4	-2.7	10	80.000	77.4	-3.2	11	20.000	19.2	-4.2

Carbon Disulfide

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	0.500	0.551	10.2	04	1.000	0.959	-4.1	05	2.000	1.88	-5.8
06	5.000	4.90	-2.0	07	10.000	10.1	1.2	08	40.000	41.3	3.1
09	60.000	60.2	0.4	10	80.000	81.0	1.2	11	20.000	19.2	-4.1

Carbon Tetrachloride

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#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.0889	-11.1	02	0.200	0.171	-14.3	03	0.500	0.444	-11.2
04	1.000	0.916	-8.4	05	2.000	1.78	-11.1	06	5.000	4.80	-4.1
07	10.000	10.1	1.3	08	40.000	47.2	18.1	09	60.000	70.1	16.9
10	80.000	94.0	17.5	11	20.000	21.3	6.4				

Chlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.109	9.0	02	0.200	0.181	-9.4	03	0.500	0.500	0.0
04	1.000	0.934	-6.6	05	2.000	1.81	-9.3	06	5.000	4.96	-0.8
07	10.000	10.1	0.7	08	40.000	43.3	8.2	09	60.000	63.0	5.0
10	80.000	83.1	3.8	11	20.000	19.9	-0.7				

Chloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.0927	-7.3	02	0.200	0.180	-10.0	03	0.500	0.508	1.7
04	1.000	1.08	7.8	05	2.000	2.11	5.6	06	5.000	5.14	2.8
07	10.000	10.4	3.6	08	40.000	40.9	2.3	09	60.000	58.1	-3.2
10	80.000	77.5	-3.1	11	20.000	20.0	-0.2				

Chloroform

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.112	12.1	02	0.200	0.202	1.0	03	0.500	0.458	-8.5
04	1.000	0.892	-10.8	05	2.000	1.85	-7.7	06	5.000	4.95	-1.0
07	10.000	10.1	0.8	08	40.000	42.6	6.6	09	60.000	63.0	5.0
10	80.000	83.0	3.7	11	20.000	19.8	-1.2				

Chloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.116	16.2	02	0.200	0.213	6.5	03	0.500	0.519	3.9
04	1.000	1.01	0.6	05	2.000	2.06	2.8	06	5.000	4.99	-0.1
07	10.000	9.83	-1.7	08	40.000	38.0	-4.9	09	60.000	55.1	-8.1
10	80.000	74.6	-6.7	11	20.000	18.3	-8.4				

Cyclohexane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.104	3.6	02	0.200	0.190	-4.8	03	0.500	0.512	2.4
04	1.000	0.958	-4.2	05	2.000	1.88	-6.0	06	5.000	4.79	-4.2
07	10.000	10.0	0.3	08	40.000	42.9	7.3	09	60.000	62.2	3.7
10	80.000	82.1	2.6	11	20.000	19.9	-0.7				

Dibromochloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	0.200	0.209	4.5	03	0.500	0.442	-11.6	04	1.000	0.845	-15.5
05	2.000	1.80	-9.8	06	5.000	5.23	4.5	07	10.000	11.1	11.3
11	20.000	23.3	16.6								

Dibromomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	0.200	0.225	12.6	03	0.500	0.506	1.2	04	1.000	0.961	-3.9

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05	2.000	1.87	-6.7	06	5.000	4.81	-3.8	07	10.000	10.2	1.8
08	40.000	41.0	2.4	09	60.000	60.9	1.5	10	80.000	79.3	-0.9
11	20.000	19.2	-4.1								

Dichlorodifluoromethane (CFC 12)

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	0.100	0.104	4.4	02	0.200	0.193	-3.4	03	0.500	0.545	8.9
04	1.000	0.931	-6.9	05	2.000	1.97	-1.5	06	5.000	5.26	5.2
07	10.000	9.94	-0.6	08	40.000	39.4	-1.5	09	60.000	57.4	-4.4
10	80.000	79.2	-1.0	11	20.000	20.2	0.8				

Dichlorofluoromethane (CFC 21)

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	0.100	0.103	3.1	02	0.200	0.198	-0.9	03	0.500	0.540	7.9
04	1.000	0.999	-0.1	05	2.000	1.93	-3.7	06	5.000	5.14	2.7
07	10.000	10.3	3.1	08	40.000	40.1	0.3	09	60.000	57.4	-4.4
10	80.000	77.5	-3.2	11	20.000	19.0	-4.9				

Dichloromethane

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
03	0.500	0.582	16.4	04	1.000	1.09	9.5	05	2.000	2.00	-0.2
06	5.000	5.07	1.4	07	10.000	9.71	-2.9	08	40.000	38.0	-5.0
09	60.000	56.8	-5.4	10	80.000	74.7	-6.6	11	20.000	18.6	-7.2

Diethyl Ether

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	0.200	0.162	-18.9	03	0.500	0.521	4.2	04	1.000	1.00	0.0
05	2.000	1.76	-11.9	06	5.000	5.07	1.3	07	10.000	10.3	3.0
08	40.000	42.9	7.3	09	60.000	64.4	7.3	10	80.000	85.1	6.4
11	20.000	20.2	1.1								

Diisopropyl Ether

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	0.100	0.0919	-8.1	02	0.200	0.217	8.3	03	0.500	0.495	-1.1
04	1.000	0.996	-0.4	05	2.000	1.83	-8.3	06	5.000	5.05	1.1
07	10.000	10.2	1.9	08	40.000	41.7	4.2	09	60.000	62.0	3.4
10	80.000	81.1	1.4	11	20.000	19.5	-2.5				

Ethyl Acetate

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
05	4.000	6.95	73.7	06	10.000	11.2	11.6	07	20.000	20.6	3.2
08	80.000	78.8	-1.5	09	120.000	115	-4.5	10	160.000	167	4.1
11	40.000	35.8	-10.6								

Ethyl Methacrylate

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	0.200	0.230	15.2	03	0.500	0.498	-0.5	04	1.000	0.903	-9.7
05	2.000	1.70	-14.9	06	5.000	4.91	-1.7	07	10.000	10.2	1.8
08	40.000	42.9	7.4	09	60.000	62.8	4.6	10	80.000	81.0	1.3
11	20.000	19.3	-3.5								

Ethyl tert-Butyl Ether

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#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.0998	-0.2	02	0.200	0.176	-12.1	03	0.500	0.506	1.2
04	1.000	0.975	-2.5	05	2.000	1.91	-4.7	06	5.000	5.20	4.0
07	10.000	10.3	3.4	08	40.000	42.1	5.2	09	60.000	62.9	4.8
10	80.000	81.6	2.0	11	20.000	19.8	-1.0				

Ethylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.0988	-1.2	02	0.200	0.191	-4.6	03	0.500	0.498	-0.4
04	1.000	0.911	-8.9	05	2.000	1.87	-6.6	06	5.000	4.96	-0.8
07	10.000	10.2	1.7	08	40.000	44.2	10.5	09	60.000	63.8	6.3
10	80.000	84.1	5.2	11	20.000	19.7	-1.3				

Hexachlorobutadiene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	0.200	0.215	7.6	03	0.500	0.511	2.2	04	1.000	0.778	-22.2
05	2.000	1.79	-10.4	06	5.000	5.05	0.9	07	10.000	10.2	2.5
08	40.000	43.2	8.1	09	60.000	63.1	5.2	10	80.000	86.5	8.1
11	20.000	19.6	-2.1								

Iodomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.400	0.436	9.0	02	0.800	0.773	-3.4	03	2.000	1.86	-7.2
04	4.000	3.47	-13.3	05	8.000	7.04	-12.0	06	20.000	19.5	-2.6
07	40.000	40.9	2.3	08	160.000	170	6.3	09	240.000	260	8.3
10	320.000	362	13.2	11	80.000	79.6	-0.5				

Isopropylbenzene (Cumene)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.0960	-4.0	02	0.200	0.171	-14.4	03	0.500	0.488	-2.4
04	1.000	0.915	-8.5	05	2.000	1.84	-8.2	06	5.000	5.05	1.0
07	10.000	10.4	4.3	08	40.000	45.3	13.2	09	60.000	66.3	10.5
10	80.000	85.4	6.7	11	20.000	20.4	1.8				

Methacrylonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.400	0.440	10.1	02	0.800	0.631	-21.2	03	2.000	1.94	-3.2
04	4.000	3.70	-7.5	05	8.000	7.58	-5.3	06	20.000	20.2	0.8
07	40.000	41.7	4.4	08	160.000	174	9.0	09	240.000	261	8.9
10	320.000	332	3.7	11	80.000	80.3	0.3				

Methyl Acetate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
04	1.000	1.14	13.6	05	2.000	2.02	0.9	06	5.000	5.04	0.7
07	10.000	9.83	-1.7	08	40.000	39.3	-1.8	09	60.000	58.4	-2.6
10	80.000	77.4	-3.3	11	20.000	18.8	-5.8				

Methyl Methacrylate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	0.500	0.523	4.5	04	1.000	0.926	-7.4	05	2.000	1.81	-9.5

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06	5.000	5.25	5.0	07	10.000	10.4	4.4	08	40.000	41.4	3.5
09	60.000	61.7	2.8	10	80.000	79.5	-0.6	11	20.000	19.5	-2.7

Methyl tert-Butyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.200	0.214	6.8	02	0.400	0.398	-0.4	03	1.000	1.01	1.4
04	2.000	1.84	-8.1	05	4.000	3.51	-12.2	06	10.000	10.1	0.6
07	20.000	19.8	-1.2	08	80.000	83.7	4.6	09	120.000	127	6.1
10	160.000	168	4.8	11	40.000	39.1	-2.3				

Methylcyclohexane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.109	9.0	02	0.200	0.195	-2.7	03	0.500	0.524	4.7
04	1.000	0.970	-3.0	05	2.000	1.85	-7.7	06	5.000	4.81	-3.8
07	10.000	10.0	-0.0	08	40.000	42.3	5.8	09	60.000	60.2	0.3
10	80.000	77.5	-3.1	11	20.000	20.1	0.6				

Naphthalene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	0.200	0.225	12.7	03	0.500	0.476	-4.8	04	1.000	0.936	-6.4
05	2.000	1.73	-13.5	06	5.000	5.08	1.6	07	10.000	10.2	2.3
08	40.000	42.0	5.1	09	60.000	61.4	2.3	10	80.000	81.0	1.2
11	20.000	19.9	-0.5								

Propionitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	2.40	20.0	04	4.000	3.68	-7.9	05	8.000	7.61	-4.9
06	20.000	20.5	2.3	07	40.000	40.6	1.5	08	160.000	160	-0.2
09	240.000	239	-0.5	10	320.000	310	-3.1	11	80.000	74.2	-7.3

Styrene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.113	12.6	02	0.200	0.191	-4.6	03	0.500	0.466	-6.8
04	1.000	0.844	-15.6	05	2.000	1.78	-10.8	06	5.000	4.90	-2.1
07	10.000	10.3	3.1	08	40.000	43.8	9.6	09	60.000	67.2	12.0
10	80.000	83.6	4.5	11	20.000	19.6	-1.9				

Tetrachloroethene (PCE)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.0967	-3.3	02	0.200	0.185	-7.7	03	0.500	0.497	-0.5
04	1.000	0.895	-10.5	05	2.000	1.85	-7.4	06	5.000	4.88	-2.4
07	10.000	10.2	2.0	08	40.000	45.0	12.5	09	60.000	64.7	7.9
10	80.000	86.7	8.4	11	20.000	20.2	1.1				

Tetrahydrofuran (THF)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
04	1.000	1.20	19.5	05	2.000	1.65	-17.6	06	5.000	5.05	0.9
07	10.000	9.89	-1.1	08	40.000	40.7	1.8	09	60.000	59.2	-1.4
10	80.000	78.3	-2.2	11	20.000	20.0	0.1				

Toluene

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#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.0892	-10.8	02	0.200	0.186	-6.8	03	0.500	0.487	-2.7
04	1.000	0.965	-3.5	05	2.000	1.96	-2.2	06	5.000	5.15	3.1
07	10.000	10.5	5.1	08	40.000	43.3	8.2	09	60.000	63.4	5.6
10	80.000	83.2	4.0	11	20.000	20.0	-0.0				

Trichloroethene (TCE)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.102	1.6	02	0.200	0.195	-2.4	03	0.500	0.514	2.8
04	1.000	0.913	-8.7	05	2.000	1.89	-5.3	06	5.000	4.92	-1.6
07	10.000	10.1	1.1	08	40.000	42.6	6.5	09	60.000	62.5	4.2
10	80.000	82.3	2.9	11	20.000	19.8	-1.1				

Trichlorofluoromethane (CFC 11)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.0988	-1.2	02	0.200	0.195	-2.6	03	0.500	0.485	-3.1
04	1.000	0.940	-6.0	05	2.000	1.90	-4.8	06	5.000	5.16	3.3
07	10.000	10.4	3.8	08	40.000	42.3	5.8	09	60.000	60.0	0.1
10	80.000	82.1	2.6	11	20.000	20.4	2.0				

Vinyl Acetate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	1.000	0.982	-1.8	04	2.000	1.93	-3.3	05	4.000	3.45	-13.9
06	10.000	9.39	-6.1	07	20.000	19.9	-0.4	08	80.000	85.9	7.3
09	120.000	128	7.0	10	160.000	175	9.1	11	40.000	40.9	2.1

Vinyl Chloride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.0917	-8.3	02	0.200	0.188	-6.1	03	0.500	0.519	3.7
04	1.000	0.955	-4.5	05	2.000	2.02	1.1	06	5.000	5.32	6.5
07	10.000	10.4	4.3	08	40.000	41.4	3.5	09	60.000	59.4	-1.0
10	80.000	80.2	0.2	11	20.000	20.1	0.7				

cis-1,2-Dichloroethene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.0849	-15.1	02	0.200	0.208	3.8	03	0.500	0.539	7.8
04	1.000	0.919	-8.1	05	2.000	1.72	-14.2	06	5.000	5.06	1.3
07	10.000	10.1	1.3	08	40.000	43.2	8.1	09	60.000	64.5	7.5
10	80.000	84.9	6.1	11	20.000	20.3	1.5				

cis-1,3-Dichloropropene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.0992	-0.8	02	0.200	0.189	-5.3	03	0.500	0.429	-14.2
04	1.000	0.882	-11.8	05	2.000	1.77	-11.3	06	5.000	4.92	-1.6
07	10.000	10.6	6.5	08	40.000	45.0	12.5	09	60.000	67.3	12.2
10	80.000	87.7	9.7	11	20.000	20.8	4.2				

cis-1,4-Dichloro-2-butene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	1.62	-19.2	04	4.000	3.08	-23.0	05	8.000	5.48	-31.5

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06	20.000	17.0	-14.8	07	40.000	39.3	-1.7	08	160.000	169	5.9
09	240.000	248	3.2	10	320.000	311	-2.7	11	80.000	78.3	-2.1

m,p-Xylenes

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.200	0.191	-4.6	02	0.400	0.394	-1.4	03	1.000	0.948	-5.2
04	2.000	1.89	-5.7	05	4.000	3.61	-9.7	06	10.000	9.98	-0.2
07	20.000	20.4	2.2	08	80.000	88.1	10.2	09	120.000	130	8.6
10	160.000	169	5.7	11	40.000	40.0	0.1				

n-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.111	11.5	02	0.200	0.204	2.1	03	0.500	0.484	-3.2
04	1.000	0.912	-8.8	05	2.000	1.81	-9.5	06	5.000	5.02	0.4
07	10.000	10.3	3.4	08	40.000	42.3	5.8	09	60.000	60.4	0.7
10	80.000	78.1	-2.4	11	20.000	20.0	-0.1				

n-Hexane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.0991	-0.9	02	0.200	0.218	8.9	03	0.500	0.517	3.4
04	1.000	0.929	-7.1	05	2.000	1.84	-7.9	06	5.000	5.00	0.0
07	10.000	10.0	0.3	08	40.000	41.1	2.8	09	60.000	59.6	-0.6
10	80.000	78.1	-2.4	11	20.000	20.7	3.5				

n-Octane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	0.200	0.184	-8.1	03	0.500	0.537	7.5	04	1.000	0.837	-16.3
05	2.000	1.88	-5.8	06	5.000	5.00	0.1	07	10.000	10.3	3.3
08	40.000	44.7	11.7	09	60.000	63.4	5.7	10	80.000	80.2	0.2
11	20.000	20.3	1.7								

n-Propylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.0921	-7.9	02	0.200	0.189	-5.7	03	0.500	0.491	-1.7
04	1.000	1.02	1.6	05	2.000	1.93	-3.7	06	5.000	5.34	6.9
07	10.000	10.7	6.5	08	40.000	42.3	5.7	09	60.000	60.1	0.2
10	80.000	78.4	-2.0	11	20.000	20.0	-0.0				

o-Xylene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.100	0.4	02	0.200	0.170	-15.0	03	0.500	0.478	-4.5
04	1.000	0.947	-5.3	05	2.000	1.86	-6.9	06	5.000	5.12	2.3
07	10.000	10.2	1.9	08	40.000	44.6	11.6	09	60.000	65.1	8.5
10	80.000	84.3	5.3	11	20.000	20.3	1.7				

sec-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.0930	-7.0	02	0.200	0.196	-2.0	03	0.500	0.488	-2.4
04	1.000	0.959	-4.1	05	2.000	1.93	-3.4	06	5.000	5.25	4.9
07	10.000	10.6	5.6	08	40.000	42.7	6.8	09	60.000	61.2	2.1
10	80.000	78.9	-1.4	11	20.000	20.2	0.8				

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tert-Amyl Methyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	0.500	0.542	8.4	04	1.000	1.04	3.6	05	2.000	1.97	-1.3
06	5.000	5.33	6.6	07	10.000	10.1	0.9	08	40.000	40.2	0.5
09	60.000	57.8	-3.6	10	80.000	73.8	-7.8	11	20.000	18.6	-7.2

tert-Butyl Formate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	0.500	0.466	-6.9	04	1.000	0.906	-9.4	05	2.000	1.77	-11.4
06	5.000	5.18	3.6	07	10.000	10.2	1.8	08	40.000	42.9	7.3
09	60.000	65.4	9.0	10	80.000	85.1	6.4	11	20.000	19.9	-0.4

tert-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.0884	-11.6	02	0.200	0.185	-7.6	03	0.500	0.515	2.9
04	1.000	1.00	0.1	05	2.000	1.96	-2.0	06	5.000	5.29	5.9
07	10.000	10.6	6.4	08	40.000	42.4	6.1	09	60.000	60.9	1.5
10	80.000	79.0	-1.2	11	20.000	19.9	-0.5				

trans-1,2-Dichloroethene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.106	6.4	02	0.200	0.157	-21.4	03	0.500	0.493	-1.5
04	1.000	0.913	-8.7	05	2.000	1.84	-8.1	06	5.000	4.97	-0.7
07	10.000	10.2	1.7	08	40.000	44.4	10.9	09	60.000	65.5	9.1
10	80.000	88.9	11.1	11	20.000	20.2	1.1				

trans-1,3-Dichloropropene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.108	8.1	02	0.200	0.203	1.3	03	0.500	0.458	-8.4
04	1.000	0.823	-17.7	05	2.000	1.69	-15.7	06	5.000	4.81	-3.8
07	10.000	10.2	1.8	08	40.000	44.6	11.6	09	60.000	67.5	12.6
10	80.000	87.1	8.8	11	20.000	20.3	1.5				

trans-1,4-Dichloro-2-butene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	0.500	0.592	18.4	04	1.000	0.914	-8.6	05	2.000	1.95	-2.7
06	5.000	5.32	6.3	07	10.000	10.4	4.5	08	40.000	40.6	1.5
09	60.000	59.2	-1.3	10	80.000	70.7	-11.6	11	20.000	18.7	-6.4

1,2-Dichloroethane-d4

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
04	4.000	3.71	-7.3	05	6.000	5.59	-6.9	06	8.000	8.02	0.3
07	10.000	10.2	2.0	08	14.000	15.1	7.5	09	16.000	16.6	3.8
10	20.000	20.2	1.1	11	12.000	11.9	-0.5				

4-Bromofluorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
04	4.000	3.40	-14.9	05	6.000	5.36	-10.6	06	8.000	7.76	-3.0
07	10.000	10.6	5.9	08	14.000	15.4	10.0	09	16.000	17.3	8.0
10	20.000	20.6	3.1	11	12.000	12.2	1.6				

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Dibromofluoromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
04	4.000	3.38	-15.4	05	6.000	5.25	-12.5	06	8.000	7.89	-1.4
07	10.000	10.0	0.1	08	14.000	15.3	9.0	09	16.000	17.7	10.7
10	20.000	21.6	8.0	11	12.000	12.2	1.6				

Toluene-d8

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
04	4.000	3.59	-10.2	05	6.000	5.56	-7.3	06	8.000	8.05	0.6
07	10.000	10.3	3.4	08	14.000	14.6	4.3	09	16.000	16.8	4.8
10	20.000	20.8	3.8	11	12.000	12.1	0.5				

Analytical Results Summary

Instrument Name: K-BALANCE-47

Analyst: TANDREWS

Analysis Lot:

654782

Method/Testcode: 160.3 Modified/TS

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	POL	% Rec	% RSD	Date Analyzed	
<1909014-001	Solids, Total	N/A		Soil	97.80 Percent	10.447 g	97.8 Percent	1					10/9/19 17:09	N
<1909014-002	Solids, Total	N/A		Soil	95.10 Percent	10.464 g	95.1 Percent	1					10/9/19 17:09	N
<1909014-003	Solids, Total	N/A		Soil	99.70 Percent	11.348 g	99.7 Percent	1					10/9/19 17:09	N
<1909014-004	Solids, Total	N/A		Soil	83.00 Percent	10.591 g	83.0 Percent	1					10/9/19 17:09	N
<1909014-005	Solids, Total	N/A		Soil	91.60 Percent	11.501 g	91.6 Percent	1					10/9/19 17:09	N
<1909014-006	Solids, Total	N/A		Soil	95.00 Percent	7.152 g	95.0 Percent	1					10/3/19 19:08	N
<1909014-007	Solids, Total	N/A		Soil	100.00 Percent	3.248 g	100 Percent	1					10/3/19 19:08	N
<Q1914288-01	Solids, Total	DUP	K1909014-007	Soil	100.00 Percent	3.431 g	100 Percent	1				<1	10/3/19 19:08	N
<Q1914288-02	Solids, Total	DUP	K1909198-001	Sediment	87.10 Percent	10.552 g	87.1 Percent	1				<1	10/3/19 19:08	N
<Q1914662-01	Solids, Total	DUP	K1909393-002	Sludge, Solid	5.45 Percent	12.481 g	5.45 Percent	1				7	10/9/19 17:09	N

indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

8260 Med Level Smpl	Tare (grams)	Tare + Sample (grams)	Label (grams)	Vol. MeOH/H ₂ O (mL)	Solids (percent)	Moisture (percent)	Mass MeOH (grams)	Mass SAMPLE (grams)	Final Vol (mL)	Mass (Excel rounded)	Final Vol (Excel rounded)	Smpl
K1908449-003	0.00	5.208	0.00	5	30.3	69.7	3.96	5.21	8.629976	5.21	8.6	K1908449-003

SPX
JUL 09 2019

Preparation Information

Group ID: KWG1904386	Prep Method: EPA 5035A/5030B	Prep Date: 10/07/19 00:00
Department: VOA GCMS		

Lab Code	Client ID	Product	Matrix	Amt. Ext.	MeOH Vol.	MeOH Aliq.	Final Vol.	Solids
K1908449-003	M19W-VOP-SL	8260C VOC FP	SLUDGE,	5.208g	8.6ml	500uL	50ml	
KWG1904386-1	Lab Control Sample	8260C VOC FP	SLUDGE,	5g	5ml	500uL	50ml	
KWG1904386-2	Duplicate Lab Control Sampl	8260C VOC FP	SLUDGE,	5g	5ml	500uL	50ml	
KWG1904386-3	Method Blank	8260C VOC FP	SLUDGE,	5g	5ml	500uL	50ml	

Lab Code	Prep Event ID	Surrogate Solution ID	Amount Added	Spike Solution ID	Amount Added	Witness
K1908449-003	1736374					
KWG1904386-1	1736375					
KWG1904386-2	1736376					
KWG1904386-3	1736377					

Comments: _____

Started By: <u>akonopko</u>	Assisted By: _____	<u>Training</u>	
		Yes	No
Completed By: <u>akonopko</u>	Assisted By: _____	Yes	No
Reviewed By: _____	Date: <u>OCT 09 2019</u>	Storage: _____	

Chain of Custody

Relinquished By: _____	Date: _____	<u>Extracts Examined</u>
Received By: _____	Date: _____	Yes No

8260 Med Level Smpl	Tare (grams)	Tare + Sample (grams)	Label (grams)	Vol. MeOH/H2O (mL)	Solids (percent)	Moisture (percent)	Mass MeOH (grams)	Mass SAMPLE (grams)	Final Vol (mL)	Mass (Excel rounded)	Final Vol (Excel rounded)	Smpl
K1908449-003	0.00	5.208	0.00	5	30.3	69.7	3.96	5.21	8.629976	5.21	8.6	K1908449-003

SP
JUL 09 2019

INITIAL CALIBRATION CURVE

Date 7/25/15 Analysis: 8260
 Prepared By J. Jone Instrument: MJ13
 Matrix: Water

Stock Solution #1 7400437E Analytes: Surrogate Init. Concentration: 100ppm
 Stock Solution #2 7400437A Analytes: Low 8260 Init. Concentration: 5/10/20/100/200ppm
 Stock Solution #3 7400437C Analytes: 8260 Init. Concentration: 50/100/200/1000/2000ppm

Aliquot of Stock Solution #1 (µL)	Final Conc. of #1 (µg/L)	Aliquot of Stock Solution #2 (µL)	Final Conc. of #2 (µg/L)	Aliquot of Stock Solution #3 (µL)	Final Conc. of #3 (µg/L)					Final Volume (mL)
		1	0.1							50
		2	0.2							50
		5.0	0.5							50
2.0	4	10	1							50
3.0	6			2.0	2					50
4.0	8			5.0	5					50
5.0	10			10	10					50
6	12			20	20					50
7	14			40	40					50
8	16			60	60					50
10	20			80	80					50

8260 ICV: 10µL of 50/250ppm Accusid ICV (7400437D 7/20/15) + 50µL of 100ppm Acrolein (7400437H 7/17/15) +
 5µL of 100ppm Dichlorofluoromethane (7400437J 7/20/15) + 5µL of 200ppm n-Octane/BF/Tetrahydratufuran (7400437K 8/10/15)
 5µL of 100ppm Oxygenates (7400437L 8/19/15) + 7.5µL of Appendix ICV mix (7400437M 8/19/15) + 25µL of 1000ppm 2-Propanol (7400437N 8/10/15)
 5µL of 100ppm CLP (7400437O 7/10/15)

* prep'd pint same for room

Data File : I:\MS13\DATA\072519\0725F003.D

Vial: 3

Acq On : 25 Jul 2019 8:07 am

Operator: JHJ

Sample : 50ng BFB

Inst : MS13

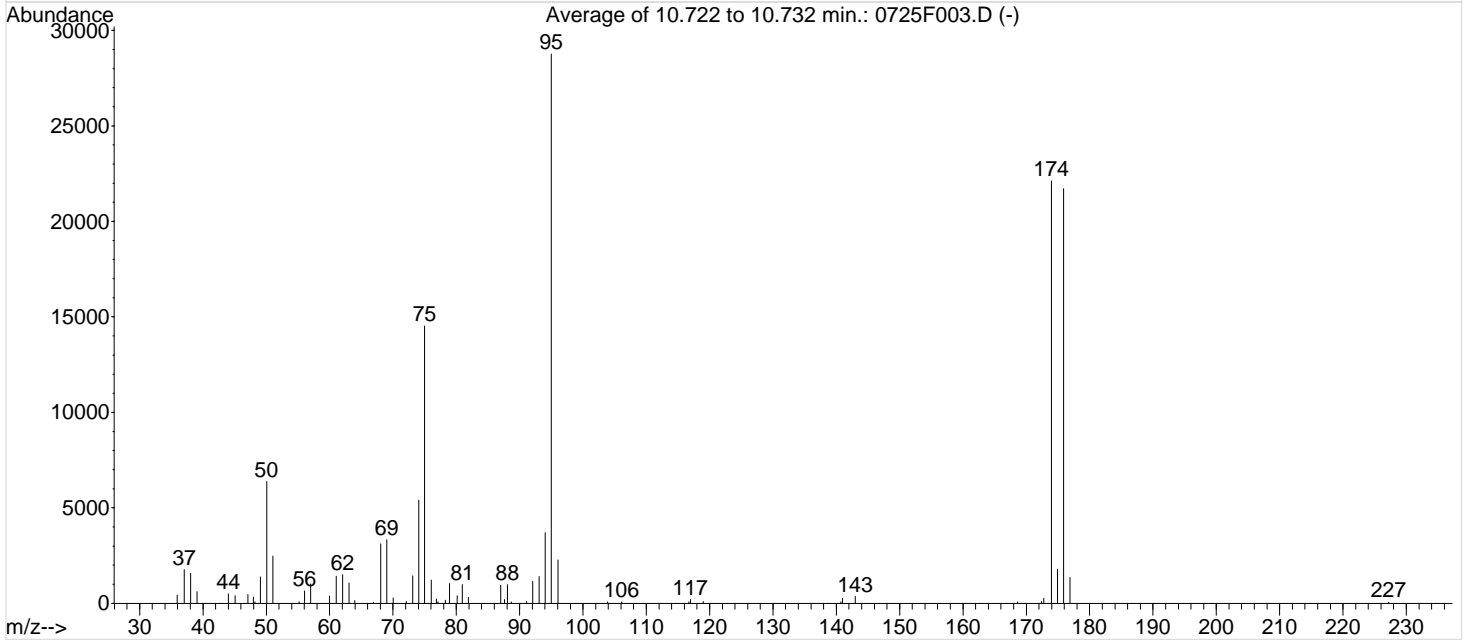
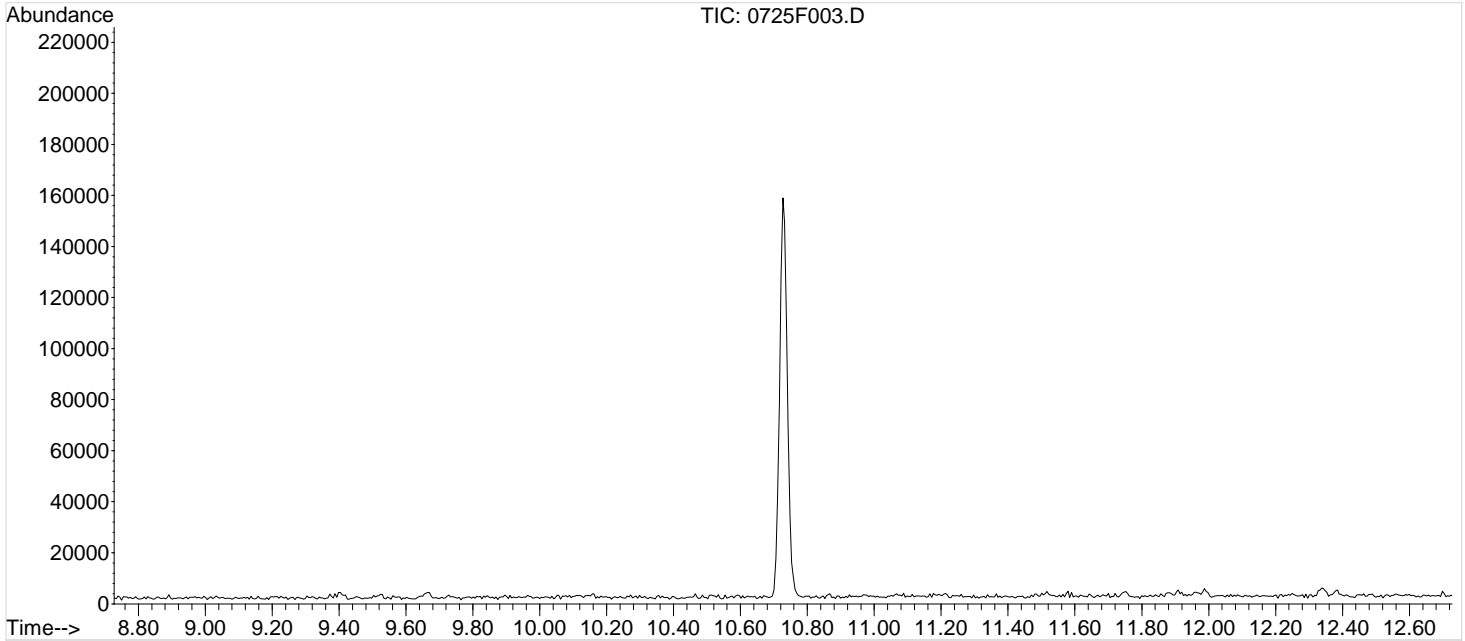
Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B



AutoFind: Scans 1853, 1854, 1855; Background Corrected with Scan 1846

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.2	6375	PASS
75	95	30	60	50.5	14519	PASS
95	95	100	100	100.0	28762	PASS
96	95	5	9	7.9	2264	PASS
173	174	0.00	2	1.2	260	PASS
174	95	50	120	76.9	22114	PASS
175	174	5	9	8.1	1792	PASS
176	174	95	101	98.2	21714	PASS
177	176	5	9	6.2	1344	PASS

Data File : I:\MS13\DATA\072519\0725F004.D
 Acq On : 25 Jul 2019 8:33 am
 Sample : IB
 Misc :

Vial: 4
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 12:50:28 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Thu Jul 25 17:58:23 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	292461	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	107189	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.96	152	74927	10.00	PPB	0.00
System Monitoring Compounds						
42) Dibromofluoromethane	0.00	113	0	0.00	PPB	
Spiked Amount	10.000		Recovery	=	0.00%	
47) 1,2-Dichloroethane-d4	0.00	65	0	0.00	PPB	
Spiked Amount	10.000		Recovery	=	0.00%	
62) Toluene-d8	0.00	98	0d	0.00	PPB	
Spiked Amount	10.000		Recovery	=	0.00%	
84) 4-Bromofluorobenzene	10.73	95	1025	0.11	PPB	0.00
Spiked Amount	10.000		Recovery	=	1.10%	
Target Compounds						
5) Bromomethane	1.56	96	550	0.08	PPB	Qvalue # 67
14) Iodomethane	2.40	142	2239	0.26	PPB	72
15) Carbon Disulfide	2.43	76	2969	0.13	PPB	94
17) 3-Chloro-1-propene	2.43	76	2969	0.13	PPB	95
35) Ethyl Acetate	4.12	61	2688	Below Cal		89
56) 1,4-Dioxane	6.42	88	893	35.18	PPB	65
104) 1,2,4-Trichlorobenzene	14.03	180	815	0.11	PPB	# 62
106) Naphthalene	14.29	128	1576	0.13	PPB	77
107) 1,2,3-Trichlorobenzene	14.53	180	1442	0.25	PPB	# 55

(#) = qualifier out of range (m) = manual integration

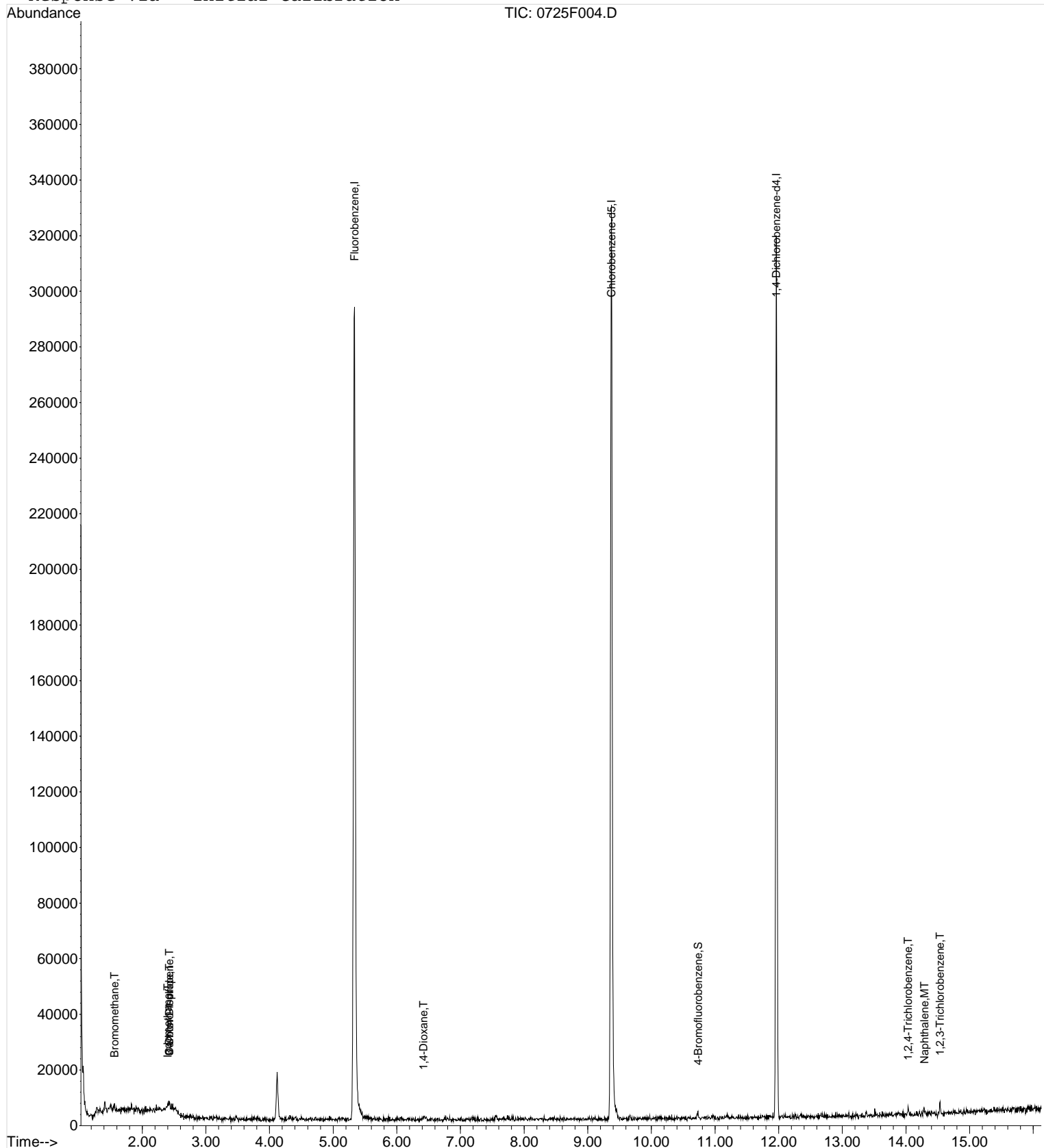
Data File : I:\MS13\DATA\072519\0725F004.D
Acq On : 25 Jul 2019 8:33 am
Sample : IB
Misc :

Vial: 4
Operator: JHJ
Inst : MS13
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Jul 26 12:52 2019

Quant Results File: 072519MS13_8260W.RES

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Jul 25 17:58:23 2019
Response via : Initial Calibration



Data File : I:\MS13\DATA\072519\0725F005.D
 Acq On : 25 Jul 2019 8:59 am
 Sample : IB
 Misc :

Vial: 5
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 12:52:32 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Thu Jul 25 17:58:23 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	293796	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	106387	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.97	152	76011	10.00	PPB	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) Dibromofluoromethane	0.00	113	0	0.00	PPB	
Spiked Amount 10.000			Recovery	=	0.00%	
47) 1,2-Dichloroethane-d4	0.00	65	0	0.00	PPB	
Spiked Amount 10.000			Recovery	=	0.00%	
62) Toluene-d8	0.00	98	0d	0.00	PPB	
Spiked Amount 10.000			Recovery	=	0.00%	
84) 4-Bromofluorobenzene	0.00	95	0	0.00	PPB	
Spiked Amount 10.000			Recovery	=	0.00%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
14) Iodomethane	2.40	142	1400	0.16	PPB	84
15) Carbon Disulfide	2.43	76	2706	0.12	PPB	79
17) 3-Chloro-1-propene	2.43	76	2706	0.12	PPB	75
106) Naphthalene	14.29	128	712	0.06	PPB	69

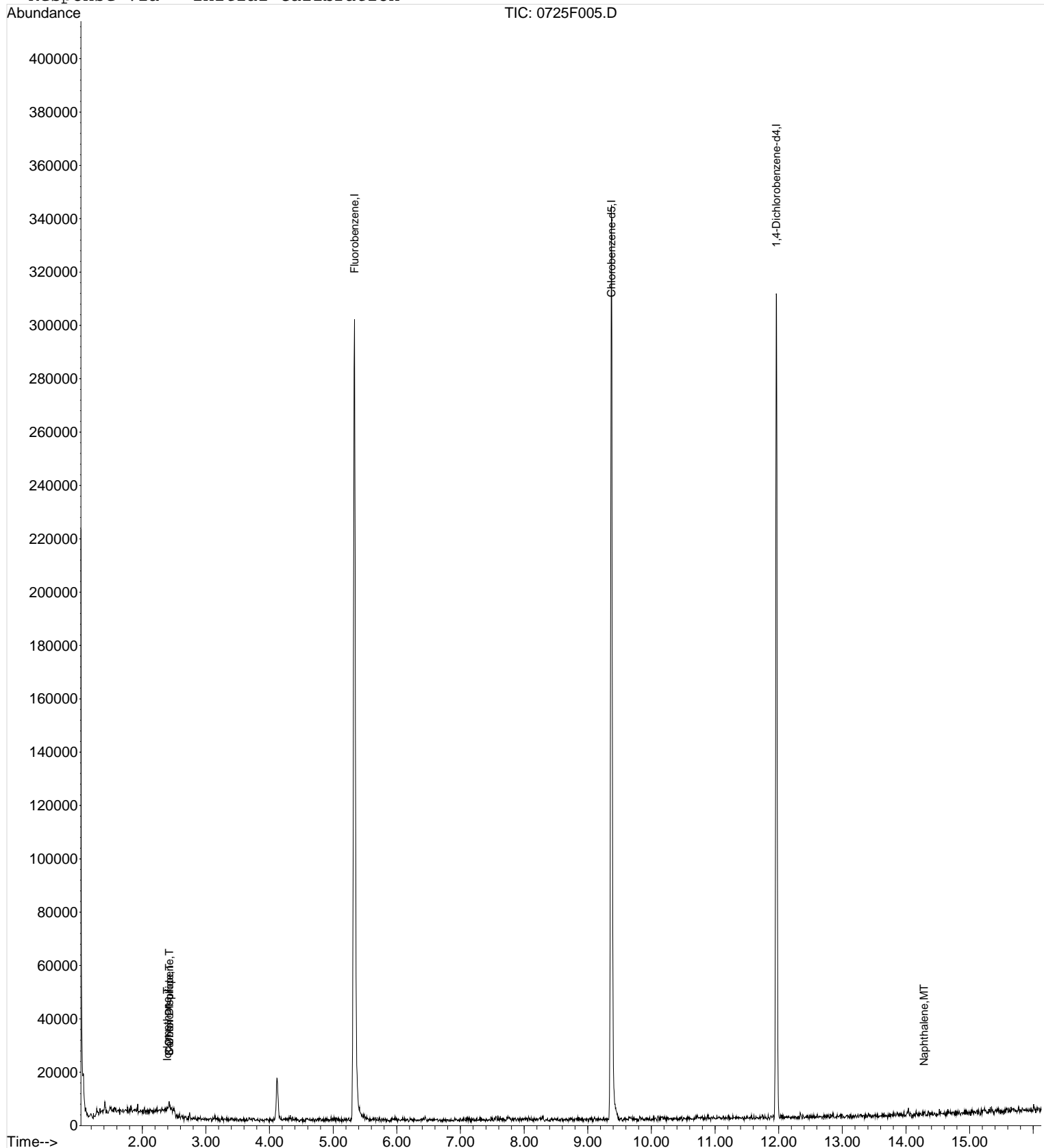
Data File : I:\MS13\DATA\072519\0725F005.D
Acq On : 25 Jul 2019 8:59 am
Sample : IB
Misc :

Vial: 5
Operator: JHJ
Inst : MS13
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Jul 26 12:53 2019

Quant Results File: 072519MS13_8260W.RES

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Jul 25 17:58:23 2019
Response via : Initial Calibration



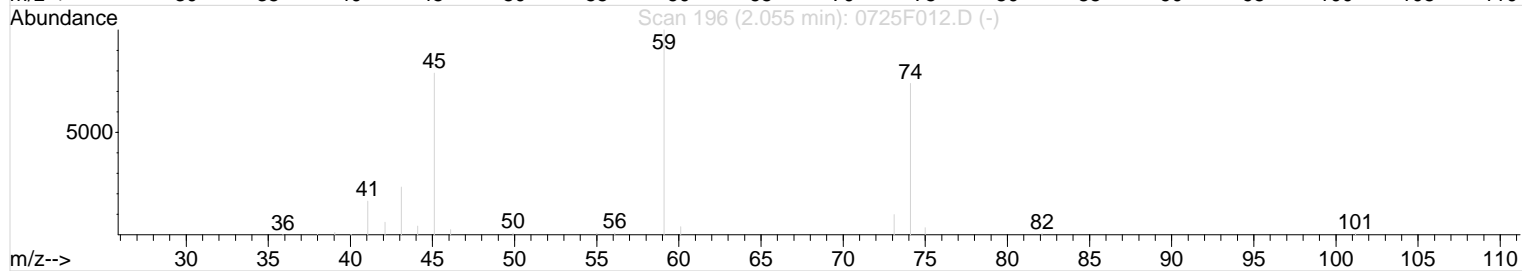
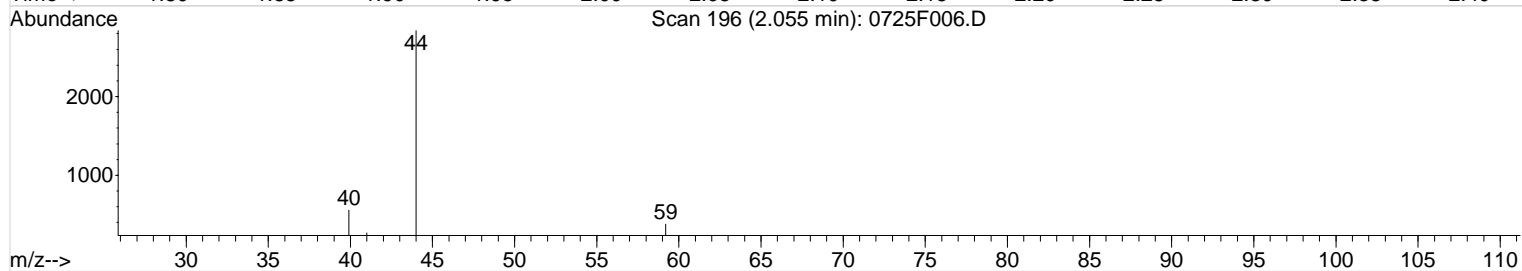
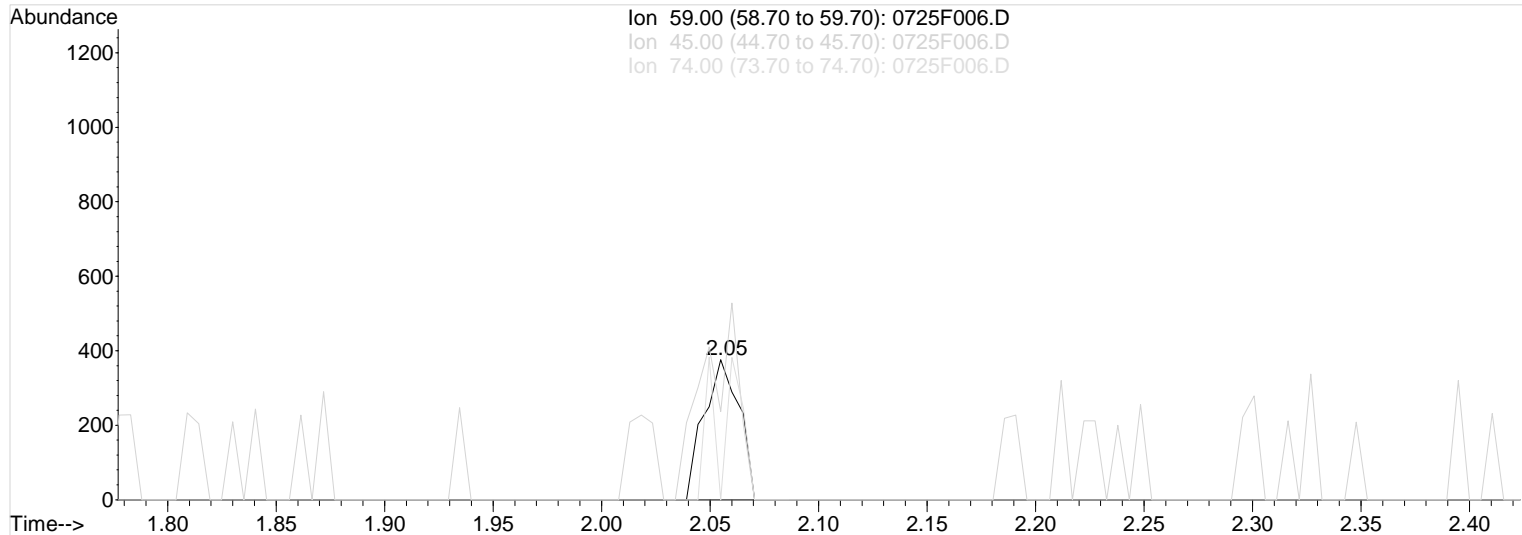
Data File : I:\MS13\DATA\072519\0725F006.D
 Acq On : 25 Jul 2019 9:26 am
 Sample : CAL 0.1 PPB
 Misc :

Vial: 6
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:24 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Multiple Level Calibration



TIC: 0725F006.D

(9) Ethyl Ether (T)

2.05min 0.10PPB m
 response 423

Manual Integration:

After
 Missed peak

Ion	Exp%	Act%
59.00	100	100
45.00	78.80	63.03
74.00	73.80	0.00#
0.00	0.00	0.00

07/26/19

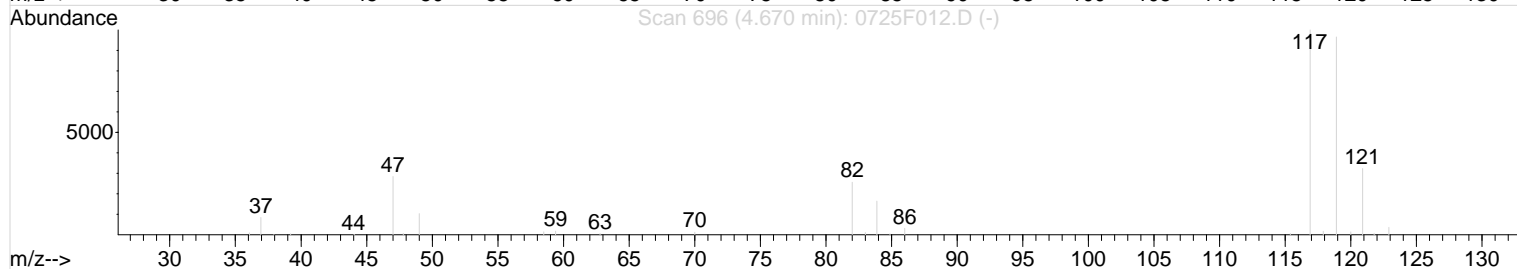
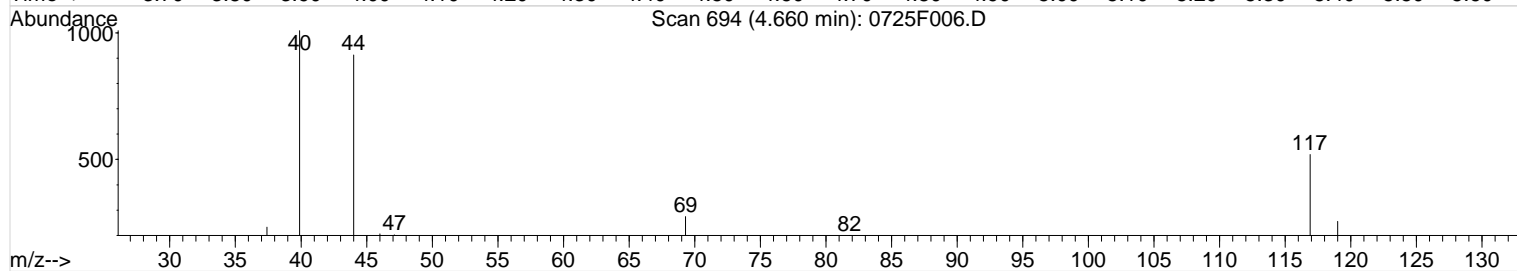
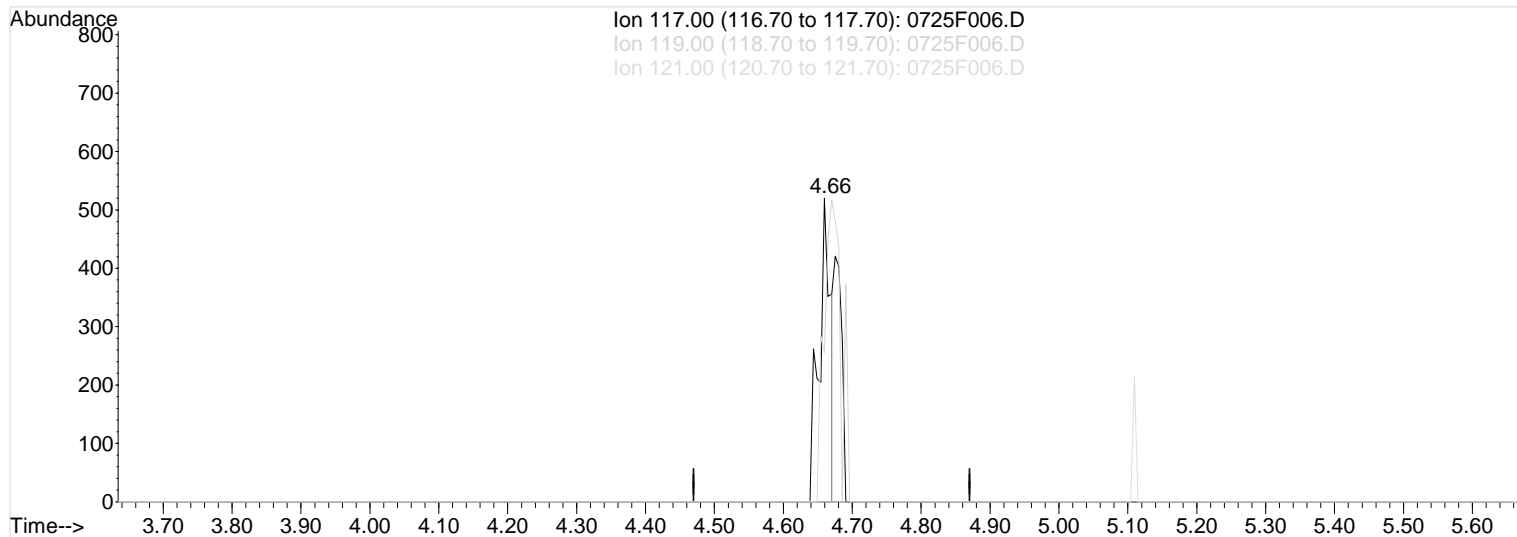
Data File : I:\MS13\DATA\072519\0725F006.D
 Acq On : 25 Jul 2019 9:26 am
 Sample : CAL 0.1 PPB
 Misc :

Vial: 6
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:24 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Multiple Level Calibration



TIC: 0725F006.D

(44) Carbon Tetrachloride (T)

Manual Integration:

4.66min 0.06PPB

Before

response 598

07/26/19

Ion	Exp%	Act%
117.00	100	100
119.00	96.40	49.04#
121.00	32.20	0.00#
0.00	0.00	0.00

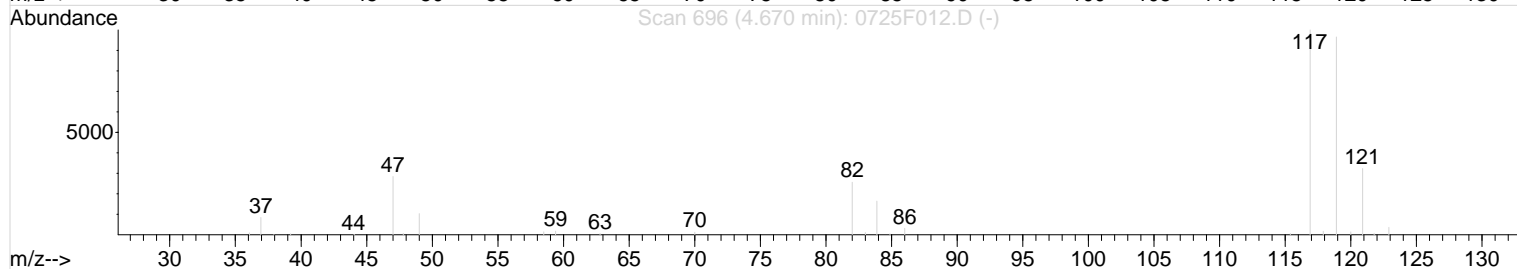
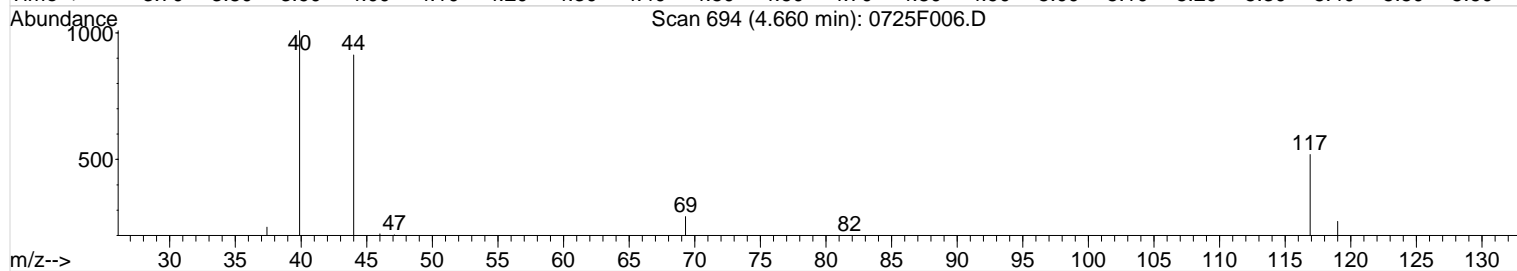
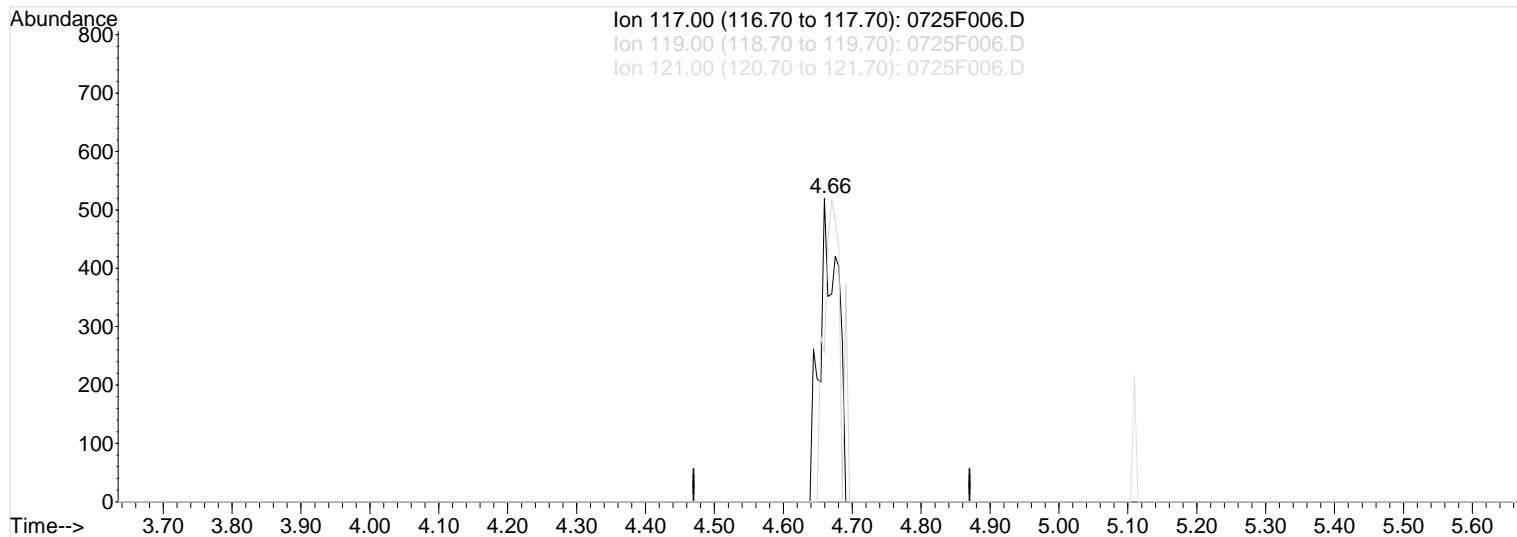
Data File : I:\MS13\DATA\072519\0725F006.D
 Acq On : 25 Jul 2019 9:26 am
 Sample : CAL 0.1 PPB
 Misc :

Vial: 6
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:25 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Multiple Level Calibration



TIC: 0725F006.D

(44) Carbon Tetrachloride (T)

Manual Integration:

4.66min 0.09PPB m
 response 944

After
 Split peak

Ion	Exp%	Act%
117.00	100	100
119.00	96.40	49.04#
121.00	32.20	0.00#
0.00	0.00	0.00

07/26/19

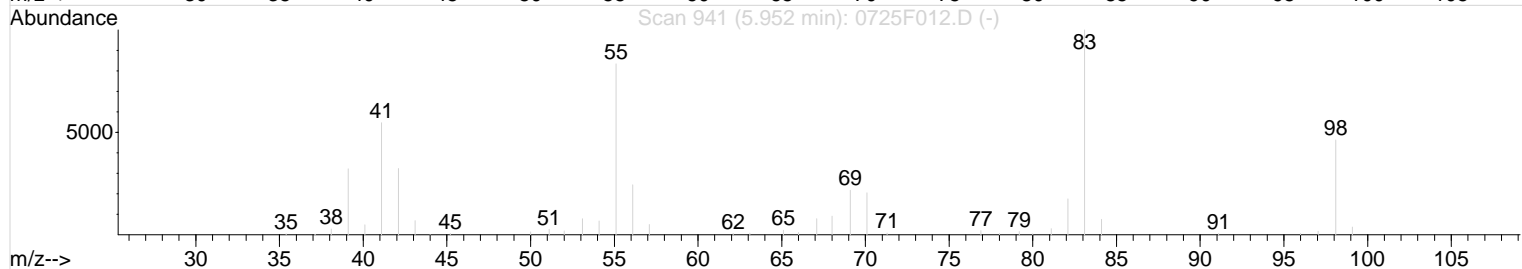
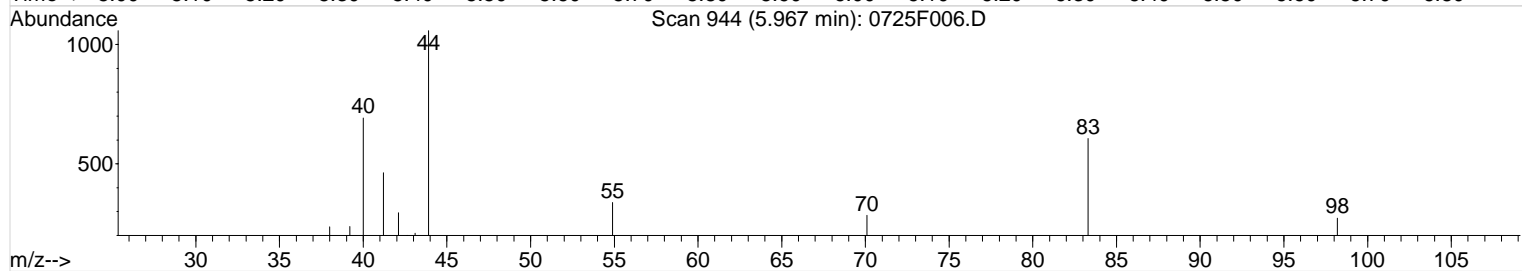
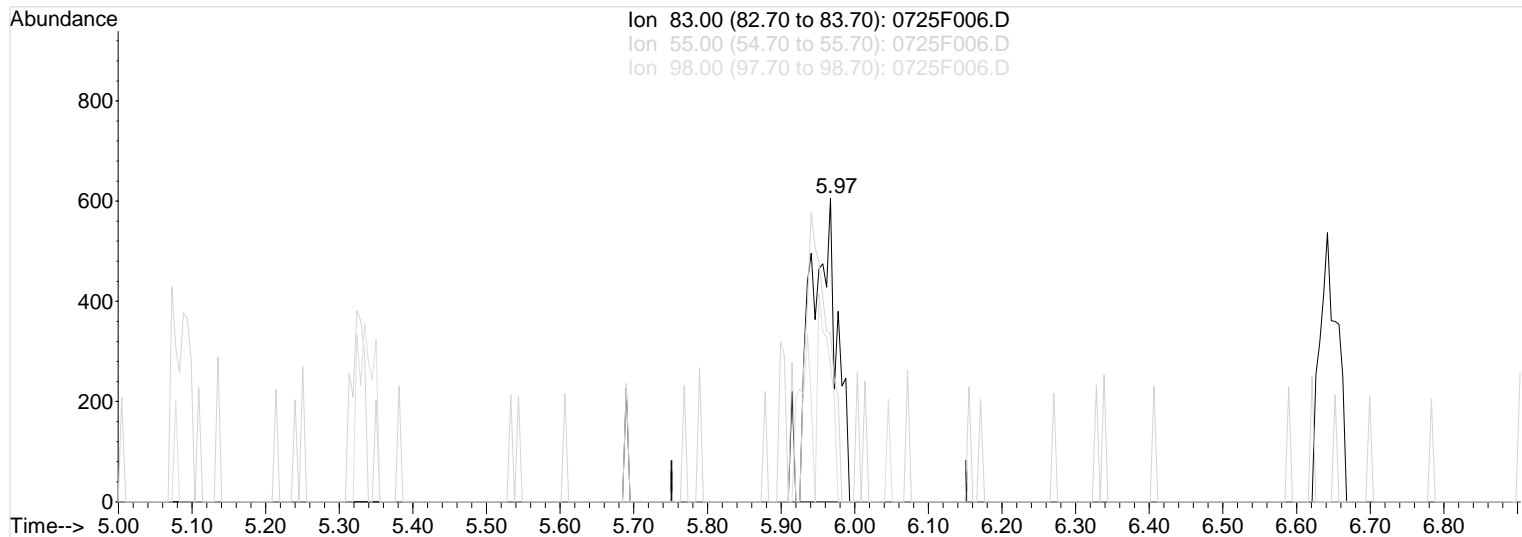
Data File : I:\MS13\DATA\072519\0725F006.D
 Acq On : 25 Jul 2019 9:26 am
 Sample : CAL 0.1 PPB
 Misc :

Vial: 6
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:26 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Multiple Level Calibration



TIC: 0725F006.D

(52) Methyl Cyclohexane (T)

Manual Integration:

5.97min 0.11PPB m
 response 1522

After
 Missed peak

Ion	Exp%	Act%
83.00	100	100
55.00	83.40	55.61
98.00	46.20	44.88
0.00	0.00	0.00

07/26/19

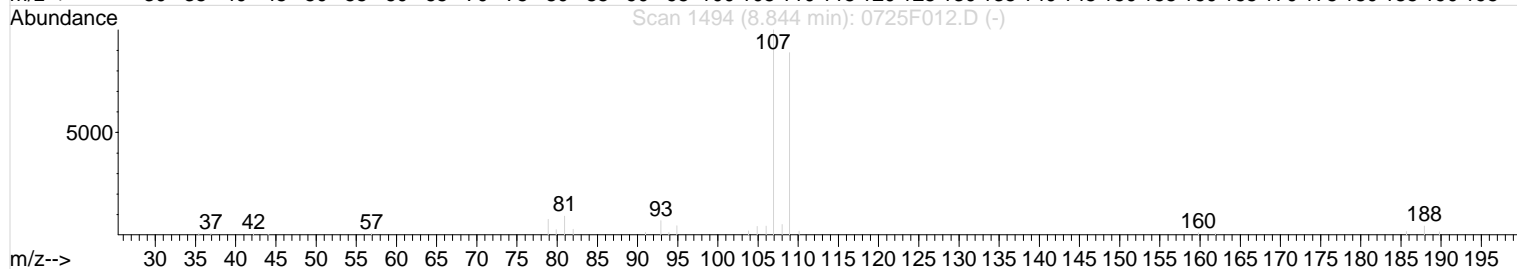
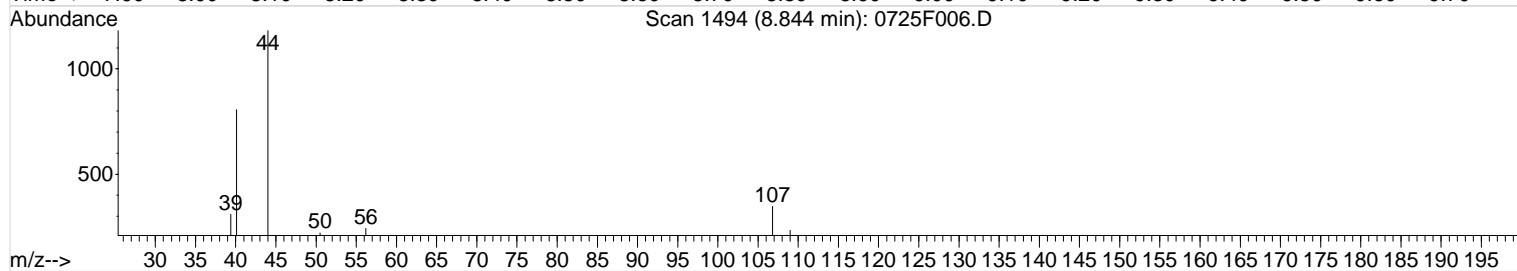
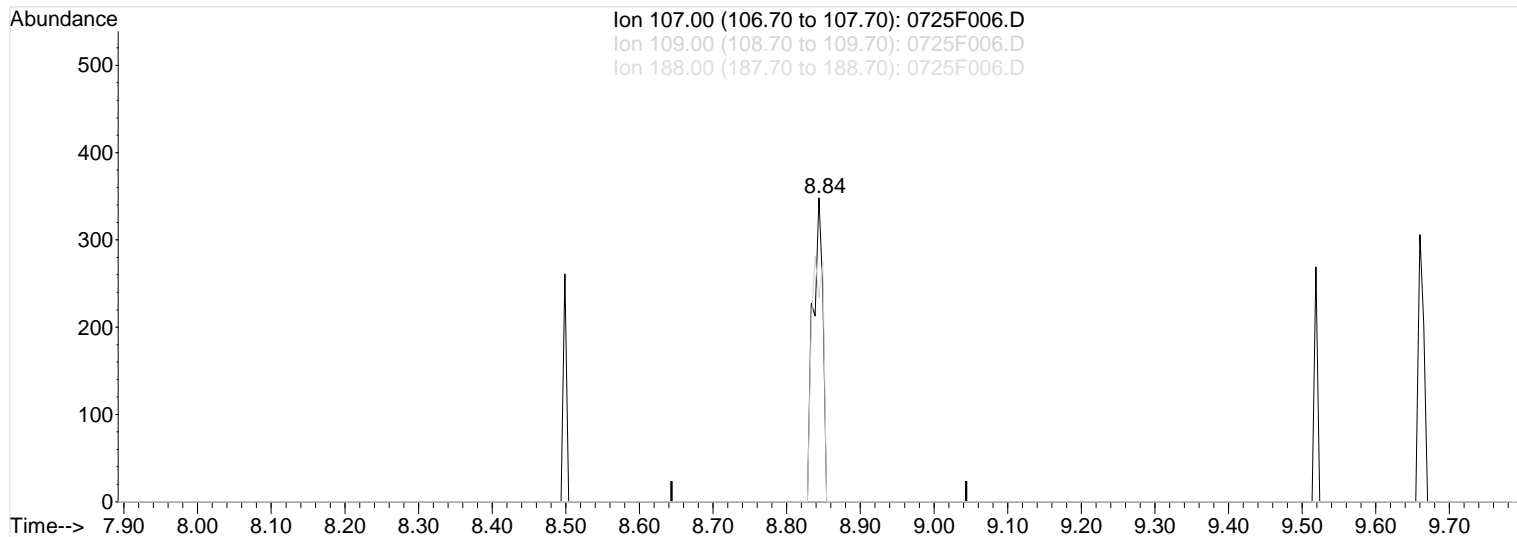
Data File : I:\MS13\DATA\072519\0725F006.D
Acq On : 25 Jul 2019 9:26 am
Sample : CAL 0.1 PPB
Misc :

Vial: 6
Operator: JHJ
Inst : MS13
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Jul 26 17:27 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Multiple Level Calibration



TIC: 0725F006.D

(73) 1,2-Dibromoethane (EDB) (T)

Manual Integration:

8.84min 0.07PPB m
response 323

After
Missed peak

Ion	Exp%	Act%
107.00	100	100
109.00	88.90	67.24
188.00	4.40	0.00
0.00	0.00	0.00

07/26/19

Data File : I:\MS13\DATA\072519\0725F006.D
 Acq On : 25 Jul 2019 9:26 am
 Sample : CAL 0.1 PPB
 Misc :

Vial: 6
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:21:39 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	291398	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	106419	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.97	152	77731	10.00	PPB	0.00

System Monitoring Compounds

42) Dibromofluoromethane	0.00	113	0	0.00	PPB	
Spiked Amount	10.000					
			Recovery	=		0.00%
47) 1,2-Dichloroethane-d4	0.00	65	0	0.00	PPB	
Spiked Amount	10.000					
			Recovery	=		0.00%
62) Toluene-d8	0.00	98	0d	0.00	PPB	
Spiked Amount	10.000					
			Recovery	=		0.00%
84) 4-Bromofluorobenzene	0.00	95	0	0.00	PPB	
Spiked Amount	10.000					
			Recovery	=		0.00%

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.10	85	1002	0.11	PPB	87
3) Chloromethane	1.23	50	1332	0.12	PPB	92
4) Vinyl Chloride	1.31	62	988	0.09	PPB	91
5) Bromomethane	1.56	96	1015	0.16	PPB	90
6) Chloroethane	1.64	64	582	0.09	PPB	50
7) Dichlorofluoromethane	1.80	67	1596	0.10	PPB	94
8) Trichlorofluoromethane	1.80	101	1561	0.10	PPB	74
9) Ethyl Ether	2.05	59	423m	0.10	PPB	
10) Acrolein	2.23	56	2403	2.92	PPB	89
12) 1,1-Dichloroethene	2.25	96	549	0.07	PPB	# 72
13) Acetone	2.36	43	1688	1.56	PPB	77
14) Iodomethane	2.40	142	3810	0.43	PPB	90
15) Carbon Disulfide	2.43	76	3969	0.18	PPB	93
17) 3-Chloro-1-propene	2.43	76	3969	0.92	PPB	# 1
20) Methylene Chloride	2.75	84	2165	0.27	PPB	# 69
23) Methyl tert-Butyl Ether	2.94	73	3352	0.22	PPB	84
24) trans-1,2-Dichloroethene	2.95	96	838	0.10	PPB	94
25) Hexane	3.15	57	1240	0.10	PPB	89
26) Diisopropyl Ether	3.41	45	2507	0.09	PPB	83
27) 1,1-Dichloroethane	3.43	63	1662	0.10	PPB	89
29) Chloroprene	3.47	53	4939	0.36	PPB	93
30) tert-Butyl Ethyl Ether	3.79	59	2114	0.10	PPB	82
31) 2,2-Dichloropropane	3.98	77	1430	0.11	PPB	49
32) cis-1,2-Dichloroethene	4.04	96	748	0.08	PPB	# 49
35) Ethyl Acetate	4.13	61	2867	3.43	PPB	91
36) Methacrylonitrile	4.37	67	773	0.42	PPB	# 39
39) Chloroform	4.39	83	1638	0.11	PPB	86
41) 1,1,1-Trichloroethane	4.54	97	1112	0.08	PPB	# 56
43) Cyclohexane	4.50	56	1488	0.10	PPB	# 61
44) Carbon Tetrachloride	4.66	117	944m	0.09	PPB	
45) 1,1-Dichloropropene	4.73	75	1143	0.09	PPB	90
48) Benzene	4.96	78	3844	0.10	PPB	85
49) 1,2-Dichloroethane	5.09	62	1229	0.12	PPB	# 69
51) Trichloroethene	5.80	95	891	0.10	PPB	# 70
52) Methyl Cyclohexane	5.97	83	1522m	0.11	PPB	
53) 1,2-Dichloropropane	6.22	63	625	0.07	PPB	# 49
57) Bromodichloromethane	6.64	83	893	0.09	PPB	# 23
60) cis-1,3-Dichloropropene	7.29	75	1139	0.09	PPB	84
61) 4-Methyl-2-pentanone (MIBK)	7.54	58	1545	1.04	PPB	# 61
63) Toluene	7.65	92	1890	0.08	PPB	97
66) trans-1,3-Dichloropropene	8.07	75	1020	0.11	PPB	# 43
69) Tetrachloroethene	8.31	164	670	0.09	PPB	# 73
70) 2-Hexanone	8.60	57	687	1.41	PPB	# 1

(#) = qualifier out of range (m) = manual integration

Data File : I:\MS13\DATA\072519\0725F006.D

Vial: 6

Acq On : 25 Jul 2019 9:26 am

Operator: JHJ

Sample : CAL 0.1 PPB

Inst : MS13

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 26 17:21:39 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B

Last Update : Fri Jul 26 17:20:50 2019

Response via : Initial Calibration

DataAcq Meth : 8260W5

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) 1,3-Dichloropropane	8.50	76	1073	0.11	PPB	# 49
73) 1,2-Dibromoethane (EDB)	8.84	107	323m	0.07	PPB	
75) Chlorobenzene	9.40	112	2390	0.11	PPB	76
76) Ethylbenzene	9.52	106	1249	0.10	PPB	89
77) 1,1,1,2-Tetrachloroethane	9.52	131	616	0.09	PPB	# 70
78) m,p-Xylenes	9.66	106	2865	0.19	PPB	92
79) o-Xylene	10.11	106	1399	0.10	PPB	85
80) Styrene	10.14	103	1231	0.11	PPB	# 23
82) Isopropylbenzene	10.52	105	3489	0.09	PPB	95
88) Bromobenzene	10.86	156	637	0.08	PPB	92
89) n-Propylbenzene	10.97	91	3602	0.09	PPB	86
91) 2-Chlorotoluene	11.08	91	2533	0.11	PPB	98
92) 1,3,5-Trimethylbenzene	11.18	105	2535	0.09	PPB	96
93) 4-Chlorotoluene	11.20	91	2621	0.09	PPB	93
94) tert-Butylbenzene	11.51	119	2069	0.08	PPB	79
95) 1,2,4-Trimethylbenzene	11.58	105	2623	0.09	PPB	67
96) sec-Butylbenzene	11.75	105	3099	0.09	PPB	80
97) p-Isopropyltoluene	11.91	119	2496	0.08	PPB	81
98) 1,3-Dichlorobenzene	11.88	146	1744	0.12	PPB	78
99) 1,4-Dichlorobenzene	11.99	146	1628	0.11	PPB	80
100) n-Butylbenzene	12.35	91	2807	0.11	PPB	86
101) 1,2-Dichlorobenzene	12.37	146	1223	0.09	PPB	90
103) 1,3,5-Trichlorobenzene	13.38	180	897	0.10	PPB	87
104) 1,2,4-Trichlorobenzene	14.04	180	987	0.13	PPB	79
106) Naphthalene	14.29	128	1628	0.12	PPB	88
107) 1,2,3-Trichlorobenzene	14.53	180	735	0.12	PPB	# 48

(#) = qualifier out of range (m) = manual integration

0725F006.D 072519MS13_8260W.M

Fri Jul 26 17:28:51 2019

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Page 2

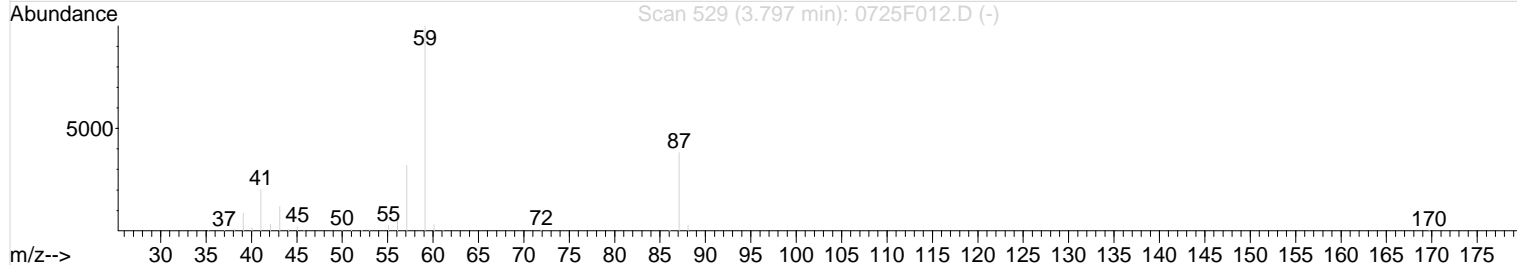
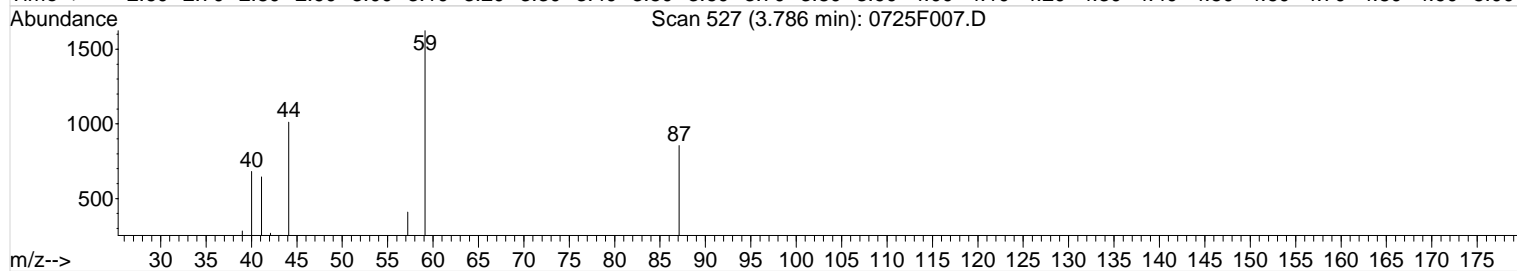
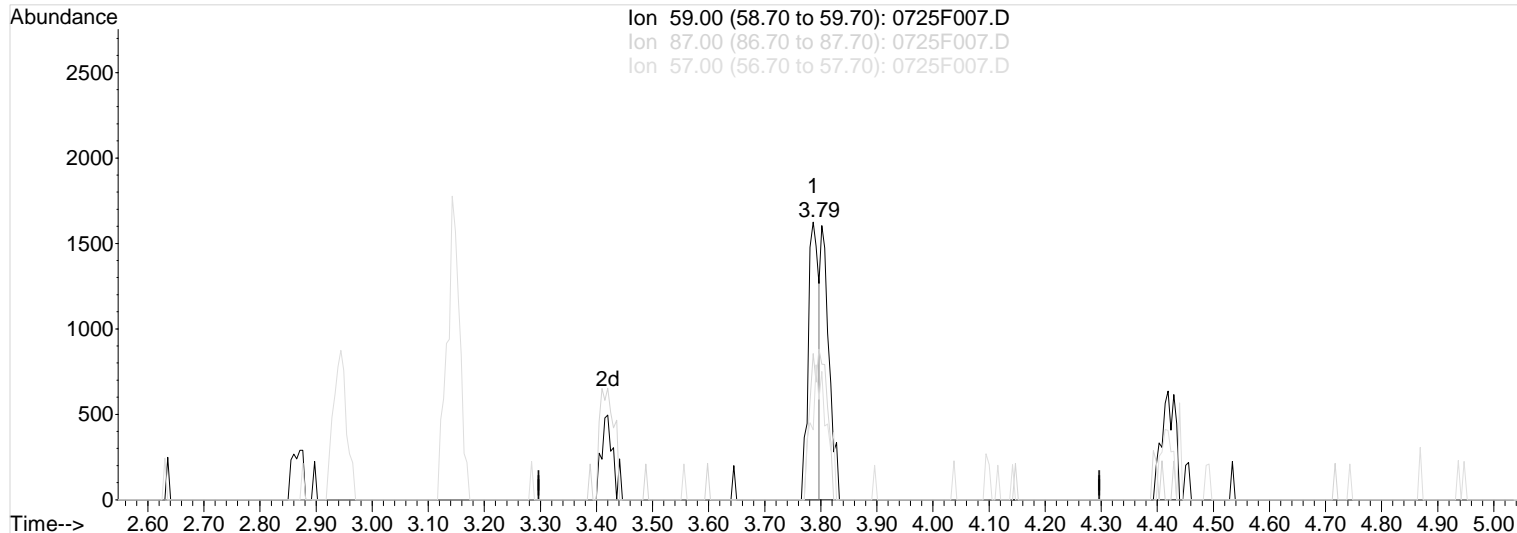
Data File : I:\MS13\DATA\072519\0725F007.D
Acq On : 25 Jul 2019 9:52 am
Sample : CAL 0.2 PPB
Misc :

Vial: 7
Operator: JHJ
Inst : MS13
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Jul 26 17:29 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Multiple Level Calibration



TIC: 0725F007.D

(30) tert-Butyl Ethyl Ether (T)

Manual Integration:

3.79min 0.09PPB

Before

response 2091

Ion	Exp%	Act%
59.00	100	100
87.00	38.10	52.62
57.00	32.00	25.17
0.00	0.00	0.00

07/26/19

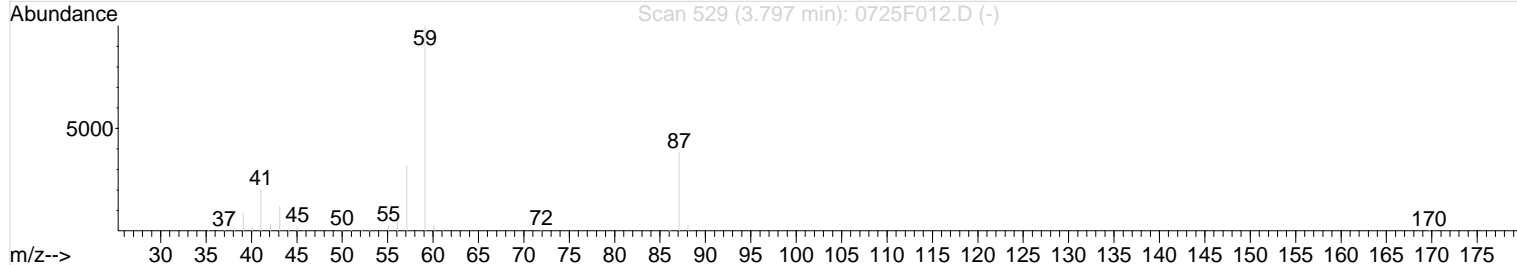
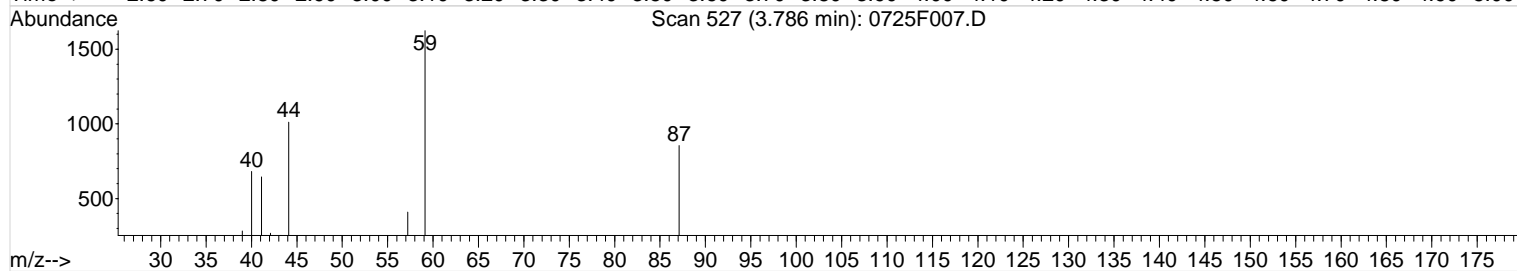
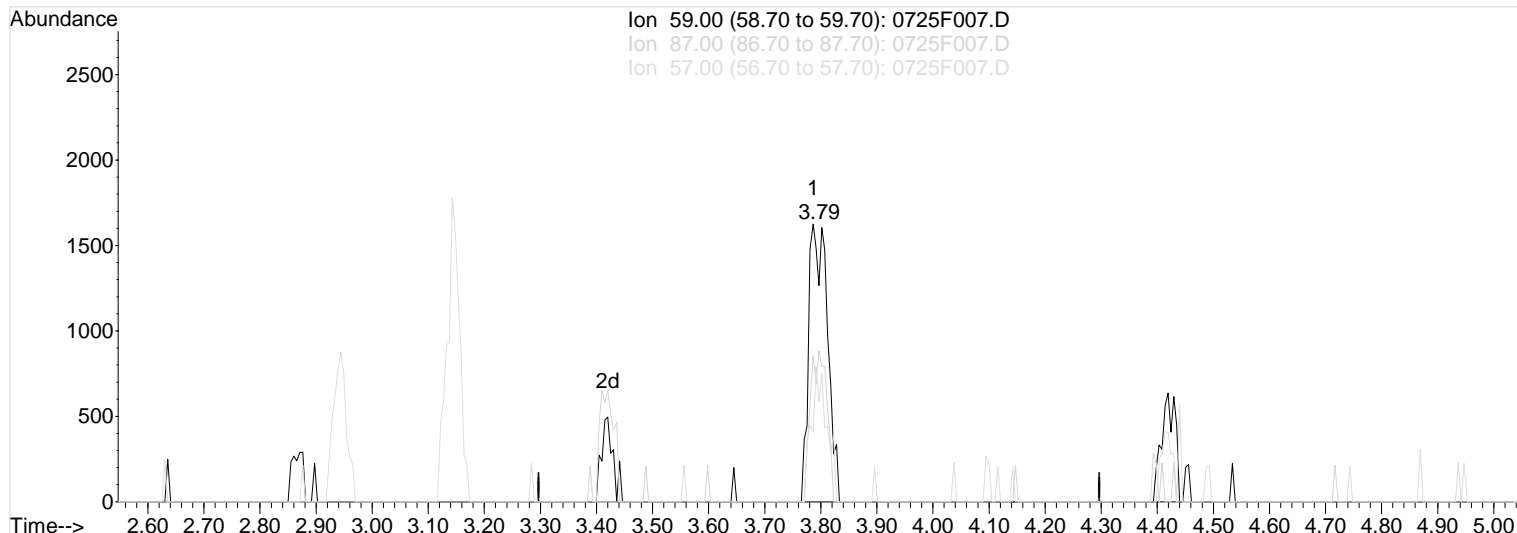
Data File : I:\MS13\DATA\072519\0725F007.D
 Acq On : 25 Jul 2019 9:52 am
 Sample : CAL 0.2 PPB
 Misc :

Vial: 7
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:30 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Multiple Level Calibration



TIC: 0725F007.D

(30) tert-Butyl Ethyl Ether (T)

Manual Integration:

3.79min 0.17PPB m
 response 3767

After
 Split peak

Ion	Exp%	Act%
59.00	100	100
87.00	38.10	52.62
57.00	32.00	25.17
0.00	0.00	0.00

07/26/19

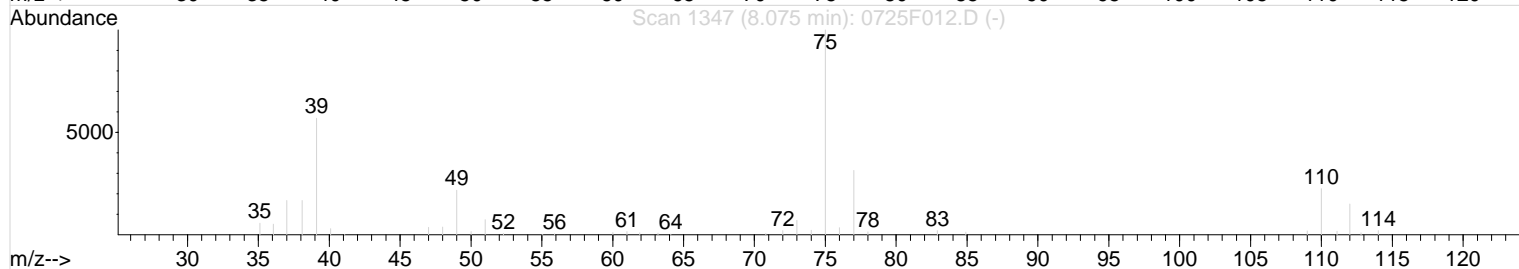
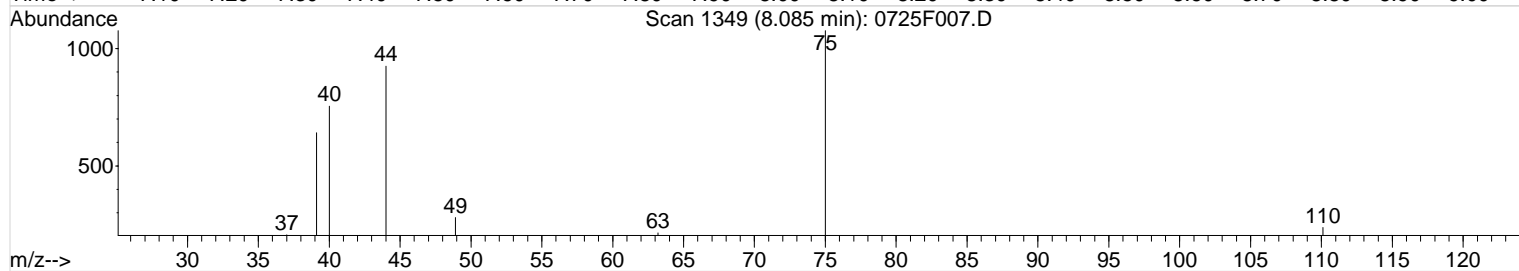
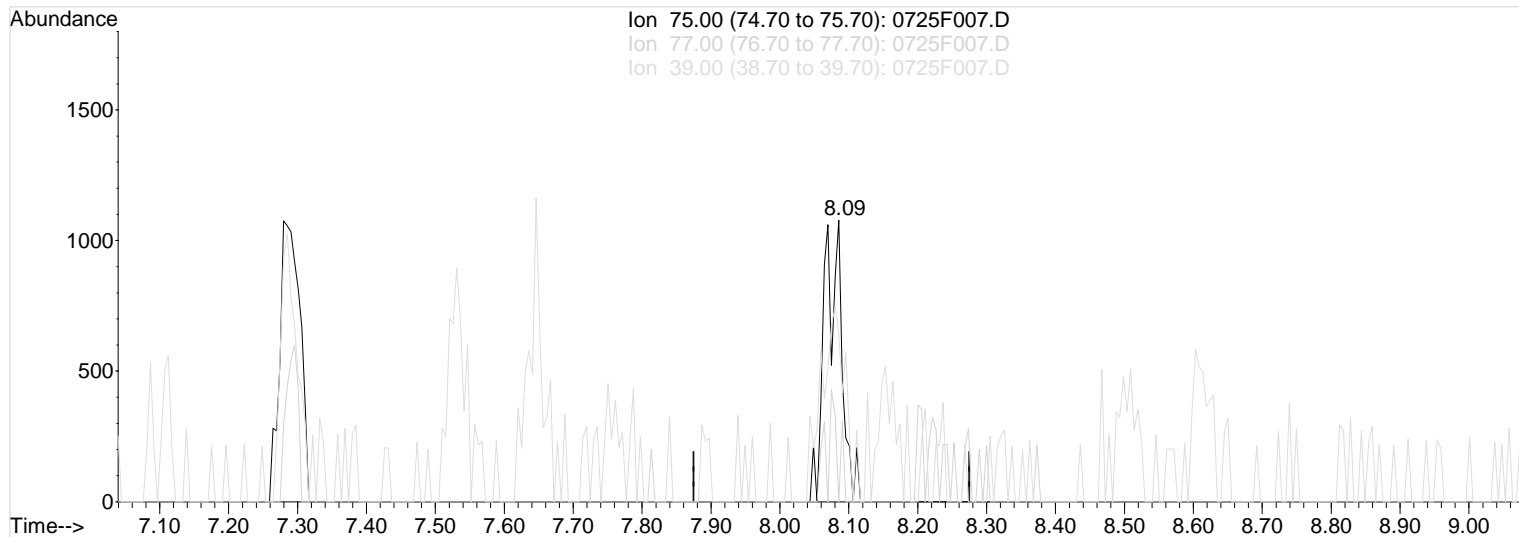
Data File : I:\MS13\DATA\072519\0725F007.D
 Acq On : 25 Jul 2019 9:52 am
 Sample : CAL 0.2 PPB
 Misc :

Vial: 7
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:31 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Multiple Level Calibration



TIC: 0725F007.D

(66) trans-1,3-Dichloropropene (T)

Manual Integration:

8.09min 0.20PPB m
 response 1932

After
 Split peak

Ion	Exp%	Act%
75.00	100	100
77.00	31.40	0.00#
39.00	56.90	59.52
0.00	0.00	0.00

07/26/19

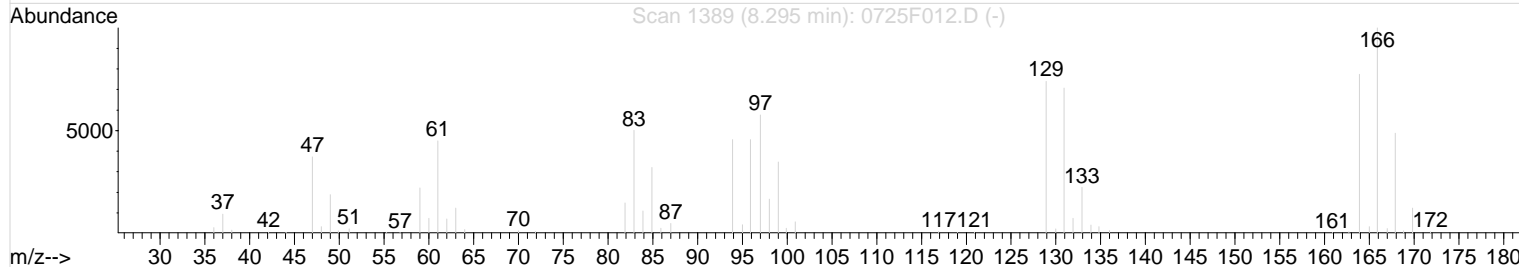
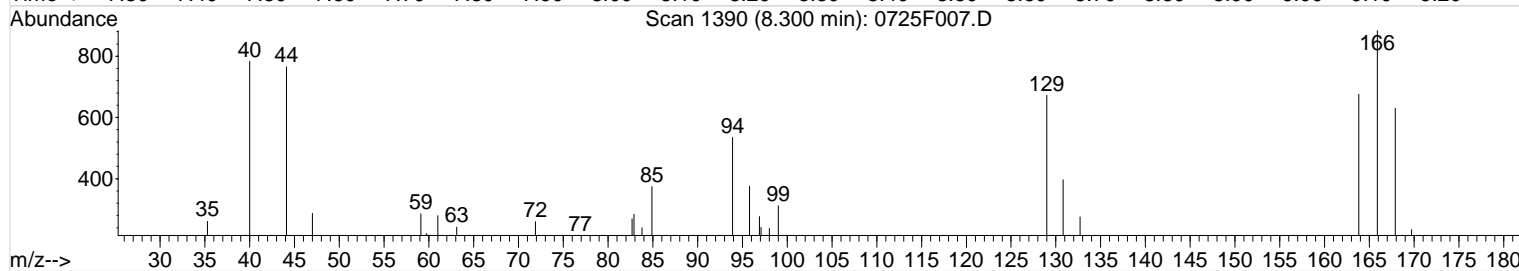
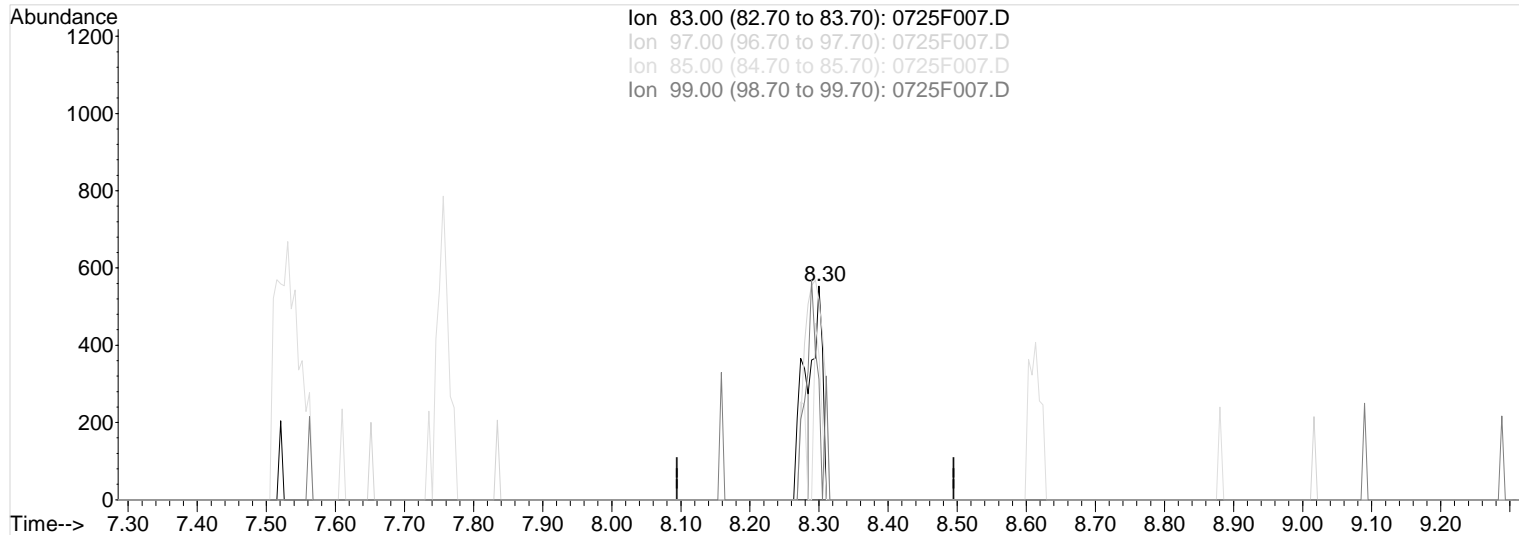
Data File : I:\MS13\DATA\072519\0725F007.D
 Acq On : 25 Jul 2019 9:52 am
 Sample : CAL 0.2 PPB
 Misc :

Vial: 7
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:31 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Multiple Level Calibration



TIC: 0725F007.D

(68) 1,1,2-Trichloroethane (T)

Manual Integration:

8.30min 0.11PPB

Before

response 526

Ion	Exp%	Act%
83.00	100	100
97.00	115.20	93.49
85.00	64.90	67.63
99.00	69.40	56.42

07/26/19

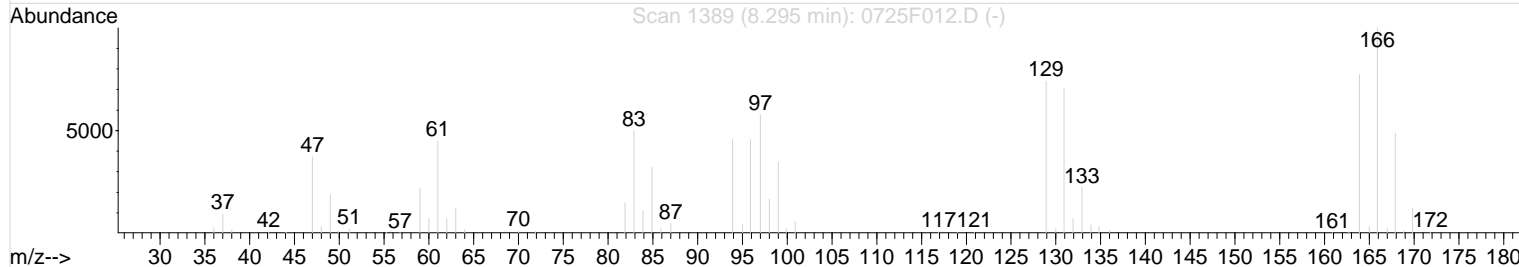
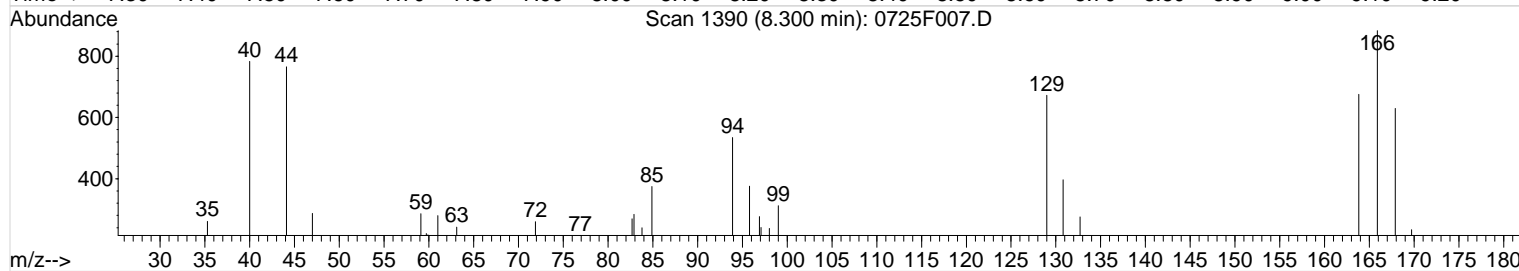
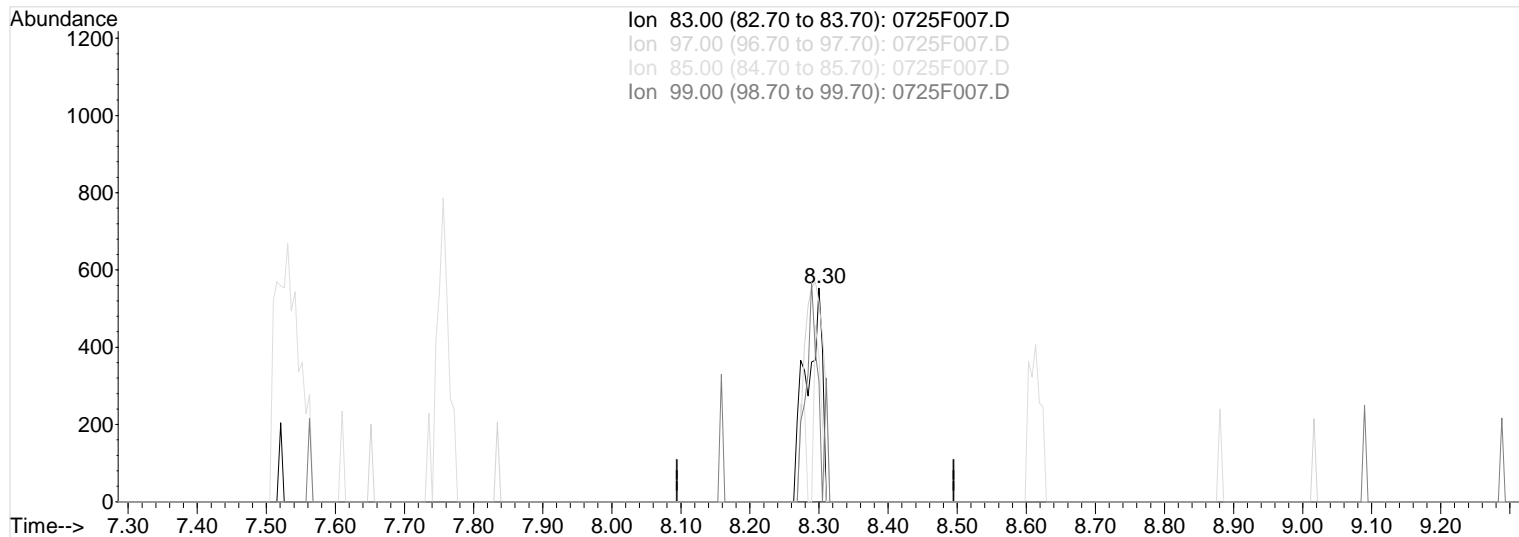
Data File : I:\MS13\DATA\072519\0725F007.D
 Acq On : 25 Jul 2019 9:52 am
 Sample : CAL 0.2 PPB
 Misc :

Vial: 7
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:32 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Multiple Level Calibration



TIC: 0725F007.D

(68) 1,1,2-Trichloroethane (T)

Manual Integration:

8.30min 0.19PPB m

After

response 899

Split peak

07/26/19

Ion	Exp%	Act%
83.00	100	100
97.00	115.20	97.18
85.00	64.90	131.69#
99.00	69.40	109.86#

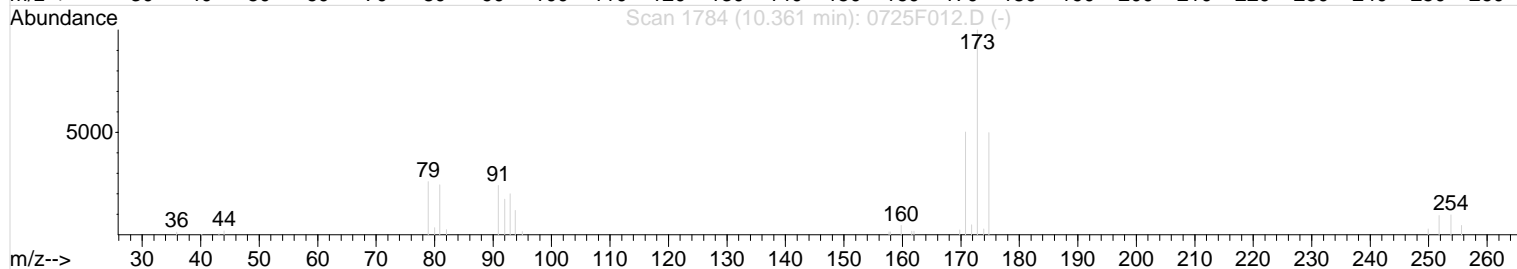
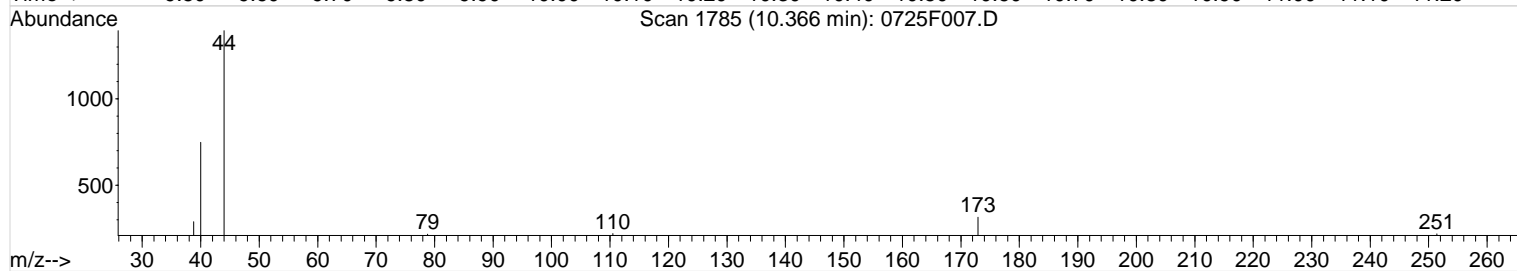
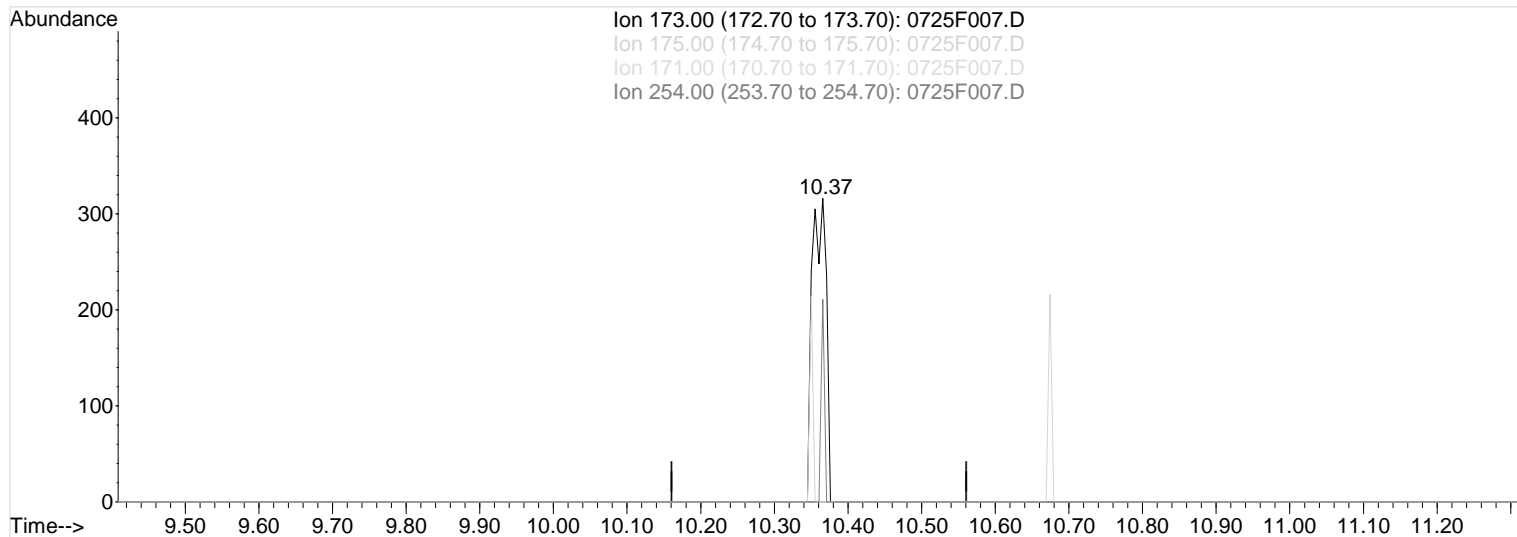
Data File : I:\MS13\DATA\072519\0725F007.D
 Acq On : 25 Jul 2019 9:52 am
 Sample : CAL 0.2 PPB
 Misc :

Vial: 7
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:32 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Multiple Level Calibration



TIC: 0725F007.D

(81) Bromoform (PT)

10.37min 0.16PPB m
 response 422

Ion	Exp%	Act%
173.00	100	100
175.00	49.80	0.00#
171.00	50.00	0.00#
254.00	9.70	66.77#

Manual Integration:

After
 Missed peak
 07/26/19

Data File : I:\MS13\DATA\072519\0725F007.D

Vial: 7

Acq On : 25 Jul 2019 9:52 am

Operator: JHJ

Sample : CAL 0.2 PPB

Inst : MS13

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 26 17:21:40 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B

Last Update : Fri Jul 26 17:20:50 2019

Response via : Initial Calibration

DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	294768	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	107483	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.97	152	77637	10.00	PPB	0.00

System Monitoring Compounds

42) Dibromofluoromethane	0.00	113	0	0.00	PPB	
Spiked Amount	10.000		Recovery	=	0.00%	
47) 1,2-Dichloroethane-d4	0.00	65	0	0.00	PPB	
Spiked Amount	10.000		Recovery	=	0.00%	
62) Toluene-d8	0.00	98	0d	0.00	PPB	
Spiked Amount	10.000		Recovery	=	0.00%	
84) 4-Bromofluorobenzene	0.00	95	0	0.00	PPB	
Spiked Amount	10.000		Recovery	=	0.00%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.10	85	1875	0.19	PPB	94
3) Chloromethane	1.24	50	2472	0.22	PPB	80
4) Vinyl Chloride	1.31	62	2048	0.18	PPB	89
5) Bromomethane	1.56	96	1754	0.27	PPB	90
6) Chloroethane	1.64	64	1143	0.17	PPB	90
7) Dichlorofluoromethane	1.80	67	3106	0.19	PPB	96
8) Trichlorofluoromethane	1.80	101	3115	0.19	PPB	87
9) Ethyl Ether	2.05	59	686	0.16	PPB	85
10) Acrolein	2.23	56	3530	4.24	PPB	92
11) Trichlorotrifluoroethane	2.22	151	1092	0.17	PPB	89
12) 1,1-Dichloroethene	2.25	96	1716	0.20	PPB	88
13) Acetone	2.36	43	2686	2.46	PPB	81
14) Iodomethane	2.40	142	6834	0.76	PPB	96
15) Carbon Disulfide	2.42	76	5900	0.26	PPB	93
16) 2-Propanol (Isopropyl Alco	2.48	45	2389	13.50	PPB #	1
17) 3-Chloro-1-propene	2.60	76	842	0.19	PPB #	41
20) Methylene Chloride	2.75	84	2968	0.36	PPB #	63
22) Acrylonitrile	3.05	53	1271	0.85	PPB	95
23) Methyl tert-Butyl Ether	2.94	73	6323	0.40	PPB	95
24) trans-1,2-Dichloroethene	2.95	96	1253	0.15	PPB #	78
25) Hexane	3.14	57	2755	0.22	PPB	87
26) Diisopropyl Ether	3.42	45	5974	0.21	PPB	90
27) 1,1-Dichloroethane	3.42	63	2900	0.18	PPB	87
29) Chloroprene	3.47	53	9589	0.68	PPB	95
30) tert-Butyl Ethyl Ether	3.79	59	3767m	0.17	PPB	
31) 2,2-Dichloropropane	4.00	77	2334	0.17	PPB	91
32) cis-1,2-Dichloroethene	4.04	96	1850	0.20	PPB #	64
35) Ethyl Acetate	4.12	61	3495	4.14	PPB	88
36) Methacrylonitrile	4.36	67	1120	0.60	PPB #	69
37) Bromochloromethane	4.30	128	652	0.17	PPB #	46
39) Chloroform	4.39	83	2986	0.20	PPB	79
41) 1,1,1-Trichloroethane	4.53	97	2505	0.18	PPB #	53
43) Cyclohexane	4.49	56	2767	0.19	PPB #	80
44) Carbon Tetrachloride	4.67	117	1842	0.17	PPB	91
45) 1,1-Dichloropropene	4.72	75	2456	0.19	PPB	84
48) Benzene	4.96	78	7038	0.19	PPB	94
49) 1,2-Dichloroethane	5.09	62	1967	0.19	PPB	79
50) tert-Amyl Methyl Ether	5.08	55	1194	0.26	PPB #	1
51) Trichloroethene	5.80	95	1731	0.19	PPB #	70
52) Methyl Cyclohexane	5.95	83	2748	0.19	PPB #	46
53) 1,2-Dichloropropane	6.22	63	1704	0.19	PPB #	72
54) Dibromomethane	6.41	93	893	0.22	PPB #	60
57) Bromodichloromethane	6.63	83	1547	0.16	PPB	87

(#)=qualifier out of range (m)=manual integration

0725F007.D 072519MS13_8260W.M

Fri Jul 26 17:34:20 2019

Data File : I:\MS13\DATA\072519\0725F007.D
Acq On : 25 Jul 2019 9:52 am
Sample : CAL 0.2 PPB
Misc :

Vial: 7
Operator: JHJ
Inst : MS13
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Jul 26 17:21:40 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Initial Calibration
DataAcq Meth : 8260W5

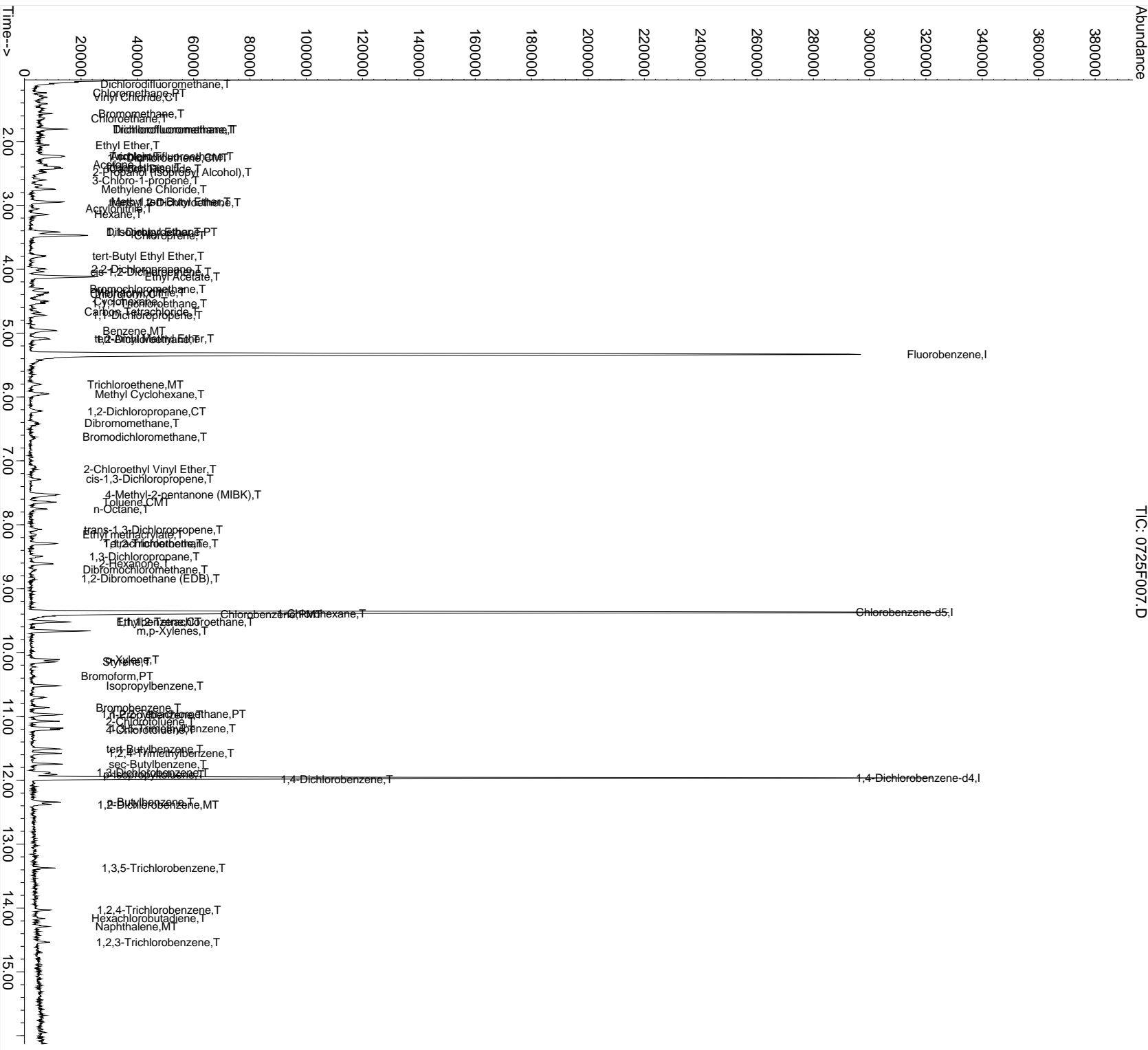
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
59) 2-Chloroethyl Vinyl Ether	7.14	63	811	0.22	PPB	# 47
60) cis-1,3-Dichloropropene	7.28	75	2201	0.18	PPB	78
61) 4-Methyl-2-pentanone (MIBK)	7.53	58	3158	2.10	PPB	# 65
63) Toluene	7.64	92	3996	0.18	PPB	# 70
65) n-Octane	7.76	85	947	0.18	PPB	# 59
66) trans-1,3-Dichloropropene	8.09	75	1932m	0.20	PPB	
67) Ethyl methacrylate	8.15	69	1492	0.23	PPB	83
68) 1,1,2-Trichloroethane	8.30	83	899m	0.19	PPB	
69) Tetrachloroethene	8.29	164	1292	0.18	PPB	# 80
70) 2-Hexanone	8.61	57	1080	2.20	PPB	# 36
71) 1,3-Dichloropropane	8.49	76	1731	0.17	PPB	65
72) Dibromochloromethane	8.71	129	1060	0.19	PPB	87
73) 1,2-Dibromoethane (EDB)	8.83	107	1143	0.23	PPB	# 38
74) 1-Chlorohexane	9.40	91	2254	0.21	PPB	75
75) Chlorobenzene	9.40	112	4012	0.18	PPB	92
76) Ethylbenzene	9.52	106	2438	0.19	PPB	89
77) 1,1,1,2-Tetrachloroethane	9.52	131	1492	0.21	PPB	# 67
78) m,p-Xylenes	9.66	106	5984	0.39	PPB	90
79) o-Xylene	10.11	106	2392	0.17	PPB	96
80) Styrene	10.15	103	2107	0.18	PPB	# 69
81) Bromoform	10.37	173	422m	0.16	PPB	
82) Isopropylbenzene	10.52	105	6279	0.16	PPB	86
86) 1,1,2,2-Tetrachloroethane	10.96	83	1105	0.23	PPB	91
88) Bromobenzene	10.86	156	1718	0.22	PPB	# 74
89) n-Propylbenzene	10.97	91	7365	0.18	PPB	90
91) 2-Chlorotoluene	11.07	91	4834	0.21	PPB	83
92) 1,3,5-Trimethylbenzene	11.18	105	5233	0.18	PPB	86
93) 4-Chlorotoluene	11.20	91	5332	0.19	PPB	97
94) tert-Butylbenzene	11.51	119	4319	0.17	PPB	89
95) 1,2,4-Trimethylbenzene	11.58	105	4613	0.16	PPB	81
96) sec-Butylbenzene	11.75	105	6524	0.19	PPB	93
97) p-Isopropyltoluene	11.91	119	4774	0.16	PPB	90
98) 1,3-Dichlorobenzene	11.88	146	2833	0.20	PPB	97
99) 1,4-Dichlorobenzene	11.99	146	3137	0.22	PPB	83
100) n-Butylbenzene	12.34	91	5135	0.20	PPB	98
101) 1,2-Dichlorobenzene	12.38	146	2357	0.18	PPB	88
103) 1,3,5-Trichlorobenzene	13.37	180	1827	0.20	PPB	93
104) 1,2,4-Trichlorobenzene	14.03	180	1755	0.24	PPB	90
105) Hexachlorobutadiene	14.16	225	785	0.21	PPB	77
106) Naphthalene	14.29	128	2900	0.22	PPB	69
107) 1,2,3-Trichlorobenzene	14.53	180	1114	0.18	PPB	# 57

08/01/19
Data File : I:\MS13\DATA\072519\0725F007.D
Acq On : 25 Jul 2019 9:52 am
Sample : CAL 0.2 PPB
Misc :
MS Integration Params: rteint.p
Quant Time: Jul 26 17:33 2019

Vial: 7
Operator: JHT
Inst: MS13
Multiplr: 1.00

Quant Results File: 072519MS13_8260W.RES

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Initial Calibration



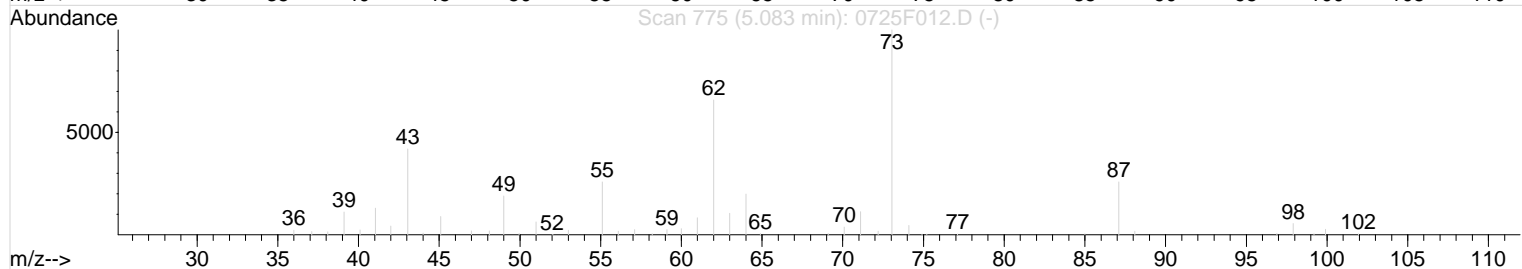
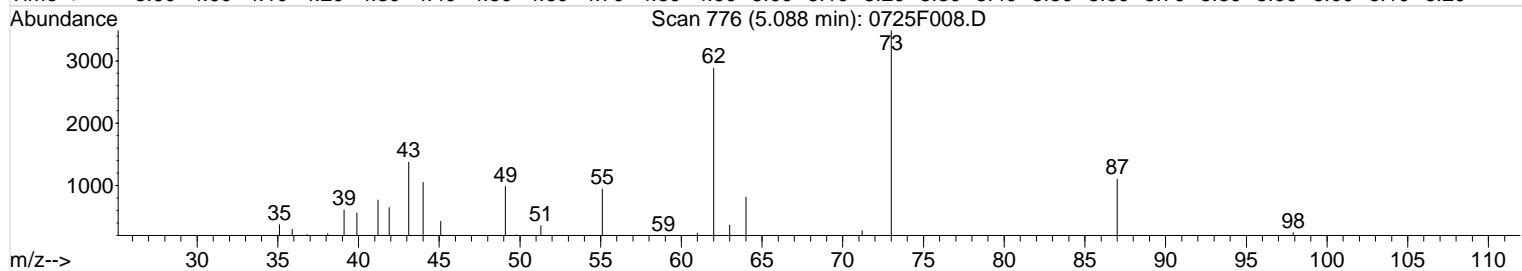
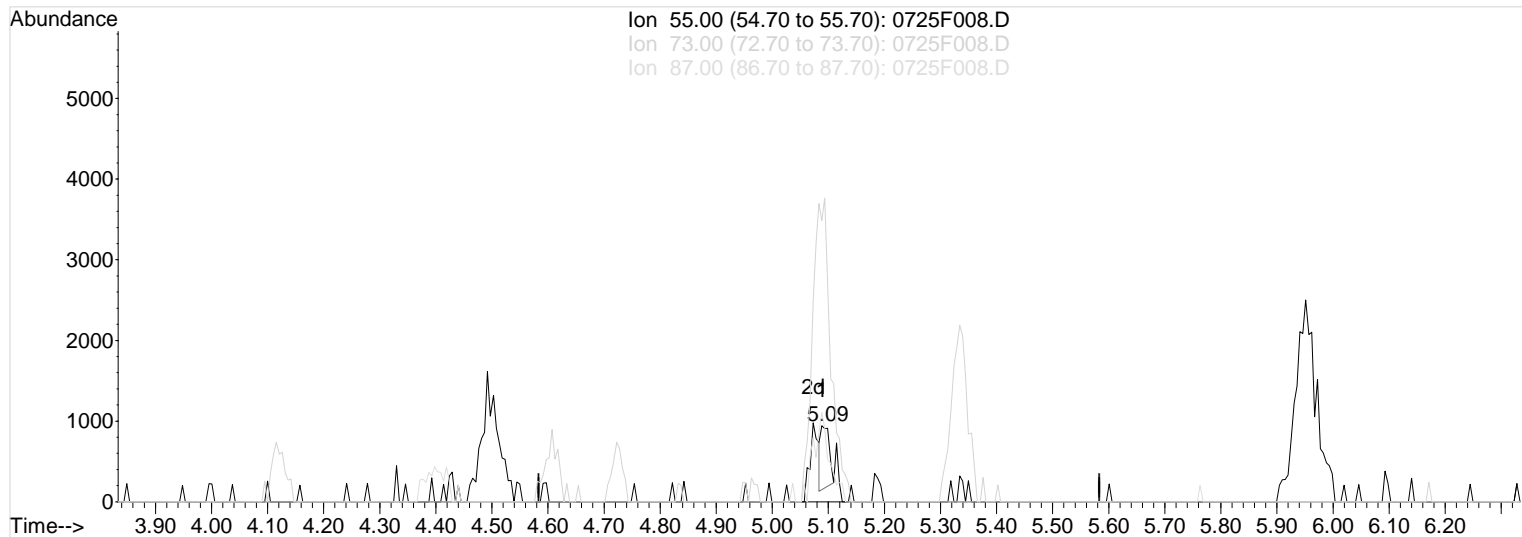
Data File : I:\MS13\DATA\072519\0725F008.D
 Acq On : 25 Jul 2019 10:19 am
 Sample : CAL 0.5 PPB
 Misc :

Vial: 8
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:35 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Single Level Calibration



TIC: 0725F008.D

(50) tert-Amyl Methyl Ether (T)

Manual Integration:

5.09min 0.17PPB

Before

response 806

Ion	Exp%	Act%
55.00	100	100
73.00	387.30	287.62#
87.00	99.60	107.25
0.00	0.00	0.00

07/26/19

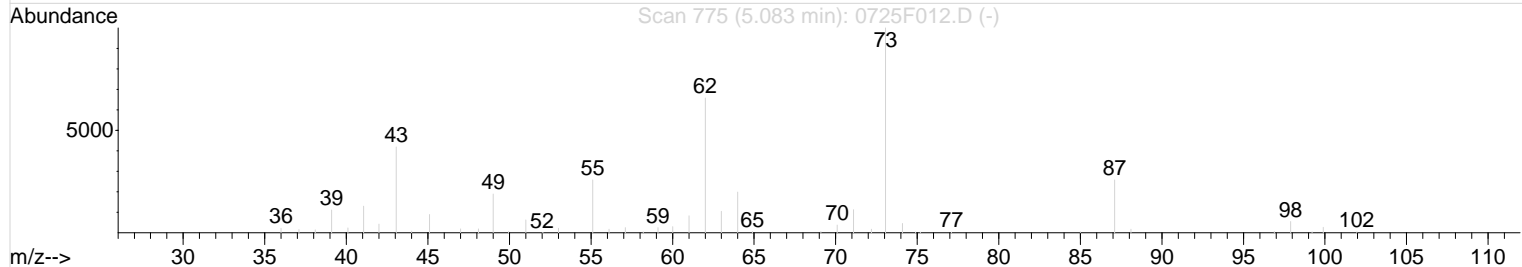
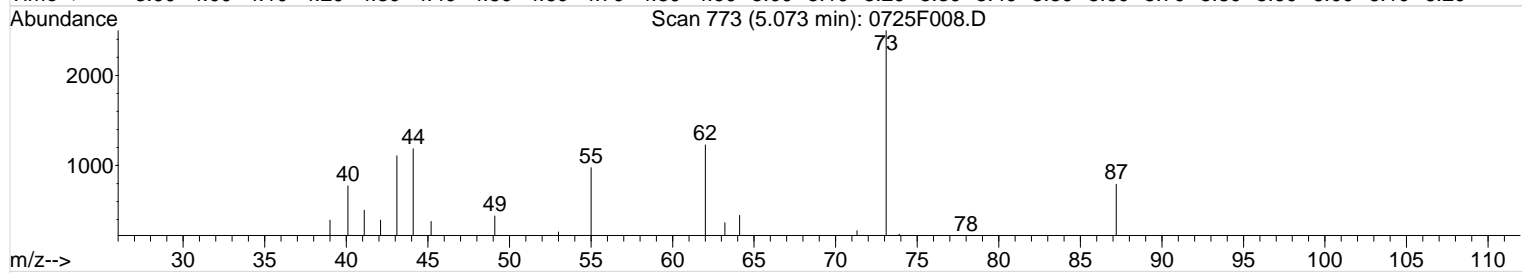
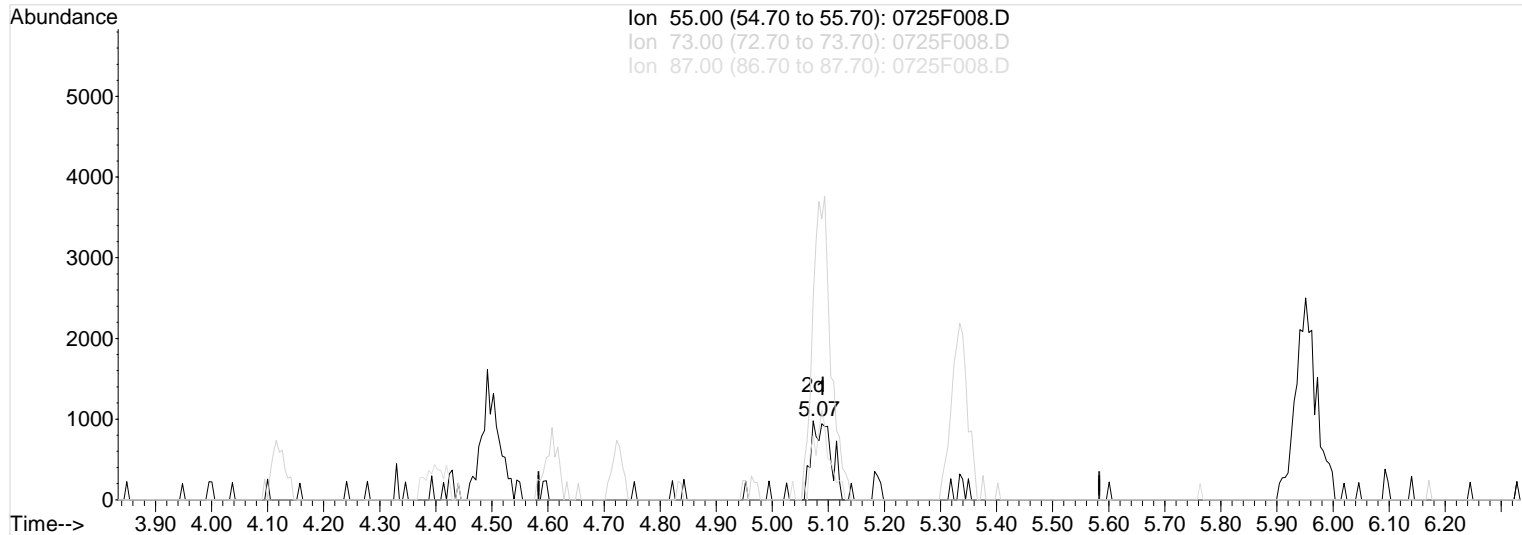
Data File : I:\MS13\DATA\072519\0725F008.D
 Acq On : 25 Jul 2019 10:19 am
 Sample : CAL 0.5 PPB
 Misc :

Vial: 8
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:36 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Single Level Calibration



TIC: 0725F008.D

(50) tert-Amyl Methyl Ether (T)

Manual Integration:

5.07min 0.54PPB m
 response 2502

After
 Split peak

Ion	Exp%	Act%
55.00	100	100
73.00	387.30	255.42#
87.00	99.60	80.98
0.00	0.00	0.00

07/26/19

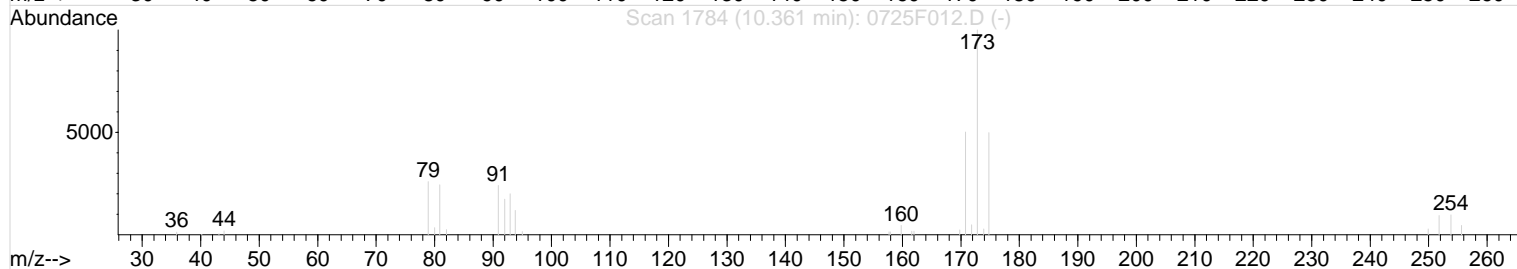
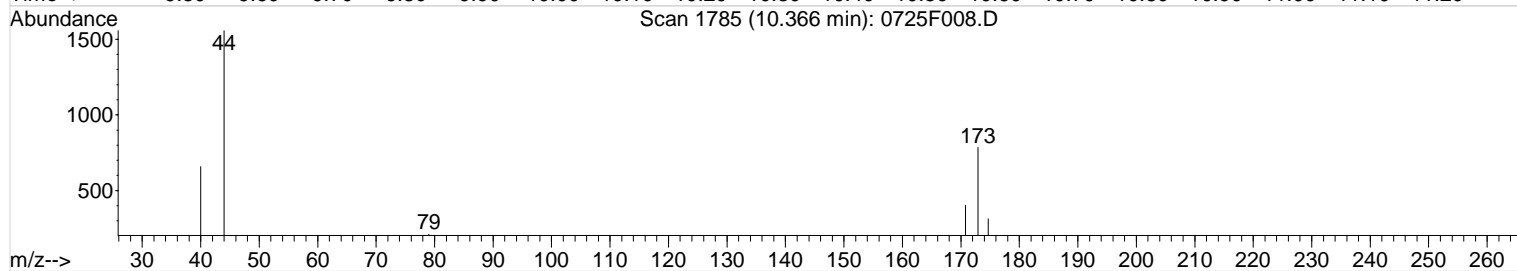
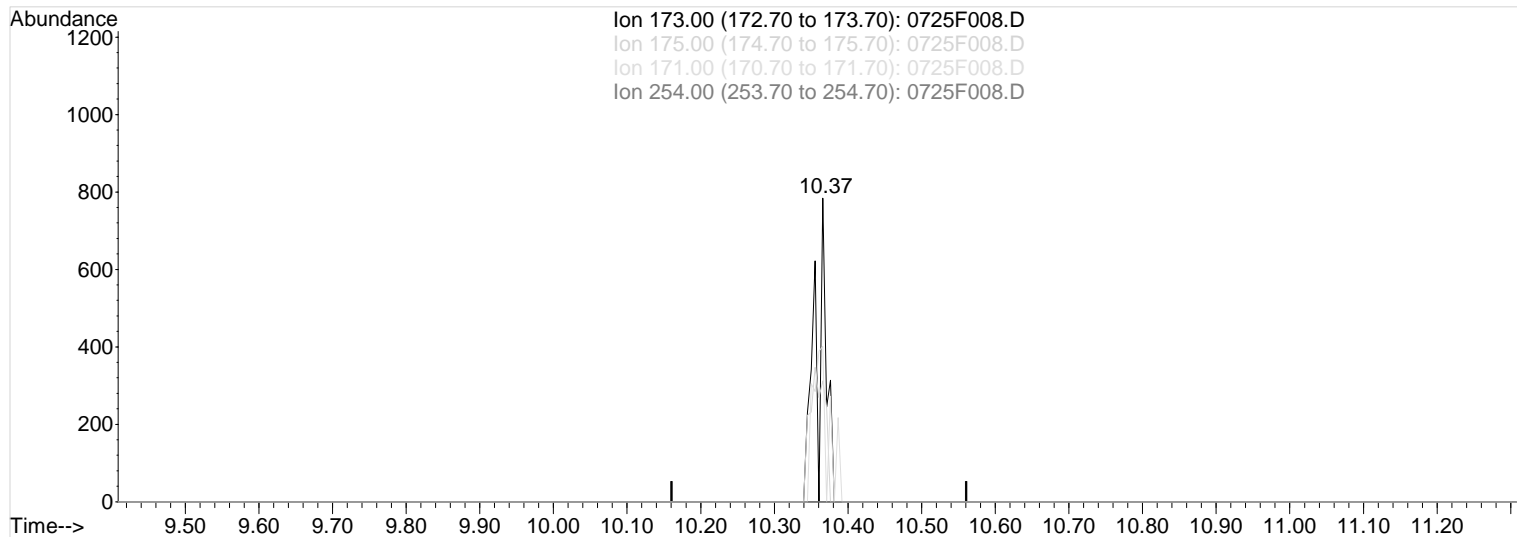
Data File : I:\MS13\DATA\072519\0725F008.D
Acq On : 25 Jul 2019 10:19 am
Sample : CAL 0.5 PPB
Misc :

Vial: 8
Operator: JHJ
Inst : MS13
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Jul 26 17:38 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Multiple Level Calibration



TIC: 0725F008.D

(81) Bromoform (PT)

10.37min 0.31PPB m
response 796

Ion	Exp%	Act%
173.00	100	100
175.00	49.80	39.80
171.00	50.00	51.15
254.00	9.70	0.00

Manual Integration:

After
Missed peak
07/26/19

Data File : I:\MS13\DATA\072519\0725F008.D

Vial: 8

Acq On : 25 Jul 2019 10:19 am

Operator: JHJ

Sample : CAL 0.5 PPB

Inst : MS13

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 26 17:21:41 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B

Last Update : Fri Jul 26 17:20:50 2019

Response via : Initial Calibration

DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	296671	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	106145	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.97	152	76784	10.00	PPB	0.00

System Monitoring Compounds

42) Dibromofluoromethane	0.00	113	0	0.00	PPB	
Spiked Amount	10.000		Recovery	=	0.00%	
47) 1,2-Dichloroethane-d4	0.00	65	0	0.00	PPB	
Spiked Amount	10.000		Recovery	=	0.00%	
62) Toluene-d8	0.00	98	0	0.00	PPB	
Spiked Amount	10.000		Recovery	=	0.00%	
84) 4-Bromofluorobenzene	10.73	95	505	0.05	PPB	0.00
Spiked Amount	10.000		Recovery	=	0.50%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.10	85	5322	0.55	PPB	98
3) Chloromethane	1.24	50	6064	0.53	PPB	88
4) Vinyl Chloride	1.31	62	5689	0.50	PPB	89
5) Bromomethane	1.56	96	3516	0.53	PPB	93
6) Chloroethane	1.64	64	3248	0.49	PPB	97
7) Dichlorofluoromethane	1.80	67	8509	0.52	PPB	92
8) Trichlorofluoromethane	1.81	101	7796	0.47	PPB	92
9) Ethyl Ether	2.05	59	2218	0.51	PPB	83
10) Acrolein	2.23	56	8976	10.71	PPB	97
11) Trichlorotrifluoroethane	2.22	151	2912	0.46	PPB	88
12) 1,1-Dichloroethene	2.25	96	4420	0.52	PPB	81
13) Acetone	2.37	43	7224	6.57	PPB	95
14) Iodomethane	2.41	142	16517	1.81	PPB	95
15) Carbon Disulfide	2.43	76	12508	0.54	PPB	97
16) 2-Propanol (Isopropyl Alco	2.49	45	4677	26.27	PPB #	9
17) 3-Chloro-1-propene	2.60	76	2131	0.48	PPB #	79
18) Acetonitrile	2.69	40	4782	18.64	PPB #	78
20) Methylene Chloride	2.75	84	4971	0.60	PPB	85
22) Acrylonitrile	3.06	53	3166	2.10	PPB	93
23) Methyl tert-Butyl Ether	2.94	73	16192	1.03	PPB	97
24) trans-1,2-Dichloroethene	2.95	96	3951	0.48	PPB #	76
25) Hexane	3.15	57	6582	0.52	PPB	80
26) Diisopropyl Ether	3.42	45	13731	0.49	PPB	97
27) 1,1-Dichloroethane	3.43	63	8056	0.49	PPB	90
28) Vinyl Acetate	3.48	86	1154	0.99	PPB #	17
29) Chloroprene	3.47	53	25341	1.80	PPB	96
30) tert-Butyl Ethyl Ether	3.79	59	10911	0.49	PPB	92
31) 2,2-Dichloropropane	4.01	77	6811	0.50	PPB	93
32) cis-1,2-Dichloroethene	4.04	96	4834	0.53	PPB	80
33) 2-Butanone	4.09	72	1936	5.03	PPB #	71
34) Propionitrile	4.25	54	1267	2.36	PPB	56
35) Ethyl Acetate	4.12	61	3457	4.07	PPB	88
36) Methacrylonitrile	4.37	67	3461	1.86	PPB	85
37) Bromochloromethane	4.30	128	1848	0.48	PPB #	60
39) Chloroform	4.39	83	6808	0.45	PPB	83
40) tert-Butyl Formate	4.41	59	2557	0.46	PPB	71
41) 1,1,1-Trichloroethane	4.54	97	6153	0.44	PPB	76
43) Cyclohexane	4.49	56	7485	0.51	PPB	94
44) Carbon Tetrachloride	4.67	117	4800	0.44	PPB	92
45) 1,1-Dichloropropene	4.73	75	6110	0.47	PPB	97
46) Isobutyl Alcohol	4.98	43	2964	24.96	PPB	75
48) Benzene	4.95	78	18621	0.50	PPB	94
49) 1,2-Dichloroethane	5.09	62	5473	0.51	PPB	92

(#)= qualifier out of range (m) = manual integration

0725F008.D 072519MS13_8260W.M

Fri Jul 26 17:38:58 2019

Data File : I:\MS13\DATA\072519\0725F008.D

Vial: 8

Acq On : 25 Jul 2019 10:19 am

Operator: JHJ

Sample : CAL 0.5 PPB

Inst : MS13

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 26 17:21:41 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B

Last Update : Fri Jul 26 17:20:50 2019

Response via : Initial Calibration

DataAcq Meth : 8260W5

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
50) tert-Amyl Methyl Ether	5.07	55	2502m	0.54	PPB	
51) Trichloroethene	5.80	95	4588	0.51	PPB	87
52) Methyl Cyclohexane	5.95	83	7447	0.52	PPB	97
53) 1,2-Dichloropropane	6.21	63	4856	0.53	PPB	84
54) Dibromomethane	6.40	93	2021	0.50	PPB	92
55) Methyl methacrylate	6.43	69	1645	0.50	PPB	# 79
57) Bromodichloromethane	6.64	83	4520	0.47	PPB	80
58) 2-Nitropropane	7.10	43	2695	1.47	PPB	84
59) 2-Chloroethyl Vinyl Ether	7.14	63	1738	0.47	PPB	72
60) cis-1,3-Dichloropropene	7.29	75	5013	0.40	PPB	97
61) 4-Methyl-2-pentanone (MIBK)	7.53	58	7339	4.84	PPB	# 62
63) Toluene	7.65	92	10498	0.46	PPB	# 79
65) n-Octane	7.75	85	2734	0.52	PPB	82
66) trans-1,3-Dichloropropene	8.08	75	4311	0.45	PPB	86
67) Ethyl methacrylate	8.16	69	3182	0.49	PPB	72
68) 1,1,2-Trichloroethane	8.28	83	2459	0.52	PPB	# 81
69) Tetrachloroethene	8.30	164	3438	0.49	PPB	# 77
70) 2-Hexanone	8.61	57	2693	5.55	PPB	# 80
71) 1,3-Dichloropropane	8.50	76	5035	0.50	PPB	81
72) Dibromochloromethane	8.71	129	2213	0.40	PPB	87
73) 1,2-Dibromoethane (EDB)	8.84	107	2202	0.45	PPB	96
74) 1-Chlorohexane	9.40	91	5240	0.48	PPB	86
75) Chlorobenzene	9.40	112	10937	0.50	PPB	94
76) Ethylbenzene	9.51	106	6284	0.49	PPB	88
77) 1,1,1,2-Tetrachloroethane	9.53	131	2983	0.43	PPB	88
78) m,p-Xylenes	9.66	106	14198	0.93	PPB	92
79) o-Xylene	10.11	106	6637	0.47	PPB	# 81
80) Styrene	10.14	103	5081	0.45	PPB	# 72
81) Bromoform	10.37	173	796m	0.31	PPB	
82) Isopropylbenzene	10.52	105	17688	0.47	PPB	90
83) cis-1,4-Dichloro-2-butene	10.70	89	954	1.59	PPB	# 56
86) 1,1,2,2-Tetrachloroethane	10.96	83	2227	0.47	PPB	95
87) trans-1,4-Dichloro-2-buten	11.03	53	839	0.57	PPB	79
88) Bromobenzene	10.87	156	3847	0.49	PPB	91
89) n-Propylbenzene	10.97	91	18977	0.46	PPB	97
90) 1,2,3-Trichloropropane	11.00	110	502	0.34	PPB	# 12
91) 2-Chlorotoluene	11.07	91	11603	0.50	PPB	99
92) 1,3,5-Trimethylbenzene	11.19	105	13214	0.47	PPB	99
93) 4-Chlorotoluene	11.20	91	13019	0.47	PPB	94
94) tert-Butylbenzene	11.51	119	11890	0.48	PPB	92
95) 1,2,4-Trimethylbenzene	11.58	105	12508	0.44	PPB	95
96) sec-Butylbenzene	11.74	105	16062	0.46	PPB	89
97) p-Isopropyltoluene	11.91	119	13172	0.45	PPB	96
98) 1,3-Dichlorobenzene	11.88	146	7170	0.50	PPB	94
99) 1,4-Dichlorobenzene	11.99	146	7034	0.49	PPB	97
100) n-Butylbenzene	12.34	91	12041	0.47	PPB	97
101) 1,2-Dichlorobenzene	12.37	146	6011	0.47	PPB	95
103) 1,3,5-Trichlorobenzene	13.37	180	4400	0.49	PPB	95
104) 1,2,4-Trichlorobenzene	14.03	180	3632	0.50	PPB	85
105) Hexachlorobutadiene	14.16	225	1842	0.50	PPB	81
106) Naphthalene	14.29	128	6057	0.47	PPB	96
107) 1,2,3-Trichlorobenzene	14.53	180	2999	0.48	PPB	90

(#)=qualifier out of range (m)=manual integration

0725F008.D 072519MS13_8260W.M

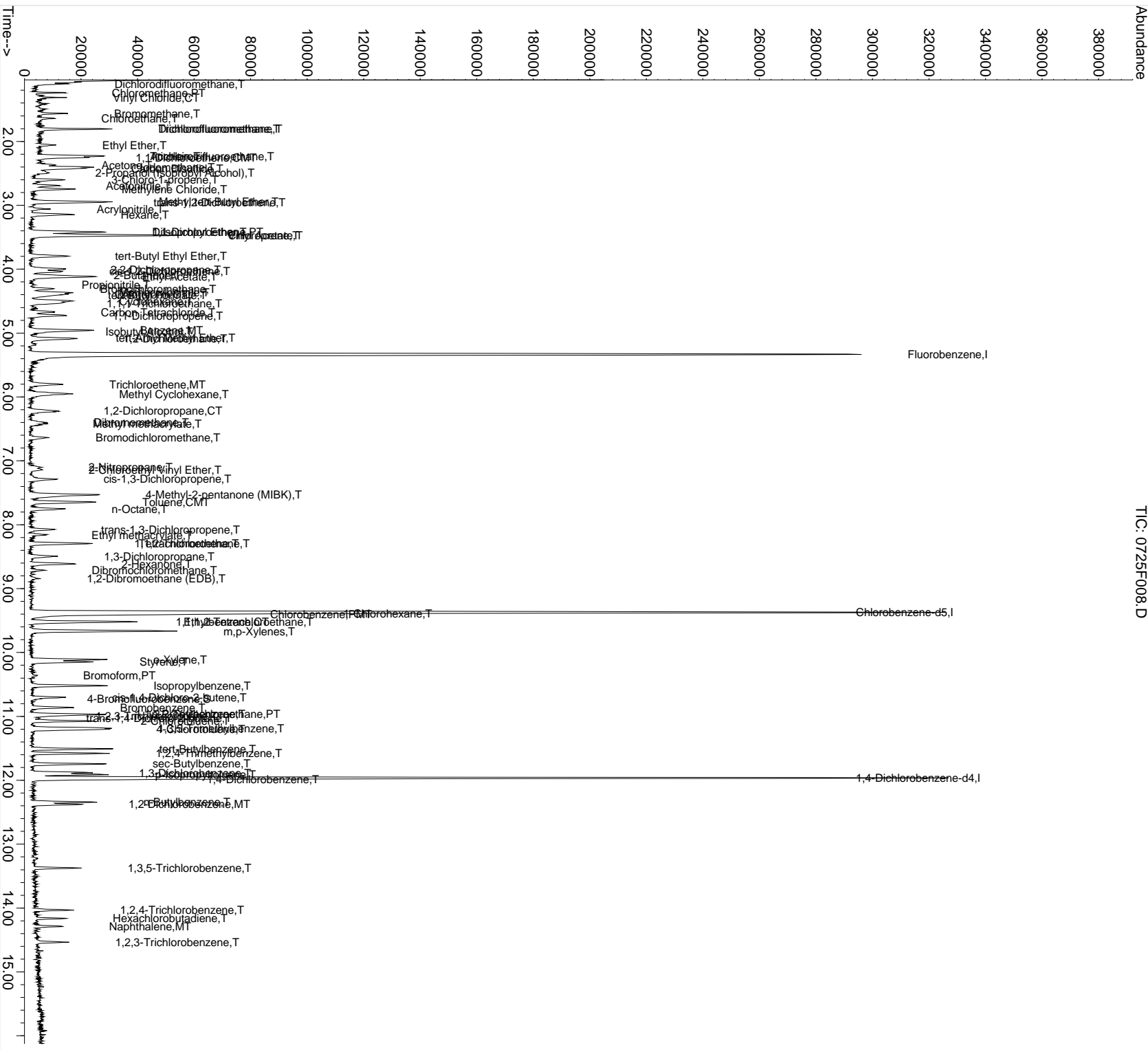
Fri Jul 26 17:39:00 2019

08/01/19
Data File : I:\MS13\DATA\072519\07251908.D
Acq On : 25 Jul 2019 10:19 am
Sample : CAL 0.5 PPB
Misc :
MS Integration Params: rteint.p
Quant Time: Jul 26 17:38 2019

Vial: 8
Operator: JHT
Inst: MS13
Multiplr: 1.00

Quant Results File: 072519MS13_8260W.RES

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Initial Calibration



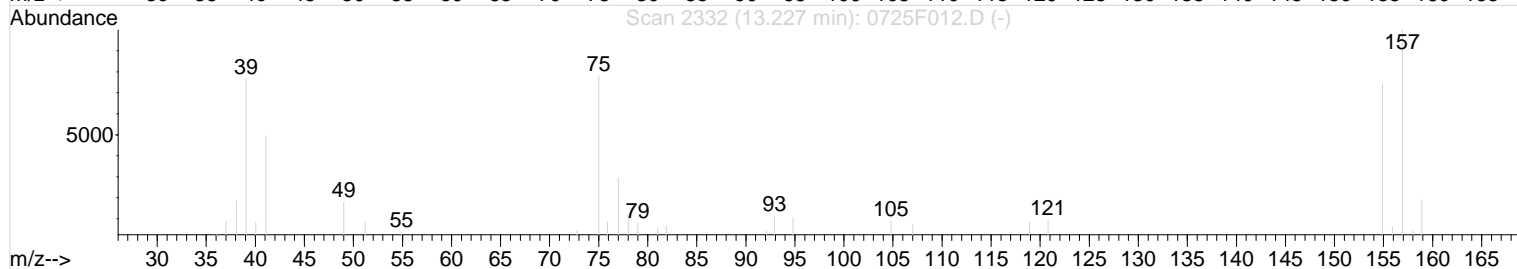
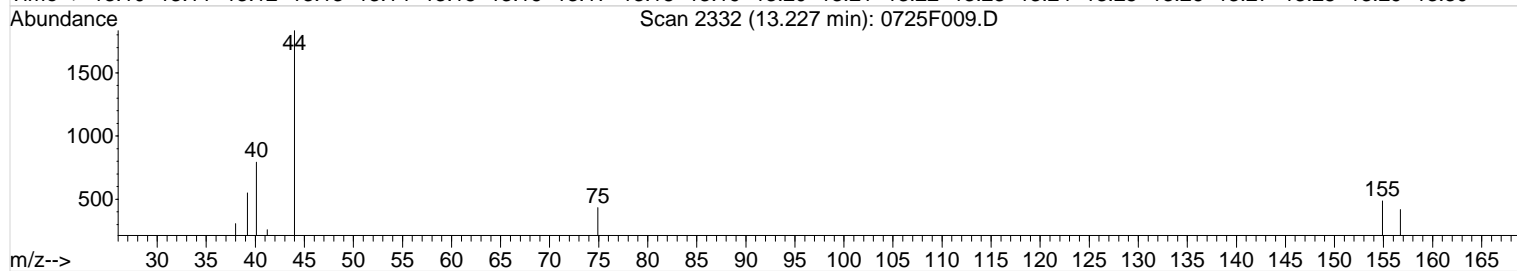
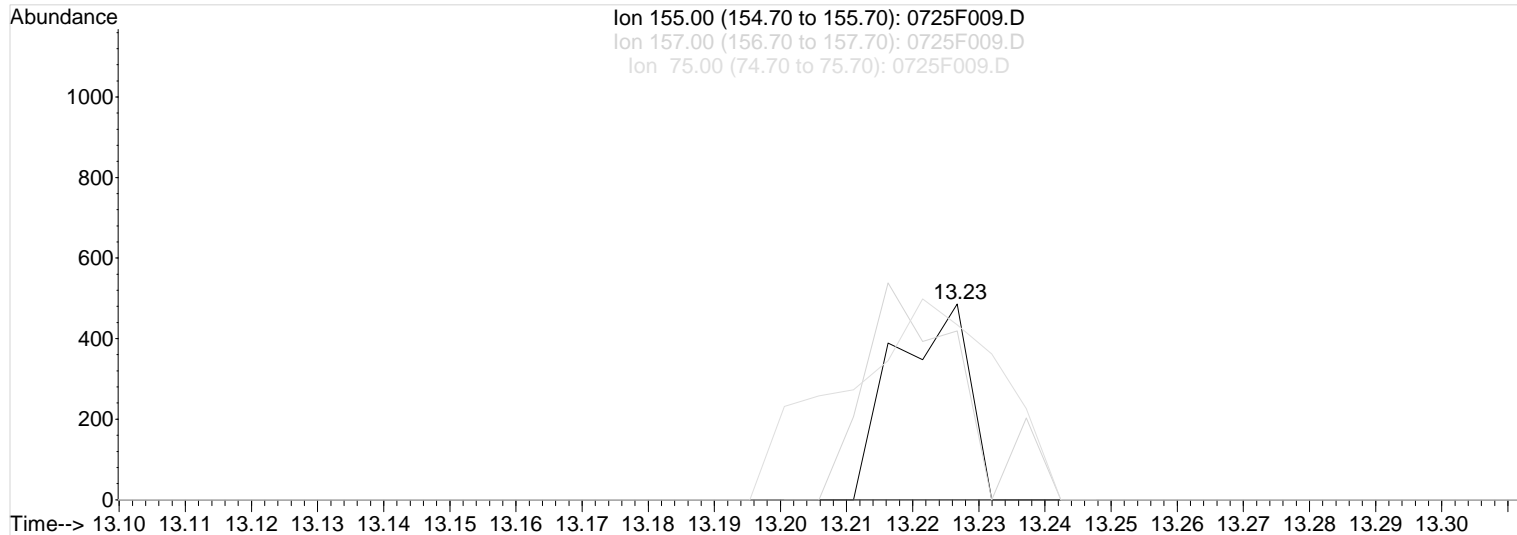
Data File : I:\MS13\DATA\072519\0725F009.D
Acq On : 25 Jul 2019 10:45 am
Sample : CAL 1.0 PPB
Misc :

Vial: 9
Operator: JHJ
Inst : MS13
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Jul 26 17:40 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Single Level Calibration



TIC: 0725F009.D

(102) 1,2-Dibromo-3-chloropropane (DBCP) (T)

Manual Integration:

13.23min 0.70PPB m
response 384

After
Missed peak

Ion	Exp%	Act%
155.00	100	100
157.00	135.20	86.21#
75.00	105.60	89.30
0.00	0.00	0.00

07/26/19

Data File : I:\MS13\DATA\072519\0725F009.D

Vial: 9

Acq On : 25 Jul 2019 10:45 am

Operator: JHJ

Sample : CAL 1.0 PPB

Inst : MS13

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 26 17:21:42 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B

Last Update : Fri Jul 26 17:20:50 2019

Response via : Initial Calibration

DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	301803	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	111347	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.97	152	80164	10.00	PPB	0.00

System Monitoring Compounds

42) Dibromofluoromethane	4.58	113	23149	3.38	PPB	0.00
Spiked Amount	10.000		Recovery	=	33.80%	
47) 1,2-Dichloroethane-d4	4.99	65	28889	3.63	PPB	0.00
Spiked Amount	10.000		Recovery	=	36.30%	
62) Toluene-d8	7.56	98	105151	3.47	PPB	0.00
Spiked Amount	10.000		Recovery	=	34.70%	
84) 4-Bromofluorobenzene	10.73	95	31630	3.21	PPB	0.00
Spiked Amount	10.000		Recovery	=	32.10%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.10	85	9258	0.94	PPB	95
3) Chloromethane	1.23	50	11946	1.02	PPB	96
4) Vinyl Chloride	1.31	62	10660	0.92	PPB	95
5) Bromomethane	1.56	96	6896	1.03	PPB	98
6) Chloroethane	1.64	64	7006	1.04	PPB	92
7) Dichlorofluoromethane	1.80	67	16021	0.97	PPB	96
8) Trichlorofluoromethane	1.80	101	15385	0.91	PPB	99
9) Ethyl Ether	2.05	59	4330	0.97	PPB	99
10) Acrolein	2.23	56	17110	20.06	PPB	98
11) Trichlorotrifluoroethane	2.22	151	5965	0.93	PPB	84
12) 1,1-Dichloroethene	2.25	96	8047	0.94	PPB	86
13) Acetone	2.36	43	12194	10.90	PPB	97
14) Iodomethane	2.41	142	31390	3.39	PPB	91
15) Carbon Disulfide	2.43	76	22145	0.95	PPB	95
16) 2-Propanol (Isopropyl Alco	2.48	45	9685	53.47	PPB	68
17) 3-Chloro-1-propene	2.60	76	3868	0.86	PPB	88
18) Acetonitrile	2.69	40	10109	38.73	PPB	93
19) Methyl Acetate	2.64	43	3651	1.16	PPB	93
20) Methylene Chloride	2.75	84	9513	1.13	PPB	95
21) tert-Butyl Alcohol	2.87	59	1396	5.24	PPB	61
22) Acrylonitrile	3.06	53	6090	3.97	PPB	77
23) Methyl tert-Butyl Ether	2.94	73	29851	1.86	PPB	96
24) trans-1,2-Dichloroethene	2.95	96	7445	0.90	PPB	90
25) Hexane	3.14	57	12030	0.93	PPB	87
26) Diisopropyl Ether	3.41	45	28119	0.98	PPB	96
27) 1,1-Dichloroethane	3.41	63	15148	0.91	PPB	96
28) Vinyl Acetate	3.47	86	2313	1.94	PPB	# 72
29) Chloroprene	3.47	53	51602	3.60	PPB	95
30) tert-Butyl Ethyl Ether	3.80	59	21385	0.94	PPB	94
31) 2,2-Dichloropropane	4.00	77	12911	0.94	PPB	92
32) cis-1,2-Dichloroethene	4.04	96	8385	0.91	PPB	95
33) 2-Butanone	4.09	72	4332	11.06	PPB	# 62
34) Propionitrile	4.24	54	1978	3.63	PPB	80
35) Ethyl Acetate	4.12	61	4323	5.00	PPB	82
36) Methacrylonitrile	4.37	67	6730	3.55	PPB	92
37) Bromochloromethane	4.30	128	3743	0.95	PPB	85
38) Tetrahydrofuran	4.31	71	532	1.21	PPB	# 14
39) Chloroform	4.39	83	13501	0.89	PPB	89
40) tert-Butyl Formate	4.42	59	5058	0.89	PPB	97
41) 1,1,1-Trichloroethane	4.53	97	11852	0.84	PPB	91
43) Cyclohexane	4.50	56	14261	0.96	PPB	93
44) Carbon Tetrachloride	4.66	117	10081	0.90	PPB	86
45) 1,1-Dichloropropene	4.72	75	11410	0.87	PPB	98

(#)= qualifier out of range (m) = manual integration

0725F009.D 072519MS13_8260W.M

Fri Jul 26 17:43:51 2019

Data File : I:\MS13\DATA\072519\0725F009.D
Acq On : 25 Jul 2019 10:45 am
Sample : CAL 1.0 PPB
Misc :

Vial: 9
Operator: JHJ
Inst : MS13
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Jul 26 17:21:42 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Initial Calibration
DataAcq Meth : 8260W5

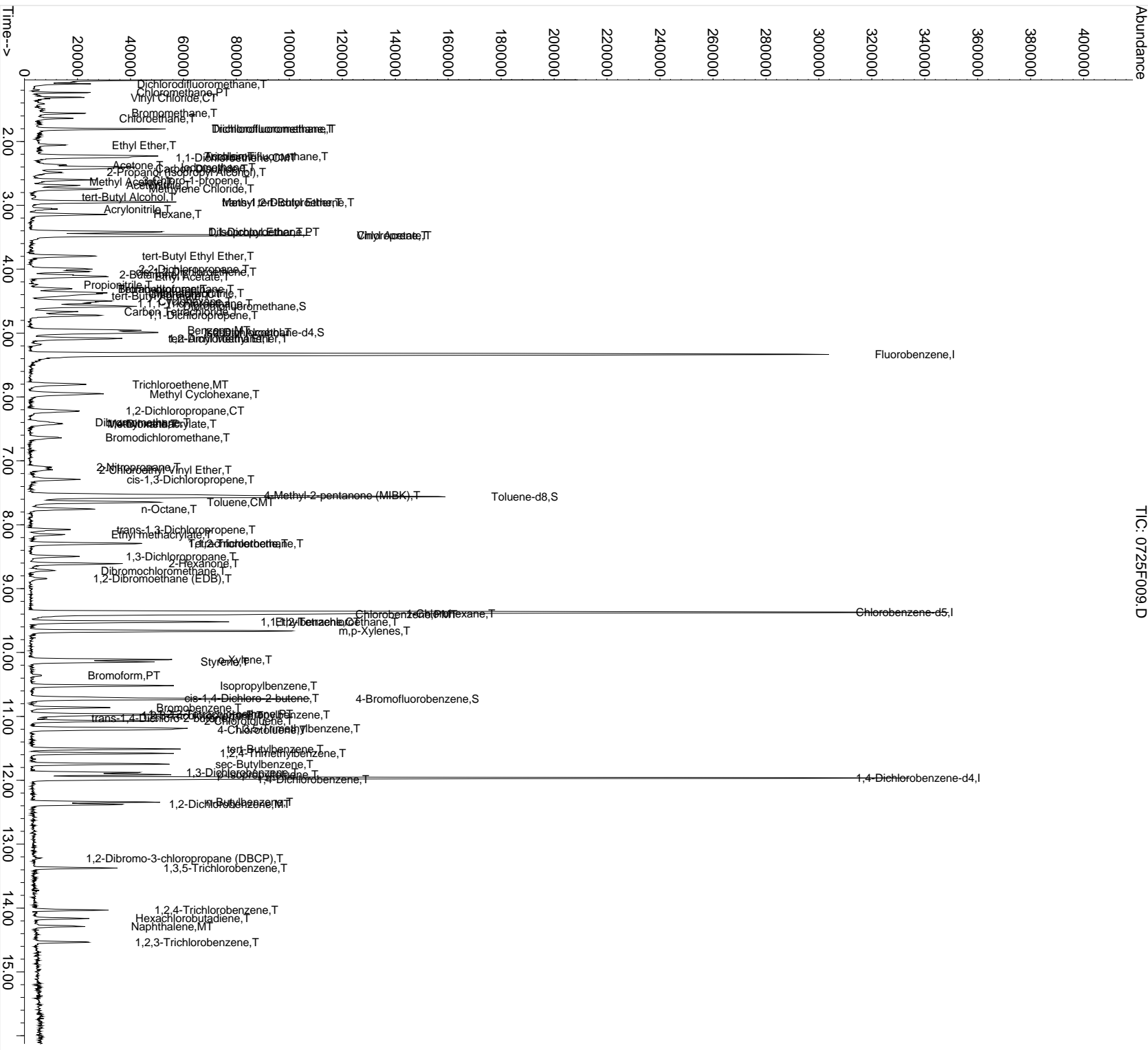
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) Isobutyl Alcohol	4.99	43	5771	47.78	PPB	79
48) Benzene	4.96	78	34966	0.92	PPB	93
49) 1,2-Dichloroethane	5.09	62	10724	0.99	PPB	89
50) tert-Amyl Methyl Ether	5.09	55	4866	1.03	PPB	# 71
51) Trichloroethene	5.80	95	8286	0.90	PPB	94
52) Methyl Cyclohexane	5.95	83	14026	0.97	PPB	96
53) 1,2-Dichloropropane	6.22	63	8206	0.88	PPB	91
54) Dibromomethane	6.39	93	3902	0.94	PPB	94
55) Methyl methacrylate	6.43	69	2964	0.89	PPB	93
56) 1,4-Dioxane	6.42	88	1778	66.06	PPB	85
57) Bromodichloromethane	6.63	83	9041	0.92	PPB	74
58) 2-Nitropropane	7.09	43	5609	3.00	PPB	97
59) 2-Chloroethyl Vinyl Ether	7.14	63	3451	0.92	PPB	99
60) cis-1,3-Dichloropropene	7.29	75	10496	0.83	PPB	95
61) 4-Methyl-2-pentanone (MIBK)	7.53	58	15471	10.04	PPB	93
63) Toluene	7.65	92	21182	0.92	PPB	99
65) n-Octane	7.76	85	4470	0.81	PPB	97
66) trans-1,3-Dichloropropene	8.07	75	8124	0.81	PPB	87
67) Ethyl methacrylate	8.16	69	6057	0.89	PPB	98
68) 1,1,2-Trichloroethane	8.29	83	4308	0.86	PPB	86
69) Tetrachloroethene	8.29	164	6485	0.88	PPB	96
70) 2-Hexanone	8.61	57	4538	8.91	PPB	93
71) 1,3-Dichloropropane	8.49	76	10419	0.99	PPB	88
72) Dibromochloromethane	8.72	129	4440	0.76	PPB	87
73) 1,2-Dibromoethane (EDB)	8.84	107	4765	0.93	PPB	98
74) 1-Chlorohexane	9.40	91	10069	0.89	PPB	94
75) Chlorobenzene	9.40	112	21432	0.93	PPB	98
76) Ethylbenzene	9.51	106	12058	0.90	PPB	88
77) 1,1,1,2-Tetrachloroethane	9.53	131	6171	0.85	PPB	93
78) m,p-Xylenes	9.66	106	29630	1.84	PPB	98
79) o-Xylene	10.11	106	13804	0.93	PPB	94
80) Styrene	10.15	103	9657	0.82	PPB	# 83
81) Bromoform	10.37	173	2088	0.77	PPB	86
82) Isopropylbenzene	10.52	105	34768	0.88	PPB	96
83) cis-1,4-Dichloro-2-butene	10.71	89	1909	3.04	PPB	95
86) 1,1,2,2-Tetrachloroethane	10.95	83	4349	0.89	PPB	84
87) trans-1,4-Dichloro-2-buten	11.04	53	1352	0.87	PPB	# 44
88) Bromobenzene	10.86	156	7482	0.91	PPB	92
89) n-Propylbenzene	10.97	91	40974	0.95	PPB	96
90) 1,2,3-Trichloropropane	10.99	110	1413	0.92	PPB	# 48
91) 2-Chlorotoluene	11.07	91	23957	0.99	PPB	99
92) 1,3,5-Trimethylbenzene	11.18	105	26832	0.91	PPB	98
93) 4-Chlorotoluene	11.21	91	27786	0.96	PPB	95
94) tert-Butylbenzene	11.51	119	24152	0.94	PPB	93
95) 1,2,4-Trimethylbenzene	11.58	105	27004	0.92	PPB	98
96) sec-Butylbenzene	11.75	105	32941	0.91	PPB	99
97) p-Isopropyltoluene	11.91	119	26568	0.88	PPB	95
98) 1,3-Dichlorobenzene	11.88	146	13987	0.93	PPB	92
99) 1,4-Dichlorobenzene	11.99	146	14451	0.97	PPB	96
100) n-Butylbenzene	12.34	91	23694	0.88	PPB	96
101) 1,2-Dichlorobenzene	12.37	146	12436	0.93	PPB	95
102) 1,2-Dibromo-3-chloropropan	13.23	155	384m	0.70	PPB	
103) 1,3,5-Trichlorobenzene	13.38	180	8358	0.89	PPB	100
104) 1,2,4-Trichlorobenzene	14.03	180	7212	0.95	PPB	88
105) Hexachlorobutadiene	14.17	225	2929	0.76	PPB	76
106) Naphthalene	14.29	128	12442	0.92	PPB	98
107) 1,2,3-Trichlorobenzene	14.54	180	5519	0.85	PPB	93

08/01/19
Data File : I:\MS13\DATA\072519\0725F009.D
Acq On : 25 Jul 2019 10:45 am
Sample : CAL 1.0 PPB
Misc :
MS Integration Params: rteint.p
Quant Time: Jul 26 17:40 2019

Vial: 9
Operator: JHT
Inst: MS13
Multiplr: 1.00

Quant Results File: 072519MS13_8260W.RES

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Initial Calibration



Data File : I:\MS13\DATA\072519\0725F010.D
Acq On : 25 Jul 2019 11:12 am
Sample : CAL 2.0 PPB
Misc :

Vial: 10
Operator: JHJ
Inst : MS13
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Jul 26 17:21:43 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Initial Calibration
DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	302109	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	111315	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.97	152	81766	10.00	PPB	0.00

System Monitoring Compounds

42) Dibromofluoromethane	4.58	113	35946	5.24	PPB	0.00
Spiked Amount	10.000		Recovery	=	52.40%	
47) 1,2-Dichloroethane-d4	4.99	65	43583	5.47	PPB	0.00
Spiked Amount	10.000		Recovery	=	54.70%	
62) Toluene-d8	7.56	98	162971	5.38	PPB	0.00
Spiked Amount	10.000		Recovery	=	53.80%	
84) 4-Bromofluorobenzene	10.73	95	49821	5.06	PPB	0.00
Spiked Amount	10.000		Recovery	=	50.60%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.10	85	19594	1.98	PPB	93
3) Chloromethane	1.24	50	24453	2.09	PPB	98
4) Vinyl Chloride	1.31	62	22581	1.94	PPB	97
5) Bromomethane	1.56	96	13610	2.03	PPB	96
6) Chloroethane	1.64	64	13743	2.04	PPB	91
7) Dichlorofluoromethane	1.80	67	30928	1.87	PPB	94
8) Trichlorofluoromethane	1.81	101	31207	1.83	PPB	97
9) Ethyl Ether	2.05	59	7638	1.71	PPB	93
10) Acrolein	2.23	56	30829	36.11	PPB	97
11) Trichlorotrifluoroethane	2.23	151	11536	1.79	PPB	96
12) 1,1-Dichloroethene	2.25	96	16384	1.91	PPB	93
13) Acetone	2.36	43	21123	18.86	PPB	95
14) Iodomethane	2.41	142	63838	6.89	PPB	98
15) Carbon Disulfide	2.43	76	43557	1.86	PPB	96
16) 2-Propanol (Isopropyl Alco	2.49	45	16002	88.26	PPB	84
17) 3-Chloro-1-propene	2.60	76	8379	1.87	PPB	# 76
18) Acetonitrile	2.69	40	18722	71.66	PPB	# 80
19) Methyl Acetate	2.64	43	6490	2.05	PPB	83
20) Methylene Chloride	2.75	84	17357	2.05	PPB	98
21) tert-Butyl Alcohol	2.86	59	2513	9.43	PPB	61
22) Acrylonitrile	3.06	53	11187	7.28	PPB	97
23) Methyl tert-Butyl Ether	2.94	73	57100	3.55	PPB	97
24) trans-1,2-Dichloroethene	2.95	96	15007	1.81	PPB	95
25) Hexane	3.14	57	23880	1.84	PPB	97
26) Diisopropyl Ether	3.41	45	51854	1.80	PPB	97
27) 1,1-Dichloroethane	3.41	63	29798	1.79	PPB	98
28) Vinyl Acetate	3.48	86	4125	3.46	PPB	# 67
29) Chloroprene	3.47	53	103236	7.19	PPB	98
30) tert-Butyl Ethyl Ether	3.79	59	41863	1.84	PPB	99
31) 2,2-Dichloropropane	4.00	77	25312	1.84	PPB	95
32) cis-1,2-Dichloroethene	4.04	96	15676	1.69	PPB	89
33) 2-Butanone	4.09	72	7057	18.00	PPB	91
34) Propionitrile	4.25	54	4091	7.49	PPB	85
35) Ethyl Acetate	4.12	61	5913	6.83	PPB	79
36) Methacrylonitrile	4.36	67	13795	7.26	PPB	96
37) Bromochloromethane	4.31	128	6788	1.73	PPB	93
38) Tetrahydrofuran	4.32	71	734	1.67	PPB	# 60
39) Chloroform	4.39	83	27967	1.83	PPB	99
40) tert-Butyl Formate	4.42	59	9903	1.74	PPB	84
41) 1,1,1-Trichloroethane	4.53	97	24300	1.72	PPB	97
43) Cyclohexane	4.50	56	28012	1.88	PPB	97
44) Carbon Tetrachloride	4.67	117	19584	1.76	PPB	95
45) 1,1-Dichloropropene	4.72	75	23736	1.80	PPB	93

(#) = qualifier out of range (m) = manual integration

Data File : I:\MS13\DATA\072519\0725F010.D

Vial: 10

Acq On : 25 Jul 2019 11:12 am

Operator: JHJ

Sample : CAL 2.0 PPB

Inst : MS13

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 26 17:21:43 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B

Last Update : Fri Jul 26 17:20:50 2019

Response via : Initial Calibration

DataAcq Meth : 8260W5

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) Isobutyl Alcohol	4.98	43	9420	77.91	PPB	77
48) Benzene	4.96	78	69492	1.83	PPB	97
49) 1,2-Dichloroethane	5.09	62	19551	1.80	PPB	92
50) tert-Amyl Methyl Ether	5.08	55	9285	1.96	PPB	# 81
51) Trichloroethene	5.80	95	17210	1.87	PPB	92
52) Methyl Cyclohexane	5.95	83	26731	1.85	PPB	92
53) 1,2-Dichloropropane	6.22	63	16780	1.80	PPB	98
54) Dibromomethane	6.40	93	7585	1.83	PPB	86
55) Methyl methacrylate	6.42	69	5800	1.73	PPB	96
56) 1,4-Dioxane	6.42	88	2395	88.89	PPB	98
57) Bromodichloromethane	6.64	83	17583	1.80	PPB	88
58) 2-Nitropropane	7.11	43	10783	5.77	PPB	79
59) 2-Chloroethyl Vinyl Ether	7.14	63	6727	1.78	PPB	97
60) cis-1,3-Dichloropropene	7.29	75	21125	1.67	PPB	91
61) 4-Methyl-2-pentanone (MIBK)	7.53	58	27947	18.11	PPB	95
63) Toluene	7.65	92	42949	1.86	PPB	94
65) n-Octane	7.76	85	10055	1.82	PPB	93
66) trans-1,3-Dichloropropene	8.08	75	16654	1.66	PPB	92
67) Ethyl methacrylate	8.15	69	11408	1.67	PPB	97
68) 1,1,2-Trichloroethane	8.29	83	8779	1.76	PPB	90
69) Tetrachloroethene	8.30	164	13427	1.82	PPB	93
70) 2-Hexanone	8.61	57	8782	17.26	PPB	97
71) 1,3-Dichloropropane	8.50	76	18811	1.79	PPB	97
72) Dibromochloromethane	8.72	129	9473	1.62	PPB	92
73) 1,2-Dibromoethane (EDB)	8.84	107	8833	1.72	PPB	92
74) 1-Chlorohexane	9.40	91	20645	1.82	PPB	86
75) Chlorobenzene	9.40	112	41577	1.80	PPB	98
76) Ethylbenzene	9.52	106	24718	1.84	PPB	97
77) 1,1,1,2-Tetrachloroethane	9.52	131	12008	1.65	PPB	94
78) m,p-Xylenes	9.66	106	56774	3.53	PPB	97
79) o-Xylene	10.11	106	27139	1.83	PPB	90
80) Styrene	10.15	103	20418	1.73	PPB	96
81) Bromoform	10.36	173	4112	1.51	PPB	90
82) Isopropylbenzene	10.52	105	69757	1.76	PPB	99
83) cis-1,4-Dichloro-2-butene	10.70	89	3404	5.42	PPB	91
86) 1,1,2,2-Tetrachloroethane	10.95	83	8453	1.69	PPB	90
87) trans-1,4-Dichloro-2-buten	11.02	53	2936	1.86	PPB	79
88) Bromobenzene	10.86	156	14909	1.78	PPB	97
89) n-Propylbenzene	10.97	91	79233	1.81	PPB	97
90) 1,2,3-Trichloropropane	10.99	110	2717	1.73	PPB	95
91) 2-Chlorotoluene	11.07	91	47368	1.92	PPB	98
92) 1,3,5-Trimethylbenzene	11.18	105	54325	1.81	PPB	94
93) 4-Chlorotoluene	11.20	91	54309	1.84	PPB	98
94) tert-Butylbenzene	11.51	119	48252	1.84	PPB	95
95) 1,2,4-Trimethylbenzene	11.58	105	53224	1.77	PPB	93
96) sec-Butylbenzene	11.75	105	67695	1.83	PPB	99
97) p-Isopropyltoluene	11.91	119	54071	1.75	PPB	95
98) 1,3-Dichlorobenzene	11.88	146	27434	1.79	PPB	94
99) 1,4-Dichlorobenzene	11.99	146	27280	1.80	PPB	98
100) n-Butylbenzene	12.34	91	47944	1.75	PPB	100
101) 1,2-Dichlorobenzene	12.38	146	23561	1.73	PPB	81
102) 1,2-Dibromo-3-chloropropan	13.23	155	957	1.71	PPB	94
103) 1,3,5-Trichlorobenzene	13.37	180	16876	1.77	PPB	97
104) 1,2,4-Trichlorobenzene	14.03	180	13622	1.76	PPB	79
105) Hexachlorobutadiene	14.16	225	6883	1.75	PPB	93
106) Naphthalene	14.29	128	23432	1.69	PPB	99
107) 1,2,3-Trichlorobenzene	14.53	180	11158	1.69	PPB	96

(#) = qualifier out of range (m) = manual integration

0725F010.D 072519MS13_8260W.M

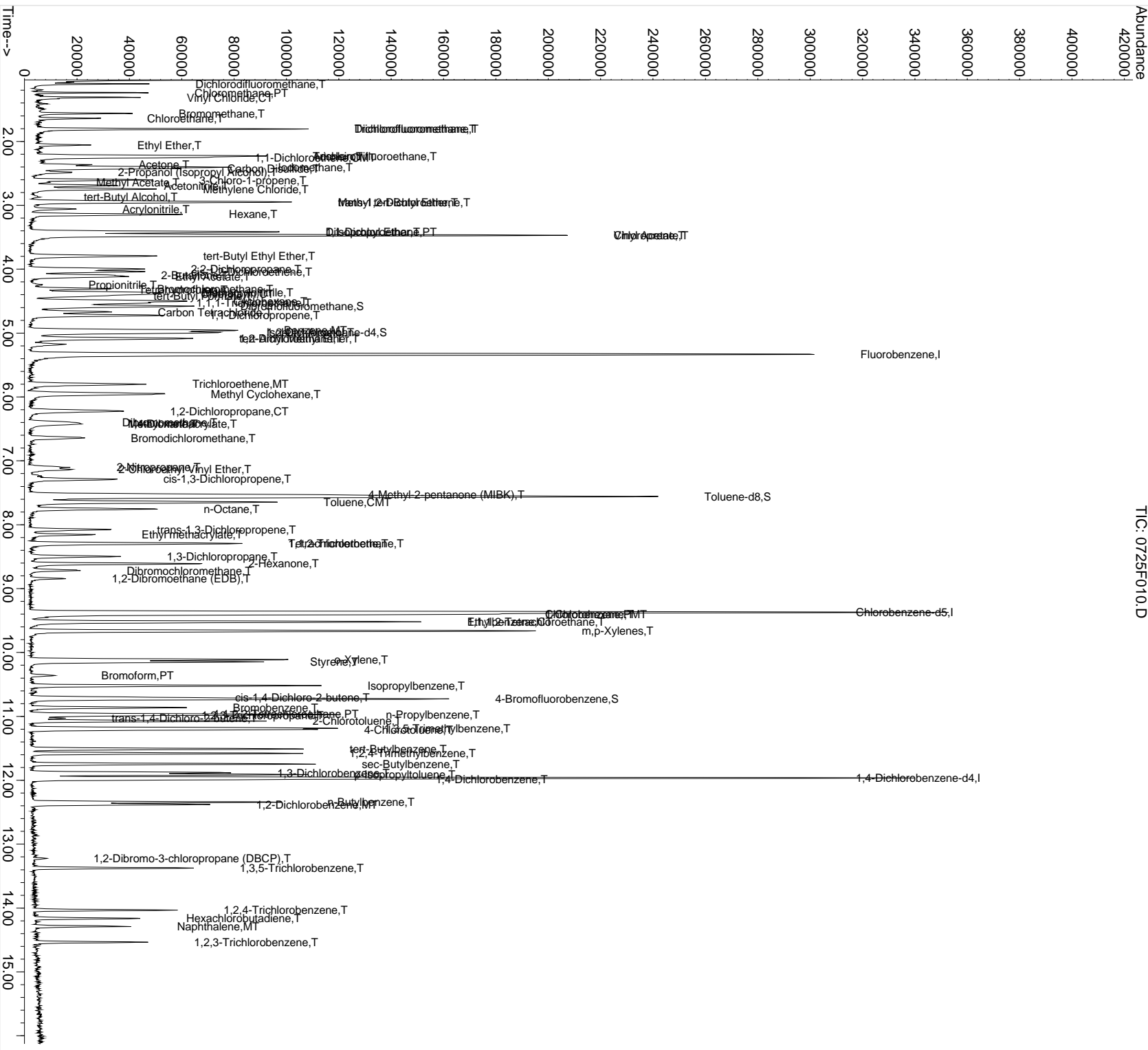
Fri Jul 26 17:45:36 2019

08/01/19
Data File : I:\MS13\DATA\072519MS13_8260W.D
Acq On : 25 Jul 2019 11:12 am
Sample : CAL 2.0 PPB
Misc :
MS Integration Params: rteint.p
Quant Time: Jul 26 17:21 2019

Vial: 10
Operator: JHT
Inst: MS13
Multiplr: 1.00

Quant Results File: 072519MS13_8260W.RES

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Initial Calibration



Data File : I:\MS13\DATA\072519\0725F011.D

Acq On : 25 Jul 2019 11:38 am

Sample : CAL 5.0 PPB

Misc :

Vial: 11

Operator: JHJ

Inst : MS13

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 26 17:21:44 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B

Last Update : Fri Jul 26 17:20:50 2019

Response via : Initial Calibration

DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	292383	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	107940	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.97	152	78907	10.00	PPB	0.00

System Monitoring Compounds

42) Dibromofluoromethane	4.58	113	52294	7.88	PPB	0.00
Spiked Amount	10.000		Recovery	=	78.80%	
47) 1,2-Dichloroethane-d4	4.99	65	60563	7.86	PPB	0.00
Spiked Amount	10.000		Recovery	=	78.60%	
62) Toluene-d8	7.56	98	228365	7.79	PPB	0.00
Spiked Amount	10.000		Recovery	=	77.90%	
84) 4-Bromofluorobenzene	10.73	95	69934	7.33	PPB	0.00
Spiked Amount	10.000		Recovery	=	73.30%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.10	85	50629	5.29	PPB	97
3) Chloromethane	1.24	50	57451	5.08	PPB	94
4) Vinyl Chloride	1.31	62	57577	5.11	PPB	99
5) Bromomethane	1.56	96	32861	5.06	PPB	97
6) Chloroethane	1.64	64	32381	4.97	PPB	96
7) Dichlorofluoromethane	1.80	67	79829	4.98	PPB	96
8) Trichlorofluoromethane	1.81	101	81875	4.97	PPB	98
9) Ethyl Ether	2.06	59	21243	4.92	PPB	94
10) Acrolein	2.23	56	81379	98.50	PPB	100
11) Trichlorotrifluoroethane	2.22	151	29849	4.79	PPB	98
12) 1,1-Dichloroethene	2.25	96	41887	5.03	PPB	96
13) Acetone	2.37	43	53564	49.41	PPB	98
14) Iodomethane	2.41	142	170823	19.04	PPB	100
15) Carbon Disulfide	2.43	76	109658	4.84	PPB	96
16) 2-Propanol (Isopropyl Alco	2.48	45	41528	236.67	PPB	88
17) 3-Chloro-1-propene	2.60	76	22273	5.13	PPB	90
18) Acetonitrile	2.69	40	52346	207.01	PPB	95
19) Methyl Acetate	2.64	43	15680	5.12	PPB	90
20) Methylene Chloride	2.75	84	42697	5.22	PPB	96
21) tert-Butyl Alcohol	2.86	59	6329	24.53	PPB	94
22) Acrylonitrile	3.06	53	30403	20.44	PPB	91
23) Methyl tert-Butyl Ether	2.94	73	158428	10.19	PPB	99
24) trans-1,2-Dichloroethene	2.95	96	39240	4.88	PPB	97
25) Hexane	3.14	57	62766	4.99	PPB	98
26) Diisopropyl Ether	3.41	45	138276	4.96	PPB	99
27) 1,1-Dichloroethane	3.42	63	77436	4.80	PPB	97
28) Vinyl Acetate	3.48	86	10882	9.43	PPB	# 60
29) Chloroprene	3.47	53	270805	19.49	PPB	97
30) tert-Butyl Ethyl Ether	3.79	59	110551	5.03	PPB	97
31) 2,2-Dichloropropane	4.00	77	65704	4.94	PPB	96
32) cis-1,2-Dichloroethene	4.04	96	44775	5.00	PPB	95
33) 2-Butanone	4.09	72	19056	50.21	PPB	95
34) Propionitrile	4.25	54	10648	20.15	PPB	91
35) Ethyl Acetate	4.12	61	9156	10.92	PPB	91
36) Methacrylonitrile	4.37	67	35517	19.32	PPB	92
37) Bromochloromethane	4.30	128	19025	5.01	PPB	95
38) Tetrahydrofuran	4.32	71	2176	5.10	PPB	93
39) Chloroform	4.39	83	72586	4.91	PPB	99
40) tert-Butyl Formate	4.41	59	28026	5.09	PPB	96
41) 1,1,1-Trichloroethane	4.53	97	65027	4.76	PPB	93
43) Cyclohexane	4.50	56	69017	4.78	PPB	98
44) Carbon Tetrachloride	4.68	117	51116	4.73	PPB	94
45) 1,1-Dichloropropene	4.72	75	62443	4.89	PPB	97

(#) = qualifier out of range (m) = manual integration

0725F011.D 072519MS13_8260W.M

Fri Jul 26 17:48:44 2019

Data File : I:\MS13\DATA\072519\0725F011.D
Acq On : 25 Jul 2019 11:38 am
Sample : CAL 5.0 PPB
Misc :

Vial: 11
Operator: JHJ
Inst : MS13
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Jul 26 17:21:44 2019

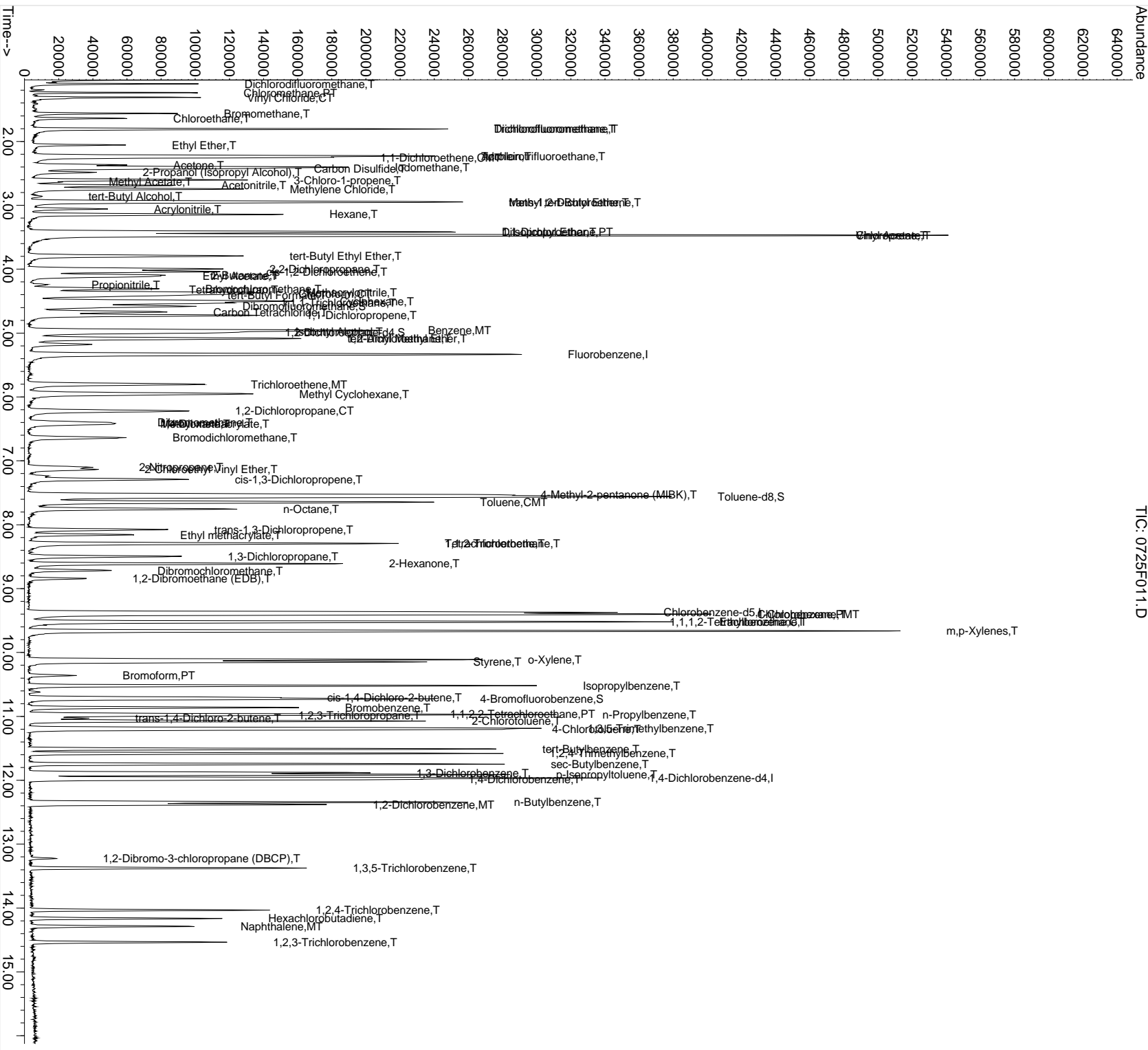
Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Initial Calibration
DataAcq Meth : 8260W5

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) Isobutyl Alcohol	4.98	43	24142	206.30	PPB	91
48) Benzene	4.96	78	181652	4.94	PPB	99
49) 1,2-Dichloroethane	5.09	62	53287	5.06	PPB	95
50) tert-Amyl Methyl Ether	5.08	55	24249	5.28	PPB	# 65
51) Trichloroethene	5.81	95	43276	4.87	PPB	89
52) Methyl Cyclohexane	5.95	83	67398	4.81	PPB	90
53) 1,2-Dichloropropane	6.22	63	45292	5.02	PPB	94
54) Dibromomethane	6.40	93	18918	4.72	PPB	85
55) Methyl methacrylate	6.43	69	16289	5.03	PPB	97
56) 1,4-Dioxane	6.43	88	5119	196.31	PPB	91
57) Bromodichloromethane	6.64	83	47288	4.99	PPB	88
58) 2-Nitropropane	7.10	43	28785	15.90	PPB	97
59) 2-Chloroethyl Vinyl Ether	7.14	63	18086	4.95	PPB	95
60) cis-1,3-Dichloropropene	7.29	75	56696	4.62	PPB	98
61) 4-Methyl-2-pentanone (MIBK)	7.53	58	75320	50.44	PPB	93
63) Toluene	7.65	92	109560	4.90	PPB	97
65) n-Octane	7.76	85	25898	4.85	PPB	95
66) trans-1,3-Dichloropropene	8.08	75	46033	4.72	PPB	93
67) Ethyl methacrylate	8.16	69	31945	4.83	PPB	92
68) 1,1,2-Trichloroethane	8.29	83	23297	4.81	PPB	88
69) Tetrachloroethene	8.29	164	34278	4.78	PPB	96
70) 2-Hexanone	8.61	57	23038	46.68	PPB	# 86
71) 1,3-Dichloropropane	8.50	76	50359	4.95	PPB	96
72) Dibromochloromethane	8.71	129	26607	4.70	PPB	93
73) 1,2-Dibromoethane (EDB)	8.84	107	24432	4.89	PPB	92
74) 1-Chlorohexane	9.40	91	51907	4.71	PPB	98
75) Chlorobenzene	9.40	112	110308	4.93	PPB	97
76) Ethylbenzene	9.52	106	63608	4.88	PPB	92
77) 1,1,1,2-Tetrachloroethane	9.53	131	31946	4.54	PPB	92
78) m,p-Xylenes	9.67	106	152097	9.77	PPB	97
79) o-Xylene	10.11	106	72313	5.02	PPB	89
80) Styrene	10.15	103	54324	4.75	PPB	98
81) Bromoform	10.36	173	12066	4.57	PPB	94
82) Isopropylbenzene	10.52	105	186054	4.84	PPB	100
83) cis-1,4-Dichloro-2-butene	10.71	89	10369	17.03	PPB	# 75
86) 1,1,2,2-Tetrachloroethane	10.96	83	23805	4.94	PPB	99
87) trans-1,4-Dichloro-2-buten	11.02	53	7744	5.09	PPB	90
88) Bromobenzene	10.86	156	40386	5.01	PPB	97
89) n-Propylbenzene	10.97	91	212135	5.02	PPB	99
90) 1,2,3-Trichloropropane	10.99	110	7459	4.93	PPB	86
91) 2-Chlorotoluene	11.07	91	122665	5.15	PPB	95
92) 1,3,5-Trimethylbenzene	11.18	105	142525	4.93	PPB	100
93) 4-Chlorotoluene	11.20	91	141488	4.97	PPB	97
94) tert-Butylbenzene	11.51	119	125727	4.98	PPB	95
95) 1,2,4-Trimethylbenzene	11.58	105	140420	4.85	PPB	97
96) sec-Butylbenzene	11.75	105	177356	4.97	PPB	99
97) p-Isopropyltoluene	11.91	119	145943	4.89	PPB	96
98) 1,3-Dichlorobenzene	11.88	146	73686	4.99	PPB	96
99) 1,4-Dichlorobenzene	11.99	146	73173	5.00	PPB	99
100) n-Butylbenzene	12.34	91	128348	4.86	PPB	98
101) 1,2-Dichlorobenzene	12.38	146	65199	4.97	PPB	97
102) 1,2-Dibromo-3-chloropropan	13.23	155	2599	4.81	PPB	# 70
103) 1,3,5-Trichlorobenzene	13.37	180	45340	4.92	PPB	97
104) 1,2,4-Trichlorobenzene	14.03	180	37124	4.98	PPB	95
105) Hexachlorobutadiene	14.16	225	18701	4.92	PPB	97
106) Naphthalene	14.29	128	66404	4.96	PPB	99
107) 1,2,3-Trichlorobenzene	14.53	180	30545	4.80	PPB	95

08/01/19
Data File : I:\MS13\DATA\072519\0725F011.D
Acq On : 25 Jul 2019 11:38 am
Sample : CAL 5.0 PPB
Misc :
MS Integration Params: rteint.p
Quant Results File: 072519MS13_8260W.RES
Vial: 11
Operator: JHT
Inst: MS13
Multipl: 1.00

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Initial Calibration



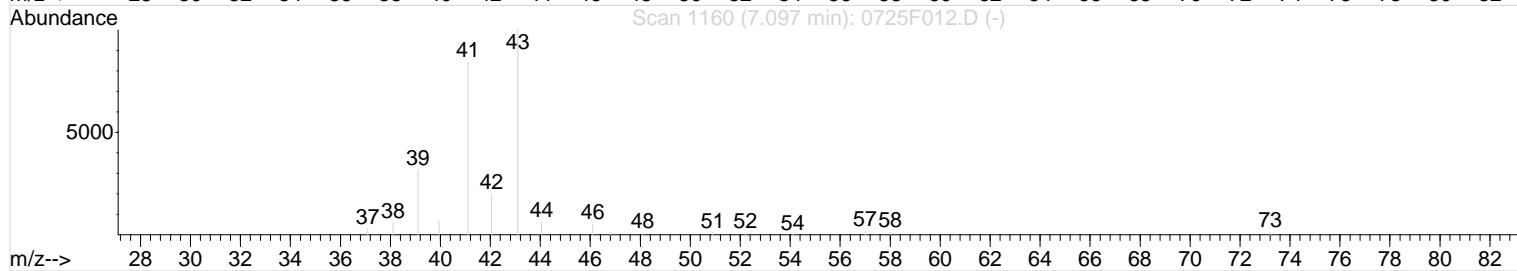
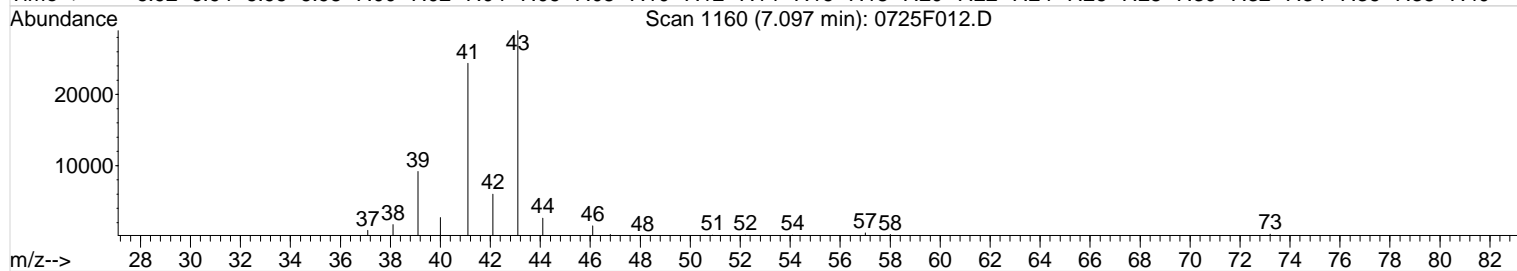
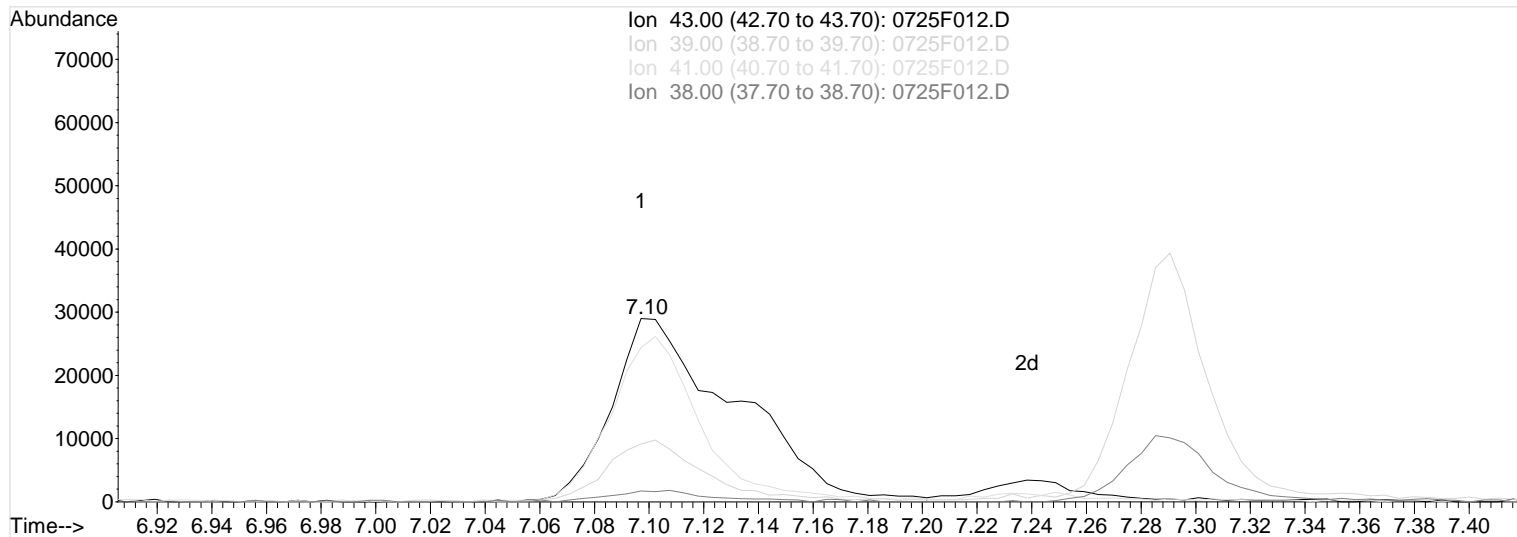
Data File : I:\MS13\DATA\072519\0725F012.D
 Acq On : 25 Jul 2019 12:04 pm
 Sample : CAL 10 PPB
 Misc :

Vial: 12
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:21 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Single Level Calibration



TIC: 0725F012.D

(58) 2-Nitropropane (T)

Manual Integration:

7.10min 50.00PPB

Before

response 91670

Ion	Exp%	Act%
43.00	100	100
39.00	31.60	31.62
41.00	84.20	84.15
38.00	5.90	5.89

07/26/19

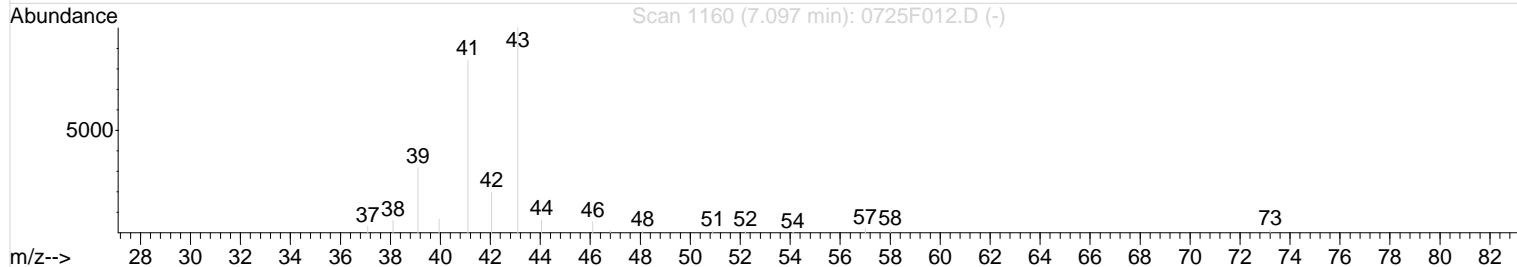
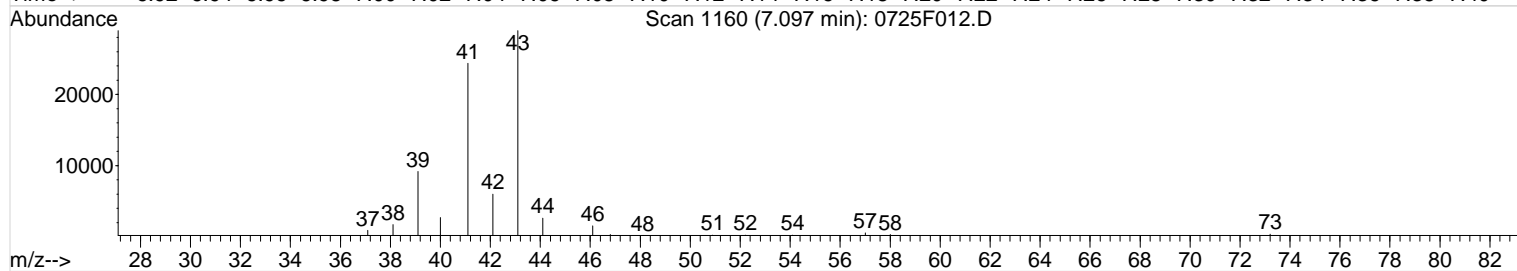
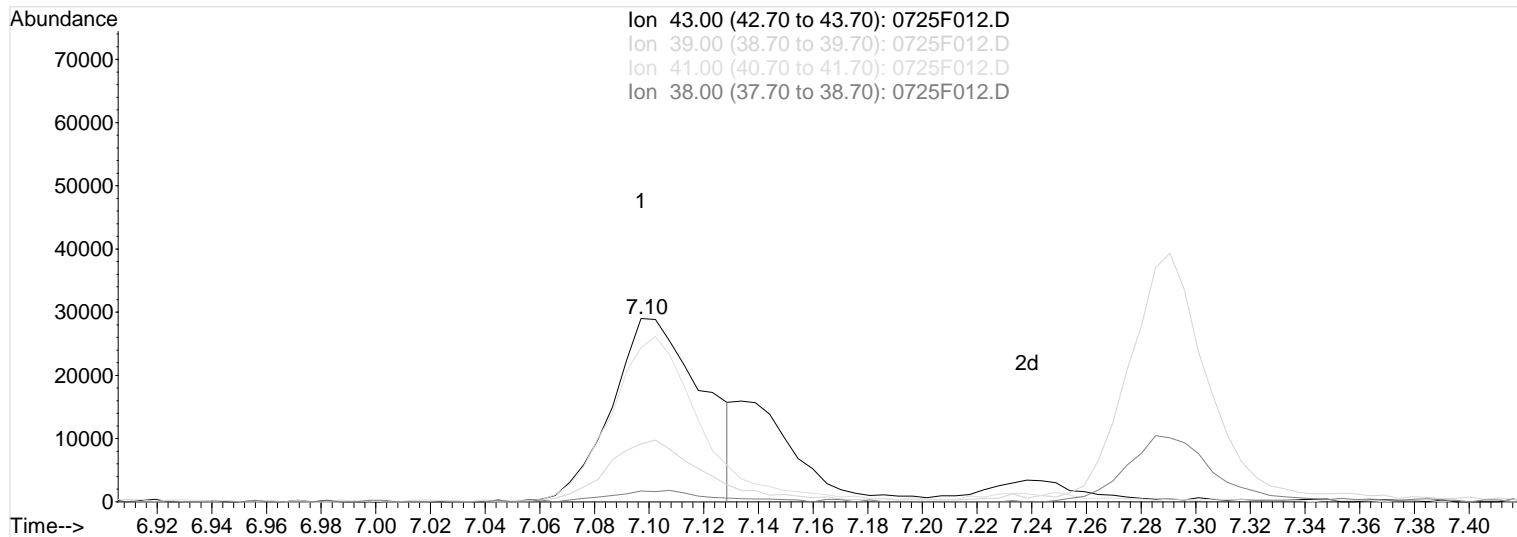
Data File : I:\MS13\DATA\072519\0725F012.D
 Acq On : 25 Jul 2019 12:04 pm
 Sample : CAL 10 PPB
 Misc :

Vial: 12
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:49 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Single Level Calibration



TIC: 0725F012.D

(58) 2-Nitropropane (T)

Manual Integration:

7.10min 36.59PPB m
 response 67084

After
 Shoulder

Ion	Exp%	Act%
43.00	100	100
39.00	31.60	31.62
41.00	84.20	84.15
38.00	5.90	5.89

07/26/19

Data File : I:\MS13\DATA\072519\0725F012.D
 Acq On : 25 Jul 2019 12:04 pm
 Sample : CAL 10 PPB
 Misc :

Vial: 12
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:21:45 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	296176	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	109383	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.97	152	82314	10.00	PPB	0.00

System Monitoring Compounds

42) Dibromofluoromethane	4.58	113	67211	10.00	PPB	0.00
Spiked Amount	10.000		Recovery	=	100.00%	
47) 1,2-Dichloroethane-d4	4.99	65	78043	10.00	PPB	0.00
Spiked Amount	10.000		Recovery	=	100.00%	
62) Toluene-d8	7.56	98	297088	10.00	PPB	0.00
Spiked Amount	10.000		Recovery	=	100.00%	
84) 4-Bromofluorobenzene	10.73	95	96700	10.00	PPB	0.00
Spiked Amount	10.000		Recovery	=	100.00%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.10	85	96923	10.00	PPB	100
3) Chloromethane	1.24	50	114552	10.00	PPB	100
4) Vinyl Chloride	1.31	62	114198	10.00	PPB	100
5) Bromomethane	1.56	96	65745	10.00	PPB	100
6) Chloroethane	1.64	64	66062	10.00	PPB	100
7) Dichlorofluoromethane	1.80	67	162253	10.00	PPB	100
8) Trichlorofluoromethane	1.80	101	166795	10.00	PPB	100
9) Ethyl Ether	2.06	59	43767	10.00	PPB	100
10) Acrolein	2.23	56	167384	200.00	PPB	100
11) Trichlorotrifluoroethane	2.22	151	63113	10.00	PPB	100
12) 1,1-Dichloroethene	2.25	96	84310	10.00	PPB	100
13) Acetone	2.37	43	109809	100.00	PPB	100
14) Iodomethane	2.41	142	363566	40.00	PPB	100
15) Carbon Disulfide	2.43	76	229363	10.00	PPB	100
16) 2-Propanol (Isopropyl Alco	2.49	45	88872	500.00	PPB	100
17) 3-Chloro-1-propene	2.60	76	44008	10.00	PPB	100
18) Acetonitrile	2.69	40	102459	400.00	PPB	100
19) Methyl Acetate	2.64	43	31003	10.00	PPB	100
20) Methylene Chloride	2.75	84	82846	10.00	PPB	100
21) tert-Butyl Alcohol	2.86	59	13067	50.00	PPB	100
22) Acrylonitrile	3.06	53	60272	40.00	PPB	100
23) Methyl tert-Butyl Ether	2.94	73	314966	20.00	PPB	100
24) trans-1,2-Dichloroethene	2.95	96	81428	10.00	PPB	100
25) Hexane	3.14	57	127534	10.00	PPB	100
26) Diisopropyl Ether	3.41	45	282500	10.00	PPB	100
27) 1,1-Dichloroethane	3.42	63	163459	10.00	PPB	100
28) Vinyl Acetate	3.47	86	23373	20.00	PPB	100
29) Chloroprene	3.47	53	562935	40.00	PPB	100
30) tert-Butyl Ethyl Ether	3.80	59	222572	10.00	PPB	100
31) 2,2-Dichloropropane	4.00	77	134702	10.00	PPB	100
32) cis-1,2-Dichloroethene	4.04	96	90756	10.00	PPB	100
33) 2-Butanone	4.09	72	38446	100.00	PPB	100
34) Propionitrile	4.25	54	21408	40.00	PPB	100
35) Ethyl Acetate	4.12	61	16979	20.00	PPB	100
36) Methacrylonitrile	4.37	67	74491	40.00	PPB	100
37) Bromochloromethane	4.30	128	38488	10.00	PPB	100
38) Tetrahydrofuran	4.31	71	4319	10.00	PPB	100
39) Chloroform	4.39	83	149683	10.00	PPB	100
40) tert-Butyl Formate	4.42	59	55793	10.00	PPB	100
41) 1,1,1-Trichloroethane	4.53	97	138486	10.00	PPB	100
43) Cyclohexane	4.50	56	146400	10.00	PPB	100
44) Carbon Tetrachloride	4.67	117	109369	10.00	PPB	100
45) 1,1-Dichloropropene	4.72	75	129395	10.00	PPB	100

(#) = qualifier out of range (m) = manual integration

Data File : I:\MS13\DATA\072519\0725F012.D

Vial: 12

Acq On : 25 Jul 2019 12:04 pm

Operator: JHJ

Sample : CAL 10 PPB

Inst : MS13

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 26 17:21:45 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B

Last Update : Fri Jul 26 17:20:50 2019

Response via : Initial Calibration

DataAcq Meth : 8260W5

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) Isobutyl Alcohol	4.98	43	47416	400.00	PPB	100
48) Benzene	4.96	78	372469	10.00	PPB	100
49) 1,2-Dichloroethane	5.09	62	106590	10.00	PPB	100
50) tert-Amyl Methyl Ether	5.08	55	46530	10.00	PPB	100
51) Trichloroethene	5.80	95	90100	10.00	PPB	100
52) Methyl Cyclohexane	5.95	83	141951	10.00	PPB	100
53) 1,2-Dichloropropane	6.22	63	91344	10.00	PPB	100
54) Dibromomethane	6.40	93	40560	10.00	PPB	100
55) Methyl methacrylate	6.43	69	32798	10.00	PPB	100
56) 1,4-Dioxane	6.43	88	10566	400.00	PPB	100
57) Bromodichloromethane	6.64	83	96016	10.00	PPB	100
58) 2-Nitropropane	7.10	43	67084 ^m	36.59	PPB	
59) 2-Chloroethyl Vinyl Ether	7.14	63	36986	10.00	PPB	100
60) cis-1,3-Dichloropropene	7.29	75	124278	10.00	PPB	100
61) 4-Methyl-2-pentanone (MIBK)	7.53	58	151251	100.00	PPB	100
63) Toluene	7.65	92	226298	10.00	PPB	100
65) n-Octane	7.76	85	54151	10.00	PPB	100
66) trans-1,3-Dichloropropene	8.08	75	98758	10.00	PPB	100
67) Ethyl methacrylate	8.15	69	67047	10.00	PPB	100
68) 1,1,2-Trichloroethane	8.29	83	49119	10.00	PPB	100
69) Tetrachloroethene	8.29	164	72660	10.00	PPB	100
70) 2-Hexanone	8.61	57	50012	100.00	PPB	100
71) 1,3-Dichloropropane	8.50	76	103012	10.00	PPB	100
72) Dibromochloromethane	8.71	129	57410	10.00	PPB	100
73) 1,2-Dibromoethane (EDB)	8.84	107	50604	10.00	PPB	100
74) 1-Chlorohexane	9.40	91	111621	10.00	PPB	100
75) Chlorobenzene	9.40	112	226887	10.00	PPB	100
76) Ethylbenzene	9.52	106	132197	10.00	PPB	100
77) 1,1,1,2-Tetrachloroethane	9.53	131	71330	10.00	PPB	100
78) m,p-Xylenes	9.67	106	315663	20.00	PPB	100
79) o-Xylene	10.11	106	145881	10.00	PPB	100
80) Styrene	10.15	103	115953	10.00	PPB	100
81) Bromoform	10.36	173	26732	10.00	PPB	100
82) Isopropylbenzene	10.52	105	389441	10.00	PPB	100
83) cis-1,4-Dichloro-2-butene	10.70	89	24684	40.00	PPB	100
86) 1,1,2,2-Tetrachloroethane	10.96	83	50264	10.00	PPB	100
87) trans-1,4-Dichloro-2-buten	11.03	53	15872	10.00	PPB	100
88) Bromobenzene	10.86	156	84159	10.00	PPB	100
89) n-Propylbenzene	10.97	91	441161	10.00	PPB	100
90) 1,2,3-Trichloropropane	10.99	110	15774	10.00	PPB	100
91) 2-Chlorotoluene	11.07	91	248315	10.00	PPB	100
92) 1,3,5-Trimethylbenzene	11.18	105	301351	10.00	PPB	100
93) 4-Chlorotoluene	11.20	91	297095	10.00	PPB	100
94) tert-Butylbenzene	11.51	119	263464	10.00	PPB	100
95) 1,2,4-Trimethylbenzene	11.58	105	302044	10.00	PPB	100
96) sec-Butylbenzene	11.75	105	372454	10.00	PPB	100
97) p-Isopropyltoluene	11.91	119	311443	10.00	PPB	100
98) 1,3-Dichlorobenzene	11.88	146	153892	10.00	PPB	100
99) 1,4-Dichlorobenzene	11.99	146	152769	10.00	PPB	100
100) n-Butylbenzene	12.34	91	275663	10.00	PPB	100
101) 1,2-Dichlorobenzene	12.38	146	136717	10.00	PPB	100
102) 1,2-Dibromo-3-chloropropan	13.23	155	5640	10.00	PPB	100
103) 1,3,5-Trichlorobenzene	13.37	180	96066	10.00	PPB	100
104) 1,2,4-Trichlorobenzene	14.03	180	77715	10.00	PPB	100
105) Hexachlorobutadiene	14.16	225	39624	10.00	PPB	100
106) Naphthalene	14.29	128	139560	10.00	PPB	100
107) 1,2,3-Trichlorobenzene	14.53	180	66337	10.00	PPB	100

(#) = qualifier out of range (m) = manual integration

0725F012.D 072519MS13_8260W.M

Fri Jul 26 17:51:07 2019

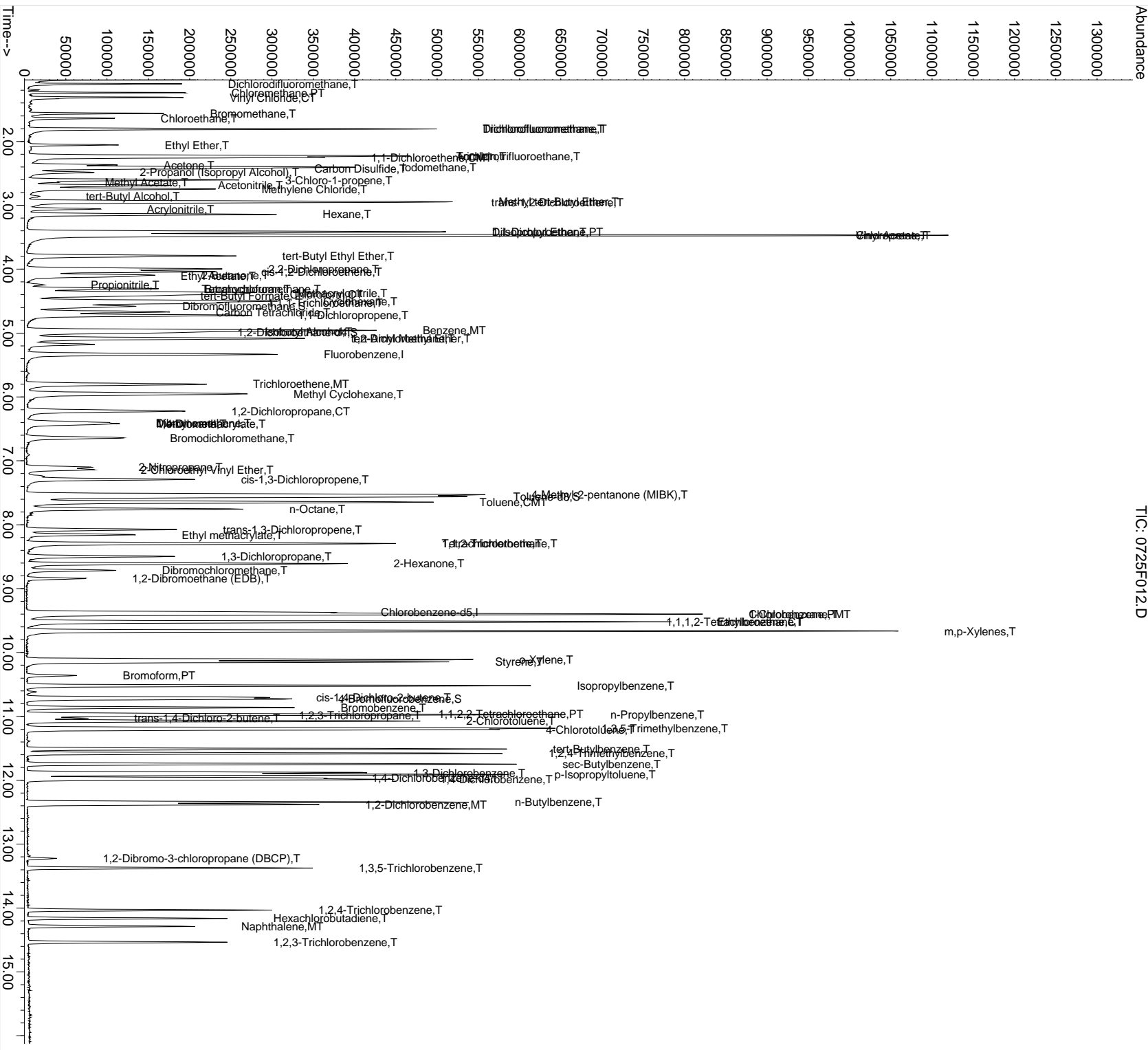
Page 1222 of 1516

Page 2

08/01/19
Data File : I:\MS13\DATA\072519\0725F012.D
Acq On : 25 Jul 2019 12:04 pm
Sample : CAL 10 PPB
Misc :
MS Integration Params: rteint.p
Quant Results File: 072519MS13_8260W.RES

Vial: 12
Operator: JHT
Inst: MS13
Multipl: 1.00

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Initial Calibration



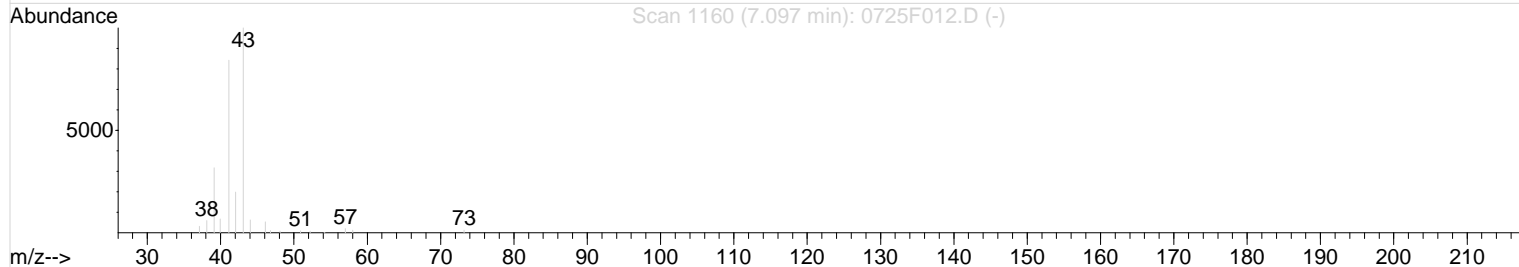
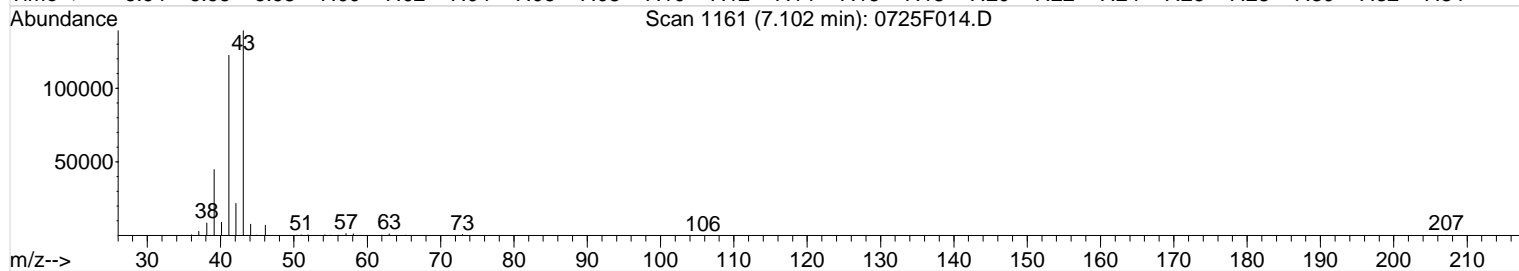
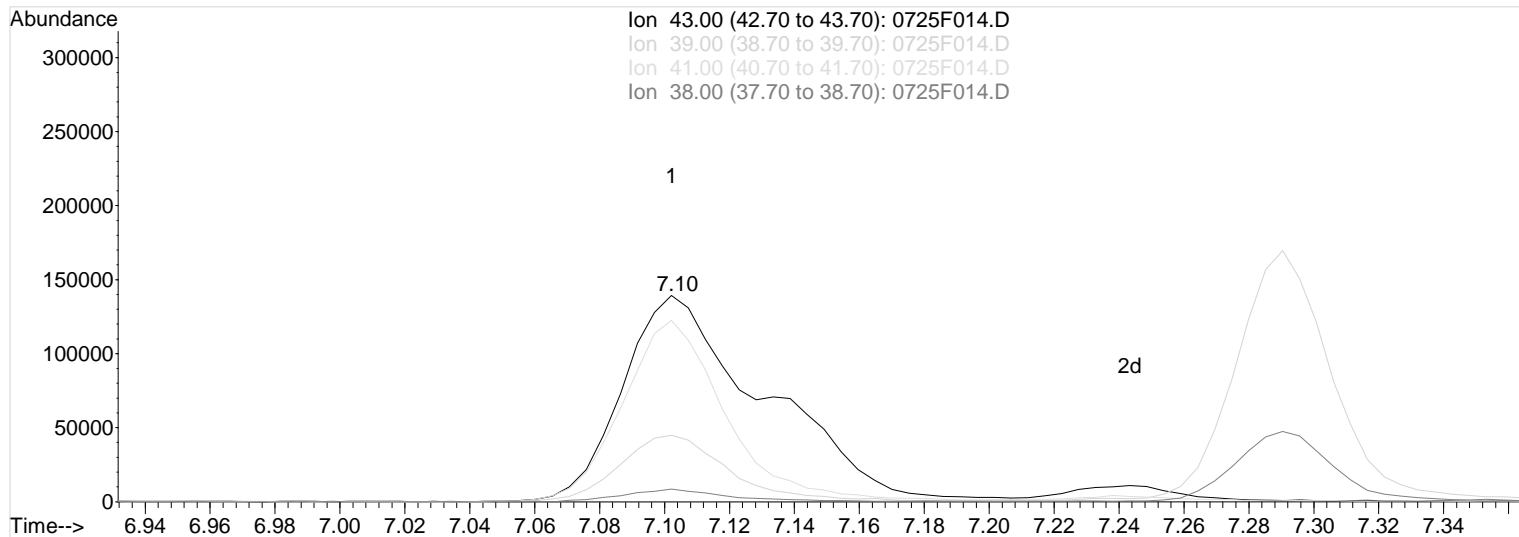
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 Acq On : 25 Jul 2019 12:57 pm
 Sample : CAL 40 PPB
 Misc :

Vial: 14
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:21 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Single Level Calibration



TIC: 0725F014.D

(58) 2-Nitropropane (T)

Manual Integration:

7.10min 219.86PPB

Before

response 426578

Ion	Exp%	Act%
43.00	100	100
39.00	31.60	32.17
41.00	84.20	87.88
38.00	5.90	6.10

07/26/19

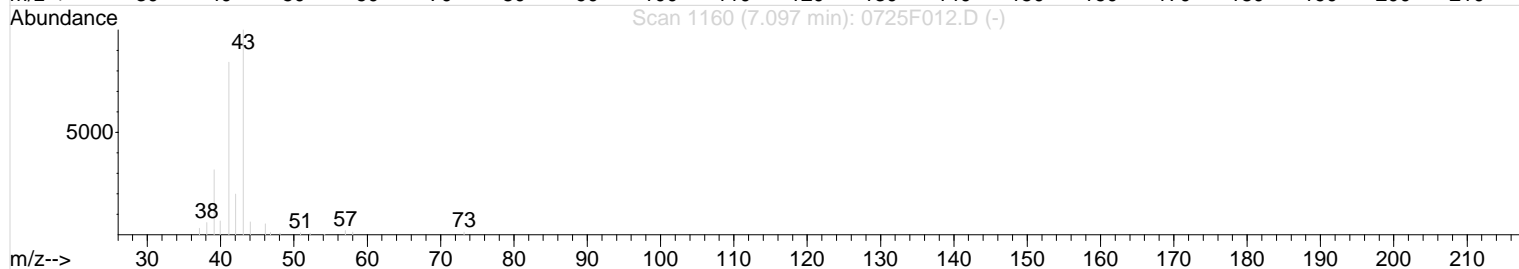
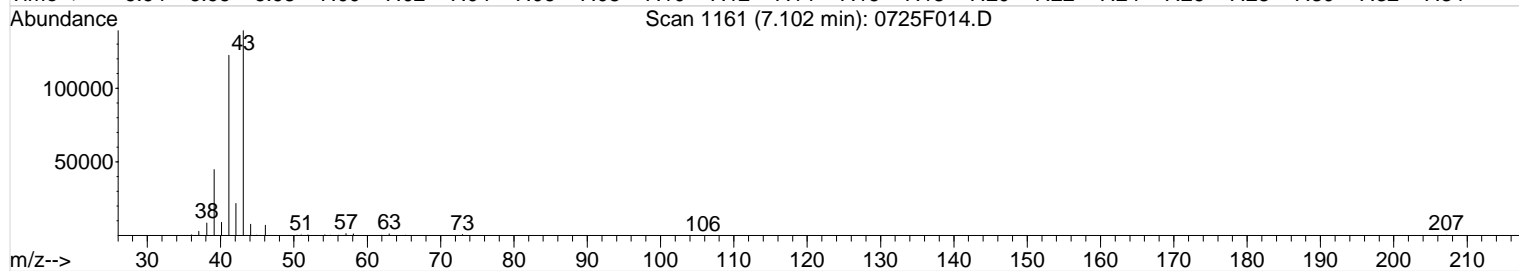
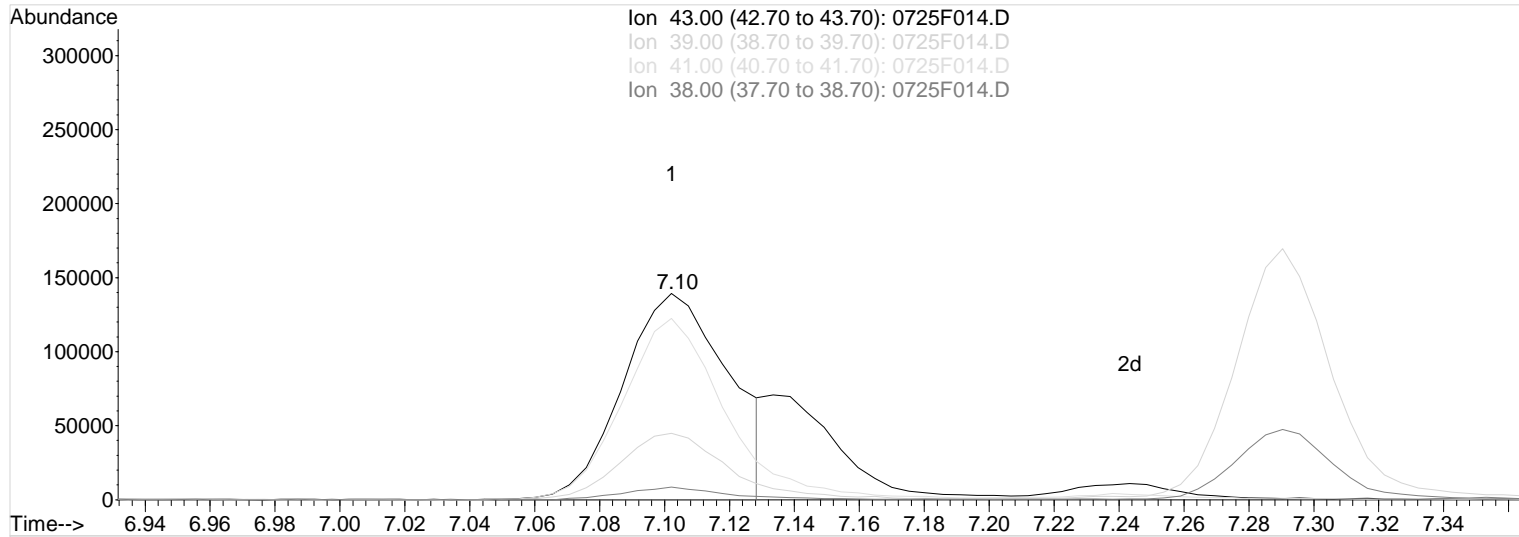
Data File : I:\MS13\DATA\072519\0725F014.D
 Acq On : 25 Jul 2019 12:57 pm
 Sample : CAL 40 PPB
 Misc :

Vial: 14
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:52 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Single Level Calibration



TIC: 0725F014.D

(58) 2-Nitropropane (T)

Manual Integration:

7.10min 162.82PPB m
 response 315908

After
 Shoulder

Ion	Exp%	Act%
43.00	100	100
39.00	31.60	32.17
41.00	84.20	87.88
38.00	5.90	6.10

07/26/19

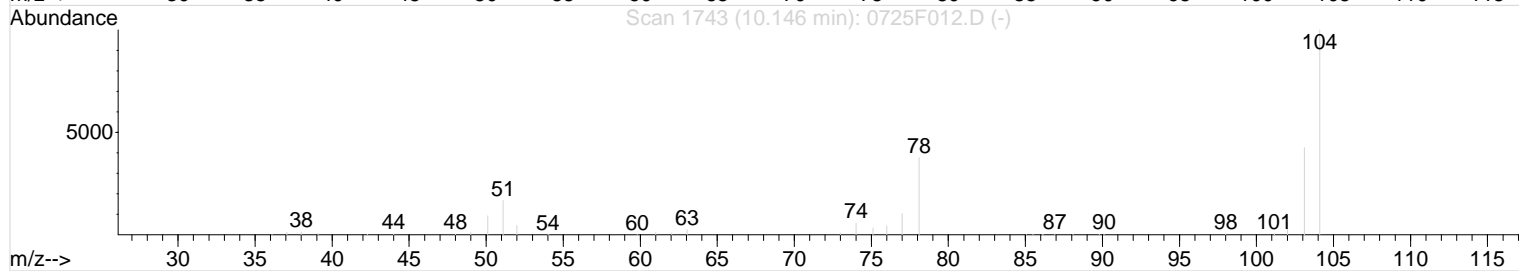
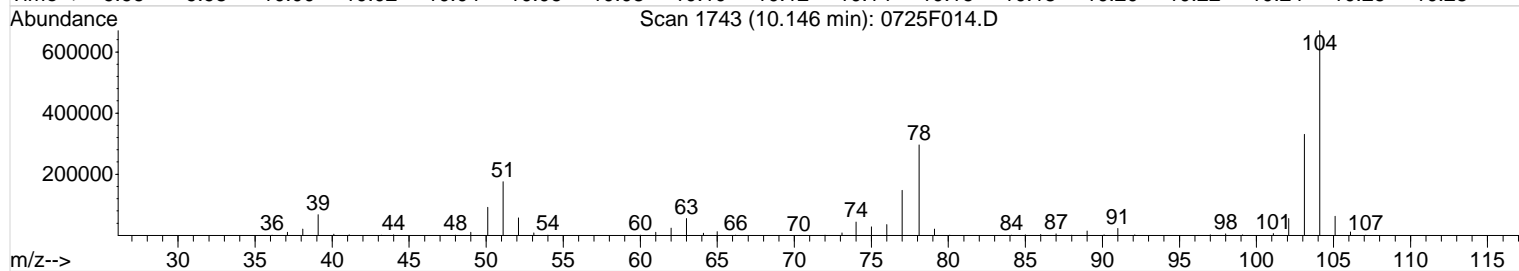
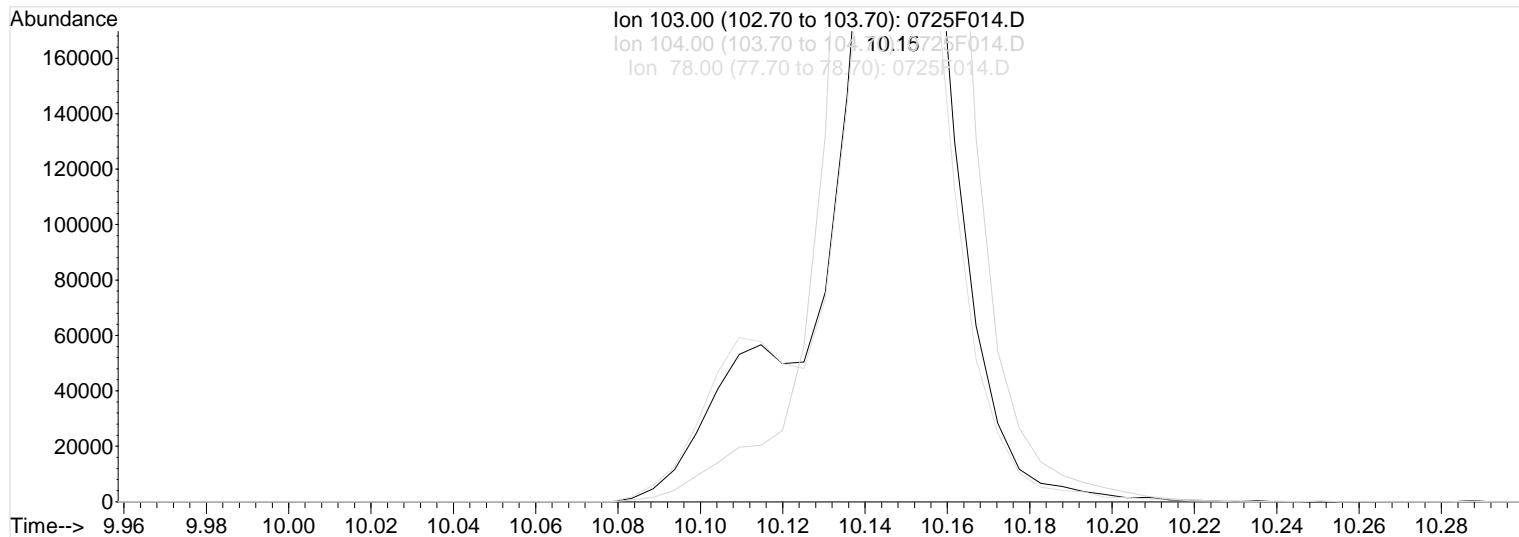
Data File : I:\MS13\DATA\072519\0725F014.D
 Acq On : 25 Jul 2019 12:57 pm
 Sample : CAL 40 PPB
 Misc :

Vial: 14
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:52 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Multiple Level Calibration



TIC: 0725F014.D

(80) Styrene (T)
 10.15min 50.25PPB
 response 596696

Manual Integration:

Before

07/26/19

Ion	Exp%	Act%
103.00	100	100
104.00	209.30	202.59
78.00	89.90	89.40
0.00	0.00	0.00

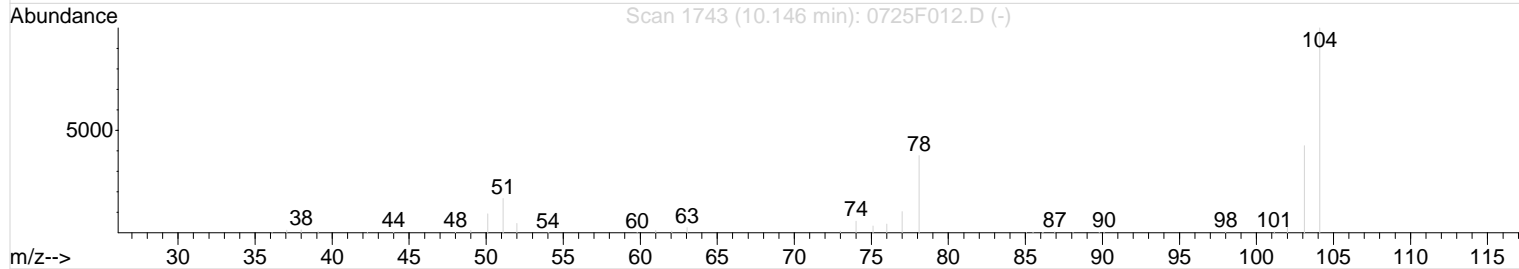
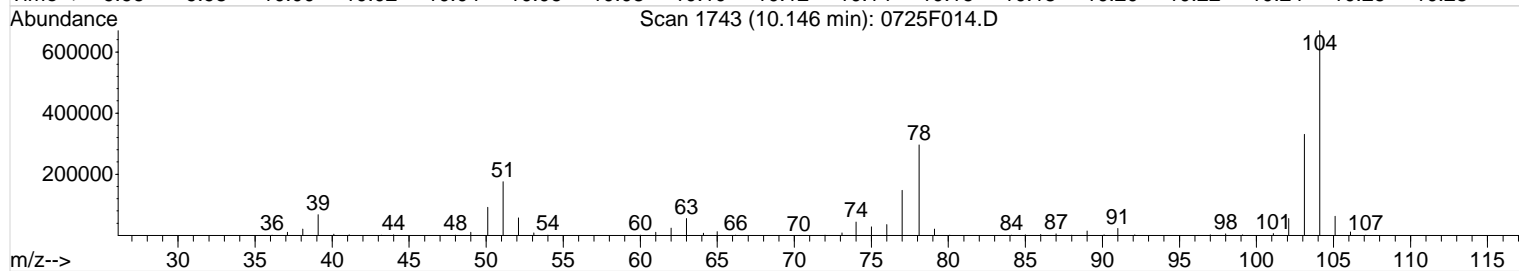
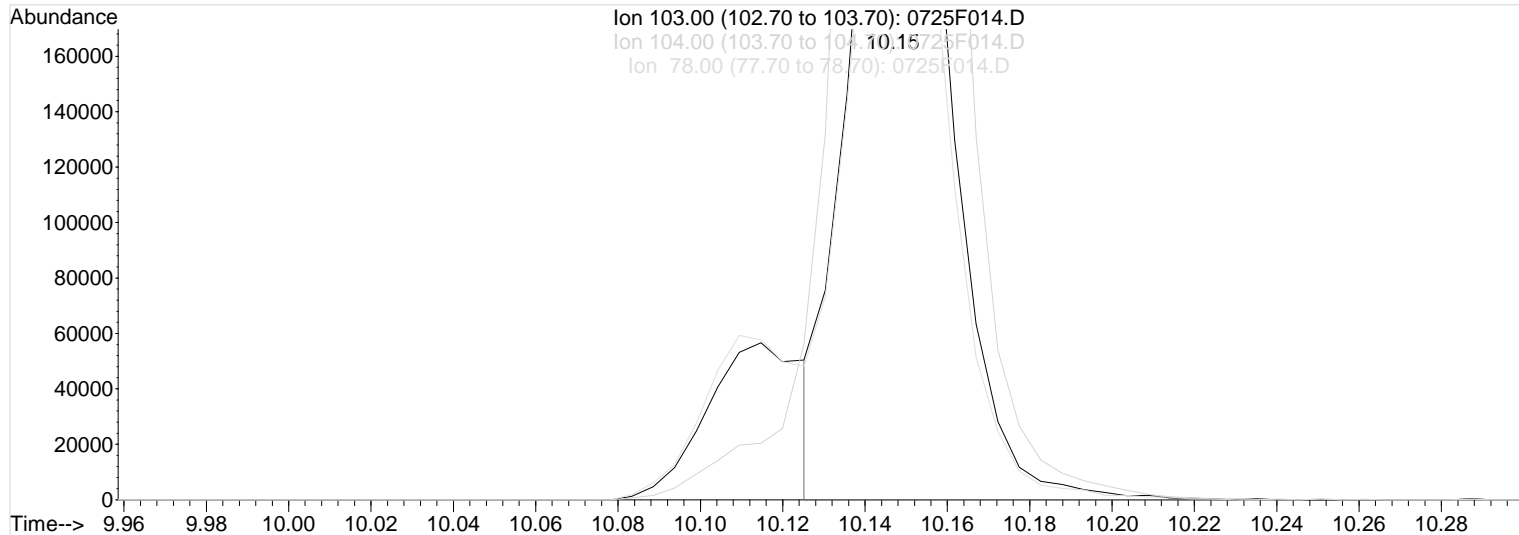
Data File : I:\MS13\DATA\072519\0725F014.D
 Acq On : 25 Jul 2019 12:57 pm
 Sample : CAL 40 PPB
 Misc :

Vial: 14
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:53 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Multiple Level Calibration



TIC: 0725F014.D

(80) Styrene (T)

10.15min 42.49PPB m
 response 504595

Ion	Exp%	Act%
103.00	100	100
104.00	209.30	202.59
78.00	89.90	89.40
0.00	0.00	0.00

Manual Integration:

After
 Shoulder
 07/26/19

Data File : I:\MS13\DATA\072519\0725F014.D
Acq On : 25 Jul 2019 12:57 pm
Sample : CAL 40 PPB
Misc :

Vial: 14
Operator: JHJ
Inst : MS13
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Jul 26 17:21:47 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Initial Calibration
DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	313431	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	112028	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.97	152	93767	10.00	PPB	0.00

System Monitoring Compounds

42) Dibromofluoromethane	4.58	113	108436	15.25	PPB	0.00
Spiked Amount	10.000		Recovery	=	152.50%	
47) 1,2-Dichloroethane-d4	4.99	65	121817	14.75	PPB	0.00
Spiked Amount	10.000		Recovery	=	147.50%	
62) Toluene-d8	7.56	98	444123	14.13	PPB	0.00
Spiked Amount	10.000		Recovery	=	141.30%	
84) 4-Bromofluorobenzene	10.73	95	144043	14.54	PPB	0.00
Spiked Amount	10.000		Recovery	=	145.40%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.10	85	406619	39.64	PPB	99
3) Chloromethane	1.24	50	469225	38.71	PPB	98
4) Vinyl Chloride	1.31	62	479844	39.71	PPB	100
5) Bromomethane	1.56	96	276302	39.71	PPB	97
6) Chloroethane	1.64	64	276304	39.52	PPB	96
7) Dichlorofluoromethane	1.80	67	668122	38.91	PPB	98
8) Trichlorofluoromethane	1.80	101	719430	40.76	PPB	97
9) Ethyl Ether	2.05	59	193001	41.67	PPB	97
10) Acrolein	2.23	56	704591	795.54	PPB	98
11) Trichlorotrifluoroethane	2.22	151	283268	42.41	PPB	95
12) 1,1-Dichloroethene	2.25	96	370482	41.52	PPB	96
13) Acetone	2.36	43	466713	401.62	PPB	99
14) Iodomethane	2.41	142	1599902	166.33	PPB	99
15) Carbon Disulfide	2.43	76	989765	40.78	PPB	99
16) 2-Propanol (Isopropyl Alco	2.48	45	360797	1918.12	PPB	94
17) 3-Chloro-1-propene	2.60	76	190857	40.98	PPB	97
18) Acetonitrile	2.69	40	432681	1596.19	PPB	99
19) Methyl Acetate	2.64	43	131120	39.96	PPB	98
20) Methylene Chloride	2.75	84	343068	39.13	PPB	99
21) tert-Butyl Alcohol	2.86	59	52531	189.94	PPB	89
22) Acrylonitrile	3.06	53	254555	159.64	PPB	97
23) Methyl tert-Butyl Ether	2.94	73	1411583	84.70	PPB	99
24) trans-1,2-Dichloroethene	2.95	96	375889	43.62	PPB	97
25) Hexane	3.14	57	552908	40.97	PPB	99
26) Diisopropyl Ether	3.41	45	1222542	40.89	PPB	100
27) 1,1-Dichloroethane	3.42	63	714635	41.31	PPB	97
28) Vinyl Acetate	3.47	86	106659	86.24	PPB	95
29) Chloroprene	3.47	53	2598085	174.45	PPB	99
30) tert-Butyl Ethyl Ether	3.79	59	958757	40.70	PPB	97
31) 2,2-Dichloropropane	4.00	77	625399	43.87	PPB	97
32) cis-1,2-Dichloroethene	4.04	96	409675	42.66	PPB	97
33) 2-Butanone	4.09	72	167984	412.88	PPB	94
34) Propionitrile	4.25	54	89125	157.36	PPB	95
35) Ethyl Acetate	4.12	61	64390	71.67	PPB	96
36) Methacrylonitrile	4.37	67	329405	167.15	PPB	95
37) Bromochloromethane	4.30	128	174409	42.82	PPB	95
38) Tetrahydrofuran	4.32	71	18823	41.18	PPB	# 86
39) Chloroform	4.39	83	670340	42.32	PPB	99
40) tert-Butyl Formate	4.42	59	249017	42.18	PPB	99
41) 1,1,1-Trichloroethane	4.53	97	644473	43.98	PPB	100
43) Cyclohexane	4.50	56	663453	42.82	PPB	99
44) Carbon Tetrachloride	4.67	117	539874	46.65	PPB	99
45) 1,1-Dichloropropene	4.72	75	581757	42.48	PPB	98

(#) = qualifier out of range (m) = manual integration

Data File : I:\MS13\DATA\072519\0725F014.D
Acq On : 25 Jul 2019 12:57 pm
Sample : CAL 40 PPB
Misc :

Vial: 14
Operator: JHJ
Inst : MS13
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Jul 26 17:21:47 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Initial Calibration
DataAcq Meth : 8260W5

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) Isobutyl Alcohol	4.98	43	207702	1655.71	PPB	91
48) Benzene	4.96	78	1605611	40.73	PPB	99
49) 1,2-Dichloroethane	5.09	62	463105	41.06	PPB	99
50) tert-Amyl Methyl Ether	5.08	55	196111	39.83	PPB	90
51) Trichloroethene	5.80	95	401844	42.14	PPB	97
52) Methyl Cyclohexane	5.95	83	635836	42.33	PPB	100
53) 1,2-Dichloropropane	6.22	63	402084	41.60	PPB	97
54) Dibromomethane	6.40	93	172752	40.25	PPB	96
55) Methyl methacrylate	6.42	69	137664	39.66	PPB	95
56) 1,4-Dioxane	6.42	88	40549	1450.57	PPB	83
57) Bromodichloromethane	6.64	83	456208	44.90	PPB	95
58) 2-Nitropropane	7.10	43	315908m	162.82	PPB	
59) 2-Chloroethyl Vinyl Ether	7.14	63	158031	40.38	PPB	97
60) cis-1,3-Dichloropropene	7.29	75	555949	42.27	PPB	97
61) 4-Methyl-2-pentanone (MIBK)	7.53	58	646330	403.80	PPB	96
63) Toluene	7.65	92	986061	41.17	PPB	98
65) n-Octane	7.76	85	240023	43.28	PPB	97
66) trans-1,3-Dichloropropene	8.07	75	443628	43.86	PPB	97
67) Ethyl methacrylate	8.16	69	289815	42.21	PPB	99
68) 1,1,2-Trichloroethane	8.29	83	206396	41.03	PPB	97
69) Tetrachloroethene	8.29	164	328230	44.11	PPB	94
70) 2-Hexanone	8.61	57	204034	398.34	PPB	# 83
71) 1,3-Dichloropropane	8.50	76	436079	41.33	PPB	99
72) Dibromochloromethane	8.71	129	281448	47.87	PPB	98
73) 1,2-Dibromoethane (EDB)	8.84	107	230883	44.55	PPB	98
74) 1-Chlorohexane	9.40	91	500208	43.76	PPB	94
75) Chlorobenzene	9.40	112	998789	42.98	PPB	96
76) Ethylbenzene	9.52	106	588248	43.45	PPB	99
77) 1,1,1,2-Tetrachloroethane	9.53	131	328143	44.92	PPB	95
78) m,p-Xylenes	9.66	106	1393621	86.21	PPB	97
79) o-Xylene	10.11	106	654633	43.81	PPB	94
80) Styrene	10.15	103	504595m	42.49	PPB	
81) Bromoform	10.36	173	137265	50.14	PPB	98
82) Isopropylbenzene	10.52	105	1732282	43.43	PPB	98
83) cis-1,4-Dichloro-2-butene	10.70	89	120546	190.73	PPB	98
86) 1,1,2,2-Tetrachloroethane	10.96	83	219605	38.35	PPB	97
87) trans-1,4-Dichloro-2-buten	11.03	53	70246	38.85	PPB	84
88) Bromobenzene	10.86	156	374453	39.06	PPB	98
89) n-Propylbenzene	10.97	91	1994763	39.69	PPB	99
90) 1,2,3-Trichloropropane	10.99	110	68608	38.18	PPB	95
91) 2-Chlorotoluene	11.07	91	1128397	39.89	PPB	97
92) 1,3,5-Trimethylbenzene	11.18	105	1388736	40.45	PPB	98
93) 4-Chlorotoluene	11.21	91	1317760	38.94	PPB	96
94) tert-Butylbenzene	11.51	119	1197388	39.90	PPB	98
95) 1,2,4-Trimethylbenzene	11.58	105	1377198	40.03	PPB	97
96) sec-Butylbenzene	11.75	105	1717113	40.47	PPB	98
97) p-Isopropyltoluene	11.91	119	1450960	40.90	PPB	98
98) 1,3-Dichlorobenzene	11.88	146	717646	40.94	PPB	99
99) 1,4-Dichlorobenzene	11.99	146	726090	41.72	PPB	98
100) n-Butylbenzene	12.34	91	1286039	40.95	PPB	98
101) 1,2-Dichlorobenzene	12.38	146	632312	40.60	PPB	97
102) 1,2-Dibromo-3-chloropropan	13.23	155	27645	43.03	PPB	90
103) 1,3,5-Trichlorobenzene	13.38	180	454845	41.56	PPB	98
104) 1,2,4-Trichlorobenzene	14.03	180	376327	42.51	PPB	97
105) Hexachlorobutadiene	14.16	225	190368	42.18	PPB	99
106) Naphthalene	14.29	128	653429	41.10	PPB	99
107) 1,2,3-Trichlorobenzene	14.53	180	299739	39.67	PPB	95

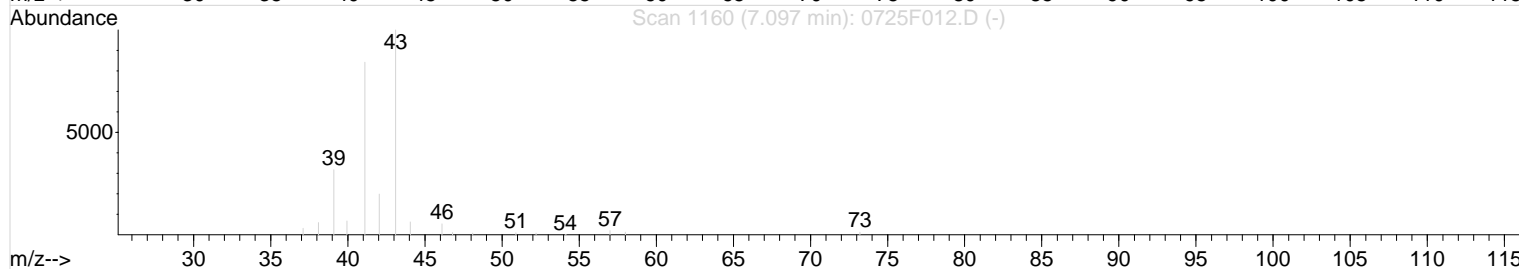
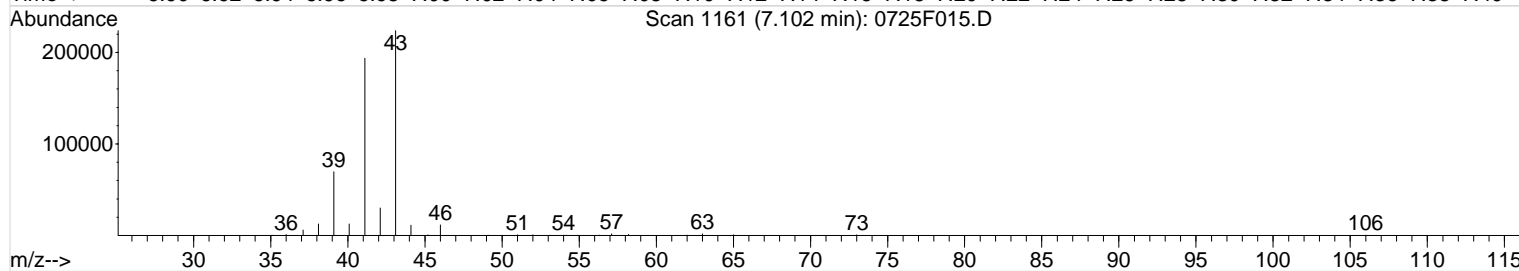
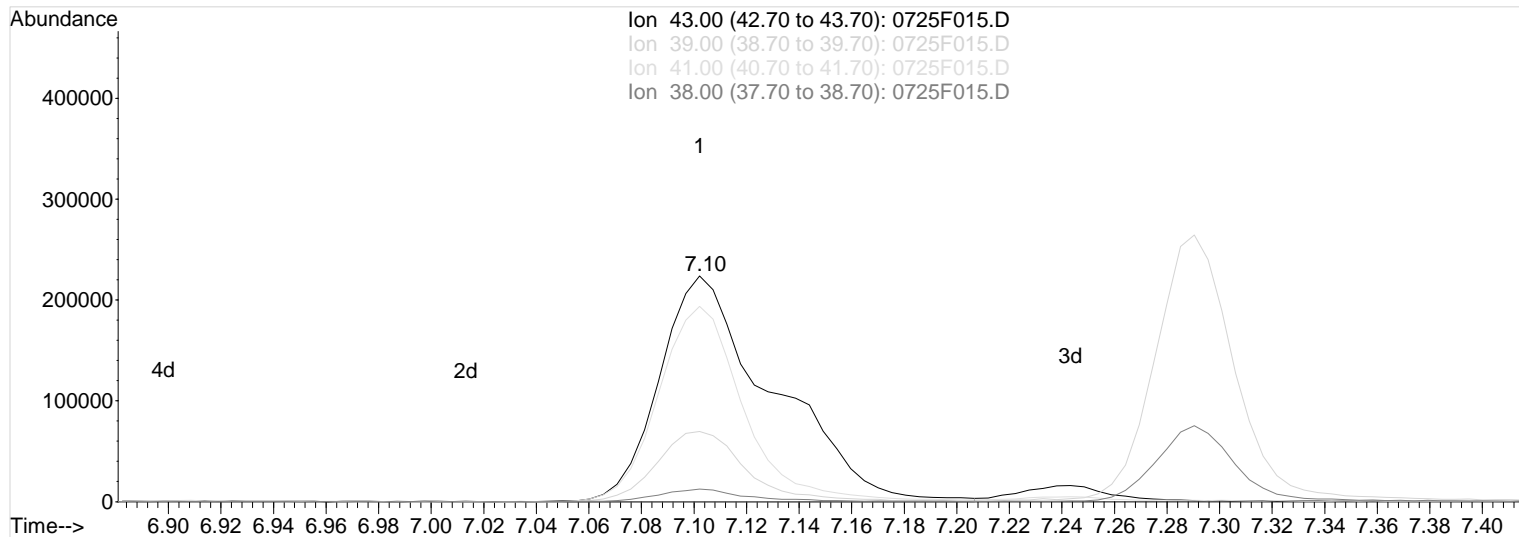
Data File : I:\MS13\DATA\072519\0725F015.D
 Acq On : 25 Jul 2019 1:24 pm
 Sample : CAL 60 PPB
 Misc :

Vial: 15
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:21 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Single Level Calibration



TIC: 0725F015.D

(58) 2-Nitropropane (T)

Manual Integration:

7.10min 323.57PPB

Before

response 671084

Ion	Exp%	Act%
43.00	100	100
39.00	31.60	31.09
41.00	84.20	86.42
38.00	5.90	5.45

07/26/19

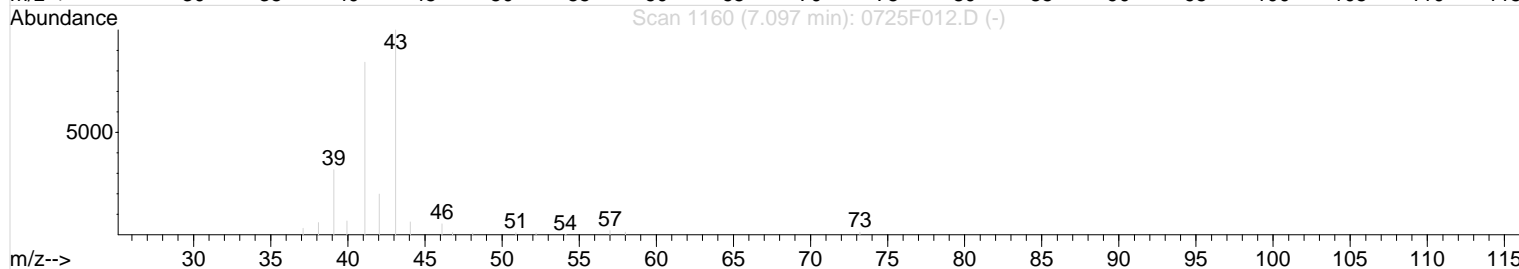
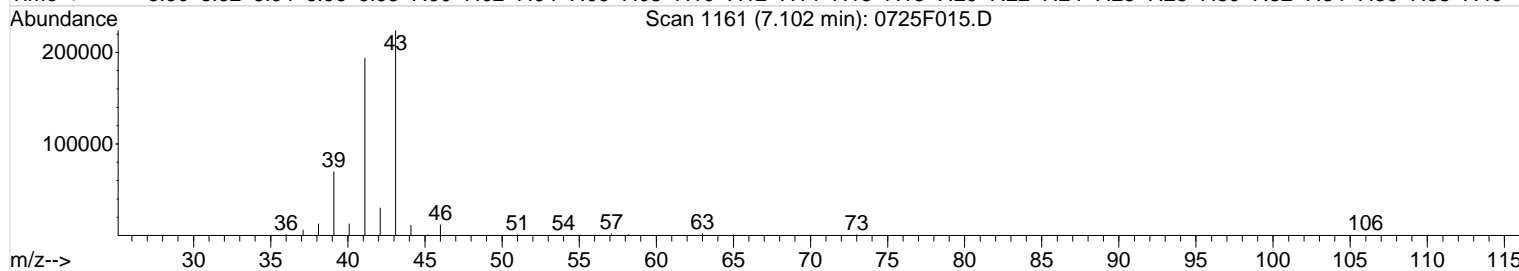
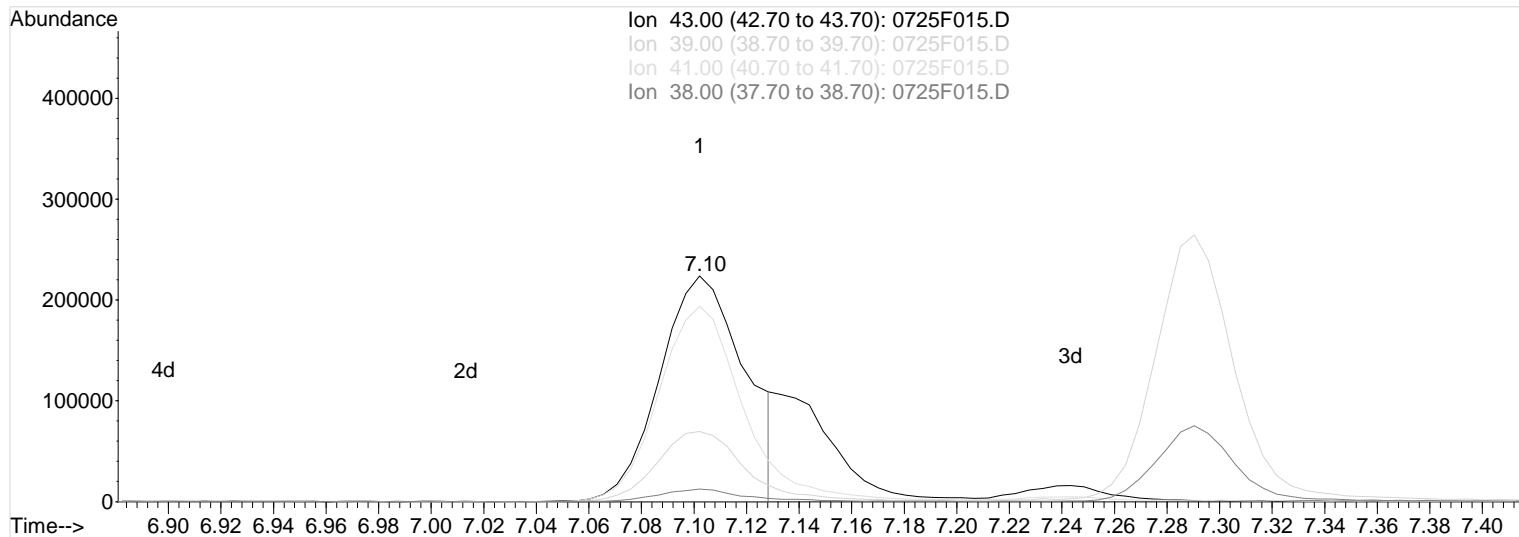
Data File : I:\MS13\DATA\072519\0725F015.D
 Acq On : 25 Jul 2019 1:24 pm
 Sample : CAL 60 PPB
 Misc :

Vial: 15
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:55 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Single Level Calibration



TIC: 0725F015.D

(58) 2-Nitropropane (T)

Manual Integration:

7.10min 243.13PPB m
 response 504257

After
 Shoulder

Ion	Exp%	Act%
43.00	100	100
39.00	31.60	31.09
41.00	84.20	86.54
38.00	5.90	5.56

07/26/19

Data File : I:\MS13\DATA\072519\0725F015.D
 Acq On : 25 Jul 2019 1:24 pm
 Sample : CAL 60 PPB
 Misc :

Vial: 15
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:21:49 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	335047	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	120233	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.97	152	103673	10.00	PPB	0.00

System Monitoring Compounds

42) Dibromofluoromethane	4.58	113	134522	17.69	PPB	0.00
Spiked Amount	10.000		Recovery	=	176.90%	
47) 1,2-Dichloroethane-d4	4.99	65	143747	16.28	PPB	0.00
Spiked Amount	10.000		Recovery	=	162.80%	
62) Toluene-d8	7.56	98	544886	16.21	PPB	0.00
Spiked Amount	10.000		Recovery	=	162.10%	
84) 4-Bromofluorobenzene	10.73	95	173403	16.31	PPB	0.00
Spiked Amount	10.000		Recovery	=	163.10%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.10	85	633144	57.75	PPB	100
3) Chloromethane	1.24	50	726871	56.09	PPB	97
4) Vinyl Chloride	1.31	62	736036	56.98	PPB	100
5) Bromomethane	1.56	96	435155	58.51	PPB	96
6) Chloroethane	1.64	64	419021	56.07	PPB	96
7) Dichlorofluoromethane	1.80	67	1021759	55.67	PPB	99
8) Trichlorofluoromethane	1.80	101	1091071	57.82	PPB	98
9) Ethyl Ether	2.05	59	309551	62.52	PPB	99
10) Acrolein	2.23	56	1124934	1188.19	PPB	99
11) Trichlorotrifluoroethane	2.22	151	445019	62.33	PPB	97
12) 1,1-Dichloroethene	2.25	96	583498	61.18	PPB	98
13) Acetone	2.36	43	757270	609.62	PPB	100
14) Iodomethane	2.41	142	2612334	254.07	PPB	98
15) Carbon Disulfide	2.43	76	1544857	59.54	PPB	100
16) 2-Propanol (Isopropyl Alco	2.48	45	625247	3109.57	PPB	94
17) 3-Chloro-1-propene	2.60	76	308848	62.04	PPB	91
18) Acetonitrile	2.69	40	675650	2331.72	PPB	96
19) Methyl Acetate	2.64	43	208541	59.46	PPB	97
20) Methylene Chloride	2.75	84	547620	58.43	PPB	98
21) tert-Butyl Alcohol	2.86	59	89772	303.65	PPB	86
22) Acrylonitrile	3.06	53	399179	234.18	PPB	94
23) Methyl tert-Butyl Ether	2.94	73	2295673	128.86	PPB	100
24) trans-1,2-Dichloroethene	2.95	96	592890	64.36	PPB	97
25) Hexane	3.14	57	857679	59.45	PPB	98
26) Diisopropyl Ether	3.41	45	1944677	60.85	PPB	99
27) 1,1-Dichloroethane	3.42	63	1116961	60.41	PPB	99
28) Vinyl Acetate	3.47	86	170406	128.90	PPB	94
29) Chloroprene	3.47	53	4058644	254.93	PPB	98
30) tert-Butyl Ethyl Ether	3.79	59	1531247	60.82	PPB	97
31) 2,2-Dichloropropane	4.00	77	975519	64.02	PPB	95
32) cis-1,2-Dichloroethene	4.04	96	653573	63.66	PPB	99
33) 2-Butanone	4.09	72	275984	634.57	PPB	92
34) Propionitrile	4.25	54	142482	235.34	PPB	97
35) Ethyl Acetate	4.12	61	95978	99.94	PPB	96
36) Methacrylonitrile	4.37	67	527358	250.33	PPB	96
37) Bromochloromethane	4.30	128	278744	64.02	PPB	93
38) Tetrahydrofuran	4.31	71	29230	59.83	PPB	94
39) Chloroform	4.39	83	1058426	62.51	PPB	97
40) tert-Butyl Formate	4.42	59	405597	64.26	PPB	97
41) 1,1,1-Trichloroethane	4.53	97	999607	63.81	PPB	99
43) Cyclohexane	4.50	56	1027583	62.05	PPB	98
44) Carbon Tetrachloride	4.67	117	856553	69.23	PPB	99
45) 1,1-Dichloropropene	4.72	75	899147	61.43	PPB	99

(#) = qualifier out of range (m) = manual integration

Data File : I:\MS13\DATA\072519\0725F015.D
Acq On : 25 Jul 2019 1:24 pm
Sample : CAL 60 PPB
Misc :

Vial: 15
Operator: JHJ
Inst : MS13
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Jul 26 17:21:49 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Initial Calibration
DataAcq Meth : 8260W5

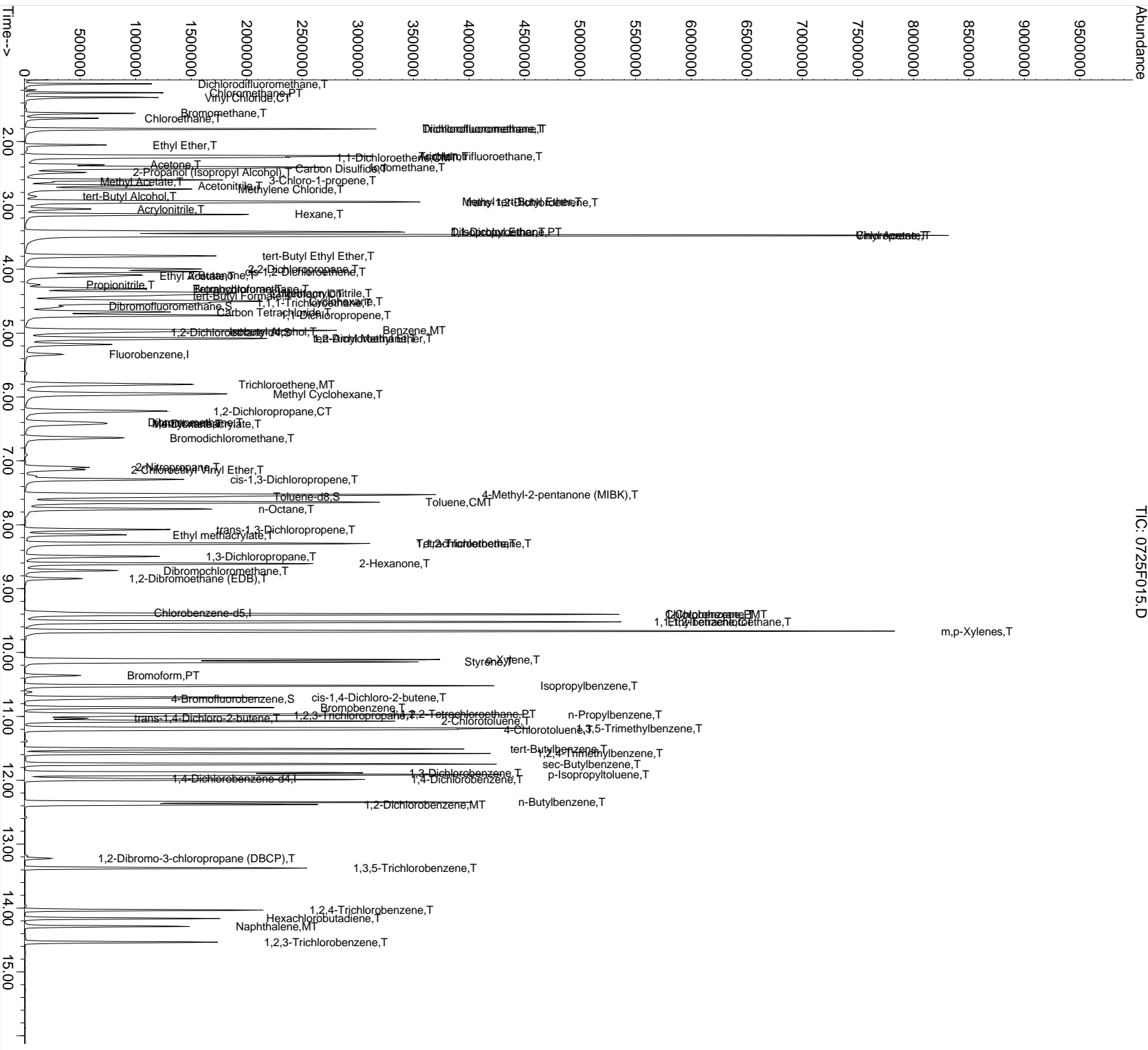
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) Isobutyl Alcohol	4.98	43	351050	2617.87	PPB	93
48) Benzene	4.96	78	2502948	59.40	PPB	99
49) 1,2-Dichloroethane	5.09	62	724170	60.06	PPB	99
50) tert-Amyl Methyl Ether	5.08	55	301708	57.32	PPB	98
51) Trichloroethene	5.80	95	629956	61.81	PPB	97
52) Methyl Cyclohexane	5.95	83	966755	60.20	PPB	99
53) 1,2-Dichloropropane	6.22	63	617810	59.79	PPB	97
54) Dibromomethane	6.40	93	274575	59.84	PPB	94
55) Methyl methacrylate	6.42	69	219260	59.10	PPB	96
56) 1,4-Dioxane	6.42	88	70332	2353.67	PPB	85
57) Bromodichloromethane	6.64	83	726927	66.93	PPB	95
58) 2-Nitropropane	7.10	43	504257m	243.13	PPB	
59) 2-Chloroethyl Vinyl Ether	7.14	63	249545	59.64	PPB	95
60) cis-1,3-Dichloropropene	7.29	75	888549	63.20	PPB	95
61) 4-Methyl-2-pentanone (MIBK)	7.53	58	1003859	586.70	PPB	96
63) Toluene	7.65	92	1543403	60.29	PPB	100
65) n-Octane	7.76	85	365529	61.41	PPB	98
66) trans-1,3-Dichloropropene	8.07	75	720239	66.35	PPB	98
67) Ethyl methacrylate	8.16	69	454701	61.70	PPB	99
68) 1,1,2-Trichloroethane	8.29	83	328035	60.76	PPB	98
69) Tetrachloroethene	8.29	164	506616	63.43	PPB	99
70) 2-Hexanone	8.61	57	321312	584.49	PPB	# 84
71) 1,3-Dichloropropane	8.50	76	688417	60.80	PPB	99
72) Dibromochloromethane	8.72	129	458700	72.69	PPB	97
73) 1,2-Dibromoethane (EDB)	8.84	107	361545	65.00	PPB	96
74) 1-Chlorohexane	9.40	91	774022	63.09	PPB	92
75) Chlorobenzene	9.40	112	1560823	62.58	PPB	97
76) Ethylbenzene	9.52	106	911460	62.73	PPB	96
77) 1,1,1,2-Tetrachloroethane	9.53	131	532915	67.97	PPB	95
78) m,p-Xylenes	9.66	106	2211069	127.45	PPB	98
79) o-Xylene	10.11	106	1024983	63.92	PPB	99
80) Styrene	10.15	103	830704	65.18	PPB	97
81) Bromoform	10.36	173	233769	79.56	PPB	97
82) Isopropylbenzene	10.52	105	2721626	63.58	PPB	97
83) cis-1,4-Dichloro-2-butene	10.71	89	200070	294.95	PPB	97
86) 1,1,2,2-Tetrachloroethane	10.96	83	348124	54.99	PPB	97
87) trans-1,4-Dichloro-2-buten	11.03	53	113311	56.68	PPB	82
88) Bromobenzene	10.86	156	617161	58.22	PPB	94
89) n-Propylbenzene	10.97	91	3136357	56.45	PPB	97
90) 1,2,3-Trichloropropane	10.99	110	107728	54.22	PPB	90
91) 2-Chlorotoluene	11.07	91	1791400	57.28	PPB	97
92) 1,3,5-Trimethylbenzene	11.18	105	2212710	58.30	PPB	98
93) 4-Chlorotoluene	11.21	91	2108873	56.36	PPB	95
94) tert-Butylbenzene	11.51	119	1900207	57.26	PPB	98
95) 1,2,4-Trimethylbenzene	11.58	105	2200271	57.84	PPB	97
96) sec-Butylbenzene	11.75	105	2720625	58.00	PPB	99
97) p-Isopropyltoluene	11.91	119	2308950	58.86	PPB	97
98) 1,3-Dichlorobenzene	11.88	146	1165787	60.15	PPB	98
99) 1,4-Dichlorobenzene	11.99	146	1170933	60.86	PPB	98
100) n-Butylbenzene	12.34	91	2028998	58.44	PPB	98
101) 1,2-Dichlorobenzene	12.38	146	1026800	59.63	PPB	96
102) 1,2-Dibromo-3-chloropropan	13.23	155	45600	64.19	PPB	94
103) 1,3,5-Trichlorobenzene	13.38	180	747754	61.80	PPB	98
104) 1,2,4-Trichlorobenzene	14.03	180	615580	62.89	PPB	98
105) Hexachlorobutadiene	14.16	225	307422	61.60	PPB	97
106) Naphthalene	14.29	128	1054372	59.98	PPB	99
107) 1,2,3-Trichlorobenzene	14.53	180	499840	59.83	PPB	99

Data File : I:\MS13\DATA\072519MS13_8260W.D
Acq On : 25 Jul 2019 1:24 pm
Sample : CAL 60 PPB
Misc :
SMS Integration Params: rteint.p
Quant Time: Jul 26 17:55 2019

Vial: 15
Operator: JHT
Inst: MS13
Multiplr: 1.00

Quant Results File: 072519MS13_8260W.RES

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Initial Calibration



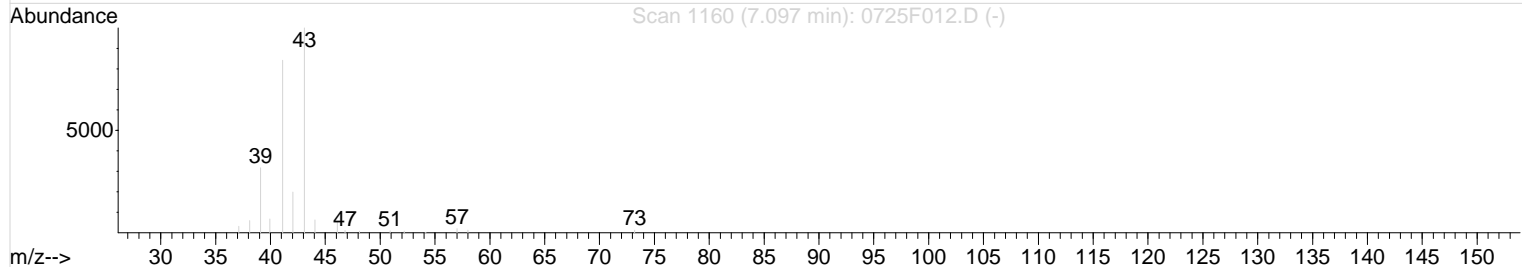
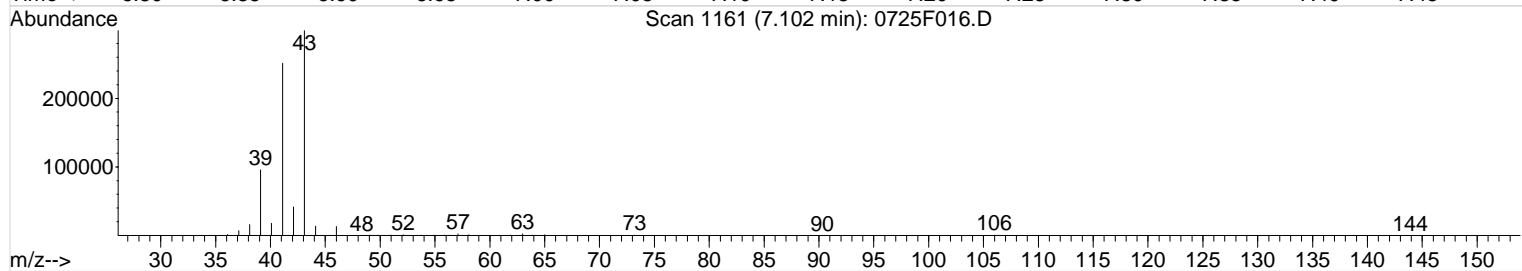
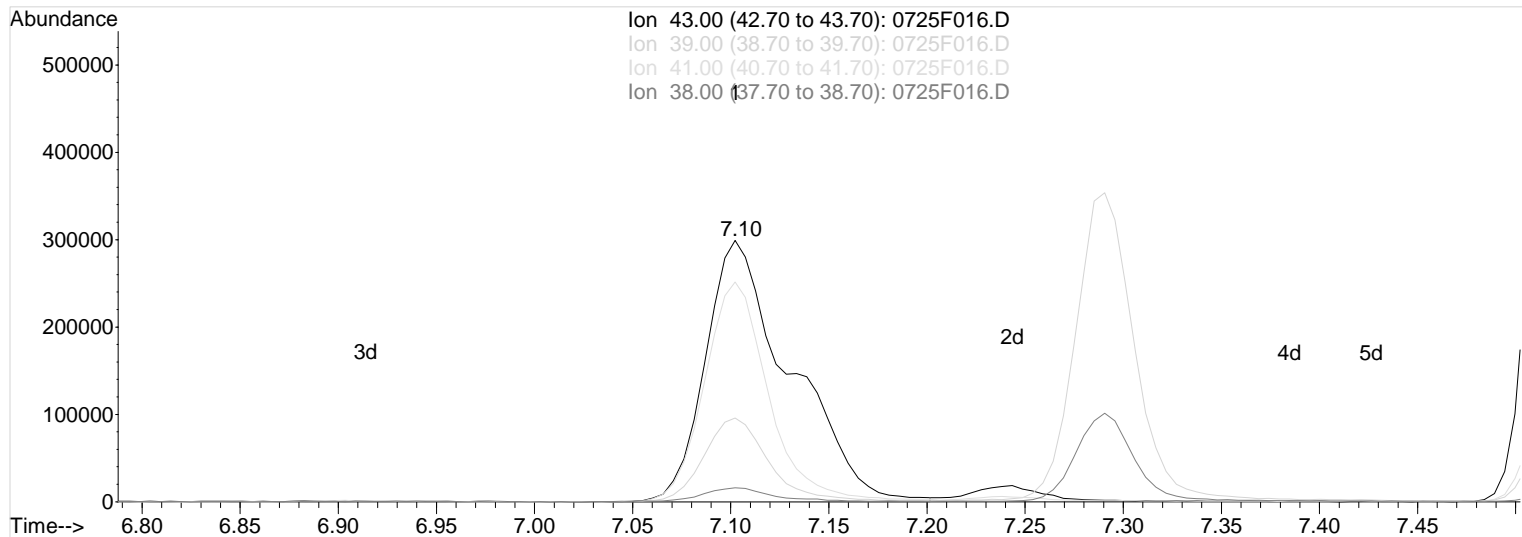
Data File : I:\MS13\DATA\072519\0725F016.D
 Acq On : 25 Jul 2019 1:50 pm
 Sample : CAL 80 PPB
 Misc :

Vial: 16
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:21 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Single Level Calibration



TIC: 0725F016.D

(58) 2-Nitropropane (T)

Manual Integration:

7.10min 418.95PPB

Before

response 898395

07/26/19

Ion	Exp%	Act%
43.00	100	100
39.00	31.60	32.07
41.00	84.20	83.97
38.00	5.90	5.18

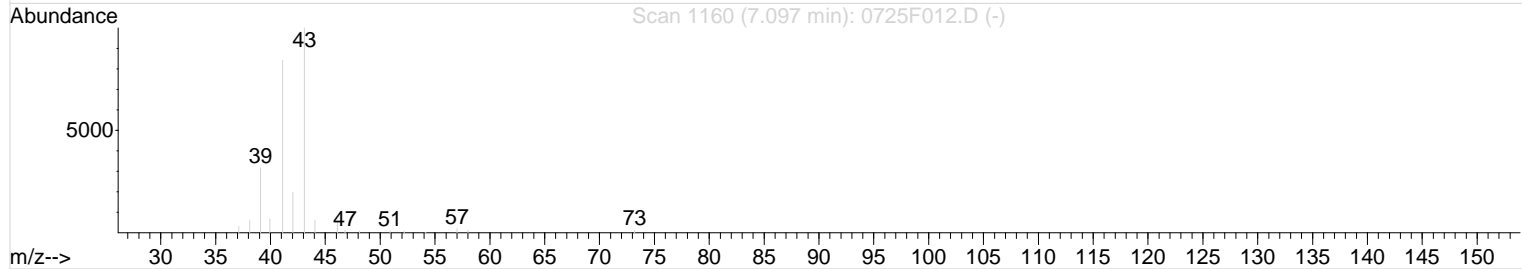
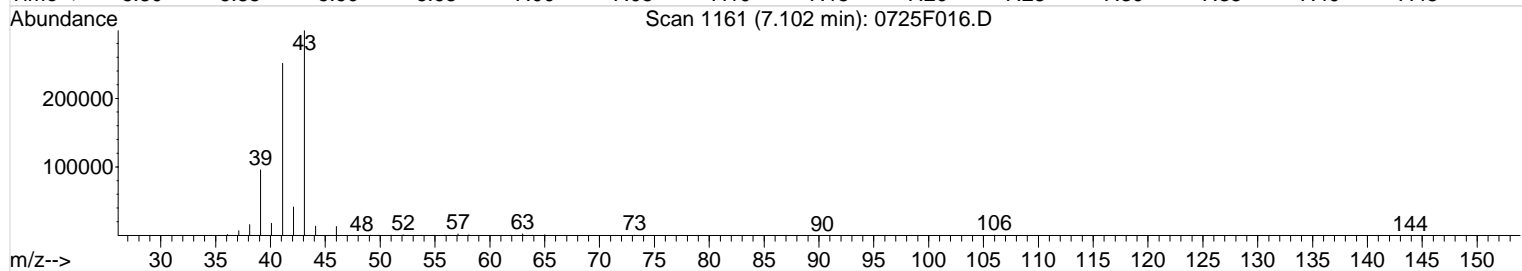
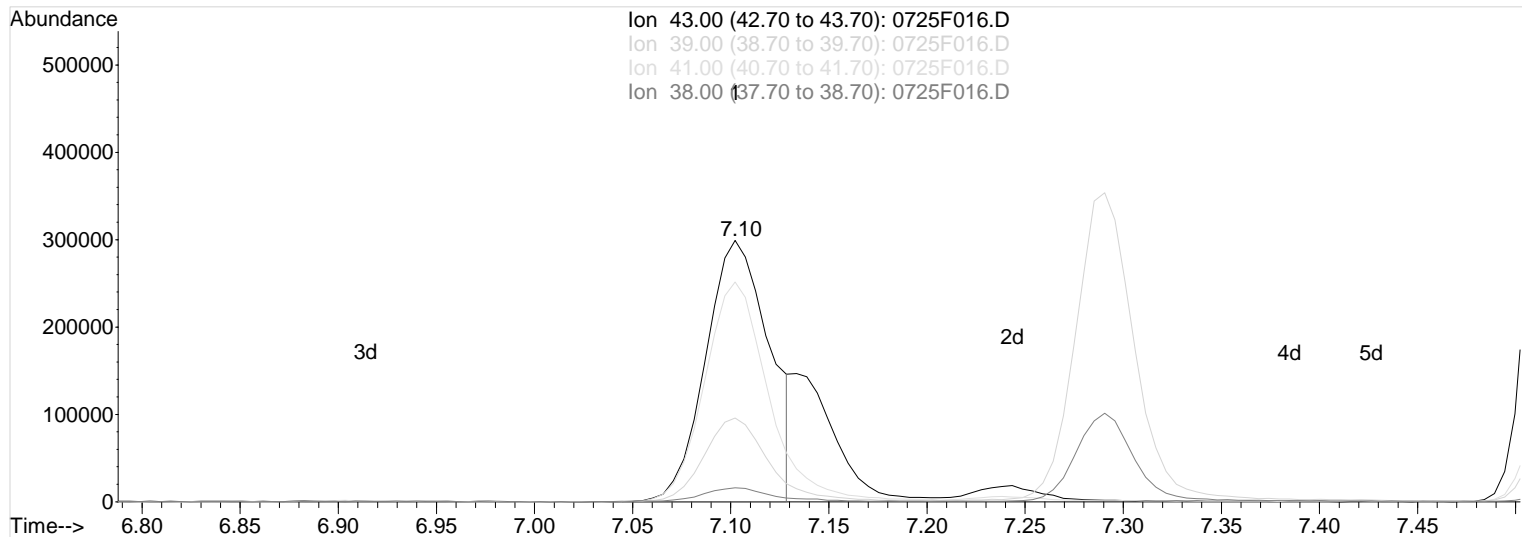
Data File : I:\MS13\DATA\072519\0725F016.D
 Acq On : 25 Jul 2019 1:50 pm
 Sample : CAL 80 PPB
 Misc :

Vial: 16
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:56 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Single Level Calibration



TIC: 0725F016.D

(58) 2-Nitropropane (T)

Manual Integration:

7.10min 315.44PPB m
 response 676432

After
 Shoulder

Ion	Exp%	Act%
43.00	100	100
39.00	31.60	32.07
41.00	84.20	84.08
38.00	5.90	5.29

07/26/19

Data File : I:\MS13\DATA\072519\0725F016.D

Acq On : 25 Jul 2019 1:50 pm

Sample : CAL 80 PPB

Misc :

Vial: 16

Operator: JHJ

Inst : MS13

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 26 17:21:50 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B

Last Update : Fri Jul 26 17:20:50 2019

Response via : Initial Calibration

DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	346416	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	124240	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.97	152	104565	10.00	PPB	0.00

System Monitoring Compounds

42) Dibromofluoromethane	4.58	113	169687	21.59	PPB	0.00
Spiked Amount	10.000		Recovery	=	215.90%	
47) 1,2-Dichloroethane-d4	4.99	65	180857	19.81	PPB	0.00
Spiked Amount	10.000		Recovery	=	198.10%	
62) Toluene-d8	7.56	98	697760	20.08	PPB	0.00
Spiked Amount	10.000		Recovery	=	200.80%	
84) 4-Bromofluorobenzene	10.73	95	213812	19.47	PPB	0.00
Spiked Amount	10.000		Recovery	=	194.70%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.10	85	903674	79.71	PPB	99
3) Chloromethane	1.24	50	1017637	75.95	PPB	98
4) Vinyl Chloride	1.31	62	1027024	76.89	PPB	99
5) Bromomethane	1.56	96	596842	77.62	PPB	95
6) Chloroethane	1.64	64	578406	74.86	PPB	96
7) Dichlorofluoromethane	1.80	67	1426204	75.15	PPB	99
8) Trichlorofluoromethane	1.80	101	1542723	79.08	PPB	97
9) Ethyl Ether	2.06	59	422881	82.61	PPB	98
10) Acrolein	2.23	56	1506770	1539.27	PPB	98
11) Trichlorotrifluoroethane	2.22	151	637462	86.35	PPB	96
12) 1,1-Dichloroethene	2.25	96	829987	84.17	PPB	97
13) Acetone	2.36	43	1016879	791.74	PPB	100
14) Iodomethane	2.41	142	3763162	353.98	PPB	97
15) Carbon Disulfide	2.43	76	2147006	80.03	PPB	100
16) 2-Propanol (Isopropyl Alco	2.48	45	848858	4083.12	PPB	94
17) 3-Chloro-1-propene	2.60	76	431974	83.92	PPB	92
18) Acetonitrile	2.69	40	926324	3091.89	PPB	99
19) Methyl Acetate	2.64	43	285360	78.69	PPB	99
20) Methylene Chloride	2.75	84	745307	76.92	PPB	96
21) tert-Butyl Alcohol	2.87	59	119229	390.06	PPB	85
22) Acrylonitrile	3.06	53	541522	307.26	PPB	96
23) Methyl tert-Butyl Ether	2.94	73	3126715	169.75	PPB	99
24) trans-1,2-Dichloroethene	2.95	96	832508	87.41	PPB	93
25) Hexane	3.14	57	1161126	77.84	PPB	96
26) Diisopropyl Ether	3.41	45	2629739	79.59	PPB	100
27) 1,1-Dichloroethane	3.42	63	1529928	80.02	PPB	98
28) Vinyl Acetate	3.47	86	239618	175.30	PPB	97
29) Chloroprene	3.47	53	5624663	341.70	PPB	96
30) tert-Butyl Ethyl Ether	3.79	59	2054266	78.91	PPB	97
31) 2,2-Dichloropropane	4.00	77	1323412	84.00	PPB	98
32) cis-1,2-Dichloroethene	4.04	96	888870	83.74	PPB	100
33) 2-Butanone	4.09	72	368512	819.51	PPB	97
34) Propionitrile	4.25	54	191233	305.49	PPB	95
35) Ethyl Acetate	4.12	61	135467	136.43	PPB	97
36) Methacrylonitrile	4.37	67	692340	317.85	PPB	94
37) Bromochloromethane	4.30	128	375900	83.50	PPB	96
38) Tetrahydrofuran	4.31	71	39981	79.14	PPB	92
39) Chloroform	4.39	83	1441804	82.35	PPB	97
40) tert-Butyl Formate	4.42	59	545605	83.61	PPB	99
41) 1,1,1-Trichloroethane	4.53	97	1381798	85.31	PPB	99
43) Cyclohexane	4.50	56	1401409	81.84	PPB	98
44) Carbon Tetrachloride	4.67	117	1187377	92.82	PPB	99
45) 1,1-Dichloropropene	4.72	75	1229504	81.24	PPB	99

(#) = qualifier out of range (m) = manual integration

0725F016.D 072519MS13_8260W.M

Fri Jul 26 17:57:28 2019

Data File : I:\MS13\DATA\072519\0725F016.D
Acq On : 25 Jul 2019 1:50 pm
Sample : CAL 80 PPB
Misc :

Vial: 16
Operator: JHJ
Inst : MS13
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Jul 26 17:21:50 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Initial Calibration
DataAcq Meth : 8260W5

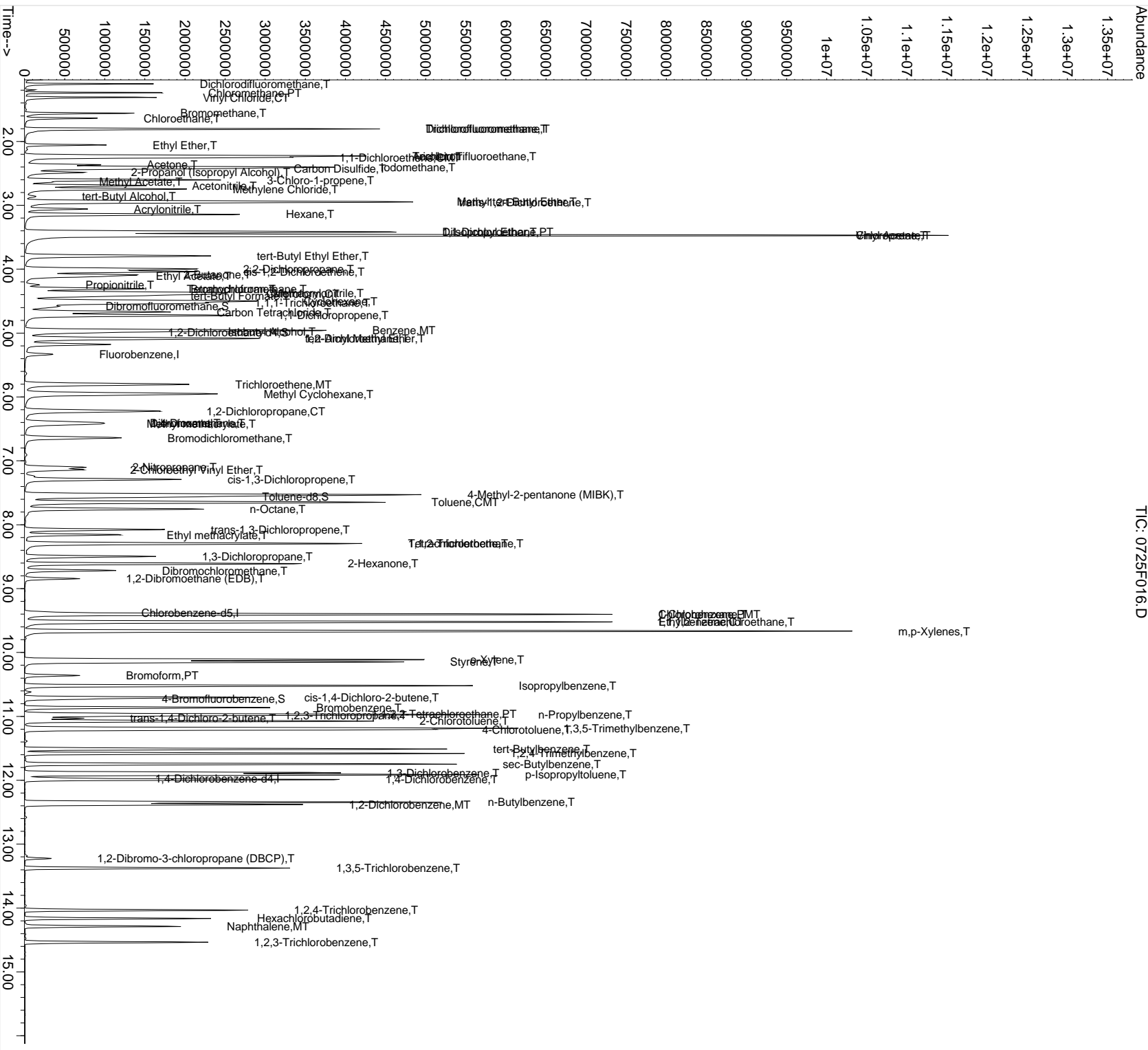
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) Isobutyl Alcohol	4.98	43	482094	3477.11	PPB	91
48) Benzene	4.96	78	3411961	78.32	PPB	99
49) 1,2-Dichloroethane	5.09	62	964364	77.35	PPB	99
50) tert-Amyl Methyl Ether	5.08	55	397945	73.12	PPB	94
51) Trichloroethene	5.81	95	857842	81.40	PPB	95
52) Methyl Cyclohexane	5.95	83	1286857	77.51	PPB	98
53) 1,2-Dichloropropane	6.22	63	839345	78.56	PPB	96
54) Dibromomethane	6.40	93	369620	77.91	PPB	95
55) Methyl methacrylate	6.43	69	292298	76.20	PPB	96
56) 1,4-Dioxane	6.42	88	100447	3251.16	PPB	90
57) Bromodichloromethane	6.64	83	977645	87.05	PPB	96
58) 2-Nitropropane	7.10	43	676432m	315.44	PPB	
59) 2-Chloroethyl Vinyl Ether	7.14	63	329538	76.18	PPB	97
60) cis-1,3-Dichloropropene	7.29	75	1197816	82.40	PPB	96
61) 4-Methyl-2-pentanone (MIBK)	7.53	58	1340790	757.90	PPB	98
63) Toluene	7.65	92	2095621	79.17	PPB	97
65) n-Octane	7.76	85	477568	77.65	PPB	98
66) trans-1,3-Dichloropropene	8.08	75	959299	85.52	PPB	98
67) Ethyl methacrylate	8.16	69	606533	79.65	PPB	98
68) 1,1,2-Trichloroethane	8.29	83	433341	77.67	PPB	99
69) Tetrachloroethene	8.29	164	701303	84.98	PPB	99
70) 2-Hexanone	8.61	57	423854	746.16	PPB	# 85
71) 1,3-Dichloropropane	8.50	76	915694	78.26	PPB	99
72) Dibromochloromethane	8.72	129	624776	95.81	PPB	97
73) 1,2-Dibromoethane (EDB)	8.84	107	479673	83.45	PPB	97
74) 1-Chlorohexane	9.40	91	1045487	82.46	PPB	88
75) Chlorobenzene	9.40	112	2125702	82.49	PPB	95
76) Ethylbenzene	9.52	106	1242126	82.72	PPB	98
77) 1,1,1,2-Tetrachloroethane	9.53	131	734461	90.65	PPB	96
78) m,p-Xylenes	9.66	106	2965335	165.41	PPB	99
79) o-Xylene	10.11	106	1370922	82.74	PPB	98
80) Styrene	10.15	103	1067160	81.03	PPB	99
81) Bromoform	10.36	173	324036	106.72	PPB	99
82) Isopropylbenzene	10.52	105	3620158	81.84	PPB	98
83) cis-1,4-Dichloro-2-butene	10.71	89	271670	387.59	PPB	96
86) 1,1,2,2-Tetrachloroethane	10.96	83	456934	71.56	PPB	97
87) trans-1,4-Dichloro-2-buten	11.03	53	136426	67.66	PPB	84
88) Bromobenzene	10.86	156	825995	77.26	PPB	93
89) n-Propylbenzene	10.97	91	4124309	73.59	PPB	98
90) 1,2,3-Trichloropropane	10.99	110	139273	69.50	PPB	89
91) 2-Chlorotoluene	11.07	91	2334750	74.02	PPB	96
92) 1,3,5-Trimethylbenzene	11.19	105	2887589	75.43	PPB	100
93) 4-Chlorotoluene	11.21	91	2733927	72.44	PPB	95
94) tert-Butylbenzene	11.51	119	2487436	74.32	PPB	99
95) 1,2,4-Trimethylbenzene	11.58	105	2854048	74.38	PPB	97
96) sec-Butylbenzene	11.75	105	3533139	74.68	PPB	99
97) p-Isopropyltoluene	11.91	119	3016193	76.24	PPB	97
98) 1,3-Dichlorobenzene	11.88	146	1526392	78.08	PPB	98
99) 1,4-Dichlorobenzene	11.99	146	1528358	78.75	PPB	97
100) n-Butylbenzene	12.34	91	2646085	75.56	PPB	99
101) 1,2-Dichlorobenzene	12.38	146	1334935	76.86	PPB	97
102) 1,2-Dibromo-3-chloropropan	13.23	155	64105	89.47	PPB	94
103) 1,3,5-Trichlorobenzene	13.37	180	990182	81.14	PPB	96
104) 1,2,4-Trichlorobenzene	14.03	180	821884	83.25	PPB	97
105) Hexachlorobutadiene	14.16	225	424694	84.37	PPB	99
106) Naphthalene	14.29	128	1403646	79.17	PPB	98
107) 1,2,3-Trichlorobenzene	14.53	180	668006	79.27	PPB	99

08/01/19
Data File : I:\MS13\DATA\072519\0725F016.D
Acq On : 25 Jul 2019 1:50 pm
Sample : CAL 80 PPB
Misc :
MS Integration Params: rteint.p
Quant Time: Jul 26 17:56 2019

Vial: 16
Operator: JHT
Inst: MS13
Multiplr: 1.00

Quant Results File: 072519MS13_8260W.RES

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Initial Calibration



Data File : I:\MS13\DATA\072519\0725F018.D

Vial: 18

Acq On : 25 Jul 2019 2:43 pm

Operator: JHJ

Sample : IB

Inst : MS13

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 26 12:54:18 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B

Last Update : Thu Jul 25 17:58:23 2019

Response via : Initial Calibration

DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	319970	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	115973	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.97	152	86585	10.00	PPB	0.00

System Monitoring Compounds

42) Dibromofluoromethane	4.58	113	65493	9.03	PPB	0.00
Spiked Amount	10.000		Recovery	=	90.30%	
47) 1,2-Dichloroethane-d4	4.99	65	72079	8.72	PPB	0.00
Spiked Amount	10.000		Recovery	=	87.20%	
62) Toluene-d8	7.56	98	320904	10.34	PPB	0.00
Spiked Amount	10.000		Recovery	=	103.40%	
84) 4-Bromofluorobenzene	10.73	95	89141	9.21	PPB	0.00
Spiked Amount	10.000		Recovery	=	92.10%	

Target Compounds

						Qvalue
3) Chloromethane	1.23	50	1287	0.10	PPB	92
5) Bromomethane	1.57	96	1571	0.22	PPB	# 68
14) Iodomethane	2.40	142	6437	0.67	PPB	85
15) Carbon Disulfide	2.43	76	6819	0.28	PPB	89
16) 2-Propanol (Isopropyl Alco	2.48	45	8458	43.30	PPB	# 22
17) 3-Chloro-1-propene	2.43	76	6819	0.27	PPB	88
24) trans-1,2-Dichloroethene	2.94	96	675	0.08	PPB	# 34
35) Ethyl Acetate	4.12	61	2023	Below	Cal	85
46) Isobutyl Alcohol	4.98	43	1709	12.57	PPB	# 79
56) 1,4-Dioxane	6.43	88	4397	158.33	PPB	99
65) n-Octane	7.75	85	780	0.14	PPB	90
75) Chlorobenzene	9.39	112	683	0.03	PPB	# 44
78) m,p-Xylenes	9.66	106	742	0.05	PPB	# 53
82) Isopropylbenzene	10.52	105	1186	0.03	PPB	58
89) n-Propylbenzene	10.97	91	1996	0.05	PPB	87
91) 2-Chlorotoluene	11.07	91	847	0.03	PPB	# 47
92) 1,3,5-Trimethylbenzene	11.18	105	1038	0.03	PPB	88
93) 4-Chlorotoluene	11.20	91	1272	0.04	PPB	82
94) tert-Butylbenzene	11.51	119	1187	0.05	PPB	87
95) 1,2,4-Trimethylbenzene	11.58	105	1306	0.04	PPB	# 39
96) sec-Butylbenzene	11.74	105	1923	0.05	PPB	98
97) p-Isopropyltoluene	11.91	119	1733	0.06	PPB	95
99) 1,4-Dichlorobenzene	11.98	146	1367	0.08	PPB	91
100) n-Butylbenzene	12.34	91	2136	0.08	PPB	90
101) 1,2-Dichlorobenzene	12.38	146	1083	0.08	PPB	# 51
103) 1,3,5-Trichlorobenzene	13.37	180	1774	0.18	PPB	89
104) 1,2,4-Trichlorobenzene	14.03	180	3129	0.38	PPB	85
105) Hexachlorobutadiene	14.16	225	1592	0.39	PPB	81
106) Naphthalene	14.28	128	7449	0.52	PPB	90
107) 1,2,3-Trichlorobenzene	14.53	180	6097	0.91	PPB	91

(#) = qualifier out of range (m) = manual integration

0725F018.D 072519MS13_8260W.M

Fri Jul 26 14:12:43 2019

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Page 1

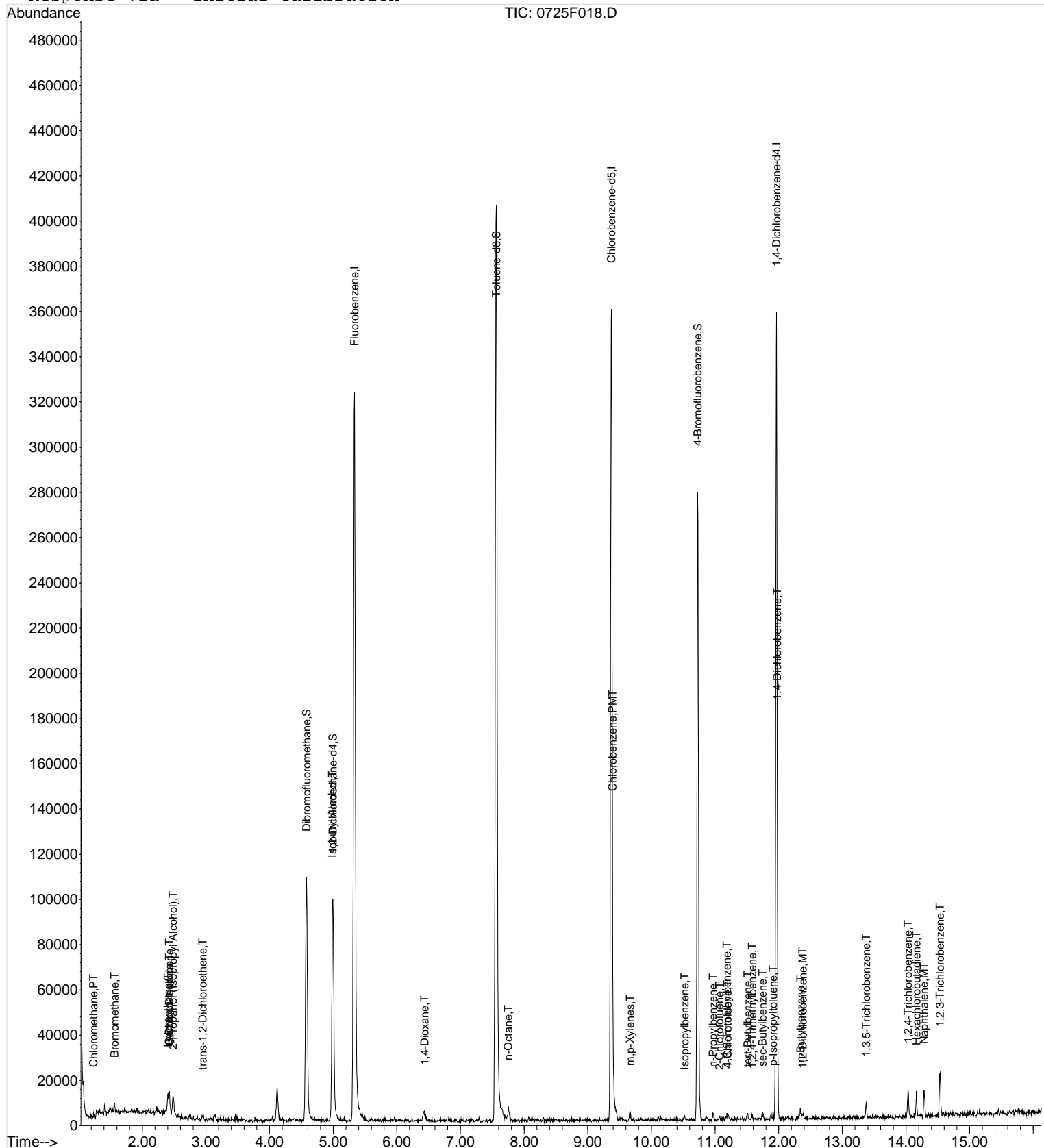
Data File : I:\MS13\DATA\072519\0725F018.D
Acq On : 25 Jul 2019 2:43 pm
Sample : IB
Misc :

Vial: 18
Operator: JHJ
Inst : MS13
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Jul 26 14:12 2019

Quant Results File: 072519MS13_8260W.RES

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Jul 25 17:58:23 2019
Response via : Initial Calibration



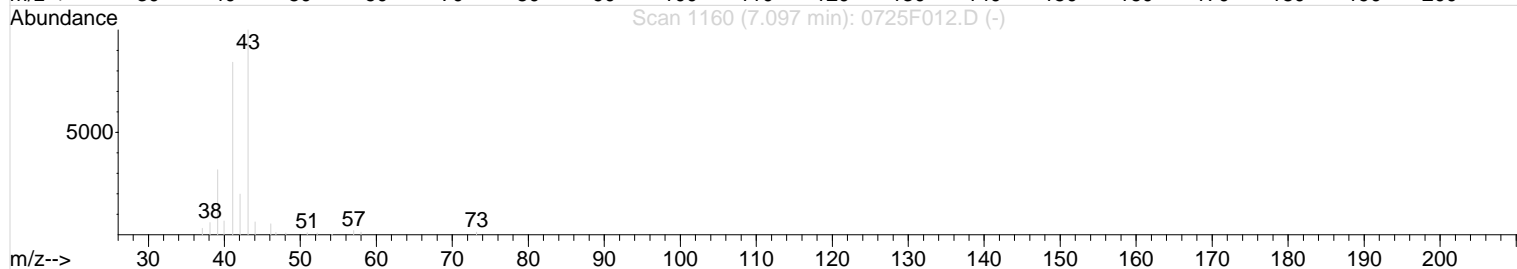
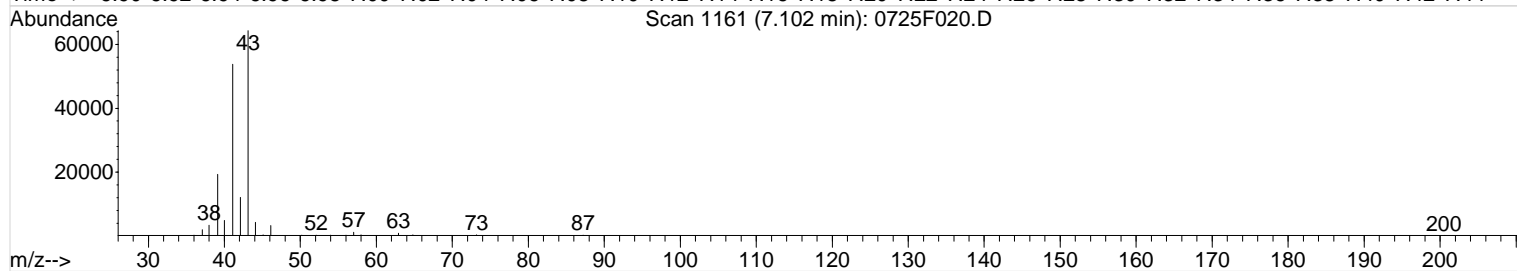
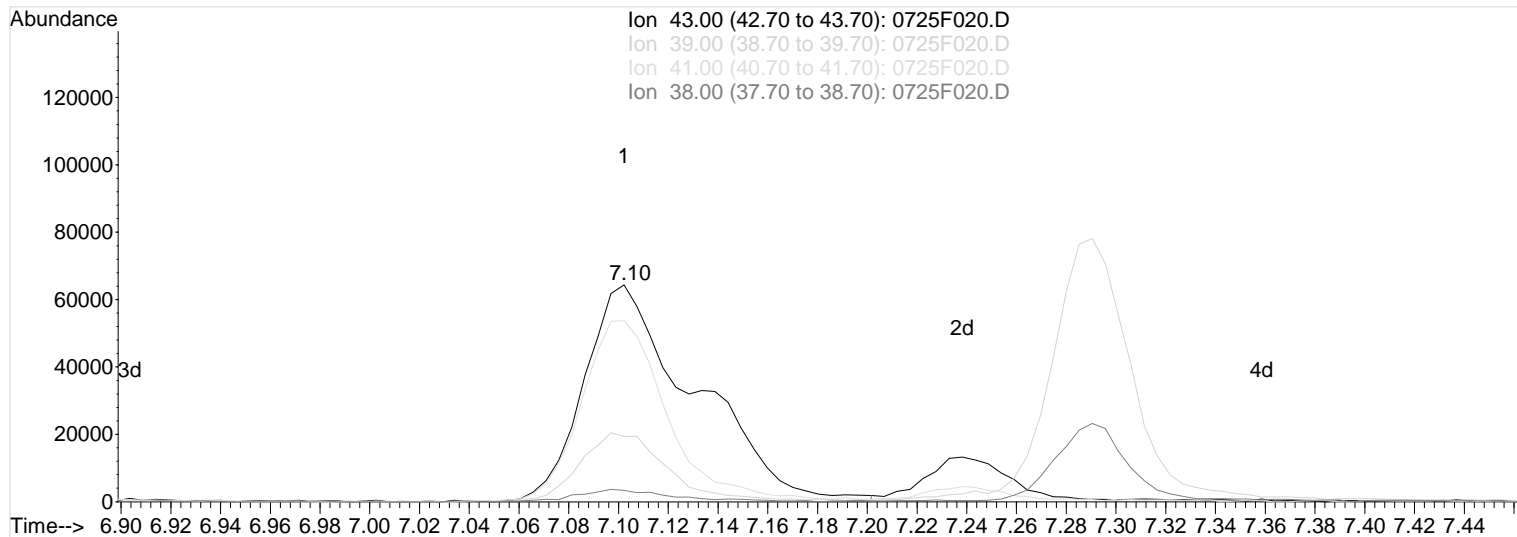
Data File : I:\MS13\DATA\072519\0725F020.D
 Acq On : 25 Jul 2019 3:37 pm
 Sample : CAL 20 PPB
 Misc :

Vial: 20
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:21 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Single Level Calibration



TIC: 0725F020.D

(58) 2-Nitropropane (T)

Manual Integration:

7.10min 98.56PPB

Before

response 199898

Ion	Exp%	Act%
43.00	100	100
39.00	31.60	29.75
41.00	84.20	83.26
38.00	5.90	5.24

07/26/19

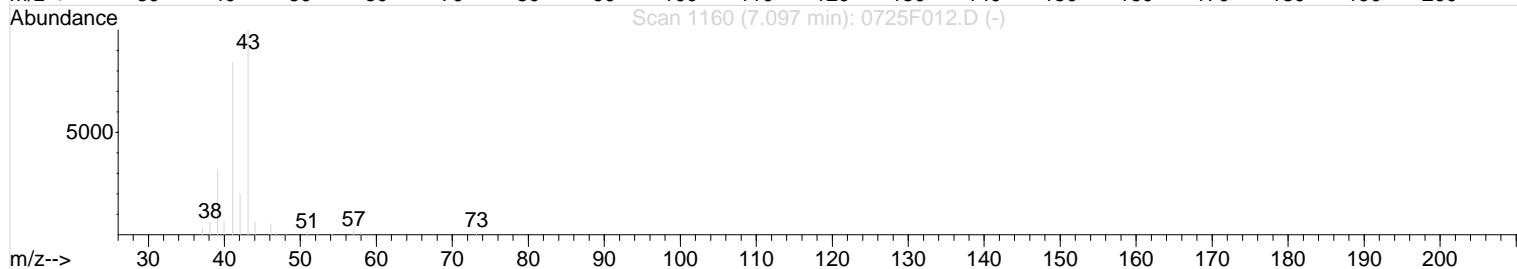
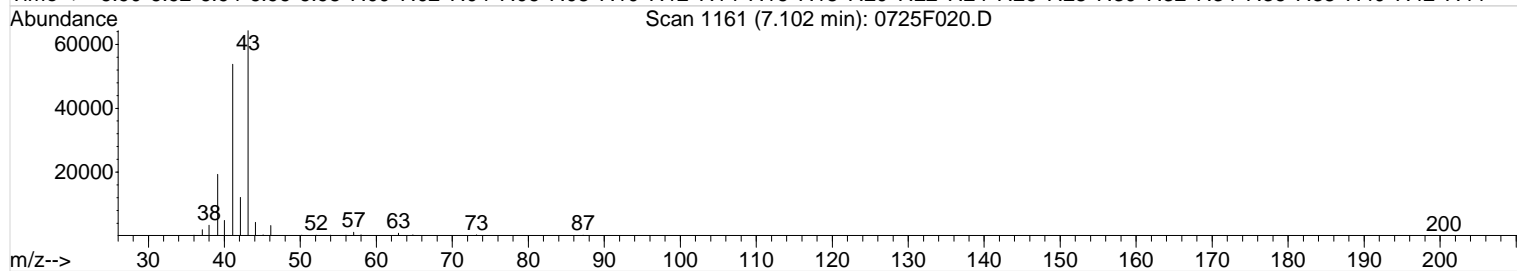
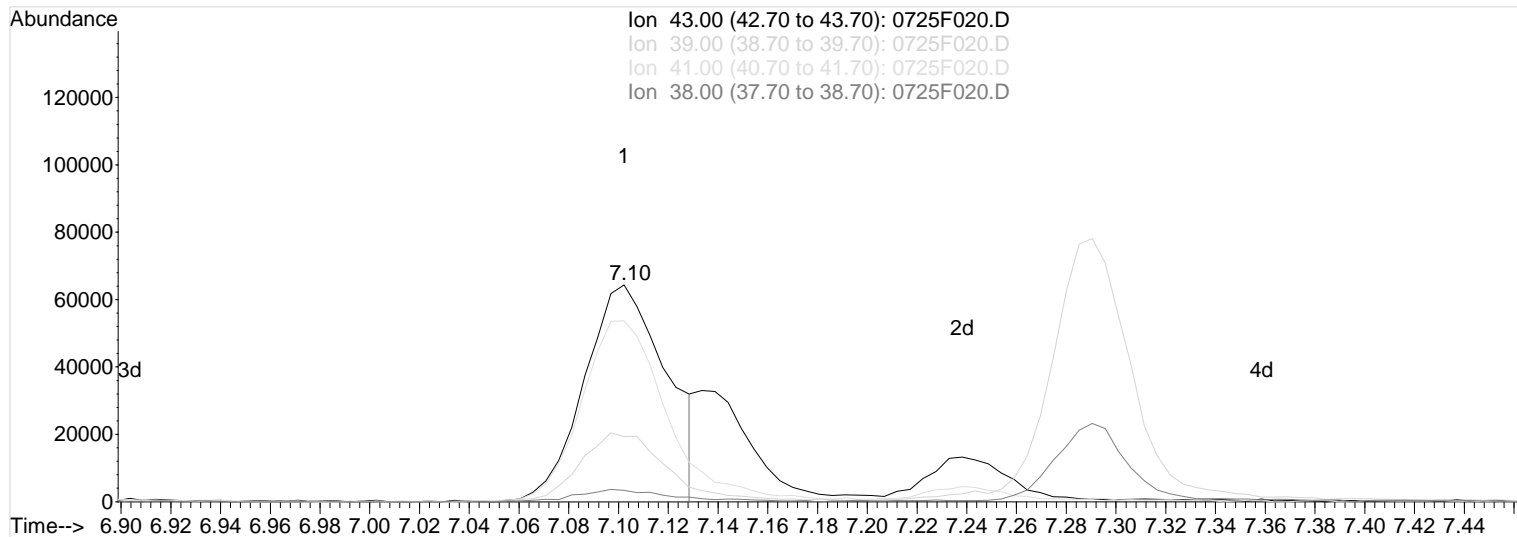
Data File : I:\MS13\DATA\072519\0725F020.D
 Acq On : 25 Jul 2019 3:37 pm
 Sample : CAL 20 PPB
 Misc :

Vial: 20
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:58 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Single Level Calibration



TIC: 0725F020.D

(58) 2-Nitropropane (T)

Manual Integration:

7.10min 72.81PPB m
 response 147678

After
 Shoulder

Ion	Exp%	Act%
43.00	100	100
39.00	31.60	30.08
41.00	84.20	83.57
38.00	5.90	5.24

07/26/19

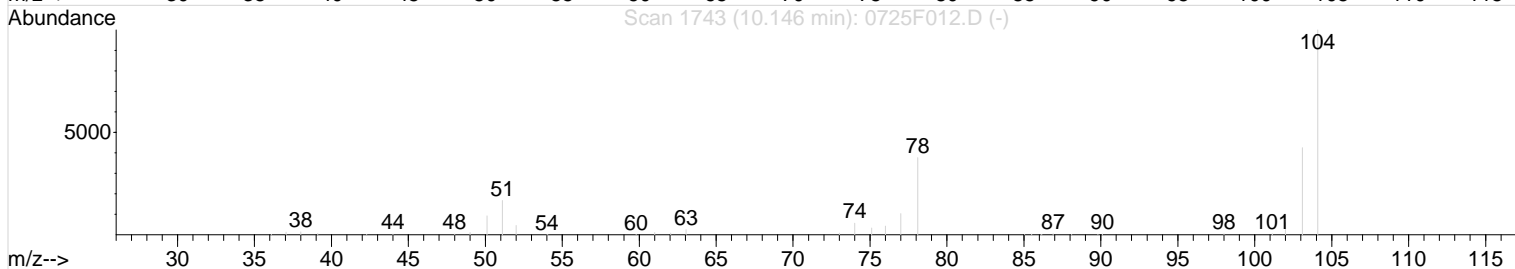
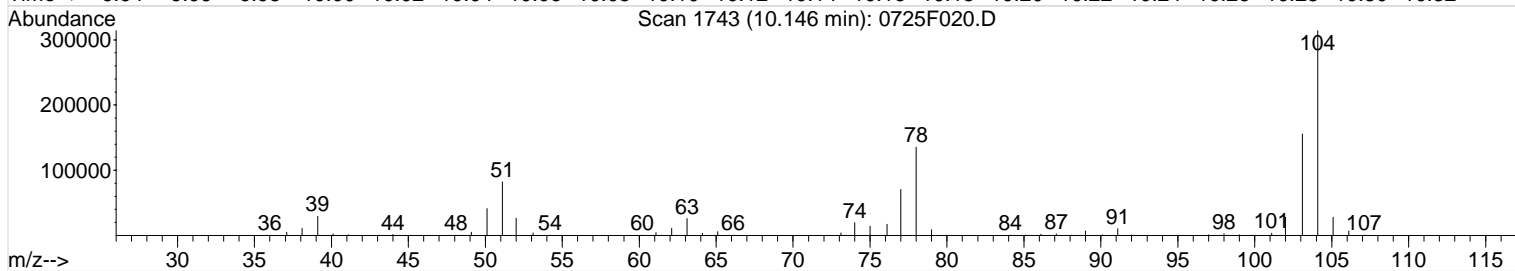
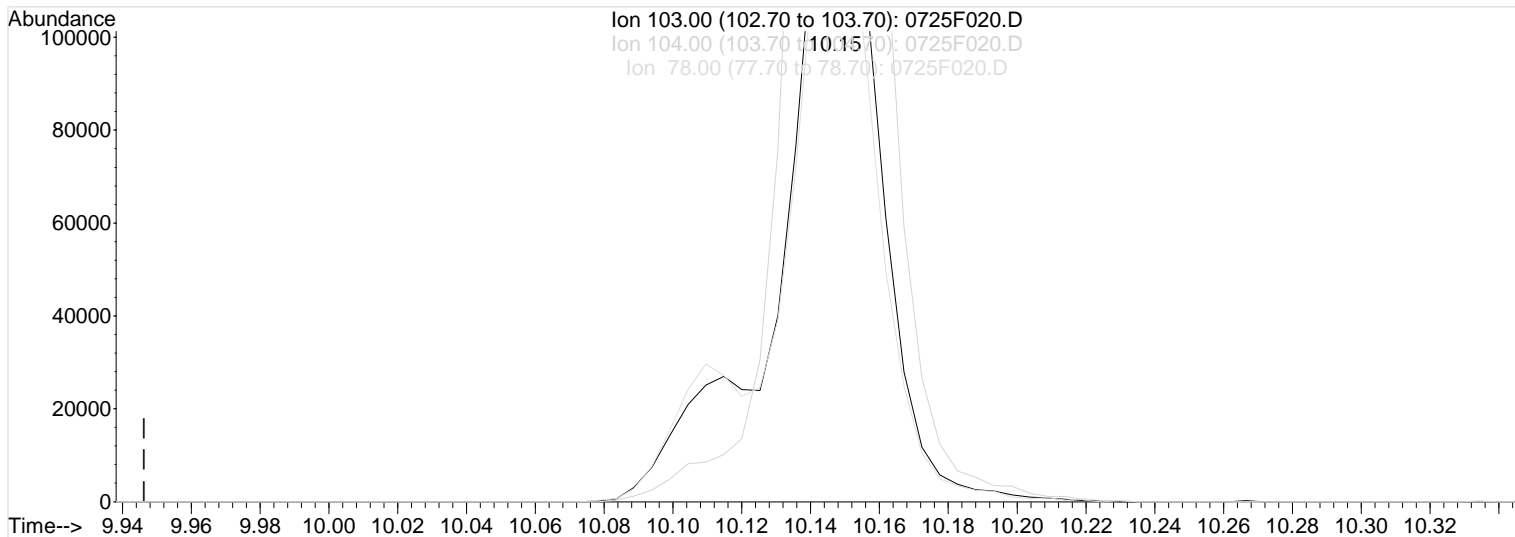
Data File : I:\MS13\DATA\072519\0725F020.D
 Acq On : 25 Jul 2019 3:37 pm
 Sample : CAL 20 PPB
 Misc :

Vial: 20
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:58 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Multiple Level Calibration



TIC: 0725F020.D

(80) Styrene (T)

Manual Integration:

10.15min 22.67PPB
 response 287421

Before

Ion	Exp%	Act%
103.00	100	100
104.00	209.30	201.89
78.00	89.90	87.09
0.00	0.00	0.00

07/26/19

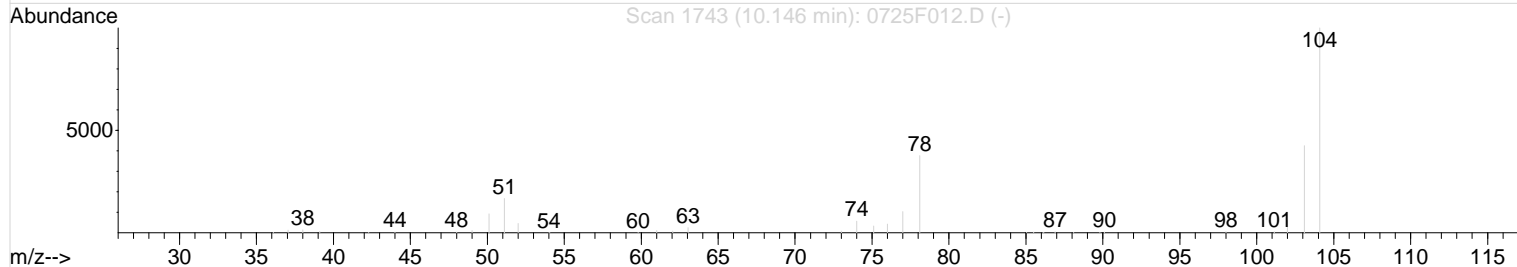
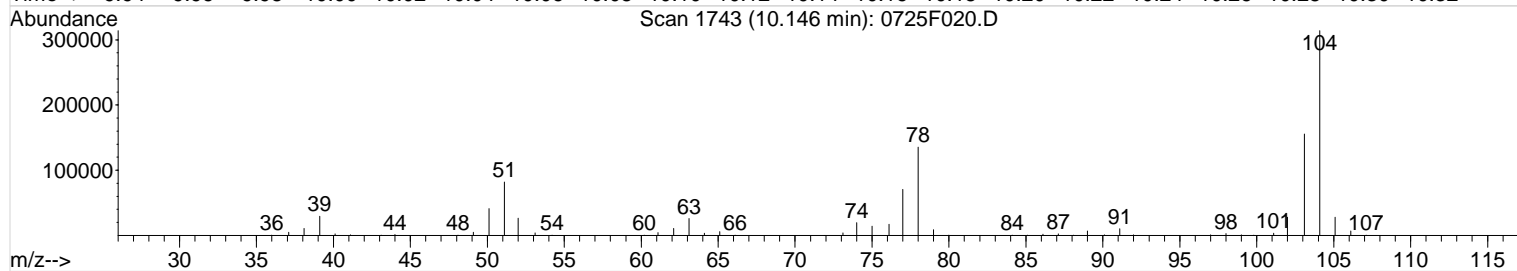
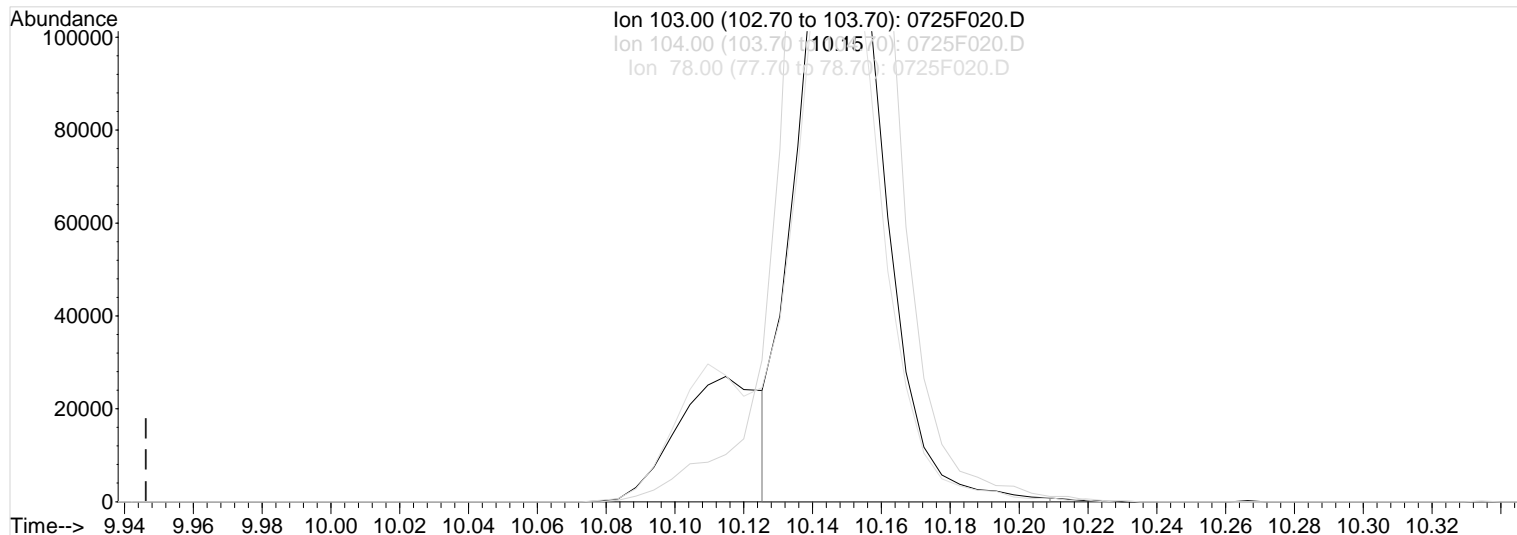
Data File : I:\MS13\DATA\072519\0725F020.D
 Acq On : 25 Jul 2019 3:37 pm
 Sample : CAL 20 PPB
 Misc :

Vial: 20
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 17:59 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 17:20:50 2019
 Response via : Multiple Level Calibration



TIC: 0725F020.D

Ion	Exp%	Act%
103.00	100	100
104.00	209.30	201.89
78.00	89.90	87.09
0.00	0.00	0.00

Manual Integration:
 After
 Shoulder
 07/26/19

Data File : I:\MS13\DATA\072519\0725F020.D

Vial: 20

Acq On : 25 Jul 2019 3:37 pm

Operator: JHJ

Sample : CAL 20 PPB

Inst : MS13

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 26 17:21:51 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B

Last Update : Fri Jul 26 17:20:50 2019

Response via : Initial Calibration

DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	327635	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	119583	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.97	152	95645	10.00	PPB	0.00

System Monitoring Compounds

42) Dibromofluoromethane	4.58	113	90563	12.18	PPB	0.00
Spiked Amount	10.000		Recovery	=	121.80%	
47) 1,2-Dichloroethane-d4	4.99	65	101016	11.70	PPB	0.00
Spiked Amount	10.000		Recovery	=	117.00%	
62) Toluene-d8	7.56	98	383387	11.67	PPB	0.00
Spiked Amount	10.000		Recovery	=	116.70%	
84) 4-Bromofluorobenzene	10.73	95	121737	11.52	PPB	0.00
Spiked Amount	10.000		Recovery	=	115.20%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.10	85	217608	20.30	PPB	100
3) Chloromethane	1.24	50	236147	18.64	PPB	97
4) Vinyl Chloride	1.31	62	243918	19.31	PPB	99
5) Bromomethane	1.56	96	139674	19.20	PPB	98
6) Chloroethane	1.64	64	140789	19.27	PPB	95
7) Dichlorofluoromethane	1.80	67	331185	18.45	PPB	97
8) Trichlorofluoromethane	1.80	101	362494	19.65	PPB	98
9) Ethyl Ether	2.05	59	95041	19.63	PPB	98
10) Acrolein	2.23	56	327840	354.11	PPB	97
11) Trichlorotrifluoroethane	2.22	151	142100	20.35	PPB	98
12) 1,1-Dichloroethene	2.25	96	184330	19.76	PPB	98
13) Acetone	2.37	43	232953	191.77	PPB	99
14) Iodomethane	2.41	142	782209	77.80	PPB	98
15) Carbon Disulfide	2.43	76	480914	18.95	PPB	100
16) 2-Propanol (Isopropyl Alco	2.49	45	168198	855.43	PPB	95
17) 3-Chloro-1-propene	2.60	76	94666	19.45	PPB	90
18) Acetonitrile	2.69	40	199345	703.52	PPB	96
19) Methyl Acetate	2.64	43	65734	19.17	PPB	98
20) Methylene Chloride	2.75	84	175201	19.12	PPB	98
21) tert-Butyl Alcohol	2.87	59	27836	96.29	PPB	100
22) Acrylonitrile	3.06	53	124701	74.81	PPB	93
23) Methyl tert-Butyl Ether	2.94	73	689683	39.59	PPB	99
24) trans-1,2-Dichloroethene	2.95	96	179084	19.88	PPB	96
25) Hexane	3.14	57	290976	20.62	PPB	96
26) Diisopropyl Ether	3.41	45	597803	19.13	PPB	98
27) 1,1-Dichloroethane	3.42	63	350948	19.41	PPB	99
28) Vinyl Acetate	3.47	86	53041	41.03	PPB	# 79
29) Chloroprene	3.47	53	1233077	79.20	PPB	100
30) tert-Butyl Ethyl Ether	3.79	59	471692	19.16	PPB	97
31) 2,2-Dichloropropane	4.00	77	321147	21.55	PPB	96
32) cis-1,2-Dichloroethene	4.04	96	201175	20.04	PPB	97
33) 2-Butanone	4.09	72	82359	193.65	PPB	92
34) Propionitrile	4.24	54	43266	73.08	PPB	93
35) Ethyl Acetate	4.12	61	32030	34.11	PPB	95
36) Methacrylonitrile	4.37	67	158434	76.91	PPB	93
37) Bromochloromethane	4.30	128	84247	19.79	PPB	95
38) Tetrahydrofuran	4.31	71	9677	20.25	PPB	# 87
39) Chloroform	4.39	83	324523	19.60	PPB	96
40) tert-Butyl Formate	4.41	59	120836	19.58	PPB	97
41) 1,1,1-Trichloroethane	4.53	97	303762	19.83	PPB	99
43) Cyclohexane	4.50	56	320894	19.81	PPB	98
44) Carbon Tetrachloride	4.67	117	254187	21.01	PPB	98
45) 1,1-Dichloropropene	4.72	75	278752	19.47	PPB	98

(#) = qualifier out of range (m) = manual integration

0725F020.D 072519MS13_8260W.M

Fri Jul 26 17:59:45 2019

Data File : I:\MS13\DATA\072519\0725F020.D

Vial: 20

Acq On : 25 Jul 2019 3:37 pm

Operator: JHJ

Sample : CAL 20 PPB

Inst : MS13

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 26 17:21:51 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B

Last Update : Fri Jul 26 17:20:50 2019

Response via : Initial Calibration

DataAcq Meth : 8260W5

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) Isobutyl Alcohol	4.98	43	93903	716.10	PPB	88
48) Benzene	4.96	78	783384	19.01	PPB	99
49) 1,2-Dichloroethane	5.09	62	226431	19.20	PPB	98
50) tert-Amyl Methyl Ether	5.08	55	94623	18.38	PPB	95
51) Trichloroethene	5.80	95	195000	19.56	PPB	98
52) Methyl Cyclohexane	5.95	83	315810	20.11	PPB	99
53) 1,2-Dichloropropane	6.22	63	192801	19.08	PPB	97
54) Dibromomethane	6.39	93	84567	18.85	PPB	96
55) Methyl methacrylate	6.43	69	67678	18.65	PPB	92
56) 1,4-Dioxane	6.42	88	19077	652.86	PPB	99
57) Bromodichloromethane	6.64	83	215116	20.25	PPB	93
58) 2-Nitropropane	7.10	43	147678m	72.81	PPB	
59) 2-Chloroethyl Vinyl Ether	7.14	63	76991	18.82	PPB	97
60) cis-1,3-Dichloropropene	7.29	75	269012	19.57	PPB	95
61) 4-Methyl-2-pentanone (MIBK)	7.53	58	317605	189.82	PPB	98
63) Toluene	7.65	92	476428	19.03	PPB	98
65) n-Octane	7.76	85	116622	19.70	PPB	99
66) trans-1,3-Dichloropropene	8.08	75	215343	19.95	PPB	96
67) Ethyl methacrylate	8.16	69	139058	18.97	PPB	99
68) 1,1,2-Trichloroethane	8.29	83	101246	18.85	PPB	95
69) Tetrachloroethene	8.29	164	157407	19.82	PPB	98
70) 2-Hexanone	8.61	57	101097	184.90	PPB	# 77
71) 1,3-Dichloropropane	8.49	76	213777	18.98	PPB	96
72) Dibromochloromethane	8.72	129	131552	20.96	PPB	99
73) 1,2-Dibromoethane (EDB)	8.84	107	112167	20.27	PPB	95
74) 1-Chlorohexane	9.40	91	245272	20.10	PPB	93
75) Chlorobenzene	9.40	112	489321	19.73	PPB	97
76) Ethylbenzene	9.52	106	280547	19.41	PPB	98
77) 1,1,1,2-Tetrachloroethane	9.53	131	154020	19.75	PPB	95
78) m,p-Xylenes	9.66	106	675760	39.16	PPB	100
79) o-Xylene	10.11	106	318467	19.97	PPB	95
80) Styrene	10.15	103	241105m	19.02	PPB	
81) Bromoform	10.36	173	60369	20.66	PPB	96
82) Isopropylbenzene	10.52	105	831040	19.52	PPB	97
83) cis-1,4-Dichloro-2-butene	10.71	89	55494	82.26	PPB	91
86) 1,1,2,2-Tetrachloroethane	10.96	83	105159	18.01	PPB	98
87) trans-1,4-Dichloro-2-buten	11.03	53	33034	17.91	PPB	84
88) Bromobenzene	10.86	156	183311	18.75	PPB	95
89) n-Propylbenzene	10.97	91	961982	18.77	PPB	98
90) 1,2,3-Trichloropropane	10.99	110	32482	17.72	PPB	# 82
91) 2-Chlorotoluene	11.07	91	544744	18.88	PPB	97
92) 1,3,5-Trimethylbenzene	11.18	105	665666	19.01	PPB	98
93) 4-Chlorotoluene	11.20	91	633918	18.36	PPB	99
94) tert-Butylbenzene	11.51	119	572600	18.70	PPB	98
95) 1,2,4-Trimethylbenzene	11.58	105	656744	18.71	PPB	98
96) sec-Butylbenzene	11.75	105	826525	19.10	PPB	99
97) p-Isopropyltoluene	11.91	119	688919	19.04	PPB	98
98) 1,3-Dichlorobenzene	11.88	146	340333	19.03	PPB	99
99) 1,4-Dichlorobenzene	11.99	146	336009	18.93	PPB	100
100) n-Butylbenzene	12.34	91	618777	19.32	PPB	98
101) 1,2-Dichlorobenzene	12.38	146	299912	18.88	PPB	97
102) 1,2-Dibromo-3-chloropropan	13.22	155	12905	19.69	PPB	# 83
103) 1,3,5-Trichlorobenzene	13.37	180	220137	19.72	PPB	98
104) 1,2,4-Trichlorobenzene	14.03	180	179724	19.90	PPB	96
105) Hexachlorobutadiene	14.16	225	87996	19.11	PPB	94
106) Naphthalene	14.29	128	315581	19.46	PPB	99
107) 1,2,3-Trichlorobenzene	14.53	180	144518	18.75	PPB	98

(#) = qualifier out of range (m) = manual integration

0725F020.D 072519MS13_8260W.M

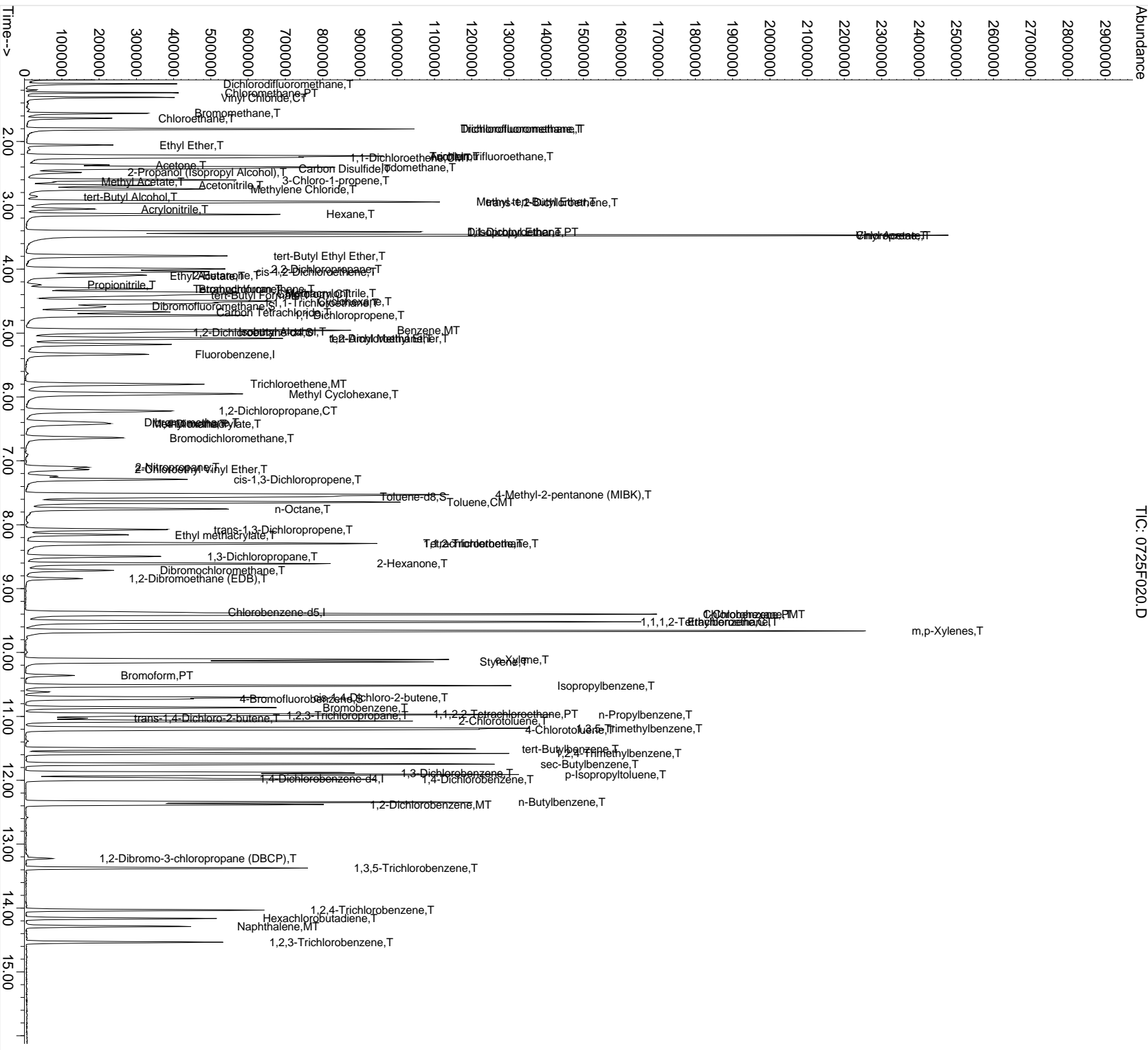
Fri Jul 26 17:59:45 2019

08/01/19
Data File : I:\MS13\DATA\072519\0725F020.D
Acq On : 25 Jul 2019 3:37 pm
Sample : CAL 20 PPB
Misc :
MS Integration Params: rteint.p
Quant Time: Jul 26 17:59 2019

Vial: 20
Operator: JHT
Inst: MS13
Multiplr: 1.00

Quant Results File: 072519MS13_8260W.RES

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 17:20:50 2019
Response via : Initial Calibration



Data File : I:\MS13\DATA\072519\0725F021.D
Acq On : 25 Jul 2019 4:03 pm
Sample : IB
Misc :

Vial: 21
Operator: JHJ
Inst : MS13
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Jul 26 14:13:00 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Jul 25 17:58:23 2019
Response via : Initial Calibration
DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	316664	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	112750	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.97	152	80960	10.00	PPB	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) Dibromofluoromethane	4.58	113	63310	8.82	PPB	0.00
Spiked Amount 10.000			Recovery =	88.20%		
47) 1,2-Dichloroethane-d4	4.99	65	67925	8.31	PPB	0.00
Spiked Amount 10.000			Recovery =	83.10%		
62) Toluene-d8	7.56	98	311051	10.13	PPB	0.00
Spiked Amount 10.000			Recovery =	101.30%		
84) 4-Bromofluorobenzene	10.73	95	84963	9.03	PPB	0.00
Spiked Amount 10.000			Recovery =	90.30%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Chloromethane	1.24	50	1320	0.11	PPB	55
4) Vinyl Chloride	1.31	62	955	0.08	PPB	67
5) Bromomethane	1.56	96	2287	0.32	PPB	96
8) Trichlorofluoromethane	1.81	101	916	0.05	PPB	90
9) Ethyl Ether	2.05	59	763	0.17	PPB #	63
10) Acrolein	2.24	56	3907	4.25	PPB	83
11) Trichlorotrifluoroethane	2.23	151	1010	0.15	PPB #	67
12) 1,1-Dichloroethene	2.25	96	1253	0.14	PPB #	65
13) Acetone	2.37	43	11795	10.06	PPB	96
14) Iodomethane	2.40	142	9926	1.04	PPB	87
15) Carbon Disulfide	2.43	76	7178	0.30	PPB	98
16) 2-Propanol (Isopropyl Alco	2.48	45	39080	202.17	PPB	97
17) 3-Chloro-1-propene	2.43	76	7178	0.29	PPB	99
18) Acetonitrile	2.70	40	8439	32.08	PPB #	80
19) Methyl Acetate	2.63	43	1591	0.47	PPB	63
20) Methylene Chloride	2.75	84	2230	0.24	PPB	92
21) tert-Butyl Alcohol	2.87	59	4483	16.30	PPB	98
22) Acrylonitrile	3.06	53	1505	0.94	PPB	76
23) Methyl tert-Butyl Ether	2.95	73	6122	0.36	PPB	85
24) trans-1,2-Dichloroethene	2.95	96	1652	0.19	PPB	94
25) Hexane	3.14	57	2218	0.16	PPB	87
26) Diisopropyl Ether	3.42	45	3942	0.13	PPB	62
27) 1,1-Dichloroethane	3.43	63	1434	0.08	PPB	80
29) Chloroprene	3.47	53	6611	0.45	PPB	95
30) tert-Butyl Ethyl Ether	3.79	59	3187	0.14	PPB	92
31) 2,2-Dichloropropane	4.00	77	1345	0.09	PPB	49
32) cis-1,2-Dichloroethene	4.02	96	637	0.07	PPB #	7
33) 2-Butanone	4.09	72	2197	5.29	PPB #	39
34) Propionitrile	4.24	54	676	1.20	PPB	78
35) Ethyl Acetate	4.12	61	2633	Below	Cal	93
36) Methacrylonitrile	4.36	67	1354	0.71	PPB #	49
39) Chloroform	4.40	83	2104	0.13	PPB	78
40) tert-Butyl Formate	4.41	59	575	0.10	PPB #	28
41) 1,1,1-Trichloroethane	4.53	97	1455	0.10	PPB	96
43) Cyclohexane	4.50	56	2442	0.16	PPB	84
44) Carbon Tetrachloride	4.67	117	1097	0.10	PPB	89
45) 1,1-Dichloropropene	4.72	75	1475	0.11	PPB	99
46) Isobutyl Alcohol	4.98	43	13966	103.79	PPB	79
48) Benzene	4.96	78	4118	0.11	PPB #	56
49) 1,2-Dichloroethane	5.09	62	1550	0.14	PPB	92
50) tert-Amyl Methyl Ether	5.09	55	797	0.16	PPB #	22
51) Trichloroethene	5.80	95	906	0.10	PPB #	79
52) Methyl Cyclohexane	5.96	83	2103	0.14	PPB	77

(#) = qualifier out of range (m) = manual integration

Data File : I:\MS13\DATA\072519\0725F021.D
Acq On : 25 Jul 2019 4:03 pm
Sample : IB
Misc :

Vial: 21
Operator: JHJ
Inst : MS13
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Jul 26 14:13:00 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Jul 25 17:58:23 2019
Response via : Initial Calibration
DataAcq Meth : 8260W5

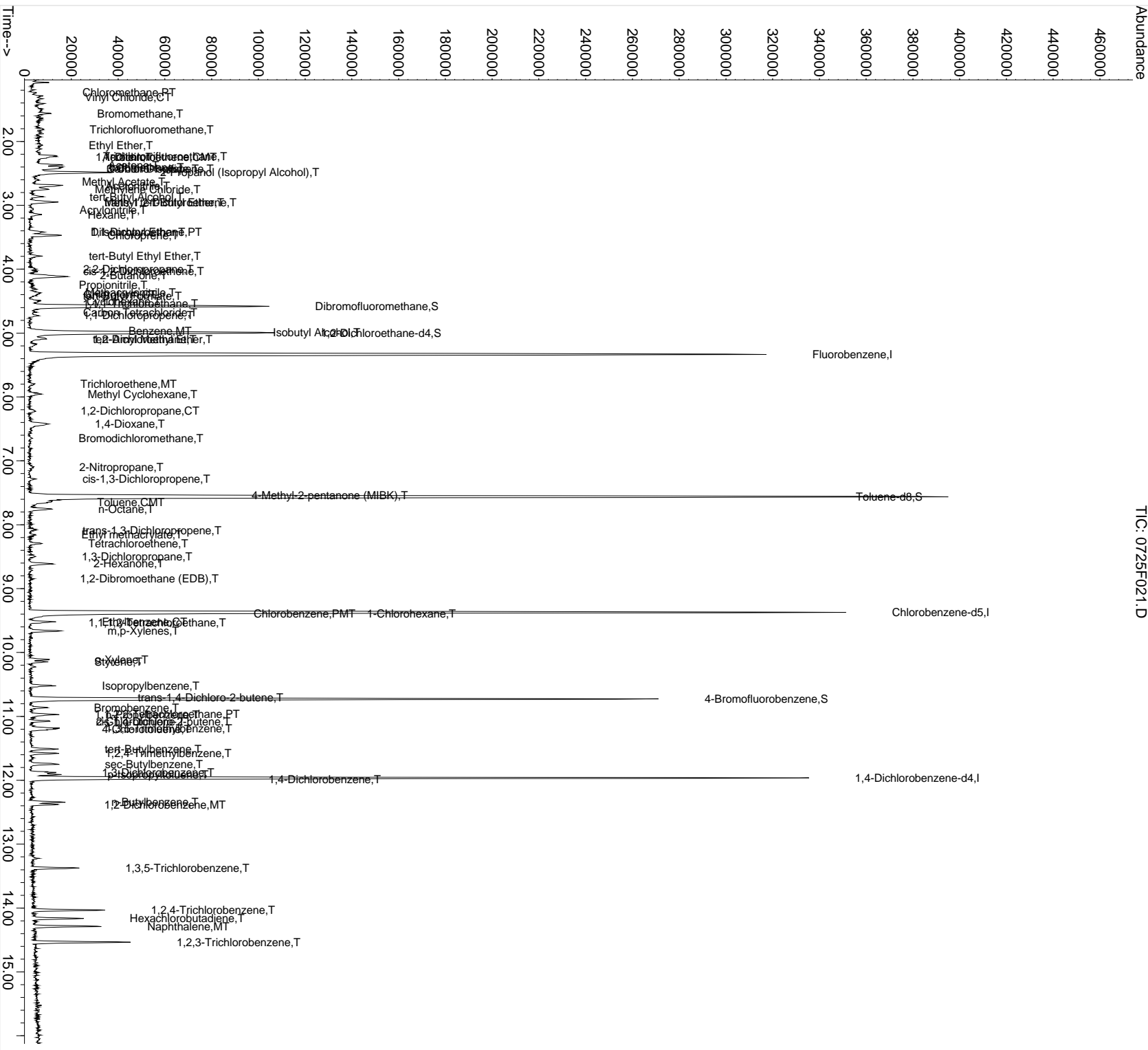
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53) 1,2-Dichloropropane	6.21	63	661	0.07	PPB	88
56) 1,4-Dioxane	6.42	88	6861	249.64	PPB	86
57) Bromodichloromethane	6.64	83	904	0.09	PPB	76
58) 2-Nitropropane	7.11	43	1780	1.30	PPB #	58
60) cis-1,3-Dichloropropene	7.29	75	1308	0.10	PPB #	42
61) 4-Methyl-2-pentanone (MIBK)	7.53	58	1773	1.11	PPB #	3
63) Toluene	7.65	92	2354	0.10	PPB #	76
65) n-Octane	7.76	85	2045	0.38	PPB	77
66) trans-1,3-Dichloropropene	8.09	75	1457	0.15	PPB	73
67) Ethyl methacrylate	8.15	69	1228	0.18	PPB #	51
69) Tetrachloroethene	8.30	164	942	0.13	PPB #	66
70) 2-Hexanone	8.60	57	1505	3.00	PPB #	1
71) 1,3-Dichloropropane	8.49	76	1084	0.10	PPB #	49
73) 1,2-Dibromoethane (EDB)	8.84	107	513	0.10	PPB	70
74) 1-Chlorohexane	9.39	91	2294	0.20	PPB	79
75) Chlorobenzene	9.40	112	2986	0.13	PPB	79
76) Ethylbenzene	9.51	106	1633	0.12	PPB #	78
77) 1,1,1,2-Tetrachloroethane	9.54	131	1019	0.14	PPB #	65
78) m,p-Xylenes	9.66	106	3884	0.24	PPB	93
79) o-Xylene	10.12	106	2066	0.14	PPB #	48
80) Styrene	10.15	103	1530	0.13	PPB #	61
82) Isopropylbenzene	10.52	105	6368	0.17	PPB	94
83) cis-1,4-Dichloro-2-butene	11.08	89	805	2.35	PPB #	1
86) 1,1,2,2-Tetrachloroethane	10.96	83	1328	0.28	PPB	87
87) trans-1,4-Dichloro-2-buten	10.70	53	892	0.60	PPB #	52
88) Bromobenzene	10.86	156	1865	0.24	PPB	89
89) n-Propylbenzene	10.97	91	7914	0.19	PPB	98
91) 2-Chlorotoluene	11.08	91	4702	0.19	PPB	89
92) 1,3,5-Trimethylbenzene	11.18	105	5441	0.19	PPB	86
93) 4-Chlorotoluene	11.20	91	5270	0.19	PPB	84
94) tert-Butylbenzene	11.51	119	5349	0.22	PPB	94
95) 1,2,4-Trimethylbenzene	11.58	105	6103	0.22	PPB	98
96) sec-Butylbenzene	11.75	105	7716	0.22	PPB	97
97) p-Isopropyltoluene	11.91	119	6115	0.22	PPB	96
98) 1,3-Dichlorobenzene	11.88	146	4233	0.28	PPB	72
99) 1,4-Dichlorobenzene	11.99	146	4001	0.26	PPB	87
100) n-Butylbenzene	12.34	91	7300	0.28	PPB	93
101) 1,2-Dichlorobenzene	12.38	146	4560	0.35	PPB	95
103) 1,3,5-Trichlorobenzene	13.38	180	5936	0.64	PPB	88
104) 1,2,4-Trichlorobenzene	14.03	180	8495	1.09	PPB	88
105) Hexachlorobutadiene	14.17	225	3660	0.96	PPB	81
106) Naphthalene	14.29	128	19679	1.47	PPB	97
107) 1,2,3-Trichlorobenzene	14.53	180	10570	1.68	PPB	93

08/01/19
Data File : I:\MS13\DATA\072519MS13_8260W.D
Acq On : 25 Jul 2019 4:03 pm
Sample : IB
Misc :
MS Integration Params: rteint.p
Quant Time: Jul 26 14:13 2019

Vial: 21
Operator: JHT
Inst: MS13
Multiplr: 1.00

Quant Results File: 072519MS13_8260W.RES

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Jul 25 17:58:23 2019
Response via : Initial Calibration



Data File : I:\MS13\DATA\072519\0725F022.D
 Acq On : 25 Jul 2019 4:30 pm
 Sample : IB
 Misc :

Vial: 22
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 14:13:10 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Thu Jul 25 17:58:23 2019
 Response via : Initial Calibration
 DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	301358	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	107818	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.97	152	76902	10.00	PPB	0.00
System Monitoring Compounds						
42) Dibromofluoromethane	4.58	113	58975	8.63	PPB	0.00
Spiked Amount	10.000		Recovery	=	86.30%	
47) 1,2-Dichloroethane-d4	4.99	65	65457	8.41	PPB	0.00
Spiked Amount	10.000		Recovery	=	84.10%	
62) Toluene-d8	7.56	98	288610	9.87	PPB	0.00
Spiked Amount	10.000		Recovery	=	98.70%	
84) 4-Bromofluorobenzene	10.73	95	79716	8.86	PPB	0.00
Spiked Amount	10.000		Recovery	=	88.60%	
Target Compounds						
5) Bromomethane	1.56	96	888	0.13	PPB	Qvalue # 69
13) Acetone	2.37	43	2224	1.99	PPB	51
14) Iodomethane	2.41	142	3098	0.34	PPB	79
15) Carbon Disulfide	2.43	76	3970	0.17	PPB	90
16) 2-Propanol (Isopropyl Alco	2.49	45	2077	11.29	PPB	# 1
17) 3-Chloro-1-propene	2.43	76	3970	0.17	PPB	89
20) Methylene Chloride	2.74	84	1675	0.19	PPB	88
35) Ethyl Acetate	4.13	61	2563	Below Cal		97
103) 1,3,5-Trichlorobenzene	13.38	180	943	0.11	PPB	# 62
104) 1,2,4-Trichlorobenzene	14.03	180	1166	0.16	PPB	90
105) Hexachlorobutadiene	14.16	225	541	0.15	PPB	91
106) Naphthalene	14.28	128	2433	0.19	PPB	74
107) 1,2,3-Trichlorobenzene	14.54	180	1459	0.24	PPB	89

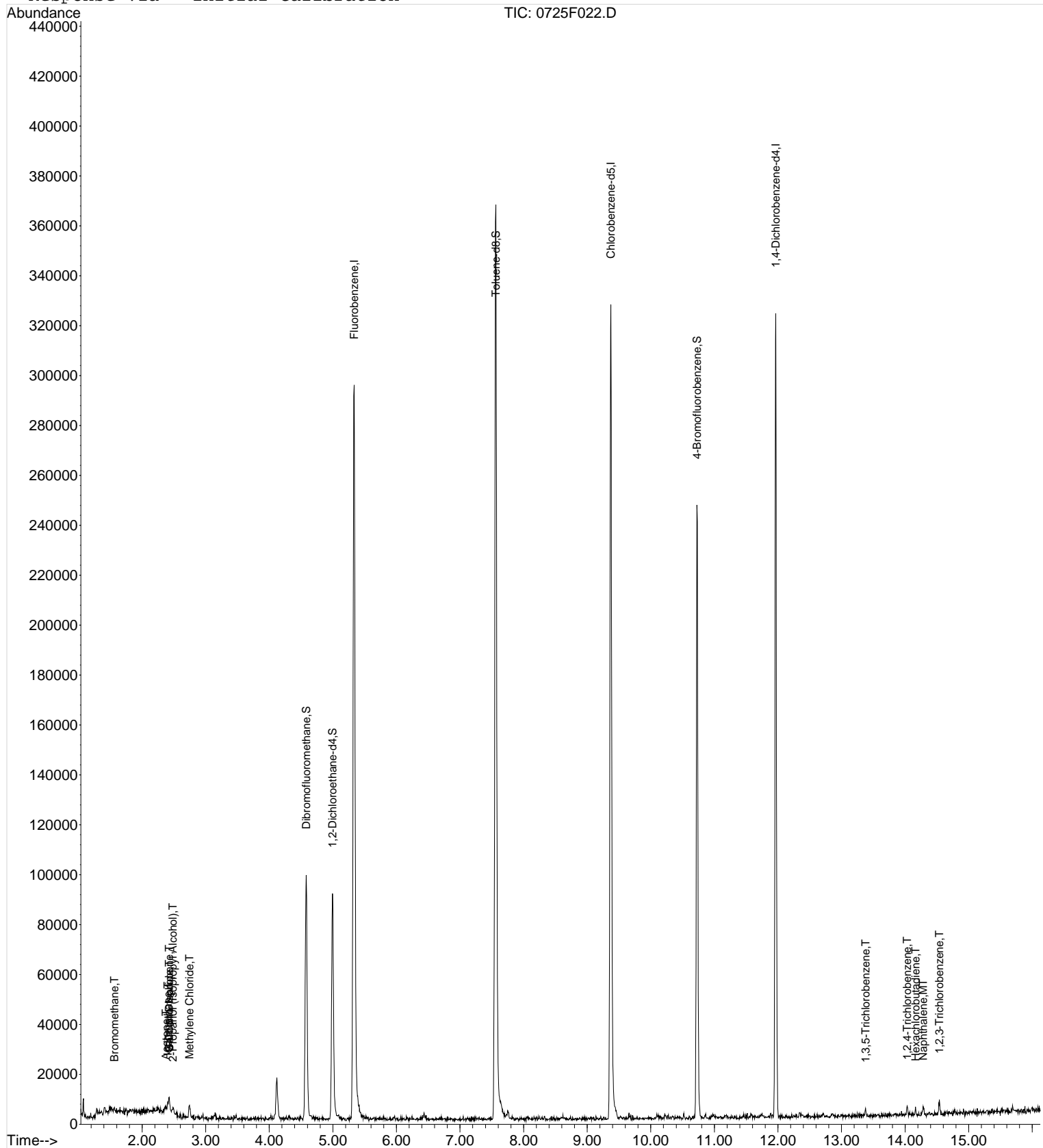
Data File : I:\MS13\DATA\072519\0725F022.D
Acq On : 25 Jul 2019 4:30 pm
Sample : IB
Misc :

Vial: 22
Operator: JHJ
Inst : MS13
Multiplr: 1.00

MS Integration Params: rteint.p
Quant Time: Jul 26 14:17 2019

Quant Results File: 072519MS13_8260W.RES

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Jul 25 17:58:23 2019
Response via : Initial Calibration



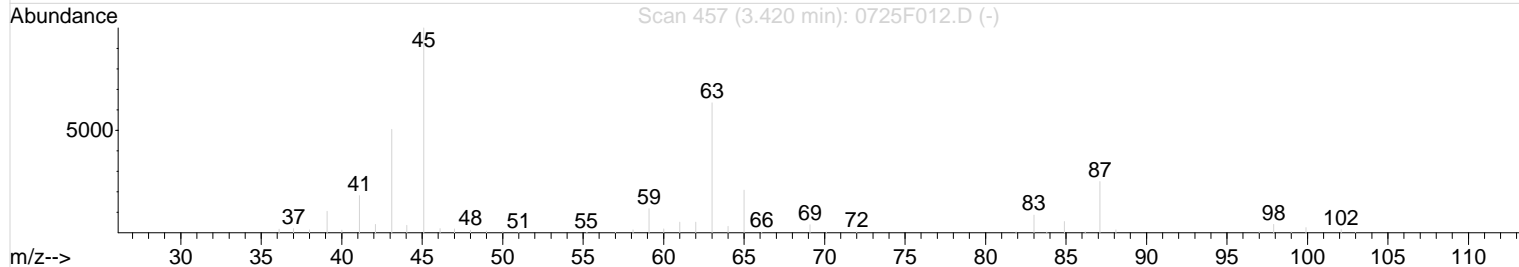
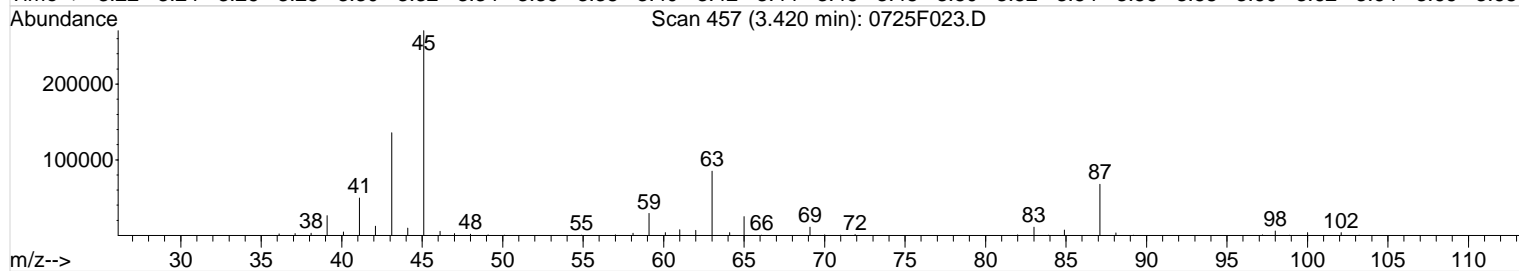
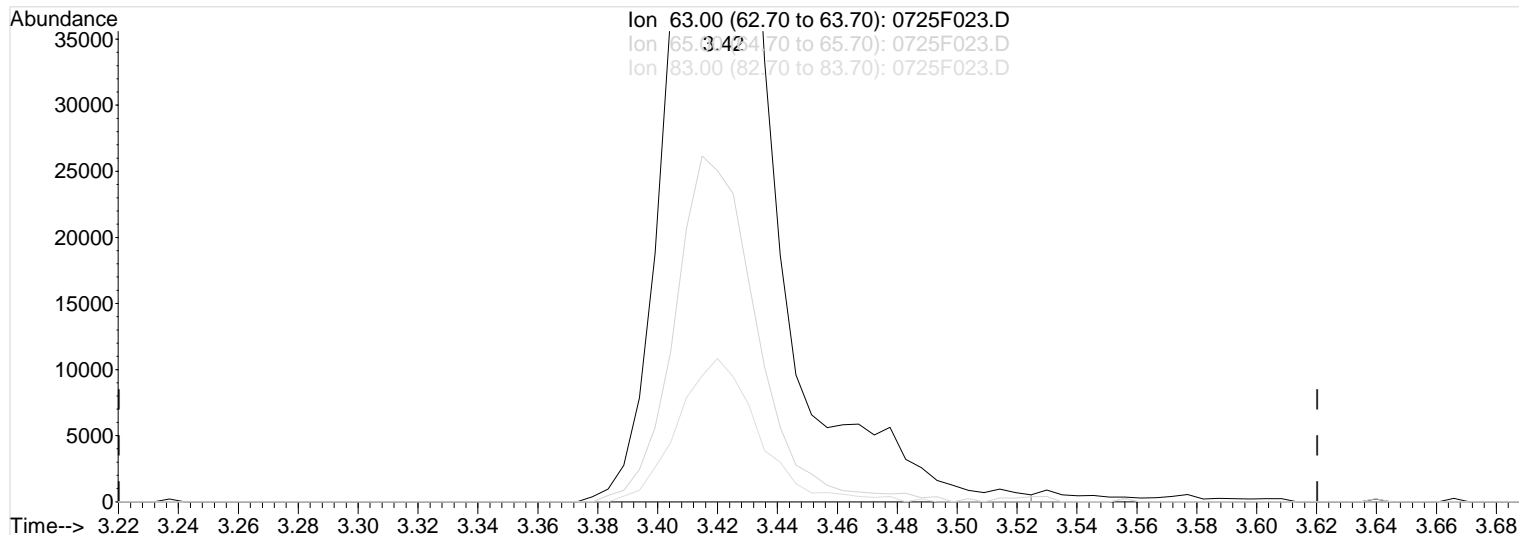
Data File : I:\MS13\DATA\072519\0725F023.D
 Acq On : 25 Jul 2019 4:56 pm
 Sample : ICV **IPRI**
 Misc :

Vial: 23
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 18:11 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 18:09:35 2019
 Response via : Multiple Level Calibration



TIC: 0725F023.D

(27) 1,1-Dichloroethane (PT)

Manual Integration:

3.42min 10.09PPB

Before

response 167606

07/26/19

Ion	Exp%	Act%
63.00	100	100
65.00	32.70	29.44
83.00	13.60	12.73
0.00	0.00	0.00

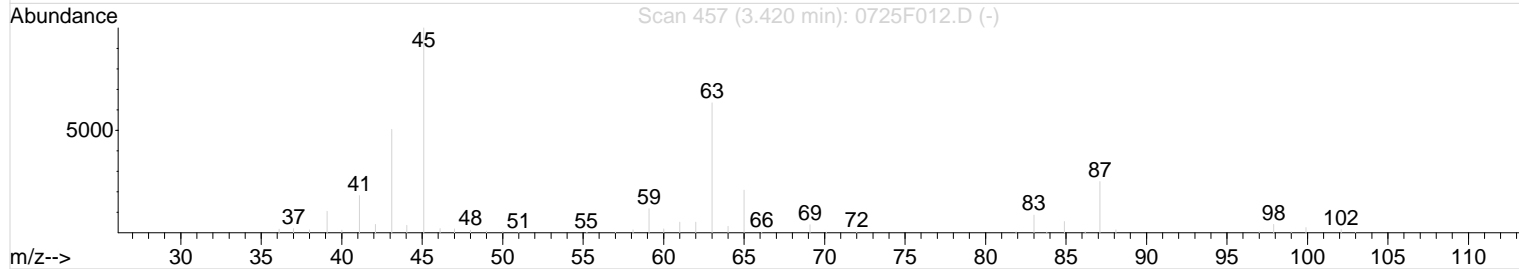
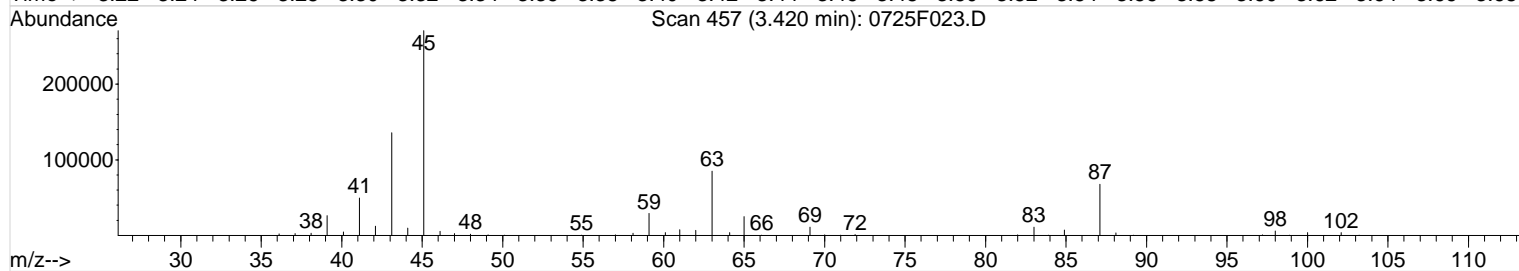
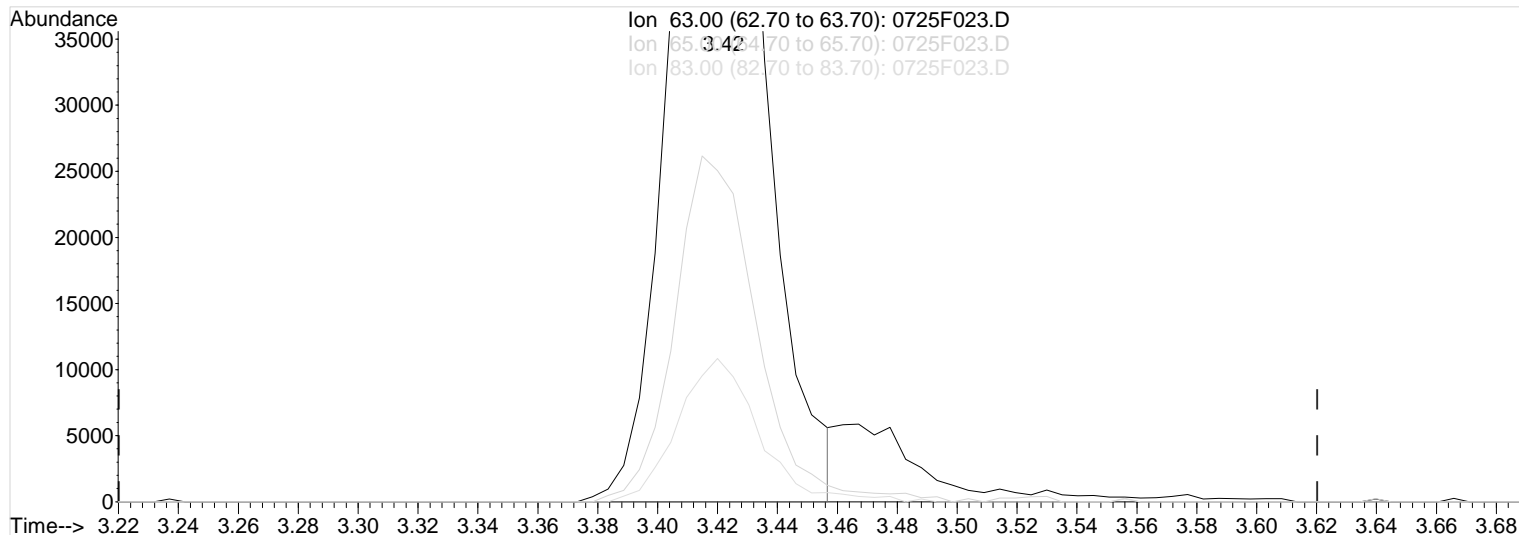
Data File : I:\MS13\DATA\072519\0725F023.D
 Acq On : 25 Jul 2019 4:56 pm
 Sample : ICV IPR1
 Misc :

Vial: 23
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 18:12 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 18:09:35 2019
 Response via : Multiple Level Calibration



TIC: 0725F023.D

(27) 1,1-Dichloroethane (PT)

Manual Integration:

3.42min 9.43PPB m
 response 156695

After
 Shoulder

Ion	Exp%	Act%
63.00	100	100
65.00	32.70	29.44
83.00	13.60	12.73
0.00	0.00	0.00

07/26/19

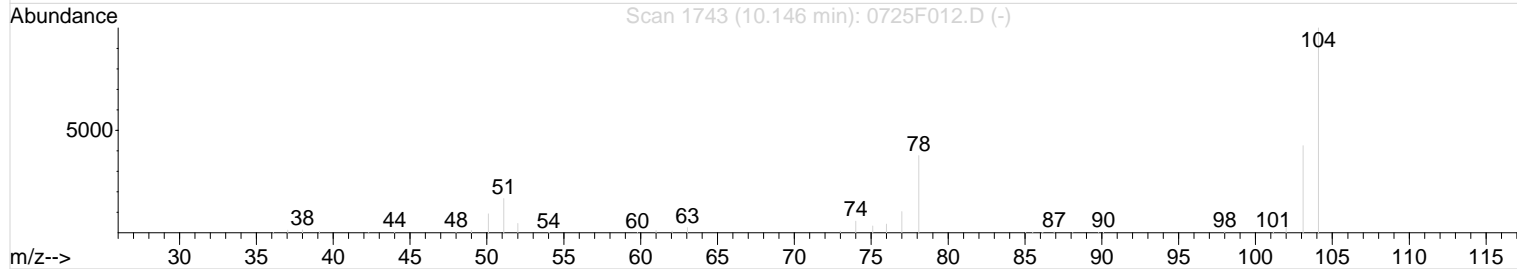
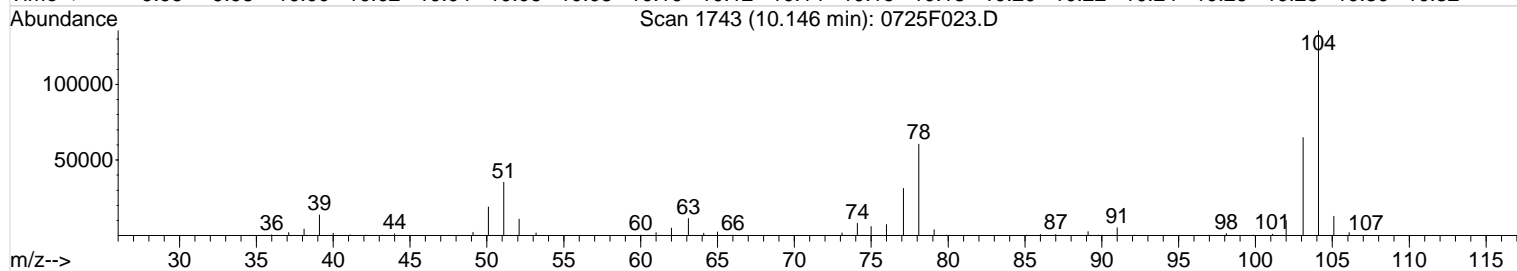
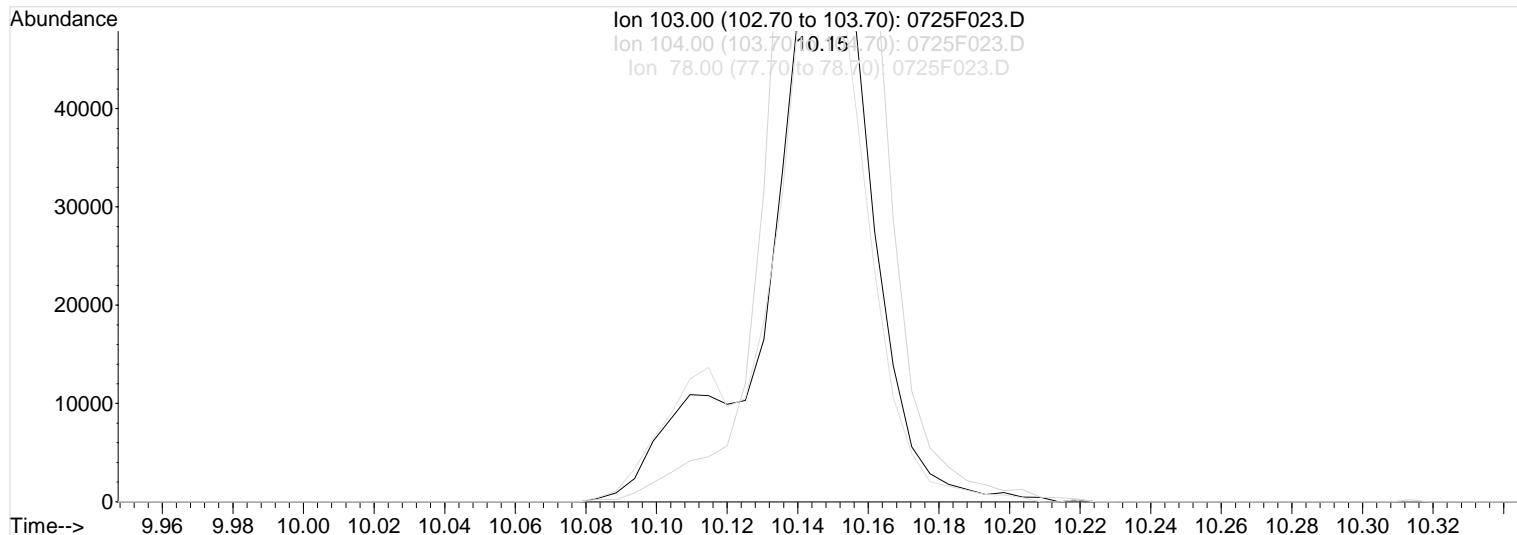
Data File : I:\MS13\DATA\072519\0725F023.D
 Acq On : 25 Jul 2019 4:56 pm
 Sample : ICV IPR1
 Misc :

Vial: 23
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 18:12 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 18:09:35 2019
 Response via : Multiple Level Calibration



TIC: 0725F023.D

(80) Styrene (T)

Manual Integration:

10.15min 10.91PPB
 response 123627

Before

Ion	Exp%	Act%
103.00	100	100
104.00	209.30	208.97
78.00	89.90	92.97
0.00	0.00	0.00

07/26/19

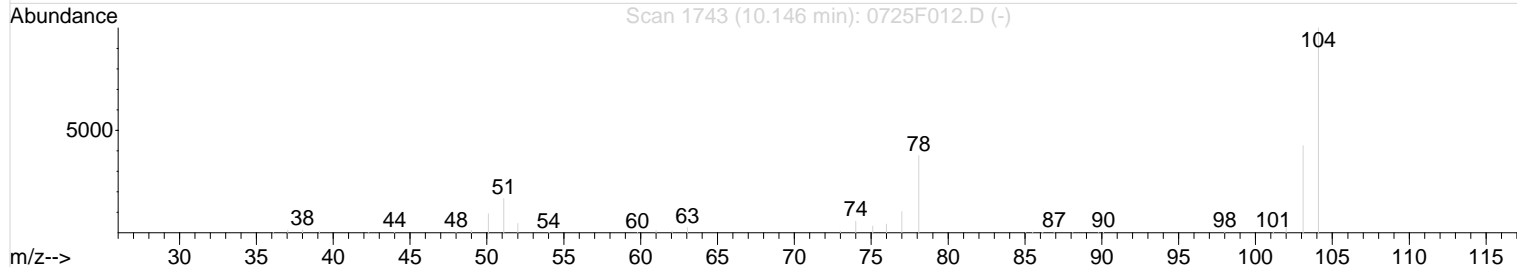
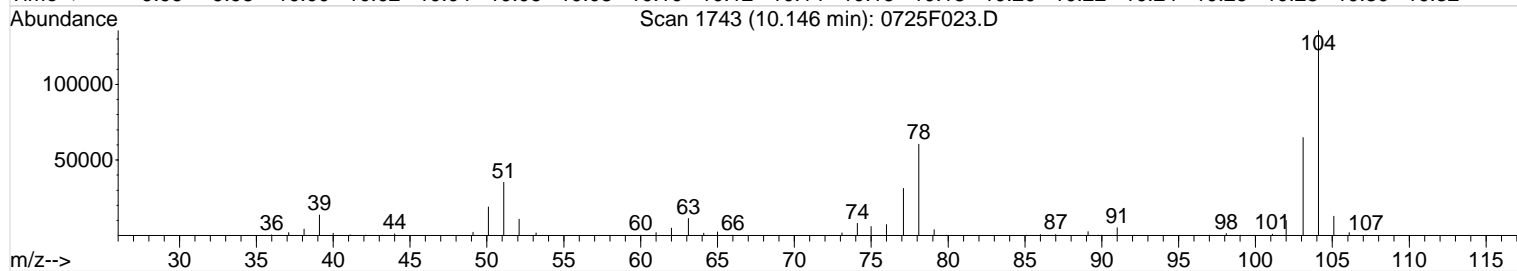
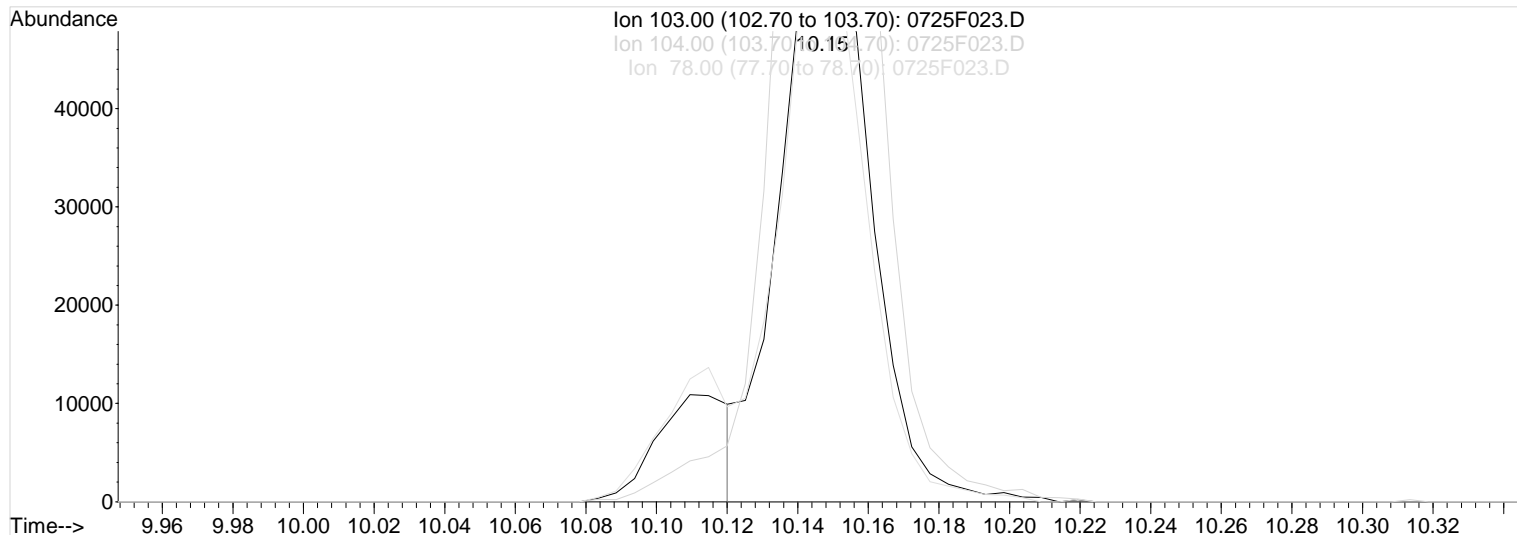
Data File : I:\MS13\DATA\072519\0725F023.D
 Acq On : 25 Jul 2019 4:56 pm
 Sample : ICV IPR1
 Misc :

Vial: 23
 Operator: JHJ
 Inst : MS13
 Multiplr: 1.00

MS Integration Params: rteint.p
 Quant Time: Jul 26 18:12 2019

Quant Results File: temp.res

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
 Title : VOA MS13 EPA Method 8260B
 Last Update : Fri Jul 26 18:09:35 2019
 Response via : Multiple Level Calibration



TIC: 0725F023.D

Ion	Exp%	Act%
103.00	100	100
104.00	209.30	208.97
78.00	89.90	92.97
0.00	0.00	0.00

Manual Integration:
 After
 Shoulder
 07/26/19

Data File : I:\MS13\DATA\072519\0725F023.D

Acq On : 25 Jul 2019 4:56 pm

Sample : ICV IPR1

Misc :

Vial: 23

Operator: JHJ

Inst : MS13

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 26 18:11:30 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B

Last Update : Fri Jul 26 18:09:35 2019

Response via : Initial Calibration

DataAcq Meth : 8260W5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.33	96	309951	10.00	PPB	0.00
64) Chlorobenzene-d5	9.37	82	110214	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.97	152	87255	10.00	PPB	0.00

System Monitoring Compounds

42) Dibromofluoromethane	4.58	113	67420	9.59	PPB	0.00
Spiked Amount	10.000		Recovery	=	95.90%	
47) 1,2-Dichloroethane-d4	4.99	65	69165	8.64	PPB	0.00
Spiked Amount	10.000		Recovery	=	86.40%	
62) Toluene-d8	7.56	98	301354	10.02	PPB	0.00
Spiked Amount	10.000		Recovery	=	100.20%	
84) 4-Bromofluorobenzene	10.73	95	86671	9.42	PPB	0.00
Spiked Amount	10.000		Recovery	=	94.20%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.10	85	89981	8.81	PPB	98
3) Chloromethane	1.24	50	107582	8.82	PPB	99
4) Vinyl Chloride	1.31	62	109068	9.52	PPB	99
5) Bromomethane	1.56	96	64572	9.36	PPB	97
6) Chloroethane	1.64	64	67485	10.11	PPB	95
7) Dichlorofluoromethane	1.80	67	165664	10.06	PPB	96
8) Trichlorofluoromethane	1.80	101	140344	8.35	PPB	97
9) Ethyl Ether	2.05	59	52237	11.75	PPB	96
10) Acrolein	2.23	56	85930	95.40	PPB	96
11) Trichlorotrifluoroethane	2.22	151	65094	10.09	PPB	96
12) 1,1-Dichloroethene	2.25	96	78198	9.09	PPB	95
13) Acetone	2.37	43	62812	54.73	PPB	95
14) Iodomethane	2.41	142	312499	33.61	PPB	98
15) Carbon Disulfide	2.43	76	447479	18.86	PPB	99
16) 2-Propanol (Isopropyl Alco	2.49	45	81218	429.26	PPB	97
17) 3-Chloro-1-propene	2.60	76	143754	31.76	PPB	96
18) Acetonitrile	2.69	40	73797	286.58	PPB	95
19) Methyl Acetate	2.64	43	27635	8.37	PPB	96
20) Methylene Chloride	2.75	84	78860	8.84	PPB	94
21) tert-Butyl Alcohol	2.87	59	21983	81.68	PPB	97
22) Acrylonitrile	3.06	53	60689	38.87	PPB	99
23) Methyl tert-Butyl Ether	2.94	73	151098	9.05	PPB	97
24) trans-1,2-Dichloroethene	2.95	96	76526	9.13	PPB	94
25) Hexane	3.14	57	408670	30.72	PPB	97
26) Diisopropyl Ether	3.41	45	563679	19.44	PPB	98
27) 1,1-Dichloroethane	3.42	63	156695m	9.43	PPB	
28) Vinyl Acetate	3.47	86	56052	45.63	PPB	100
29) Chloroprene	3.47	53	467190	32.83	PPB	100
30) tert-Butyl Ethyl Ether	3.79	59	431587	19.15	PPB	99
31) 2,2-Dichloropropane	4.00	77	132701	9.33	PPB	96
32) cis-1,2-Dichloroethene	4.04	96	86968	9.28	PPB	93
33) 2-Butanone	4.09	72	21682	53.31	PPB	91
34) Propionitrile	4.25	54	15879	28.78	PPB	97
35) Ethyl Acetate	4.12	61	21654	25.28	PPB	95
36) Methacrylonitrile	4.36	67	57140	30.60	PPB	96
37) Bromochloromethane	4.31	128	36141	9.16	PPB	99
38) Tetrahydrofuran	4.31	71	8063	17.64	PPB	94
39) Chloroform	4.39	83	142459	9.17	PPB	98
40) tert-Butyl Formate	4.42	59	118786	20.71	PPB	97
41) 1,1,1-Trichloroethane	4.53	97	127082	9.20	PPB	95
43) Cyclohexane	4.50	56	147245	9.64	PPB	99
44) Carbon Tetrachloride	4.67	117	106946	9.46	PPB	98
45) 1,1-Dichloropropene	4.72	75	122365	9.37	PPB	99

(#)= qualifier out of range (m) = manual integration

0725F023.D 072519MS13_8260W.M

Fri Jul 26 18:13:16 2019

Data File : I:\MS13\DATA\072519\0725F023.D

Vial: 23

Acq On : 25 Jul 2019 4:56 pm

Operator: JHJ

Sample : ICV

Inst : MS13

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 26 18:11:30 2019

Quant Results File: 072519MS13_8260W.RES

Quant Method : J:\MS13\M...\072519MS13_8260W.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B

Last Update : Fri Jul 26 18:09:35 2019

Response via : Initial Calibration

DataAcq Meth : 8260W5

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) Isobutyl Alcohol	4.98	43	32891	249.73	PPB	91
48) Benzene	4.96	78	348867	9.15	PPB	99
49) 1,2-Dichloroethane	5.09	62	100556	9.03	PPB	98
50) tert-Amyl Methyl Ether	5.08	55	90905	18.84	PPB	99
51) Trichloroethene	5.80	95	83434	8.95	PPB	95
52) Methyl Cyclohexane	5.95	83	106575	7.17	PPB	99
53) 1,2-Dichloropropane	6.22	63	82861	8.88	PPB	95
54) Dibromomethane	6.40	93	36685	8.80	PPB	90
55) Methyl methacrylate	6.42	69	103995	31.62	PPB	98
56) 1,4-Dioxane	6.43	88	7424	275.97	PPB	89
57) Bromodichloromethane	6.64	83	87923	8.87	PPB	90
58) 2-Nitropropane	7.10	43	38490	28.78	PPB	93
59) 2-Chloroethyl Vinyl Ether	7.14	63	36760	9.76	PPB	96
60) cis-1,3-Dichloropropene	7.29	75	112427	9.20	PPB	97
61) 4-Methyl-2-pentanone (MIBK)	7.53	58	79484	50.87	PPB	93
63) Toluene	7.65	92	211242	9.37	PPB	98
65) n-Octane	7.76	85	114581	21.69	PPB	98
66) trans-1,3-Dichloropropene	8.07	75	90917	9.30	PPB	93
67) Ethyl methacrylate	8.16	69	209115	31.50	PPB	96
68) 1,1,2-Trichloroethane	8.29	83	44323	9.31	PPB	96
69) Tetrachloroethene	8.29	164	68809	9.59	PPB	97
70) 2-Hexanone	8.61	57	25224	51.48	PPB #	89
71) 1,3-Dichloropropane	8.50	76	94075	9.24	PPB	98
72) Dibromochloromethane	8.72	129	52047	10.01	PPB	98
73) 1,2-Dibromoethane (EDB)	8.84	107	45068	8.79	PPB	92
74) 1-Chlorohexane	9.40	91	108749	9.75	PPB	98
75) Chlorobenzene	9.40	112	213822	9.42	PPB	97
76) Ethylbenzene	9.52	106	124526	9.51	PPB	95
77) 1,1,1,2-Tetrachloroethane	9.53	131	64784	9.20	PPB	96
78) m,p-Xylenes	9.66	106	293191	18.85	PPB	100
79) o-Xylene	10.11	106	136498	9.46	PPB	95
80) Styrene	10.15	103	107975m	9.53	PPB	
81) Bromoform	10.36	173	23993	8.71	PPB	94
82) Isopropylbenzene	10.52	105	361501	9.61	PPB	98
83) cis-1,4-Dichloro-2-butene	10.71	89	18812	29.97	PPB	88
86) 1,1,2,2-Tetrachloroethane	10.96	83	45254	8.93	PPB	96
87) trans-1,4-Dichloro-2-buten	11.03	53	41265	25.62	PPB	85
88) Bromobenzene	10.86	156	79676	9.34	PPB	97
89) n-Propylbenzene	10.97	91	414549	9.44	PPB	98
90) 1,2,3-Trichloropropane	10.99	110	14041	9.37	PPB	95
91) 2-Chlorotoluene	11.07	91	242858	9.30	PPB	96
92) 1,3,5-Trimethylbenzene	11.18	105	283310	9.35	PPB	99
93) 4-Chlorotoluene	11.20	91	277011	9.27	PPB	99
94) tert-Butylbenzene	11.51	119	249519	9.50	PPB	97
95) 1,2,4-Trimethylbenzene	11.58	105	280084	9.41	PPB	98
96) sec-Butylbenzene	11.75	105	354948	9.49	PPB	99
97) p-Isopropyltoluene	11.91	119	303354	9.91	PPB	100
98) 1,3-Dichlorobenzene	11.88	146	148319	9.13	PPB	99
99) 1,4-Dichlorobenzene	11.99	146	144430	8.87	PPB	99
100) n-Butylbenzene	12.34	91	266333	9.42	PPB	100
101) 1,2-Dichlorobenzene	12.38	146	128000	9.24	PPB	99
102) 1,2-Dibromo-3-chloropropan	13.23	155	4984	8.26	PPB	85
103) 1,3,5-Trichlorobenzene	13.37	180	97530	9.75	PPB	97
104) 1,2,4-Trichlorobenzene	14.03	180	73297	8.74	PPB	94
105) Hexachlorobutadiene	14.16	225	37219	9.08	PPB	98
106) Naphthalene	14.29	128	129901	8.98	PPB	99
107) 1,2,3-Trichlorobenzene	14.53	180	59599	8.79	PPB	96

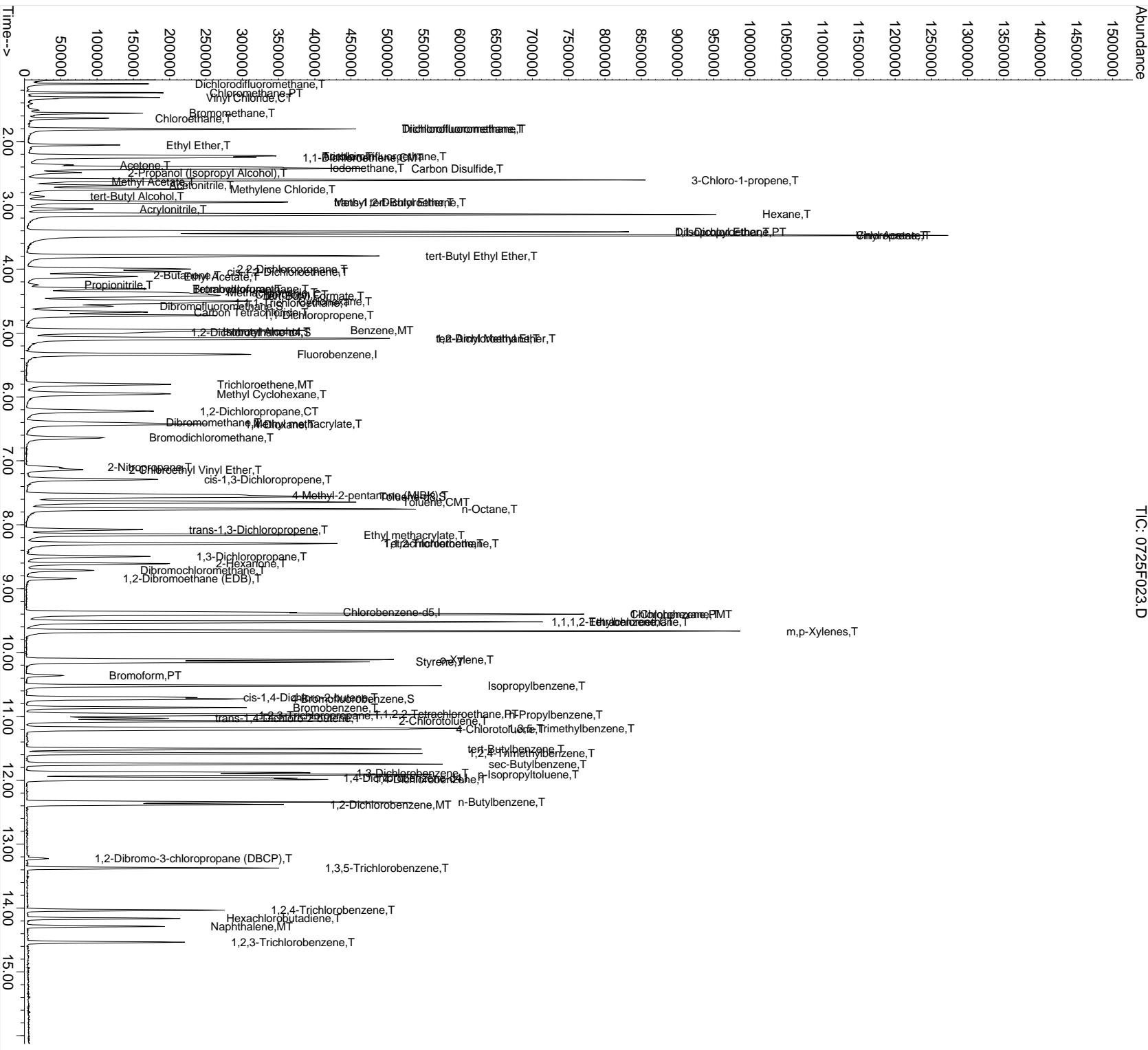
(#) = qualifier out of range (m) = manual integration

08/01/19
Data File : I:\MS13\DATA\072519MS13_8260W.D
Acq On : 25 Jul 2019 4:56 pm
Sample : ICV
Misc :
MS Integration Params: rteint.p
Quant Time: Jul 26 18:12 2019

Vial: 23
Operator: JHT
Inst: MS13
Multiplr: 1.00

Quant Results File: 072519MS13_8260W.RES

Method : J:\MS13\METHODS\072519MS13_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Fri Jul 26 18:09:35 2019
Response via : Initial Calibration



Initial Calibration Verification Summary Report

Calibration ID:	KC1900305	Instrument ID:	K-MS-13
Datafile ID:	I:\MS13\DATA\072519\0725F023.D	Column Name:	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
1,1,1,2-Tetrachloroethane	KC1900305-12	T	Average RF	10	9.202	PPB	-8.0	<= 30
1,1,1,2-Tetrachloroethane	KC1900305-12	T	Average RF	10	9.202	PPB	-8.0	<= 20
1,1,1-Trichloroethane (TCA)	KC1900305-12	T	Average RF	10	9.200	PPB	-8.0	<= 20
1,1,1-Trichloroethane (TCA)	KC1900305-12	T	Average RF	10	9.200	PPB	-8.0	<= 30
1,1,2,2-Tetrachloroethane	KC1900305-12	T	Average RF	10	8.932	PPB	-10.7	<= 20
1,1,2,2-Tetrachloroethane	KC1900305-12	T	Average RF	10	8.932	PPB	-10.7	<= 30
1,1,2-Trichloroethane	KC1900305-12	T	Average RF	10	9.313	PPB	-6.9	<= 30
1,1,2-Trichloroethane	KC1900305-12	T	Average RF	10	9.313	PPB	-6.9	<= 20
1,1,2-Trichlorotrifluoroethane	KC1900305-12	T	Average RF	10	10.089	PPB	0.9	<= 20
1,1,2-Trichlorotrifluoroethane	KC1900305-12	T	Average RF	10	10.089	PPB	0.9	<= 30
1,1-Dichloroethane (1,1-DCA)	KC1900305-12	T	Average RF	10	9.433	PPB	-5.7	<= 30
1,1-Dichloroethane (1,1-DCA)	KC1900305-12	T	Average RF	10	9.433	PPB	-5.7	<= 20
1,1-Dichloroethene (1,1-DCE)	KC1900305-12	T	Average RF	10	9.090	PPB	-9.1	<= 30
1,1-Dichloroethene (1,1-DCE)	KC1900305-12	T	Average RF	10	9.090	PPB	-9.1	<= 20
1,1-Dichloropropene	KC1900305-12	T	Average RF	10	9.367	PPB	-6.3	<= 30
1,1-Dichloropropene	KC1900305-12	T	Average RF	10	9.367	PPB	-6.3	<= 20
1,1-Dichloropropene	KC1900305-12	T	Average RF	10	9.367	PPB	-6.3	
1,2,3-Trichlorobenzene	KC1900305-12	T	Average RF	10	8.786	PPB	-12.1	<= 30
1,2,3-Trichlorobenzene	KC1900305-12	T	Average RF	10	8.786	PPB	-12.1	<= 20
1,2,3-Trichloropropane	KC1900305-12	T	Average RF	10	9.366	PPB	-6.3	<= 20
1,2,3-Trichloropropane	KC1900305-12	T	Average RF	10	9.366	PPB	-6.3	<= 30
1,2,4-Trichlorobenzene	KC1900305-12	T	Average RF			PPB		<= 30
1,2,4-Trichlorobenzene	KC1900305-12	T	Average RF			PPB		<= 20
1,2,4-Trimethylbenzene	KC1900305-12	T	Average RF	10	9.414	PPB	-5.9	<= 30
1,2,4-Trimethylbenzene	KC1900305-12	T	Average RF	10	9.414	PPB	-5.9	<= 20
1,2-Dibromo-3-chloropropane (DBCP)	KC1900305-12	T	Average RF	10	8.261	PPB	-17.4	<= 30
1,2-Dibromo-3-chloropropane (DBCP)	KC1900305-12	T	Average RF	10	8.261	PPB	-17.4	<= 20
1,2-Dibromoethane	KC1900305-12	T	Average RF	10	8.785	PPB	-12.1	<= 20
1,2-Dibromoethane	KC1900305-12	T	Average RF	10	8.785	PPB	-12.1	<= 30
1,2-Dichlorobenzene	KC1900305-12	T	Average RF	10	9.241	PPB	-7.6	<= 20
1,2-Dichlorobenzene	KC1900305-12	T	Average RF	10	9.241	PPB	-7.6	<= 30
1,2-Dichloroethane	KC1900305-12	T	Average RF	10	9.033	PPB	-9.7	<= 20
1,2-Dichloroethane	KC1900305-12	T	Average RF	10	9.033	PPB	-9.7	<= 30
1,2-Dichloropropane	KC1900305-12	T	Average RF	10	8.883	PPB	-11.2	<= 30
1,2-Dichloropropane	KC1900305-12	T	Average RF	10	8.883	PPB	-11.2	<= 20
1,3,5-Trichlorobenzene	KC1900305-12	T	Average RF	10	9.745	PPB	-2.5	<= 20
1,3,5-Trichlorobenzene	KC1900305-12	T	Average RF	10	9.745	PPB	-2.5	<= 30
1,3,5-Trimethylbenzene	KC1900305-12	T	Average RF	10	9.348	PPB	-6.5	<= 20
1,3,5-Trimethylbenzene	KC1900305-12	T	Average RF	10	9.348	PPB	-6.5	<= 30

Initial Calibration Verification Summary Report

Calibration ID:	KC1900305	Instrument ID:	K-MS-13
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1,3-Dichlorobenzene	KC1900305-12	T	Average RF	10	9.127	PPB	-8.7	<= 20
1,3-Dichlorobenzene	KC1900305-12	T	Average RF	10	9.127	PPB	-8.7	<= 30
1,3-Dichloropropane	KC1900305-12	T	Average RF	10	9.241	PPB	-7.6	<= 20
1,3-Dichloropropane	KC1900305-12	T	Average RF	10	9.241	PPB	-7.6	<= 30
1,4-Dichlorobenzene	KC1900305-12	T	Average RF	10	8.869	PPB	-11.3	<= 30
1,4-Dichlorobenzene	KC1900305-12	T	Average RF	10	8.869	PPB	-11.3	<= 20
1,4-Dioxane	KC1900305-12	T	Average RF	300	275.974	PPB	-8.0	<= 30
1,4-Dioxane	KC1900305-12	T	Average RF	300	275.974	PPB	-8.0	<= 20
1-Chlorohexane	KC1900305-12	T	Average RF	10	9.754	PPB	-2.5	<= 30
1-Chlorohexane	KC1900305-12	T	Average RF	10	9.754	PPB	-2.5	<= 20
2,2-Dichloropropane	KC1900305-12	T	Average RF	10	9.329	PPB	-6.7	<= 20
2,2-Dichloropropane	KC1900305-12	T	Average RF	10	9.329	PPB	-6.7	<= 30
2-Butanone (MEK)	KC1900305-12	T	Average RF	50	53.312	PPB	6.6	<= 30
2-Butanone (MEK)	KC1900305-12	T	Average RF	50	53.312	PPB	6.6	<= 20
2-Chloro-1,3-butadiene	KC1900305-12	T	Average RF	30	32.826	PPB	9.4	<= 20
2-Chloro-1,3-butadiene	KC1900305-12	T	Average RF	30	32.826	PPB	9.4	<= 30
2-Chloroethyl Vinyl Ether	KC1900305-12	T	Average RF	10	9.757	PPB	-2.4	<= 30
2-Chloroethyl Vinyl Ether	KC1900305-12	T	Average RF	10	9.757	PPB	-2.4	<= 20
2-Chlorotoluene	KC1900305-12	T	Average RF	10	9.297	PPB	-7.0	<= 30
2-Chlorotoluene	KC1900305-12	T	Average RF	10	9.297	PPB	-7.0	<= 20
2-Hexanone	KC1900305-12	T	Average RF	50	51.479	PPB	3.0	<= 20
2-Hexanone	KC1900305-12	T	Average RF	50	51.479	PPB	3.0	<= 30
2-Methyl-1-propanol	KC1900305-12	T	Average RF	300	249.731	PPB	-16.8	<= 20
2-Methyl-1-propanol	KC1900305-12	T	Average RF	300	249.731	PPB	-16.8	<= 30
2-Methyl-2-propanol	KC1900305-12	T	Average RF	100	81.682	PPB	-18.3	<= 30
2-Methyl-2-propanol	KC1900305-12	T	Average RF	100	81.682	PPB	-18.3	<= 20
2-Nitropropane	KC1900305-12	T	Average RF	30	28.780	PPB	-4.1	<= 20
2-Nitropropane	KC1900305-12	T	Average RF	30	28.780	PPB	-4.1	<= 30
2-Propanol	KC1900305-12	T	Average RF	500	429.256	PPB	-14.1	<= 20
2-Propanol	KC1900305-12	T	Average RF	500	429.256	PPB	-14.1	<= 30
3-Chloro-1-propene	KC1900305-12	T	Average RF	30	31.757	PPB	5.9	<= 30
3-Chloro-1-propene	KC1900305-12	T	Average RF	30	31.757	PPB	5.9	<= 20
4-Chlorotoluene	KC1900305-12	T	Average RF	10	9.272	PPB	-7.3	<= 30
4-Chlorotoluene	KC1900305-12	T	Average RF	10	9.272	PPB	-7.3	<= 20
4-Isopropyltoluene	KC1900305-12	T	Average RF	10	9.906	PPB	-0.9	<= 20
4-Isopropyltoluene	KC1900305-12	T	Average RF	10	9.906	PPB	-0.9	<= 30
4-Methyl-2-pentanone	KC1900305-12	T	Average RF	50	50.871	PPB	1.7	<= 20
4-Methyl-2-pentanone	KC1900305-12	T	Average RF	50	50.871	PPB	1.7	<= 30
Acetone	KC1900305-12	T	Average RF	50	54.730	PPB	9.5	<= 30
Acetone	KC1900305-12	T	Average RF	50	54.730	PPB	9.5	<= 20

Initial Calibration Verification Summary Report

Calibration ID:	KC1900305	Instrument ID:	K-MS-13
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Acetonitrile	KC1900305-12	T	Average RF	300	286.583	PPB	-4.5	<= 20
Acetonitrile	KC1900305-12	T	Average RF	300	286.583	PPB	-4.5	<= 30
Acrolein	KC1900305-12	T	Average RF	100	95.403	PPB	-4.6	<= 20
Acrolein	KC1900305-12	T	Average RF	100	95.403	PPB	-4.6	<= 30
Acrylonitrile	KC1900305-12	T	Average RF	40	38.874	PPB	-2.8	<= 20
Acrylonitrile	KC1900305-12	T	Average RF	40	38.874	PPB	-2.8	<= 30
Benzene	KC1900305-12	T	Average RF	10	9.151	PPB	-8.5	<= 30
Benzene	KC1900305-12	T	Average RF	10	9.151	PPB	-8.5	<= 20
Bromobenzene	KC1900305-12	T	Average RF	10	9.339	PPB	-6.6	<= 30
Bromobenzene	KC1900305-12	T	Average RF	10	9.339	PPB	-6.6	<= 20
Bromochloromethane	KC1900305-12	T	Average RF	10	9.155	PPB	-8.4	<= 30
Bromochloromethane	KC1900305-12	T	Average RF	10	9.155	PPB	-8.4	<= 20
Bromodichloromethane	KC1900305-12	T	Average RF	10	8.869	PPB	-11.3	<= 20
Bromodichloromethane	KC1900305-12	T	Average RF	10	8.869	PPB	-11.3	<= 30
Bromoform	KC1900305-12	T	Quadratic (0,0)	10	8.712	PPB	-12.9	<= 30
Bromoform	KC1900305-12	T	Quadratic (0,0)	10	8.712	PPB	-12.9	<= 20
Bromomethane	KC1900305-12	T	Average RF	10	9.361	PPB	-6.4	<= 20
Bromomethane	KC1900305-12	T	Average RF	10	9.361	PPB	-6.4	<= 30
Carbon Disulfide	KC1900305-12	T	Average RF	20	18.861	PPB	-5.7	<= 30
Carbon Disulfide	KC1900305-12	T	Average RF	20	18.861	PPB	-5.7	<= 20
Carbon Tetrachloride	KC1900305-12	T	Average RF	10	9.465	PPB	-5.4	<= 20
Carbon Tetrachloride	KC1900305-12	T	Average RF	10	9.465	PPB	-5.4	<= 30
Chlorobenzene	KC1900305-12	T	Average RF	10	9.418	PPB	-5.8	<= 30
Chlorobenzene	KC1900305-12	T	Average RF	10	9.418	PPB	-5.8	<= 20
Chloroethane	KC1900305-12	T	Average RF	10	10.109	PPB	1.1	<= 30
Chloroethane	KC1900305-12	T	Average RF	10	10.109	PPB	1.1	<= 20
Chloroform	KC1900305-12	T	Average RF	10	9.165	PPB	-8.3	<= 20
Chloroform	KC1900305-12	T	Average RF	10	9.165	PPB	-8.3	<= 30
Chloromethane	KC1900305-12	T	Average RF	10	8.820	PPB	-11.8	<= 20
Chloromethane	KC1900305-12	T	Average RF	10	8.820	PPB	-11.8	<= 30
Cyclohexane	KC1900305-12	T	Average RF	10	9.636	PPB	-3.6	<= 20
Cyclohexane	KC1900305-12	T	Average RF	10	9.636	PPB	-3.6	<= 30
Dibromochloromethane	KC1900305-12	T	Average RF	10	10.010	PPB	0.1	<= 20
Dibromochloromethane	KC1900305-12	T	Average RF	10	10.010	PPB	0.1	<= 30
Dibromomethane	KC1900305-12	T	Average RF	10	8.795	PPB	-12.0	<= 30
Dibromomethane	KC1900305-12	T	Average RF	10	8.795	PPB	-12.0	<= 20
Dichlorodifluoromethane (CFC 12)	KC1900305-12	T	Average RF	10	8.815	PPB	-11.9	<= 30
Dichlorodifluoromethane (CFC 12)	KC1900305-12	T	Average RF	10	8.815	PPB	-11.9	<= 20
Dichlorofluoromethane (CFC 21)	KC1900305-12	T	Average RF	10	10.057	PPB	0.6	<= 20
Dichlorofluoromethane (CFC 21)	KC1900305-12	T	Average RF	10	10.057	PPB	0.6	<= 30

Initial Calibration Verification Summary Report

Calibration ID:	KC1900305	Instrument ID:	K-MS-13
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Dichloromethane	KC1900305-12	T	Average RF	10	8.835	PPB	-11.6	<= 30
Dichloromethane	KC1900305-12	T	Average RF	10	8.835	PPB	-11.6	<= 20
Diethyl Ether	KC1900305-12	T	Average RF	10	11.749	PPB	17.5	<= 30
Diethyl Ether	KC1900305-12	T	Average RF	10	11.749	PPB	17.5	<= 20
Diisopropyl Ether	KC1900305-12	T	Average RF	20	19.436	PPB	-2.8	<= 30
Diisopropyl Ether	KC1900305-12	T	Average RF	20	19.436	PPB	-2.8	<= 20
Ethyl Acetate	KC1900305-12	T	Quadratic (0,0)	30	25.278	PPB	-15.7	<= 20
Ethyl Acetate	KC1900305-12	T	Quadratic (0,0)	30	25.278	PPB	-15.7	<= 30
Ethyl Methacrylate	KC1900305-12	T	Average RF	30	31.499	PPB	5.0	<= 20
Ethyl Methacrylate	KC1900305-12	T	Average RF	30	31.499	PPB	5.0	<= 30
Ethyl tert-Butyl Ether	KC1900305-12	T	Average RF	20	19.154	PPB	-4.2	<= 20
Ethyl tert-Butyl Ether	KC1900305-12	T	Average RF	20	19.154	PPB	-4.2	<= 30
Ethylbenzene	KC1900305-12	T	Average RF	10	9.508	PPB	-4.9	<= 30
Ethylbenzene	KC1900305-12	T	Average RF	10	9.508	PPB	-4.9	<= 20
Hexachlorobutadiene	KC1900305-12	T	Average RF	10	9.082	PPB	-9.2	<= 20
Hexachlorobutadiene	KC1900305-12	T	Average RF	10	9.082	PPB	-9.2	<= 30
Iodomethane	KC1900305-12	T	Average RF	30	33.607	PPB	12.0	<= 30
Iodomethane	KC1900305-12	T	Average RF	30	33.607	PPB	12.0	<= 20
Isopropylbenzene (Cumene)	KC1900305-12	T	Average RF	10	9.608	PPB	-3.9	
Isopropylbenzene (Cumene)	KC1900305-12	T	Average RF	10	9.608	PPB	-3.9	<= 30
Isopropylbenzene (Cumene)	KC1900305-12	T	Average RF	10	9.608	PPB	-3.9	<= 20
Methacrylonitrile	KC1900305-12	T	Average RF	30	30.598	PPB	2.0	<= 20
Methacrylonitrile	KC1900305-12	T	Average RF	30	30.598	PPB	2.0	<= 30
Methyl Acetate	KC1900305-12	T	Average RF	10	8.373	PPB	-16.3	<= 20
Methyl Acetate	KC1900305-12	T	Average RF	10	8.373	PPB	-16.3	<= 30
Methyl Methacrylate	KC1900305-12	T	Average RF	30	31.623	PPB	5.4	<= 30
Methyl Methacrylate	KC1900305-12	T	Average RF	30	31.623	PPB	5.4	<= 20
Methyl tert-Butyl Ether	KC1900305-12	T	Average RF	10	9.055	PPB	-9.5	<= 20
Methyl tert-Butyl Ether	KC1900305-12	T	Average RF	10	9.055	PPB	-9.5	<= 30
Methylcyclohexane	KC1900305-12	T	Average RF	7.70	7.174	PPB	-6.8	<= 30
Methylcyclohexane	KC1900305-12	T	Average RF	7.70	7.174	PPB	-6.8	<= 20
Naphthalene	KC1900305-12	T	Average RF			PPB		<= 30
Naphthalene	KC1900305-12	T	Average RF			PPB		<= 20
Propionitrile	KC1900305-12	T	Average RF	30	28.782	PPB	-4.1	<= 20
Propionitrile	KC1900305-12	T	Average RF	30	28.782	PPB	-4.1	<= 30
Styrene	KC1900305-12	T	Average RF	10	9.533	PPB	-4.7	<= 30
Styrene	KC1900305-12	T	Average RF	10	9.533	PPB	-4.7	<= 20
Tetrachloroethene (PCE)	KC1900305-12	T	Average RF	10	9.589	PPB	-4.1	<= 20
Tetrachloroethene (PCE)	KC1900305-12	T	Average RF	10	9.589	PPB	-4.1	<= 30
Tetrahydrofuran (THF)	KC1900305-12	T	Average RF	20	17.638	PPB	-11.8	<= 20

Initial Calibration Verification Summary Report

Calibration ID:	KC1900305	Instrument ID:	K-MS-13
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Tetrahydrofuran (THF)	KC1900305-12	T	Average RF	20	17.638	PPB	-11.8	<= 30
Toluene	KC1900305-12	T	Average RF	10	9.374	PPB	-6.3	<= 30
Toluene	KC1900305-12	T	Average RF	10	9.374	PPB	-6.3	<= 20
Trichloroethene (TCE)	KC1900305-12	T	Average RF	10	8.948	PPB	-10.5	<= 20
Trichloroethene (TCE)	KC1900305-12	T	Average RF	10	8.948	PPB	-10.5	<= 30
Trichlorofluoromethane (CFC 11)	KC1900305-12	T	Average RF	10	8.349	PPB	-16.5	<= 30
Trichlorofluoromethane (CFC 11)	KC1900305-12	T	Average RF	10	8.349	PPB	-16.5	<= 20
Vinyl Acetate	KC1900305-12	T	Average RF	50	45.635	PPB	-8.7	<= 20
Vinyl Acetate	KC1900305-12	T	Average RF	50	45.635	PPB	-8.7	<= 30
Vinyl Chloride	KC1900305-12	T	Average RF	10	9.515	PPB	-4.8	<= 20
Vinyl Chloride	KC1900305-12	T	Average RF	10	9.515	PPB	-4.8	<= 30
cis-1,2-Dichloroethene	KC1900305-12	T	Average RF	10	9.280	PPB	-7.2	<= 30
cis-1,2-Dichloroethene	KC1900305-12	T	Average RF	10	9.280	PPB	-7.2	<= 20
cis-1,3-Dichloropropene	KC1900305-12	T	Average RF	10	9.204	PPB	-8.0	<= 20
cis-1,3-Dichloropropene	KC1900305-12	T	Average RF	10	9.204	PPB	-8.0	<= 30
cis-1,4-Dichloro-2-butene	KC1900305-12	T	Quadratic (0,0)	30	29.969	PPB	-0.1	<= 20
cis-1,4-Dichloro-2-butene	KC1900305-12	T	Quadratic (0,0)	30	29.969	PPB	-0.1	<= 30
m,p-Xylenes	KC1900305-12	T	Average RF	20	18.848	PPB	-5.8	<= 20
m,p-Xylenes	KC1900305-12	T	Average RF	20	18.848	PPB	-5.8	
m,p-Xylenes	KC1900305-12	T	Average RF	20	18.848	PPB	-5.8	<= 30
n-Butylbenzene	KC1900305-12	T	Average RF	10	9.423	PPB	-5.8	<= 30
n-Butylbenzene	KC1900305-12	T	Average RF	10	9.423	PPB	-5.8	<= 20
n-Hexane	KC1900305-12	T	Average RF	30	30.721	PPB	2.4	<= 20
n-Hexane	KC1900305-12	T	Average RF	30	30.721	PPB	2.4	<= 30
n-Octane	KC1900305-12	T	Average RF	20	21.685	PPB	8.4	<= 30
n-Octane	KC1900305-12	T	Average RF	20	21.685	PPB	8.4	
n-Propylbenzene	KC1900305-12	T	Average RF	10	9.445	PPB	-5.6	<= 20
n-Propylbenzene	KC1900305-12	T	Average RF	10	9.445	PPB	-5.6	<= 30
o-Xylene	KC1900305-12	T	Average RF	10	9.459	PPB	-5.4	<= 30
o-Xylene	KC1900305-12	T	Average RF	10	9.459	PPB	-5.4	<= 20
sec-Butylbenzene	KC1900305-12	T	Average RF	10	9.493	PPB	-5.1	<= 30
sec-Butylbenzene	KC1900305-12	T	Average RF	10	9.493	PPB	-5.1	<= 20
tert-Amyl Methyl Ether	KC1900305-12	T	Average RF	20	18.840	PPB	-5.8	<= 30
tert-Amyl Methyl Ether	KC1900305-12	T	Average RF	20	18.840	PPB	-5.8	<= 20
tert-Butyl Formate	KC1900305-12	T	Average RF			PPB		<= 30
tert-Butyl Formate	KC1900305-12	T	Average RF			PPB		<= 20
tert-Butylbenzene	KC1900305-12	T	Average RF	10	9.502	PPB	-5.0	<= 30
tert-Butylbenzene	KC1900305-12	T	Average RF	10	9.502	PPB	-5.0	<= 20
trans-1,2-Dichloroethene	KC1900305-12	T	Average RF	10	9.134	PPB	-8.7	<= 30
trans-1,2-Dichloroethene	KC1900305-12	T	Average RF	10	9.134	PPB	-8.7	<= 20

Initial Calibration Verification Summary Report

Calibration ID:	KC1900305	Instrument ID:	K-MS-13
Datafile ID:	I:\MS13\DATA\072519\0725F023.D	Column Name:	1

trans-1,3-Dichloropropene	KC1900305-12	T	Average RF	10	9.300	PPB	-7.0	<= 20
trans-1,3-Dichloropropene	KC1900305-12	T	Average RF	10	9.300	PPB	-7.0	<= 30
trans-1,4-Dichloro-2-butene	KC1900305-12	T	Average RF	30	25.624	PPB	-14.6	<= 30
trans-1,4-Dichloro-2-butene	KC1900305-12	T	Average RF	30	25.624	PPB	-14.6	<= 20
1,2-Dichloroethane-d4	KC1900305-12	S	Average RF	10	8.641	PPB	-13.6	<= 30
1,2-Dichloroethane-d4	KC1900305-12	S	Average RF	10	8.641	PPB	-13.6	<= 20
4-Bromofluorobenzene	KC1900305-12	S	Average RF	10	9.420	PPB	-5.8	<= 30
4-Bromofluorobenzene	KC1900305-12	S	Average RF	10	9.420	PPB	-5.8	<= 20
Dibromofluoromethane	KC1900305-12	S	Average RF	10	9.594	PPB	-4.1	<= 30
Dibromofluoromethane	KC1900305-12	S	Average RF	10	9.594	PPB	-4.1	<= 20
Toluene-d8	KC1900305-12	S	Average RF	10	10.023	PPB	0.2	<= 20
Toluene-d8	KC1900305-12	S	Average RF	10	10.023	PPB	0.2	<= 30

Initial Calibration Verification Summary Report

Calibration ID:	KC1900305	Instrument ID:	K-MS-13
Datafile ID:	I:\MS13\DATA\072519\0725F023.D	Column Name:	1

Exceptions

QAP **Method**
 DOD QSM v5.0 8260C
 Kelso

	Compound	Type	Criteria	Result
	Acetonitrile	Minimum RF	>= 0.01	
	1,4-Dioxane	Minimum RF	>= 0.01	
	2-Methyl-1-propanol	Minimum RF	>= 0.01	
	2-Propanol	Minimum RF	>= 0.01	
	2-Methyl-2-propanol	Minimum RF	>= 0.01	

DOD QSM v5.0 8260B
 Kelso

	Compound	Type	Criteria	Result
	2-Methyl-2-propanol	Minimum RF	>= 0.01	
	Acetonitrile	Minimum RF	>= 0.01	
	1,4-Dioxane	Minimum RF	>= 0.01	
	2-Methyl-1-propanol	Minimum RF	>= 0.01	
	2-Propanol	Minimum RF	>= 0.01	

Exceptions

QAP **Method**
 LAB QAP 8260C

	Compound	Type	Criteria	Result
	2-Methyl-2-propanol	Minimum RF	>= 0.01	
	Acetonitrile	Minimum RF	>= 0.01	
	1,4-Dioxane	Minimum RF	>= 0.01	
	2-Methyl-1-propanol	Minimum RF	>= 0.01	
	2-Propanol	Minimum RF	>= 0.01	

LAB QAP 8260B

	Compound	Type	Criteria	Result
	Acetonitrile	Minimum RF	>= 0.01	
	1,4-Dioxane	Minimum RF	>= 0.01	
	2-Methyl-1-propanol	Minimum RF	>= 0.01	
	2-Propanol	Minimum RF	>= 0.01	
	2-Methyl-2-propanol	Minimum RF	>= 0.01	

Initial Calibration - Detailed Report

Calibration ID: KC1900305	Instrument ID: K-MS-13
	Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	KC1900305-01	CAL 0.1 PPB	E:\MS13\DATA\072519\0725F006.D	07/25/2019 09:26
02	KC1900305-02	CAL 0.2 PPB	E:\MS13\DATA\072519\0725F007.D	07/25/2019 09:52
03	KC1900305-03	CAL 0.5 PPB	E:\MS13\DATA\072519\0725F008.D	07/25/2019 10:19
04	KC1900305-04	CAL 1.0 PPB	E:\MS13\DATA\072519\0725F009.D	07/25/2019 10:45
05	KC1900305-05	CAL 2.0 PPB	E:\MS13\DATA\072519\0725F010.D	07/25/2019 11:12
06	KC1900305-06	CAL 5.0 PPB	E:\MS13\DATA\072519\0725F011.D	07/25/2019 11:38
07	KC1900305-07	CAL 10 PPB	E:\MS13\DATA\072519\0725F012.D	07/25/2019 12:04
08	KC1900305-08	CAL 40 PPB	E:\MS13\DATA\072519\0725F014.D	07/25/2019 12:57
09	KC1900305-09	CAL 60 PPB	E:\MS13\DATA\072519\0725F015.D	07/25/2019 13:24
10	KC1900305-10	CAL 80 PPB	E:\MS13\DATA\072519\0725F016.D	07/25/2019 13:50
11	KC1900305-11	CAL 20 PPB	E:\MS13\DATA\072519\0725F020.D	07/25/2019 15:37

<u>Analyte</u>			<u>Curve Fit</u>			<u>Weighting</u>					
1,1,1,2-Tetrachloroethane			Average RF			RSD = 12.2			Average RF = 6.388E-1		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.5788	02	0.200	0.6941	03	0.500	0.5621	04	1.000	0.5542
05	2.000	0.5394	06	5.000	0.5919	07	10.000	0.6521	08	40.000	0.7323
09	60.000	0.7387	10	80.000	0.739	11	20.000	0.644			
1,1,1-Trichloroethane (TCA)			Average RF			RSD = 10.31			Average RF = 0.4456		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.3816	02	0.200	0.4249	03	0.500	0.4148	04	1.000	0.3927
05	2.000	0.4022	06	5.000	0.4448	07	10.000	0.4676	08	40.000	0.514
09	60.000	0.4972	10	80.000	0.4986	11	20.000	0.4636			
1,1,2,2-Tetrachloroethane			Average RF			RSD = 9.381			Average RF = 5.806E-1		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.200	0.7116	03	0.500	0.5801	04	1.000	0.5425	05	2.000	0.5169
06	5.000	0.6034	07	10.000	0.6106	08	40.000	0.5855	09	60.000	0.5597
10	80.000	0.5462	11	20.000	0.5497						
1,1,2-Trichloroethane			Average RF			RSD = 6.147			Average RF = 0.4318		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.200	0.4182	03	0.500	0.4633	04	1.000	0.3869	05	2.000	0.3943
06	5.000	0.4317	07	10.000	0.4491	08	40.000	0.4606	09	60.000	0.4547
10	80.000	0.436	11	20.000	0.4233						
1,1,2-Trichlorotrifluoroethane			Average RF			RSD = 7.439			Average RF = 0.2082		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.200	0.1852	03	0.500	0.1963	04	1.000	0.1976	05	2.000	0.1909
06	5.000	0.2042	07	10.000	0.2131	08	40.000	0.2259	09	60.000	0.2214
10	80.000	0.23	11	20.000	0.2169						
1,1-Dichloroethane (1,1-DCA)			Average RF			RSD = 5.364			Average RF = 5.359E-1		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.5704	02	0.200	0.4919	03	0.500	0.5431	04	1.000	0.5019
05	2.000	0.4932	06	5.000	0.5297	07	10.000	0.5519	08	40.000	0.57
09	60.000	0.5556	10	80.000	0.5521	11	20.000	0.5356			

Initial Calibration - Detailed Report

Calibration ID: KC1900305	Instrument ID: K-MS-13
	Column Name: 1

1,1-Dichloroethene (1,1-DCE)

Average RF			RSD = 11.29			Average RF = 0.2775					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.1884	02	0.200	0.2911	03	0.500	0.298	04	1.000	0.2666
05	2.000	0.2712	06	5.000	0.2865	07	10.000	0.2847	08	40.000	0.2955
09	60.000	0.2903	10	80.000	0.2995	11	20.000	0.2813			

1,1-Dichloropropene

Average RF			RSD = 6.245			Average RF = 0.4215					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.3922	02	0.200	0.4166	03	0.500	0.4119	04	1.000	0.3781
05	2.000	0.3928	06	5.000	0.4271	07	10.000	0.4369	08	40.000	0.464
09	60.000	0.4473	10	80.000	0.4437	11	20.000	0.4254			

1,2,3-Trichlorobenzene

Average RF			RSD = 9.253			Average RF = 7.774E-1					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.9456	02	0.200	0.7174	03	0.500	0.7812	04	1.000	0.6885
05	2.000	0.6823	06	5.000	0.7742	07	10.000	0.8059	08	40.000	0.7992
09	60.000	0.8036	10	80.000	0.7986	11	20.000	0.7555			

1,2,3-Trichloropropane

Average RF			RSD = 10.46			Average RF = 0.1718					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	0.500	0.1308	04	1.000	0.1763	05	2.000	0.1661	06	5.000	0.1891
07	10.000	0.1916	08	40.000	0.1829	09	60.000	0.1732	10	80.000	0.1665
11	20.000	0.1698									

1,2,4-Trichlorobenzene

Average RF			RSD = 8.005			Average RF = 9.609E-1					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.200	1.13	03	0.500	0.946	04	1.000	0.8997	05	2.000	0.833
06	5.000	0.941	07	10.000	0.9441	08	40.000	1.003	09	60.000	0.9896
10	80.000	0.9825	11	20.000	0.9395						

1,2,4-Trimethylbenzene

Average RF			RSD = 5.995			Average RF = 3.41E0					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	3.374	02	0.200	2.971	03	0.500	3.258	04	1.000	3.369
05	2.000	3.255	06	5.000	3.559	07	10.000	3.669	08	40.000	3.672
09	60.000	3.537	10	80.000	3.412	11	20.000	3.433			

1,2-Dibromo-3-chloropropane (DBCP)

Average RF			RSD = 8.777			Average RF = 0.06915					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
05	2.000	0.05852	06	5.000	0.06588	07	10.000	0.06852	08	40.000	0.07371
09	60.000	0.07331	10	80.000	0.07663	11	20.000	0.06746			

1,2-Dibromoethane

Average RF			RSD = 9.42			Average RF = 0.4655					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.200	0.5317	03	0.500	0.4149	04	1.000	0.4279	05	2.000	0.3968
06	5.000	0.4527	07	10.000	0.4626	08	40.000	0.5152	09	60.000	0.5012
10	80.000	0.4826	11	20.000	0.469						

1,2-Dichlorobenzene

Average RF			RSD = 4.547			Average RF = 1.588E0					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	1.573	02	0.200	1.518	03	0.500	1.566	04	1.000	1.551
05	2.000	1.441	06	5.000	1.653	07	10.000	1.661	08	40.000	1.686
09	60.000	1.651	10	80.000	1.596	11	20.000	1.568			

1,2-Dichloroethane

Average RF			RSD = 7.039			Average RF = 0.3592		
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Initial Calibration - Detailed Report

Calibration ID: KC1900305	Instrument ID: K-MS-13
	Column Name: 1

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.4218	02	0.200	0.3337	03	0.500	0.369	04	1.000	0.3553
05	2.000	0.3236	06	5.000	0.3645	07	10.000	0.3599	08	40.000	0.3694
09	60.000	0.3602	10	80.000	0.348	11	20.000	0.3456			

1,2-Dichloropropane

Average RF

RSD = 5.9

Average RF = 0.3009

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.200	0.289	03	0.500	0.3274	04	1.000	0.2719	05	2.000	0.2777
06	5.000	0.3098	07	10.000	0.3084	08	40.000	0.3207	09	60.000	0.3073
10	80.000	0.3029	11	20.000	0.2942						

1,3,5-Trichlorobenzene

Average RF

RSD = 5.097

Average RF = 1.147E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	1.154	02	0.200	1.177	03	0.500	1.146	04	1.000	1.043
05	2.000	1.032	06	5.000	1.149	07	10.000	1.167	08	40.000	1.213
09	60.000	1.202	10	80.000	1.184	11	20.000	1.151			

1,3,5-Trimethylbenzene

Average RF

RSD = 4.173

Average RF = 3.473E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	3.261	02	0.200	3.37	03	0.500	3.442	04	1.000	3.347
05	2.000	3.322	06	5.000	3.612	07	10.000	3.661	08	40.000	3.703
09	60.000	3.557	10	80.000	3.452	11	20.000	3.48			

1,3-Dichlorobenzene

Average RF

RSD = 7.706

Average RF = 1.862E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	2.244	02	0.200	1.825	03	0.500	1.868	04	1.000	1.745
05	2.000	1.678	06	5.000	1.868	07	10.000	1.87	08	40.000	1.913
09	60.000	1.874	10	80.000	1.825	11	20.000	1.779			

1,3-Dichloropropane

Average RF

RSD = 6.205

Average RF = 9.237E-1

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	1.008	02	0.200	0.8052	03	0.500	0.9487	04	1.000	0.9357
05	2.000	0.8449	06	5.000	0.9331	07	10.000	0.9418	08	40.000	0.9731
09	60.000	0.9543	10	80.000	0.9213	11	20.000	0.8938			

1,4-Dichlorobenzene

Average RF

RSD = 6.32

Average RF = 1.866E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	2.094	02	0.200	2.02	03	0.500	1.832	04	1.000	1.803
05	2.000	1.668	06	5.000	1.855	07	10.000	1.856	08	40.000	1.936
09	60.000	1.882	10	80.000	1.827	11	20.000	1.757			

1,4-Dioxane

Average RF

RSD = 9.457

Average RF = 0.0008679

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
05	80.000	0.000991	06	200.000	0.000875	07	400.000	0.000891	08	1600.000	0.000808
09	2400.000	0.000874	10	3200.000	0.000906	11	800.000	0.000727			
		7			1			8			6

1-Chlorohexane

Average RF

RSD = 6.562

Average RF = 1.012E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.200	1.049	03	0.500	0.9873	04	1.000	0.9043	05	2.000	0.9273
06	5.000	0.9618	07	10.000	1.02	08	40.000	1.116	09	60.000	1.073
10	80.000	1.052	11	20.000	1.026						

2,2-Dichloropropane

Average RF

RSD = 7.313

Average RF = 0.459

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF

Initial Calibration - Detailed Report

Calibration ID: KC1900305	Instrument ID: K-MS-13
	Column Name: 1

01	0.100	0.4907	02	0.200	0.3959	03	0.500	0.4592	04	1.000	0.4278
05	2.000	0.4189	06	5.000	0.4494	07	10.000	0.4548	08	40.000	0.4988
09	60.000	0.4853	10	80.000	0.4775	11	20.000	0.4901			

2-Butanone (MEK)			Average RF			RSD = 5.659			Average RF = 0.01312		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	5.000	0.01305	04	10.000	0.01435	05	20.000	0.01168	06	50.000	0.01303
07	100.000	0.01298	08	400.000	0.0134	09	600.000	0.01373	10	800.000	0.0133
11	200.000	0.01257									

2-Chloro-1,3-butadiene			Average RF			RSD = 8.532			Average RF = 0.4592		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.400	0.4237	02	0.800	0.4066	03	2.000	0.4271	04	4.000	0.4274
05	8.000	0.4271	06	20.000	0.4631	07	40.000	0.4752	08	160.000	0.5181
09	240.000	0.5047	10	320.000	0.5074	11	80.000	0.4704			

2-Chloroethyl Vinyl Ether			Average RF			RSD = 6.12			Average RF = 0.1216		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.200	0.1376	03	0.500	0.1172	04	1.000	0.1143	05	2.000	0.1113
06	5.000	0.1237	07	10.000	0.1249	08	40.000	0.126	09	60.000	0.1241
10	80.000	0.1189	11	20.000	0.1175						

2-Chlorotoluene			Average RF			RSD = 4.533			Average RF = 2.994E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	3.259	02	0.200	3.113	03	0.500	3.022	04	1.000	2.988
05	2.000	2.897	06	5.000	3.109	07	10.000	3.017	08	40.000	3.009
09	60.000	2.88	10	80.000	2.791	11	20.000	2.848			

2-Hexanone			Average RF			RSD = 8.407			Average RF = 0.04446		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	2.000	0.05024	03	5.000	0.05074	04	10.000	0.04076	05	20.000	0.03945
06	50.000	0.04269	07	100.000	0.04572	08	400.000	0.04553	09	600.000	0.04454
10	800.000	0.04264	11	200.000	0.04227						

2-Methyl-1-propanol			Average RF			RSD = 10.25			Average RF = 0.004249		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	20.000	0.004995	04	40.000	0.00478	05	80.000	0.003898	06	200.000	0.004128
07	400.000	0.004002	08	1600.000	0.004142	09	2400.000	0.004366	10	3200.000	0.004349
11	800.000	0.003583									

2-Methyl-2-propanol			Average RF			RSD = 3.565			Average RF = 0.008683		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	5.000	0.009251	05	10.000	0.008318	06	25.000	0.008659	07	50.000	0.008824
08	200.000	0.00838	09	300.000	0.008931	10	400.000	0.008604	11	100.000	0.008496

2-Nitropropane			Average RF			RSD = 14.05			Average RF = 0.04315		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.500	0.03634	04	5.000	0.03717	05	10.000	0.03569	06	25.000	0.03938
07	50.000	0.0453	08	200.000	0.0504	09	300.000	0.05017	10	400.000	0.04882
11	100.000	0.04507									

2-Propanol			Average RF			RSD = 13.44			Average RF = 0.006104		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	10.000	0.008105	03	25.000	0.006306	04	50.000	0.006418	05	100.000	0.005297
06	250.000	0.005681	07	500.000	0.006001	08	2000.000	0.005756	09	3000.000	0.00622
10	4000.000	0.006126	11	1000.000	0.005134						

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3-Chloro-1-propene			Average RF			RSD = 5.735			Average RF = 0.146		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.200	0.1428	03	0.500	0.1437	04	1.000	0.1282	05	2.000	0.1387
06	5.000	0.1524	07	10.000	0.1486	08	40.000	0.1522	09	60.000	0.1536
10	80.000	0.1559	11	20.000	0.1445						
4-Chlorotoluene			Average RF			RSD = 3.232			Average RF = 3.424E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	3.372	02	0.200	3.434	03	0.500	3.391	04	1.000	3.466
05	2.000	3.321	06	5.000	3.586	07	10.000	3.609	08	40.000	3.513
09	60.000	3.39	10	80.000	3.268	11	20.000	3.314			
4-Isopropyltoluene			Average RF			RSD = 7.333			Average RF = 3.51E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	3.211	02	0.200	3.075	03	0.500	3.431	04	1.000	3.314
05	2.000	3.306	06	5.000	3.699	07	10.000	3.784	08	40.000	3.869
09	60.000	3.712	10	80.000	3.606	11	20.000	3.601			
4-Methyl-2-pentanone			Average RF			RSD = 4.289			Average RF = 0.05041		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.05302	02	2.000	0.05357	03	5.000	0.04948	04	10.000	0.05126
05	20.000	0.04625	06	50.000	0.05152	07	100.000	0.05107	08	400.000	0.05155
09	600.000	0.04994	10	800.000	0.04838	11	200.000	0.04847			
Acetone			Average RF			RSD = 4.399			Average RF = 0.03703		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	10.000	0.0404	05	20.000	0.03496	06	50.000	0.03664	07	100.000	0.03708
08	400.000	0.03723	09	600.000	0.03767	10	800.000	0.03669	11	200.000	0.03555
Acetonitrile			Average RF			RSD = 5.245			Average RF = 0.008308		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	20.000	0.008059	04	40.000	0.008374	05	80.000	0.007746	06	200.000	0.008952
07	400.000	0.008648	08	1600.000	0.008628	09	2400.000	0.008402	10	3200.000	0.008356
11	800.000	0.007605									
Acrolein			Average RF			RSD = 14.9			Average RF = 0.02906		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	0.04123	02	4.000	0.02994	03	10.000	0.03026	04	20.000	0.02835
05	40.000	0.02551	06	100.000	0.02783	07	200.000	0.02826	08	800.000	0.0281
09	1200.000	0.02798	10	1600.000	0.02718	11	400.000	0.02502			
Acrylonitrile			Average RF			RSD = 4.76			Average RF = 0.05037		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.800	0.0539	03	2.000	0.05336	04	4.000	0.05045	05	8.000	0.04629
06	20.000	0.05199	07	40.000	0.05088	08	160.000	0.05076	09	240.000	0.04964
10	320.000	0.04885	11	80.000	0.04758						
Benzene			Average RF			RSD = 4.169			Average RF = 1.23E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	1.319	02	0.200	1.194	03	0.500	1.255	04	1.000	1.159
05	2.000	1.15	06	5.000	1.243	07	10.000	1.258	08	40.000	1.281
09	60.000	1.245	10	80.000	1.231	11	20.000	1.196			
Bromobenzene			Average RF			RSD = 7.497			Average RF = 9.778E-1		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF

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01 0.100 0.8195	02 0.200 1.106	03 0.500 1.002	04 1.000 0.9333
05 2.000 0.9117	06 5.000 1.024	07 10.000 1.022	08 40.000 0.9984
09 60.000 0.9922	10 80.000 0.9874	11 20.000 0.9583	

Bromochloromethane

Average RF

RSD = 7.745

Average RF = 0.1274

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.200	0.1106	03	0.500	0.1246	04	1.000	0.124	05	2.000	0.1123
06	5.000	0.1301	07	10.000	0.1299	08	40.000	0.1391	09	60.000	0.1387
10	80.000	0.1356	11	20.000	0.1286						

Bromodichloromethane

Average RF

RSD = 9.798

Average RF = 0.3198

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.3065	02	0.200	0.2624	03	0.500	0.3047	04	1.000	0.2996
05	2.000	0.291	06	5.000	0.3235	07	10.000	0.3242	08	40.000	0.3639
09	60.000	0.3616	10	80.000	0.3528	11	20.000	0.3283			

Bromoform

Quadratic (0,0) 1/X

COD = 0.9977

Y = 0.01214 X² + 0.2393 X + 0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.200	0.1963	03	0.500	0.15	04	1.000	0.1875	05	2.000	0.1847
06	5.000	0.2236	07	10.000	0.2444	08	40.000	0.3063	09	60.000	0.324
10	80.000	0.326	11	20.000	0.2524						

Bromomethane

Average RF

RSD = 3.33

Average RF = 0.2225

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	0.500	0.237	04	1.000	0.2285	05	2.000	0.2252	06	5.000	0.2248
07	10.000	0.222	08	40.000	0.2204	09	60.000	0.2165	10	80.000	0.2154
11	20.000	0.2132									

Carbon Disulfide

Average RF

RSD = 4.849

Average RF = 7.654E-1

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	0.500	0.8432	04	1.000	0.7338	05	2.000	0.7209	06	5.000	0.7501
07	10.000	0.7744	08	40.000	0.7895	09	60.000	0.7685	10	80.000	0.7747
11	20.000	0.7339									

Carbon Tetrachloride

Average RF

RSD = 12.76

Average RF = 0.3646

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.324	02	0.200	0.3124	03	0.500	0.3236	04	1.000	0.334
05	2.000	0.3241	06	5.000	0.3497	07	10.000	0.3693	08	40.000	0.4306
09	60.000	0.4261	10	80.000	0.4285	11	20.000	0.3879			

Chlorobenzene

Average RF

RSD = 6.394

Average RF = 2.06E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	2.246	02	0.200	1.866	03	0.500	2.061	04	1.000	1.925
05	2.000	1.868	06	5.000	2.044	07	10.000	2.074	08	40.000	2.229
09	60.000	2.164	10	80.000	2.139	11	20.000	2.046			

Chloroethane

Average RF

RSD = 5.416

Average RF = 0.2154

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.1997	02	0.200	0.1939	03	0.500	0.219	04	1.000	0.2321
05	2.000	0.2275	06	5.000	0.2215	07	10.000	0.223	08	40.000	0.2204
09	60.000	0.2084	10	80.000	0.2087	11	20.000	0.2149			

Chloroform

Average RF

RSD = 6.934

Average RF = 5.015E-1

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.5621	02	0.200	0.5065	03	0.500	0.459	04	1.000	0.4473
05	2.000	0.4629	06	5.000	0.4965	07	10.000	0.5054	08	40.000	0.5347

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09 60.000 0.5265	10 80.000 0.5203	11 20.000 0.4953
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Chloromethane

Average RF			RSD = 7.321			Average RF = 0.3935		
#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.4571	02	0.200	0.4193	03	0.500	0.4088
05	2.000	0.4047	06	5.000	0.393	07	10.000	0.3868
09	60.000	0.3616	10	80.000	0.3672	11	20.000	0.3604
						04	1.000	0.3958
						08	40.000	0.3743

Cyclohexane

Average RF			RSD = 4.321			Average RF = 0.493		
#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.5106	02	0.200	0.4694	03	0.500	0.5046
05	2.000	0.4636	06	5.000	0.4721	07	10.000	0.4943
09	60.000	0.5112	10	80.000	0.5057	11	20.000	0.4897
						04	1.000	0.4725
						08	40.000	0.5292

Dibromochloromethane

Average RF			RSD = 12.34			Average RF = 0.4717		
#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.200	0.4931	03	0.500	0.417	04	1.000	0.3988
06	5.000	0.493	07	10.000	0.5249	11	20.000	0.55
						05	2.000	0.4255

Dibromomethane

Average RF			RSD = 5.408			Average RF = 0.1346		
#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.200	0.1515	03	0.500	0.1362	04	1.000	0.1293
06	5.000	0.1294	07	10.000	0.1369	08	40.000	0.1378
10	80.000	0.1334	11	20.000	0.1291	09	60.000	0.1366

Dichlorodifluoromethane (CFC 12)

Average RF			RSD = 4.589			Average RF = 0.3293		
#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.3439	02	0.200	0.318	03	0.500	0.3588
05	2.000	0.3243	06	5.000	0.3463	07	10.000	0.3272
09	60.000	0.315	10	80.000	0.3261	11	20.000	0.3321
						04	1.000	0.3068
						08	40.000	0.3243

Dichlorofluoromethane (CFC 21)

Average RF			RSD = 3.96			Average RF = 5.315E-1		
#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.5477	02	0.200	0.5269	03	0.500	0.5736
05	2.000	0.5119	06	5.000	0.5461	07	10.000	0.5478
09	60.000	0.5083	10	80.000	0.5146	11	20.000	0.5054
						04	1.000	0.5308
						08	40.000	0.5329

Dichloromethane

Average RF			RSD = 8.036			Average RF = 0.288		
#	Amount	RF	#	Amount	RF	#	Amount	RF
03	0.500	0.3351	04	1.000	0.3152	05	2.000	0.2873
07	10.000	0.2797	08	40.000	0.2736	09	60.000	0.2724
11	20.000	0.2674				10	80.000	0.2689

Diethyl Ether

Average RF			RSD = 8.665			Average RF = 0.1434		
#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.200	0.1164	03	0.500	0.1495	04	1.000	0.1435
06	5.000	0.1453	07	10.000	0.1478	08	40.000	0.1539
10	80.000	0.1526	11	20.000	0.145	09	60.000	0.154

Diisopropyl Ether

Average RF			RSD = 4.96			Average RF = 9.357E-1		
#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.8603	02	0.200	1.013	03	0.500	0.9257
05	2.000	0.8582	06	5.000	0.9459	07	10.000	0.9538
09	60.000	0.9674	10	80.000	0.9489	11	20.000	0.9123
						04	1.000	0.9317
						08	40.000	0.9751

Ethyl Acetate

Quadratic (0,0) 1/X COD = 0.9959 Y = -0.0002944 X² + 0.02838 X + 0

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#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
05	4.000	0.04893	06	10.000	0.03132	07	20.000	0.02866	08	80.000	0.02568
09	120.000	0.02387	10	160.000	0.02444	11	40.000	0.02444			

Ethyl Methacrylate

Average RF

RSD = 8.463

Average RF = 6.024E-1

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.200	0.6941	03	0.500	0.5996	04	1.000	0.544	05	2.000	0.5124
06	5.000	0.5919	07	10.000	0.613	08	40.000	0.6467	09	60.000	0.6303
10	80.000	0.6102	11	20.000	0.5814						

Ethyl tert-Butyl Ether

Average RF

RSD = 5.085

Average RF = 7.27E-1

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.7255	02	0.200	0.639	03	0.500	0.7356	04	1.000	0.7086
05	2.000	0.6928	06	5.000	0.7562	07	10.000	0.7515	08	40.000	0.7647
09	60.000	0.7617	10	80.000	0.7413	11	20.000	0.7198			

Ethylbenzene

Average RF

RSD = 5.708

Average RF = 1.188E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	1.174	02	0.200	1.134	03	0.500	1.184	04	1.000	1.083
05	2.000	1.11	06	5.000	1.179	07	10.000	1.209	08	40.000	1.313
09	60.000	1.263	10	80.000	1.25	11	20.000	1.173			

Hexachlorobutadiene

Average RF

RSD = 9.622

Average RF = 0.4696

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.200	0.5056	03	0.500	0.4798	04	1.000	0.3654	05	2.000	0.4209
06	5.000	0.474	07	10.000	0.4814	08	40.000	0.5076	09	60.000	0.4942
10	80.000	0.5077	11	20.000	0.46						

Iodomethane

Average RF

RSD = 8.711

Average RF = 0.3

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.400	0.3269	02	0.800	0.2898	03	2.000	0.2784	04	4.000	0.26
05	8.000	0.2641	06	20.000	0.2921	07	40.000	0.3069	08	160.000	0.319
09	240.000	0.3249	10	320.000	0.3395	11	80.000	0.2984			

Isopropylbenzene (Cumene)

Average RF

RSD = 8.505

Average RF = 3.414E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	3.279	02	0.200	2.921	03	0.500	3.333	04	1.000	3.122
05	2.000	3.133	06	5.000	3.447	07	10.000	3.56	08	40.000	3.866
09	60.000	3.773	10	80.000	3.642	11	20.000	3.475			

Methacrylonitrile

Average RF

RSD = 9.144

Average RF = 0.06025

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.400	0.06632	02	0.800	0.04749	03	2.000	0.05833	04	4.000	0.05575
05	8.000	0.05708	06	20.000	0.06074	07	40.000	0.06288	08	160.000	0.06569
09	240.000	0.06558	10	320.000	0.06246	11	80.000	0.06045			

Methyl Acetate

Average RF

RSD = 5.899

Average RF = 0.1065

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	1.000	0.121	05	2.000	0.1074	06	5.000	0.1073	07	10.000	0.1047
08	40.000	0.1046	09	60.000	0.1037	10	80.000	0.103	11	20.000	0.1003

Methyl Methacrylate

Average RF

RSD = 5.457

Average RF = 0.1061

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	0.500	0.1109	04	1.000	0.09821	05	2.000	0.09599	06	5.000	0.1114
07	10.000	0.1107	08	40.000	0.1098	09	60.000	0.1091	10	80.000	0.1055
11	20.000	0.1033									

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Methyl tert-Butyl Ether

Average RF			RSD = 5.934			Average RF = 5.384E-1					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.200	0.5752	02	0.400	0.5363	03	1.000	0.5458	04	2.000	0.4945
05	4.000	0.4725	06	10.000	0.5419	07	20.000	0.5317	08	80.000	0.563
09	120.000	0.571	10	160.000	0.5641	11	40.000	0.5263			

Methylcyclohexane

Average RF			RSD = 4.874			Average RF = 0.4793					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.5223	02	0.200	0.4661	03	0.500	0.502	04	1.000	0.4647
05	2.000	0.4424	06	5.000	0.461	07	10.000	0.4793	08	40.000	0.5072
09	60.000	0.4809	10	80.000	0.4643	11	20.000	0.482			

Naphthalene

Average RF			RSD = 7.061			Average RF = 1.657E0					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.200	1.868	03	0.500	1.578	04	1.000	1.552	05	2.000	1.433
06	5.000	1.683	07	10.000	1.695	08	40.000	1.742	09	60.000	1.695
10	80.000	1.678	11	20.000	1.65						

Propionitrile

Average RF			RSD = 8.337			Average RF = 0.0178					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.02135	04	4.000	0.01638	05	8.000	0.01693	06	20.000	0.01821
07	40.000	0.01807	08	160.000	0.01777	09	240.000	0.01772	10	320.000	0.01725
11	80.000	0.01651									

Styrene

Average RF			RSD = 9.273			Average RF = 1.028E0					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	1.157	02	0.200	0.9802	03	0.500	0.9574	04	1.000	0.8673
05	2.000	0.9171	06	5.000	1.007	07	10.000	1.06	08	40.000	1.126
09	60.000	1.152	10	80.000	1.074	11	20.000	1.008			

Tetrachloroethene (PCE)

Average RF			RSD = 7.316			Average RF = 6.511E-1					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.6296	02	0.200	0.601	03	0.500	0.6478	04	1.000	0.5824
05	2.000	0.6031	06	5.000	0.6351	07	10.000	0.6643	08	40.000	0.7325
09	60.000	0.7023	10	80.000	0.7056	11	20.000	0.6581			

Tetrahydrofuran (THF)

Average RF			RSD = 10.03			Average RF = 0.01475					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	1.000	0.01763	05	2.000	0.01215	06	5.000	0.01488	07	10.000	0.01458
08	40.000	0.01501	09	60.000	0.01454	10	80.000	0.01443	11	20.000	0.01477

Toluene

Average RF			RSD = 5.796			Average RF = 7.271E-1					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.6486	02	0.200	0.6778	03	0.500	0.7077	04	1.000	0.7018
05	2.000	0.7108	06	5.000	0.7494	07	10.000	0.7641	08	40.000	0.7865
09	60.000	0.7678	10	80.000	0.7562	11	20.000	0.7271			

Trichloroethene (TCE)

Average RF			RSD = 4.41			Average RF = 0.3008					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.3058	02	0.200	0.2936	03	0.500	0.3093	04	1.000	0.2745
05	2.000	0.2848	06	5.000	0.296	07	10.000	0.3042	08	40.000	0.3205
09	60.000	0.3134	10	80.000	0.3095	11	20.000	0.2976			

Trichlorofluoromethane (CFC 11)

Average RF			RSD = 3.829			Average RF = 5.423E-1					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF

Initial Calibration - Detailed Report

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	Column Name: 1

01 0.100 0.5357	02 0.200 0.5284	03 0.500 0.5256	04 1.000 0.5098
05 2.000 0.5165	06 5.000 0.5601	07 10.000 0.5632	08 40.000 0.5738
09 60.000 0.5427	10 80.000 0.5567	11 20.000 0.5532	

Vinyl Acetate			Average RF			RSD = 7.357			Average RF = 0.03963		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	1.000	0.0389	04	2.000	0.03832	05	4.000	0.03414	06	10.000	0.03722
07	20.000	0.03946	08	80.000	0.04254	09	120.000	0.04238	10	160.000	0.04323
11	40.000	0.04047									

Vinyl Chloride			Average RF			RSD = 4.637			Average RF = 0.3698		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.3391	02	0.200	0.3474	03	0.500	0.3835	04	1.000	0.3532
05	2.000	0.3737	06	5.000	0.3938	07	10.000	0.3856	08	40.000	0.3827
09	60.000	0.3661	10	80.000	0.3706	11	20.000	0.3722			

cis-1,2-Dichloroethene			Average RF			RSD = 8.572			Average RF = 0.3024		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.2567	02	0.200	0.3138	03	0.500	0.3259	04	1.000	0.2778
05	2.000	0.2594	06	5.000	0.3063	07	10.000	0.3064	08	40.000	0.3268
09	60.000	0.3251	10	80.000	0.3207	11	20.000	0.307			

cis-1,3-Dichloropropene			Average RF			RSD = 9.781			Average RF = 0.3941		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.3909	02	0.200	0.3733	03	0.500	0.338	04	1.000	0.3478
05	2.000	0.3496	06	5.000	0.3878	07	10.000	0.4196	08	40.000	0.4434
09	60.000	0.442	10	80.000	0.4322	11	20.000	0.4105			

cis-1,4-Dichloro-2-butene			Quadratic (0,0) 1/X			COD = 0.9973			Y = 0.0004714 X² + 0.05554 X + 0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.04494	04	4.000	0.04286	05	8.000	0.03822	06	20.000	0.04803
07	40.000	0.05642	08	160.000	0.06725	09	240.000	0.06933	10	320.000	0.06833
11	80.000	0.05801									

m,p-Xylenes			Average RF			RSD = 6.256			Average RF = 1.411E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.200	1.346	02	0.400	1.392	03	1.000	1.338	04	2.000	1.331
05	4.000	1.275	06	10.000	1.409	07	20.000	1.443	08	80.000	1.555
09	120.000	1.532	10	160.000	1.492	11	40.000	1.413			

n-Butylbenzene			Average RF			RSD = 6.041			Average RF = 3.239E0		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	3.611	02	0.200	3.307	03	0.500	3.136	04	1.000	2.956
05	2.000	2.932	06	5.000	3.253	07	10.000	3.349	08	40.000	3.429
09	60.000	3.262	10	80.000	3.163	11	20.000	3.235			

n-Hexane			Average RF			RSD = 4.798			Average RF = 0.4292		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.4255	02	0.200	0.4673	03	0.500	0.4437	04	1.000	0.3986
05	2.000	0.3952	06	5.000	0.4293	07	10.000	0.4306	08	40.000	0.441
09	60.000	0.4266	10	80.000	0.419	11	20.000	0.4441			

n-Octane			Average RF			RSD = 8.184			Average RF = 0.4794		
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.200	0.4405	03	0.500	0.5151	04	1.000	0.4014	05	2.000	0.4516
06	5.000	0.4799	07	10.000	0.4951	08	40.000	0.5356	09	60.000	0.5067

Initial Calibration - Detailed Report

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	Column Name: 1

10 80.000 0.4805 11 20.000 0.4876

n-Propylbenzene

Average RF

RSD = 4.908

Average RF = 5.03E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	4.634	02	0.200	4.743	03	0.500	4.943	04	1.000	5.111
05	2.000	4.845	06	5.000	5.377	07	10.000	5.359	08	40.000	5.318
09	60.000	5.042	10	80.000	4.93	11	20.000	5.029			

o-Xylene

Average RF

RSD = 7.539

Average RF = 1.309E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	1.315	02	0.200	1.113	03	0.500	1.251	04	1.000	1.24
05	2.000	1.219	06	5.000	1.34	07	10.000	1.334	08	40.000	1.461
09	60.000	1.421	10	80.000	1.379	11	20.000	1.332			

sec-Butylbenzene

Average RF

RSD = 4.42

Average RF = 4.285E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	3.987	02	0.200	4.202	03	0.500	4.184	04	1.000	4.109
05	2.000	4.14	06	5.000	4.495	07	10.000	4.525	08	40.000	4.578
09	60.000	4.374	10	80.000	4.224	11	20.000	4.321			

tert-Amyl Methyl Ether

Average RF

RSD = 5.631

Average RF = 0.1557

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	0.500	0.1687	04	1.000	0.1612	05	2.000	0.1537	06	5.000	0.1659
07	10.000	0.1571	08	40.000	0.1564	09	60.000	0.1501	10	80.000	0.1436
11	20.000	0.1444									

tert-Butyl Formate

Average RF

RSD = 7.574

Average RF = 0.1851

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	0.500	0.1724	04	1.000	0.1676	05	2.000	0.1639	06	5.000	0.1917
07	10.000	0.1884	08	40.000	0.1986	09	60.000	0.2018	10	80.000	0.1969
11	20.000	0.1844									

tert-Butylbenzene

Average RF

RSD = 5.649

Average RF = 3.01E0

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	2.662	02	0.200	2.782	03	0.500	3.097	04	1.000	3.013
05	2.000	2.951	06	5.000	3.187	07	10.000	3.201	08	40.000	3.192
09	60.000	3.055	10	80.000	2.974	11	20.000	2.993			

trans-1,2-Dichloroethene

Average RF

RSD = 9.863

Average RF = 0.2703

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.2876	02	0.200	0.2125	03	0.500	0.2664	04	1.000	0.2467
05	2.000	0.2484	06	5.000	0.2684	07	10.000	0.2749	08	40.000	0.2998
09	60.000	0.2949	10	80.000	0.3004	11	20.000	0.2733			

trans-1,3-Dichloropropene

Average RF

RSD = 10.43

Average RF = 8.87E-1

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.100	0.9585	02	0.200	0.8987	03	0.500	0.8123	04	1.000	0.7296
05	2.000	0.7481	06	5.000	0.8529	07	10.000	0.9029	08	40.000	0.99
09	60.000	0.9984	10	80.000	0.9652	11	20.000	0.9004			

trans-1,4-Dichloro-2-butene

Average RF

RSD = 9.093

Average RF = 0.1846

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	0.500	0.2185	04	1.000	0.1687	05	2.000	0.1795	06	5.000	0.1963
07	10.000	0.1928	08	40.000	0.1873	09	60.000	0.1822	10	80.000	0.1631
11	20.000	0.1727									

Initial Calibration - Detailed Report

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1,2-Dichloroethane-d4

Average RF			RSD = 5.042			Average RF = 0.2582					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	4.000	0.2393	05	6.000	0.2404	06	8.000	0.2589	07	10.000	0.2635
08	14.000	0.2776	09	16.000	0.2681	10	20.000	0.261	11	12.000	0.2569

4-Bromofluorobenzene

Average RF			RSD = 8.911			Average RF = 8.348E-1					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	4.000	0.7102	05	6.000	0.7459	06	8.000	0.8099	07	10.000	0.884
08	14.000	0.9184	09	16.000	0.9014	10	20.000	0.8605	11	12.000	0.8483

Dibromofluoromethane

Average RF			RSD = 9.701			Average RF = 0.2267					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	4.000	0.1918	05	6.000	0.1983	06	8.000	0.2236	07	10.000	0.2269
08	14.000	0.2471	09	16.000	0.2509	10	20.000	0.2449	11	12.000	0.2303

Toluene-d8

Average RF			RSD = 5.686			Average RF = 9.7E-1					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	4.000	0.871	05	6.000	0.8991	06	8.000	0.9763	07	10.000	1.003
08	14.000	1.012	09	16.000	1.016	10	20.000	1.007	11	12.000	0.9751

Analyte

1,1,1,2-Tetrachloroethane

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	0.100	0.0906	-9.4	02	0.200	0.217	8.7	03	0.500	0.440	-12.0
04	1.000	0.868	-13.2	05	2.000	1.69	-15.6	06	5.000	4.63	-7.3
07	10.000	10.2	2.1	08	40.000	45.9	14.6	09	60.000	69.4	15.6
10	80.000	92.5	15.7	11	20.000	20.2	0.8				

1,1,1-Trichloroethane (TCA)

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	0.100	0.0856	-14.4	02	0.200	0.191	-4.7	03	0.500	0.465	-6.9
04	1.000	0.881	-11.9	05	2.000	1.80	-9.8	06	5.000	4.99	-0.2
07	10.000	10.5	4.9	08	40.000	46.1	15.3	09	60.000	66.9	11.6
10	80.000	89.5	11.9	11	20.000	20.8	4.0				

1,1,2,2-Tetrachloroethane

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	0.200	0.245	22.6	03	0.500	0.500	-0.1	04	1.000	0.934	-6.6
05	2.000	1.78	-11.0	06	5.000	5.20	3.9	07	10.000	10.5	5.2
08	40.000	40.3	0.8	09	60.000	57.8	-3.6	10	80.000	75.3	-5.9
11	20.000	18.9	-5.3								

1,1,2-Trichloroethane

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	0.200	0.194	-3.2	03	0.500	0.536	7.3	04	1.000	0.896	-10.4
05	2.000	1.83	-8.7	06	5.000	5.00	-0.0	07	10.000	10.4	4.0
08	40.000	42.7	6.7	09	60.000	63.2	5.3	10	80.000	80.8	1.0
11	20.000	19.6	-2.0								

1,1,2-Trichlorotrifluoroethane

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Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	0.200	0.178	-11.0	03	0.500	0.472	-5.7	04	1.000	0.950	-5.0
05	2.000	1.83	-8.3	06	5.000	4.90	-1.9	07	10.000	10.2	2.4
08	40.000	43.4	8.5	09	60.000	63.8	6.3	10	80.000	88.4	10.5
11	20.000	20.8	4.2								

1,1-Dichloroethane (1,1-DCA)

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	0.100	0.106	6.4	02	0.200	0.184	-8.2	03	0.500	0.507	1.3
04	1.000	0.937	-6.3	05	2.000	1.84	-8.0	06	5.000	4.94	-1.2
07	10.000	10.3	3.0	08	40.000	42.5	6.4	09	60.000	62.2	3.7
10	80.000	82.4	3.0	11	20.000	20.0	-0.1				

1,1-Dichloroethene (1,1-DCE)

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	0.100	0.0679	-32.1	02	0.200	0.210	4.9	03	0.500	0.537	7.4
04	1.000	0.961	-3.9	05	2.000	1.95	-2.3	06	5.000	5.16	3.2
07	10.000	10.3	2.6	08	40.000	42.6	6.5	09	60.000	62.7	4.6
10	80.000	86.3	7.9	11	20.000	20.3	1.4				

1,1-Dichloropropene

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	0.100	0.0931	-6.9	02	0.200	0.198	-1.2	03	0.500	0.489	-2.3
04	1.000	0.897	-10.3	05	2.000	1.86	-6.8	06	5.000	5.07	1.3
07	10.000	10.4	3.7	08	40.000	44.0	10.1	09	60.000	63.7	6.1
10	80.000	84.2	5.3	11	20.000	20.2	0.9				

1,2,3-Trichlorobenzene

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	0.100	0.122	21.6	02	0.200	0.185	-7.7	03	0.500	0.502	0.5
04	1.000	0.886	-11.4	05	2.000	1.76	-12.2	06	5.000	4.98	-0.4
07	10.000	10.4	3.7	08	40.000	41.1	2.8	09	60.000	62.0	3.4
10	80.000	82.2	2.7	11	20.000	19.4	-2.8				

1,2,3-Trichloropropane

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
03	0.500	0.381	-23.9	04	1.000	1.03	2.6	05	2.000	1.93	-3.3
06	5.000	5.50	10.0	07	10.000	11.2	11.5	08	40.000	42.6	6.5
09	60.000	60.5	0.8	10	80.000	77.5	-3.1	11	20.000	19.8	-1.2

1,2,4-Trichlorobenzene

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	0.200	0.235	17.6	03	0.500	0.492	-1.5	04	1.000	0.936	-6.4
05	2.000	1.73	-13.3	06	5.000	4.90	-2.1	07	10.000	9.83	-1.7
08	40.000	41.8	4.4	09	60.000	61.8	3.0	10	80.000	81.8	2.2
11	20.000	19.6	-2.2								

1,2,4-Trimethylbenzene

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	0.100	0.0990	-1.0	02	0.200	0.174	-12.9	03	0.500	0.478	-4.5

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04	1.000	0.988	-1.2	05	2.000	1.91	-4.6	06	5.000	5.22	4.4
07	10.000	10.8	7.6	08	40.000	43.1	7.7	09	60.000	62.2	3.7
10	80.000	80.0	0.1	11	20.000	20.1	0.7				

1,2-Dibromo-3-chloropropane (DBCP)

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
05	2.000	1.69	-15.4	06	5.000	4.76	-4.7	07	10.000	9.91	-0.9
08	40.000	42.6	6.6	09	60.000	63.6	6.0	10	80.000	88.7	10.8
11	20.000	19.5	-2.4								

1,2-Dibromoethane

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	0.200	0.228	14.2	03	0.500	0.446	-10.9	04	1.000	0.919	-8.1
05	2.000	1.70	-14.8	06	5.000	4.86	-2.7	07	10.000	9.94	-0.6
08	40.000	44.3	10.7	09	60.000	64.6	7.7	10	80.000	82.9	3.7
11	20.000	20.2	0.8								

1,2-Dichlorobenzene

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	0.100	0.0991	-0.9	02	0.200	0.191	-4.4	03	0.500	0.493	-1.4
04	1.000	0.977	-2.3	05	2.000	1.82	-9.2	06	5.000	5.20	4.1
07	10.000	10.5	4.6	08	40.000	42.5	6.2	09	60.000	62.4	4.0
10	80.000	80.4	0.5	11	20.000	19.8	-1.2				

1,2-Dichloroethane

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	0.100	0.117	17.4	02	0.200	0.186	-7.1	03	0.500	0.514	2.7
04	1.000	0.989	-1.1	05	2.000	1.80	-9.9	06	5.000	5.07	1.5
07	10.000	10.0	0.2	08	40.000	41.1	2.8	09	60.000	60.2	0.3
10	80.000	77.5	-3.1	11	20.000	19.2	-3.8				

1,2-Dichloropropane

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	0.200	0.192	-4.0	03	0.500	0.544	8.8	04	1.000	0.904	-9.6
05	2.000	1.85	-7.7	06	5.000	5.15	2.9	07	10.000	10.2	2.5
08	40.000	42.6	6.6	09	60.000	61.3	2.1	10	80.000	80.5	0.6
11	20.000	19.6	-2.2								

1,3,5-Trichlorobenzene

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	0.100	0.101	0.6	02	0.200	0.205	2.6	03	0.500	0.500	-0.1
04	1.000	0.909	-9.1	05	2.000	1.80	-10.0	06	5.000	5.01	0.2
07	10.000	10.2	1.8	08	40.000	42.3	5.7	09	60.000	62.9	4.8
10	80.000	82.6	3.2	11	20.000	20.1	0.3				

1,3,5-Trimethylbenzene

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	0.100	0.0939	-6.1	02	0.200	0.194	-3.0	03	0.500	0.495	-0.9
04	1.000	0.964	-3.6	05	2.000	1.91	-4.4	06	5.000	5.20	4.0
07	10.000	10.5	5.4	08	40.000	42.6	6.6	09	60.000	61.4	2.4
10	80.000	79.5	-0.6	11	20.000	20.0	0.2				

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1,3-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.120	20.5	02	0.200	0.196	-2.0	03	0.500	0.501	0.3
04	1.000	0.937	-6.3	05	2.000	1.80	-9.9	06	5.000	5.01	0.3
07	10.000	10.0	0.4	08	40.000	41.1	2.7	09	60.000	60.4	0.6
10	80.000	78.4	-2.0	11	20.000	19.1	-4.5				

1,3-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.109	9.2	02	0.200	0.174	-12.8	03	0.500	0.514	2.7
04	1.000	1.01	1.3	05	2.000	1.83	-8.5	06	5.000	5.05	1.0
07	10.000	10.2	2.0	08	40.000	42.1	5.4	09	60.000	62.0	3.3
10	80.000	79.8	-0.3	11	20.000	19.4	-3.2				

1,4-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.112	12.2	02	0.200	0.216	8.2	03	0.500	0.491	-1.8
04	1.000	0.966	-3.4	05	2.000	1.79	-10.6	06	5.000	4.97	-0.6
07	10.000	9.94	-0.6	08	40.000	41.5	3.7	09	60.000	60.5	0.9
10	80.000	78.3	-2.1	11	20.000	18.8	-5.9				

1,4-Dioxane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
05	80.000	91.3	14.2	06	200.000	202	0.9	07	400.000	411	2.8
08	1600.000	1490	-6.8	09	2400.000	2420	0.8	10	3200.000	3340	4.4
11	800.000	671	-16.1								

1-Chlorohexane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	0.200	0.207	3.6	03	0.500	0.488	-2.4	04	1.000	0.894	-10.6
05	2.000	1.83	-8.3	06	5.000	4.75	-4.9	07	10.000	10.1	0.9
08	40.000	44.1	10.3	09	60.000	63.6	6.1	10	80.000	83.2	4.0
11	20.000	20.3	1.4								

2,2-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.107	6.9	02	0.200	0.173	-13.7	03	0.500	0.500	0.0
04	1.000	0.932	-6.8	05	2.000	1.83	-8.7	06	5.000	4.90	-2.1
07	10.000	9.91	-0.9	08	40.000	43.5	8.7	09	60.000	63.4	5.7
10	80.000	83.2	4.0	11	20.000	21.4	6.8				

2-Butanone (MEK)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	5.000	4.97	-0.5	04	10.000	10.9	9.4	05	20.000	17.8	-11.0
06	50.000	49.7	-0.7	07	100.000	98.9	-1.1	08	400.000	408	2.1
09	600.000	628	4.6	10	800.000	811	1.3	11	200.000	192	-4.2

2-Chloro-1,3-butadiene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.400	0.369	-7.7	02	0.800	0.708	-11.4	03	2.000	1.86	-7.0

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04	4.000	3.72	-6.9	05	8.000	7.44	-7.0	06	20.000	20.2	0.9
07	40.000	41.4	3.5	08	160.000	181	12.8	09	240.000	264	9.9
10	320.000	354	10.5	11	80.000	82.0	2.5				

2-Chloroethyl Vinyl Ether

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	0.200	0.226	13.2	03	0.500	0.482	-3.6	04	1.000	0.941	-5.9
05	2.000	1.83	-8.4	06	5.000	5.09	1.8	07	10.000	10.3	2.7
08	40.000	41.5	3.7	09	60.000	61.3	2.1	10	80.000	78.3	-2.2
11	20.000	19.3	-3.3								

2-Chlorotoluene

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	0.100	0.109	8.8	02	0.200	0.208	4.0	03	0.500	0.505	0.9
04	1.000	0.998	-0.2	05	2.000	1.94	-3.2	06	5.000	5.19	3.9
07	10.000	10.1	0.8	08	40.000	40.2	0.5	09	60.000	57.7	-3.8
10	80.000	74.6	-6.8	11	20.000	19.0	-4.9				

2-Hexanone

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	2.000	2.26	13.0	03	5.000	5.71	14.1	04	10.000	9.17	-8.3
05	20.000	17.7	-11.3	06	50.000	48.0	-4.0	07	100.000	103	2.8
08	400.000	410	2.4	09	600.000	601	0.2	10	800.000	767	-4.1
11	200.000	190	-4.9								

2-Methyl-1-propanol

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
03	20.000	23.5	17.6	04	40.000	45.0	12.5	05	80.000	73.4	-8.3
06	200.000	194	-2.8	07	400.000	377	-5.8	08	1600.000	1560	-2.5
09	2400.000	2470	2.7	10	3200.000	3280	2.3	11	800.000	674	-15.7

2-Methyl-2-propanol

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
04	5.000	5.33	6.5	05	10.000	9.58	-4.2	06	25.000	24.9	-0.3
07	50.000	50.8	1.6	08	200.000	193	-3.5	09	300.000	309	2.9
10	400.000	396	-0.9	11	100.000	97.8	-2.2				

2-Nitropropane

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
03	2.500	2.11	-15.8	04	5.000	4.31	-13.9	05	10.000	8.27	-17.3
06	25.000	22.8	-8.7	07	50.000	52.5	5.0	08	200.000	234	16.8
09	300.000	349	16.3	10	400.000	453	13.1	11	100.000	104	4.5

2-Propanol

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	10.000	13.3	32.8	03	25.000	25.8	3.3	04	50.000	52.6	5.1
05	100.000	86.8	-13.2	06	250.000	233	-6.9	07	500.000	492	-1.7
08	2000.000	1890	-5.7	09	3000.000	3060	1.9	10	4000.000	4010	0.4
11	1000.000	841	-15.9								

3-Chloro-1-propene

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#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	0.200	0.196	-2.2	03	0.500	0.492	-1.6	04	1.000	0.878	-12.2
05	2.000	1.90	-5.0	06	5.000	5.22	4.3	07	10.000	10.2	1.7
08	40.000	41.7	4.2	09	60.000	63.1	5.2	10	80.000	85.4	6.7
11	20.000	19.8	-1.1								

4-Chlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.0985	-1.5	02	0.200	0.201	0.3	03	0.500	0.495	-1.0
04	1.000	1.01	1.2	05	2.000	1.94	-3.0	06	5.000	5.24	4.7
07	10.000	10.5	5.4	08	40.000	41.0	2.6	09	60.000	59.4	-1.0
10	80.000	76.4	-4.6	11	20.000	19.4	-3.2				

4-Isopropyltoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.0915	-8.5	02	0.200	0.175	-12.4	03	0.500	0.489	-2.2
04	1.000	0.944	-5.6	05	2.000	1.88	-5.8	06	5.000	5.27	5.4
07	10.000	10.8	7.8	08	40.000	44.1	10.2	09	60.000	63.5	5.8
10	80.000	82.2	2.7	11	20.000	20.5	2.6				

4-Methyl-2-pentanone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.05	5.2	02	2.000	2.13	6.3	03	5.000	4.91	-1.9
04	10.000	10.2	1.7	05	20.000	18.4	-8.2	06	50.000	51.1	2.2
07	100.000	101	1.3	08	400.000	409	2.3	09	600.000	594	-0.9
10	800.000	768	-4.0	11	200.000	192	-3.8				

Acetone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
04	10.000	10.9	9.1	05	20.000	18.9	-5.6	06	50.000	49.5	-1.0
07	100.000	100	0.1	08	400.000	402	0.5	09	600.000	610	1.7
10	800.000	793	-0.9	11	200.000	192	-4.0				

Acetonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	20.000	19.4	-3.0	04	40.000	40.3	0.8	05	80.000	74.6	-6.8
06	200.000	215	7.7	07	400.000	416	4.1	08	1600.000	1660	3.9
09	2400.000	2430	1.1	10	3200.000	3220	0.6	11	800.000	732	-8.5

Acrolein

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	2.000	2.84	41.9	02	4.000	4.12	3.0	03	10.000	10.4	4.1
04	20.000	19.5	-2.5	05	40.000	35.1	-12.2	06	100.000	95.8	-4.2
07	200.000	194	-2.8	08	800.000	774	-3.3	09	1200.000	1160	-3.7
10	1600.000	1500	-6.5	11	400.000	344	-13.9				

Acrylonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	0.800	0.856	7.0	03	2.000	2.12	5.9	04	4.000	4.01	0.2
05	8.000	7.35	-8.1	06	20.000	20.6	3.2	07	40.000	40.4	1.0

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08	160.000	161	0.8	09	240.000	237	-1.4	10	320.000	310	-3.0
11	80.000	75.6	-5.5								

Benzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.107	7.3	02	0.200	0.194	-2.9	03	0.500	0.510	2.1
04	1.000	0.942	-5.8	05	2.000	1.87	-6.5	06	5.000	5.05	1.0
07	10.000	10.2	2.2	08	40.000	41.6	4.1	09	60.000	60.7	1.2
10	80.000	80.1	0.1	11	20.000	19.4	-2.8				

Bromobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.0838	-16.2	02	0.200	0.226	13.2	03	0.500	0.512	2.5
04	1.000	0.955	-4.5	05	2.000	1.86	-6.8	06	5.000	5.23	4.7
07	10.000	10.5	4.6	08	40.000	40.8	2.1	09	60.000	60.9	1.5
10	80.000	80.8	1.0	11	20.000	19.6	-2.0				

Bromochloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	0.200	0.174	-13.2	03	0.500	0.489	-2.2	04	1.000	0.974	-2.6
05	2.000	1.76	-11.8	06	5.000	5.11	2.2	07	10.000	10.2	2.0
08	40.000	43.7	9.2	09	60.000	65.3	8.9	10	80.000	85.2	6.5
11	20.000	20.2	0.9								

Bromodichloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.0958	-4.2	02	0.200	0.164	-18.0	03	0.500	0.476	-4.7
04	1.000	0.937	-6.3	05	2.000	1.82	-9.0	06	5.000	5.06	1.1
07	10.000	10.1	1.4	08	40.000	45.5	13.8	09	60.000	67.8	13.1
10	80.000	88.2	10.3	11	20.000	20.5	2.6				

Bromoform

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	0.200	0.164	-18.0	03	0.500	0.313	-37.4	04	1.000	0.781	-21.9
05	2.000	1.53	-23.4	06	5.000	4.57	-8.7	07	10.000	9.73	-2.7
08	40.000	42.2	5.4	09	60.000	61.8	3.1	10	80.000	78.1	-2.4
11	20.000	19.2	-3.9								

Bromomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	0.500	0.533	6.5	04	1.000	1.03	2.7	05	2.000	2.02	1.2
06	5.000	5.05	1.0	07	10.000	9.97	-0.3	08	40.000	39.6	-1.0
09	60.000	58.4	-2.7	10	80.000	77.4	-3.2	11	20.000	19.2	-4.2

Carbon Disulfide

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	0.500	0.551	10.2	04	1.000	0.959	-4.1	05	2.000	1.88	-5.8
06	5.000	4.90	-2.0	07	10.000	10.1	1.2	08	40.000	41.3	3.1
09	60.000	60.2	0.4	10	80.000	81.0	1.2	11	20.000	19.2	-4.1

Carbon Tetrachloride

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#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.0889	-11.1	02	0.200	0.171	-14.3	03	0.500	0.444	-11.2
04	1.000	0.916	-8.4	05	2.000	1.78	-11.1	06	5.000	4.80	-4.1
07	10.000	10.1	1.3	08	40.000	47.2	18.1	09	60.000	70.1	16.9
10	80.000	94.0	17.5	11	20.000	21.3	6.4				

Chlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.109	9.0	02	0.200	0.181	-9.4	03	0.500	0.500	0.0
04	1.000	0.934	-6.6	05	2.000	1.81	-9.3	06	5.000	4.96	-0.8
07	10.000	10.1	0.7	08	40.000	43.3	8.2	09	60.000	63.0	5.0
10	80.000	83.1	3.8	11	20.000	19.9	-0.7				

Chloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.0927	-7.3	02	0.200	0.180	-10.0	03	0.500	0.508	1.7
04	1.000	1.08	7.8	05	2.000	2.11	5.6	06	5.000	5.14	2.8
07	10.000	10.4	3.6	08	40.000	40.9	2.3	09	60.000	58.1	-3.2
10	80.000	77.5	-3.1	11	20.000	20.0	-0.2				

Chloroform

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.112	12.1	02	0.200	0.202	1.0	03	0.500	0.458	-8.5
04	1.000	0.892	-10.8	05	2.000	1.85	-7.7	06	5.000	4.95	-1.0
07	10.000	10.1	0.8	08	40.000	42.6	6.6	09	60.000	63.0	5.0
10	80.000	83.0	3.7	11	20.000	19.8	-1.2				

Chloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.116	16.2	02	0.200	0.213	6.5	03	0.500	0.519	3.9
04	1.000	1.01	0.6	05	2.000	2.06	2.8	06	5.000	4.99	-0.1
07	10.000	9.83	-1.7	08	40.000	38.0	-4.9	09	60.000	55.1	-8.1
10	80.000	74.6	-6.7	11	20.000	18.3	-8.4				

Cyclohexane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.104	3.6	02	0.200	0.190	-4.8	03	0.500	0.512	2.4
04	1.000	0.958	-4.2	05	2.000	1.88	-6.0	06	5.000	4.79	-4.2
07	10.000	10.0	0.3	08	40.000	42.9	7.3	09	60.000	62.2	3.7
10	80.000	82.1	2.6	11	20.000	19.9	-0.7				

Dibromochloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	0.200	0.209	4.5	03	0.500	0.442	-11.6	04	1.000	0.845	-15.5
05	2.000	1.80	-9.8	06	5.000	5.23	4.5	07	10.000	11.1	11.3
11	20.000	23.3	16.6								

Dibromomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	0.200	0.225	12.6	03	0.500	0.506	1.2	04	1.000	0.961	-3.9

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05	2.000	1.87	-6.7	06	5.000	4.81	-3.8	07	10.000	10.2	1.8
08	40.000	41.0	2.4	09	60.000	60.9	1.5	10	80.000	79.3	-0.9
11	20.000	19.2	-4.1								

Dichlorodifluoromethane (CFC 12)

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	0.100	0.104	4.4	02	0.200	0.193	-3.4	03	0.500	0.545	8.9
04	1.000	0.931	-6.9	05	2.000	1.97	-1.5	06	5.000	5.26	5.2
07	10.000	9.94	-0.6	08	40.000	39.4	-1.5	09	60.000	57.4	-4.4
10	80.000	79.2	-1.0	11	20.000	20.2	0.8				

Dichlorofluoromethane (CFC 21)

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	0.100	0.103	3.1	02	0.200	0.198	-0.9	03	0.500	0.540	7.9
04	1.000	0.999	-0.1	05	2.000	1.93	-3.7	06	5.000	5.14	2.7
07	10.000	10.3	3.1	08	40.000	40.1	0.3	09	60.000	57.4	-4.4
10	80.000	77.5	-3.2	11	20.000	19.0	-4.9				

Dichloromethane

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
03	0.500	0.582	16.4	04	1.000	1.09	9.5	05	2.000	2.00	-0.2
06	5.000	5.07	1.4	07	10.000	9.71	-2.9	08	40.000	38.0	-5.0
09	60.000	56.8	-5.4	10	80.000	74.7	-6.6	11	20.000	18.6	-7.2

Diethyl Ether

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	0.200	0.162	-18.9	03	0.500	0.521	4.2	04	1.000	1.00	0.0
05	2.000	1.76	-11.9	06	5.000	5.07	1.3	07	10.000	10.3	3.0
08	40.000	42.9	7.3	09	60.000	64.4	7.3	10	80.000	85.1	6.4
11	20.000	20.2	1.1								

Diisopropyl Ether

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
01	0.100	0.0919	-8.1	02	0.200	0.217	8.3	03	0.500	0.495	-1.1
04	1.000	0.996	-0.4	05	2.000	1.83	-8.3	06	5.000	5.05	1.1
07	10.000	10.2	1.9	08	40.000	41.7	4.2	09	60.000	62.0	3.4
10	80.000	81.1	1.4	11	20.000	19.5	-2.5				

Ethyl Acetate

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
05	4.000	6.95	73.7	06	10.000	11.2	11.6	07	20.000	20.6	3.2
08	80.000	78.8	-1.5	09	120.000	115	-4.5	10	160.000	167	4.1
11	40.000	35.8	-10.6								

Ethyl Methacrylate

Calculated				Calculated				Calculated			
#	Amount	Conc	%D	#	Amount	Conc	%D	#	Amount	Conc	%D
02	0.200	0.230	15.2	03	0.500	0.498	-0.5	04	1.000	0.903	-9.7
05	2.000	1.70	-14.9	06	5.000	4.91	-1.7	07	10.000	10.2	1.8
08	40.000	42.9	7.4	09	60.000	62.8	4.6	10	80.000	81.0	1.3
11	20.000	19.3	-3.5								

Ethyl tert-Butyl Ether

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#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.0998	-0.2	02	0.200	0.176	-12.1	03	0.500	0.506	1.2
04	1.000	0.975	-2.5	05	2.000	1.91	-4.7	06	5.000	5.20	4.0
07	10.000	10.3	3.4	08	40.000	42.1	5.2	09	60.000	62.9	4.8
10	80.000	81.6	2.0	11	20.000	19.8	-1.0				

Ethylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.0988	-1.2	02	0.200	0.191	-4.6	03	0.500	0.498	-0.4
04	1.000	0.911	-8.9	05	2.000	1.87	-6.6	06	5.000	4.96	-0.8
07	10.000	10.2	1.7	08	40.000	44.2	10.5	09	60.000	63.8	6.3
10	80.000	84.1	5.2	11	20.000	19.7	-1.3				

Hexachlorobutadiene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	0.200	0.215	7.6	03	0.500	0.511	2.2	04	1.000	0.778	-22.2
05	2.000	1.79	-10.4	06	5.000	5.05	0.9	07	10.000	10.2	2.5
08	40.000	43.2	8.1	09	60.000	63.1	5.2	10	80.000	86.5	8.1
11	20.000	19.6	-2.1								

Iodomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.400	0.436	9.0	02	0.800	0.773	-3.4	03	2.000	1.86	-7.2
04	4.000	3.47	-13.3	05	8.000	7.04	-12.0	06	20.000	19.5	-2.6
07	40.000	40.9	2.3	08	160.000	170	6.3	09	240.000	260	8.3
10	320.000	362	13.2	11	80.000	79.6	-0.5				

Isopropylbenzene (Cumene)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.0960	-4.0	02	0.200	0.171	-14.4	03	0.500	0.488	-2.4
04	1.000	0.915	-8.5	05	2.000	1.84	-8.2	06	5.000	5.05	1.0
07	10.000	10.4	4.3	08	40.000	45.3	13.2	09	60.000	66.3	10.5
10	80.000	85.4	6.7	11	20.000	20.4	1.8				

Methacrylonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.400	0.440	10.1	02	0.800	0.631	-21.2	03	2.000	1.94	-3.2
04	4.000	3.70	-7.5	05	8.000	7.58	-5.3	06	20.000	20.2	0.8
07	40.000	41.7	4.4	08	160.000	174	9.0	09	240.000	261	8.9
10	320.000	332	3.7	11	80.000	80.3	0.3				

Methyl Acetate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
04	1.000	1.14	13.6	05	2.000	2.02	0.9	06	5.000	5.04	0.7
07	10.000	9.83	-1.7	08	40.000	39.3	-1.8	09	60.000	58.4	-2.6
10	80.000	77.4	-3.3	11	20.000	18.8	-5.8				

Methyl Methacrylate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	0.500	0.523	4.5	04	1.000	0.926	-7.4	05	2.000	1.81	-9.5

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06	5.000	5.25	5.0	07	10.000	10.4	4.4	08	40.000	41.4	3.5
09	60.000	61.7	2.8	10	80.000	79.5	-0.6	11	20.000	19.5	-2.7

Methyl tert-Butyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.200	0.214	6.8	02	0.400	0.398	-0.4	03	1.000	1.01	1.4
04	2.000	1.84	-8.1	05	4.000	3.51	-12.2	06	10.000	10.1	0.6
07	20.000	19.8	-1.2	08	80.000	83.7	4.6	09	120.000	127	6.1
10	160.000	168	4.8	11	40.000	39.1	-2.3				

Methylcyclohexane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.109	9.0	02	0.200	0.195	-2.7	03	0.500	0.524	4.7
04	1.000	0.970	-3.0	05	2.000	1.85	-7.7	06	5.000	4.81	-3.8
07	10.000	10.0	-0.0	08	40.000	42.3	5.8	09	60.000	60.2	0.3
10	80.000	77.5	-3.1	11	20.000	20.1	0.6				

Naphthalene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	0.200	0.225	12.7	03	0.500	0.476	-4.8	04	1.000	0.936	-6.4
05	2.000	1.73	-13.5	06	5.000	5.08	1.6	07	10.000	10.2	2.3
08	40.000	42.0	5.1	09	60.000	61.4	2.3	10	80.000	81.0	1.2
11	20.000	19.9	-0.5								

Propionitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	2.40	20.0	04	4.000	3.68	-7.9	05	8.000	7.61	-4.9
06	20.000	20.5	2.3	07	40.000	40.6	1.5	08	160.000	160	-0.2
09	240.000	239	-0.5	10	320.000	310	-3.1	11	80.000	74.2	-7.3

Styrene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.113	12.6	02	0.200	0.191	-4.6	03	0.500	0.466	-6.8
04	1.000	0.844	-15.6	05	2.000	1.78	-10.8	06	5.000	4.90	-2.1
07	10.000	10.3	3.1	08	40.000	43.8	9.6	09	60.000	67.2	12.0
10	80.000	83.6	4.5	11	20.000	19.6	-1.9				

Tetrachloroethene (PCE)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.0967	-3.3	02	0.200	0.185	-7.7	03	0.500	0.497	-0.5
04	1.000	0.895	-10.5	05	2.000	1.85	-7.4	06	5.000	4.88	-2.4
07	10.000	10.2	2.0	08	40.000	45.0	12.5	09	60.000	64.7	7.9
10	80.000	86.7	8.4	11	20.000	20.2	1.1				

Tetrahydrofuran (THF)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
04	1.000	1.20	19.5	05	2.000	1.65	-17.6	06	5.000	5.05	0.9
07	10.000	9.89	-1.1	08	40.000	40.7	1.8	09	60.000	59.2	-1.4
10	80.000	78.3	-2.2	11	20.000	20.0	0.1				

Toluene

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#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.0892	-10.8	02	0.200	0.186	-6.8	03	0.500	0.487	-2.7
04	1.000	0.965	-3.5	05	2.000	1.96	-2.2	06	5.000	5.15	3.1
07	10.000	10.5	5.1	08	40.000	43.3	8.2	09	60.000	63.4	5.6
10	80.000	83.2	4.0	11	20.000	20.0	-0.0				

Trichloroethene (TCE)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.102	1.6	02	0.200	0.195	-2.4	03	0.500	0.514	2.8
04	1.000	0.913	-8.7	05	2.000	1.89	-5.3	06	5.000	4.92	-1.6
07	10.000	10.1	1.1	08	40.000	42.6	6.5	09	60.000	62.5	4.2
10	80.000	82.3	2.9	11	20.000	19.8	-1.1				

Trichlorofluoromethane (CFC 11)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.0988	-1.2	02	0.200	0.195	-2.6	03	0.500	0.485	-3.1
04	1.000	0.940	-6.0	05	2.000	1.90	-4.8	06	5.000	5.16	3.3
07	10.000	10.4	3.8	08	40.000	42.3	5.8	09	60.000	60.0	0.1
10	80.000	82.1	2.6	11	20.000	20.4	2.0				

Vinyl Acetate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	1.000	0.982	-1.8	04	2.000	1.93	-3.3	05	4.000	3.45	-13.9
06	10.000	9.39	-6.1	07	20.000	19.9	-0.4	08	80.000	85.9	7.3
09	120.000	128	7.0	10	160.000	175	9.1	11	40.000	40.9	2.1

Vinyl Chloride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.0917	-8.3	02	0.200	0.188	-6.1	03	0.500	0.519	3.7
04	1.000	0.955	-4.5	05	2.000	2.02	1.1	06	5.000	5.32	6.5
07	10.000	10.4	4.3	08	40.000	41.4	3.5	09	60.000	59.4	-1.0
10	80.000	80.2	0.2	11	20.000	20.1	0.7				

cis-1,2-Dichloroethene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.0849	-15.1	02	0.200	0.208	3.8	03	0.500	0.539	7.8
04	1.000	0.919	-8.1	05	2.000	1.72	-14.2	06	5.000	5.06	1.3
07	10.000	10.1	1.3	08	40.000	43.2	8.1	09	60.000	64.5	7.5
10	80.000	84.9	6.1	11	20.000	20.3	1.5				

cis-1,3-Dichloropropene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.0992	-0.8	02	0.200	0.189	-5.3	03	0.500	0.429	-14.2
04	1.000	0.882	-11.8	05	2.000	1.77	-11.3	06	5.000	4.92	-1.6
07	10.000	10.6	6.5	08	40.000	45.0	12.5	09	60.000	67.3	12.2
10	80.000	87.7	9.7	11	20.000	20.8	4.2				

cis-1,4-Dichloro-2-butene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	1.62	-19.2	04	4.000	3.08	-23.0	05	8.000	5.48	-31.5

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06	20.000	17.0	-14.8	07	40.000	39.3	-1.7	08	160.000	169	5.9
09	240.000	248	3.2	10	320.000	311	-2.7	11	80.000	78.3	-2.1

m,p-Xylenes

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.200	0.191	-4.6	02	0.400	0.394	-1.4	03	1.000	0.948	-5.2
04	2.000	1.89	-5.7	05	4.000	3.61	-9.7	06	10.000	9.98	-0.2
07	20.000	20.4	2.2	08	80.000	88.1	10.2	09	120.000	130	8.6
10	160.000	169	5.7	11	40.000	40.0	0.1				

n-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.111	11.5	02	0.200	0.204	2.1	03	0.500	0.484	-3.2
04	1.000	0.912	-8.8	05	2.000	1.81	-9.5	06	5.000	5.02	0.4
07	10.000	10.3	3.4	08	40.000	42.3	5.8	09	60.000	60.4	0.7
10	80.000	78.1	-2.4	11	20.000	20.0	-0.1				

n-Hexane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.0991	-0.9	02	0.200	0.218	8.9	03	0.500	0.517	3.4
04	1.000	0.929	-7.1	05	2.000	1.84	-7.9	06	5.000	5.00	0.0
07	10.000	10.0	0.3	08	40.000	41.1	2.8	09	60.000	59.6	-0.6
10	80.000	78.1	-2.4	11	20.000	20.7	3.5				

n-Octane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	0.200	0.184	-8.1	03	0.500	0.537	7.5	04	1.000	0.837	-16.3
05	2.000	1.88	-5.8	06	5.000	5.00	0.1	07	10.000	10.3	3.3
08	40.000	44.7	11.7	09	60.000	63.4	5.7	10	80.000	80.2	0.2
11	20.000	20.3	1.7								

n-Propylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.0921	-7.9	02	0.200	0.189	-5.7	03	0.500	0.491	-1.7
04	1.000	1.02	1.6	05	2.000	1.93	-3.7	06	5.000	5.34	6.9
07	10.000	10.7	6.5	08	40.000	42.3	5.7	09	60.000	60.1	0.2
10	80.000	78.4	-2.0	11	20.000	20.0	-0.0				

o-Xylene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.100	0.4	02	0.200	0.170	-15.0	03	0.500	0.478	-4.5
04	1.000	0.947	-5.3	05	2.000	1.86	-6.9	06	5.000	5.12	2.3
07	10.000	10.2	1.9	08	40.000	44.6	11.6	09	60.000	65.1	8.5
10	80.000	84.3	5.3	11	20.000	20.3	1.7				

sec-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.0930	-7.0	02	0.200	0.196	-2.0	03	0.500	0.488	-2.4
04	1.000	0.959	-4.1	05	2.000	1.93	-3.4	06	5.000	5.25	4.9
07	10.000	10.6	5.6	08	40.000	42.7	6.8	09	60.000	61.2	2.1
10	80.000	78.9	-1.4	11	20.000	20.2	0.8				

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tert-Amyl Methyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	0.500	0.542	8.4	04	1.000	1.04	3.6	05	2.000	1.97	-1.3
06	5.000	5.33	6.6	07	10.000	10.1	0.9	08	40.000	40.2	0.5
09	60.000	57.8	-3.6	10	80.000	73.8	-7.8	11	20.000	18.6	-7.2

tert-Butyl Formate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	0.500	0.466	-6.9	04	1.000	0.906	-9.4	05	2.000	1.77	-11.4
06	5.000	5.18	3.6	07	10.000	10.2	1.8	08	40.000	42.9	7.3
09	60.000	65.4	9.0	10	80.000	85.1	6.4	11	20.000	19.9	-0.4

tert-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.0884	-11.6	02	0.200	0.185	-7.6	03	0.500	0.515	2.9
04	1.000	1.00	0.1	05	2.000	1.96	-2.0	06	5.000	5.29	5.9
07	10.000	10.6	6.4	08	40.000	42.4	6.1	09	60.000	60.9	1.5
10	80.000	79.0	-1.2	11	20.000	19.9	-0.5				

trans-1,2-Dichloroethene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.106	6.4	02	0.200	0.157	-21.4	03	0.500	0.493	-1.5
04	1.000	0.913	-8.7	05	2.000	1.84	-8.1	06	5.000	4.97	-0.7
07	10.000	10.2	1.7	08	40.000	44.4	10.9	09	60.000	65.5	9.1
10	80.000	88.9	11.1	11	20.000	20.2	1.1				

trans-1,3-Dichloropropene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.100	0.108	8.1	02	0.200	0.203	1.3	03	0.500	0.458	-8.4
04	1.000	0.823	-17.7	05	2.000	1.69	-15.7	06	5.000	4.81	-3.8
07	10.000	10.2	1.8	08	40.000	44.6	11.6	09	60.000	67.5	12.6
10	80.000	87.1	8.8	11	20.000	20.3	1.5				

trans-1,4-Dichloro-2-butene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	0.500	0.592	18.4	04	1.000	0.914	-8.6	05	2.000	1.95	-2.7
06	5.000	5.32	6.3	07	10.000	10.4	4.5	08	40.000	40.6	1.5
09	60.000	59.2	-1.3	10	80.000	70.7	-11.6	11	20.000	18.7	-6.4

1,2-Dichloroethane-d4

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
04	4.000	3.71	-7.3	05	6.000	5.59	-6.9	06	8.000	8.02	0.3
07	10.000	10.2	2.0	08	14.000	15.1	7.5	09	16.000	16.6	3.8
10	20.000	20.2	1.1	11	12.000	11.9	-0.5				

4-Bromofluorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
04	4.000	3.40	-14.9	05	6.000	5.36	-10.6	06	8.000	7.76	-3.0
07	10.000	10.6	5.9	08	14.000	15.4	10.0	09	16.000	17.3	8.0
10	20.000	20.6	3.1	11	12.000	12.2	1.6				

Initial Calibration - Detailed Report

Calibration ID: KC1900305	Instrument ID: K-MS-13
	Column Name: 1

Dibromofluoromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
04	4.000	3.38	-15.4	05	6.000	5.25	-12.5	06	8.000	7.89	-1.4
07	10.000	10.0	0.1	08	14.000	15.3	9.0	09	16.000	17.7	10.7
10	20.000	21.6	8.0	11	12.000	12.2	1.6				

Toluene-d8

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
04	4.000	3.59	-10.2	05	6.000	5.56	-7.3	06	8.000	8.05	0.6
07	10.000	10.3	3.4	08	14.000	14.6	4.3	09	16.000	16.8	4.8
10	20.000	20.8	3.8	11	12.000	12.1	0.5				

Analytical Results Summary

Instrument Name: K-BALANCE-47 Analyst: TANDREWS Analysis Lot: 654782 Method/Testcode: 160.3 Modified/TS

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	POL	% Rec	% RSD	Date Analyzed	
<1909014-001	Solids, Total	N/A		Soil	97.80 Percent	10.447 g	97.8 Percent	1					10/9/19 17:09	N
<1909014-002	Solids, Total	N/A		Soil	95.10 Percent	10.464 g	95.1 Percent	1					10/9/19 17:09	N
<1909014-003	Solids, Total	N/A		Soil	99.70 Percent	11.348 g	99.7 Percent	1					10/9/19 17:09	N
<1909014-004	Solids, Total	N/A		Soil	83.00 Percent	10.591 g	83.0 Percent	1					10/9/19 17:09	N
<1909014-005	Solids, Total	N/A		Soil	91.60 Percent	11.501 g	91.6 Percent	1					10/9/19 17:09	N
<1909014-006	Solids, Total	N/A		Soil	95.00 Percent	7.152 g	95.0 Percent	1					10/3/19 19:08	N
<1909014-007	Solids, Total	N/A		Soil	100.00 Percent	3.248 g	100 Percent	1					10/3/19 19:08	N
<Q1914288-01	Solids, Total	DUP	K1909014-007	Soil	100.00 Percent	3.431 g	100 Percent	1				<1	10/3/19 19:08	N
<Q1914288-02	Solids, Total	DUP	K1909198-001	Sediment	87.10 Percent	10.552 g	87.1 Percent	1				<1	10/3/19 19:08	N
<Q1914662-01	Solids, Total	DUP	K1909393-002	Sludge, Solid	5.45 Percent	12.481 g	5.45 Percent	1				7	10/9/19 17:09	N

indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

8260 Med Level Smpl	Tare (grams)	Tare + Sample (grams)	Label (grams)	Vol. MeOH/H2O (mL)	Solids (percent)	Moisture (percent)	Mass MeOH (grams)	Mass SAMPLE (grams)	Final Vol (mL)	Mass (Excel rounded)	Final Vol (Excel rounded)	Smpl
K1908449-003	0.00	5.208	0.00	5	30.3	69.7	3.96	5.21	8.629976	5.21	8.6	K1908449-003

SPX
JUL 09 2019



Semi-Volatile Organic Compounds by GC/MS

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 345831
Team: Semivoa GCMS/KVAN
 Number of Copies to make: 1

Prep Workflow: OrgExtS(14)
Prep Method: EPA 3541

Status: Prepped
Prep Date/Time: 10/4/19 10:39

#	Lab Code	Client ID	B#	Method / Test	pH	Matrix	Amt. Ext.	Final Vol	Sample Description
1	K1909014-006	PS-GNB-052619	.01	8270D/SVO		Soil	15.100g	4.00mL	TANDREWS K-Balance-47 / 8270 reduced due to high
2	K1909014-007	Black Owl Biochar	.01	8270D/SVO		Soil	9.6830g	1.00mL	TANDREWS K-Balance-47 / 8270 reduced due to high
3	KQ1914345-01	LCS		8270D/SVO		Solid	30.00g	1.00mL	
4	KQ1914345-02	DLCS		8270D/SVO		Solid	30.00g	1.00mL	
5	KQ1914345-03	MB		8270D/SVO		Solid	30.0000g	1.00mL	

Spiking Solutions

Name:	CLP Matrix Spike @ 100ug/mL	Inventory ID	202849	Logbook Ref:	SVM61-75U	Expires On:	02/28/2020
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KQ1914345-01	1,000.00µL	KQ1914345-02	1,000.00µL				
Name:	8270 ALL PURPOSE SURROGATE	Inventory ID	203048	Logbook Ref:	SVM61-80B	Expires On:	03/05/2020
K1909014-006	1,000.00µL	K1909014-007	1,000.00µL	KQ1914345-01	1,000.00µL	KQ1914345-03	1,000.00µL

Name:	8270 Matrix Spike	Inventory ID	203137	Logbook Ref:	SVM61-100A	Expires On:	03/20/2020
KQ1914345-01	1,000.00µL	KQ1914345-02	1,000.00µL				

Name:	Benzidine (As Dihydrochloride) Spike 1000ppm	Inventory ID	203457	Logbook Ref:	10-SVMP-005-72C	Expires On:	03/30/2020
KQ1914345-01	50.00µL	KQ1914345-02	50.00µL				

Preparation Steps

Step:	Weigh	Step:	Extraction	Step:	Final Volume
Started:	10/3/19 19:41	Started:	10/4/19 10:39	Started:	10/5/19 10:00
Finished:	10/3/19 19:41	Finished:	10/4/19 13:49	Finished:	10/8/19 15:26
By:	TANDREWS	By:	KVAN	By:	CWILLIAMS
Comments		Comments		Comments	

Comments:

18: SVM 59-79DD

Reviewed By:  Date: 10/9/19

Preparation Information Benchsheet

Prep Run#: 345831
Team: Semivoa GCMS/KVAN

Prep Workflow: OrgExtS(14)
Prep Method: EPA 3541

Status: Prepped
Prep Date/Time: 10/4/19 10:39

Chain of Custody

Relinquished By: <u>LM</u>	Date: <u>10-8-19</u>	Extracts Examined <input checked="" type="radio"/> Yes <input type="radio"/> No
Received By: <u>LM</u>	Date: <u>10-9-19</u>	

Preparation Information Benchsheet

Prep Run#: 345831
 Team: Semivoa GCMS/KVAN
 Number of Copies to make: 1

Prep Workflow: OrgExSt(14)
 Prep Method: EPA 3541

Status: Draft
 Prep Date/Time: 10/4/19 08:25 AM

#	Lab Code	Client ID	B#	Method / Test	Matrix	Amp Ext.	pH	Int. Vol	Final Vol	Surr Amt	Spike Amt
1	K1909014-006	PS-GNB-052619	.01	8270D / SVO	Soil	*	NA	10	4	1000	-
2	K1909014-007	Black Owl Biochar	.01	8270D / SVO	Soil	*		10	1		-
3	KQ1914345-01	LCS	-	8270D / SVO	Solid	30.000		10	1		1000
4	KQ1914345-02	D LCS	-	8270D / SVO	Solid	30.000		10	1		1000
5	KQ1914345-03	MB	-	8270D / SVO	Solid	30.000		10	1		-

15.168
 15.168
 36.000
 15.168 EKV

Comments: * See prep prep information benchsheet. KV10/4/19

Surrogate ID: SVM61-808 1001 50 ppm 1000 ul xp 35 20 exp 1
 Witnessed By: [Signature] 11-4-19
 Analyst: [Signature]
 Assisted By: [Signature]
 8270: SVM61-1009 100 ppm 1000 ul xp 3 20 exp 1
 11P: SVM61-150 100 ppm 1000 ul xp 2 28 20 exp 1
 15P: SVM61-105 100 ppm 1000 ul xp 3 30 20 exp 1

GPC RUNLOG

Run Date: 10/7/2019 GPC #: 8
 Calibration Date: 10/7/2019 Program Number: BNA

Lab I.D.	Position	Test	Dilution	Comments
BLANK	1	8270	NA	N/A
BLANK	2	8270	NA	N/A
KQ1914345-03 MB	3	8270	NA	N/A
KQ1914345-01 LCS	4	8270	NA	N/A
KQ1914345-02 DLCS	5	8270	NA	N/A
K1909014-006	6	8270	NA	N/A
K1909014-007	7	8270	NA	N/A

Final Volume Calculation

8270
 10 ml
 10 ml
 10 ml
 5 ml
 0.5 ml
 1 ml

Intermediate Volume before GPC:
 Aliquot taken from intermediate volume:
 Aliquot diluted up to....
 Volume injected onto column:
 GPC'd Extract brought to the Final Volume of:
 Calculated True Final Volume:

Filter Lot # 5142348A and 14970054

Operator Date and Initial: BG 10/7/19

Pre-Prep Information Benchsheet

Prep Run #: 345831

Container Lot No: 081919-1bnu

Prep Due Date: Oct-04-2019

#	Lab Code	Bottle	Test Name	Weight	Sample Comments	Test Comments
1	KI909014-006	.01	SVO : 8270D	15.100g	8270 reduced due to high organic matter in sample as per JW 10/3/19, no MS/DMS	TANDREWS K-Balance-47
2	KI909014-007	.01	SVO : 8270D	15.100g 9.1083g	8270 reduced due to high organic matter in sample as per JW 10/3/19, no MS/DMS	TANDREWS K-Balance-47

* Sample volume could not fit in extraction vessel. Weight reduced. 15/10/19

Relinquished By:	<i>TK</i>	Date/Time:	<i>14/10/3/19</i>
Received By:	<i>Kassidy Van</i>	Date/Time:	<i>06/10/19</i>

Service Request # 11909014
Workgroup KQ1914345

Sulfate Lot # 2019010 PM (GC?) Lot # DW292 Glass Wool Lot # 21317999

Date/Time/Initials Weighed: _____ Balance ID: _____ Calibration Verified

Storage Location (if not extracted same day): _____

Soxtherm's unit I.D.# H-50X-02,03

Soxtherm Start (Time/Date/Initial): 1039 10/4/19 RV

Soxtherm Stop (Time/Date/Initial): 1349 10/4/19 RV

Aliquot Amount: _____ Verified (date/initials): _____

N-Evap (Time/Date/Initial): 1000 10/5/19 TM
N-Evap Therm. ID: X-SVM-010
Temp as measured: 20 °C Correction factor: 0 °C Adjusted temp: 20 °C

GPC Clean-up (3640): (Time/Date/Initial) Start 1524 10/7/19 BG

S-Evap (Time/Date/Initial): 0906 9/8/19 B
S-Evap Therm. ID: DWB-46
Temp as measured: 73 °C Correction factor: 0 °C Adjusted temp: 73 °C

N-Evap (Time/Date/Initial): 0950 10-8-19 CW
N-Evap Therm. ID: X-SVM-004
Temp as measured: 20 °C Correction factor: 0 °C Adjusted temp: 20 °C

Pipet Lots: Intermediate Volume 22918647
Final Volume 0.5 mL 30408617
Extract Storage: RV Ball
2 mL 16418646

Completed (Time/Date/Initial): 14142 10-8-19 CW

Comments/Observations:

Bench Sheet Review Check List	
Hold times met, if no, reason:	<input checked="" type="checkbox"/>
Prep date, time, method, department, product code correct	<input checked="" type="checkbox"/>
Spike information and Q.C. correct (insufficient volume or mass recorded if no Q.C.)	<input checked="" type="checkbox"/>
Weights/Volumes and units correct on raw and final bench sheets	<input checked="" type="checkbox"/>
Sample IDs have been checked - bottle numbers appended if required	<input checked="" type="checkbox"/>
Names present for: started by, completed by, relinquished by, and witnessed by	<input checked="" type="checkbox"/>
Extract storage recorded	<input checked="" type="checkbox"/>
Additional prep sheet completely filled out (NA or line out blanks)	<input checked="" type="checkbox"/>
All clean-ups have been noted on additional prep sheet	<input checked="" type="checkbox"/>

Procedure:

ATS Environmental

Extraction Analyst Notes

Service Request: K1909014 Prep Group: 345831

Initials/Date	Notes	Topic
		No Anomalies: <input type="checkbox"/>
		Sample Anomalies: <input type="checkbox"/>
		Organics Present (sticks, leaves, bugs): <input type="checkbox"/>
		Fuel Odors: <input type="checkbox"/>
		Sulfur Odors, Precipitate: <input type="checkbox"/>
BG 10/17/19	<p>① No archive pre GPC clean-up due to sediment in extract sample when filtered</p>	General Notes:
10-8-19 CW	<p>② Extract became thick on n-eval and would not concentrate so it was taken to a higher final volume.</p>	

Validation Report

1st *CE* 10/11/19
2nd *Cpw* 10/11/19

Data File: J:\MS07\DATA\100919\1009F030.D\
Lab ID: K1909014-006
RunType: N/A
Matrix: Soil

Date Acquired: 10/10/19 08:05:00
Batch ID: 654315
Analysis Method: 8270D/SVO

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Duplicate Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates		X
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Surrogates	2-Fluorophenol	24	30	98	matrix
	Phenol-d6	24	31	103	matrix

Primary Review: _____

Secondary Review: _____

Quantitation Report

1st *ce* 10/11/19
2nd *Cpw* 10/11/19

Data File: J:\MS07\DATA\100919\1009F030.D\	Instrument: K-MS-07
Acqu Date: 10/10/19 08:05:00	Vial: 14
Run Type: N/A	Dilution: 1
Lab ID: K1909014-006	Raw Units: ug/mL

Bottle ID: K1909014-006.01	Tier: IV	Matrix: Soil
Prod Code: SVO	Collect Date: 9/25/19	Receive Date: 9/27/19

Analysis Lot: 654315	Prep Lot: 345831	Report Group: K1909014
Analysis: 8270D	Prep Method: EPA 3541	
	Prep Date: 10/4/19	

Title: Semivolatile Organic Compounds by GC/MS	Calibration ID: KC1900424
	Report List ID: 18699

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
1,4-Dichlorobenzene-d4	9.33	-0.01	49676	40.00	OK
Acenaphthene-d10	14.30		99771	40.00	OK
Chrysene-d12	21.13	-0.01	118540	40.00	OK
Naphthalene-d8	11.43	-0.01	190926	40.00	OK
Perylene-d12	24.31	+0.01	129996	40.00	OK
Phenanthrene-d10	16.70	-0.01	143807	40.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
2,4,6-Tribromophenol	15.58	-0.01	14305	16.68	44	35 - 118	Y
2-Fluorobiphenyl	13.23	-0.01	41797	13.06	52	37 - 103	Y
2-Fluorophenol	7.09	-0.03	13556	8.94	24 *	30 - 98	Y
Nitrobenzene-d5	10.25	-0.02	22808	12.31	49	36 - 112	Y
Phenol-d6	8.78	-0.03	18467	9.15	24 *	31 - 103	Y
Terphenyl-d14	19.33	-0.01	38949	13.07	52	18 - 127	Y

Target Compounds

Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
1,2,4-Trichlorobenzene	0.00		0	0.00	0	U	Y
1,2-Dichlorobenzene	0.00		0	0.00	0	U	Y
1,3-Dichlorobenzene	0.00		0	0.00	0	U	Y
1,4-Dichlorobenzene	0.00		0	0.00	0	U	Y
2,4,5-Trichlorophenol	0.00		0	0.00	0	U	Y
2,4,6-Trichlorophenol	0.00		0	0.00	0	U	Y
2,4-Dichlorophenol	0.00		0	0.00	0	U	Y
2,4-Dimethylphenol	0.00		0	0.00	0	U	Y
2,4-Dinitrophenol	0.00		0	0.00	0	U	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 10/11/19 5:58

\\alprews001\starlims\LIMSReps\QuantValidation.rpt

Data File: J:\MS07\DATA\100919\1009F030.D\
 Acqu Date: 10/10/19 08:05:00
 Run Type: N/A
 Lab ID: K1909014-006

Instrument: K-MS-07nd 10/11/19
 Vial: 14
 Dilution: 1
 Raw Units: ug/mL

Target Compounds

Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2,4-Dinitrotoluene	0.00		0	0.00	0	U	Y
2,6-Dinitrotoluene	0.00		0	0.00	0	U	Y
2-Chloronaphthalene	0.00		0	0.00	0	U	Y
2-Chlorophenol	0.00		0	0.00	0	U	Y
2-Methyl-4,6-dinitrophenol	0.00		0	0.00	0	U	Y
2-Methylnaphthalene	0.00		0	0.00	0	U	Y
2-Methylphenol	0.00		0	0.00	0	U	Y
2-Nitroaniline	0.00		0	0.00	0	U	Y
2-Nitrophenol	0.00		0	0.00	0	U	Y
3,3'-Dichlorobenzidine	0.00		0	0.00	0	U	Y
3-Nitroaniline	0.00		0	0.00	0	U	Y
4-Bromophenyl Phenyl Ether	0.00		0	0.00	0	U	Y
4-Chloro-3-methylphenol	0.00		0	0.00	0	U	Y
4-Chloroaniline	0.00		0	0.00	0	U	Y
4-Chlorophenyl Phenyl Ether	0.00		0	0.00	0	U	Y
4-Methylphenol	0.00		0	0.00	0	U	Y
4-Nitroaniline	0.00		0	0.00	0	U	Y
4-Nitrophenol	0.00		0	0.00	0	U	Y
Acenaphthene	0.00		0	0.00	0	U	Y
Acenaphthylene	0.00		0	0.00	0	U	Y
Aniline	0.00		0	0.00	0	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	0.00		0	0.00	0	U	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	0.00		0	0.00	0	U	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Benzoic Acid	0.00		0	0.00	0	U	Y
Benzyl Alcohol	0.00		0	0.00	0	U	Y
Bis(2-chloroethoxy)methane	0.00		0	0.00	0	U	Y
Bis(2-chloroethyl) Ether	0.00		0	0.00	0	U	Y
Bis(2-ethylhexyl) Phthalate	0.00		0	0.00	0	U	Y
Butyl Benzyl Phthalate	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Dibenzofuran	0.00		0	0.00	0	U	Y
Diethyl Phthalate	15.07	-0.03	1011	0.32	0.089	J	Y
Dimethyl Phthalate	0.00		0	0.00	0	U	Y
Di-n-butyl Phthalate	17.76		1028	0.25	0.070	U	Y
Di-n-octyl Phthalate	0.00		0	0.00	0	U	Y
Fluoranthene	18.66		561	0.15	0.042	U	Y

U: Undetected at or above MDL

J: Analyte detected above MDL, but below MRL

B: Hit above MRL also found in Method Blank

E: Analyte concentration above high point of ICAL

N: Presumptive evidence of compound

D: Result from dilution

m: Manual integration performed

d: Compound manually deleted

NR: Analyte not reported from this analysis

*: Result fails acceptance criteria

#: Acceptance criteria not applicable

?: Insufficient information to determine acceptance

e: Result >= MRL, but MRL less than low point of ICAL

c: check for co-elution

Printed: 10/11/19 5:58

\alprews001\starlims\LIMSReps\QuantValidation.rpt

Data File: J:\MS07\DATA\100919\1009F030.D\
 Acqu Date: 10/10/19 08:05:00
 Run Type: N/A
 Lab ID: K1909014-006

Instrument: K-MS-07nd *Cpu* 10/11/19
 Vial: 14
 Dilution: 1
 Raw Units: ug/mL

Target Compounds

Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Fluorene	0.00		0	0.00	0	U	Y
Hexachlorobenzene	0.00		0	0.00	0	U	Y
Hexachlorobutadiene	0.00		0	0.00	0	U	Y
Hexachlorocyclopentadiene	0.00		0	0.00	0	U	Y
Hexachloroethane	0.00		0	0.00	0	U	Y
Indeno(1,2,3-cd)pyrene	0.00		0	0.00	0	U	Y
Isophorone	0.00		0	0.00	0	U	Y
Naphthalene	0.00		0	0.00	0	U	Y
Nitrobenzene	0.00		0	0.00	0	U	Y
N-Nitrosodimethylamine	0.00		0	0.00	0	U	Y
N-Nitrosodi-n-propylamine	0.00		0	0.00	0	U	Y
N-Nitrosodiphenylamine	0.00		0	0.00	0	U	Y
Pentachlorophenol	0.00		0	0.00	0	U	Y
Phenanthrene	0.00		0	0.00	0	U	Y
Phenol	8.80	-0.04	5412	2.36	0.66	JX	Y
Pyrene	19.01	-0.01	564	0.42	0.12	J	Y
2,2'-Oxybis(1-chloropropane)	0.00		0	0.00	0	U	Y

Prep Amount: 15.100 g
 Prep Final Amount: 4.00 mL

Dilution: 1
 Basis Factor: 95.00

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Printed: 10/11/19 5:58

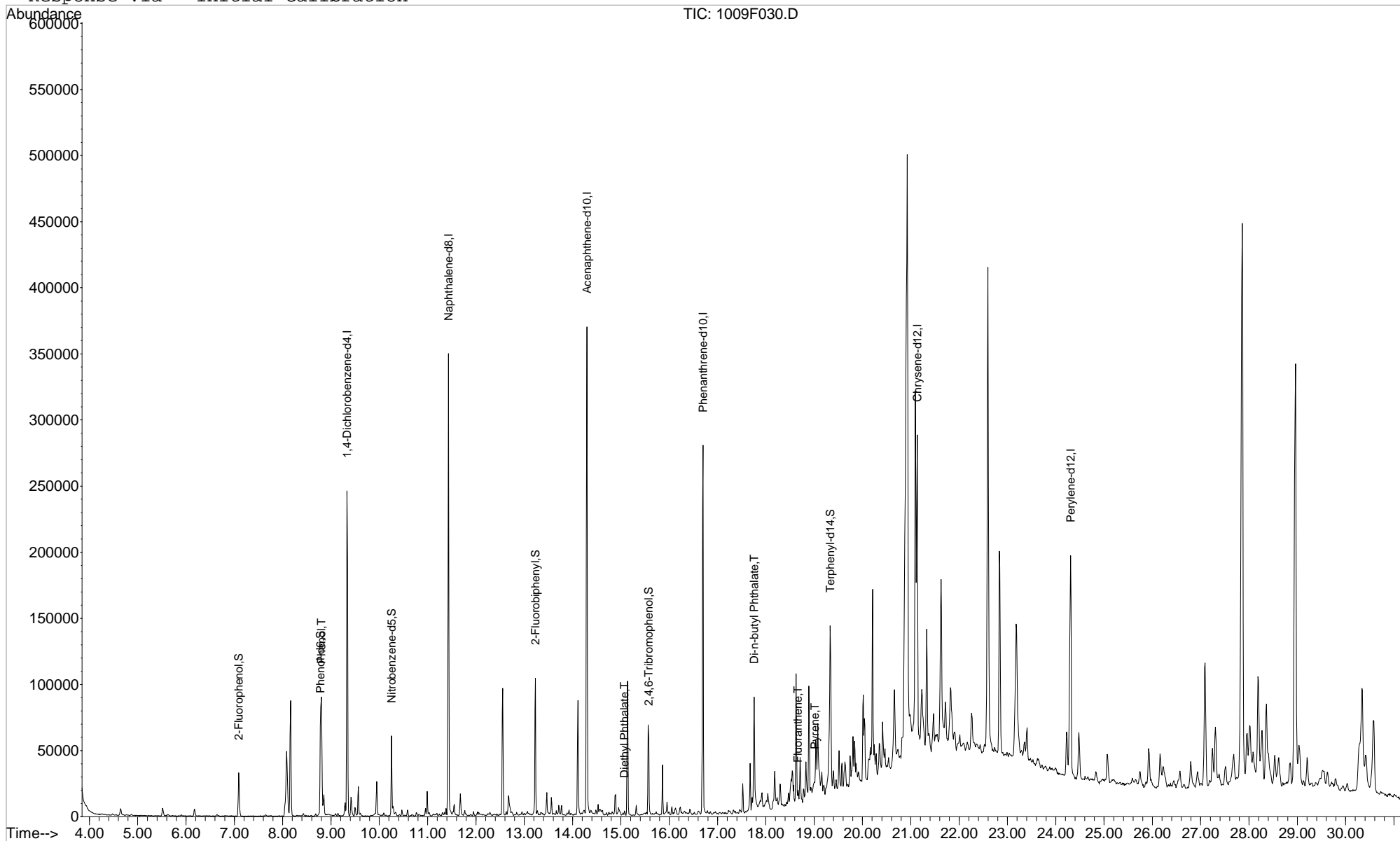
\alprews001\starlims\LIMSReps\QuantValidation.rpt

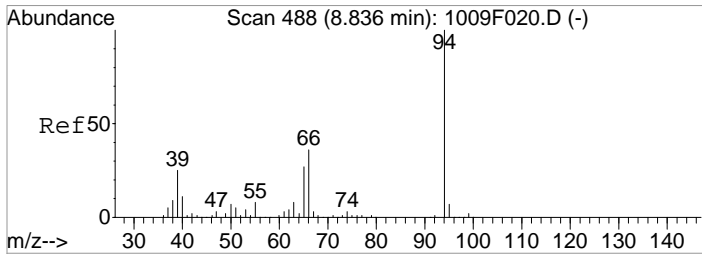
Data File : J:\MS07\DATA\100919\1009F030.D
 Acq On : 10 Oct 2019 8:05 am
 Sample : K1909014-006
 Misc :
 MS Integration Params: RTEINT.P
 Quant Time: Oct 11 5:09 2019

Vial: 28
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

Quant Results File: 100919_BNP7.RES

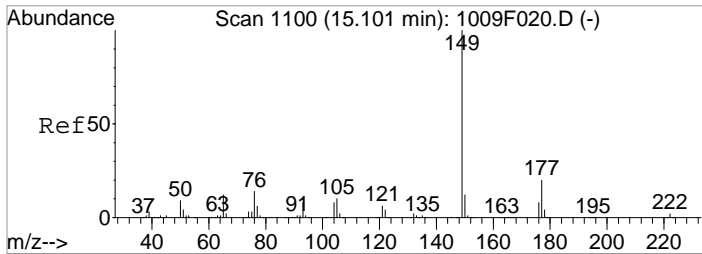
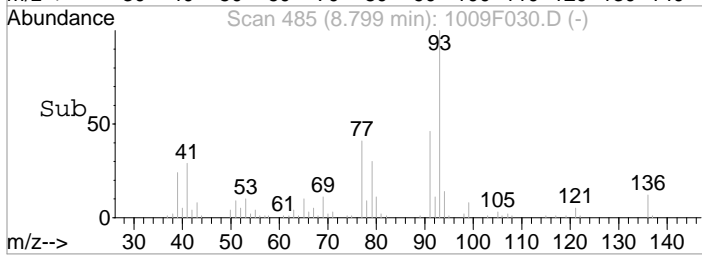
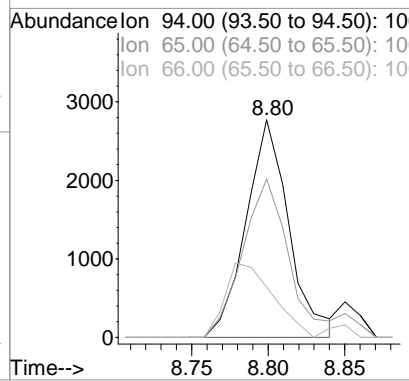
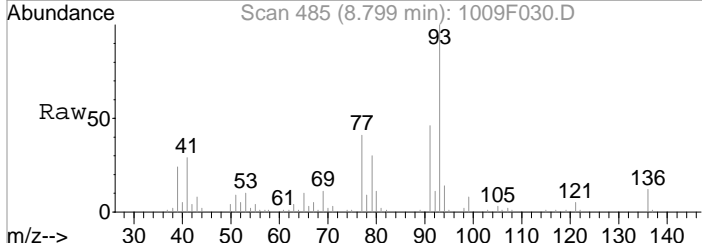
Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 23:34:17 2019
 Response via : Initial Calibration





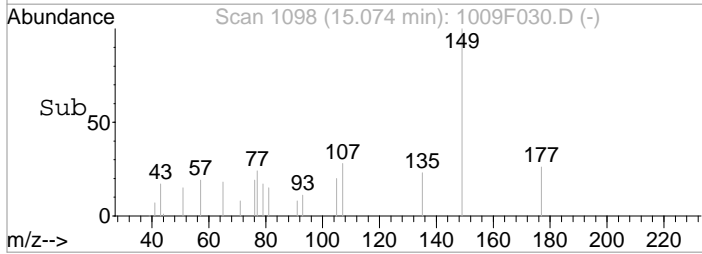
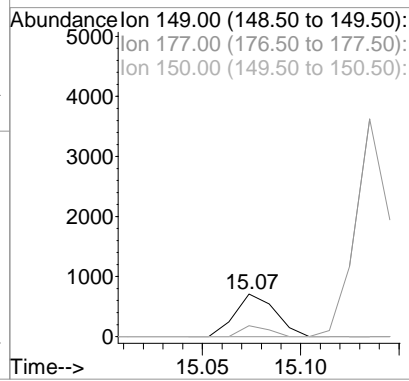
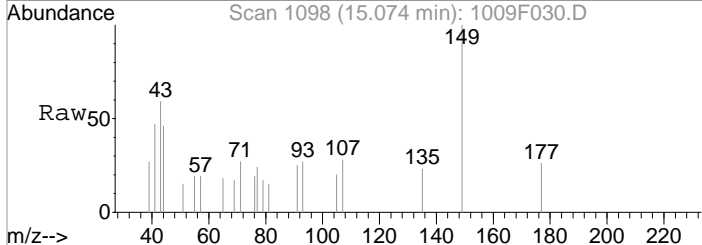
#9
 Phenol
 Concen: 2.36 ug/ml
 RT: 8.80 min Scan# 485
 Delta R.T. -0.03 min
 Lab File: 1009F030.D
 Acq: 10 Oct 2019 8:05 am

Tgt Ion	94	65	66	Resp	5412	Lower	Upper
Ion Ratio	100	72.1	21.9			0.0	59.2#
						9.6	69.6

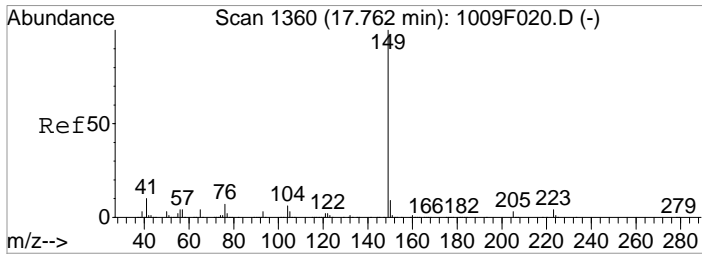


#55
 Diethyl Phthalate
 Concen: 0.32 ug/ml
 RT: 15.07 min Scan# 1098
 Delta R.T. -0.03 min
 Lab File: 1009F030.D
 Acq: 10 Oct 2019 8:05 am

Tgt Ion	149	177	150	Resp	1011	Lower	Upper
Ion Ratio	100	18.2	0.0			0.0	51.3
						0.0	41.6

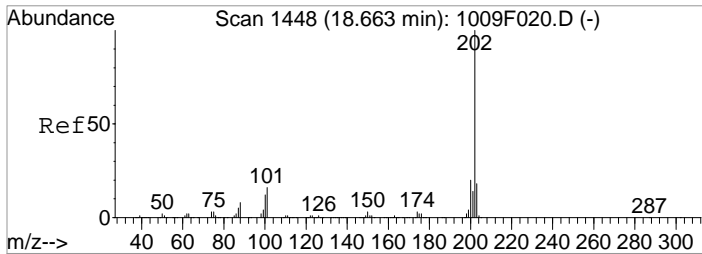
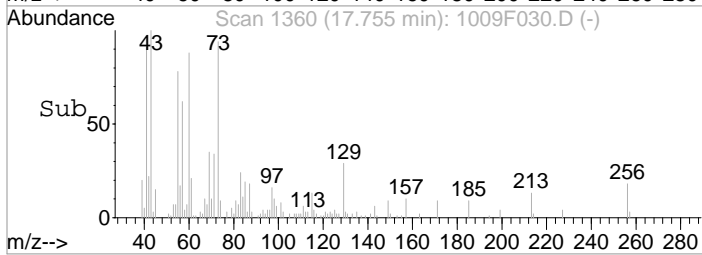
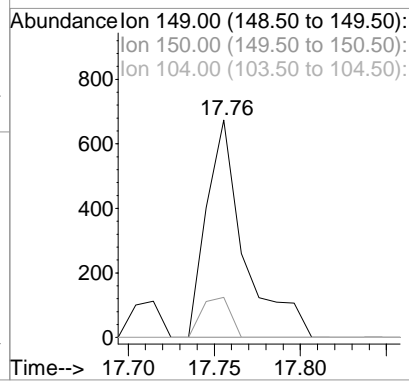
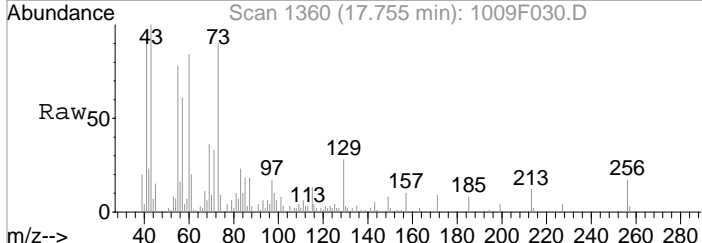


1st *ce* 10/11/19
2nd *Cpu* 10/11/19



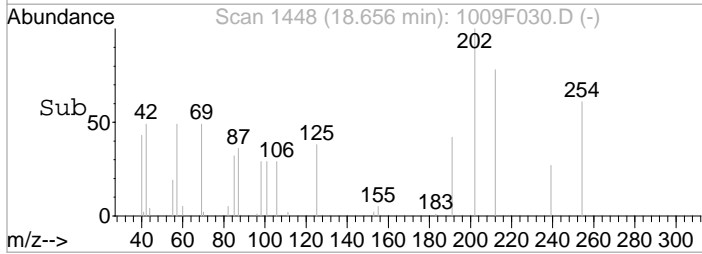
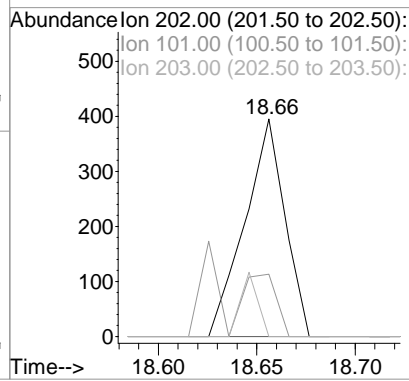
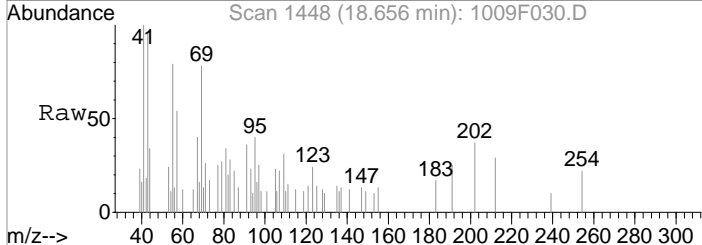
#71
Di-n-butyl Phthalate
Concen: 0.25 ug/ml
RT: 17.76 min Scan# 1360
Delta R.T. -0.01 min
Lab File: 1009F030.D
Acq: 10 Oct 2019 8:05 am

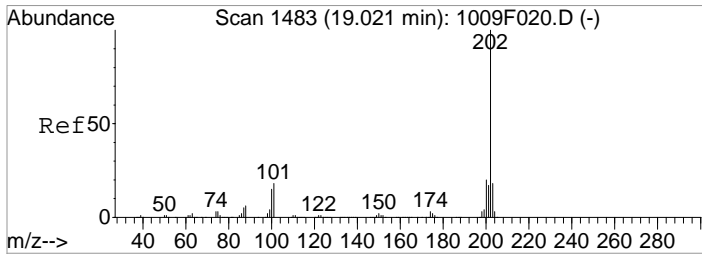
Tgt Ion	Resp	Lower	Upper
149	1028		
150	18.4	0.0	38.9
104	0.0	0.0	35.5



#72
Fluoranthene
Concen: 0.15 ug/ml
RT: 18.66 min Scan# 1448
Delta R.T. -0.01 min
Lab File: 1009F030.D
Acq: 10 Oct 2019 8:05 am

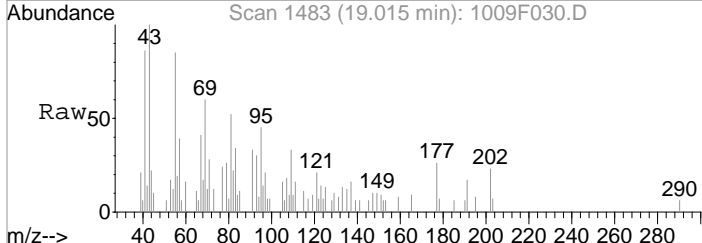
Tgt Ion	Resp	Lower	Upper
202	561		
101	28.6	0.0	44.7
203	0.0	0.0	47.3



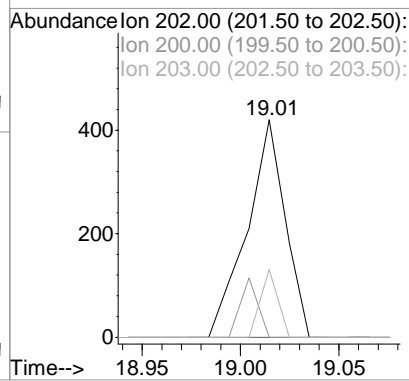
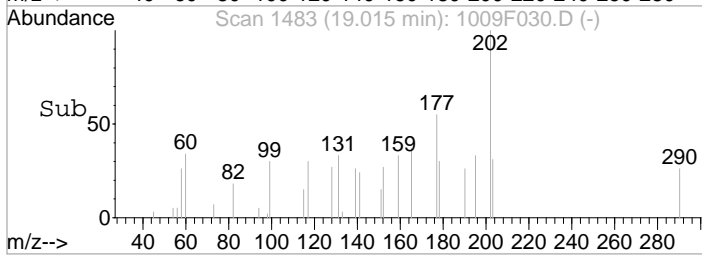


#75
 Pyrene
 Concen: 0.42 ug/ml
 RT: 19.01 min Scan# 1483
 Delta R.T. -0.01 min
 Lab File: 1009F030.D
 Acq: 10 Oct 2019 8:05 am

1st *ce* 10/11/19
 2nd *Cpu* 10/11/19



Tgt Ion	Resp	Lower	Upper
202	100	0.0	49.4
200	0.0	0.0	49.4
203	31.2	0.0	47.7



Data File : J:\MS07\DATA\100919\1009F030.D
 Acq On : 10 Oct 2019 8:05 am
 Sample : K1909014-006
 Misc :

Vial: 28
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 23:34:54 2019

Quant Results File: 100919_BNP7.RES

Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 23:34:17 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.33	152	49676	40.00	ug/ml	-0.01
22) Naphthalene-d8	11.43	136	190926	40.00	ug/ml	-0.01
36) Acenaphthene-d10	14.30	164	99771	40.00	ug/ml	0.00
61) Phenanthrene-d10	16.70	188	143807	40.00	ug/ml	0.00
73) Chrysene-d12	21.13	240	118540	40.00	ug/ml	-0.01
84) Perylene-d12	24.31	264	129996	40.00	ug/ml	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
4) 2-Fluorophenol	7.09	112	13556	8.94	ug/ml	-0.03
Spiked Amount 150.000	Range 21 - 100		Recovery =	5.96%#		
8) Phenol-d6	8.78	99	18467	9.15	ug/ml	-0.03
Spiked Amount 150.000	Range 10 - 94		Recovery =	6.10%#		
20) Nitrobenzene-d5	10.25	82	22808	12.31	ug/ml	-0.02
Spiked Amount 100.000	Range 35 - 114		Recovery =	12.31%#		
40) 2-Fluorobiphenyl	13.23	172	41797	13.06	ug/ml	-0.01
Spiked Amount 100.000	Range 43 - 116		Recovery =	13.06%#		
62) 2,4,6-Tribromophenol	15.58	330	14305	16.68	ug/ml	-0.01
Spiked Amount 150.000	Range 10 - 123		Recovery =	11.12%		
76) Terphenyl-d14	19.33	244	38949	13.07	ug/ml	0.00
Spiked Amount 100.000	Range 33 - 141		Recovery =	13.07%#		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
9) Phenol	8.80	94	5412	2.36	ug/ml#	49
55) Diethyl Phthalate	15.07	149	1011	0.32	ug/ml	85
71) Di-n-butyl Phthalate	17.76	149	1028	0.25	ug/ml	77
72) Fluoranthene	18.66	202	561	0.15	ug/ml	63
75) Pyrene	19.01	202	564	0.42	ug/ml	63

Validation Report

1st *ce* 10/11/19
2nd *Cpw* 10/11/19

Data File: J:\MS07\DATA\100919\1009F031.D
Lab ID: K1909014-007
RunType: N/A
Matrix: Soil

Date Acquired: 10/10/19 08:46:00
Batch ID: 654315
Analysis Method: 8270D/SVO

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Duplicate Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates		X
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Surrogates	2,4,6-Tribromophenol	0	35	118	matrix
	2-Fluorobiphenyl	0	37	103	
	2-Fluorophenol	0	30	98	
	Nitrobenzene-d5	2	36	112	
	Phenol-d6	0	31	103	
	Terphenyl-d14	0	18	127	

sample is charcoal
see also notes on prep sheets

Primary Review: _____

Secondary Review: _____

Quantitation Report

1st *ce* 10/11/19
2nd *Cpw* 10/11/19

Data File: J:\MS07\DATA\100919\1009F031.D\	Instrument: K-MS-07
Acqu Date: 10/10/19 08:46:00	Vial: 15
Run Type: N/A	Dilution: 1
Lab ID: K1909014-007	Raw Units: ug/mL

Bottle ID: K1909014-007.01	Tier: IV	Matrix: Soil
Prod Code: SVO	Collect Date: 9/25/19	Receive Date: 9/27/19

Analysis Lot: 654315	Prep Lot: 345831	Report Group: K1909014
Analysis: 8270D	Prep Method: EPA 3541	
	Prep Date: 10/4/19	

Title: Semivolatile Organic Compounds by GC/MS	Calibration ID: KC1900424
	Report List ID: 18699

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
1,4-Dichlorobenzene-d4	9.33	-0.01	43533	40.00	OK
Acenaphthene-d10	14.30		89628	40.00	OK
Chrysene-d12	21.12	-0.02	131423	40.00	OK
Naphthalene-d8	11.43	-0.01	155042	40.00	OK
Perylene-d12	24.29	-0.01	135176	40.00	OK
Phenanthrene-d10	16.70	-0.01	147892	40.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
2,4,6-Tribromophenol	0.00		0	0.00	0 *	35 - 118	Y
2-Fluorobiphenyl	13.23	-0.01	1198	0.42	0 *	37 - 103	Y
2-Fluorophenol	0.00		0	0.00	0 *	30 - 98	Y
Nitrobenzene-d5	10.25	-0.02	2785	1.71	2 *	36 - 112	Y
Phenol-d6	8.79	-0.02	655	0.37	0 *	31 - 103	Y
Terphenyl-d14	0.00		0	0.00	0 *	18 - 127	Y

Target Compounds

Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
1,2,4-Trichlorobenzene	0.00		0	0.00	0	U	Y
1,2-Dichlorobenzene	0.00		0	0.00	0	U	Y
1,3-Dichlorobenzene	0.00		0	0.00	0	U	Y
1,4-Dichlorobenzene	0.00		0	0.00	0	U	Y
2,4,5-Trichlorophenol	0.00		0	0.00	0	U	Y
2,4,6-Trichlorophenol	0.00		0	0.00	0	U	Y
2,4-Dichlorophenol	0.00		0	0.00	0	U	Y
2,4-Dimethylphenol	0.00		0	0.00	0	U	Y
2,4-Dinitrophenol	0.00		0	0.00	0	U	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 10/11/19 5:58

\\alprews001\starlims\LIMSReps\QuantValidation.rpt

Data File:	J:\MS07\DATA\100919\1009F031.D\	Instrument:	K-MS-07 nd	10/11/19
Acqu Date:	10/10/19 08:46:00	Vial:	15	
Run Type:	N/A	Dilution:	1	
Lab ID:	K1909014-007	Raw Units:	ug/mL	

Target Compounds

Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2,4-Dinitrotoluene	0.00		0	0.00	0	U	Y
2,6-Dinitrotoluene	0.00		0	0.00	0	U	Y
2-Chloronaphthalene	0.00		0	0.00	0	U	Y
2-Chlorophenol	0.00		0	0.00	0	U	Y
2-Methyl-4,6-dinitrophenol	0.00		0	0.00	0	U	Y
2-Methylnaphthalene	0.00		0	0.00	0	U	Y
2-Methylphenol	0.00		0	0.00	0	U	Y
2-Nitroaniline	0.00		0	0.00	0	U	Y
2-Nitrophenol	0.00		0	0.00	0	U	Y
3,3'-Dichlorobenzidine	0.00		0	0.00	0	U	Y
3-Nitroaniline	0.00		0	0.00	0	U	Y
4-Bromophenyl Phenyl Ether	0.00		0	0.00	0	U	Y
4-Chloro-3-methylphenol	0.00		0	0.00	0	U	Y
4-Chloroaniline	0.00		0	0.00	0	U	Y
4-Chlorophenyl Phenyl Ether	0.00		0	0.00	0	U	Y
4-Methylphenol	0.00		0	0.00	0	U	Y
4-Nitroaniline	0.00		0	0.00	0	U	Y
4-Nitrophenol	0.00		0	0.00	0	U	Y
Acenaphthene	0.00		0	0.00	0	U	Y
Acenaphthylene	0.00		0	0.00	0	U	Y
Aniline	0.00		0	0.00	0	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	0.00		0	0.00	0	U	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	0.00		0	0.00	0	U	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Benzoic Acid	0.00		0	0.00	0	U	Y
Benzyl Alcohol	0.00		0	0.00	0	U	Y
Bis(2-chloroethoxy)methane	0.00		0	0.00	0	U	Y
Bis(2-chloroethyl) Ether	0.00		0	0.00	0	U	Y
Bis(2-ethylhexyl) Phthalate	21.36	-0.02	594	0.26	0.027	J	Y
Butyl Benzyl Phthalate	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Dibenzofuran	0.00		0	0.00	0	U	Y
Diethyl Phthalate	15.08	-0.02	859	0.30	0.031	J	Y
Dimethyl Phthalate	0.00		0	0.00	0	U	Y
Di-n-butyl Phthalate	0.00		0	0.00	0	U	Y
Di-n-octyl Phthalate	0.00		0	0.00	0	U	Y
Fluoranthene	0.00		0	0.00	0	U	Y

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound
 D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis
 *: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Data File: J:\MS07\DATA\100919\1009F031.D\
 Acqu Date: 10/10/19 08:46:00
 Run Type: N/A
 Lab ID: K1909014-007

Instrument: K-MS-07nd *Cpu* 10/11/19
 Vial: 15
 Dilution: 1
 Raw Units: ug/mL

Target Compounds

Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Fluorene	0.00		0	0.00	0	U	Y
Hexachlorobenzene	0.00		0	0.00	0	U	Y
Hexachlorobutadiene	0.00		0	0.00	0	U	Y
Hexachlorocyclopentadiene	0.00		0	0.00	0	U	Y
Hexachloroethane	0.00		0	0.00	0	U	Y
Indeno(1,2,3-cd)pyrene	0.00		0	0.00	0	U	Y
Isophorone	0.00		0	0.00	0	U	Y
Naphthalene	0.00		0	0.00	0	U	Y
Nitrobenzene	0.00		0	0.00	0	U	Y
N-Nitrosodimethylamine	0.00		0	0.00	0	U	Y
N-Nitrosodi-n-propylamine	0.00		0	0.00	0	U	Y
N-Nitrosodiphenylamine	0.00		0	0.00	0	U	Y
Pentachlorophenol	0.00		0	0.00	0	U	Y
Phenanthrene	0.00		0	0.00	0	U	Y
Phenol	0.00		0	0.00	0	U	Y
Pyrene	0.00		0	0.00	0	U	Y
2,2'-Oxybis(1-chloropropane)	0.00		0	0.00	0	U	Y

Prep Amount: 9.6830 g
 Prep Final Amount: 1.00 mL

Dilution: 1
 Basis Factor: 100.00

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Printed: 10/11/19 5:58

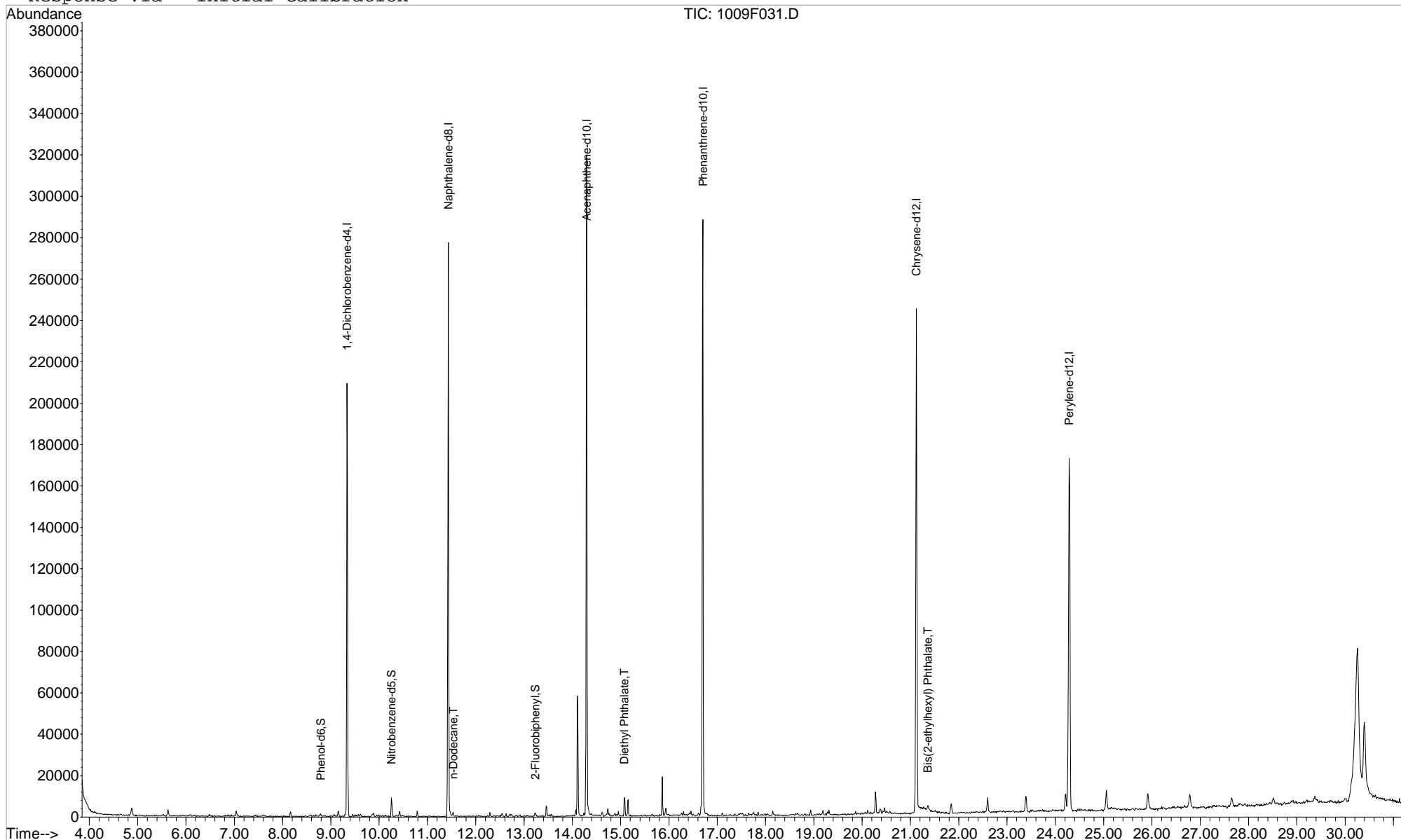
\valprews001\starlims\LIMSReps\QuantValidation.rpt

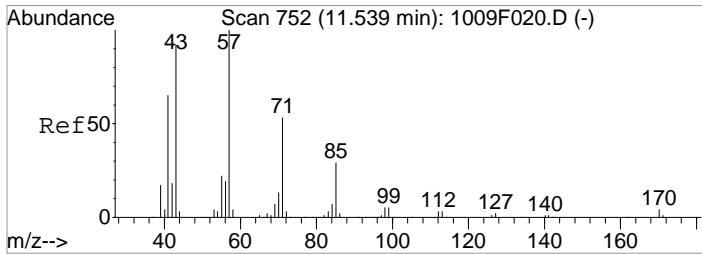
Data File : J:\MS07\DATA\100919\1009F031.D
 Acq On : 10 Oct 2019 8:46 am
 Sample : K1909014-007
 Misc :
 MS Integration Params: RTEINT.P
 Quant Time: Oct 11 4:53 2019

Vial: 29
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

Quant Results File: 100919_BNP7.RES

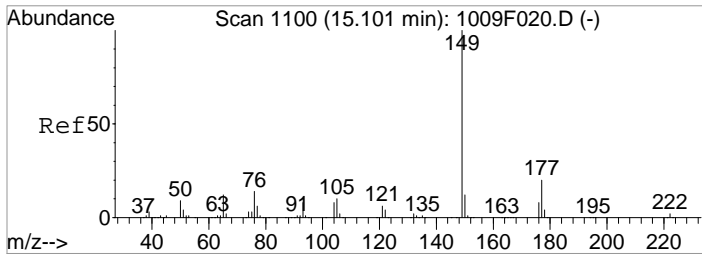
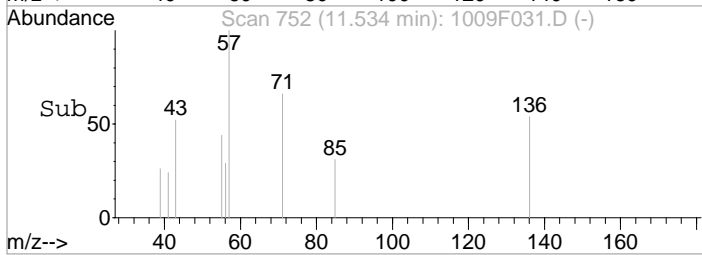
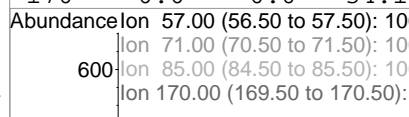
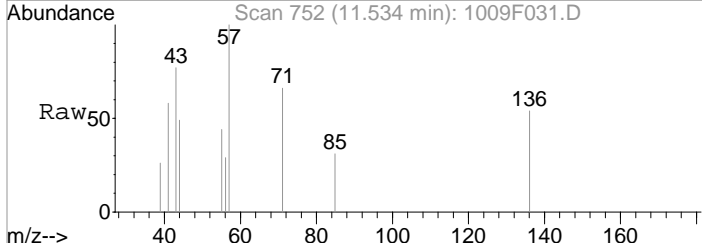
Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 23:34:17 2019
 Response via : Initial Calibration





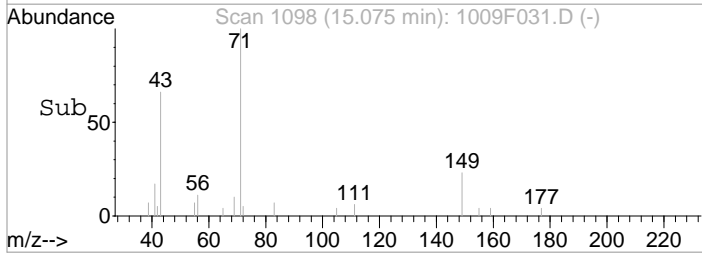
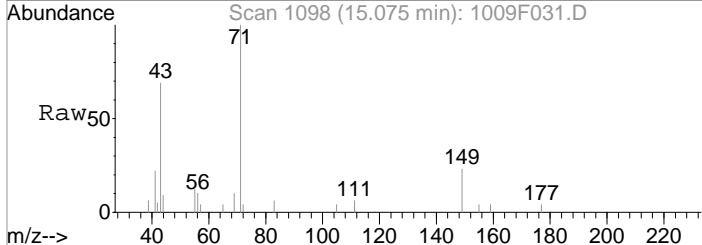
#31
 n-Dodecane
 Concen: 0.32 ug/ml
 RT: 11.53 min Scan# 752
 Delta R.T. -0.01 min
 Lab File: 1009F031.D
 Acq: 10 Oct 2019 8:46 am

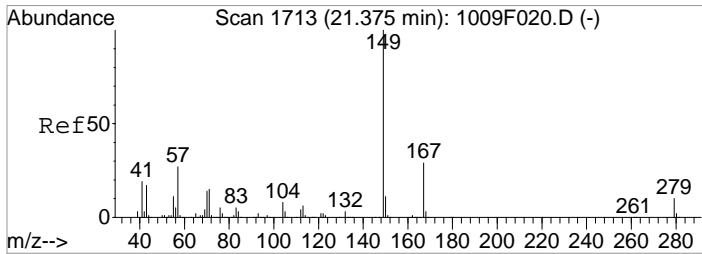
Tgt Ion	Resp	Lower	Upper
57	100		
71	49.3	22.1	82.1
85	0.0	0.0	58.6
170	0.0	0.0	34.1



#55
 Diethyl Phthalate
 Concen: 0.30 ug/ml
 RT: 15.08 min Scan# 1098
 Delta R.T. -0.03 min
 Lab File: 1009F031.D
 Acq: 10 Oct 2019 8:46 am

Tgt Ion	Resp	Lower	Upper
149	100		
177	18.4	0.0	51.3
150	0.0	0.0	41.6

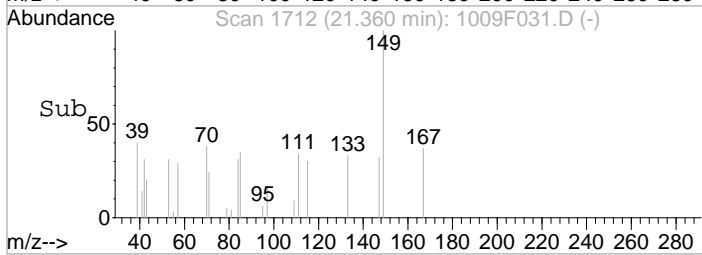
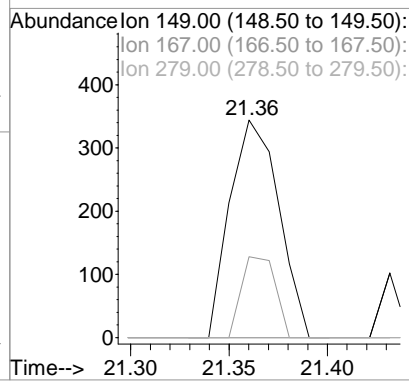
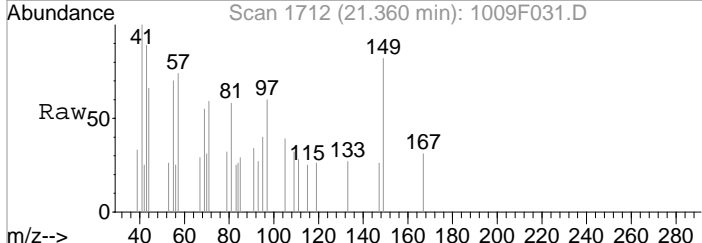




#83
 Bis(2-ethylhexyl) Phthalate
 Concen: 0.26 ug/ml
 RT: 21.36 min Scan# 1712
 Delta R.T. -0.01 min
 Lab File: 1009F031.D
 Acq: 10 Oct 2019 8:46 am

1st *ce* 10/11/19
 2nd *Cpu* 10/11/19

Tgt Ion	Resp	Lower	Upper
149	100		
167	37.2	0.0	58.6
279	0.0	0.0	37.9



Data File : J:\MS07\DATA\100919\1009F031.D
 Acq On : 10 Oct 2019 8:46 am
 Sample : K1909014-007
 Misc :

Vial: 29
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 23:34:55 2019

Quant Results File: 100919_BNP7.RES

Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 23:34:17 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.33	152	43533	40.00	ug/ml	-0.01
22) Naphthalene-d8	11.43	136	155042	40.00	ug/ml	-0.01
36) Acenaphthene-d10	14.30	164	89628	40.00	ug/ml	0.00
61) Phenanthrene-d10	16.70	188	147892	40.00	ug/ml	0.00
73) Chrysene-d12	21.12	240	131423	40.00	ug/ml	-0.02
84) Perylene-d12	24.29	264	135176	40.00	ug/ml	-0.02

System Monitoring Compounds

4) 2-Fluorophenol	0.00	112	0	0.00	ug/ml	
Spiked Amount	150.000	Range	21 - 100	Recovery	=	0.00%#
8) Phenol-d6	8.79	99	655	0.37	ug/ml	-0.02
Spiked Amount	150.000	Range	10 - 94	Recovery	=	0.25%#
20) Nitrobenzene-d5	10.25	82	2785	1.71	ug/ml	-0.02
Spiked Amount	100.000	Range	35 - 114	Recovery	=	1.71%#
40) 2-Fluorobiphenyl	13.23	172	1198	0.42	ug/ml	-0.01
Spiked Amount	100.000	Range	43 - 116	Recovery	=	0.42%#
62) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/ml	
Spiked Amount	150.000	Range	10 - 123	Recovery	=	0.00%#
76) Terphenyl-d14	0.00	244	0d	0.00	ug/ml	
Spiked Amount	100.000	Range	33 - 141	Recovery	=	0.00%#

Target Compounds

					Qvalue
31) n-Dodecane	11.53	57	529	0.32	ug/ml# 79
55) Diethyl Phthalate	15.08	149	859	0.30	ug/ml 85
83) Bis(2-ethylhexyl) Phthalat	21.36	149	594	0.26	ug/ml 82

Validation Report

1st *CE* 10/11/19
2nd *Cpw* 10/11/19

Data File: J:\MS07\DATA\100919\1009F027.D\
Lab ID: KQ1914345-03
RunType: MB
Matrix: Soil

Date Acquired: 10/10/19 06:02:00
Batch ID: 654315
Analysis Method: 8270D/SVO

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Secondary Review: _____

Quantitation Report

1st *ce* 10/11/19
2nd *Cpw* 10/11/19

Data File: J:\MS07\DATA\100919\1009F027.D\	Instrument: K-MS-07
Acqu Date: 10/10/19 06:02:00	Vial: 11
Run Type: MB	Dilution: 1
Lab ID: KQ1914345-03	Raw Units: ug/mL

Bottle ID: SVO	Tier: IV	Matrix: Soil
Prod Code:	Collect Date: 9/25/19	Receive Date: 9/27/19

Analysis Lot: 654315	Prep Lot: 345831	Report Group: KQ1914345
Analysis: 8270D	Prep Method: EPA 3541	
	Prep Date: 10/4/19	

Title: Semivolatile Organic Compounds by GC/MS	Calibration ID: KC1900424
	Report List ID: 18699

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
1,4-Dichlorobenzene-d4	9.33	-0.01	45219	40.00	OK
Acenaphthene-d10	14.30		103897	40.00	OK
Chrysene-d12	21.12	-0.02	140126	40.00	OK
Naphthalene-d8	11.43	-0.01	174852	40.00	OK
Perylene-d12	24.30		146265	40.00	OK
Phenanthrene-d10	16.70	-0.01	177411	40.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
2,4,6-Tribromophenol	15.58	-0.01	81231	76.80	51	35 - 118	Y
2-Fluorobiphenyl	13.23	-0.01	170970	51.31	51	37 - 103	Y
2-Fluorophenol	7.10	-0.02	95218	69.01	46	30 - 98	Y
Nitrobenzene-d5	10.26	-0.01	91594	54.30	54	36 - 112	Y
Phenol-d6	8.79	-0.02	142999	77.87	52	31 - 103	Y
Terphenyl-d14	19.33	-0.01	189406	53.79	54	18 - 127	Y

Target Compounds

Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
1,2,4-Trichlorobenzene	0.00		0	0.00	0	U	Y
1,2-Dichlorobenzene	0.00		0	0.00	0	U	Y
1,3-Dichlorobenzene	0.00		0	0.00	0	U	Y
1,4-Dichlorobenzene	0.00		0	0.00	0	U	Y
2,4,5-Trichlorophenol	0.00		0	0.00	0	U	Y
2,4,6-Trichlorophenol	0.00		0	0.00	0	U	Y
2,4-Dichlorophenol	0.00		0	0.00	0	U	Y
2,4-Dimethylphenol	0.00		0	0.00	0	U	Y
2,4-Dinitrophenol	0.00		0	0.00	0	U	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 10/11/19 5:58

\\alprews001\starlims\LIMSReps\QuantValidation.rpt

Data File: J:\MS07\DATA\100919\1009F027.D\
 Acqu Date: 10/10/19 06:02:00
 Run Type: MB
 Lab ID: KQ1914345-03

Instrument: K-MS-07nd 10/11/19
 Vial: 11
 Dilution: 1
 Raw Units: ug/mL

Target Compounds

Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2,4-Dinitrotoluene	0.00		0	0.00	0	U	Y
2,6-Dinitrotoluene	0.00		0	0.00	0	U	Y
2-Chloronaphthalene	0.00		0	0.00	0	U	Y
2-Chlorophenol	0.00		0	0.00	0	U	Y
2-Methyl-4,6-dinitrophenol	0.00		0	0.00	0	U	Y
2-Methylnaphthalene	0.00		0	0.00	0	U	Y
2-Methylphenol	0.00		0	0.00	0	U	Y
2-Nitroaniline	0.00		0	0.00	0	U	Y
2-Nitrophenol	0.00		0	0.00	0	U	Y
3,3'-Dichlorobenzidine	0.00		0	0.00	0	U	Y
3-Nitroaniline	0.00		0	0.00	0	U	Y
4-Bromophenyl Phenyl Ether	0.00		0	0.00	0	U	Y
4-Chloro-3-methylphenol	0.00		0	0.00	0	U	Y
4-Chloroaniline	0.00		0	0.00	0	U	Y
4-Chlorophenyl Phenyl Ether	0.00		0	0.00	0	U	Y
4-Methylphenol	0.00		0	0.00	0	U	Y
4-Nitroaniline	0.00		0	0.00	0	U	Y
4-Nitrophenol	0.00		0	0.00	0	U	Y
Acenaphthene	0.00		0	0.00	0	U	Y
Acenaphthylene	0.00		0	0.00	0	U	Y
Aniline	0.00		0	0.00	0	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	0.00		0	0.00	0	U	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	0.00		0	0.00	0	U	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Benzoic Acid	0.00		0	0.00	0	U	Y
Benzyl Alcohol	0.00		0	0.00	0	U	Y
Bis(2-chloroethoxy)methane	0.00		0	0.00	0	U	Y
Bis(2-chloroethyl) Ether	0.00		0	0.00	0	U	Y
Bis(2-ethylhexyl) Phthalate	0.00		0	0.00	0	U	Y
Butyl Benzyl Phthalate	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Dibenzofuran	0.00		0	0.00	0	U	Y
Diethyl Phthalate	15.08	-0.02	890	0.27	0.0090	J	Y
Dimethyl Phthalate	0.00		0	0.00	0	U	Y
Di-n-butyl Phthalate	0.00		0	0.00	0	U	Y
Di-n-octyl Phthalate	0.00		0	0.00	0	U	Y
Fluoranthene	0.00		0	0.00	0	U	Y

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Printed: 10/11/19 5:58

\alprews001\starlims\LIMSReps\QuantValidation.rpt

Data File: J:\MS07\DATA\100919\1009F027.D\
 Acqu Date: 10/10/19 06:02:00
 Run Type: MB
 Lab ID: KQ1914345-03

Instrument: K-MS-07nd *Cpu* 10/11/19
 Vial: 11
 Dilution: 1
 Raw Units: ug/mL

Target Compounds

Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Fluorene	0.00		0	0.00	0	U	Y
Hexachlorobenzene	0.00		0	0.00	0	U	Y
Hexachlorobutadiene	0.00		0	0.00	0	U	Y
Hexachlorocyclopentadiene	0.00		0	0.00	0	U	Y
Hexachloroethane	0.00		0	0.00	0	U	Y
Indeno(1,2,3-cd)pyrene	0.00		0	0.00	0	U	Y
Isophorone	0.00		0	0.00	0	U	Y
Naphthalene	0.00		0	0.00	0	U	Y
Nitrobenzene	0.00		0	0.00	0	U	Y
N-Nitrosodimethylamine	0.00		0	0.00	0	U	Y
N-Nitrosodi-n-propylamine	0.00		0	0.00	0	U	Y
N-Nitrosodiphenylamine	0.00		0	0.00	0	U	Y
Pentachlorophenol	0.00		0	0.00	0	U	Y
Phenanthrene	0.00		0	0.00	0	U	Y
Phenol	0.00		0	0.00	0	U	Y
Pyrene	0.00		0	0.00	0	U	Y
2,2'-Oxybis(1-chloropropane)	0.00		0	0.00	0	U	Y

Prep Amount: 30.0000 g
 Prep Final Amount: 1.00 mL

Dilution: 1
 Basis Factor: 100.00

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Printed: 10/11/19 5:58

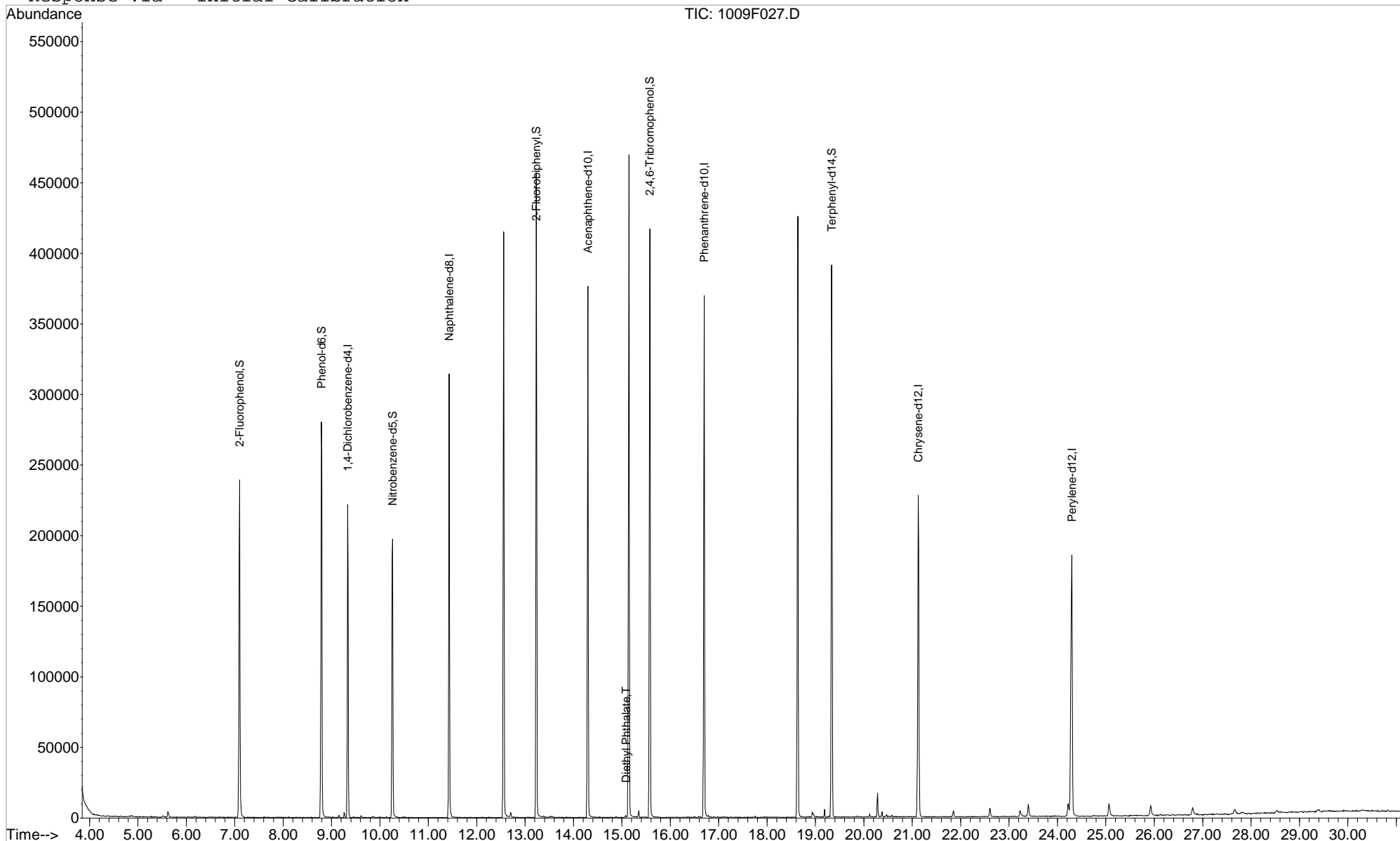
\alprews001\starlims\LIMSReps\QuantValidation.rpt

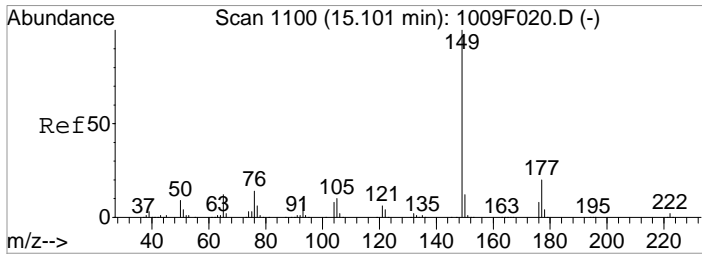
Data File : J:\MS07\DATA\100919\1009F027.D
 Acq On : 10 Oct 2019 6:02 am
 Sample : KQ1914345-03 | MB
 Misc :
 MS Integration Params: RTEINT.P
 Quant Time: Oct 11 4:45 2019

Vial: 25
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

Quant Results File: 100919_BNP7.RES

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 23:34:17 2019
 Response via : Initial Calibration

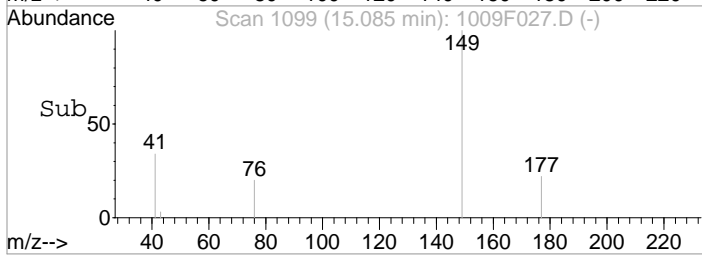
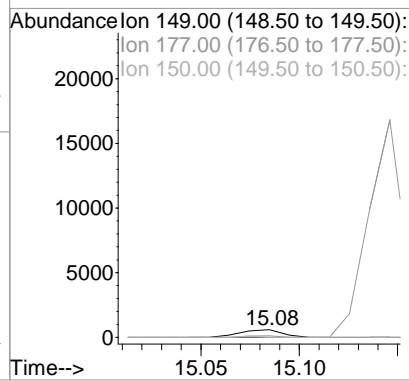
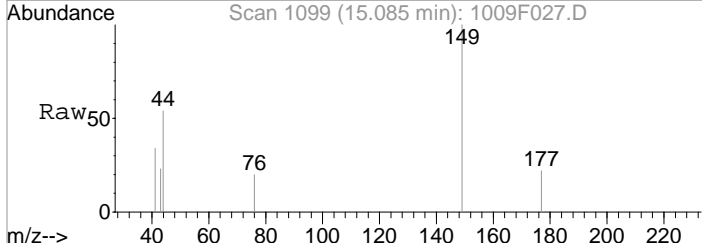




#55
 Diethyl Phthalate
 Concen: 0.27 ug/ml
 RT: 15.08 min Scan# 1099
 Delta R.T. -0.02 min
 Lab File: 1009F027.D
 Acq: 10 Oct 2019 6:02 am

1st *ce* 10/11/19
 2nd *Cpu* 10/11/19

Tgt Ion	Resp	Lower	Upper
149	100		
177	22.3	0.0	51.3
150	0.0	0.0	41.6



Data File : J:\MS07\DATA\100919\1009F027.D
 Acq On : 10 Oct 2019 6:02 am
 Sample : KQ1914345-03 | MB
 Misc :

Vial: 25
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 23:34:52 2019

Quant Results File: 100919_BNP7.RES

Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 23:34:17 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.33	152	45219	40.00	ug/ml	-0.01
22) Naphthalene-d8	11.43	136	174852	40.00	ug/ml	-0.01
36) Acenaphthene-d10	14.30	164	103897	40.00	ug/ml	0.00
61) Phenanthrene-d10	16.70	188	177411	40.00	ug/ml	0.00
73) Chrysene-d12	21.12	240	140126	40.00	ug/ml	-0.02
84) Perylene-d12	24.30	264	146265	40.00	ug/ml	-0.01

System Monitoring Compounds

4) 2-Fluorophenol	7.10	112	95218	69.01	ug/ml	-0.02
Spiked Amount	150.000	Range 21 - 100	Recovery	=	46.01%	
8) Phenol-d6	8.79	99	142999	77.87	ug/ml	-0.02
Spiked Amount	150.000	Range 10 - 94	Recovery	=	51.91%	
20) Nitrobenzene-d5	10.26	82	91594	54.30	ug/ml	-0.01
Spiked Amount	100.000	Range 35 - 114	Recovery	=	54.30%	
40) 2-Fluorobiphenyl	13.23	172	170970	51.31	ug/ml	-0.01
Spiked Amount	100.000	Range 43 - 116	Recovery	=	51.31%	
62) 2,4,6-Tribromophenol	15.58	330	81231	76.80	ug/ml	-0.01
Spiked Amount	150.000	Range 10 - 123	Recovery	=	51.20%	
76) Terphenyl-d14	19.33	244	189406	53.79	ug/ml	0.00
Spiked Amount	100.000	Range 33 - 141	Recovery	=	53.79%	

Target Compounds

55) Diethyl Phthalate	15.08	149	890	0.27	ug/ml	Qvalue 88
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Validation Report

1st *ce* 10/11/19
2nd *Cpw* 10/11/19

Data File: J:\MS07\DATA\100919\1009F028.D\
Lab ID: KQ1914345-01
RunType: LCS
Matrix: Soil

Date Acquired: 10/10/19 06:43:00
Batch ID: 654315
Analysis Method: 8270D/SVO

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Secondary Review: _____

Quantitation Report

1st *ce* 10/11/19
2nd *Cpw* 10/11/19

Data File: J:\MS07\DATA\100919\1009F028.D\	Instrument: K-MS-07
Acqu Date: 10/10/19 06:43:00	Vial: 12
Run Type: LCS	Dilution: 1
Lab ID: KQ1914345-01	Raw Units: ug/mL

Bottle ID: SVO	Tier: IV	Matrix: Soil
Prod Code:	Collect Date: 9/25/19	Receive Date: 9/27/19

Analysis Lot: 654315	Prep Lot: 345831	Report Group: KQ1914345
Analysis: 8270D	Prep Method: EPA 3541	
	Prep Date: 10/4/19	

Title: Semivolatile Organic Compounds by GC/MS	Calibration ID: KC1900424
	Report List ID: 18699

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
1,4-Dichlorobenzene-d4	9.34		46887	40.00	OK
Acenaphthene-d10	14.30		90252	40.00	OK
Chrysene-d12	21.14		135449	40.00	OK
Naphthalene-d8	11.44		174623	40.00	OK
Perylene-d12	24.30		154886	40.00	OK
Phenanthrene-d10	16.71		153969	40.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
2,4,6-Tribromophenol	15.59		91757	99.96	67	35 - 118	Y
2-Fluorobiphenyl	13.24		179958	62.18	62	37 - 103	Y
2-Fluorophenol	7.11	-0.01	115104	80.46	54	30 - 98	Y
Nitrobenzene-d5	10.27		105662	60.41	60	36 - 112	Y
Phenol-d6	8.81		162493	85.34	57	31 - 103	Y
Terphenyl-d14	19.34		249926	73.42	73	18 - 127	Y

Target Compounds

Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
1,2,4-Trichlorobenzene	11.35		89940	65.66	2.19		Y
1,2-Dichlorobenzene	9.61		97313	62.15	2.07		Y
1,3-Dichlorobenzene	9.24		99587	61.29	2.04		Y
1,4-Dichlorobenzene	9.37		105389	62.92	2.10		Y
2,4,5-Trichlorophenol	13.15	+0.01	63761	66.80	2.23		Y
2,4,6-Trichlorophenol	13.09	+0.01	58530	64.96	2.17		Y
2,4-Dichlorophenol	11.23	-0.01	75804	59.17	1.97		Y
2,4-Dimethylphenol	10.96	-0.01	51753	41.15	1.37		Y
2,4-Dinitrophenol	14.44		23841	68.94	2.30		Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Data File: J:\MS07\DATA\100919\1009F028.D\
 Acqu Date: 10/10/19 06:43:00
 Run Type: LCS
 Lab ID: KQ1914345-01

Instrument: K-MS-07nd 10/11/19
 Vial: 12
 Dilution: 1
 Raw Units: ug/mL

Target Compounds

Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2,4-Dinitrotoluene	14.66		68658	85.39	2.85		Y
2,6-Dinitrotoluene	14.02	+0.01	51316	81.42	2.71		Y
2-Chloronaphthalene	13.40		165083	67.94	2.26		Y
2-Chlorophenol	8.99		88488	57.10	1.90		Y
2-Methyl-4,6-dinitrophenol	15.32		40362	75.98	2.53		Y
2-Methylnaphthalene	12.61		178949	66.70	2.22		Y
2-Methylphenol	9.83	-0.01	67557	56.02	1.87		Y
2-Nitroaniline	13.59		65590	79.15	2.64		Y
2-Nitrophenol	10.82		54099	63.78	2.13		Y
3,3'-Dichlorobenzidine	21.12		107968	66.63	2.22		Y
3-Nitroaniline	14.27		55659	79.45	2.65		Y
4-Bromophenyl Phenyl Ether	16.02		70746	71.93	2.40		Y
4-Chloro-3-methylphenol	12.43	+0.01	78769	62.43	2.08		Y
4-Chloroaniline	11.59	-0.01	114553	62.59	2.09		Y
4-Chlorophenyl Phenyl Ether	15.23		102771	73.94	2.46		Y
4-Methylphenol	10.08	-0.03	100286	54.61	1.82		Y
4-Nitroaniline	15.26	-0.01	58517	82.06	2.74		Y
4-Nitrophenol	14.58	+0.01	35863	83.24	2.77		Y
Acenaphthene	14.35		155374	71.73	2.39		Y
Acenaphthylene	14.07		255123	70.19	2.34		Y
Aniline	8.81	+0.01	122726	54.67	1.82		Y
Anthracene	16.83		287211	72.66	2.42		Y
Benz(a)anthracene	21.12	+0.01	247293	74.31	2.48		Y
Benzo(a)pyrene	24.18		276418	77.88	2.60		Y
Benzo(b)fluoranthene	23.45	+0.01	288395	71.11	2.37		Y
Benzo(g,h,i)perylene	27.32		238444	63.22	2.11		Y
Benzo(k)fluoranthene	23.52	+0.01	288600	78.67	2.62		Y
Benzoic Acid	11.17	-0.07	44728	48.11	1.60	J	Y
Benzyl Alcohol	9.61		64192	63.31	2.11		Y
Bis(2-chloroethoxy)methane	11.11		119434	64.95	2.17		Y
Bis(2-chloroethyl) Ether	8.96		99804	63.59	2.12		Y
Bis(2-ethylhexyl) Phthalate	21.38		189048	79.27	2.64		Y
Butyl Benzyl Phthalate	20.19		151076	82.02	2.73		Y
Chrysene	21.20	+0.01	260139	75.29	2.51		Y
Dibenz(a,h)anthracene	26.84	+0.01	271404	74.27	2.48		Y
Dibenzofuran	14.64		251546	71.58	2.39		Y
Diethyl Phthalate	15.10		215903	75.70	2.52		Y
Dimethyl Phthalate	13.93	-0.01	207205	75.11	2.50		Y
Di-n-butyl Phthalate	17.76		345437	78.41	2.61		Y
Di-n-octyl Phthalate	22.84		296458	75.09	2.50		Y
Fluoranthene	18.67	+0.01	322085	82.05	2.74		Y

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

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Data File: J:\MS07\DATA\100919\1009F028.D\
 Acqu Date: 10/10/19 06:43:00
 Run Type: LCS
 Lab ID: KQ1914345-01

Instrument: K-MS-07nd *Cpu* 10/11/19
 Vial: 12
 Dilution: 1
 Raw Units: ug/mL

Target Compounds

Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Fluorene	15.20	+0.01	193898	74.31	2.48		Y
Hexachlorobenzene	16.08		91924	70.27	2.34		Y
Hexachlorobutadiene	11.71		57006	66.44	2.21		Y
Hexachlorocyclopentadiene	12.89	+0.01	45165	44.52	1.48		Y
Hexachloroethane	10.17		46633	61.71	2.06		Y
Indeno(1,2,3-cd)pyrene	26.76	+0.01	277881	74.84	2.49		Y
Isophorone	10.72	-0.01	185960	62.47	2.08		Y
Naphthalene	11.48		267579	66.79	2.23		Y
Nitrobenzene	10.30		110719	66.36	2.21		Y
N-Nitrosodimethylamine	4.33	+0.02	65236	62.15	2.07		Y
N-Nitrosodi-n-propylamine	10.07	-0.02	68177	60.77	2.03		Y
N-Nitrosodiphenylamine	15.43		142991	77.44	2.58		Y
Pentachlorophenol	16.41		54983	66.15	2.21		Y
Phenanthrene	16.75		275880	72.62	2.42		Y
Phenol	8.84		120966	55.89	1.86		Y
Pyrene	19.03	+0.01	325416	79.01	2.63		Y
2,2'-Oxybis(1-chloropropane)	9.86		123098	59.65	1.99		Y

Prep Amount: 30.00 g
 Prep Final Amount: 1.00 mL

Dilution: 1
 Basis Factor: 100.00

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Printed: 10/11/19 5:58

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Cpu

Data File : J:\MS07\DATA\100919\1009F028.D

Acq On : 10 Oct 2019 6:43 am

Sample : KQ1914345-01 | LCS

Misc : MS Integration Params: RTEINT.P

Quant Results File: 100919_BNP7.RES

Quantitation Report (QT Reviewed)

Vial: 26
Operator: CCONOVER/LM
Inst: MS07
Multiplr: 1.00

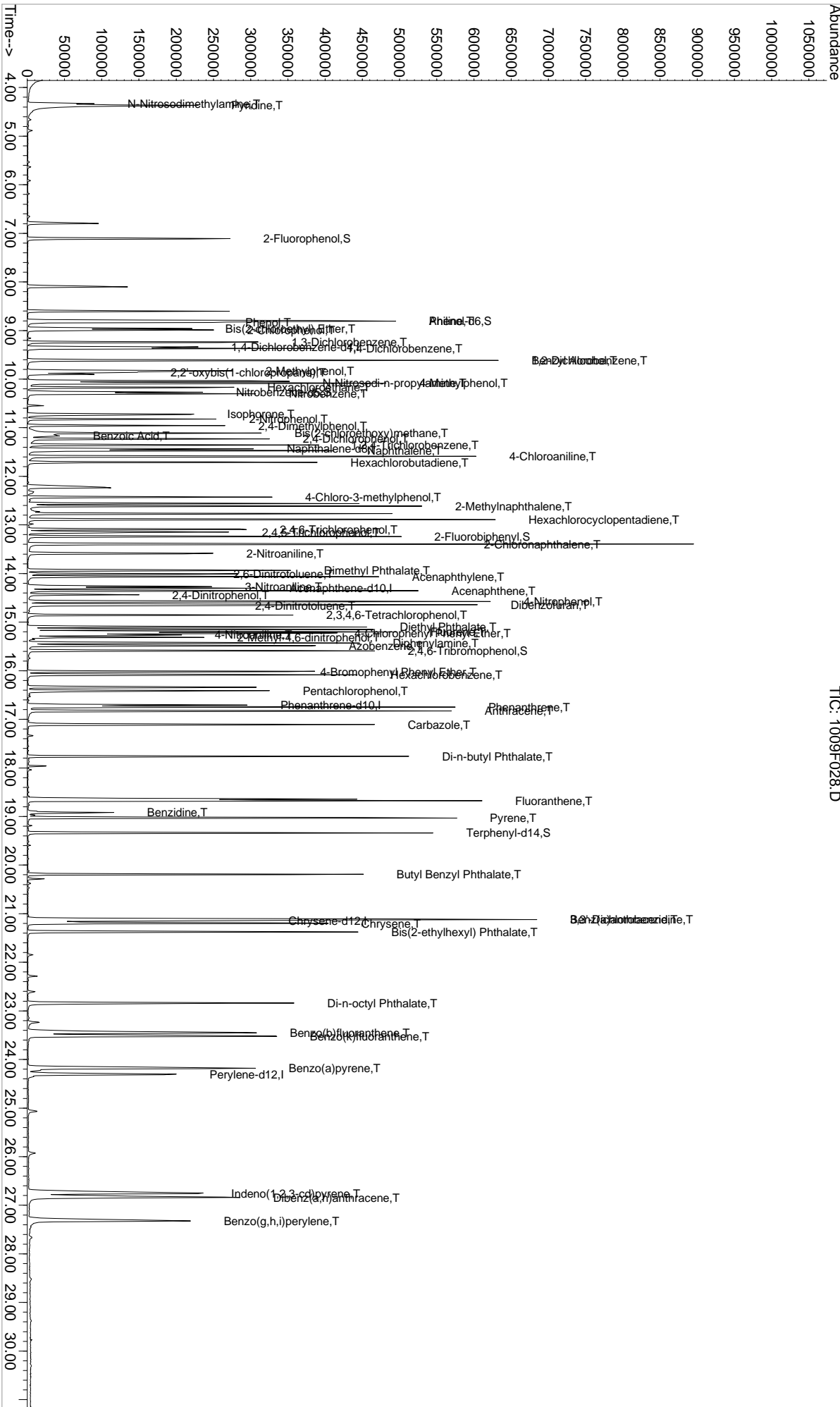
Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 23:34:17 2019

Response via : Initial Calibration

TIC: 1009F028.D



Data File : J:\MS07\DATA\100919\1009F028.D
 Acq On : 10 Oct 2019 6:43 am
 Sample : KQ1914345-01 | LCS
 Misc :

Vial: 26
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 23:34:52 2019

Quant Results File: 100919_BNP7.RES

Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 23:34:17 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.34	152	46887	40.00	ug/ml	0.00
22) Naphthalene-d8	11.44	136	174623	40.00	ug/ml	0.00
36) Acenaphthene-d10	14.30	164	90252	40.00	ug/ml	0.00
61) Phenanthrene-d10	16.71	188	153969	40.00	ug/ml	0.00
73) Chrysene-d12	21.14	240	135449	40.00	ug/ml	0.00
84) Perylene-d12	24.30	264	154886	40.00	ug/ml	0.00

System Monitoring Compounds

4) 2-Fluorophenol	7.11	112	115104	80.46	ug/ml	-0.02
Spiked Amount	150.000	Range	21 - 100	Recovery	=	53.64%
8) Phenol-d6	8.81	99	162493	85.34	ug/ml	0.00
Spiked Amount	150.000	Range	10 - 94	Recovery	=	56.89%
20) Nitrobenzene-d5	10.27	82	105662	60.41	ug/ml	0.00
Spiked Amount	100.000	Range	35 - 114	Recovery	=	60.41%
40) 2-Fluorobiphenyl	13.24	172	179958	62.18	ug/ml	0.00
Spiked Amount	100.000	Range	43 - 116	Recovery	=	62.18%
62) 2,4,6-Tribromophenol	15.59	330	91757	99.96	ug/ml	0.00
Spiked Amount	150.000	Range	10 - 123	Recovery	=	66.64%
76) Terphenyl-d14	19.34	244	249926	73.42	ug/ml	0.00
Spiked Amount	100.000	Range	33 - 141	Recovery	=	73.42%

Target Compounds

						Qvalue
2) N-Nitrosodimethylamine	4.33	42	65236	62.15	ug/ml	93
3) Pyridine	4.36	79	174240	101.22	ug/ml	99
6) Aniline	8.81	93	122726	54.67	ug/ml	80
7) Bis(2-chloroethyl) Ether	8.96	93	99804	63.59	ug/ml	95
9) Phenol	8.84	94	120966	55.89	ug/ml	99
10) 2-Chlorophenol	8.99	128	88488	57.10	ug/ml	93
11) 1,3-Dichlorobenzene	9.24	146	99587	61.29	ug/ml	99
12) 1,4-Dichlorobenzene	9.37	146	105389	62.92	ug/ml	98
13) 1,2-Dichlorobenzene	9.61	146	97313	62.15	ug/ml	97
14) Benzyl Alcohol	9.61	108	64192	63.31	ug/ml	96
15) 2,2'-oxybis(1-chloropropan	9.86	45	123098	59.65	ug/ml	98
16) 2-Methylphenol	9.83	107	67557	56.02	ug/ml	92
17) Hexachloroethane	10.17	117	46633	61.71	ug/ml	90
18) N-Nitrosodi-n-propylamine	10.07	70	68177	60.77	ug/ml	99
19) 4-Methylphenol	10.08	107	100286	54.61	ug/ml#	86
21) Nitrobenzene	10.30	77	110719	66.36	ug/ml	99
23) Isophorone	10.72	82	185960	62.47	ug/ml	98
24) 2-Nitrophenol	10.82	139	54099	63.78	ug/ml	95
25) 2,4-Dimethylphenol	10.96	122	51753	41.15	ug/ml	100
26) Bis(2-chloroethoxy)methane	11.11	93	119434	64.95	ug/ml	98
27) 2,4-Dichlorophenol	11.23	162	75804	59.17	ug/ml	98
28) Benzoic Acid	11.17	122	44728	48.11	ug/ml	97
29) 1,2,4-Trichlorobenzene	11.35	180	89940	65.66	ug/ml	99
30) Naphthalene	11.48	128	267579	66.79	ug/ml	99
32) 4-Chloroaniline	11.59	127	114553	62.59	ug/ml	100
33) Hexachlorobutadiene	11.71	225	57006	66.44	ug/ml	99
34) 4-Chloro-3-methylphenol	12.43	107	78769	62.43	ug/ml	100
35) 2-Methylnaphthalene	12.61	142	178949	66.70	ug/ml	99
37) Hexachlorocyclopentadiene	12.89	237	45165	44.52	ug/ml	99
38) 2,4,6-Trichlorophenol	13.09	196	58530	64.96	ug/ml	100
39) 2,4,5-Trichlorophenol	13.15	196	63761	66.80	ug/ml	99
41) 2-Chloronaphthalene	13.40	162	165083	67.94	ug/ml	98
42) 2-Nitroaniline	13.59	65	65590	79.15	ug/ml	93
43) Acenaphthylene	14.07	152	255123	70.19	ug/ml	100
44) Dimethyl Phthalate	13.93	163	207205	75.11	ug/ml	100
45) 2,6-Dinitrotoluene	14.02	165	51316	81.42	ug/ml	76

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS07\DATA\100919\1009F028.D
 Acq On : 10 Oct 2019 6:43 am
 Sample : KQ1914345-01 | LCS
 Misc :

Vial: 26
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 23:34:52 2019

Quant Results File: 100919_BNP7.RES

Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 23:34:17 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) Acenaphthene	14.35	154	155374	71.73	ug/ml	98
47) 3-Nitroaniline	14.27	138	55659	79.45	ug/ml	97
48) 2,4-Dinitrophenol	14.44	184	23841	68.94	ug/ml	84
49) Dibenzofuran	14.64	168	251546	71.58	ug/ml	94
50) 4-Nitrophenol	14.58	109	35863	83.24	ug/ml#	79
51) 2,4-Dinitrotoluene	14.66	165	68658	85.39	ug/ml	83
52) 2,3,4,6-Tetrachlorophenol	14.85	232	55524	73.51	ug/ml	97
53) Fluorene	15.20	166	193898	74.31	ug/ml	99
54) 4-Chlorophenyl Phenyl Ethe	15.23	204	102771	73.94	ug/ml	95
55) Diethyl Phthalate	15.10	149	215903	75.70	ug/ml	99
56) 4-Nitroaniline	15.26	138	58517	82.06	ug/ml	95
57) 2-Methyl-4,6-dinitrophenol	15.32	198	40362	75.98	ug/ml	92
58) Diphenylamine	15.43	169	142991	77.44	ug/ml	100
59) Azobenzene	15.48	51	90574	67.55	ug/ml	90
63) 4-Bromophenyl Phenyl Ether	16.02	248	70746	71.93	ug/ml	92
64) Hexachlorobenzene	16.08	284	91924	70.27	ug/ml	91
66) Pentachlorophenol	16.41	266	54983	66.15	ug/ml	98
68) Phenanthrene	16.75	178	275880	72.62	ug/ml	99
69) Anthracene	16.83	178	287211	72.66	ug/ml	99
70) Carbazole	17.11	167	279532	75.57	ug/ml	98
71) Di-n-butyl Phthalate	17.76	149	345437	78.41	ug/ml	99
72) Fluoranthene	18.67	202	322085	82.05	ug/ml	100
74) Benzidine	18.92	184	56825	41.50	ug/ml	97
75) Pyrene	19.03	202	325416	79.01	ug/ml	99
78) Butyl Benzyl Phthalate	20.19	149	151076	82.02	ug/ml	96
80) 3,3'-Dichlorobenzidine	21.12	252	107968	66.63	ug/ml	99
81) Benz(a)anthracene	21.12	228	247293	74.31	ug/ml	100
82) Chrysene	21.20	228	260139	75.29	ug/ml	99
83) Bis(2-ethylhexyl) Phthalat	21.38	149	189048	79.27	ug/ml	98
85) Di-n-octyl Phthalate	22.84	149	296458	75.09	ug/ml	99
86) Benzo(b)fluoranthene	23.45	252	288395	71.11	ug/ml	99
87) Benzo(k)fluoranthene	23.52	252	288600	78.67	ug/ml	98
90) Benzo(a)pyrene	24.18	252	276418	77.88	ug/ml	98
91) Indeno(1,2,3-cd)pyrene	26.76	276	277881	74.84	ug/ml	97
92) Dibenz(a,h)anthracene	26.84	278	271404	74.27	ug/ml	98
93) Benzo(g,h,i)perylene	27.32	276	238444	63.22	ug/ml	100

Validation Report

1st *CE* 10/11/19
2nd *Cpw* 10/11/19

Data File: J:\MS07\DATA\100919\1009F029.D\
Lab ID: KQ1914345-02
RunType: DLCS
Matrix: Soil

Date Acquired: 10/10/19 07:24:00
Batch ID: 654315
Analysis Method: 8270D/SVO

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Secondary Review: _____

Quantitation Report

1st *ce* 10/11/19
2nd *Cpw* 10/11/19

Data File: J:\MS07\DATA\100919\1009F029.D\	Instrument: K-MS-07
Acqu Date: 10/10/19 07:24:00	Vial: 13
Run Type: DLCS	Dilution: 1
Lab ID: KQ1914345-02	Raw Units: ug/mL

Bottle ID: SVO	Tier: IV	Matrix: Soil
Prod Code: SVO	Collect Date: 9/25/19	Receive Date: 9/27/19

Analysis Lot: 654315	Prep Lot: 345831	Report Group: KQ1914345
Analysis: 8270D	Prep Method: EPA 3541	
	Prep Date: 10/4/19	

Title: Semivolatile Organic Compounds by GC/MS	Calibration ID: KC1900424
	Report List ID: 18699

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
1,4-Dichlorobenzene-d4	9.34		47403	40.00	OK
Acenaphthene-d10	14.30		107948	40.00	OK
Chrysene-d12	21.14		130789	40.00	OK
Naphthalene-d8	11.44		190062	40.00	OK
Perylene-d12	24.30		150755	40.00	OK
Phenanthrene-d10	16.71		158549	40.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
2,4,6-Tribromophenol	15.59		86565	91.58	61	35 - 118	Y
2-Fluorobiphenyl	13.24		189829	54.84	55	37 - 103	Y
2-Fluorophenol	7.11	-0.01	101829	70.40	47	30 - 98	Y
Nitrobenzene-d5	10.27		102616	58.03	58	36 - 112	Y
Phenol-d6	8.81		158085	82.12	55	31 - 103	Y
Terphenyl-d14	19.34		203961	62.05	62	18 - 127	Y

Target Compounds

Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
1,2,4-Trichlorobenzene	11.35		85440	57.31	1.91		Y
1,2-Dichlorobenzene	9.61		85321	53.89	1.80		Y
1,3-Dichlorobenzene	9.24		84783	51.61	1.72		Y
1,4-Dichlorobenzene	9.37		89692	52.97	1.77		Y
2,4,5-Trichlorophenol	13.15	+0.01	62782	54.99	1.83		Y
2,4,6-Trichlorophenol	13.09	+0.01	57656	53.50	1.78		Y
2,4-Dichlorophenol	11.23	-0.01	75787	54.35	1.81		Y
2,4-Dimethylphenol	10.96	-0.01	52621	38.45	1.28		Y
2,4-Dinitrophenol	14.44		19189	51.08	1.70	J	Y

Data File:	J:\MS07\DATA\100919\1009F029.D\	Instrument:	K-MS-07 nd <i>Cpu</i>	10/11/19
Acqu Date:	10/10/19 07:24:00	Vial:	13	
Run Type:	DLCS	Dilution:	1	
Lab ID:	KQ1914345-02	Raw Units:	ug/mL	

Target Compounds Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2,4-Dinitrotoluene	14.65	-0.01	60196	62.59	2.09		Y
2,6-Dinitrotoluene	14.01		48231	63.98	2.13		Y
2-Chloronaphthalene	13.40		172825	59.46	1.98		Y
2-Chlorophenol	8.98	-0.01	78567	50.15	1.67		Y
2-Methyl-4,6-dinitrophenol	15.32		33708	56.45	1.88	J	Y
2-Methylnaphthalene	12.61		179542	61.48	2.05		Y
2-Methylphenol	9.83	-0.01	63025	51.70	1.72		Y
2-Nitroaniline	13.59		62406	62.96	2.10		Y
2-Nitrophenol	10.82		51342	55.61	1.85		Y
3,3'-Dichlorobenzidine	21.12		87863	56.16	1.87		Y
3-Nitroaniline	14.27		51496	61.45	2.05		Y
4-Bromophenyl Phenyl Ether	16.01	-0.01	65678	64.85	2.16		Y
4-Chloro-3-methylphenol	12.43	+0.01	79310	57.76	1.93		Y
4-Chloroaniline	11.59	-0.01	117188	58.83	1.96		Y
4-Chlorophenyl Phenyl Ether	15.23		96940	58.31	1.94		Y
4-Methylphenol	10.09	-0.02	97315	52.41	1.75		Y
4-Nitroaniline	15.26	-0.01	48544	56.92	1.90	J	Y
4-Nitrophenol	14.58	+0.01	31185	60.51	2.02		Y
Acenaphthene	14.35		152543	58.88	1.96		Y
Acenaphthylene	14.07		259281	59.64	1.99		Y
Aniline	8.80		115723	50.99	1.70		Y
Anthracene	16.83		248719	61.11	2.04		Y
Benz(a)anthracene	21.11		197601	61.49	2.05		Y
Benzo(a)pyrene	24.18		229100	66.32	2.21		Y
Benzo(b)fluoranthene	23.44		240607	60.95	2.03		Y
Benzo(g,h,i)perylene	27.31	-0.01	199765	54.42	1.81		Y
Benzo(k)fluoranthene	23.51		230427	64.53	2.15		Y
Benzoic Acid	11.16	-0.08	38190	37.74	1.26	J	Y
Benzyl Alcohol	9.61		61010	59.51	1.98		Y
Bis(2-chloroethoxy)methane	11.11		116097	58.01	1.93		Y
Bis(2-chloroethyl) Ether	8.95	-0.01	87752	55.31	1.84		Y
Bis(2-ethylhexyl) Phthalate	21.38		146947	63.81	2.13		Y
Butyl Benzyl Phthalate	20.19		115324	64.84	2.16		Y
Chrysene	21.19		206167	61.80	2.06		Y
Dibenz(a,h)anthracene	26.83		226699	63.74	2.12		Y
Dibenzofuran	14.64		253090	60.21	2.01		Y
Diethyl Phthalate	15.10		195528	57.32	1.91		Y
Dimethyl Phthalate	13.93	-0.01	199831	60.56	2.02		Y
Di-n-butyl Phthalate	17.76		277006	61.06	2.04		Y
Di-n-octyl Phthalate	22.84		241670	62.89	2.10		Y
Fluoranthene	18.67	+0.01	257040	63.59	2.12		Y

Data File: J:\MS07\DATA\100919\1009F029.D\
 Acqu Date: 10/10/19 07:24:00
 Run Type: DLCS
 Lab ID: KQ1914345-02

Instrument: K-MS-07nd *Cpu* 10/11/19
 Vial: 13
 Dilution: 1
 Raw Units: ug/mL

Target Compounds

Final Conc.Units: mg/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Fluorene	15.20	+0.01	188804	60.49	2.02		Y
Hexachlorobenzene	16.08		81879	60.78	2.03		Y
Hexachlorobutadiene	11.71		52015	55.70	1.86		Y
Hexachlorocyclopentadiene	12.89	+0.01	42342	35.24	1.17		Y
Hexachloroethane	10.17		39760	52.04	1.73		Y
Indeno(1,2,3-cd)pyrene	26.75		229459	63.49	2.12		Y
Isophorone	10.72	-0.01	188047	58.04	1.93		Y
Naphthalene	11.47	-0.01	254711	58.41	1.95		Y
Nitrobenzene	10.30		104938	62.21	2.07		Y
N-Nitrosodimethylamine	4.31		56685	53.41	1.78	J	Y
N-Nitrosodi-n-propylamine	10.07	-0.02	66852	58.94	1.96		Y
N-Nitrosodiphenylamine	15.43		127893	57.91	1.93		Y
Pentachlorophenol	16.41		45623	53.30	1.78	J	Y
Phenanthrene	16.75		243794	62.32	2.08		Y
Phenol	8.83	-0.01	112222	51.29	1.71		Y
Pyrene	19.02		257747	64.86	2.16		Y
2,2'-Oxybis(1-chloropropane)	9.86		107595	51.57	1.72		Y

Prep Amount: 30.00 g
 Prep Final Amount: 1.00 mL

Dilution: 1
 Basis Factor: 100.00

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

Printed: 10/11/19 5:58

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Cpu

Data File : J:\MS07\DATA\100919\1009F029.D

Acq On : 10 Oct 2019 7:24 am

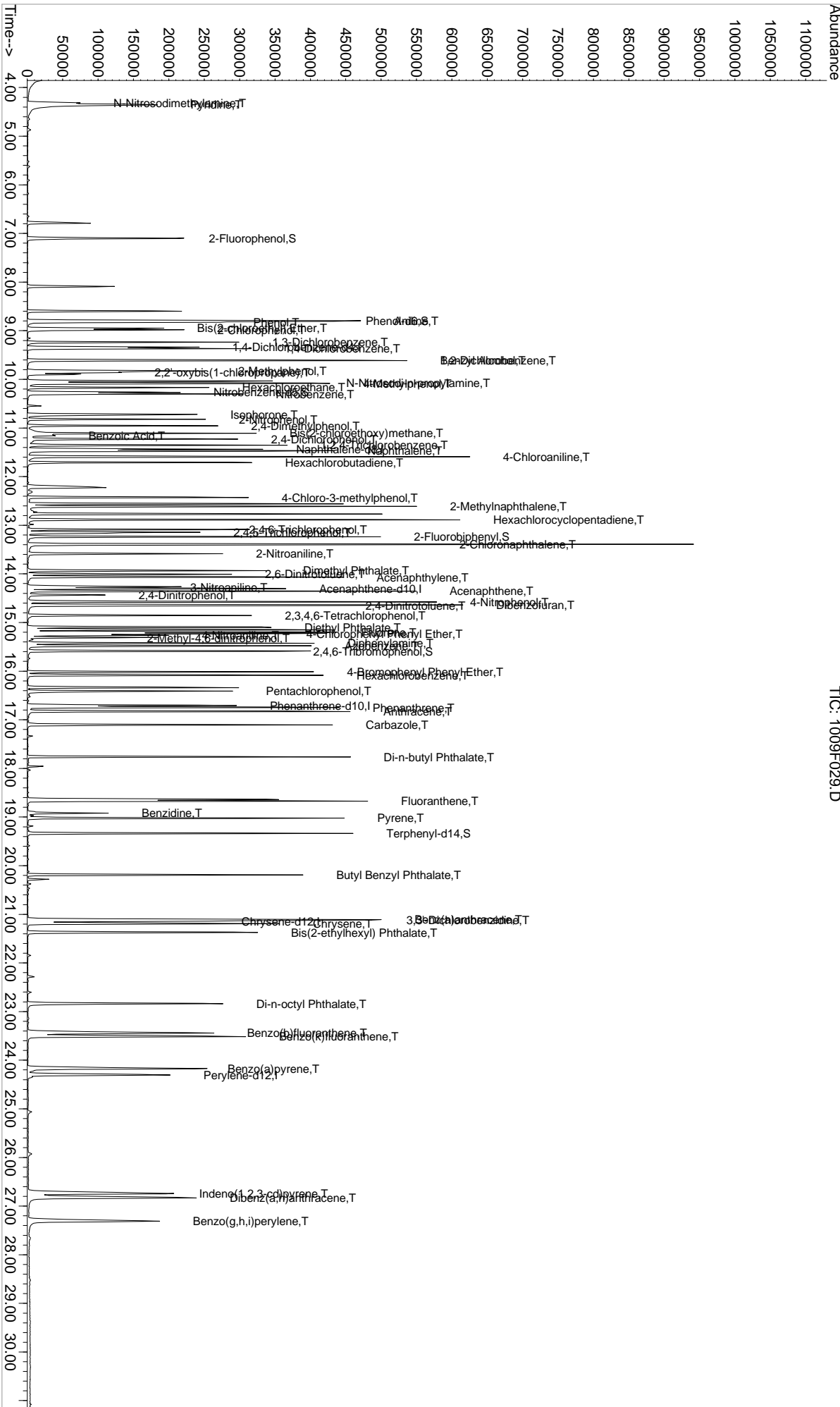
Sample : KQ1914345-02 | DLCS

Misc : MS Integration Params: RTEINT.P

Quant Results File: 100919_BNP7.RES

Vial: 27
Operator: CCONOVER/LM
Inst: MS07
Multiplr: 1.00

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Oct 10 23:34:17 2019
Response via : Initial Calibration



Data File : J:\MS07\DATA\100919\1009F029.D
 Acq On : 10 Oct 2019 7:24 am
 Sample : KQ1914345-02 | DLCS
 Misc :

Vial: 27
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 23:34:53 2019

Quant Results File: 100919_BNP7.RES

Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 23:34:17 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.34	152	47403	40.00	ug/ml	0.00
22) Naphthalene-d8	11.44	136	190062	40.00	ug/ml	0.00
36) Acenaphthene-d10	14.30	164	107948	40.00	ug/ml	0.00
61) Phenanthrene-d10	16.71	188	158549	40.00	ug/ml	0.00
73) Chrysene-d12	21.14	240	130789	40.00	ug/ml	0.00
84) Perylene-d12	24.30	264	150755	40.00	ug/ml	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
4) 2-Fluorophenol	7.11	112	101829	70.40	ug/ml	-0.02
Spiked Amount	150.000	Range	21 - 100	Recovery	=	46.93%
8) Phenol-d6	8.81	99	158085	82.12	ug/ml	0.00
Spiked Amount	150.000	Range	10 - 94	Recovery	=	54.75%
20) Nitrobenzene-d5	10.27	82	102616	58.03	ug/ml	0.00
Spiked Amount	100.000	Range	35 - 114	Recovery	=	58.03%
40) 2-Fluorobiphenyl	13.24	172	189829	54.84	ug/ml	0.00
Spiked Amount	100.000	Range	43 - 116	Recovery	=	54.84%
62) 2,4,6-Tribromophenol	15.59	330	86565	91.58	ug/ml	0.00
Spiked Amount	150.000	Range	10 - 123	Recovery	=	61.05%
76) Terphenyl-d14	19.34	244	203961	62.05	ug/ml	0.00
Spiked Amount	100.000	Range	33 - 141	Recovery	=	62.05%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-Nitrosodimethylamine	4.31	42	56685	53.41	ug/ml	91
3) Pyridine	4.35	79	153639	88.28	ug/ml	99
6) Aniline	8.80	93	115723	50.99	ug/ml	97
7) Bis(2-chloroethyl) Ether	8.95	93	87752	55.31	ug/ml	98
9) Phenol	8.83	94	112222	51.29	ug/ml	97
10) 2-Chlorophenol	8.98	128	78567	50.15	ug/ml	98
11) 1,3-Dichlorobenzene	9.24	146	84783	51.61	ug/ml	99
12) 1,4-Dichlorobenzene	9.37	146	89692	52.97	ug/ml	98
13) 1,2-Dichlorobenzene	9.61	146	85321	53.89	ug/ml	95
14) Benzyl Alcohol	9.61	108	61010	59.51	ug/ml	98
15) 2,2'-oxybis(1-chloropropan	9.86	45	107595m	51.57	ug/ml	
16) 2-Methylphenol	9.83	107	63025	51.70	ug/ml	87
17) Hexachloroethane	10.17	117	39760	52.04	ug/ml	96
18) N-Nitrosodi-n-propylamine	10.07	70	66852	58.94	ug/ml	96
19) 4-Methylphenol	10.09	107	97315	52.41	ug/ml#	86
21) Nitrobenzene	10.30	77	104938	62.21	ug/ml	97
23) Isophorone	10.72	82	188047	58.04	ug/ml	99
24) 2-Nitrophenol	10.82	139	51342	55.61	ug/ml	89
25) 2,4-Dimethylphenol	10.96	122	52621	38.45	ug/ml	98
26) Bis(2-chloroethoxy)methane	11.11	93	116097	58.01	ug/ml	100
27) 2,4-Dichlorophenol	11.23	162	75787	54.35	ug/ml	95
28) Benzoic Acid	11.16	122	38190	37.74	ug/ml	95
29) 1,2,4-Trichlorobenzene	11.35	180	85440	57.31	ug/ml	99
30) Naphthalene	11.47	128	254711	58.41	ug/ml	99
32) 4-Chloroaniline	11.59	127	117188	58.83	ug/ml	99
33) Hexachlorobutadiene	11.71	225	52015	55.70	ug/ml	98
34) 4-Chloro-3-methylphenol	12.43	107	79310	57.76	ug/ml	97
35) 2-Methylnaphthalene	12.61	142	179542	61.48	ug/ml	100
37) Hexachlorocyclopentadiene	12.89	237	42342	35.24	ug/ml	98
38) 2,4,6-Trichlorophenol	13.09	196	57656	53.50	ug/ml	98
39) 2,4,5-Trichlorophenol	13.15	196	62782	54.99	ug/ml	99
41) 2-Chloronaphthalene	13.40	162	172825	59.46	ug/ml	99
42) 2-Nitroaniline	13.59	65	62406	62.96	ug/ml	96
43) Acenaphthylene	14.07	152	259281	59.64	ug/ml	99
44) Dimethyl Phthalate	13.93	163	199831	60.56	ug/ml	99
45) 2,6-Dinitrotoluene	14.01	165	48231	63.98	ug/ml	80

Data File : J:\MS07\DATA\100919\1009F029.D
 Acq On : 10 Oct 2019 7:24 am
 Sample : KQ1914345-02 | DLCS
 Misc :

Vial: 27
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 23:34:53 2019

Quant Results File: 100919_BNP7.RES

Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 23:34:17 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

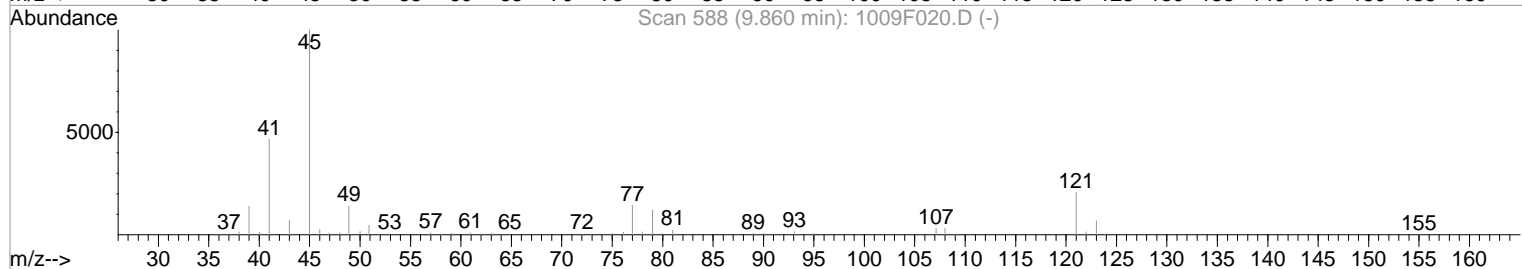
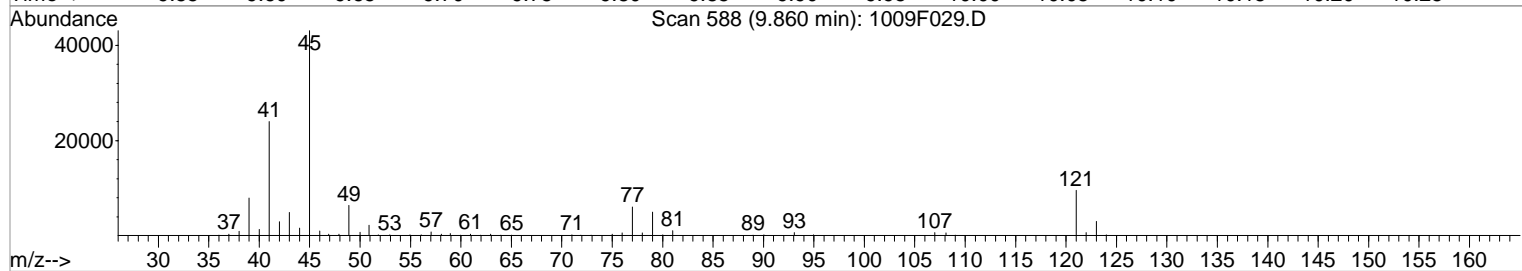
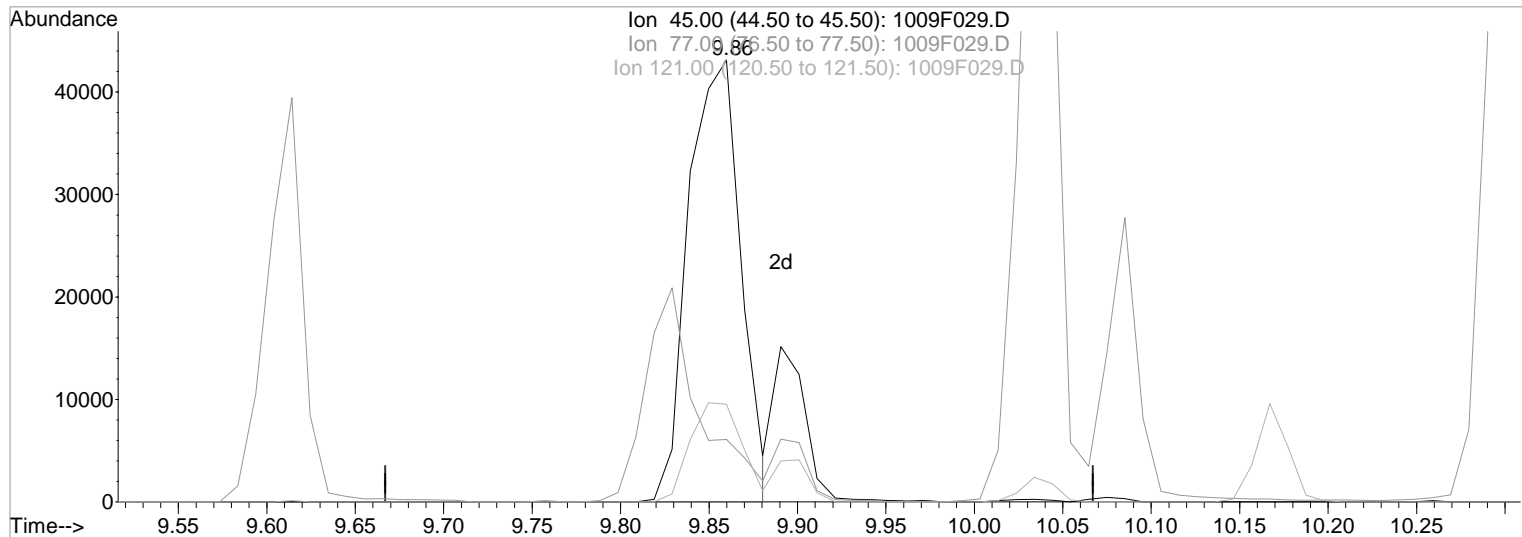
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) Acenaphthene	14.35	154	152543	58.88	ug/ml	98
47) 3-Nitroaniline	14.27	138	51496	61.45	ug/ml	90
48) 2,4-Dinitrophenol	14.44	184	19189	51.08	ug/ml	94
49) Dibenzofuran	14.64	168	253090	60.21	ug/ml	96
50) 4-Nitrophenol	14.58	109	31185	60.51	ug/ml	77
51) 2,4-Dinitrotoluene	14.65	165	60196	62.59	ug/ml	93
52) 2,3,4,6-Tetrachlorophenol	14.86	232	50822	56.25	ug/ml	95
53) Fluorene	15.20	166	188804	60.49	ug/ml	99
54) 4-Chlorophenyl Phenyl Ethe	15.23	204	96940	58.31	ug/ml	93
55) Diethyl Phthalate	15.10	149	195528	57.32	ug/ml	99
56) 4-Nitroaniline	15.26	138	48544	56.92	ug/ml	96
57) 2-Methyl-4,6-dinitrophenol	15.32	198	33708	56.45	ug/ml	83
58) Diphenylamine	15.43	169	127893	57.91	ug/ml	98
59) Azobenzene	15.48	51	82414	51.39	ug/ml	92
63) 4-Bromophenyl Phenyl Ether	16.01	248	65678	64.85	ug/ml	94
64) Hexachlorobenzene	16.08	284	81879	60.78	ug/ml	94
66) Pentachlorophenol	16.41	266	45623	53.30	ug/ml	99
68) Phenanthrene	16.75	178	243794	62.32	ug/ml	99
69) Anthracene	16.83	178	248719	61.11	ug/ml	99
70) Carbazole	17.11	167	231035	60.66	ug/ml	99
71) Di-n-butyl Phthalate	17.76	149	277006	61.06	ug/ml	100
72) Fluoranthene	18.67	202	257040	63.59	ug/ml	97
74) Benzidine	18.92	184	54388	41.14	ug/ml	98
75) Pyrene	19.02	202	257747	64.86	ug/ml	99
78) Butyl Benzyl Phthalate	20.19	149	115324	64.84	ug/ml	97
80) 3,3'-Dichlorobenzidine	21.12	252	87863	56.16	ug/ml	98
81) Benz(a)anthracene	21.11	228	197601	61.49	ug/ml	99
82) Chrysene	21.19	228	206167	61.80	ug/ml	99
83) Bis(2-ethylhexyl) Phthalat	21.38	149	146947	63.81	ug/ml	97
85) Di-n-octyl Phthalate	22.84	149	241670	62.89	ug/ml	98
86) Benzo(b)fluoranthene	23.44	252	240607	60.95	ug/ml	99
87) Benzo(k)fluoranthene	23.51	252	230427	64.53	ug/ml	99
90) Benzo(a)pyrene	24.18	252	229100	66.32	ug/ml	98
91) Indeno(1,2,3-cd)pyrene	26.75	276	229459	63.49	ug/ml	98
92) Dibenz(a,h)anthracene	26.83	278	226699	63.74	ug/ml	98
93) Benzo(g,h,i)perylene	27.31	276	199765	54.42	ug/ml	99

Data File : J:\MS07\DATA\100919\1009F029.D
 Acq On : 10 Oct 2019 7:24 am
 Sample : KQ1914345-02 | DLCS
 Misc :
 MS Integration Params: RTEINT.P
 Quant Time: Oct 11 4:47 2019

Vial: 27
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 23:34:17 2019
 Response via : Multiple Level Calibration



TIC: 1009F029.D

(15) 2,2'-oxybis(1-chloropropane) (T)

Manual Integration:

9.86min 42.46ug/ml

Before

response 88600

Ion	Exp%	Act%
45.00	100	100
77.00	13.60	11.32
121.00	20.40	21.99
0.00	0.00	0.00

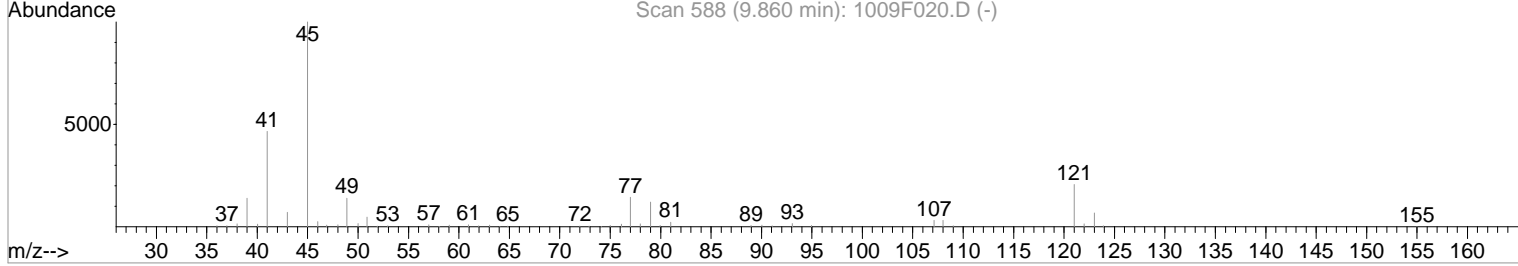
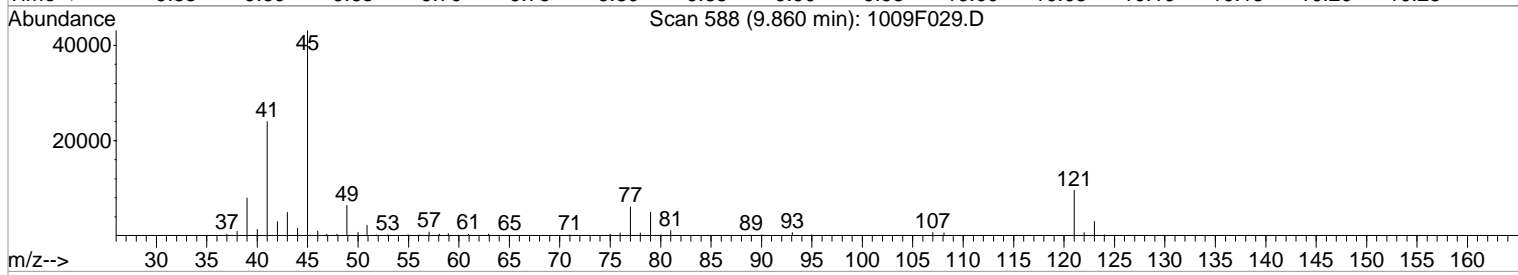
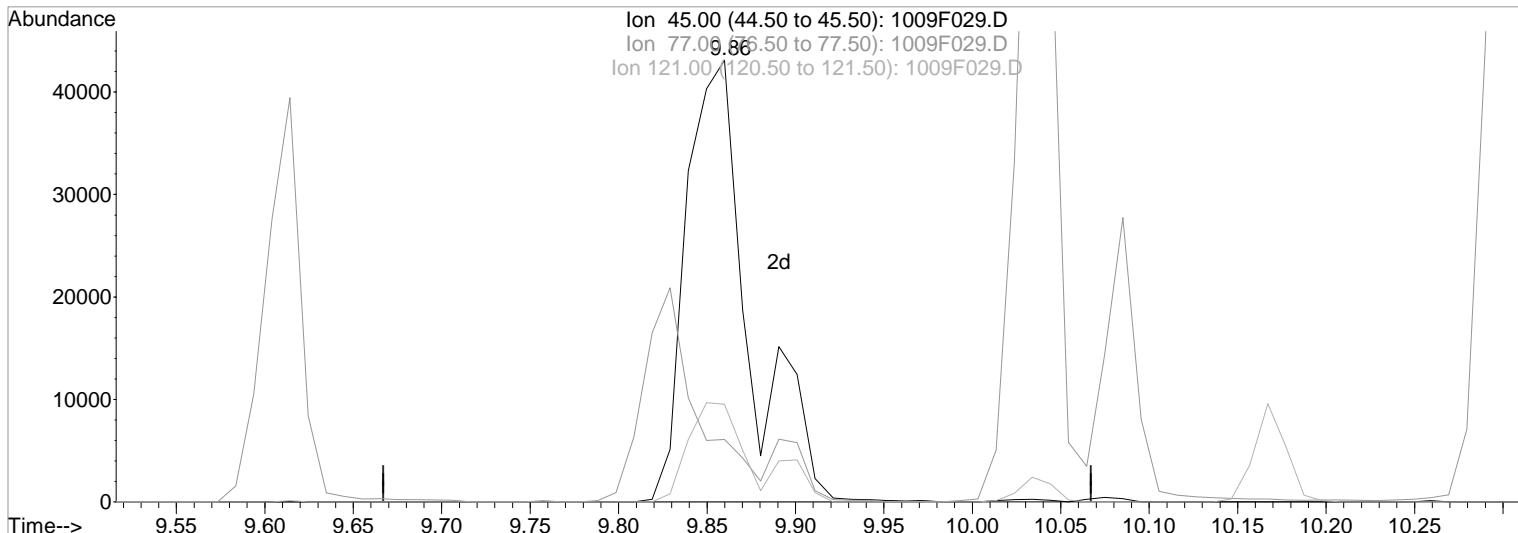
10/11/19

Data File : J:\MS07\DATA\100919\1009F029.D
 Acq On : 10 Oct 2019 7:24 am
 Sample : KQ1914345-02 | DLCS
 Misc :
 MS Integration Params: RTEINT.P
 Quant Time: Oct 11 4:47 2019

Vial: 27
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 23:34:17 2019
 Response via : Multiple Level Calibration



TIC: 1009F029.D

(15) 2,2'-oxybis(1-chloropropane) (T)

Manual Integration:

9.86min 51.57ug/ml m

After

response 107595

IC-Incomplete

Ion	Exp%	Act%
45.00	100	100
77.00	13.60	14.12
121.00	20.40	22.10
0.00	0.00	0.00

10/11/19

Validation Report

1st *ce* 10/11/19
2nd *Cpw* 10/11/19

Data File: J:\MS07\DATA\100919\1009F020.D\
Lab ID: KQ1914763-02
RunType: CCV
Matrix: Ground Water

Date Acquired: 10/10/19 01:14:00
Batch ID: 654315
Analysis Method: 8270D/SVO

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification		X
Internal Standards	X	
Above Highest ICAL Level	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	Benz(a)anthracene	23		20	OK, <MRL in samples
	N-Nitrosodi-n-propylamine	28		20	
	N-Nitrosodiphenylamine	24		20	
	2,2'-Oxybis(1-chloropropane)	30		20	

Primary Review: _____

Secondary Review: _____

Quantitation Report

1st *ce* 10/11/19
2nd *Cpu* 10/11/19

Data File: J:\MS07\DATA\100919\1009F020.D\	Instrument: K-MS-07
Acqu Date: 10/10/19 01:14:00	Vial: 4
Run Type: CCV	Dilution: 1
Lab ID: KQ1914763-05	Raw Units: ug/mL

Bottle ID:	Tier: IV	Matrix: Soil
Prod Code: SVO	Collect Date: 9/25/19	Receive Date: 9/27/19

Analysis Lot: 654315	Prep Lot:	Report Group: KQ1914763
Analysis: 8270D	Prep Method:	
	Prep Date:	

Title: Semivolatile Organic Compounds by GC/MS	Calibration ID: KC1900424
	Report List ID: 18699

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
1,4-Dichlorobenzene-d4	9.34		50950	40.00	OK
Acenaphthene-d10	14.30		111710	40.00	OK
Chrysene-d12	21.14		135653	40.00	OK
Naphthalene-d8	11.44		204018	40.00	OK
Perylene-d12	24.30		162322	40.00	OK
Phenanthrene-d10	16.71		168145	40.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
2,4,6-Tribromophenol	15.59		86340	86.13	Y
2-Fluorobiphenyl	13.24		302752	84.51	Y
2-Fluorophenol	7.12		131472	84.57	Y
Nitrobenzene-d5	10.27		167372	88.06	Y
Phenol-d6	8.81		174393	84.28	Y
Terphenyl-d14	19.34		303881	89.14	Y

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
1,2,4-Trichlorobenzene	11.35		132660	82.90	Y
1,2-Dichlorobenzene	9.61		138487	81.39	Y
1,3-Dichlorobenzene	9.24		149720	84.80	Y
1,4-Dichlorobenzene	9.37		153945	84.59	Y
2,4,5-Trichlorophenol	13.14		107355	90.86	Y
2,4,6-Trichlorophenol	13.08		96338	86.38	Y
2,4-Dichlorophenol	11.24		133834	89.41	Y
2,4-Dimethylphenol	10.97		125265	85.26	Y
2,4-Dinitrophenol	14.44		37939	83.47	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 10/11/19 5:58

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Data File: J:\MS07\DATA\100919\1009F020.D\
 Acqu Date: 10/10/19 01:14:00
 Run Type: CCV
 Lab ID: KQ1914763-05

Instrument: K-MS-07nd *Cpu* 10/11/19
 Vial: 4
 Dilution: 1
 Raw Units: ug/mL

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
2,4-Dinitrotoluene	14.66		83006	83.41	Y
2,6-Dinitrotoluene	14.01		67695	86.77	Y
2-Chloronaphthalene	13.40		254202	84.52	Y
2-Chlorophenol	8.99		145505	86.41	Y
2-Methyl-4,6-dinitrophenol	15.32		52977	79.81	Y
2-Methylnaphthalene	12.61		272838	87.04	Y
2-Methylphenol	9.84		115548	88.18	Y
2-Nitroaniline	13.59		90194	87.94	Y
2-Nitrophenol	10.82		84326	85.09	Y
3,3'-Dichlorobenzidine	21.12		142327	87.71	Y
3-Nitroaniline	14.27		74928	86.41	Y
4-Bromophenyl Phenyl Ether	16.02		93572	87.12	Y
4-Chloro-3-methylphenol	12.42		134485	91.24	Y
4-Chloroaniline	11.60		183653	85.89	Y
4-Chlorophenyl Phenyl Ether	15.23		141237	82.10	Y
4-Methylphenol	10.11		180347	90.37	Y
4-Nitroaniline	15.27		72034	81.61	Y
4-Nitrophenol	14.57		43480	81.53	Y
Acenaphthene	14.35		224424	83.71	Y
Acenaphthylene	14.07		371518	82.58	Y
Aniline	8.80		193192	79.20	Y
Anthracene	16.83		350548	81.21	Y
Benz(a)anthracene	21.11		275153	82.55	Y
Benzo(a)pyrene	24.18		324615	87.27	Y
Benzo(b)fluoranthene	23.44		359034	84.47	Y
Benzo(g,h,i)perylene	27.32		333489	84.38	Y
Benzo(k)fluoranthene	23.51		341863	88.92	Y
Benzoic Acid	11.24		94541	87.04	Y
Benzyl Alcohol	9.61		96196	87.30	Y
Bis(2-chloroethoxy)methane	11.11		187061	87.07	Y
Bis(2-chloroethyl) Ether	8.96		146201	85.73	Y
Bis(2-ethylhexyl) Phthalate	21.38		209959	87.91	Y
Butyl Benzyl Phthalate	20.19		158327	85.83	Y
Chrysene	21.19		285292	82.45	Y
Dibenz(a,h)anthracene	26.83		336147	87.77	Y
Dibenzofuran	14.64		352518	81.05	Y
Diethyl Phthalate	15.10		268658	76.11	Y
Dimethyl Phthalate	13.94		278735	81.63	Y
Di-n-butyl Phthalate	17.76		409397	85.09	Y
Di-n-octyl Phthalate	22.84		373040	90.16	Y
Fluoranthene	18.66		357129	83.31	Y

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
 #: Acceptance criteria not applicable
 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

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Data File: J:\MS07\DATA\100919\1009F020.D\
 Acqu Date: 10/10/19 01:14:00
 Run Type: CCV
 Lab ID: KQ1914763-05

Instrument: K-MS-07nd *Cpu* 10/11/19
 Vial: 4
 Dilution: 1
 Raw Units: ug/mL

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
Fluorene	15.19		259134	80.23	Y
Hexachlorobenzene	16.08		118721	83.10	Y
Hexachlorobutadiene	11.71		82795	82.59	Y
Hexachlorocyclopentadiene	12.88		102497	80.31	Y
Hexachloroethane	10.17		68504	83.42	Y
Indeno(1,2,3-cd)pyrene	26.75		332513	85.45	Y
Isophorone	10.73		297234	85.47	Y
Naphthalene	11.48		391471	83.64	Y
Nitrobenzene	10.30		161332	88.99	Y
N-Nitrosodimethylamine	4.31		95823	84.01	Y
N-Nitrosodi-n-propylamine	10.09		109110	89.50	Y
N-Nitrosodiphenylamine	15.43		180012	78.76	Y
Pentachlorophenol	16.41		77853	85.76	Y
Phenanthrene	16.75		329637	79.46	Y
Phenol	8.84		203008	86.32	Y
Pyrene	19.02		356354	86.37	Y
2,2'-Oxybis(1-chloropropane)	9.86		185171	82.57	Y

U: Undetected at or above MDL
 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
 NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
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 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

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Quantitation Report

1st *ce* 10/11/19
2nd *Cpw* 10/11/19

Data File: J:\MS07\DATA\100919\1009F020.D\	Instrument: K-MS-07
Acqu Date: 10/10/19 01:14:00	Vial: 2
Run Type: CCV	Dilution: 1
Lab ID: KQ1914763-02	Raw Units: ug/mL

Bottle ID:	Tier: IV	Matrix: Ground Water
Prod Code: SVO	Collect Date: 9/23/19	Receive Date: 9/26/19

Analysis Lot: 654315	Prep Lot:	Report Group: KQ1914763
Analysis: 8270D	Prep Method:	
	Prep Date:	

Title: Semivolatile Organic Compounds by GC/MS	Calibration ID: KC1900424
	Report List ID: 18920

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
1,4-Dichlorobenzene-d4	9.34		50950	40.00	OK
Acenaphthene-d10	14.30		111710	40.00	OK
Chrysene-d12	21.14		135653	40.00	OK
Naphthalene-d8	11.44		204018	40.00	OK
Perylene-d12	24.30		162322	40.00	OK
Phenanthrene-d10	16.71		168145	40.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
2,4,6-Tribromophenol	15.59		86340	86.13	Y
2-Fluorobiphenyl	13.24		302752	84.51	Y
2-Fluorophenol	7.12		131472	84.57	Y
Nitrobenzene-d5	10.27		167372	88.06	Y
Phenol-d6	8.81		174393	84.28	Y
Terphenyl-d14	19.34		303881	89.14	Y

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
1,2,4-Trichlorobenzene	11.35		132660	82.90	Y
1,2-Dichlorobenzene	9.61		138487	81.39	Y
1,2-Diphenylhydrazine	15.48		140480	84.65	Y
1,3-Dichlorobenzene	9.24		149720	84.80	Y
1,4-Dichlorobenzene	9.37		153945	84.59	Y
2,4,5-Trichlorophenol	13.14		107355	90.86	Y
2,4,6-Trichlorophenol	13.08		96338	86.38	Y
2,4-Dichlorophenol	11.24		133834	89.41	Y
2,4-Dimethylphenol	10.97		125265	85.26	Y

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N: Presumptive evidence of compound

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m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Data File: J:\MS07\DATA\100919\1009F020.D\
 Acq Date: 10/10/19 01:14:00
 Run Type: CCV
 Lab ID: KQ1914763-02

Instrument: K-MS-07nd *Cpu* 10/11/19
 Vial: 2
 Dilution: 1
 Raw Units: ug/mL

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
2,4-Dinitrophenol	14.44		37939	83.47	Y
2,4-Dinitrotoluene	14.66		83006	83.41	Y
2,6-Dinitrotoluene	14.01		67695	86.77	Y
2-Chloronaphthalene	13.40		254202	84.52	Y
2-Chlorophenol	8.99		145505	86.41	Y
2-Methyl-4,6-dinitrophenol	15.32		52977	79.81	Y
2-Methylnaphthalene	12.61		272838	87.04	Y
2-Methylphenol	9.84		115548	88.18	Y
2-Nitroaniline	13.59		90194	87.94	Y
2-Nitrophenol	10.82		84326	85.09	Y
3,3'-Dichlorobenzidine	21.12		142327	87.71	Y
3-Nitroaniline	14.27		74928	86.41	Y
4-Bromophenyl Phenyl Ether	16.02		93572	87.12	Y
4-Chloro-3-methylphenol	12.42		134485	91.24	Y
4-Chloroaniline	11.60		183653	85.89	Y
4-Chlorophenyl Phenyl Ether	15.23		141237	82.10	Y
4-Methylphenol	10.11		180347	90.37	Y
4-Nitroaniline	15.27		72034	81.61	Y
4-Nitrophenol	14.57		43480	81.53	Y
Acenaphthene	14.35		224424	83.71	Y
Acenaphthylene	14.07		371518	82.58	Y
Anthracene	16.83		350548	81.21	Y
Benz(a)anthracene	21.11		275153	82.55	Y
Benzo(a)pyrene	24.18		324615	87.27	Y
Benzo(b)fluoranthene	23.44		359034	84.47	Y
Benzo(g,h,i)perylene	27.32		333489	84.38	Y
Benzo(k)fluoranthene	23.51		341863	88.92	Y
Benzoic Acid	11.24		94541	87.04	Y
Benzyl Alcohol	9.61		96196	87.30	Y
Bis(2-chloroethoxy)methane	11.11		187061	87.07	Y
Bis(2-chloroethyl) Ether	8.96		146201	85.73	Y
Bis(2-ethylhexyl) Phthalate	21.38		209959	87.91	Y
Butyl Benzyl Phthalate	20.19		158327	85.83	Y
Carbazole	17.11		327296	81.03	Y
Chrysene	21.19		285292	82.45	Y
Dibenz(a,h)anthracene	26.83		336147	87.77	Y
Dibenzofuran	14.64		352518	81.05	Y
Diethyl Phthalate	15.10		268658	76.11	Y
Dimethyl Phthalate	13.94		278735	81.63	Y
Di-n-butyl Phthalate	17.76		409397	85.09	Y
Di-n-octyl Phthalate	22.84		373040	90.16	Y

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 ?: Insufficient information to determine acceptance
 e: Result >= MRL, but MRL less than low point of ICAL
 c: check for co-elution

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Data File: J:\MS07\DATA\100919\1009F020.D\
 Acqu Date: 10/10/19 01:14:00
 Run Type: CCV
 Lab ID: KQ1914763-02

Instrument: K-MS-07nd *Cpu* 10/11/19
 Vial: 2
 Dilution: 1
 Raw Units: ug/mL

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
Fluoranthene	18.66		357129	83.31	Y
Fluorene	15.19		259134	80.23	Y
Hexachlorobenzene	16.08		118721	83.10	Y
Hexachlorobutadiene	11.71		82795	82.59	Y
Hexachloroethane	10.17		68504	83.42	Y
Indeno(1,2,3-cd)pyrene	26.75		332513	85.45	Y
Isophorone	10.73		297234	85.47	Y
Naphthalene	11.48		391471	83.64	Y
Nitrobenzene	10.30		161332	88.99	Y
N-Nitrosodimethylamine	4.31		95823	84.01	Y
N-Nitrosodi-n-propylamine	10.09		109110	89.50	Y
N-Nitrosodiphenylamine	15.43		180012	78.76	Y
Pentachlorophenol	16.41		77853	85.76	Y
Phenanthrene	16.75		329637	79.46	Y
Phenol	8.84		203008	86.32	Y
Pyrene	19.02		356354	86.37	Y
2,2'-Oxybis(1-chloropropane)	9.86		185171	82.57	Y

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 J: Analyte detected above MDL, but below MRL
 B: Hit above MRL also found in Method Blank
 E: Analyte concentration above high point of ICAL
 N: Presumptive evidence of compound

D: Result from dilution
 m: Manual integration performed
 d: Compound manually deleted
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 e: Result >= MRL, but MRL less than low point of ICAL
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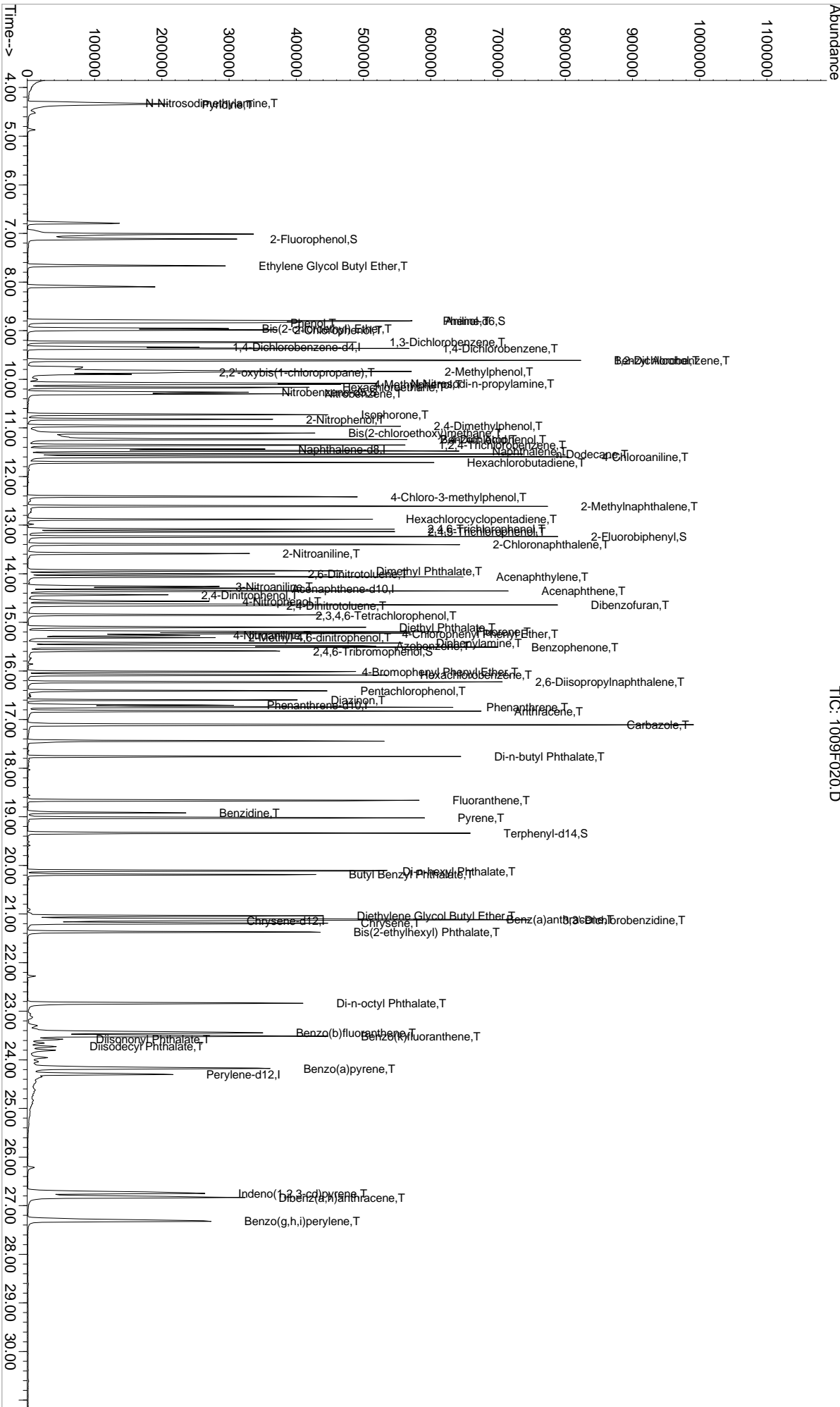
Cpu

Data File : J:\MS07\DATA\100919\1009F020.D
 Acq On : 10 Oct 2019 1:14 am
 Sample : 8270/P CCV @80ppm | SVM-62-13I
 Misc :
 MS Integration Params: RTEINT.P
 Quant Time: Oct 10 23:33 2019

Vial: 10
 Operator: CCONOVER/LM
 Inst: MS07
 Multiplr: 1.00
 Quant Results File: 100919_BNP7.RES

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 23:34:17 2019
 Response via : Initial Calibration

TIC: 1009F020.D



Data File : J:\MS07\DATA\100919\1009F020.D
 Acq On : 10 Oct 2019 1:14 am
 Sample : 8270/P CCV @80ppm | SVM-62-13I
 Misc :

Vial: 10
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 23:30:11 2019

Quant Results File: 100919_BNP7.RES

Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 11:47:42 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.34	152	50950	40.00	ug/ml	0.00
22) Naphthalene-d8	11.44	136	204018	40.00	ug/ml	0.00
36) Acenaphthene-d10	14.30	164	111710	40.00	ug/ml	0.00
61) Phenanthrene-d10	16.71	188	168145	40.00	ug/ml	0.00
73) Chrysene-d12	21.14	240	135653	40.00	ug/ml	0.00
84) Perylene-d12	24.30	264	162322	40.00	ug/ml	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
4) 2-Fluorophenol	7.12	112	131472	84.57	ug/ml	0.00
Spiked Amount 150.000	Range 21	- 100	Recovery =	56.38%		
8) Phenol-d6	8.81	99	174393	84.28	ug/ml	0.00
Spiked Amount 150.000	Range 10	- 94	Recovery =	56.19%		
20) Nitrobenzene-d5	10.27	82	167372	88.06	ug/ml	0.00
Spiked Amount 100.000	Range 35	- 114	Recovery =	88.06%		
40) 2-Fluorobiphenyl	13.24	172	302752	84.51	ug/ml	0.00
Spiked Amount 100.000	Range 43	- 116	Recovery =	84.51%		
62) 2,4,6-Tribromophenol	15.59	330	86340	86.13	ug/ml	0.00
Spiked Amount 150.000	Range 10	- 123	Recovery =	57.42%		
76) Terphenyl-d14	19.34	244	303881	89.14	ug/ml	0.00
Spiked Amount 100.000	Range 33	- 141	Recovery =	89.14%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-Nitrosodimethylamine	4.31	42	95823	84.01	ug/ml	97
3) Pyridine	4.34	79	160715	85.92	ug/ml	100
5) Ethylene Glycol Butyl Ethe	7.67	57	160273	83.32	ug/ml	98
6) Aniline	8.80	93	193192	79.20	ug/ml	82
7) Bis(2-chloroethyl) Ether	8.96	93	146201	85.73	ug/ml	94
9) Phenol	8.84	94	203008	86.32	ug/ml	95
10) 2-Chlorophenol	8.99	128	145505	86.41	ug/ml	94
11) 1,3-Dichlorobenzene	9.24	146	149720	84.80	ug/ml	98
12) 1,4-Dichlorobenzene	9.37	146	153945	84.59	ug/ml	98
13) 1,2-Dichlorobenzene	9.61	146	138487	81.39	ug/ml	97
14) Benzyl Alcohol	9.61	108	96196	87.30	ug/ml	98
15) 2,2'-oxybis(1-chloropropan	9.86	45	185171	82.57	ug/ml	99
16) 2-Methylphenol	9.84	107	115548	88.18	ug/ml	96
17) Hexachloroethane	10.17	117	68504	83.42	ug/ml	93
18) N-Nitrosodi-n-propylamine	10.09	70	109110	89.50	ug/ml	94
19) 4-Methylphenol	10.11	107	180347	90.37	ug/ml	98
21) Nitrobenzene	10.30	77	161332	88.99	ug/ml	98
23) Isophorone	10.73	82	297234	85.47	ug/ml	97
24) 2-Nitrophenol	10.82	139	84326	85.09	ug/ml	88
25) 2,4-Dimethylphenol	10.97	122	125265	85.26	ug/ml	97
26) Bis(2-chloroethoxy)methane	11.11	93	187061	87.07	ug/ml	99
27) 2,4-Dichlorophenol	11.24	162	133834	89.41	ug/ml	96
28) Benzoic Acid	11.24	122	94541	87.04	ug/ml	94
29) 1,2,4-Trichlorobenzene	11.35	180	132660	82.90	ug/ml	99
30) Naphthalene	11.48	128	391471	83.64	ug/ml	99
31) n-Dodecane	11.54	57	168269	78.09	ug/ml	98
32) 4-Chloroaniline	11.60	127	183653	85.89	ug/ml	95
33) Hexachlorobutadiene	11.71	225	82795	82.59	ug/ml	99
34) 4-Chloro-3-methylphenol	12.42	107	134485	91.24	ug/ml	95
35) 2-Methylnaphthalene	12.61	142	272838	87.04	ug/ml	99
37) Hexachlorocyclopentadiene	12.88	237	102497	80.31	ug/ml	99
38) 2,4,6-Trichlorophenol	13.08	196	96338	86.38	ug/ml	97
39) 2,4,5-Trichlorophenol	13.14	196	107355	90.86	ug/ml	96
41) 2-Chloronaphthalene	13.40	162	254202	84.52	ug/ml	98
42) 2-Nitroaniline	13.59	65	90194	87.94	ug/ml	94
43) Acenaphthylene	14.07	152	371518	82.58	ug/ml	99

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS07\DATA\100919\1009F020.D
 Acq On : 10 Oct 2019 1:14 am
 Sample : 8270/P CCV @80ppm | SVM-62-13I
 Misc :

Vial: 10
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 23:30:11 2019

Quant Results File: 100919_BNP7.RES

Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 11:47:42 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44) Dimethyl Phthalate	13.94	163	278735	81.63	ug/ml	99
45) 2,6-Dinitrotoluene	14.01	165	67695	86.77	ug/ml	87
46) Acenaphthene	14.35	154	224424	83.71	ug/ml	99
47) 3-Nitroaniline	14.27	138	74928	86.41	ug/ml	91
48) 2,4-Dinitrophenol	14.44	184	37939	83.47	ug/ml	85
49) Dibenzofuran	14.64	168	352518	81.05	ug/ml	94
50) 4-Nitrophenol	14.57	109	43480	81.53	ug/ml	90
51) 2,4-Dinitrotoluene	14.66	165	83006	83.41	ug/ml	89
52) 2,3,4,6-Tetrachlorophenol	14.86	232	82722	88.48	ug/ml	88
53) Fluorene	15.19	166	259134	80.23	ug/ml	99
54) 4-Chlorophenyl Phenyl Eth	15.23	204	141237	82.10	ug/ml	92
55) Diethyl Phthalate	15.10	149	268658	76.11	ug/ml	98
56) 4-Nitroaniline	15.27	138	72034	81.61	ug/ml	98
57) 2-Methyl-4,6-dinitrophenol	15.32	198	52977	79.81	ug/ml	82
58) Diphenylamine	15.43	169	180012	78.76	ug/ml	99
59) Azobenzene	15.48	51	140480m	84.65	ug/ml	
60) Benzophenone	15.51	105	299478	77.78	ug/ml	98
63) 4-Bromophenyl Phenyl Ether	16.02	248	93572	87.12	ug/ml	92
64) Hexachlorobenzene	16.08	284	118721	83.10	ug/ml	93
65) 2,6-Diisopropyl naphthalene	16.23	197	221706	88.82	ug/ml	98
66) Pentachlorophenol	16.41	266	77853	85.76	ug/ml	100
67) Diazinon	16.60	137	42919	85.54	ug/ml	99
68) Phenanthrene	16.75	178	329637	79.46	ug/ml	99
69) Anthracene	16.83	178	350548	81.21	ug/ml	99
70) Carbazole	17.11	167	327296	81.03	ug/ml	99
71) Di-n-butyl Phthalate	17.76	149	409397	85.09	ug/ml	99
72) Fluoranthene	18.66	202	357129	83.31	ug/ml	99
74) Benzidine	18.92	184	113693	82.91	ug/ml	99
75) Pyrene	19.02	202	356354	86.37	ug/ml	98
77) Di-n-hexyl Phthalate	20.12	149	408004	92.14	ug/ml	96
78) Butyl Benzyl Phthalate	20.19	149	158327	85.83	ug/ml	98
79) Diethylene Glycol Butyl Et	21.04	105	251907	92.36	ug/ml	100
80) 3,3'-Dichlorobenzidine	21.12	252	142327	87.71	ug/ml	99
81) Benz(a)anthracene	21.11	228	275153	82.55	ug/ml	99
82) Chrysene	21.19	228	285292	82.45	ug/ml	98
83) Bis(2-ethylhexyl) Phthalat	21.38	149	209959	87.91	ug/ml	98
85) Di-n-octyl Phthalate	22.84	149	373040	90.16	ug/ml	99
86) Benzo(b)fluoranthene	23.44	252	359034	84.47	ug/ml	99
87) Benzo(k)fluoranthene	23.51	252	341863	88.92	ug/ml	99
88) Diisononyl Phthalate	23.58	293	27548m	83.48	ug/ml	
89) Diisodecyl Phthalate	23.73	149	358374m	81.99	ug/ml	
90) Benzo(a)pyrene	24.18	252	324615	87.27	ug/ml	100
91) Indeno(1,2,3-cd)pyrene	26.75	276	332513	85.45	ug/ml	99
92) Dibenz(a,h)anthracene	26.83	278	336147	87.77	ug/ml	99
93) Benzo(g,h,i)perylene	27.32	276	333489	84.38	ug/ml	98

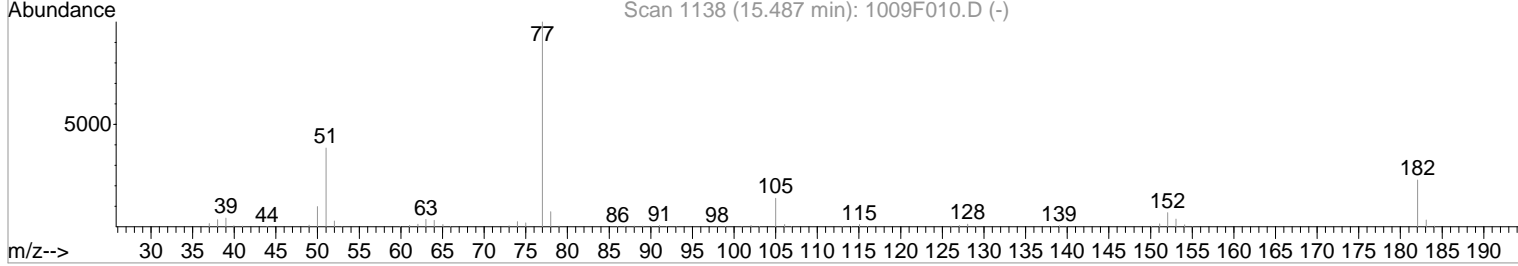
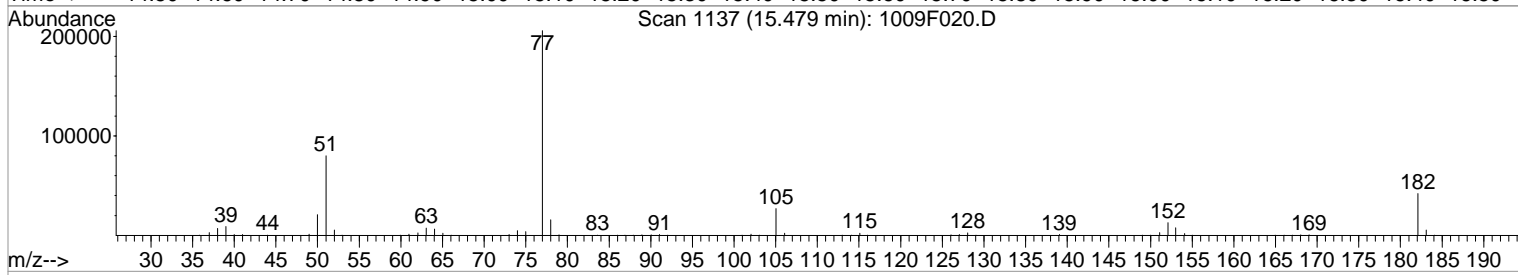
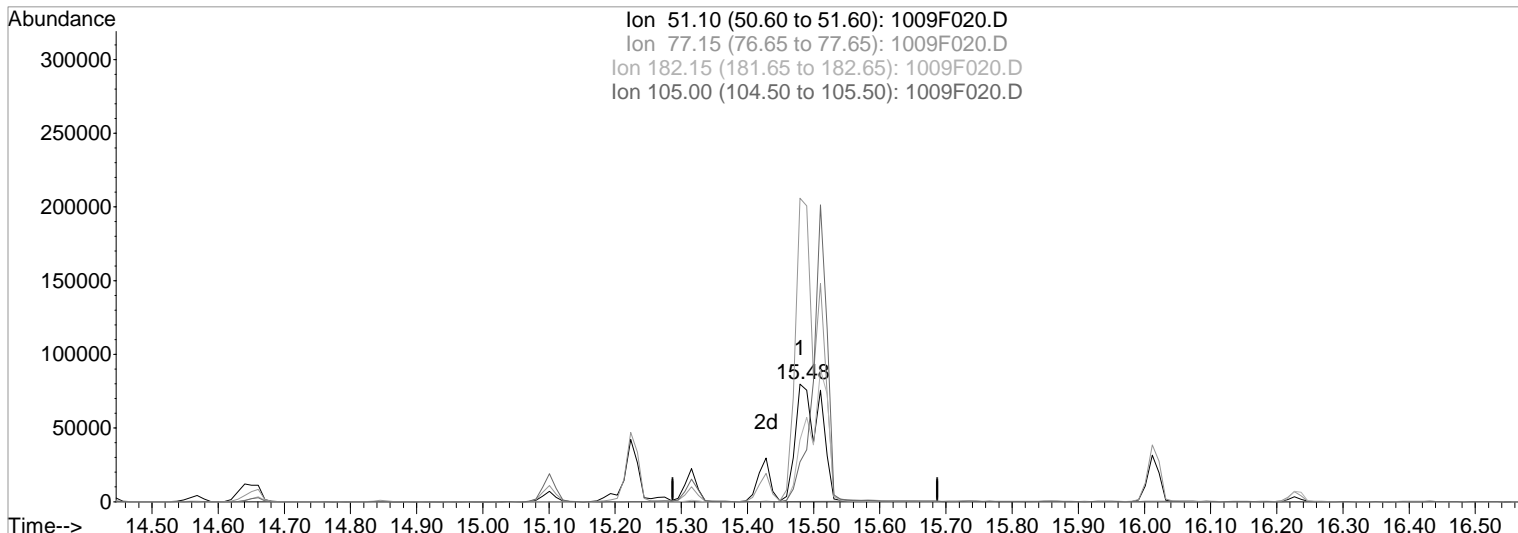
Data File : J:\MS07\DATA\100919\1009F020.D
 Acq On : 10 Oct 2019 1:14 am
 Sample : 8270/P CCV @80ppm | SVM-62-13I
 Misc :

Vial: 10
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 23:30 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 11:47:42 2019
 Response via : Multiple Level Calibration



TIC: 1009F020.D

(59) Azobenzene (T)

Manual Integration:

15.48min 124.73ug/ml
 response 207008

Before

Ion	Exp%	Act%
51.10	100	100
77.15	260.40	258.54
182.15	59.10	52.63
105.00	36.00	33.46

10/10/19

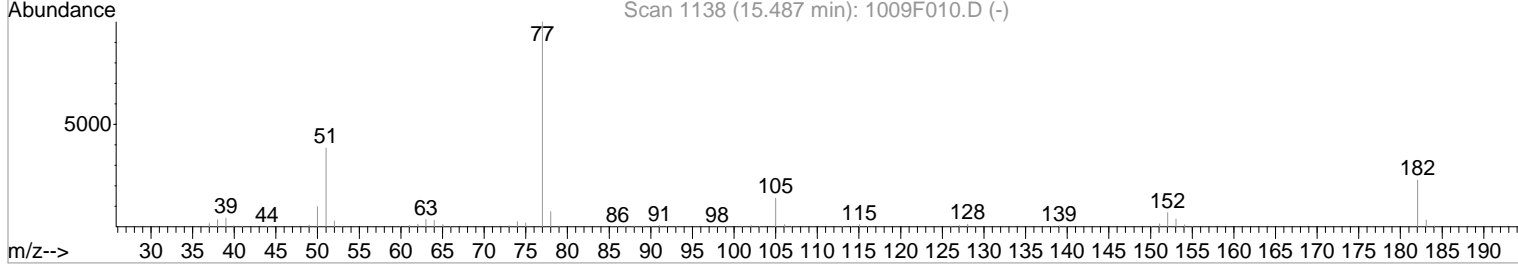
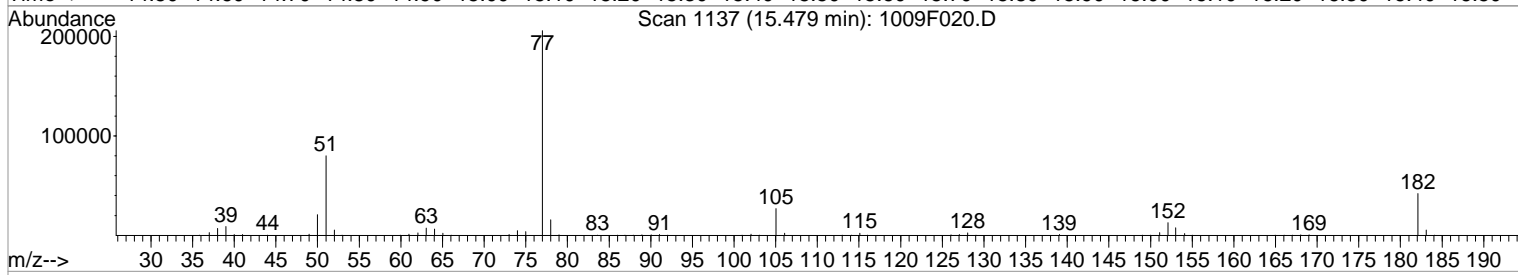
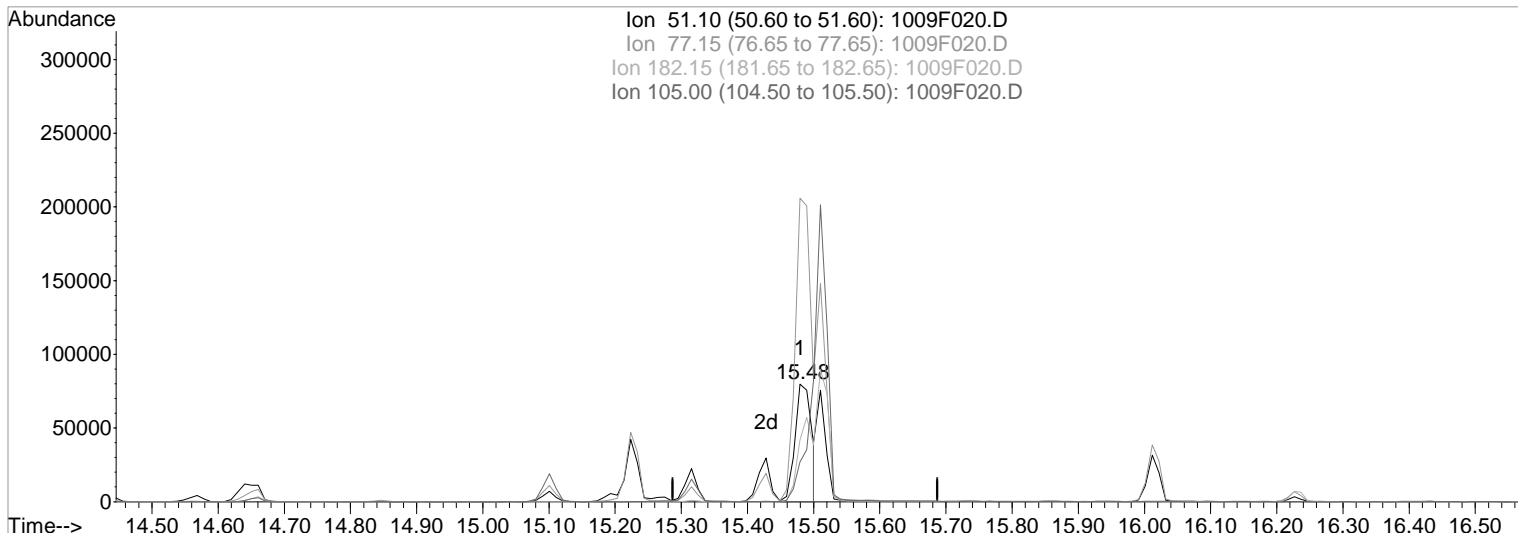
Data File : J:\MS07\DATA\100919\1009F020.D
 Acq On : 10 Oct 2019 1:14 am
 Sample : 8270/P CCV @80ppm | SVM-62-13I
 Misc :

Vial: 10
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 23:31 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 11:47:42 2019
 Response via : Multiple Level Calibration



TIC: 1009F020.D

(59) Azobenzene (T)		
15.48min	84.65ug/ml	m
response	140480	
Ion	Exp%	Act%
51.10	100	100
77.15	260.40	257.77
182.15	59.10	52.50
105.00	36.00	33.78

Manual Integration:
 After
 IC-Overintegrated
 10/10/19

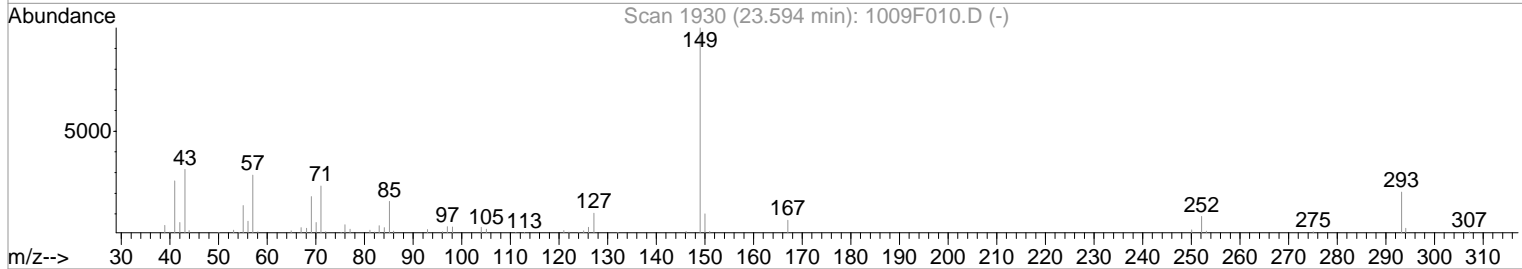
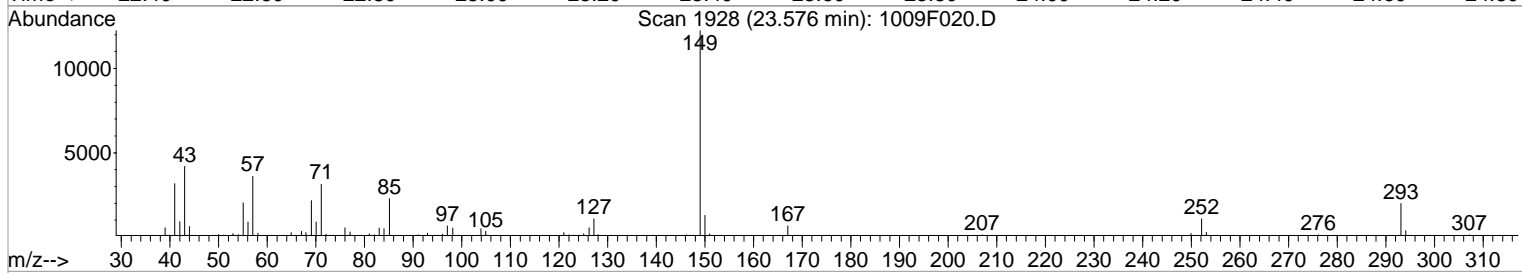
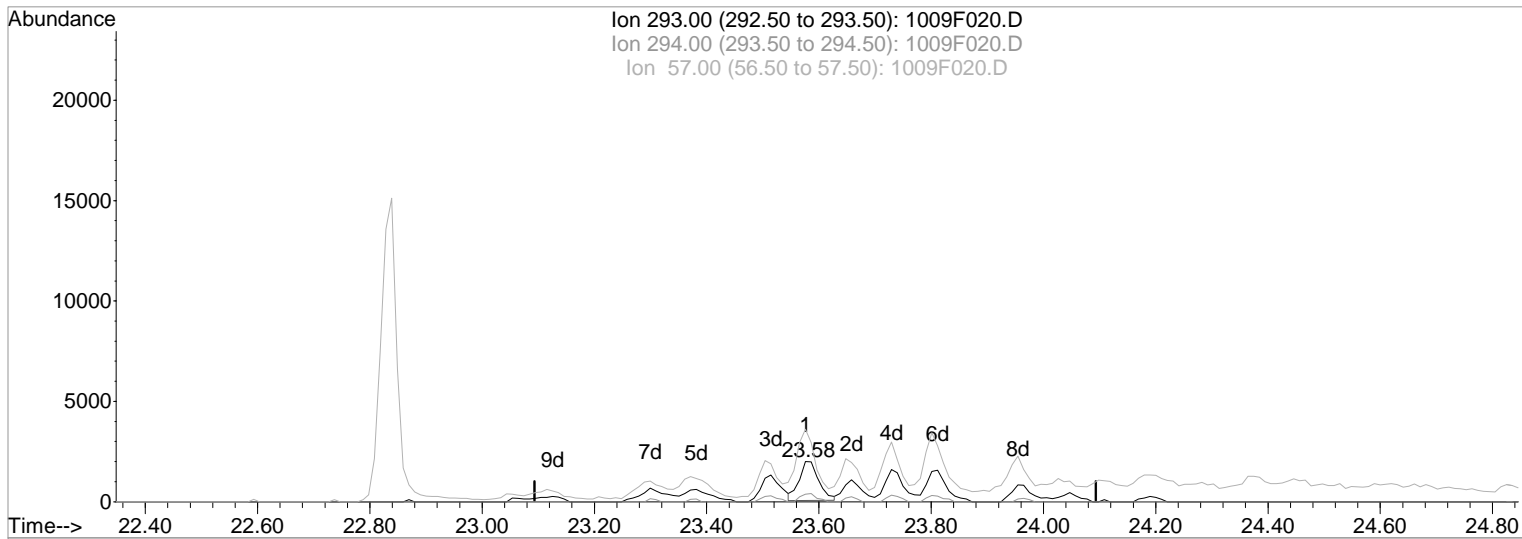
Data File : J:\MS07\DATA\100919\1009F020.D
 Acq On : 10 Oct 2019 1:14 am
 Sample : 8270/P CCV @80ppm | SVM-62-13I
 Misc :

Vial: 10
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 23:31 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 11:47:42 2019
 Response via : Multiple Level Calibration



TIC: 1009F020.D

(88) Diisononyl Phthalate (T)

Manual Integration:

23.58min 14.08ug/ml

Before

response 4646

Ion	Exp%	Act%
293.00	100	100
294.00	1.60	17.48
57.00	15.00	141.15#
0.00	0.00	0.00

10/10/19

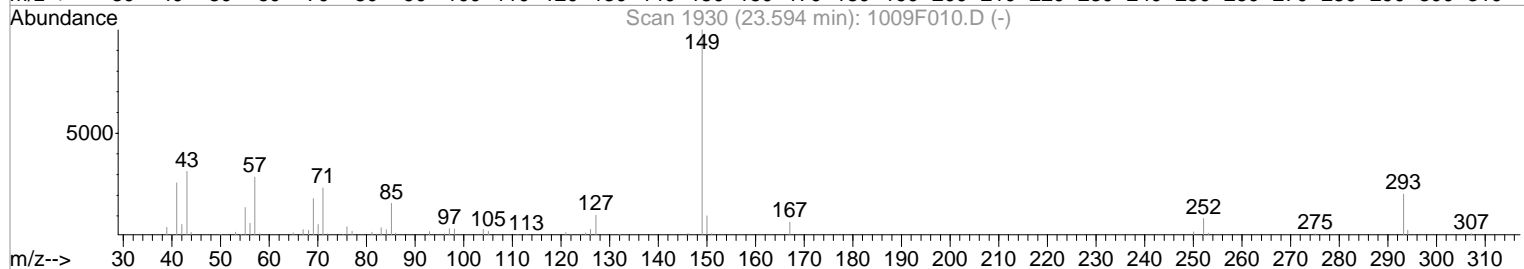
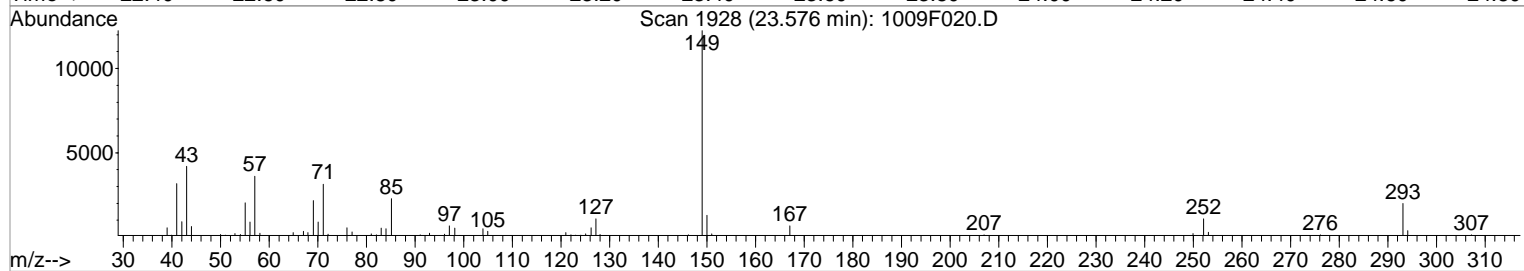
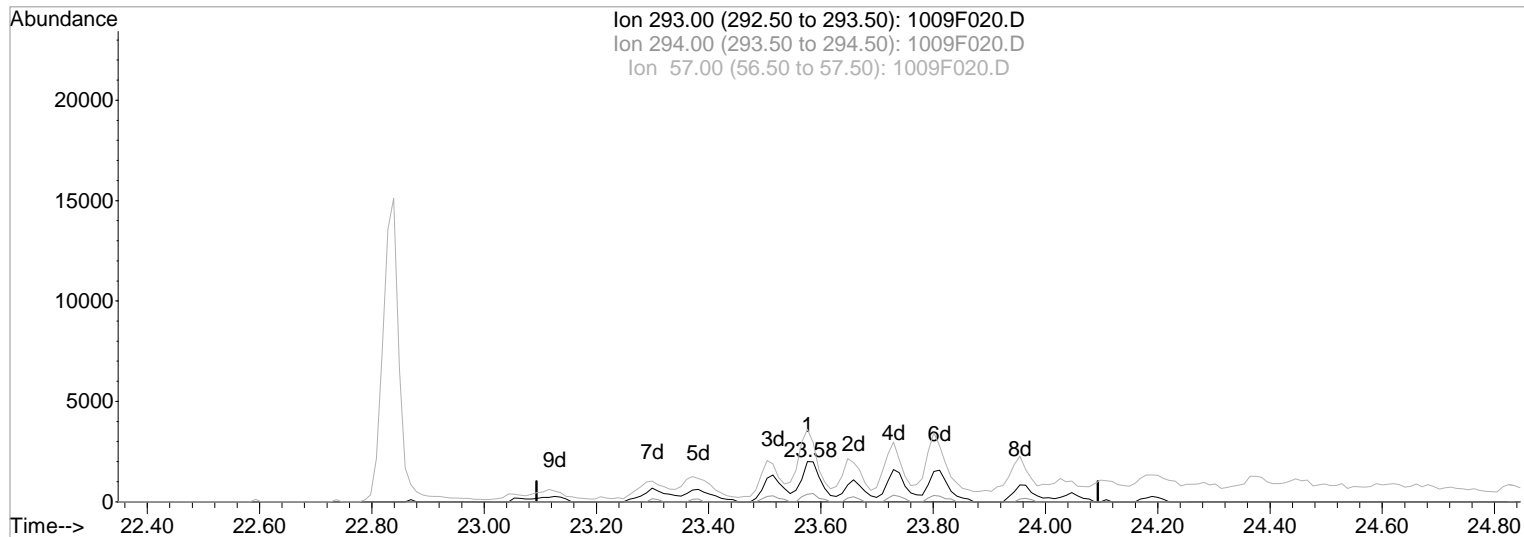
Data File : J:\MS07\DATA\100919\1009F020.D
 Acq On : 10 Oct 2019 1:14 am
 Sample : 8270/P CCV @80ppm | SVM-62-13I
 Misc :

Vial: 10
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 23:32 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 11:47:42 2019
 Response via : Multiple Level Calibration



TIC: 1009F020.D

(88) Diisononyl Phthalate (T)

Manual Integration:

23.58min 83.48ug/ml m

After

response 27548

WP

10/10/19

Ion	Exp%	Act%
293.00	100	100
294.00	1.60	2.95
57.00	15.00	23.81
0.00	0.00	0.00

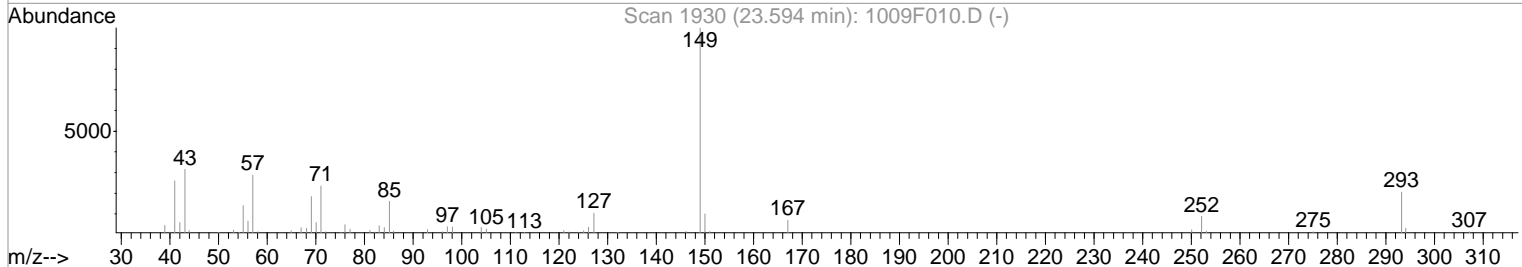
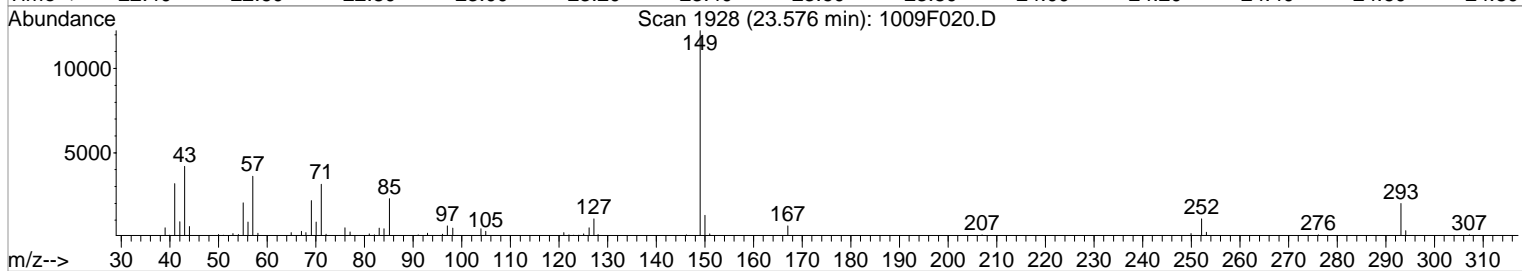
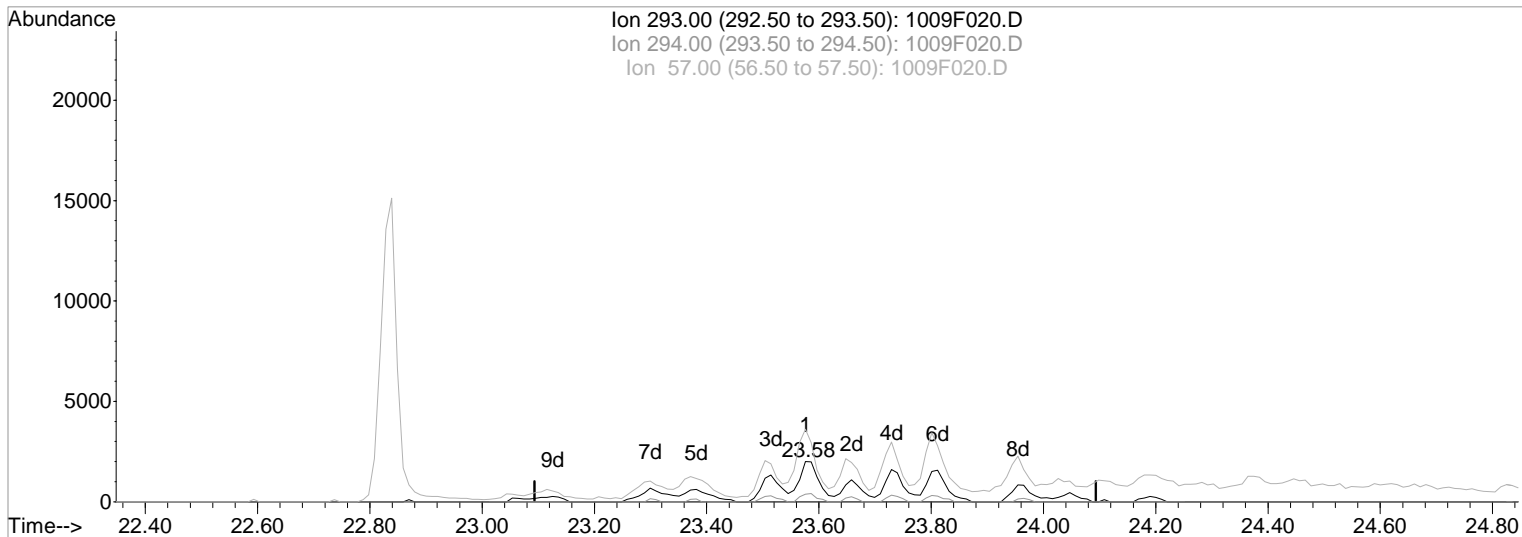
Data File : J:\MS07\DATA\100919\1009F020.D
 Acq On : 10 Oct 2019 1:14 am
 Sample : 8270/P CCV @80ppm | SVM-62-13I
 Misc :

Vial: 10
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 23:32 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 11:47:42 2019
 Response via : Multiple Level Calibration



TIC: 1009F020.D

(88) Diisononyl Phthalate (T)

Manual Integration:

23.58min 83.48ug/ml m

After

response 27548

IC-Incomplete

Ion	Exp%	Act%
293.00	100	100
294.00	1.60	2.95
57.00	15.00	23.81
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F020.D
 Acq On : 10 Oct 2019 1:14 am
 Sample : 8270/P CCV @80ppm | SVM-62-13I
 Misc :

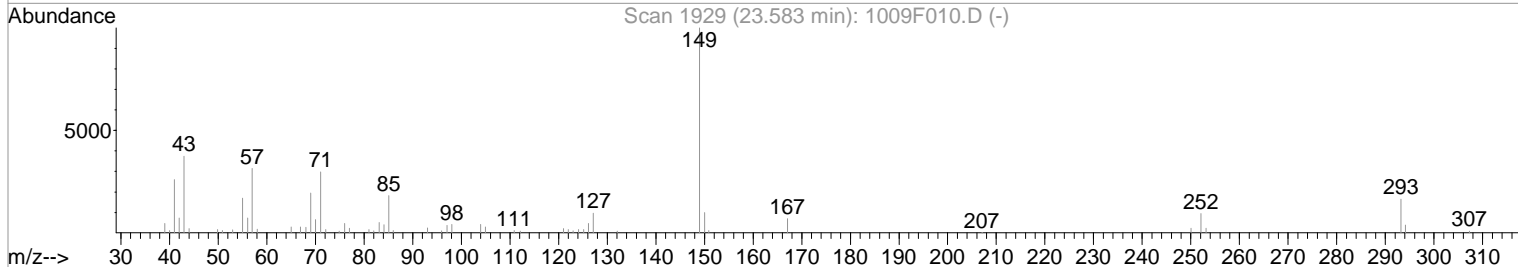
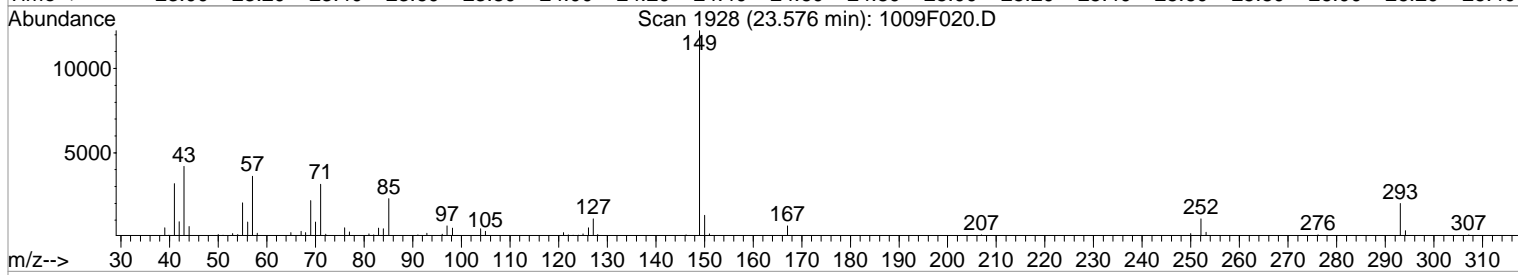
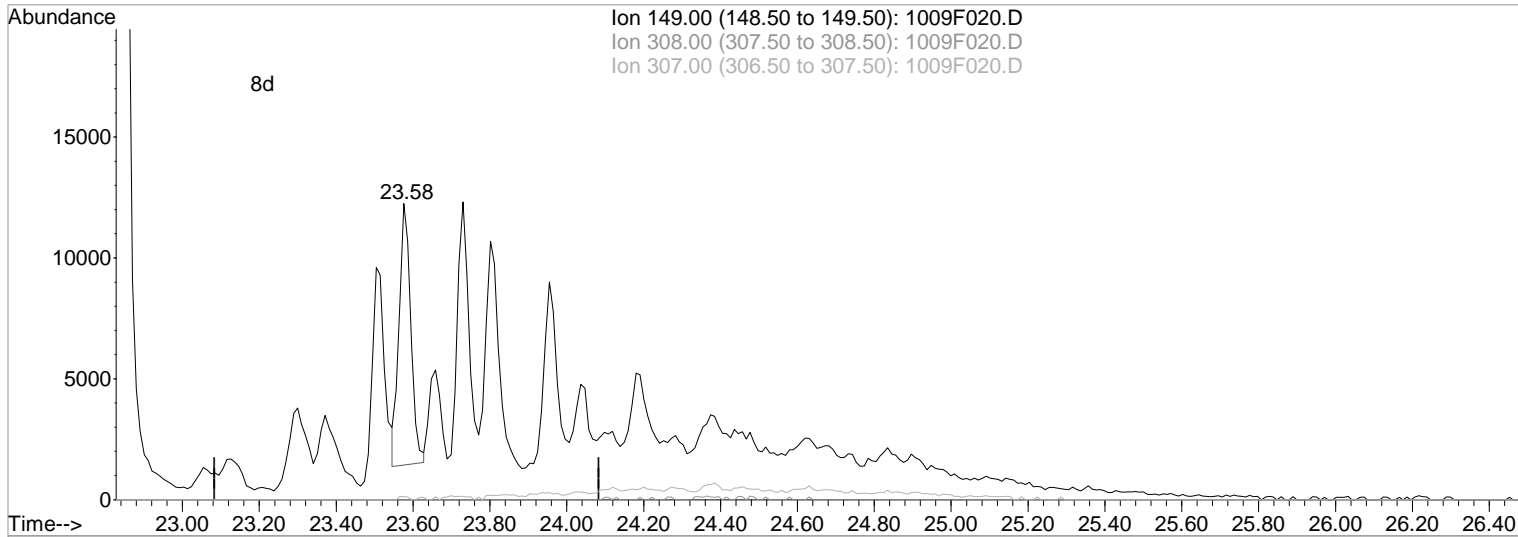
Vial: 10
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 23:32 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 11:47:42 2019
 Response via : Multiple Level Calibration



TIC: 1009F020.D

(89) Diisodecyl Phthalate (T)

Manual Integration:

23.58min 5.25ug/ml

Before

response 22937

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.00
307.00	0.00	1.01
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F020.D
 Acq On : 10 Oct 2019 1:14 am
 Sample : 8270/P CCV @80ppm | SVM-62-13I
 Misc :

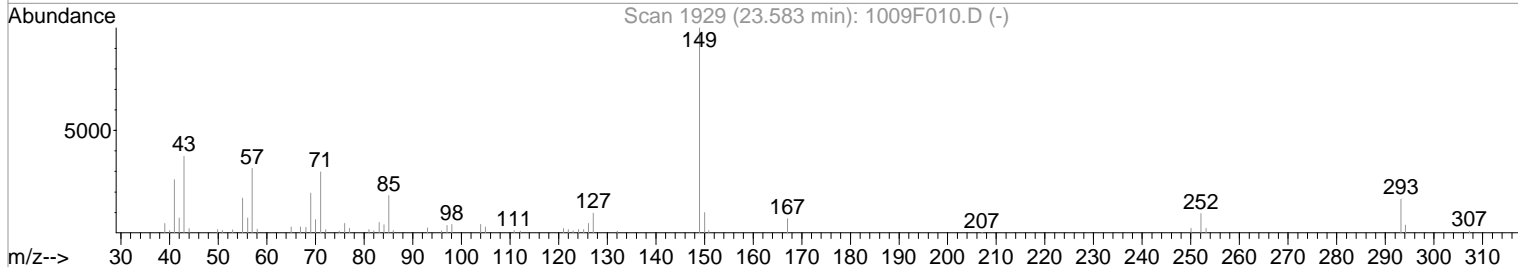
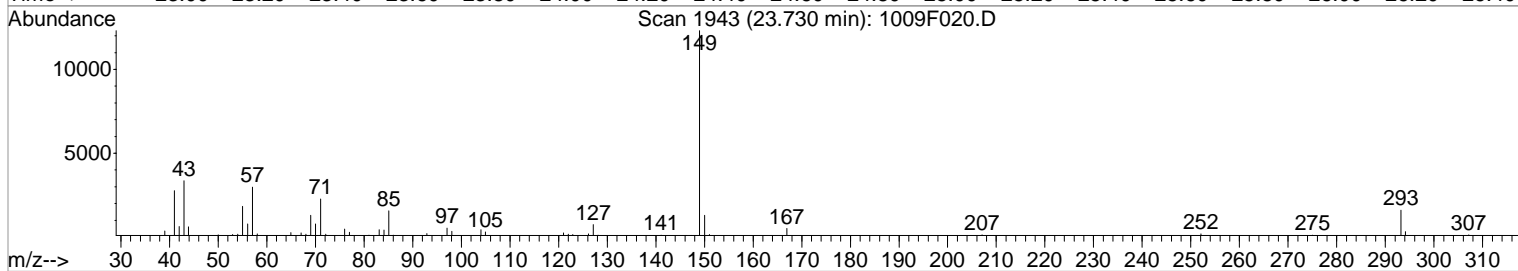
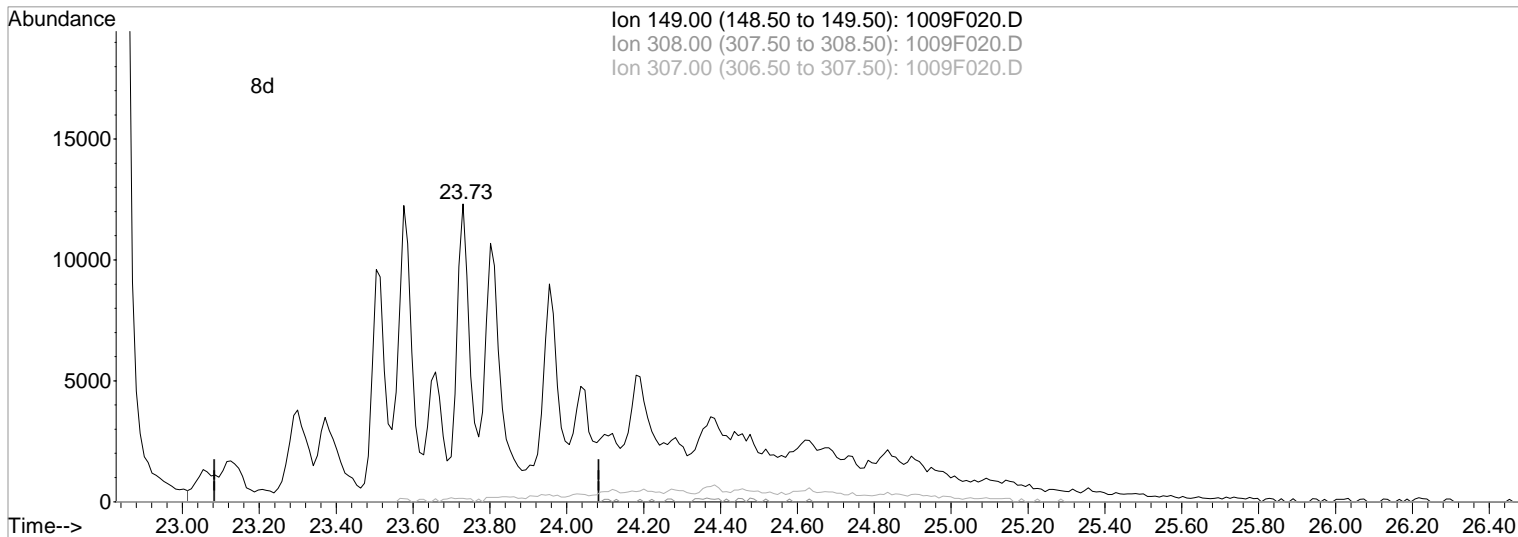
Vial: 10
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 23:33 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 11:47:42 2019
 Response via : Multiple Level Calibration



TIC: 1009F020.D

(89) Diisodecyl Phthalate (T)

23.73min 81.99ug/ml m
 response 358374

Manual Integration:

After
 IC-Incomplete

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.00
307.00	0.00	0.06
0.00	0.00	0.00

10/10/19

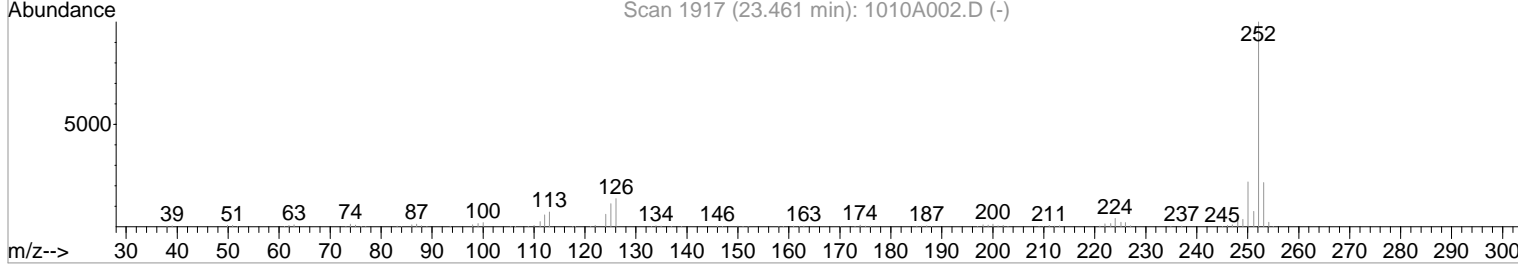
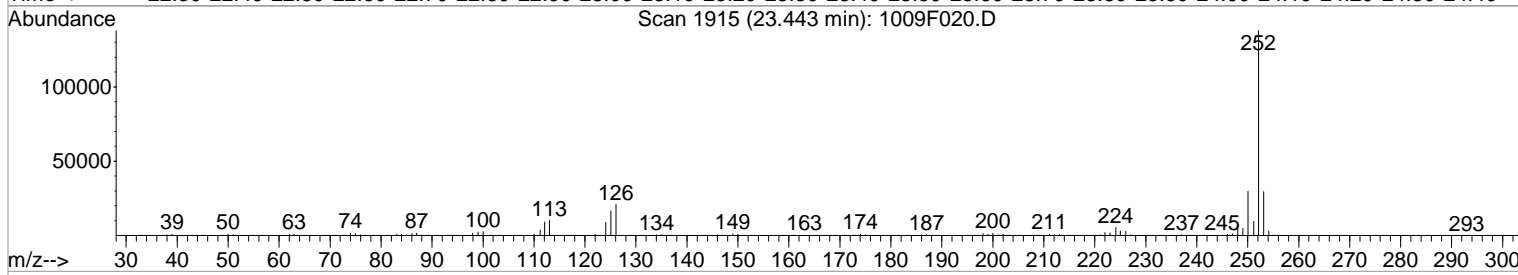
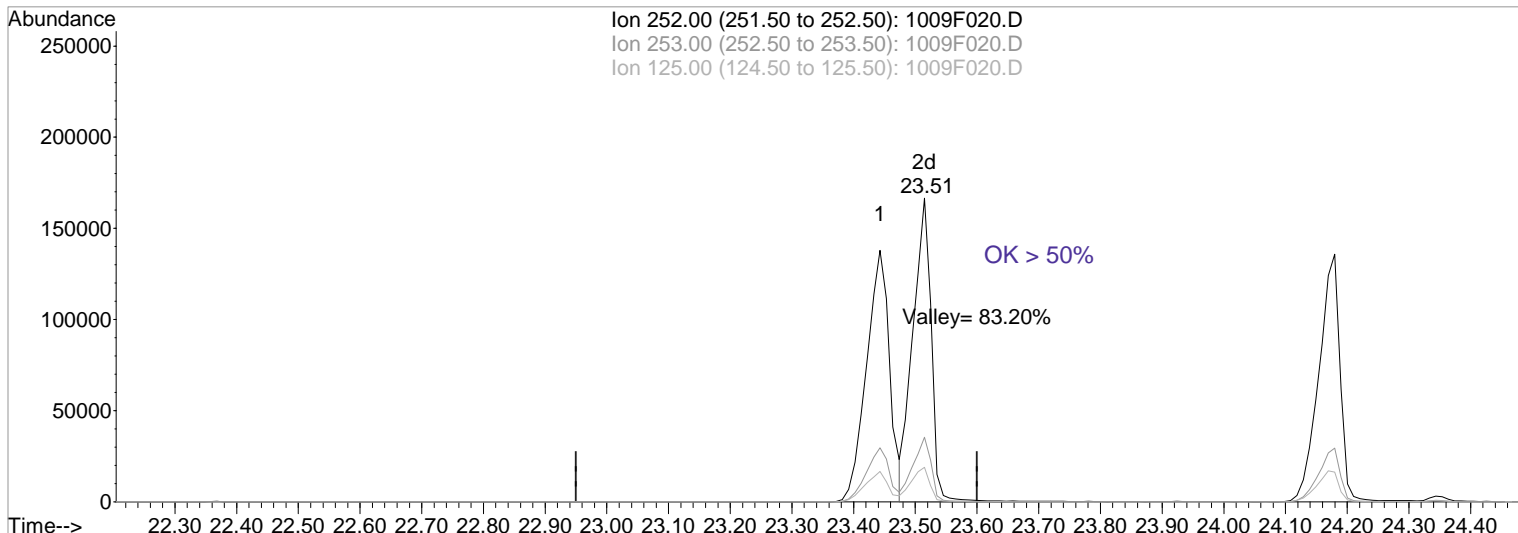
Data File : J:\MS07\DATA\100919\1009F020.D
 Acq On : 10 Oct 2019 1:14 am
 Sample : 8270/P CCV @80ppm | SVM-62-13I
 Misc :

Vial: 10
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 23:33 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Fri Oct 11 05:28:54 2019
 Response via : Multiple Level Calibration



TIC: 1009F020.D

(86) Benzo(b)fluoranthene (T)

23.44min 84.47ug/ml

response 359034

Ion	Exp%	Act%
252.00	100	100
253.00	21.50	21.30
125.00	11.40	11.91
0.00	0.00	0.00

Validation Report

1st *ce* 10/11/19
2nd *Cpw* 10/11/19

Data File: J:\MS07\DATA\100919\1009F019.D\
Lab ID: KQ1914763-01
RunType: TUNE
Matrix: Ground Water

Date Acquired: 10/10/19 00:33:00
Batch ID: 654315
Analysis Method: 8270D/SVO

Validations

Validation Categories	Pass	Fail
Tune Ion Ratio	X	

Primary Review: _____

Secondary Review: _____

Quantitation Report

1st *ce* 10/11/19
2nd *Cpw* 10/11/19

Data File: J:\MS07\DATA\100919\1009F019.D\	Instrument: K-MS-07
Acqu Date: 10/10/19 00:33:00	Vial: 3
Run Type: TUNE	Dilution: 1
Lab ID: KQ1914763-04	Raw Units:

Bottle ID:	Tier: IV	Matrix: Soil
Prod Code: SVO	Collect Date: 9/25/19	Receive Date: 9/27/19

Analysis Lot: 654315	Prep Lot:	Report Group: KQ1914763
Analysis: 8270D	Prep Method:	
	Prep Date:	

Title: Semivolatile Organic Compounds by GC/MS	Calibration ID: KC1900424
	Report List ID: 18699

Tune Results

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	30	80	44.53	22848	Pass
68	69	0	2	0.00	0	Pass
69	198	0	100	57.84	29680	Pass
70	69	0	2	0.00	0	Pass
127	198	25	75	45.51	23352	Pass
197	198	0	1	0.00	0	Pass
198	198	100	100	100.00	51312	Pass
199	198	5	9	7.01	3599	Pass
275	198	10	30	27.01	13858	Pass
365	198	0.75	100	3.34	1712	Pass
441	443	0.01	100	78.33	6837	Pass
442	198	40	110	87.76	45032	Pass
443	442	15	24	19.38	8728	Pass

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 10/11/19 5:58

\\alprews001\starlims\LIMSReps\QuantValidation.rpt

Quantitation Report

1st *ce* 10/11/19
2nd *Cpw* 10/11/19

Data File: J:\MS07\DATA\100919\1009F019.D\	Instrument: K-MS-07
Acqu Date: 10/10/19 00:33:00	Vial: 1
Run Type: TUNE	Dilution: 1
Lab ID: KQ1914763-01	Raw Units:

Bottle ID:	Tier: IV	Matrix: Ground Water
Prod Code: SVO	Collect Date: 9/23/19	Receive Date: 9/26/19

Analysis Lot: 654315	Prep Lot:	Report Group: KQ1914763
Analysis: 8270D	Prep Method:	
	Prep Date:	

Title: Semivolatile Organic Compounds by GC/MS	Calibration ID: KC1900424
	Report List ID: 18920

Tune Results

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	30	60	44.53	22848	Pass
68	69	0	2	0.00	0	Pass
69	198	0	100	57.84	29680	Pass
70	69	0	2	0.00	0	Pass
127	198	40	60	45.51	23352	Pass
197	198	0	1	0.00	0	Pass
198	198	100	100	100.00	51312	Pass
199	198	5	9	7.01	3599	Pass
275	198	10	30	27.01	13858	Pass
365	198	1.0	100	3.34	1712	Pass
441	443	0.01	100	78.33	6837	Pass
442	198	40	100	87.76	45032	Pass
443	442	17	23	19.38	8728	Pass

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 10/11/19 5:58

\\alprews001\starlims\LIMSReps\QuantValidation.rpt

Data File : J:\MS07\DATA\100919\1009F019.D

Vial: 1

Acq On : 10 Oct 2019 12:33 am

Operator: CCONOVER/LM

Sample : MS07 Tune @ 50ppm | SVM61-100C

Inst : MS07

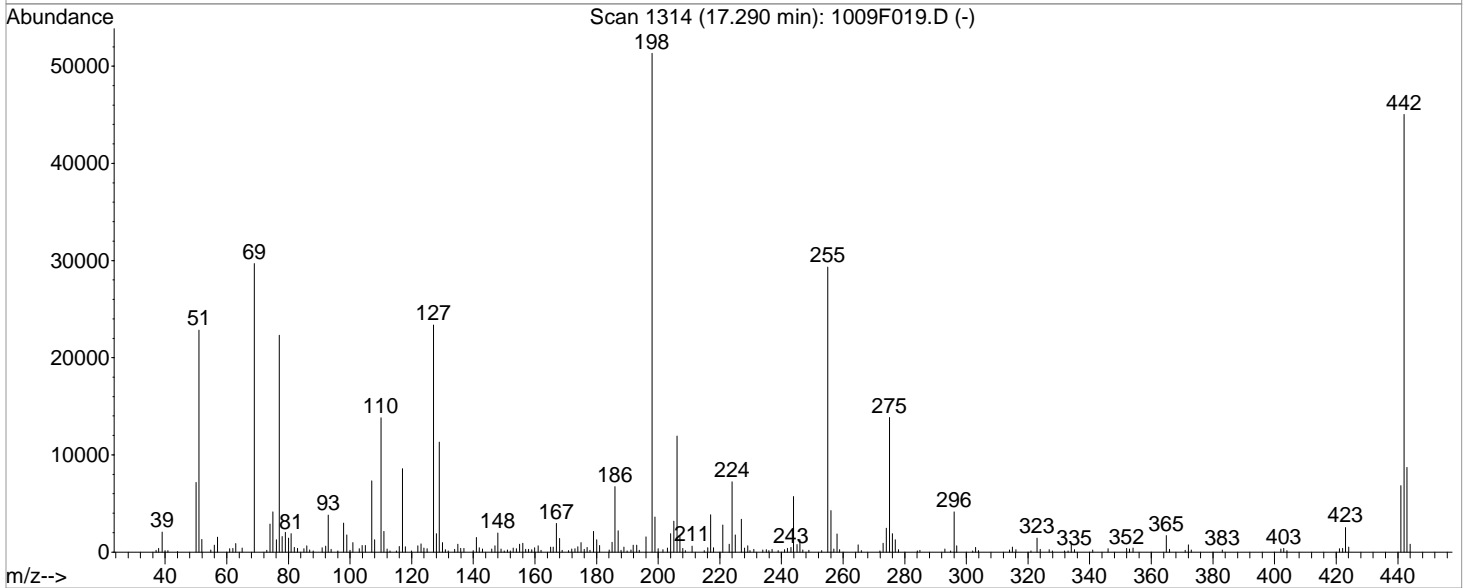
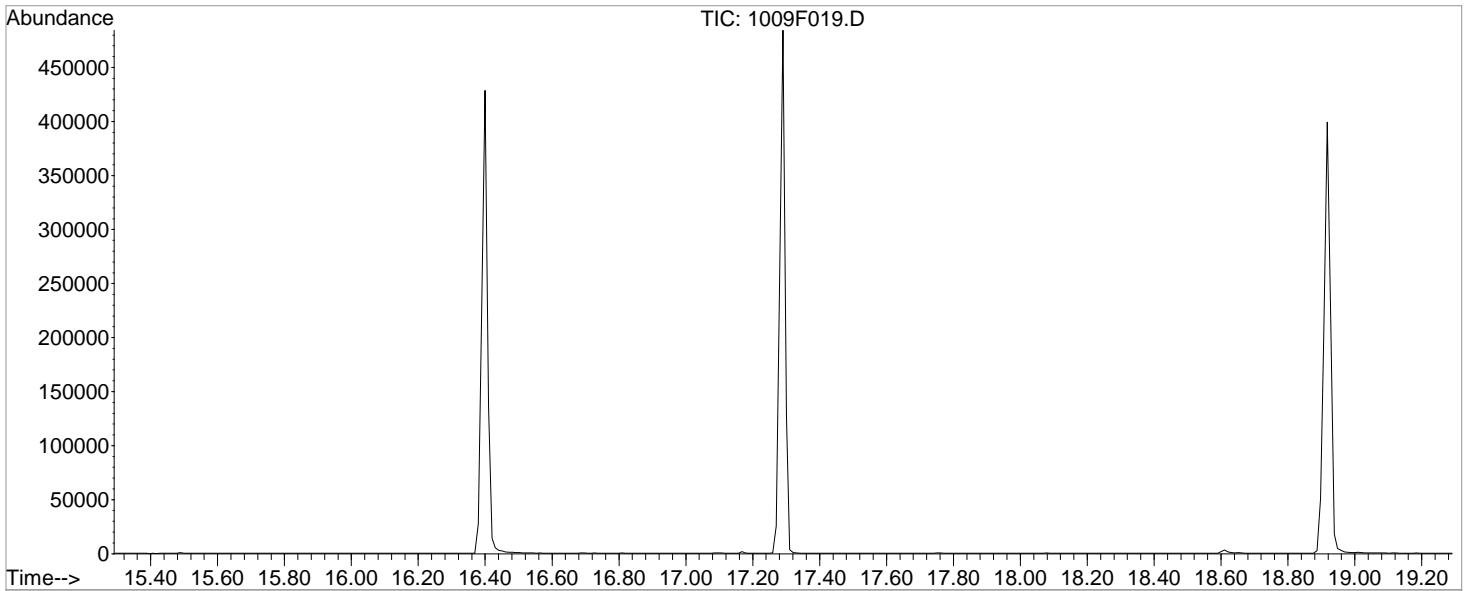
Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07



Spectrum Information: Scan 1314

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	44.5	22848	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	45.5	23352	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	51312	PASS
199	198	5	9	7.0	3599	PASS
275	198	10	30	27.0	13858	PASS
365	198	1	100	3.3	1712	PASS
441	443	0.01	100	78.3	6837	PASS
442	198	40	100	87.8	45032	PASS
443	442	17	23	19.4	8728	PASS

Scan 1314 (17.290 min): 1009F019.D
MS07 Tune @ 50ppm | SVM61-100C

1st *ce* 10/11/19
2nd *Cpu* 10/11/19

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.00	167	56.95	1531	78.00	1608	92.05	624
37.90	384	60.95	356	79.00	2013	92.95	3821
39.00	2064	61.95	375	80.00	1423	93.85	271
40.00	149	62.95	884	80.90	1902	96.05	120
40.90	137	64.95	405	81.90	488	97.95	2968
44.00	38	68.95	29680	83.00	375	98.95	1767
50.00	7173	73.00	198	85.00	356	99.95	178
51.00	22848	74.00	2886	86.00	649	100.95	979
51.90	1291	75.00	4145	86.90	229	102.95	341
54.85	205	76.10	1258	88.00	101	103.95	663
55.95	720	77.00	22312	90.95	431	104.95	670

Scan 1314 (17.290 min): 1009F019.D
MS07 Tune @ 50ppm | SVM61-100C

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
107.00	7338	122.00	652	134.95	815	150.00	120
108.00	1259	123.00	844	135.95	365	151.10	200
110.00	13819	124.00	406	136.95	396	152.00	133
111.00	2137	125.05	360	139.95	164	152.90	413
112.00	299	127.05	23352	140.95	1491	154.00	343
113.00	127	128.05	1886	141.95	443	155.00	795
115.00	104	128.95	11311	142.95	321	156.00	919
116.00	581	129.95	984	146.00	305	157.00	284
117.00	8593	130.95	257	147.00	655	157.90	266
117.90	538	131.85	112	148.00	1954	159.00	247
119.90	115	133.95	291	149.00	329	159.90	436

Scan 1314 (17.290 min): 1009F019.D
MS07 Tune @ 50ppm | SVM61-100C

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
161.00	634	174.95	984	187.90	183	201.55	261
161.95	173	175.95	281	188.90	502	202.95	429
165.05	521	176.95	494	189.90	125	204.05	1905
165.95	523	177.85	180	191.10	201	205.05	3172
166.95	2952	178.95	2125	191.90	697	206.05	11950
167.95	1398	180.00	1276	193.00	696	207.05	1602
168.85	186	181.00	669	193.90	183	207.95	375
170.85	157	184.10	226	196.00	1572	208.85	143
171.95	313	185.00	1001	197.95	51312	210.95	617
172.95	332	186.00	6743	198.95	3599	214.95	161
173.95	533	187.00	2180	199.95	342	216.10	433

Scan 1314 (17.290 min): 1009F019.D
MS07 Tune @ 50ppm | SVM61-100C

Modified:subtracted

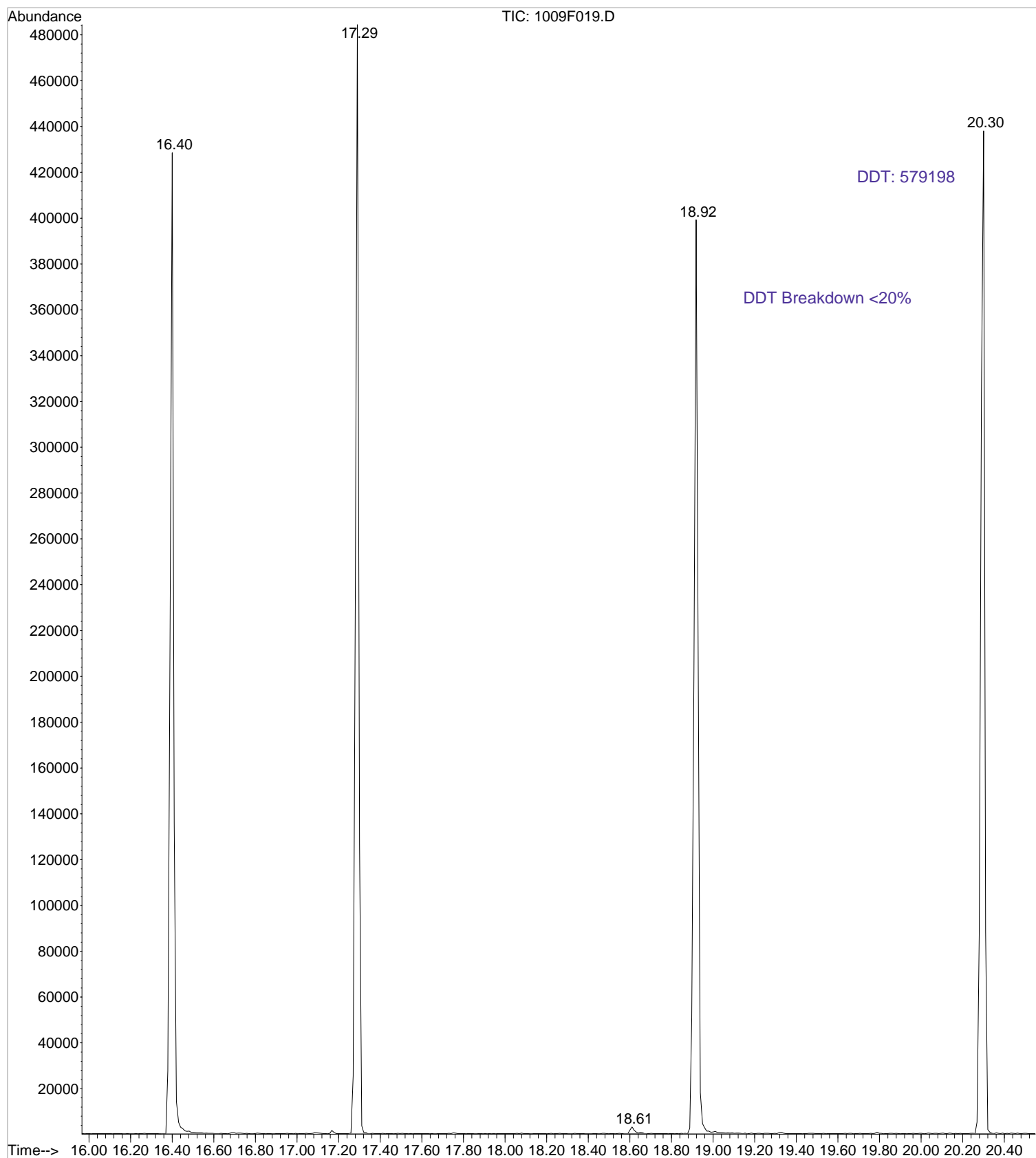
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
217.00	3824	233.95	219	246.95	227	272.95	914
217.90	448	235.05	238	248.85	188	274.05	2468
221.00	2785	235.95	149	253.00	158	275.05	13858
223.00	812	236.95	290	255.00	29344	275.95	1908
224.00	7237	238.95	147	256.00	4270	276.95	1261
225.00	1765	240.95	237	257.00	313	277.95	241
227.00	3385	241.95	386	258.00	1866	284.05	111
228.00	422	243.05	468	258.90	257	284.95	178
229.00	645	243.95	5726	264.90	754	293.00	305
229.80	136	245.05	770	265.90	145	294.90	121
231.00	283	245.95	1264	271.95	110	296.00	4147

Scan 1314 (17.290 min): 1009F019.D
MS07 Tune @ 50ppm | SVM61-100C

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
296.90	643	327.90	131	365.90	270	424.05	500
302.00	102	331.90	114	371.00	182	441.00	6837
303.00	472	333.00	126	372.00	746	442.00	45032
303.90	142	334.00	864	373.00	228	443.00	8728
313.95	214	335.10	239	383.05	223	444.00	814
314.95	526	341.00	226	402.00	325		
316.05	236	345.95	353	403.00	385		
320.95	115	351.95	383	404.00	141		
322.95	1429	352.95	315	421.05	339		
323.95	269	354.05	424	422.05	366		
326.90	264	364.90	1712	423.05	2537		

File : J:\MS07\DATA\100919\1009F019.D
Operator : CCONOVER/LM
Acquired : 10 Oct 2019 12:33 am using AcqMethod 8270_1
Instrument : MS07
Sample Name: MS07 Tune @ 50ppm | SVM61-100C
Misc Info :
Vial Number: 1



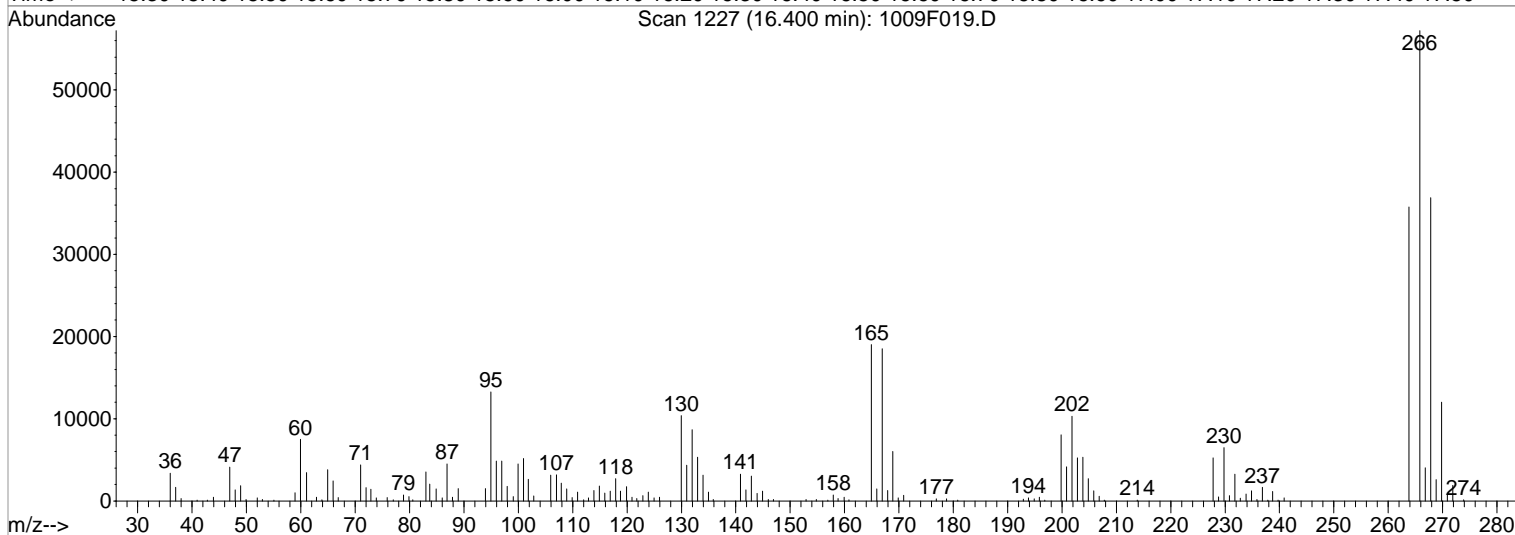
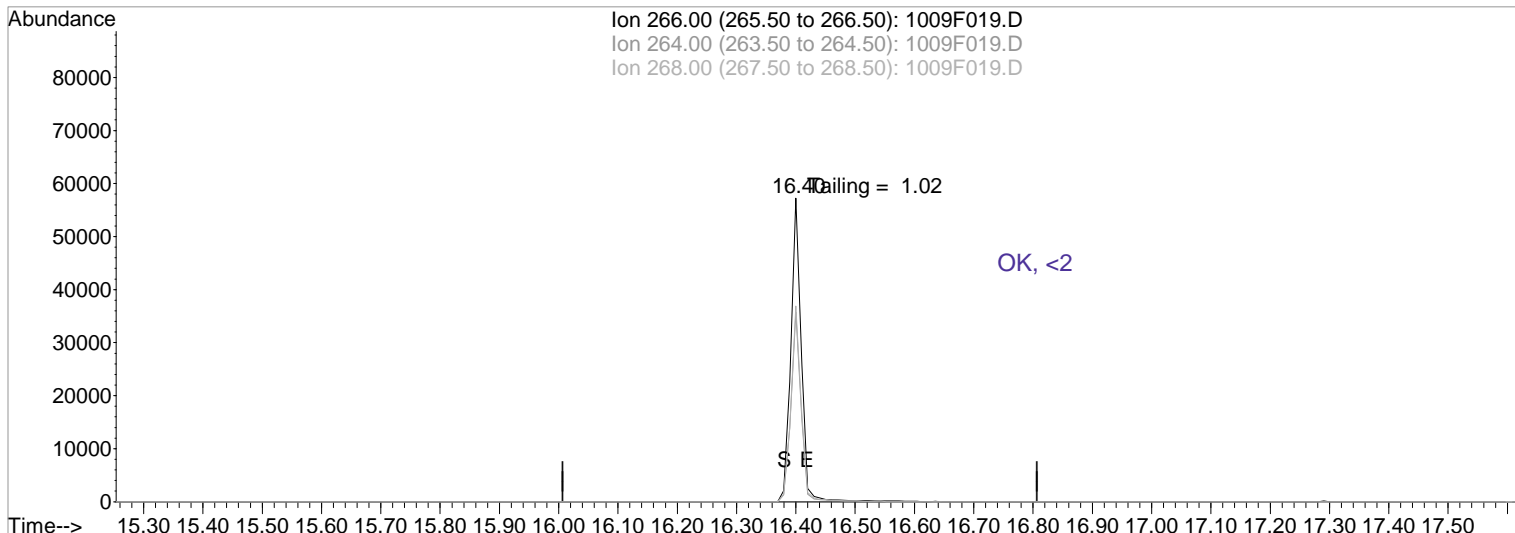
Data File : J:\MS07\DATA\100919\1009F019.D
 Acq On : 10 Oct 2019 12:33 am
 Sample : MS07 Tune @ 50ppm | SVM61-100C
 Misc :

Vial: 1
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 23:25 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 11:47:42 2019
 Response via : Single Level Calibration



TIC: 1009F019.D

(66) Pentachlorophenol (T)

16.40min 20368.03ug/ml

response 70704

Ion	Exp%	Act%
266.00	100	100
264.00	62.20	62.51
268.00	64.70	64.47
0.00	0.00	0.00

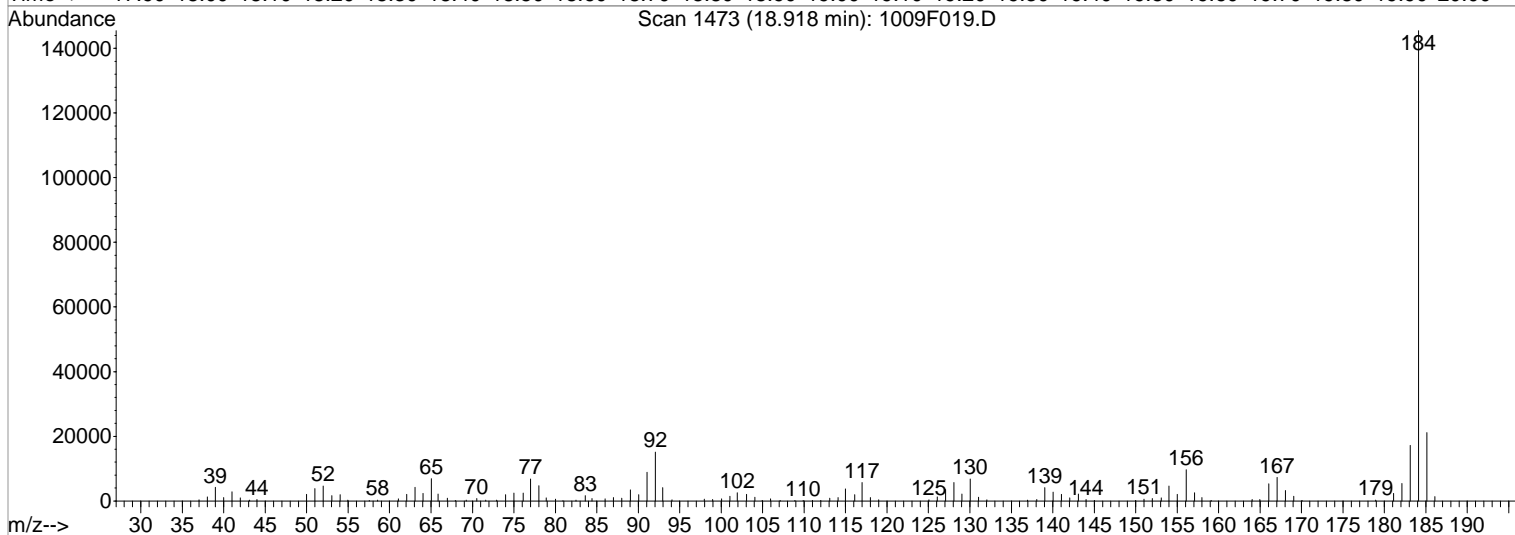
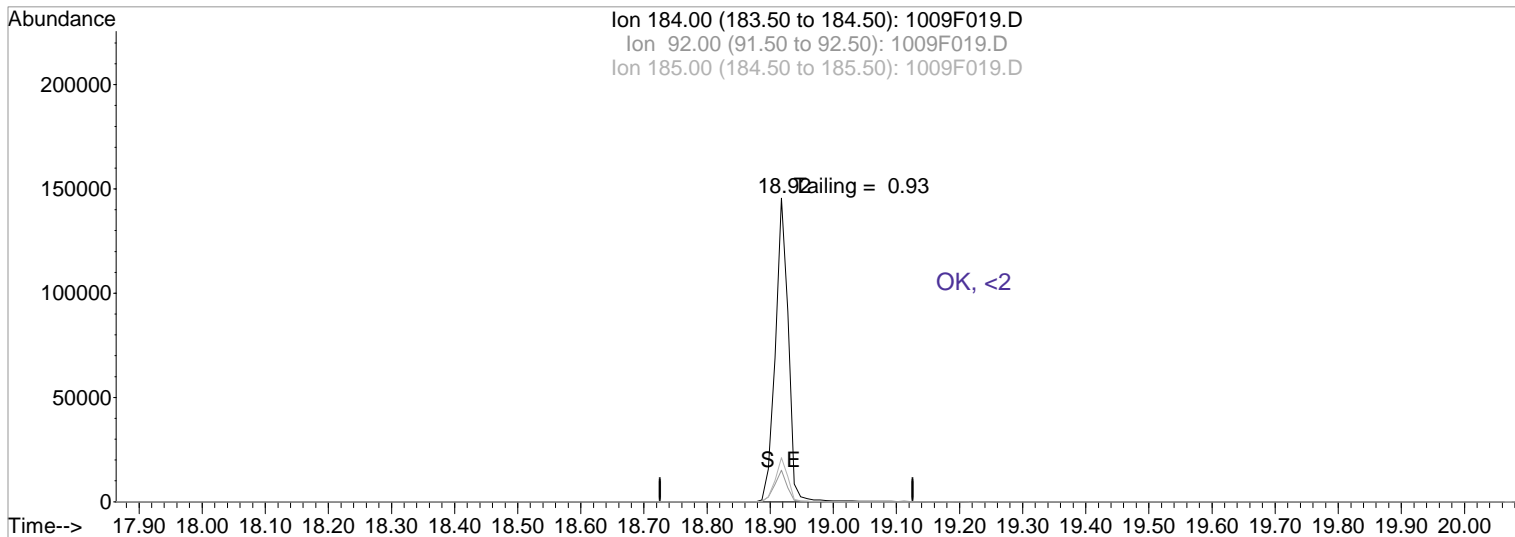
Data File : J:\MS07\DATA\100919\1009F019.D
 Acq On : 10 Oct 2019 12:33 am
 Sample : MS07 Tune @ 50ppm | SVM61-100C
 Misc :

Vial: 1
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 23:25 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 11:47:42 2019
 Response via : Multiple Level Calibration



TIC: 1009F019.D

(74) Benzidine (T)

18.92min 0.00ug/ml

response 208471

Ion	Exp%	Act%
184.00	100	100
92.00	9.30	10.41
185.00	13.80	14.54
0.00	0.00	0.00

Injection Log

Directory: J:\MS07\DATA\100919

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1009F001.D	1.	MS07 Tune @ 50ppm SVM61-100C		9 Oct 2019 12:11
2	2	1009F002.D	1.	IB		9 Oct 2019 12:52
3	3	1009F003.D	1.	ICAL @1ppm SVM-62-13B		9 Oct 2019 13:33
4	4	1009F004.D	1.	ICAL @2.5ppm SVM-62-13C		9 Oct 2019 14:15
5	5	1009F005.D	1.	ICAL @5ppm SVM-62-13D		9 Oct 2019 14:56
6	6	1009F006.D	1.	ICAL @7.5ppm SVM-62-13E		9 Oct 2019 15:37
7	7	1009F007.D	1.	ICAL @10ppm SVM-62-13F		9 Oct 2019 16:19
8	8	1009F008.D	1.	ICAL @20ppm SVM-62-13G		9 Oct 2019 17:00
9	9	1009F009.D	1.	ICAL @50ppm SVM-62-13H		9 Oct 2019 17:41
0	10	1009F010.D	1.	ICAL @80ppm SVM-62-13I		9 Oct 2019 18:22
1	11	1009F011.D	1.	ICAL @100ppm SVM-62-13J		9 Oct 2019 19:04
2	12	1009F012.D	1.	ICAL @120ppm SVM-62-13K		9 Oct 2019 19:45
3	13	1009F013.D	1.	ICAL @150ppm SVM-62-13L		9 Oct 2019 20:26
4	14	1009F014.D	1.	ICAL @160ppm SVM-62-13M		9 Oct 2019 21:07
5	15	1009F015.D	1.	ICAL @180ppm SVM-62-13N		9 Oct 2019 21:48
6	16	1009F016.D	1.	ICAL @200ppm SVM-62-13O		9 Oct 2019 22:29
7	17	1009F017.D	1.	8270 ICV @80ppm SVM-61-84C		9 Oct 2019 23:11
8	18	1009F018.D	1.	Paper ICV @80ppm SVM-62-7A		9 Oct 2019 23:52
9	1	1009F019.D	1.	MS07 Tune @ 50ppm SVM61-100C		10 Oct 2019 00:33
0	10	1009F020.D	1.	8270/P CCV @80ppm SVM-62-13I		10 Oct 2019 01:14
1	19	1009F021.D	1.	KQ1913989-04 MB		10 Oct 2019 01:56
2	20	1009F022.D	1.	KQ1913989-03 LCS		10 Oct 2019 02:37
3	21	1009F023.D	1.	K1908942-001 MS		10 Oct 2019 03:18
4	22	1009F024.D	1.	K1908942-001 DMS		10 Oct 2019 03:59
5	23	1009F025.D	1.	K1908942-001		10 Oct 2019 04:40
6	24	1009F026.D	1.	K1908942-002		10 Oct 2019 05:21
7	25	1009F027.D	1.	KQ1914345-03 MB		10 Oct 2019 06:02
8	26	1009F028.D	1.	KQ1914345-01 LCS		10 Oct 2019 06:43
9	27	1009F029.D	1.	KQ1914345-02 DLCS		10 Oct 2019 07:24
0	28	1009F030.D	1.	K1909014-006		10 Oct 2019 08:05
1	29	1009F031.D	1.	K1909014-007		10 Oct 2019 08:46
2	2	1009F032.D	1.	KQ1914419-04 MB		10 Oct 2019 09:28
3	3	1009F033.D	1.	KQ1914419-03 LCS		10 Oct 2019 10:10
4	4	1009F034.D	1.	K1909244-001 MS 5X DIL		10 Oct 2019 10:51
5	5	1009F035.D	1.	K1909244-001 DMS 5X DIL		10 Oct 2019 11:32
6	10	1009F036.D	1.	8270/P CCV @80ppm SVM-62-13I		10 Oct 2019 12:13

KC1900424

Stalins 654315

CE 10-11-19

[Handwritten signature]

Injection Log

Directory: J:\MS07\DATA\100919

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1009f001.d	1.	MS07 Tune @ 50ppm SVM61-100C		9 Oct 2019 12:11
2	2	1009f002.d	1.	IB		9 Oct 2019 12:52
3	3	1009f003.d	1.	ICAL @1ppm SVM-62-13B		9 Oct 2019 13:33
4	4	1009f004.d	1.	ICAL @2.5ppm SVM-62-13C		9 Oct 2019 14:15
5	5	1009f005.d	1.	ICAL @5ppm SVM-62-13D		9 Oct 2019 14:56
6	6	1009f006.d	1.	ICAL @7.5ppm SVM-62-13E		9 Oct 2019 15:37
7	7	1009f007.d	1.	ICAL @10ppm SVM-62-13F		9 Oct 2019 16:19
8	8	1009f008.d	1.	ICAL @20ppm SVM-62-13G		9 Oct 2019 17:00
9	9	1009f009.d	1.	ICAL @50ppm SVM-62-13H		9 Oct 2019 17:41
10	10	1009f010.d	1.	ICAL @80ppm SVM-62-13I		9 Oct 2019 18:22
11	11	1009f011.d	1.	ICAL @100ppm SVM-62-13J		9 Oct 2019 19:04
12	12	1009f012.d	1.	ICAL @120ppm SVM-62-13K		9 Oct 2019 19:45
13	13	1009f013.d	1.	ICAL @150ppm SVM-62-13L		9 Oct 2019 20:26
14	14	1009f014.d	1.	ICAL @160ppm SVM-62-13M		9 Oct 2019 21:07
15	15	1009f015.d	1.	ICAL @180ppm SVM-62-13N		9 Oct 2019 21:48
16	16	1009f016.d	1.	ICAL @200ppm SVM-62-13O		9 Oct 2019 22:29
17	17	1009f017.d	1.	8270 ICV @80ppm SVM-61-84C		9 Oct 2019 23:11
18	18	1009f018.d	1.	Paper ICV @80ppm SVM-62-7A		9 Oct 2019 23:52 ✓
19	1	1009f019.d	1.	MS07 Tune @ 50ppm SVM61-100C		10 Oct 2019 00:33
20	10	1009f020.d	1.	8270/P CCV @80ppm SVM-62-13I		10 Oct 2019 01:14
21	19	1009f021.d	1.	KQ1913989-04 MB		10 Oct 2019 01:56
22	20	1009f022.d	1.	KQ1913989-03 LCS		10 Oct 2019 02:37
23	21	1009f023.d	1.	K1908942-001 MS		10 Oct 2019 03:18
24	22	1009f024.d	1.	K1908942-001 DMS		10 Oct 2019 03:59
25	23	1009f025.d	1.	K1908942-001		10 Oct 2019 04:40
26	24	1009f026.d	1.	K1908942-002		10 Oct 2019 05:21
27	25	1009f027.d	1.	KQ1914345-03 MB		10 Oct 2019 06:02
28	26	1009f028.d	1.	KQ1914345-01 LCS		10 Oct 2019 06:43
29	27	1009f029.d	1.	KQ1914345-02 DLCS		10 Oct 2019 07:24
30	28	1009f030.d	1.	K1909014-006		10 Oct 2019 08:05

ICAL 16/40

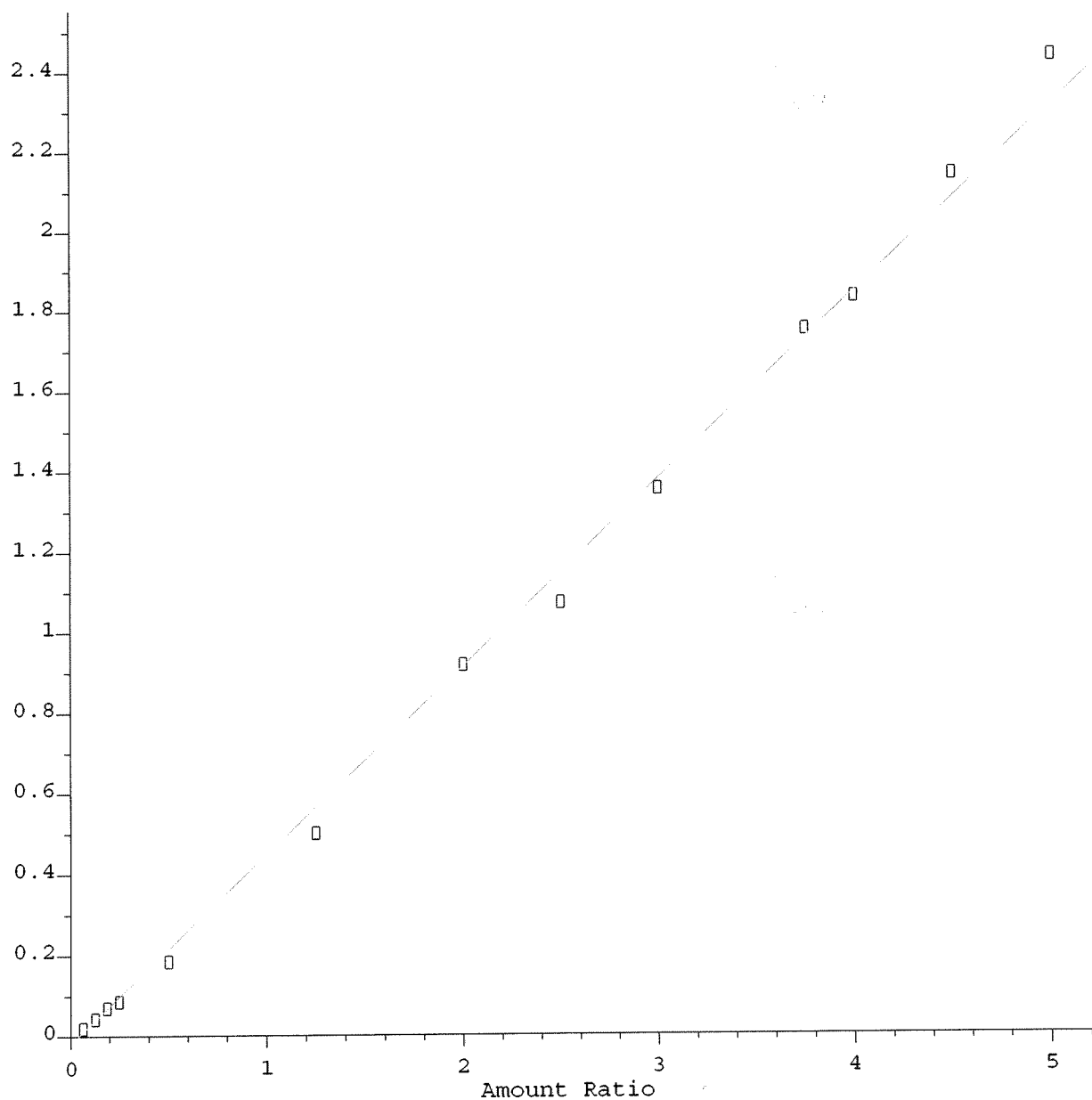
KC 1900424

LM 10-10-19

o

Hexachlorocyclopentadiene

Response Ratio



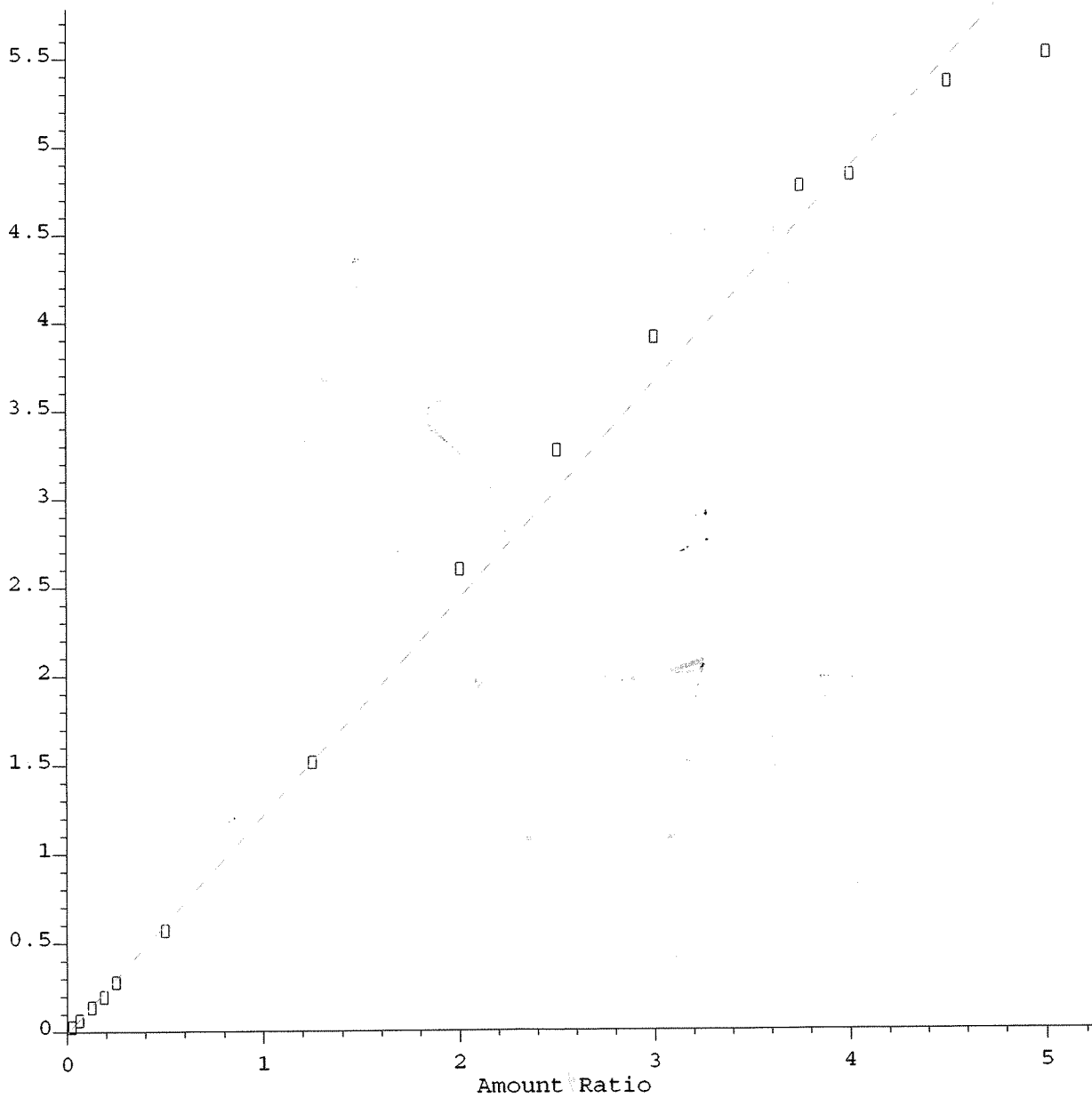
Resp Ratio = 4.66e-001 * Amt - 1.85e-002
Coef of Det (r²) = 0.997 Curve Fit: wlr(1/a)

Method Name: J:\MS07\METHODS\8270_625\100919_BNP7.M
Calibration Table Last Updated: Thu Oct 10 11:47:42 2019

LM OCT 10 2019

Pyrene

Response Ratio



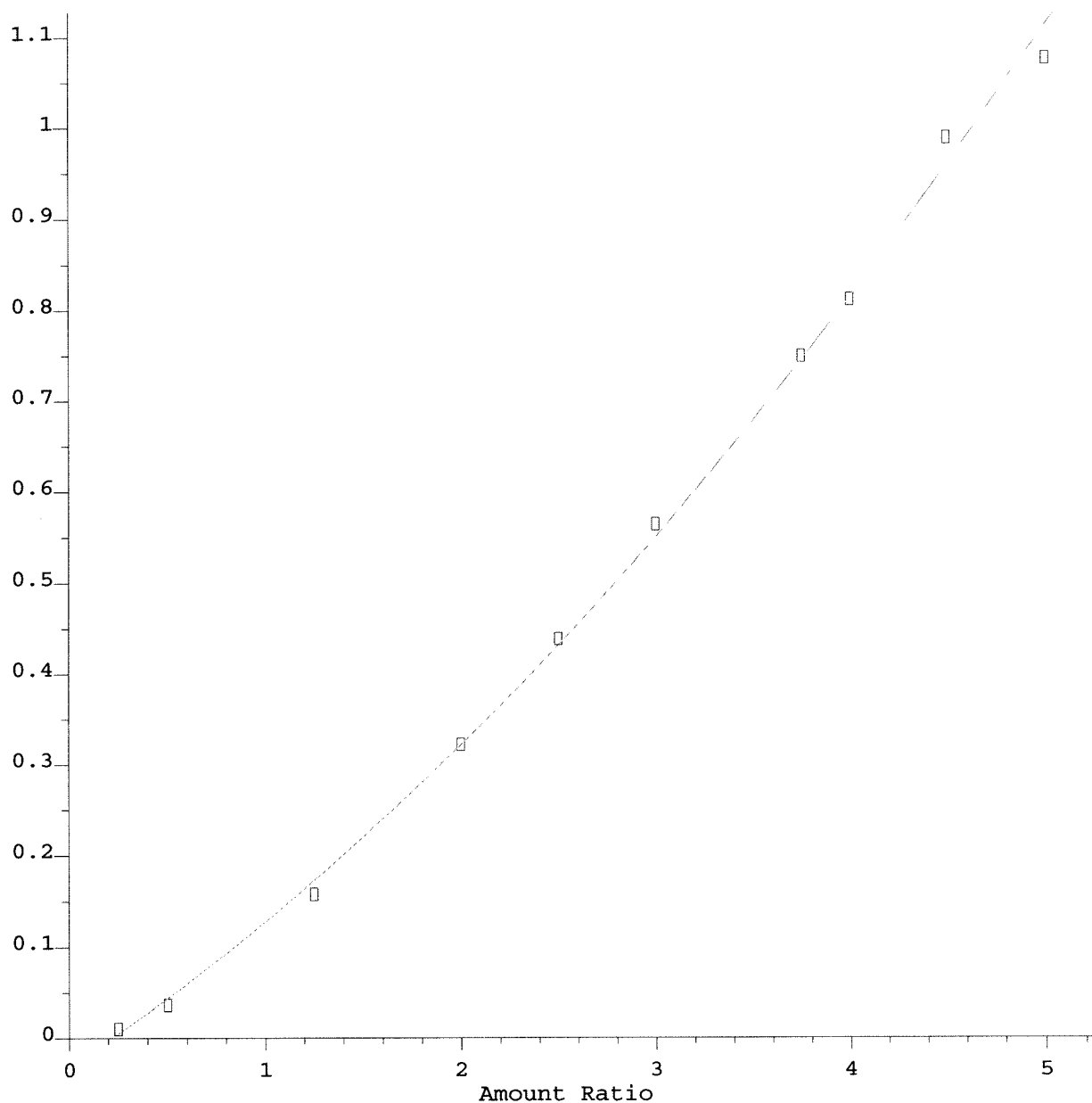
Resp Ratio = 1.22e+000 * Amt - 8.04e-003
Coef of Det (r²) = 0.996 Curve Fit: wlr(1/a)

Method Name: J:\MS07\METHODS\8270_625\100919_BNP7.M
Calibration Table Last Updated: Thu Oct 10 11:47:42 2019

LM OCT 10 2019

2,4-Dinitrophenol

Response Ratio



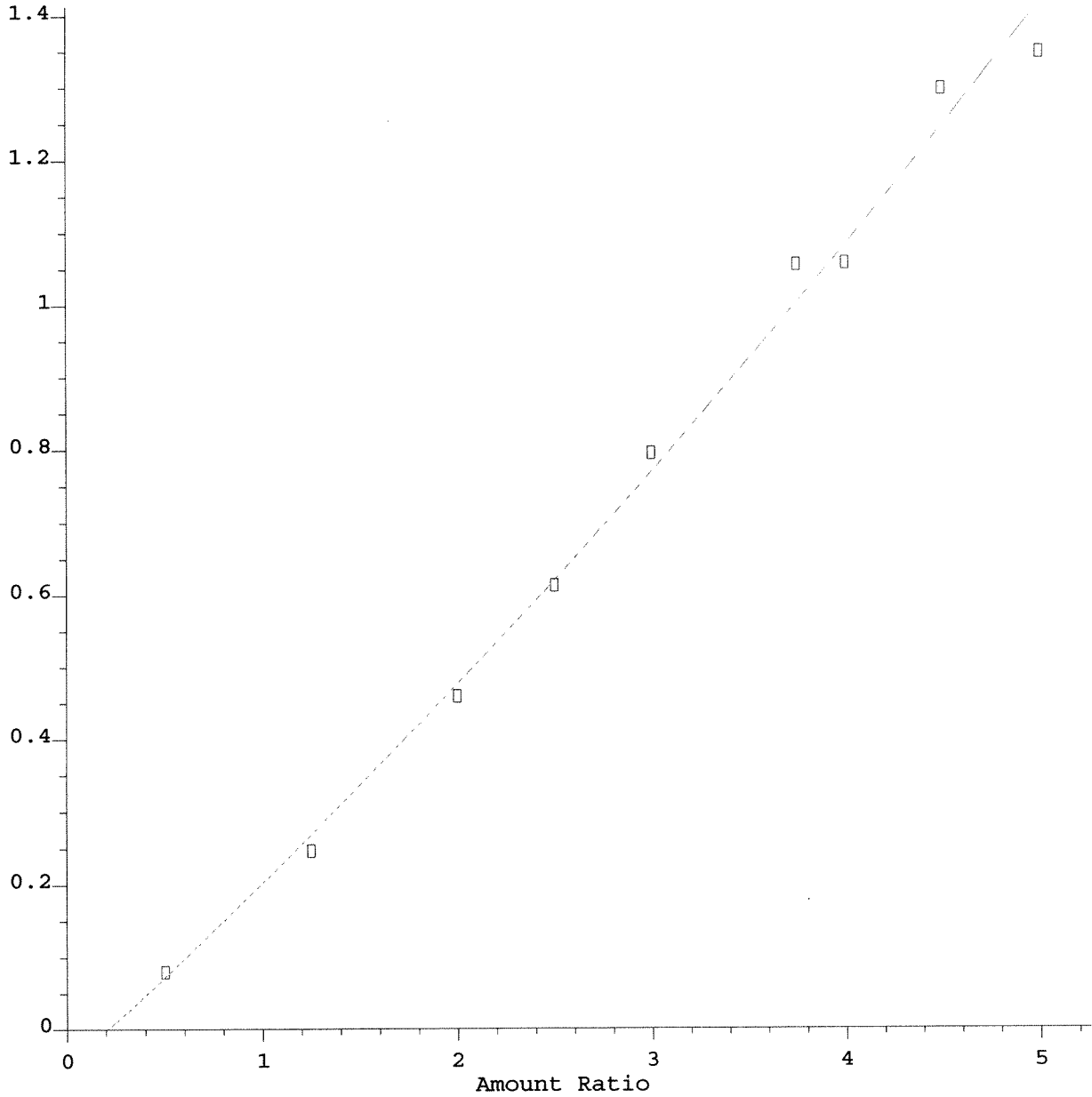
$R = 1.75e-002 A^2 + 1.41e-001 A - 3.09e-002$
Curve Fit: Quadratic w(1/a)

Method Name: J:\MS07\METHODS\8270_625\100919_BNP7.M
Calibration Table Last Updated: Thu Oct 10 15:30:20 2019

LM OCT 10 2019 *cl*

2-Methyl-4,6-dinitrophenol

Response Ratio



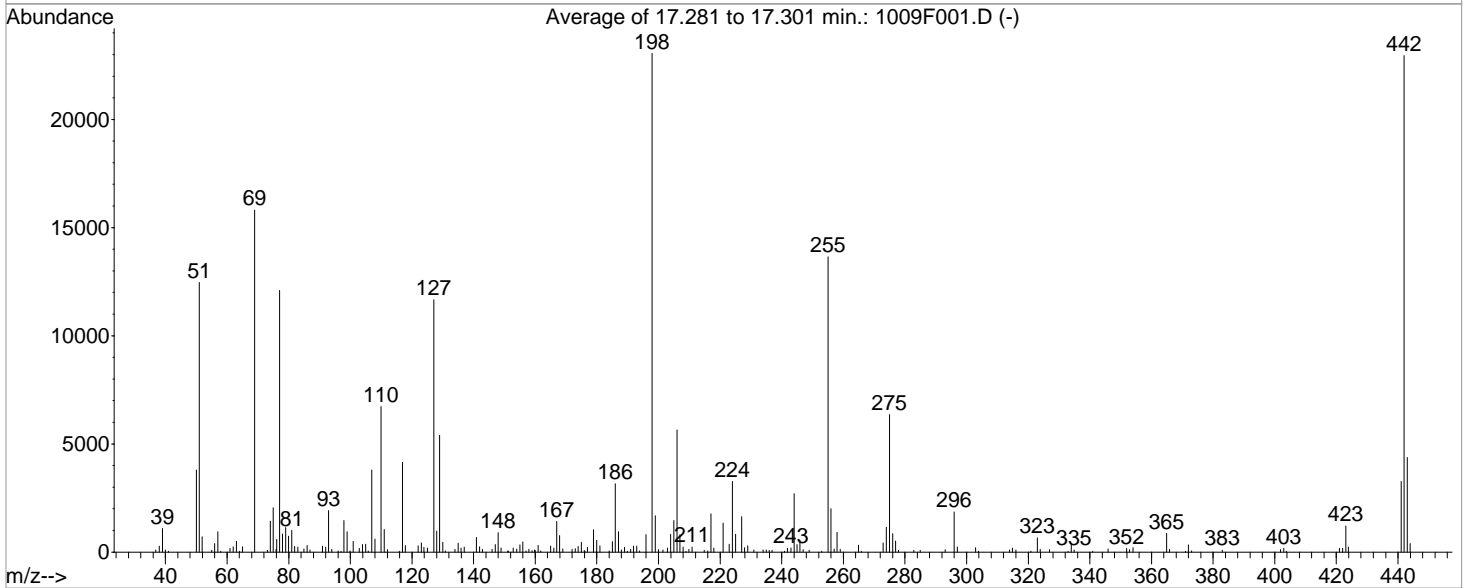
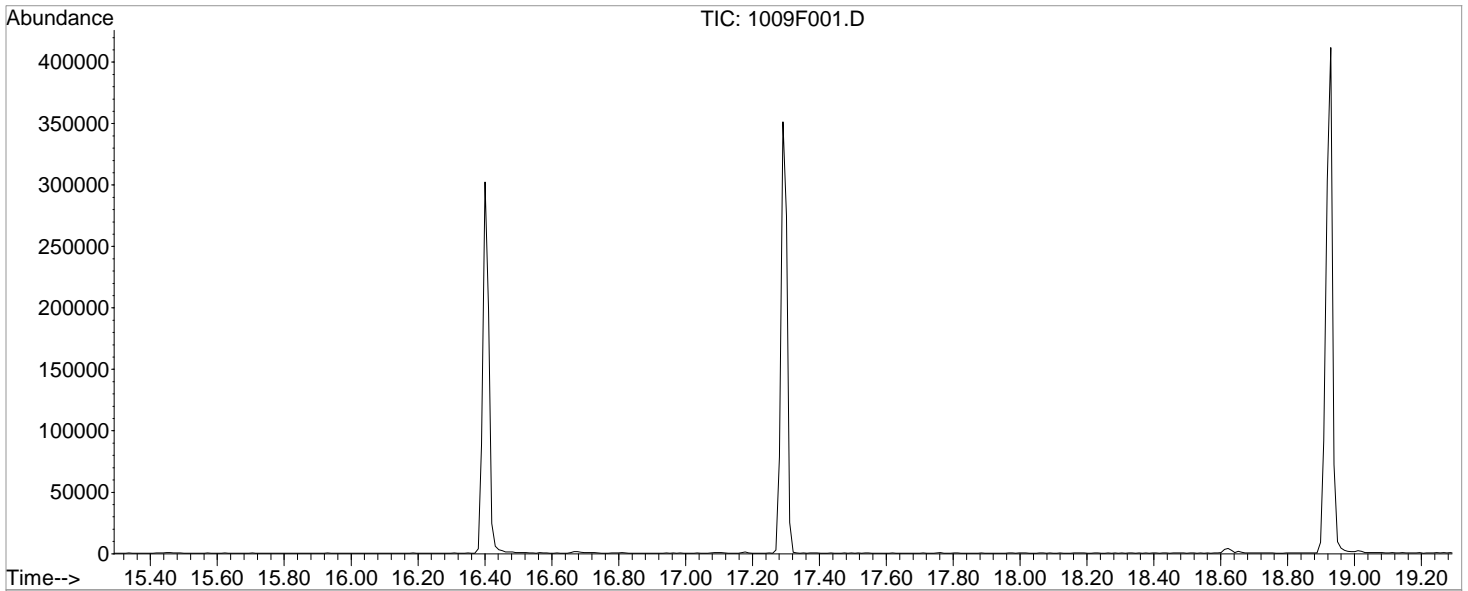
$R = 9.78e-003 A^2 + 2.44e-001 A - 5.16e-002$
Curve Fit: Quadratic w(1/a)

Method Name: J:\MS07\METHODS\8270_625\100919_BNP7.M
Calibration Table Last Updated: Thu Oct 10 15:30:20 2019

LM OCT 10 2019 *cl*

Data File : J:\MS07\DATA\100919\1009F001.D
 Acq On : 9 Oct 2019 12:11 pm
 Sample : MS07 Tune @ 50ppm | SVM61-100C
 Misc :
 MS Integration Params: RTEINT.P
 Method : J:\MS28\METHODS\090919_BNA.M (RTE Integrator)
 Title : 8270 BNA Calibration

Vial: 1
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00



AutoFind: Scans 1313, 1314, 1315; Background Corrected with Scan 1309

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	54.1	12467	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	50.6	11666	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	23051	PASS
199	198	5	9	7.3	1684	PASS
275	198	10	30	27.6	6361	PASS
365	198	1	100	3.7	861	PASS
441	443	0.01	100	74.7	3261	PASS
442	198	40	100	99.6	22958	PASS
443	442	17	23	19.0	4367	PASS

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.90	97	57.95	37	76.10	581	90.95	275
37.95	269	60.95	166	77.00	12096	91.95	228
39.00	1087	61.95	245	78.00	842	92.95	1922
39.95	90	63.00	501	79.00	1125	94.00	132
41.00	42	64.05	42	79.95	735	96.05	45
50.00	3788	64.95	247	80.95	996	96.95	43
51.00	12467	68.95	15805	81.90	255	97.95	1452
51.95	704	73.10	82	82.95	224	98.95	934
55.00	78	74.00	1426	84.95	145	99.85	48
55.95	397	75.00	2048	85.95	297	100.95	494
56.95	939	75.90	131	86.95	95	102.90	174

Average of 17.281 to 17.301 min.: 1009F001.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
103.95	353	122.00	295	135.95	181	152.90	180
104.95	362	123.00	424	136.95	236	153.95	138
105.85	47	123.85	219	140.90	668	155.00	332
107.00	3792	125.00	182	141.90	243	156.00	473
108.00	595	127.05	11666	142.85	128	157.00	54
110.00	6723	128.05	971	146.00	129	157.90	126
111.00	1049	128.95	5389	147.00	351	159.00	61
112.00	106	130.00	450	147.95	894	159.80	96
115.90	39	130.85	47	148.95	192	160.00	67
116.95	4153	133.90	130	151.10	53	160.95	304
117.90	299	134.95	400	151.30	37	161.75	49

Average of 17.281 to 17.301 min.: 1009F001.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
164.95	280	176.90	208	189.90	33	203.95	826
166.00	180	178.90	1035	190.95	121	205.00	1458
166.95	1416	179.80	58	191.90	276	206.05	5646
167.95	769	180.00	545	192.95	281	207.00	810
168.95	145	181.00	285	193.90	52	207.95	232
171.95	121	184.00	55	196.00	800	208.95	36
172.95	155	185.00	483	197.95	23051	209.90	121
173.95	263	186.00	3164	198.95	1684	210.90	224
174.95	450	187.00	935	199.95	117	214.90	77
175.95	62	188.00	96	201.50	97	216.00	59
176.15	57	189.00	215	202.90	183	217.00	1769

Average of 17.281 to 17.301 min.: 1009F001.D

Modified:subtracted

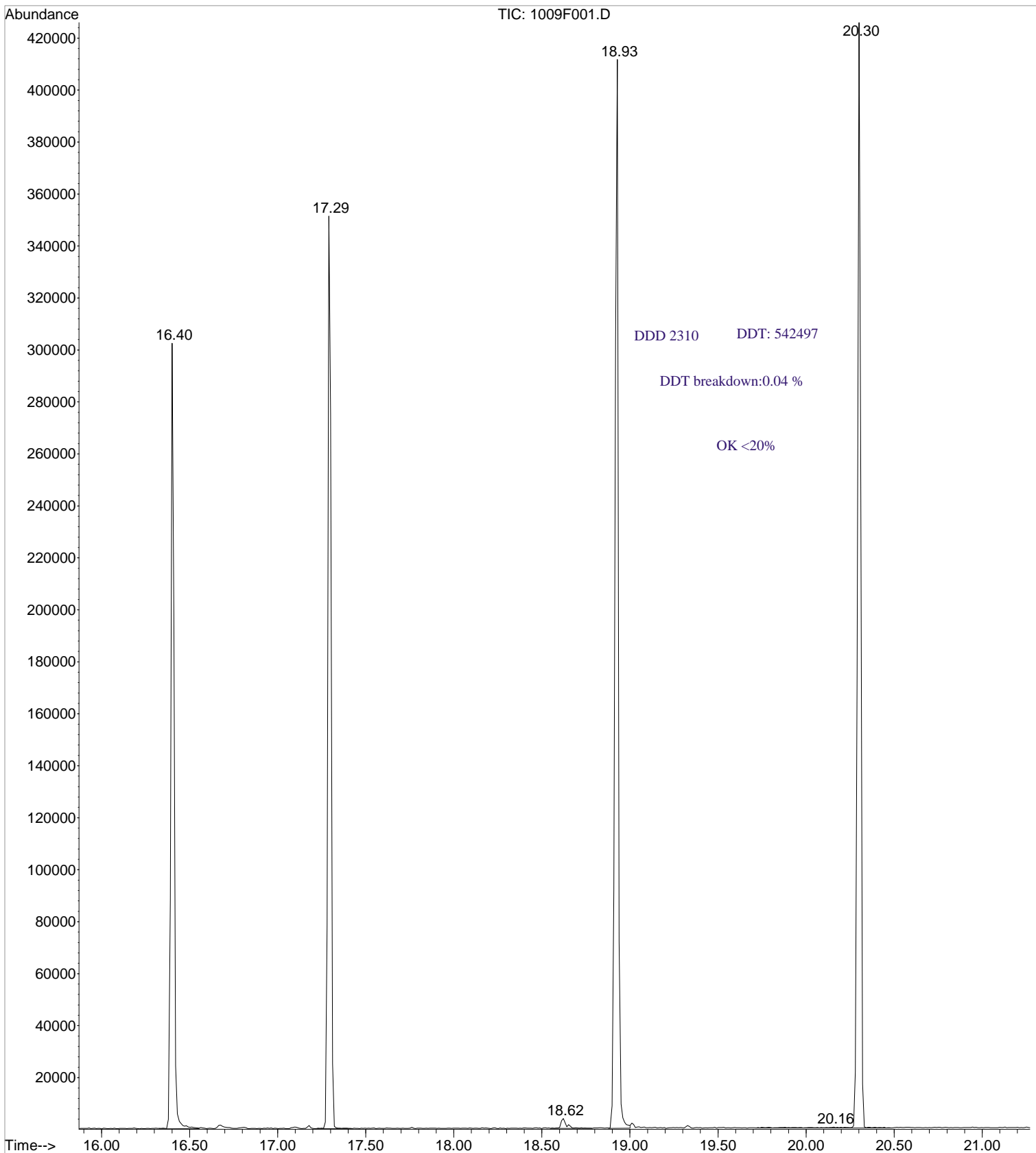
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
218.00	180	235.90	75	255.00	13642	276.95	518
221.00	1346	236.90	86	256.00	2009	277.90	80
223.00	363	240.95	40	257.05	139	282.90	77
224.00	3265	241.90	166	257.95	911	284.95	82
225.00	815	242.95	189	259.00	129	293.00	107
226.95	1633	244.00	2696	264.90	322	296.00	1860
227.90	201	244.95	349	265.80	38	296.95	232
228.95	295	245.95	541	272.95	424	302.95	204
230.95	100	246.95	114	273.95	1153	303.90	35
233.95	96	248.90	81	274.95	6361	313.95	92
235.00	92	253.00	34	276.00	850	314.90	185

Average of 17.281 to 17.301 min.: 1009F001.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
315.95	101	352.90	114	420.95	175		
320.85	34	354.00	194	422.05	166		
322.95	662	364.90	861	423.05	1211		
323.90	128	365.85	130	423.95	233		
326.90	118	371.00	34	441.00	3261		
332.90	42	372.00	337	442.00	22958		
334.00	389	373.00	57	443.00	4367		
334.95	99	382.95	85	443.95	397		
340.90	44	401.90	111				
345.95	141	402.95	168				
351.95	176	403.80	33				

File : J:\MS07\DATA\100919\1009F001.D
Operator : CCONOVER/LM
Acquired : 9 Oct 2019 12:11 pm using AcqMethod 8270_1
Instrument : MS07
Sample Name: MS07 Tune @ 50ppm | SVM61-100C
Misc Info :
Vial Number: 1



Data File : J:\MS07\DATA\100919\1009F001.D
 Acq On : 9 Oct 2019 12:11 pm
 Sample : MS07 Tune @ 50ppm | SVM61-100C
 Misc :

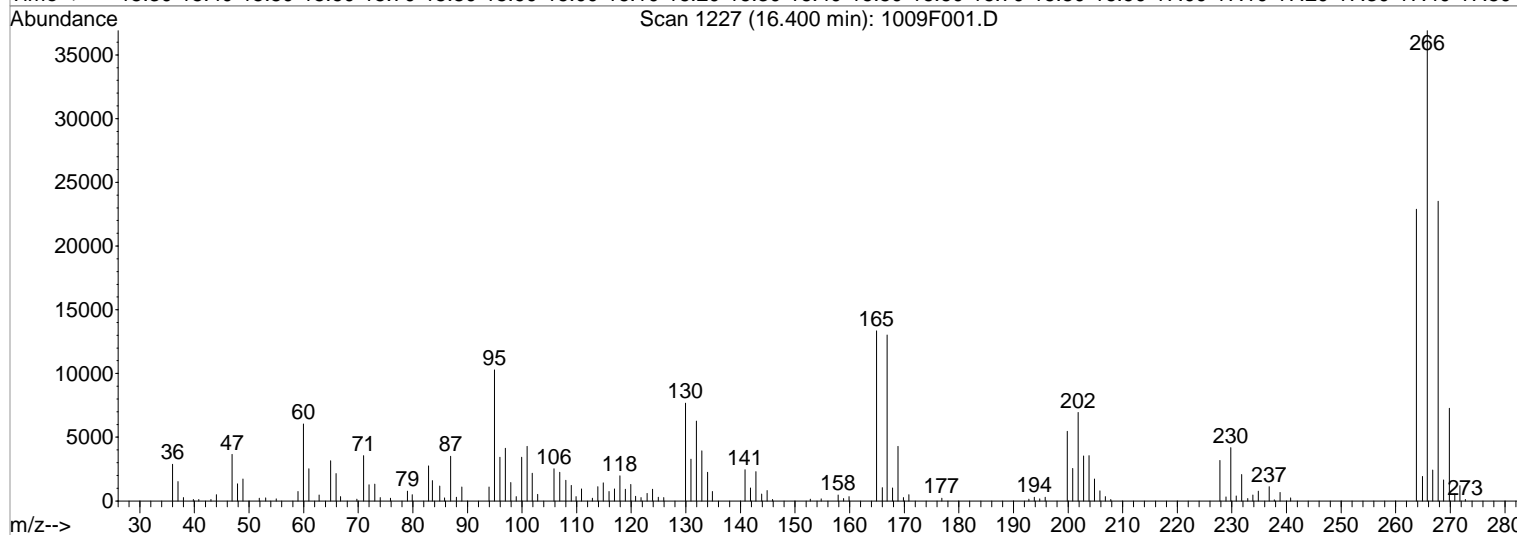
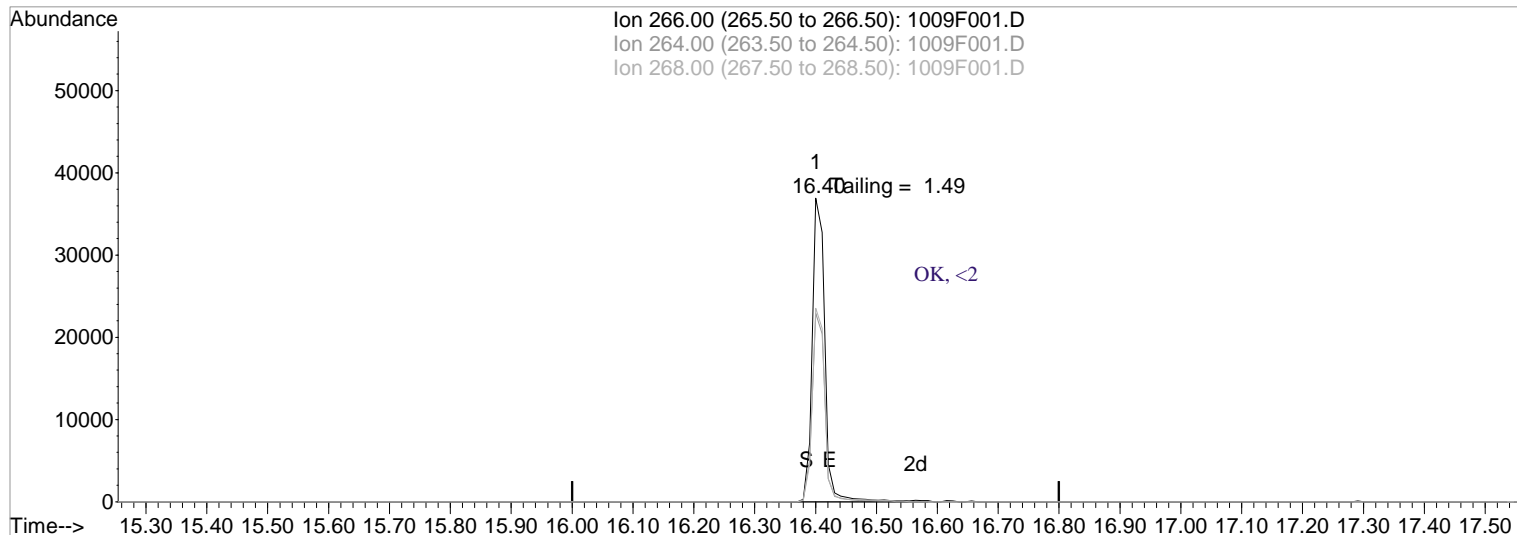
Vial: 1
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 9 12:46 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\093019_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Mon Oct 07 11:33:34 2019
 Response via : Single Level Calibration



TIC: 1009F001.D

(66) Pentachlorophenol (T)

16.40min 2007.10ug/ml

response 52913

Ion	Exp%	Act%
266.00	100	100
264.00	63.10	62.10
268.00	63.30	63.79
0.00	0.00	0.00

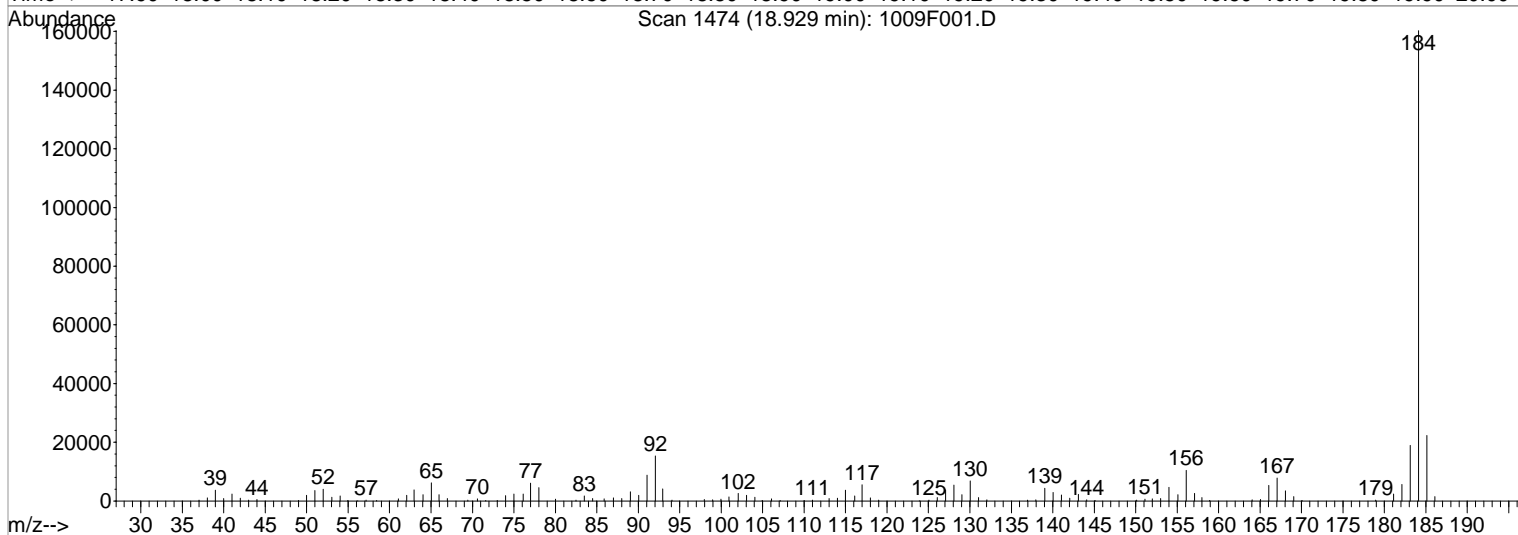
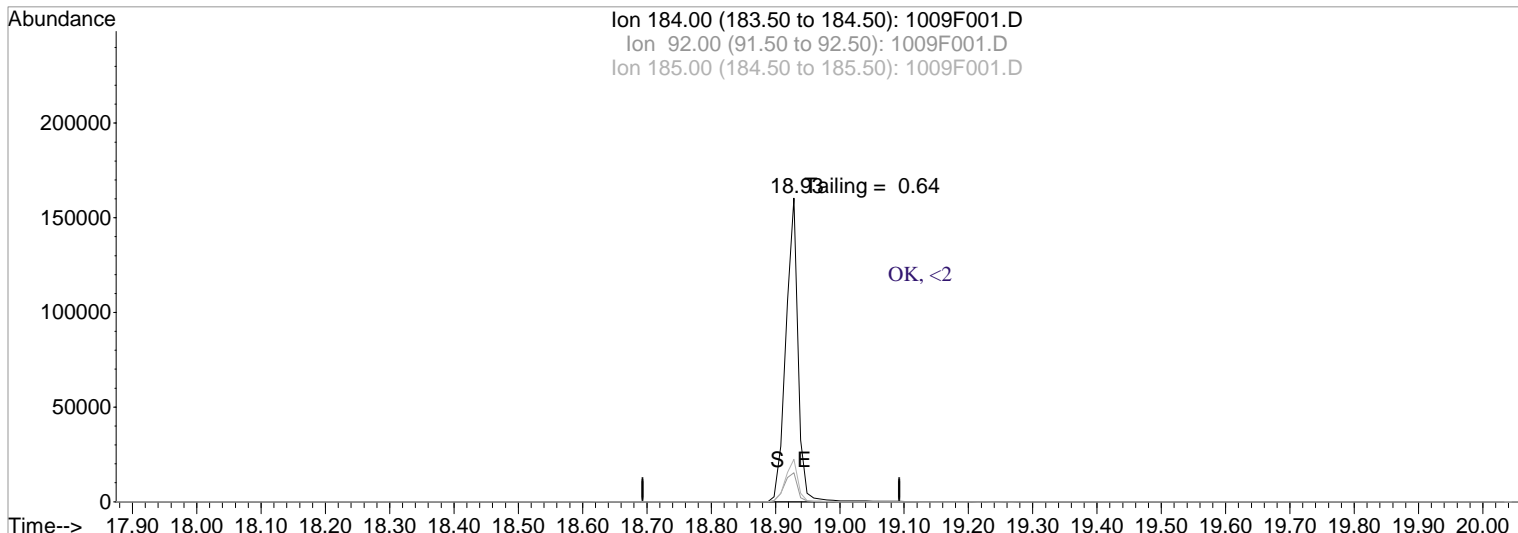
Data File : J:\MS07\DATA\100919\1009F001.D
 Acq On : 9 Oct 2019 12:11 pm
 Sample : MS07 Tune @ 50ppm | SVM61-100C
 Misc :

Vial: 1
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 9 12:46 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\093019_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Mon Oct 07 11:33:34 2019
 Response via : Multiple Level Calibration



TIC: 1009F001.D

(74) Benzidine (T)

18.93min 0.00ug/ml

response 210578

Ion	Exp%	Act%
184.00	100	100
92.00	5.60	9.60
185.00	15.40	13.93
0.00	0.00	0.00

Data File : J:\MS07\DATA\100919\1009F003.D

Vial: 3

Acq On : 9 Oct 2019 1:33 pm

Operator: CCONOVER/LM

Sample : ICAL @lppm | SVM-62-13B

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 09:11:02 2019

Quant Results File: 100919_BNP7.RES

Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Initial Calibration

DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.34	152	52341	40.00	ug/ml	0.00
22) Naphthalene-d8	11.43	136	185825	40.00	ug/ml	-0.01
36) Acenaphthene-d10	14.30	164	96623	40.00	ug/ml	0.00
61) Phenanthrene-d10	16.70	188	164647	40.00	ug/ml	0.00
73) Chrysene-d12	21.14	240	153824	40.00	ug/ml	-0.01
84) Perylene-d12	24.30	264	158582	40.00	ug/ml	-0.01

System Monitoring Compounds

4) 2-Fluorophenol	7.09	112	1477	0.88	ug/ml	-0.03
Spiked Amount	150.000	Range	21 - 100	Recovery	=	0.59%#
8) Phenol-d6	8.77	99	1925	0.84	ug/ml	-0.04
Spiked Amount	150.000	Range	10 - 94	Recovery	=	0.56%#
20) Nitrobenzene-d5	10.26	82	1601	0.75	ug/ml	-0.02
Spiked Amount	100.000	Range	35 - 114	Recovery	=	0.75%#
40) 2-Fluorobiphenyl	13.23	172	2876	0.87	ug/ml	-0.01
Spiked Amount	100.000	Range	43 - 116	Recovery	=	0.87%#
62) 2,4,6-Tribromophenol	15.58	330	580	0.56	ug/ml	-0.01
Spiked Amount	150.000	Range	10 - 123	Recovery	=	0.37%#
76) Terphenyl-d14	19.33	244	3906	0.89	ug/ml	0.00
Spiked Amount	100.000	Range	33 - 141	Recovery	=	0.89%#

Target Compounds

						Qvalue
2) N-Nitrosodimethylamine	4.35	42	1147	0.94	ug/ml	98
3) Pyridine	4.41	79	1588	0.76	ug/ml	95
5) Ethylene Glycol Butyl Ethe	7.66	57	1634	0.77	ug/ml	90
6) Aniline	8.79	93	2399	0.91	ug/ml#	39
7) Bis(2-chloroethyl) Ether	8.94	93	1542	0.83	ug/ml	81
9) Phenol	8.79	94	2130	0.82	ug/ml#	45
10) 2-Chlorophenol	8.98	128	1501	0.81	ug/ml	96
11) 1,3-Dichlorobenzene	9.24	146	1718	0.90	ug/ml	98
12) 1,4-Dichlorobenzene	9.36	146	1779	0.90	ug/ml	88
13) 1,2-Dichlorobenzene	9.61	146	1621	0.89	ug/ml	94
14) Benzyl Alcohol	9.60	108	982	0.81	ug/ml	86
15) 2,2'-oxybis(1-chloropropan	9.85	45	2230	0.91	ug/ml	94
16) 2-Methylphenol	9.80	107	1191	0.81	ug/ml	92
17) Hexachloroethane	10.17	117	776	0.86	ug/ml	95
18) N-Nitrosodi-n-propylamine	10.05	70	1196	0.87	ug/ml	93
19) 4-Methylphenol	10.06	107	1759	0.76	ug/ml	95
21) Nitrobenzene	10.29	77	1443	0.71	ug/ml	94
23) Isophorone	10.71	82	2853	0.84	ug/ml	99
24) 2-Nitrophenol	10.82	139	512	0.55	ug/ml	92
25) 2,4-Dimethylphenol	10.94	122	1239	0.87	ug/ml	87
26) Bis(2-chloroethoxy)methane	11.10	93	1652	0.79	ug/ml	96
27) 2,4-Dichlorophenol	11.22	162	1093	0.74	ug/ml	91
29) 1,2,4-Trichlorobenzene	11.35	180	1486	0.99	ug/ml	98
30) Naphthalene	11.46	128	4180	0.96	ug/ml	98
31) n-Dodecane	11.53	57	2127	1.05	ug/ml#	92
32) 4-Chloroaniline	11.58	127	1782	0.88	ug/ml	93
33) Hexachlorobutadiene	11.71	225	860	0.90	ug/ml	95
34) 4-Chloro-3-methylphenol	12.39	107	1024	0.70	ug/ml	95
35) 2-Methylnaphthalene	12.61	142	2687	0.90	ug/ml	99
37) Hexachlorocyclopentadiene	12.89	237	668	0.60	ug/ml	91
38) 2,4,6-Trichlorophenol	13.08	196	682	0.67	ug/ml	90
39) 2,4,5-Trichlorophenol	13.12	196	734	0.66	ug/ml	79
41) 2-Chloronaphthalene	13.39	162	2428	0.88	ug/ml	98
42) 2-Nitroaniline	13.57	65	603	0.63	ug/ml	85
43) Acenaphthylene	14.05	152	3480	0.86	ug/ml	98
44) Dimethyl Phthalate	13.92	163	2947	0.99	ug/ml	95

(#)= qualifier out of range (m)= manual integration

Data File : J:\MS07\DATA\100919\1009F003.D

Vial: 3

Acq On : 9 Oct 2019 1:33 pm

Operator: CCONOVER/LM

Sample : ICAL @lppm | SVM-62-13B

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 09:11:02 2019

Quant Results File: 100919_BNP7.RES

Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

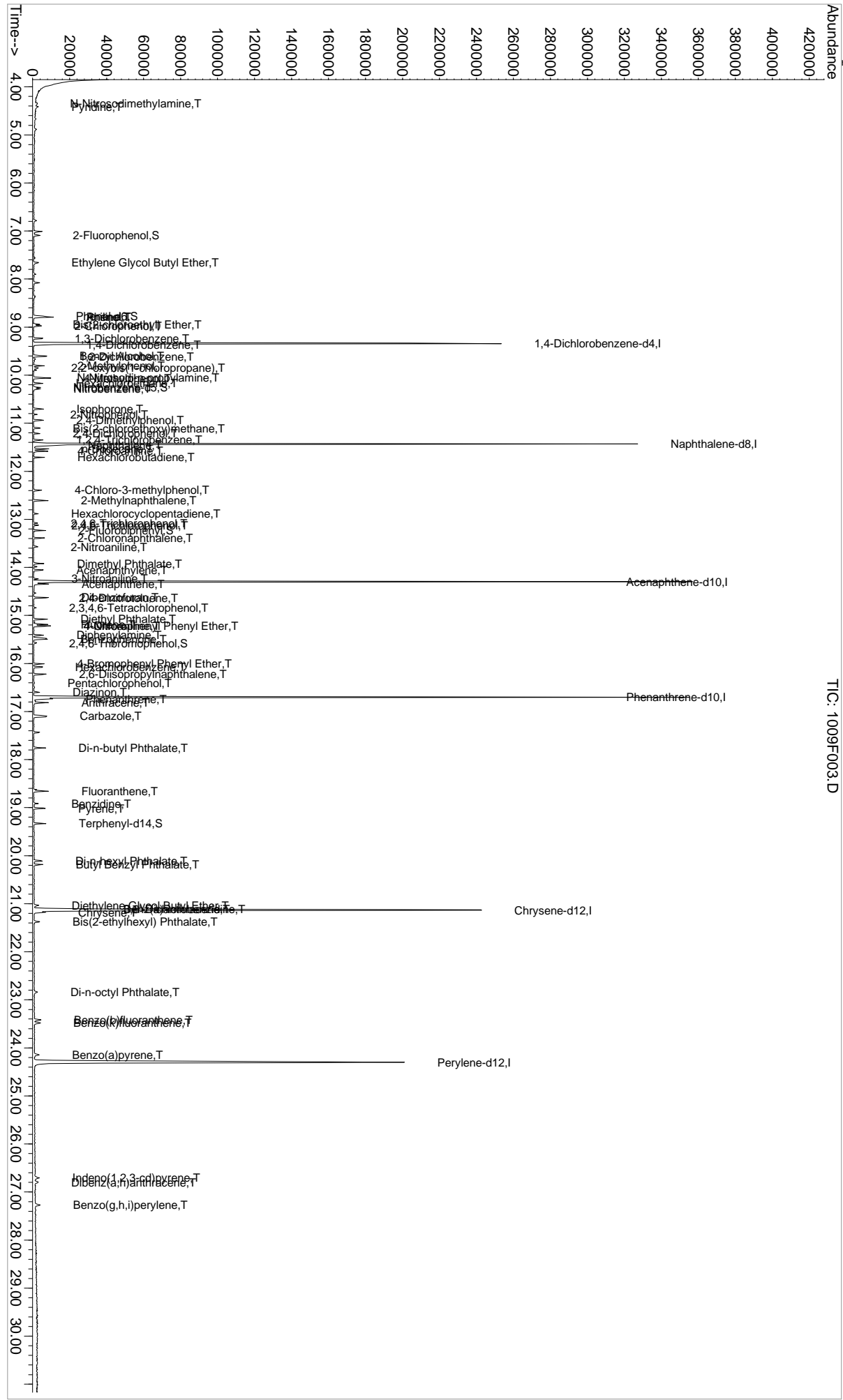
Response via : Initial Calibration

DataAcq Meth : 8270_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) Acenaphthene	14.35	154	2226	0.92	ug/ml	94
47) 3-Nitroaniline	14.24	138	475	0.59	ug/ml	93
49) Dibenzofuran	14.63	168	3700	0.97	ug/ml	98
51) 2,4-Dinitrotoluene	14.64	165	549	0.61	ug/ml	84
52) 2,3,4,6-Tetrachlorophenol	14.84	232	418	0.48	ug/ml	74
53) Fluorene	15.19	166	2737	0.99	ug/ml	92
54) 4-Chlorophenyl Phenyl Eth	15.22	204	1467	0.97	ug/ml	89
55) Diethyl Phthalate	15.08	149	3692	1.27	ug/ml	94
56) 4-Nitroaniline	15.22	138	458m	0.58	ug/ml	
58) Diphenylamine	15.41	169	1908	1.00	ug/ml	95
60) Benzophenone	15.50	105	3270	0.99	ug/ml	100
63) 4-Bromophenyl Phenyl Ether	16.01	248	917	0.81	ug/ml	90
64) Hexachlorobenzene	16.08	284	1371	0.92	ug/ml	93
65) 2,6-Diisopropyl naphthalene	16.22	197	2221	0.84	ug/ml	99
66) Pentachlorophenol	16.41	266	280	0.29	ug/ml	91
67) Diazinon	16.60	137	480	0.89	ug/ml	83
68) Phenanthrene	16.73	178	4120	0.98	ug/ml	99
69) Anthracene	16.82	178	4139	0.94	ug/ml	97
70) Carbazole	17.09	167	3855	0.91	ug/ml	96
71) Di-n-butyl Phthalate	17.76	149	4261	0.82	ug/ml	98
72) Fluoranthene	18.66	202	4495	0.99	ug/ml	94
74) Benzidine	18.91	184	1744	1.07	ug/ml	95
75) Pyrene	19.02	202	4248	0.85	ug/ml	95
77) Di-n-hexyl Phthalate	20.11	149	3670	0.65	ug/ml	100
78) Butyl Benzyl Phthalate	20.18	149	1544	0.68	ug/ml	89
79) Diethylene Glycol Butyl Et	21.03	105	1887	0.54	ug/ml	92
80) 3,3'-Dichlorobenzidine	21.11	252	1101	0.55	ug/ml	88
81) Benz(a)anthracene	21.11	228	3731	0.94	ug/ml	94
82) Chrysene	21.18	228	3496	0.87	ug/ml	97
83) Bis(2-ethylhexyl) Phthalat	21.37	149	1744	0.60	ug/ml	92
85) Di-n-octyl Phthalate	22.83	149	2506	0.57	ug/ml	83
86) Benzo(b)fluoranthene	23.42	252	3114	0.72	ug/ml	85
87) Benzo(k)fluoranthene	23.48	252	3259	0.79	ug/ml	97
90) Benzo(a)pyrene	24.15	252	2854	0.73	ug/ml	92
91) Indeno(1,2,3-cd)pyrene	26.70	276	2632	0.66	ug/ml	81
92) Dibenz(a,h)anthracene	26.80	278	2371	0.59	ug/ml	98
93) Benzo(g,h,i)perylene	27.27	276	2917	0.71	ug/ml	91

Data File : J:\MS07\DATA\100919\1009F003.D
Acq On : 9 Oct 2019 1:33 pm
Sample : ICAL@1ppm | SVM-62-13B
Misc :
MS Integration Params: RTEINT.P
Quant Results File: 100919_BNP7.RES
Vial: 3
Operator: CCONOVER/LM
Inst: MS07
Multiplr: 1.00

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Oct 10 09:10:47 2019
Response via : Initial Calibration
MS07



Data File : J:\MS07\DATA\100919\1009F003.D

Vial: 3

Acq On : 9 Oct 2019 1:33 pm

Operator: CCONOVER/LM

Sample : ICAL @lppm | SVM-62-13B

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:20 2019

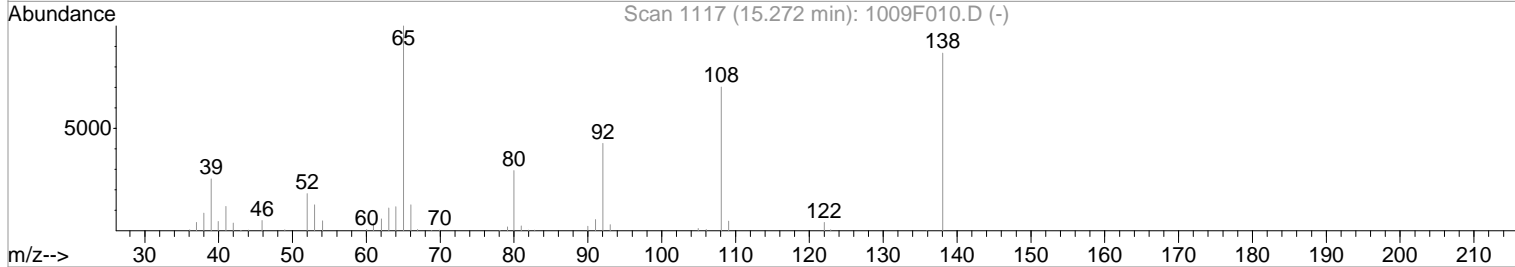
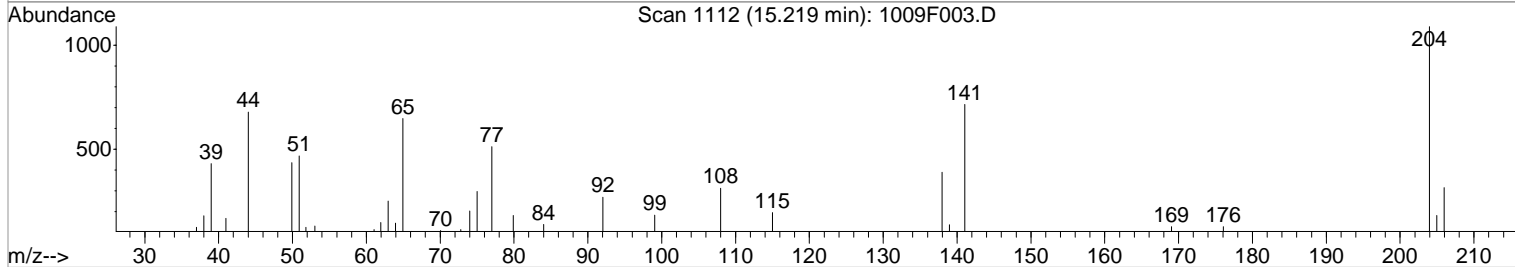
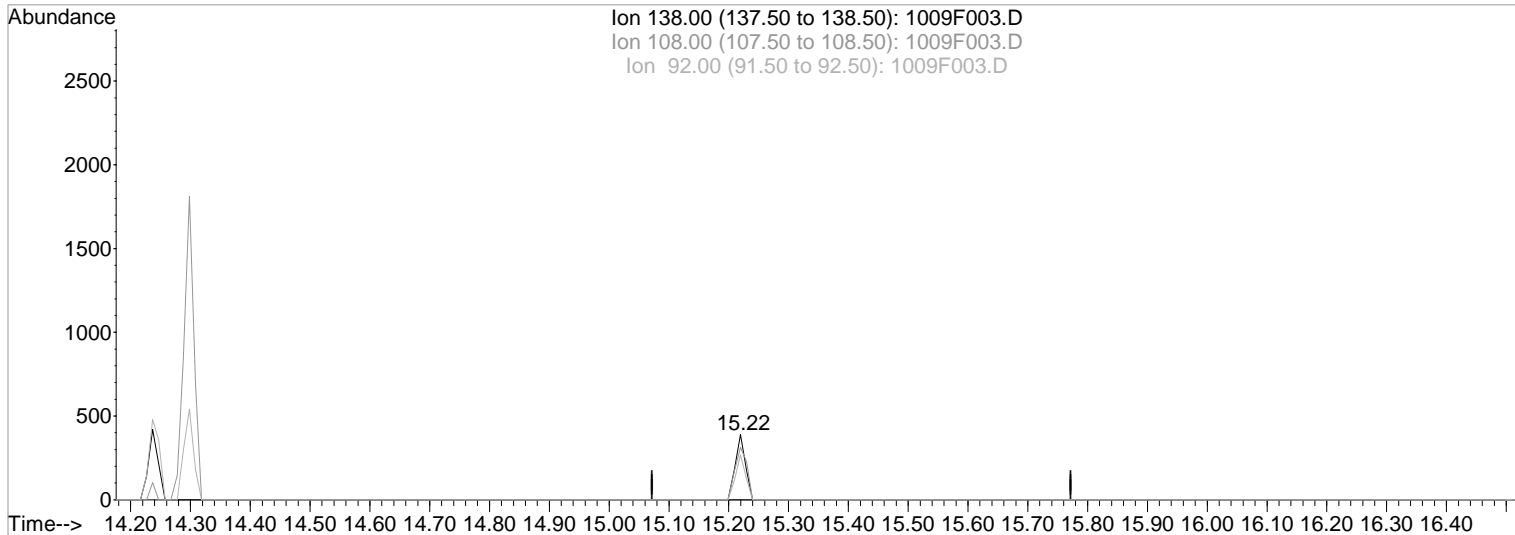
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F003.D

(56) 4-Nitroaniline (T)

Manual Integration:

15.22min 0.58ug/ml m

After

response 458

Missed peak

Ion	Exp%	Act%
138.00	100	100
108.00	80.00	80.21
92.00	48.80	69.15
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F004.D
 Acq On : 9 Oct 2019 2:15 pm
 Sample : ICAL @2.5ppm | SVM-62-13C
 Misc :

Vial: 4
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 09:11:03 2019

Quant Results File: 100919_BNP7.RES

Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 09:10:47 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.34	152	48513	40.00	ug/ml	0.00
22) Naphthalene-d8	11.43	136	180996	40.00	ug/ml	-0.01
36) Acenaphthene-d10	14.30	164	97096	40.00	ug/ml	0.00
61) Phenanthrene-d10	16.70	188	174549	40.00	ug/ml	0.00
73) Chrysene-d12	21.13	240	153448	40.00	ug/ml	-0.01
84) Perylene-d12	24.30	264	160817	40.00	ug/ml	-0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
4) 2-Fluorophenol	7.09	112	3473	2.23	ug/ml	-0.03
Spiked Amount 150.000	Range 21	- 100	Recovery =	1.49%#		
8) Phenol-d6	8.77	99	4597	2.18	ug/ml	-0.04
Spiked Amount 150.000	Range 10	- 94	Recovery =	1.45%#		
20) Nitrobenzene-d5	10.25	82	3848	1.95	ug/ml	-0.02
Spiked Amount 100.000	Range 35	- 114	Recovery =	1.95%#		
40) 2-Fluorobiphenyl	13.23	172	7639	2.31	ug/ml	-0.01
Spiked Amount 100.000	Range 43	- 116	Recovery =	2.31%#		
62) 2,4,6-Tribromophenol	15.58	330	1701	1.55	ug/ml	-0.01
Spiked Amount 150.000	Range 10	- 123	Recovery =	1.03%#		
76) Terphenyl-d14	19.33	244	8740	1.99	ug/ml	0.00
Spiked Amount 100.000	Range 33	- 141	Recovery =	1.99%#		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-Nitrosodimethylamine	4.33	42	2356	2.08	ug/ml	86
3) Pyridine	4.39	79	3503	1.80	ug/ml	98
5) Ethylene Glycol Butyl Ethe	7.65	57	4350	2.21	ug/ml	94
6) Aniline	8.79	93	5474	2.25	ug/ml	51
7) Bis(2-chloroethyl) Ether	8.94	93	3809	2.20	ug/ml	93
9) Phenol	8.79	94	5181	2.15	ug/ml#	46
10) 2-Chlorophenol	8.97	128	3809	2.23	ug/ml	96
11) 1,3-Dichlorobenzene	9.24	146	4074	2.31	ug/ml	98
12) 1,4-Dichlorobenzene	9.36	146	4272	2.34	ug/ml	98
13) 1,2-Dichlorobenzene	9.61	146	3964	2.34	ug/ml	96
14) Benzyl Alcohol	9.60	108	2398	2.12	ug/ml	99
15) 2,2'-oxybis(1-chloropropan	9.85	45	5259m	2.33	ug/ml	
16) 2-Methylphenol	9.80	107	2910	2.14	ug/ml	93
17) Hexachloroethane	10.17	117	1749	2.10	ug/ml	93
18) N-Nitrosodi-n-propylamine	10.05	70	2557	2.01	ug/ml	95
19) 4-Methylphenol	10.06	107	4118	1.93	ug/ml	99
21) Nitrobenzene	10.28	77	3884	2.07	ug/ml	99
23) Isophorone	10.70	82	7106	2.15	ug/ml	98
24) 2-Nitrophenol	10.82	139	1381	1.52	ug/ml	91
25) 2,4-Dimethylphenol	10.94	122	3115	2.25	ug/ml	88
26) Bis(2-chloroethoxy)methane	11.10	93	4435	2.18	ug/ml	99
27) 2,4-Dichlorophenol	11.22	162	2836	1.98	ug/ml	91
29) 1,2,4-Trichlorobenzene	11.35	180	3272	2.23	ug/ml	95
30) Naphthalene	11.46	128	10025	2.37	ug/ml	99
31) n-Dodecane	11.53	57	4779	2.43	ug/ml	98
32) 4-Chloroaniline	11.57	127	4332	2.20	ug/ml	98
33) Hexachlorobutadiene	11.71	225	2115	2.28	ug/ml	97
34) 4-Chloro-3-methylphenol	12.39	107	2772	1.96	ug/ml	97
35) 2-Methylnaphthalene	12.61	142	6461	2.22	ug/ml	98
37) Hexachlorocyclopentadiene	12.88	237	1825	1.64	ug/ml	99
38) 2,4,6-Trichlorophenol	13.08	196	1769	1.73	ug/ml	94
39) 2,4,5-Trichlorophenol	13.12	196	2104	1.89	ug/ml	94
41) 2-Chloronaphthalene	13.39	162	6259	2.26	ug/ml	99
42) 2-Nitroaniline	13.57	65	1914	2.00	ug/ml	95
43) Acenaphthylene	14.06	152	9442	2.32	ug/ml	99
44) Dimethyl Phthalate	13.92	163	7293	2.44	ug/ml	98

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS07\DATA\100919\1009F004.D

Vial: 4

Acq On : 9 Oct 2019 2:15 pm

Operator: CCONOVER/LM

Sample : ICAL @2.5ppm | SVM-62-13C

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 09:11:03 2019

Quant Results File: 100919_BNP7.RES

Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

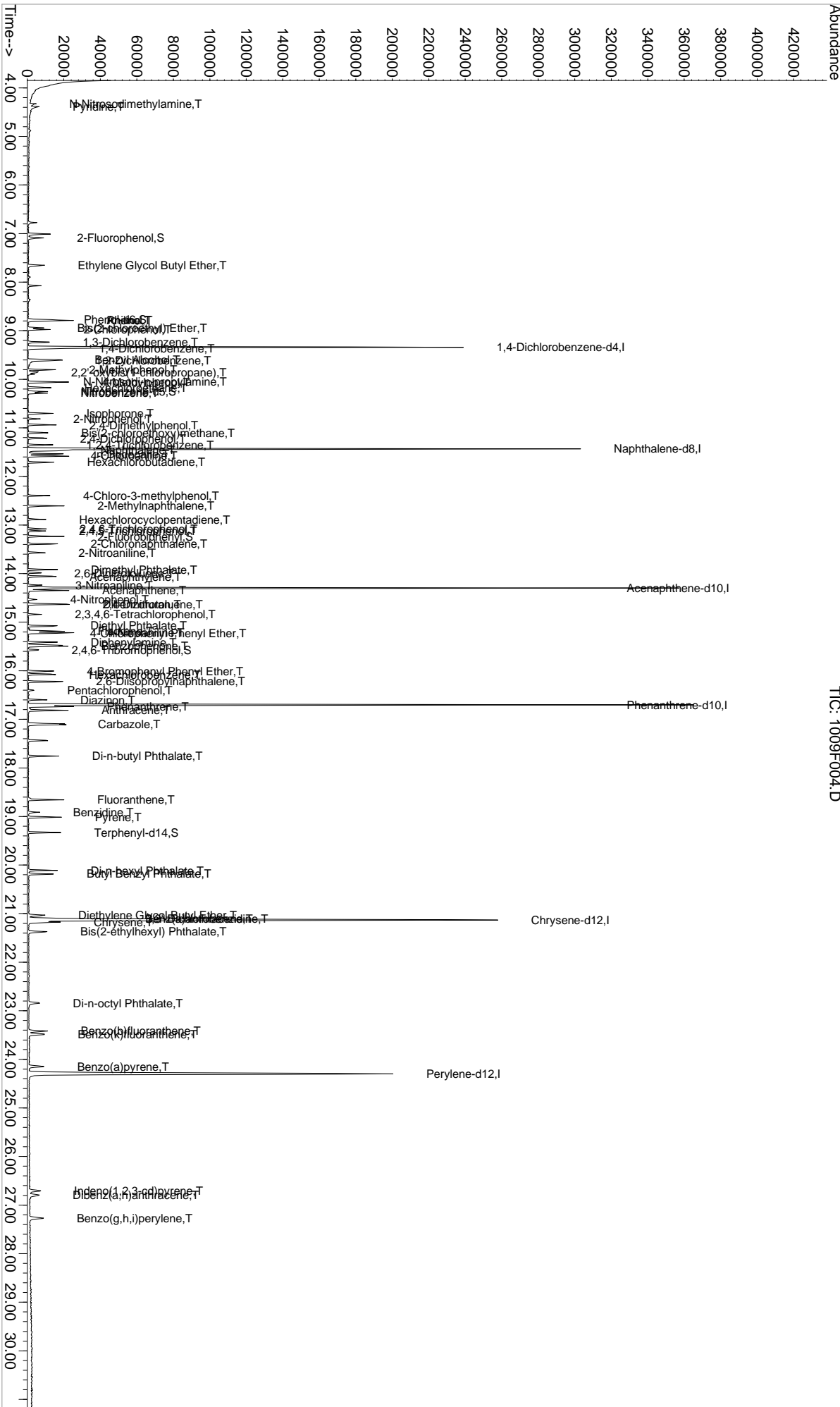
Response via : Initial Calibration

DataAcq Meth : 8270_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
45) 2,6-Dinitrotoluene	13.99	165	1271	1.77	ug/ml	98
46) Acenaphthene	14.35	154	5995	2.48	ug/ml	99
47) 3-Nitroaniline	14.24	138	1446	1.79	ug/ml	90
49) Dibenzofuran	14.63	168	9506	2.49	ug/ml	100
50) 4-Nitrophenol	14.53	109	754	1.54	ug/ml	87
51) 2,4-Dinitrotoluene	14.63	165	1529	1.69	ug/ml	83
52) 2,3,4,6-Tetrachlorophenol	14.84	232	1344	1.53	ug/ml	94
53) Fluorene	15.19	166	6949	2.49	ug/ml	95
54) 4-Chlorophenyl Phenyl Ethe	15.23	204	3787	2.50	ug/ml	89
55) Diethyl Phthalate	15.07	149	8388	2.88	ug/ml	95
56) 4-Nitroaniline	15.22	138	1696	2.12	ug/ml	93
58) Diphenylamine	15.41	169	5235	2.73	ug/ml	99
60) Benzophenone	15.49	105	8880	2.67	ug/ml	99
63) 4-Bromophenyl Phenyl Ether	16.01	248	2441	2.04	ug/ml	98
64) Hexachlorobenzene	16.08	284	3533	2.25	ug/ml	98
65) 2,6-Diisopropylphthalene	16.22	197	5654	2.01	ug/ml	99
66) Pentachlorophenol	16.41	266	1042	1.01	ug/ml	91
67) Diazinon	16.60	137	1105	1.93	ug/ml	94
68) Phenanthrene	16.73	178	10425	2.33	ug/ml	99
69) Anthracene	16.81	178	10846	2.32	ug/ml	98
70) Carbazole	17.09	167	9872	2.21	ug/ml	96
71) Di-n-butyl Phthalate	17.76	149	10702	1.94	ug/ml	99
72) Fluoranthene	18.66	202	10155	2.10	ug/ml	98
74) Benzidine	18.91	184	4062	2.49	ug/ml	88
75) Pyrene	19.02	202	10099	2.03	ug/ml	96
77) Di-n-hexyl Phthalate	20.11	149	10614	1.87	ug/ml	99
78) Butyl Benzyl Phthalate	20.18	149	4652	2.05	ug/ml	98
79) Diethylene Glycol Butyl Et	21.03	105	5428	1.55	ug/ml	94
80) 3,3'-Dichlorobenzidine	21.10	252	3487	1.74	ug/ml	94
81) Benz(a)anthracene	21.10	228	9107	2.29	ug/ml	99
82) Chrysene	21.18	228	9502	2.38	ug/ml	99
83) Bis(2-ethylhexyl) Phthalat	21.37	149	5218	1.79	ug/ml	99
85) Di-n-octyl Phthalate	22.84	149	7177	1.61	ug/ml	95
86) Benzo(b)fluoranthene	23.42	252	8245	1.87	ug/ml	92
87) Benzo(k)fluoranthene	23.48	252	8837	2.11	ug/ml	96
90) Benzo(a)pyrene	24.14	252	7863	1.99	ug/ml	97
91) Indeno(1,2,3-cd)pyrene	26.70	276	7127	1.77	ug/ml	94
92) Dibenz(a,h)anthracene	26.79	278	6475	1.60	ug/ml	94
93) Benzo(g,h,i)perylene	27.27	276	8150	1.96	ug/ml	97

Data File : J:\MS07\DATA\100919\1009F004.D
 Acq On : 9 Oct 2019 2:15 pm
 Sample : ICAL @2.5ppm | SVM-62-13C
 Misc :
 MS Integration Params: RTEINT.P
 Quant Results File: 100919_BNP7.RES
 Vial: 4
 Operator: CCONOVER/LM
 Inst: MS07
 Multiplr: 1.00

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration
 Last Update : Thu Oct 10 09:10:47 2019
 Response via : Initial Calibration



Data File : J:\MS07\DATA\100919\1009F004.D

Vial: 4

Acq On : 9 Oct 2019 2:15 pm

Operator: CCONOVER/LM

Sample : ICAL @2.5ppm | SVM-62-13C

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:16 2019

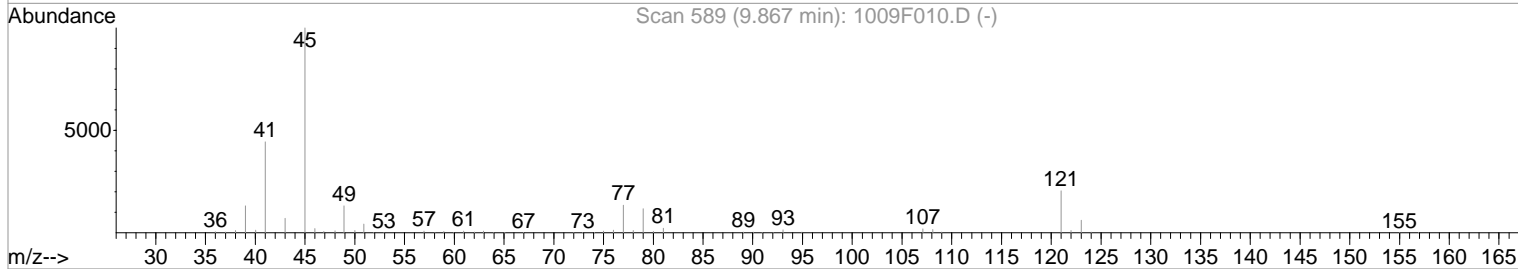
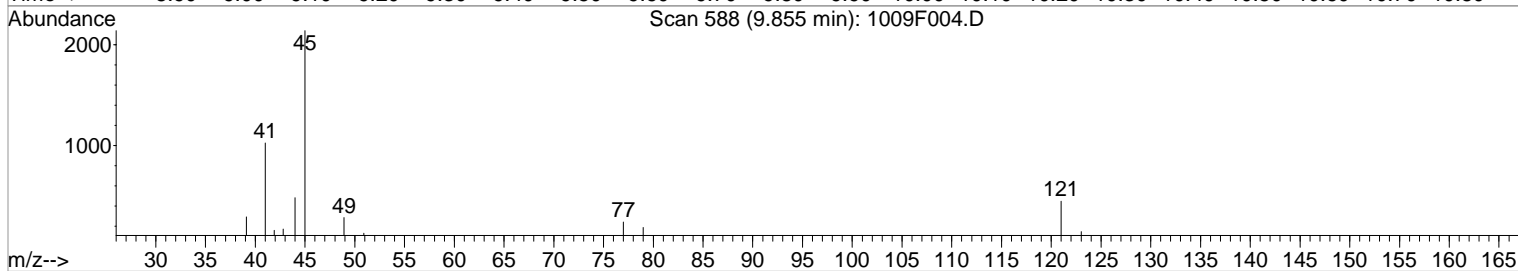
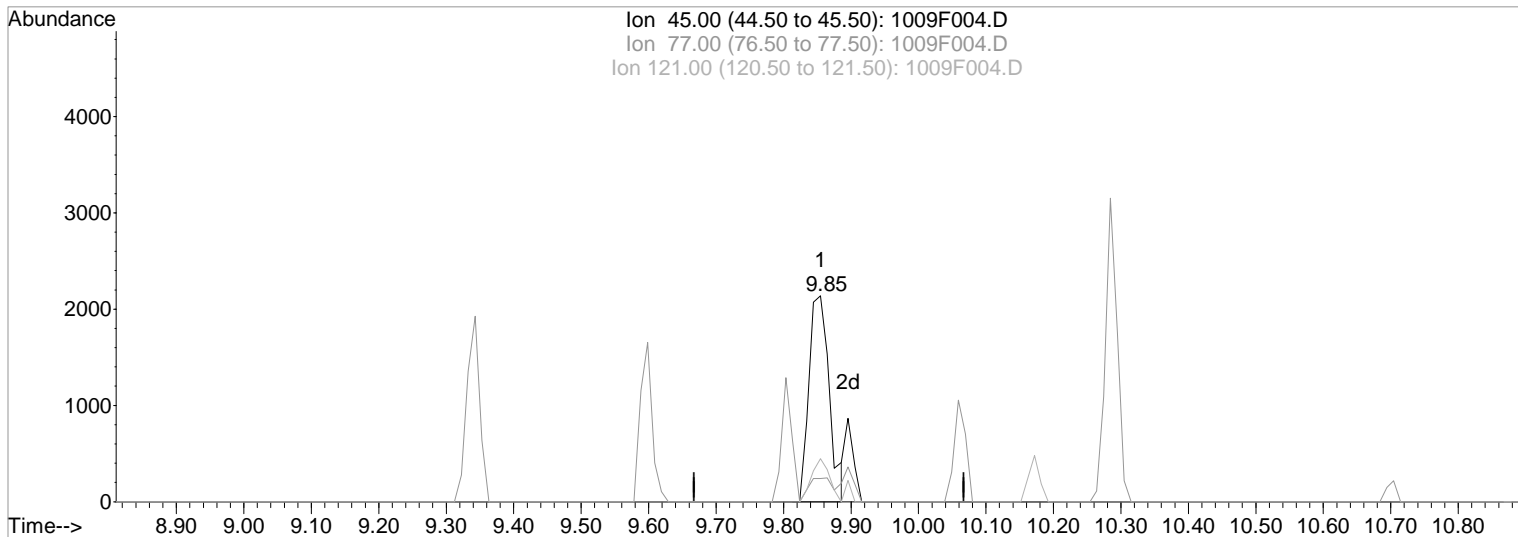
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F004.D

(15) 2,2'-oxybis(1-chloropropane) (T)

Manual Integration:

9.85min 1.99ug/ml

Before

response 4504

Ion Exp% Act%

10/10/19

45.00 100 100

77.00 13.60 0.00

121.00 20.40 23.03

0.00 0.00 0.00

Data File : J:\MS07\DATA\100919\1009F004.D

Vial: 4

Acq On : 9 Oct 2019 2:15 pm

Operator: CCONOVER/LM

Sample : ICAL @2.5ppm | SVM-62-13C

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:23 2019

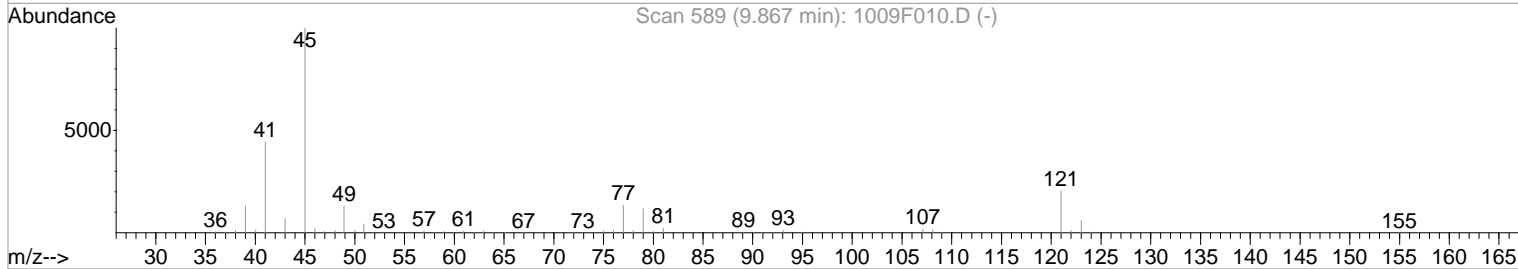
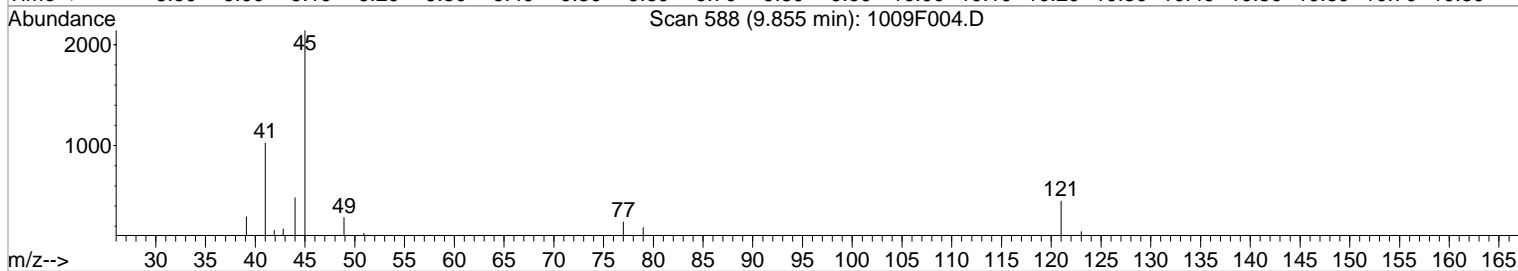
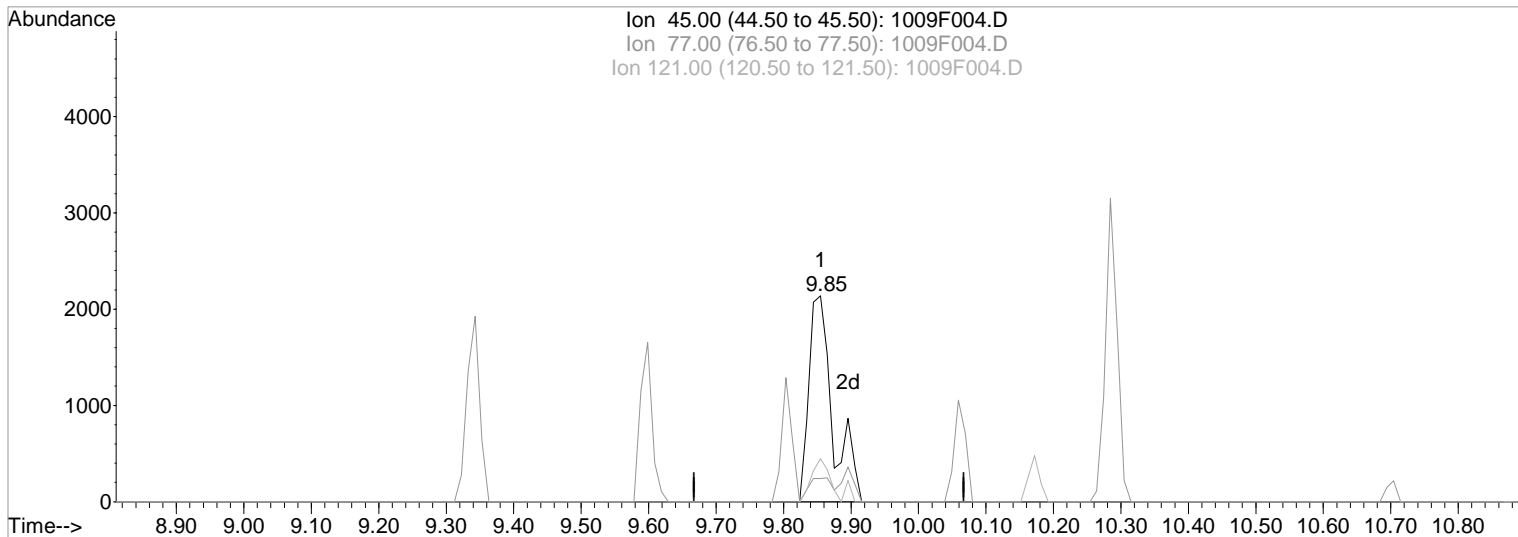
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F004.D

(15) 2,2'-oxybis(1-chloropropane) (T)

Manual Integration:

9.85min 2.33ug/ml m

After

response 5259

IC - incomplete

Ion	Exp%	Act%
45.00	100	100
77.00	13.60	11.21
121.00	20.40	20.84
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F005.D
 Acq On : 9 Oct 2019 2:56 pm
 Sample : ICAL @5ppm | SVM-62-13D
 Misc :

Vial: 5
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 09:11:03 2019

Quant Results File: 100919_BNP7.RES

Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 09:10:47 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.34	152	49705	40.00	ug/ml	0.00
22) Naphthalene-d8	11.43	136	178162	40.00	ug/ml	0.00
36) Acenaphthene-d10	14.30	164	98799	40.00	ug/ml	0.00
61) Phenanthrene-d10	16.71	188	168559	40.00	ug/ml	0.00
73) Chrysene-d12	21.13	240	153966	40.00	ug/ml	-0.02
84) Perylene-d12	24.30	264	158771	40.00	ug/ml	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
4) 2-Fluorophenol	7.09	112	7370	4.61	ug/ml	-0.03
Spiked Amount	150.000	Range 21 - 100	Recovery =			3.07%#
8) Phenol-d6	8.77	99	9672	4.47	ug/ml	-0.04
Spiked Amount	150.000	Range 10 - 94	Recovery =			2.98%#
20) Nitrobenzene-d5	10.26	82	8418	4.17	ug/ml	-0.02
Spiked Amount	100.000	Range 35 - 114	Recovery =			4.17%#
40) 2-Fluorobiphenyl	13.24	172	15606	4.64	ug/ml	0.00
Spiked Amount	100.000	Range 43 - 116	Recovery =			4.64%#
62) 2,4,6-Tribromophenol	15.57	330	3992	3.77	ug/ml	-0.02
Spiked Amount	150.000	Range 10 - 123	Recovery =			2.51%#
76) Terphenyl-d14	19.34	244	17630	4.00	ug/ml	0.00
Spiked Amount	100.000	Range 33 - 141	Recovery =			4.00%#

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-Nitrosodimethylamine	4.32	42	5270	4.54	ug/ml	96
3) Pyridine	4.37	79	8835	4.43	ug/ml	95
5) Ethylene Glycol Butyl Ethe	7.65	57	9688	4.80	ug/ml	97
6) Aniline	8.79	93	11993	4.81	ug/ml#	30
7) Bis(2-chloroethyl) Ether	8.94	93	8450	4.77	ug/ml	98
9) Phenol	8.79	94	11294	4.57	ug/ml	62
10) 2-Chlorophenol	8.98	128	8157	4.66	ug/ml	93
11) 1,3-Dichlorobenzene	9.23	146	8732	4.83	ug/ml	98
12) 1,4-Dichlorobenzene	9.37	146	8964	4.80	ug/ml	98
13) 1,2-Dichlorobenzene	9.61	146	8546	4.93	ug/ml	98
14) Benzyl Alcohol	9.59	108	5151	4.45	ug/ml	94
15) 2,2'-oxybis(1-chloropropan	9.85	45	10875	4.70	ug/ml	85
16) 2-Methylphenol	9.81	107	6327	4.54	ug/ml	85
17) Hexachloroethane	10.18	117	3907	4.57	ug/ml	89
18) N-Nitrosodi-n-propylamine	10.05	70	5583	4.28	ug/ml	98
19) 4-Methylphenol	10.06	107	9335	4.27	ug/ml	99
21) Nitrobenzene	10.29	77	8347	4.35	ug/ml	96
23) Isophorone	10.70	82	15142	4.65	ug/ml	96
24) 2-Nitrophenol	10.82	139	3425	3.84	ug/ml	97
25) 2,4-Dimethylphenol	10.93	122	6642	4.88	ug/ml	97
26) Bis(2-chloroethoxy)methane	11.10	93	9229	4.60	ug/ml	99
27) 2,4-Dichlorophenol	11.22	162	6481	4.60	ug/ml	97
29) 1,2,4-Trichlorobenzene	11.35	180	7104	4.91	ug/ml	99
30) Naphthalene	11.47	128	21112	5.07	ug/ml	98
31) n-Dodecane	11.54	57	10751	5.55	ug/ml	98
32) 4-Chloroaniline	11.58	127	9614	4.97	ug/ml	98
33) Hexachlorobutadiene	11.71	225	4458	4.88	ug/ml	97
34) 4-Chloro-3-methylphenol	12.40	107	6185	4.44	ug/ml	96
35) 2-Methylnaphthalene	12.61	142	13837	4.84	ug/ml	100
37) Hexachlorocyclopentadiene	12.89	237	4225	3.73	ug/ml	95
38) 2,4,6-Trichlorophenol	13.08	196	4283	4.12	ug/ml	100
39) 2,4,5-Trichlorophenol	13.12	196	4543	4.01	ug/ml	99
41) 2-Chloronaphthalene	13.39	162	12944	4.59	ug/ml	99
42) 2-Nitroaniline	13.56	65	3899	4.00	ug/ml	87
43) Acenaphthylene	14.06	152	19500	4.70	ug/ml	99
44) Dimethyl Phthalate	13.92	163	15242	5.01	ug/ml	99

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS07\DATA\100919\1009F005.D

Vial: 5

Acq On : 9 Oct 2019 2:56 pm

Operator: CCONOVER/LM

Sample : ICAL @5ppm | SVM-62-13D

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 09:11:03 2019

Quant Results File: 100919_BNP7.RES

Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Initial Calibration

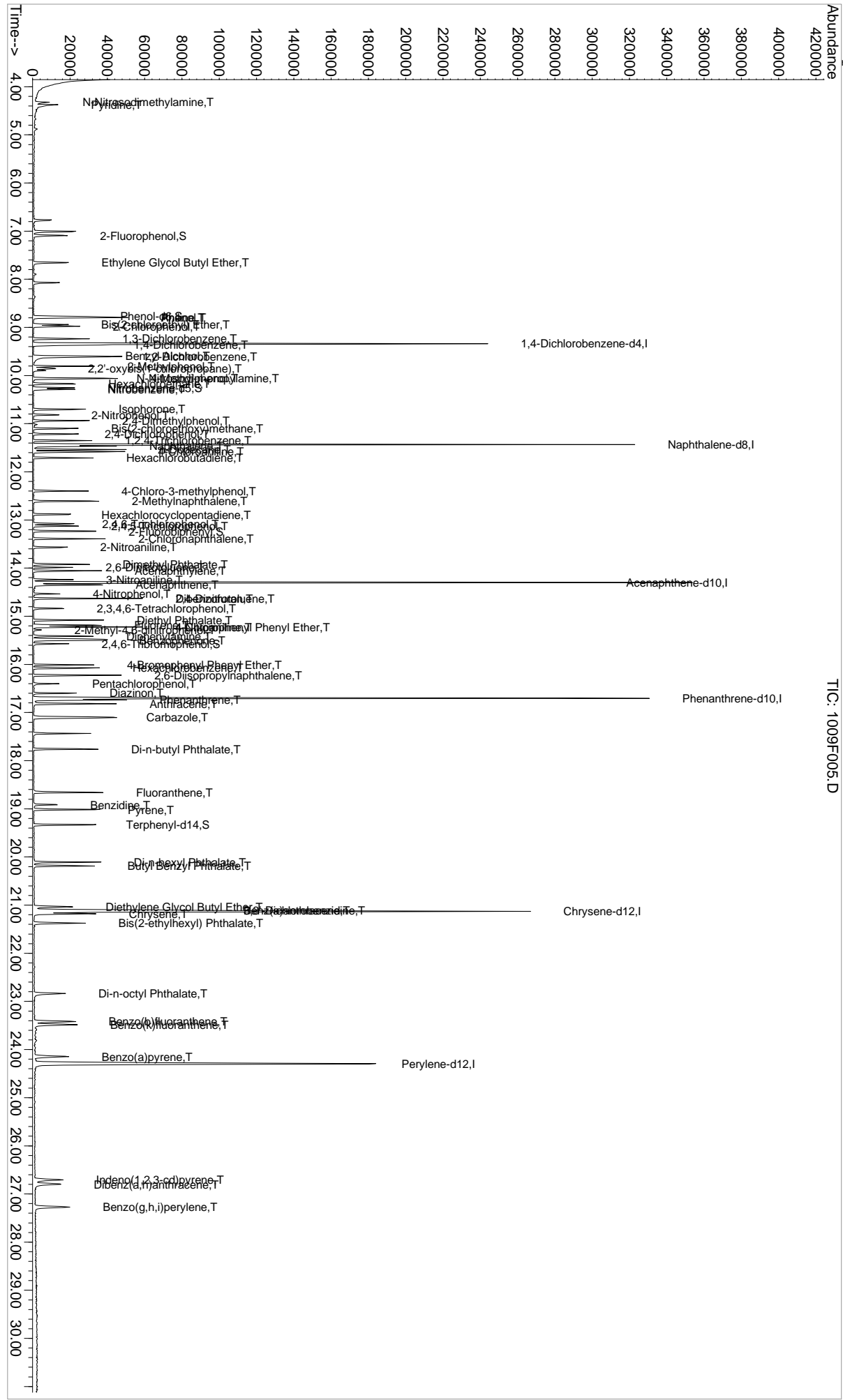
DataAcq Meth : 8270_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
45) 2,6-Dinitrotoluene	13.98	165	3027	4.15	ug/ml	85
46) Acenaphthene	14.35	154	11664	4.74	ug/ml	100
47) 3-Nitroaniline	14.24	138	3634	4.43	ug/ml	93
49) Dibenzofuran	14.63	168	19101	4.92	ug/ml	96
50) 4-Nitrophenol	14.54	109	1675	3.37	ug/ml	98
51) 2,4-Dinitrotoluene	14.63	165	3667	3.99	ug/ml#	62
52) 2,3,4,6-Tetrachlorophenol	14.84	232	3316	3.72	ug/ml	99
53) Fluorene	15.19	166	14624	5.15	ug/ml	98
54) 4-Chlorophenyl Phenyl Ethe	15.22	204	7710	5.00	ug/ml	98
55) Diethyl Phthalate	15.08	149	16734	5.65	ug/ml	98
56) 4-Nitroaniline	15.22	138	3655	4.50	ug/ml	97
57) 2-Methyl-4,6-dinitrophenol	15.28	198	674	1.19	ug/ml	60
58) Diphenylamine	15.42	169	10810	5.55	ug/ml	100
60) Benzophenone	15.50	105	18208	5.39	ug/ml	97
63) 4-Bromophenyl Phenyl Ether	16.01	248	5155	4.45	ug/ml	96
64) Hexachlorobenzene	16.07	284	7193	4.73	ug/ml	91
65) 2,6-Diisopropyl naphthalene	16.23	197	12271	4.52	ug/ml	98
66) Pentachlorophenol	16.40	266	2805	2.81	ug/ml	98
67) Diazinon	16.59	137	2668	4.82	ug/ml	96
68) Phenanthrene	16.74	178	21697	5.02	ug/ml	97
69) Anthracene	16.82	178	22348	4.96	ug/ml	99
70) Carbazole	17.10	167	20933	4.85	ug/ml	97
71) Di-n-butyl Phthalate	17.76	149	22949	4.31	ug/ml	98
72) Fluoranthene	18.66	202	20731	4.44	ug/ml	98
74) Benzidine	18.92	184	8581	5.24	ug/ml	99
75) Pyrene	19.02	202	21267	4.25	ug/ml	97
77) Di-n-hexyl Phthalate	20.10	149	23652	4.16	ug/ml	99
78) Butyl Benzyl Phthalate	20.19	149	9938	4.37	ug/ml	93
79) Diethylene Glycol Butyl Et	21.04	105	13057	3.73	ug/ml	97
80) 3,3'-Dichlorobenzidine	21.11	252	8102	4.02	ug/ml	99
81) Benz(a)anthracene	21.11	228	19101	4.79	ug/ml	99
82) Chrysene	21.18	228	19411	4.84	ug/ml	97
83) Bis(2-ethylhexyl) Phthalat	21.37	149	11964	4.08	ug/ml	98
85) Di-n-octyl Phthalate	22.84	149	17182	3.91	ug/ml	97
86) Benzo(b)fluoranthene	23.42	252	18370	4.22	ug/ml	97
87) Benzo(k)fluoranthene	23.48	252	18768	4.53	ug/ml	98
90) Benzo(a)pyrene	24.15	252	16624	4.27	ug/ml	98
91) Indeno(1,2,3-cd)pyrene	26.71	276	15368	3.87	ug/ml	93
92) Dibenz(a,h)anthracene	26.80	278	15418	3.86	ug/ml	98
93) Benzo(g,h,i)perylene	27.27	276	18135	4.42	ug/ml	97

Data File : J:\MS07\DATA\100919\1009F005.D
Acq On : 9 Oct 2019 2:56 pm
Sample : ICAL@5ppm | SVM-62-13D
Misc :
MS Integration Params: RTEINT.P
Quant Results File: 100919_BNP7.RES
Unit Time: Oct 10 9:29 2019

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
Last Update : Thu Oct 10 09:10:47 2019
Response via : Initial Calibration

Vial: 5
Operator: CCONOVER/LM
Inst: MS07
Multiplr: 1.00



Data File : J:\MS07\DATA\100919\1009F006.D
 Acq On : 9 Oct 2019 3:37 pm
 Sample : ICAL @7.5ppm | SVM-62-13E
 Misc :

Vial: 6
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 09:11:04 2019

Quant Results File: 100919_BNP7.RES

Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 09:10:47 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.34	152	49745	40.00	ug/ml	0.00
22) Naphthalene-d8	11.43	136	181152	40.00	ug/ml	-0.01
36) Acenaphthene-d10	14.30	164	96311	40.00	ug/ml	0.00
61) Phenanthrene-d10	16.70	188	162783	40.00	ug/ml	0.00
73) Chrysene-d12	21.13	240	152972	40.00	ug/ml	-0.01
84) Perylene-d12	24.30	264	154719	40.00	ug/ml	-0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
4) 2-Fluorophenol	7.09	112	11772	7.36	ug/ml	-0.03
Spiked Amount 150.000	Range 21	- 100	Recovery =	4.91%#		
8) Phenol-d6	8.78	99	14980	6.92	ug/ml	-0.03
Spiked Amount 150.000	Range 10	- 94	Recovery =	4.61%#		
20) Nitrobenzene-d5	10.25	82	12781	6.33	ug/ml	-0.02
Spiked Amount 100.000	Range 35	- 114	Recovery =	6.33%#		
40) 2-Fluorobiphenyl	13.23	172	23289	7.10	ug/ml	-0.01
Spiked Amount 100.000	Range 43	- 116	Recovery =	7.10%#		
62) 2,4,6-Tribromophenol	15.58	330	6165	6.02	ug/ml	-0.01
Spiked Amount 150.000	Range 10	- 123	Recovery =	4.01%#		
76) Terphenyl-d14	19.33	244	25319	5.78	ug/ml	0.00
Spiked Amount 100.000	Range 33	- 141	Recovery =	5.78%#		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-Nitrosodimethylamine	4.32	42	8431	7.26	ug/ml	93
3) Pyridine	4.37	79	13395	6.71	ug/ml	98
5) Ethylene Glycol Butyl Ethe	7.65	57	14409	7.13	ug/ml	97
6) Aniline	8.79	93	18418	7.37	ug/ml	54
7) Bis(2-chloroethyl) Ether	8.94	93	12943	7.29	ug/ml	98
9) Phenol	8.80	94	17760	7.18	ug/ml	84
10) 2-Chlorophenol	8.97	128	12540	7.16	ug/ml	97
11) 1,3-Dichlorobenzene	9.24	146	13243	7.32	ug/ml	99
12) 1,4-Dichlorobenzene	9.36	146	13831	7.40	ug/ml	99
13) 1,2-Dichlorobenzene	9.61	146	13000	7.50	ug/ml	98
14) Benzyl Alcohol	9.60	108	8064	6.96	ug/ml	95
15) 2,2'-oxybis(1-chloropropan	9.85	45	16569m	7.15	ug/ml	
16) 2-Methylphenol	9.81	107	9510	6.83	ug/ml	86
17) Hexachloroethane	10.17	117	6103	7.13	ug/ml	96
18) N-Nitrosodi-n-propylamine	10.06	70	8902	6.83	ug/ml	94
19) 4-Methylphenol	10.07	107	14128	6.45	ug/ml	98
21) Nitrobenzene	10.28	77	12468	6.50	ug/ml	97
23) Isophorone	10.70	82	23206	7.01	ug/ml	98
24) 2-Nitrophenol	10.82	139	5476	6.04	ug/ml	92
25) 2,4-Dimethylphenol	10.94	122	9837	7.11	ug/ml	97
26) Bis(2-chloroethoxy)methane	11.10	93	14783	7.25	ug/ml	98
27) 2,4-Dichlorophenol	11.22	162	9844	6.88	ug/ml	96
28) Benzoic Acid	11.04	122	2659	2.72	ug/ml	84
29) 1,2,4-Trichlorobenzene	11.35	180	10934	7.44	ug/ml	99
30) Naphthalene	11.46	128	32424	7.65	ug/ml	99
31) n-Dodecane	11.53	57	16489	8.37	ug/ml	99
32) 4-Chloroaniline	11.57	127	14960	7.60	ug/ml	98
33) Hexachlorobutadiene	11.71	225	6647	7.15	ug/ml	97
34) 4-Chloro-3-methylphenol	12.39	107	9276	6.55	ug/ml	96
35) 2-Methylnaphthalene	12.61	142	21526	7.40	ug/ml	98
37) Hexachlorocyclopentadiene	12.88	237	6704	6.07	ug/ml	99
38) 2,4,6-Trichlorophenol	13.08	196	6780	6.69	ug/ml	97
39) 2,4,5-Trichlorophenol	13.12	196	7244	6.56	ug/ml	94
41) 2-Chloronaphthalene	13.40	162	19967	7.27	ug/ml	96
42) 2-Nitroaniline	13.57	65	6256	6.58	ug/ml	98
43) Acenaphthylene	14.06	152	28957	7.16	ug/ml	99

Data File : J:\MS07\DATA\100919\1009F006.D
 Acq On : 9 Oct 2019 3:37 pm
 Sample : ICAL @7.5ppm | SVM-62-13E
 Misc :

Vial: 6
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 09:11:04 2019

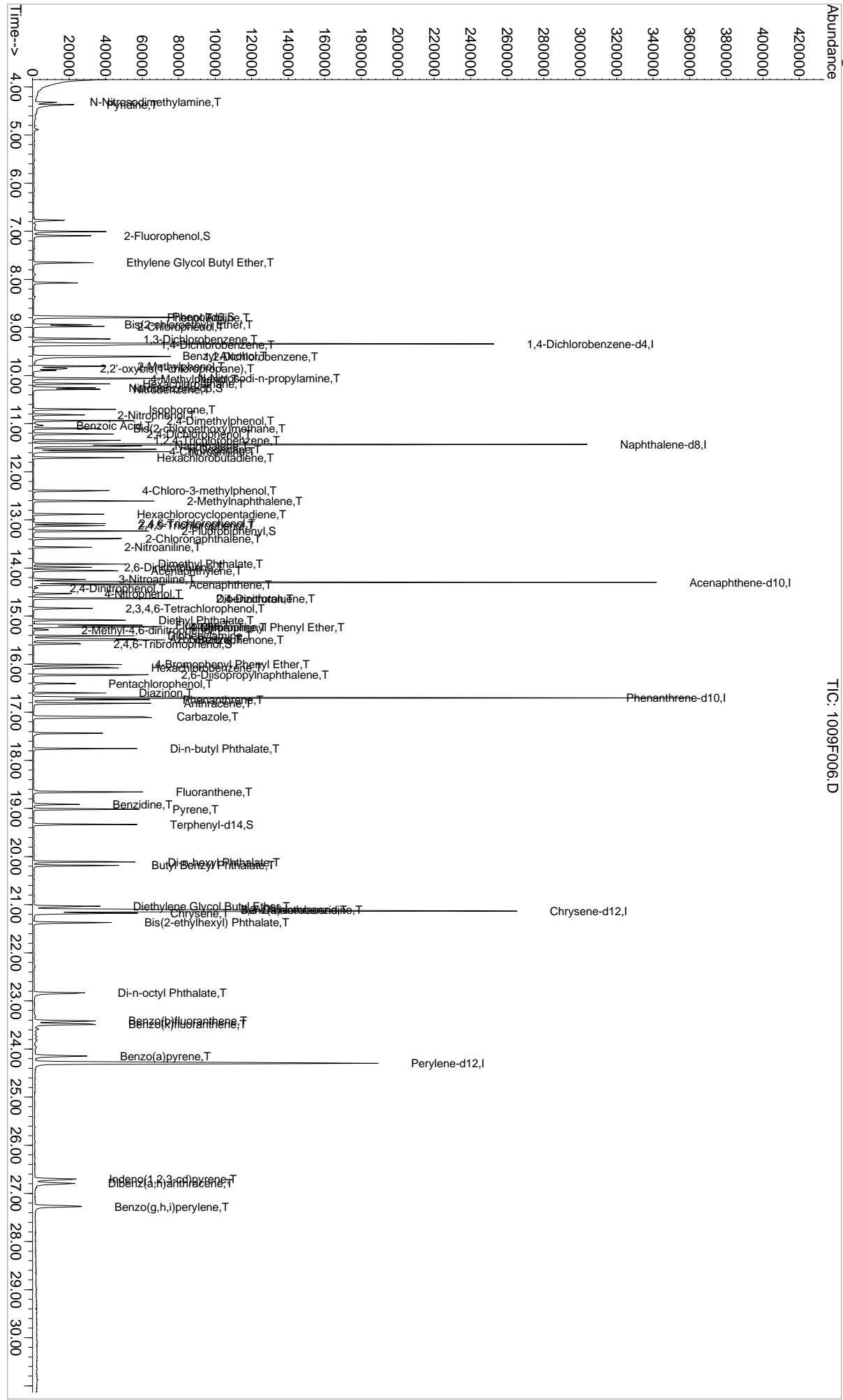
Quant Results File: 100919_BNP7.RES

Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 09:10:47 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44) Dimethyl Phthalate	13.92	163	22735	7.67	ug/ml	100
45) 2,6-Dinitrotoluene	13.99	165	4675	6.58	ug/ml	96
46) Acenaphthene	14.35	154	17375	7.24	ug/ml	99
47) 3-Nitroaniline	14.24	138	5481	6.85	ug/ml	97
48) 2,4-Dinitrophenol	14.42	184	441	1.14	ug/ml	92
49) Dibenzofuran	14.63	168	28730	7.59	ug/ml	97
50) 4-Nitrophenol	14.53	109	2977	6.15	ug/ml	89
51) 2,4-Dinitrotoluene	14.63	165	5852	6.53	ug/ml	89
52) 2,3,4,6-Tetrachlorophenol	14.84	232	5259	6.05	ug/ml	97
53) Fluorene	15.19	166	21224	7.66	ug/ml	98
54) 4-Chlorophenyl Phenyl Et	15.23	204	10959	7.29	ug/ml	94
55) Diethyl Phthalate	15.08	149	23831	8.25	ug/ml	99
56) 4-Nitroaniline	15.23	138	5670	7.16	ug/ml	91
57) 2-Methyl-4,6-dinitrophenol	15.29	198	1558	2.82	ug/ml	91
58) Diphenylamine	15.41	169	15667	8.24	ug/ml	99
59) Azobenzene	15.47	51	11707m	8.68	ug/ml	
60) Benzophenone	15.49	105	27120	8.23	ug/ml	96
63) 4-Bromophenyl Phenyl Ether	16.01	248	7732	6.91	ug/ml	95
64) Hexachlorobenzene	16.08	284	10549	7.19	ug/ml	99
65) 2,6-Diisopropyl naphthalene	16.22	197	18185	6.94	ug/ml	97
66) Pentachlorophenol	16.41	266	4850	5.03	ug/ml	99
67) Diazinon	16.60	137	3640	6.81	ug/ml	96
68) Phenanthrene	16.73	178	30599	7.34	ug/ml	99
69) Anthracene	16.81	178	31987	7.35	ug/ml	98
70) Carbazole	17.09	167	29981	7.19	ug/ml	97
71) Di-n-butyl Phthalate	17.76	149	33857	6.59	ug/ml	99
72) Fluoranthene	18.66	202	29759	6.61	ug/ml	98
74) Benzidine	18.91	184	12613	7.75	ug/ml	97
75) Pyrene	19.02	202	30154	6.07	ug/ml	99
77) Di-n-hexyl Phthalate	20.11	149	35485	6.28	ug/ml	98
78) Butyl Benzyl Phthalate	20.18	149	15051	6.66	ug/ml	99
79) Diethylene Glycol Butyl Et	21.03	105	21437	6.16	ug/ml	97
80) 3,3'-Dichlorobenzidine	21.10	252	12257	6.12	ug/ml	98
81) Benz(a)anthracene	21.10	228	27725	6.99	ug/ml	99
82) Chrysene	21.18	228	29957	7.52	ug/ml	99
83) Bis(2-ethylhexyl) Phthalat	21.37	149	18654	6.40	ug/ml	99
85) Di-n-octyl Phthalate	22.83	149	27246	6.37	ug/ml	93
86) Benzo(b)fluoranthene	23.42	252	26547	6.25	ug/ml	99
87) Benzo(k)fluoranthene	23.49	252	28175	6.98	ug/ml	96
90) Benzo(a)pyrene	24.14	252	24809	6.54	ug/ml	98
91) Indeno(1,2,3-cd)pyrene	26.70	276	23004	5.94	ug/ml	96
92) Dibenz(a,h)anthracene	26.79	278	23521	6.04	ug/ml	98
93) Benzo(g,h,i)perylene	27.28	276	27007	6.76	ug/ml	96

Data File : J:\MS07\DATA\100919\1009F006.D
Acq On : 9 Oct 2019 3:37 pm
Sample : ICAL @7.5ppm | SVM-62-13E
Misc :
MS Integration Params: RTEINT.P
Quant Results File: 100919_BNP7.RES
Vial: 6
Operator: CCONOVER/LM
Inst: MS07
Multiplr: 1.00

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Oct 10 09:10:47 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS07\DATA\100919\1009F006.D

Vial: 6

Acq On : 9 Oct 2019 3:37 pm

Operator: CCONOVER/LM

Sample : ICAL @7.5ppm | SVM-62-13E

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:16 2019

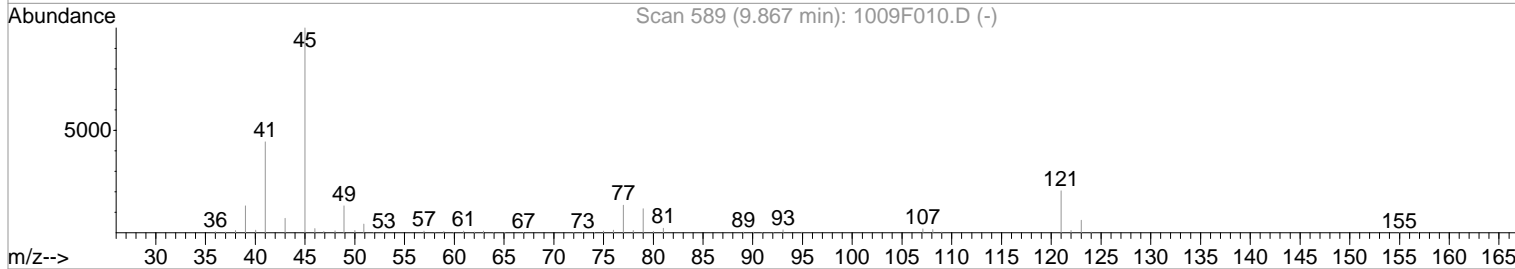
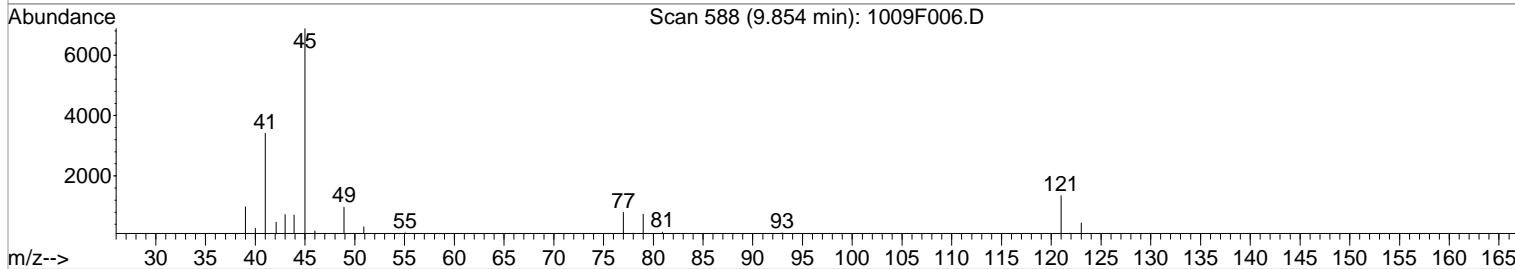
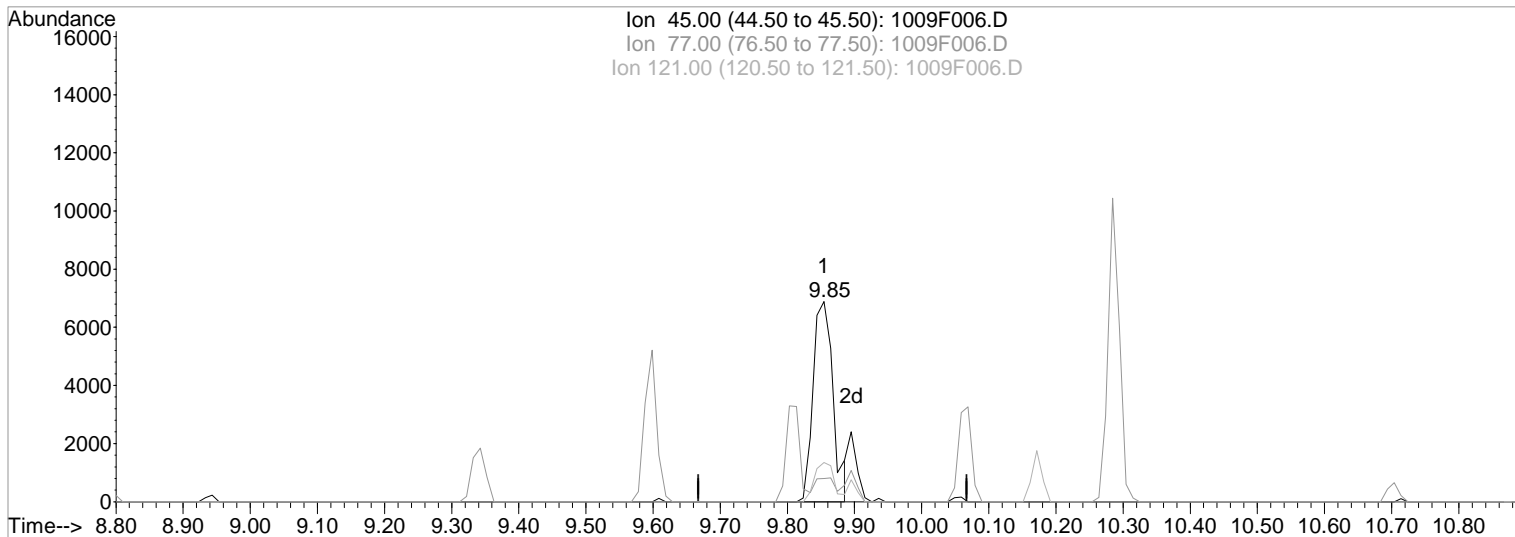
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F006.D

(15) 2,2'-oxybis(1-chloropropane) (T)

Manual Integration:

9.85min 6.19ug/ml

Before

response 14334

Ion	Exp%	Act%
45.00	100	100
77.00	13.60	0.00
121.00	20.40	19.89
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F006.D
 Acq On : 9 Oct 2019 3:37 pm
 Sample : ICAL @7.5ppm | SVM-62-13E
 Misc :

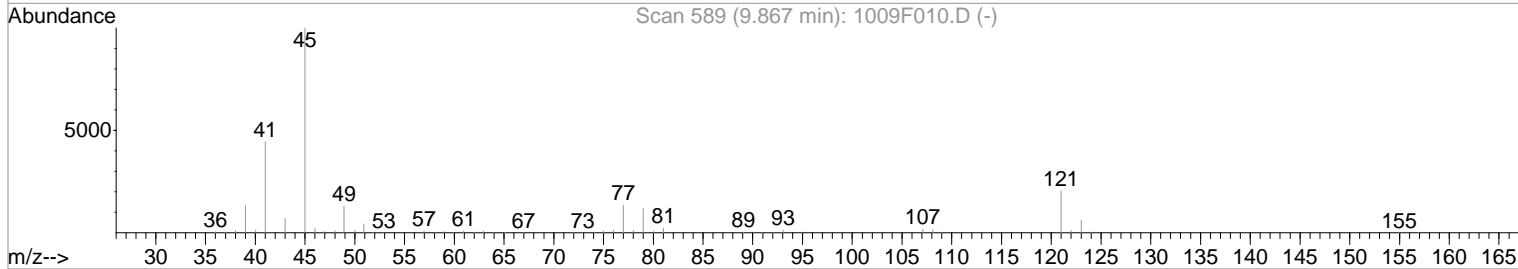
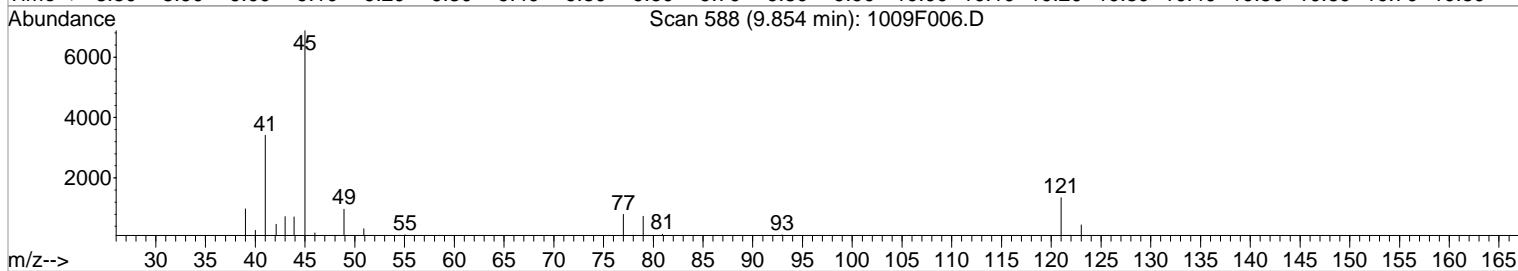
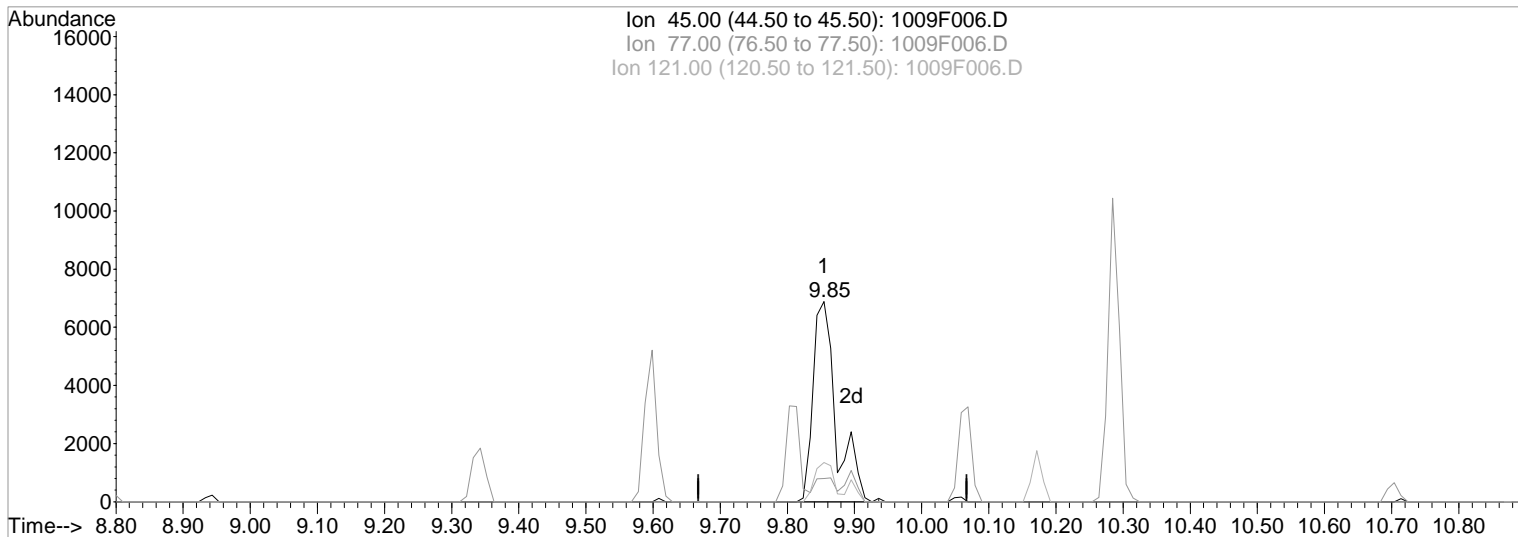
Vial: 6
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:30 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 09:10:47 2019
 Response via : Multiple Level Calibration



TIC: 1009F006.D

(15) 2,2'-oxybis(1-chloropropane) (T)

Manual Integration:

9.85min 7.15ug/ml m

After

response 16569

IC - incomplete

Ion	Exp%	Act%
45.00	100	100
77.00	13.60	11.61
121.00	20.40	19.62
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F006.D

Vial: 6

Acq On : 9 Oct 2019 3:37 pm

Operator: CCONOVER/LM

Sample : ICAL @7.5ppm | SVM-62-13E

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:30 2019

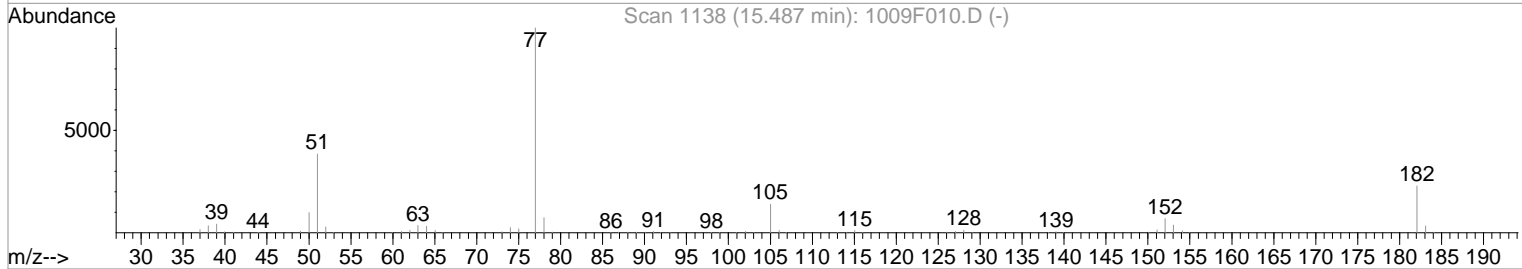
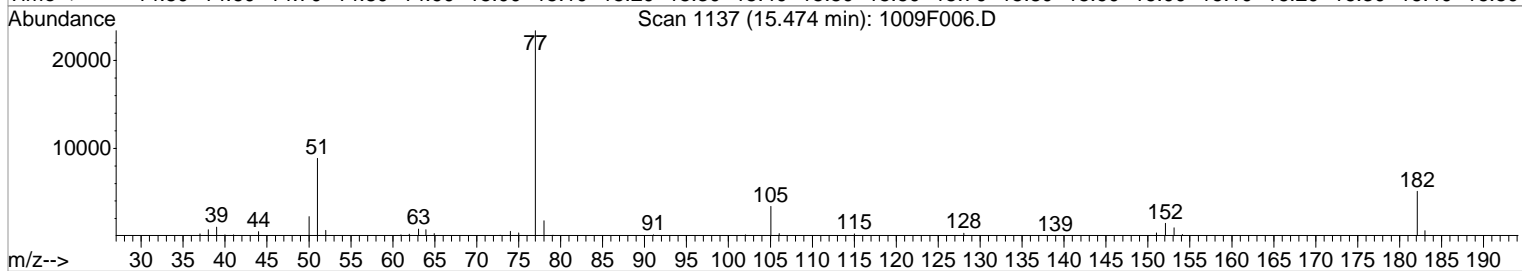
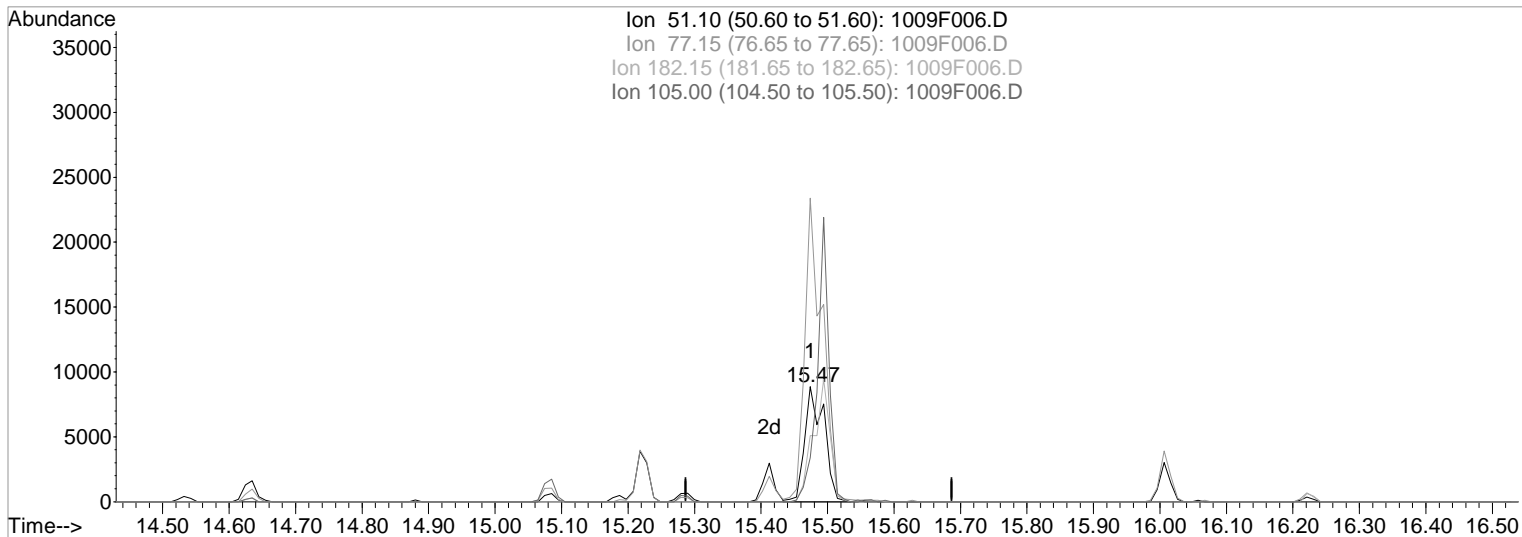
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F006.D

(59) Azobenzene (T)

Manual Integration:

15.47min 13.27ug/ml

Before

response 17899

Ion Exp% Act%

10/10/19

51.10 100 100

77.15 260.40 263.70

182.15 59.10 57.87

105.00 36.00 38.48

Data File : J:\MS07\DATA\100919\1009F006.D
 Acq On : 9 Oct 2019 3:37 pm
 Sample : ICAL @7.5ppm | SVM-62-13E
 Misc :

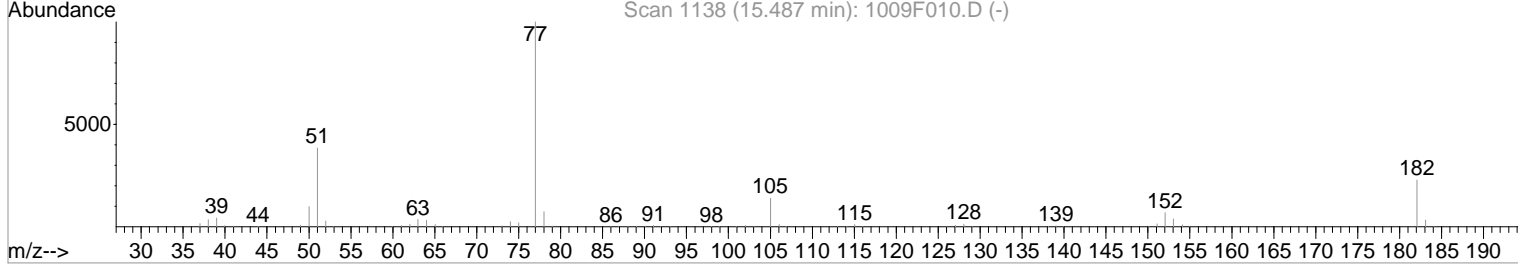
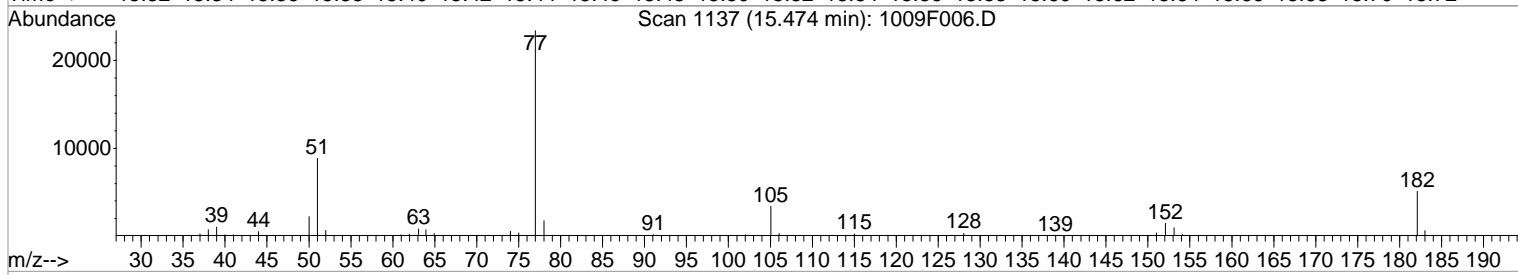
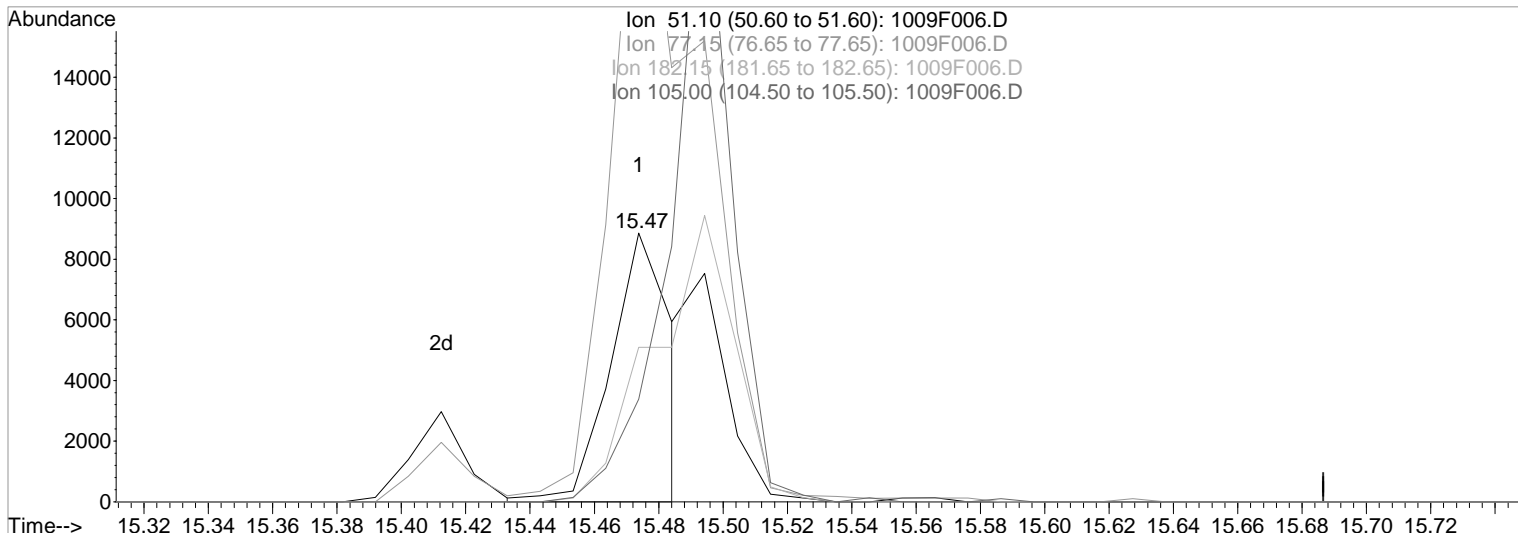
Vial: 6
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:32 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 09:10:47 2019
 Response via : Multiple Level Calibration



TIC: 1009F006.D

(59) Azobenzene (T)

Manual Integration:

15.47min 8.68ug/ml m

After

response 11707

IC - overintegrated

Ion Exp% Act%

10/10/19

51.10 100 100

77.15 260.40 263.90

182.15 59.10 57.47

105.00 36.00 38.21

Data File : J:\MS07\DATA\100919\1009F007.D

Vial: 7

Acq On : 9 Oct 2019 4:19 pm

Operator: CCONOVER/LM

Sample : ICAL @10ppm | SVM-62-13F

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 09:11:05 2019

Quant Results File: 100919_BNP7.RES

Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Initial Calibration

DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.34	152	50332	40.00	ug/ml	0.00
22) Naphthalene-d8	11.43	136	190709	40.00	ug/ml	-0.01
36) Acenaphthene-d10	14.30	164	111117	40.00	ug/ml	0.00
61) Phenanthrene-d10	16.70	188	187258	40.00	ug/ml	0.00
73) Chrysene-d12	21.13	240	150145	40.00	ug/ml	-0.01
84) Perylene-d12	24.30	264	156725	40.00	ug/ml	-0.01

System Monitoring Compounds

4) 2-Fluorophenol	7.09	112	15101	9.33	ug/ml	-0.03
Spiked Amount	150.000	Range	21 - 100	Recovery	=	6.22%#
8) Phenol-d6	8.78	99	20616	9.41	ug/ml	-0.03
Spiked Amount	150.000	Range	10 - 94	Recovery	=	6.27%#
20) Nitrobenzene-d5	10.25	82	17674	8.65	ug/ml	-0.02
Spiked Amount	100.000	Range	35 - 114	Recovery	=	8.65%#
40) 2-Fluorobiphenyl	13.23	172	34589	9.14	ug/ml	-0.01
Spiked Amount	100.000	Range	43 - 116	Recovery	=	9.14%#
62) 2,4,6-Tribromophenol	15.58	330	10272	8.72	ug/ml	-0.01
Spiked Amount	150.000	Range	10 - 123	Recovery	=	5.81%#
76) Terphenyl-d14	19.33	244	35890	8.35	ug/ml	0.00
Spiked Amount	100.000	Range	33 - 141	Recovery	=	8.35%#

Target Compounds

						Qvalue
2) N-Nitrosodimethylamine	4.31	42	10527	8.95	ug/ml	96
3) Pyridine	4.36	79	19649	9.73	ug/ml	97
5) Ethylene Glycol Butyl Ethe	7.65	57	19014	9.29	ug/ml	98
6) Aniline	8.79	93	24919	9.86	ug/ml	56
7) Bis(2-chloroethyl) Ether	8.94	93	17532	9.76	ug/ml	98
9) Phenol	8.80	94	23526	9.41	ug/ml	88
10) 2-Chlorophenol	8.97	128	16588	9.36	ug/ml	99
11) 1,3-Dichlorobenzene	9.24	146	17428	9.52	ug/ml	95
12) 1,4-Dichlorobenzene	9.36	146	18043	9.54	ug/ml	94
13) 1,2-Dichlorobenzene	9.61	146	16946	9.66	ug/ml	99
14) Benzyl Alcohol	9.60	108	10700	9.12	ug/ml	97
15) 2,2'-oxybis(1-chloropropan	9.84	45	22748m	9.70	ug/ml	
16) 2-Methylphenol	9.81	107	13015	9.23	ug/ml	88
17) Hexachloroethane	10.17	117	8153	9.42	ug/ml	100
18) N-Nitrosodi-n-propylamine	10.06	70	12046	9.13	ug/ml	95
19) 4-Methylphenol	10.07	107	19791	8.93	ug/ml	98
21) Nitrobenzene	10.28	77	17814	9.17	ug/ml	98
23) Isophorone	10.70	82	33237	9.53	ug/ml	98
24) 2-Nitrophenol	10.82	139	8050	8.43	ug/ml	91
25) 2,4-Dimethylphenol	10.94	122	13638	9.37	ug/ml	97
26) Bis(2-chloroethoxy)methane	11.10	93	20181	9.41	ug/ml	97
27) 2,4-Dichlorophenol	11.21	162	13945	9.25	ug/ml	97
28) Benzoic Acid	11.06	122	5208	5.06	ug/ml	91
29) 1,2,4-Trichlorobenzene	11.35	180	14867	9.60	ug/ml	97
30) Naphthalene	11.47	128	45496	10.20	ug/ml	99
31) n-Dodecane	11.53	57	21969	10.60	ug/ml	99
32) 4-Chloroaniline	11.57	127	21054	10.16	ug/ml	98
33) Hexachlorobutadiene	11.71	225	9096	9.30	ug/ml	99
34) 4-Chloro-3-methylphenol	12.39	107	14397	9.65	ug/ml	97
35) 2-Methylnaphthalene	12.61	142	30187	9.86	ug/ml	100
37) Hexachlorocyclopentadiene	12.88	237	9495	7.45	ug/ml	98
38) 2,4,6-Trichlorophenol	13.08	196	10032	8.57	ug/ml	98
39) 2,4,5-Trichlorophenol	13.12	196	11702	9.19	ug/ml	94
41) 2-Chloronaphthalene	13.40	162	29292	9.24	ug/ml	96
42) 2-Nitroaniline	13.57	65	10412	9.49	ug/ml	94
43) Acenaphthylene	14.06	152	44283	9.50	ug/ml	98

(#)= qualifier out of range (m) = manual integration

Data File : J:\MS07\DATA\100919\1009F007.D
 Acq On : 9 Oct 2019 4:19 pm
 Sample : ICAL @10ppm | SVM-62-13F
 Misc :

Vial: 7
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 09:11:05 2019

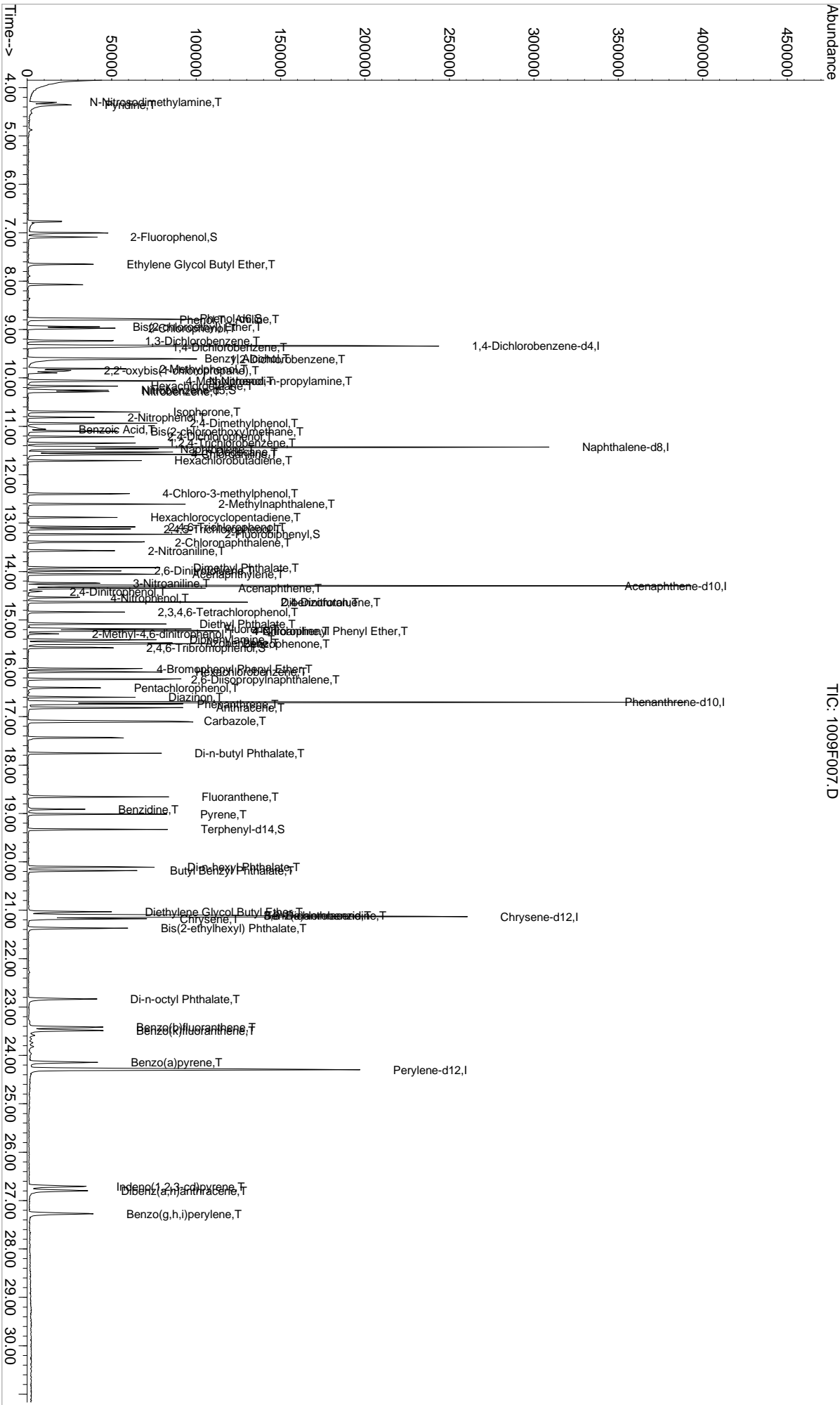
Quant Results File: 100919_BNP7.RES

Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 09:10:47 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44) Dimethyl Phthalate	13.92	163	35050	10.25	ug/ml	99
45) 2,6-Dinitrotoluene	13.99	165	7509	9.16	ug/ml	91
46) Acenaphthene	14.35	154	27084	9.78	ug/ml	100
47) 3-Nitroaniline	14.24	138	8645	9.36	ug/ml	96
48) 2,4-Dinitrophenol	14.42	184	1127	2.52	ug/ml	94
49) Dibenzofuran	14.63	168	43797	10.03	ug/ml	99
50) 4-Nitrophenol	14.54	109	4614	8.26	ug/ml	91
51) 2,4-Dinitrotoluene	14.63	165	9693	9.37	ug/ml	91
52) 2,3,4,6-Tetrachlorophenol	14.84	232	9192	9.17	ug/ml	99
53) Fluorene	15.19	166	33489	10.48	ug/ml	100
54) 4-Chlorophenyl Phenyl EtHe	15.23	204	17415	10.05	ug/ml	93
55) Diethyl Phthalate	15.08	149	36672	11.00	ug/ml	99
56) 4-Nitroaniline	15.23	138	8686	9.50	ug/ml	97
57) 2-Methyl-4,6-dinitrophenol	15.29	198	3327	5.22	ug/ml	94
58) Diphenylamine	15.41	169	23946	10.92	ug/ml	97
59) Azobenzene	15.47	51	17373m	11.17	ug/ml	
60) Benzophenone	15.49	105	41462	10.91	ug/ml	98
63) 4-Bromophenyl Phenyl Ether	16.02	248	11869	9.22	ug/ml	92
64) Hexachlorobenzene	16.08	284	16140	9.56	ug/ml	99
65) 2,6-Diisopropyl naphthalene	16.23	197	27089	8.98	ug/ml	100
66) Pentachlorophenol	16.40	266	7624	6.87	ug/ml	94
67) Diazinon	16.60	137	5707	9.28	ug/ml	97
68) Phenanthrene	16.74	178	46810	9.76	ug/ml	99
69) Anthracene	16.81	178	48897	9.77	ug/ml	99
70) Carbazole	17.09	167	42098	8.78	ug/ml	99
71) Di-n-butyl Phthalate	17.76	149	46457	7.86	ug/ml	99
72) Fluoranthene	18.66	202	41465	8.00	ug/ml	97
74) Benzidine	18.91	184	17204	10.77	ug/ml	99
75) Pyrene	19.01	202	41762	8.56	ug/ml	99
77) Di-n-hexyl Phthalate	20.11	149	48423	8.73	ug/ml	99
78) Butyl Benzyl Phthalate	20.18	149	20653	9.31	ug/ml	95
79) Diethylene Glycol Butyl Et	21.03	105	29050	8.50	ug/ml	97
80) 3,3'-Dichlorobenzidine	21.10	252	16011	8.14	ug/ml	98
81) Benz(a)anthracene	21.10	228	36321	9.33	ug/ml	98
82) Chrysene	21.17	228	38528	9.85	ug/ml	99
83) Bis(2-ethylhexyl) Phthalat	21.37	149	25835	9.04	ug/ml	97
85) Di-n-octyl Phthalate	22.83	149	38306	8.84	ug/ml	93
86) Benzo(b)fluoranthene	23.42	252	34250	7.96	ug/ml	98
87) Benzo(k)fluoranthene	23.49	252	36421	8.91	ug/ml	98
90) Benzo(a)pyrene	24.14	252	32667	8.50	ug/ml	96
91) Indeno(1,2,3-cd)pyrene	26.71	276	33642	8.57	ug/ml	100
92) Dibenz(a,h)anthracene	26.79	278	34418	8.72	ug/ml	99
93) Benzo(g,h,i)perylene	27.27	276	38461	9.51	ug/ml	99

Data File : J:\MS07\DATA\100919\1009F007.D
Acq On : 9 Oct 2019 4:19 pm
Sample : ICAL @10ppm | SVM-62-13F
Misc :
MS Integration Params: RTEINT.P
Quant Results File: 100919_BNP7.RES
Vial: 7
Operator: CCONOVER/LM
Inst: MS07
Multiplr: 1.00

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Oct 10 09:10:47 2019
Response via : Initial Calibration



Data File : J:\MS07\DATA\100919\1009F007.D
 Acq On : 9 Oct 2019 4:19 pm
 Sample : ICAL @10ppm | SVM-62-13F
 Misc :

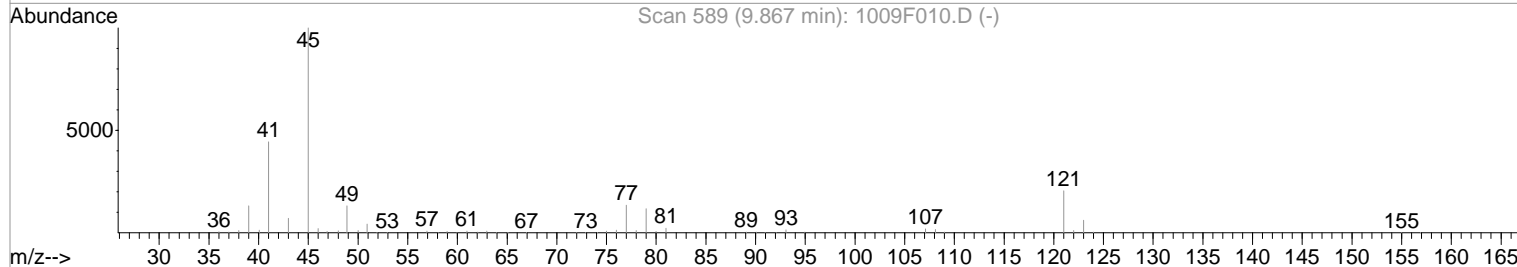
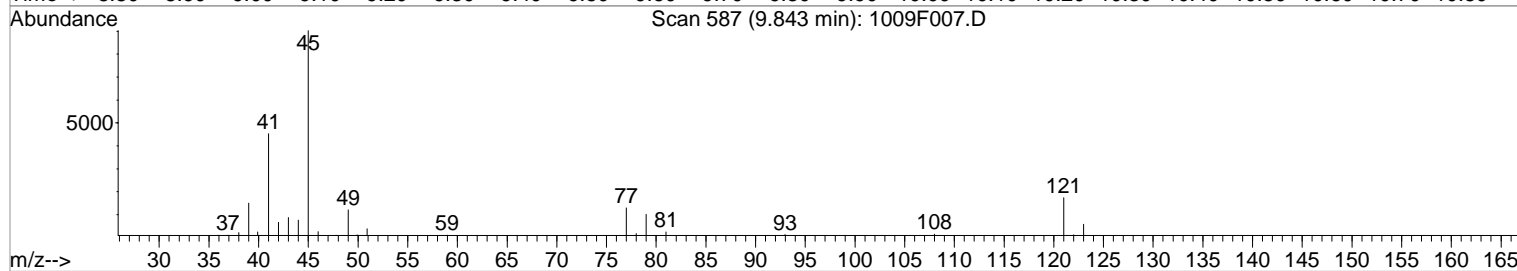
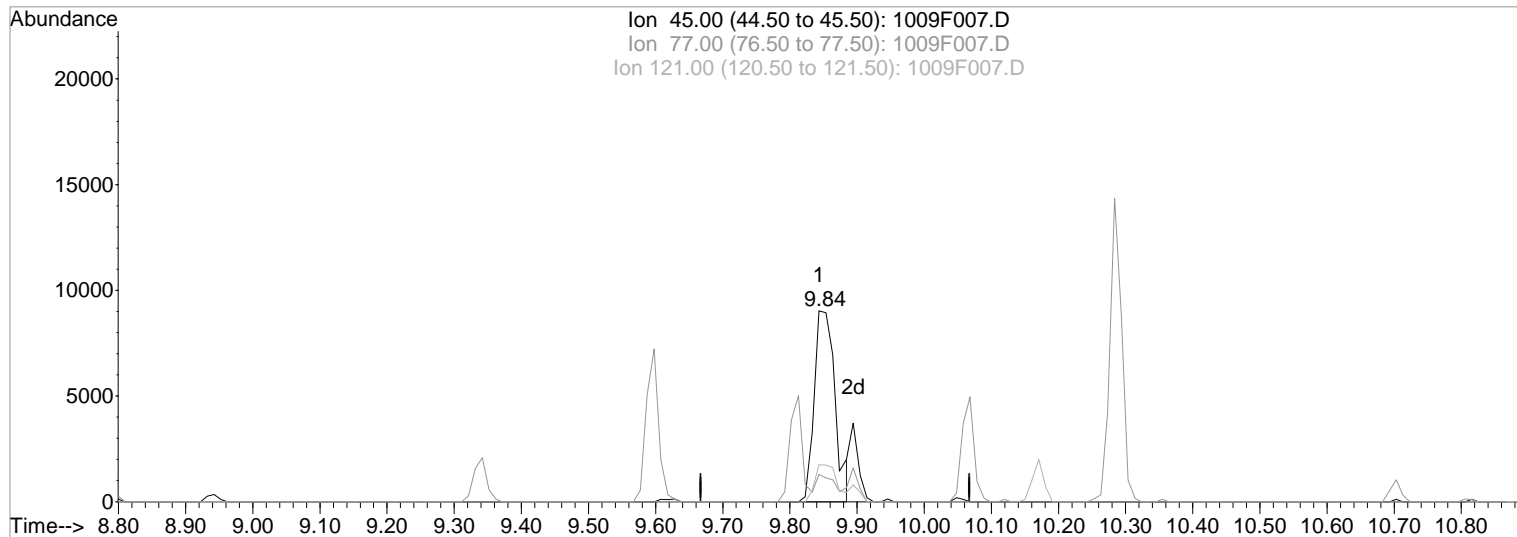
Vial: 7
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:16 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 09:10:47 2019
 Response via : Multiple Level Calibration



TIC: 1009F007.D

(15) 2,2'-oxybis(1-chloropropane) (T)

Manual Integration:

9.84min 8.35ug/ml

Before

response 19581

Ion	Exp%	Act%
45.00	100	100
77.00	13.60	0.00
121.00	20.40	18.95
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F007.D

Vial: 7

Acq On : 9 Oct 2019 4:19 pm

Operator: CCONOVER/LM

Sample : ICAL @10ppm | SVM-62-13F

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:34 2019

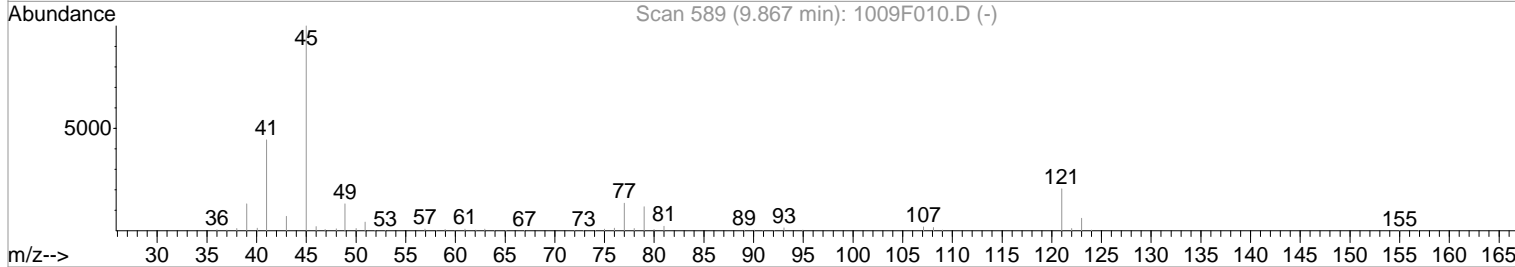
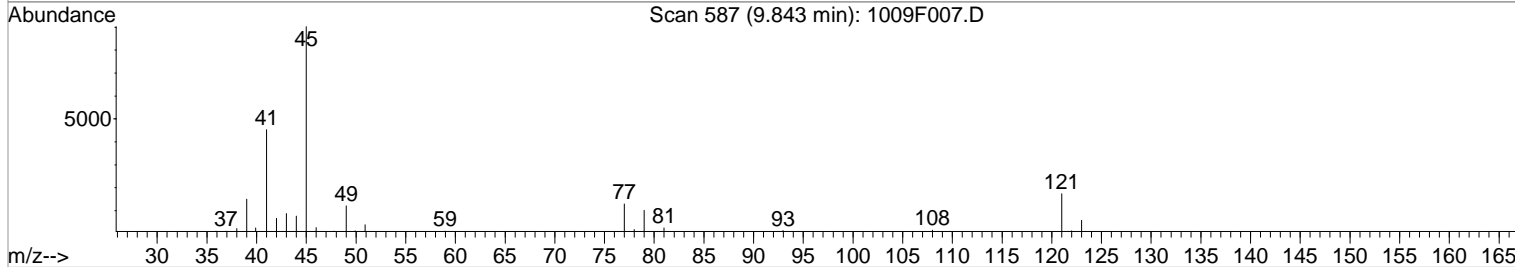
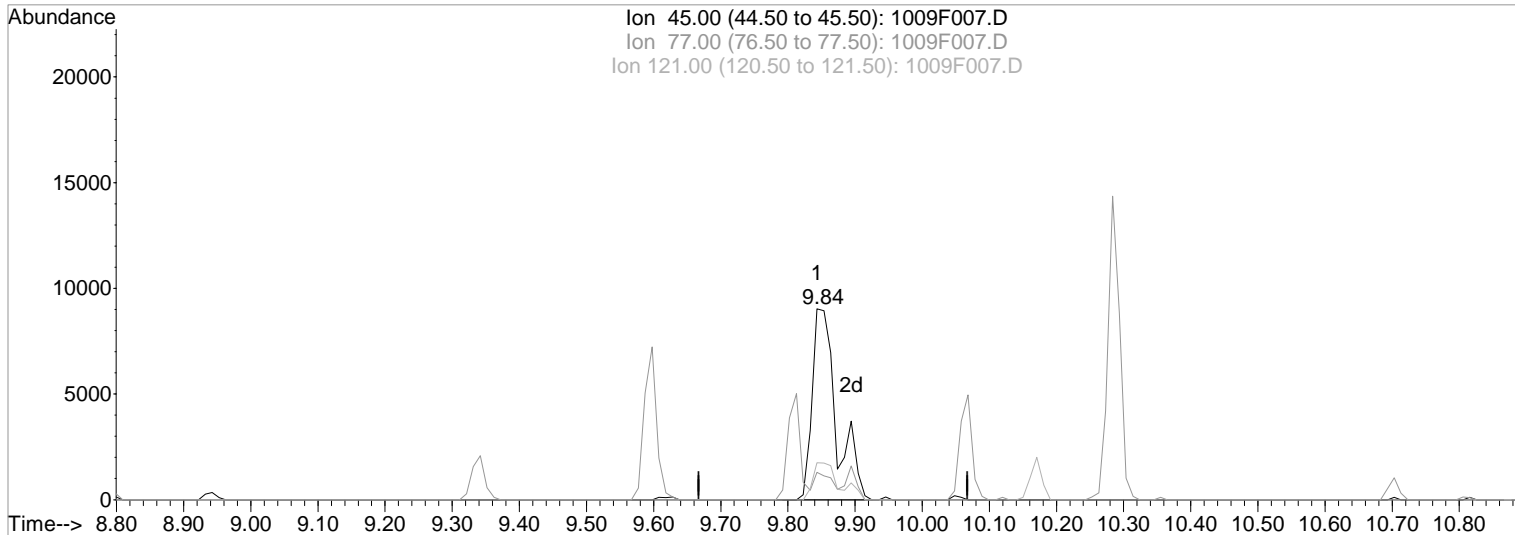
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F007.D

(15) 2,2'-oxybis(1-chloropropane) (T)

Manual Integration:

9.84min 9.70ug/ml m

After

response 22748

IC - incomplete

Ion	Exp%	Act%
45.00	100	100
77.00	13.60	14.38
121.00	20.40	19.31
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F007.D

Vial: 7

Acq On : 9 Oct 2019 4:19 pm

Operator: CCONOVER/LM

Sample : ICAL @10ppm | SVM-62-13F

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:34 2019

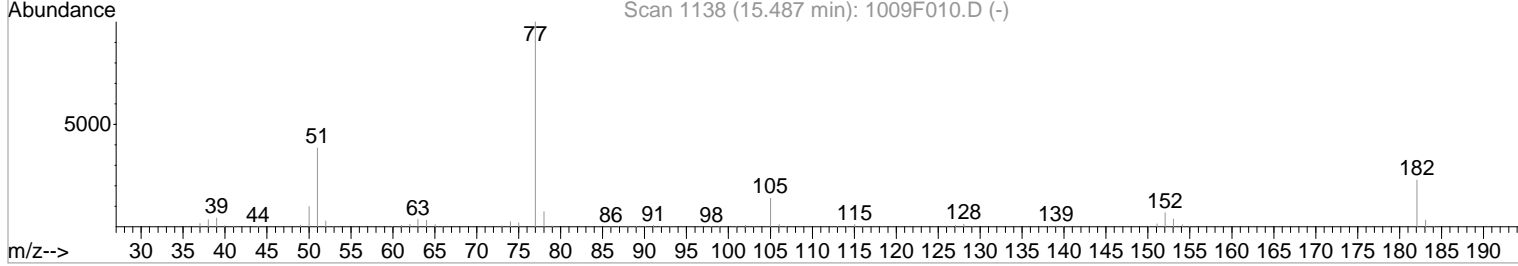
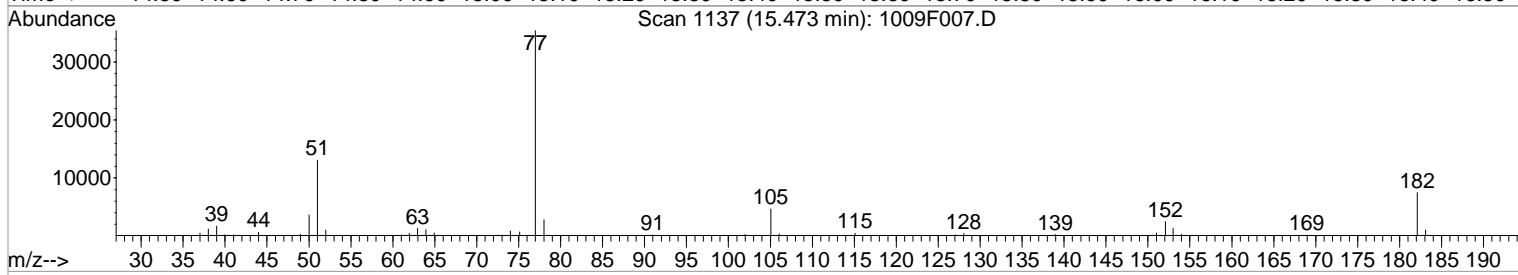
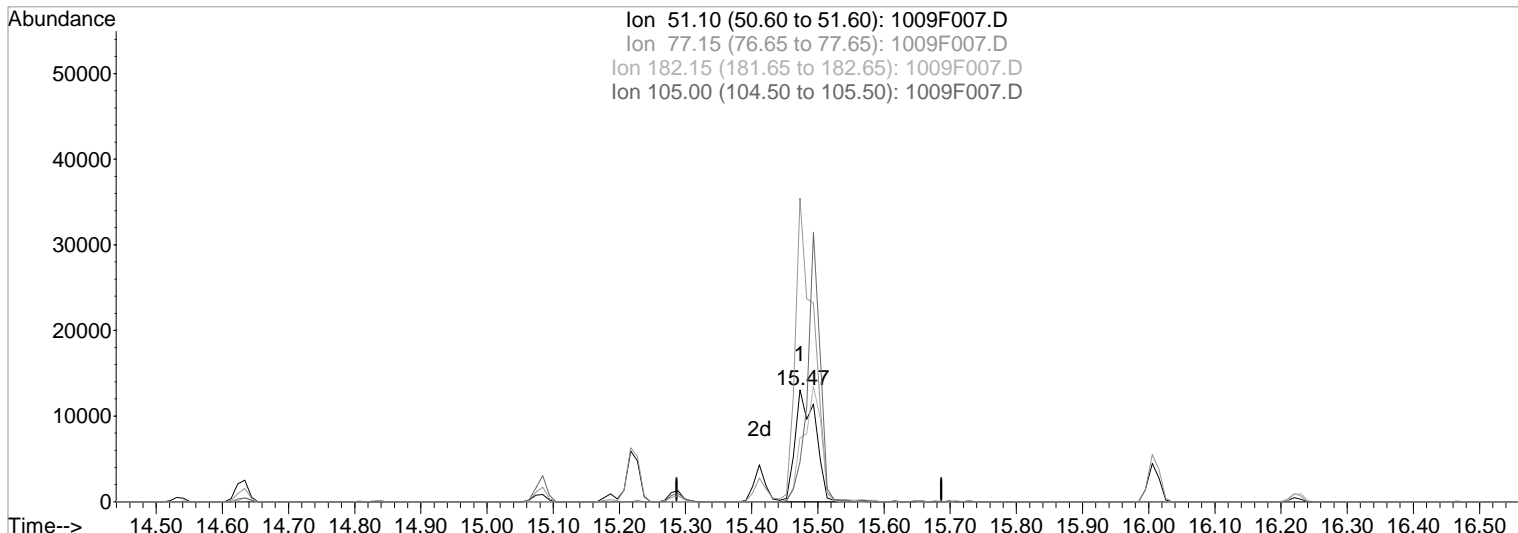
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F007.D

Retention Time (min)	Response	Exp%	Act%	Manual Integration
(59) Azobenzene (T)				
15.47min	27866	100	100	Before
77.15	260.40	271.20		
182.15	59.10	57.45		
105.00	36.00	36.00		

Data File : J:\MS07\DATA\100919\1009F007.D

Vial: 7

Acq On : 9 Oct 2019 4:19 pm

Operator: CCONOVER/LM

Sample : ICAL @10ppm | SVM-62-13F

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:37 2019

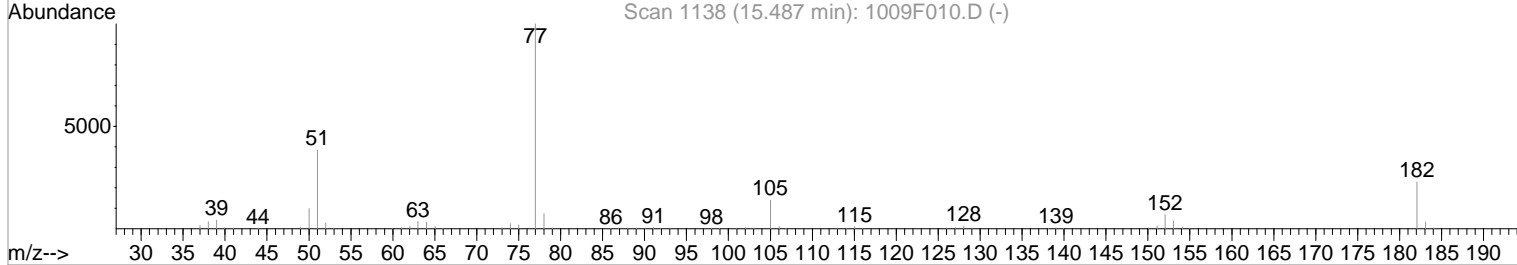
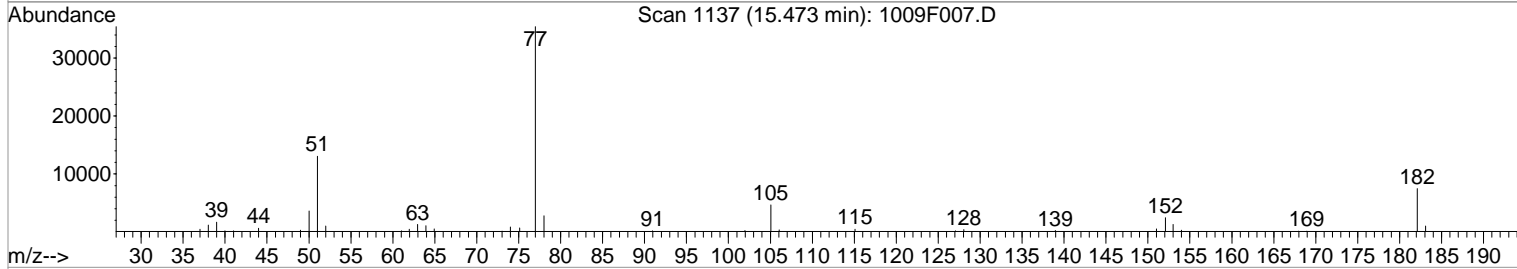
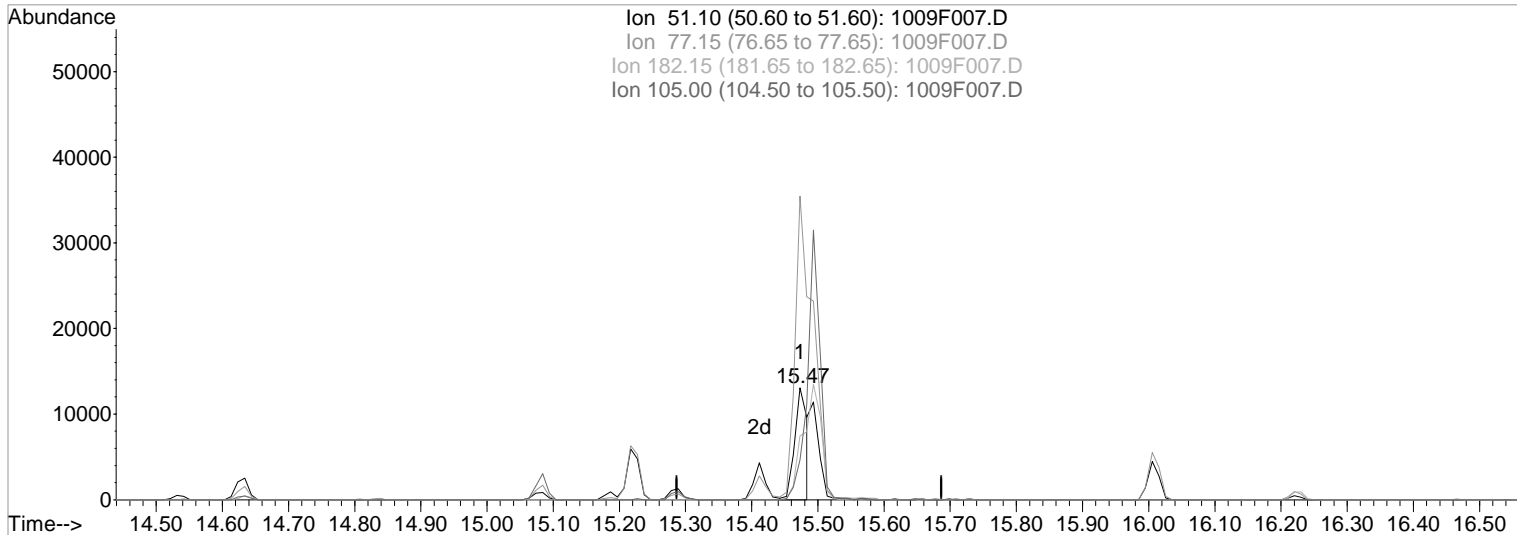
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F007.D

(59) Azobenzene (T)

Manual Integration:

15.47min 11.17ug/ml m

After

response 17373

IC - overintegrated

Ion Exp% Act%

10/10/19

51.10 100 100

77.15 260.40 271.22

182.15 59.10 57.05

105.00 36.00 35.75

Data File : J:\MS07\DATA\100919\1009F008.D
 Acq On : 9 Oct 2019 5:00 pm
 Sample : ICAL @20ppm | SVM-62-13G
 Misc :

Vial: 8
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 09:11:06 2019

Quant Results File: 100919_BNP7.RES

Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 09:10:47 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.34	152	51591	40.00	ug/ml	0.00
22) Naphthalene-d8	11.44	136	192700	40.00	ug/ml	0.00
36) Acenaphthene-d10	14.30	164	112241	40.00	ug/ml	0.00
61) Phenanthrene-d10	16.70	188	181517	40.00	ug/ml	0.00
73) Chrysene-d12	21.13	240	149653	40.00	ug/ml	-0.01
84) Perylene-d12	24.30	264	146886	40.00	ug/ml	-0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
4) 2-Fluorophenol	7.10	112	31635	19.06	ug/ml	-0.02
Spiked Amount	150.000	Range	21 - 100	Recovery	=	12.71%#
8) Phenol-d6	8.78	99	42253	18.81	ug/ml	-0.03
Spiked Amount	150.000	Range	10 - 94	Recovery	=	12.54%
20) Nitrobenzene-d5	10.25	82	37549	17.92	ug/ml	-0.02
Spiked Amount	100.000	Range	35 - 114	Recovery	=	17.92%#
40) 2-Fluorobiphenyl	13.23	172	71446	18.70	ug/ml	-0.01
Spiked Amount	100.000	Range	43 - 116	Recovery	=	18.70%#
62) 2,4,6-Tribromophenol	15.58	330	21504	18.84	ug/ml	-0.01
Spiked Amount	150.000	Range	10 - 123	Recovery	=	12.56%
76) Terphenyl-d14	19.33	244	72556	16.93	ug/ml	0.00
Spiked Amount	100.000	Range	33 - 141	Recovery	=	16.93%#

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-Nitrosodimethylamine	4.31	42	23257	19.30	ug/ml	98
3) Pyridine	4.35	79	36179	17.47	ug/ml	99
5) Ethylene Glycol Butyl Ethe	7.65	57	39686	18.93	ug/ml	100
6) Aniline	8.79	93	51508	19.88	ug/ml	75
7) Bis(2-chloroethyl) Ether	8.94	93	34854	18.94	ug/ml	97
9) Phenol	8.80	94	48267	18.83	ug/ml	74
10) 2-Chlorophenol	8.97	128	33559	18.48	ug/ml	98
11) 1,3-Dichlorobenzene	9.24	146	36243	19.32	ug/ml	99
12) 1,4-Dichlorobenzene	9.36	146	37036	19.10	ug/ml	98
13) 1,2-Dichlorobenzene	9.61	146	35699	19.85	ug/ml	97
14) Benzyl Alcohol	9.60	108	22445	18.67	ug/ml	97
15) 2,2'-oxybis(1-chloropropan	9.85	45	46500m	19.35	ug/ml	
16) 2-Methylphenol	9.81	107	26589	18.40	ug/ml	89
17) Hexachloroethane	10.17	117	16661	18.78	ug/ml	98
18) N-Nitrosodi-n-propylamine	10.06	70	25284	18.69	ug/ml	96
19) 4-Methylphenol	10.07	107	41506	18.28	ug/ml	98
21) Nitrobenzene	10.28	77	37158	18.66	ug/ml	95
23) Isophorone	10.70	82	67631	19.20	ug/ml	100
24) 2-Nitrophenol	10.82	139	17200	17.82	ug/ml	87
25) 2,4-Dimethylphenol	10.95	122	29057	19.75	ug/ml	95
26) Bis(2-chloroethoxy)methane	11.10	93	42124	19.43	ug/ml	100
27) 2,4-Dichlorophenol	11.23	162	28937	19.00	ug/ml	92
28) Benzoic Acid	11.10	122	14474	13.92	ug/ml	99
29) 1,2,4-Trichlorobenzene	11.35	180	30455	19.47	ug/ml	98
30) Naphthalene	11.47	128	91976	20.40	ug/ml	98
31) n-Dodecane	11.53	57	44709	21.34	ug/ml	99
32) 4-Chloroaniline	11.58	127	44528	21.27	ug/ml	96
33) Hexachlorobutadiene	11.71	225	18737	18.95	ug/ml	98
34) 4-Chloro-3-methylphenol	12.40	107	30885	20.49	ug/ml	96
35) 2-Methylnaphthalene	12.61	142	63484	20.53	ug/ml	100
37) Hexachlorocyclopentadiene	12.88	237	20638	16.03	ug/ml	98
38) 2,4,6-Trichlorophenol	13.08	196	22098	18.70	ug/ml	98
39) 2,4,5-Trichlorophenol	13.13	196	24587	19.12	ug/ml	99
41) 2-Chloronaphthalene	13.40	162	59961	18.73	ug/ml	96
42) 2-Nitroaniline	13.57	65	21678	19.56	ug/ml	90
43) Acenaphthylene	14.06	152	92416	19.62	ug/ml	100

Data File : J:\MS07\DATA\100919\1009F008.D
 Acq On : 9 Oct 2019 5:00 pm
 Sample : ICAL @20ppm | SVM-62-13G
 Misc :

Vial: 8
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 09:11:06 2019

Quant Results File: 100919_BNP7.RES

Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 09:10:47 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

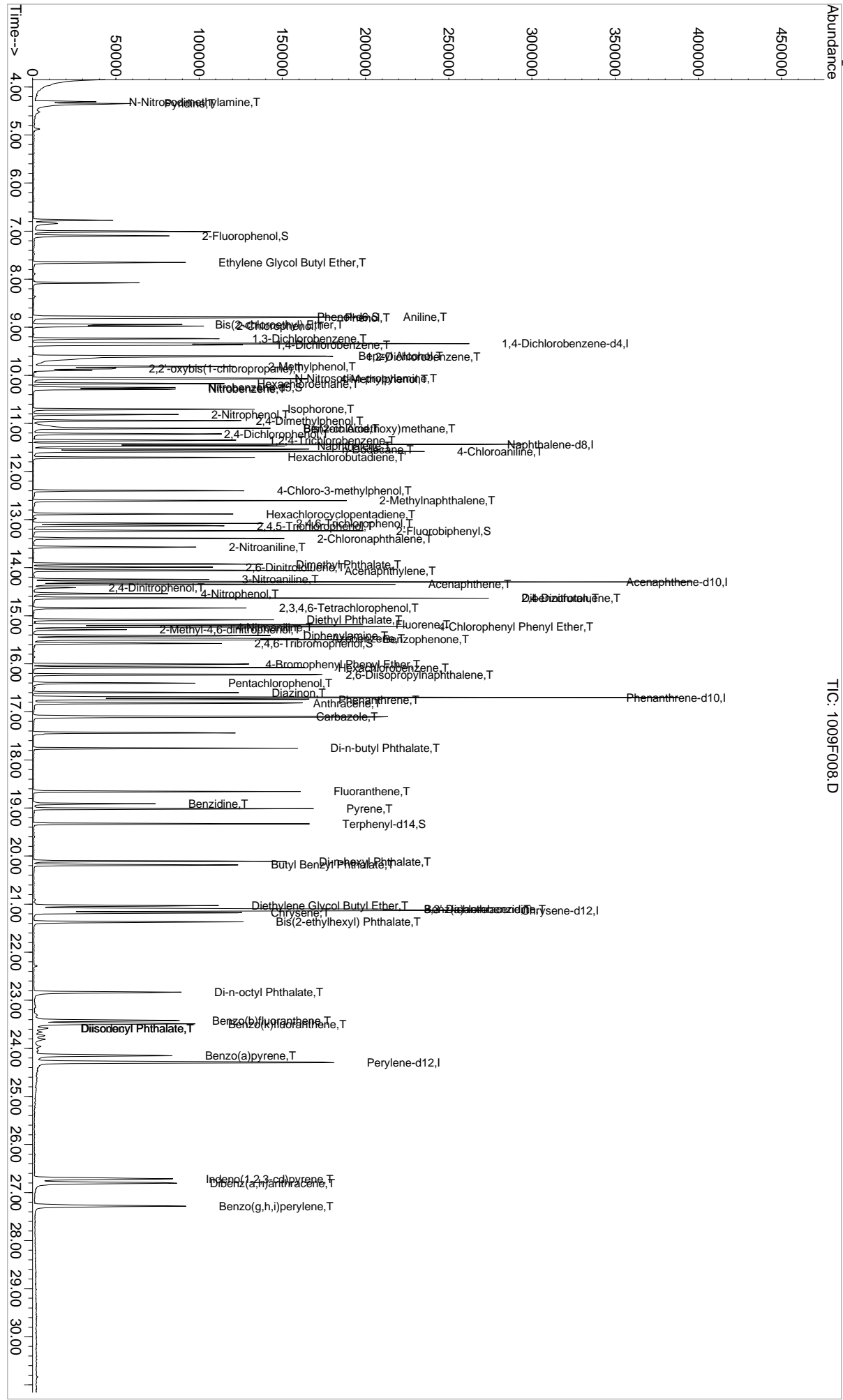
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44) Dimethyl Phthalate	13.93	163	71692	20.76	ug/ml	99
45) 2,6-Dinitrotoluene	13.99	165	15701	18.95	ug/ml	81
46) Acenaphthene	14.35	154	55896	19.99	ug/ml	99
47) 3-Nitroaniline	14.25	138	18227	19.54	ug/ml	97
48) 2,4-Dinitrophenol	14.42	184	4118	9.12	ug/ml	89
49) Dibenzofuran	14.63	168	90378	20.48	ug/ml	98
50) 4-Nitrophenol	14.54	109	9946	17.63	ug/ml	94
51) 2,4-Dinitrotoluene	14.63	165	20062	19.20	ug/ml#	75
52) 2,3,4,6-Tetrachlorophenol	14.84	232	19277	19.04	ug/ml	92
53) Fluorene	15.19	166	67903	21.04	ug/ml	99
54) 4-Chlorophenyl Phenyl Eth	15.23	204	35009	19.99	ug/ml	96
55) Diethyl Phthalate	15.08	149	72845	21.63	ug/ml	98
56) 4-Nitroaniline	15.24	138	18220	19.73	ug/ml	92
57) 2-Methyl-4,6-dinitrophenol	15.29	198	8978	13.94	ug/ml	71
58) Diphenylamine	15.41	169	47145	21.29	ug/ml	96
59) Azobenzene	15.47	51	31173m	19.83	ug/ml	
60) Benzophenone	15.49	105	80147	20.88	ug/ml	100
63) 4-Bromophenyl Phenyl Ether	16.02	248	24884	19.95	ug/ml	92
64) Hexachlorobenzene	16.08	284	31709	19.38	ug/ml	95
65) 2,6-Diisopropyl naphthalene	16.23	197	54174	18.53	ug/ml	99
66) Pentachlorophenol	16.40	266	17370	16.15	ug/ml	99
67) Diazinon	16.60	137	11541	19.37	ug/ml	98
68) Phenanthrene	16.74	178	91594	19.69	ug/ml	99
69) Anthracene	16.82	178	91754	18.91	ug/ml	99
70) Carbazole	17.09	167	82698	17.79	ug/ml	98
71) Di-n-butyl Phthalate	17.76	149	98150	17.13	ug/ml	99
72) Fluoranthene	18.66	202	84380	16.80	ug/ml	98
74) Benzidine	18.91	184	34863	21.90	ug/ml	97
75) Pyrene	19.02	202	85216	17.52	ug/ml	99
77) Di-n-hexyl Phthalate	20.11	149	99163	17.93	ug/ml	98
78) Butyl Benzyl Phthalate	20.18	149	41246	18.65	ug/ml	97
79) Diethylene Glycol Butyl Et	21.03	105	60319	17.70	ug/ml	99
80) 3,3'-Dichlorobenzidine	21.10	252	33163	16.93	ug/ml	96
81) Benz(a)anthracene	21.10	228	73506	18.95	ug/ml	99
82) Chrysene	21.19	228	76893	19.73	ug/ml	100
83) Bis(2-ethylhexyl) Phthalat	21.37	149	53616	18.81	ug/ml	99
85) Di-n-octyl Phthalate	22.83	149	80167	19.74	ug/ml	98
86) Benzo(b)fluoranthene	23.43	252	72826	18.07	ug/ml	99
87) Benzo(k)fluoranthene	23.49	252	70677	18.45	ug/ml	99
88) Diisononyl Phthalate	23.59	293	3791m	12.48	ug/ml	
89) Diisodecyl Phthalate	23.58	149	71319m	18.20	ug/ml	
90) Benzo(a)pyrene	24.15	252	67614	18.77	ug/ml	99
91) Indeno(1,2,3-cd)pyrene	26.71	276	79748	21.69	ug/ml	95
92) Dibenz(a,h)anthracene	26.80	278	79056	21.37	ug/ml	99
93) Benzo(g,h,i)perylene	27.29	276	84100	22.18	ug/ml	98

Data File : J:\MS07\DATA\100919\1009F008.D
Acq On : 9 Oct 2019 5:00 pm
Sample : ICAL@20ppm | SVM-62-13G
Misc :
MS Integration Params: RTEINT.P
Quant Results File: 100919_BNP7.RES
Unit Time: Oct 10 9:42 2019

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Oct 10 09:10:47 2019
Response via : Initial Calibration

Quantitation Report (QT Reviewed)

Vial: 8
Operator: CCONOVER/LM
Inst: MS07
Multiplr: 1.00



Data File : J:\MS07\DATA\100919\1009F008.D
 Acq On : 9 Oct 2019 5:00 pm
 Sample : ICAL @20ppm | SVM-62-13G
 Misc :

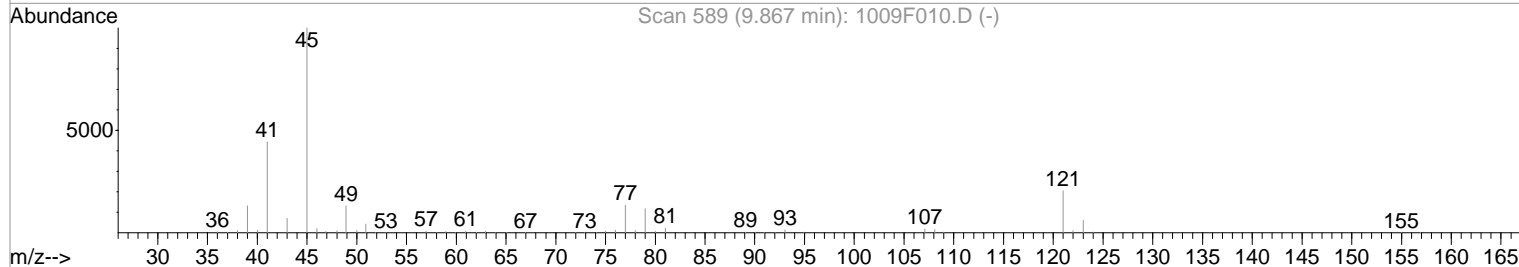
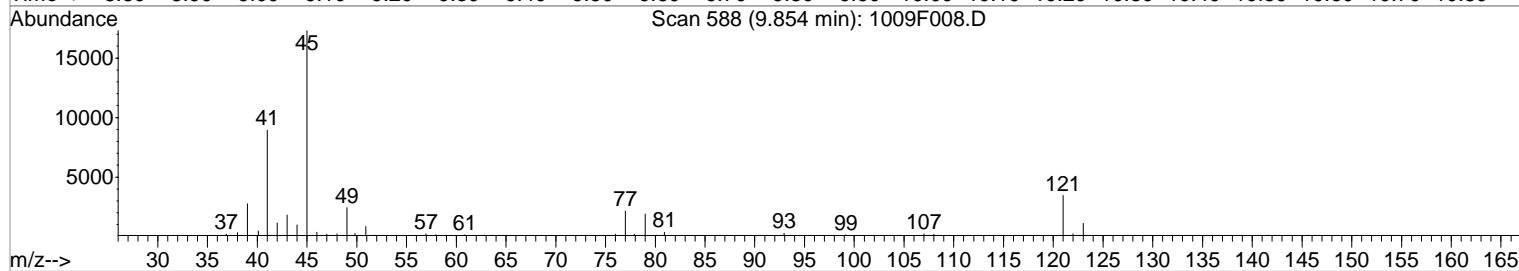
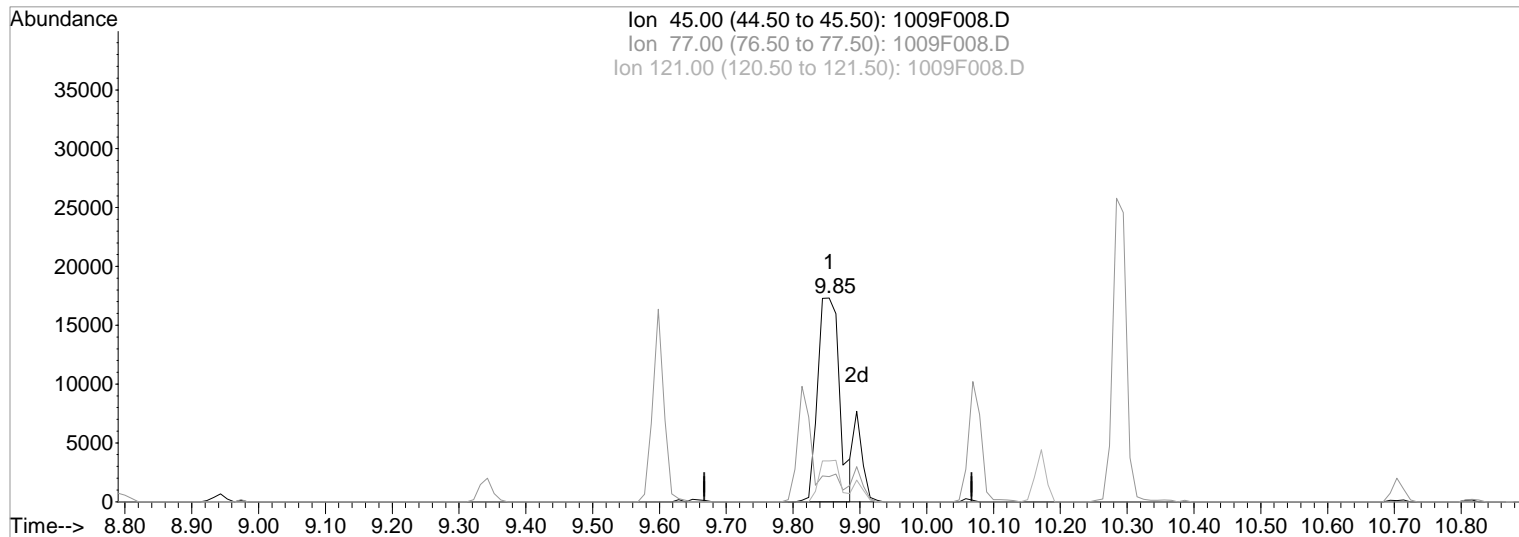
Vial: 8
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:16 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 09:10:47 2019
 Response via : Multiple Level Calibration



TIC: 1009F008.D

(15) 2,2'-oxybis(1-chloropropane) (T)

Manual Integration:

9.85min 16.48ug/ml

Before

response 39602

Ion	Exp%	Act%
45.00	100	100
77.00	13.60	8.90
121.00	20.40	20.04
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F008.D
 Acq On : 9 Oct 2019 5:00 pm
 Sample : ICAL @20ppm | SVM-62-13G
 Misc :

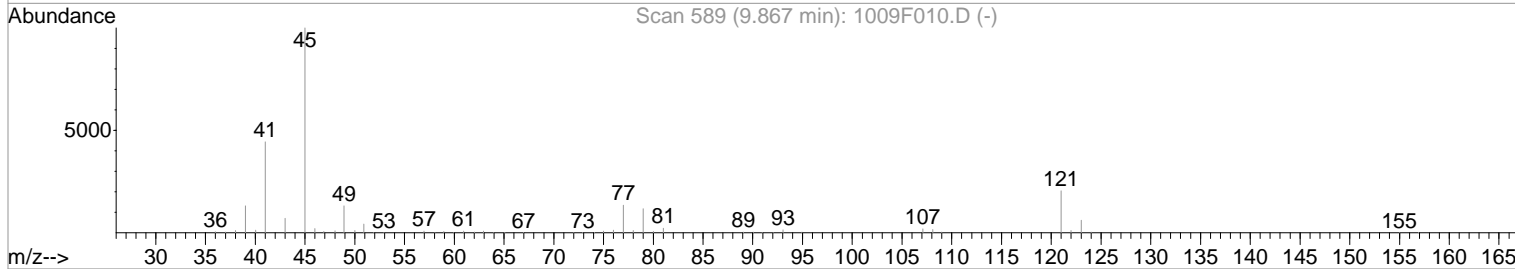
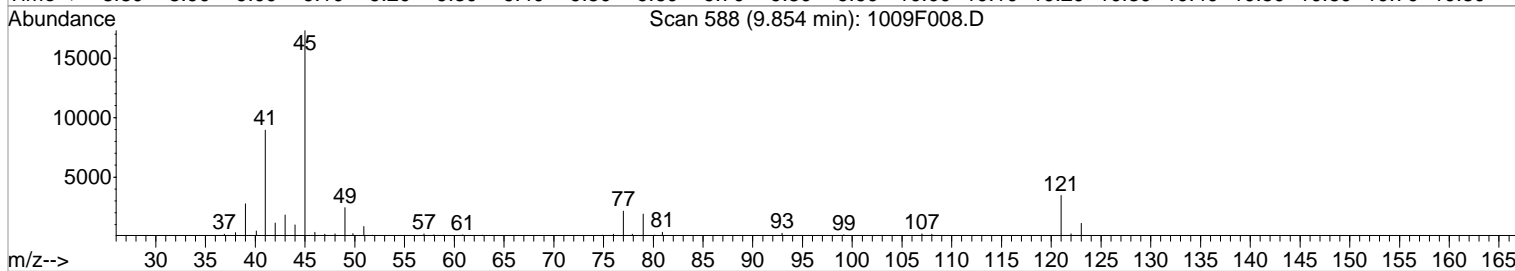
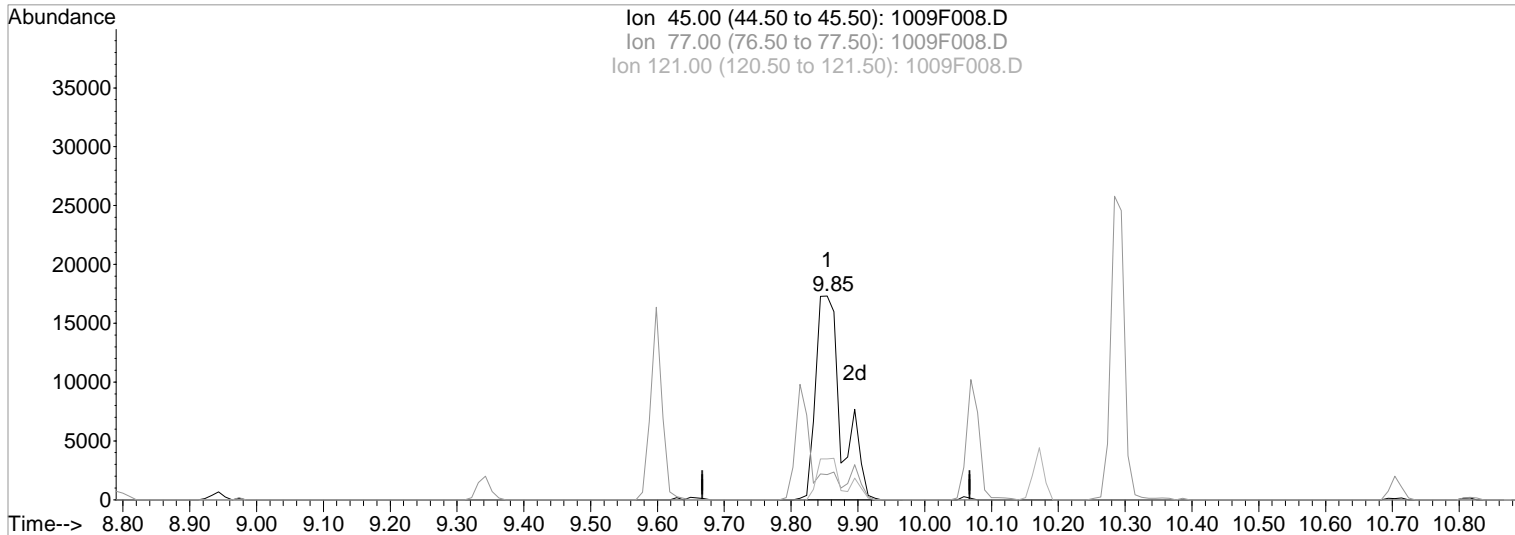
Vial: 8
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:39 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 09:10:47 2019
 Response via : Multiple Level Calibration



TIC: 1009F008.D

(15) 2,2'-oxybis(1-chloropropane) (T)

Manual Integration:

9.85min 19.35ug/ml m

After

response 46500

IC - incomplete

Ion	Exp%	Act%
45.00	100	100
77.00	13.60	12.40
121.00	20.40	19.97
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F008.D

Vial: 8

Acq On : 9 Oct 2019 5:00 pm

Operator: CCONOVER/LM

Sample : ICAL @20ppm | SVM-62-13G

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:39 2019

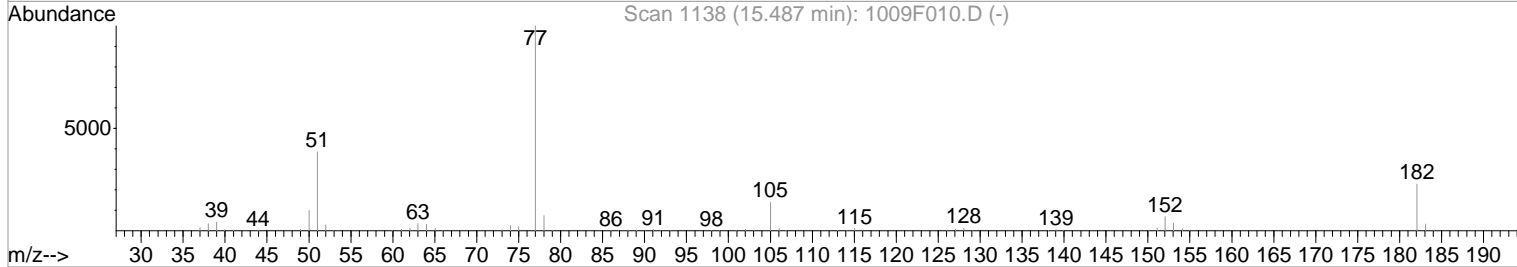
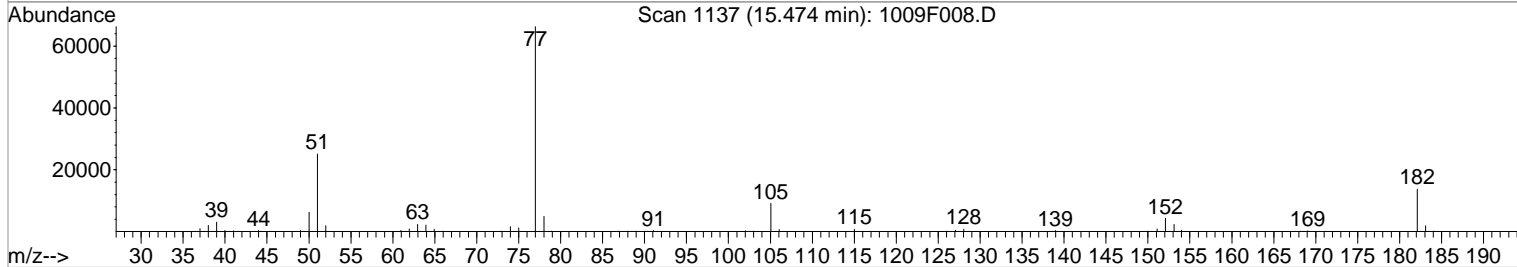
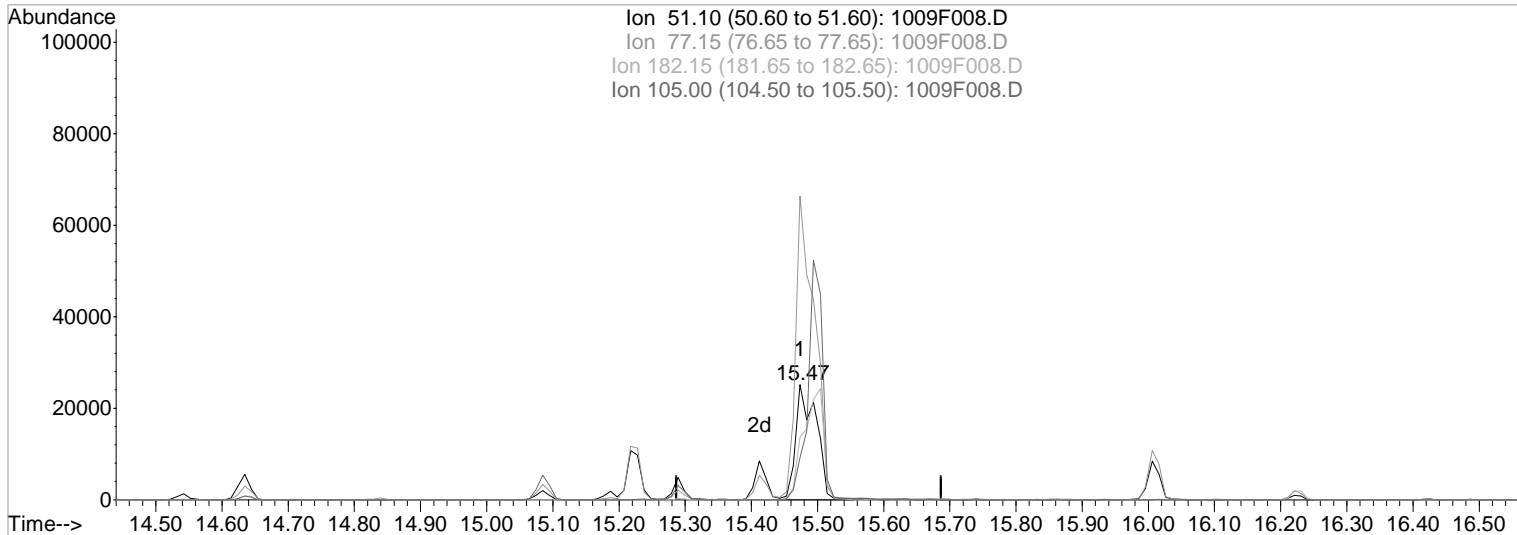
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F008.D

(59) Azobenzene (T)

Manual Integration:

15.47min 34.31ug/ml

Before

response 53923

Ion Exp% Act%

10/10/19

51.10 100 100

77.15 260.40 264.90

182.15 59.10 54.98

105.00 36.00 36.40

Data File : J:\MS07\DATA\100919\1009F008.D

Vial: 8

Acq On : 9 Oct 2019 5:00 pm

Operator: CCONOVER/LM

Sample : ICAL @20ppm | SVM-62-13G

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:40 2019

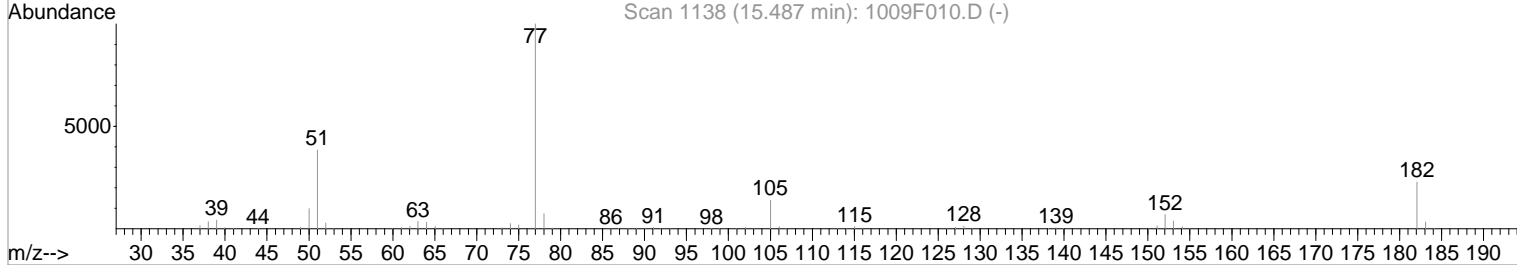
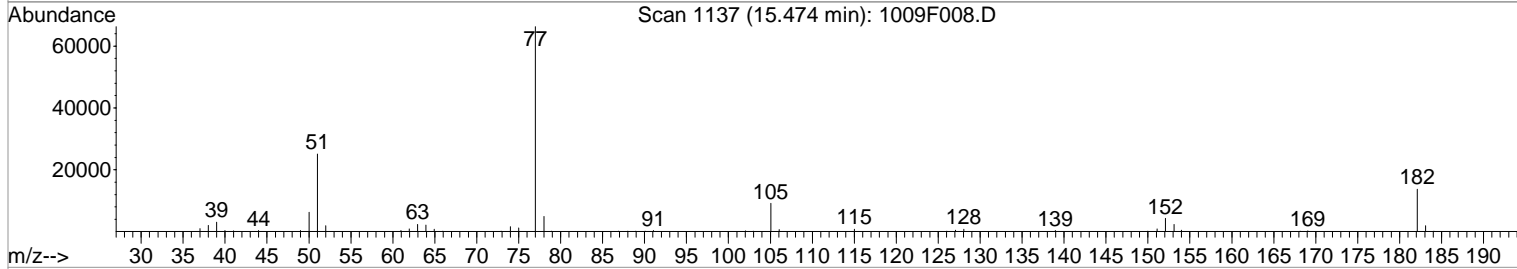
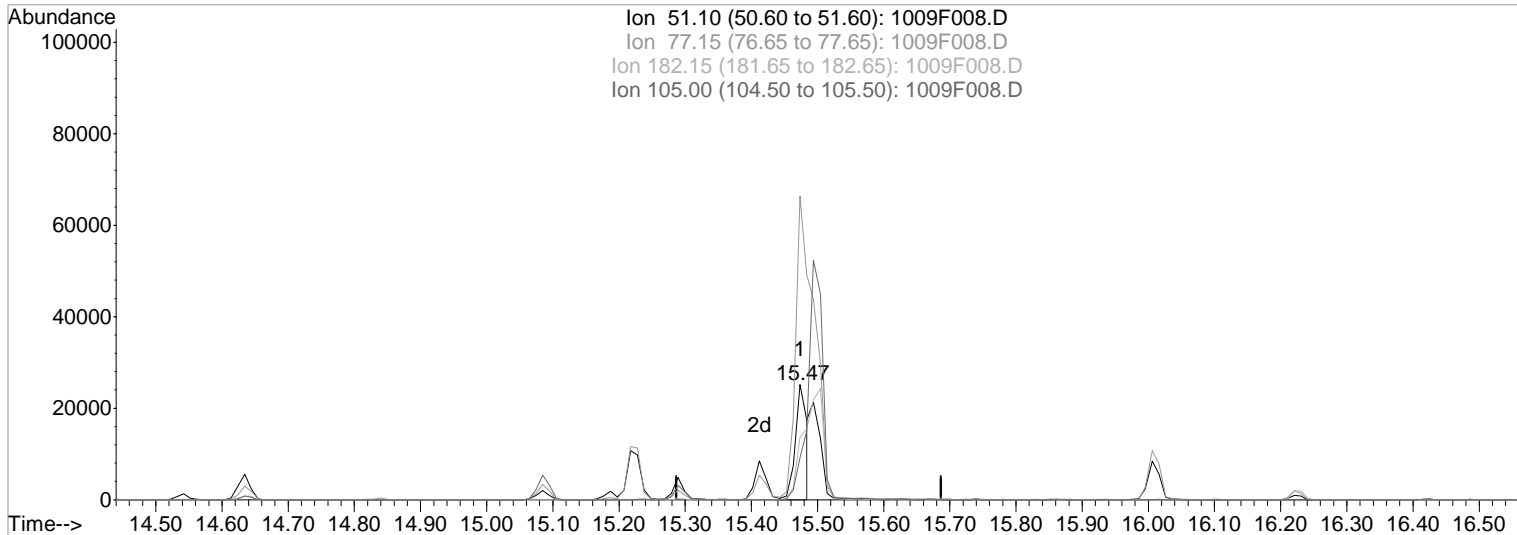
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F008.D

(59) Azobenzene (T)

Manual Integration:

15.47min 19.83ug/ml m

After

response 31173

IC - overintegrated

Ion Exp% Act%

10/10/19

51.10 100 100

77.15 260.40 264.02

182.15 59.10 54.44

105.00 36.00 36.52

Data File : J:\MS07\DATA\100919\1009F008.D
 Acq On : 9 Oct 2019 5:00 pm
 Sample : ICAL @20ppm | SVM-62-13G
 Misc :

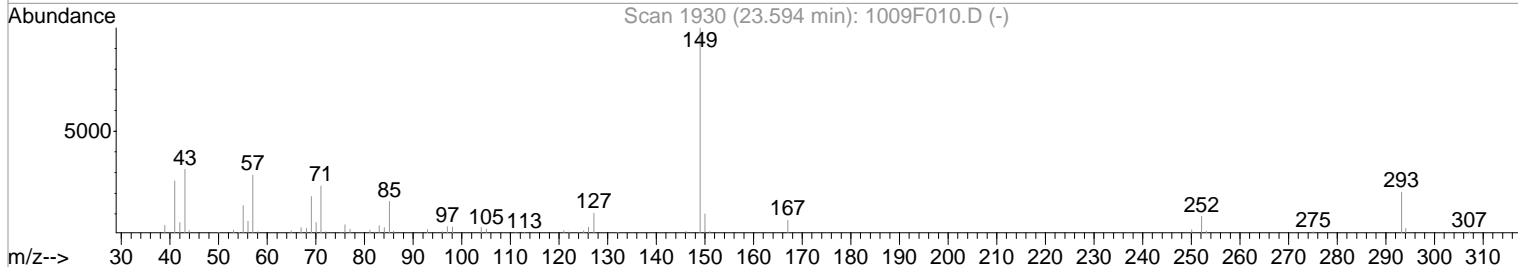
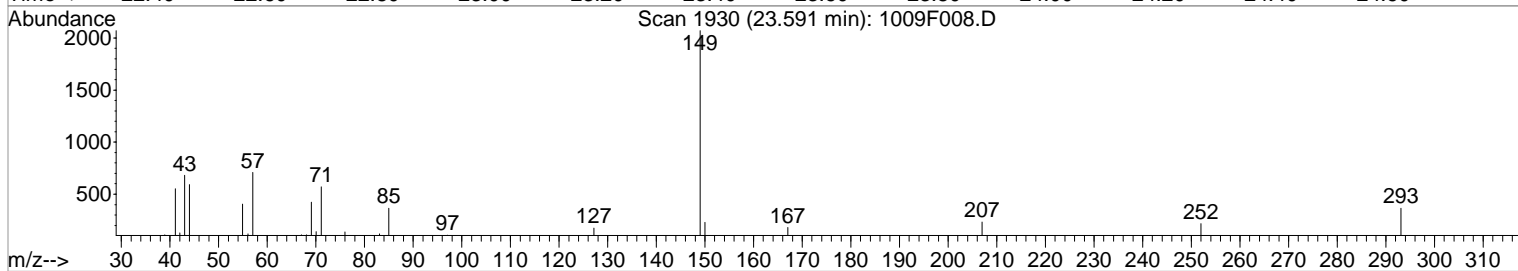
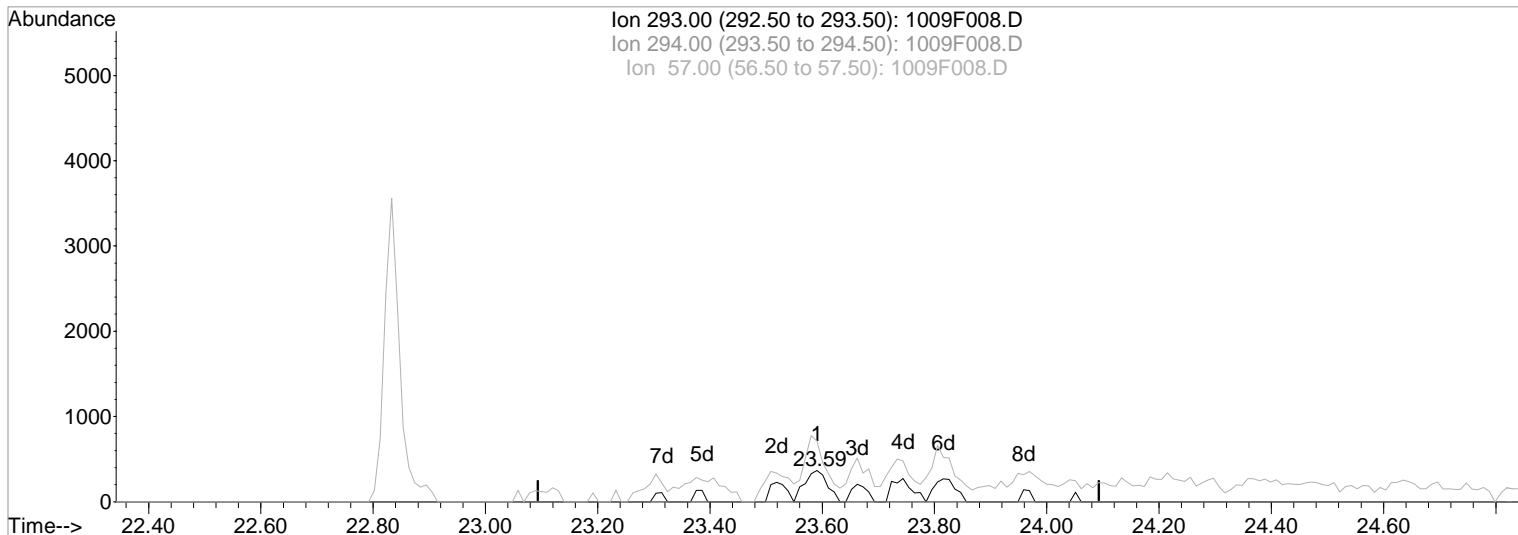
Vial: 8
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:40 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 09:10:47 2019
 Response via : Multiple Level Calibration



TIC: 1009F008.D

(88) Diisononyl Phthalate (T)

Manual Integration:

23.59min 3.36ug/ml

Before

response 1021

Ion	Exp%	Act%
293.00	100	100
294.00	1.60	0.00
57.00	15.00	166.41#
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F008.D

Vial: 8

Acq On : 9 Oct 2019 5:00 pm

Operator: CCONOVER/LM

Sample : ICAL @20ppm | SVM-62-13G

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:41 2019

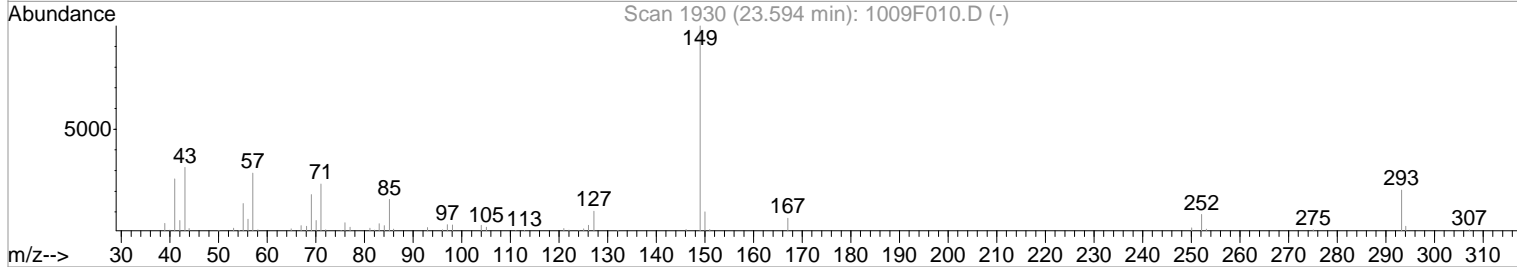
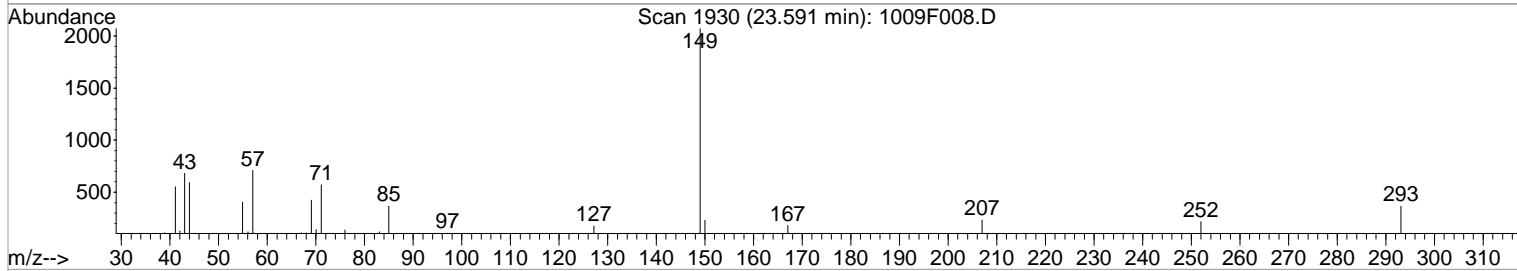
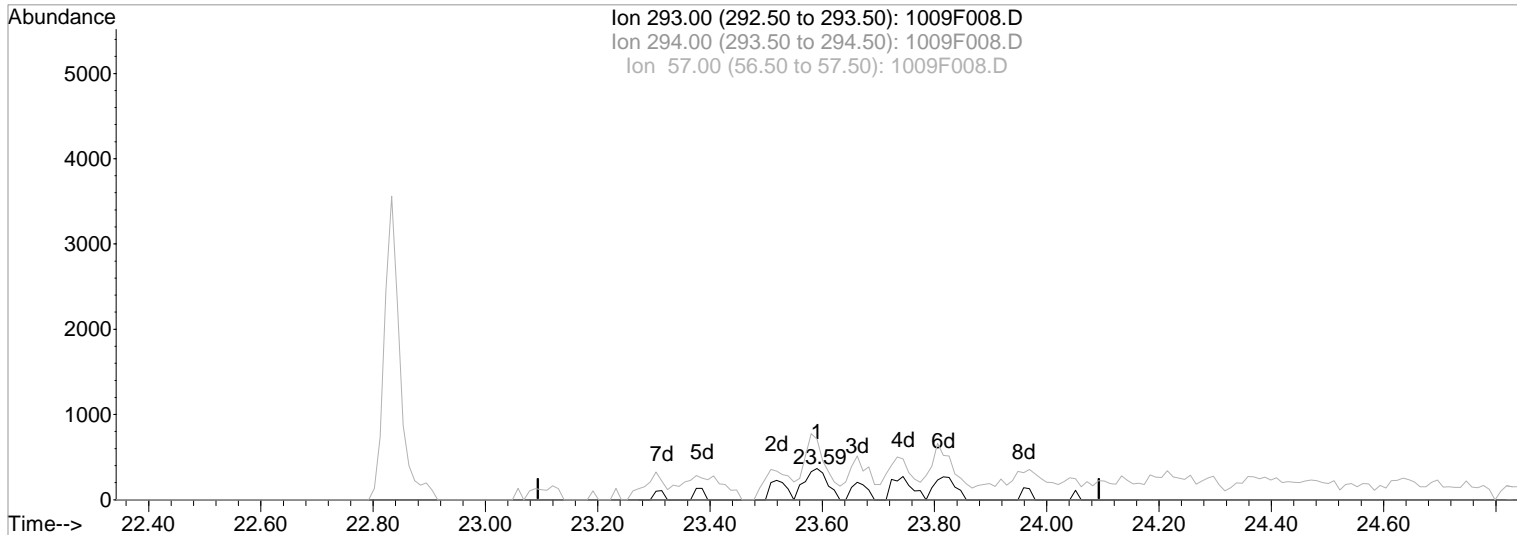
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F008.D

(88) Diisononyl Phthalate (T)

Manual Integration:

23.59min 12.48ug/ml m

After

response 3791

Range integration correction

Ion	Exp%	Act%
293.00	100	100
294.00	1.60	0.00
57.00	15.00	44.82
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F008.D

Vial: 8

Acq On : 9 Oct 2019 5:00 pm

Operator: CCONOVER/LM

Sample : ICAL @20ppm | SVM-62-13G

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:41 2019

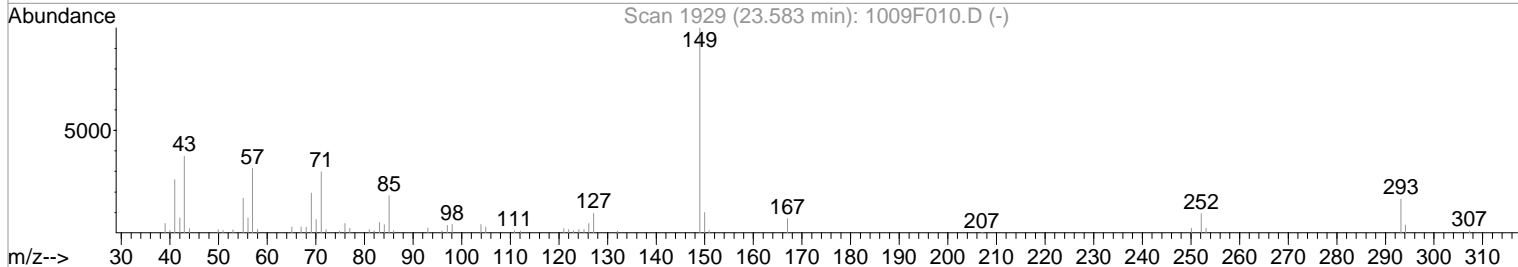
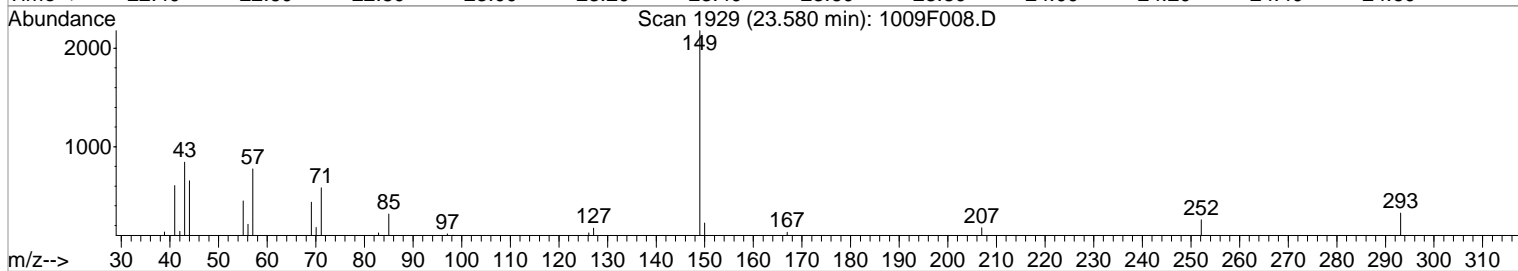
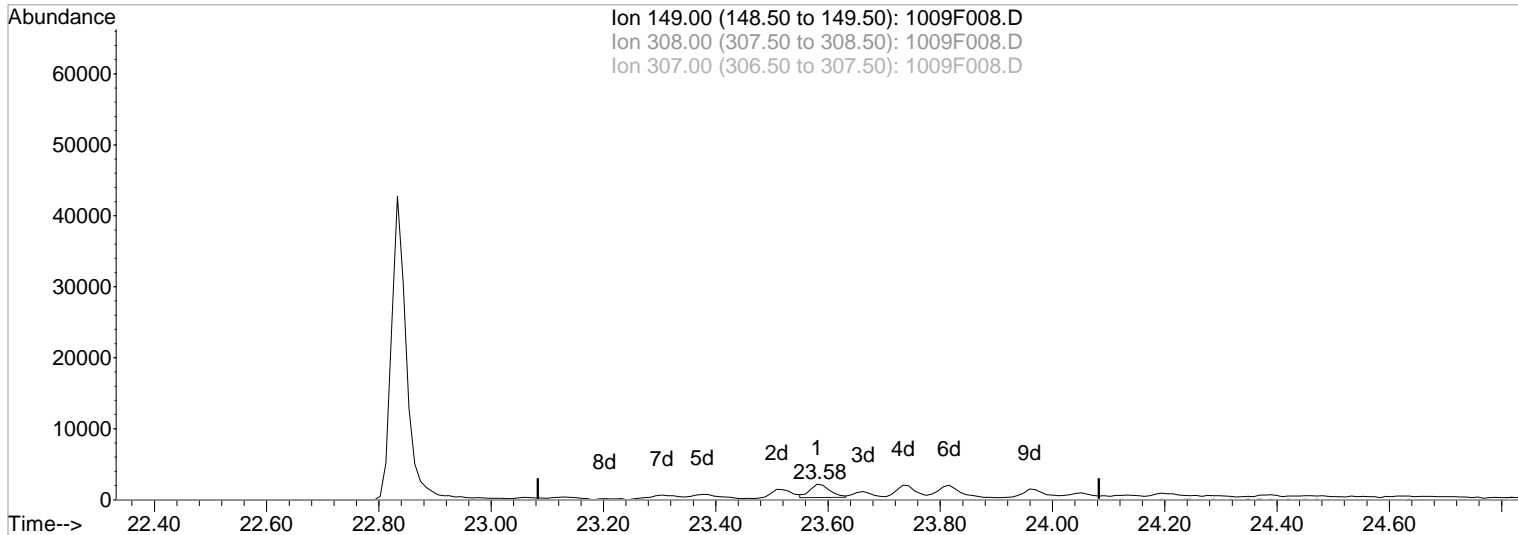
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F008.D

(89) Diisodecyl Phthalate (T)

Manual Integration:

23.58min 1.18ug/ml

Before

response 4640

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.00
307.00	0.00	0.00
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F008.D

Vial: 8

Acq On : 9 Oct 2019 5:00 pm

Operator: CCONOVER/LM

Sample : ICAL @20ppm | SVM-62-13G

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:42 2019

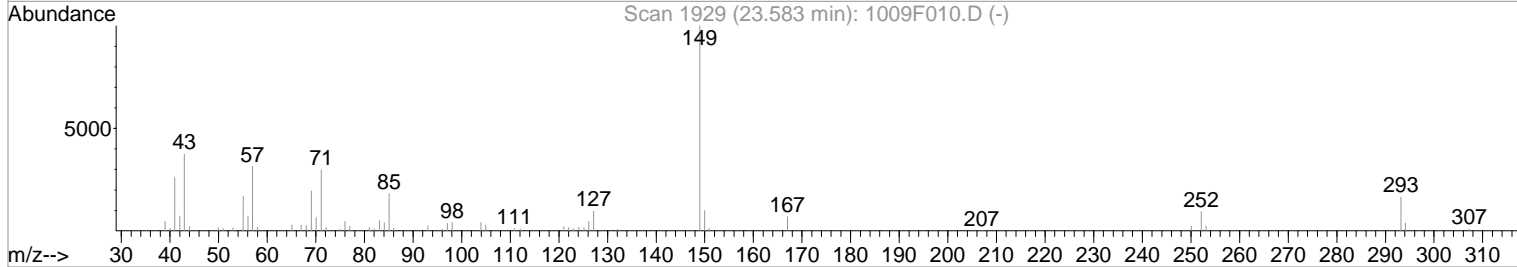
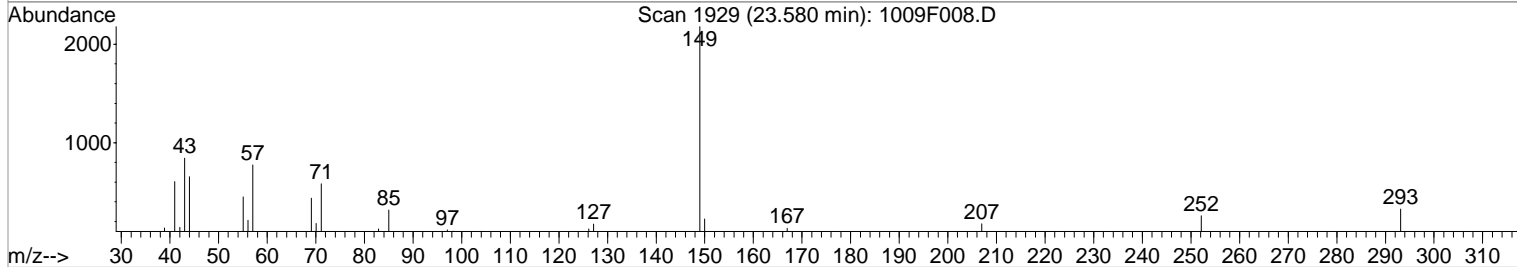
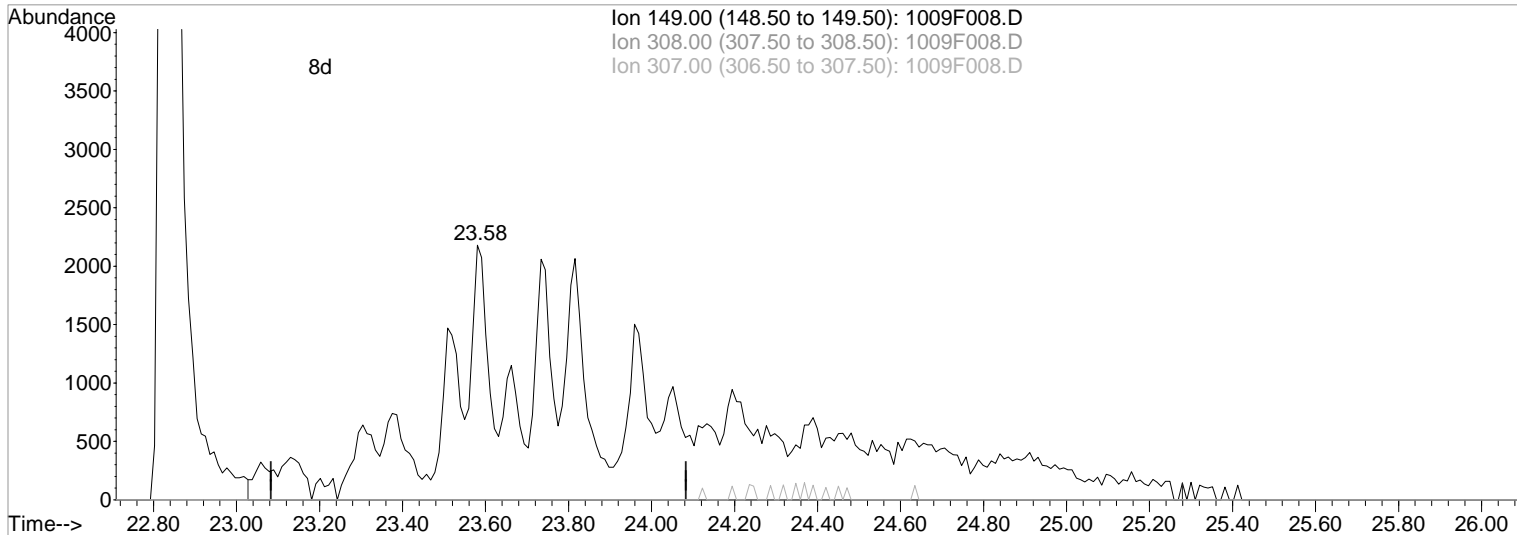
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F008.D

(89) Diisodecyl Phthalate (T)

Manual Integration:

23.58min 18.20ug/ml m

After

response 71319

Range integration correction

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.00
307.00	0.00	0.00
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F009.D
 Acq On : 9 Oct 2019 5:41 pm
 Sample : ICAL @50ppm | SVM-62-13H
 Misc :

Vial: 9
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 09:11:06 2019

Quant Results File: 100919_BNP7.RES

Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 09:10:47 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.34	152	48916	40.00	ug/ml	0.00
22) Naphthalene-d8	11.44	136	199648	40.00	ug/ml	0.00
36) Acenaphthene-d10	14.30	164	112681	40.00	ug/ml	0.00
61) Phenanthrene-d10	16.71	188	168605	40.00	ug/ml	0.00
73) Chrysene-d12	21.14	240	139254	40.00	ug/ml	0.00
84) Perylene-d12	24.30	264	160178	40.00	ug/ml	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
4) 2-Fluorophenol	7.12	112	76322	48.50	ug/ml	0.00
Spiked Amount	150.000	Range	21 - 100	Recovery	=	32.33%
8) Phenol-d6	8.80	99	105504	49.54	ug/ml	-0.02
Spiked Amount	150.000	Range	10 - 94	Recovery	=	33.03%
20) Nitrobenzene-d5	10.27	82	95162	47.90	ug/ml	0.00
Spiked Amount	100.000	Range	35 - 114	Recovery	=	47.90%
40) 2-Fluorobiphenyl	13.24	172	175162	45.66	ug/ml	0.00
Spiked Amount	100.000	Range	43 - 116	Recovery	=	45.66%
62) 2,4,6-Tribromophenol	15.58	330	51728	48.78	ug/ml	0.00
Spiked Amount	150.000	Range	10 - 123	Recovery	=	32.52%
76) Terphenyl-d14	19.34	244	185708	46.56	ug/ml	0.00
Spiked Amount	100.000	Range	33 - 141	Recovery	=	46.56%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-Nitrosodimethylamine	4.31	42	55755	48.79	ug/ml	98
3) Pyridine	4.34	79	95605	48.69	ug/ml	99
5) Ethylene Glycol Butyl Ethe	7.66	57	95293	47.93	ug/ml	99
6) Aniline	8.80	93	124532	50.71	ug/ml	84
7) Bis(2-chloroethyl) Ether	8.95	93	85436	48.96	ug/ml	100
9) Phenol	8.82	94	117939	48.52	ug/ml	98
10) 2-Chlorophenol	8.98	128	83977	48.78	ug/ml	99
11) 1,3-Dichlorobenzene	9.24	146	87451	49.17	ug/ml	98
12) 1,4-Dichlorobenzene	9.37	146	87908	47.83	ug/ml	99
13) 1,2-Dichlorobenzene	9.61	146	81972	48.07	ug/ml	96
14) Benzyl Alcohol	9.61	108	56499	49.58	ug/ml	94
15) 2,2'-oxybis(1-chloropropan	9.86	45	114284	50.16	ug/ml	97
16) 2-Methylphenol	9.83	107	68043	49.66	ug/ml	91
17) Hexachloroethane	10.17	117	40763	48.45	ug/ml	88
18) N-Nitrosodi-n-propylamine	10.07	70	63873	49.81	ug/ml	95
19) 4-Methylphenol	10.10	107	107006	49.70	ug/ml	98
21) Nitrobenzene	10.30	77	93531	49.55	ug/ml	94
23) Isophorone	10.72	82	174632	47.84	ug/ml	98
24) 2-Nitrophenol	10.82	139	46501	46.51	ug/ml	90
25) 2,4-Dimethylphenol	10.96	122	72901	47.83	ug/ml	97
26) Bis(2-chloroethoxy)methane	11.11	93	105456	46.95	ug/ml	100
27) 2,4-Dichlorophenol	11.23	162	75994	48.17	ug/ml	98
28) Benzoic Acid	11.18	122	50077	46.50	ug/ml	99
29) 1,2,4-Trichlorobenzene	11.35	180	77361	47.74	ug/ml	98
30) Naphthalene	11.47	128	223045	47.76	ug/ml	99
31) n-Dodecane	11.54	57	103469	47.67	ug/ml	98
32) 4-Chloroaniline	11.59	127	109902	50.67	ug/ml	99
33) Hexachlorobutadiene	11.71	225	47905	46.76	ug/ml	98
34) 4-Chloro-3-methylphenol	12.41	107	77161	49.42	ug/ml	97
35) 2-Methylnaphthalene	12.61	142	157493	49.15	ug/ml	99
37) Hexachlorocyclopentadiene	12.89	237	56419	43.65	ug/ml	97
38) 2,4,6-Trichlorophenol	13.08	196	55191	46.52	ug/ml	100
39) 2,4,5-Trichlorophenol	13.14	196	62973	48.77	ug/ml	98
41) 2-Chloronaphthalene	13.40	162	149174	46.42	ug/ml	96
42) 2-Nitroaniline	13.59	65	54181	48.69	ug/ml	99
43) Acenaphthylene	14.07	152	228348	48.29	ug/ml	100

Data File : J:\MS07\DATA\100919\1009F009.D
 Acq On : 9 Oct 2019 5:41 pm
 Sample : ICAL @50ppm | SVM-62-13H
 Misc :

Vial: 9
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 09:11:06 2019

Quant Results File: 100919_BNP7.RES

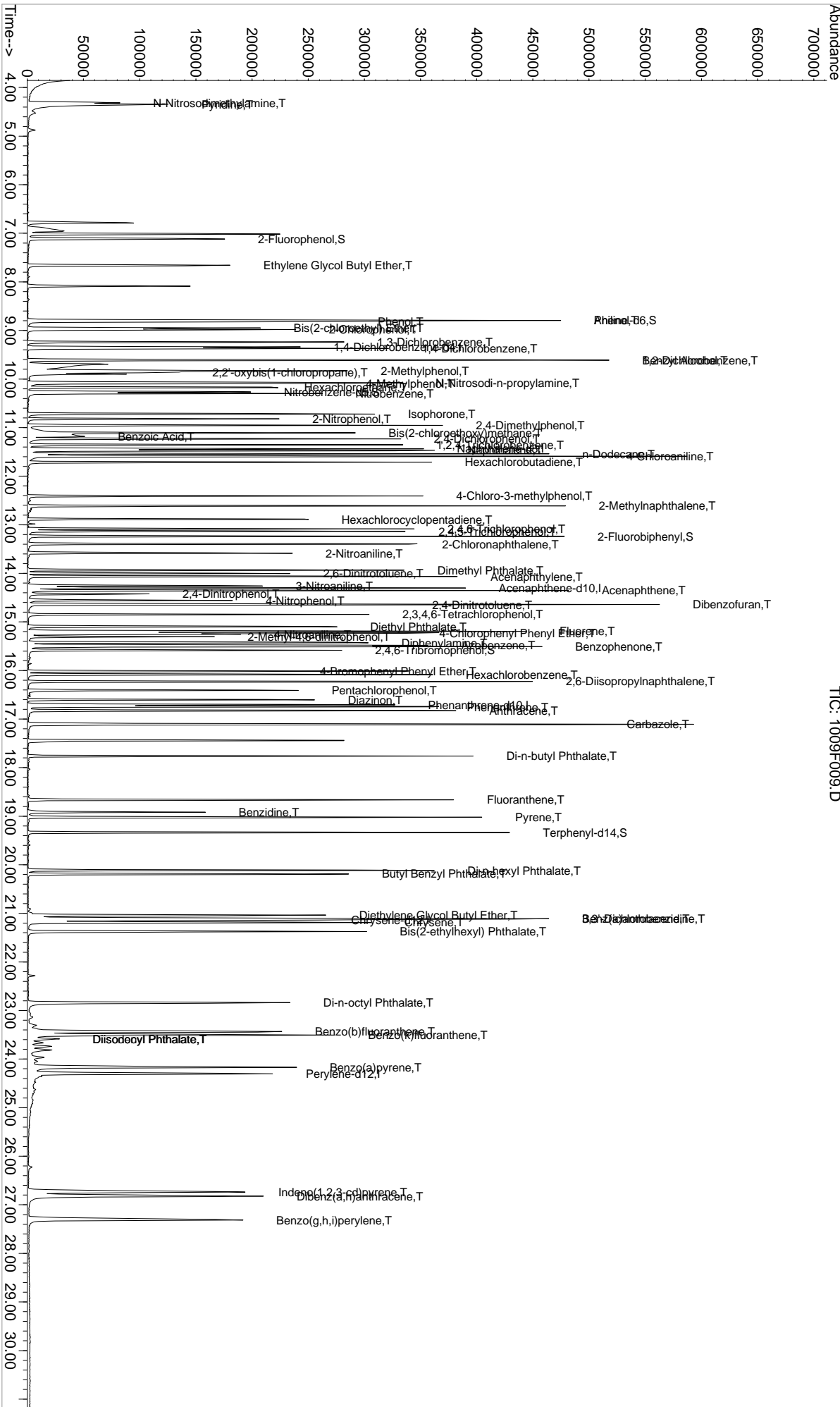
Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 09:10:47 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44) Dimethyl Phthalate	13.93	163	170086	49.06	ug/ml	99
45) 2,6-Dinitrotoluene	14.01	165	39200	47.14	ug/ml	87
46) Acenaphthene	14.35	154	133359	47.50	ug/ml	99
47) 3-Nitroaniline	14.26	138	43972	46.95	ug/ml	94
48) 2,4-Dinitrophenol	14.43	184	17766	39.19	ug/ml	79
49) Dibenzofuran	14.64	168	217074	49.00	ug/ml	96
50) 4-Nitrophenol	14.56	109	24691	43.59	ug/ml	95
51) 2,4-Dinitrotoluene	14.65	165	48101	45.85	ug/ml	98
52) 2,3,4,6-Tetrachlorophenol	14.84	232	48116	47.34	ug/ml	95
53) Fluorene	15.19	166	160925	49.66	ug/ml	100
54) 4-Chlorophenyl Phenyl Eth	15.23	204	85199	48.46	ug/ml	91
55) Diethyl Phthalate	15.10	149	163822	48.46	ug/ml	100
56) 4-Nitroaniline	15.25	138	42856	46.23	ug/ml	96
57) 2-Methyl-4,6-dinitrophenol	15.31	198	27768	42.95	ug/ml	78
58) Diphenylamine	15.43	169	110303	49.61	ug/ml	98
59) Azobenzene	15.48	51	97689m	61.91	ug/ml	
60) Benzophenone	15.51	105	187125	48.55	ug/ml	98
63) 4-Bromophenyl Phenyl Ether	16.02	248	56209	48.52	ug/ml	86
64) Hexachlorobenzene	16.08	284	72474	47.68	ug/ml	95
65) 2,6-Diisopropyl naphthalene	16.23	197	132743	48.88	ug/ml	99
66) Pentachlorophenol	16.41	266	43620	43.66	ug/ml	99
67) Diazinon	16.61	137	26640	48.13	ug/ml	99
68) Phenanthrene	16.75	178	205444	47.55	ug/ml	99
69) Anthracene	16.83	178	215408	47.80	ug/ml	100
70) Carbazole	17.11	167	197396	45.71	ug/ml	100
71) Di-n-butyl Phthalate	17.76	149	239406	44.99	ug/ml	100
72) Fluoranthene	18.66	202	210780	45.17	ug/ml	98
74) Benzidine	18.92	184	76425	51.60	ug/ml	96
75) Pyrene	19.02	202	211000	46.62	ug/ml	99
77) Di-n-hexyl Phthalate	20.12	149	248087	48.21	ug/ml	97
78) Butyl Benzyl Phthalate	20.19	149	100398	48.79	ug/ml	98
79) Diethylene Glycol Butyl Et	21.04	105	145265	45.82	ug/ml	99
80) 3,3'-Dichlorobenzidine	21.11	252	79598	43.66	ug/ml	98
81) Benz(a)anthracene	21.11	228	169796	47.05	ug/ml	99
82) Chrysene	21.19	228	175983	48.53	ug/ml	99
83) Bis(2-ethylhexyl) Phthalat	21.38	149	129518	48.84	ug/ml	97
85) Di-n-octyl Phthalate	22.84	149	207942	46.95	ug/ml	98
86) Benzo(b)fluoranthene	23.43	252	196586	44.72	ug/ml	99
87) Benzo(k)fluoranthene	23.50	252	198583	47.54	ug/ml	99
88) Diisononyl Phthalate	23.59	293	14182m	42.82	ug/ml	
89) Diisodecyl Phthalate	23.59	149	195147m	45.67	ug/ml	
90) Benzo(a)pyrene	24.17	252	190721	48.56	ug/ml	97
91) Indeno(1,2,3-cd)pyrene	26.74	276	198394	49.47	ug/ml	98
92) Dibenz(a,h)anthracene	26.82	278	197390	48.93	ug/ml	99
93) Benzo(g,h,i)perylene	27.31	276	203960	49.32	ug/ml	99

Data File : J:\MS07\DATA\100919\1009F009.D
Acq On : 9 Oct 2019 5:41 pm
Sample : ICAL@50ppm | SVM-62-13H
Misc :
MS Integration Params: RTEINT.P
Quant Results File: 100919_BNP7.RES

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Oct 10 09:10:47 2019
Response via : Initial Calibration

Quantitation Report (QT Reviewed)
Vial: 9
Operator: CCONOVER/LM
Inst: MS07
Multiplr: 1.00



Data File : J:\MS07\DATA\100919\1009F009.D

Vial: 9

Acq On : 9 Oct 2019 5:41 pm

Operator: CCONOVER/LM

Sample : ICAL @50ppm | SVM-62-13H

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:16 2019

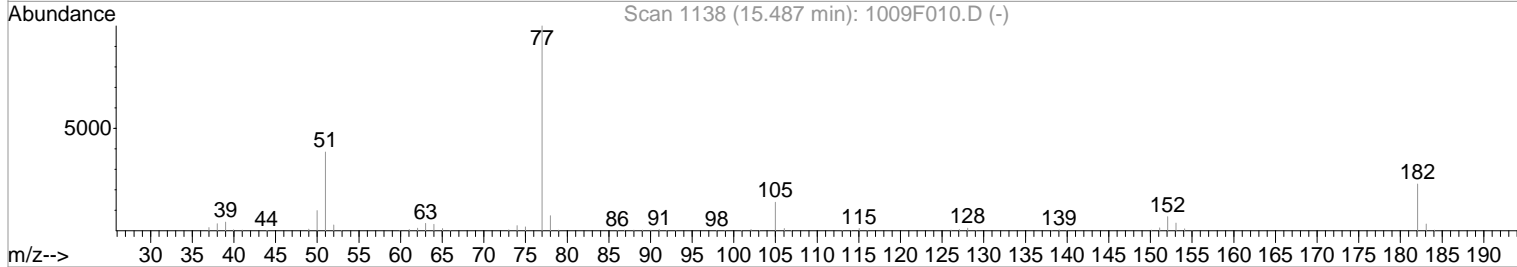
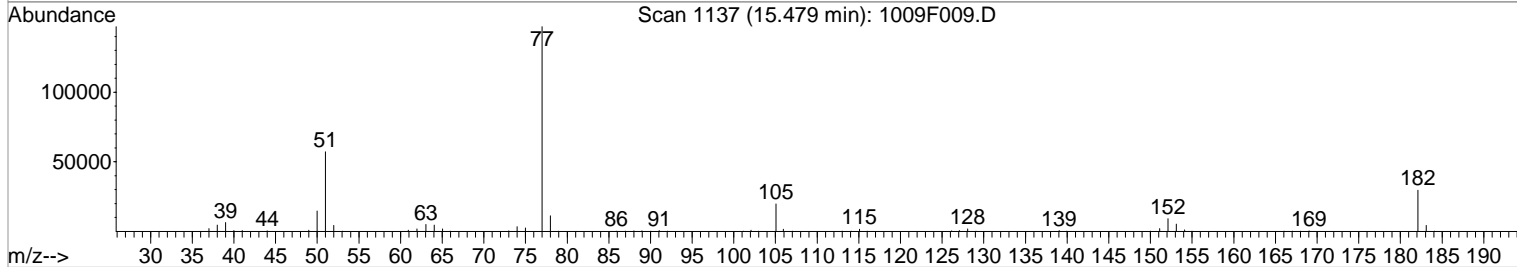
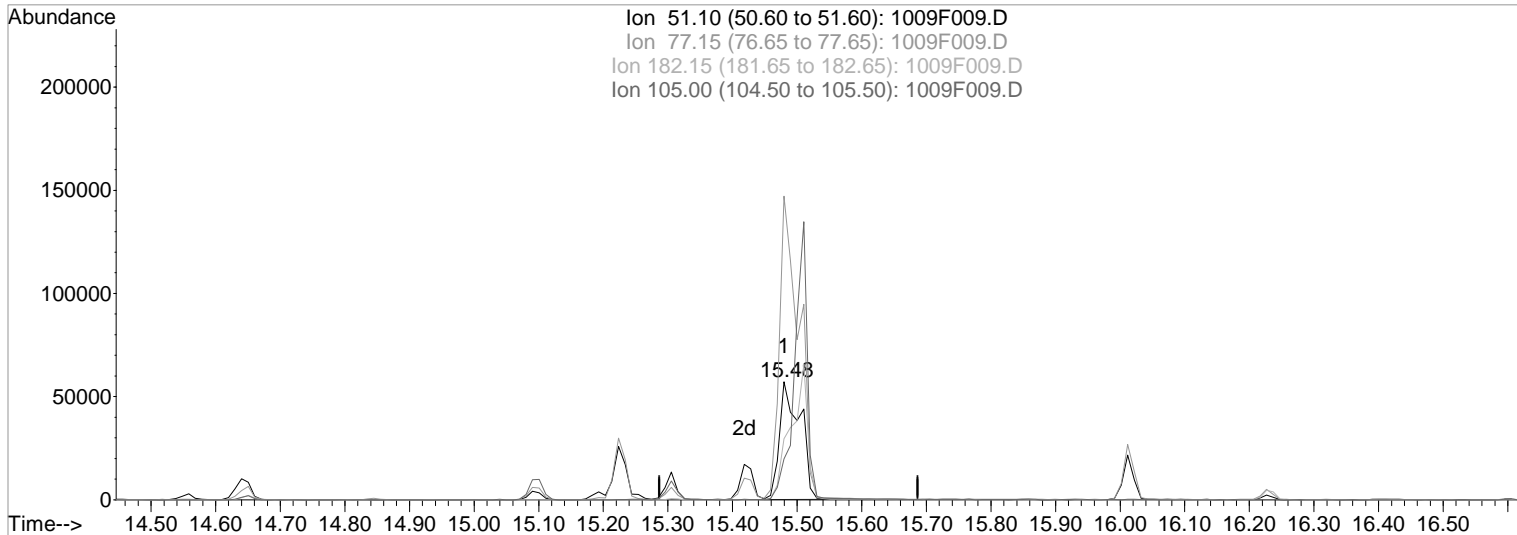
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F009.D

(59) Azobenzene (T)

Manual Integration:

15.48min 81.67ug/ml

Before

response 128865

Ion Exp% Act%

10/10/19

51.10 100 100

77.15 260.40 257.28

182.15 59.10 51.73

105.00 36.00 34.37

Data File : J:\MS07\DATA\100919\1009F009.D

Vial: 9

Acq On : 9 Oct 2019 5:41 pm

Operator: CCONOVER/LM

Sample : ICAL @50ppm | SVM-62-13H

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:43 2019

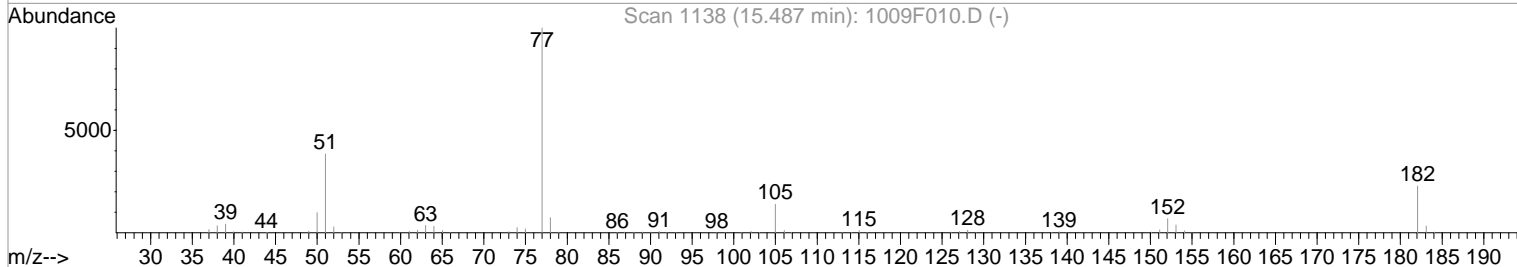
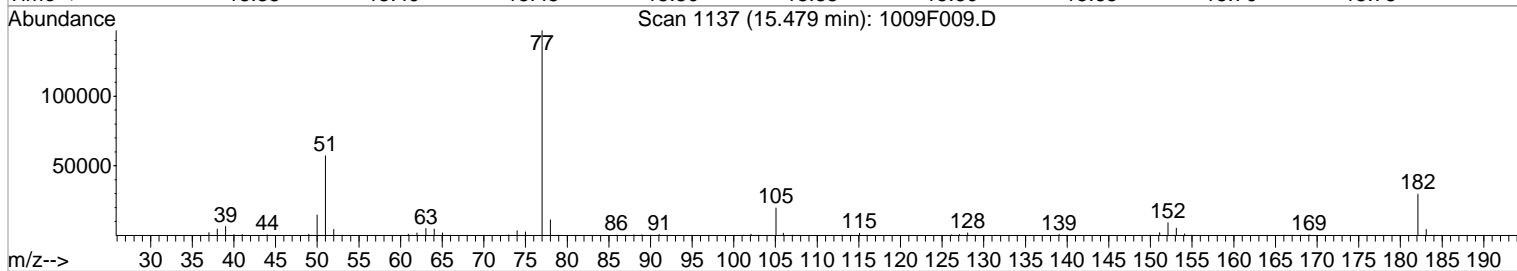
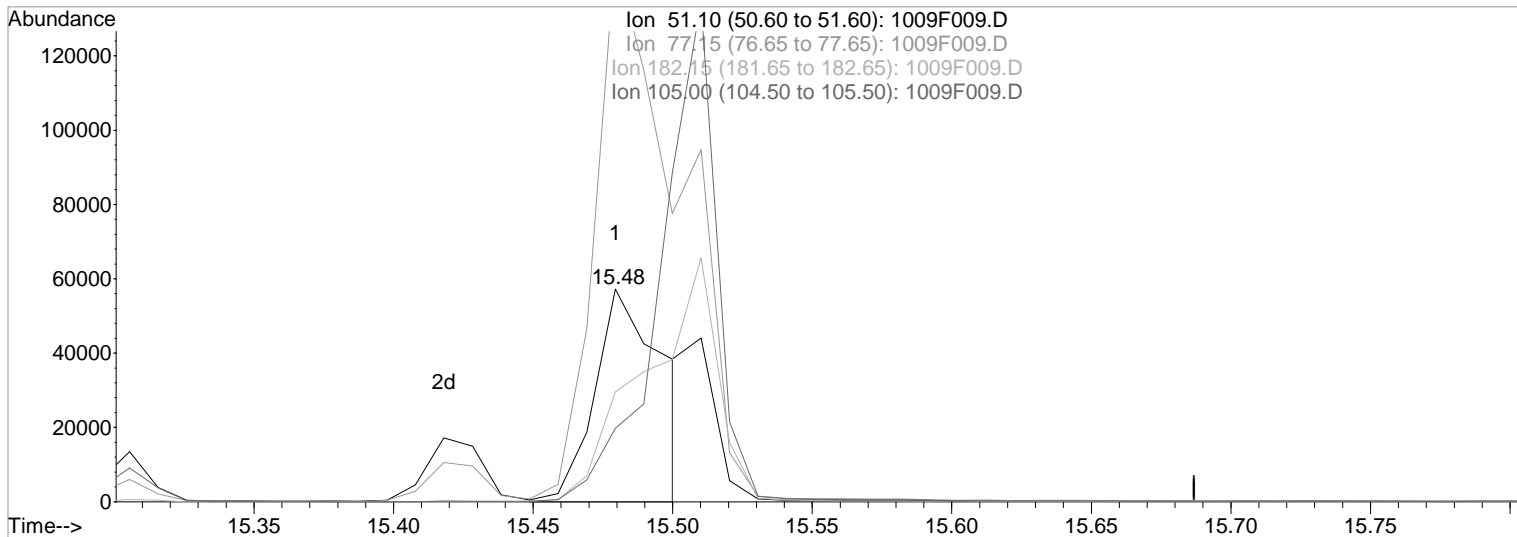
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F009.D

(59) Azobenzene (T)

Manual Integration:

15.48min 61.91ug/ml m

After

response 97689

IC - overintegrated

Ion Exp% Act%

10/10/19

51.10 100 100

77.15 260.40 257.02

182.15 59.10 51.68

105.00 36.00 34.53

Data File : J:\MS07\DATA\100919\1009F009.D

Vial: 9

Acq On : 9 Oct 2019 5:41 pm

Operator: CCONOVER/LM

Sample : ICAL @50ppm | SVM-62-13H

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:43 2019

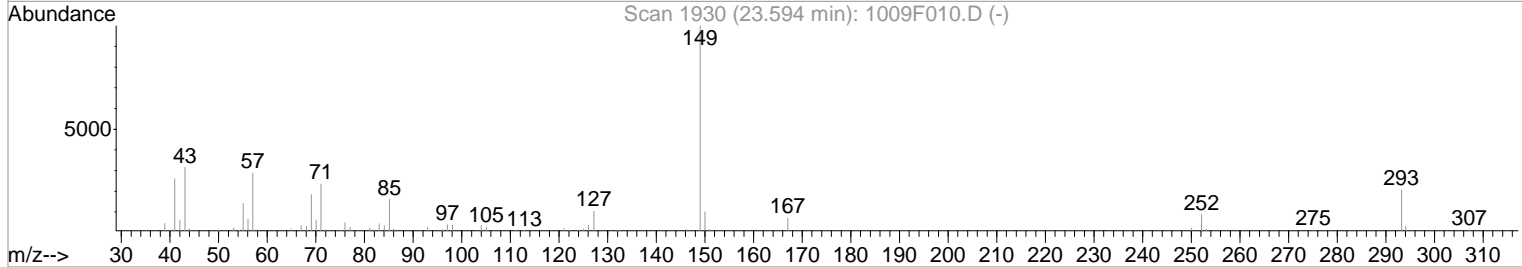
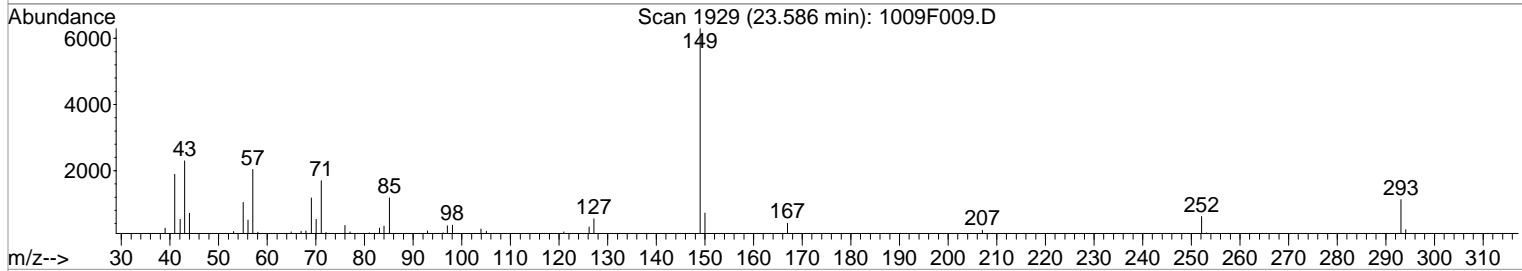
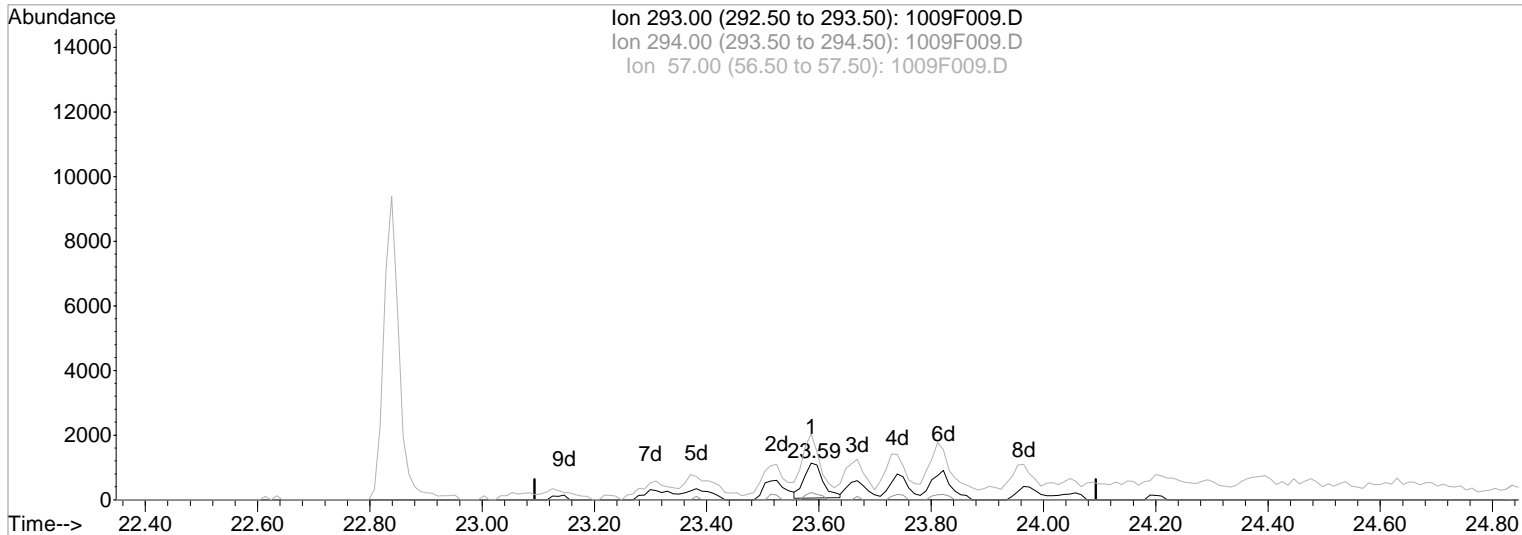
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F009.D

(88) Diisononyl Phthalate (T)

Manual Integration:

23.59min 7.58ug/ml

Before

response 2510

Ion	Exp%	Act%
293.00	100	100
294.00	1.60	16.14
57.00	15.00	150.24#
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F009.D

Vial: 9

Acq On : 9 Oct 2019 5:41 pm

Operator: CCONOVER/LM

Sample : ICAL @50ppm | SVM-62-13H

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:44 2019

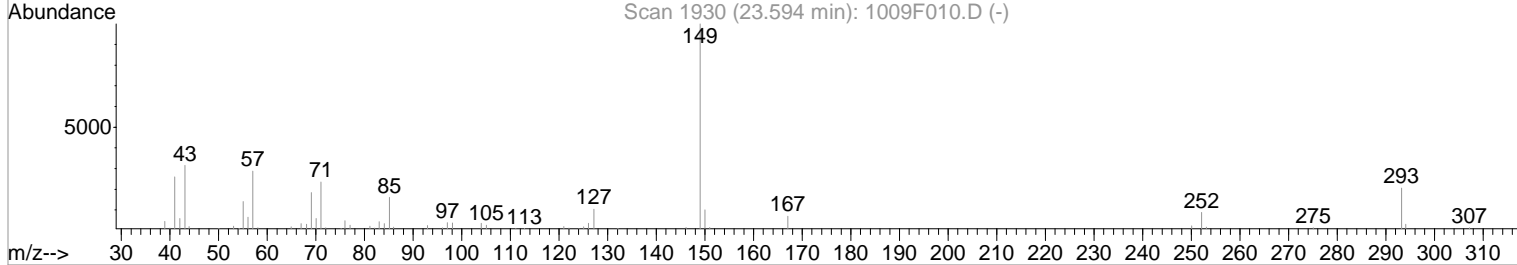
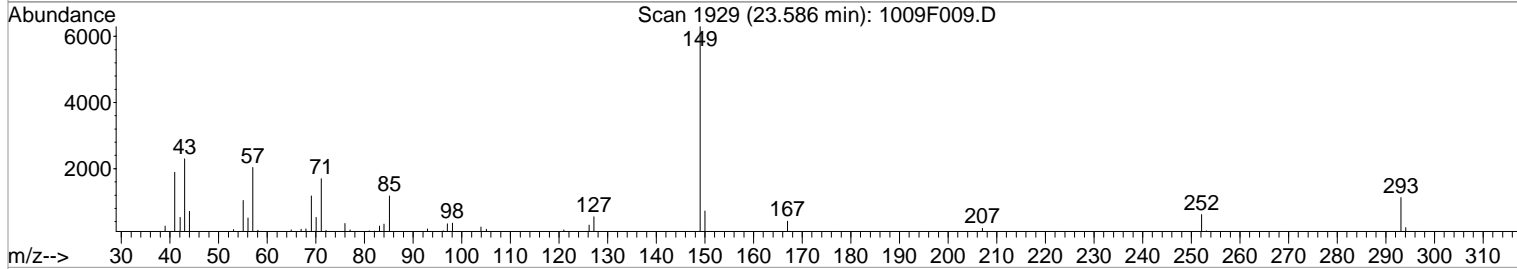
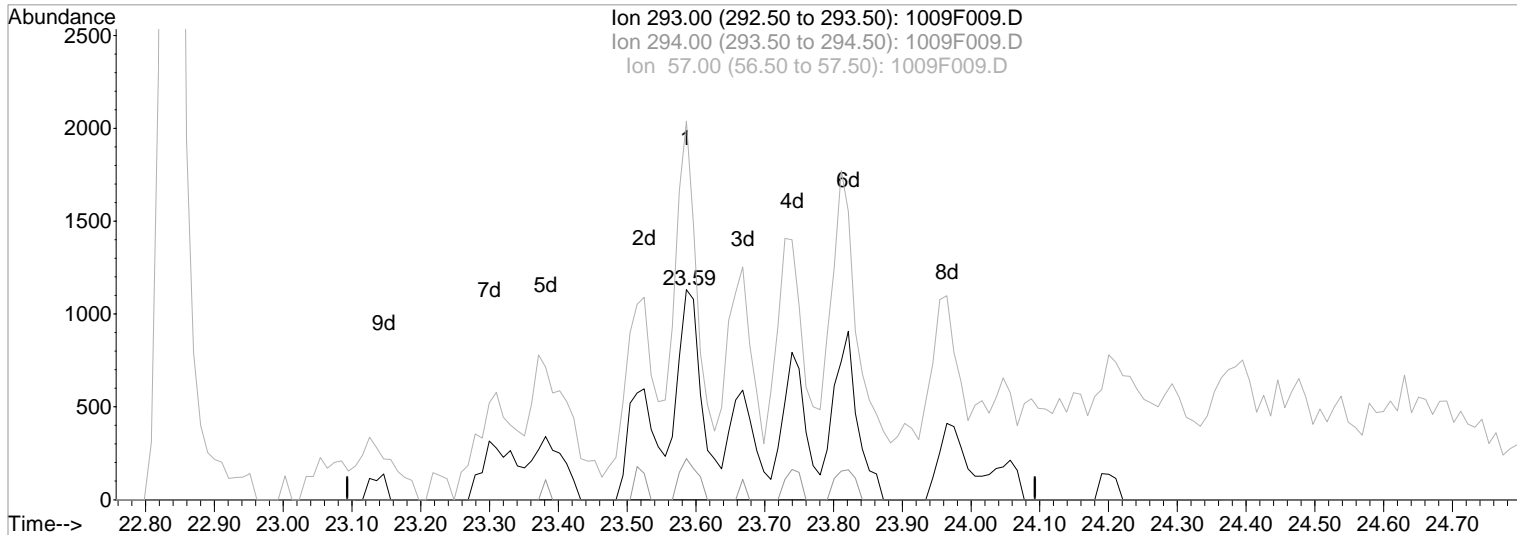
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F009.D

(88) Diisononyl Phthalate (T)

Manual Integration:

23.59min 42.82ug/ml m

After

response 14182

Range integration correction

Ion	Exp%	Act%
293.00	100	100
294.00	1.60	2.86
57.00	15.00	26.59
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F009.D

Vial: 9

Acq On : 9 Oct 2019 5:41 pm

Operator: CCONOVER/LM

Sample : ICAL @50ppm | SVM-62-13H

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:44 2019

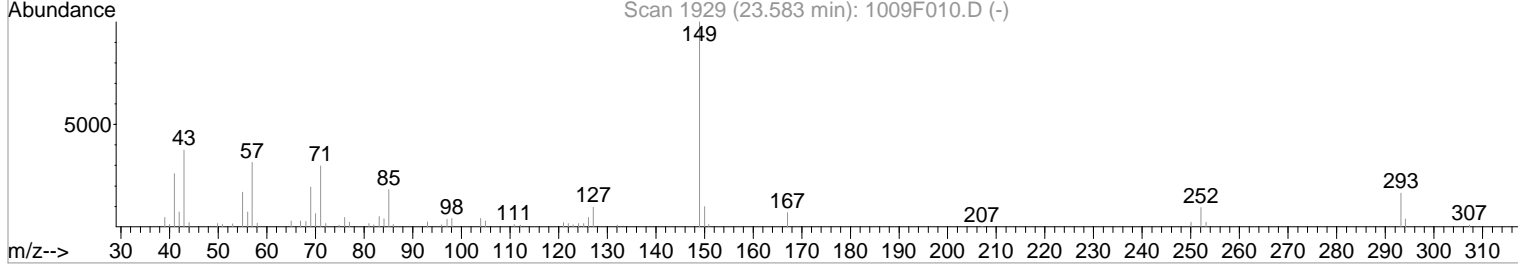
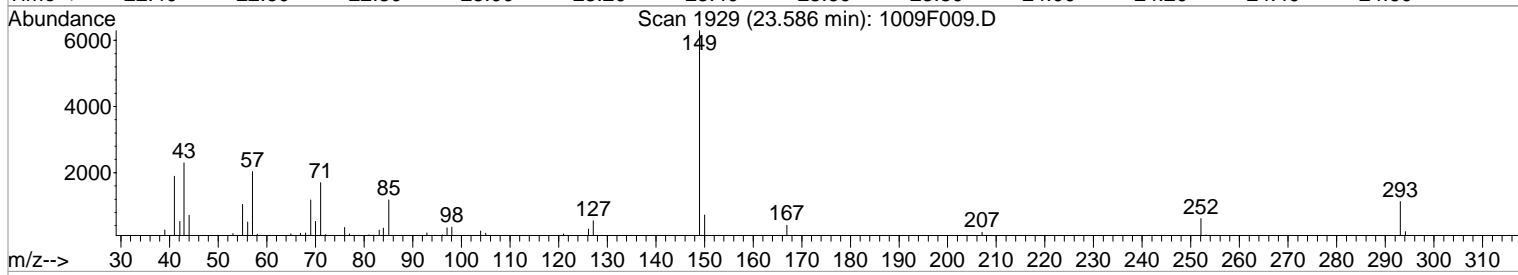
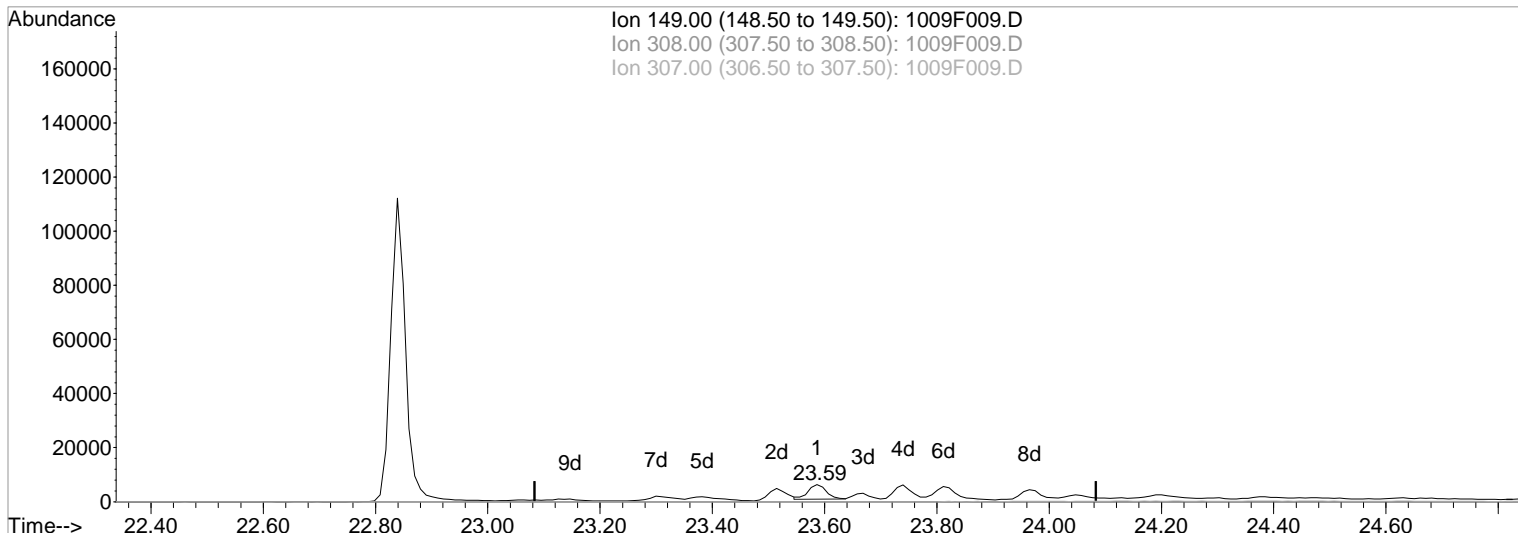
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F009.D

(89) Diisodecyl Phthalate (T)

Manual Integration:

23.59min 2.91ug/ml

Before

response 12429

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.00
307.00	0.00	0.00
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F009.D

Vial: 9

Acq On : 9 Oct 2019 5:41 pm

Operator: CCONOVER/LM

Sample : ICAL @50ppm | SVM-62-13H

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:44 2019

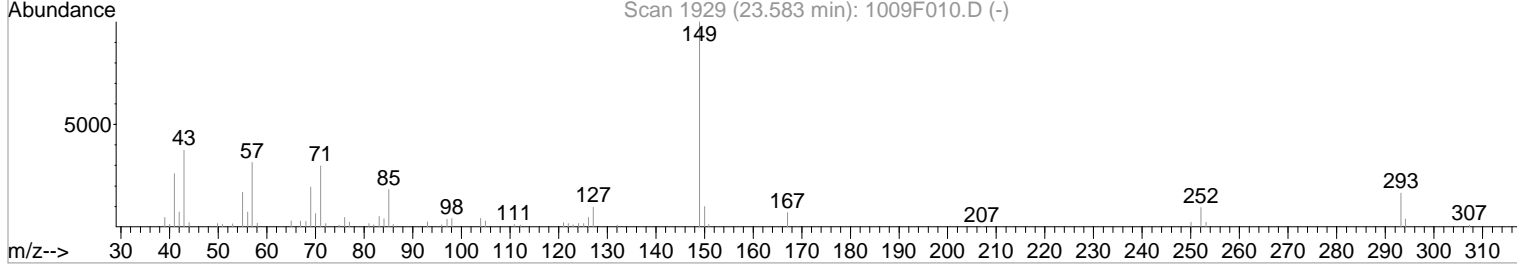
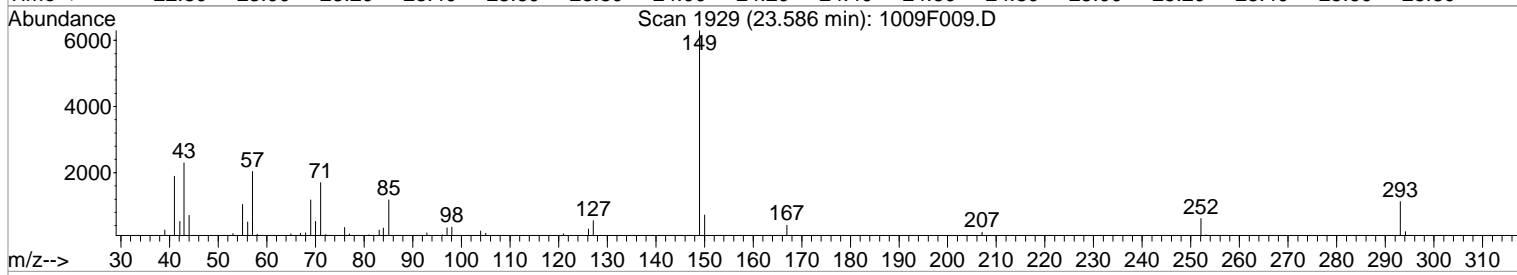
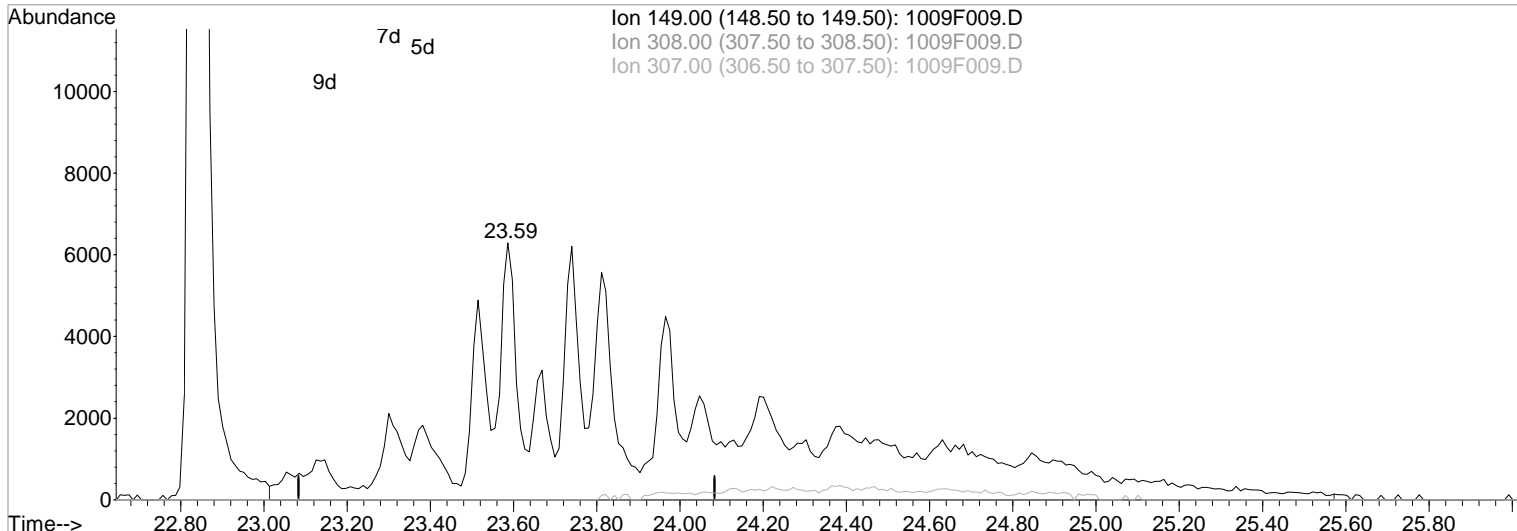
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F009.D

(89) Diisodecyl Phthalate (T)

Manual Integration:

23.59min 45.67ug/ml m

After

response 195147

Range integration correction

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.00
307.00	0.00	0.00
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F010.D
 Acq On : 9 Oct 2019 6:22 pm
 Sample : ICAL @80ppm | SVM-62-13I
 Misc :

Vial: 10
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 09:11:07 2019

Quant Results File: 100919_BNP7.RES

Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 09:10:47 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.35	152	52000	40.00	ug/ml	0.00
22) Naphthalene-d8	11.44	136	202950	40.00	ug/ml	0.00
36) Acenaphthene-d10	14.30	164	108272	40.00	ug/ml	0.00
61) Phenanthrene-d10	16.70	188	160270	40.00	ug/ml	0.00
73) Chrysene-d12	21.15	240	136019	40.00	ug/ml	0.00
84) Perylene-d12	24.31	264	160822	40.00	ug/ml	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
4) 2-Fluorophenol	7.12	112	133821	80.00	ug/ml	0.00
Spiked Amount	150.000	Range	21 - 100	Recovery	=	53.33%
8) Phenol-d6	8.81	99	181100	80.00	ug/ml	0.00
Spiked Amount	150.000	Range	10 - 94	Recovery	=	53.33%
20) Nitrobenzene-d5	10.28	82	168967	80.00	ug/ml	0.00
Spiked Amount	100.000	Range	35 - 114	Recovery	=	80.00%
40) 2-Fluorobiphenyl	13.25	172	294879	80.00	ug/ml	0.00
Spiked Amount	100.000	Range	43 - 116	Recovery	=	80.00%
62) 2,4,6-Tribromophenol	15.59	330	80645	80.00	ug/ml	0.00
Spiked Amount	150.000	Range	10 - 123	Recovery	=	53.33%
76) Terphenyl-d14	19.34	244	311653	80.00	ug/ml	0.00
Spiked Amount	100.000	Range	33 - 141	Recovery	=	80.00%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-Nitrosodimethylamine	4.32	42	97742	80.47	ug/ml	100
3) Pyridine	4.35	79	166983	80.00	ug/ml	100
5) Ethylene Glycol Butyl Ethe	7.68	57	169073	80.00	ug/ml	100
6) Aniline	8.80	93	208867	80.00	ug/ml	100
7) Bis(2-chloroethyl) Ether	8.96	93	148378	79.99	ug/ml	100
9) Phenol	8.83	94	206737	80.00	ug/ml	100
10) 2-Chlorophenol	8.99	128	146414	80.00	ug/ml	100
11) 1,3-Dichlorobenzene	9.24	146	151244	80.00	ug/ml	100
12) 1,4-Dichlorobenzene	9.38	146	156314	80.00	ug/ml	100
13) 1,2-Dichlorobenzene	9.61	146	145019	80.00	ug/ml	100
14) Benzyl Alcohol	9.62	108	96918	80.00	ug/ml	100
15) 2,2'-oxybis(1-chloropropan	9.87	45	193815m	80.02	ug/ml	100
16) 2-Methylphenol	9.85	107	116519	80.00	ug/ml	100
17) Hexachloroethane	10.17	117	71547	80.00	ug/ml	100
18) N-Nitrosodi-n-propylamine	10.08	70	109063	80.00	ug/ml	100
19) 4-Methylphenol	10.10	107	183106	80.00	ug/ml	100
21) Nitrobenzene	10.31	77	160530	80.00	ug/ml	100
23) Isophorone	10.73	82	296850	80.00	ug/ml	100
24) 2-Nitrophenol	10.83	139	81303	80.00	ug/ml	100
25) 2,4-Dimethylphenol	10.96	122	123960	80.00	ug/ml	100
26) Bis(2-chloroethoxy)methane	11.12	93	182679	80.00	ug/ml	100
27) 2,4-Dichlorophenol	11.24	162	128016	79.83	ug/ml	100
28) Benzoic Acid	11.24	122	87585	80.00	ug/ml	100
29) 1,2,4-Trichlorobenzene	11.36	180	131792	80.00	ug/ml	100
30) Naphthalene	11.47	128	379798	80.00	ug/ml	100
31) n-Dodecane	11.55	57	176524	80.00	ug/ml	100
32) 4-Chloroaniline	11.60	127	176108	79.87	ug/ml	100
33) Hexachlorobutadiene	11.72	225	83309	80.00	ug/ml	100
34) 4-Chloro-3-methylphenol	12.42	107	126977	80.00	ug/ml	100
35) 2-Methylnaphthalene	12.62	142	260444	79.96	ug/ml	100
37) Hexachlorocyclopentadiene	12.89	237	99348	80.00	ug/ml	100
38) 2,4,6-Trichlorophenol	13.09	196	91207	80.00	ug/ml	100
39) 2,4,5-Trichlorophenol	13.14	196	98850	79.67	ug/ml	100
41) 2-Chloronaphthalene	13.40	162	247012	80.00	ug/ml	100
42) 2-Nitroaniline	13.59	65	85534	80.00	ug/ml	100
43) Acenaphthylene	14.06	152	363515	80.00	ug/ml	100

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS07\DATA\100919\1009F010.D
 Acq On : 9 Oct 2019 6:22 pm
 Sample : ICAL @80ppm | SVM-62-13I
 Misc :

Vial: 10
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 09:11:07 2019

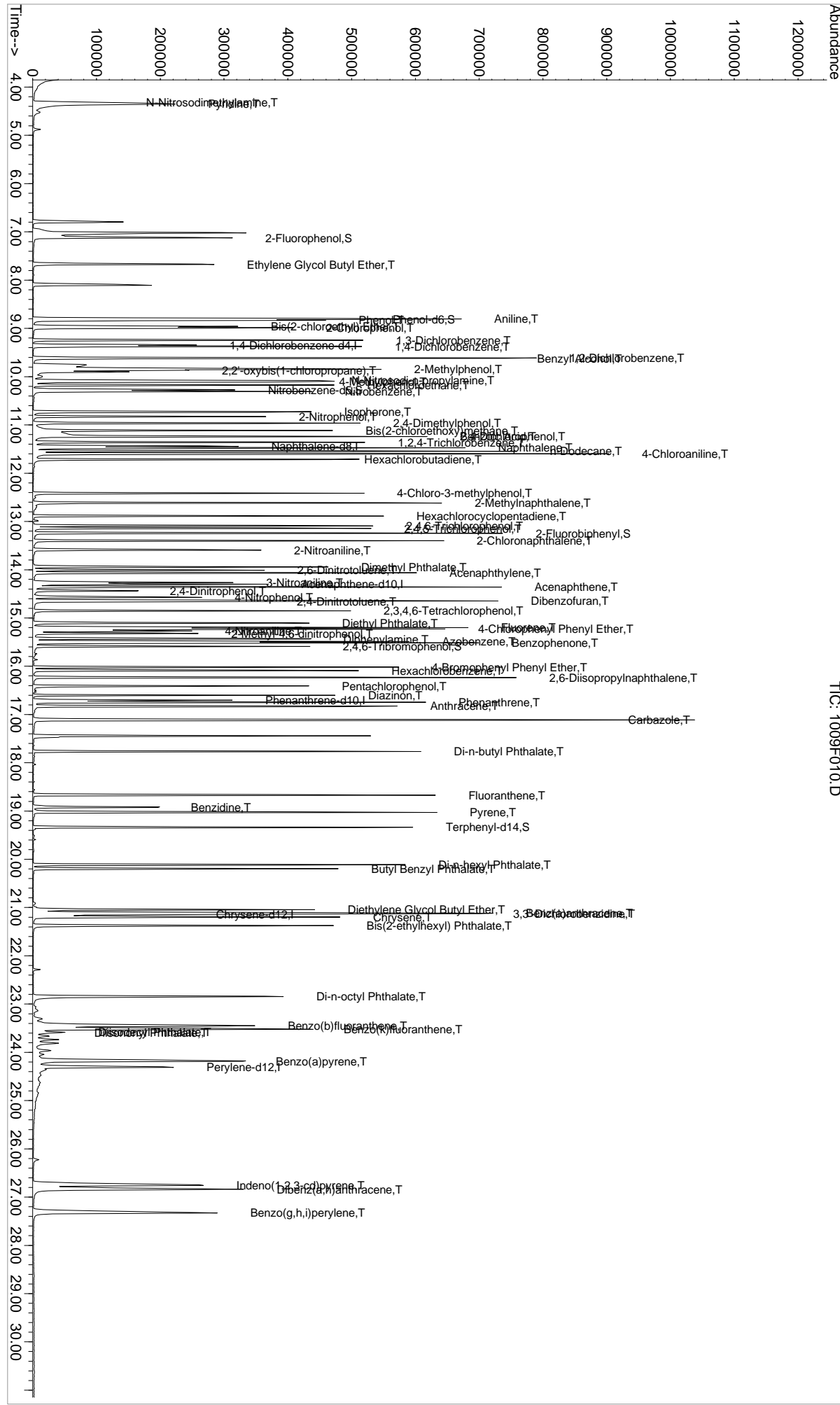
Quant Results File: 100919_BNP7.RES

Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 09:10:47 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44) Dimethyl Phthalate	13.94	163	266486	80.00	ug/ml	100
45) 2,6-Dinitrotoluene	14.01	165	63924	80.00	ug/ml	100
46) Acenaphthene	14.36	154	215825	80.00	ug/ml	100
47) 3-Nitroaniline	14.27	138	71998	80.00	ug/ml	100
48) 2,4-Dinitrophenol	14.44	184	34844	80.00	ug/ml	100
49) Dibenzofuran	14.65	168	340519	80.00	ug/ml	100
50) 4-Nitrophenol	14.58	109	43255	79.47	ug/ml	98
51) 2,4-Dinitrotoluene	14.66	165	80636	80.00	ug/ml	100
52) 2,3,4,6-Tetrachlorophenol	14.85	232	78131	80.00	ug/ml	100
53) Fluorene	15.20	166	249081	80.00	ug/ml	100
54) 4-Chlorophenyl Phenyl Et	15.23	204	135144	80.00	ug/ml	100
55) Diethyl Phthalate	15.11	149	259867	80.00	ug/ml	100
56) 4-Nitroaniline	15.27	138	71265	80.00	ug/ml	100
57) 2-Methyl-4,6-dinitrophenol	15.32	198	49692	80.00	ug/ml	100
58) Diphenylamine	15.44	169	170914	80.00	ug/ml	100
59) Azobenzene	15.49	51	121293m	80.00	ug/ml	
60) Benzophenone	15.52	105	296251	80.00	ug/ml	100
63) 4-Bromophenyl Phenyl Ether	16.02	248	88099	80.00	ug/ml	100
64) Hexachlorobenzene	16.09	284	115585	80.00	ug/ml	100
65) 2,6-Diisopropyl naphthalene	16.23	197	206503	80.00	ug/ml	100
66) Pentachlorophenol	16.41	266	75972	80.00	ug/ml	100
67) Diazinon	16.60	137	42089	80.00	ug/ml	100
68) Phenanthrene	16.75	178	328536	80.00	ug/ml	100
69) Anthracene	16.83	178	342078	79.85	ug/ml	100
70) Carbazole	17.11	167	328384	80.00	ug/ml	100
71) Di-n-butyl Phthalate	17.77	149	405207	80.10	ug/ml	100
72) Fluoranthene	18.67	202	354855	80.00	ug/ml	100
74) Benzidine	18.93	184	115729	80.00	ug/ml	100
75) Pyrene	19.03	202	353400	79.95	ug/ml	100
77) Di-n-hexyl Phthalate	20.11	149	402081	80.00	ug/ml	100
78) Butyl Benzyl Phthalate	20.20	149	160799	80.00	ug/ml	100
79) Diethylene Glycol Butyl Et	21.04	105	247725	80.00	ug/ml	100
80) 3,3'-Dichlorobenzidine	21.13	252	142469	80.00	ug/ml	100
81) Benz(a)anthracene	21.12	228	281993	80.00	ug/ml	100
82) Chrysene	21.20	228	283229	79.96	ug/ml	100
83) Bis(2-ethylhexyl) Phthalat	21.37	149	207409	80.08	ug/ml	100
85) Di-n-octyl Phthalate	22.85	149	357986	80.51	ug/ml	100
86) Benzo(b)fluoranthene	23.45	252	353070	80.00	ug/ml	100
87) Benzo(k)fluoranthene	23.52	252	335538	80.00	ug/ml	100
88) Diisononyl Phthalate	23.59	293	26604m	80.00	ug/ml	
89) Diisodecyl Phthalate	23.58	149	343333m	80.02	ug/ml	
90) Benzo(a)pyrene	24.19	252	315462	80.00	ug/ml	100
91) Indeno(1,2,3-cd)pyrene	26.76	276	322115	80.00	ug/ml	100
92) Dibenz(a,h)anthracene	26.84	278	324031	80.00	ug/ml	100
93) Benzo(g,h,i)perylene	27.33	276	332032	79.97	ug/ml	100

Data File : J:\MS07\DATA\100919\1009F010.D
Acq On : 9 Oct 2019 6:22 pm
Sample : ICAL@80ppm | SVM-62-131
Misc :
MS Integration Params: RTEINT.P
Quant Results File: 100919_BNP7.RES
Vial: 10
Operator: CCONOVER/LM
Inst: MS07
Multiplr: 1.00

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Oct 10 09:10:47 2019
Response via : Initial Calibration
MS07



Quantitation Report (QT Reviewed)

Data File : J:\MS07\DATA\100919\1009F010.D

Vial: 10

Acq On : 9 Oct 2019 6:22 pm

Operator: CCONOVER/LM

Sample : ICAL @80ppm | SVM-62-13I

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:16 2019

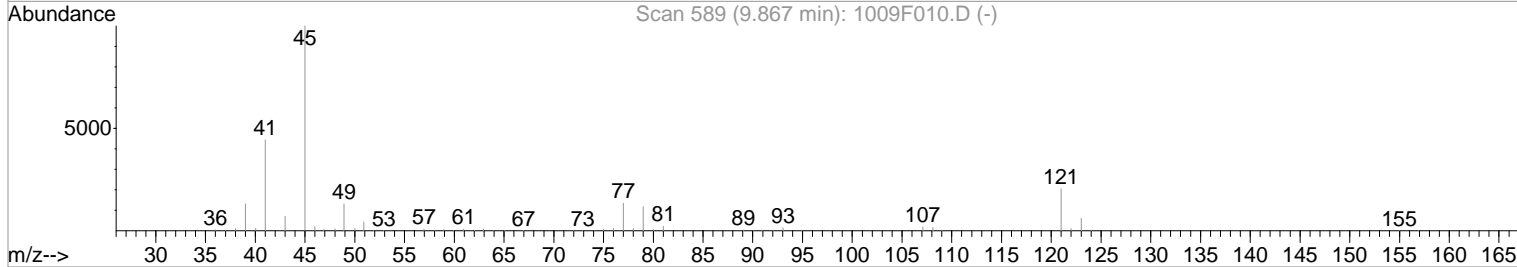
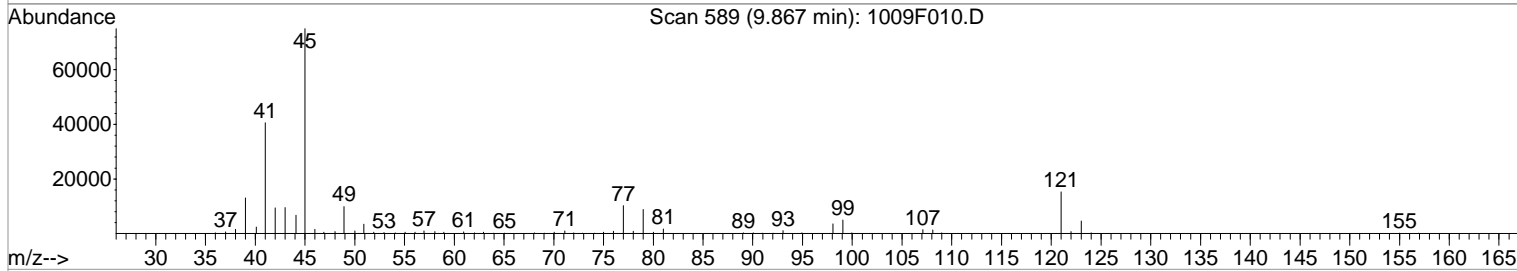
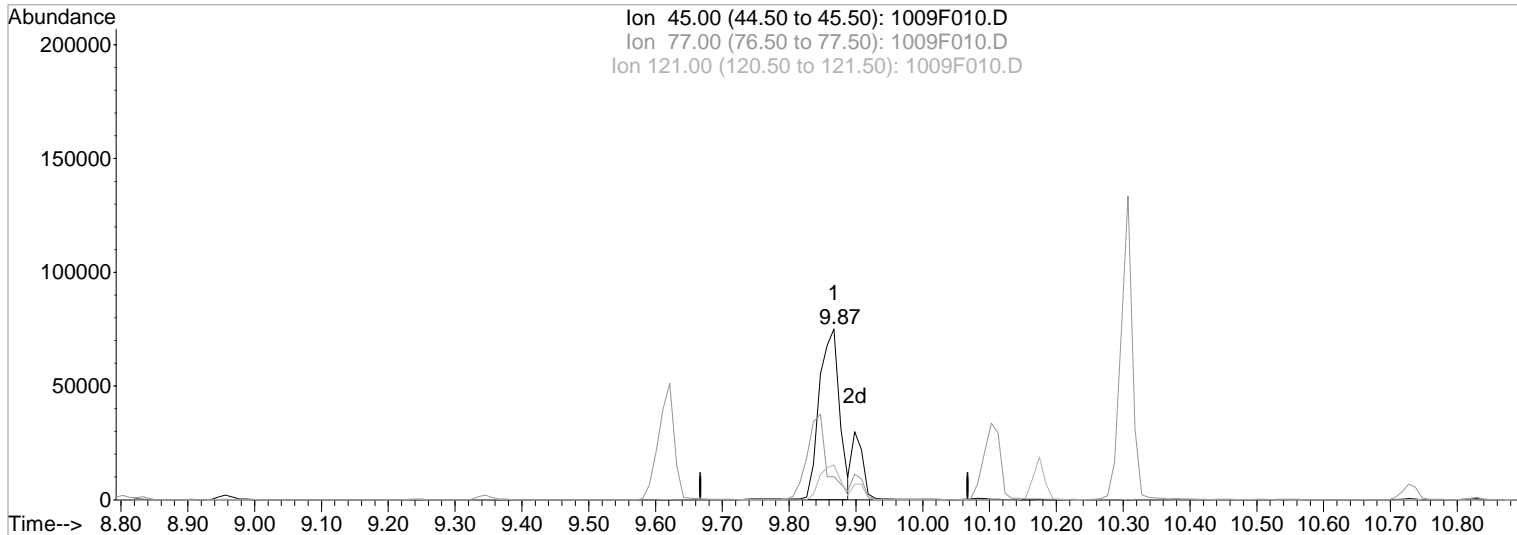
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F010.D

(15) 2,2'-oxybis(1-chloropropane) (T)

Manual Integration:

9.87min 65.01ug/ml

Before

response 157447

Ion	Exp%	Act%
45.00	100	100
77.00	13.60	11.81
121.00	20.40	20.47
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F010.D

Vial: 10

Acq On : 9 Oct 2019 6:22 pm

Operator: CCONOVER/LM

Sample : ICAL @80ppm | SVM-62-13I

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:46 2019

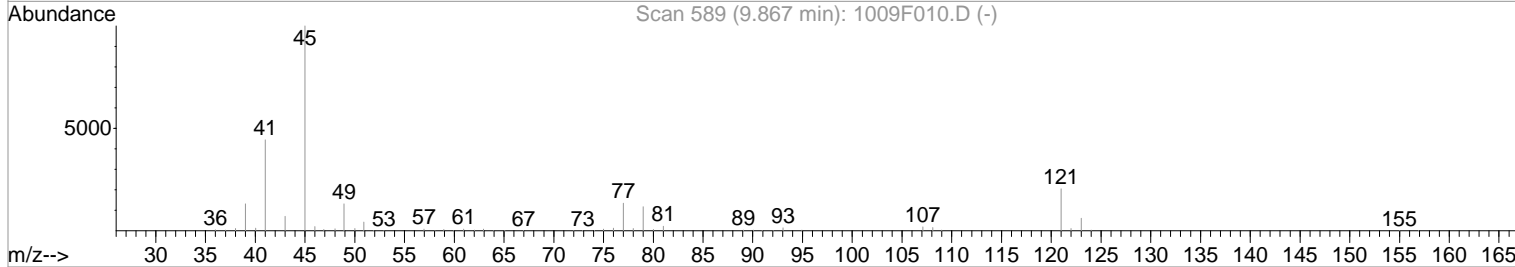
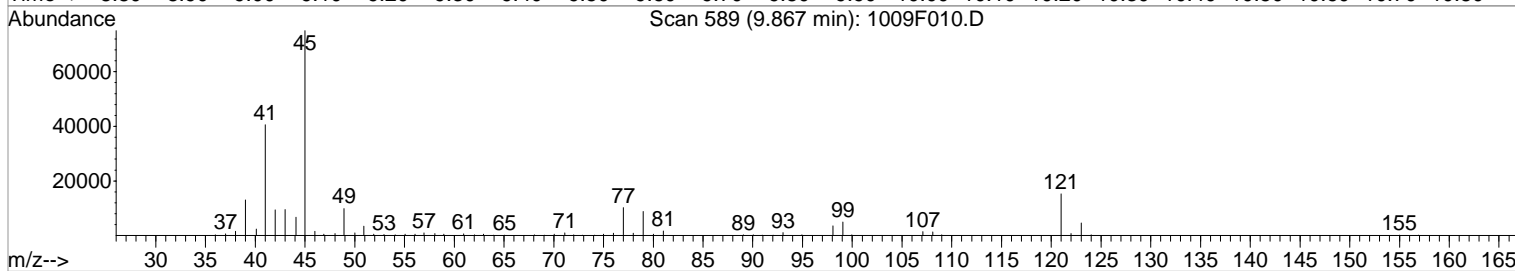
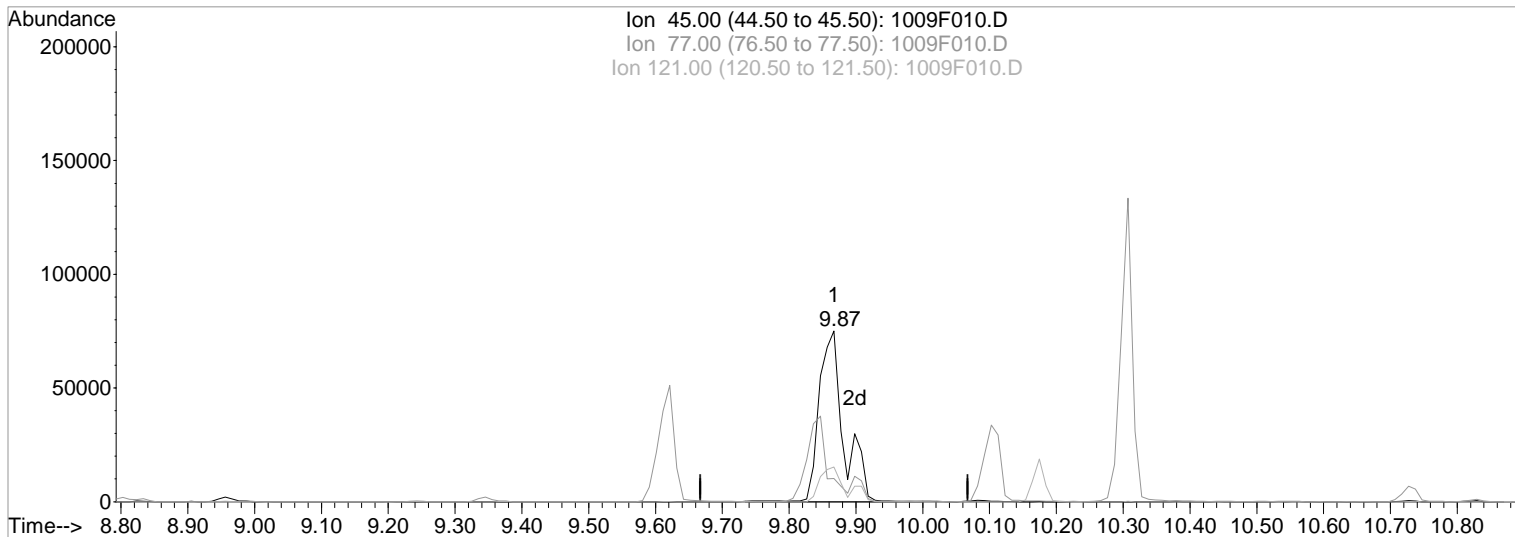
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F010.D

(15) 2,2'-oxybis(1-chloropropane) (T)

Manual Integration:

9.87min 80.02ug/ml m

After

response 193815

IC - incomplete

Ion	Exp%	Act%
45.00	100	100
77.00	13.60	13.59
121.00	20.40	20.35
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F010.D

Vial: 10

Acq On : 9 Oct 2019 6:22 pm

Operator: CCONOVER/LM

Sample : ICAL @80ppm | SVM-62-13I

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:46 2019

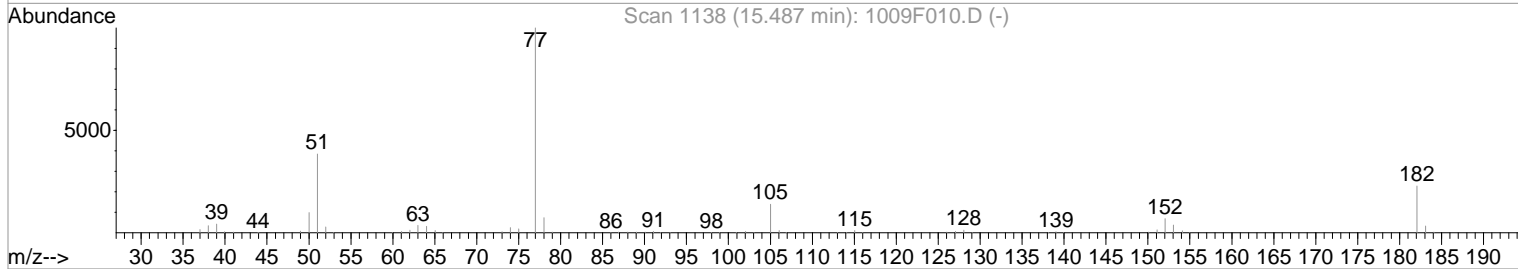
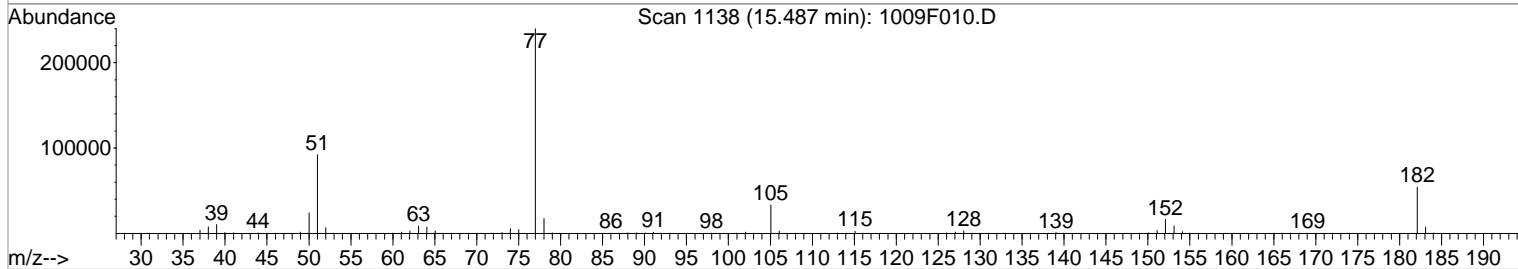
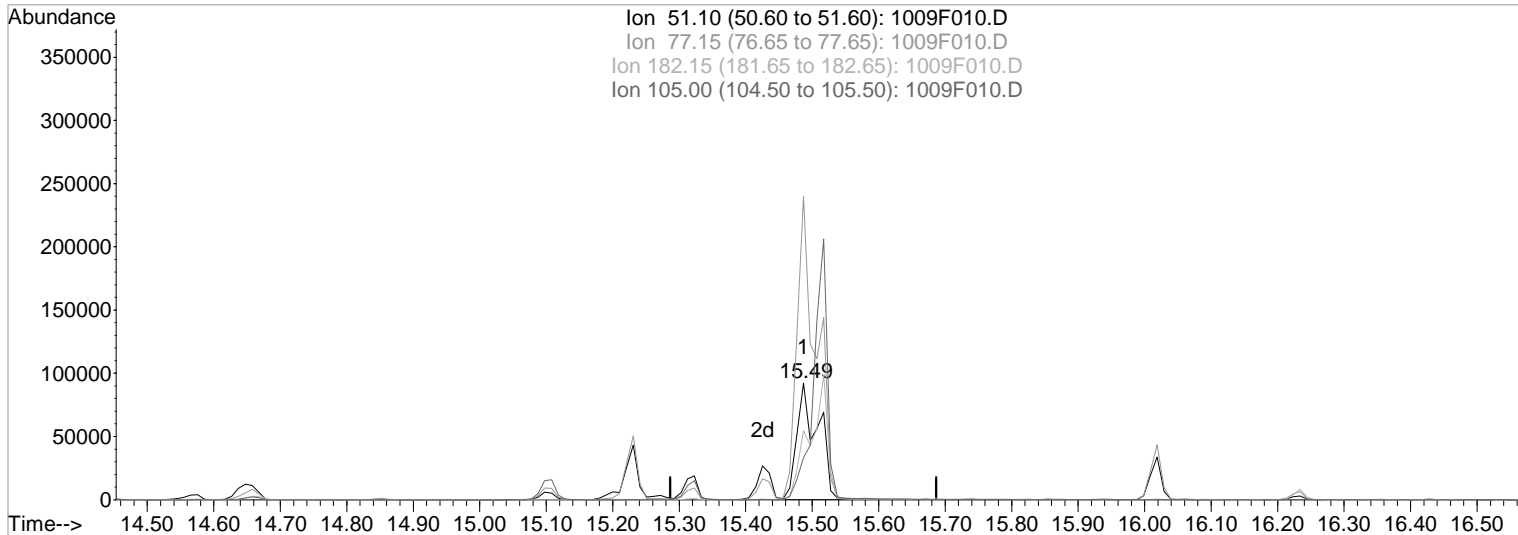
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F010.D

(59) Azobenzene (T)

Manual Integration:

15.49min 133.76ug/ml

Before

response 202801

Ion Exp% Act%

10/10/19

51.10 100 100

77.15 260.40 260.82

182.15 59.10 59.11

105.00 36.00 35.70

Data File : J:\MS07\DATA\100919\1009F010.D

Vial: 10

Acq On : 9 Oct 2019 6:22 pm

Operator: CCONOVER/LM

Sample : ICAL @80ppm | SVM-62-13I

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:47 2019

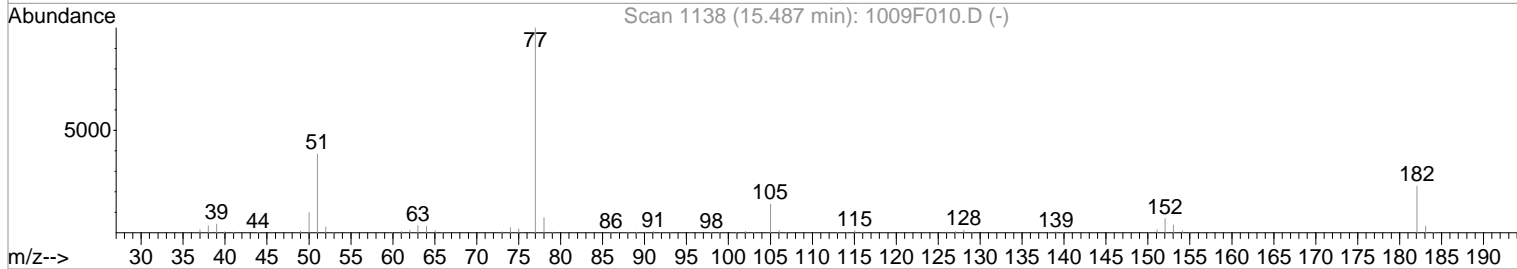
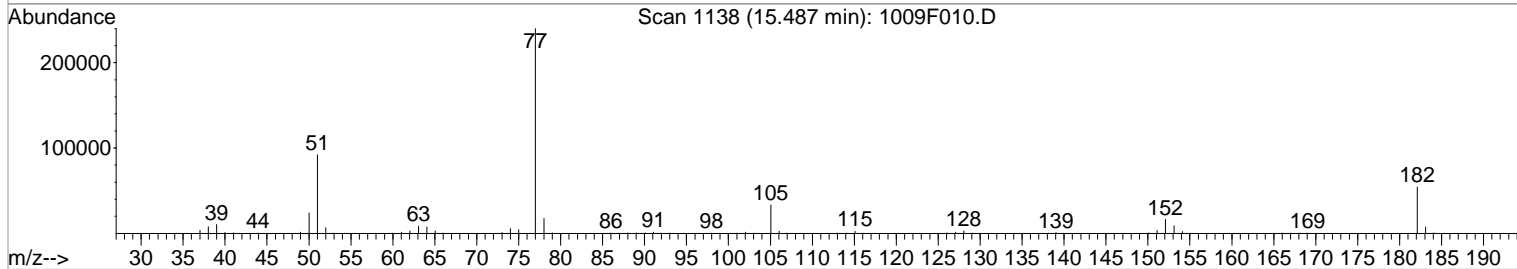
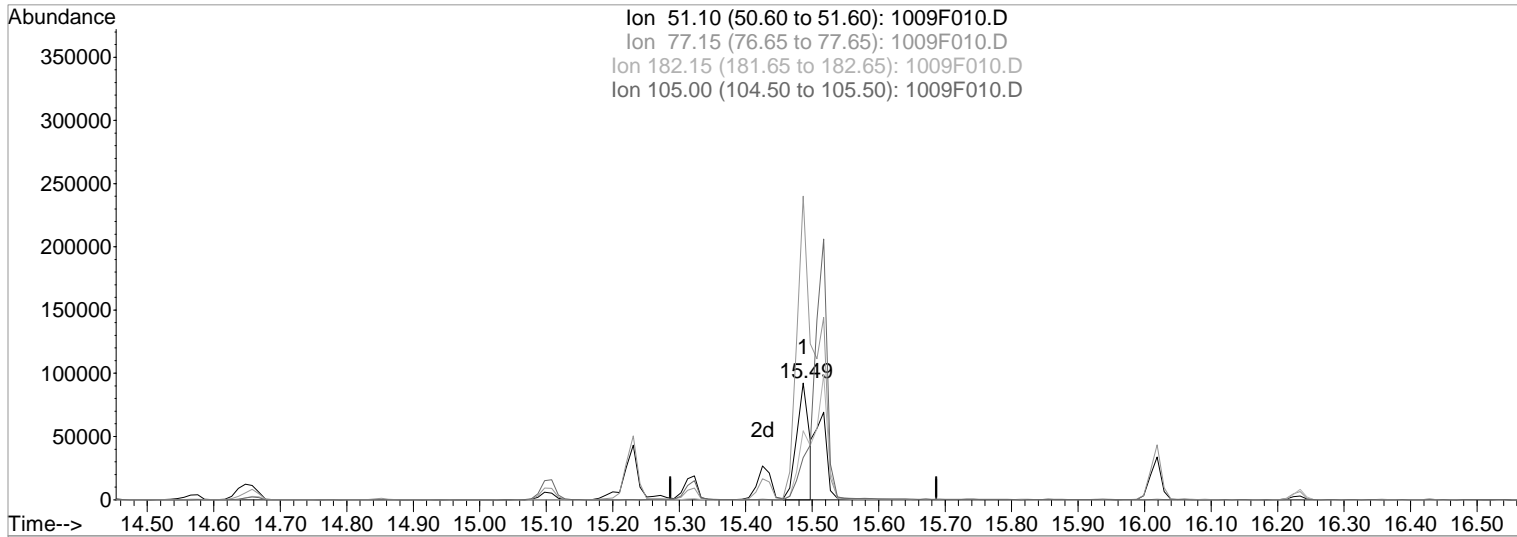
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F010.D

(59) Azobenzene (T)

Manual Integration:

15.49min 80.00ug/ml m

After

response 121293

IC - overintegrated

Ion Exp% Act%

10/10/19

51.10 100 100

77.15 260.40 260.37

182.15 59.10 59.07

105.00 36.00 36.04

Data File : J:\MS07\DATA\100919\1009F010.D

Vial: 10

Acq On : 9 Oct 2019 6:22 pm

Operator: CCONOVER/LM

Sample : ICAL @80ppm | SVM-62-13I

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:47 2019

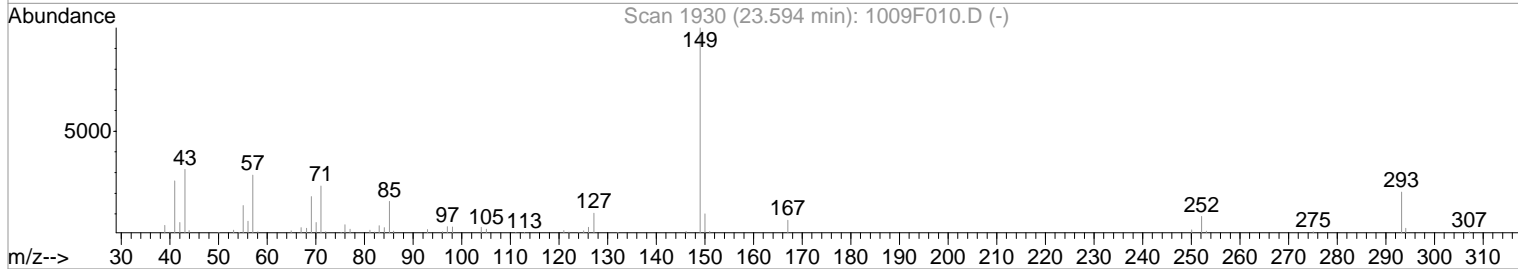
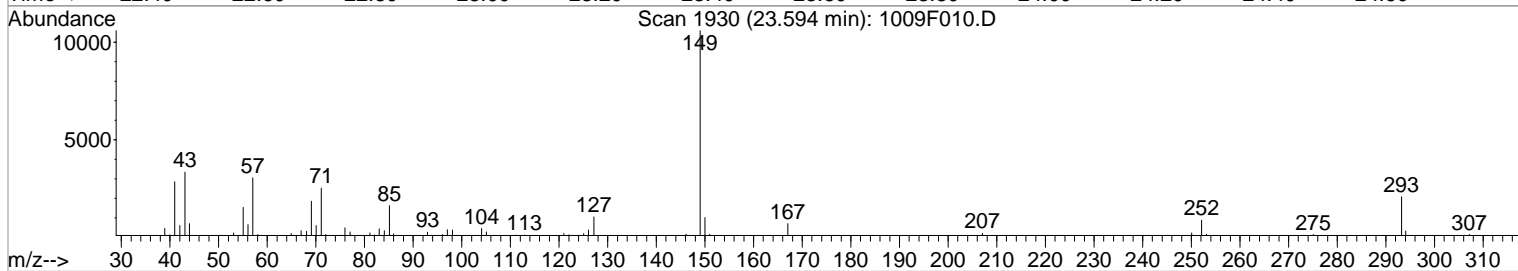
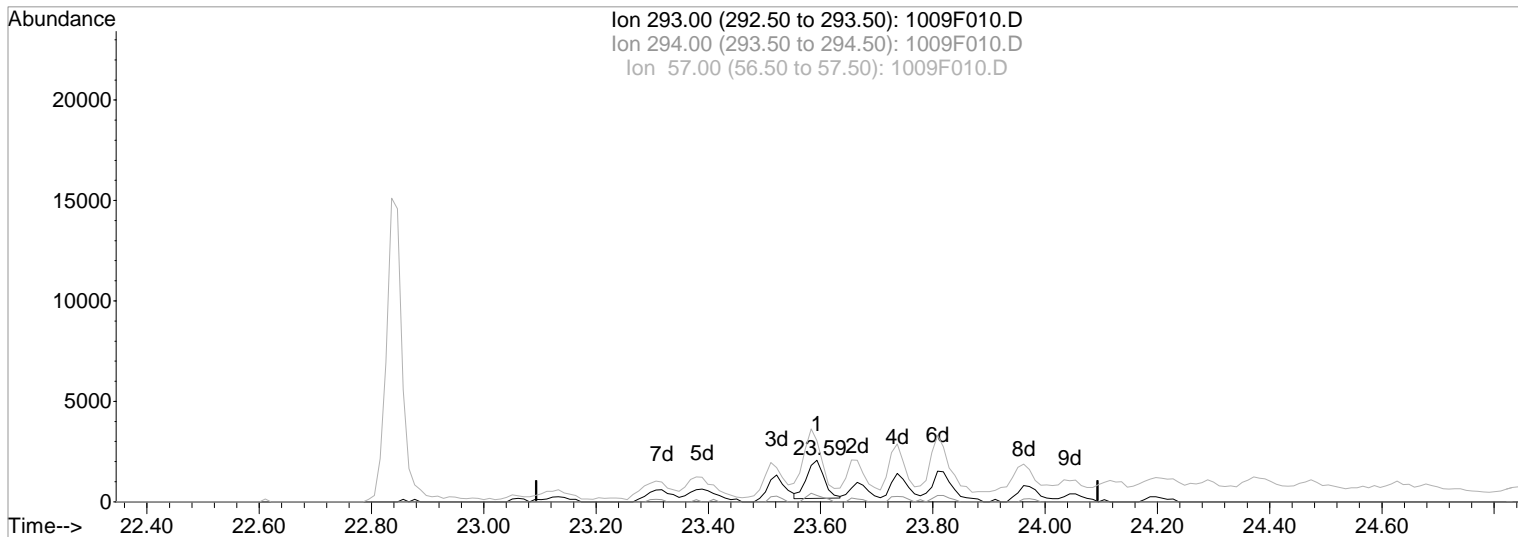
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F010.D

(88) Diisononyl Phthalate (T)

Manual Integration:

23.59min 12.32ug/ml

Before

response 4097

Ion	Exp%	Act%
293.00	100	100
294.00	1.60	19.38
57.00	15.00	155.16#
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F010.D
 Acq On : 9 Oct 2019 6:22 pm
 Sample : ICAL @80ppm | SVM-62-13I
 Misc :

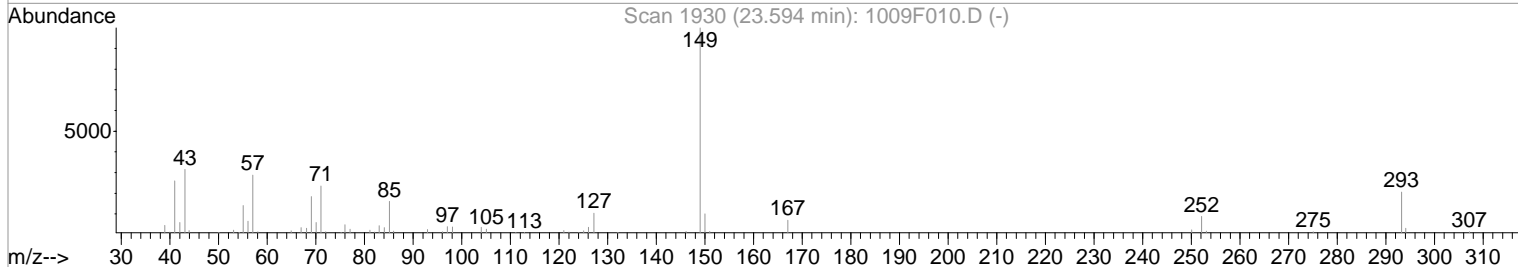
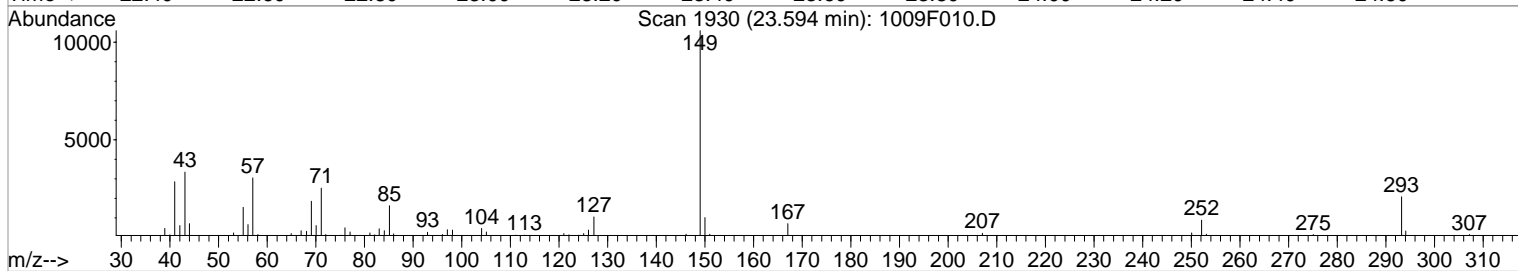
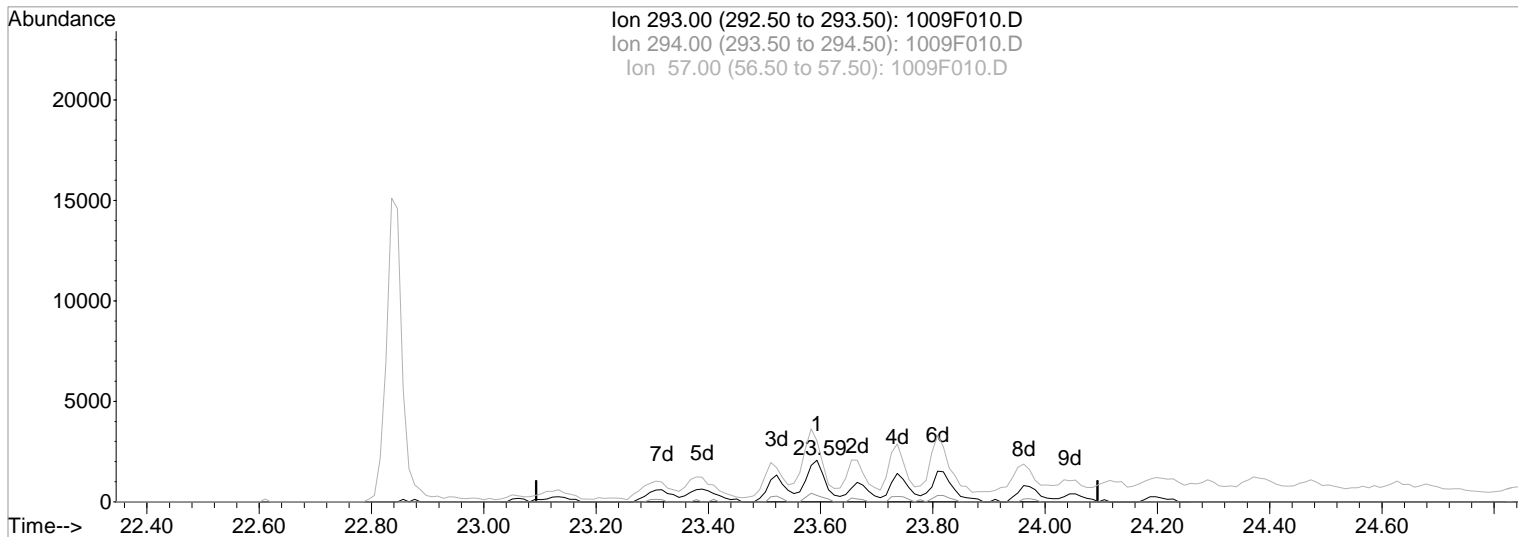
Vial: 10
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:48 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 09:10:47 2019
 Response via : Multiple Level Calibration



TIC: 1009F010.D

(88) Diisononyl Phthalate (T)

Manual Integration:

23.59min 80.00ug/ml m

After

response 26604

Range integration correction

Ion	Exp%	Act%
293.00	100	100
294.00	1.60	2.98
57.00	15.00	23.89
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F010.D

Vial: 10

Acq On : 9 Oct 2019 6:22 pm

Operator: CCONOVER/LM

Sample : ICAL @80ppm | SVM-62-13I

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:48 2019

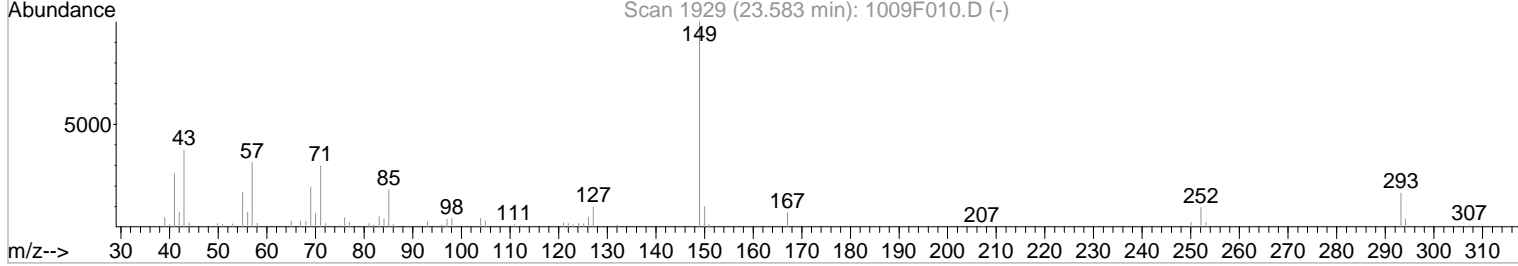
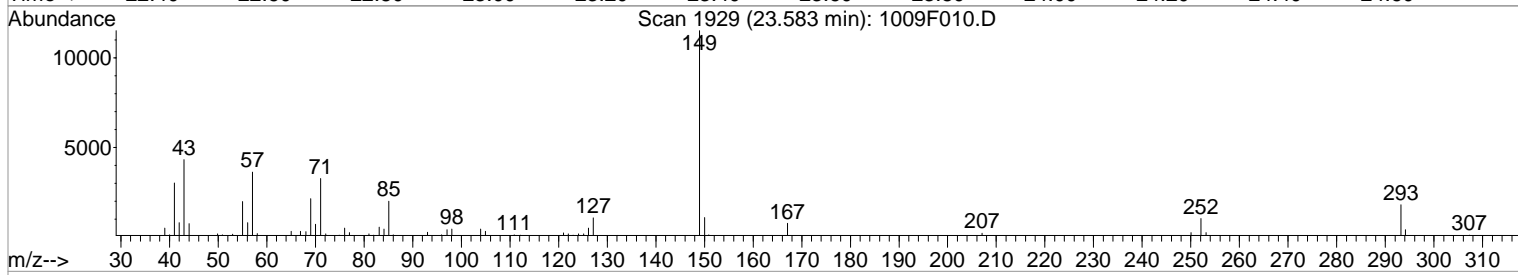
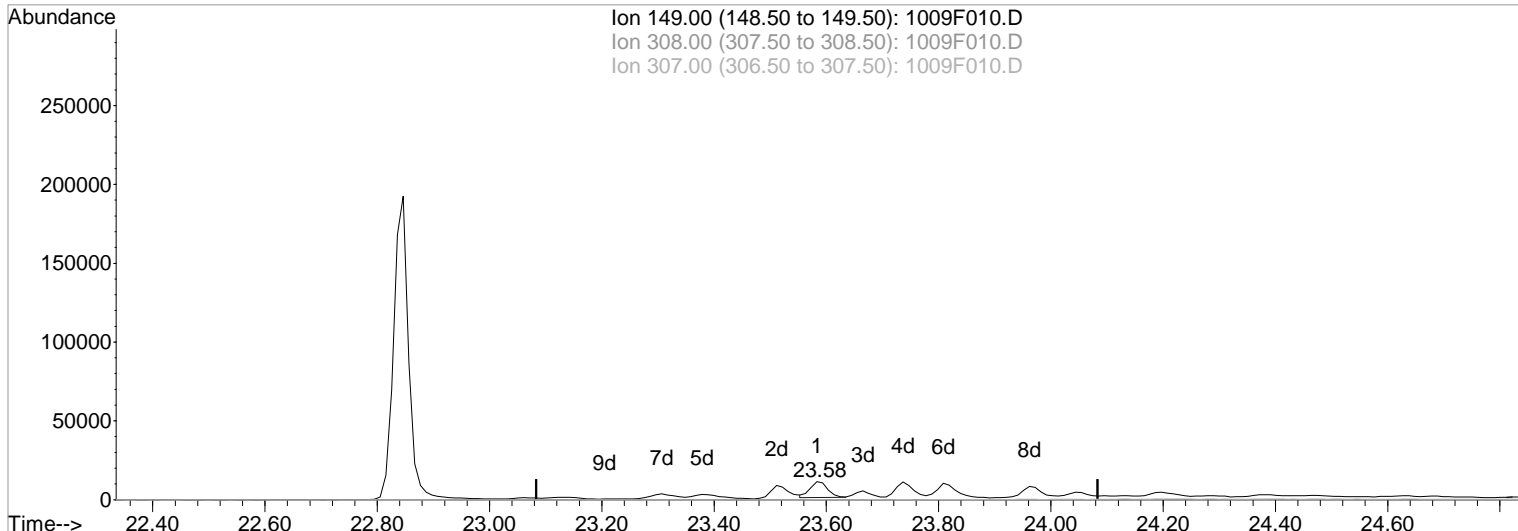
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F010.D

(89) Diisodecyl Phthalate (T)

Manual Integration:

23.58min 5.03ug/ml

Before

response 21586

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.00
307.00	0.00	1.34
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F010.D

Vial: 10

Acq On : 9 Oct 2019 6:22 pm

Operator: CCONOVER/LM

Sample : ICAL @80ppm | SVM-62-13I

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:48 2019

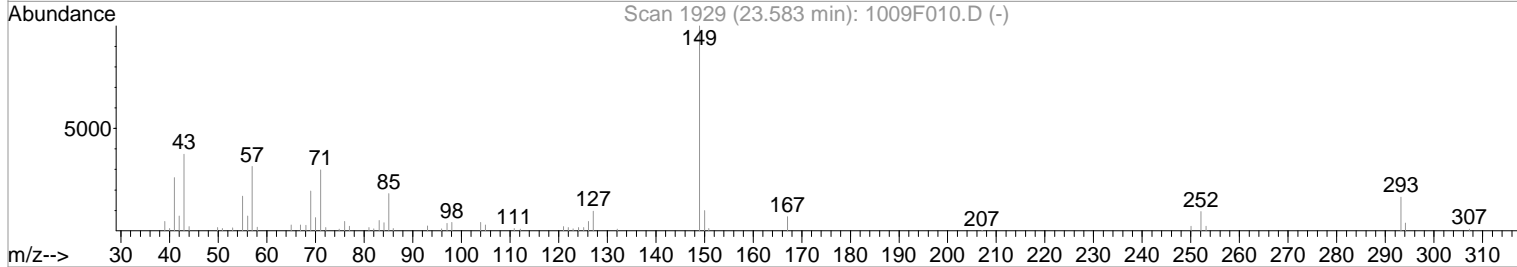
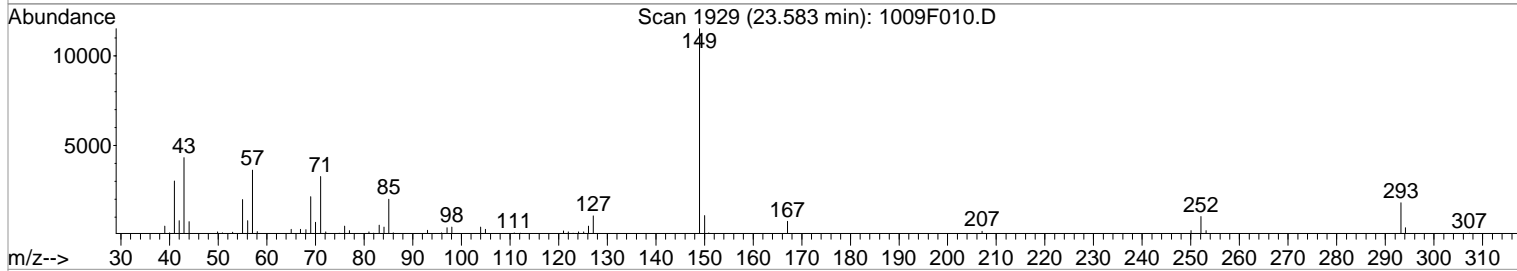
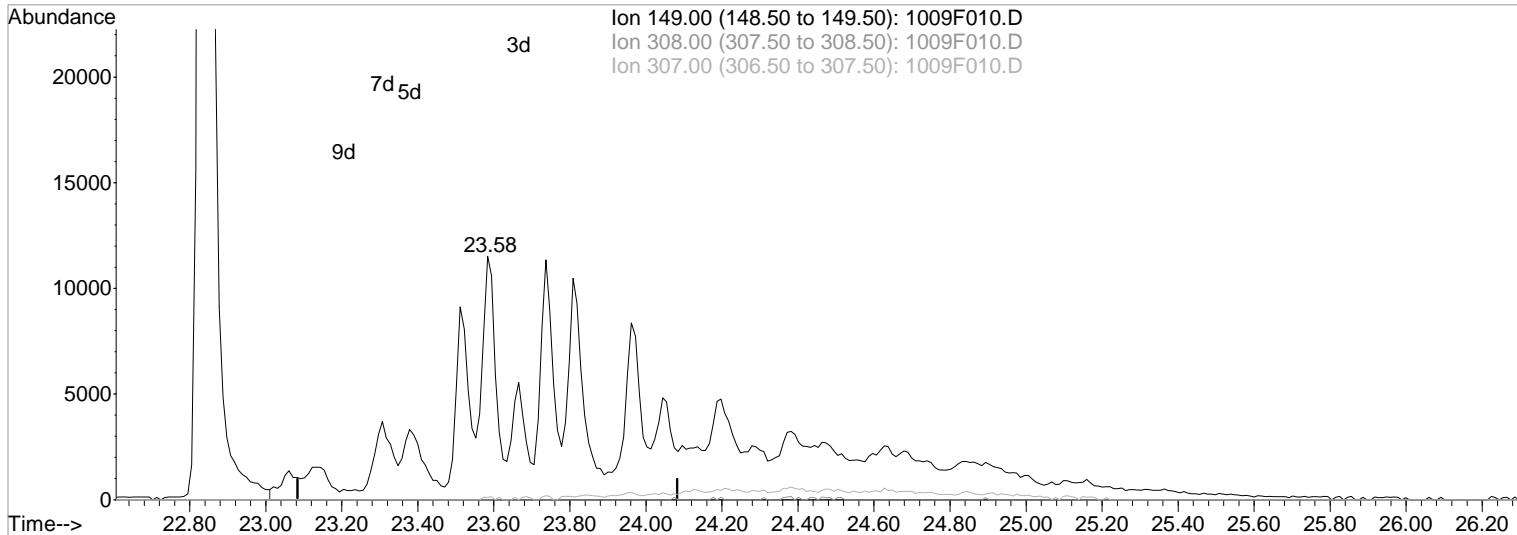
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F010.D

(89) Diisodecyl Phthalate (T)

Manual Integration:

23.58min 80.02ug/ml m

After

response 343333

Range integration correction

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.00
307.00	0.00	0.08
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F011.D
 Acq On : 9 Oct 2019 7:04 pm
 Sample : ICAL @100ppm | SVM-62-13J
 Misc :

Vial: 11
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 09:11:08 2019

Quant Results File: 100919_BNP7.RES

Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 09:10:47 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.34	152	50251	40.00	ug/ml	0.00
22) Naphthalene-d8	11.44	136	190508	40.00	ug/ml	0.00
36) Acenaphthene-d10	14.31	164	105303	40.00	ug/ml	0.00
61) Phenanthrene-d10	16.70	188	163711	40.00	ug/ml	0.00
73) Chrysene-d12	21.14	240	134557	40.00	ug/ml	0.00
84) Perylene-d12	24.31	264	158071	40.00	ug/ml	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
4) 2-Fluorophenol	7.12	112	154255	95.43	ug/ml	0.00
Spiked Amount 150.000	Range 21	- 100	Recovery =	63.62%		
8) Phenol-d6	8.82	99	209053	95.56	ug/ml	0.00
Spiked Amount 150.000	Range 10	- 94	Recovery =	63.71%		
20) Nitrobenzene-d5	10.27	82	194964	95.52	ug/ml	0.00
Spiked Amount 100.000	Range 35	- 114	Recovery =	95.52%		
40) 2-Fluorobiphenyl	13.24	172	335647	93.63	ug/ml	0.00
Spiked Amount 100.000	Range 43	- 116	Recovery =	93.63%		
62) 2,4,6-Tribromophenol	15.60	330	100280	97.39	ug/ml	0.00
Spiked Amount 150.000	Range 10	- 123	Recovery =	64.93%		
76) Terphenyl-d14	19.34	244	362939	94.18	ug/ml	0.00
Spiked Amount 100.000	Range 33	- 141	Recovery =	94.18%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-Nitrosodimethylamine	4.33	42	113592	96.77	ug/ml	99
3) Pyridine	4.35	79	191254	94.82	ug/ml	97
5) Ethylene Glycol Butyl Ethe	7.67	57	191406	93.72	ug/ml	99
6) Aniline	8.80	93	244533	96.92	ug/ml	90
7) Bis(2-chloroethyl) Ether	8.96	93	168483	93.99	ug/ml	97
9) Phenol	8.84	94	237809	95.23	ug/ml	98
10) 2-Chlorophenol	8.99	128	170680	96.50	ug/ml	95
11) 1,3-Dichlorobenzene	9.24	146	172884	94.63	ug/ml	98
12) 1,4-Dichlorobenzene	9.37	146	178334	94.45	ug/ml	99
13) 1,2-Dichlorobenzene	9.62	146	167778	95.78	ug/ml	96
14) Benzyl Alcohol	9.62	108	113138	96.64	ug/ml	98
15) 2,2'-oxybis(1-chloropropan	9.86	45	220503	94.21	ug/ml	100
16) 2-Methylphenol	9.84	107	134385	95.48	ug/ml	96
17) Hexachloroethane	10.17	117	83281	96.36	ug/ml	92
18) N-Nitrosodi-n-propylamine	10.09	70	123677	93.88	ug/ml	95
19) 4-Methylphenol	10.11	107	206493	93.36	ug/ml	99
21) Nitrobenzene	10.30	77	185498	95.66	ug/ml	99
23) Isophorone	10.73	82	336766	96.68	ug/ml	98
24) 2-Nitrophenol	10.83	139	95750	100.37	ug/ml	95
25) 2,4-Dimethylphenol	10.97	122	138241	95.04	ug/ml	99
26) Bis(2-chloroethoxy)methane	11.11	93	209399	97.69	ug/ml	98
27) 2,4-Dichlorophenol	11.25	162	148106	98.38	ug/ml	96
28) Benzoic Acid	11.26	122	100992	98.27	ug/ml	98
29) 1,2,4-Trichlorobenzene	11.36	180	150617	97.40	ug/ml	99
30) Naphthalene	11.48	128	446439	100.18	ug/ml	99
31) n-Dodecane	11.54	57	198331	95.75	ug/ml	98
32) 4-Chloroaniline	11.59	127	208277	100.62	ug/ml	98
33) Hexachlorobutadiene	11.72	225	94702	96.88	ug/ml	99
34) 4-Chloro-3-methylphenol	12.42	107	151441	101.64	ug/ml	94
35) 2-Methylnaphthalene	12.62	142	295663	96.70	ug/ml	99
37) Hexachlorocyclopentadiene	12.88	237	112917	93.49	ug/ml	100
38) 2,4,6-Trichlorophenol	13.09	196	108743	98.07	ug/ml	97
39) 2,4,5-Trichlorophenol	13.14	196	120469	99.83	ug/ml	96
41) 2-Chloronaphthalene	13.41	162	290449	96.72	ug/ml	97
42) 2-Nitroaniline	13.59	65	104454	100.45	ug/ml	94
43) Acenaphthylene	14.07	152	425203	96.21	ug/ml	99

Data File : J:\MS07\DATA\100919\1009F011.D
 Acq On : 9 Oct 2019 7:04 pm
 Sample : ICAL @100ppm | SVM-62-13J
 Misc :

Vial: 11
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 09:11:08 2019

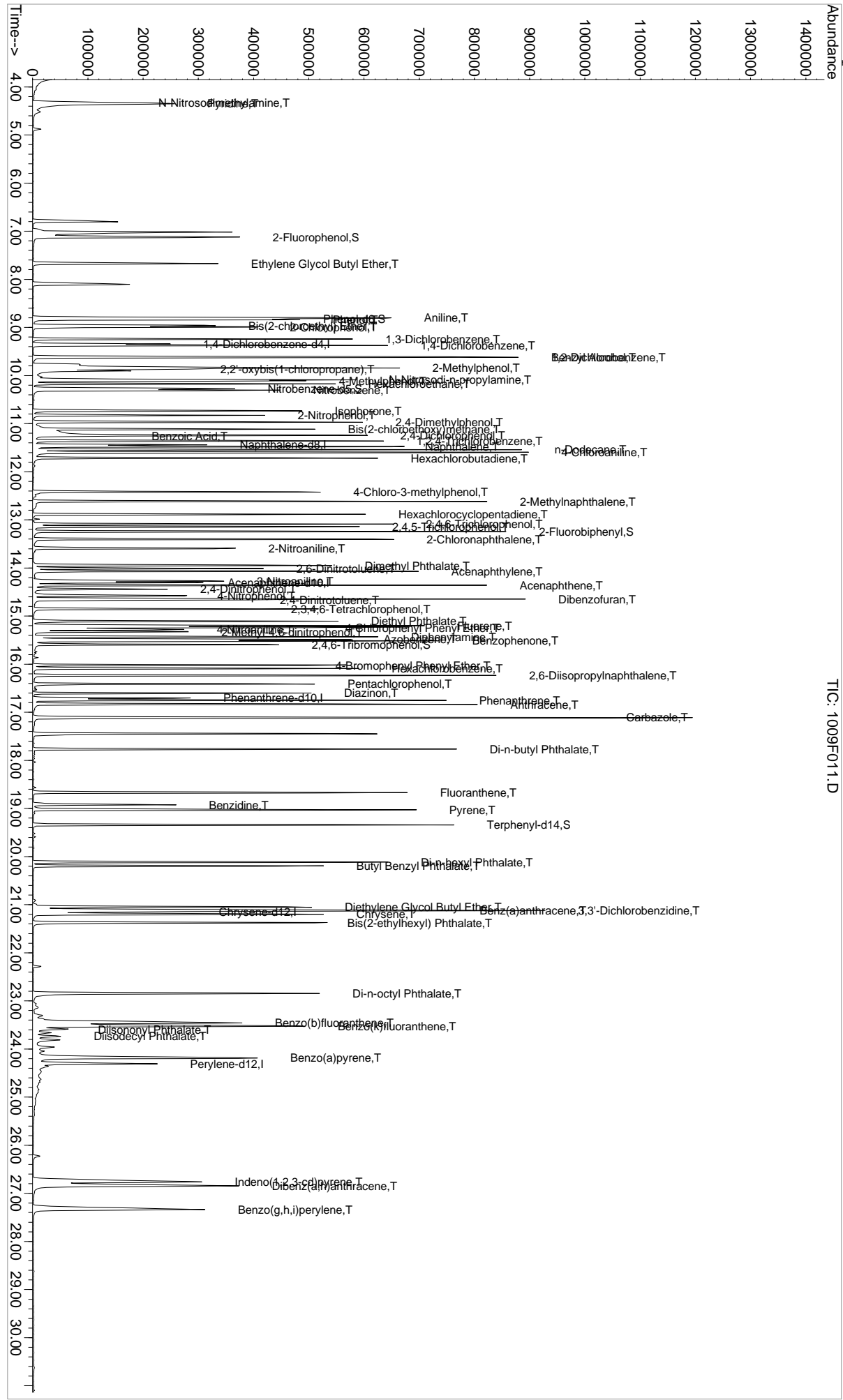
Quant Results File: 100919_BNP7.RES

Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 09:10:47 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44) Dimethyl Phthalate	13.95	163	315532	97.39	ug/ml	100
45) 2,6-Dinitrotoluene	14.01	165	78173	100.59	ug/ml	83
46) Acenaphthene	14.36	154	250366	95.42	ug/ml	99
47) 3-Nitroaniline	14.28	138	87093	99.50	ug/ml	96
48) 2,4-Dinitrophenol	14.44	184	46157	108.96	ug/ml	84
49) Dibenzofuran	14.64	168	406372	98.16	ug/ml	94
50) 4-Nitrophenol	14.58	109	52455	99.09	ug/ml	98
51) 2,4-Dinitrotoluene	14.67	165	99666	101.67	ug/ml	94
52) 2,3,4,6-Tetrachlorophenol	14.86	232	94730	99.73	ug/ml	88
53) Fluorene	15.20	166	308032	101.72	ug/ml	98
54) 4-Chlorophenyl Phenyl Eth	15.24	204	162490	98.90	ug/ml	90
55) Diethyl Phthalate	15.11	149	315649	99.91	ug/ml	98
56) 4-Nitroaniline	15.28	138	90573	104.54	ug/ml	98
57) 2-Methyl-4,6-dinitrophenol	15.33	198	64489	106.75	ug/ml	88
58) Diphenylamine	15.43	169	211950	102.00	ug/ml	99
59) Azobenzene	15.48	51	159688m	108.29	ug/ml	
60) Benzophenone	15.51	105	349991	97.18	ug/ml	98
63) 4-Bromophenyl Phenyl Ether	16.03	248	109005	96.90	ug/ml	90
64) Hexachlorobenzene	16.09	284	139994	94.86	ug/ml	93
65) 2,6-Diisopropyl naphthalene	16.23	197	253874	96.28	ug/ml	99
66) Pentachlorophenol	16.42	266	95025	97.96	ug/ml	100
67) Diazinon	16.60	137	51175	95.23	ug/ml	99
68) Phenanthrene	16.75	178	402770	96.01	ug/ml	99
69) Anthracene	16.84	178	414132	94.64	ug/ml	99
70) Carbazole	17.11	167	397930	94.90	ug/ml	99
71) Di-n-butyl Phthalate	17.77	149	496758	96.13	ug/ml	99
72) Fluoranthene	18.67	202	433183	95.61	ug/ml	99
74) Benzidine	18.92	184	135617	94.77	ug/ml	99
75) Pyrene	19.03	202	439838	100.58	ug/ml	98
77) Di-n-hexyl Phthalate	20.11	149	489459	98.44	ug/ml	98
78) Butyl Benzyl Phthalate	20.19	149	192557	96.84	ug/ml	96
79) Diethylene Glycol Butyl Et	21.05	105	304795	99.50	ug/ml	99
80) 3,3'-Dichlorobenzidine	21.12	252	176935	100.43	ug/ml	98
81) Benz(a)anthracene	21.11	228	338097	96.96	ug/ml	98
82) Chrysene	21.20	228	348088	99.34	ug/ml	99
83) Bis(2-ethylhexyl) Phthalat	21.38	149	254825	99.45	ug/ml	96
85) Di-n-octyl Phthalate	22.84	149	452397	103.51	ug/ml	99
86) Benzo(b)fluoranthene	23.46	252	422767	97.46	ug/ml	99
87) Benzo(k)fluoranthene	23.53	252	422536m	102.50	ug/ml	
88) Diisononyl Phthalate	23.59	293	33709m	103.13	ug/ml	
89) Diisodecyl Phthalate	23.73	149	429386m	101.82	ug/ml	
90) Benzo(a)pyrene	24.18	252	399080	102.97	ug/ml	98
91) Indeno(1,2,3-cd)pyrene	26.76	276	400213m	101.13	ug/ml	
92) Dibenz(a,h)anthracene	26.85	278	406280	102.05	ug/ml	100
93) Benzo(g,h,i)perylene	27.34	276	396912	97.27	ug/ml	100

Data File : J:\MS07\DATA\100919\1009F011.D
Acq On : 9 Oct 2019 7:04 pm
Sample : ICAL@100ppm | SVM-62-13J
Misc :
MS Integration Params: RTEINT.P
Quant Results File: 100919_BNP7.RES
Vial: 11
Operator: CCONOVER/LM
Inst: MS07
Multiplr: 1.00

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
Last Update : Thu Oct 10 09:10:47 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS07\DATA\100919\1009F011.D

Vial: 11

Acq On : 9 Oct 2019 7:04 pm

Operator: CCONOVER/LM

Sample : ICAL @100ppm | SVM-62-13J

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:16 2019

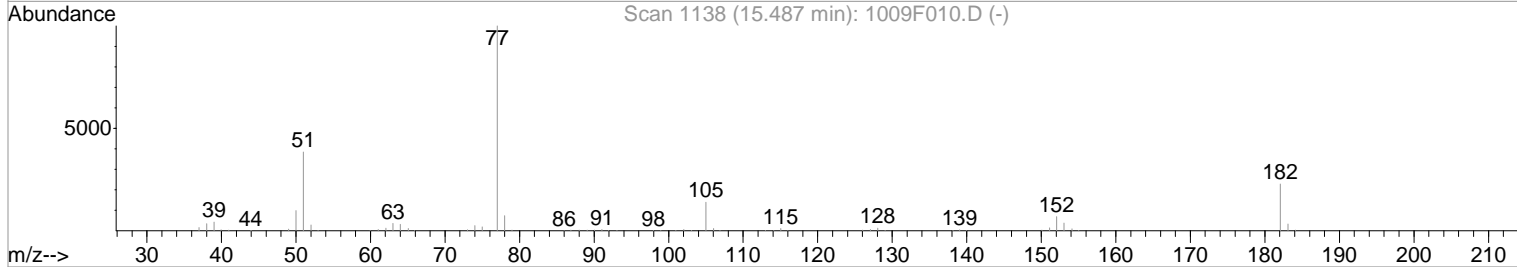
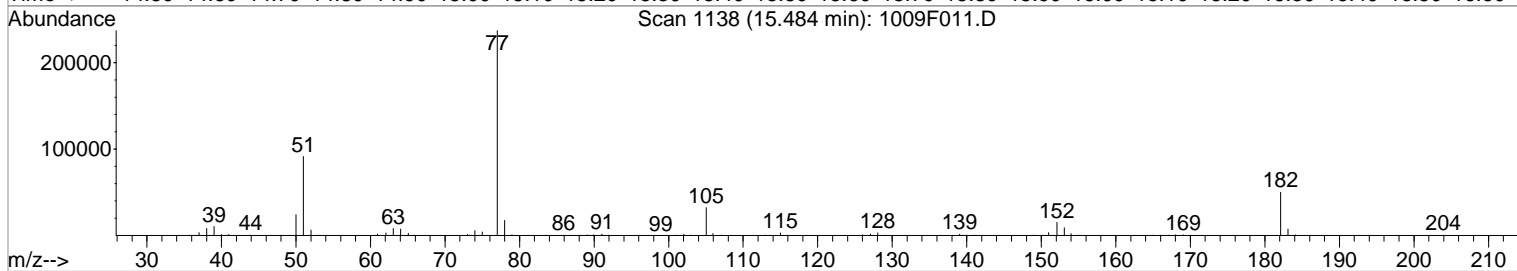
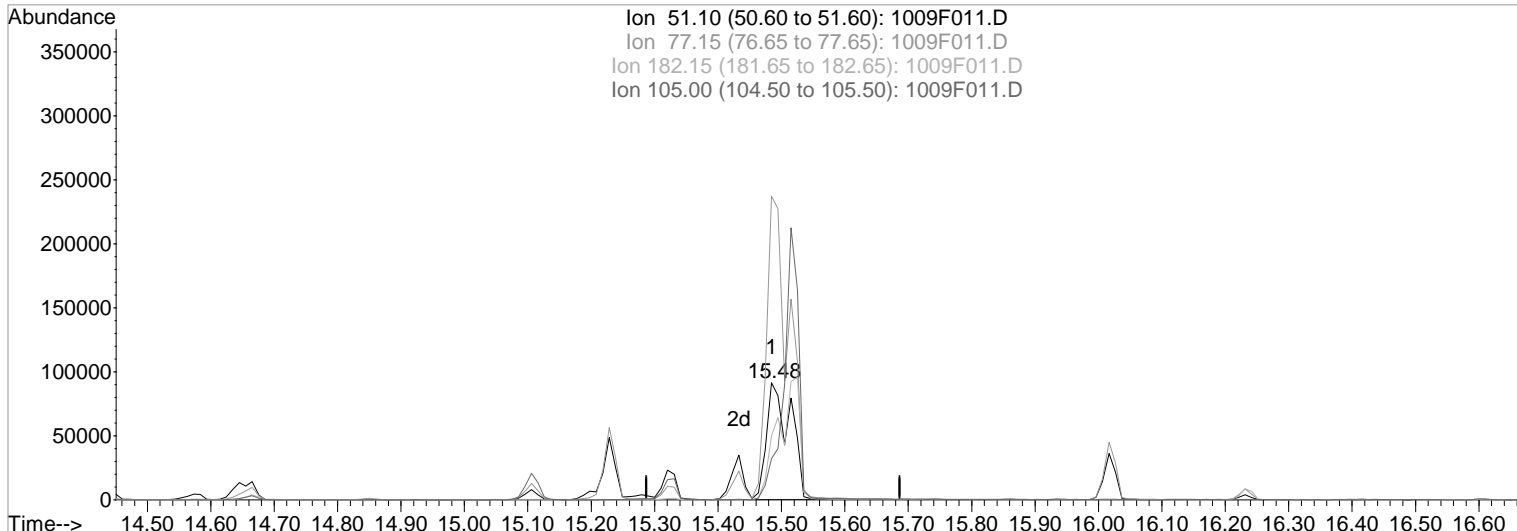
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F011.D

(59) Azobenzene (T)

Manual Integration:

15.48min 163.03ug/ml

Before

response 240408

Ion Exp% Act%

10/10/19

51.10 100 100

77.15 260.40 259.94

182.15 59.10 54.66

105.00 36.00 35.04

Data File : J:\MS07\DATA\100919\1009F011.D

Vial: 11

Acq On : 9 Oct 2019 7:04 pm

Operator: CCONOVER/LM

Sample : ICAL @100ppm | SVM-62-13J

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:50 2019

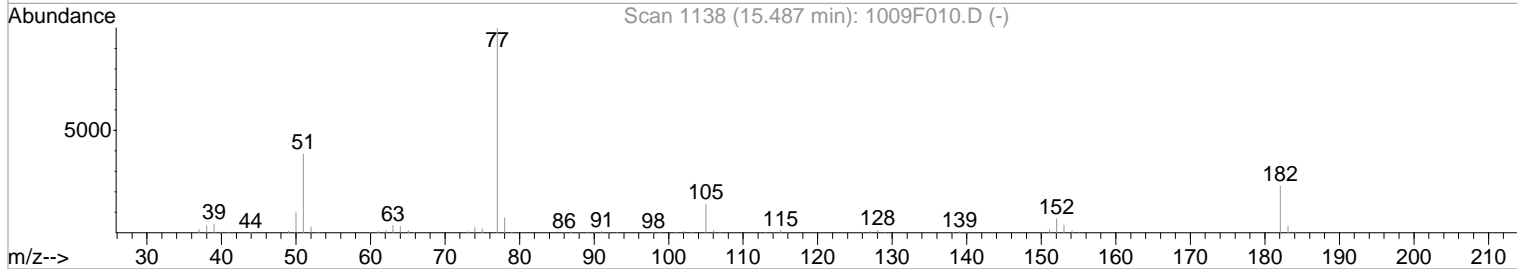
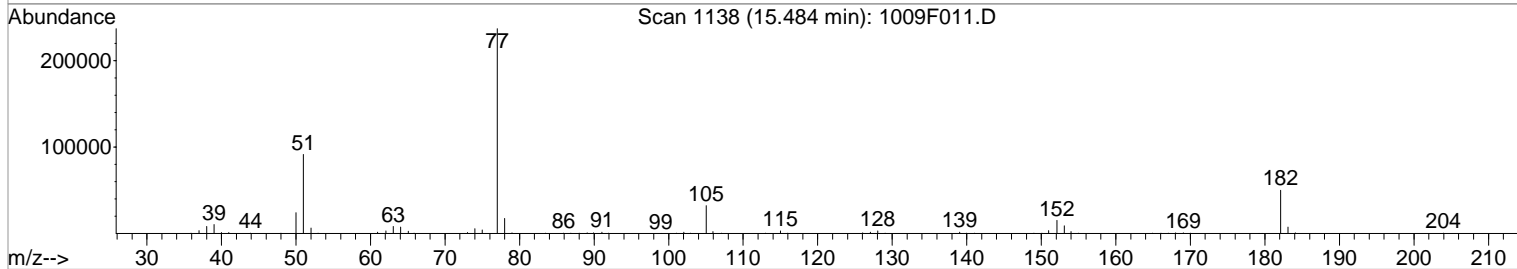
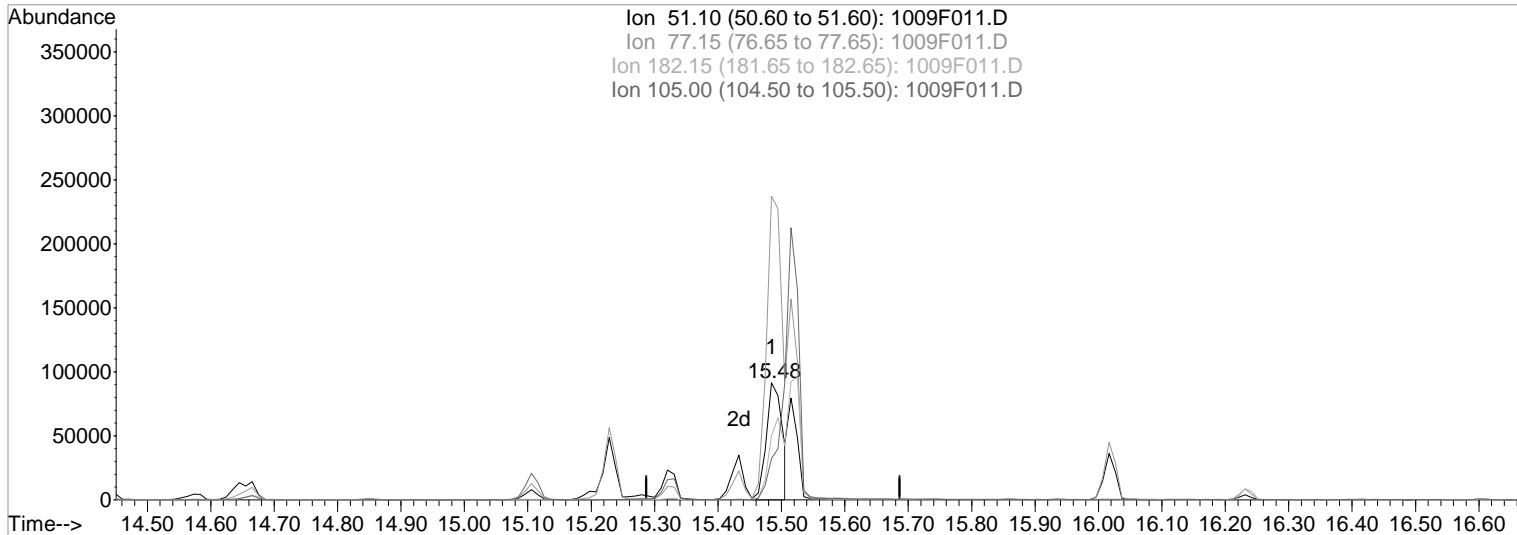
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F011.D

(59) Azobenzene (T)

Manual Integration:

15.48min 108.29ug/ml m

After

response 159688

IC - overintegrated

Ion Exp% Act%

10/10/19

51.10 100 100

77.15 260.40 259.16

182.15 59.10 54.41

105.00 36.00 35.06

Data File : J:\MS07\DATA\100919\1009F011.D

Vial: 11

Acq On : 9 Oct 2019 7:04 pm

Operator: CCONOVER/LM

Sample : ICAL @100ppm | SVM-62-13J

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:50 2019

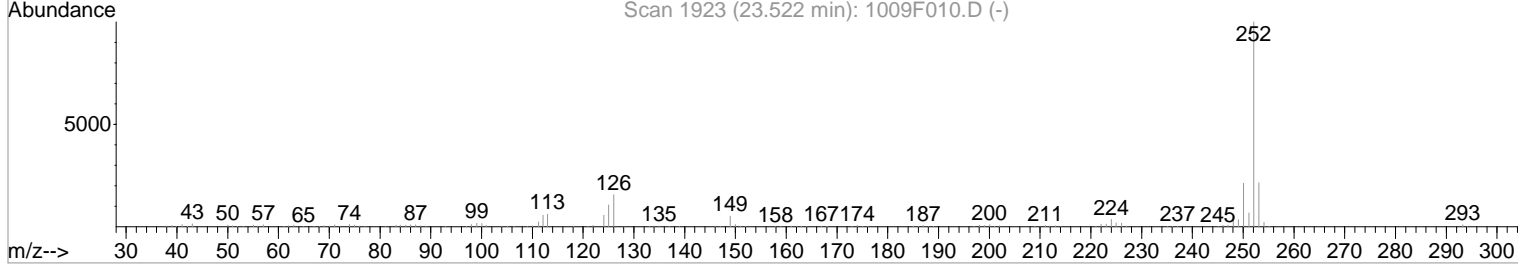
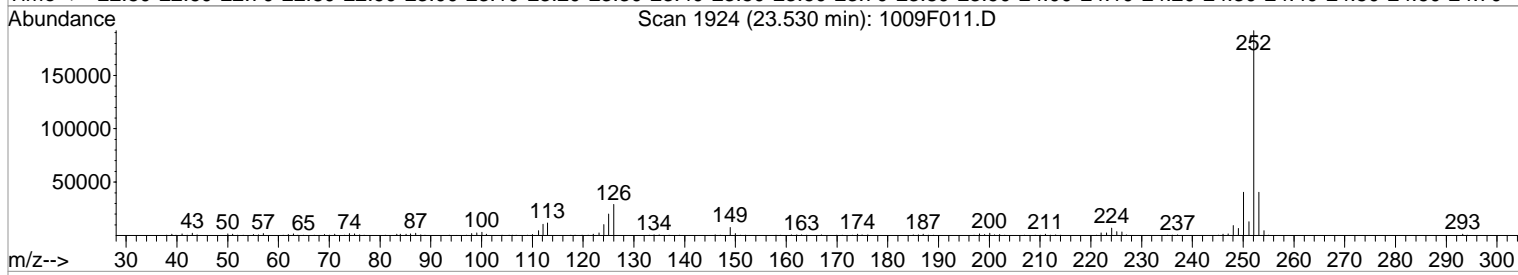
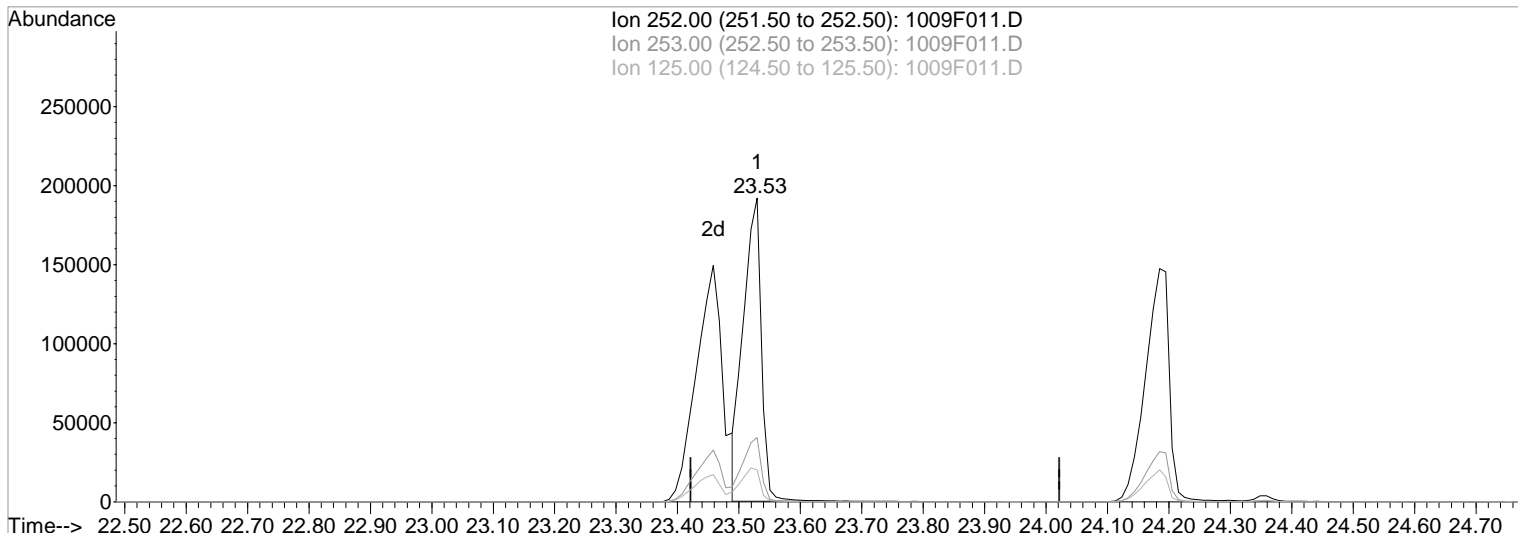
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F011.D

(87) Benzo(k)fluoranthene (T)

Manual Integration:

23.53min 95.07ug/ml

Before

response 391941

Ion	Exp%	Act%
252.00	100	100
253.00	21.50	21.09
125.00	10.90	10.04
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F011.D

Vial: 11

Acq On : 9 Oct 2019 7:04 pm

Operator: CCONOVER/LM

Sample : ICAL @100ppm | SVM-62-13J

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:51 2019

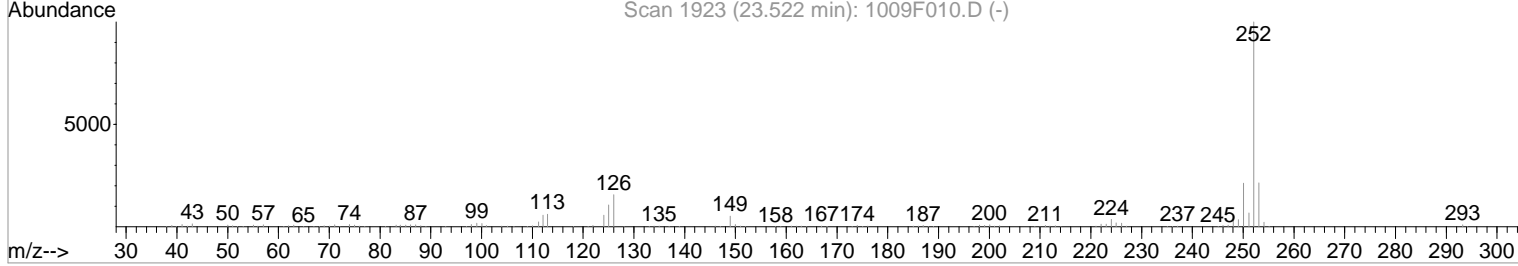
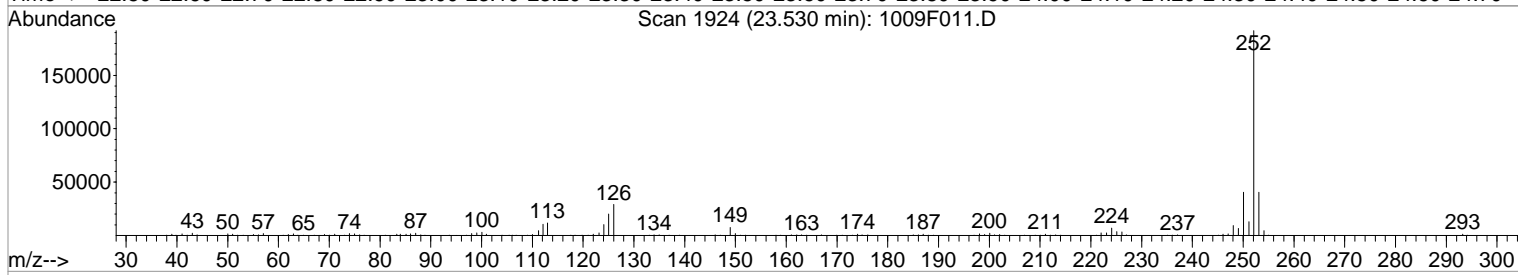
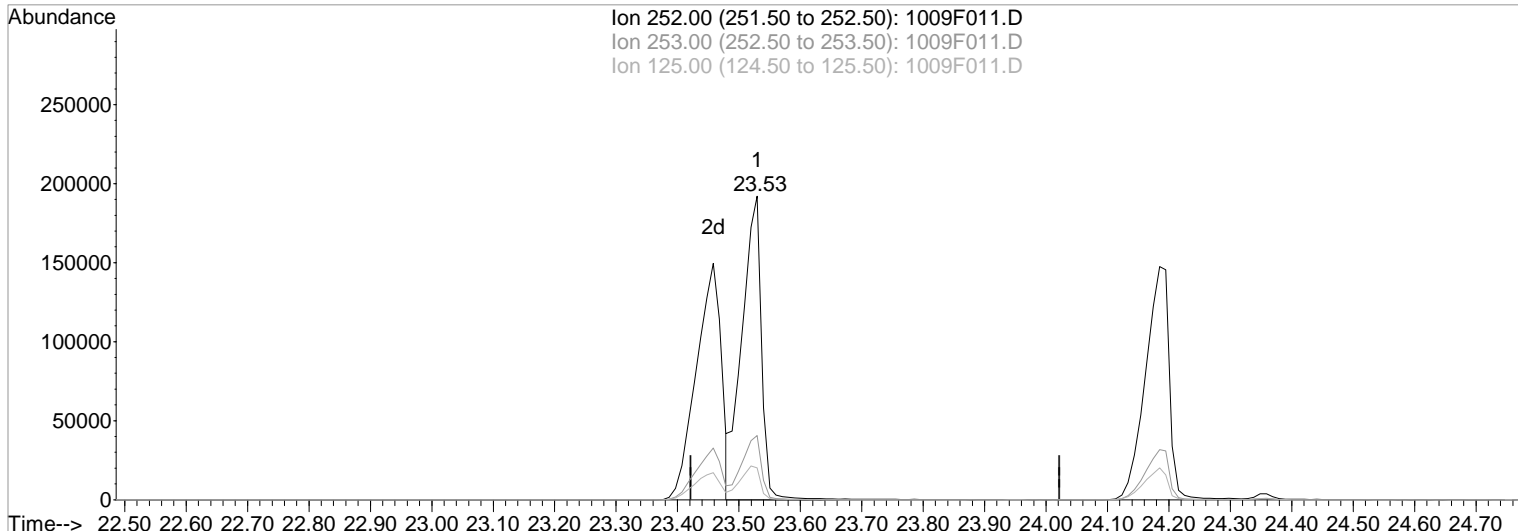
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F011.D

(87) Benzo(k)fluoranthene (T)

Manual Integration:

23.53min 102.50ug/ml m

After

response 422536

IC - incomplete

Ion Exp% Act%

10/10/19

252.00 100 100

253.00 21.50 21.14

125.00 10.90 10.52

0.00 0.00 0.00

Data File : J:\MS07\DATA\100919\1009F011.D
 Acq On : 9 Oct 2019 7:04 pm
 Sample : ICAL @100ppm | SVM-62-13J
 Misc :

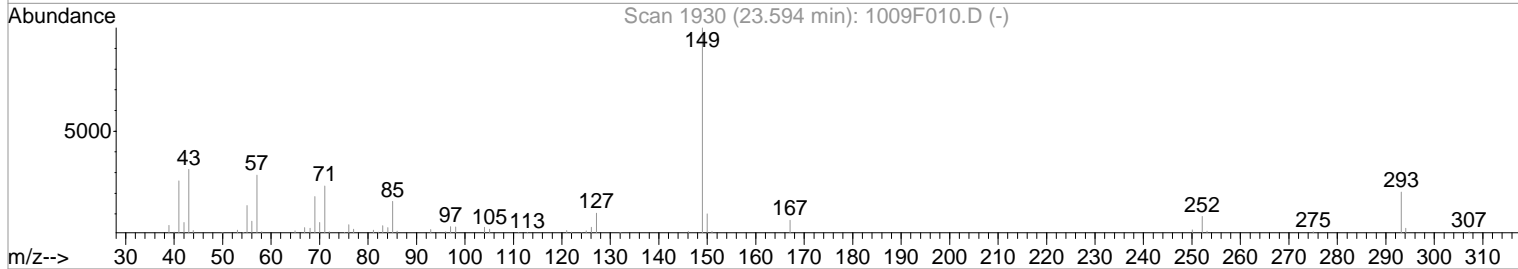
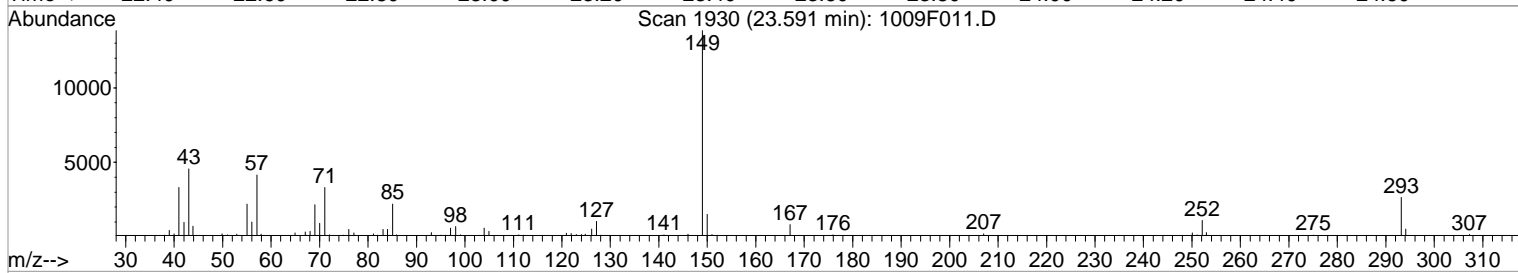
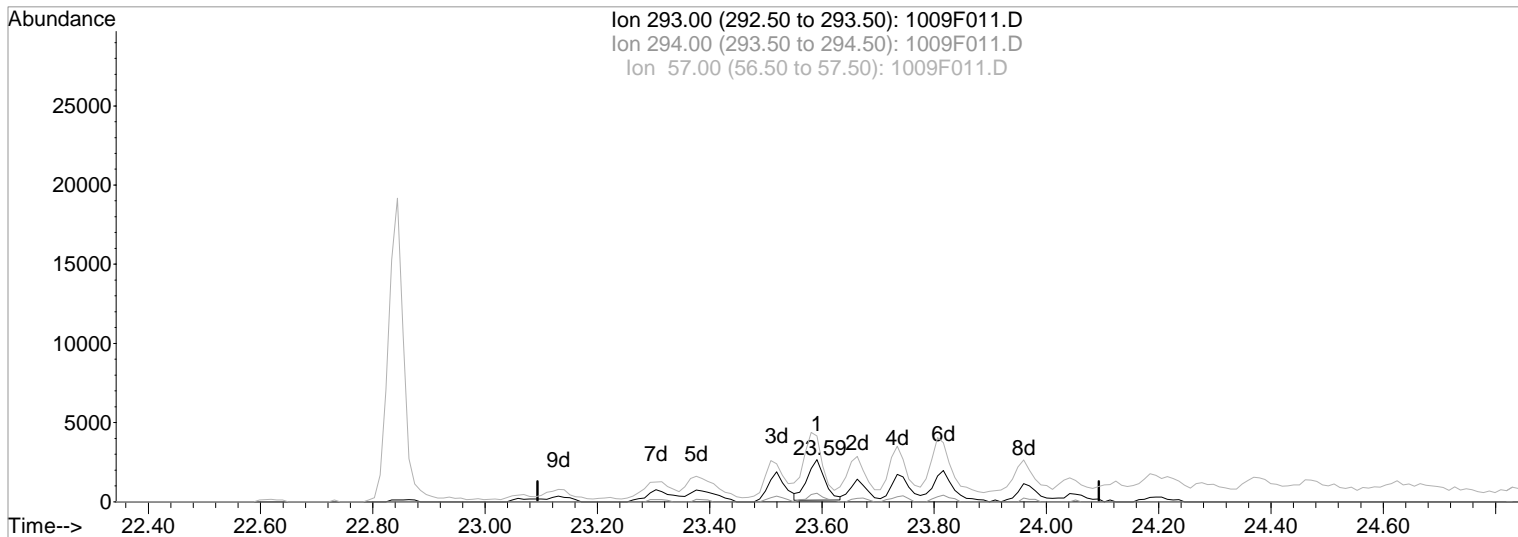
Vial: 11
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:51 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 09:10:47 2019
 Response via : Multiple Level Calibration



TIC: 1009F011.D

(88) Diisononyl Phthalate (T)

Manual Integration:

23.59min 16.86ug/ml

Before

response 5512

Ion	Exp%	Act%
293.00	100	100
294.00	1.60	20.32
57.00	15.00	142.43#
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F011.D

Vial: 11

Acq On : 9 Oct 2019 7:04 pm

Operator: CCONOVER/LM

Sample : ICAL @100ppm | SVM-62-13J

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:51 2019

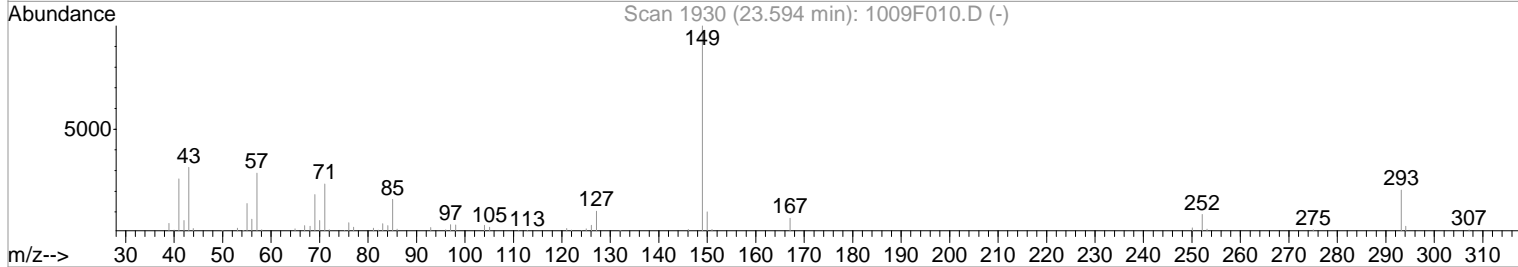
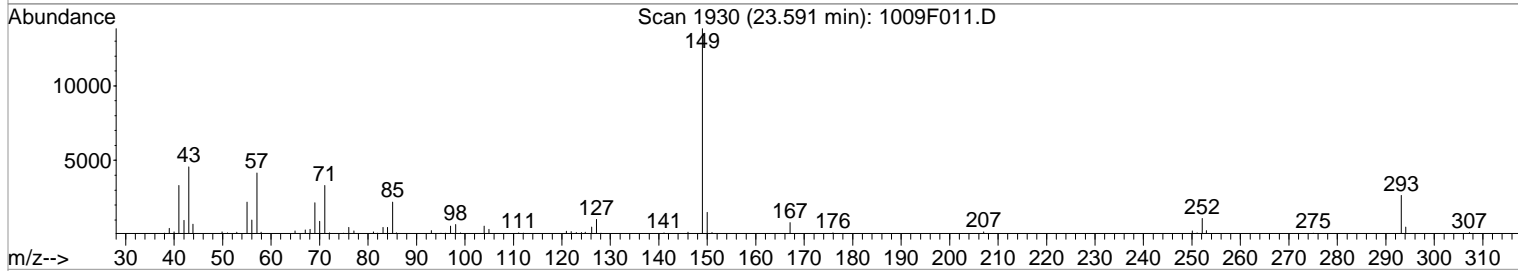
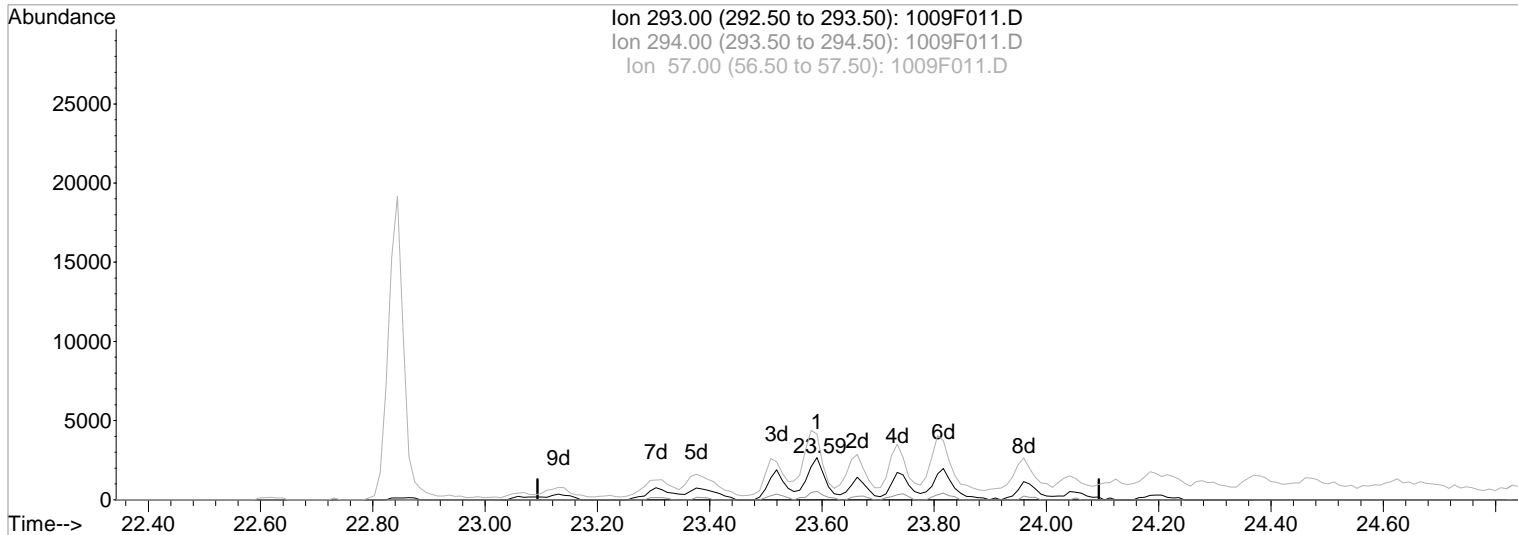
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F011.D

(88) Diisononyl Phthalate (T)

Manual Integration:

23.59min 103.13ug/ml m

After

response 33709

Range integration correction

Ion	Exp%	Act%
293.00	100	100
294.00	1.60	3.32
57.00	15.00	23.29
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F011.D

Vial: 11

Acq On : 9 Oct 2019 7:04 pm

Operator: CCONOVER/LM

Sample : ICAL @100ppm | SVM-62-13J

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:51 2019

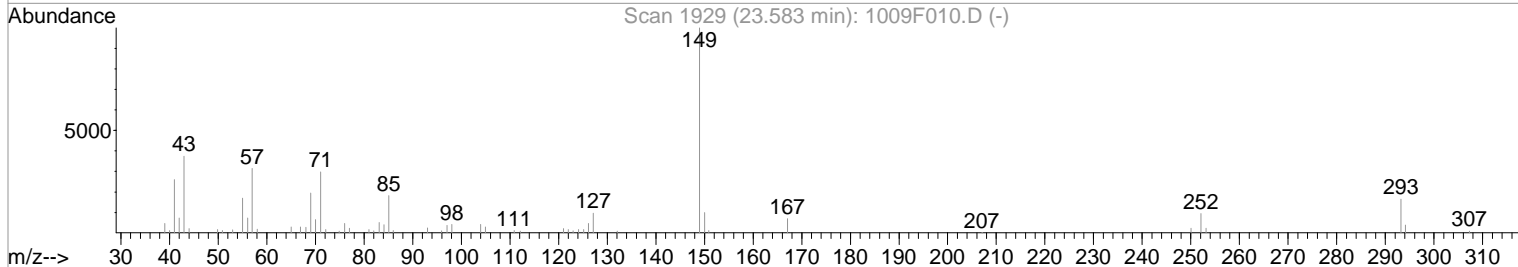
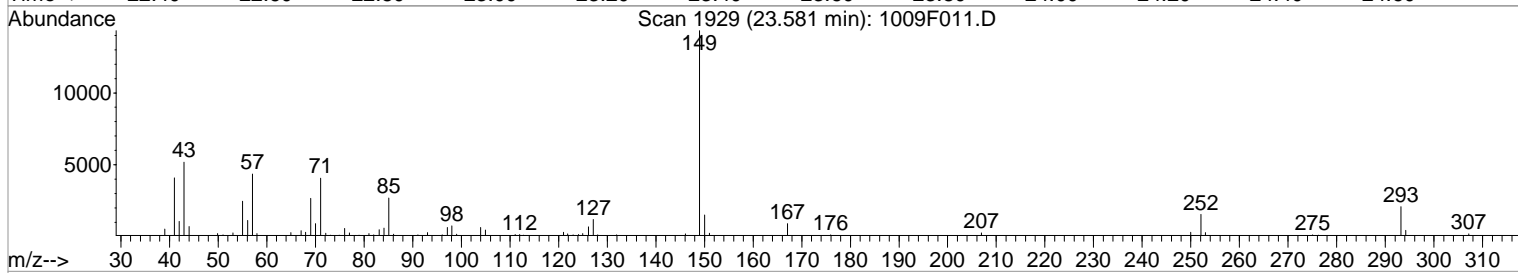
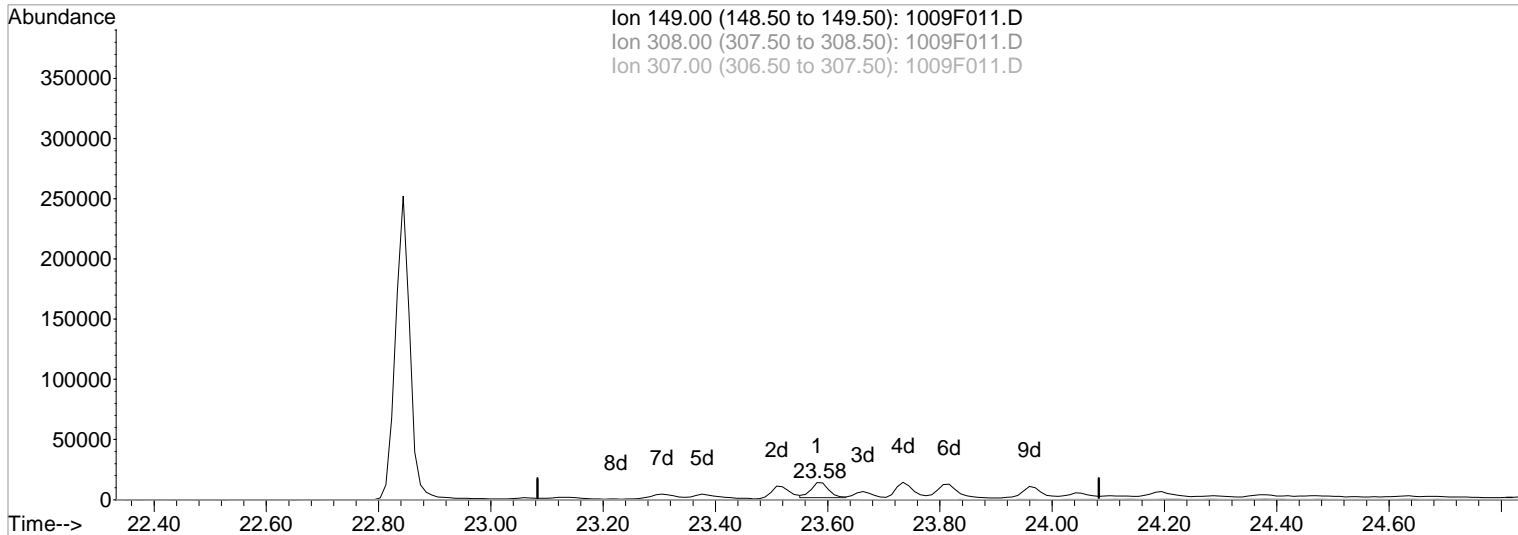
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F011.D

(89) Diisodecyl Phthalate (T)

Manual Integration:

23.58min 6.47ug/ml

Before

response 27277

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.00
307.00	0.00	1.66
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F011.D

Vial: 11

Acq On : 9 Oct 2019 7:04 pm

Operator: CCONOVER/LM

Sample : ICAL @100ppm | SVM-62-13J

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:51 2019

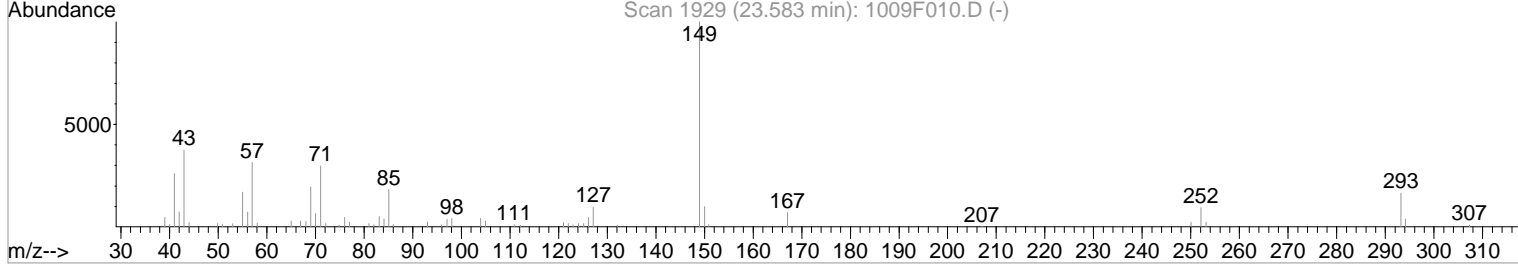
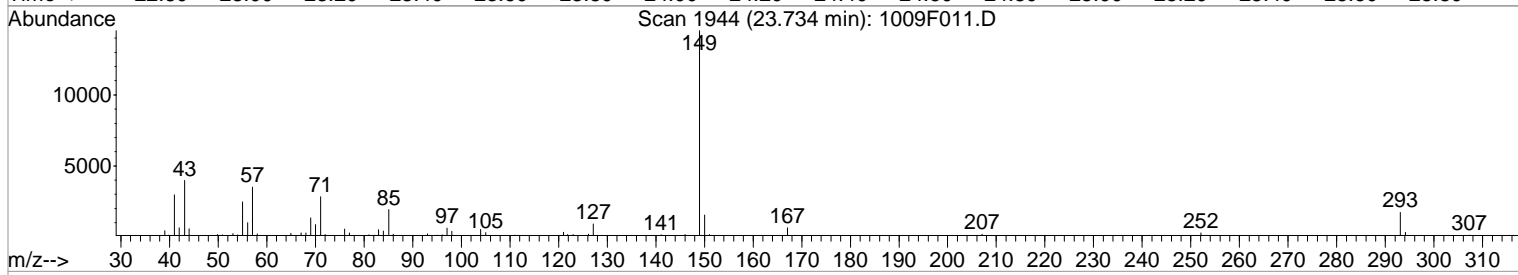
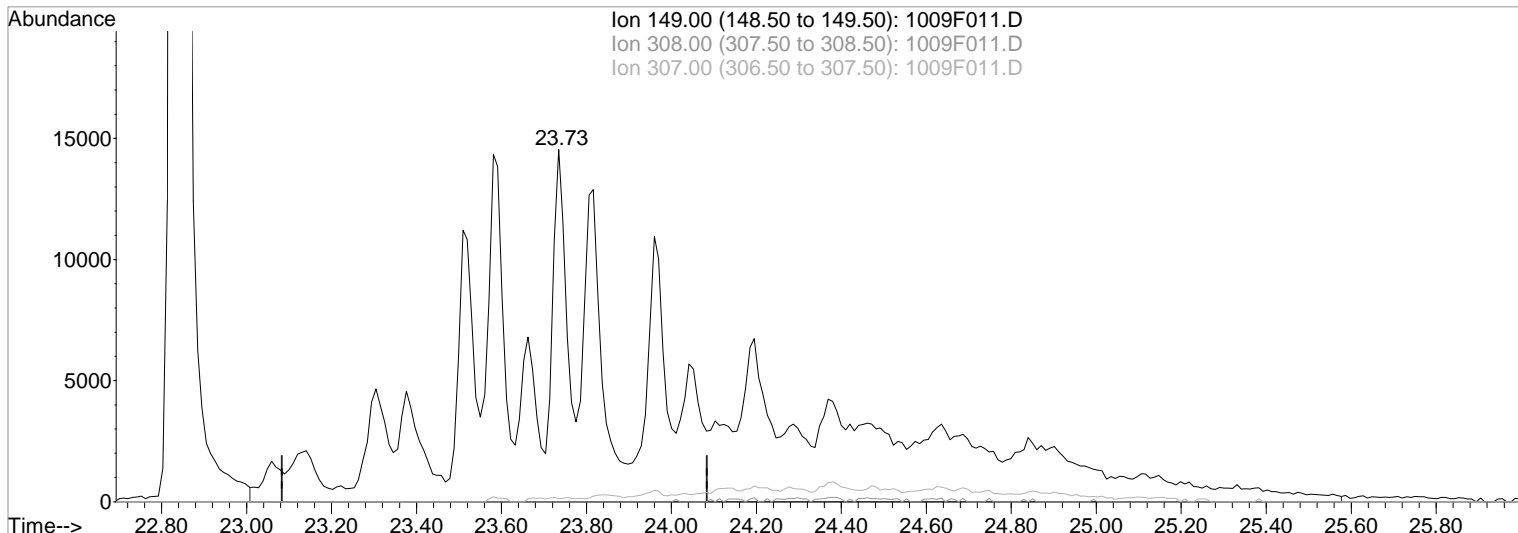
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F011.D

(89) Diisodecyl Phthalate (T)

Manual Integration:

23.73min 101.82ug/ml m

After

response 429386

Range integration correction

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.00
307.00	0.00	0.11
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F011.D

Vial: 11

Acq On : 9 Oct 2019 7:04 pm

Operator: CCONOVER/LM

Sample : ICAL @100ppm | SVM-62-13J

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:51 2019

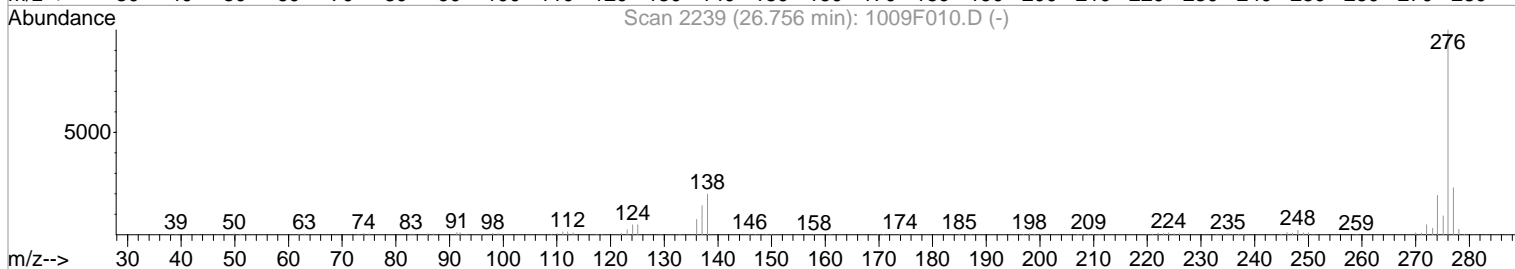
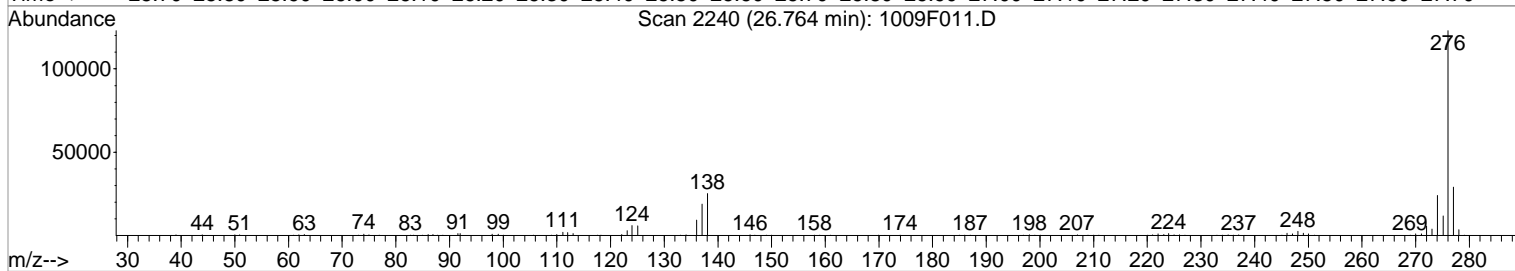
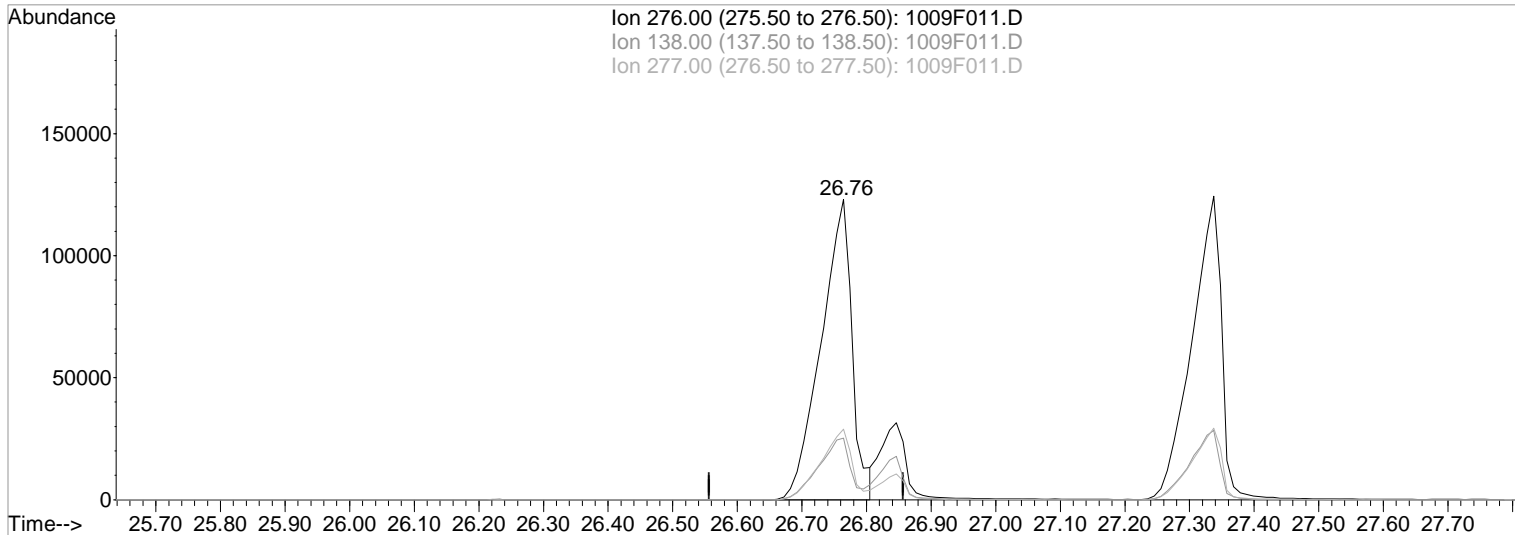
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F011.D

(91) Indeno(1,2,3-cd)pyrene (T)

Manual Integration:

26.76min 103.19ug/ml

After

response 408366

Baseline correction

Ion Exp% Act%

10/10/19

276.00 100 100

138.00 19.10 19.07

277.00 22.80 23.18

0.00 0.00 0.00

Data File : J:\MS07\DATA\100919\1009F011.D

Vial: 11

Acq On : 9 Oct 2019 7:04 pm

Operator: CCONOVER/LM

Sample : ICAL @100ppm | SVM-62-13J

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:52 2019

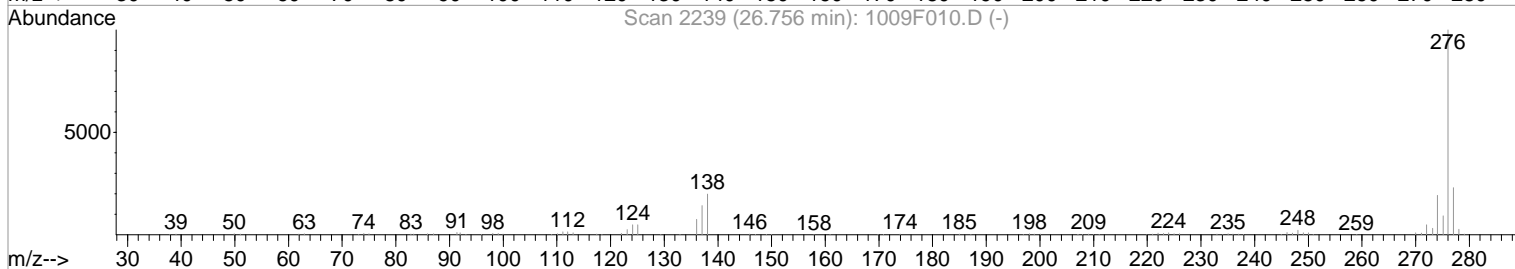
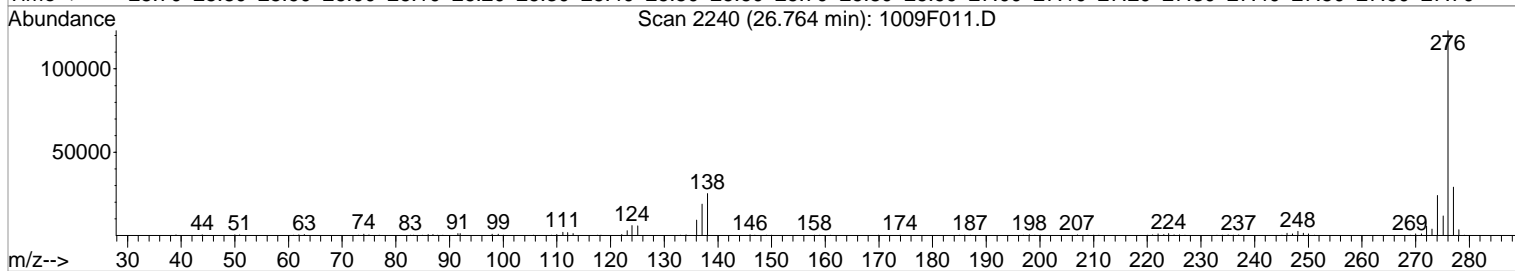
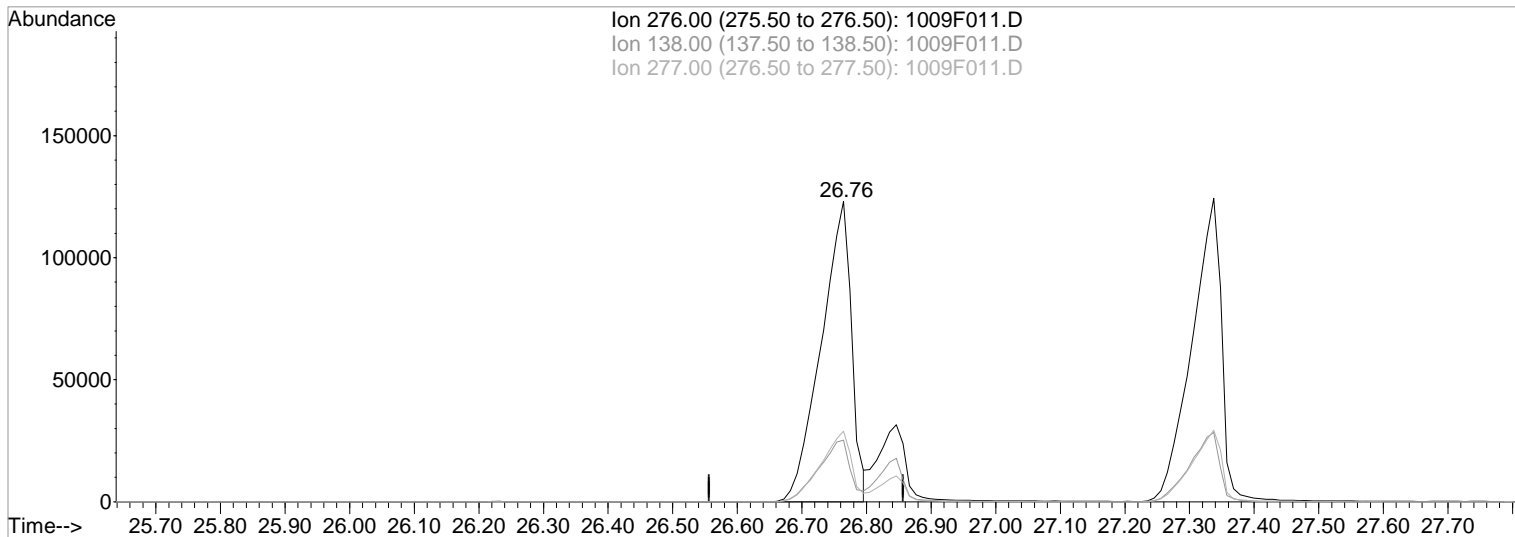
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F011.D

(91) Indeno(1,2,3-cd)pyrene (T)

Manual Integration:

26.76min 101.13ug/ml m

After

response 400213

IC - overintegrated

Ion Exp% Act%

10/10/19

276.00 100 100

138.00 19.10 20.53

277.00 22.80 23.53

0.00 0.00 0.00

Data File : J:\MS07\DATA\100919\1009F012.D
 Acq On : 9 Oct 2019 7:45 pm
 Sample : ICAL @120ppm | SVM-62-13K
 Misc :

Vial: 12
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 09:11:09 2019

Quant Results File: 100919_BNP7.RES

Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 09:10:47 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.34	152	51902	40.00	ug/ml	0.00
22) Naphthalene-d8	11.44	136	190868	40.00	ug/ml	0.00
36) Acenaphthene-d10	14.31	164	102615	40.00	ug/ml	0.00
61) Phenanthrene-d10	16.71	188	162895	40.00	ug/ml	0.00
73) Chrysene-d12	21.14	240	135299	40.00	ug/ml	0.00
84) Perylene-d12	24.32	264	159008	40.00	ug/ml	0.00

System Monitoring Compounds

4) 2-Fluorophenol	7.13	112	192312	115.18	ug/ml	0.00
Spiked Amount	150.000	Range	21 - 100	Recovery	=	76.79%
8) Phenol-d6	8.83	99	254234	112.52	ug/ml	0.02
Spiked Amount	150.000	Range	10 - 94	Recovery	=	75.01%
20) Nitrobenzene-d5	10.28	82	237874	112.84	ug/ml	0.00
Spiked Amount	100.000	Range	35 - 114	Recovery	=	112.84%
40) 2-Fluorobiphenyl	13.24	172	401428	114.91	ug/ml	0.00
Spiked Amount	100.000	Range	43 - 116	Recovery	=	114.91%
62) 2,4,6-Tribromophenol	15.60	330	121597	118.68	ug/ml	0.00
Spiked Amount	150.000	Range	10 - 123	Recovery	=	79.12%
76) Terphenyl-d14	19.34	244	445675	115.01	ug/ml	0.00
Spiked Amount	100.000	Range	33 - 141	Recovery	=	115.01%

Target Compounds

						Qvalue
2) N-Nitrosodimethylamine	4.34	42	142259	117.34	ug/ml	100
3) Pyridine	4.36	79	243298	116.78	ug/ml	100
5) Ethylene Glycol Butyl Ethe	7.68	57	238949	113.28	ug/ml	98
6) Aniline	8.81	93	291683	111.93	ug/ml	75
7) Bis(2-chloroethyl) Ether	8.96	93	208065	112.38	ug/ml	99
9) Phenol	8.85	94	288354	111.79	ug/ml	99
10) 2-Chlorophenol	8.99	128	209004	114.41	ug/ml	99
11) 1,3-Dichlorobenzene	9.25	146	218536	115.81	ug/ml	98
12) 1,4-Dichlorobenzene	9.37	146	226279	116.03	ug/ml	97
13) 1,2-Dichlorobenzene	9.62	146	204064	112.78	ug/ml	98
14) Benzyl Alcohol	9.63	108	132926	109.93	ug/ml	98
15) 2,2'-oxybis(1-chloropropan	9.86	45	268587	111.11	ug/ml	99
16) 2-Methylphenol	9.84	107	158116	108.76	ug/ml	94
17) Hexachloroethane	10.17	117	102577	114.91	ug/ml	90
18) N-Nitrosodi-n-propylamine	10.10	70	146813	107.89	ug/ml	94
19) 4-Methylphenol	10.12	107	245624	107.52	ug/ml	99
21) Nitrobenzene	10.31	77	220820	110.25	ug/ml	98
23) Isophorone	10.73	82	402203	115.25	ug/ml	100
24) 2-Nitrophenol	10.84	139	117984	123.44	ug/ml	97
25) 2,4-Dimethylphenol	10.97	122	171093	117.41	ug/ml	99
26) Bis(2-chloroethoxy)methane	11.12	93	253619	118.10	ug/ml	99
27) 2,4-Dichlorophenol	11.25	162	176829	117.24	ug/ml	98
28) Benzoic Acid	11.29	122	129365	125.64	ug/ml	94
29) 1,2,4-Trichlorobenzene	11.36	180	182353	117.70	ug/ml	99
30) Naphthalene	11.48	128	523633	117.28	ug/ml	99
31) n-Dodecane	11.54	57	238173	114.77	ug/ml	98
32) 4-Chloroaniline	11.60	127	244197	117.75	ug/ml	98
33) Hexachlorobutadiene	11.72	225	115266	117.69	ug/ml	98
34) 4-Chloro-3-methylphenol	12.42	107	171006	114.56	ug/ml	100
35) 2-Methylnaphthalene	12.62	142	354323	115.67	ug/ml	99
37) Hexachlorocyclopentadiene	12.88	237	139031	118.13	ug/ml	99
38) 2,4,6-Trichlorophenol	13.10	196	128948	119.34	ug/ml	99
39) 2,4,5-Trichlorophenol	13.15	196	141829	120.61	ug/ml	99
41) 2-Chloronaphthalene	13.41	162	338933	115.82	ug/ml	98
42) 2-Nitroaniline	13.60	65	122375	120.77	ug/ml	99
43) Acenaphthylene	14.07	152	501163	116.37	ug/ml	99

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS07\DATA\100919\1009F012.D

Vial: 12

Acq On : 9 Oct 2019 7:45 pm

Operator: CCONOVER/LM

Sample : ICAL @120ppm | SVM-62-13K

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 09:11:09 2019

Quant Results File: 100919_BNP7.RES

Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Initial Calibration

DataAcq Meth : 8270_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44) Dimethyl Phthalate	13.95	163	382382	121.12	ug/ml	100
45) 2,6-Dinitrotoluene	14.02	165	92569	122.24	ug/ml	93
46) Acenaphthene	14.36	154	299159	117.00	ug/ml	98
47) 3-Nitroaniline	14.28	138	106647	125.03	ug/ml	98
48) 2,4-Dinitrophenol	14.45	184	57879	140.21	ug/ml	87
49) Dibenzofuran	14.64	168	480068	119.00	ug/ml	94
50) 4-Nitrophenol	14.58	109	64768	125.55	ug/ml	91
51) 2,4-Dinitrotoluene	14.67	165	118247	123.78	ug/ml	88
52) 2,3,4,6-Tetrachlorophenol	14.86	232	113801	122.95	ug/ml	99
53) Fluorene	15.21	166	359999	122.00	ug/ml	100
54) 4-Chlorophenyl Phenyl Et	15.24	204	191652	119.70	ug/ml	96
55) Diethyl Phthalate	15.11	149	373489	121.32	ug/ml	99
56) 4-Nitroaniline	15.29	138	110362	130.72	ug/ml	97
57) 2-Methyl-4,6-dinitrophenol	15.34	198	81480	138.41	ug/ml#	61
58) Diphenylamine	15.44	169	256684	126.77	ug/ml	99
59) Azobenzene	15.49	51	176820m	123.05	ug/ml	
60) Benzophenone	15.52	105	418615	119.28	ug/ml	98
63) 4-Bromophenyl Phenyl Ether	16.03	248	128749	115.03	ug/ml	97
64) Hexachlorobenzene	16.10	284	167189	113.85	ug/ml	99
65) 2,6-Diisopropyl naphthalene	16.24	197	308192	117.47	ug/ml	99
66) Pentachlorophenol	16.41	266	114679	118.81	ug/ml	99
67) Diazinon	16.61	137	61012	114.10	ug/ml	97
68) Phenanthrene	16.75	178	477132	114.31	ug/ml	99
69) Anthracene	16.83	178	507516	116.56	ug/ml	99
70) Carbazole	17.11	167	484175	116.05	ug/ml	98
71) Di-n-butyl Phthalate	17.77	149	612748	119.18	ug/ml	98
72) Fluoranthene	18.68	202	524535	116.35	ug/ml	97
74) Benzidine	18.92	184	157426	109.40	ug/ml	97
75) Pyrene	19.04	202	528391	120.17	ug/ml	99
77) Di-n-hexyl Phthalate	20.12	149	581173	116.25	ug/ml	98
78) Butyl Benzyl Phthalate	20.20	149	228380	114.23	ug/ml	95
79) Diethylene Glycol Butyl Et	21.05	105	372872	121.06	ug/ml	100
80) 3,3'-Dichlorobenzidine	21.13	252	216602	122.27	ug/ml	99
81) Benz(a)anthracene	21.12	228	405257	115.58	ug/ml	99
82) Chrysene	21.21	228	427568	121.36	ug/ml	99
83) Bis(2-ethylhexyl) Phthalat	21.38	149	310896	120.67	ug/ml	99
85) Di-n-octyl Phthalate	22.85	149	554905	126.22	ug/ml	98
86) Benzo(b)fluoranthene	23.47	252	525853	120.51	ug/ml	100
87) Benzo(k)fluoranthene	23.54	252	503512	121.42	ug/ml	98
88) Diisononyl Phthalate	23.59	293	41864m	127.32	ug/ml	
89) Diisodecyl Phthalate	23.73	149	532621m	125.56	ug/ml	
90) Benzo(a)pyrene	24.19	252	482000	123.63	ug/ml	99
91) Indeno(1,2,3-cd)pyrene	26.77	276	497586	124.99	ug/ml	98
92) Dibenz(a,h)anthracene	26.86	278	488549	121.99	ug/ml	99
93) Benzo(g,h,i)perylene	27.35	276	487496	118.76	ug/ml	99

(#) = qualifier out of range (m) = manual integration

1009F012.D 100919_BNP7.M

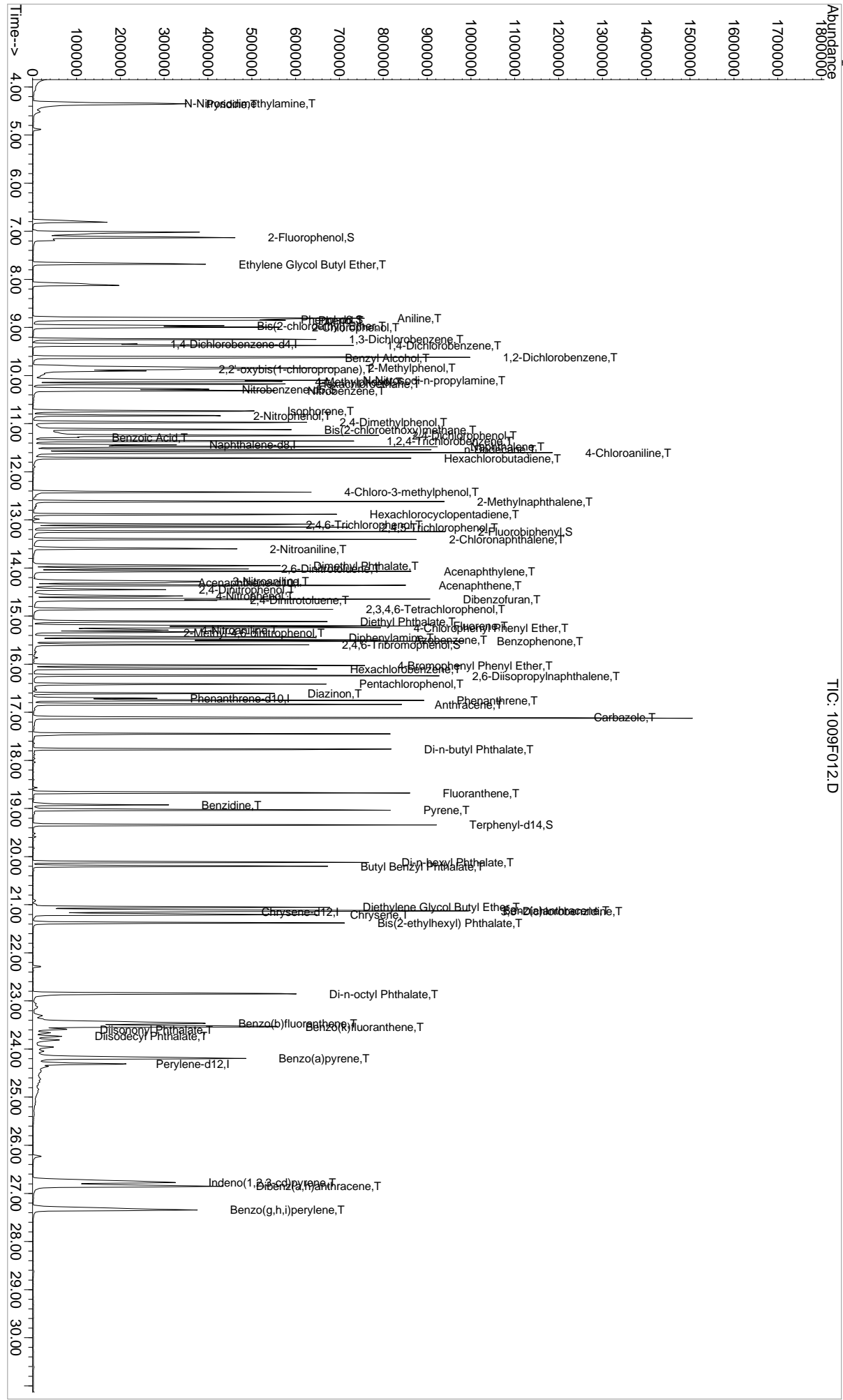
Thu Oct 10 10:30:28 2019
Page 1456 of 1516

Data File : J:\MS07\DATA\100919\1009F012.D
Acq On : 9 Oct 2019 7:45 pm
Sample : ICAL@120ppm | SVM-62-13K
Misc :
MS Integration Params: RTEINT.P
Quant Results File: 100919_BNP7.RES
Quant Time: Oct 10 9:55 2019

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
Last Update : Thu Oct 10 09:10:47 2019
Response via : Initial Calibration

Quantitation Report (QT Reviewed)

Vial: 12
Operator: CCONOVER/LM
Inst: MS07
Multiplr: 1.00



Data File : J:\MS07\DATA\100919\1009F012.D

Vial: 12

Acq On : 9 Oct 2019 7:45 pm

Operator: CCONOVER/LM

Sample : ICAL @120ppm | SVM-62-13K

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:16 2019

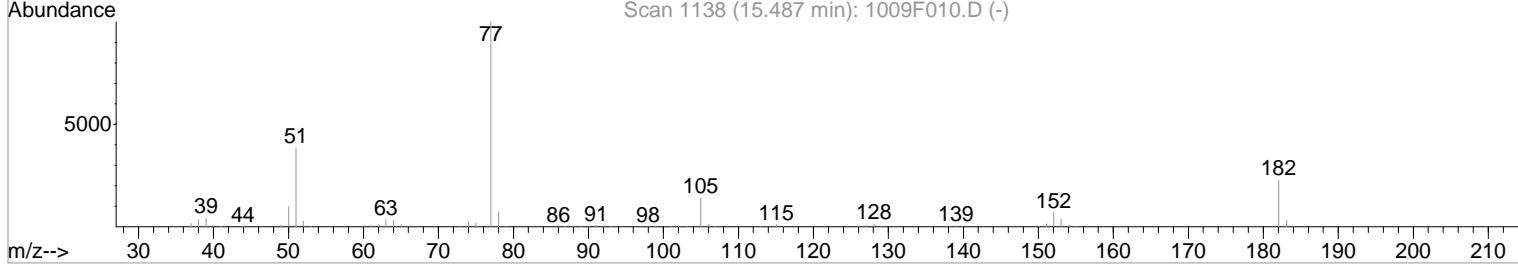
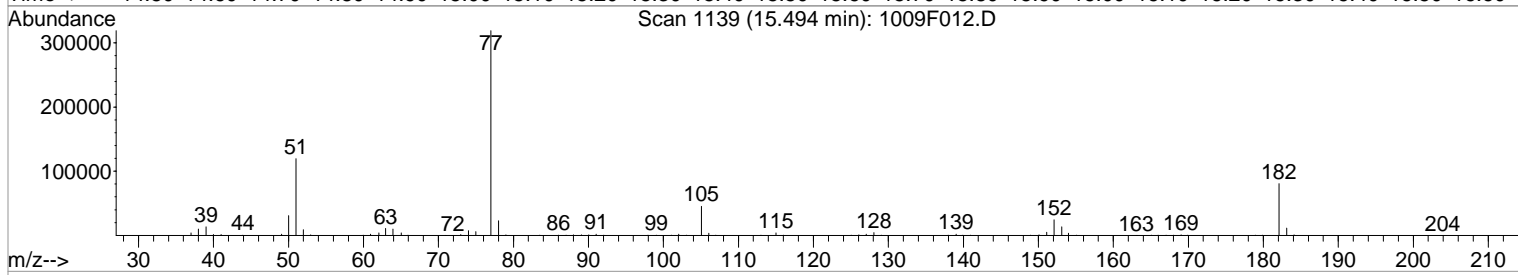
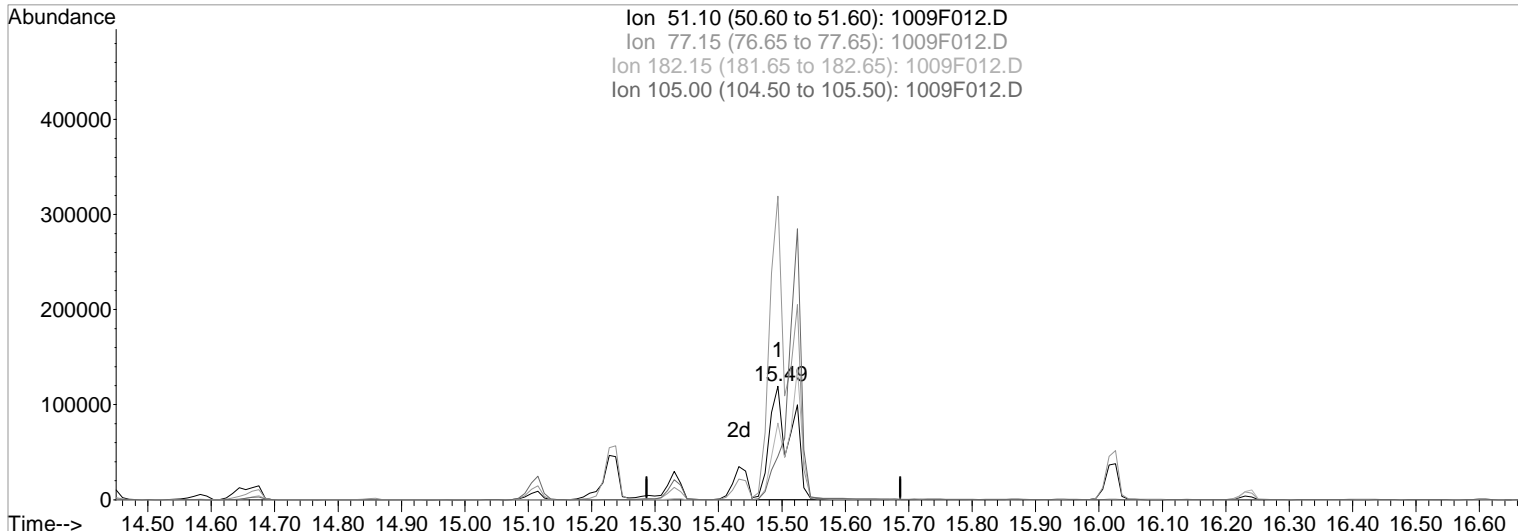
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F012.D

(59) Azobenzene (T)

Manual Integration:

15.49min 202.35ug/ml

Before

response 290766

Ion Exp% Act%

10/10/19

51.10 100 100

77.15 260.40 268.99

182.15 59.10 68.03

105.00 36.00 38.30

Data File : J:\MS07\DATA\100919\1009F012.D

Vial: 12

Acq On : 9 Oct 2019 7:45 pm

Operator: CCONOVER/LM

Sample : ICAL @120ppm | SVM-62-13K

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:53 2019

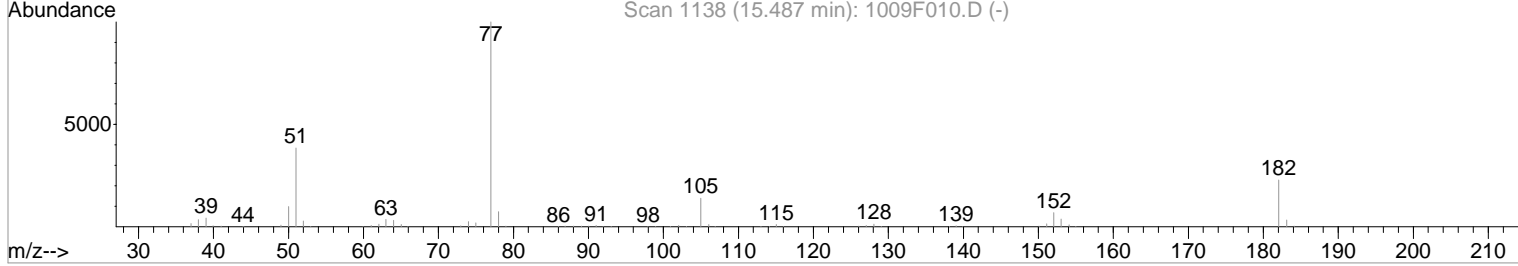
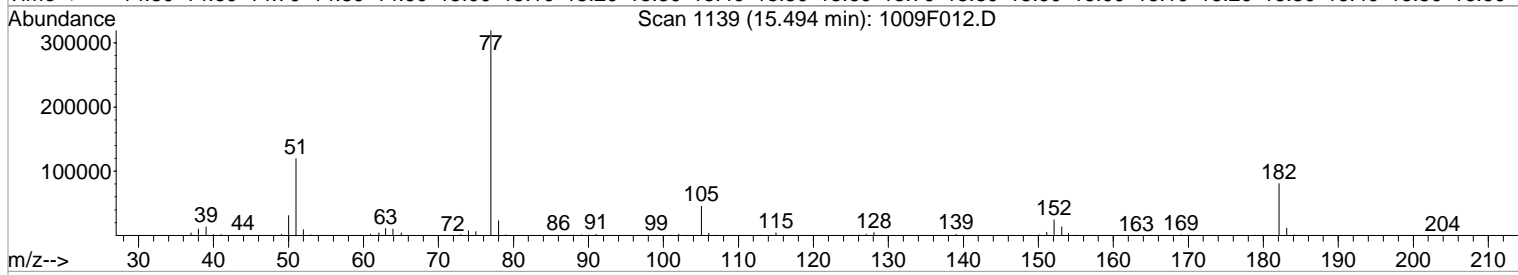
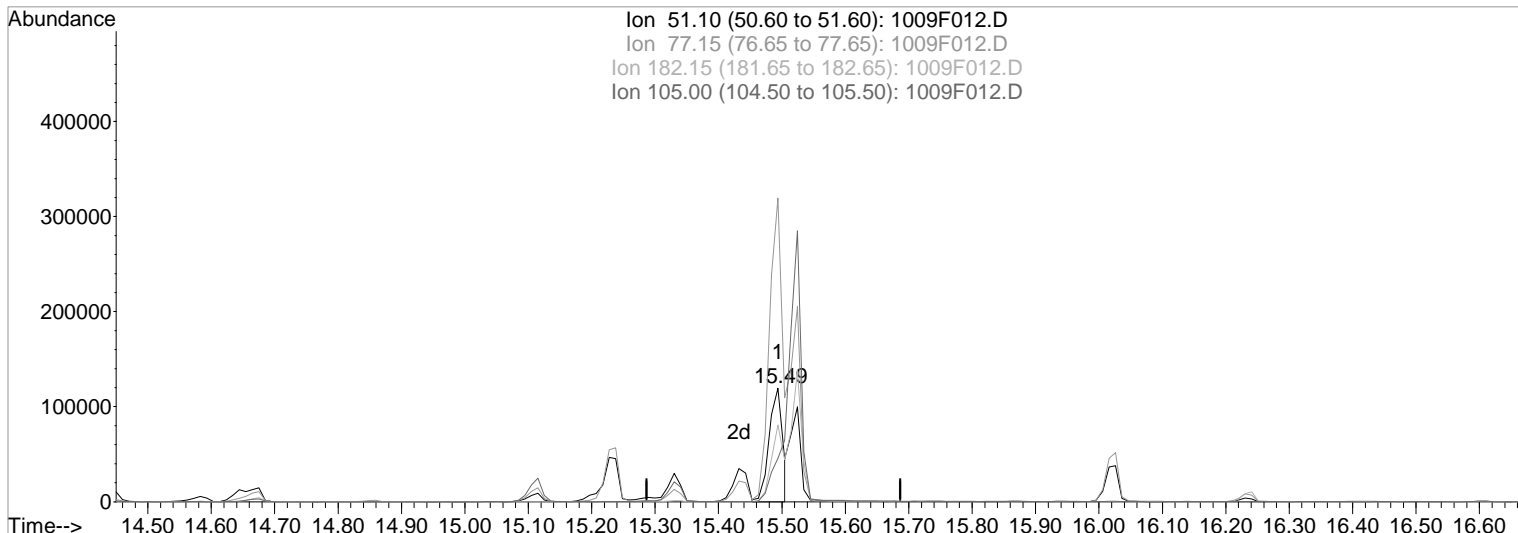
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F012.D

(59) Azobenzene (T)

Manual Integration:

15.49min 123.05ug/ml m

After

response 176820

IC - overintegrated

Ion Exp% Act%

10/10/19

51.10 100 100

77.15 260.40 267.26

182.15 59.10 67.38

105.00 36.00 38.09

Data File : J:\MS07\DATA\100919\1009F012.D

Vial: 12

Acq On : 9 Oct 2019 7:45 pm

Operator: CCONOVER/LM

Sample : ICAL @120ppm | SVM-62-13K

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:53 2019

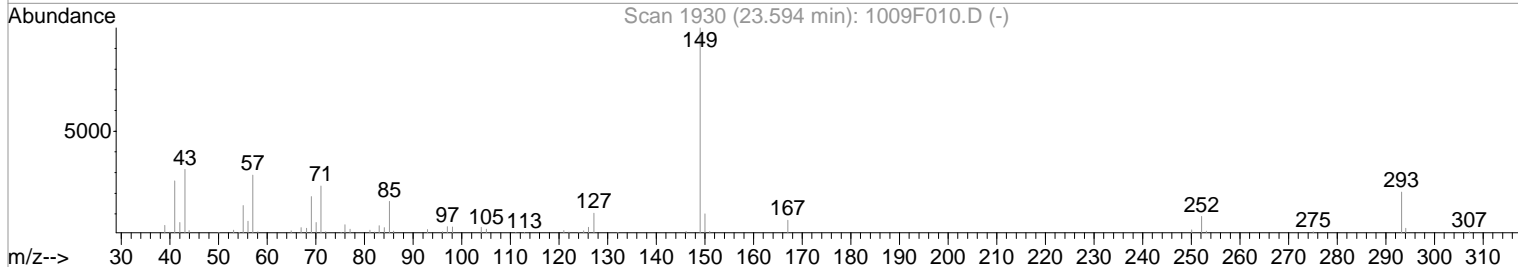
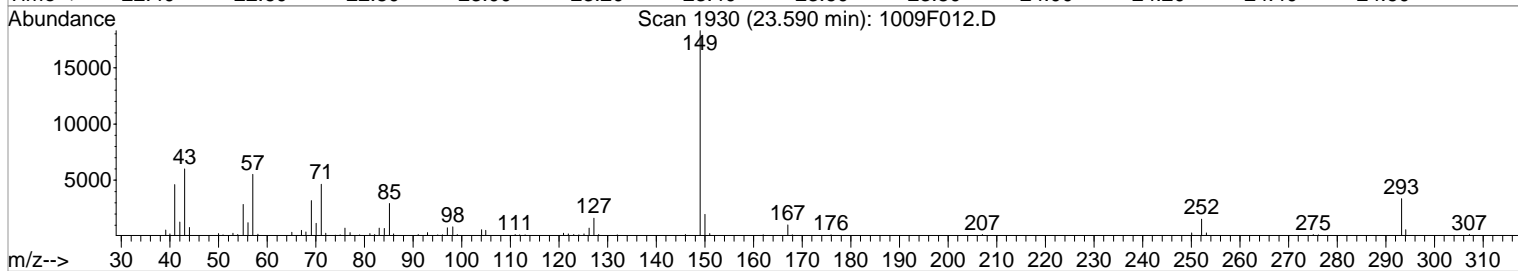
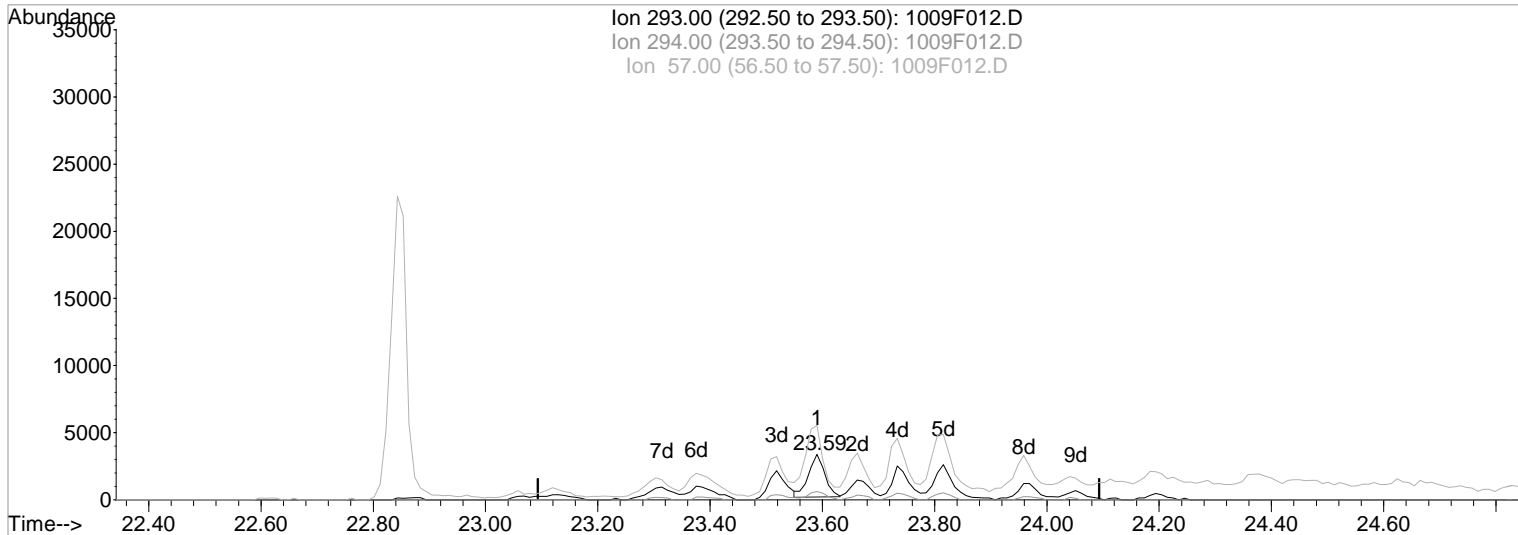
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F012.D

(88) Diisononyl Phthalate (T)

Manual Integration:

23.59min 19.22ug/ml

Before

response 6318

Ion	Exp%	Act%
293.00	100	100
294.00	1.60	20.72
57.00	15.00	159.26#
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F012.D

Vial: 12

Acq On : 9 Oct 2019 7:45 pm

Operator: CCONOVER/LM

Sample : ICAL @120ppm | SVM-62-13K

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:54 2019

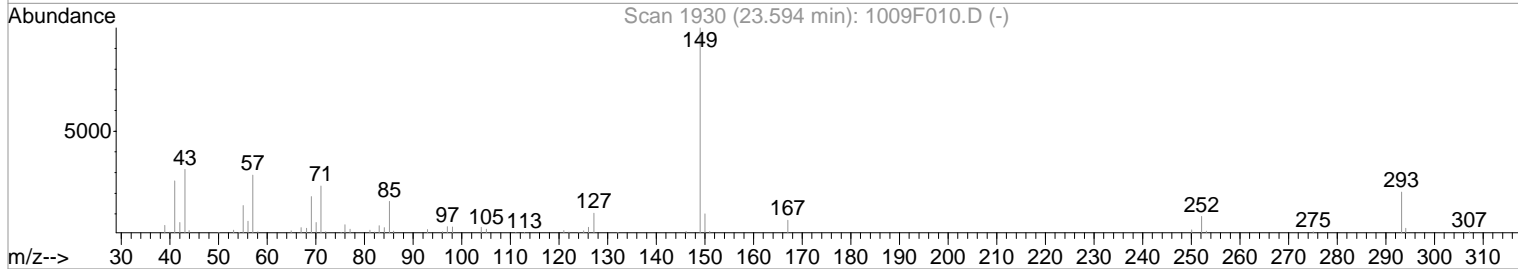
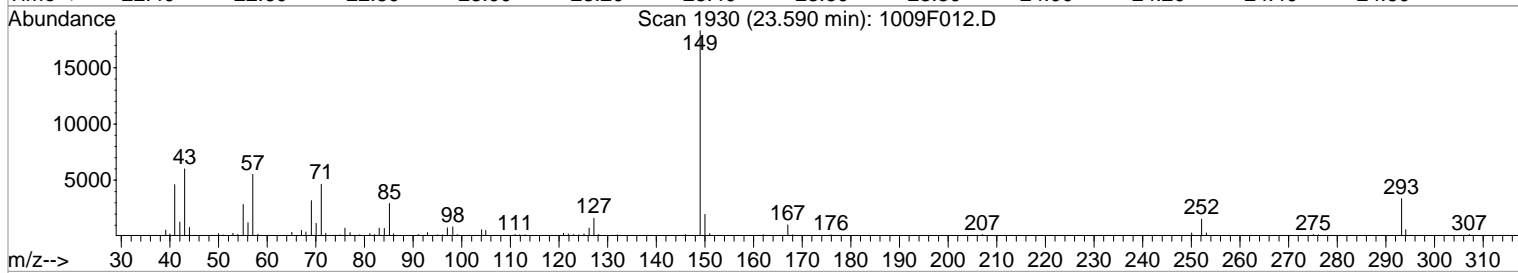
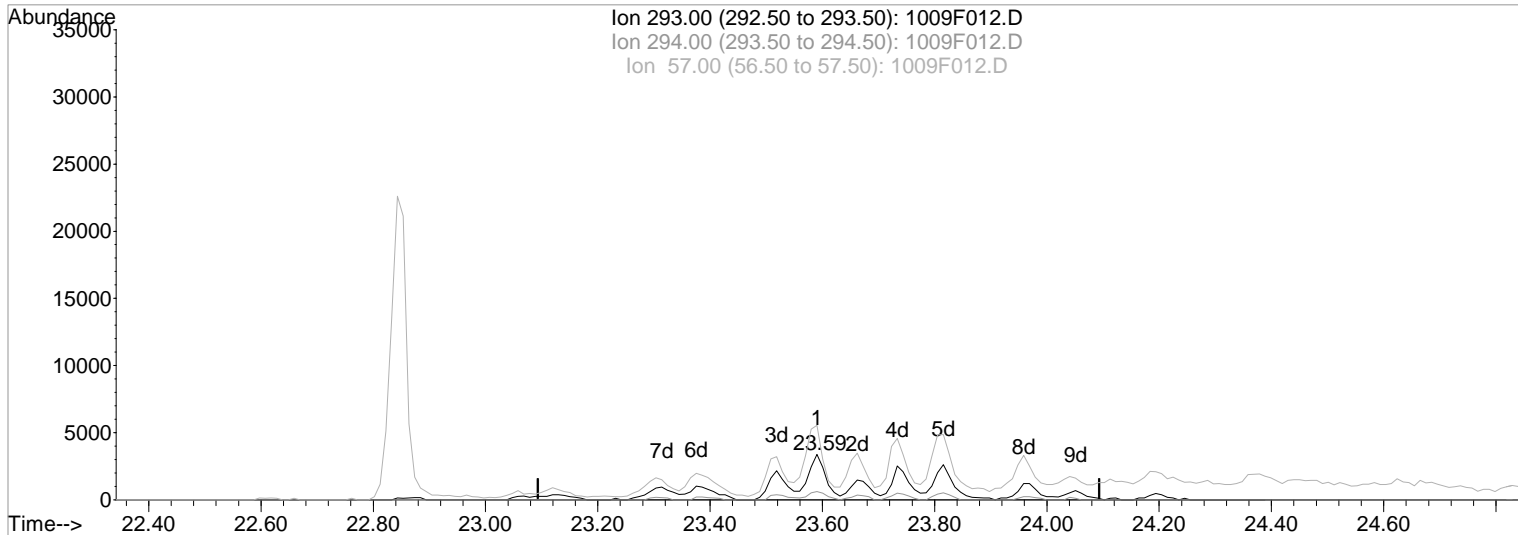
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F012.D

(88) Diisononyl Phthalate (T)

Manual Integration:

23.59min 127.32ug/ml m

After

response 41864

Range integration correction

Ion	Exp%	Act%
293.00	100	100
294.00	1.60	3.13
57.00	15.00	24.03
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F012.D

Vial: 12

Acq On : 9 Oct 2019 7:45 pm

Operator: CCONOVER/LM

Sample : ICAL @120ppm | SVM-62-13K

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:54 2019

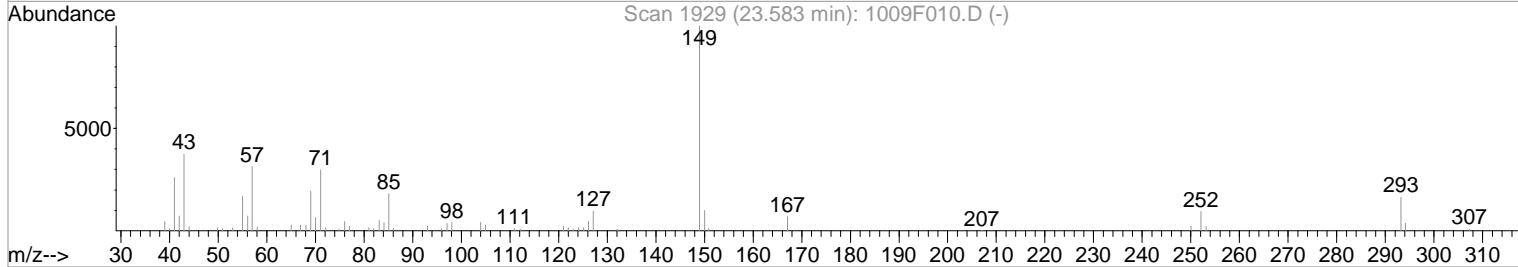
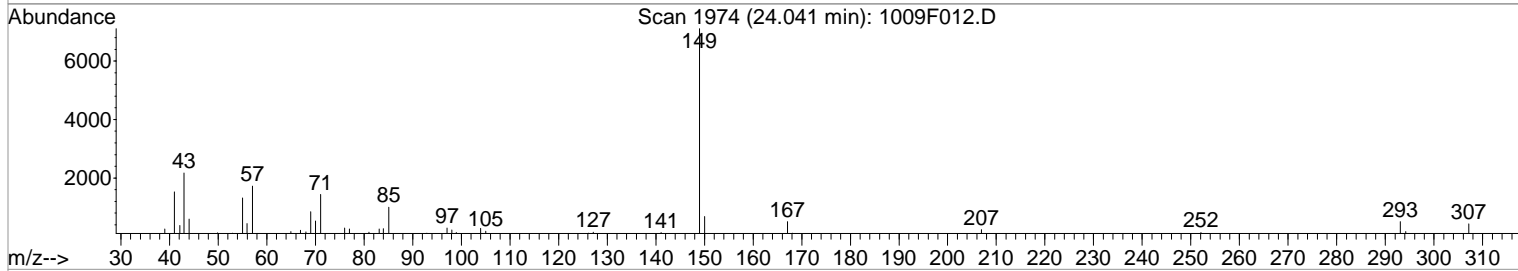
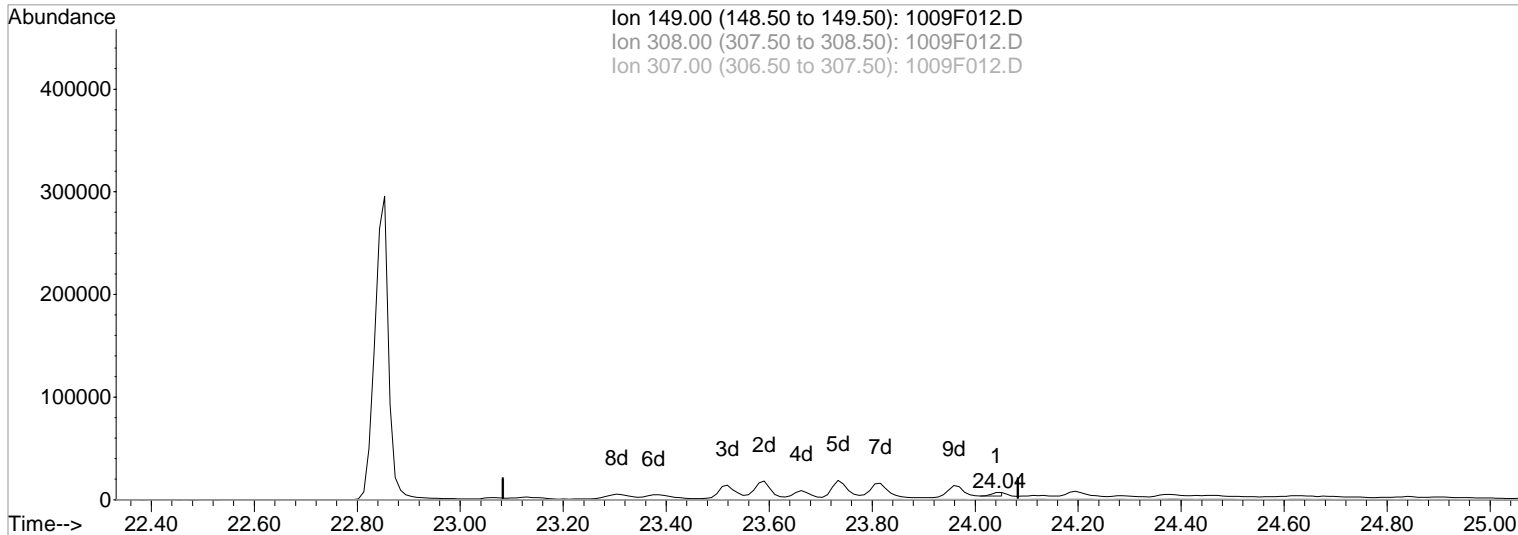
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F012.D

(89) Diisodecyl Phthalate (T)

Manual Integration:

24.04min 1.32ug/ml

Before

response 5600

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	3.39
307.00	0.00	8.34
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F012.D

Vial: 12

Acq On : 9 Oct 2019 7:45 pm

Operator: CCONOVER/LM

Sample : ICAL @120ppm | SVM-62-13K

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:55 2019

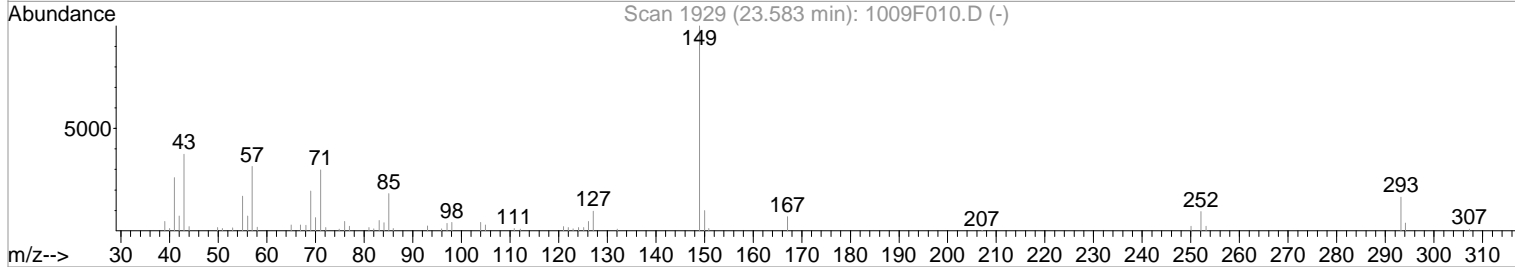
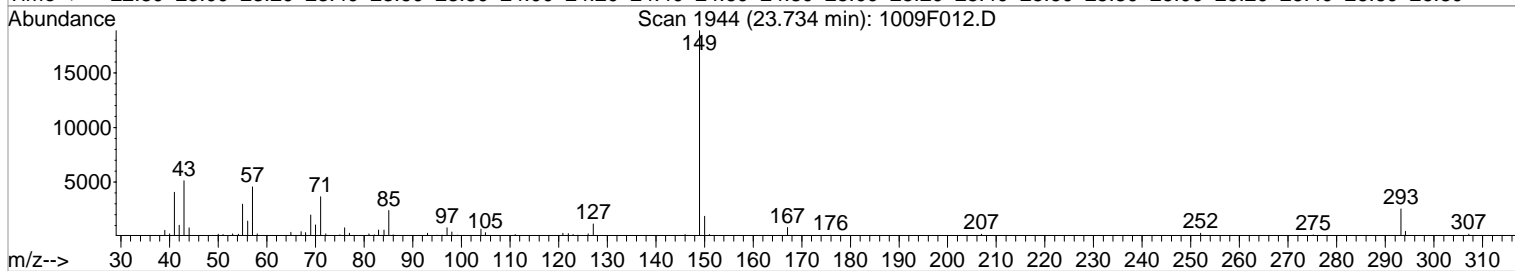
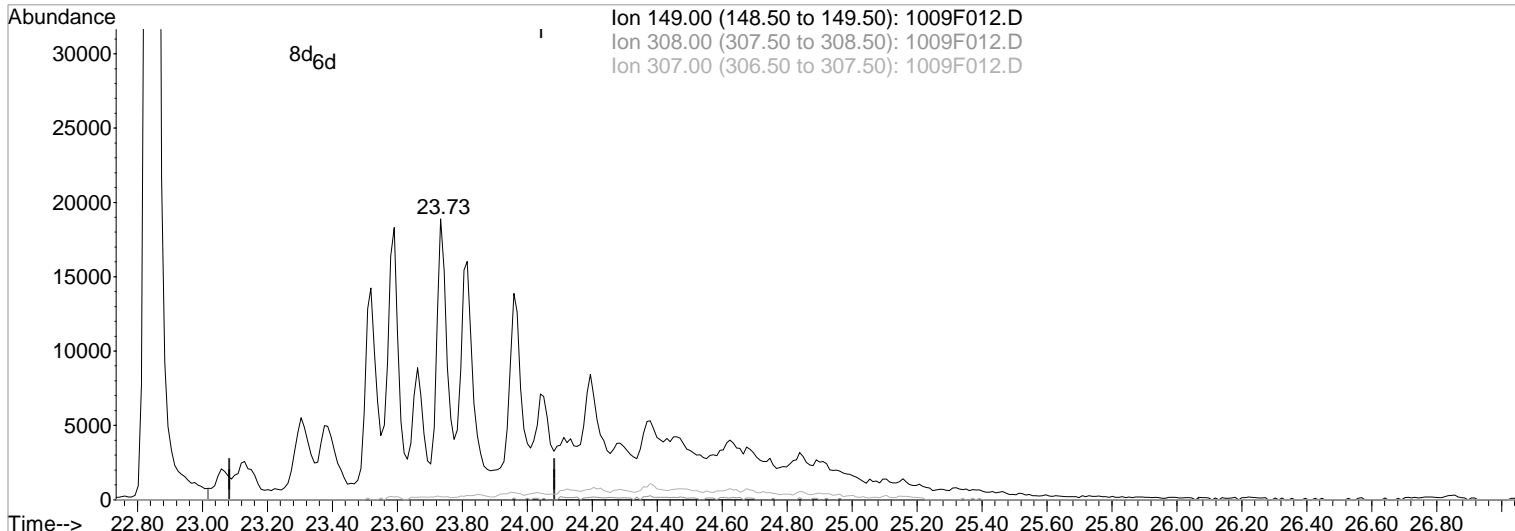
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F012.D

(89) Diisodecyl Phthalate (T)

Manual Integration:

23.73min 125.56ug/ml m

After

response 532621

Range integration correction

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.04
307.00	0.00	0.09
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F013.D
 Acq On : 9 Oct 2019 8:26 pm
 Sample : ICAL @150ppm | SVM-62-13L
 Misc :

Vial: 13
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 09:11:09 2019

Quant Results File: 100919_BNP7.RES

Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 09:10:47 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.35	152	52440	40.00	ug/ml	0.00
22) Naphthalene-d8	11.44	136	191203	40.00	ug/ml	0.00
36) Acenaphthene-d10	14.31	164	100659	40.00	ug/ml	0.00
61) Phenanthrene-d10	16.71	188	161162	40.00	ug/ml	0.00
73) Chrysene-d12	21.15	240	139263	40.00	ug/ml	0.00
84) Perylene-d12	24.32	264	160459	40.00	ug/ml	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
4) 2-Fluorophenol	7.14	112	242675	143.86	ug/ml	0.02
Spiked Amount	150.000	Range	21 - 100	Recovery	=	95.91%
8) Phenol-d6	8.84	99	317685	139.16	ug/ml	0.03
Spiked Amount	150.000	Range	10 - 94	Recovery	=	92.77%
20) Nitrobenzene-d5	10.28	82	296787	139.34	ug/ml	0.00
Spiked Amount	100.000	Range	35 - 114	Recovery	=	139.34%#
40) 2-Fluorobiphenyl	13.25	172	490659	143.18	ug/ml	0.00
Spiked Amount	100.000	Range	43 - 116	Recovery	=	143.18%#
62) 2,4,6-Tribromophenol	15.61	330	149603	147.59	ug/ml	0.02
Spiked Amount	150.000	Range	10 - 123	Recovery	=	98.39%
76) Terphenyl-d14	19.35	244	566698	142.08	ug/ml	0.02
Spiked Amount	100.000	Range	33 - 141	Recovery	=	142.08%#

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-Nitrosodimethylamine	4.36	42	188255	153.68	ug/ml	97
3) Pyridine	4.37	79	308448	146.53	ug/ml	99
5) Ethylene Glycol Butyl Ethe	7.69	57	302166	141.78	ug/ml	98
6) Aniline	8.81	93	369871	140.48	ug/ml	67
7) Bis(2-chloroethyl) Ether	8.97	93	265494	141.93	ug/ml	98
9) Phenol	8.86	94	358324	137.50	ug/ml	99
10) 2-Chlorophenol	9.00	128	264214	143.15	ug/ml	96
11) 1,3-Dichlorobenzene	9.25	146	276576	145.07	ug/ml	100
12) 1,4-Dichlorobenzene	9.38	146	282802	143.52	ug/ml	99
13) 1,2-Dichlorobenzene	9.62	146	262579	143.64	ug/ml	99
14) Benzyl Alcohol	9.65	108	174057	142.47	ug/ml	95
15) 2,2'-oxybis(1-chloropropan	9.87	45	334176m	136.82	ug/ml	
16) 2-Methylphenol	9.84	107	195657	133.21	ug/ml	90
17) Hexachloroethane	10.18	117	131435	145.73	ug/ml	87
18) N-Nitrosodi-n-propylamine	10.10	70	182946	133.07	ug/ml	98
19) 4-Methylphenol	10.13	107	307876	133.38	ug/ml	99
21) Nitrobenzene	10.31	77	282876	139.79	ug/ml	98
23) Isophorone	10.74	82	485385	138.85	ug/ml	99
24) 2-Nitrophenol	10.84	139	140533	146.78	ug/ml	93
25) 2,4-Dimethylphenol	10.98	122	206674	141.58	ug/ml	99
26) Bis(2-chloroethoxy)methane	11.12	93	304025	141.32	ug/ml	100
27) 2,4-Dichlorophenol	11.26	162	216791	143.49	ug/ml	97
28) Benzoic Acid	11.31	122	159781	154.91	ug/ml	97
29) 1,2,4-Trichlorobenzene	11.37	180	228352	147.13	ug/ml	98
30) Naphthalene	11.48	128	657431	146.99	ug/ml	100
31) n-Dodecane	11.55	57	286358	137.75	ug/ml	97
32) 4-Chloroaniline	11.60	127	301335	145.05	ug/ml	98
33) Hexachlorobutadiene	11.72	225	145843	148.65	ug/ml	99
34) 4-Chloro-3-methylphenol	12.43	107	214716	143.59	ug/ml	97
35) 2-Methylnaphthalene	12.62	142	444986	145.02	ug/ml	100
37) Hexachlorocyclopentadiene	12.89	237	176355	152.75	ug/ml	99
38) 2,4,6-Trichlorophenol	13.10	196	151649	143.08	ug/ml	99
39) 2,4,5-Trichlorophenol	13.16	196	174054	150.89	ug/ml	100
41) 2-Chloronaphthalene	13.41	162	406911	141.75	ug/ml	100
42) 2-Nitroaniline	13.61	65	152745	153.67	ug/ml	97
43) Acenaphthylene	14.07	152	604315	143.05	ug/ml	100

Data File : J:\MS07\DATA\100919\1009F013.D
 Acq On : 9 Oct 2019 8:26 pm
 Sample : ICAL @150ppm | SVM-62-13L
 Misc :

Vial: 13
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 09:11:09 2019

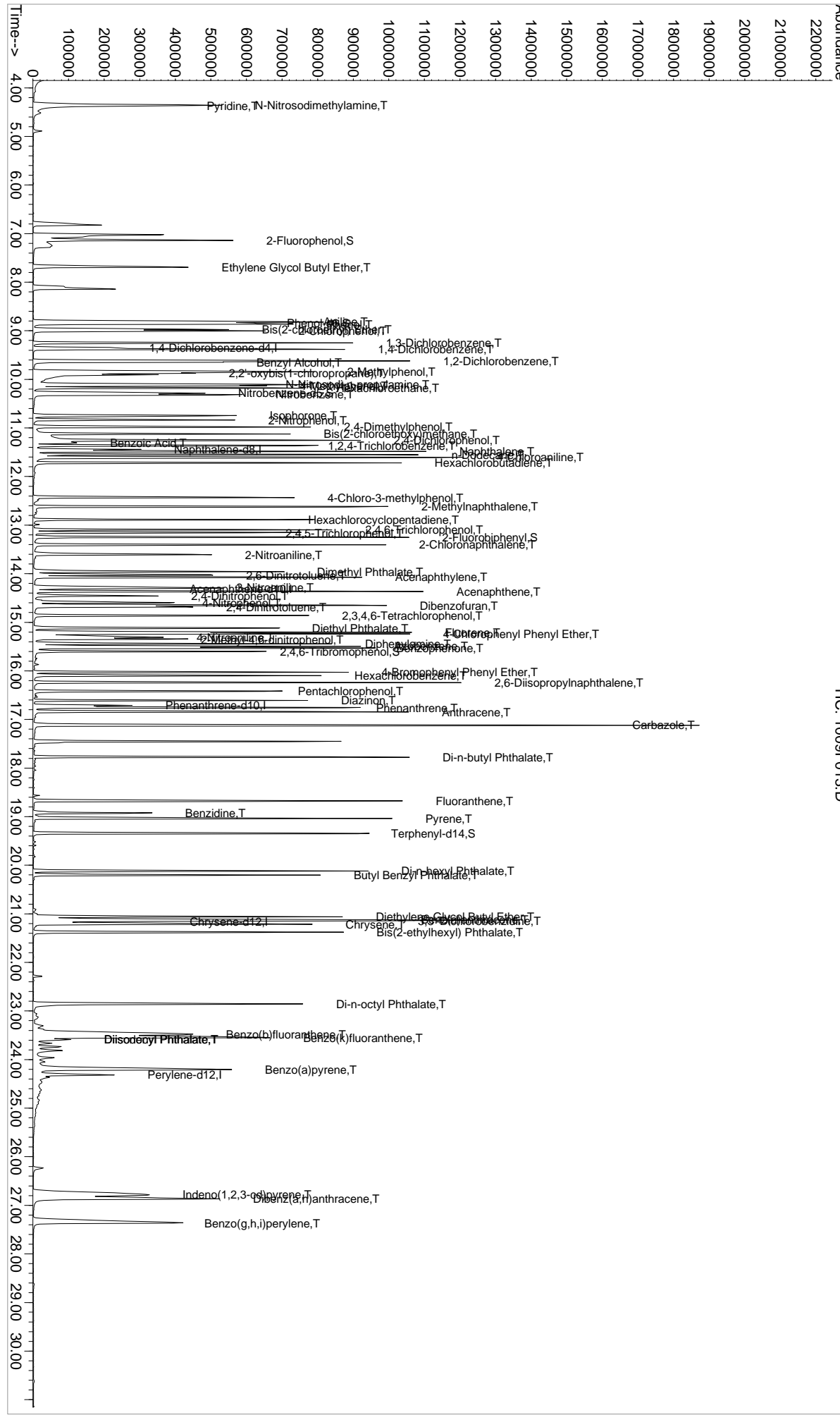
Quant Results File: 100919_BNP7.RES

Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 09:10:47 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44) Dimethyl Phthalate	13.96	163	454913	146.90	ug/ml	100
45) 2,6-Dinitrotoluene	14.03	165	117311	157.92	ug/ml	93
46) Acenaphthene	14.37	154	357029	142.35	ug/ml	99
47) 3-Nitroaniline	14.29	138	131646	157.34	ug/ml	99
48) 2,4-Dinitrophenol	14.46	184	75373	186.14	ug/ml	89
49) Dibenzofuran	14.65	168	580765	146.76	ug/ml	89
50) 4-Nitrophenol	14.60	109	83930	165.86	ug/ml	97
51) 2,4-Dinitrotoluene	14.69	165	150437	160.54	ug/ml	79
52) 2,3,4,6-Tetrachlorophenol	14.86	232	140478	154.72	ug/ml	96
53) Fluorene	15.21	166	430278	148.65	ug/ml	100
54) 4-Chlorophenyl Phenyl Et	15.24	204	228380	145.42	ug/ml	99
55) Diethyl Phthalate	15.13	149	456760	151.25	ug/ml	99
56) 4-Nitroaniline	15.31	138	137531	166.06	ug/ml	96
57) 2-Methyl-4,6-dinitrophenol	15.35	198	106156	183.83	ug/ml	80
58) Diphenylamine	15.44	169	302930	152.52	ug/ml	99
59) Azobenzene	15.49	51	233765	165.84	ug/ml#	88
60) Benzophenone	15.54	105	511925	148.70	ug/ml	99
63) 4-Bromophenyl Phenyl Ether	16.03	248	157811	142.51	ug/ml	100
64) Hexachlorobenzene	16.10	284	203418	140.01	ug/ml	94
65) 2,6-Diisopropyl naphthalene	16.24	197	352538	135.82	ug/ml	99
66) Pentachlorophenol	16.43	266	147165	154.11	ug/ml	99
67) Diazinon	16.61	137	72986	137.96	ug/ml	98
68) Phenanthrene	16.76	178	600893	145.51	ug/ml	99
69) Anthracene	16.85	178	613710	142.46	ug/ml	100
70) Carbazole	17.12	167	606230	146.87	ug/ml	99
71) Di-n-butyl Phthalate	17.78	149	766747	150.73	ug/ml	100
72) Fluoranthene	18.68	202	667919	149.75	ug/ml	99
74) Benzidine	18.92	184	183854	124.13	ug/ml	97
75) Pyrene	19.04	202	663845	146.68	ug/ml	99
77) Di-n-hexyl Phthalate	20.12	149	718237	139.58	ug/ml	99
78) Butyl Benzyl Phthalate	20.20	149	284900	138.44	ug/ml	99
79) Diethylene Glycol Butyl Et	21.06	105	478303	150.86	ug/ml	99
80) 3,3'-Dichlorobenzidine	21.14	252	278945	152.99	ug/ml	100
81) Benz(a)anthracene	21.12	228	519286	143.89	ug/ml	99
82) Chrysene	21.22	228	538399	148.46	ug/ml	99
83) Bis(2-ethylhexyl) Phthalat	21.38	149	377610	142.40	ug/ml	99
85) Di-n-octyl Phthalate	22.85	149	689457	155.41	ug/ml	98
86) Benzo(b)fluoranthene	23.48	252	732879	166.43	ug/ml	100
87) Benzo(k)fluoranthene	23.55	252	557294	133.17	ug/ml	98
88) Diisononyl Phthalate	23.59	293	52808m	159.16	ug/ml	
89) Diisodecyl Phthalate	23.59	149	673776m	157.40	ug/ml	
90) Benzo(a)pyrene	24.20	252	598215	152.05	ug/ml	99
91) Indeno(1,2,3-cd)pyrene	26.78	276	627521	156.20	ug/ml	100
92) Dibenz(a,h)anthracene	26.87	278	618579	153.07	ug/ml	99
93) Benzo(g,h,i)perylene	27.37	276	618363	149.28	ug/ml	95

Data File : J:\MS07\DATA\100919\1009F013.D
Acq On : 9 Oct 2019 8:26 pm
Sample : ICAL@150ppm | SVM-62-13L
Misc :
MS Integration Params: RTEINT.P
Quant Results File: 100919_BNP7.RES
Vial: 13
Operator: CCONOVER/LM
Inst: MS07
Multiplr: 1.00

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
Last Update : Thu Oct 10 09:10:47 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS07\DATA\100919\1009F013.D

Vial: 13

Acq On : 9 Oct 2019 8:26 pm

Operator: CCONOVER/LM

Sample : ICAL @150ppm | SVM-62-13L

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:17 2019

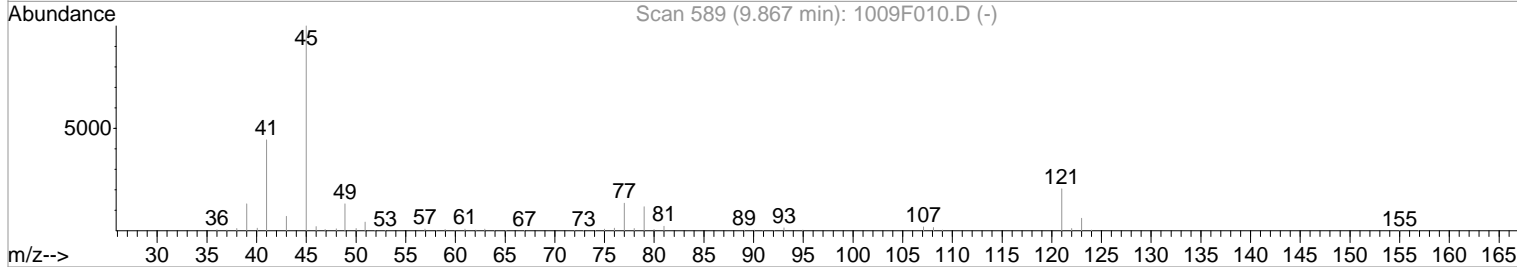
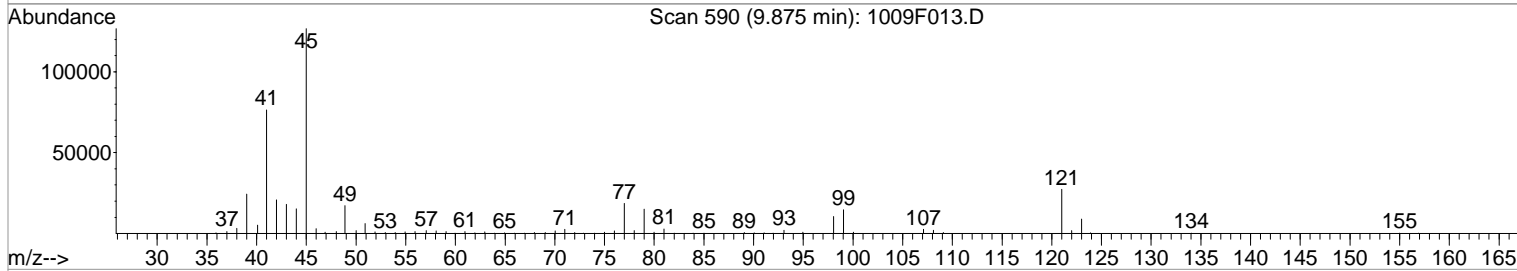
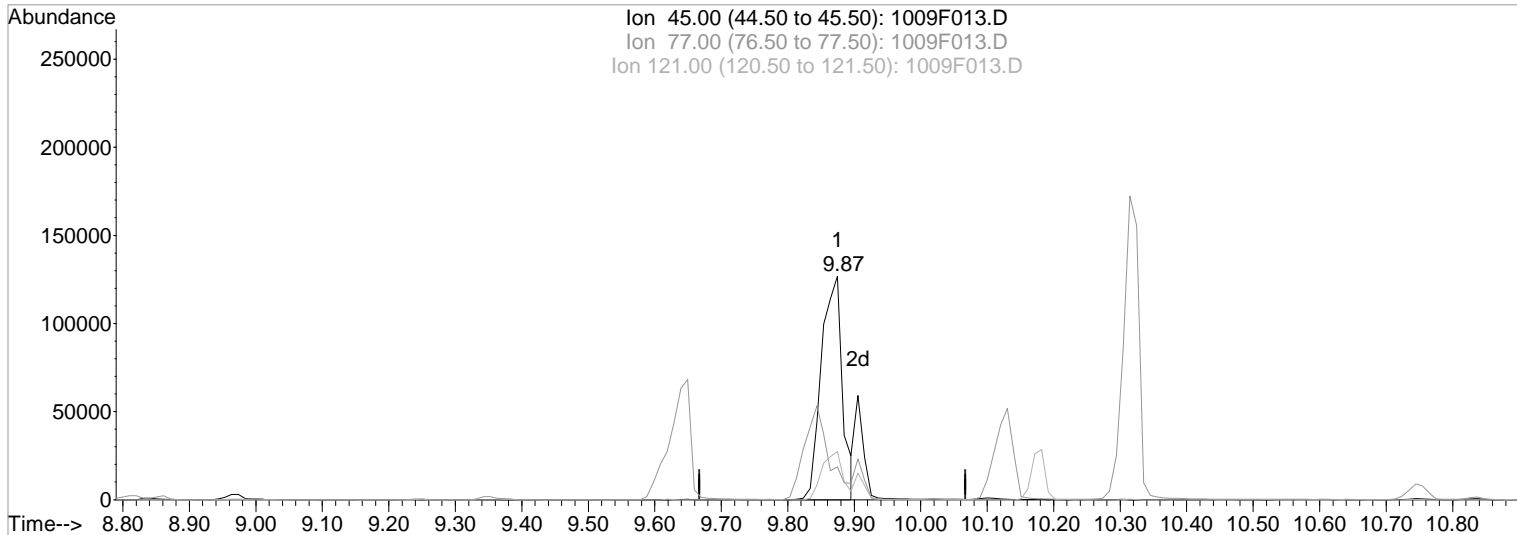
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F013.D

(15) 2,2'-oxybis(1-chloropropane) (T)

Manual Integration:

9.87min 114.10ug/ml

Before

response 278682

Ion	Exp%	Act%
45.00	100	100
77.00	13.60	12.12
121.00	20.40	21.81
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F013.D

Vial: 13

Acq On : 9 Oct 2019 8:26 pm

Operator: CCONOVER/LM

Sample : ICAL @150ppm | SVM-62-13L

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:56 2019

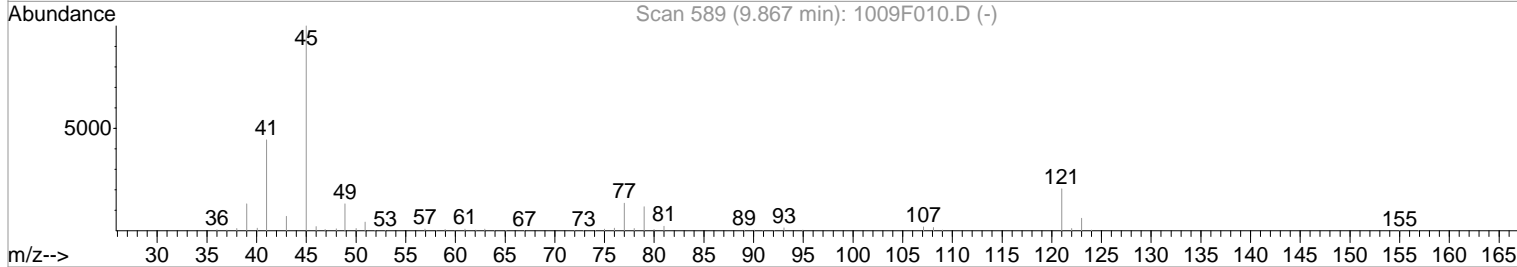
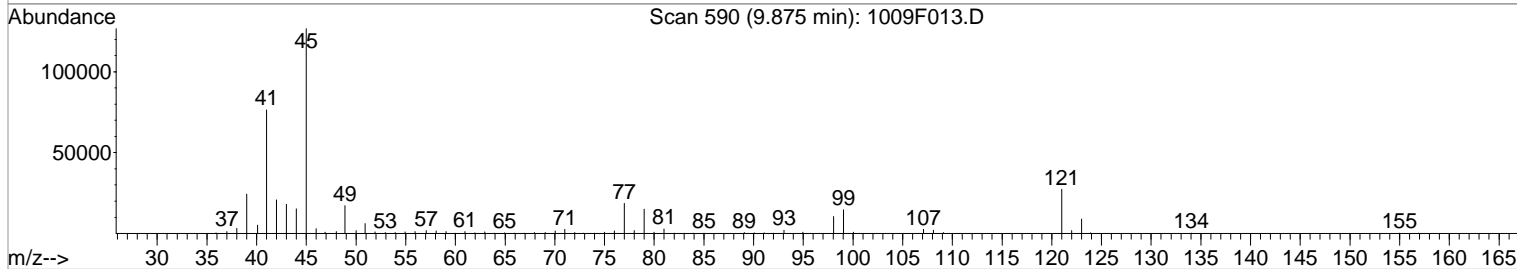
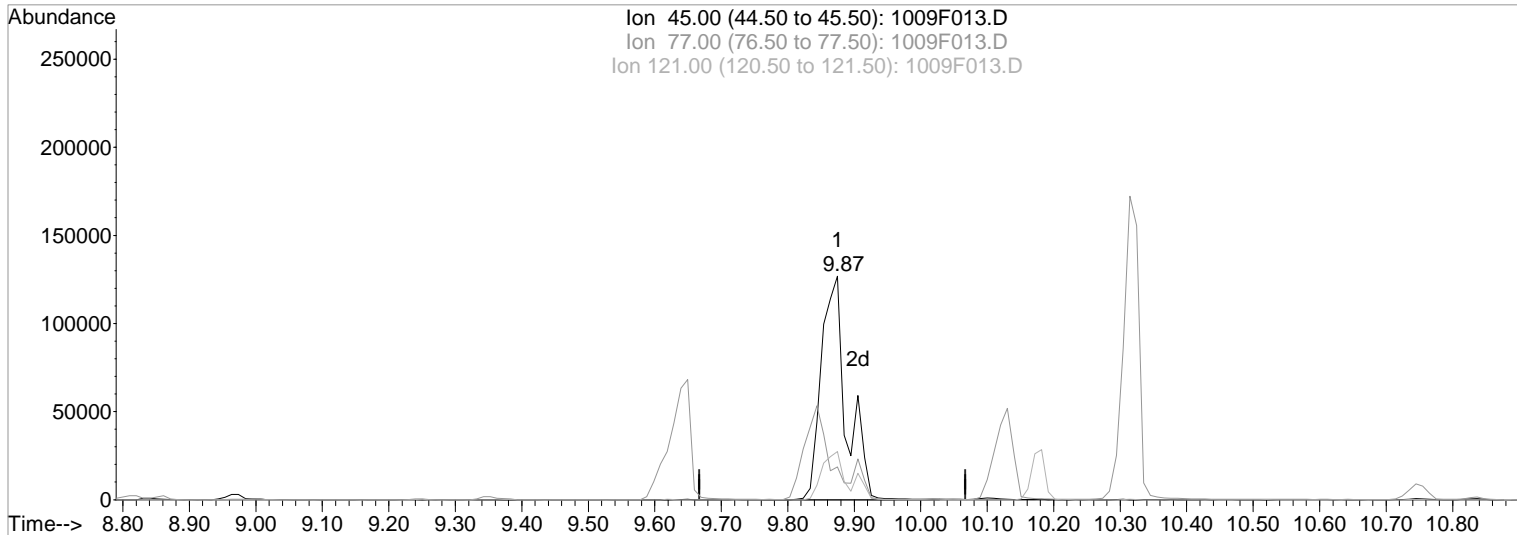
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F013.D

(15) 2,2'-oxybis(1-chloropropane) (T)

Manual Integration:

9.87min 136.82ug/ml m

After

response 334176

IC - incomplete

Ion Exp% Act%

10/10/19

45.00 100 100

77.00 13.60 14.67

121.00 20.40 21.56

0.00 0.00 0.00

Data File : J:\MS07\DATA\100919\1009F013.D

Vial: 13

Acq On : 9 Oct 2019 8:26 pm

Operator: CCONOVER/LM

Sample : ICAL @150ppm | SVM-62-13L

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:56 2019

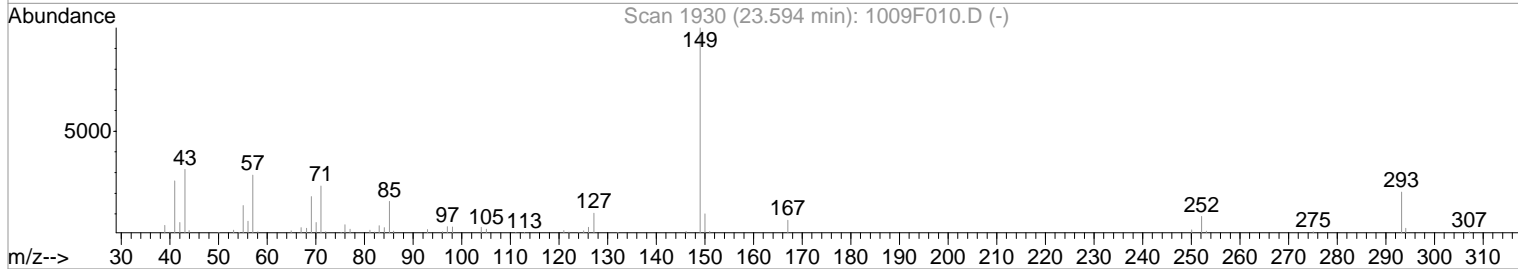
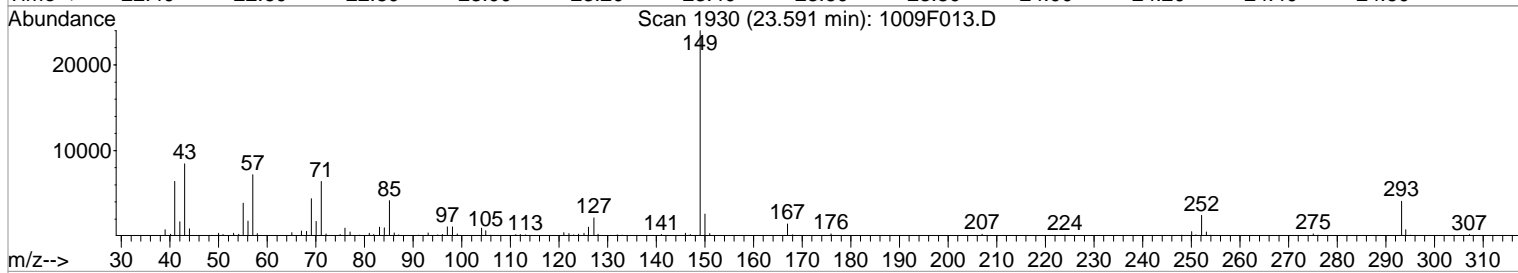
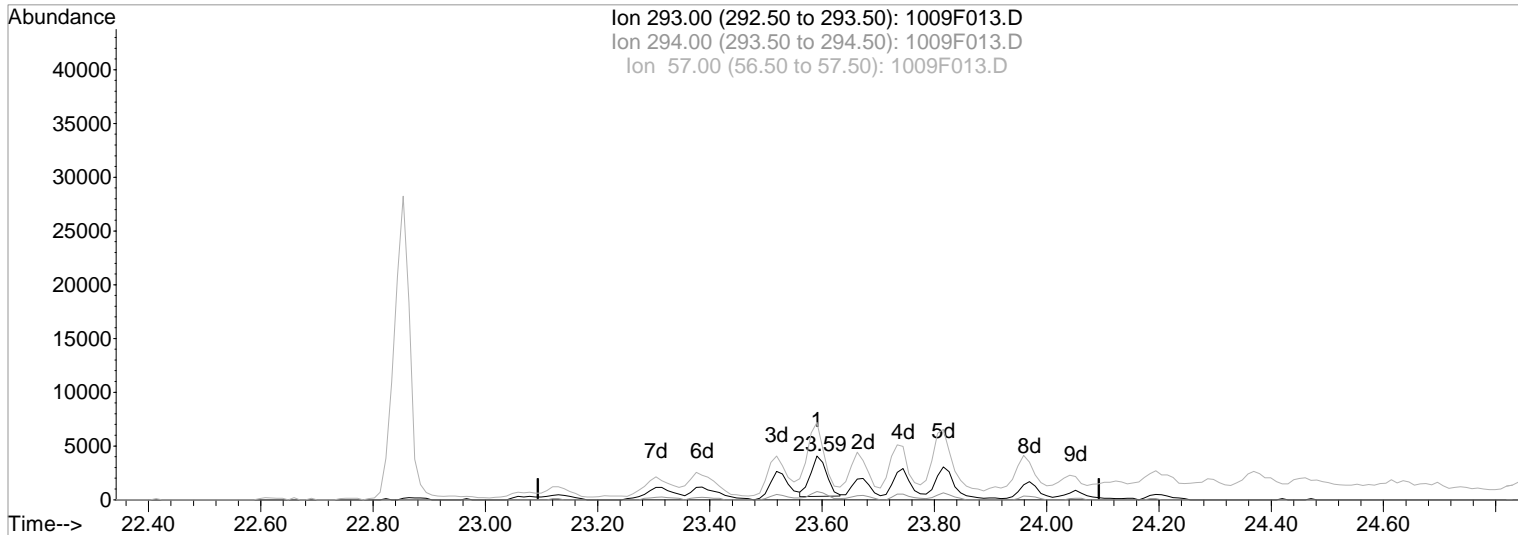
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F013.D

(88) Diisononyl Phthalate (T)

Manual Integration:

23.59min 22.55ug/ml

Before

response 7481

Ion	Exp%	Act%
293.00	100	100
294.00	1.60	22.54
57.00	15.00	178.85#
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F013.D
 Acq On : 9 Oct 2019 8:26 pm
 Sample : ICAL @150ppm | SVM-62-13L
 Misc :

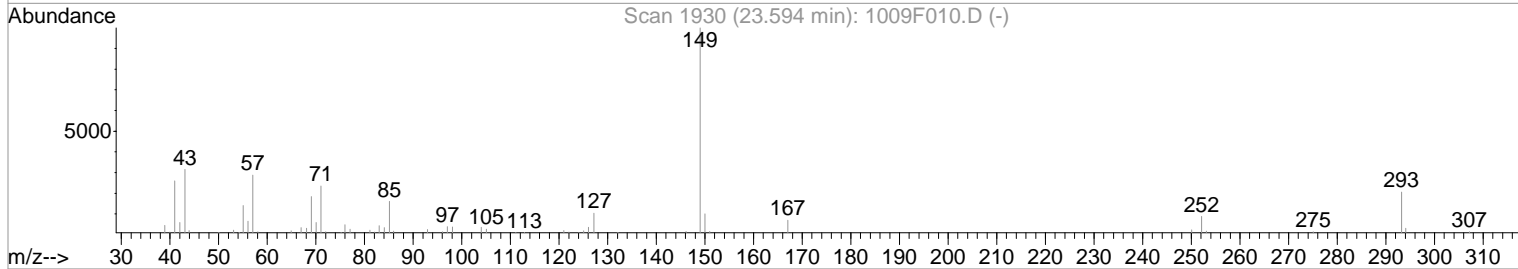
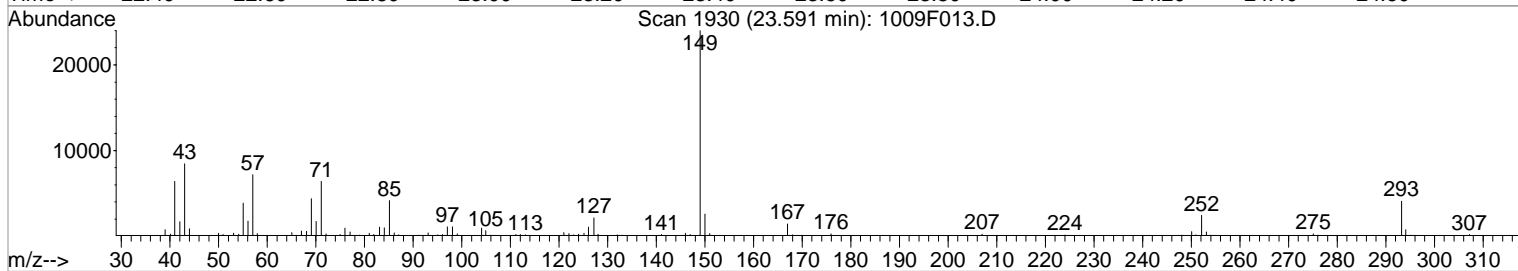
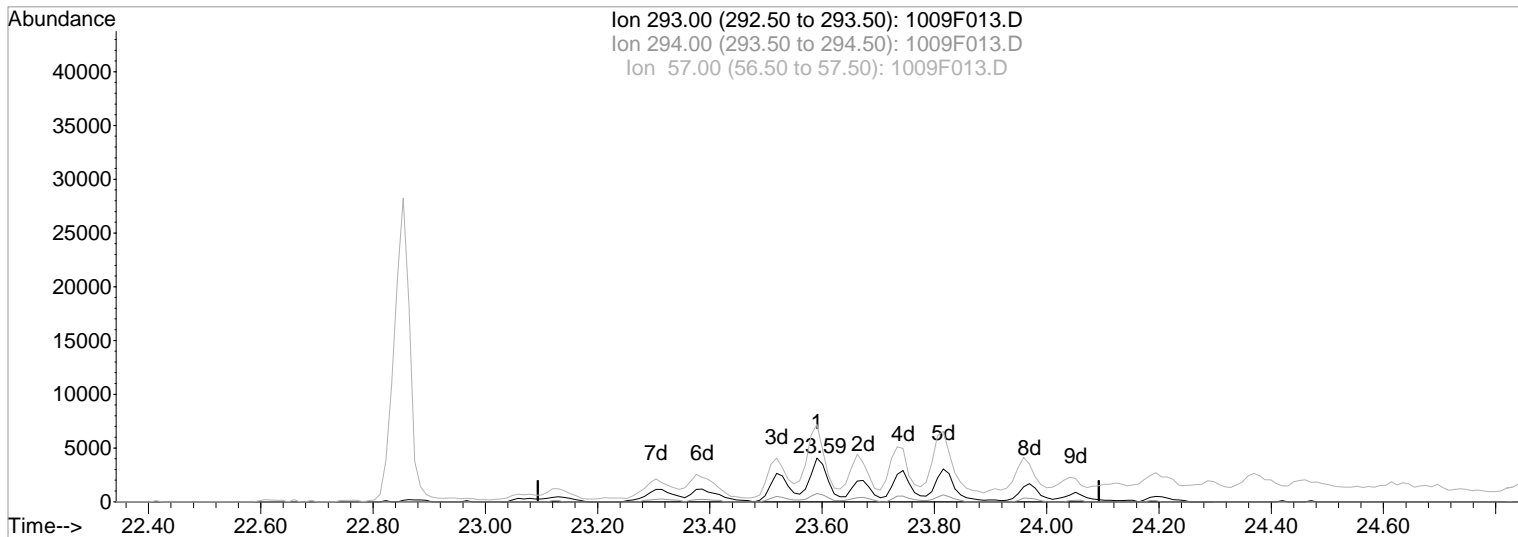
Vial: 13
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:57 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 09:10:47 2019
 Response via : Multiple Level Calibration



TIC: 1009F013.D

(88) Diisononyl Phthalate (T)

23.59min 159.16ug/ml m

response 52808

Ion	Exp%	Act%
293.00	100	100
294.00	1.60	3.19
57.00	15.00	25.34
0.00	0.00	0.00

Manual Integration:

After

Range integration correction

10/10/19

Data File : J:\MS07\DATA\100919\1009F013.D

Vial: 13

Acq On : 9 Oct 2019 8:26 pm

Operator: CCONOVER/LM

Sample : ICAL @150ppm | SVM-62-13L

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:57 2019

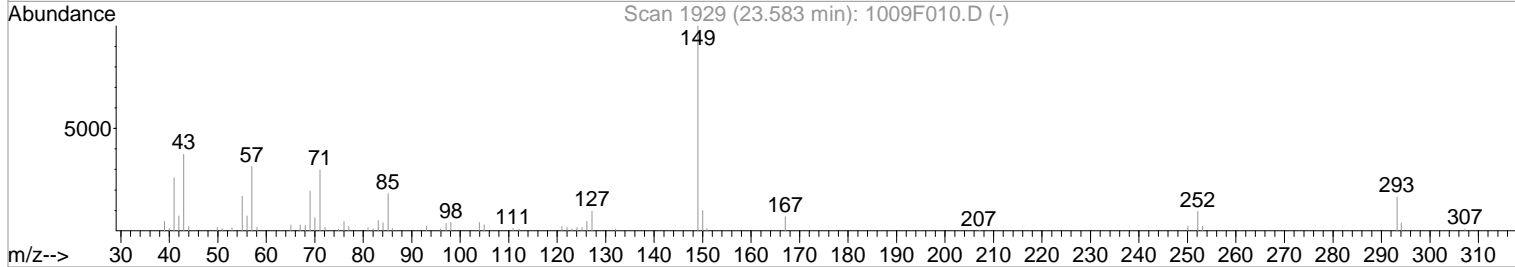
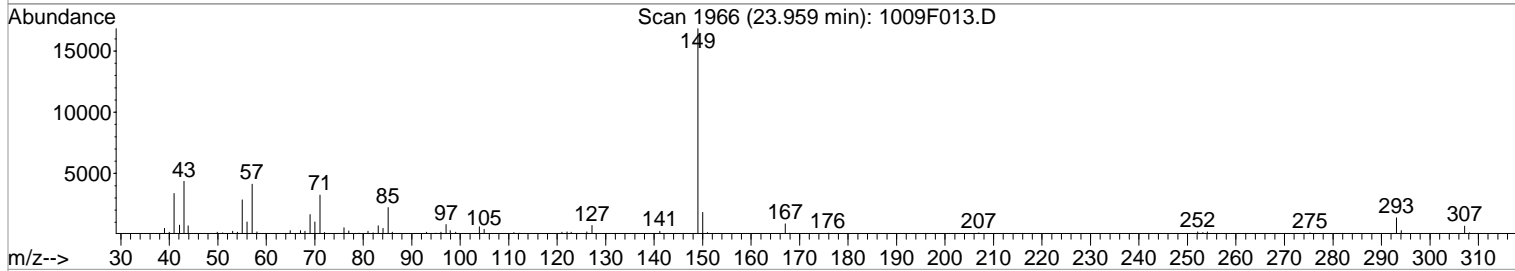
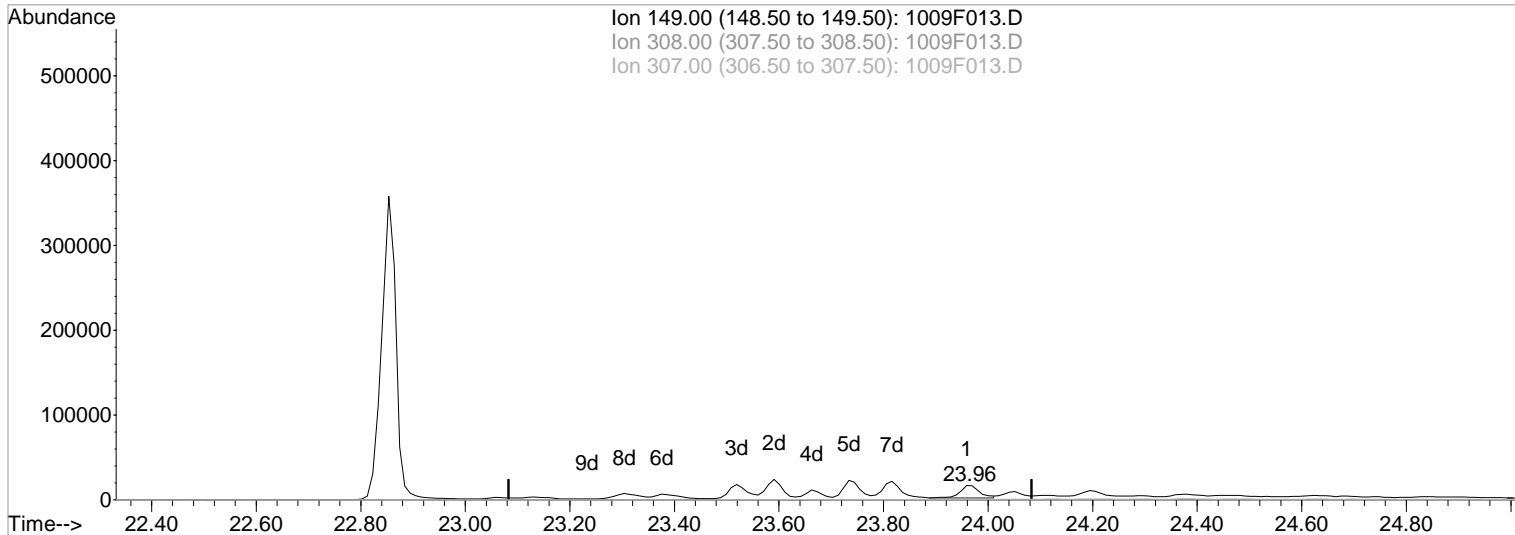
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F013.D

(89) Diisodecyl Phthalate (T)

Manual Integration:

23.96min 8.52ug/ml

Before

response 36467

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	1.24
307.00	0.00	2.93
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F013.D

Vial: 13

Acq On : 9 Oct 2019 8:26 pm

Operator: CCONOVER/LM

Sample : ICAL @150ppm | SVM-62-13L

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:58 2019

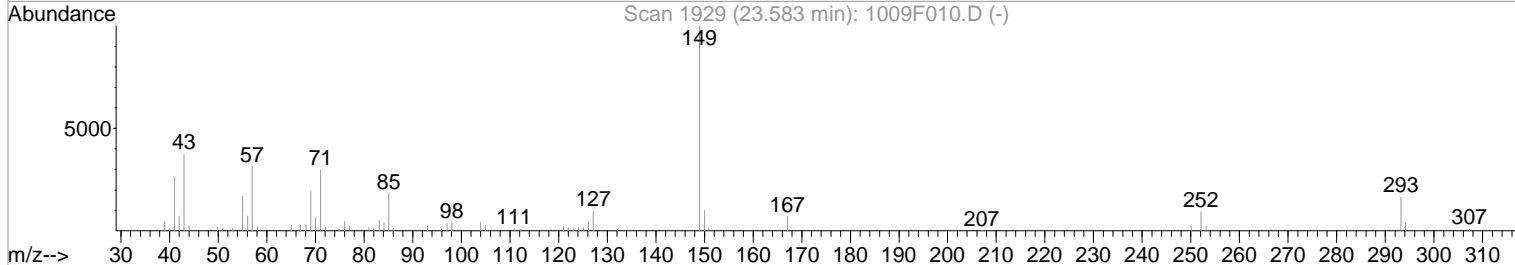
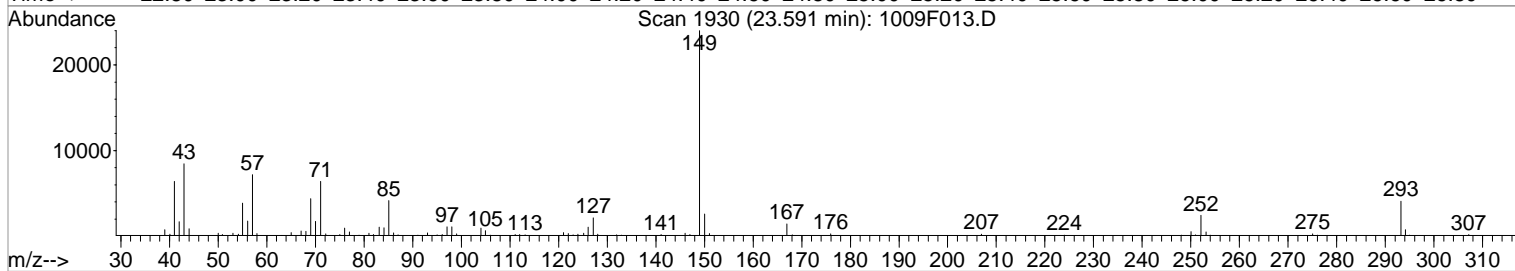
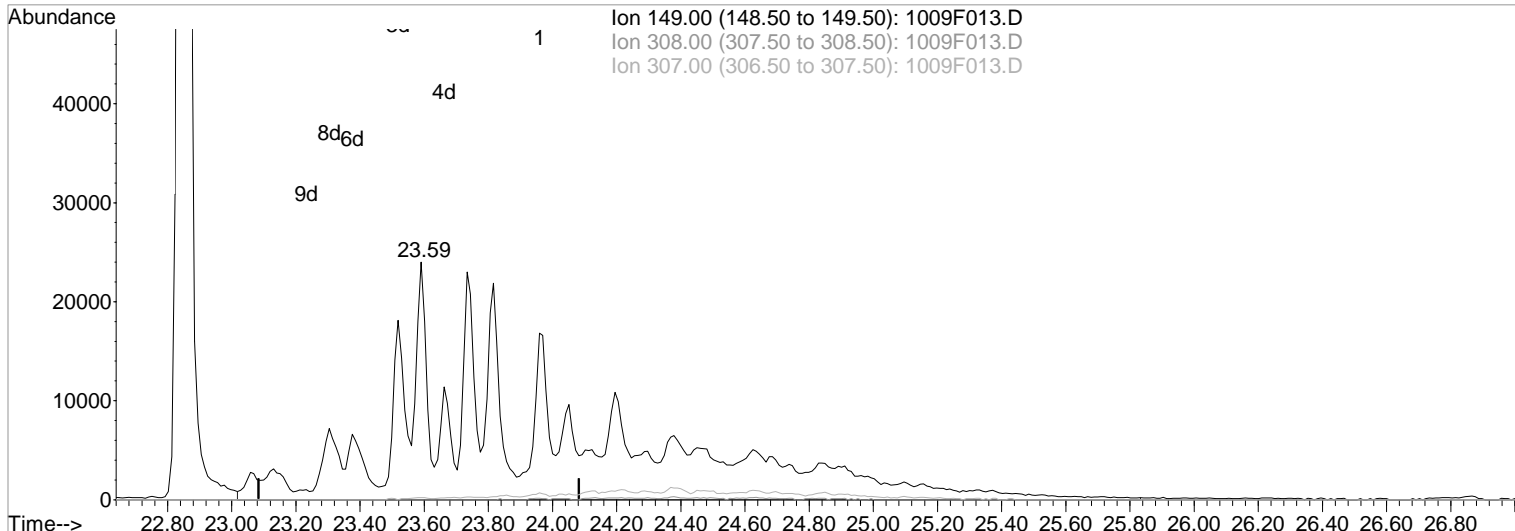
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F013.D

(89) Diisodecyl Phthalate (T)

Manual Integration:

23.59min 157.40ug/ml m

After

response 673776

Range integration correction

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.07
307.00	0.00	0.16
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F014.D
 Acq On : 9 Oct 2019 9:07 pm
 Sample : ICAL @160ppm | SVM-62-13M
 Misc :

Vial: 14
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 09:11:10 2019

Quant Results File: 100919_BNP7.RES

Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 09:10:47 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.35	152	53012	40.00	ug/ml	0.00
22) Naphthalene-d8	11.45	136	201095	40.00	ug/ml	0.00
36) Acenaphthene-d10	14.30	164	104511	40.00	ug/ml	0.00
61) Phenanthrene-d10	16.71	188	164174	40.00	ug/ml	0.00
73) Chrysene-d12	21.15	240	142411	40.00	ug/ml	0.00
84) Perylene-d12	24.32	264	163638	40.00	ug/ml	0.01

System Monitoring Compounds

4) 2-Fluorophenol	7.14	112	266261	156.14	ug/ml	0.01
Spiked Amount	150.000	Range	21 - 100	Recovery	=	104.09%#
8) Phenol-d6	8.84	99	349033	151.24	ug/ml	0.02
Spiked Amount	150.000	Range	10 - 94	Recovery	=	100.83%#
20) Nitrobenzene-d5	10.29	82	319013	148.16	ug/ml	0.01
Spiked Amount	100.000	Range	35 - 114	Recovery	=	148.16%#
40) 2-Fluorobiphenyl	13.25	172	536054	150.66	ug/ml	0.00
Spiked Amount	100.000	Range	43 - 116	Recovery	=	150.66%#
62) 2,4,6-Tribromophenol	15.60	330	156390	151.45	ug/ml	0.01
Spiked Amount	150.000	Range	10 - 123	Recovery	=	100.97%
76) Terphenyl-d14	19.35	244	571464	140.11	ug/ml	0.01
Spiked Amount	100.000	Range	33 - 141	Recovery	=	140.11%

Target Compounds

						Qvalue
2) N-Nitrosodimethylamine	4.35	42	198284	160.12	ug/ml	97
3) Pyridine	4.36	79	324666	152.58	ug/ml	100
5) Ethylene Glycol Butyl Ethe	7.69	57	320942	148.96	ug/ml	98
6) Aniline	8.82	93	391878	147.23	ug/ml	78
7) Bis(2-chloroethyl) Ether	8.97	93	285150	150.79	ug/ml	99
9) Phenol	8.87	94	394494	149.74	ug/ml	98
10) 2-Chlorophenol	9.00	128	281173	150.70	ug/ml	99
11) 1,3-Dichlorobenzene	9.25	146	291917	151.46	ug/ml	98
12) 1,4-Dichlorobenzene	9.38	146	299312	150.26	ug/ml	98
13) 1,2-Dichlorobenzene	9.62	146	279586	151.29	ug/ml	96
14) Benzyl Alcohol	9.64	108	185557	150.24	ug/ml	100
15) 2,2'-oxybis(1-chloropropan	9.87	45	356672	144.46	ug/ml	99
16) 2-Methylphenol	9.84	107	220040	148.19	ug/ml	92
17) Hexachloroethane	10.18	117	136885	150.14	ug/ml	97
18) N-Nitrosodi-n-propylamine	10.11	70	203790	146.63	ug/ml	97
19) 4-Methylphenol	10.14	107	333641	142.99	ug/ml	99
21) Nitrobenzene	10.32	77	298030	145.69	ug/ml	99
23) Isophorone	10.75	82	542581	147.57	ug/ml	98
24) 2-Nitrophenol	10.84	139	164449	163.31	ug/ml	97
25) 2,4-Dimethylphenol	10.99	122	224366	146.13	ug/ml	99
26) Bis(2-chloroethoxy)methane	11.13	93	343100	151.64	ug/ml	99
27) 2,4-Dichlorophenol	11.26	162	244485	153.86	ug/ml	94
28) Benzoic Acid	11.33	122	184039	169.65	ug/ml	95
29) 1,2,4-Trichlorobenzene	11.36	180	250543	153.49	ug/ml	99
30) Naphthalene	11.49	128	713922	151.77	ug/ml	99
31) n-Dodecane	11.55	57	298231	136.40	ug/ml	97
32) 4-Chloroaniline	11.61	127	315368	144.34	ug/ml	100
33) Hexachlorobutadiene	11.72	225	161950	156.95	ug/ml	98
34) 4-Chloro-3-methylphenol	12.43	107	235460	149.72	ug/ml	99
35) 2-Methylnaphthalene	12.62	142	474123	146.91	ug/ml	100
37) Hexachlorocyclopentadiene	12.89	237	191592	159.83	ug/ml	98
38) 2,4,6-Trichlorophenol	13.09	196	174947	158.97	ug/ml	99
39) 2,4,5-Trichlorophenol	13.16	196	185595	154.97	ug/ml	99
41) 2-Chloronaphthalene	13.41	162	443461	148.79	ug/ml	98
42) 2-Nitroaniline	13.61	65	160107	155.14	ug/ml	95
43) Acenaphthylene	14.08	152	667023	152.08	ug/ml	99

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS07\DATA\100919\1009F014.D
 Acq On : 9 Oct 2019 9:07 pm
 Sample : ICAL @160ppm | SVM-62-13M
 Misc :

Vial: 14
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 09:11:10 2019

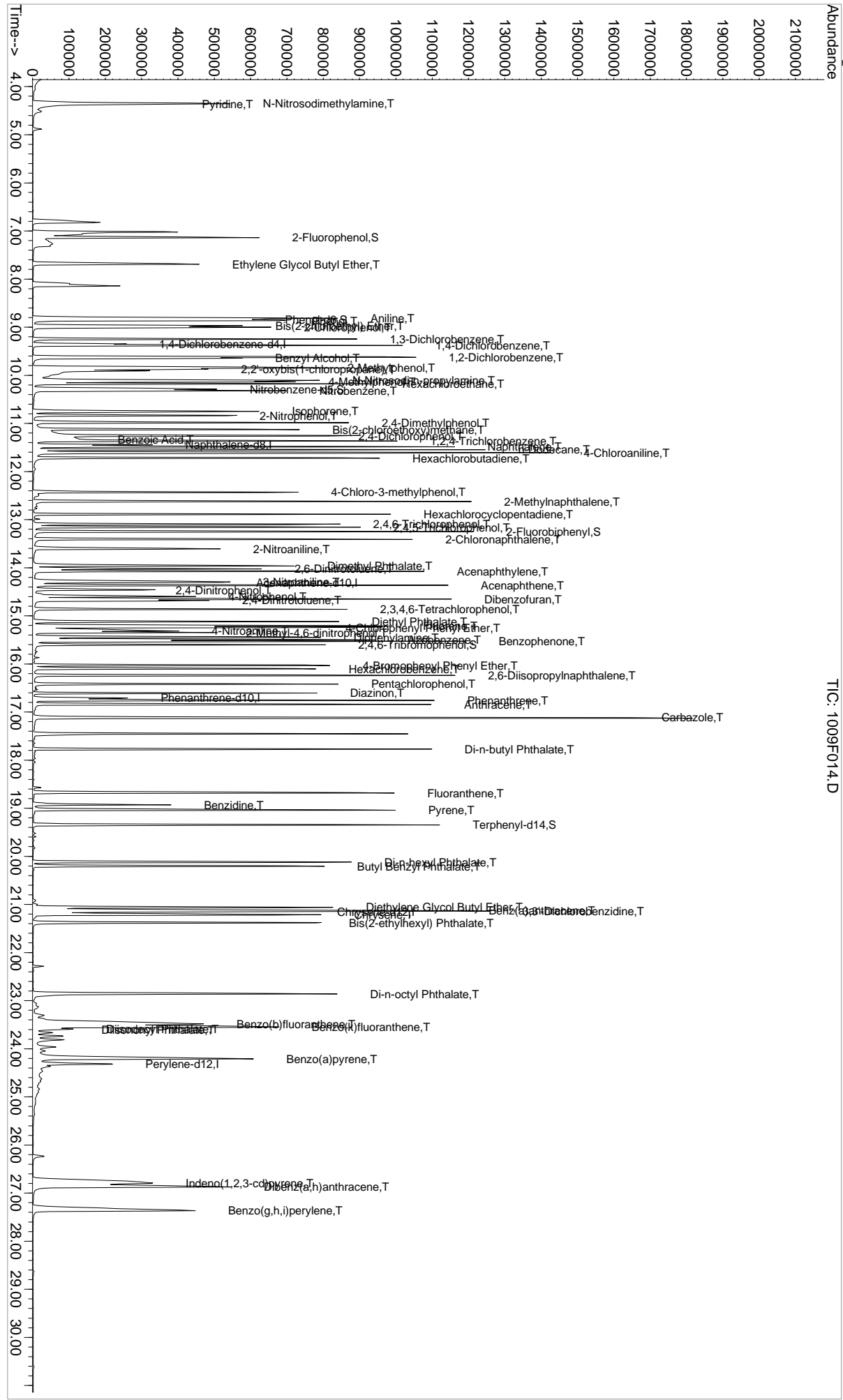
Quant Results File: 100919_BNP7.RES

Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 09:10:47 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44) Dimethyl Phthalate	13.96	163	498099	154.91	ug/ml	99
45) 2,6-Dinitrotoluene	14.03	165	122258	158.51	ug/ml	87
46) Acenaphthene	14.36	154	390486	149.95	ug/ml	98
47) 3-Nitroaniline	14.29	138	139136	160.16	ug/ml	97
48) 2,4-Dinitrophenol	14.47	184	84764	201.62	ug/ml	96
49) Dibenzofuran	14.65	168	641459	156.12	ug/ml	93
50) 4-Nitrophenol	14.60	109	86050	163.78	ug/ml#	81
51) 2,4-Dinitrotoluene	14.68	165	162434	166.95	ug/ml	86
52) 2,3,4,6-Tetrachlorophenol	14.87	232	148865	157.91	ug/ml	98
53) Fluorene	15.21	166	463163	154.11	ug/ml	99
54) 4-Chlorophenyl Phenyl Et	15.24	204	252842	155.06	ug/ml	92
55) Diethyl Phthalate	15.12	149	471463	150.36	ug/ml	99
56) 4-Nitroaniline	15.32	138	135309	157.36	ug/ml	99
57) 2-Methyl-4,6-dinitrophenol	15.35	198	110432	184.18	ug/ml	76
58) Diphenylamine	15.45	169	320194	155.27	ug/ml	99
59) Azobenzene	15.50	51	229523m	156.83	ug/ml	
60) Benzophenone	15.53	105	522659	146.22	ug/ml	96
63) 4-Bromophenyl Phenyl Ether	16.03	248	165975	147.13	ug/ml	94
64) Hexachlorobenzene	16.10	284	214395	144.86	ug/ml	98
65) 2,6-Diisopropyl naphthalene	16.24	197	389055	147.14	ug/ml	99
66) Pentachlorophenol	16.42	266	152692	156.96	ug/ml	99
67) Diazinon	16.61	137	73995	137.30	ug/ml	99
68) Phenanthrene	16.76	178	621217	147.67	ug/ml	100
69) Anthracene	16.84	178	660858	150.59	ug/ml	99
70) Carbazole	17.12	167	643298	152.99	ug/ml	99
71) Di-n-butyl Phthalate	17.77	149	791581	152.76	ug/ml	99
72) Fluoranthene	18.68	202	688739	151.58	ug/ml	96
74) Benzidine	18.93	184	192028	126.79	ug/ml	99
75) Pyrene	19.04	202	687444	148.54	ug/ml	99
77) Di-n-hexyl Phthalate	20.12	149	760679	144.56	ug/ml	100
78) Butyl Benzyl Phthalate	20.21	149	304688	144.78	ug/ml	91
79) Diethylene Glycol Butyl Et	21.06	105	503252	155.23	ug/ml	98
80) 3,3'-Dichlorobenzidine	21.14	252	295105	158.27	ug/ml	99
81) Benz(a)anthracene	21.13	228	546878	148.18	ug/ml	98
82) Chrysene	21.21	228	589194	158.88	ug/ml	99
83) Bis(2-ethylhexyl) Phthalat	21.39	149	408064	150.48	ug/ml	97
85) Di-n-octyl Phthalate	22.86	149	736400	162.76	ug/ml	99
86) Benzo(b)fluoranthene	23.48	252	723417	161.09	ug/ml	100
87) Benzo(k)fluoranthene	23.55	252	643801	150.86	ug/ml	99
88) Diisononyl Phthalate	23.60	293	56907m	168.18	ug/ml	
89) Diisodecyl Phthalate	23.59	149	718150m	164.50	ug/ml	
90) Benzo(a)pyrene	24.21	252	634676	158.18	ug/ml	99
91) Indeno(1,2,3-cd)pyrene	26.79	276	671662	163.94	ug/ml	98
92) Dibenz(a,h)anthracene	26.87	278	642796	155.97	ug/ml	99
93) Benzo(g,h,i)perylene	27.36	276	654008	154.82	ug/ml	99

Data File : J:\MS07\DATA\100919\1009F014.D
Acq On : 9 Oct 2019 9:07 pm
Sample : ICAL@160ppm | SVM-62-13M
Misc :
MS Integration Params: RTEINT.P
Quant Results File: 100919_BNP7.RES
Vial: 14
Operator: CCONOVER/LM
Inst: MS07
Multiplr: 1.00

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
Last Update : Thu Oct 10 09:10:47 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS07\DATA\100919\1009F014.D

Vial: 14

Acq On : 9 Oct 2019 9:07 pm

Operator: CCONOVER/LM

Sample : ICAL @160ppm | SVM-62-13M

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:17 2019

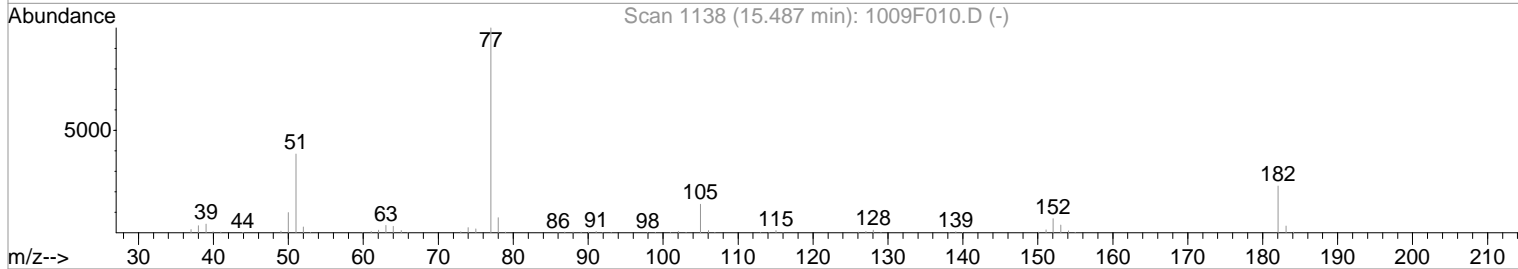
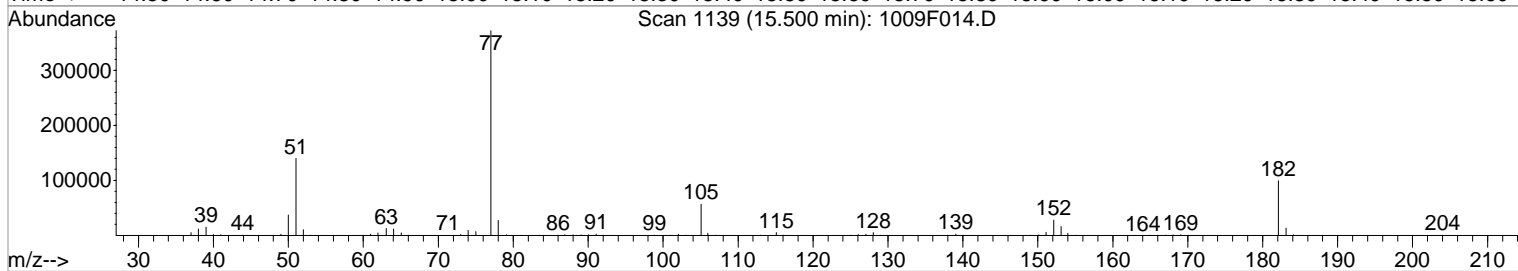
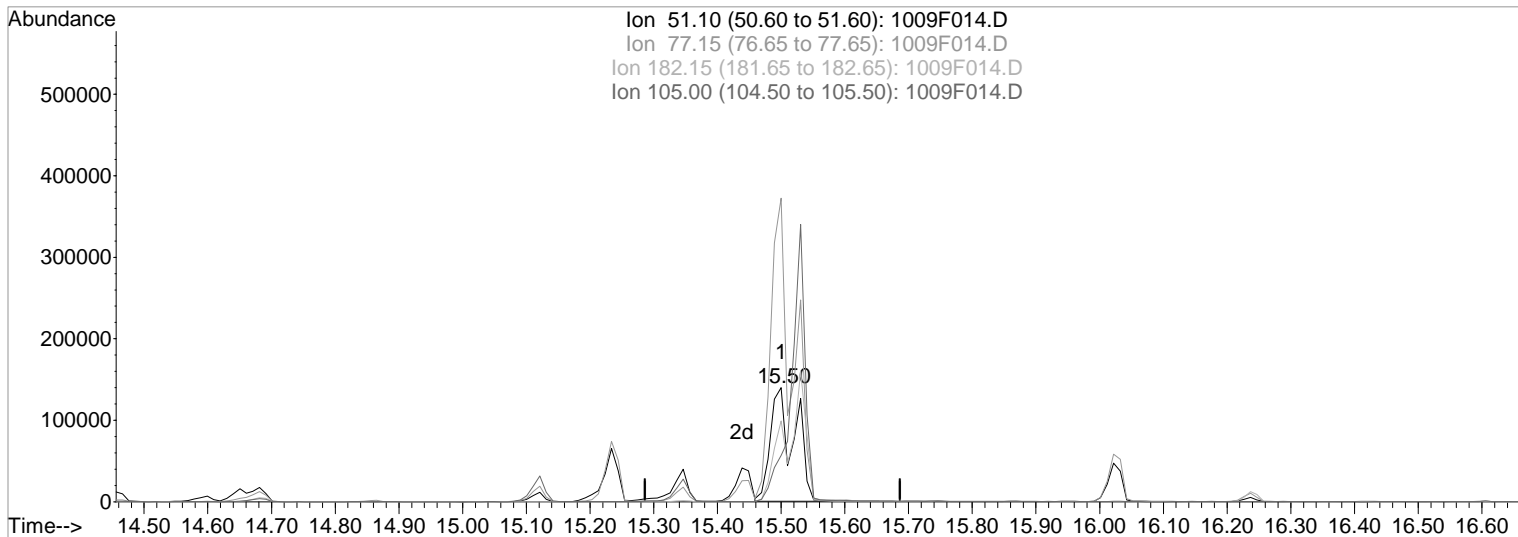
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F014.D

(59) Azobenzene (T)

Manual Integration:

15.50min 253.57ug/ml

Before

response 371093

Ion Exp% Act%

10/10/19

51.10 100 100

77.15 260.40 268.34

182.15 59.10 71.65

105.00 36.00 40.78

Data File : J:\MS07\DATA\100919\1009F014.D

Vial: 14

Acq On : 9 Oct 2019 9:07 pm

Operator: CCONOVER/LM

Sample : ICAL @160ppm | SVM-62-13M

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:59 2019

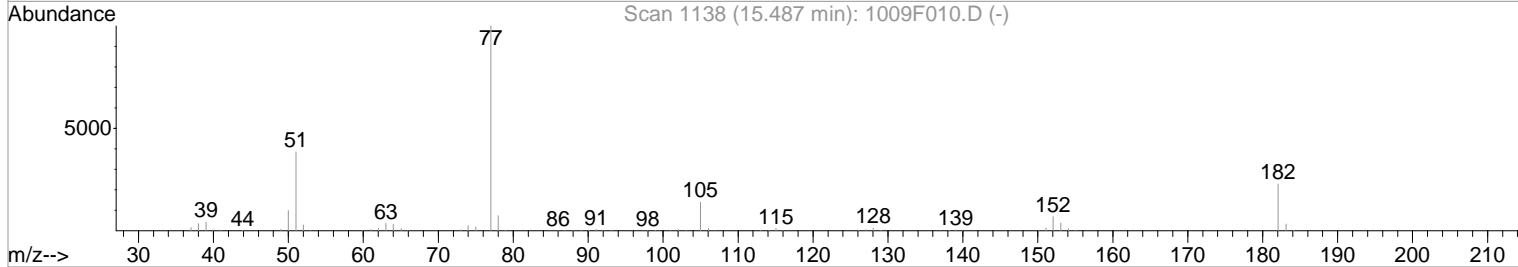
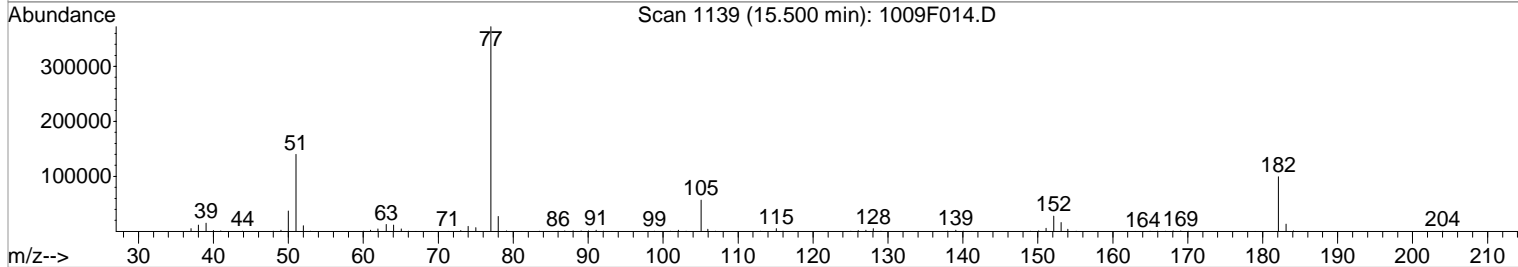
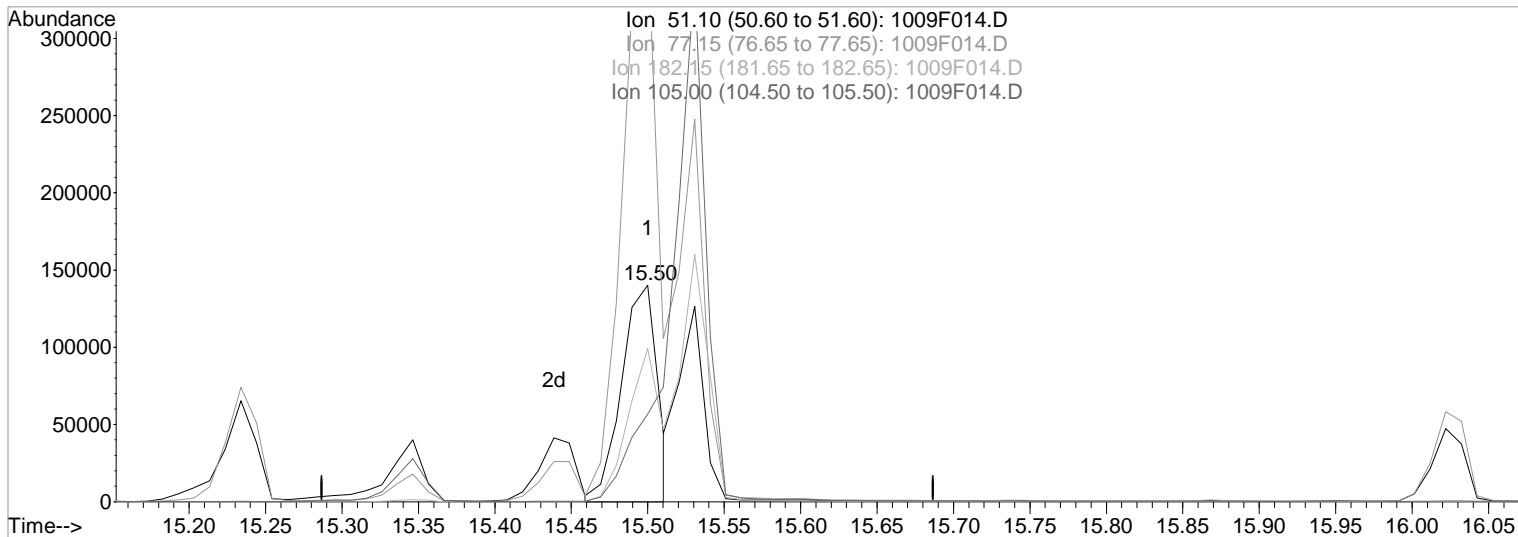
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F014.D

(59) Azobenzene (T)

Manual Integration:

15.50min 156.83ug/ml m

After

response 229523

IC - overintegrated

Ion Exp% Act%

10/10/19

51.10 100 100

77.15 260.40 265.87

182.15 59.10 70.71

105.00 36.00 40.45

Data File : J:\MS07\DATA\100919\1009F014.D

Vial: 14

Acq On : 9 Oct 2019 9:07 pm

Operator: CCONOVER/LM

Sample : ICAL @160ppm | SVM-62-13M

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:59 2019

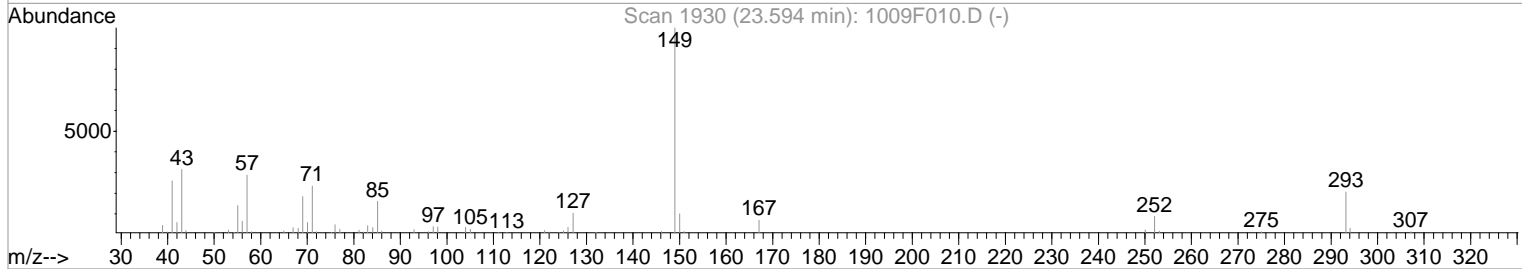
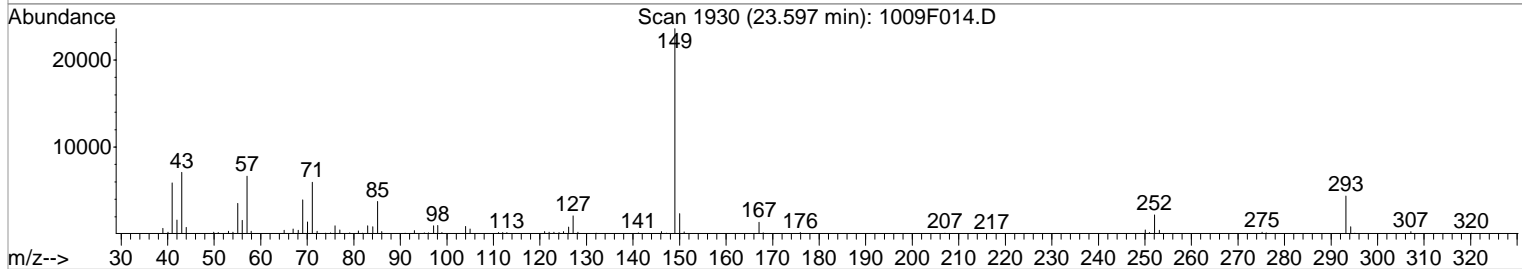
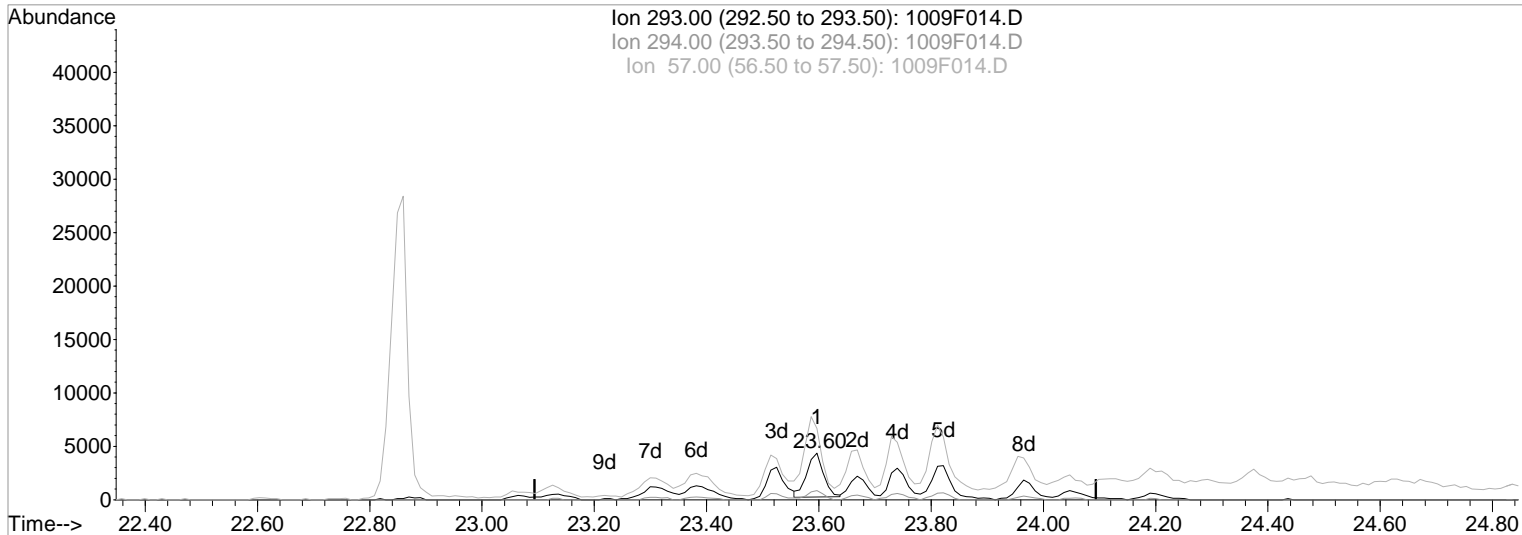
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F014.D

(88) Diisononyl Phthalate (T)

Manual Integration:

23.60min 25.08ug/ml

Before

response 8485

Ion Exp% Act%

10/10/19

293.00 100 100

294.00 1.60 19.33

57.00 15.00 163.63#

0.00 0.00 0.00

Data File : J:\MS07\DATA\100919\1009F014.D

Vial: 14

Acq On : 9 Oct 2019 9:07 pm

Operator: CCONOVER/LM

Sample : ICAL @160ppm | SVM-62-13M

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 10:00 2019

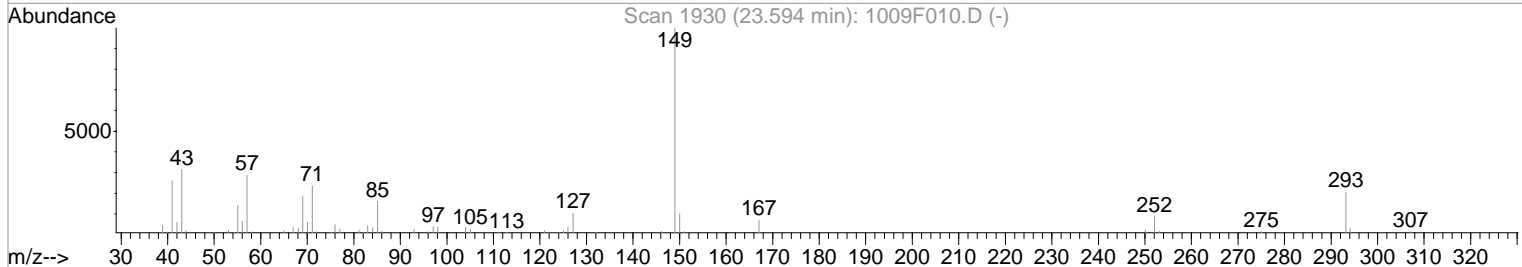
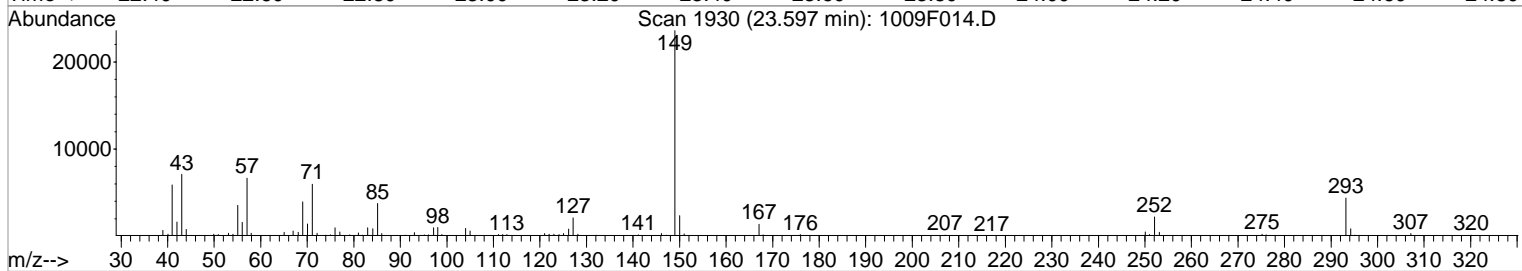
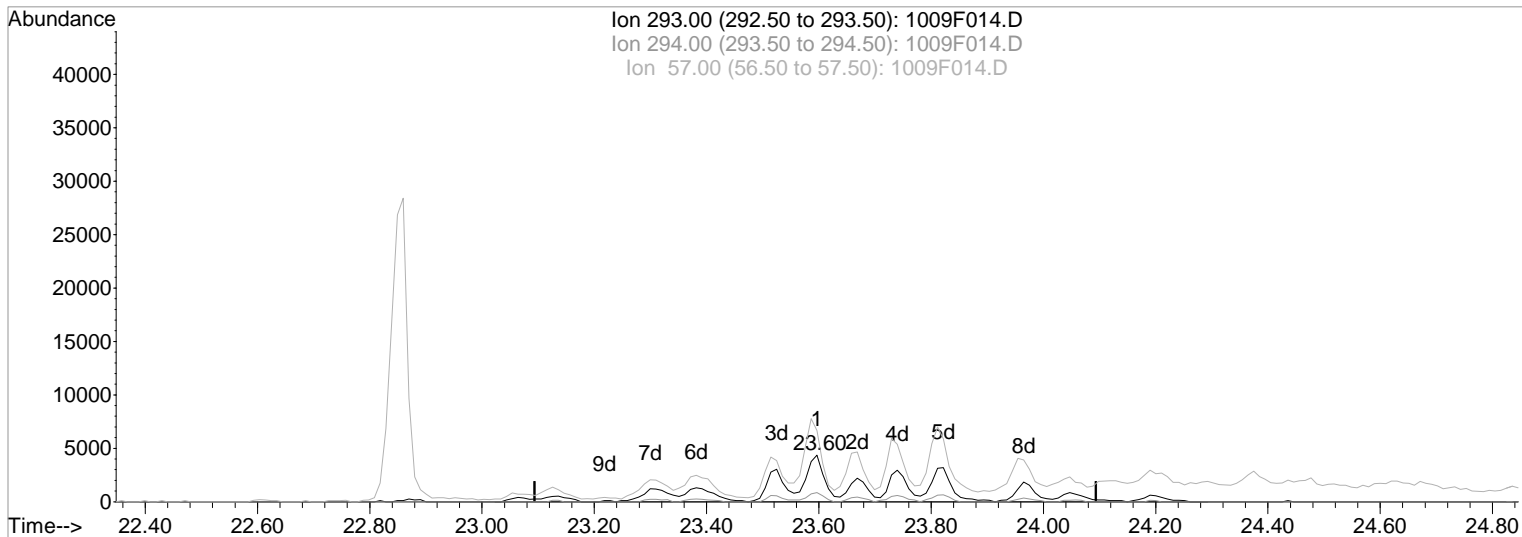
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F014.D

(88) Diisononyl Phthalate (T)

Manual Integration:

23.60min 168.18ug/ml m

After

response 56907

Range integration correction

Ion	Exp%	Act%
293.00	100	100
294.00	1.60	2.88
57.00	15.00	24.40
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F014.D

Vial: 14

Acq On : 9 Oct 2019 9:07 pm

Operator: CCONOVER/LM

Sample : ICAL @160ppm | SVM-62-13M

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 10:00 2019

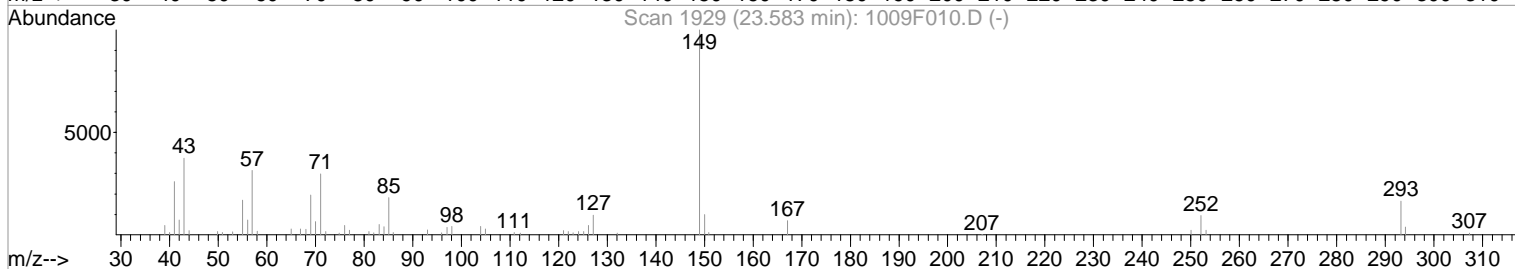
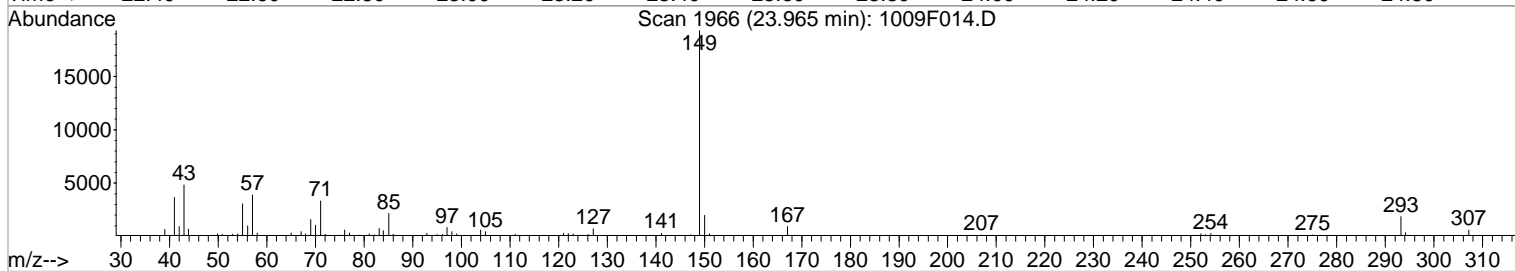
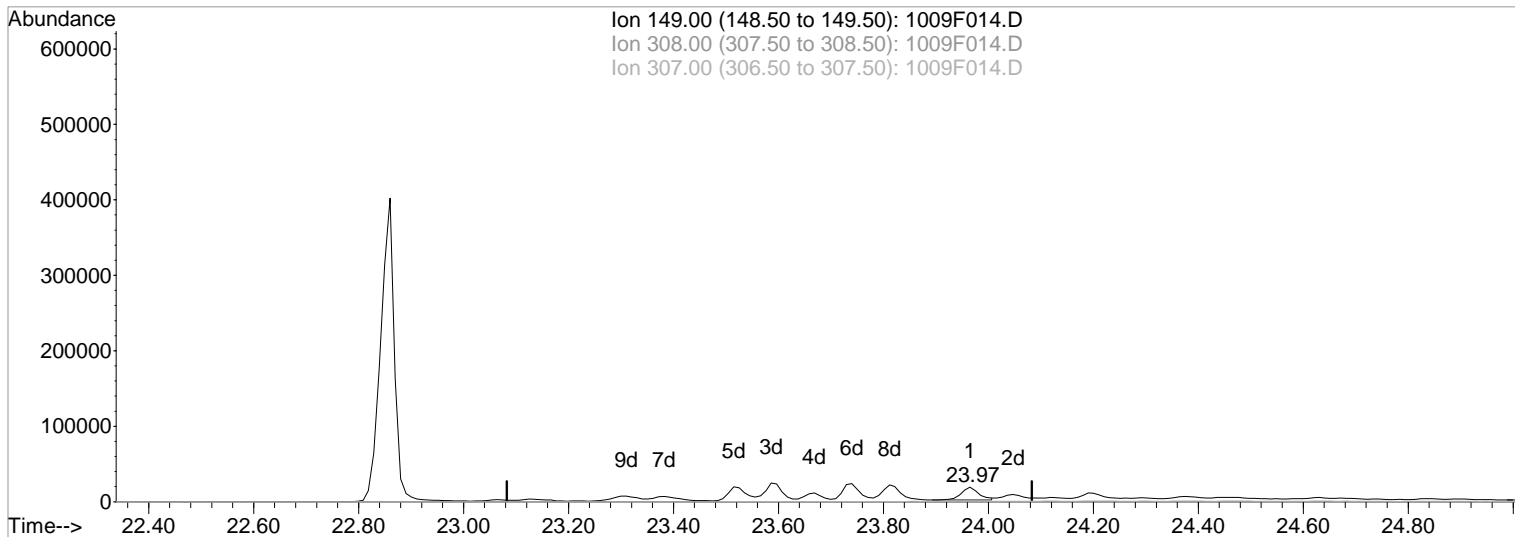
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F014.D

(89) Diisodecyl Phthalate (T)

Manual Integration:

23.97min 9.06ug/ml

Before

response 39573

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.33
307.00	0.00	3.32
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F014.D

Vial: 14

Acq On : 9 Oct 2019 9:07 pm

Operator: CCONOVER/LM

Sample : ICAL @160ppm | SVM-62-13M

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 10:01 2019

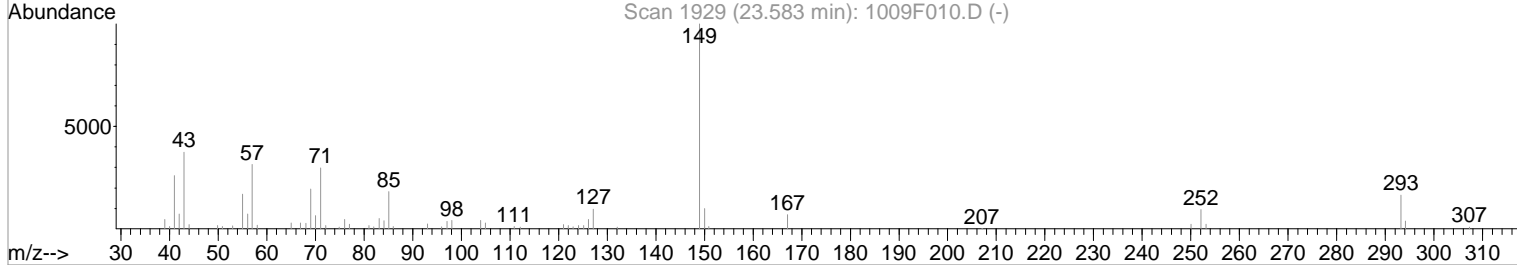
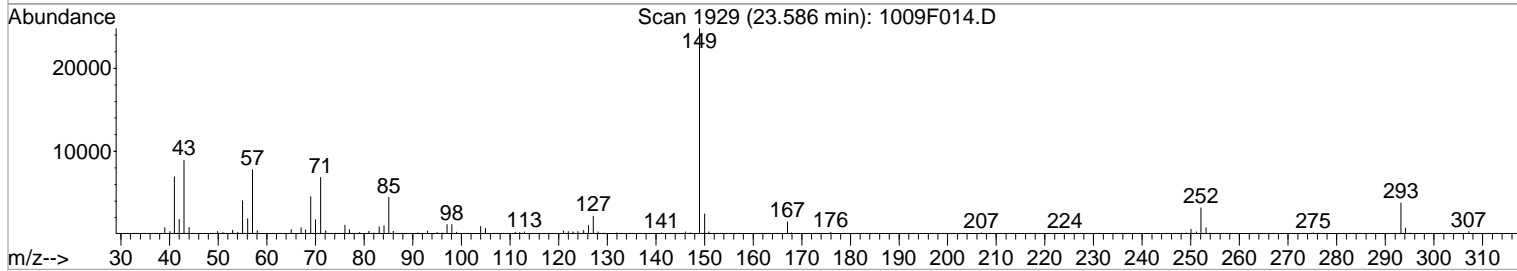
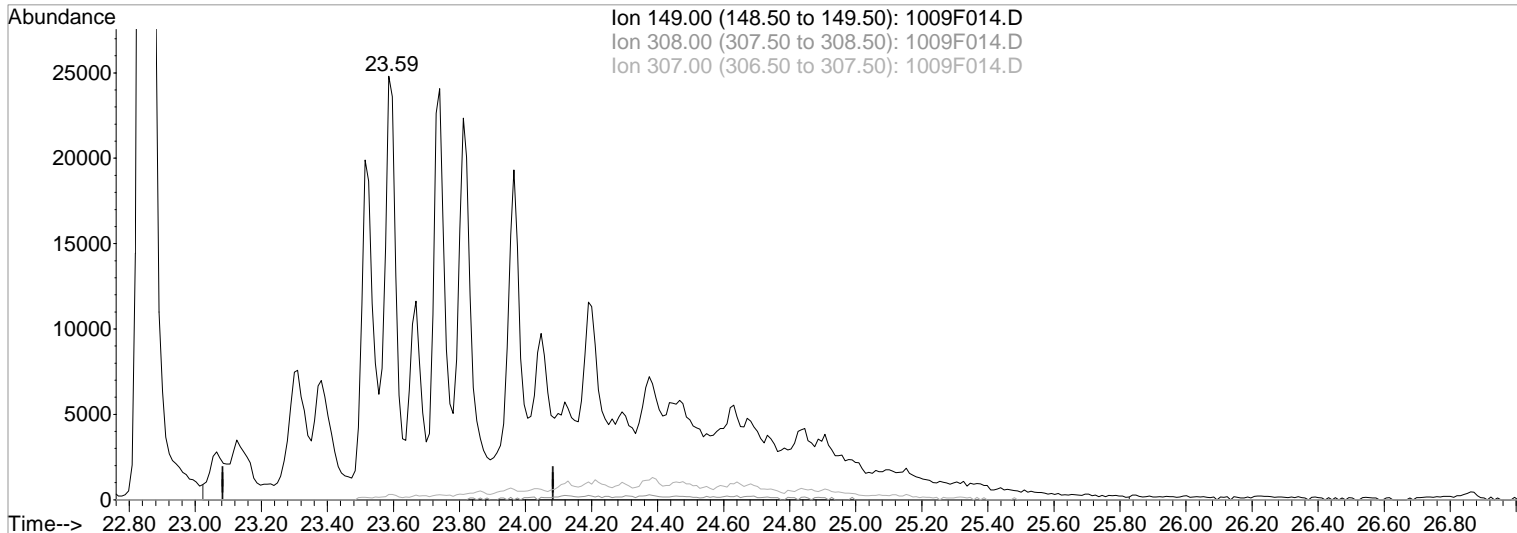
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F014.D

(89) Diisodecyl Phthalate (T)

Manual Integration:

23.59min 164.50ug/ml m

After

response 718150

Range integration correction

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.02
307.00	0.00	0.18
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F015.D
 Acq On : 9 Oct 2019 9:48 pm
 Sample : ICAL @180ppm | SVM-62-13N
 Misc :

Vial: 15
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 09:11:11 2019

Quant Results File: 100919_BNP7.RES

Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 09:10:47 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.35	152	50861	40.00	ug/ml	0.00
22) Naphthalene-d8	11.45	136	195826	40.00	ug/ml	0.00
36) Acenaphthene-d10	14.31	164	99072	40.00	ug/ml	0.00
61) Phenanthrene-d10	16.71	188	159095	40.00	ug/ml	0.00
73) Chrysene-d12	21.15	240	139781	40.00	ug/ml	0.00
84) Perylene-d12	24.33	264	161771	40.00	ug/ml	0.02

System Monitoring Compounds

4) 2-Fluorophenol	7.14	112	281290	171.92	ug/ml	0.02
Spiked Amount	150.000	Range	21 - 100	Recovery	=	114.61%#
8) Phenol-d6	8.84	99	375944	169.79	ug/ml	0.03
Spiked Amount	150.000	Range	10 - 94	Recovery	=	113.19%#
20) Nitrobenzene-d5	10.29	82	350133	169.49	ug/ml	0.02
Spiked Amount	100.000	Range	35 - 114	Recovery	=	169.49%#
40) 2-Fluorobiphenyl	13.25	172	586796	173.98	ug/ml	0.00
Spiked Amount	100.000	Range	43 - 116	Recovery	=	173.98%#
62) 2,4,6-Tribromophenol	15.61	330	175912	175.79	ug/ml	0.02
Spiked Amount	150.000	Range	10 - 123	Recovery	=	117.19%
76) Terphenyl-d14	19.35	244	630176	157.41	ug/ml	0.02
Spiked Amount	100.000	Range	33 - 141	Recovery	=	157.41%#

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-Nitrosodimethylamine	4.35	42	219239	184.53	ug/ml	97
3) Pyridine	4.37	79	354159	173.47	ug/ml	100
5) Ethylene Glycol Butyl Ethe	7.69	57	348962	168.82	ug/ml	98
6) Aniline	8.82	93	425925	166.79	ug/ml	78
7) Bis(2-chloroethyl) Ether	8.97	93	301082	165.95	ug/ml	98
9) Phenol	8.87	94	424913	168.11	ug/ml	100
10) 2-Chlorophenol	9.00	128	307066	171.54	ug/ml	97
11) 1,3-Dichlorobenzene	9.25	146	312984	169.26	ug/ml	99
12) 1,4-Dichlorobenzene	9.38	146	323567	169.31	ug/ml	98
13) 1,2-Dichlorobenzene	9.62	146	306781	173.03	ug/ml	99
14) Benzyl Alcohol	9.65	108	203836	172.02	ug/ml	97
15) 2,2'-oxybis(1-chloropropan	9.87	45	380196	160.49	ug/ml	99
16) 2-Methylphenol	9.84	107	239020	167.78	ug/ml	90
17) Hexachloroethane	10.18	117	151196	172.85	ug/ml	87
18) N-Nitrosodi-n-propylamine	10.11	70	220256	165.18	ug/ml	98
19) 4-Methylphenol	10.14	107	358805	160.27	ug/ml	99
21) Nitrobenzene	10.32	77	324747	165.46	ug/ml	97
23) Isophorone	10.75	82	589813	164.74	ug/ml	98
24) 2-Nitrophenol	10.84	139	174889	178.35	ug/ml	89
25) 2,4-Dimethylphenol	10.99	122	245450	164.17	ug/ml	98
26) Bis(2-chloroethoxy)methane	11.13	93	369337	167.63	ug/ml	99
27) 2,4-Dichlorophenol	11.26	162	265564	171.62	ug/ml	99
28) Benzoic Acid	11.35	122	202529	191.72	ug/ml	93
29) 1,2,4-Trichlorobenzene	11.37	180	272661	171.53	ug/ml	99
30) Naphthalene	11.48	128	789519	172.35	ug/ml	99
31) n-Dodecane	11.55	57	313587	147.29	ug/ml	96
32) 4-Chloroaniline	11.61	127	340928	160.24	ug/ml	98
33) Hexachlorobutadiene	11.72	225	174576	173.74	ug/ml	97
34) 4-Chloro-3-methylphenol	12.43	107	256991	167.80	ug/ml	98
35) 2-Methylnaphthalene	12.63	142	524402	166.86	ug/ml	100
37) Hexachlorocyclopentadiene	12.89	237	211994	186.56	ug/ml	100
38) 2,4,6-Trichlorophenol	13.10	196	190647	182.75	ug/ml	97
39) 2,4,5-Trichlorophenol	13.16	196	203679	179.41	ug/ml	98
41) 2-Chloronaphthalene	13.42	162	498408	176.41	ug/ml	97
42) 2-Nitroaniline	13.61	65	180593	184.59	ug/ml	93
43) Acenaphthylene	14.08	152	732734	176.23	ug/ml	99

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS07\DATA\100919\1009F015.D
 Acq On : 9 Oct 2019 9:48 pm
 Sample : ICAL @180ppm | SVM-62-13N
 Misc :

Vial: 15
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 09:11:11 2019

Quant Results File: 100919_BNP7.RES

Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 09:10:47 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

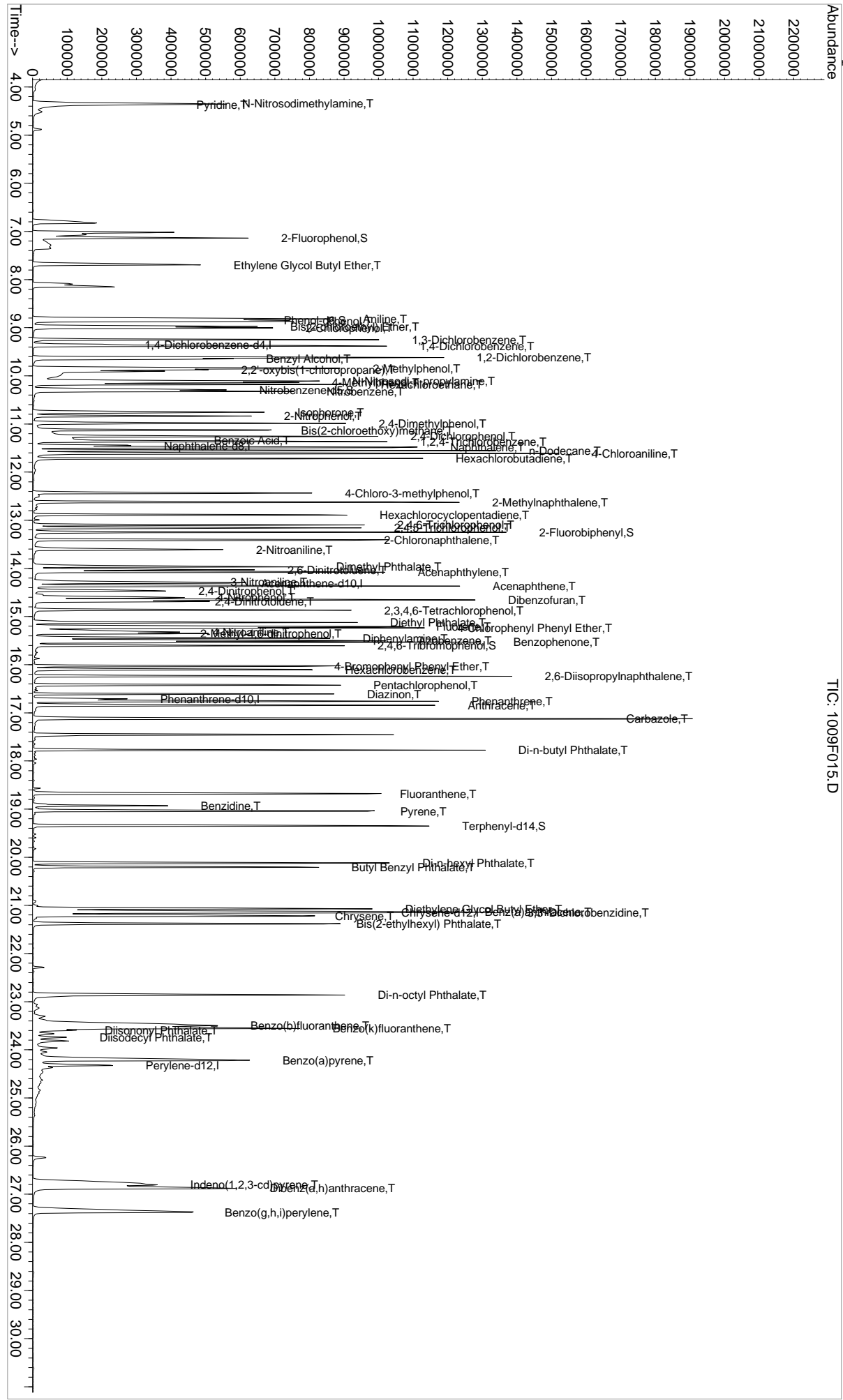
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44) Dimethyl Phthalate	13.97	163	539850	177.11	ug/ml	99
45) 2,6-Dinitrotoluene	14.03	165	134558	184.04	ug/ml	90
46) Acenaphthene	14.37	154	421789	170.86	ug/ml	99
47) 3-Nitroaniline	14.29	138	154239	187.30	ug/ml	100
48) 2,4-Dinitrophenol	14.47	184	97842	245.50	ug/ml	98
49) Dibenzofuran	14.65	168	700480	179.85	ug/ml	98
50) 4-Nitrophenol	14.60	109	100566	201.92	ug/ml#	70
51) 2,4-Dinitrotoluene	14.69	165	182418	197.79	ug/ml#	69
52) 2,3,4,6-Tetrachlorophenol	14.87	232	167054	186.93	ug/ml	97
53) Fluorene	15.21	166	518348	181.94	ug/ml	99
54) 4-Chlorophenyl Phenyl Et	15.24	204	278728	180.32	ug/ml	98
55) Diethyl Phthalate	15.12	149	541941	182.33	ug/ml	99
56) 4-Nitroaniline	15.32	138	155885	191.24	ug/ml	100
57) 2-Methyl-4,6-dinitrophenol	15.36	198	128390	225.89	ug/ml	76
58) Diphenylamine	15.45	169	365555	187.00	ug/ml	99
59) Azobenzene	15.50	51	257934m	185.92	ug/ml	
60) Benzophenone	15.53	105	587048	173.25	ug/ml	98
63) 4-Bromophenyl Phenyl Ether	16.04	248	189214	173.09	ug/ml	91
64) Hexachlorobenzene	16.11	284	242289	168.93	ug/ml	91
65) 2,6-Diisopropyl naphthalene	16.24	197	433846	169.31	ug/ml	99
66) Pentachlorophenol	16.42	266	171828	182.27	ug/ml	99
67) Diazinon	16.61	137	82128	157.26	ug/ml	97
68) Phenanthrene	16.76	178	687516	168.65	ug/ml	99
69) Anthracene	16.84	178	734568	172.73	ug/ml	100
70) Carbazole	17.12	167	700205	171.84	ug/ml	99
71) Di-n-butyl Phthalate	17.78	149	880088	175.26	ug/ml	99
72) Fluoranthene	18.69	202	766655	174.11	ug/ml	96
74) Benzidine	18.93	184	210932	141.89	ug/ml	100
75) Pyrene	19.05	202	747850	164.63	ug/ml	99
77) Di-n-hexyl Phthalate	20.12	149	843143	163.24	ug/ml	100
78) Butyl Benzyl Phthalate	20.21	149	339735	164.47	ug/ml	92
79) Diethylene Glycol Butyl Et	21.07	105	578438	181.77	ug/ml	98
80) 3,3'-Dichlorobenzidine	21.14	252	333891	182.44	ug/ml	99
81) Benz(a)anthracene	21.13	228	619908	171.13	ug/ml	99
82) Chrysene	21.23	228	654232	179.74	ug/ml	99
83) Bis(2-ethylhexyl) Phthalat	21.39	149	458187	172.14	ug/ml	97
85) Di-n-octyl Phthalate	22.86	149	845383	189.01	ug/ml	99
86) Benzo(b)fluoranthene	23.50	252	894187	201.42	ug/ml	98
87) Benzo(k)fluoranthene	23.56	252	639227	151.51	ug/ml	99
88) Diisononyl Phthalate	23.60	293	64681m	193.36	ug/ml	
89) Diisodecyl Phthalate	23.74	149	820116m	190.03	ug/ml	
90) Benzo(a)pyrene	24.21	252	717140	180.80	ug/ml	99
91) Indeno(1,2,3-cd)pyrene	26.80	276	771680m	190.53	ug/ml	
92) Dibenz(a,h)anthracene	26.88	278	741771	182.06	ug/ml	99
93) Benzo(g,h,i)perylene	27.38	276	733528	175.64	ug/ml	98

Data File : J:\MS07\DATA\100919\1009F015.D
Acq On : 9 Oct 2019 9:48 pm
Sample : ICAL@180ppm | SVM-62-13N
Misc :
MS Integration Params: RTEINT.P
Quant Results File: 100919_BNP7.RES
Unit Time: Oct 10 10:04 2019

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
Title : BNA Calibration Rtx-SMS 30m x 0.25mm MS07
Last Update : Thu Oct 10 09:10:47 2019
Response via : Initial Calibration

Quantitation Report (QT Reviewed)

Vial: 15
Operator: CCONOVER/LM
Inst: MS07
Multiplr: 1.00



Data File : J:\MS07\DATA\100919\1009F015.D

Vial: 15

Acq On : 9 Oct 2019 9:48 pm

Operator: CCONOVER/LM

Sample : ICAL @180ppm | SVM-62-13N

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:17 2019

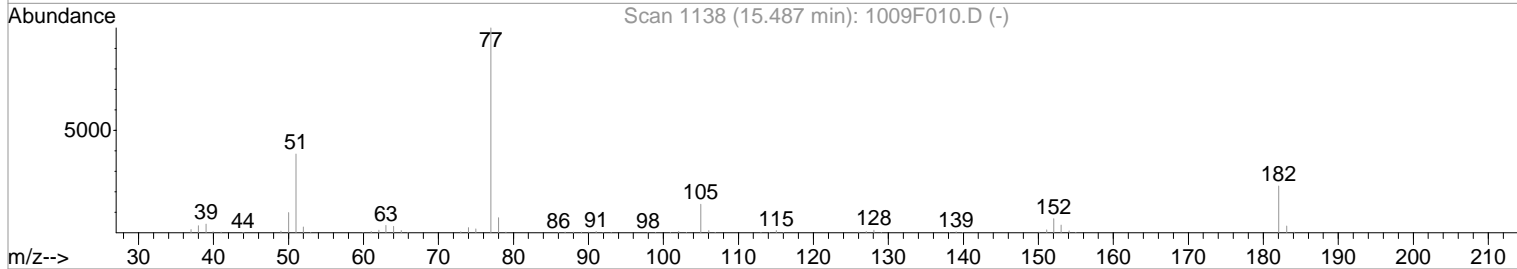
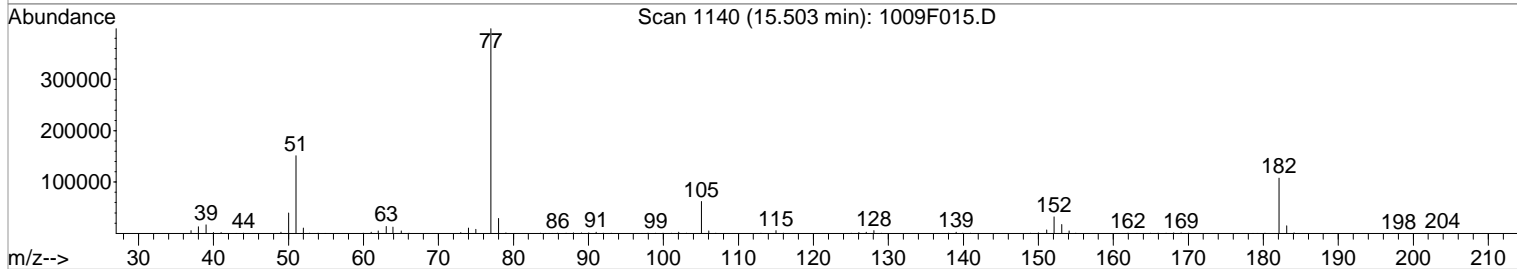
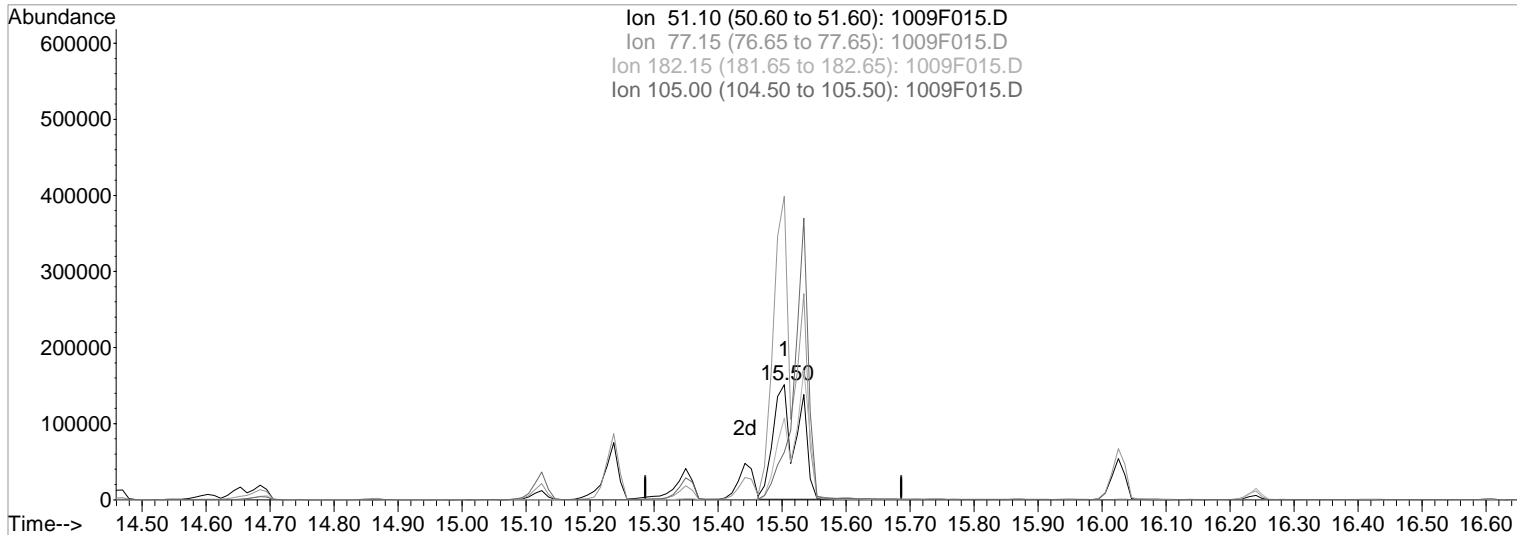
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F015.D

(59) Azobenzene (T)

Manual Integration:

15.50min 297.73ug/ml

Before

response 413044

Ion Exp% Act%

10/10/19

51.10 100 100

77.15 260.40 266.05

182.15 59.10 72.12

105.00 36.00 41.60

Data File : J:\MS07\DATA\100919\1009F015.D

Vial: 15

Acq On : 9 Oct 2019 9:48 pm

Operator: CCONOVER/LM

Sample : ICAL @180ppm | SVM-62-13N

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 10:02 2019

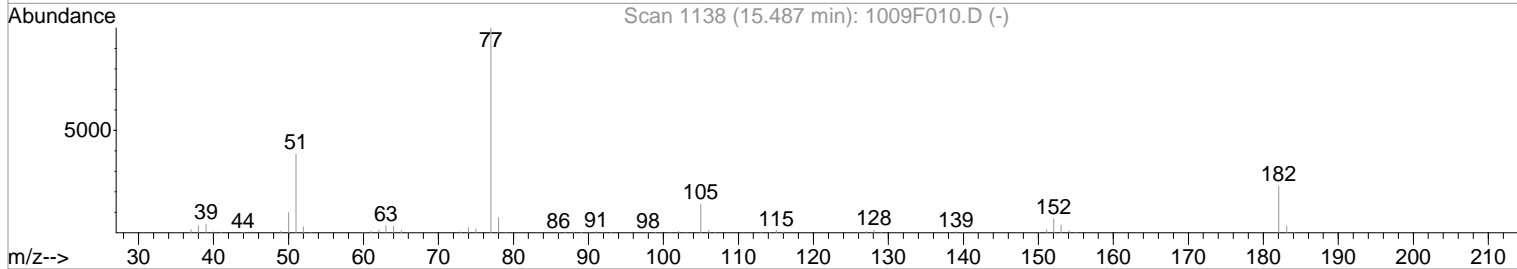
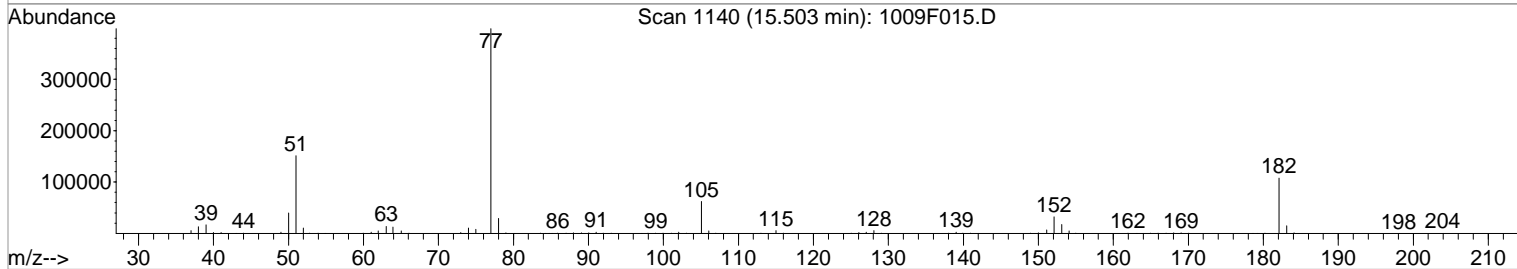
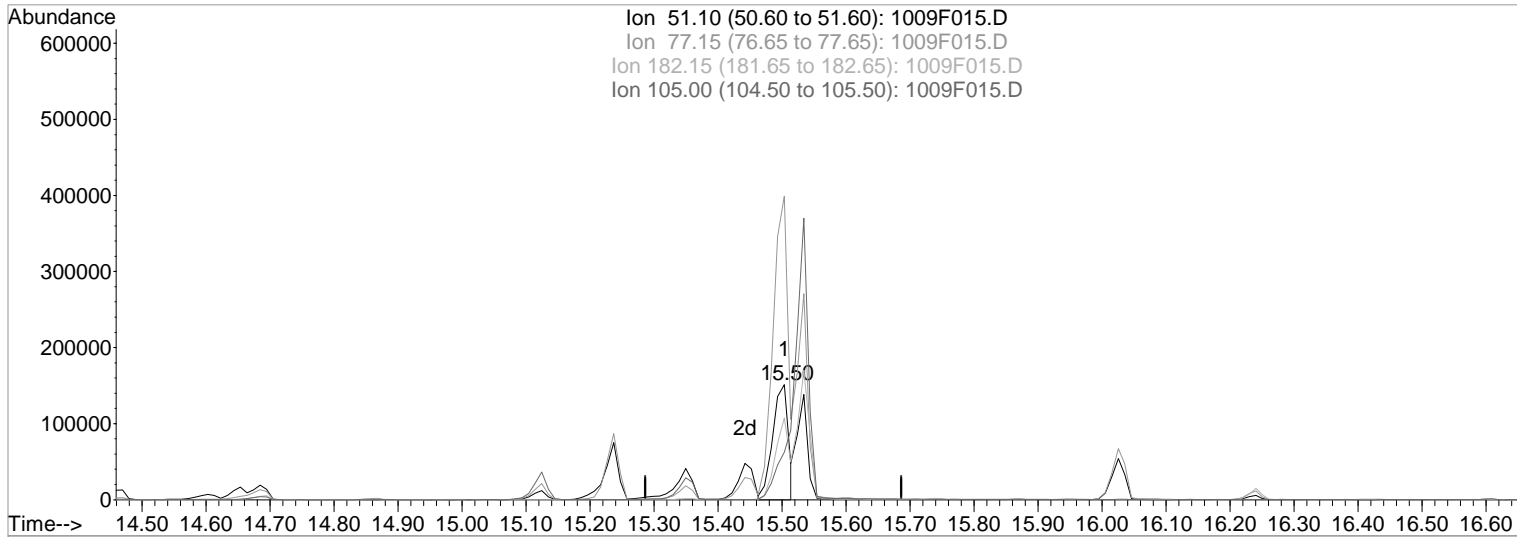
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F015.D

(59) Azobenzene (T)

Manual Integration:

15.50min 185.92ug/ml m

After

response 257934

IC - overintegrated

Ion Exp% Act%

10/10/19

51.10 100 100

77.15 260.40 263.71

182.15 59.10 71.11

105.00 36.00 41.24

Data File : J:\MS07\DATA\100919\1009F015.D

Vial: 15

Acq On : 9 Oct 2019 9:48 pm

Operator: CCONOVER/LM

Sample : ICAL @180ppm | SVM-62-13N

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 10:02 2019

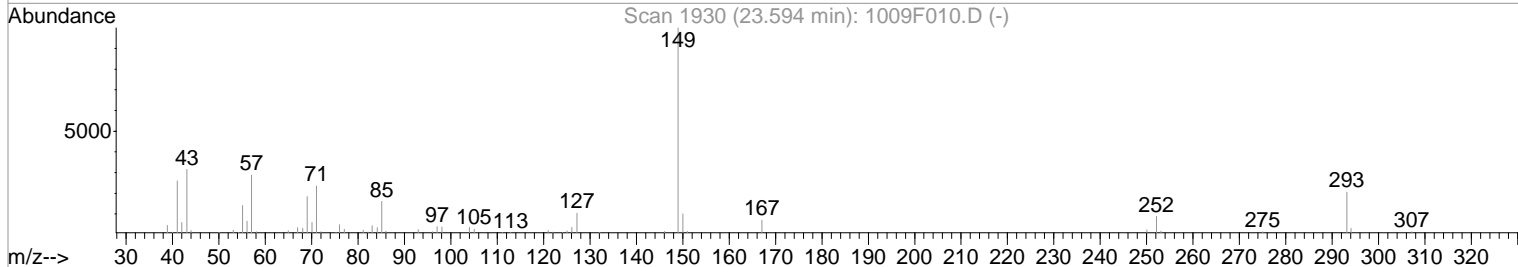
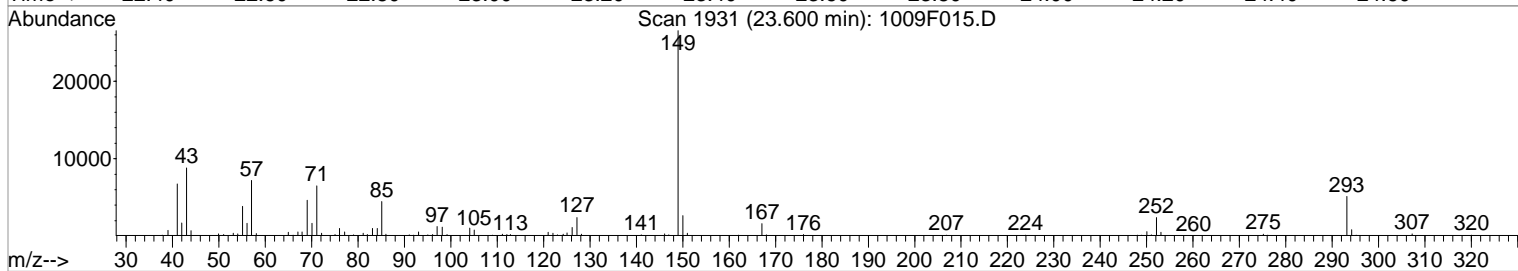
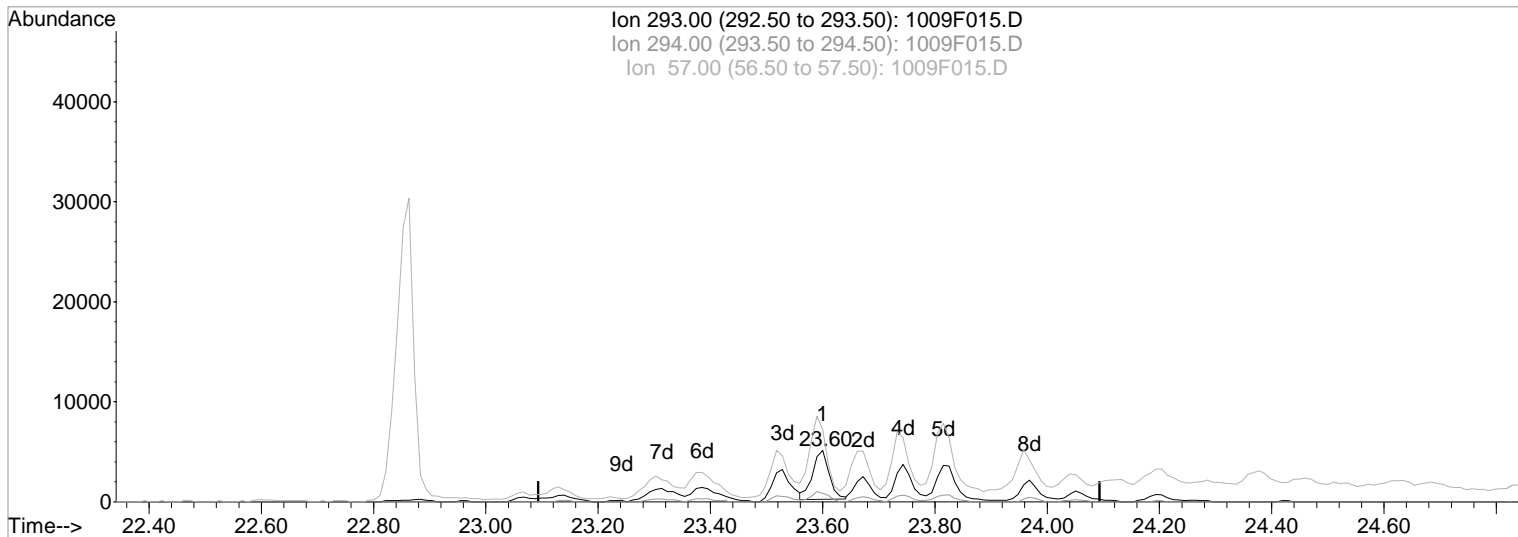
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F015.D

(88) Diisononyl Phthalate (T)

Manual Integration:

23.60min 29.87ug/ml

Before

response 9991

Ion Exp% Act%

10/10/19

293.00 100 100

294.00 1.60 20.99

57.00 15.00 149.93#

0.00 0.00 0.00

Data File : J:\MS07\DATA\100919\1009F015.D

Vial: 15

Acq On : 9 Oct 2019 9:48 pm

Operator: CCONOVER/LM

Sample : ICAL @180ppm | SVM-62-13N

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 10:03 2019

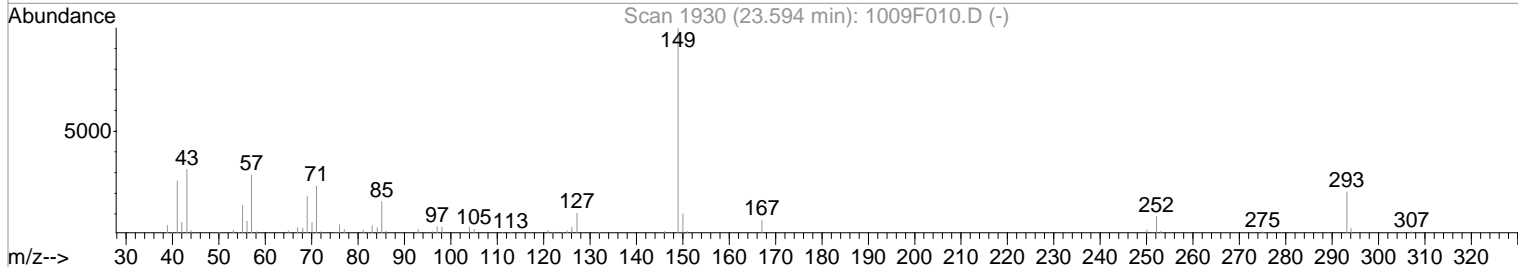
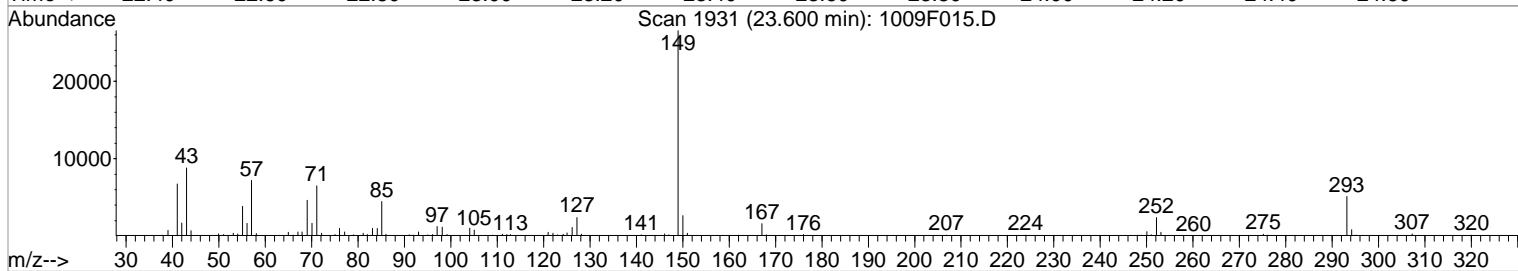
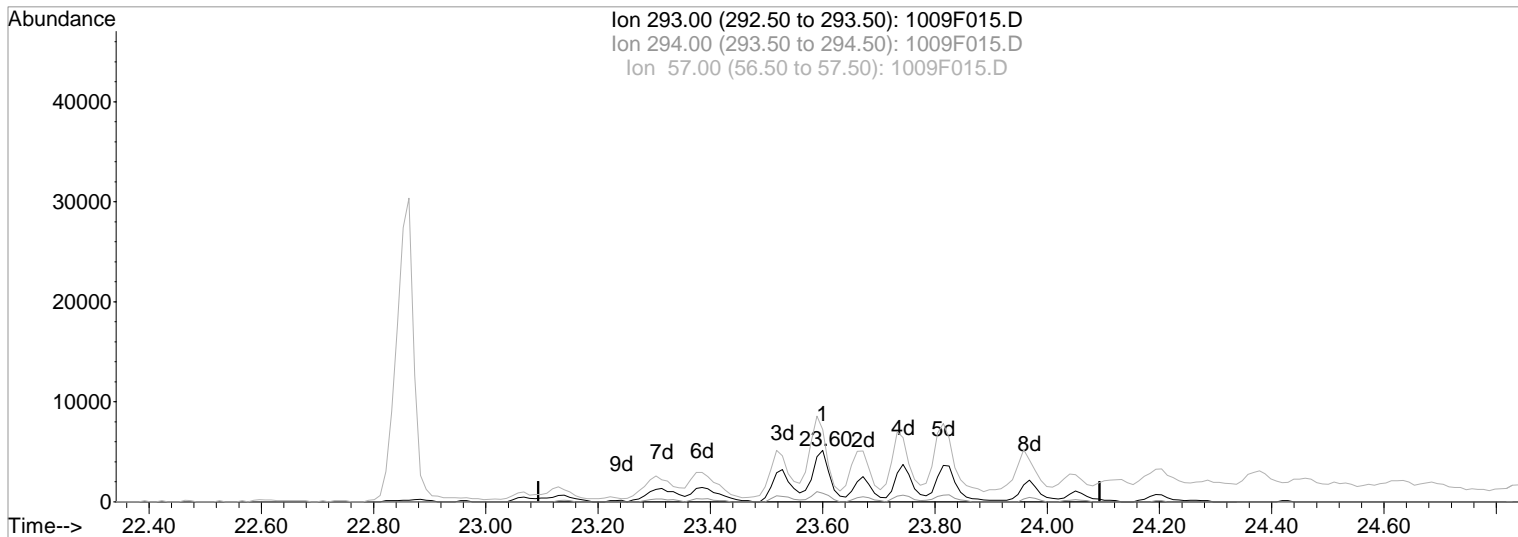
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F015.D

(88) Diisononyl Phthalate (T)

Manual Integration:

23.60min 193.36ug/ml m

After

response 64681

Range integration correction

Ion	Exp%	Act%
293.00	100	100
294.00	1.60	3.24
57.00	15.00	23.16
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F015.D

Vial: 15

Acq On : 9 Oct 2019 9:48 pm

Operator: CCONOVER/LM

Sample : ICAL @180ppm | SVM-62-13N

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 10:03 2019

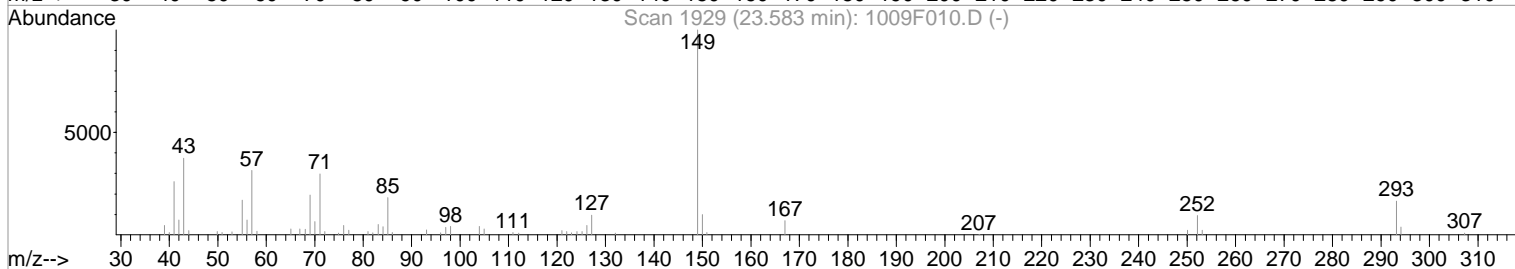
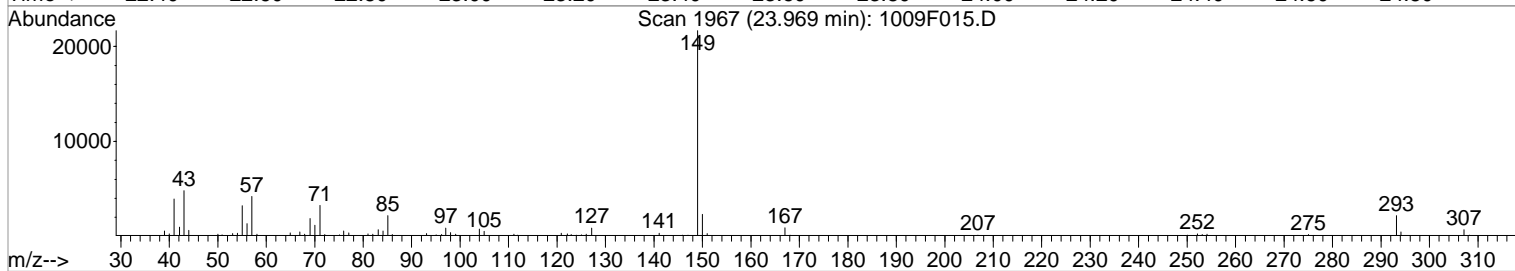
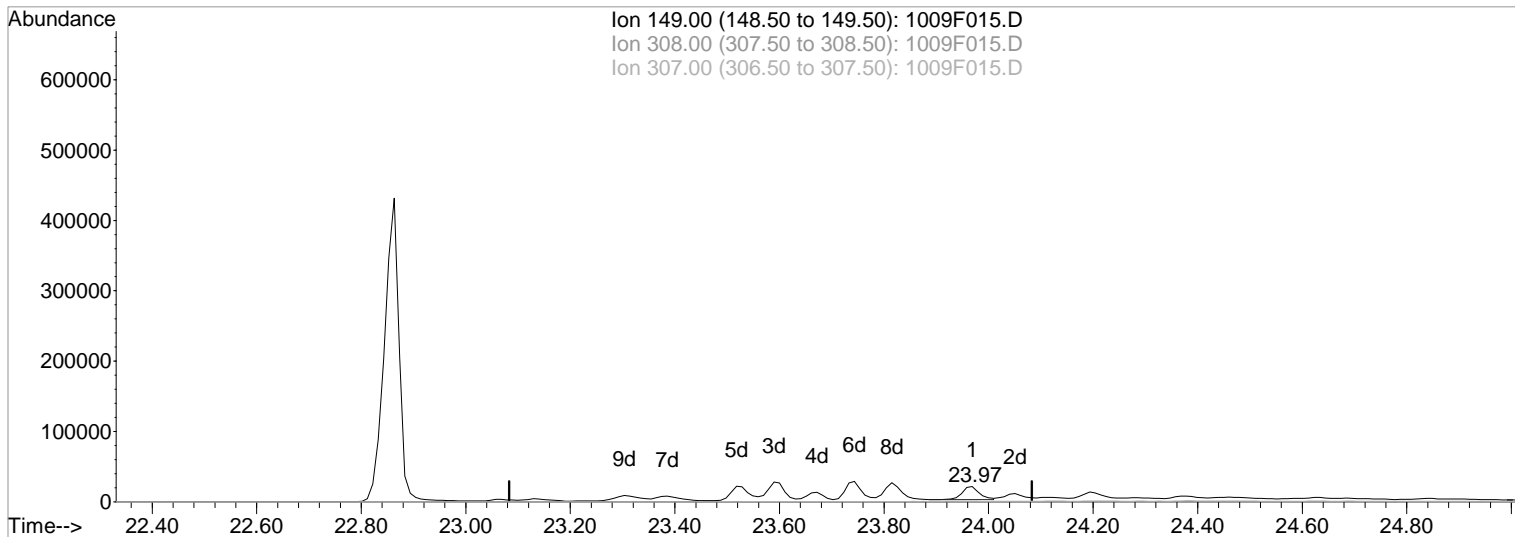
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F015.D

(89) Diisodecyl Phthalate (T)

Manual Integration:

23.97min 10.29ug/ml

Before

response 44409

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.88
307.00	0.00	3.12
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F015.D

Vial: 15

Acq On : 9 Oct 2019 9:48 pm

Operator: CCONOVER/LM

Sample : ICAL @180ppm | SVM-62-13N

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 10:03 2019

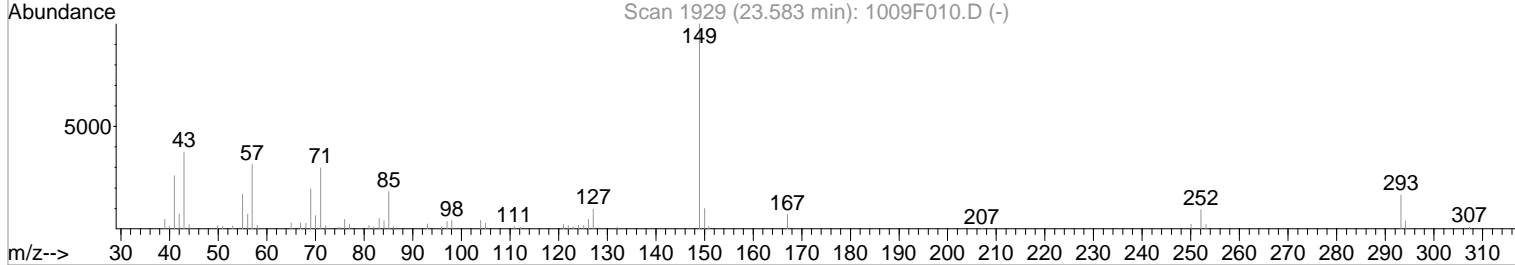
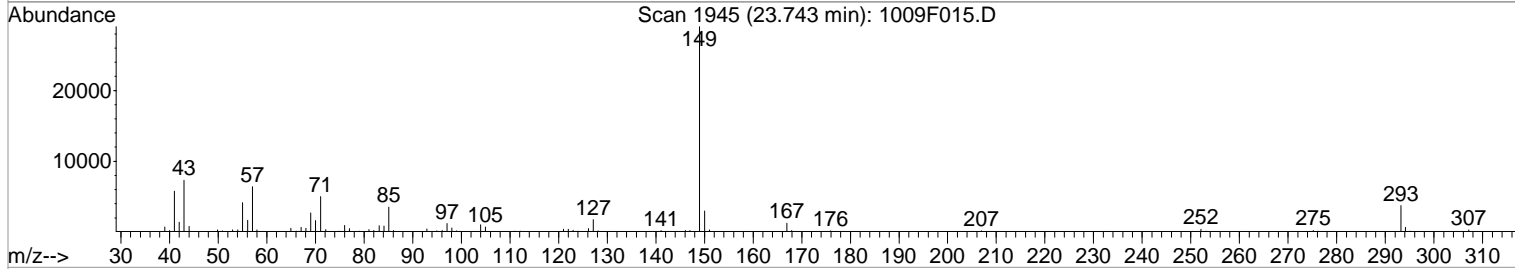
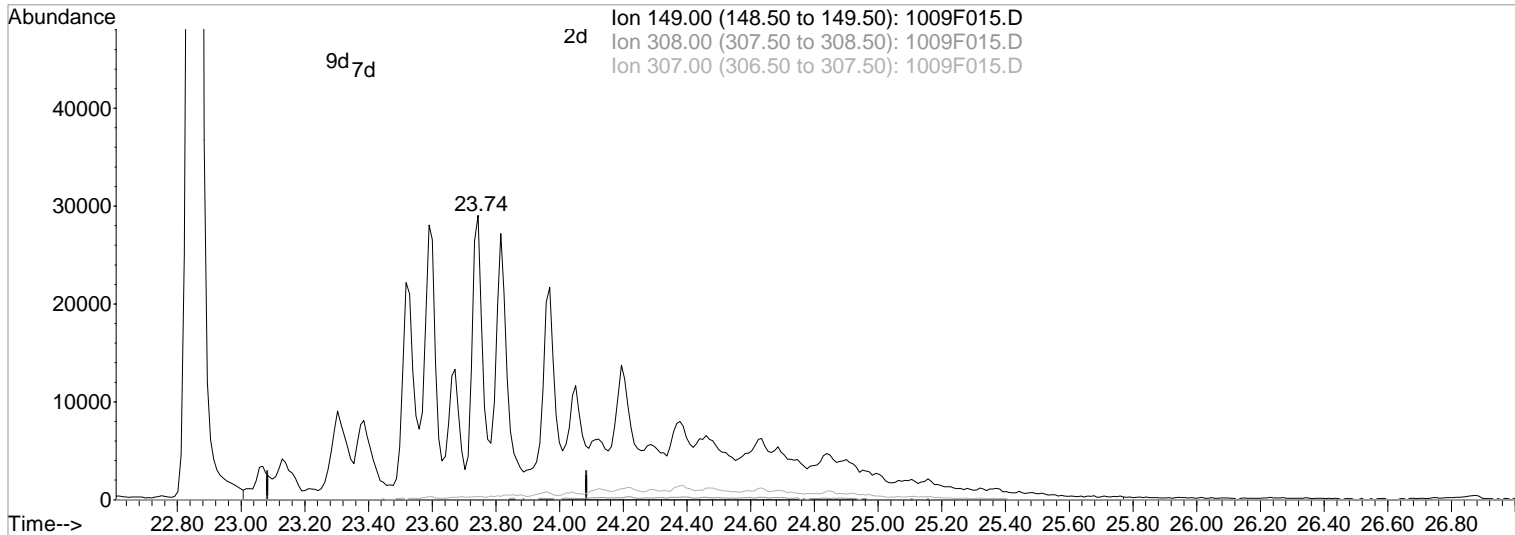
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F015.D

(89) Diisodecyl Phthalate (T)

Manual Integration:

23.74min 190.03ug/ml m

After

response 820116

Range integration correction

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.05
307.00	0.00	0.17
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F015.D

Vial: 15

Acq On : 9 Oct 2019 9:48 pm

Operator: CCONOVER/LM

Sample : ICAL @180ppm | SVM-62-13N

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 10:03 2019

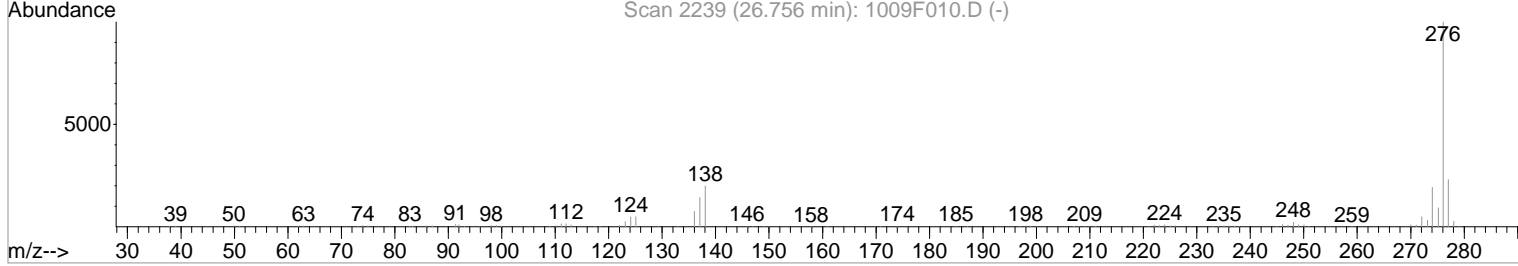
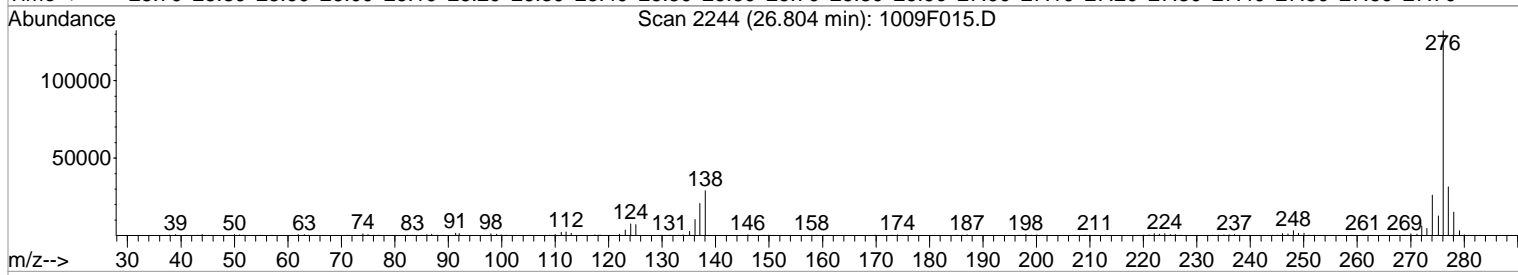
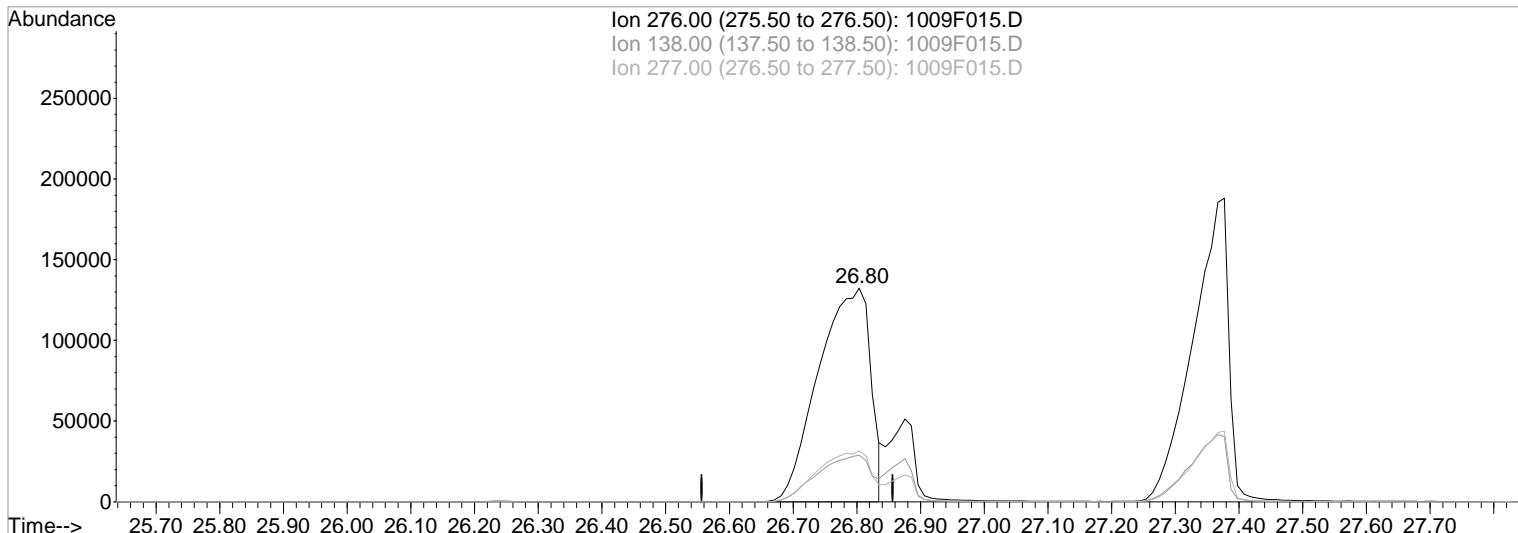
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F015.D

(91) Indeno(1,2,3-cd)pyrene (T)

Manual Integration:

26.80min 185.36ug/ml

Before

response 750754

Ion Exp% Act%

10/10/19

276.00 100 100

138.00 19.10 19.16

277.00 22.80 22.83

0.00 0.00 0.00

Data File : J:\MS07\DATA\100919\1009F015.D

Vial: 15

Acq On : 9 Oct 2019 9:48 pm

Operator: CCONOVER/LM

Sample : ICAL @180ppm | SVM-62-13N

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 10:04 2019

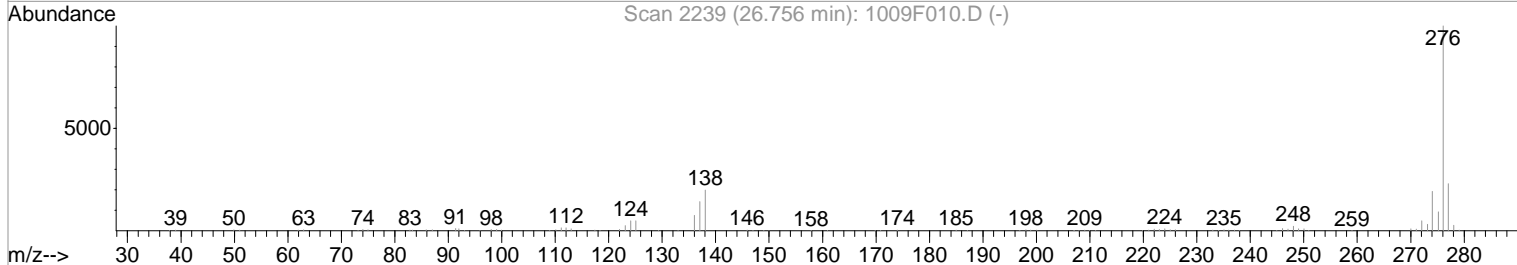
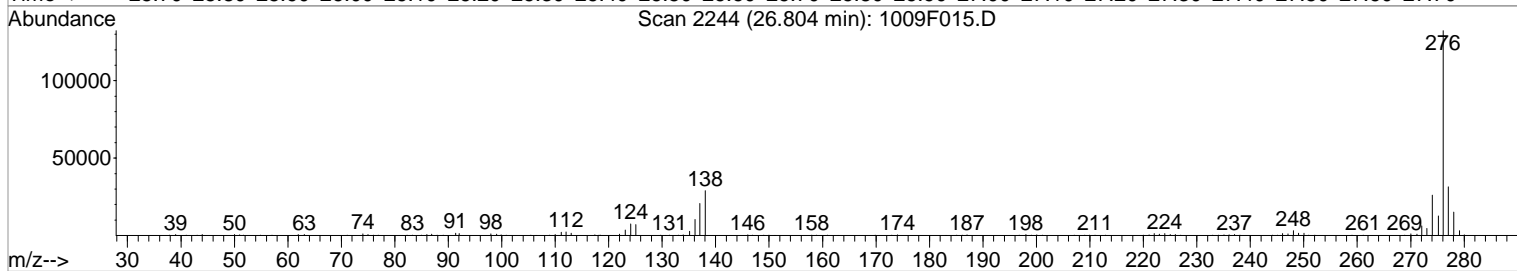
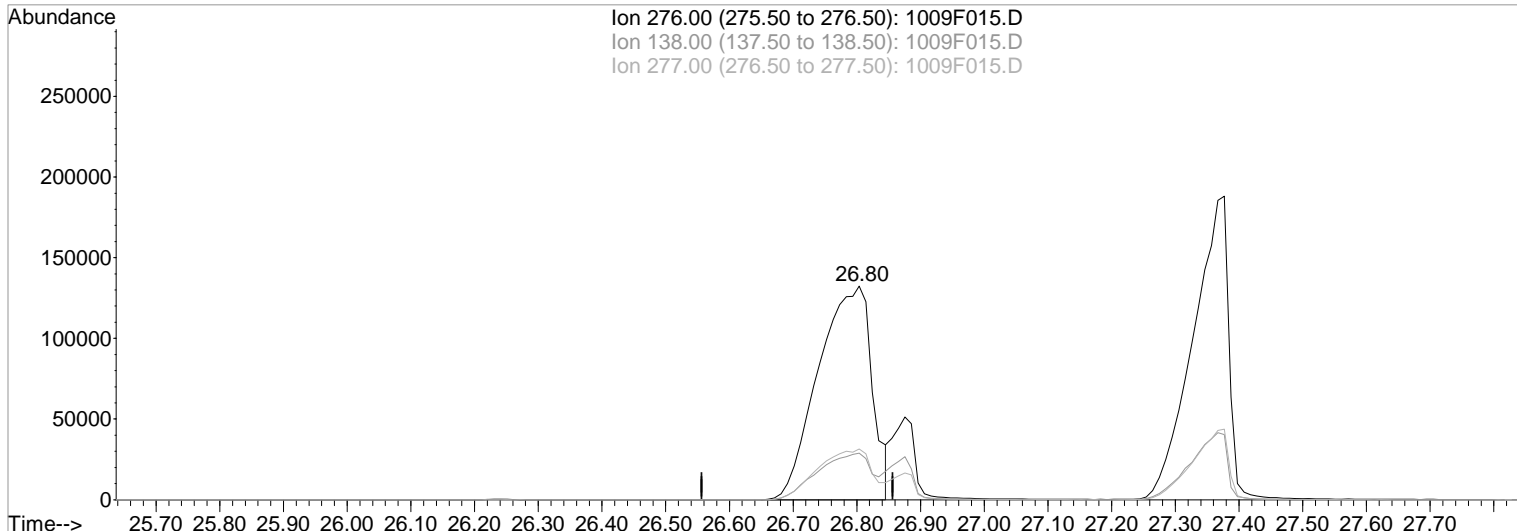
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F015.D

(91) Indeno(1,2,3-cd)pyrene (T)

Manual Integration:

26.80min 190.53ug/ml m

After

response 771680

IC - incomplete

Ion Exp% Act%

10/10/19

276.00 100 100

138.00 19.10 21.86

277.00 22.80 23.70

0.00 0.00 0.00

Data File : J:\MS07\DATA\100919\1009F016.D
 Acq On : 9 Oct 2019 10:29 pm
 Sample : ICAL @200ppm | SVM-62-130
 Misc :

Vial: 16
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 09:11:12 2019

Quant Results File: 100919_BNP7.RES

Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 09:10:47 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.35	152	53791	40.00	ug/ml	0.00
22) Naphthalene-d8	11.45	136	207905	40.00	ug/ml	0.00
36) Acenaphthene-d10	14.31	164	104568	40.00	ug/ml	0.00
61) Phenanthrene-d10	16.71	188	162098	40.00	ug/ml	0.00
73) Chrysene-d12	21.15	240	143040	40.00	ug/ml	0.00
84) Perylene-d12	24.33	264	161173	40.00	ug/ml	0.02

System Monitoring Compounds

4) 2-Fluorophenol	7.14	112	328411	189.79	ug/ml	0.02
Spiked Amount	150.000	Range	21 - 100	Recovery	=	126.53%#
8) Phenol-d6	8.85	99	443375	189.34	ug/ml	0.04
Spiked Amount	150.000	Range	10 - 94	Recovery	=	126.23%#
20) Nitrobenzene-d5	10.29	82	407814	186.66	ug/ml	0.02
Spiked Amount	100.000	Range	35 - 114	Recovery	=	186.66%#
40) 2-Fluorobiphenyl	13.25	172	708408	199.00	ug/ml	0.00
Spiked Amount	100.000	Range	43 - 116	Recovery	=	199.00%#
62) 2,4,6-Tribromophenol	15.62	330	196643	192.87	ug/ml	0.03
Spiked Amount	150.000	Range	10 - 123	Recovery	=	128.58%#
76) Terphenyl-d14	19.35	244	673801	164.47	ug/ml	0.02
Spiked Amount	100.000	Range	33 - 141	Recovery	=	164.47%#

Target Compounds

						Qvalue
2) N-Nitrosodimethylamine	4.35	42	234872	186.92	ug/ml	96
3) Pyridine	4.35	79	394636	182.77	ug/ml	100
5) Ethylene Glycol Butyl Ethe	7.69	57	400268	183.09	ug/ml	99
6) Aniline	8.82	93	493730	182.81	ug/ml	72
7) Bis(2-chloroethyl) Ether	8.97	93	351182	183.02	ug/ml	99
9) Phenol	8.88	94	497394	186.07	ug/ml	99
10) 2-Chlorophenol	9.01	128	358901	189.57	ug/ml	94
11) 1,3-Dichlorobenzene	9.25	146	354674	181.36	ug/ml	99
12) 1,4-Dichlorobenzene	9.38	146	366606	181.38	ug/ml	98
13) 1,2-Dichlorobenzene	9.62	146	344474	183.70	ug/ml	99
14) Benzyl Alcohol	9.66	108	240473	191.89	ug/ml	98
15) 2,2'-oxybis(1-chloropropan	9.87	45	430512	171.84	ug/ml	98
16) 2-Methylphenol	9.84	107	278106	184.59	ug/ml	94
17) Hexachloroethane	10.18	117	168822	182.48	ug/ml	89
18) N-Nitrosodi-n-propylamine	10.12	70	263022	186.51	ug/ml	97
19) 4-Methylphenol	10.15	107	428645	181.04	ug/ml	99
21) Nitrobenzene	10.33	77	391299	188.51	ug/ml	93
23) Isophorone	10.76	82	706966	185.98	ug/ml	98
24) 2-Nitrophenol	10.85	139	210957	202.63	ug/ml	98
25) 2,4-Dimethylphenol	11.00	122	294194	185.34	ug/ml	99
26) Bis(2-chloroethoxy)methane	11.13	93	430800	184.16	ug/ml	99
27) 2,4-Dichlorophenol	11.27	162	313651	190.92	ug/ml	98
28) Benzoic Acid	11.38	122	239560	213.60	ug/ml	97
29) 1,2,4-Trichlorobenzene	11.37	180	317959	188.41	ug/ml	99
30) Naphthalene	11.49	128	902753	185.62	ug/ml	99
31) n-Dodecane	11.55	57	347004	153.51	ug/ml	95
32) 4-Chloroaniline	11.62	127	405141	179.35	ug/ml	95
33) Hexachlorobutadiene	11.73	225	206115	193.21	ug/ml	98
34) 4-Chloro-3-methylphenol	12.44	107	295898	181.98	ug/ml	99
35) 2-Methylnaphthalene	12.63	142	613510	183.87	ug/ml	99
37) Hexachlorocyclopentadiene	12.89	237	254564	212.25	ug/ml	99
38) 2,4,6-Trichlorophenol	13.11	196	220773	200.50	ug/ml	98
39) 2,4,5-Trichlorophenol	13.17	196	240597	200.79	ug/ml	98
41) 2-Chloronaphthalene	13.42	162	576949	193.48	ug/ml	100
42) 2-Nitroaniline	13.62	65	202232	195.85	ug/ml	99
43) Acenaphthylene	14.08	152	825719	188.16	ug/ml	100

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS07\DATA\100919\1009F016.D
 Acq On : 9 Oct 2019 10:29 pm
 Sample : ICAL @200ppm | SVM-62-130
 Misc :

Vial: 16
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 09:11:12 2019

Quant Results File: 100919_BNP7.RES

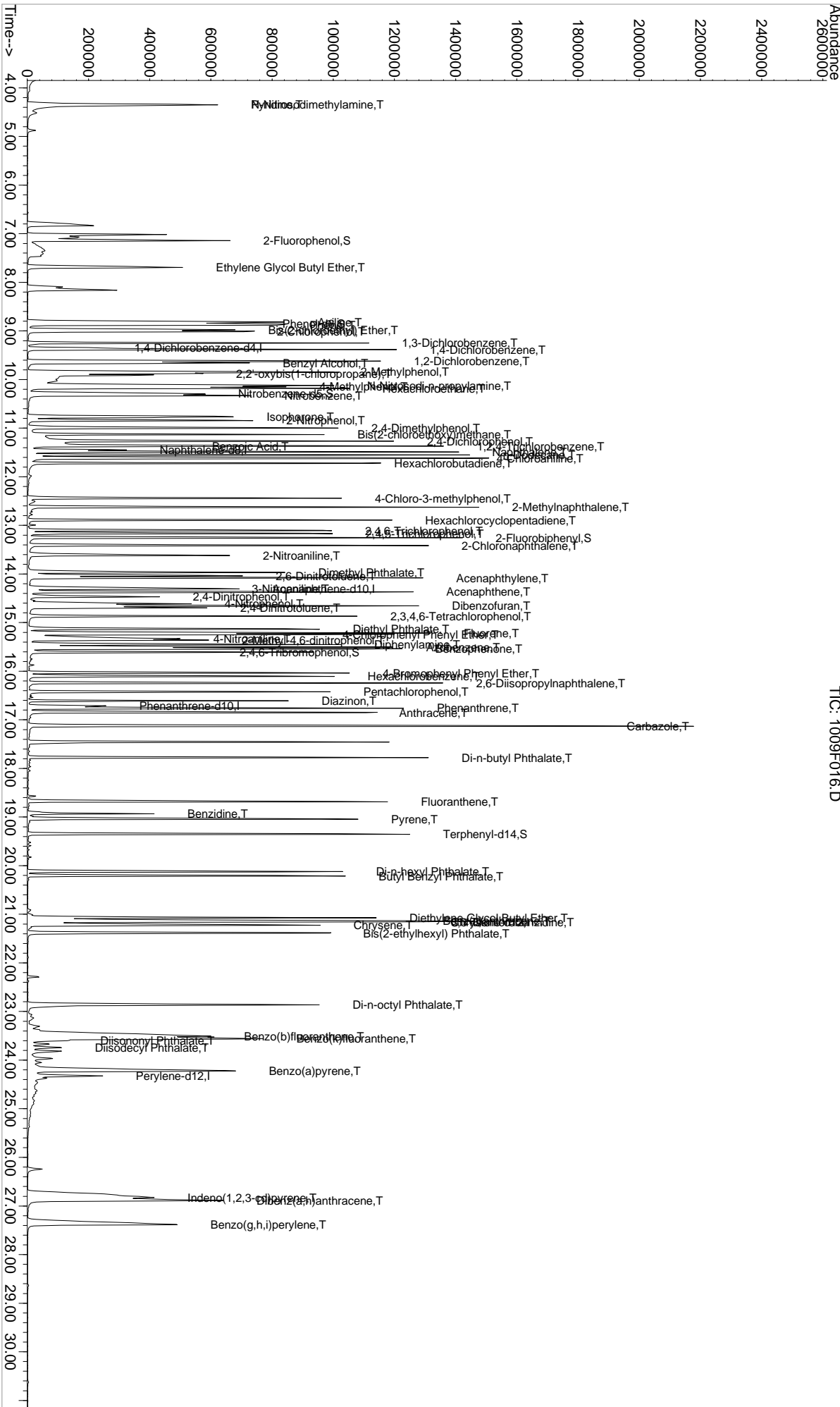
Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 09:10:47 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44) Dimethyl Phthalate	13.97	163	614927	191.14	ug/ml	100
45) 2,6-Dinitrotoluene	14.04	165	152544	197.67	ug/ml	100
46) Acenaphthene	14.37	154	502233	192.76	ug/ml	99
47) 3-Nitroaniline	14.30	138	171962	197.84	ug/ml	99
48) 2,4-Dinitrophenol	14.47	184	112435	267.29	ug/ml	88
49) Dibenzofuran	14.65	168	795224	193.44	ug/ml	99
50) 4-Nitrophenol	14.61	109	109381	208.08	ug/ml#	53
51) 2,4-Dinitrotoluene	14.69	165	198858	204.28	ug/ml	88
52) 2,3,4,6-Tetrachlorophenol	14.87	232	189129	200.51	ug/ml	98
53) Fluorene	15.22	166	572753	190.47	ug/ml	100
54) 4-Chlorophenyl Phenyl Et	15.25	204	317410	194.55	ug/ml	92
55) Diethyl Phthalate	15.14	149	608358	193.92	ug/ml	99
56) 4-Nitroaniline	15.33	138	174962	203.36	ug/ml	99
57) 2-Methyl-4,6-dinitrophenol	15.36	198	140771	234.66	ug/ml	93
58) Diphenylamine	15.45	169	397272	192.54	ug/ml	98
59) Azobenzene	15.50	51	275095m	187.87	ug/ml	
60) Benzophenone	15.53	105	668303	186.86	ug/ml#	28
63) 4-Bromophenyl Phenyl Ether	16.04	248	207003	185.85	ug/ml	97
64) Hexachlorobenzene	16.11	284	267188	182.84	ug/ml	95
65) 2,6-Diisopropyl naphthalene	16.24	197	482210	184.70	ug/ml	100
66) Pentachlorophenol	16.42	266	190787	198.64	ug/ml	99
67) Diazinon	16.61	137	83019	156.02	ug/ml	98
68) Phenanthrene	16.76	178	776561	186.96	ug/ml	100
69) Anthracene	16.85	178	830405	191.65	ug/ml	99
70) Carbazole	17.13	167	762203	183.59	ug/ml	100
71) Di-n-butyl Phthalate	17.78	149	943199	184.35	ug/ml	99
72) Fluoranthene	18.69	202	823475	183.55	ug/ml	96
74) Benzidine	18.93	184	210095	138.10	ug/ml	100
75) Pyrene	19.05	202	788265	169.57	ug/ml	99
77) Di-n-hexyl Phthalate	20.12	149	926767	175.34	ug/ml	99
78) Butyl Benzyl Phthalate	20.21	149	372188	176.08	ug/ml	94
79) Diethylene Glycol Butyl Et	21.07	105	649215	199.37	ug/ml	99
80) 3,3'-Dichlorobenzidine	21.15	252	368543	196.79	ug/ml	99
81) Benz(a)anthracene	21.13	228	697421	188.14	ug/ml	99
82) Chrysene	21.23	228	738345	198.22	ug/ml	99
83) Bis(2-ethylhexyl) Phthalat	21.39	149	526990	193.48	ug/ml	96
85) Di-n-octyl Phthalate	22.86	149	936848	210.23	ug/ml	100
86) Benzo(b)fluoranthene	23.51	252	1036648	234.38	ug/ml	99
87) Benzo(k)fluoranthene	23.56	252	649847	154.60	ug/ml	99
88) Diisononyl Phthalate	23.60	293	72592m	217.81	ug/ml	
89) Diisodecyl Phthalate	23.74	149	914005m	212.57	ug/ml	
90) Benzo(a)pyrene	24.22	252	789996	199.90	ug/ml	98
91) Indeno(1,2,3-cd)pyrene	26.82	276	860973m	213.36	ug/ml	
92) Dibenz(a,h)anthracene	26.89	278	811695	199.96	ug/ml	99
93) Benzo(g,h,i)perylene	27.39	276	810479	194.79	ug/ml	98

Data File : J:\MS07\DATA\100919\1009F016.D
Acq On : 9 Oct 2019 10:29 pm
Sample : ICAL@200ppm | SVM-62-130
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 10 10:07 2019

Quantitation Report (QT Reviewed)
Vial: 16
Operator: CCONOVER/LM
Inst: MS07
Multiplr: 1.00
Quant Results File: 100919_BNP7.RES

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
Last Update : Thu Oct 10 09:10:47 2019
Response via : Initial Calibration



Data File : J:\MS07\DATA\100919\1009F016.D

Vial: 16

Acq On : 9 Oct 2019 10:29 pm

Operator: CCONOVER/LM

Sample : ICAL @200ppm | SVM-62-130

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 9:17 2019

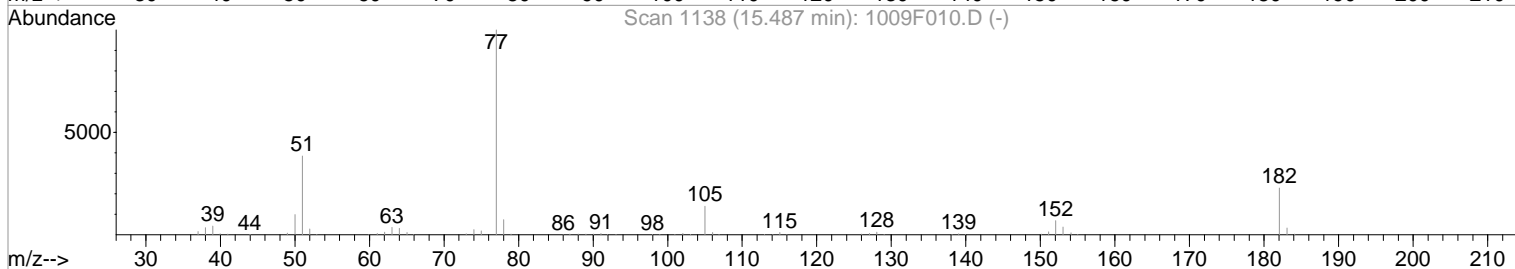
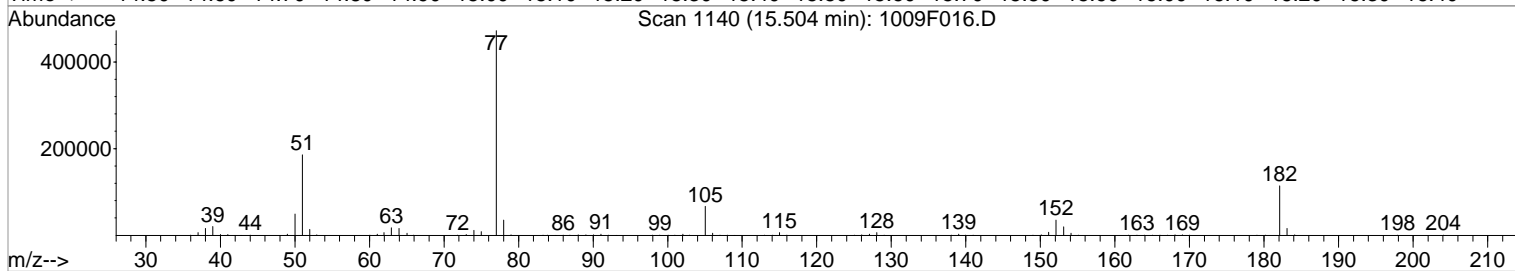
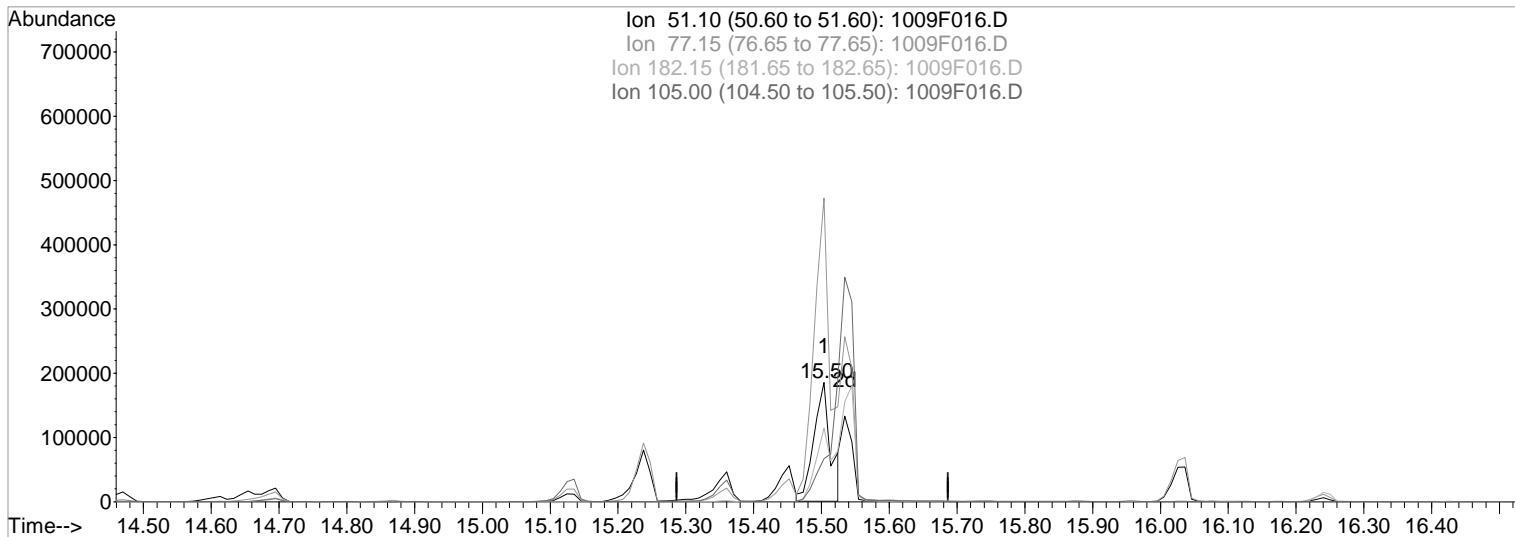
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F016.D

(59) Azobenzene (T)

Manual Integration:

15.50min 218.10ug/ml

Before

response 319358

Ion Exp% Act%

10/10/19

51.10 100 100

77.15 260.40 277.38

182.15 59.10 52.63

105.00 36.00 0.00#

Data File : J:\MS07\DATA\100919\1009F016.D

Vial: 16

Acq On : 9 Oct 2019 10:29 pm

Operator: CCONOVER/LM

Sample : ICAL @200ppm | SVM-62-130

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 10:05 2019

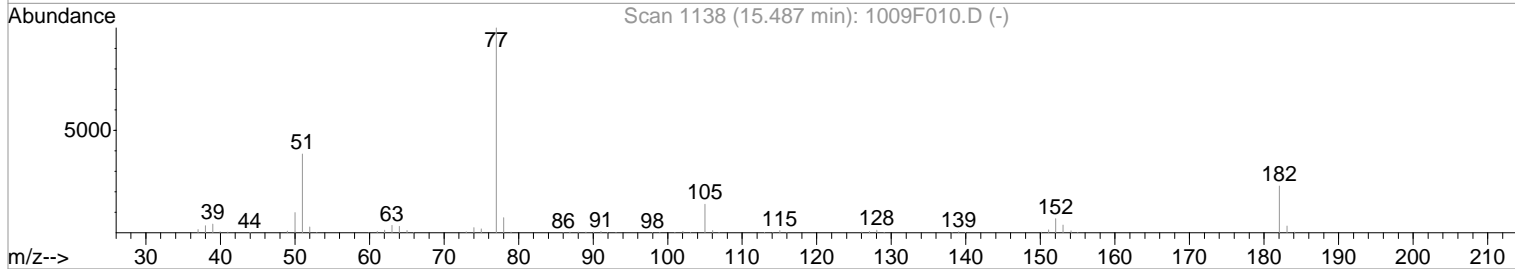
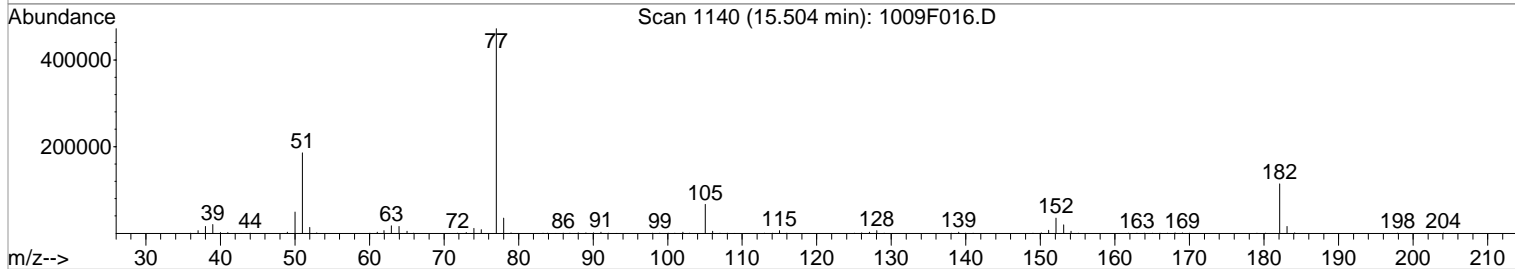
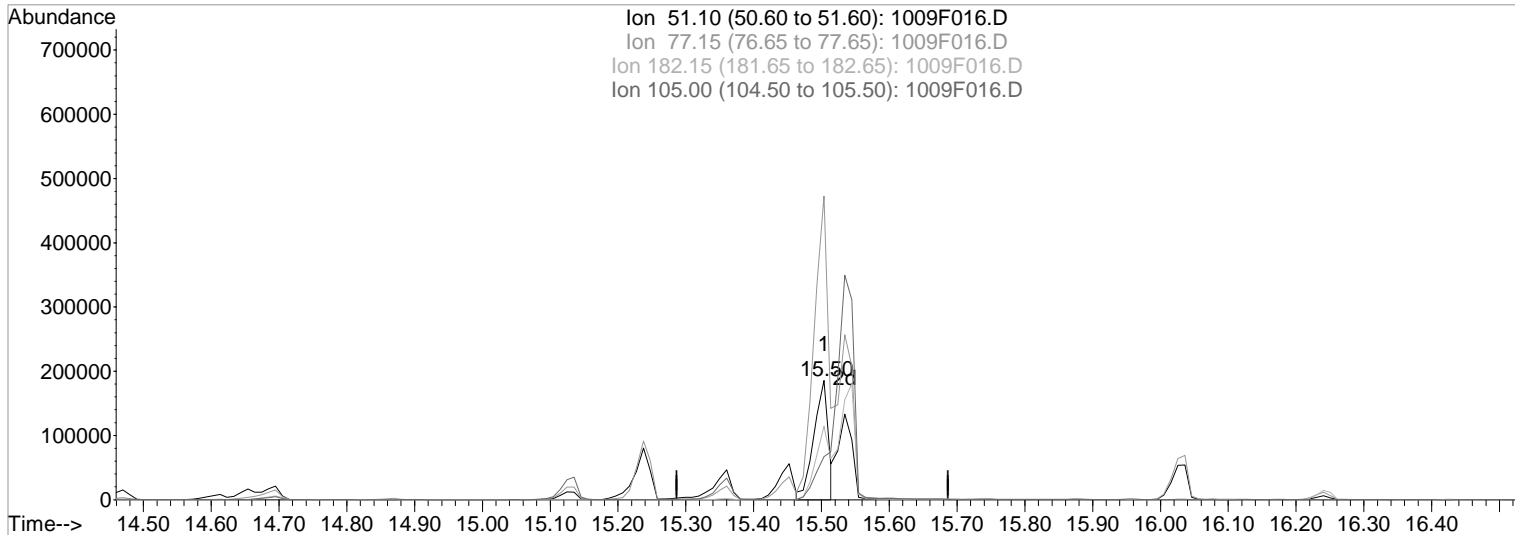
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F016.D

(59) Azobenzene (T)

Manual Integration:

15.50min 187.87ug/ml m

After

response 275095

IC - overintegrated

Ion Exp% Act%

10/10/19

51.10 100 100

77.15 260.40 254.29

182.15 59.10 61.45

105.00 36.00 36.13

Data File : J:\MS07\DATA\100919\1009F016.D

Vial: 16

Acq On : 9 Oct 2019 10:29 pm

Operator: CCONOVER/LM

Sample : ICAL @200ppm | SVM-62-130

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 10:05 2019

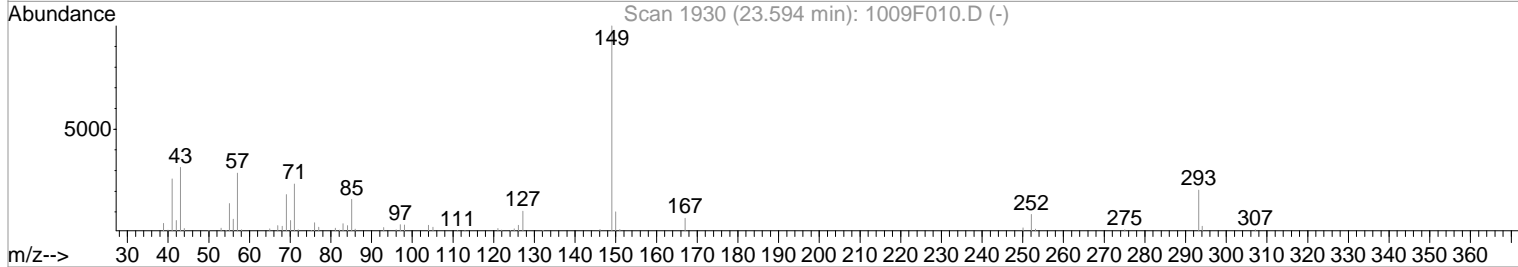
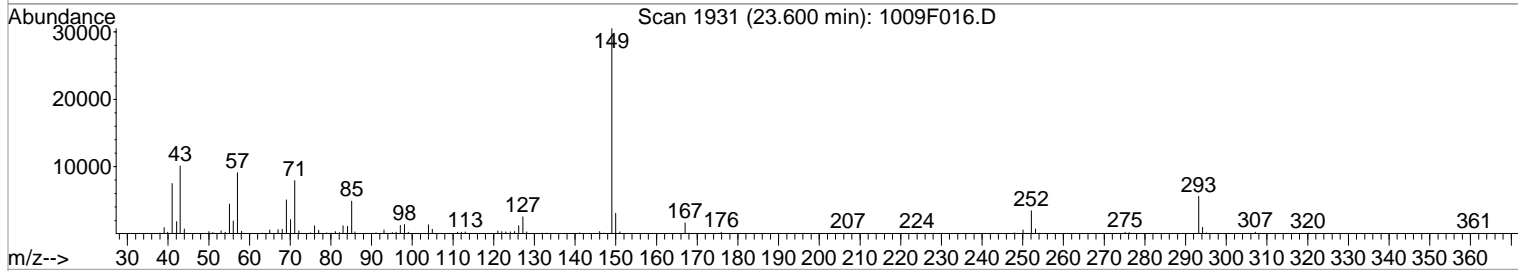
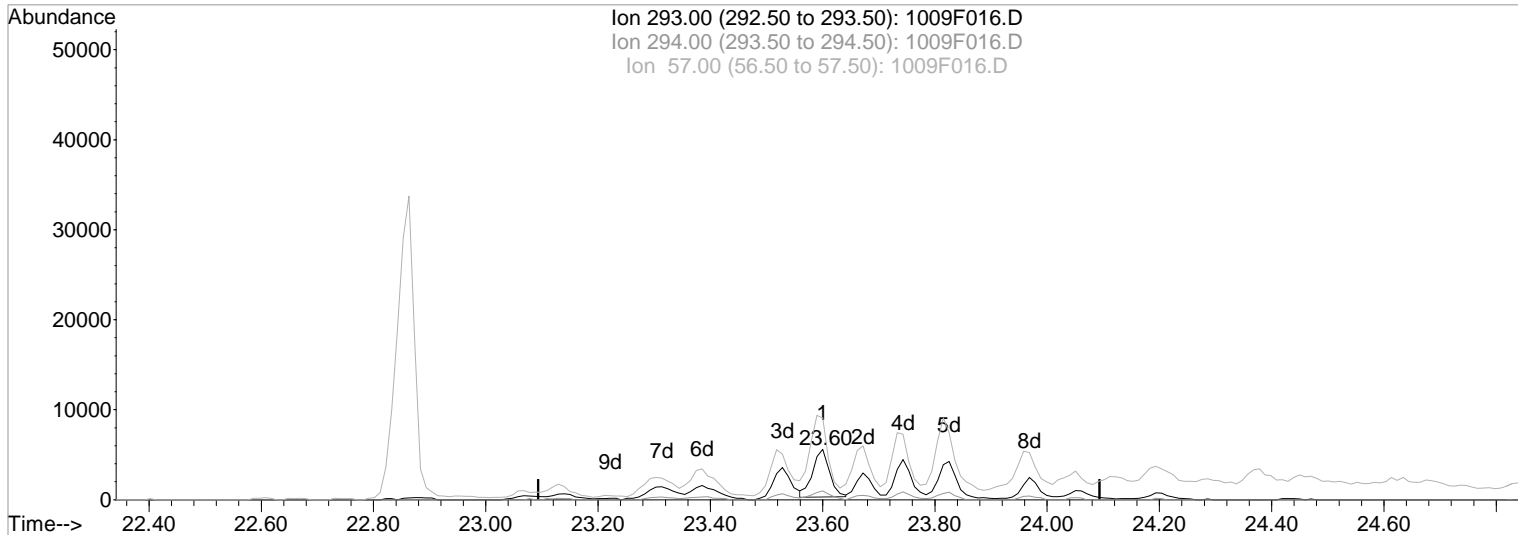
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F016.D

(88) Diisononyl Phthalate (T)

Manual Integration:

23.60min 32.97ug/ml

Before

response 10989

Ion Exp% Act%

10/10/19

293.00 100 100

294.00 1.60 20.97

57.00 15.00 161.37#

0.00 0.00 0.00

Data File : J:\MS07\DATA\100919\1009F016.D
 Acq On : 9 Oct 2019 10:29 pm
 Sample : ICAL @200ppm | SVM-62-130
 Misc :

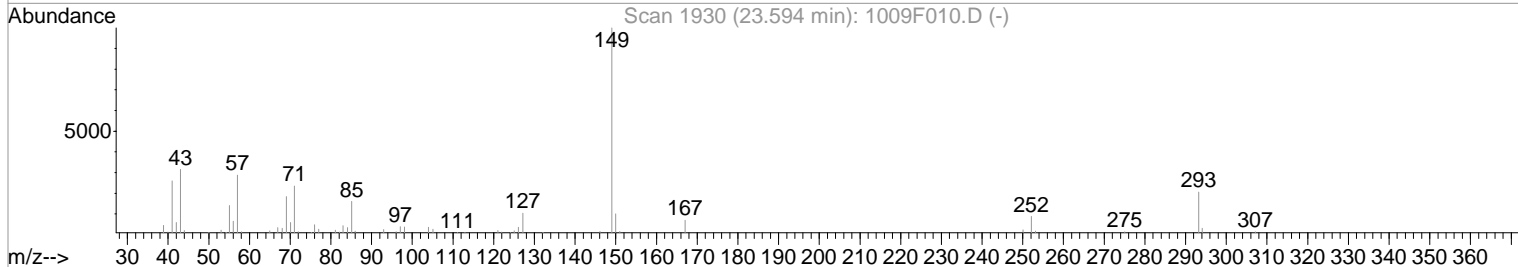
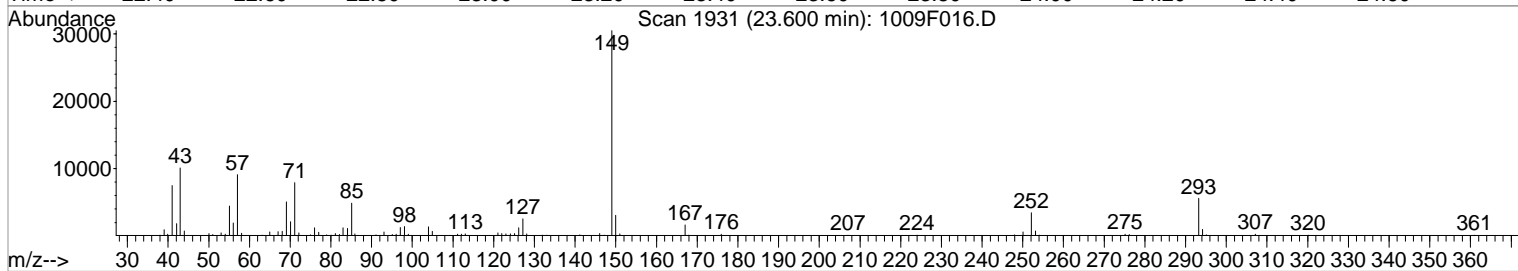
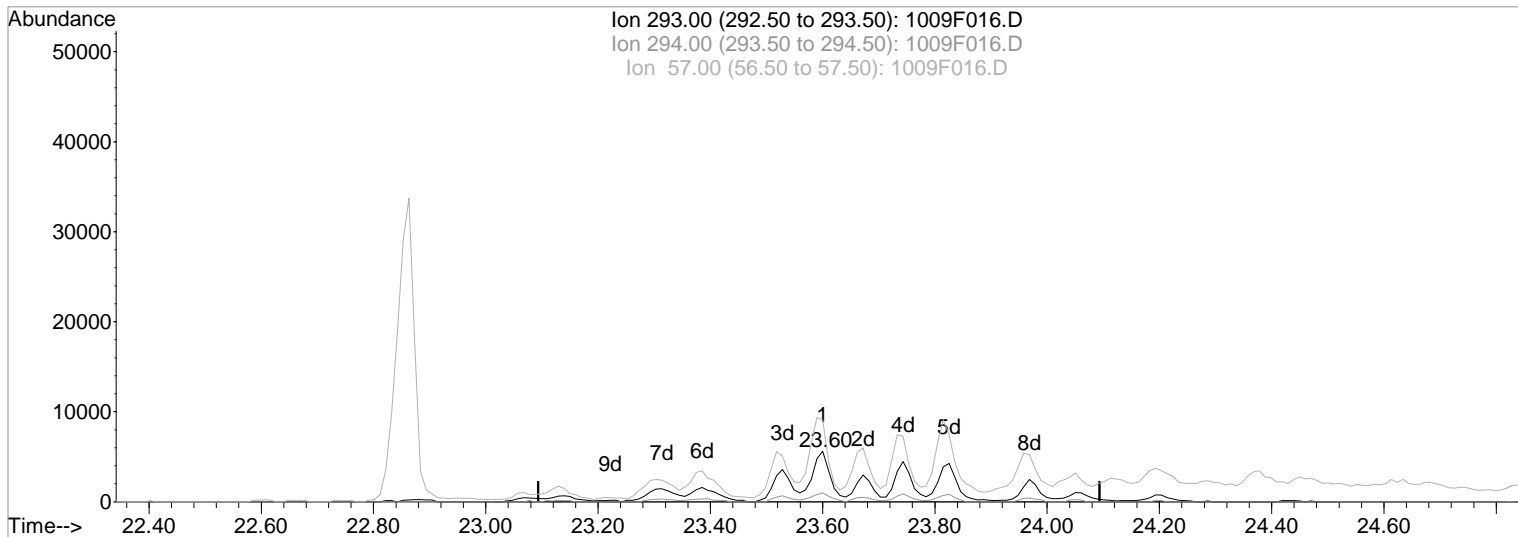
Vial: 16
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 10:06 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 09:10:47 2019
 Response via : Multiple Level Calibration



TIC: 1009F016.D

(88) Diisononyl Phthalate (T)

23.60min 217.81ug/ml m

response 72592

Ion	Exp%	Act%
293.00	100	100
294.00	1.60	3.17
57.00	15.00	24.43
0.00	0.00	0.00

Manual Integration:

After

Range integration correction

10/10/19

Data File : J:\MS07\DATA\100919\1009F016.D

Vial: 16

Acq On : 9 Oct 2019 10:29 pm

Operator: CCONOVER/LM

Sample : ICAL @200ppm | SVM-62-130

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 10:06 2019

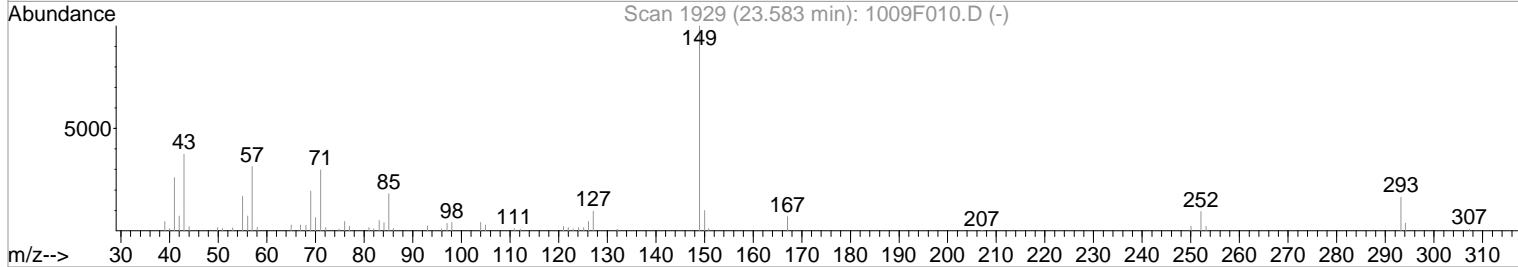
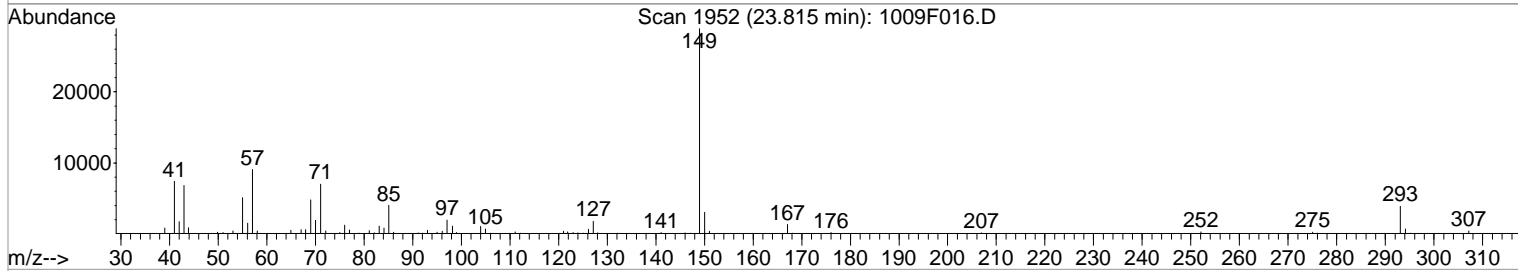
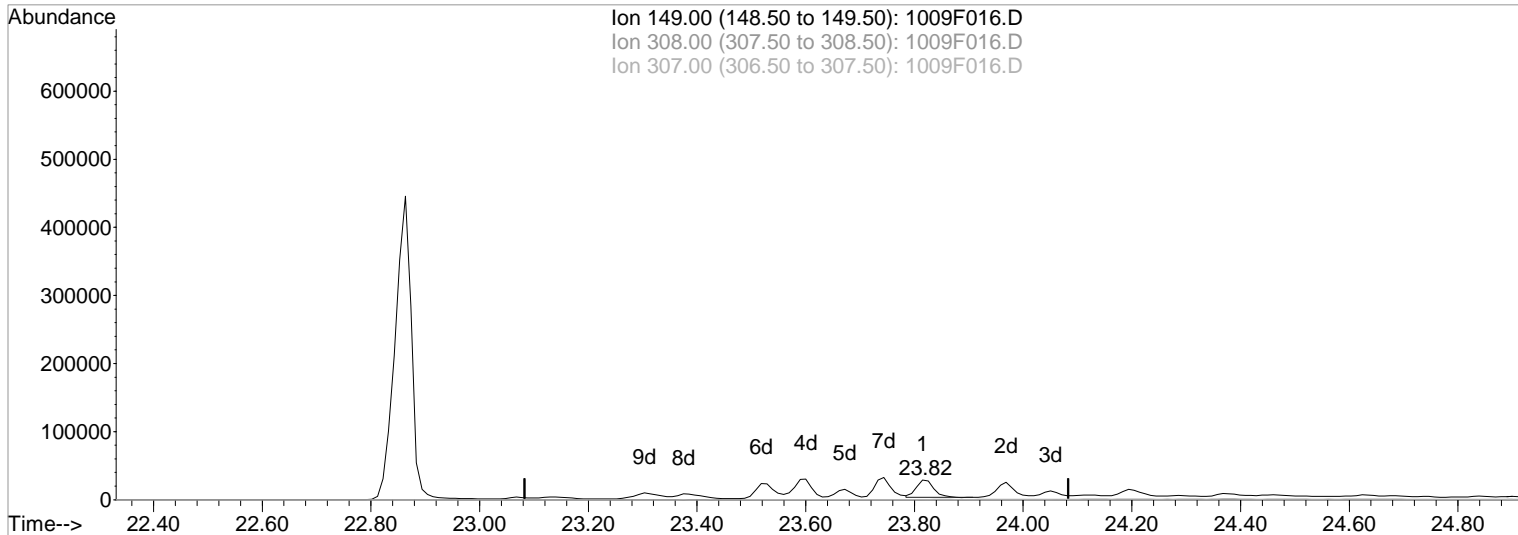
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F016.D

(89) Diisodecyl Phthalate (T)

Manual Integration:

23.82min 13.32ug/ml

Before

response 57278

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.72
307.00	0.00	2.07
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F016.D

Vial: 16

Acq On : 9 Oct 2019 10:29 pm

Operator: CCONOVER/LM

Sample : ICAL @200ppm | SVM-62-130

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 10:07 2019

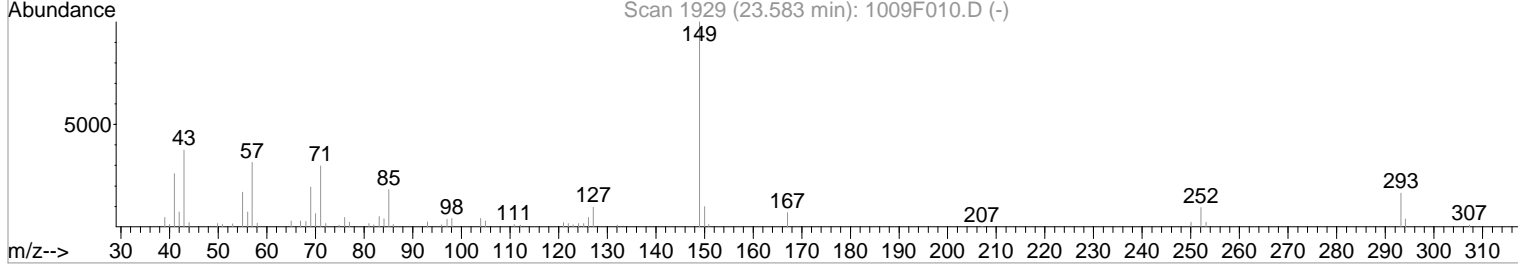
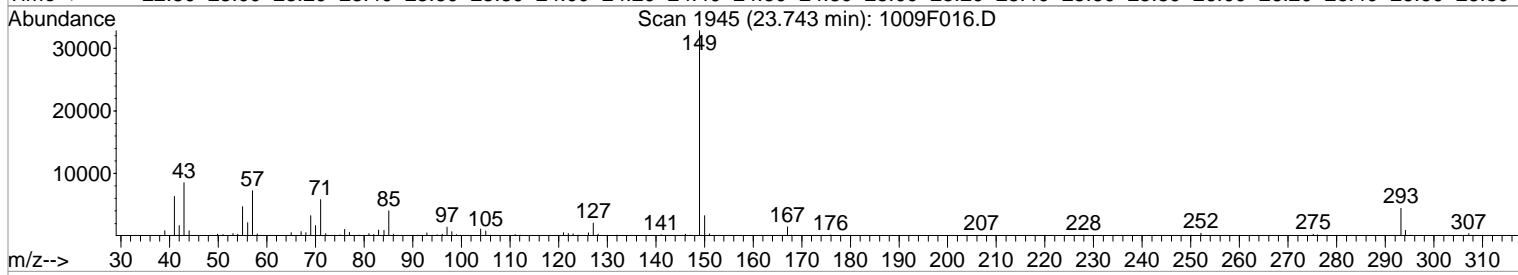
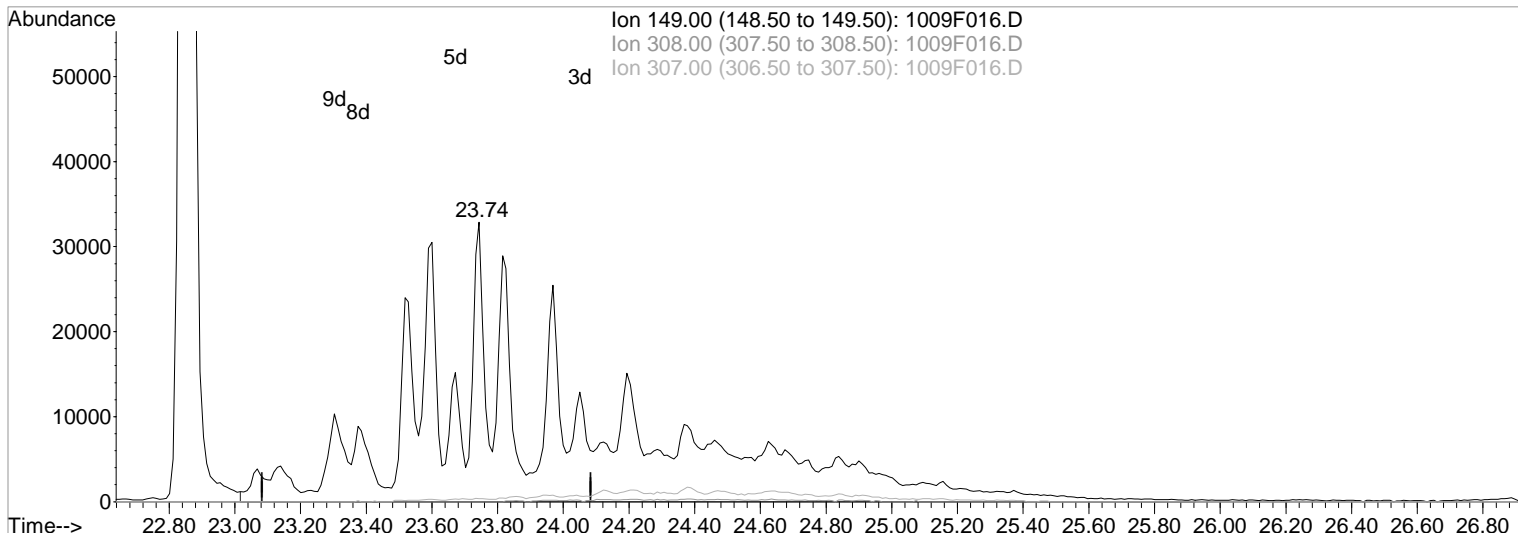
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F016.D

(89) Diisodecyl Phthalate (T)

Manual Integration:

23.74min 212.57ug/ml m

After

response 914005

Range integration correction

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.05
307.00	0.00	0.13
0.00	0.00	0.00

10/10/19

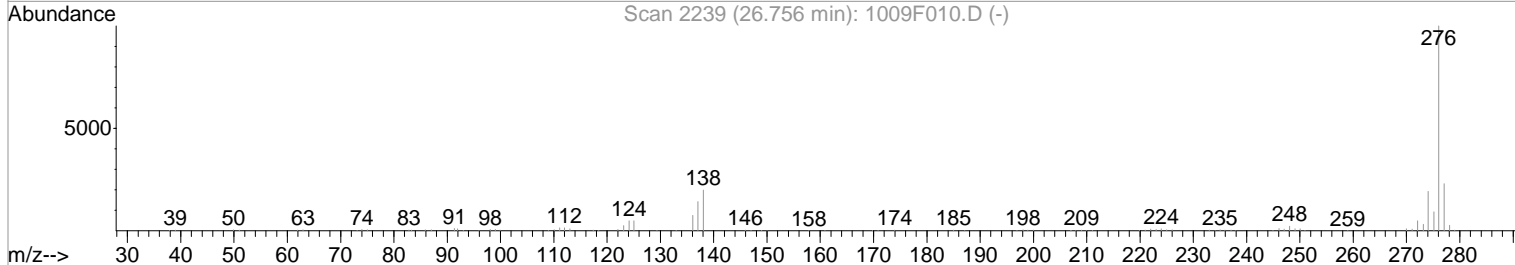
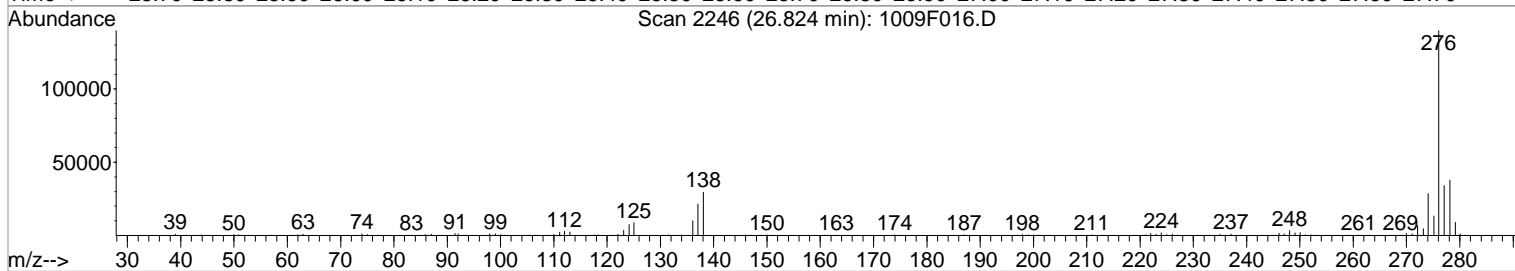
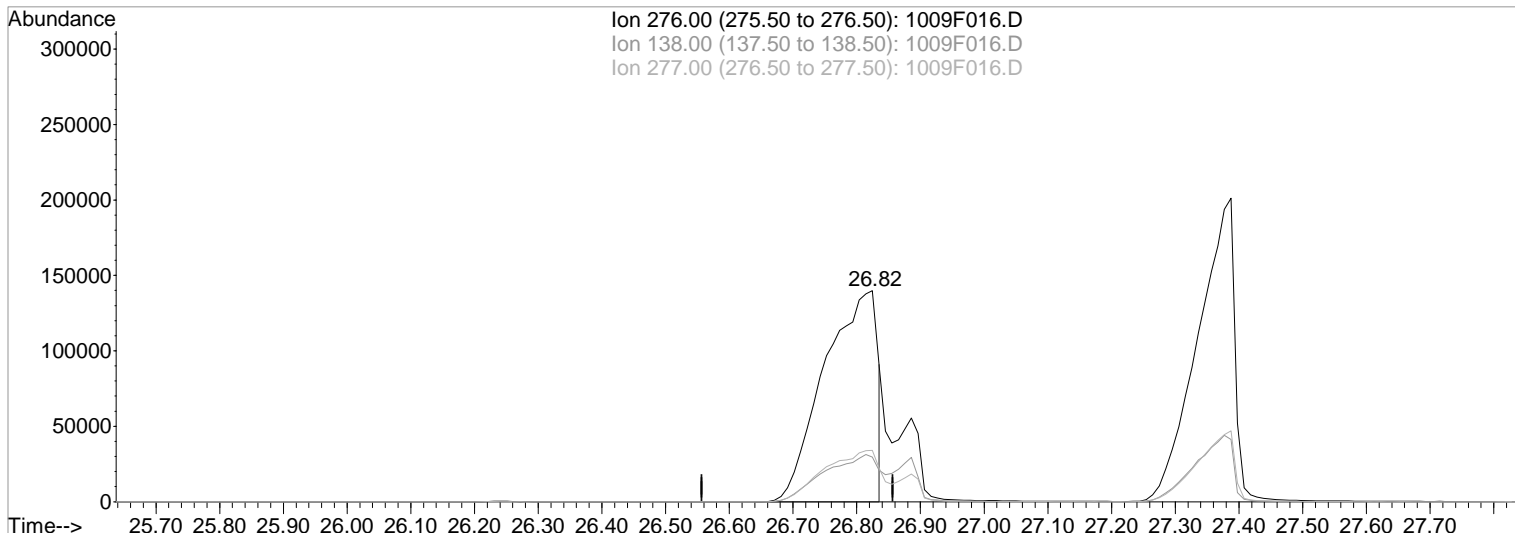
Data File : J:\MS07\DATA\100919\1009F016.D
 Acq On : 9 Oct 2019 10:29 pm
 Sample : ICAL @200ppm | SVM-62-130
 Misc :

Vial: 16
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 10:07 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 09:10:47 2019
 Response via : Multiple Level Calibration



TIC: 1009F016.D

(91) Indeno(1,2,3-cd)pyrene (T)

Manual Integration:

26.82min 200.33ug/ml

Before

response 808380

Ion	Exp%	Act%
276.00	100	100
138.00	19.10	20.23
277.00	22.80	24.24
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F016.D

Vial: 16

Acq On : 9 Oct 2019 10:29 pm

Operator: CCONOVER/LM

Sample : ICAL @200ppm | SVM-62-130

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 10:07 2019

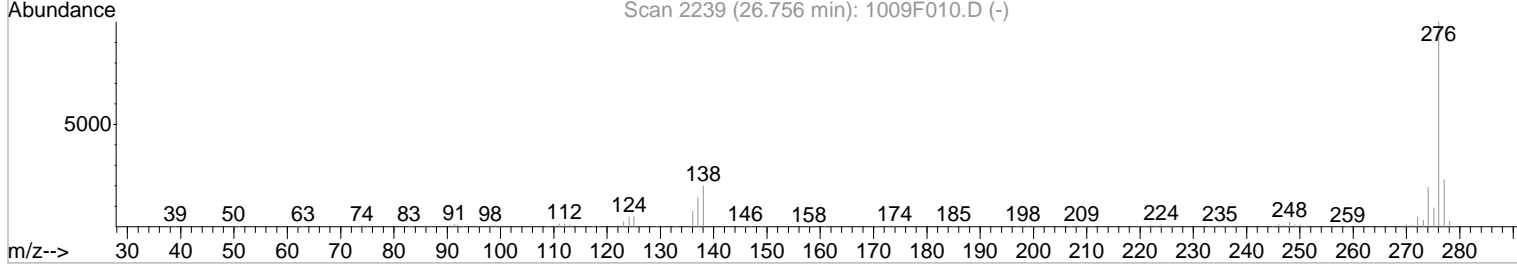
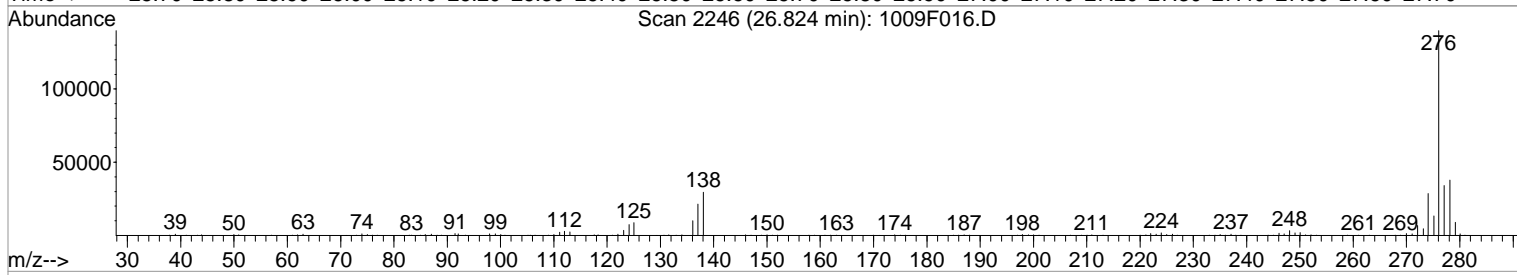
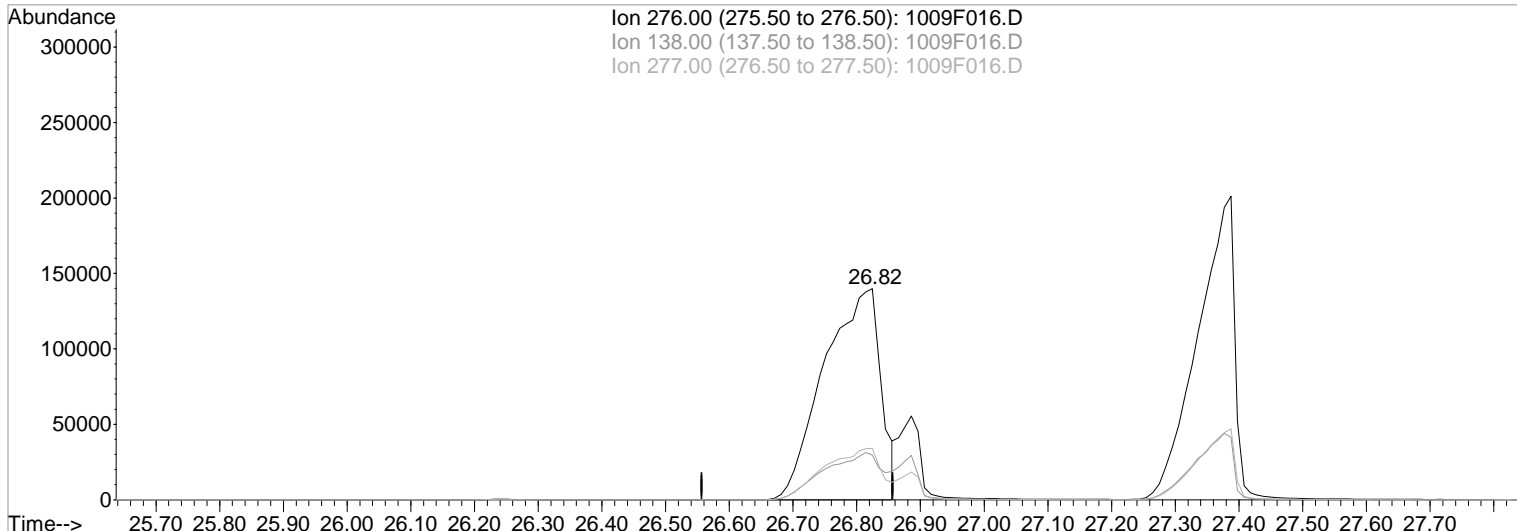
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 09:10:47 2019

Response via : Multiple Level Calibration



TIC: 1009F016.D

Retention Time (min)	Abundance	Ion	Exp%	Act%
26.82	213.36	276.00	100	100
	860973	138.00	19.10	21.11
		277.00	22.80	24.35
		0.00	0.00	0.00

Manual Integration:
After
IC - incomplete
10/10/19

Data File : J:\MS07\DATA\100919\1009F017.D
 Acq On : 9 Oct 2019 11:11 pm
 Sample : 8270 ICV @80ppm | SVM-61-84C
 Misc :

Vial: 17
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P
 Quant Time: Oct 10 15:31:05 2019

Quant Results File: 100919_BNP7.RES

Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 15:30:20 2019
 Response via : Initial Calibration
 DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.34	152	56065	40.00	ug/ml	0.00
22) Naphthalene-d8	11.44	136	221749	40.00	ug/ml	0.00
36) Acenaphthene-d10	14.30	164	117659	40.00	ug/ml	0.00
61) Phenanthrene-d10	16.71	188	167914	40.00	ug/ml	0.00
73) Chrysene-d12	21.14	240	137407	40.00	ug/ml	0.00
84) Perylene-d12	24.30	264	173580	40.00	ug/ml	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
4) 2-Fluorophenol	7.10	112	151823	88.75	ug/ml	-0.03
Spiked Amount 150.000	Range 21	- 100	Recovery =	59.17%		
8) Phenol-d6	8.80	99	208281	91.48	ug/ml	-0.02
Spiked Amount 150.000	Range 10	- 94	Recovery =	60.99%		
20) Nitrobenzene-d5	10.27	82	200411	95.82	ug/ml	0.00
Spiked Amount 100.000	Range 35	- 114	Recovery =	95.82%		
40) 2-Fluorobiphenyl	13.24	172	349304	92.58	ug/ml	0.00
Spiked Amount 100.000	Range 43	- 116	Recovery =	92.58%		
62) 2,4,6-Tribromophenol	15.59	330	95334	95.23	ug/ml	0.00
Spiked Amount 150.000	Range 10	- 123	Recovery =	63.49%		
76) Terphenyl-d14	19.34	244	325638	94.30	ug/ml	0.00
Spiked Amount 100.000	Range 33	- 141	Recovery =	94.30%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-Nitrosodimethylamine	4.31	42	107976	86.03	ug/ml	98
3) Pyridine	4.34	79	182570	88.70	ug/ml	99
6) Aniline	8.81	93	247331	92.14	ug/ml	72
7) Bis(2-chloroethyl) Ether	8.96	93	167813	89.42	ug/ml	99
9) Phenol	8.83	94	223646	86.42	ug/ml	99
10) 2-Chlorophenol	8.98	128	161939	87.40	ug/ml	99
11) 1,3-Dichlorobenzene	9.24	146	173862	89.49	ug/ml	99
12) 1,4-Dichlorobenzene	9.37	146	175216	87.49	ug/ml	98
13) 1,2-Dichlorobenzene	9.61	146	167576	89.50	ug/ml	96
14) Benzyl Alcohol	9.62	108	109827	90.58	ug/ml	99
15) 2,2'-oxybis(1-chloropropan	9.87	45	256496	103.94	ug/ml	96
16) 2-Methylphenol	9.82	107	130267	90.34	ug/ml	93
17) Hexachloroethane	10.17	117	81463	90.16	ug/ml	91
18) N-Nitrosodi-n-propylamine	10.10	70	136990	102.11	ug/ml	96
19) 4-Methylphenol	10.11	107	332698	151.51	ug/ml	87
21) Nitrobenzene	10.31	77	189980	95.23	ug/ml	93
23) Isophorone	10.74	82	336557	89.04	ug/ml	100
24) 2-Nitrophenol	10.82	139	98564	91.51	ug/ml	88
25) 2,4-Dimethylphenol	10.96	122	138429	86.68	ug/ml	98
26) Bis(2-chloroethoxy)methane	11.12	93	210767	90.26	ug/ml	100
27) 2,4-Dichlorophenol	11.23	162	147716	90.79	ug/ml	98
28) Benzoic Acid	11.26	122	106655	90.34	ug/ml	96
29) 1,2,4-Trichlorobenzene	11.35	180	156138	89.77	ug/ml	98
30) Naphthalene	11.48	128	459679	90.36	ug/ml	99
32) 4-Chloroaniline	11.59	127	208911	89.89	ug/ml	99
33) Hexachlorobutadiene	11.71	225	99978	91.76	ug/ml	98
34) 4-Chloro-3-methylphenol	12.41	107	143297	89.44	ug/ml	98
35) 2-Methylnaphthalene	12.61	142	302614	88.82	ug/ml	100
37) Hexachlorocyclopentadiene	12.89	237	125378	93.01	ug/ml	99
38) 2,4,6-Trichlorophenol	13.08	196	111272	94.72	ug/ml	98
39) 2,4,5-Trichlorophenol	13.14	196	113742	91.40	ug/ml	98
41) 2-Chloronaphthalene	13.40	162	288407	91.04	ug/ml	99
42) 2-Nitroaniline	13.59	65	100877	93.38	ug/ml	92
43) Acenaphthylene	14.07	152	453710	95.75	ug/ml	99
44) Dimethyl Phthalate	13.95	163	295971	82.30	ug/ml	99
45) 2,6-Dinitrotoluene	14.02	165	75289	91.63	ug/ml	97

Data File : J:\MS07\DATA\100919\1009F017.D

Vial: 17

Acq On : 9 Oct 2019 11:11 pm

Operator: CCONOVER/LM

Sample : 8270 ICV @80ppm | SVM-61-84C

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 15:31:05 2019

Quant Results File: 100919_BNP7.RES

Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 15:30:20 2019

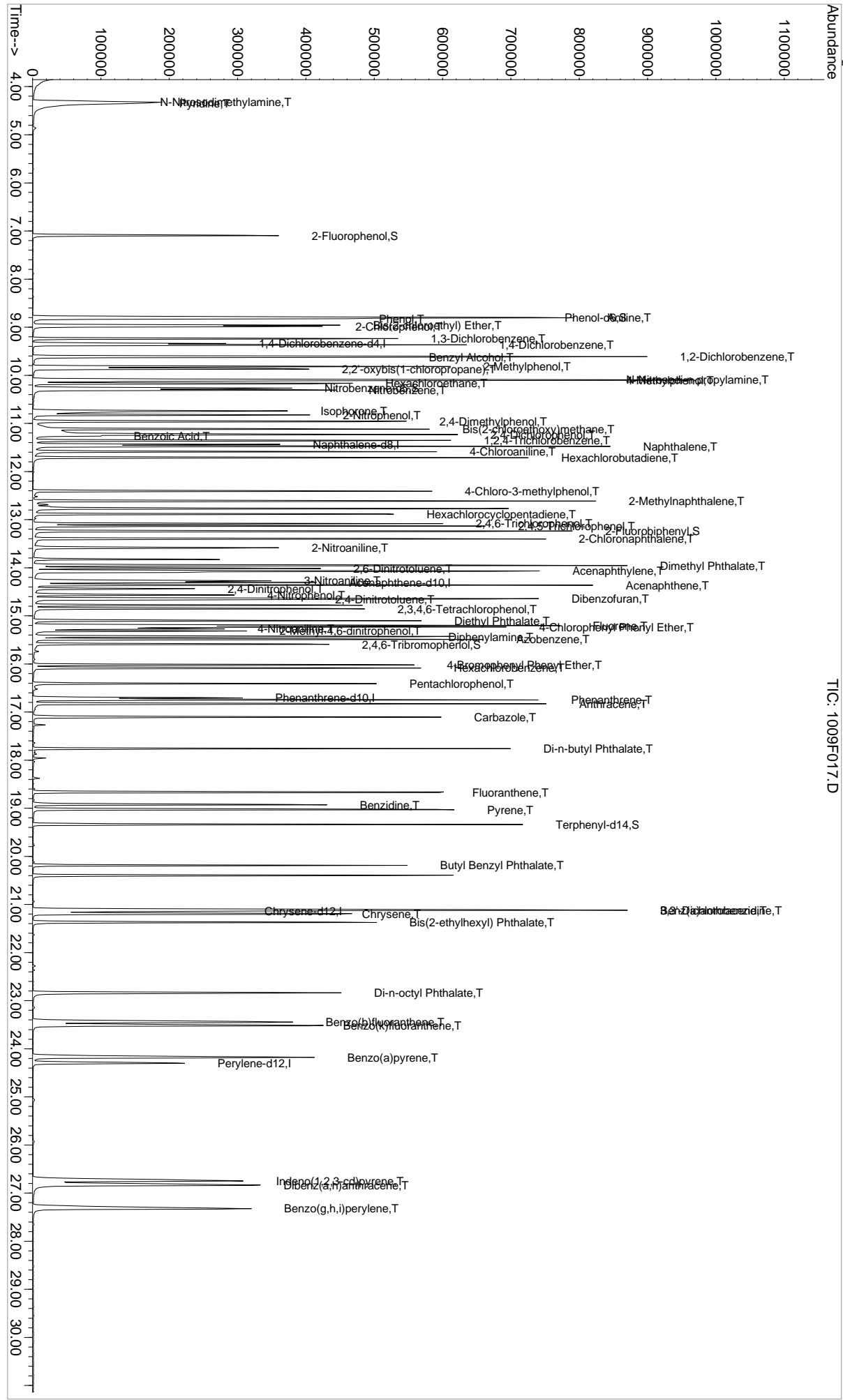
Response via : Initial Calibration

DataAcq Meth : 8270_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) Acenaphthene	14.36	154	251764	89.16	ug/ml	99
47) 3-Nitroaniline	14.27	138	84569	92.59	ug/ml	96
48) 2,4-Dinitrophenol	14.44	184	42629	87.67	ug/ml	79
49) Dibenzofuran	14.64	168	389648	85.05	ug/ml	94
50) 4-Nitrophenol	14.57	109	47994	85.45	ug/ml	92
51) 2,4-Dinitrotoluene	14.66	165	97720	93.23	ug/ml	96
52) 2,3,4,6-Tetrachlorophenol	14.86	232	90280	91.68	ug/ml	94
53) Fluorene	15.20	166	301620	88.66	ug/ml	99
54) 4-Chlorophenyl Phenyl Ethe	15.23	204	156506	86.37	ug/ml	96
55) Diethyl Phthalate	15.10	149	289286	77.81	ug/ml	99
56) 4-Nitroaniline	15.27	138	80532	86.63	ug/ml	94
57) 2-Methyl-4,6-dinitrophenol	15.32	198	61192	86.25	ug/ml	81
58) Diphenylamine	15.44	169	238843	99.22	ug/ml	100
59) Azobenzene	15.49	51	133909	76.61	ug/ml	95
63) 4-Bromophenyl Phenyl Ether	16.02	248	101939	95.04	ug/ml	92
64) Hexachlorobenzene	16.08	284	132104	92.60	ug/ml	91
66) Pentachlorophenol	16.41	266	83986	92.65	ug/ml	98
68) Phenanthrene	16.75	178	374619	90.42	ug/ml	100
69) Anthracene	16.83	178	392816	91.13	ug/ml	100
70) Carbazole	17.11	167	349188	86.56	ug/ml	98
71) Di-n-butyl Phthalate	17.76	149	429312	89.36	ug/ml	99
72) Fluoranthene	18.67	202	397971	92.96	ug/ml	97
74) Benzidine	18.93	184	241652	173.98	ug/ml	99
75) Pyrene	19.03	202	400398	95.78	ug/ml	99
78) Butyl Benzyl Phthalate	20.19	149	177216	94.84	ug/ml	99
80) 3,3'-Dichlorobenzidine	21.12	252	152514	92.78	ug/ml	99
81) Benz(a)anthracene	21.12	228	332322	98.43	ug/ml	98
82) Chrysene	21.20	228	322499	92.01	ug/ml	100
83) Bis(2-ethylhexyl) Phthalat	21.38	149	232174	95.97	ug/ml	98
85) Di-n-octyl Phthalate	22.84	149	391244	85.91	ug/ml	99
86) Benzo(b)fluoranthene	23.44	252	394004	86.68	ug/ml	99
87) Benzo(k)fluoranthene	23.52	252	383312	93.23	ug/ml	98
90) Benzo(a)pyrene	24.18	252	376344	94.62	ug/ml	98
91) Indeno(1,2,3-cd)pyrene	26.75	276	370916	89.13	ug/ml	99
92) Dibenz(a,h)anthracene	26.84	278	377906	92.28	ug/ml	97
93) Benzo(g,h,i)perylene	27.32	276	384802	91.04	ug/ml	99

Data File : J:\MS07\DATA\100919\1009F017.D
Acq On : 9 Oct 2019 11:11 pm
Sample : 8270 ICV @80ppm | SVM-61-84C
Misc :
MS Integration Params: RTEINT.P
Quant Results File: 100919_BNP7.RES
Vial: 17
Operator: CCONOVER/LM
Inst: MS07
Multiplr: 1.00

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Oct 10 15:30:20 2019
Response via : Initial Calibration
MS07



Quantitation Report (QT Reviewed)

Data File : J:\MS07\DATA\100919\1009F018.D

Vial: 18

Acq On : 9 Oct 2019 11:52 pm

Operator: CCONOVER/LM

Sample : Paper ICV @80ppm | SVM-62-7A

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 15:31:06 2019

Quant Results File: 100919_BNP7.RES

Quant Method : J:\MS07\M...\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 15:30:20 2019

Response via : Initial Calibration

DataAcq Meth : 8270_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.36	152	61059	40.00	ug/ml	0.02
22) Naphthalene-d8	11.43	136	222353	40.00	ug/ml	-0.01
36) Acenaphthene-d10	14.30	164	125850	40.00	ug/ml	0.00
61) Phenanthrene-d10	16.70	188	209056	40.00	ug/ml	0.00
73) Chrysene-d12	21.12	240	129655	40.00	ug/ml	-0.02
84) Perylene-d12	24.28	264	119798	40.00	ug/ml	-0.03

System Monitoring Compounds

4) 2-Fluorophenol	0.00	112	0	0.00	ug/ml	
Spiked Amount	150.000	Range	21 - 100	Recovery	=	0.00%#
8) Phenol-d6	0.00	99	0	0.00	ug/ml	
Spiked Amount	150.000	Range	10 - 94	Recovery	=	0.00%#
20) Nitrobenzene-d5	0.00	82	0	0.00	ug/ml	
Spiked Amount	100.000	Range	35 - 114	Recovery	=	0.00%#
40) 2-Fluorobiphenyl	0.00	172	0	0.00	ug/ml	
Spiked Amount	100.000	Range	43 - 116	Recovery	=	0.00%#
62) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/ml	
Spiked Amount	150.000	Range	10 - 123	Recovery	=	0.00%#
76) Terphenyl-d14	0.00	244	0d	0.00	ug/ml	
Spiked Amount	100.000	Range	33 - 141	Recovery	=	0.00%#

Target Compounds

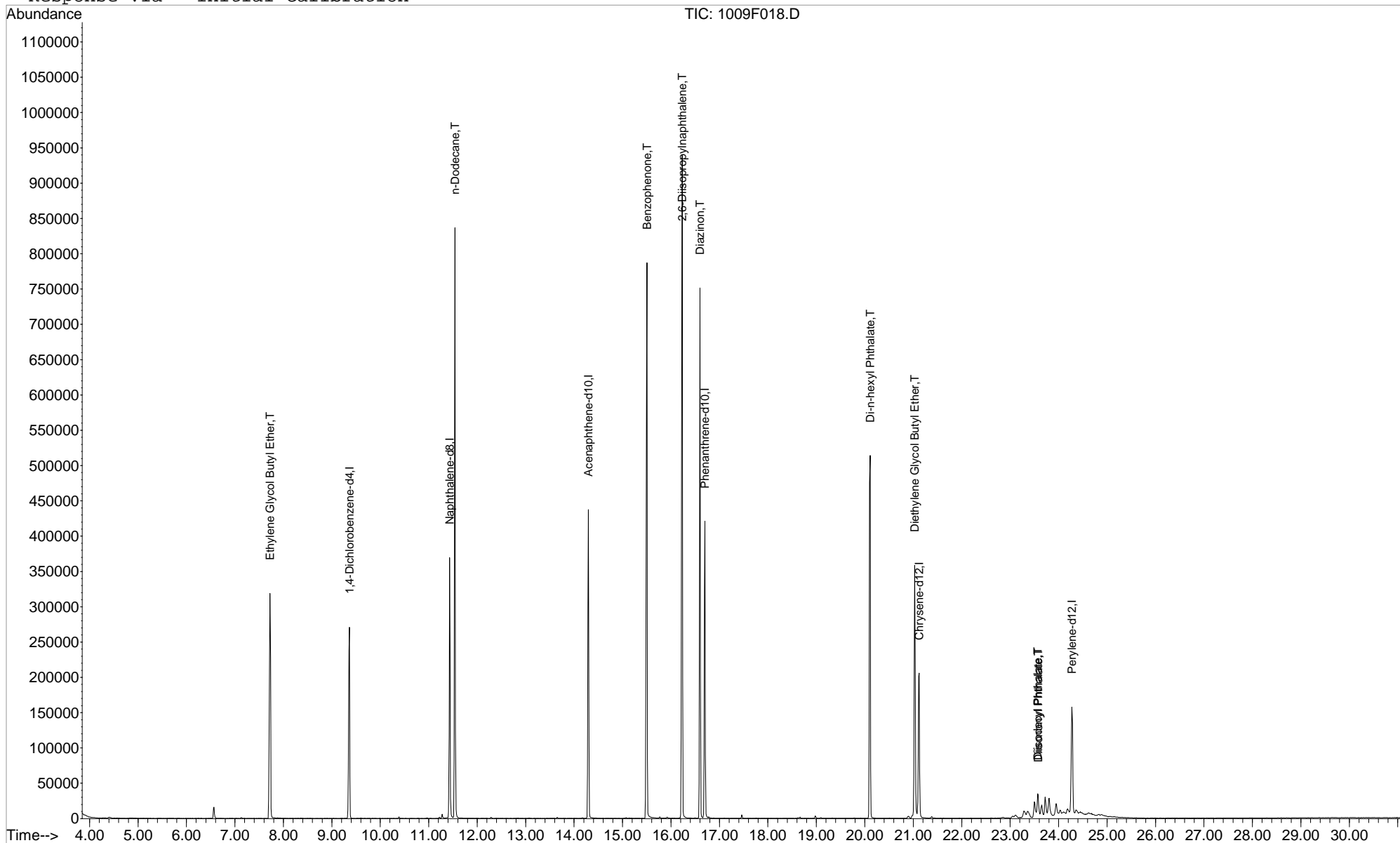
						Qvalue
5) Ethylene Glycol Butyl Et	7.72	57	187792	81.46	ug/ml	97
31) n-Dodecane	11.54	57	194003	82.60	ug/ml	98
60) Benzophenone	15.50	105	319757	73.72	ug/ml#	45
65) 2,6-Diisopropyl naphthalene	16.23	197	257746	83.05	ug/ml	100
67) Diazinon	16.60	137	71541	114.68	ug/ml	97
77) Di-n-hexyl Phthalate	20.11	149	376166	88.88	ug/ml	97
79) Diethylene Glycol Butyl Et	21.03	105	197125	75.62	ug/ml	99
88) Diisononyl Phthalate	23.58	293	19973m	82.01	ug/ml	
89) Diisodecyl Phthalate	23.57	149	260564m	80.77	ug/ml	

Data File : J:\MS07\DATA\100919\1009F018.D
 Acq On : 9 Oct 2019 11:52 pm
 Sample : Paper ICV @80ppm | SVM-62-7A
 Misc :
 MS Integration Params: RTEINT.P
 Quant Time: Oct 10 15:35 2019

Vial: 18
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

Quant Results File: 100919_BNP7.RES

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 15:30:20 2019
 Response via : Initial Calibration



Data File : J:\MS07\DATA\100919\1009F018.D
 Acq On : 9 Oct 2019 11:52 pm
 Sample : Paper ICV @80ppm | SVM-62-7A
 Misc :

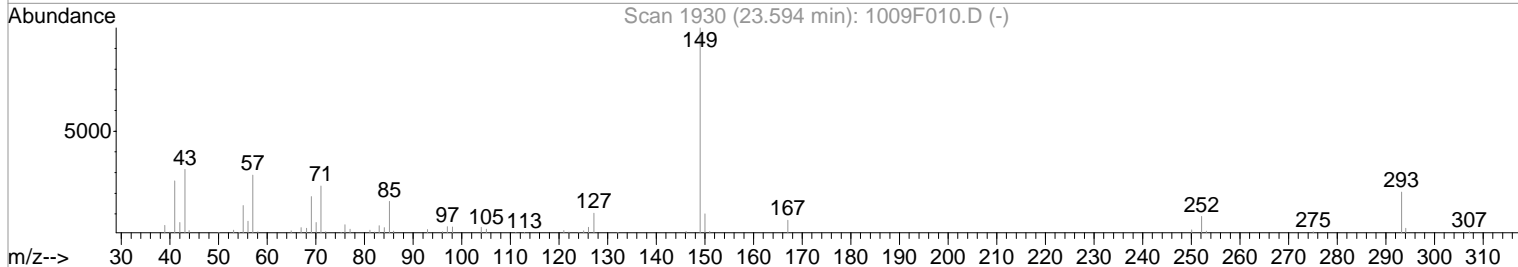
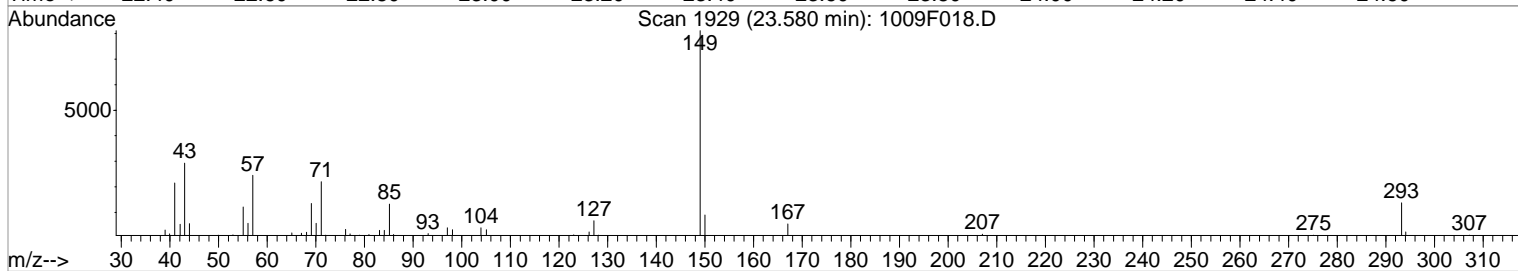
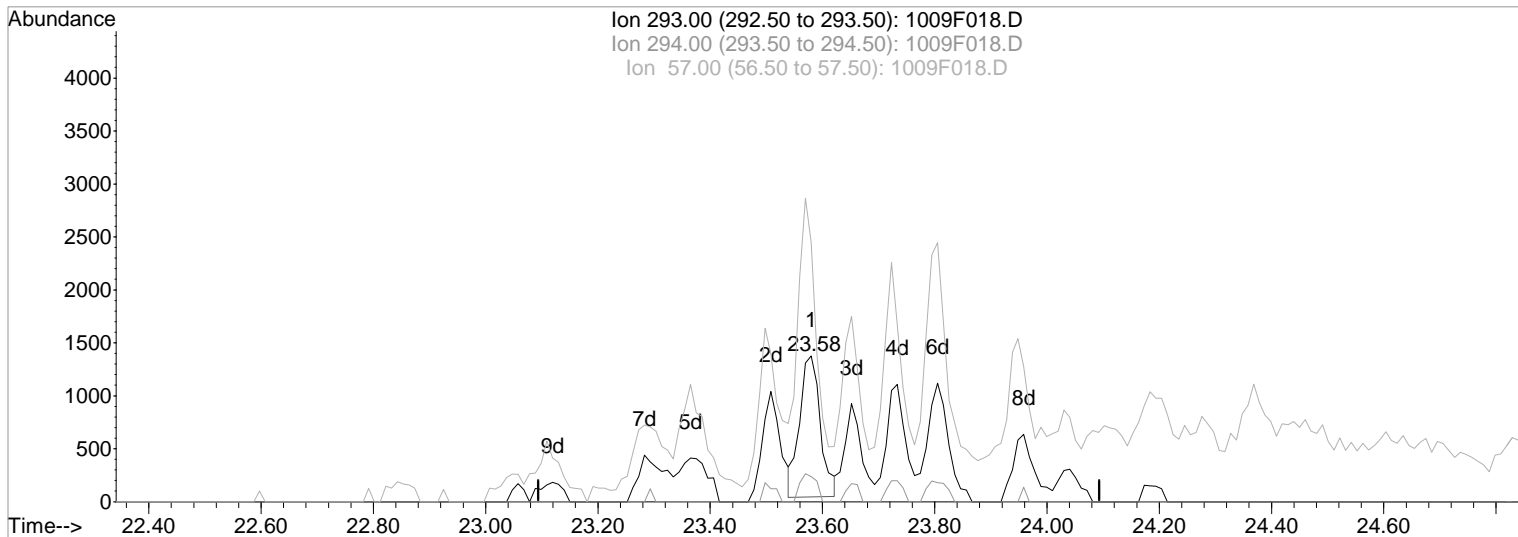
Vial: 18
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 11:52 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 11:47:42 2019
 Response via : Multiple Level Calibration



TIC: 1009F018.D

(88) Diisononyl Phthalate (T)

Manual Integration:

23.58min 14.03ug/ml

Before

response 3416

Ion	Exp%	Act%
293.00	100	100
294.00	1.60	15.69
57.00	15.00	158.02#
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F018.D
 Acq On : 9 Oct 2019 11:52 pm
 Sample : Paper ICV @80ppm | SVM-62-7A
 Misc :

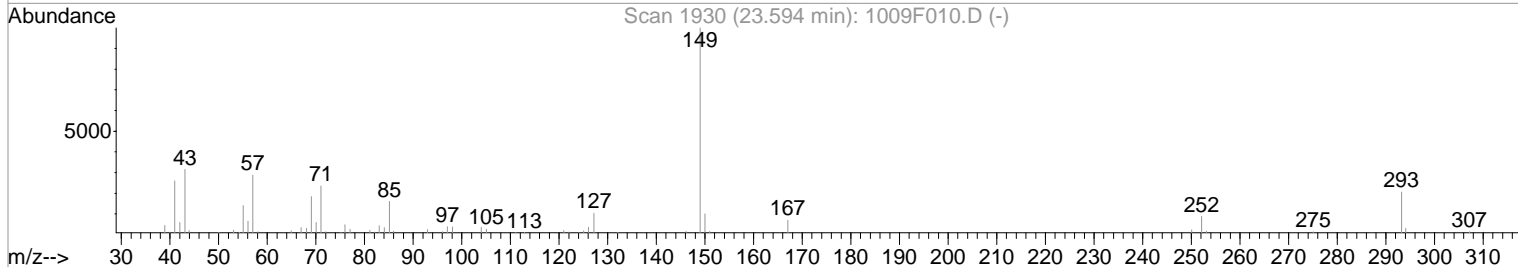
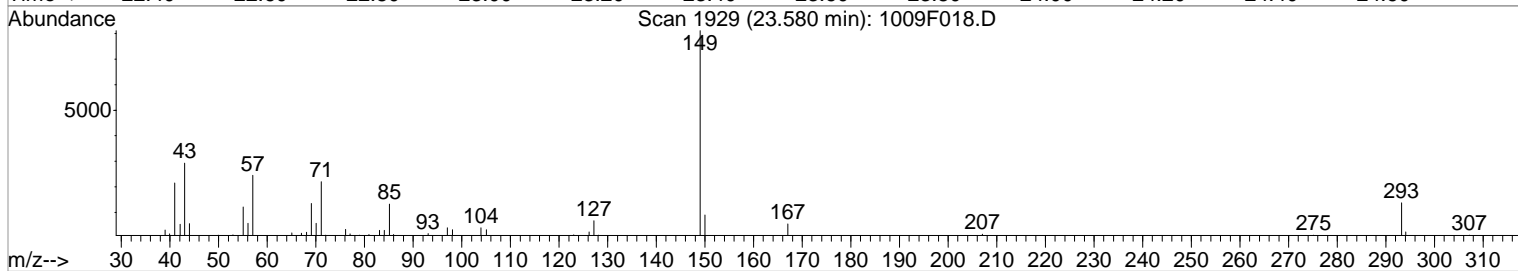
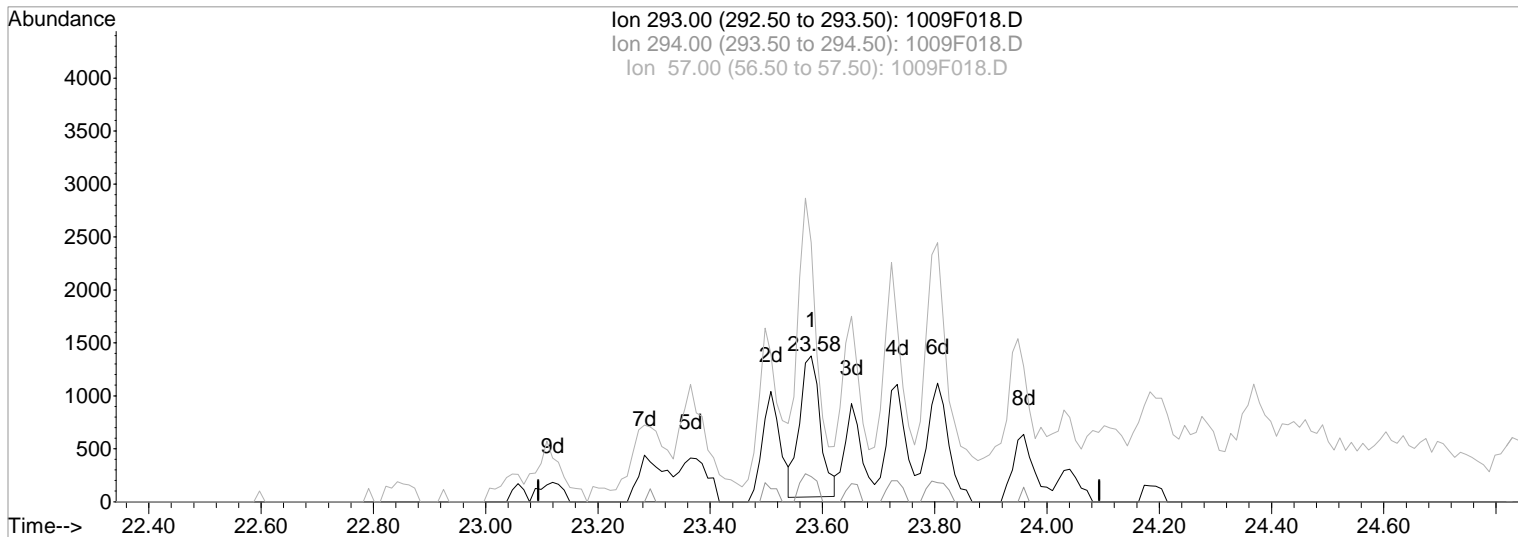
Vial: 18
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 15:34 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 15:30:20 2019
 Response via : Multiple Level Calibration



TIC: 1009F018.D

(88) Diisononyl Phthalate (T)

Manual Integration:

23.58min 14.03ug/ml

Before

response 3416

Ion	Exp%	Act%
293.00	100	100
294.00	1.60	15.69
57.00	15.00	158.02#
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F018.D
 Acq On : 9 Oct 2019 11:52 pm
 Sample : Paper ICV @80ppm | SVM-62-7A
 Misc :

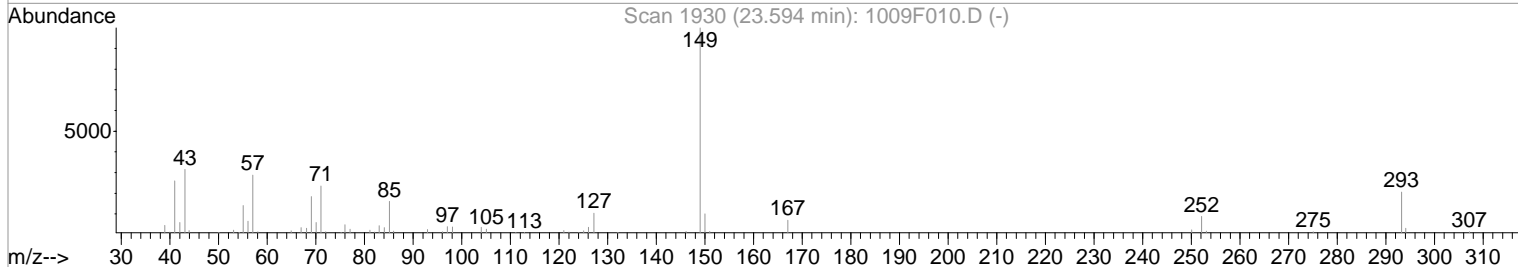
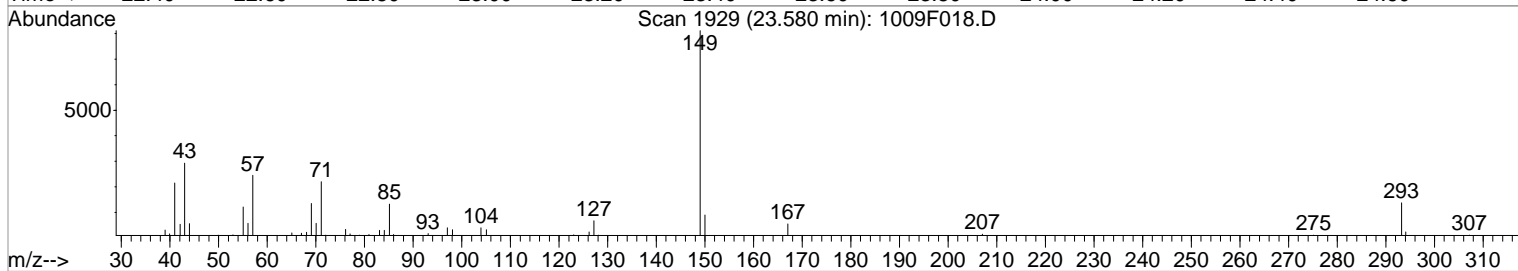
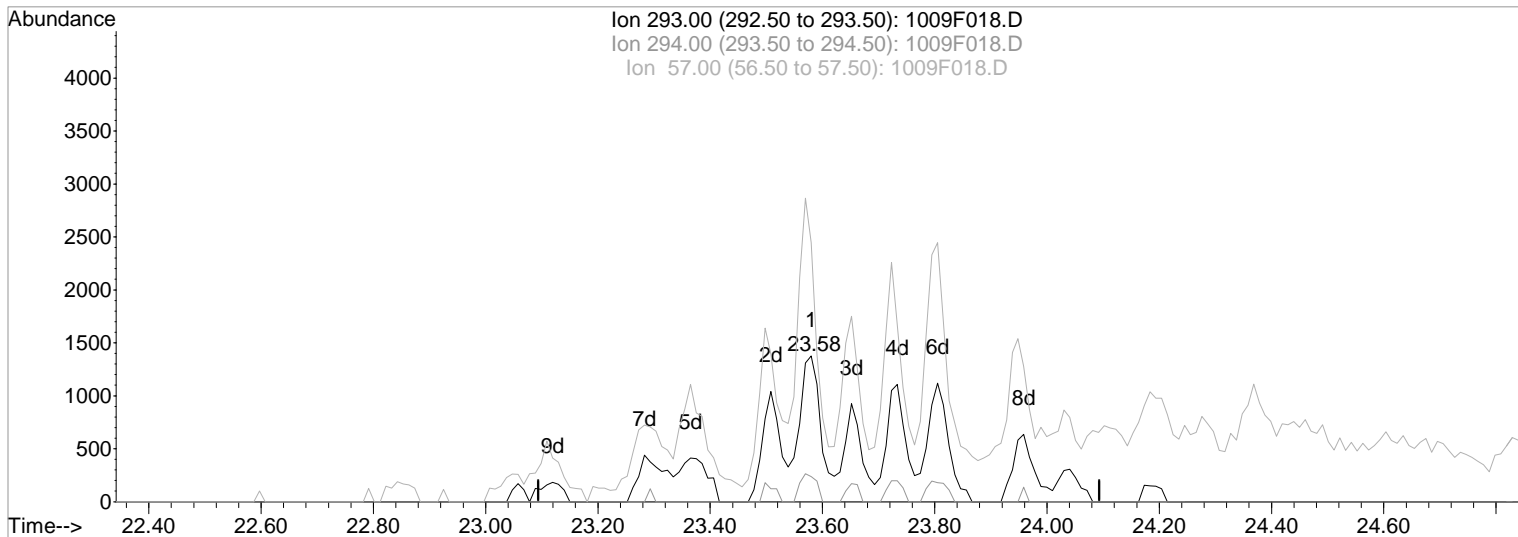
Vial: 18
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 11:52 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 11:47:42 2019
 Response via : Multiple Level Calibration



TIC: 1009F018.D

(88) Diisononyl Phthalate (T)

Manual Integration:

23.58min 82.01ug/ml m

After

response 19972

IC-Incomplete

Ion	Exp%	Act%
293.00	100	100
294.00	1.60	2.68
57.00	15.00	27.03
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F018.D
 Acq On : 9 Oct 2019 11:52 pm
 Sample : Paper ICV @80ppm | SVM-62-7A
 Misc :

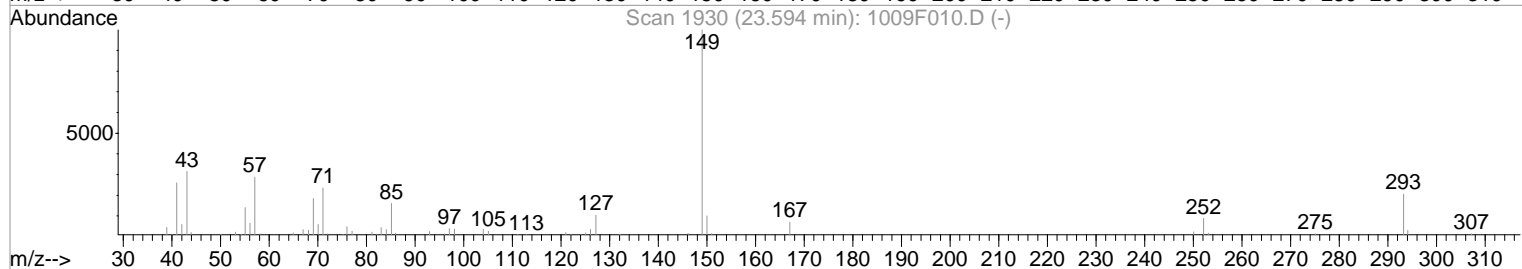
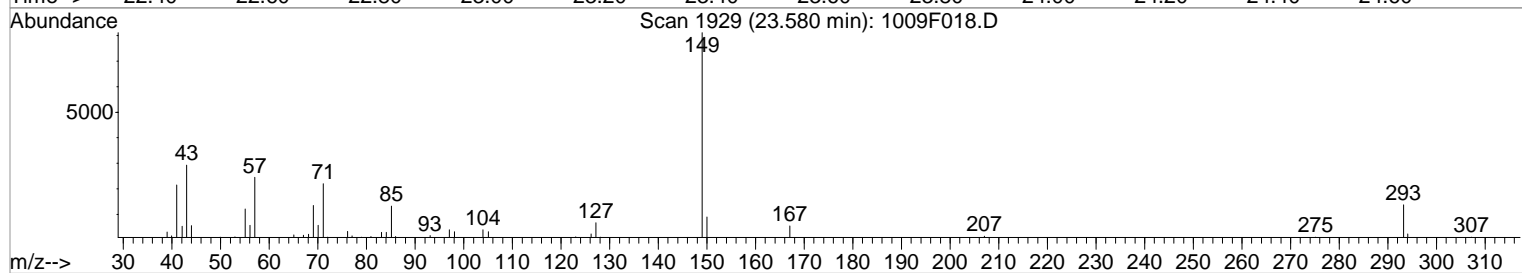
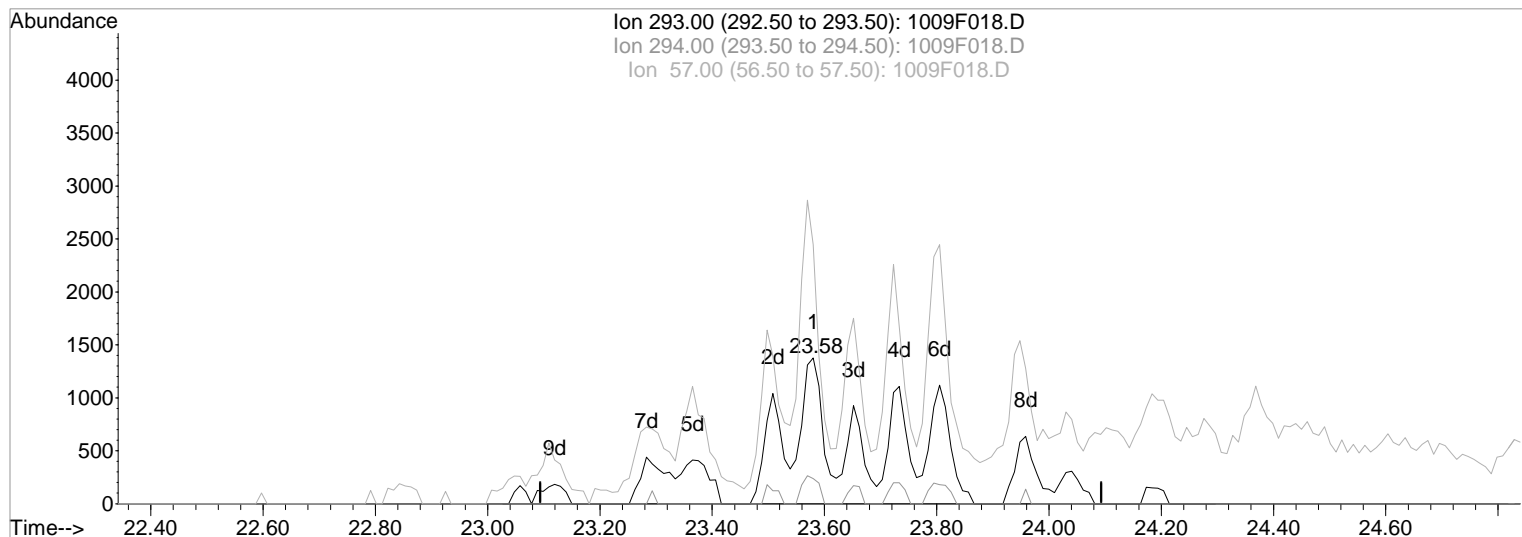
Vial: 18
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 15:35 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 15:30:20 2019
 Response via : Multiple Level Calibration



TIC: 1009F018.D

(88) Diisononyl Phthalate (T)

23.58min 82.01ug/ml m

response 19973

Ion	Exp%	Act%
293.00	100	100
294.00	1.60	2.68
57.00	15.00	27.03
0.00	0.00	0.00

Manual Integration:

After

Range integration correction

10/10/19

Data File : J:\MS07\DATA\100919\1009F018.D

Vial: 18

Acq On : 9 Oct 2019 11:52 pm

Operator: CCONOVER/LM

Sample : Paper ICV @80ppm | SVM-62-7A

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 11:52 2019

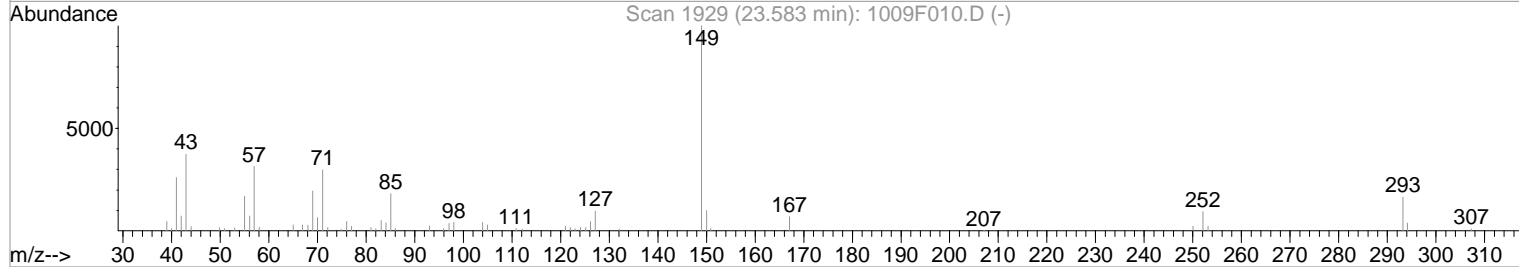
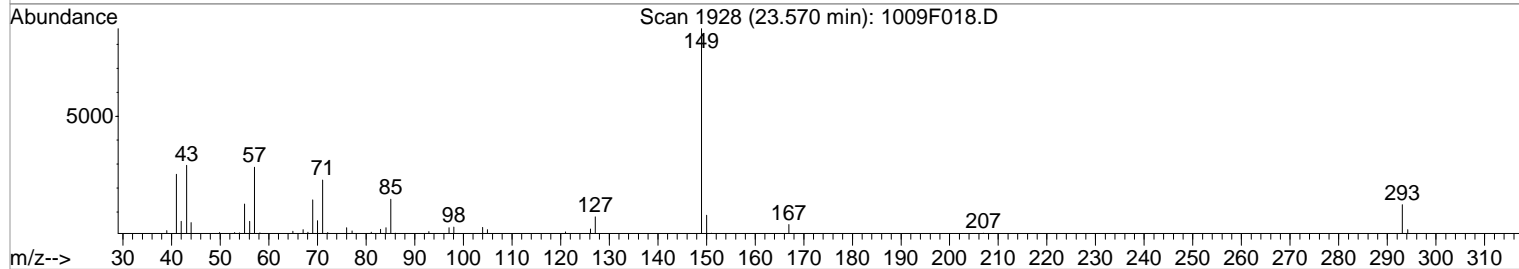
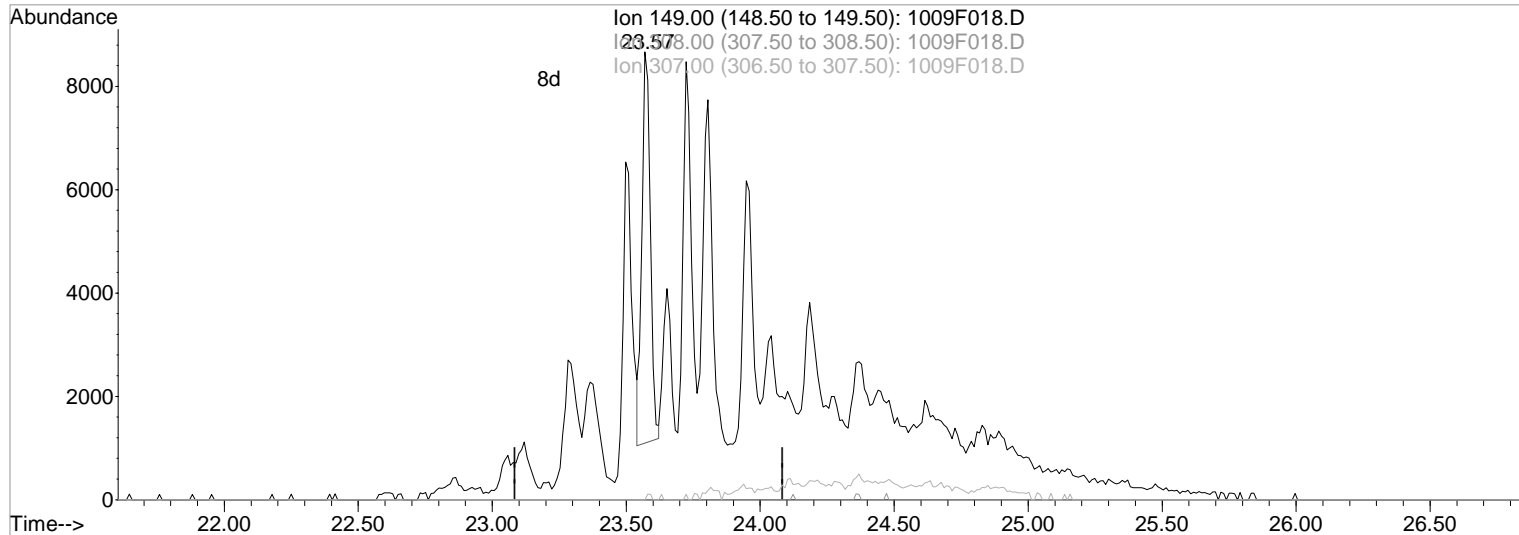
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 11:47:42 2019

Response via : Multiple Level Calibration



TIC: 1009F018.D

(89) Diisodecyl Phthalate (T)

Manual Integration:

23.57min 5.10ug/ml

Before

response 16456

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.00
307.00	0.00	0.79
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F018.D
 Acq On : 9 Oct 2019 11:52 pm
 Sample : Paper ICV @80ppm | SVM-62-7A
 Misc :

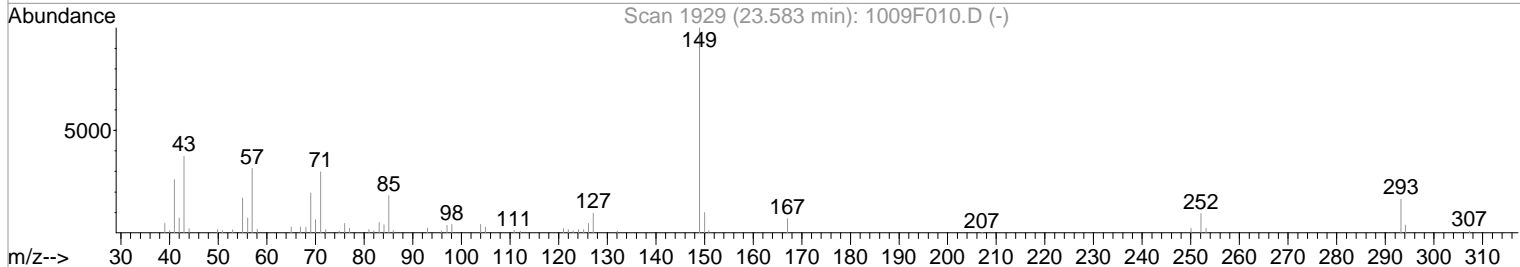
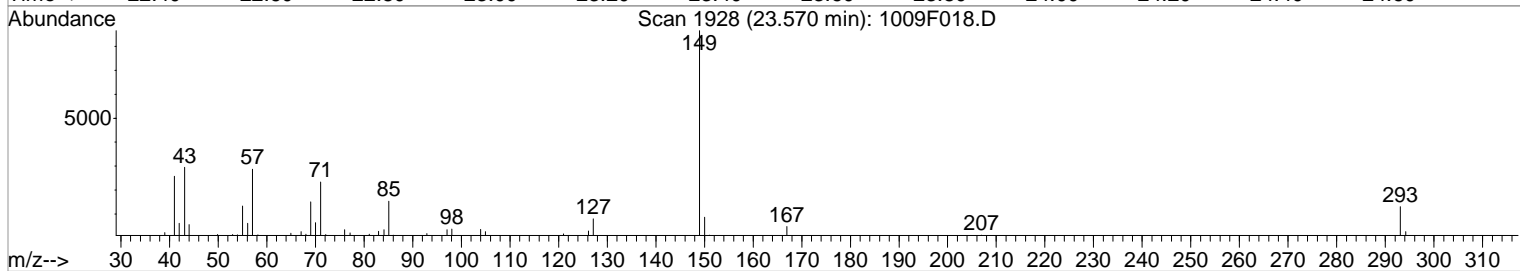
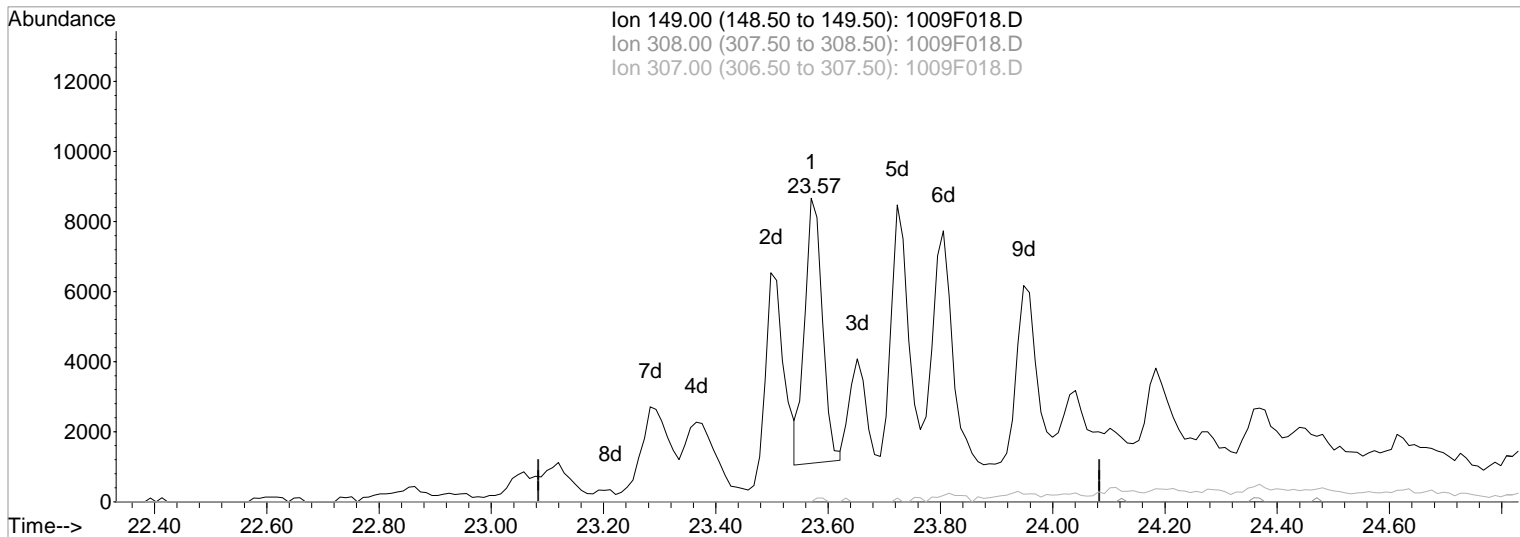
Vial: 18
 Operator: CCONOVER/LM
 Inst : MS07
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 15:35 2019

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07
 Last Update : Thu Oct 10 15:30:20 2019
 Response via : Multiple Level Calibration



TIC: 1009F018.D

(89) Diisodecyl Phthalate (T)

Manual Integration:

23.57min 5.10ug/ml

Before

response 16456

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.00
307.00	0.00	0.79
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F018.D

Vial: 18

Acq On : 9 Oct 2019 11:52 pm

Operator: CCONOVER/LM

Sample : Paper ICV @80ppm | SVM-62-7A

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 11:52 2019

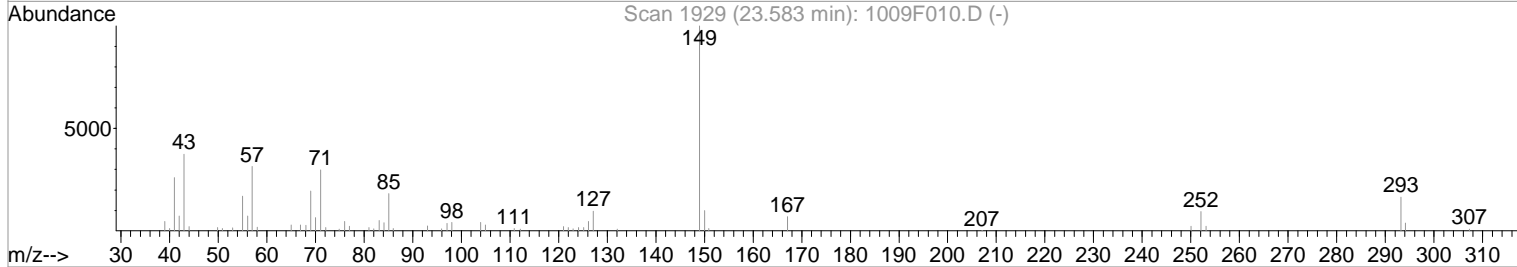
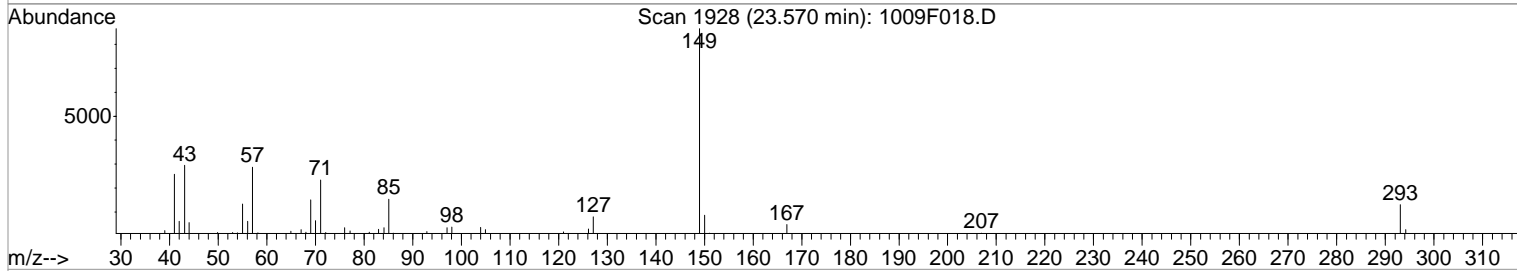
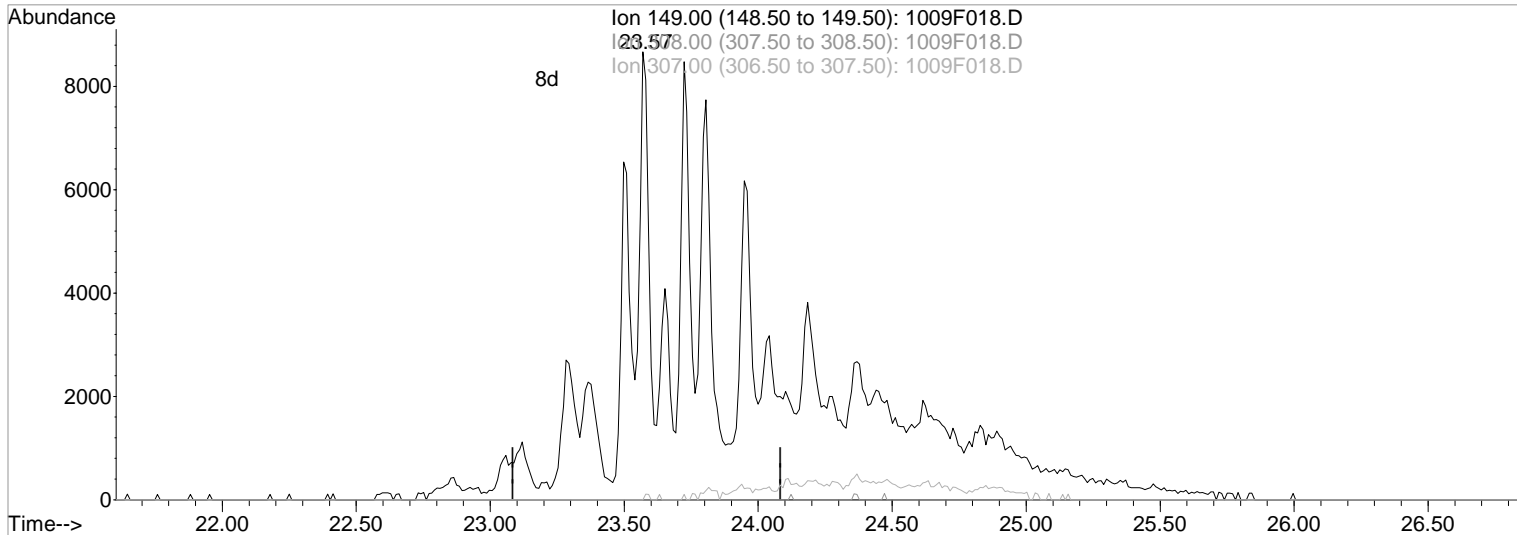
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 11:47:42 2019

Response via : Multiple Level Calibration



TIC: 1009F018.D

(89) Diisodecyl Phthalate (T)

Manual Integration:

23.57min 80.70ug/ml m

After

response 260324

IC-Incomplete

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.00
307.00	0.00	0.05
0.00	0.00	0.00

10/10/19

Data File : J:\MS07\DATA\100919\1009F018.D

Vial: 18

Acq On : 9 Oct 2019 11:52 pm

Operator: CCONOVER/LM

Sample : Paper ICV @80ppm | SVM-62-7A

Inst : MS07

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 10 15:35 2019

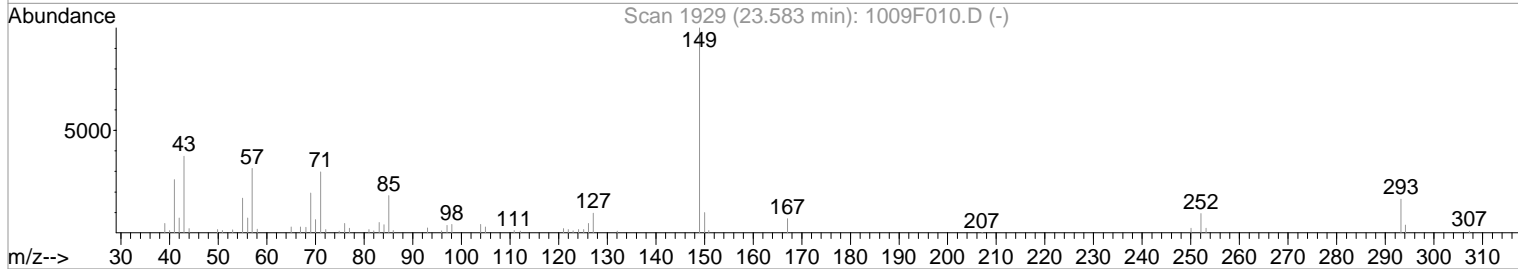
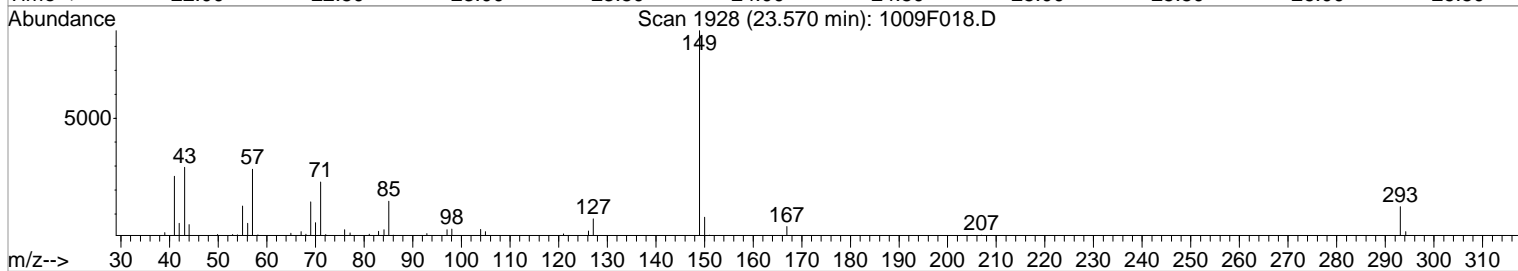
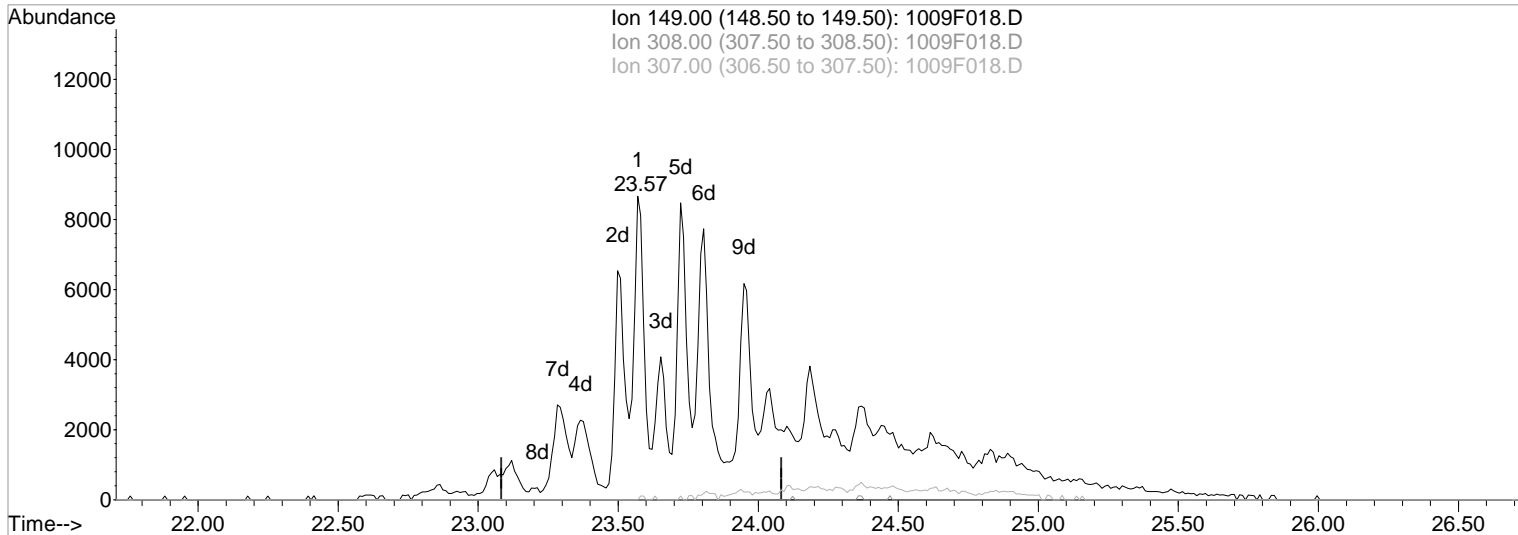
Quant Results File: temp.res

Method : J:\MS07\METHODS\8270_625\100919_BNP7.M (RTE Integrator)

Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07

Last Update : Thu Oct 10 15:30:20 2019

Response via : Multiple Level Calibration



TIC: 1009F018.D

(89) Diisodecyl Phthalate (T)

Manual Integration:

23.57min 80.77ug/ml m

After

response 260564

Range integration correction

Ion	Exp%	Act%
149.00	100	100
308.00	0.00	0.00
307.00	0.00	0.05
0.00	0.00	0.00

10/10/19